All using Agencies of the Commonwealth, Participating Subdivision, Authorities, Private Colleges and Univers Your SAP Vendor Number with us: 176943 Supplier Name/Address: JVCKENWOOD USA CORPORATION P.O. Box 22745 LONG BEACH CA 90801-5745 US		Original Contr Valid From: 07 Purchasing A Name: Hosler Ra Phone: 717-787- Fax: Please Delive To H the time	Imber: 440001 act Effective Date: 1/01/2017 To: 12/3 Agent aeden 4103	12/27/2016 1/2022	Page 1 of 2		
Supplier Phone Number: 8007520986 Supplier Fax Number: 310-761-8246							
Contract Name: Two-Way Radio Equip/Serv - JVCKENWOOD		Payment Tern NET 30	ms				
Solicitation No.:	Issuance [	Date:					
Supplier Bid or Proposal No. (if applicable):	Solicitatior	Submission D	ate:				
This contract is comprised of: The above reference to this Contract or incorporated by reference.	nced Solicitat	ion, the Suppli	er's Bid or Proposa	al, and any c	locuments attached		
Item Material/Service Desc	Qty	UOM	Price	Per Unit	Total		
2 Two-Way Radio Equipment	0.000		0.00	1	0.00		
3 Two-Way Radio Services	0.000		0.00	1	0.00		
4 Two-Way Radio Maintenance/Support	0.000		0.00	1	0.00		
General Requirements for all Items:							
Information:			-				
Supplier's Signature Printed Name							



**FULLY EXECUTED** Contract Number: 4400016321 Original Contract Effective Date: 12/27/2016 Valid From: 01/01/2017 To: 12/31/2022

#### Supplier Name:

JVCKENWOOD USA CORPORATION

#### **Header Text**

This contract is to be used from the procurement Two Way Radio Equipment, Services and Maintenance/Support Service. This contract is was awarded as part IFB 6100039075.

Commodity Specialist: John Weikle - 717-787-4103 - jweikle@pa.gov

7.6.2021 - Contract manager contact info has been updated to DGS commodity specialist Raeden Hosler. rsh

7.6.21 - Contract extended to 12.31.22 per EP 21630. rsh

No further information for this Contract

Information:



June 10, 2021

JVCKENWOOD USA CORPORATION APRIL PETERSON <u>APETERSON@US.JVCKENWOOD.COM</u> P.O. BOX 22745 LONG BEACH CA 90801-5745

SUBJECT:Renewal of Contract: Two-Way Radio Equipment and Related Services<br/>Contract Number: 4400016321<br/>Term of Renewal: January 1, 2022 – December 31, 2022

Dear Contractor:

Per an approved Emergency Purchase request, the Commonwealth is considering renewing this contract for an additional one (1) year term.

We are, therefore, requesting your concurrence to renew the above referenced Contract. If you agree to the renewal, please complete the bottom section of this letter and return it via e-mail to the e-mail address listed below no later than **June 30**, **2021**.

If the Commonwealth renews the contract, the Bureau will issue a revised contract document to reflect the renewed contract period.

Thank you for your immediate response. If you have any questions, please feel free to contact me.

Raeden Hosler (717) 787-4103 rhosler@pa.gov

I agree to the renewal of the above referenced Contract for the above stated Term of Renewal. All terms and conditions remain the same as in the current contract.

Yes XX	No					
	rul!	Mark Ja	asin			
Signature _	0	Title _Execut:	ive VF	and	General	_Manager

Date 06/11/21

(Person signing this renewal agreement must have the power to bind their company by their signature.)

All using Agencies of the Commonwealth, Participating Political		Original Cont	ECUTED umber: 440001 ract Effective Date 1/01/2017 To: 12/3	: 12/27/2016	Page 1 of 1		
Subdivision, Authorities, Private Colleges and Universities		Purchasing	Agent				
Your SAP Vendor Number with us: 176943		Name: Weikle J Phone: 717-787 Fax: 717-783-62	<b>ohn</b> -4103				
Supplier Name/Address: JVCKENWOOD USA CORPORATION P.O. Box 22745							
LONG BEACH CA 90801-5745 US		Please Deliv	er To:				
Supplier Phone Number: 8007520986		the time	be determined at e of the Purchase C ess specified below				
Supplier Fax Number: 310-761-8246							
Contract Name: Two-Way Radio Equip/Serv - JVCKENWOOD		Payment Ter NET 30	rms				
Solicitation No.:		lato.					
Solicitation No.: Issuance Date:							
Supplier Bid or Proposal No. (if applicable): Solicitation Submission Date:							
This contract is comprised of: The above referenced to this Contract or incorporated by reference.				al, and any o			
Item Material/Service Q Desc	ty	UOM	Price	Per Unit	Total		
2 Two-Way Radio Equipment	0.000		0.00	1	0.00		
3 Two-Way Radio Services	0.000		0.00	1	0.00		
4 Two-Way Radio Maintenance/Support	0.000		0.00	1	0.00		
General	Requirer	nents for all	tems:				
Header Text This contract is to be used from the procurement Two Way Radio Service. This contract is was awarded as part IFB 6100039075.	-						
Commodity Specialist: John Weikle - 717-787-4103 - jweikle@pa No further information for this Contract	.gov						
Information:							
Supplier's Signature		Title					
Printed Name							

Integrated Environment Systems Form Name: ZM\_SFRM\_STD\_MMCOSRM\_L, Version 1.0, Created on 06/27/2006, Last changed on 03/29/2005.



**DATE: August 19, 2020** 

JVCKENWOOD USA CORPORATION P.O. Box 22745 LONG BEACH CA 90801-5745 US

# SUBJECT:Renewal of Contract: Two-Way Radio Equipment and Related Services<br/>Contract Number: 4400016321<br/>Term of Renewal: January 1, 2021 – December 31, 2021

Dear Contractor:

Per the terms of the above referenced contract, the Commonwealth is considering exercising the renewal options contained within the Contract.

We are, therefore, requesting your concurrence to renew the above referenced Contract. If you agree to the renewal, please complete the bottom section of this letter and return it via e-mail to the e-mail address listed below no later than **September 30, 2020.** 

If the Commonwealth renews the contract, the Bureau will issue a revised contract document to reflect the renewed contract period.

Thank you for your immediate response. If you have any questions, please feel free to contact me.

John Weikle (717) 787-4103 jweikle@pa.gov

I agree to the renewal of the above referenced Contract for the above stated Term of Renewal. All terms and conditions remain the same as in the current contract.

Yes XX	No						
Signature	mg.	Title	Executive	VP	&	General	_Mgr

Date 09/22/20

(Person signing this renewal agreement must have the power to bind their company by their signature.)

All using Agencies of the Commonwealth, Participating Political Subdivision, Authorities, Private Colleges and Universities Your SAP Vendor Number with us: 176943 Supplier Name/Address: JVCKENWOOD USA CORPORATION P.O. Box 22745 LONG BEACH CA 90801-5745 US	Original Cont Valid From: 0 Purchasing Name: Schwart Phone: 717-340 Fax: 717-783-62 Please Deliv To the time	umber: 440001 tract Effective Date 01/01/2017 To: 12/3 Agent tz Thomas 5-3828 241	: 12/27/2016 31/2020 Drder	Page 1 of 1			
Supplier Phone Number: 8007520986 Supplier Fax Number: 310-761-8246							
<b>Contract Name:</b> Two-Way Radio Equip/Serv - JVCKENWOOD	Payment Te NET 30	rms					
Solicitation No.: Issuance Date:							
Supplier Bid or Proposal No. (if applicable): Solicitation Submission Date:							
This contract is comprised of: The above referenced Solicit to this Contract or incorporated by reference.	ation, the Suppl	lier's Bid or Proposa	al, and any c	locuments attached			
Item Material/Service Qty Desc	UOM	Price	Per Unit	Total			
2 Two-Way Radio Equipment 0.00	0	0.00	1	0.00			
3 Two-Way Radio Services 0.00	0	0.00	1	0.00			
4 Two-Way Radio Maintenance/Support 0.00	0	0.00	1	0.00			
General Requirements for all Items:         Header Text         This contract is to be used from the procurement Two Way Radio Equipment, Services and Maintenance/Support         Service.       This contract is was awarded as part IFB 6100039075.         Commodity Specialist: Thomas Schwartz - 717-346-3828 - thschwartz@pa.gov         No further information for this Contract         Information:							
Supplier's Signature							

Integrated Environment Systems Form Name: ZM\_SFRM\_STD\_MMCOSRM\_L, Version 1.0, Created on 06/27/2006, Last changed on 03/29/2005.



**DATE:** August 5, 2019

JVCKENWOOD USA CORPORATION P.O. Box 22745 LONG BEACH CA 90801-5745 US

# SUBJECT:Renewal of Contract: Two-Way Radio Equipment and Related Services<br/>Contract Number: 4400016321<br/>Term of Renewal: January 1, 2020 – December 31, 2020

Dear Contractor:

Per the terms of the above referenced contract, the Commonwealth is considering exercising the renewal options contained within the Contract.

We are, therefore, requesting your concurrence to renew the above referenced Contract. If you agree to the renewal, please complete the bottom section of this letter and return it via e-mail to the e-mail address listed below no later than **September 30, 2019**.

If the Commonwealth renews the contract, the Bureau will issue a revised contract document to reflect the renewed contract period.

Thank you for your immediate response. If you have any questions, please feel free to contact me.

John Weikle (717) 787-4103 jweikle@pa.gov

I agree to the renewal of the above referenced Contract for the above stated Term of Renewal. All terms and conditions remain the same as in the current contract.

Yes XX	No							
Signature	mg.	Title	Mark	Jasin-	Executive	VP		
							Man	ager

Date <u>09/11/19</u>

(Person signing this renewal agreement must have the power to bind their company by their signature.)

All using Agencies of the Commonwealth, Participating Politic	al	Original Cont	ECUTED umber: 440001 ract Effective Date 1/01/2017 To: 12/3	: 12/27/2016	Page 1 of 1		
Subdivision, Authorities, Private Colleges and Universities		Purchasing	Agent				
Your SAP Vendor Number with us: 176943		Name: VAC Phone: 717-346 Fax: 717-783-62	-2670				
Supplier Name/Address: JVCKENWOOD USA CORPORATION P.O. Box 22745							
LONG BEACH CA 90801-5745 US		Please Deliv	er To:				
Supplier Phone Number: 8007520986		the time	be determined at of the Purchase C ess specified below				
Supplier Fax Number: 310-761-8246							
<b>Contract Name:</b> Two-Way Radio Equip/Serv - JVCKENWOOD		Payment Ter NET 30	ms				
Solicitation No.:	suance D	ate:					
		Submission [					
This contract is comprised of: The above referenced to this Contract or incorporated by reference.	Solicitati	on, the Suppl	ier's Bid or Proposa	al, and any d	documents attached		
Item Material/Service Q Desc	ty	UOM	Price	Per Unit	Total		
2 Two-Way Radio Equipment	0.000		0.00	1	0.00		
3 Two-Way Radio Services	0.000		0.00	1	0.00		
4 Two-Way Radio Maintenance/Support	0.000		0.00	1	0.00		
General F	Requirer	nents for all	tems:				
Header Text This contract is to be used from the procurement Two Way Radio Service. This contract is was awarded as part IFB 6100039075.	-						
Commodity Specialist: Thomas Schwartz - 717-346-3828 - thschw No further information for this Contract	wartz@pa.	gov					
Information:							
Supplier's Signature		Title					
Printed Name		Date					

Integrated Environment Systems Form Name: ZM\_SFRM\_STD\_MMCOSRM\_L, Version 1.0, Created on 06/27/2006, Last changed on 03/29/2005.

		ORIGINAL QUOT - Invi Two-Way Ra		r Bid oment & Services		Page 1 of 3	
		QUOT Effective			Numbe	er:	
		11/08/2016		65	500107	392	
Issuing Thomas So Commonw US	chwartz ealth of Pennsylvania	Supplier Name JVCKENWOOI P.O. Box 2274 LONG BEACH Telephone # 80 Email: apeterso Your SAP Vend	D USA COF 5 CA 9 007520986 on@us.jvck	RPORATION 0801-5745 US Fax # 310-761-82	246		
Please F	Return Quotation to:	Type of Secur	ity furnishe	ed if required:	R	eturn Bid by:	
Commonw US	ealth of Pennsylvania		nk cashier's letter of crec			Bid Endng Date: 12/02/2016	
		Certificate of Certif	ecified by bi		<b>iid Endng Time:</b> 12:00:00		
Please [	Deliver To:	What is the name		C	Expiration Date of Contract (if		
		Buyer: Thomas S	pplicable)				
		Phone: Fax:	Phone: Fax:				
Part IV, II reference	ation For Bids is comprised of: Part I, Gene -B Specifications; Part V, Contract Clauses ; and any addenda issued by the Issuing O s Signature	; any documents a ffice prior to Bid O	attached to t pening.		ds or inc	corporated by	
	inted Name						
conditions those atta offers and	er has completed and submitted this Bid in a s of the Invitation For Bid. The Bidder has a achments are incorporated by reference and d agrees, if this Bid is accepted, to provide t specified.	attached documen d made a part of th	ts that are r nis Bid. The	required to be subm Bidder, intending to	itted with o be lega	n this Bid and ally bound hereby,	
ltem	Material/Service Desc	Qty	UOM	Unit Price	Per	Total Line Item Price	
1	Two-way Radio Equipment	1.000	Each	0.00	1	0.00	
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Addendum #1 posted 11/17/16 Addendum #2 posted 11/18/16 Addendum #3 posted 11/23/16 Addendum #4 posted 11/29/16 Addendum #5 posted 11/29/16 Addendum #6 posted 11/30/16 \*\*\* No further information for this bid \*\*\*

ATTRIBUTES PAGES TO FOLLOW

	ORIGINAL Page 3 of 3 QUOT - Invitation For Bid Two-Way Radio Equipment & Services
	Supplier Name: JVCKENWOOD USA CORPORATION
***	* Attributes Page ***
Mandatory QUESTION #02 - Is the offer in accordance "Submission – 001.1" of the attached solicitation docum Response: Y	ce with the "Representations and Authorizations" listed in section nent?

**Mandatory** QUESTION #01 - Has the submitter read, and does the submitter understand, the "Representations and Authorizations" listed in section "Submission – 001.1" of the attached solicitation document? **Response:** Y

#### Manufacturer Discount List

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#### LOBBYING CERTIFICATION FORM

#### Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) **If any** funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed under Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for such failure.



SIGNATURE:

TITLE: Senior Executive Vice President & General Manager

DATE: <u>11.22.16</u>

#### DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 (See reverse for public burden disclosure.)

1. Type of Federal Action:	2. Status of Federal	Action:	3. Report Type:		
a. contract	a. bid/of	ffer/application	a. initial filing		
b. grant	b. initial	l award	b. material change		
c. cooperative agreement d.	c. post-a	award	For Material Change Only:		
loan			year quarter	_	
e. loan guarantee f.			date of last report		
loan insurance					
4. Name and Address of Reporting	Entity:	5. If Reporting Ent	ity in No. 4 is a Subawardee, Enter Name and		
	-	Address of Prime	•		
Prime Subaward	ee				
Tier	, if known :				
		Congressional Di	strict, if known:		
6. Federal Department/Agency:			Name/Description:		
			r r		
		CFDA Number, if	applicable:		
8. Federal Action Number, if know	n:	9. Award Amount,	if known:		
,		\$			
10. a. Name and Address of Lobby		1	orming Services (including address if		
(if individual, last name, first	name, MI):	different from N			
		(last name, first i	name, MI):		
<b>11.</b> Information requested through this form is authorized 1352. This disclosure of lobbying activities is a n	d by title 31 U.S.C. section	Signature:		Print	
upon which reliance was placed by the tier above	when this transaction was made or			Title:	
entered into. This disclosure is required pursuant will be available for public inspection. Any person				mue:	
shall be subject to a civil penalty of not less than \$1		Telephone No.:	Date:		
each such failure.					
			Authorized for Local Deproduction		
Federal Use Only:			Authorized for Local Reproductio Standard Form LLL (Rev. 7-97)	11	

#### INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- 1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
- 2. Identify the status of the covered Federal action.
- 3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
- 4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
- 5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
- 6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizationallevel below agency name, if known. For example, Department of Transportation, United States Coast Guard.
- 7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
- 8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
- 9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
- 10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

#### 11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

#### STATE OF MANUFACTURE CHART

#### THIS FORM MUST BE COMPLETED AND RETURNED WITH THE BID

The Reciprocal Limitations Act 146 requires the Department to give Pennsylvania resident bidders a preference against a non-resident bidder from any state that gives or requires a preference to bidders from that state. The amount of preference shall be equal to the amount of preference applied by the state of the non-resident bidder. More information on this Act, or how to claim preference, can be obtained at our internet site at www.dgs.state.pa.us, by faxing a request to 717 787 -0725, or by calling Vendor Services at 717 787-2199 or 4705.

All bidders must complete the following chart by listing the name of the manufacturer and the state (or foreign country) of manufacture for each item. If the item is domestically produced, the bidder must indicate the state in the United States where the item will be manufactured. This chart must be completed and submitted with the bid or no later than two (2) business days after notification from the Department of General Services to furnish the information. Failure to complete this chart and provide the required information prior to the expiration of the second business day after notification shall result in the rejection of the bid.

ITEM NUMBER	NAME OF MANUFACTURER	STATE (OR FOREIGN COUNTRY) OF MANUFACTURE
Mobile Devices	JVCKENWOOD USA Corp	Japan USA Malaysia
Portable Devices	JVCKENWOOD USA Corp	Japan USA Malaysia
Accessories	JVCKENWOOD USA Corp	Japan USA Canada
<b>Fixed Stations</b>	JVCKENWOOD USA Corp	Japan USA Malaysia

BIDDER'S RESIDENCY

A. In determining whether the bidder is a nonresident bidder from a state that gives or requires a preference to bidders from that state, the address given on the first page of this invitation for bid shall be used by the Department of General Services. If that address is incorrect, or if no address is given, the correct address should be provided in the space below:

Correct Address:

JVCKENWOOD USA Corporation

#### 2201 E. Dominguez St. P.O. Box 22745

Long Beach, Ca. 90801-5745

If awarded a Contract, our firm agrees to sell the awarded items/services at the same prices and/or discounts, and in accordance with the contractual terms and conditions, to registered COSTARS Members who elect to participate in the contract. Our firm also agrees to pay the applicable Administrative Fee (\$1500 or \$500 for a Department of General Services Certified Small Business) at the beginning of each contract year and upon each contract renewal date.

If you are a Department of General Services Certified Small Business, you must submit a copy of your active certification with your bid response.

JVCKENWOOD USA Corporation Corporate or Legal Entity Name

Signature/Date

<u>Mark Jasin/Executive Vice Pr</u>esident & GM Printed Name/Title

Dedicated Contacts				
	Contact Name	Contact Email	Contact Phone	
Account Manager:	April Peterson	apeterson@us.jvckenwood.com	800-752-0986 ext 8213	
Service Manager:	Raul Garcia	rgarcia@us.jvckenwood.com	800-752-0986 ext 8224	
Service Desk number:	Various Contacts	kcc-ts@us.jvckenwood.com	800-752-0987	
OEM contact:	April Peterson	apeterson@us.jvckenwood.com	800-752-0986 ext 8213	

# KENWOOD

## LAND MOBILE RADIO PRICE GUIDE

## **October, 2016 Edition**





### Updates in October, 2016 Edition

Portable Mobile	Series	Model	Page	Updates
Portable	NX-5200 · 5300	KWD-5300CV	4	Add KWD-5300CV DMR Tier II Conv. License
Portable	NX-5200 · 5300	KWD-5007RC	4	Add KWD-5007RC Remote Control License for DMR
Portable	NX-5200 · 5300	KPG-180AP	4	Add NXDN IP License to KPG-180AP as default
Portable	NX-5400	KWD-5300CV	11	Add KWD-5300CV DMR Tier II Conv. License
Portable	NX-5400	KWD-5007RC	11	Add KWD-5007RC Remote Control License for DMR
Portable	NX-5400	KPG-180AP	11	Add NXDN IP License to KPG-180AP as default
Portable	NX-210G	KNB-73LCM	32	Add KNB-73LCM Li-ion I.S. Battery
Portable	NX-410 • 411	KNB-73LCM	44	Add KNB-73LCM Li-ion I.S. Battery
Mobile	NX-5700 · 5800 · 5900	KWD-5300CV	18	Add KWD-5300CV DMR Tier II Conv. License
Mobile	NX-5700 • 5800 • 5900	KWD-5007RC	18	Add KWD-5007RC Remote Control License for DMR
Mobile	NX-5700 • 5800 • 5900	KPG-180AP	18	Add NXDN IP License to KPG-180AP as default
Mobile	NX-5700 • 5800 • 5900	L-5022	18	Add USB Mobile Cable for SD Card Direct Access
Mobile	NX-5700 • 5800 • 5900	L-5023	18	Add DB25 Cable for Mobile Relay Station

#### TABLE OF CONTENTS:

PORTABLES

NX-5200 / 5300

NX-5400

NX-200G / 300G

NX-210G

NX-220 / 320

NX-240V / 340U

NX-410 / 411

NX-420

TK-D240V / 340U

**TK-190** 

TK-2170 / 3170

TK-2180 / 3180

**TK-3173** 

TK-2360 / 3360

TK-2312 / 3312

TK-2400 / 3400

TK-2400VP / 3400UP

TK-2402V / 3402U

TK-3230

**PKT-23** 

MOBILES

NX-5700 / 5800 / 5900

TK-690 / 790 / 890

NX-700 / 800

NX-720HG / 820HG

NX-740HV / 840HU

NX-900 / 901

NX-920G

TK-D740HV / 840HU

TK-7180 / 8180

TK-7360HV / 8360HU

TK-7302HV / 8302HU

**TK-6110** 



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#### NEXEDGE<sup>®</sup> P25



<Standard Key Model > <Full Key Model >

All NX-5000 series portables include: • Belt Clip (KBH-11) • Universal Connector Cap • User Guide • Premium Warranty: 3 Years\*

All Accessories / options: 1 Year

Purchase Battery, Charger, Antenna separately

\*Note: To maintain immersion specs (IP67/68), all warranty service must be done by one of the three National Kenwood Authorized Service Centers. IP67/68 Certification is valid under the 3 year premium warranty. No re-certification is available.

	spurious sig equencies (ar not allowed;		the
<ul> <li>144.0000</li> <li>147.4560</li> <li>153.6000</li> <li>172.0325</li> <li>172.8000</li> </ul>	<ul> <li>384.0000</li> <li>403.2000</li> <li>422.4000</li> <li>432.0000</li> <li>441.6000</li> </ul>	• 460.8000 • 480.0000 • 499.2000 • 518.4000	

#### NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios

STANDARD

STANDARD	
GENERAL FEATURES  6 W (136-174 MHz) Models	<ul> <li>DIGITAL – NXDN<sup>®</sup> MODE</li> <li>NXDN<sup>®</sup> Conventional / TYPE-C (Gen1/Gen2)</li> </ul>
5 W (380-470, 450-420 MHz) Models 1024 CH-BID 128 Zones Standard Key Models (win numeric keypad) Full Key Models (win numeric keypad) Full Cotor 1.74 (240 x 180 pixels) Transflecture FTD Display - Multi-Ianguage Display - Multi-Ianguage Display - Multi-Ianguage Display - Date & 7124 Hour Time Clock - Transmitblay/Cail AlentWarn LED - Tartemitblay/Cail AlentWarn LED - 16-Position Mechanical Salector (wi a stopper) - 4-way Directional-pad (D-pad)	Trunking + AMBE+2** VOCODER + 6.25 & 1.25 kH2 Channels - Over-the-Air Plogramming (requires KPG-180AP OTAP Manager Software) + Paging Call = Emergency Call = All Group Call = Status Messaging - Remote Stun/KillCheck - Stor & Long Data Messages - GPS Location + NDDW Scramber
Emergency/AUX Key     Side PF Keys     With Digital Protocol     Multi Digital Protocol     Emergency Call Features     Builtin GPS Receiver / Antenna     Builtin Biuetooth <sup>®</sup> Module     Builtin Biuetooth <sup>®</sup> Module     Builtin Schort DES Encryption     (4 keys programmable by KPC-D1(N)(K)     Active Noise Reduction (ANR)     KPG-D1N Windows <sup>®</sup> FPU     Flash Firmware Upgrading     Multi-STD-aid CD/EF/FG	DIGITAL – OMR MODE     DIGITAL – OMR MODE     DIGITAL – OMR MODE     DIGITAL Conventional     AMBE-2**VOCODER     'L25 kHz Channels     Call Interrupt (Direct & Repeater Mode)     Paging Call     Emergency Call     Emergency Call     Call Entry     Status Wessging     Remote Control by Subscriber Units     ARC4 Encryption <sup>5</sup> Site Roaming <sup>2</sup>
<ul> <li>IPE7/88 Immersion</li> <li>Color Housing Option</li> <li>Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by programming software. P25/DMR Digital Protocols are options.</li> </ul>	ANALOG MODE Conventional Zones Tree® Zones FleetSync®/II: PTT ID ANI, Caller ID Display, SelectiveGroup Call, Emergency Status, Text Messages

#### ANALOG MODE

Conventional Zones • LTR<sup>®</sup> Zones • FleetSync®/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Selective/Group Call, Emergency Status, Text Messages MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit • QT / DQT • QT / DQT • Two-Tone (Conventional Zones Only) • DTMF

2. Future releas

(01.26.2015)	Added Qty breaks to KPG-D1NK Software (15+ 40%, 25+ 45%)	
(03.25.2015)	Modified for Firmware Version 1.4, ASK and adding KPG-180AP, KPG-36XM, Color Housing	
(05.13.2015)	Modified for adding LTR, FleetSync	
(10.09.2015)	Added KNB-N4M and KBP-8M	
(10.09.2015)	Change expression for KWD-5003BT and KWD-5106DT	
(10.13.2015)	Added Software Upgrade Options for KPG-180AP	
(12.17.2015)	Added notes for P25 Conventional license in KPG-180AP line	
(12.17.2015)	Added notes for TDMA operation	
(12.18.2015)	Remove future release	
(01.14.2016)	Add KNB-LS5M	
(01.14.2016)	Add KNB-N4 and KNB-LS5M in KAS-12 description	
(01.14.2016)	Add CSA US Package Models	
(01.14.2016)	Add CSA US Options Note	
(01.18.2016)	Add KAS-12PRO	
(02.19.2016)	Add KVC-23	
(04.21.2016)	Add note for KAS-12PRO	
(04.21.2016)	Add KPG-93AUT	
(05.10.2016)	Add KCT-48VU	
(09.23.2016)	Add DMR Mode	
(09.23.2016)	Add Remote Control	

(09.23.2016) Add IP Profile to KPG-180AP (10.04.2016) Add KRA-28/29

#### GENERAL FEATURES

OPTIONAL

GENERAL F2A1URES
 4000 Channel (KU/D-5002EL License Key Activation required)
 Front Panel Programming (KU/D-5001E) License Key Activation required )
 imicroSDImicroSDHC Memory Card Stot (KU/D-5003EL License Key Activation required)
 Built-In Bluetooth® Module for Data (KU/D-5033EL License Key Activation required)
 Built-In Bluetooth® Module for Data (KU/D-5033EL License Key Activation required)
 256-bit AES Encryption (KU/D-4E30K/31K Encryption Module required)

#### DIGITAL - P25 MODE

DIGHTAL - F23 mODE
 Conventional Factures (<u>KVD-5100CV</u> License Key Activation required)
 Phase 1 Trunking Features (<u>KVD-5100CV & 5101TR</u> License Keys Activation required)
 Phase 1 Trunking Features (<u>KVD-5100CV & 5101TR</u> & 5102TL License Keys Activation required)
 Conventional OTAR (<u>KVD-5102K</u> License Keys Activation required)
 Trunking OTAR (<u>KVD-5102K</u> License Keys Activation required)
 Packet Data required for Trunking OTAR(<u>SVD-5105DT</u> License Keys Activation required)

DIGITAL - DMR MODE

DMR Tier 2 Conventional Features (KWD-5300CV License Key Activation required))

Contraction of the second	Table of Cc <b>NX-5200/5300</b> VHF/UHF Digital & FM Analog Portable Radios	ontents
RADIO		LIST
Standard Key Models		
NX-5200K2	VHF (136-174MHz), 6.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	825.00
NX-5300K2	UHF (450-520MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	825.00
IX-5300K5	UHF (380-470MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	825.00
Full Key Models		LIST
NX-5200K3	VHF (136-174MHz), 6.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	875.00
VX-5300K3	UHF (450-520MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	875.00
NX-5300K6	UHF (380-470MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	875.00
CSA US APPROVE		LIST
	Must Order L-5039 & KNB-LS5M Intrinsically Safe Battery per radio	
NX-5200-ISCK2	*Note: microSD card is not allowed to use as Intrinsically Safe Option. VHF (136-174MHz), 6.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	825.00
NX-5200-ISCK2	VHF (136-174MHz), 6.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	875.00
NX-5300-ISCK2	UHF (450-520MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	825.00
NX-5300-ISCK3	UHF (450-520MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	875.00
NX-5300-ISCK5	UHF (380-470MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	825.00
NX-5300-ISCK6	UHF (380-470MHz), 5.0 Watts NXDN Conventional / TYPE-C (Gen1/Gen2) Trunking	875.00
A status and a sta	KPT-300LMC License Management Client     KPT-300LMC is a required software package that is used to authenticate software (FPU)     and radio feature license keys for the NX-5000 Series radios.	
A second	License Management Client KPT-300LMC is a required software package that is used to authenticate software (FPU) and radio feature license keys for the NX-5000 Series radios. KPT-300LMC is available as a free download from Kenwood Tools and is also supplied with applicable software, such as KPG-D1NK, KAS-12, and KPG-AE1/DE1. NOTE: A license key is required for the KPT-300LMC to authenticate the software	
Anne innerfany Gan <sup>2</sup> Anne Witter Innerfan Person (heren Dreg License Key Filler (* jierh)	License Management Client     KPT-300LMC is a required software package that is used to authenticate software (FPU)     and radio feature license keys for the NX-5000 Series radios.     KPT-300LMC is available as a free download from Kenwood Tools and is also supplied     with applicable software, such as KPG-D1NK, KAS-12, and KPG-AE1/DE1.     NOTE: A license key is required for the KPT-300LMC to authenticate the software     prior to use. To receive a license key, complete the enclosed "Account Request Form"     and refut no the Land Mobile Order Desk.	
Note: KPT-300LMC is comp Vista/7/8/8.1/10 Only. Wi	License Management Client     KPT-300LMC is a required software package that is used to authenticate software (FPU)     and radio feature license keys for the NX-5000 Series radios.     KPT-300LMC is available as a free download from Kenwood Tools and is also supplied     with applicable software, such as KPG-D1NK, KAS-12, and KPG-AE1/DE1.     NOTE: A license key is required for the KPT-300LMC to authenticate the software     portouse. To receive a license key, complete the enclosed "Account Request Form"     and return to the Land Mobile Order Desk.	NC
We we have a set of the set of th	License Management Client     KPT-300LMC is a required software package that is used to authenticate software (FPU)     and radio feature license keys for the NX-5000 Series radios.     KPT-300LMC is available as a free download from Kenwood Tools and is also supplied     with applicable software, such as KPG-D1NK, KAS-12, and KPG-AET/DE1.     NOTE: A license key is required for the KPT-300LMC to authenticate the software     phort to use. To receive a license key, complete the enclosed <u>'Account Request Form'</u> and refut tho the Land Mobile Order Desk.     License Keys will be E-Mailed to the address provided on the Account Request Form.	NC

Note: A unique license key is required for each PC with software installed. A single license key will not authorize multiple PCs.

Software License Key Discount Structure

1		
2	10% OFF	
5	35% OFF	
1	40% OFF	
5	45% OFF	

NEXEDGI	E* NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
FIELD PROGRAMMII	NG UNIT (FPU)	LIST
KPG-D1NK	License Key for KPG-D1NK Programming Software for NX-5000 Portable/Mobile (Windows® Vista/7/8/8.1/10) <u>Mote:</u> Requires KPT-300LMC for authentication	155.00
	P25 Trunked Programming Capability (licensed by either 1 or 2 below): 1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK • For NX-5000 series radios. • KWD-ASK-MK (Matter Key): For trunked system operator (SYSOP). Required for activating KWD-ASK-AK Access keys. Securely embeds/encrypts the HSID. • KWD-ASK-AK (Access Key): For Dealers/contractors. Activated by KWD-ASK-MK Master Key. • KPG-D1NK supports up to 16 KWD-ASK-AK Access Keys (16 trunked networks).	
	2. Software Key Type: System Key File (SKF)- See L-5005     • For NX-5000 series radios.     • 3-digit HEX System ID (HSID) with verifiable written authorization required from SYSOP.     • Utilized by both SYSOPs and Dealers/Contractors. But Dealers/Contractors must be permitted from SYSOP to order and use SKF.     • Kenwood ships an encrypted * SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.	
	<ul> <li>The *.SKF securely embeds/encrypts the HSID.</li> </ul>	
OVER THE AIR PROC KPG-180AP		LIST 884.00
KPG-180AP	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista/7/8/8.1/10) • License includes Filly (50) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>Air</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>IP</u> Communication Profile Note: - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license NPXFNDF Trune-D Trunking and DMR System not supported.	LIST 884.00
KPG-180AP SOFTWARE UPGR Vote: includes package	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista7/18/8.1/10) • License includes Filly (50) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>Air</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>IP</u> Communication Profile Note: • Requires KPT-300LMC for authentication - Radio to Radio 07AP for <u>P25 Conventional system</u> requires <u>KWDAP3-P25</u> Icense. • NFXFIGF True-D Tunking and DMR System not supported ADE LICENSES FOR KPG-180AP Icense for additional subscriber unit or license for additional profile attached to one computer running KPG	
KPG-180AP SOFTWARE UPGR Note: Includes package additional licenses requ	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista7/8/8.1/10) UTAP Manager Software (Windows® Vista7/8/8.1/10) Uterse includes Fifty (50) radius / One(1) <u>NXDN</u> Conventional and Type-C <u>IF</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>IF</u> Communication Profile Requires KPT-300LMC for authentication Requires KPT-300LMC for BS Conventional system requires KWD-AP3-P25 license. NFXFDGF Toron-D Tunkins and TDMR System not supported ADE LICENSES FOR KPG-180AP	
KPG-180AP SOFTWARE UPGR Vote: Includes package additional licenses requ KWD-AP5100	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista77/8/8.1/10)  • License includes Fifty (50) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>Air</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>P</u> Communication Profile  Note:  • Requires KPT-300LMC for authentication Radio to Radio 0TAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license. • NFXFDGF Trens-D Tunking and DMR System not supported DDE LICENSES FOR KPG-180AP  license for additional subscriber unit or license for additional profile attached to one computer running KPG re KPT-300LMC for authentication. Additional 100 Radio Package License for 1 PC	-180AP software. All
KPG-180AP SOFTWARE UPGR Note: Includes package additional licenses requind KWD-AP5100 KWD-AP5250	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista77/8/8.1/10)  Lecense includes Fifty (8) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>Ar</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>B</u> Communication Profile  Note: - Regulare KPT-300LMC for authentication - Regulare KPT-300LMC for KPC for TPC - Regulare KPT-300LMC for Regulare KPT-40	-180AP software. All 1667.00
KPG-180AP SOFTWARE UPGR Note: Includes package	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista77/8/8.1/10) UTAP Manager Software (Windows® Vista77/8/8.1/10) Uterse includes Fifty (80) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>P</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>P</u> Communication Profile Boglies KPT-300LMC for authentication Reade to Radio to Radio DATP for <u>E25 Conventional system</u> requires <u>KWD-AP3-P25</u> iscense. NFEF/FOR Trun-D Trunking and DMR System nod supported ADE LICENSES FOR KPG-180AP Ilcense for additional subscriber runit or license for additional profile attached to one computer running KPG re KPT-300LMC for authentication. Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License. Additional 250 Radio Package License for 1 PC Note: License includes 200 subscriber radios OTAP License. Additional 500 Radio Package License for 1 PC Note: License includes 200 subscriber radios OTAP License. Additional 500 Radio Package License for 1 PC	-180AP software. All 1667.00 2917.00
KPG-180AP SOFTWARE UPGR Note: Includes package additional licenses requination KWD-AP5100 KWD-AP5250 KWD-AP5500 KWD-AP1-CA	SRAMMING (OTAP)           OTAP Manager Software (Windows® Vista7/8/8.1/10)           - Leense includes Fifty (6) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>Ar</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>B</u> Communication Profile           - Requires KPT-300LMC for authentication - Requires KPT-700LMC for authentication - Requires KPT-300LMC for authentication - Requires KPT-300LMC for authentication.           ADE LICENSES FOR KPG-180AP           Reference Trunking to the trunk of the trunk of authon of supported (for authentication.)           Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.           Additional 250 Radio Package License for 1 PC Note: License includes 200 subscriber radios OTAP License.           Additional S00 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.           Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: License includes 500 subscriber radios OTAP License.           Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: License includes 500 subscriber radios OTAP License.           Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: License includes 500 subscriber radios OTAP License.	-180AP software. All 1667.00 2917.00 4167.00
KPG-180AP SOFTWARE UPGR Note: Includes package additional licenses requ KWD-AP5100 KWD-AP5250 KWD-AP5250 KWD-AP1-CA KWD-AP1-CA	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista7/8/8.1/10)  Unders Fity (8) radius / One(1) <u>NXDN</u> Conventional and Type-C <u>Ar</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>P</u> Communication Profile Requires KPT-300LMC for authentication Reductor transformed to the transformed tothet transformed to the transf	-180AP software. All 1667.00 2917.00 4167.00 250.00
KPG-180AP SOFTWARE UPGR Note: Includes package KWD-AP5100 KWD-AP5250 KWD-AP5250 KWD-AP5250 KWD-AP1-CA KWD-AP1-CA KWD-AP3-P25 - IMPORTANT NOTES- Base racios are connectes Gaguines firmware version	SRAMMING (OTAP)         OTAP Manager Software (Windows® Vista77/8/8.1/10)         • Leense includes Fifty (6) radials / One(1) NXDN Conventional and Type-C <u>Ar</u> Communication Profile and One(1) NXDN Conventional and Type-C <u>E</u> Communication Profile         • Regimes KPT-300LMC for authentication • Regimes KPT-300LMC for authentication • Regimes KPT-300LMC for authentication • Regimes KPT-300LMC for authentication • NXEYERGE Tronch Trankien and DMR System reguines <u>KWD-AP3-P25</u> Icense. • NYEYERGE Tronch Trankien and DMR System reguines <u>KWD-AP3-P25</u> Icense. • NYEYERGE Tronch Trankien and DMR System and supported ADE LICENSES FOR KPG-180AP         Itemse for additional subscriber unit or license for additional profile attached to one computer running KPG re KPT-300LMC for authentication.         Additional 100 Radio Package License for 1 PC Note: License includes 200 subscriber radios OTAP License.         Additional 300 Radio Package License for 1 PC Note: License includes 200 subscriber radios OTAP License.         Additional S00 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.         Additional NDND Conventional Type-C IP Communication Profile for 1 PC. Note: License includes 500 subscriber radios OTAP License.         Additional NDND Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Rese Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).         Additional NDND Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for both Conventional and Trunking (Type-C Gen	-180AP software. All 1667.00 2917.00 4167.00 250.00 417.00
KPG-180AP SOFTWARE UPGR Note: Includes package diditional licenses requind KWD-AP5100 KWD-AP5250 KWD-AP5250 KWD-AP1-CA KWD-AP1-CA KWD-AP2-CP KWD-AP3-P25 - IMPORTANT NOTES- Base radios are connected Requires firmware version	SRAMMING (OTAP) OTAP Manager Software (Windows® Vista7/8/8.1/10)  • Leense includes Fifty (8) radius / One(1) <u>NXDN</u> Conventional and Type-C <u>Ar</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>P</u> Communication Profile . Requires KPT-300LMC for authentication . Reductor Radio to Radio Pack <u>P</u> C <u>E</u> Communication Profile . Requires KPT-300LMC for authentication . Reductor Radio Tone-11 Trunking and ThMR Nexteem not supported  ADE LICENSES FOR KPG-180AP Itense for additional subscriber running KPG rev HT-300LMC for authentication . Reductor Radio Table Stream requires <u>KWD-AP3-P25</u> Isonse NPKFROFT Trunk-D Trunking and ThMR Nexteem not supported  ADE LICENSES FOR KPG-180AP Itense for additional subscriber running KPG rev HT-300LMC for authentication. Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License. Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License. Additional NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2). Additional XDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2). P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	-180AP software. All 1667.00 2917.00 4167.00 250.00 417.00

NEXEDGE	NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
ATTERY READER, C		LIST
	E LICENSES FOR KAS-12	LIST
ote: Upgrade License at	taches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authen	
	Add Battery Management with Database Must require KAS-12K Battery Reader Software to upgrade	350.00
AS-12PRO	wast require two-12/t battery reduer software to upgrade	
	Note: - A Windows® PC may be required as a Database Server which KAS-12DU (Free) software is installed.	
	- Requires KPT-300LMC for authentication	
	LICENSE OPTIONS	
	same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that	can then be viewed / shared
<ul> <li><u>* TO PLACE AN O</u></li> <li>1. Complete the a</li> <li>2. Submit the con</li> <li>a) E-Mail: Imr</li> <li>b) Fax: (310) 7</li> <li>3. License Keys w</li> <li>Note: Radio Feature</li> </ul>	ill be E-mailed to the address provided on the request form. A hard copy will follow by main the second se Second second seco	
license transferred ra	ndio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.	
eneral Radio Feature	IS .	LIST
WD-5000CH	License Key for 4000 Channel Expansion	420.00
WD-5001FP	License Key for Front Panel Programming	300.00
WD-5002SD WD-5003BT	License Key for microSD Memory Card Slot Activation License Key for Bluetooth Serial Port Profile (Required for Date Communication)	105.00
140-2003B1	Note: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT.	35.00
WD-5007RC	You can pair with any Bluetooth audio device without this option.	40.00
-3007RG	License Key for Remote Control by Subscriber Units <u>Note:</u>	40.00
	<ul> <li>DMR Mode only. NXDN Mode will be version up. P25 Mode is <u>NOT</u> available.</li> <li>The license is required for only Transmitting of Remote Control.</li> <li>PC command for Remote Control does <u>NOT</u> require the license.</li> </ul>	
25 Radio Features		LIST
WD-5100CV	License Key for P25 Conventional	575.00
WD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	520.00
WD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	400.00
WD-5103RK WD-5105VT	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	700.00
WD-5105V1 WD-5106DT	License Key for P25 Conventional Voting Scan License Key for P25 Trunking OTAR/GPS Data	120.00
	Note: Conventional (OTAR/GPS) does NOT require KWD-5106DT.	
MR Radio Features		LIST
WD-5300CV	License Key for DMR Tier II Conventional	60.00
RA-26M	VHF helical antenna 146-162 MHz	LIST 14.00
RA-26M2	VHF helical antenna 162-174 MHz	14.00
RA-26M3	VHF helical antenna 136-150 MHz	14.00
RA-27M	UHF whip antenna 440-490 MHz	14.00
RA-27M2	UHF whip antenna 470-520 MHz	14.00
RA-27M3	UHF whip antenna 400-450 MHz VHF low-profile helical antenna 148-162 MHz	14.00
RA-22M	VHF low-profile helical antenna 140-102 MHz	13.70
RA-22M2 RA-22M3	VHF low-profile helical antenna 136-150 MHz	<u> </u>
RA-23M	UHF low-profile helical antenna 450-490 MHz	13.70
RA-23M2	UHF low-profile helical antenna 470-512 MHz	13.70
RA-23M3	UHF low-profile helical antenna 403-430 MHz	13.70
NTENNAS, CON		LIST
RA-25	High gain VHF helically loaded whip antenna 148-162 MHz	34.25
RA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz Broad Band UHF Whip Antenna 380-430 MHz	42.00
RA-29 ATTERIES AND		36.75 LIST
NB-L1M	Li-ion 2000mAh (Compact Slim)	115.00
NB-L2M	Li-ion 2600mAh (Standard)	135.00
NB-L3M	Li-ion 3400mAh (High Capacity)	175.00
NB-N4M	Ni-MH 2500mAh CSA US Intrinsically Safe Battery Li-ion 2000mAh	145.00
NB-LS5M	Note: Due to the I.S. circuitry on the KNB-LS5M, the cells may lose charge during storage. To	200.00
	prevent loss of capacity during storage, charge the battery for 10 minutes at least every 4 months with the KSC-32, KSC-Y32K or KSC-326K.	
	[Intrinsically Safe Option]	
BP-8M	AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included. <u>Note</u> : The color of the case is International Orange.	106.00
	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)	115.00
SC-Y32K	Rapid rate single unit charger	70.00
	Rapid rate 6-unit charger	630.00
SC-32 SC-326K		
SC-32 SC-326K MB-30M	Wall Mount Bracket for KSC-326K/256K	
SC-32 SC-326K MB-30M	Wall Mount Bracket for KSC-326K/256K Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes	
SC-32 SC-326K MB-30M VC-15	Wall Mount Bracket for KSC-326K/256K	119.00
SC-32 SC-326K MB-30M VC-15 VC-23	Wall Mount Bracket for KSC-326K/256K Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter) Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	119.00
SC-32 SC-326K MB-30M VC-15 VC-23 ARRYING ACCE	Wall Mount Bracket for KSC-326K/256K         Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)         Rapid rate DC vehicular charger for TK-Sx10/Sx20, NX-Sx00/x00/x10/x20, TK-x180, TK-x170, & TK-x60 portables with Lithium Ion /Lithium Polymer/NIMH packs only         SSOR/ES         Spring action belt clip (2.5°)	119.00 300.00 <i>LIST</i>
SC-Y32K SC-32 SC-326K MB-30M VC-15 VC-23 VC-23 CARRYING ACCE BH-11 BH-8DS	Wall Mount Bracket for KSC-326K/256K           Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)           Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-380 portables with Lithium Ion /Lithium Polymer/NiMH packs only           SSCORIES           Spring action belt clip (2.5")           Leather swivel belt loop with portable D-Ring attachment	33.75 119.00 300.00 <i>LIST</i> 14.70 26.30
SC-32 SC-326K MB-30M VC-15 VC-23 WARRYING ACCE BH-11 BH-8DS LH-6SW	Wall Mount Bracket for KSC-326K/256K           Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)           Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NIMH packs only           SSCR/ES           Spring action belt clip (2.5')           Leather swivel belt loop with portable D-Ring attachment           Leather swivel belt loop / detachable swivel D-Ring back	119.00 300.00 <i>LIST</i> 14.70 26.30 22.00
SC-32 SC-326K MB-30M VC-15 VC-23 ARRYING ACCE BH-11 BH-8DS LH-6SW LH-137ST	Wall Mount Bracket for KSC-326K/256K         Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)         Rapid rate DC vehicular charger for TK-Sx10/Sx20, NX-Sx00/x00/x10/x20, TK-x180, TK-x170, & TK-x60 portables with Lithium Ion /Lithium Polymer/NiMH packs only         SSORIES         Spring action belt clip (2.5°)         Leather swivel belt loop / detachable swivel D-Ring back         Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	119.00 300.00 <i>LIST</i> 14.70 26.30 22.00 36.75
SC-32 SC-326K MB-30M VC-15 VC-23 ARRYING ACCE BH-11 BH-8DS LH-6SW LH-137ST	Wall Mount Bracket for KSC-326K/256K         Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes;         KSC-mobile brackt & cigarette lighter cable DC adapter)         Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-x170, & TK-360 portables with Lithium Ion /Lithium Polymer/NIMH packs only         SSOR/ES         Spring action belt clip (2.5')         Leather swivel belt loop / detachable swivel D-Ring attachment         Leather swivel belt loop / detachable swivel D-Ring back         Firemer's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case         Heavy duty leather carrying case for NX-5000 series with KNR=1/1/2/L3/LS5	119.00 300.00 <i>LIST</i> 14.70 26.30 22.00 36.75
SC-32 SC-326K MB-30M VC-15 VC-23 BH-11 BH-11 BH-8DS LH-6SW LH-6SW LH-137ST LH-200K3	Wall Mount Bracket for KSC-326K/256K         Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)         Rapid rate DC vehicular charger for TK-Sx10/Sx20, NX-Sx00/x00/x10/x20, TK-x180, TK-x170, & TK-x60 portables with Lithium Ion /Lithium Polymer/NiMH packs only         SSORIES         Spring action belt clip (2.5°)         Leather swivel belt loop / detachable swivel D-Ring back         Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	119.00 300.00 <i>LIST</i> 14.70 26.30 22.00 36.75 44.25
SC-32 SC-326K MB-30M VC-15 VC-23 ARRYING ACCE BH-11 BH-8DS	Wall Mount Bracket or KSC-326K/256K         Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)         Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-x170, & TK-s60 portables with Lithium Ion /Lithium Polymer/NiMH packs only         SSORIES         Spring action belt clip (2.5')         Leather swivel belt loop with portable D-Ring attachment         Leather swivel belt loop / detachable swivel D-Ring back         Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case         Heavy duty leather carrying case for INX-5000 series with KNB-L1/L2/L3/LS5 (for both keypad models)	119.00 300.00 <i>LIST</i> 14.70 26.30 22.00 36.75

NEXEDGE	NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
KWD-YH-5000	Yellow Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order <u>L-5024</u> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	40.00
KWD-OH-5000	Orange Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order <u>L-5025</u> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	40.00
MICROPHONES &	AUDIO ACCESSORIES	LIST
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <u>Compatible with ANR Feature</u> <u>Note</u> : only compatible with a NX-5000 series portable [IntrinsicalW Safe Option]	130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Option]	114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <u>Note</u> : 5/16' Coax cable hex wrench included (anterna is not included). <u>Intrinsically Safe Option</u>	250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics [Intrinsically Safe Option]	52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic [Intrinsically Safe Option]	52.50
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Option]	215.00

	NX-5200/5300	Table of Contents
225	VHF/UHF Digital & FM Analog Portable Radios	
MICROPHONES &	AUDIO ACCESSORIES, CON'T	LIST
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	156.50
	[Intrinsically Safe Option]	
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	184.00
	Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT	126.00
	Note: NOT compatible with TDMA operations	
	[Intrinsically Safe Option]	100.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT Note: NOT compatible with TDMA operations	420.00
	[Intrinsically Safe Option]	
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	368.00
	Note: NOT compatible with TDMA operations	
	[Intrinsically Safe Option]	
ENCRYPTION MOL	DULES	LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key)	850.00
	Order a Labor Code L-5003 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
	KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1).	
	Intrinsically Safe Option - Must be Kenwood installed for I.S.	
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-5004 if installation is required.	550.00
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device.	
	KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
(OT 10) // 1	Intrinsically Safe Ontion - Must be Kenwood installed for LS.	10.00
KCT-48VU	External Vibration Unit <u>Note</u> : Audio accessories cannot be used when this option installed.	49.00
	KCT-48VU does not support the P25 digital mode calling or paging features	
	[Intrinsically Safe Option]	
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	525.00
	Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K	368.00
KPG-DEIK	Authentication by KPT-300LMC is required	300.00
	Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	
SERVICE RELATE	D ACCESSORIES	LIST
KPG-36XM	Full Speed USB Programming interface cable	
KPG-36XIVI	Note: This cable with USB mode may used for SD Card Direct Access.	158.50
KPG-93	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
KPG-93AUT	KVL-4000 Radio Authentication Cable	330.00
	Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	000.00
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming	208.00
WD-AGR-AR	Notes: Enables P25 Trunked system programming privileges in a KPG-D1NK.	200.00
	For NX-5000 series only.	
	<ul> <li>Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key.</li> <li>Must have KPG-D1NK.</li> </ul>	
	Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in	
KWD-ASK-MK	hattery USB Key must be replaced since the expiration set up dose not work after 3 years Master Key for activating KWD-ASK-AK Access Keys	500.00
KWD-ASK-MK	- Restricted Purchase Requirements -	500.00
	Notes:	
	For NX-5000 series only.	
	Sold to trunked system operator (SYSOP) or SYSOP authorized entities only	
	Must have KPG-D1NK.     SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form	
	placed on Kenwood Tools.	
	Purchase KWD-ASK-AK Access Keys if needed.	
INSTALLATION / T	UNING CHARGES	LIST
L-5000	Account Registration Key	NC
	Note: specify the number of PC's used for Radio Feature License Activation.	
L-5000	Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately.	120.00

NEXEDGE	NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
- Carlos - C	VIE/OFF Digital & FW Allalog Poltable Radios	
INSTALLATION / T	UNING CHARGES, CON'T	LIST
L-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)	37.50
L-5003	Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)	75.00
L-5004	Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)	75.00
L-5005	KPG-DTINK System Key File (SKF)           Date_tradilate S25 Trunked system programming privileges in a KPG-D1NK.           - Restricted Purchase Requirements.           • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request From placed on Kenwood Tools.           • Must have KPG-D1NK.           • Kenwood ships an encrypted 'SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request From placed on Kenwood Tools.           • Kenwood ships an encrypted 'SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kenwood Tools.           • Non-SYSOP fulles ordering L-G005 must provide verifiable written authorization from SYSOP to receive an *SKF file.           • 3-digit HEX HSID are securely encrypted & embedded in the *SKF file.	132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable	27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with NX-5000 series Portable	27.00
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe Must order KNB-LS5M I.S. battery	70.00

-- IMPORTANT NOTES regarding ENCRYPTION MODULES--

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later: a) Initial Destination: Initial delwarp point if different from Ultimate Destination (customer distribution center, headquarters, deelership, manufacturer's representative) <sup>a</sup> Business/Agency Name: <sup>a</sup> Address:

\* Contact Person Name: \* Contact Phone: \* Contact Phone: b) Utlimate Destination: Final delivery point(s); deployment/distribution \* Business/Agency Name: \* Address: \* Contact Person Name: \* Contact Person Name: • Contact Phone: • Contact Phone:

KWD-AE30 AES FIPS140-2 SCM, NST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kerwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kerwood USA Corporation employee); shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kerwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

25 700/8	NX-5400	Table of Conte	nts	
700/8	00MHz Digital & FM Analog Portable	e Radio		
	STANDARD			
	■ GENERAL FEATURES - 3W (700/800 MHz) Models - 10/2 CH-GID / 128 Zones - Standard Key Models (w/uneric keypad) - Full Key Models (w/ uneric keypad) - Full Color 1.74" (240 x 180 pixels) Transflective TFT Display	■ DIGITAL – NXDN® MODE • NXDN® Conventional • NXDN® TYPE-C (Gent/Gen2) Trunking (only in 800MHz) • AMBE+2 <sup>™</sup> VOCODER • 6.25 & 12.5 kHz Channels • Over-the-Air Alias		(01.26.2015) Added Qty breaks to KPG-D1NK Software (15+ 40%, 25+ 45%) (03.25.2015) Modified for Firmware Version 1.4, ASK and adding KPG-180AP, KPG-36XM, Color H (05.13.2015) Modified for adding LTR, FleetSync (10.09.2015) Added KNB-N4M and KBP-8M (10.09.2015) Change expression for KWD-5003BT and KWD-5106DT
	Multi-line Text Display     Function/Status loons     Multi-Language Display     Date & 12/24 Hour Time Clock     TransmitBusyCall AlertWarn LED     termintBusyCall AlertW	Over-the-Air Programming (require KPG-180AP OTAP Manager Software) Paging Call All Group Call All Group Call Aremote SunKill/Check Short & Long Data Messages GPS Location		<ul> <li>(10.13.2015) Added Software Upgrade Options for KPG-180AP</li> <li>(12.17.2015) Added notes for P25 Conventional license in KPG-180AP line</li> <li>(12.17.2015) Added notes for TDMA operation</li> <li>(12.18.2015) Remove future release</li> <li>(01.14.2016) Add KNB-LS5M</li> <li>(01.14.2016) Add KNB-N4 and KNB-LS5M in KAS-12 description</li> </ul>
Standard Key Model > <full key="" model=""></full>	Emergency/AUX Key     3 Side PF Keys     WSpeaker Audio     Multi Digital Protocol <sup>1</sup> Emergency Call Features	NXDN® Scrambler      DIGITAL – DMR MODE      DMR Tier II Conventional	x	(01.14.2016) Add CSA US Package Models (01.14.2016) Add CSA US Options Note (01.18.2016) Add KAS-12PRO
I NX-5400 series portables include: Belt Clip (KBH-11) Jniversal Connector Cap Jser Guide	Built-in GPS Receiver / Antenna     Built-in Bluetooth® Module     Built-in Motion Sensor     Built-in 56-bit DES Encryption     (4 keys programmable by KPG-D1(N)K)	<ul> <li>AMBE+2™VOCODER</li> <li>12.5 kHz Channels</li> <li>Call Interrupt (Direct &amp; Repeater Mode)</li> <li>Paging Call</li> <li>Emergency Call</li> </ul>	x x x	(02.19.2016) Add KVC-23 (04.21.2016) Add note for KAS-12PRO (04.21.2016) Add KPG-93AUT
Premium Warranty: 3 Years* Accessories / options: 1 Year Irchase Battery, Charger, Antenna separately	Active Noise Reduction (ANR)     KPG-D1N Windows <sup>®</sup> FPU     Flash Firmware Upgrading     MIL-STD-810 C/D/E/F/G	All Group Call     Late Entry     Status Messaging     Remote Control by Subscriber Units     ARC4 Encryption <sup>2</sup>	x x x	(05.10.2016) Add KCT-48VU (09.23.2016) Add DMR Mode (09.23.2016) Add Remote Control
ote: To maintain immersion specs (IP67/68), all	IP67/68 Immersion     Multi Diaital Protocol can be used for two/2)	Site Roaming <sup>2</sup>	х	(09.23.2016) Add IP Profile to KPG-180AP
arranty service must be done by one of the three titonal Kenwood Authorized Service Centers. 67/68 Centification is valid under the 3 year emilum warranty. No re-certification is available.	1. Multi Digital Protocol can be used for two(2) of the three[30] Digital Protocols set by programming software. P25/DMR Digital Protocols are options.	ANALOG MODE     NPSPAC Channels     Conventional Zones     Inte <sup>10</sup> Zone     In		
	OPTIONAL GENERAL FEATURES 4000 Channel ( <u>KWD-5000CH</u> License Key Actival Front Panel Programming ( <u>KWD-5001FP</u> License microSDMrdWmory Card Site ( <u>KWD-56</u>	Key Activation required ) 002SD License Key Activation required)	e	
Due to spurious signal (birdie), the Blowing frequencies (and ±10kHz ranges) are not allowed: - 864.000	Built-in Bluetooth® Module for Data ( <u>KWD-50038</u> ) Remote Control by Subscriber Unites *DMR Only 256-bit AES Encryption ( <u>KWD-AE30K/31K</u> Encryp DIGITAL – <u>P25 MODE</u> Conventional Features ( <u>KWD-5100CV</u> License Ke	(KWD-5007RC License Key Activation required) tion Module required)	x	
	<ul> <li>Phase 1 Trunking Features (<u>KWD-5100CV &amp; 510</u>)</li> <li>Phase 2 Trunking Features (<u>KWD-5100CV &amp; 510</u>)</li> <li>Conventional OTAR (<u>KWD-5103RK</u> License Key / Trunking OTAR (<u>KWD-5103RK &amp; 51060T</u> License Conventional Votina Scan (KWD-5105VT License)</li> </ul>	<u>11R</u> License Keys Activation required) <u>11R &amp; 51021R</u> License Keys Activation required) Activation required) 8 Keys Activation required) Key Activation required)		
סוס	<ul> <li>Phase 1 Trunking Features (<u>KWD-5100CV &amp; 510</u></li> <li>Phase 2 Trunking Features (<u>KWD-5100CV &amp; 510</u></li> <li>Conventional OTAR (<u>KWD-5103RK</u> License Key <i>J</i></li> <li>Trunking OTAR (KWD-5103RK &amp; 5106DT License</li> </ul>	ITR License Keys Activation required) TIR & 5102TR (Lenses Keys Activation required) Activation required) A Keys Activation required) Key Activation required) VD-5106DT License Keys Activation required)	LIST	
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NEXEDGE'	NX-5400 700/800MHz Digital & FM Analog Portable Radio	Table of Contents
	P25 Trunked Programming Capability (licensed by either 1 or 2 below): 1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK + For IVX-5000 series radios. * KWD-ASK-MK (Master Key): For trunked system operator (SYSOP). Required for activating KWD-ASK-AK Access keys. Securely embeds/encrypts the HSID. * KWD-ASK-KA (Access Key): For Dealers/contractors. Activated by KWD-ASK-MK Master Key. * KPC-D1NK supports up to 16 KWD-ASK-AK Access Keys (16 trunked networks).	
	Software Key Type: System Key File (SKF)- See L-5005     For NX-5000 series radios.     S-digit HEX System ID (HSID) with verifiable written authorization required from     SYSOP.     Utilized by both SYSOPs and Dealers/Contractors. But Dealers/Contractors must be     permitted from SYSOP to order and use SKF.     Kenwood ships an encrypted *SKF file via E-Mail to the address provided on the P25     Trunking System Keys Request Form placed on Kenwood Tools.     The *.SKF securely embeds/encrypts the HSID.	

0255m	Too/800MHz Digital & FM Analog Portable Radio	Table of Contents
VER THE AIR PRO	GRAMMING (OTAP) OTAP Manager Software (Windows® Vista/7/8/8.1/10)	LIST 884.00
CF G-100AF	<ul> <li>License includes Fifty (50) radios / One(1) <u>NXDN</u> Conventional and Type-C <u>Air</u> Communication Profile and</li> </ul>	004.00
	One(1) NXDN Conventional and Type-C IP Communication Profile	
	Note:	
	<ul> <li>Requires KPT-300LMC for authentication</li> <li>Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license.</li> </ul>	
	- NEXEDGE Type-D Trunking and DMR System not supported RADE LICENSES FOR KPG-180AP	
ote: Includes package	license for additional subscriber unit or license for additional profile attached to one computer running KPC	-180AP software. All
	tire KPT-300LMC for authentication.	
WD-AP5100	Additional 100 Radio Package License for 1 PC	1667.00
	Note: License includes 100 subscriber radios OTAP License. Additional 250 Radio Package License for 1 PC	2917.00
WD-AP5250	Note: License includes 250 subscriber radios OTAP License.	2317.00
WD-AP5500	Additional 500 Radio Package License for 1 PC	4167.00
	Note: License includes 500 subscriber radios OTAP License.	250.00
	NXDN Conventional Type-C Air Communication Profile for 1 PC.	250.00
WD-AP1-CA	Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	
	Station Scharmtenace for Both Schreintenar and Humining (Type-S Schriftenz).	
	NXDN Conventional Type-C IP Communication Profile for 1 PC.	417.00
WD-AP2-CP	Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater	
	IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2) .	
	P25 Radio to Radio Air Communication Profile for 1 PC.	800.00
WD-AP3-P25	Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	
IMPORTANT NOTES-		
	- d to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles.	
equires firmware versior	1.4 or higher for the NX-5000 Series portables and mobiles	
	1 2.5 or higher for the NXR-x00/NXR-x10 repeaters.	
ATTERY READER	License Key for KAS-12	LIST
AS-12K	Battery Reader Software for KNB-L1/2/3/N4/LS5 & KSC-Y32 (Windows® Vista/7/8/8.1)	85.00
	Note: Requires KPT-300LMC for authentication	
	DE LICENSES FOR KAS-12	
ote: Upgrade License	attaches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authenti	350.00
	Add Battery Management with Database Must require KAS-12K Battery Reader Software to upgrade	350.00
AS-12PRO	Note:	
	<ul> <li>A Windows® PC may be required as a Database Server which KAS-12DU (Free) software is installed.</li> <li>Requires KPT-300LMC for authentication</li> </ul>	
Cs registered under th nanaged by all register <u>* TO PLACE AN</u>	E LICENSE OPTIONS te same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that c ed users for the account. <u>ORDER FOR RADIO FEATURE LICENSES:</u> attached Radio Feature Request Form.	an then be viewed / shared
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Cs registered under th           - TO PLACE AM           1. Complete the           2. Submit the c:           a) E-Mail: In           b) Fax: (310)           3. License Keys           Note: Radio Feature           WD-5000CH           WD-50002SD           WD-5003BT           WD-50007RC           25 Radio Features           WD-5100CV           WD-5101TR           WD-5102TR           WD-5103RK           WD-5105VT           WD-5105VT           WD-5106DT           MD-5106DT           MD-5105VT           WD-5105VT           WD-5106DT           MD-5106DT           MD-5106DT           WD-5106DT           WD-5106DT	e same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that of ed users for the account. <u>ORDER FOR RADIO FFATURE LICENSES:</u> attached Radio Feature Request Form. mpheted form along with your PO to the Land Mobile Order Desk via: trorderdesk @us.jvckenwood.com 761-8246 will be E-mailed to the address provided on the request form. A hard copy will follow by ma re License Keys can be transbrabe from a radio to radio within 72 hours count started from being authentic radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first. res License Key for 4000 Channel Expansion License Key for Fornt Panel Programming License Key for Bluetooth Serial Port Profile (Required for Date Communication) Mate: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audo devoe without this option. License Key for Romete Control by Subscriber Units Mate: • DMR Mode only. NXDN Mode will be version up. P25 Mode is <u>NOT</u> available. • The license is required for only Transmitting of Remote Control. • PC command for Remote Control does <u>NOT</u> require the license. Elicense Key for P25 Conventional License Key for P25 Phase 1 Trunking (requires KWD-5100CV) License Key for P25 Phase 2 Trunking (requires KWD-5100CV) License Key for P25 Draxe 1 Trunking (requires KWD-5100CV) License Key for P25 Trunking OTAR/GP5 Date 3 Mate: Conventional VOTAR/GP5 Date 3 License Key for P25 Trunking OTAR/GP5 Date 3 Mate: Conventional VOTAR/GP5 JoteDT for a Trunking Operation) License Key for P25 Trunking OTAR/GP5 JoteDT for a Trunking Operation License Key for P25 Trunking OTAR/GP5 JoteDT for a Trunking Operation License Key for P25 Trunking OTAR/GP5 JoteDT for a Trunking Operation License Key for P25 Trunking OTAR/GP5 JoteDT for a Trunking Operation License Key for P25 Trunking OTAR/GP5 JoteDT for a Trunking Operation License Key for P25 Trunking OTAR/GP5 JoteDT for a Trunking Operation License Key for P25 Trunkin	il for your records. ated to a Radio. Once LIST 420.0( 300.0( 105.0( 35.0( 40.0( 575.0( 575.0( 575.0( 575.0( 120.0( 180.0( 180.0( LIST 575.0( 520.0( 180.0(
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Cs registered under th anaged by all register * TO PLACE AM 2. Submit the c: a) E-Mail: In b) Fax: (310) 3. License Keys Note: Radio Features (WD-5000CH WD-5000CH WD-50002SD WD-50003BT WD-50003BT WD-50007RC 22 Radio Features WD-5100CV WD-5100CV WD-5103RK WD-5103RK WD-5103RK WD-5105VT WD-5105VT WD-5105VT WD-5105VT WD-5105VT WD-5105VT WD-5300CV MTE-NIAS (RA-32 84-32K (RA-36 84-11M NB-L1M	e same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that of ed users for the account. ORDER FOR RADIO FEATURE LICENSES: attached Radio Feature Request Form. Sampleted form along with your PO to the Land Mobile Order Desk via: trorderdesk @us.jvckenwood.com 761-8246 will be E-mailed to the address provided on the request form. A hard copy will follow by ma re License Keys can be transferable from a radio to radio within 72 hours ocunt started from being authentic radio is authenticated by KPT-300LMC, 72 hours is reset and count started from being authentic radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first. FOR License Key for 4000 Channel Expansion License Key for Fluetoth Serial Port Profile (Required for Date Communication) Note: Voice Communication for Bluetoth Head Set does NOT require KWD-5003BT. You can pair with any Bluetoth audio device without this option. License Key for Remote Control by Subscriber Units Note: • DMR Mode only. NXDN Mode will be version up. P25 Mode is <u>NOT</u> available. • The license is required for only Transmitting of Remote Control. • PC command for Remote Control does <u>NOT</u> require the license. License Key for P25 Dease 2 Trunking (requires KWD-5100CV) License Key for P25 Phase 1 Trunking (requires KWD-5100CV) License Key for P25 Conventional License Key for P25 Conventional Note	il for your records. <i>LIST</i> 420.00 300.00 105.00 35.00 40.00 <i>LIST</i> 575.00 520.00 400.00 120.00 180.00 <i>LIST</i> 35.00 180.00 <i>LIST</i> 35.00 115.00 115.00 115.00 135.00
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NEXEDGE	NX-5400 700/800MHz Digital & FM Analog Portable Radio	Table of Contents
KSC-32	Rapid rate single unit charger	70.00
KSC-326K	Rapid rate 6-unit charger	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
BATTERIES AND	CHARGERS, CON'T	LIST
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACCE	ESSORIES	LIST
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	36.75

	- NX-5400	Table of Contents
Contra Contra	700/800MHz Digital & FM Analog Portable Radio	
CARRYING ACC	CESSORIES, CON'T	LIST
KLH-200K3	Heavy duty leather carrying case for NX-5000 series with KNB-L1/L2/L3/LS5 (for both keypad models)	44.25
KLH-201K3	Nylon carrying case for NX-5000-series with KNB-L1/L2/L3/LS5 (for both keypad models)	26.30
SPECIAL COLO	R HOUSING	LIST
KWD-YH-5000	Yellow Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order <u>L-5024</u> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	40.00
KWD-OH-5000	Orange Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order <u>L-5025</u> for Factory Install. (Eligible for warranty of IP67/88 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Instalation, IP67/68 Warranty Claim will not be eligible.	40.00
MICROPHONES	& AUDIO ACCESSORIES	LIST
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <u>Compatible with ANR Feature</u> <u>Note</u> : only compatible with a NX-5000 series portable [Intrinsically Safe Option]	130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Option]	114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <u>Mate</u> : 5/16 <sup>-</sup> Coax cable hex wench included (antenna is not included). [Intrinsically Safe Option]	250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics [Intrinsically Safe Option]	52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic [Intrinsically Safe Option]	52.50
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Option]	215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Option]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) Note: NOT compatible with TDNA operations [Intrinsically Safe Option]	184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT Note: NOT compatible with TDNA operations [Intrinsically Safe Option]	126.00
KHS-15-BH	Hyy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	420.00
KHS-15-OH	Hyy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT Note: NOT compatible with TDMA operations [intrinsically Safe Option]	368.00

NEXEDGE	NX-5400	Table of Contents
(Ser	700/800MHz Digital & FM Analog Portable Radio	
ENCRYPTION MO	DDULES	LIST
WD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key)	850.00
	Order a Labor Code L-5003 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
	KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
	[Intrinsically Safe Option]- Must be Kenwood installed for I.S.	
WD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <u>L-5004</u> if installation is required.	550.00
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-	
	AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
	[Intrinsically Safe Option]- Must be Kenwood installed for I.S.	
CT-48VU	External Vibration Unit Note: Audio accessories cannot be used when this option installed.	49.00
	KCT-48VU does not support the P25 digital mode calling or paging features	
	[Intrinsically Safe Option]	
PG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	525.00
	Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	
PG-DE1K	DES Encryption Software Key Loader for KWD-AE31K	368.00
	Authentication by KPT-300LMC is required	000.00
	Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	
ERVICE RELAT	ED ACCESSORIES	LIST
PG-36XM	Full Speed USB Programming interface cable	158.50
PG-93	Note: This cable with USB mode may be used for SD Card Direct Access. Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
PG-93AUT	KVL-4000 Radio Authentication Cable	330.00
	Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	
WD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <u>Notes:</u> Enables P25 Trunked system programming privileges in a KPG-D1NK.	208.00
	For NX-5000 series only	
	Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key	
	Must have KPG-D1NK     Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in	
	battery. USB Key must be replaced since the expiration set up dose not work after 3 years.	
WD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys	500.00
	- Restricted Purchase Requirements -	
	Notes: • For NX-5000 series only.	
	<ul> <li>Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> </ul>	
	Must have KPG-D1NK     OVER and the VEX USED to Known dwite D25 To action Known Report Form alread	
	<ul> <li>SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> </ul>	
	Purchase KWD-ASK-AK Access Keys if needed.	
STALLATION /	TUNING CHARGES	LIST
-5000	Account Registration Key	NC
-5001	Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio)	120.00
-5001	Note: Must purchase Radio Feature Licenses separately.	120.00
	KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	
-5002	NX-5200/5300/5400 Programming (with basic TX/RX check)	37.50
-5003	Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)	75.00
-5004	(Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable	75.00
-0004	(Must purchase module separately)	15.00

NEXEDG	E* NX-5400 700/800MHz Digital & FM Analog Portable Radio	Table of Contents
INSTALLATION	/ TUNING CHARGES	LIST
L-5005	KPG-D1NK System Key File (SKF)         Note: Enables P25 Trunked system programming privileges in a KPG-D1NK.         • Restricted Purchase Requirements -         • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.         • Must have KPG-D1NK.         • Must have KPG-D1NK.         • Keys Request Form placed on Kenwood Tools.         • Must have KPG-D1NK.         • Keys Request Form placed on Kenwood Tools.         • Non-SYSOP entities ordering 1-SKF file.         • Non-SYSOP entities ordering L-5005 must provide entitien authorization from SYSOP to receive an *3KF file.         • 3-digit HEX HSID are securely encrypted & embedded in the *SKF file.	132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable	27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with NX-5000 series Portable	27.00
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe Must order KNB-LS5M I.S. battery	70.00

#### -- IMPORTANT NOTES regarding ENCRYPTION MODULES--

Introvirt ANT IN UES regarding ERX FT/10X MODULES
 Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either regulars an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the Intended use. High level encryption is a special commodity that may regular encryption test the intende use. High level encryption is a special commodity that may regular encryptic license to nest countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOCHIS Export Leanses and/or compliances.
Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood Internal approvals prior to shipment
even if being returned to Kenwood later:
a) Initial Destination: Initial delivery point if different from Ultimate Destination
(customer distribution center, headquarters, dealership, manufacturer's representative)
\* Business/Agency Name:
\* Address:
\* Contact Person Name:
\* Contact Person Name:
\* Address:
\* Address:
\* Address:
\* Contact Person Name:
\* Cont

WUD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kerwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kerwood USA Corporation employee); shipping/handling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kerwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

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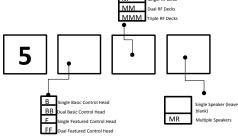
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P25		X-5700/5800/5900 /800MHz Digital & FM Analog M	
Care and	VHF/UHF//00	/800MHZ DIGITAI & FM ANAIOG M	Ioblie Radios
	S	TANDARD	
		GENERAL FEATURES	DIGITAL - NXDN <sup>®</sup> MODE
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	• 3	5 W (700/800 MHz) Models	700MHz) • AMBE+2 <sup>TM</sup> VOCODER
	<b>2</b>	024 CH-GID / 128 Zones ull Color 2.55" (154 x 422 pixels) TFT Display lulti-line Text Display	6.25 & 12.5 kHz Channels     Over-the-Air Alias
	•F	unction/Status Icons	Over-the-Air Programming (requires KPG-180AP OTAP Manager Software)
	· .	lulti-Language Display late & 12/24 Hour Time Clock	Paging Call
Dispatch CH 1		ransmit/Busy/Call Alert/Warn LED mergency/AUX Key	Emergency Call     All Group Call
	• 4	W Speaker Audio IB-25 Accessory Connector	Status Messaging     Remote Stun/Kill/Check
	- N	fulti Digital Protocol 1	Short & Long Data Messages     GPS Location
NX-5000(K-version*) Mobiles	sinclude: •B	mergency Call Features uilt-in GPS Receiver	NXDN® Scrambler
<ul> <li>Standard Microphone (KM0</li> <li>Mounting Bracket (KMB-33</li> </ul>	• B	uilt-in Bluetooth <sup>®</sup> Module uilt-in 56-bit DES Encryption	DIGITAL - DMR MODE
<ul> <li>DC Cable (KCT-23M)</li> </ul>	· (4	keys programmable by KPG-D1(N)K) loblie Releay Station <sup>2</sup> (DMR Mode <sup>3</sup> )	DMR Tier II Conventional     AMBE+2 <sup>™</sup> VOCODER
Blade Fuse     User Guide	•0	ross Band Repeater (Only ctive Noise Reduction (ANR)	<ul> <li>12.5 kHz Channels</li> </ul>
Premium Warranty: 3 Year	rs ∙ĸ	PG-D1N Windows® FPU lash Firmware Upgrading	Call Interrupt (Direct & Repeater Mode)     Paging Call
All Accessories / options: 1 Year	• N	IIL-STD-810 C/D/E/F/G	Emergency Call     All Group Call
	-	254/55	Late Entry
*BK-version comes with a RF deck	only 1.	Multi Digital Protocol can be used for two(2) the three(3) Digital Protocols set by	Status Messaging     Remote Control by Subscriber Units
	pn	ogramming software. P25/DMR Digital otocols are options.	ARC4 Encryption <sup>3</sup> Site Roaming <sup>3</sup>
			ANALOG MODE
	2. De	Requires L-5023 DB25 Cable between acks.	Conventional Zones     LTR <sup>®</sup> Zones
			<ul> <li>FleetSvnc<sup>®</sup>/II: PTT ID ANI, Caller ID Display.</li> </ul>
			Selective/Group Call, Emergency Status, Text Messages
			<ul> <li>MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check &amp; Inhibit</li> </ul>
			• QT / DQT • Two-Tone (Conventional Zones Only)
			DTMF     Built-in Voice Inversion Scrambler
			3. Future release
	Ĺ	OPTIONAL	
GENERAL FEATURES			MOUNTING & REMOTE CONFIGURATIONS
4000 Channel (KWD-5000CH L     Front Panel Programming (KW)	D-5001EP License Key A	ctivation required )	(Order L-5029-L-5038 for KENWOOD Factory assembling)
microSD/microSDHC Memory C     Built-in Bluetooth® Module for E	Card Slot (KWD-5002SD	License Key Activation required)	<u>KCH-20R</u> Featured Control Head     Single Remote Control Head
Remote Control by Subscriber I	Unites *DMR Only (KWD	-5007RC License Key Activation required)	(KRK Kit & KCT-71 Cable required)  • Dual Remote Control Heads (KCH-19/20R & KRK Kit & KCT-71 Cables required)
			Multiple RF Decks
DIGITAL - P25 MODE			(KRK Kit & KCT-71 Control Cable + KWD-5004MR License Key Activation required required)
Conventional Features (KWD-5     Phase 1 Trunking Features (KW)	VD-5100CV & 5101TR Li	cense Keys Activation required) 5102TR License Keys Activation required)	
<ul> <li>Phase 2 Trunking Features (<u>KV</u></li> <li>Conventional OTAR (<u>KWD-510</u></li> </ul>	3RK License Key Activat	ion required)	
	& 5106DT License Keys	Activation required)	
<ul> <li>Trunking OTAR (KWD-5103RK)</li> </ul>	D-5105VT License Key A	ctivation required)	
Trunking OTAR ( <u>KWD-5103RK</u> Conventional Voting Scan ( <u>KWI</u> Packet Data required for Trunke	D-5105VT License Key A ad OTAR/GPS (KWD-51)	ctivation required) <u>06DT</u> License Keys Activation required)	
Trunking OTAR ( <u>kWD-5103RK</u> Conventional Voting Scan ( <u>kWI</u> Packet Data required for Trunke RADIO (includes: KCH-19M,	D-5105VT License Key A ed OTAR/GPS ( <u>KWD-51</u> KMC-35, KMB-33M, and	I KCT-23M)	
Tunking OTAR ( <u>KWD-5103RK</u> Conventional Voting Scan ( <u>KWI</u> Packet Data required for Trunke RADIO (includes: KCH-19M, NX-5700K VHF (*	D-5105VT License Key A ed OTAR/GPS ( <u>KWD-51</u> KMC-35, KMB-33M, and 136-174MHz), 50 Wat	/ KCT-23M) ts NXDN Conventional / TYPE-C (Gen1/G	en2) Trunking 98
Trunking OTAR ( <u>KWD-5103RK</u> Conventional Voting Scan ( <u>KWU</u> Packet Data required for Trunke <b>RADIO</b> (includes: KCH-19M, NX-5700K VHF ( NX-5800K UHF (	D-5105VT License Key A ed OTAR/GPS ( <u>KWD-51</u> ) KMC-35, KMB-33M, and 136-174MHz), 50 Wat 450-520MHz), 45 Wat	I KCT-23M)	en2) Trunking 98 en2) Trunking 98
Trunking OTAR ( <u>KWP-5103RK</u> Conventional Voting Scan ( <u>KW</u> Packet Data required for Trunke RADIO ( <u>includes: KCH-19M</u> , NX-5700K VHF (; NX-5800K UHF (; NX-5800K2 UHF (;	D-5105VT License Key A ad OTAR/GPS ( <u>KWD-51</u> KMC-35, KMB-33M, and 136-174MHz), 50 Wat 450-520MHz), 45 Wat 380-470MHz), 45 Wat	(KCT-23M) ts NXDN Conventional / TYPE-C (Gen1/Gent ts NXDN Conventional / TYPE-C (Gen1/Gent)/Gent/Gent/Gent/Gent/Gent/Gent/Gent/Gent	an2) Trunking 94 en2) Trunking 94 en2) Trunking 94
Trunking OTAR ( <u>KWP-5108KK</u> Convertional Voting Scan ( <u>KW</u> Packet Data required for Trunke <b>RADIO</b> (includes: KCH-19M,     NX-5700K VHF (' NX-5800K UHF (i NX-5800K2 UHF (; NX-5900K 700 / 8	D-5105VT License Key A ad OTAR/GPS ( <u>KWD-51</u> KMC-35, KMB-33M, and 136-174MHz), 50 Wat 450-520MHz), 45 Wat 380-470MHz), 45 Wat	I KCT-23M) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G	an2) Trunking 94 en2) Trunking 94 en2) Trunking 94
Trunking OTAR ( <u>KWD-5103RK</u> Conventional Volting Scan ( <u>KWD</u> )           • Packet Data required for Trunk           RADIO ( <i>includes: KCH-1991</i> , NX-5700K VHF ( NX-5800K UHF ( NX-5800K UHF ( NX-5900K 700 / £ RF Deck Only	D-5105/T License Key A ad OTAR/GPS ( <u>KWD-51</u> ) KMC-35, KMB-33M, amo 136-174MHz), 50 Wat 450-520MHz), 45 Wat 300-470MHz), 45 Wat 300 MHz, 30/35 Watts	I KCT-23M) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G purchase necessary accessories separate)	en2) Trunking 94 en2) Trunking 99 en2) Trunking 99 en1/Gen2) Trunking 91 en1/Gen2) Trunking 129
Tunking OTAR ( <u>KWD-5103RK</u> Conventional Volting Scan ( <u>KWD</u> )           • Packet Data required for Tunke           RADIO ( <i>includes: KCH-199</i> , NX-5700K VHF ( NX-5800K UHF (: NX-5800K UHF (: NX-5900K 700 / £           NX-5000K         VHF (: NX-5900K 700 / £           RF Deck Only         NX-57           NX-5700BK         NX-57	D-5105/T License Key A ad OTAR/GPS ( <u>KWD-51</u> ) KMC-35, KMB-33M, and 136-174MHz), 50 Wat 450-520MHz), 45 Wat 380-470MHz), 45 Wat 300 MHz, 30/35 Watts MUS 500K (50W, 136-174 M 9 Control Head, KMC-35	I KCT-23M) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G Purchase necessary accessories separately Hz) RF Deck Only Microphon, KMB-33 Bracket, KCT-23 DC Cabl	en2) Trunking 94 en2) Trunking 99 en2) Trunking 99 en1/Gen2) Trunking 91 en1/Gen2) Trunking 124 en1/Gen2) Trunking 72
Tunking OTAR ( <u>KWD-5138K</u> Conventional Volting Scan ( <u>KWD</u> )           Packet Data required for Tunke           RADIO ( <u>includes: KCH-19M</u> , NX-5700K VHF (           NX-5500K         UHF (;           NX-5800K         UHF (;           NX-5900K         700 / £           RF Deck Only         NX-5700BK           NX-5700BK         NX-57           NX-5800BK         NX-58	D-5105/T License Key A do TAR-GRS (KWD-51 KMC-35, KMB-33M, and 136-174MHz), 50 Wat 450-5200MHz), 45 Wat 380-470MHz), 45 Wat 300 MHz, 30/35 Watts MUS 700K (50W, 136-114) 19 Control Head, KMC-35 00K (45VV, 450-520	I KCT-23M) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G Furchass necessary accessories separately Hz) RF Deck Only Microphons, KMB-33 Bracket, KCT-23 DC Cabl Hz) RF Deck Only Microphons, KMB-33 Bracket, KCT-23 DC Cabl	en2) Trunking 94 en2) Trunking 94 en12) Trunking 94 en1/Gen2) Trunking 124 en0 included) 77.
Tunking OTAR ( <u>KWD-51038K</u> Convertional Volting Scan ( <u>KW</u> )           • Packet Data required for Tunke           RADIO ( <u>Includes: KCH-19M</u> , NX-5700K           NX-5700K           WHF (: NX-5800K2           WA-5700K           RF Deck Only           NX-5700BK           NX-5700BK           NX-5800BK2           NX-5800BK2	<u>D_510071</u> License key & do TARCIFS (KWD 51 KMC-33, KMB-33M, and 136-174MHz). 50 Wat 450-520WHz). 45 Wat 380-470MHz). 45 Wat 380-470MHz). 45 Wat 380-470MHz, 30/35 Watts 000K (150W, 136-174 M 19 Control Head, KMC-35 000K (45W, 450-250 M 10 Control Head, KMC-35 004C (45W, 380-470 M 004CH (45W, 380-470 M 004CH (45W, 380-470 M 004CH (45W, 380-470 M ) 004CH (45W, 45W-200 M ) 004CH (4	KG723M) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G <i>Gutchass Incessery accessorics scentrality</i> ) Hz) RF Deck Only Microphone, KMB-33 Bracket, KCT-23 DC Cabi Microphone, KMB-33 Bracket, KCT-23 DC Cabi	an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           ent/Gen2) Trunking         124           /         e not included)         72           e not included)         72
Trunking OTAR ( <u>KWD-51638K</u> Convertional Volting Scan ( <u>KW</u> )           Packet Data required for Trunk           RADIO ( <i>includes: KCH-19M</i> , NX-5700K VHF (' NX-5800K UHF (; NX-5800K UHF (; NX-5900K 700 / 8           RF Deck Only           RF Deck Only           NX-5700BK (NX-57 NX-5700BK (NX-57 NX-5800BK 2)           NX-5800BK 2)           NX-5800BK (XCH-1 NX-5800BK 2)	<u>D_51007</u> L License key A do TARCISP (KWD51 136-174MHz), 50 Wat 450-520MHz), 45 Wat 450-520MHz), 45 Wat 800 MHz, 30/35 Watts 100K (50W, 136-174 M 9 Control Head, KMC53 9 Control Head, KMC53	KG723M) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G <i>Gutchass Incessery accessorics scentrality</i> ) Hz) RF Deck Only Microphone, KMB-33 Bracket, KCT-23 DC Cabi Microphone, KMB-33 Bracket, KCT-23 DC Cabi	an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           en1/Gen2) Trunking         92           e not included)         72           e not included)         72           e not included)         72           e not included)         72
Tunking 0TAR ( <u>KWD-51638K</u> Convertional Volting Scan ( <u>KW</u> )           Packet Data required for Tunke           RADIO ( <i>includes: KCH-19M</i> , NX-5700K VHF (' NX-5800K UHF (' NX-5800K UHF (' NX-5800K UHF (' NX-5800BK NX-57           NX-5700BK         NX-57           NX-5700BK         NX-57           NX-5800BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58	D_510371 License key & do TARCISP (KWD531 40 TARCISP (KWD511 38-174MHz), 50 Wat 450-520MHz), 45 Wat 450-520MHz), 45 Wat 300 MHz, 30/35 Watts 900K (50W, 136-174 M 10 Cartori Heat, KMC 35 900K (45W, 450-520 M 91 Cartori Heat, KMC 35 900K (35W, 700/800 M 91 Cartori Heat, KMC 35 91 Carto	KC7-23/0) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G <i>purchase necessary accessories separately</i> ) Hz) RF Dack Only Microphone, KMB-33 Bracket, KC7-23 DC Cabl Microphone, KMB-34 Bracket, KC7-23 DC Cabl Microphone, KMB	an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           en1/Gen2) Trunking         92           e not included)         72           e not included)         72           e not included)         72           e not included)         72
Tunking 0TAR ( <u>KWD-51638K</u> Convertional Volting Scan ( <u>KW</u> )           Packet Data required for Tunke           RADIO ( <i>includes: KCH-19M</i> , NX-5700K VHF (' NX-5800K UHF (' NX-5800K UHF (' NX-5800K UHF (' NX-5800BK NX-57           NX-5700BK         NX-57           NX-5700BK         NX-57           NX-5800BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58           NX-5900BK         NX-58	<u>D_510371</u> (License key Å) <u>D_510371</u> (License key Å) <u>d_71ArGis (KWD531</u> , March <u>136174MHz), 50 With     <u>30747484</u>, 304     <u>3080-470MHz), 45 Wat     <u>3080-470MHz), 45 Wat     <u>3080-470MHz), 45 Wat     <u>3080, 50005, 136-174     <u>30757484</u>, 45W 30     <u>0070741844, KMC35     <u>0070741844, KMC35     </u><u>0070741844, KMC35     </u><u>URATION KITS     </u> </u></u></u></u></u></u>	KC7-23/0) Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G <i>purchase necessary accessories separately</i> ) Hz) RF Dack Only Microphone, KMB-33 Bracket, KC7-23 DC Cabl Microphone, KMB-34 Bracket, KC7-23 DC Cabl Microphone, KMB	an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           en1/Gen2) Trunking         92           e not included)         72           e not included)         72           e not included)         72           e not included)         72
Turking 0TAR ( <u>KWD-51381K</u> Convertional Volting Scan ( <u>KW</u> )           Packet Data required for Turke           RADIO ( <i>includes: KCH-19M</i> , NX-5700K VHF (' NX-5800K UHF (; NX-5800K UHF (; NX-5900K 700 / 8           RF Deck Only           RF Deck Only           NX-5700BK (NX-57 NX-5700BK (NX-57 NX-5800BK 2)           NX-5800BK (XCH-1 NX-5800BK 2)	D_510371 License key & do TARCISP (KWD531 40 TARCISP (KWD511 38-174MHz), 50 Wat 450-520MHz), 45 Wat 450-520MHz), 45 Wat 300 MHz, 30/35 Watts 900K (50W, 136-174 M 10 Cartori Heat, KMC 35 900K (45W, 450-520 M 91 Cartori Heat, KMC 35 900K (35W, 700/800 M 91 Cartori Heat, KMC 35 91 Carto	KCT-2340 Is NXDN Conventional / TYPE-C (Gen1/G Is NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / TYPE-C (Gen1/G NXDN Conventional / 800MHz TYPE-C (G <i>purchase necessary accessories separately</i> Hz) RF Deck Only Microphone, KMB-33 Bracket, KCT-23 DC Cabl Microphone, KMB-33 Bracket, KCT-23 DC Cabl	an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           an2) Trunking         94           en1/Gen2) Trunking         92           e not included)         72           e not included)         72           e not included)         72           e not included)         72



\* Multiple Speakers configurations allow simultaneous monitoring of multiple RF Decks.

Single Deck Sin	igle Head Remote Mount	LIST
5BM	KCH-19M, KRK-14HM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M, KMC-35	560.25
5FM	KCH-20RM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M, KMC-35, KES-5, KCT-72M	919.20
L-5029	Package Single Deck Single Head Remote (MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation).	75.00
Single Deck Due	al Head Remote Mount	LIST
5BBM	KCH-19M(x2), KRK-14HM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M, KMC- 35(x2)	1021.75
5FFM	KCH-20RM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M, KMC-35(x2), KES-5(x2), KCT-72M(x2)	1739.65
L-5030	Package Single Deck Dual Head Remote (MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation).	140.00
Dual Deck Singl	le Head Single Speaker Remote Mount	LIST
5BMM	KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB- 33M(x2), KMC-35	704.00

(12.9.2014)	Delete "[Available Dec'14]"
(12.11.2014)	Add KRK-14H/15B and KCT-71M2/M3
(12.11.2014)	Add L-5020 & L-5021
(03.25.2015)	Modified for Firmware Version 1.4, ASK and adding KPG-180AP, KCT-73MIC/PTT, KPG-46XM, KCT-72M
(05.13.2015)	Modified for adding LTR, FleetSync
(6.19.2015) k	CH-20RM is added
(08.11.2015)	Version 1.6 & 700/800MHz Added
(08.20.2015)	KMB-34 added
(10.09.2015)	Change expression for KWD-5003BT and KWD-5106DT
(10.13.2015)	Added Software Upgrade Options for KPG-180AP
(12.17.2015)	Added notes for P25 Conventional license in KPG-180AP line
(04.21.2016)	Add note for KCH-20RM about no license activation.
(04.21.2016)	Add KPG-115AUT
(05.26.2016)	Add KAS-10
(09.23.2016)	Add DMR Mode
(09.23.2016)	Add Remote Control
(09.23.2016)	Add IP Profile to KPG-180AP
(10.04.2016)	Add L-5022/5023

	SE* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
5FMM	KCH-20RM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35, KES-5, KCT-72M	1062.95
L-5031	Package Dual Deck Single Head Remote (MUST purchase NX-5x00(8) RF Decks and the Kit with this labor for full installation). Note: MUST submit the Remote Mount Configuration Request Form.	85.00
Dual Deck Single	Head Dual Speaker Remote Mount	LIST
5BMM-MR	KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB- 33M(x2), KMC-35, KES-5(x2), KAP-2(x2)	952.50

October, 2016
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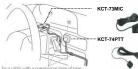
NEXEDG	<sup>E<sup>™</sup></sup> NX-5700/5800/5900	Table of Contents
P25	VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	
Dual Dook Single H	ead Dual Speaker Remote Mount, CON'T	LIST
5FMM-MR	Ear Duar Speaker Kennote Micro, COV 7 KCH-20RM, KRK-158M(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35, KES-5(x2), KAP-2(x2)	1213.50
L-5032	Package Dual Deck Single Head Dual Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	150.00
Dual Deck Dual Hea	nd Single Speaker Remote Mount	LIST
5BBMM	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2)	1165.50
5FFMM	KCH-20RM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2), KES-5(x2), KCT-72M(x2)	1883.40
L-5033	Package Dual Deck Dual Head Single Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	150.00
Dual Deck Dual Hea	nd Dual Speaker Remote Mount	LIST
5BBMM-MR	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2), KES-5(x2), KAP-2(x2)	1414.00
5FFMM-MR	KCH-20RM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2), KES-5(x2), KAP-2(x2)	1936.00
L-5034	Package Dual Deck Dual Head Dual Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	155.00
Triple Deck Single	Head Single Speaker Remote Mount	LIST
5BMMM	KCH-19M, KRK-14HM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35	847.75
5FMMM	KCH-20RM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB-33M(x3), KMC- 35, KES-5, KCT-72M	1206.70
L-5035	Package Triple Deck Single Head Single Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	140.00
Triple Deck Single	Head Triple Speaker Remote Mount	LIST
5BMMM-MR	KCH-19M, KRK-14HM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35, KES-5(x3), KAP-2(x3)	1220.50
5FMMM-MR	KCH-20RM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB-33M(x3), KMC- 35, KES-5(x3), KAP-2(x3)	1481.50
L-5036	Package Triple Deck Single Head Triple Speaker Remote (MUST purchase NX-Sx00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	150.00
Triple Deck Dual He	ad Single Speaker Remote Mount	LIST
5BBMMM	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT- 23M3(x3), KMB-33M(x3), KMC-35(x2)	1309.25
5FFMMM	KCH-20RM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35(x2), KES-5(x2), KCT-72M(x2)	2027.15
L-5037	Package Triple Deck Dual Head Single Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	160.00
Triple Deck Dual He	ad Triple Speaker Remote Mount ( <u>MUST be KENWOOD Assembled</u> )	LIST
5BBMMM-MR	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT- 23M3(x3), KMB-33M(x3), KMC-35(x2), KES-5(x3), KAP-2(x3)	1682.00
5FFMMM-MR	KCH-20RM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35(x2), KES-5(x3), KAP-2(x3)	2204.00
L-5038	Package Triple Deck Dual Head Triple Speaker Remote (MUST purchase NX-500(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	180.00

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NEXEDO	GE* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
FRONT PANEL	S & REMOTE KITS	LIST
KCH-19M	Basic Control Panel	180.00
KCH-20RM	Full Featured Remote Control Panel <u>Note</u> : - microSD License (KWD-5002SD) and Bluetooth SPP License (KWD-5003BT) are <u>NOT</u> required for both KCH-20RM and connected RF Decks KCH-20RM and connected RF Decks can be used of microSD and Bluetooth SPP with <u>NO</u> License Activation. - <u>Remote configuration only</u> , No Internal Speaker included. KES-5/3 is required.	600.00
KRK-14HM	Control Head Interface Kit for KCH-19M	159.00
KRK-15BM	Control Head Remote Kit for a RF Deck	50.00
CABLES		LIST
KCT-71M2	Remote Control Cable (17 feet)	70.00
CT-71M3	Remote Control Cable (25 feet)	80.00
KCT-71M4	Remote Control Cable (1.6 feet)	45.00
CT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	31.50
CT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	34.75
IOBILE INSTA	LLATION ACCESSORIES	LIST
AP-2	Horn Alert/P.A. Relay Option	63.00
CT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line)	13.70
CT-72M	External Accessory Connection Cable for KCH-19M / KCH-20RM	36.70
(LF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
(MB-10	Key lock adapter	26.30
(MB-33M	Standard Mounting Bracket	14.00
(PS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
RA-40GM	GPS Antenna	42.00
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	86.00
(MB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.00
(PS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
	S AND SPEAKERS	LIST
(MC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	52.50
MC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	94.50
ES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
ES-5	External speaker, 40W max input Note: requires KAP-2 (PA/HA unit) or KCT-72M (connection cable) installed.	61.25
CT-73MIC	External Microphone kit w/ 9.8 ft. cord for Safer Driving	27.00
CT-74PTT	External PTT Switch kit w/ 9.8 ft cord for Safer Driving	23.00

To promote driver safety and meet hands-free regulations in certain region NX-5000 series mobile offers external microphone and PTT as options.

NOTE: Connecting to the radio via DB25 terminal on backside of RF Deck or via optional KCT-72 "Connection Cable" on backside of KCH-19M and KCH-20R\*. KCT-73MIC is not compatible with other NX/TK-mobile radios.



NEXEDO		NX-5700/5800/5900	Table of Contents
LICENSING SY	'STEM		LIST
Constitution of the little Constitution of the little Co		KPT-300LMC License Management Client	
the time heavy and the	Nor You Service and Annual	KPT-300LMC is a <u>required</u> software package that is used to authentical and <b>radio feature license</b> keys for the NX-5000 Series radios.	te software (FPU)
Drag License Key Files (* Jitefs and Drop to This Area		KPT-300LMC is available as a free download from Kenwood Tools and with applicable software, such as KPG-D1NK, KAS-12, and KPG-AE1/I	
		NOTE: A license key is required for the KPT-300LMC to authenticate th prior to use. To receive a license key, complete the enclosed "Account and return to the Land Mobile Order Desk.	
Note: KPT-300LN Windows Vista/7	1C is compatible with /8/8.1/10 Only. Windows XP	License Keys will be E-Mailed to the address provided on the Account R	Request Form.
KPT-300LMC	License Management C	Client	NC
L-5000	KPT-300LMC License I CENSE OPTIONS	Key	NC
<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3' 3. License Ketion</li> </ol>		nse Key Request Form. Id Mobile Order Desk via:	
<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3'</li> <li>License Key</li> </ol>	he attached Software Licer ng with your PO to the Lan Imrorderdesk@us.jvckenw I0) 761-8246 ys will be E-mailed to the a	nse Key Request Form. d Mobile Order Desk via: vood.com address provided on the order form. A hard copy will follow by mail for r each PC with software installed. A single license key will not authoriz y Discount Structure	e multiple PCs.
<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3' 3. License Ketion</li> </ol>	he attached Software Licer ng with your PO to the Lan- Imrorderdesk@us.jvckenw 10) 761-8246 ys will be E-mailed to the a <i>be license key is required fo</i>	nse Key Request Form. Id Mobile Order Desk via: vood.com address provided on the order form. A hard copy will follow by mail for or each PC with software installed. A single license key will not authoriz y Discount Structure	e multiple PCs.
Complete ti     Submit alor     a) E-Mail:     b) Fax: (3'     License Ke     Note: A unique  FIELD PROGRAMM	he attached Software Licer Ig with your PO to the Lan Imrordendes &@us. jvckenw 10) 761-8246 ys will be E-mailed to the a license key is required fo Software License Key MING UNIT (FPU)	nse Key Request Form. d Mobile Order Desk via: rood.com address provided on the order form. A hard copy will follow by mail for r each PC with software installed. A single license key will not authoriz y Discount Structure	re multiple PCs. 
Complete ti     Submit alor     a) E-Mail:     b) Fax: (3'     License Ke     Note: A unique  FIELD PROGRAMM	he attached Software Licer growth your PO to the Lan Imrorderdesk @us.jvckenw (0) 761-8246 ys will be E-mailed to the a license key is required fo Software License Key MING UNIT (FPU) License Key for KPG-D	nse Key Request Form. d Mobile Order Desk via: vood.com address provided on the order form. A hard copy will follow by mail for <i>r each PC with software installed. A single license key will not authoriz</i> <i>y Discount Structure</i>	re multiple PCs. 
Complete ti     Submit alor     a) E-Mail:     b) Fax: (3'     License Ke     Note: A unique  FIELD PROGRAMM	he attached Software Licer sg with your PO to the Lan Imrorderdesk@us.lyckenw 0) 761-8246 ys will be E-mailed to the a <i>bleense key is required to</i> Software License Key MING UNIT (FPU) License Key for KPG-D Programming Software	nse Key Request Form. d Mobile Order Desk via: rood.com address provided on the order form. A hard copy will follow by mail for r each PC with software installed. A single license key will not authoriz y Discount Structure	ee multiple PCs.
<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3'</li> <li>License Key</li> </ol>	he attached Software Lices growth your PO to the Lan Introdredsk @us.jvckenw (i) 761-8246 ys will be E-mailed to the a license key is required to Software License Key UNING UNIT (FPU) License Key for KPG-D Programming Software Note: Requires KPT-30 P25 Trunked Prog 1. USB Key Type: - For N2-SiC-MK ( activating KWD-AS: - KWD-ASIC-MK ( Master Key.	nse Key Request Form. d Mobile Order Desk via: rood.com address provided on the order form. A hard copy will follow by mail for r each PC with software installed. A single license key will not authoriz y Discount Structure y Discount Structure 100 100 100 100 100 100 100 10	ee multiple PCs.

	* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
OVER THE AIR PROG	RAMMING (OTAP)	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista7/88.1/10) - License includes Filly (8) radia / One(1) <u>XMD</u> Conventional and Type-C <u>Air</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>P</u> Communication Profile	884.00
	Note: - Requires KPT-300LMC for authentication - Radic to Radio 01AP for <u>P25 Conventional system</u> , requires <u>KWD-AP3-P25</u> license. - MPCPCRET_Mound_Transfer and PMB Systems and surgorded.	
Note: Includes package li	ADE LICENSES FOR KPG-180AP iccense for additional subscriber unit or license for additional profile attached to one computer running KP re KPT-300LMC for authentication.	G-180AP software. All
KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	4167.00
KWD-AP1-CA	NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	250.00
KWD-AP2-CP	NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	800.00
	to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles. 1.4 or higher for the NX-5000 Series portables and mobiles	
Requires firmware version :	2.5 or higher for the NXR-x00/NXR-x10 repeaters.	

Requires immute version 2.5 or higher for the NKR-XUURXE-XUI repeaters. **RADIO FEATURE LICENSE OPTIONS** PCs registered under the same KPT-300LKC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

<u>\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:</u>
 1. Complete the attached Radio Feature Request Form.
 Submit the completed form along with your PO to the Land Mobile Order Desk via:
 a) E-Mail: Imorderdes/Regul/sylcenwood.com
 b) Fax: (310) 761-8246
 License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

## Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.

General Radio Featu	ires	LIST
KWD-5000CH	License Key for 4000 Channel Expansion	420.00
KWD-5001FP	License Key for Front Panel Programming	300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	105.00
KWD-5003BT	License Key for Bluetooth Serial Port Profile (Required for Date Communication) <u>Note</u> : Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.	35.00
KWD-5004MR	License Key for Multiple RF Decks Receiver Note: Required ONLY for the radios with S/N: B5900000 or earlier.	N/C
KWD-5007RC	License Key for Remote Control by Subscriber Units <u>Note:</u> - DMR Mode only. NXDN Mode will be version up. P25 Mode is <u>NOT</u> available. - The license is required for only Transmitting of Remote Control.	\$ 40.00
	<ul> <li>PC command for Remote Control does <u>NOT</u> require the license.</li> </ul>	

NEXEDG	E* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
P25 Radio Features		LIST
WD-5100CV	License Key for P25 Conventional	575.00
WD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	520.00
WD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	400.00
WD-5103RK WD-5105VT	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation) License Key for P25 Conventional Voting Scan	700.00
WD-5106DT	License Key for P25 Trunking OTAR/GPS Data	180.00
	Note: Conventional (OTAR/GPS) does NOT require KWD-5106DT.	LIST
MR Radio Feature: WD-5300CV	License Key for DMR Tier II Conventional	60.00
NCRYPTION N		LIST
WD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key)	850.00
	Order a Labor Code L-5007 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
WD-AE31K	KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) AES & DES Encryption Module (Multi-Key)	550.00
WD-AESTR	Order a Labor Code L-5008 if installation is required.	550.00
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
PG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K	525.00
	Authentication by KPT-300LMC is required <u>Note</u> : KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	
PG-DE1K	DES Encryption Software Key Loader for KWD-AE31K	368.00
	Authentication by KPT-300LMC is required <u>Note</u> : KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	
		1.107
leetSync °& N AS-10	IEXEDGE <sup>®</sup> AVL & MESSAGING FleetSync & NEXEDGE AVL & Messaging Software	LIST 434.00
A3-10	with NEXEDGE Trunking VoIP Dispatch	434.00
	Note: - Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with	
	Windows® XP, VISTA & 7 and Microsoft®MapPoint®2006/2009/2010 (certain format bitmap images can be	
	imported). Refer to KAS-10 product spec sheets and manuals for details. - NEXEDGE Gen2_type-D Trunking and DMR System not supported	
	TED ACCESSORIES	LIST
PG-46XM	Full Speed USB Programming interface cable <u>Note:</u> This cable with USB mode may be used for SD Card Direct Access.	158.50
PG-115	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
PG-115AUT	KVL-4000 Radio Authentication Cable <u>Note:</u> Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	330.00
WD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming	208.00
	Notes: Enables P25 Trunked system programming privileges in a KPG-D1NK. • For NX-5000 series only	
	<ul> <li>Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> <li>Must have KPG-D1NK</li> </ul>	
	<ul> <li>Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in</li> </ul>	
	battery. USB Key must be replaced since the expiration set up dose not work after 3 years.	
WD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - Restricted Purchase Requirements -	500.00
	Notes:	
	For NX-5000 series only.     Sold to trunked system operator (SYSOP) or SYSOP authorized entities only	
	Must have KPG-D1NK     SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form	
	placed on Kenwood Tools.	
NSTALLATION	Purchase KWD-ASK-AK Access Keys if needed. /TUNING CHARGES	LIST
-5000	Account Registration Key	NC
	Note: specify the number of PC's used for Radio Feature License Activation.	
-5001	Factory Activation of Radio Feature Licenses (per Radio) <u>Note:</u> Must purchase Radio Feature Licenses separately.	120.00
	KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	LIST
-5006	/ TUNING CHARGES, CON'T NX-5700/5800 Programming (with basic TX/RX check)	37.50
-5007	Install KWD-AE30K in NX-5000 series Mobile	75.00
-5008	(Must purchase module separately) Install KWD-AE31K in NX-5000 series Mobile	75.00
	(Must purchase module separately)	
-5005	KPG-D1NK System Key File (SKF) <u>Note</u> : Enables P25 Trunked system programming privileges in a KPG-D1NK.	132.00
	- Restricted Purchase Requirements -	
	<ul> <li>Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> </ul>	
	Must have KPG-D1NK.     Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System	
	Keys Request Form placed on Kenwood Tools.	
	<ul> <li>Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an *.SKF file.</li> </ul>	
50/5	- 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file.	
-5015 -5016	Install KAP-2 (Default) HR1/Internal Sp./PA Assemble NX-5000 Mobile for Single Remote Head Control	25.00 42.00
-5016	KCT-71 Extended Control Head Cable (up to 50 ft. max.)	190.00
	<u>Note</u> : Please specify exact length at 1ft. increments when ordering. <u>Caution</u> : Extended control head cables exhibit a loss in speaker audio power to the control heads.	
-5021	KCT-71 Extended Control Head Cable (up to 100 ft. max.)	245.00
	Note: Please specify exact length at 1ft. increments when ordering.	
-5022	Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads. USB Mobile Cable for SD Card Direct Access Support	95.00
	Note: microSD function reuires KWD-5002SD license. DB25 Cable for Mobile Relay Station (Conventional Only)	
-5023	Note:	35.00
	Mobile Relay Station requires Multi RF Deck Configuration. The cable requires between Decks.     Built-in GPS and Bluetooth are not available with Mobile Relay Station.	
	Durini GPS and Budeloun are no available with wobile Relay Station.     DMR is not available and version up later.	
-5029	Package Single Deck Single Head Remote	75.00
-5030	(MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation) Package Single Deck Dual Head Remote	140.00
	(MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation)	
-5031	Package Dual Deck Single Head Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	85.00
	Note: MUST submit the Remote Mount Configuration Request Form.	
-5032	Package Dual Deck Single Head Dual Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	150.00
	Note: MUST submit the Remote Mount Configuration Request Form.	
	Package Dual Deck Dual Head Single Speaker Remote	150.00
-5033	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	
-5033	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	
	Note: MUST submit the Remote Mount Configuration Request Form. Package Dual Deck Dual Head Dual Speaker Remote	155.00
-5033 -5034	Note: MUST submit the Remote Mount Configuration Request Form. Package Dual Deck Dual Head Dual Speaker Remote (MUST purchase NX-5x00(8) RF Decks and the KI with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	
-5033 -5034	Note: MUST submit the Remote Mount Configuration Request Form. Packago Dual Deck Jual Haed Jual Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form. Packago Tripte Deck Single Head Single Speaker Remote	155.00
-5033 -5034 -5035	Note: MUST submit the Remote Mount Configuration Request Form. Package Dual Deck Nual Head Dual Speaker Remote (MUST submit the Remote Mount Configuration Request Form. Note: MUST submit the Remote Mount Configuration Request Form. Package Triple Deck Single Head Single Speaker Remote (MUST purchase NX-SixO(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	140.00
-5033 -5034 -5035	Note: MUST submit the Remote Mount Configuration Request Form. Package Dual Dack Dual Head Remote (MUST purchase NK-5500(B) FC Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form. Package Triple Deck Single Head Single Speaker Remote (MUST purchase NK-5500(B) FC Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form. Package Triple Deck Single Head Triple Speaker Remote	
-5033	Note: MUST submit the Remote Mount Configuration Request Form. Package Dual Deck Nual Head Dual Speaker Remote (MUST submit the Remote Mount Configuration Request Form. Note: MUST submit the Remote Mount Configuration Request Form. Package Triple Deck Single Head Single Speaker Remote (MUST purchase NX-SixO(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	140.00

NEXEC	IGE* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
L-5038	Package Triple Deck Dual Head Triple Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	180.00

NEXEDGE'	NX-5700/5800/5900	Table of
P25	VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	

#### -- IMPORTANT NOTES regarding ENCRYPTION MODULES--

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depanding on the contry, the consignee and the intended use. High hevel encryption is a special commonly that may require an export License to most countries. See www.bis.gov/or more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Rearroad may capacite the following information terms outside the U.S. winnout proper DUCHIS Export Lotenses also or compliances.

Kerwood may capacite the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even
if being returned to Kenwood later:
a) Initial Destination: Initial delivery point if different multimate Destination
(customer distribution centre, headquarters, dealership, manufacture's representative)
\* Business/Agency Name:
\* Contract Presson Name:
\*

WDD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kerwend USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPE or a designated Kerwood USA Corporation employee); shipping/harding by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kerwood will not be responsible for shipments of KWD-AE30K modules to erronecus

## NEXEDGE

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All NX-G series portables include: • Belt Clip (KBH-11) • Universal Connector Cap • Instruction Manual

Purchase Battery, Charger, Antenna separately.

Approved by CSA International Inc. for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations. Note: Class I, Div 2 Group A & B Gases require use of a portable carrying case.

Premium Warranty: 3 Years\*

\* All Accessories / options: 1 Year

## NX-200G/300G

## VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)

# GENERAL FEATURES

GENERAL FEATURES 5 W (103-174 MHz) Models 5 W (400-47, 450-520 MHz) Models 5 H2 (2-14-GD) / 128 Zones 1 21-Kay (Kapad Models 1 2-Kay (Kapad Models 1 2-Kapad Kapad Kapad Models 1 2-Kapad Kapad Kapad

Iransparent Data Mode

DIGITAL – GENERAL
 NXDNP Ölgida jär Interface
 AMBE-21\*\* VOCODER
 6258 12.5 kHz Channels
 Over-the-Air Alias
 Over-the-Air Programming
 Paging Call
 Convertie-Air Programming
 Status Messaging
 Remote Sturik Mil/Check
 Status Messaging
 Remote Sturik Mil/Check
 OPS Location titl Voice
 OPS Location titl Voice
 NXDNP Scrambler Included
 DES Encryption Module Option
 AES/DES Schware Key Loader Option

DIGITAL – CONVENTIONAL MODE

DIGITAL - CONVENTIONAL MODE ORITAL - CONVENTIONAL
 ONE (RAN)
 Individual & Group Selective Call
 Mixed FM/Digital Operation
 Conventional IP Networks
 Site Roaming

# DIGITAL - TRUNKING MODE - Individual Private Call - Group Call & Roadcast Call - Telephone Interconnect - Transmission Trunked Mode - Message Trunked Mode - Call Queening with Priority - Laite Entry (UID & GID) - 4 Priority Monter IDS - Remote Group Add - System Aulo Select

**DIGITAL - MULTI-SITE IP NETWORKS** NEXEDGE Generation1 Syst • 48site Trunkied IP Network • Auto Roaming Registration • Group Registration

NEXEDGE Generation1 System Bridge • 8 Trunked Networks per radio (each in a zone) • UID Lists for each network

NEXEDGE Generation2 System (option) • 1,152 sites Wide Area System • Direct Frequency Assignment SCAN

SCAN
 Single Zone / Multi-Zone / List Scan
 Dual Priority Scan (Conventional)

ANALOG MODE – GENERAL + 25 & 125 kHz Channels - Conventional & ILTR® Zones - FleetSync#III, MDC-1200, DTMF - OT/ DDT & Thor Conventional Zones Only) + One Diversion Scambler - Analog Scambler Soard Capability

MPT ZONES (option) • Single-Site Trunking • Multi-Site Network Trunking • 8 Network Capacity • Network Roaming / Registration

FleetSync®/II (FM) • PTT ID ANI / Caller ID • Selective / Group Call • Emergency Status / Text Messages

MDC-1200 • PTT ID ANI / Caller ID • Emergency / Radio Check & Inhibit

RADIO		LIST
NX-200GK	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	684.00
NX-200GK2	136-174MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	734.00
NX-300GK	450-520MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	684.00
NX-300GK2	400-470MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	684.00
NX-300GK3	450-520MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	734.00
NX-300GK4	400-470MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	734.00
CSA US APPROV	ED MODELS	LIST
	Must Order L-1796 & an Intrinsically Safe Battery per radio	
NX-200-ISCGK	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	684.00
NX-200-ISCGK2	136-174MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	734.00
NX-300-ISCGK	450-520MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	684.00
NX-300-ISCGK2	400-470MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	684.00

#### (01.10.2014) Created (08.07.2015) CSA US Approved

(08.07.2015) MPT Option added

(02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select)

(02.19.2016) Add KVC-23

(02.19.2016) Add KNB-72LC (03.30.2016) Delete KPG-AE151 and Add KPG-AE1/DE1

(03.30.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (03.30.2016) Delete old labor and add new labor for SCMs (04.21.2016) Delete IP67 Models (04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK (05.12.2016) Change CSA-us to Universal Battery (05.26.2016) Add KWD-LIC-USB and L-1819 (08.04.2016) Add note for KWD-AE30K/AE31K (08.25.2016) Delete KVC-20 for discontinuation (10.04.2016) Add KRA-29

VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)	
D MODELS. CON'T	LIST
450-520MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	734.00
400-470MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	734.00
	LIST
VHF helical antenna 146-162 MHz (w/GPS)	17.40
VHF helical antenna 162-174 MHz (w/GPS)	17.40
VHF helical antenna 136-150 MHz (w/GPS)	17.40
UHF helical antenna 440-490 MHz (w/GPS)	17.40
UHF helical antenna 470-520 MHz (w/GPS)	17.40
UHF helical antenna 400-450 MHz (w/GPS)	17.40
VHF helical antenna 146-162 MHz	14.00
VHF helical antenna 162-174 MHz	14.00
VHF helical antenna 136-150 MHz	14.00
UHF whip antenna 440-490 MHz	14.00
UHF whip antenna 470-520 MHz	14.00
UHF whip antenna 400-450 MHz	14.00
VHF low-profile helical antenna 148-162 MHz	13.70
VHF low-profile helical antenna 162-174 MHz	13.70
VHF Low-profile helical antenna 136-150 MHz	13.70
	13.70
UHF low-profile helical antenna 470-512 MHz	13.70
UHF low-profile helical antenna 403-430 MHz	13.70
High gain VHF helically loaded whip antenna 148-162 MHz	34.25
	42.00
· · ·	36.75
•	LIST
	105.00
	122.50
2000 mAh, Ni-MH battery - requires KSC-32/326K charger	157.50
1880 mAh, Li-ion battery - requires KSC-32/326K charger	210.00
Note: the color of the case is orange	68.50
Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC <u>Note:</u> Includes 110/220V auto-switching AC adapter with U.Sstyle line cord plug; requires plug adapter USACC (Contemported and Contemported and Conte	70.00
	630.00
	33.75
Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers	191.00
Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes	119.00
Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-	300.00
SORIES	LIST
Spring action belt clip (2.5")	14.70
Leather swivel belt loop with portable D-Ring attachment	26.30
Leather swivel belt loop / detachable swivel D-Ring back	22.00
Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B/)92/122/123/133/148/154)	36.75
Heavy duty leather case for NX-200/300/TK-5220/5320 (Non DTMF keypad models)	44.25
	DMODELS, CONT         450-520MHz SW, 14 characters Alphanumeric LCD, Full Keypad         400-470MHz SW, 14 characters Alphanumeric LCD, Full Keypad         VHF helical antenna 146-162 MHz (wGPS)         VHF helical antenna 136-150 MHz (wGPS)         UHF helical antenna 440-490 MHz         UHF whip antenna 440-490 MHz         UHF low-profile helical antenna 186-150 MHz         UHF low-profile helical antenna 450-490 MHz

NEXEDGE"	NX-200G/300G	Table of Contents
	VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)	
CARRYING ACCE	SSORIES, CON'T	LIST
KLH-149K2 SPECIAL COLOR	Nylon carrying case for NX-200/300/TK-5220/5320 (DTMF keypad models) HOUSING	26.30 LIST
WD-YH20-NX	Yellow Housing Kit for NX-x00 portables (6 Control Keys Version Only) Order <u>L-1714</u> for Factory Install. (required for Intrinsically Safe & IP67 radio orders)	40.00
WD-OH20-NX	Orange Housing Kit for NX-x00 portables (6 Control Keys Version Only) Order L-1739 for Factory Install. (required for Intrinsically Safe & IP67 radio orders)	40.00
MICROPHONES &	AUDIO ACCESSORIES	LIST
KMC-51DM	MIL-SPEC, IP54/55 DSP Digital Noise-canceling Speaker Mic [see note 2] [Intrinsically Safe Option]	250.00
KMC-52WDM	MIL-SPEC, IP67 (Immersion) DSP Digital Noise-canceling Speaker Mic [see note 2 <u>Note</u> : Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards. [note 2]: To adjust microphone settings different from factory default, download KPG-147NC	300.00
	configuration software and special configuration firmware from Kenwood Tools (no charge).	
KMC-47GPSD	GPS Speaker Microphone [Intrinsically Safe Option]	290.00
KMC-41M	MIL-SPEC, IP54/55 Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory]	96.50
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory] Note: Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards.	114.00
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics [Intrinsically Safe Approved Accessory]	52.50
(CT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Approved Accessory]	215.00
(HS-11BL	2-wire palm mic wearphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50
(HS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	184.00
(HS-14	Lt. Wt. Single mulf headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00
(HS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00
SOFTWARE & US	B OPTIONS	LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. • License Includes 10 radios /1 Serial Port • To add more radios/serial ports, you must contact Kenwood Systems Division [1:eoo-TRUNKING]	550.00
KPG-AE1K	Note: NEXED3E Typeb Trunking and DMR not supported. AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00
WD-NX2G-10	Gen2 Enhanced Option for NX-'00/'10/'11/'20 Portables & Mobiles Must order L1812 for factory installation, or L1812 for field-upgrade option Note:	17.00
KWD-LIC-USB	Import Firmeware and FPU do NOT compatible. MPTs will be available on 30 FY2016.           USB Hardware Key for activating KWD-NX2G-10 options to NX-000 <sup>+1</sup> /0 <sup>+1</sup> 1/ <sup>2</sup> /0 <sup>+</sup> steres           without ESN.         KWD-LIC-USB stores KWD-NX2G-10 options which are purchased           seperately and includes KPG-97USB software for activating radios.           Note:         •           •         Must order L-1819.           •         Must purchase KWD-NX2G-10 seperately.           •         KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order.           •         KWD-LIC-USB cannot be rechargeable. Must purchase II per every orders.           •         KWD-LIC-USB cannot be roch 50,000 KWD-NX2G-10 Genz Ugrade Options.	N/C

NEXEDGE®	NX-200G/300G	Table of Contents
	VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)	
OPTION MODULES	5	LIST
KCT-48VU	External Vibration Unit [Intrinsically Safe Approved Accessory] Mote: Audio accessories cannot be used when this option installed.	49.00
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S.	22.00
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1828 if installation is required. KVID-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KVID-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1). [Intrinsically Safe Option]- Must be Kenwood installed for I.S. Mete: GPS Board must be removed to install this option.	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1829 If installation is required. Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) [Intrinsically Safe Option]- Must be Kenwood installed for I.S. <u>Note:</u> GPS Board must be removed to install this option.	550.00
SERVICE RELATE	D ACCESSORIES	LIST
KPG-111DNK (Ver 4.4 or newer)	Windows <sup>®</sup> Programming Software for NX-200/210/300/410/411/700/800/900/901 (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-36XM	USB Programming interface cable	158.50
	CCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) Note: • Must order L_1727 for Network Level License ID & programming privileges. • Gerz Enhanced Option (KVD-NX26-10) for MPT will be available on 30 FY2016.	103.25
KWD-NX10MPT	- Get 2 Emilated Option (NVD-VAZS-10) for MPT 1 will be available on 30 PT2016. MPT Trunking Field Upgrade Kit for NX series radio Must order L-1729 Note: Not compatible with any other firmware options. Radio does not retain LTR trunking features once the MPT option is installed.	66.70
L-1726	Install MPT option in NX series radio	25.00
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	158.33
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to attr: Kenwood LMR Tuning, Long Beach for installation. Include Kenwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. Nate: see NX series MPT Introduction Sales Bulliotin for details.	85.00
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC
L-1730	Install KCT-57MS (for MPT Emergency Call)	20.00
INSTALLATION / T		LIST
L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
L-1084	NX-200(S)/300(S) Programming (with basic TX/RX check)	37.50
L-1093	NX-200(S)/300(S) Portable KCT-57MS Installation (for NXDN <sup>®</sup> / FleetSync <sup>®</sup> )	20.00
L-1100	Multi-Channel Encoder Modification	25.00
L-1714	Assemble Yellow Housing KWD-YH20-NX with NX-200K/300K/300K3 Portable	27.00
L-1739 L-1796	Assemble Orange Housing KWD-OH20-NX with NX-200K/300K/300K3 Portable Configure NX-200G/300G for Intrinsically Safe	27.00 70.00
L-1812	Must order an I.S. battery Install Gen2 Enhanced Option in NX series radio	25.00
L-1813	(Must purchase KWD-NX2G-10 separately) NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	NC
L-1819	(must purchase KWD-NX2G-10 separately) Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	125.00

NEXED	<sup>BE</sup> NX-200G/300G	Table of Contents
	VHF/UHF Digital & FM Analog Portables (w/ Built-In GPS)	ı
INSTALLATIO	DN / TUNING CHARGES, CON'T	LIST
L-1828	Install KWD-AE30K in NX-200G/300G series Portable (Must purchase module separately)	75.00
L-1829	Install KWD-AE31K in NX-200G/300G series Portable (Must purchase module separately)	75.00

-- IMPORTANT NOTES --Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bursau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative) <sup>1</sup> Business/Agency Name: <sup>2</sup> Contact Person Name: <sup>2</sup> Contact Person Name: <sup>3</sup> Unimate Destination: Final delivery point(s): deployment/distribution <sup>4</sup> Business/Agency Name: <sup>2</sup> Contact Person Name: <sup>3</sup> Contact Person Name: <sup>3</sup> Contact Person Name: <sup>3</sup> Contact Person Name: <sup>4</sup> Contact Person Name: <sup>4</sup> Contact Person Name: <sup>4</sup> Contact Person Name: <sup>5</sup> Contact Person Name: <sup>5</sup> Contact Person Name: <sup>5</sup> Contact Person Name: <sup>5</sup> Contact Person Name: <sup>6</sup> Contact Person Name: <sup>6</sup> Contact Person Name: <sup>7</sup> Contact Person Name: <sup>7</sup> Contact Person Name: <sup>8</sup> Contact Person Na

KWD-AE30 AE5 FIP5140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AE5 FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from JVCKEWNOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated JVCKENWOOD USA Corporation employee): shippinghanding by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

NEXEDGE"	NX-210G Table of Co VHF Digital & FM Analog Portables (w/ Built-In GPS)	
Approved by CSA International Inc. for Charger & Antenna, or purchase Battery, Charger & Antenna separately.     Approved by CSA International Inc. for Classes I, 18 III, Div. 1, Groups C, D, E, F, G, and are also approved for non- incendive use in Class I, Div. 2, Groups A, B, C, D hazardous dor form- incendive use in Class I, Div. 2, Groups A, B, C, D hazardous dor non- incendive use in Class I, Div. 2, Groups A, B, C, D hazardous J, B Gases require use of a portable carrying case.	CENERAL FEATURES 5 W (136:174 MHz) Model 5 12 CH-01 / 128 Zones 12 K-4ky Keypad Model 14 Character Alphanumeric Aliases Backlit Det Matrix LDD 5 Hong Haracter Alphanumeric Aliases 14 Character Alphanumeric Aliases 14 Character Alphanumeric Aliases 15 Hong Haracter Alphanumeric Aliases 16 Font PF & Menu Keys 2 Side PF Keys 2 Side PF Keys 2 Side PF Keys 16 Font PF & Menu Keys 2 Side PF Keys 17 Hong Haracter Albert 18 Font PF CBU Unit 19 Font PF CBU CHEF/G 10 HL STD Driven-Rain <sup>1</sup> 19 Font PF CBU CHEF/G 10 HL STD CHEF/G 10	<ul> <li>DIGITAL - CONVENTIONAL MODE</li> <li>Adivatia &amp; Group Selective Call</li> <li>Alixed FMDiglial Operation</li> <li>Alixed Mode</li> <li>Alixed FMDiglial Operation</li> <li>Alixed Mode</li> <li>Alixed Seage Turked Photomy</li> <li>Bate Turked Photomy</li> <li>Bate Turked Photomy</li> <li>Bate Turked Alixed Photomy</li> <li>Bate Seage Turked Alixed Seagement</li> <li>Bate Seage Seagement</li> <li>Bate Seage Seagement</li> <li>Bate Seage Alixed Area System</li> <li>Bate Seage Alixed Area Capability</li> <li>Alixed Seage Alixed Ar</li></ul>

	- Must remove GPS module	to utilize these options
RADIO		LIST
NX-210GK2	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Keypad	734.00
CSA US APPRO	VED MODELS	LIST
	Must Order L-1750 & an Intrinsically Safe Battery per radio	
NX-210-ISCGK2	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Key (I.S.)	734.00
PACKAGE		LIST
NX-210GK2-LKP	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Keypad VHF Li-Ion Battery Package (NX-210K2 + KNB-33L + KSC-32 + KBH-11 + KRA-26M)	923.00

 3.11.2014
 Created

 3.11.2014
 Added GPS microphones

 (06.24.2015)
 CSA US Added

 (02.18.2016)
 NEXEDDE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select)

 (02.19.2016)
 NeXEDDE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select)

 (02.19.2016)
 Delete KPG-AE151 and Add KPG-AE1/DE1

 (03.30.2016)
 Delete KVD-AE20/AE21/DE21 and Add KVD-AE30/31

 (03.30.2016)
 Delete of Mbor and add new labor for SCMs

 (05.12.2016)
 Change CSA-us to Universal Battery

 (05.26.2016)
 Add KWD-LC-USB and L-1819

 (08.25.2016)
 Delete KVC-20 for discontinuation

 (08.25.2016)
 Delete KVC-20 for discontinuation

 (08.25.2016)
 Delete KVC-181 for discontinuation

 (08.25.2016)
 Delete KVR-16 ro discontinuation

 (09.25.2016)
 Delete KVR-16 ro discontinuat

NEXEDGE	<sup>=•</sup> NX-210G	Table of Contents
	VHF Digital & FM Analog Portables (w/ Built-In GPS)	
	VHF Digital & FM Analog Portables (W/ Built-In GFS)	
ANTENNAS		LIST
KRA-43GM	VHF helical antenna 146-162 MHz (w/GPS)	17.40
KRA-43GM2	VHF helical antenna 162-174 MHz (w/GPS)	17.40
KRA-43GM3	VHF helical antenna 136-150 MHz (w/GPS)	17.40
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-221013	High gain VHF helically loaded whip antenna 148-162 MHz	34.25
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	42.00
BATTERIES AND		42.00 LIST
KNB-41NC	2500 mAh, Ni-MH battery - requires KSC-32/326K charger	
KINB-41INC	[FM & CSA-us ntrinsically Safe Option]	136.50
KNB-73LCM	2000 mAh, Li-ion battery - requires KSC-32/326K charger [CSA-us ntrinsically Safe Option]	139.00
KNB-54N	2500 mAh, Ni-MH battery - requires KSC-32/326K charger	87.50
KNB-33L	2000 mAh, Li-ion battery - requires KSC-32/326K charger	105.00
KNB-43L	3300 mAh, Li-Polymer battery - requires KSC-32/326K charger	163.00
KBP-6	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	68.50
	Note: the color of the case is orange.	
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC <u>Note</u> : Includes 110/220V auto-switching AC adapter with U.Sstyle line cord plug; requires plug adapter for 220V Euro-style cutlets (not supplied).	70.00
KSC-326K	Rapid rate 6-unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACC	ESSORIES	LIST
KBH-10	Low profile spring action belt clip (for use with KNB-33L Only)	8.35
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap	36.75
-	for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148/154)	
KLH-154K2	Heavy duty leather carrying case for NX-210K2/410K2/411K2 <u>Note:</u> No belt loop flap is included. Must order KLH-6SW for belt loop.	44.25
	& AUDIO ACCESSORIES	LIST
KMC-51DM	MIL-SPEC, IP54/55 DSP Digital Noise-canceling Speaker Mic [see note 1] [Intrinsically Safe Approved Accessory]	250.00
KMC-52WDM	* CSA Intrinsically Safe Approved except for Group C gases. MLL-SPEC, IP67 (Immersion) DSP Digital Noise-canceling Speaker Mic [see note 1] Note: Radio does not have an IP67 Immersion option; meets MLL STD810 rain standards [Intrinsically Safe Approved Accessory] * CSA Intrinsically Safe Approved except for Group C gases.	300.00
	[note 1]: To adjust microphone settings different from factory default, download KPG-147NC configuration software and special configuration firmware from Kenwood Tools (no charge).	
KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector [Intrinsically Safe Approved Accessory] Mote: 5/16' Caax cable has wench included (antenna is not included).	250.00

 3.11.2014
 Created

 3.11.2014
 Added GPS microphones

 (08.24.2015)
 CSA US Added

NEXEDG	<sup>⊑∙</sup> NX-210G	Table of Contents
	VHF Digital & FM Analog Portables (w/ Built-In GPS)	
MICROPHONES	& AUDIO ACCESSORIES, CON'T	LIST
KMC-41M	MIL-SPEC, IP54/55 Noise-canceling Speaker Mic	96.50
KMC-42WDM	[Intrinsically Safe Approved Accessory] MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	114.00
KIVIC-42 VV DIVI	[Intrinsically Safe Approved Accessory]	114.00
KEP-1	Note: Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards. 3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics	50.50
KEP-1	[Intrinsically Safe Approved Accessory]	52.50
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Approved Accessory]	215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black)	156.50
KHS-12BL	[Intrinsically Safe Approved Accessory] 3-wire mini lapel mic w/earphone, universal connector (Black)	184.00
NHO-12DL	[Intrinsically Safe Approved Accessory]	164.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	420.00
	[Intrinsically Safe Approved Accessory]	
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00
SOFTWARE & U		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software.	550.00
	License Includes 10 radios / 1 Serial Port*     To add more radios/serial ports, you must contact Kenwood Systems Division	
	[1-800-TRUNKING]	
KPG-AE1K	Note: NEXEDGE Type-D Trunking and DMR not supported. AES/DES Encryption Software Key Loader for KWD-AE31K	525.00
RPG-AETK	Authentication by KPT-300LMC is required	525.00
	Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required	368.00
	Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	
KWD-NX2G-10	Gen2 Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles	17.00
	Must order L-1812 for factory installation, or L-1813 for field-upgrade option	
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series without ESN. KWD-LIC-USB stores KWD-NX2G-10 options which are purchased	N/C
	seperately and includes KPG-97USB software for activating radios.	
	Note: - Must order L-1819.	
	- Must purchase KWD-NX2G-10 seperately.	
	<ul> <li>KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order.</li> <li>KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders.</li> </ul>	
	- KWD-LIC-USB can store up to 50,000 KWD-NX2G-10 Gen2 Upgrade Options.	
OPTION MODUL	ES	LIST
KCT-48VU	External Vibration Unit	49.00
	[Intrinsically Safe Approved Accessory] Note: Audio accessories cannot be used when this option installed.	
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury)	22.00
KWD-AE30K	[Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S. AES FIPS140-2 & DES Encryption Module (Multi-Key)	050.00
KWD-AE30K	Order a Labor Code L-1832 if installation is required.	850.00
	KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
	KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1). [Intrinsically Safe Option]- Must be Kenwood installed for I.S.	
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1833 if installation is required.	550.00
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key	
	loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
	[Intrinsically Safe Option]- Must be Kenwood installed for I.S.	

 3.11.2014
 Created

 3.11.2014
 Added GPS microphones

 (08.24.2015)
 CSA US Added

NEXEDO	<sup>∋∈</sup> NX-210G	Table of Contents
	VHF Digital & FM Analog Portables (w/ Built-In GPS)	
SERVICE RELA	ATED ACCESSORIES	LIST
KPG-111DNK	Windows <sup>®</sup> Programming Software for NX-200/210/300/410/411/700/800/900/901 Note: Version 4.40 is required to program "G" models	103.25
KPG-36XM	USB Programming interface cable	158.50
INSTALLATION	I / TUNING CHARGES	LIST
L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
L-1633	NX-210 Programming (with basic TX/RX check)	37.50
L-1667	Install VGS-1 Voice Guide & Storage Unit in NX-210	25.00
L-1671	NX-210/410/411 Portable KCT-57MS Installation (for NXDN <sup>®</sup> / FleetSync <sup>®</sup> )	20.00
L-1750	Configure NX-210/210G/410/411 for Intrinsically Safe Must order an I.S. battery,	70.00
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)	25.00
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	NC
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	125.00
L-1832	Install KWD-AE30K in NX-210G/410/411 series Portable (Must purchase module separately)	75.00
L-1833	Install KWD-AE31K in NX-210G/410/411 series Portable (Must purchase module separately)	75.00

#### -- IMPORTANT NOTES --

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See were using only one of the information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative) <sup>1</sup> Business/Agency Name: <sup>2</sup> Address: <sup>2</sup> Contact Person Name: <sup>2</sup> Contact Person Name: <sup>3</sup> Unitimate Destination: Final delivery point(s); deployment/distribution <sup>1</sup> Duniese / Newson Name:

D'uninacé Destruization: Final servery point(s), depoyment usaituation
 Subiness/Agency Name:
 Address
 Contact Person Name:
 Contact Priora:
 Contact Priora:
 Contact Priora:
 Intended Use of Radios: Law enforcement, security, operations, etc.

KWD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from J/CKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated J/CKENWOOD USA Corporation employee), shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about ther AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

3.11.2014Created3.11.2014Added GPS microphones (08.24.2015) CSA US Added

NEXEDGE<sup>®</sup>

Table of Contents

		CENERAL FEATURES - SW (1/35-174 MHz) Models - 80 (1/60-70, 456-520 MHz) Models - 280 (2/1-GID / 1/28 Zones + 64 CH-GID / 1/28 Zones + 64 CH-GID / 4 Zones (Mon Display Version) - 12-Key Keypad Models - 8 Character Alphanumeric Aliases - 8 ackaitus LCD Ioons - 17arsmit/Busy/Call Alert/Warn LED - 0n/Off Volume Knob - 16-Position Mechanical Selector - 3 Skiel PF Keys - Bengrency/AUX Key - Bitli-In Motion Sensor - 3000 MW Speaker Audio - 20ne/CH Volice Announcement	DIGITAL – TRUNKING MODE • Individual Privata Call • Grupi Call & Brandcast Call • Telephone Interconnect • Transmission Trunked Mode • Message Trunked Mode • Call Queuing with Priority • Late Entry (UID & GID) • 4 Priority Monitor ID ° • Remote Group Add • System Auto Select DIGITAL – MULT-ISTE IP NETWORKS NEXEDOE Generation (System) • Auto Reaming Registration
All 20 series NX • Belt Clip (KBH- • 2-PIN Connect		KMC-48GPS Speaker Mic Option     KPG-141D Windows <sup>®</sup> PEU     Flash Firmware Upgrading     ML-STD-810 C/D/E/F/G     IPS4/55 Water & Dust Intrusion     PC Serial Interface     SDM Manual Input	NEXEDGE Generation1 System Bridge • 8 Trunked Networks per radio (each in a zone) • UID Lists for each network NEXEDGE Generation2 System (option) • 1,152 sites Wide Area System
<ul> <li>Instruction Man</li> </ul>	nual	Transparent Data Mode	Direct Frequency Assignment
Premium Warra     All Accessories /		DIGITAL – GENERAL • NXDN® Digital Air Interface • AMBE+2™ VOCODER	SCAN <ul> <li>Single Zone / Multi-Zone / List Scan</li> <li>Single Priority Scan (Conventional)</li> </ul>
Charger & Anter	to include Battery, na, or purchase Battery, tenna separately.	Amber 2::::::::::::::::::::::::::::::::::::	ANALOG MODES – GENERAL • 12.5 kHz Channels • Conventional & LTR <sup>®</sup> Zones • FleetSync <sup>®</sup> /II, MDC-1200, DTMF • QT/DQT/Two-Tone
for Intrinsica * Approved f Div. 1, Gro and are a non-Incendive u Div. 2, Grou	Crder <u>L-1732</u> ally Safe Option or Classes I, II & III, Jups C, D, E, F, G Iso approved for use in Classes I, II & III ups A, B, C, D, F, G ous locations.	Status Messaging     Femote Sturkfl/Check     Short & Long Data Messages     OFS Loadon with Voice     NXDN® Scrambler Included     DIGTAL – CONVENTIONAL MODE     OF Rado Access Numbers (RAN)     Individual & Group Selective Call     Mwed FM/Digital Operation	(Conventional Zones Ohly) • Voice Investion Scrambiler (16 Codes) MPT ZONES (option) • Single-Site Trunking • Multi-Site Network Trunking • Network Capacity • Network Capacity • Network Capacity FleetSync <sup>6</sup> /II
		Conventional IP Networks     Site Roaming	• PTT ID ANI / Caller ID • Selective / Group Call • Emergency, Status & Text Messages
			MDC-1200 • PTT ID ANI / Caller ID • Emergency, Radio Check & Inhibit
ADIO			LI
X-220K	136-174 MHz 5W, 6		470
X-220K2		260 CH, 8 characters Alphanumeric LCD, 4 Pl	
X-220K3		260 CH, 8 characters Alphanumeric LCD, 4 Pl	1 N 000
X-320K	450-520 MHz 5W, 6		470
X-320K2		260 CH, 8 characters Alphanumeric LCD, 4 Pl	
X-320K3		260 CH, 8 characters Alphanumeric LCD, 4 Pl	1 N 800
X-320K4	400-470 MHz 5W, 6		470
X-320K5		260 CH, 8 characters Alphanumeric LCD, 4 Pl	
X-320K6		260 CH, 8 characters Alphanumeric LCD, 4 Pl	F Keys, Full Keypad 603
i-ion VALUE			LI
X-220K2-LKV	P VHF Hi-Cap Li-ion V	alue Pack (NX-220K2 + KNB-57L + KSC-25	5LSK + KRA-26M) 713
X-220K2-SLK	VP VHF Li-ion Value Pa	ck (NX-220K2 + KNB-55L + KSC-25	LSK + KRA-26M) 675
IX-320K2-LKV	P UHF Hi-Cap Li-ion \	alue Pack (NX-320K2 + KNB-57L + KSC-25	5LSK + KRA-27M) 713
1X-320112-LIV	VP UHF Li-ion Value Pa	ack (NX-320K2 + KNB-55L + KSC-25	

NX-220/320

(12.09.2011) Delete KSC-25E & 30E (02.17.2012) I.S. Approved (03.01.2012) KMB-16 & 23 Description Updated (03.01.2012) KVC-3 & 4 Description Updated (12.05.2012) Add KHS-31 (12.05.2012) Delete KHS-8BE/9BE (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs (5.13.2015) Add Type-D Firmware and Labor Code (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select) (02.19.2016) Add KVC-23 (4.11.2016) Delete KHS-23 for Discontinuation (04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK. (05.10.2016) Delete Imortant Notes (05.26.2016) Add KWD-LIC-USB and L-1819 (05.26.2016) Add KWD-LIC-USB and L-1819 (06.16.2016) Change description for KSC-25SKJSK (06.21.2016) Add L-1835 (06.22.2016) Change description for KMB-16 (02.52.2016) Delete KWR-1 for discontinuation (10.04.2016) Delete KHS-25

(02.28.2011) Created

(10.27.2011) Add KSC-25L & Packages

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NEXEDGE	<sup>=</sup> NX-220/320	Table of Contents
	VHF/UHF Digital & FM Analog Portable Radios	
PACKAGES		LIST
NX-220K2-NKP	VHF Basic Package (NX-220K2 + KNB-56N + KSC-30 + KRA-26M)	664.00
NX-220K2-SLKP	VHF Standard Slim Package (NX-220K2 + KNB-55L + KSC-25SK + KRA-26M)	689.50
NX-220K2-LKP	VHF Premium Package (NX-220K2 + KNB-57L + KSC-25SK + KRA-26M)	727.50
NX-320K2-NKP	UHF Basic Package (NX-320K2 + KNB-56N + KSC-30 + KRA-27M)	664.00
NX-320K2-SLKP	UHF Standard Slim Package (NX-320K2 + KNB-55L + KSC-25SK + KRA-27M)	689.50
NX-320K2-LKP	UHF Premium Package (NX-320K2 + KNB-57L + KSC-25SK + KRA-27M)	727.50
SGS US I.S. APP	ROVED MODELS	LIST
	Must Order L-1732 & an Intrinsically Safe Battery per radio	
NX-220-ISK	136-174 MHz 5W, 64 CH	470.00
NX-220-ISK2	136-174 MHz 5W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys	553.50
NX-220-ISK3	136-174 MHz 5W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys, Full Keypad	603.50
NX-320-ISK	450-520 MHz 5W, 64 CH	470.00
NX-320-ISK2	450-520 MHz 5W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys	553.50
NX-320-ISK3	450-520 MHz 5W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys, Full Keypad	603.50
NX-320-ISK4	400-470 MHz 5W, 64 CH	470.00
NX-320-ISK5	400-470 MHz 5W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys	553.50
NX-320-ISK6	400-470 MHz 5W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys, Full Keypad	603.50
ANTENNAS		LIST
KRA-22M	VHF Low-profile helical antenna 148-162 MHz	13.70
KRA-22M2	VHF Low -profile helical antenna 162-174 MHz	13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-23M	UHF Low-profile helical antenna 450-490 MHz	13.70
KRA-23M2	UHF Low-profile helical antenna 470-512 MHz	13.70
KRA-23M3	UHF Low-profile helical antenna 403-430 MHz	13.70
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
KRA-27M3	UHF whip antenna 400-450 MHz	14.00
BATTERIES AND		LIST
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	49.00
KNB-68LC	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger [Intrinsically Safe Option]	112.00
KNB-55L	1480 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	60.00
KNB-56N	1400 mAh, Ni-MH battery	65.00
KNB-57L	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	98.00
KSC-25LSK	100~240 volt rapid rate single unit charger for	48.30
KSC-25SK	KNB-40LC(V)/55L/57L/68LC Li-ion Battery 110 volt Rapid rate single unit charger for	62.00
KSC-30	KNB-26N/40LC(V)/55L/56N/57L/68LC 110 volt Regular rate single unit charger for KNB-25A/26N/56N	31.50
KSC-30 KSC-256K	Rapid rate 6-Unit charger for KNB-25A/26N/35L/40LC(V)/55L/56N/57L/68LC	630.00
KSC-256K KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-30M KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	173.00
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00

(02.28.2011) Created (10.27.2011) Add KSC-25L & Packages (12.09.2011) Delete KSC-25E & 30E

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NEXEDG	<sup>E°</sup> NX-220/320	Table of Contents
	VHF/UHF Digital & FM Analog Portable Radios	
	D CHARGERS CON'T	LIST
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25 chargers (chargers not included)	84.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACC	ESSORIES	LIST
KBH-12	Spring action belt clip	8.35
KBH-13DS	Leather swivel belt loop with portable D-Ring attachment	28.85
KLH-179K	Heavy-Duty Leather Case w/Swivel Belt Loop for NX-220K/320K/K4 (Non Display)	49.00
KLH-179K2	Heavy-Duty Leather Case w/Swivel Belt Loop for NX-220K2/320K2/K5 (Display)	49.00
KLH-179K3	Heavy-Duty Leather Case w/Swivel Belt Loop for NX-220K3/320K3/K6 (Full Keypad)	49.00
KLH-180K	Nylon carrying case for NX-220K/320K/K4 (Non Display)	26.30
KLH-180K2	Nylon carrying case for NX-220K2/320K2/K5 (Display)	26.30
KLH-180K2 KLH-180K3	Nylon carrying case for NX-220K3/320K3/K6 (Full Keypad)	
	& AUDIO ACCESSORIES	26.30 LIST
KMC-48GPS	GPS Speaker Microphone	LIST
KIVIC-48GPS	[Intrinsically Safe Approval Accessory]	265.00
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	86.00
	[Intrinsically Safe Approval Accessory]	
KMC-21	Compact speaker microphone	51.50
KEP-2	[Intrinsically Safe Approval Accessory] 2.5mm earphone kit for KMC-17/45 Speaker Mic	50.50
KEP-2	[Intrinsically Safe Approval Accessory]	52.50
KHS-7	Single muff headset w/boom mic	70.00
	[Intrinsically Safe Approval Accessory]	
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
	Three-Wire lapel mic w/earphone (black)	
KHS-9BL KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	<u>166.00</u> 368.00
	[Intrinsically Safe Approval Accessory]	
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	336.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	28.00
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	24.50
SOFTWARE & U	· ·	LIST
		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. • License Includes 10 radios / 1 Sarial Port* • To add more radios/serial ports, you must contact Kenwood Systems Division [1-800-TRUNKING] Mote: NEXEDE TypeD: Trunking and DMR not supported.	550.00
KWD-MS10	Note: NEAEDLE 1 Voe-D Trunking and DWR not subcorreg. Stationary & Motion Detection Must Order L-1700 or L-1835 to activate this feature.	60.00
KWD-NX2G-10	Gen2 Enhanced Option for NX-100/10/11/20 Portables & Mobiles Must order L-1812 for factory installation, or L-1813 for field-upgrade option Note:	17.00
	MPT Firmeware and FPU do NOT compatible. MPTs will be available on 3Q FY2016.	

(02.28.2011) Created (10.27.2011) Add KSC-25L & Packages (12.09.2011) Delete KSC-25E & 30E **KENWOOD** 

NEXEDGI	<sup>E*</sup> NX-220/320	Table of Contents
	VHF/UHF Digital & FM Analog Portable Radios	
SOFTWARE & U	SB OPTIONS CON'T	LIST
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-00/10/*11/*20 series without ESN, KWD-LIC-USB stores KWD-NX2G-10 options which are purchased seperately and includes KPG-97/USB software for activating radios. <u>Note:</u> • <u>Must order L1819.</u> • Must purchase KWD-NX2G-10 seperately. • KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order. • KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order. • KWD-LIC-USB can store up to 50.000 KWD-NX2G-10 Gen2 Upgrade Options.	N/C
SERVICE RELAT	TED ACCESSORIES	LIST
KPG-141DNK	Windows <sup>®</sup> Programming Software for NX-220/320 (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-22UM	USB Programming interface cable	158.50
INSTALLATION /	TUNING CHARGES	LIST
L-836	Assemble KMB-16 with six KSC-25/25L	15.00
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	17.00
L-1699	NX-220/320 Programming (with basic TX/RX check)	37.50
L-1700	Install KWD-MS10 Stationary & Motion Detection Option	NC
L-1835	KWD-MS10 Stationary & Motion Detection Option FIELD-UPGRADE	NC
L-1732	Configure NX-220/320 for Intrinsically Safe	70.00
L-1812	Must Order an I.S. Battery Install Gen2 Enhanced Option in NX series radio	25.00
L-1012	(Must purchase KWD-NX2G-10 separately)	25.00
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	NC
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	125.00
TYPE-D FIRMWA		LIST
KWD-NXD20K	Type-D Trunking Firmware Must order L- <u>1781 or L-1782.</u> <u>Note</u> : Not compatible with any other firmware. Radio does not retain <u>Type-C</u> trunking features once the Type-D Firmware is installed.	NC
L-1781	Install Type-D Trunking Firmware in NX series radio. Factory operation for new radio order.	NC
L-1782	Type-D Trunking Firmware FIELD-UPGRADE. To place an order, please complete the <u>NEXEDGE Type-D Field Upgrade Form</u> available on Kenwood Tools under Forms. Required information includes the exact model #s and serial number for each radio to be updated.	NC
KPG-176DNK	Programming Software for NX-x20 Series Type-D functions	103.25
MPT FIRMWARE	ACCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT	103.25
	(Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) <u>Nate:</u> - Must order <u>L-1727</u> for Network Level License ID & programming privileges. - Genz Enhaned Option (WUPNXQS-10) for MPT will be available on 30 FY2016.	
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio	66.70
	Must order L-1729 Note: Not compatible with any other firmware options.	
L-1726	Radio does not retain LTR trunking features once the MPT option is installed. Install MPT option in NX series radio	25.00
L-1726 L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	25.00
L=1/2/	However Educate ID for NO - IFOD (N/ N/ Series Frogrammer	158.33

NEXED	NX-220/320	Table of Contents
	VHF/UHF Digital & FM Analog Portable Radios	
MPT FIRMW	ARE/ACCESSORIES/TUNING, CON'T	LIST
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to attn:	85.00
	For previously purchased NX series radios. Order L-1728 through LMR order deskrep. Ship radios to atth: Kenwood LMR Tuning, Long Beach for installation. Include Kenwood order number for L-1728 provided by	
	order desk & copy of company P.O. or P.O. number.	
	Note: see NX series MPT Introduction Sales Bulletin for details	
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE	NC
-	(Must purchase KWD-NX10MPT separately)	
L-1730	Install KCT-57MS (for MPT Emergency Call)	20.00
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10	125.00

(02.28.2011) Created (10.27.2011) Add KSC-25L & Packages (12.09.2011) Delete KSC-25E & 30E

## KENWOOD

## NEXEDGE<sup>®</sup>

# NX-240V/340U

## VHF/UHF Digital & FM Analog Portable Radios

## All 40 series NX portables include:

- Li-ion Battery (KNB-45L)
   Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
   Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years\*
- \* All Accessories / options: 1 Year

- GENERAL FEATURES • 5 W (136-174 MHz) VHF
- 5 W (450-520, 400-470 MHz) UHF
- Max. 16 CH per Zone
- 2 Conventional Zones
- Transmit / Busy / Call Alert / Scan / Warn LED
   4-Color LED (Blue/Red/Green/Orange)
- On/Off Volume Knob
- 2 PF Keys
- 1.0 W Speaker Audio
   16-Position Mechanical Selector
- Zone / CH# Voice Announcement
   KMC-48GPS Speaker Mic Option
- VOX Ready
   Emergency Call Features
- Lone Worker Alert (per CH) Time Out Timer
- Busy Channel Lockout
   Low Battery Warning
- Battery Saver
   KPG-170D Windows FPU
- Wireless Cloning
- Password Protected
   MIL-STD-810 C/D/E/F/G
- IP-54/55 Water & Dust Intrusion

- GENERAL FEATURES NXDN® Digital Air Interface AMBE+2™VOCODER 6.25 & 12.5 kHz Channels
- Over-the-Air Alias (TX Only)
- Paging Call
   Emergency Call
- All Group Call
   Status Messaging
- Remote Stun/Kill Remote Check

## DIGITAL - CONVENTIONAL MODE

- 64 Radio Access Numbers (RAN)
- Individual & Group Selective Call Site Roaming

## DIGITAL - TYPE-D TRUNKING MODE \*

Table of Contents

- Individual Call
   Group Call & All Group Call

- Emergency Call Paging Call Transmission Trunked Mode
- Late Entry
   ESN Validation
- Status Messaging
   <u>Hardware Version 2.0</u> can be abailable.
- · Single Priority Scan (Conventional)

## ANALOG MODES - GENERAL

- Conventional Zones

- Emergency Status
   Send GPS Data

- MDC-1200 PTT ID ANI / Caller ID
- Emergency, Radio Check & Inhibit

#### (8.01.2013) Created (2.26.2014) Added NX-300K2

- (2.26.2014) Accessories Added
- (7.01.2014) Price Reduction
- (12.12.2015) Add Type-D Trunking
- (1.14.2016) Change form KMC-45 to KMC-45D (4.11.2016) Delete KHS-23 for Discontinuation
- (07.08.2016) Add KEP-1 (10.04.2016) Delete KHS-25

## 12.5 kHz Channels

## FleetSync®/II

- PTT ID ANI
- Selective / Group Call
- Paging Call

- RADIO LIST 136-174 MHz VHF 5W, 16 Ch / 2 Zones NX-240VK 392.00 450-520 MHz UHE 5W, 16 Ch / 2 Zones NX-340UK 409.00 400-470 MHz UHF 5W, 16 Ch / 2 Zones NX-340UK2 409.00 ANTENNAS LIST VHF helical antenna 146-162 MHz KRA-26M 14.00 KRA-26M2 VHF helical antenna 162-174 MHz 14.00 VHF helical antenna 136-150 MHz KRA-26M3 14.00 KRA-27M UHF whip antenna 440-490 MHz 14.00 UHF whip antenna 470-520 MHz KRA-27M2 14.00 UHF whip antenna 403-430 MHz KRA-27M3 14.00 KRA-41M VHF stubby antenna 148-162 MHz 13.70 VHF stubby antenna 162-174 MHz KRA-41M2 13.70 KRA-41M3 VHF stubby antenna 136-150 MHz 13.70 UHF stubby antenna 440-490 MHz KRA-42M 13.70 UHF stubby antenna 470-520 MHz KRA-42M2 13.70 KRA-42M3 UHF stubby antenna 403-430 MHz 13.70 VHF low profile antenna 148-162 MHz KRA-22M 13.70 KRA-22M2 VHF low profile antenna 162-174 MHz 13.70 VHF Low-profile helical antenna 136-150 MHz KRA-22M3 13.70

ANTENNAS, C	CON'T	LIST
KRA-23M	UHF low profile antenna 450-490 MHz	13.70
KRA-23M2	UHF low profile antenna 470-520 MHz	13.70
KRA-23M3	UHF low profile antenna 403-430 MHz	13.70
BATTERIES A	ND CHARGERS	LIST
KMB-28	Six Unit Charger Adapter for the KSC-23BK/28/35SK chargers (chargers not included) <u>Note:</u> The six KSC-xx AC wall Adapters are NOT used in the KMB-28 installation A supplied in-line AC- DC switching power supply with six DC plugs supply the six installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters. Dimensions: 10.6W, y 2.4(H) x 9.5(D) inches, Weight: approx. 10 lbs. (loaded with chargers/radios)	208.50
KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	63.00
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	75.00
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	36.75
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L	31.50
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	36.70
KVC-22	110220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger & KNB-45L Li- ion battery (charger not included)	36.70

- SCAN Single Zone Scan
  - - FleetSync®/II, MDC-1200, DTMF
    - QT/DQT/Two-Tone (Conv. Zones Only)
       Voice Inversion Scrambler (16 Codes)

Table of Contents

## NEXEDGE®

## NX-240V/340U VHF/UHF Digital & FM Analog Portable Radios

CARRYING ACC	CESSORIES	LIST
KBH-10	Spring action belt clip	8.35
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-187	Nylon case for TK-*200/*202/*300/*302/*400/*402 Series	14.70
MICROPHONES	& AUDIO ACCESSORIES	LIST
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	86.00
KMC-48GPS	GPS Speaker Microphone	265.00
KEP-1	3.5mm earphone kit for KMC-48GPS Speaker Mics	52.50
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	52.50
KMC-21	Compact speaker microphone	51.50
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	368.00
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	336.00
KHS-7	Single muff headset w/boom mic	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-170DK	Windows <sup>®</sup> Programming Software for NX-240V/340U (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-22UM	USB Programming interface cable	158.50
TYPE-D TRUNK	ING ACTIVATION/TUNING	LIST
KWD-NXD40K	Type-D Trunking Option. Must order <u>L-1800</u> or <u>L-1801.</u> <u>Note</u> : Compatible with firmware version 3.00 or later. Only Hardware <u>Version 2.0</u> can be available.	10.00
L-1800	Factory Activation of Type-D Trunking Option.	NC

(8.01.2013) Created

NEXEC	DGE* NX-240V/340U VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
TYPE-D TRU	JNKING ACTIVATION/TUNING, CON'T	LIST
L-1801	Type-D Trunking Option FIELD-UPGRADE. To place an order, please complete the <u>NEXEDGE Type-D Field Upgrade Form</u> available on Kenwood Tools under Forms. Required information includes the exact model #s and serial number for each radio to be updated.	NC
INSTALLAT	ION / TUNING CHARGES	LIST
L-1767	NX-240V/340U Programming (with basic TX/RX check)	37.50

(8.01.2013) Created

JEXEDGE'

NX-411K2-LKP

Table of Contents

		NA-410/411			
	800/9	900 MHz Digital & FM Analog Portab	le Radios		(12.22.2010) Created
					(01.14.2011) OTAP Del
		GENERAL FEATURES	DIGITAL - TRUNKING MODE		(01.14.2011) KPG-36UM
		<ul> <li>3.0 W (806-870 MHz) Model</li> </ul>	<ul> <li>Individual Private Call</li> </ul>		(02.01.2011) KPG-36AM
-		<ul> <li>2.5 W (896-941 MHz) Model</li> <li>512 CH-GID / 128 Zones</li> </ul>	Group Call & Broadcast Call     Transmission Trunked Mode		(02.01.2011) KCT-53UM
		12-Key Keypad	Message Trunked Mode		(03.08.2011) Add KPG-
		<ul> <li>14 Character Alphanumeric Aliases</li> </ul>	<ul> <li>Call Queuing with Priority</li> </ul>		(03.24.2011) Add KRA-
		Backlit Dot Matrix LCD     Function/Status LCD Icons	Late Entry (UID & GID)     4 Priority Monitor ID's		(10.19.2011) Add KPG-
		<ul> <li>Multi-Language Display</li> </ul>	<ul> <li>Remote Group Add</li> </ul>		
		Date & 12/24 Hour Time Clock     Transmit/Busy/Call Alert/Warn LED	System Auto Select		(10.19.2011) Add KWD
Constant of		On/Off Volume Knob	DIGITAL - MULTI-SITE IP NETWOR	KS	(10.19.2011) Add L-172
222		<ul> <li>6 Front PF &amp; Menu Keys</li> <li>2 Side PF Keys</li> </ul>	• Asite Trunkied IP Network		(10.19.2011) Add -IMPC
1 888		<ul> <li>Emergency/AUX Key</li> </ul>	<ul> <li>Auto Roaming Registration</li> </ul>		(10.28.2011) Add NX-41
888		<ul> <li>500 mW Speaker Audio</li> <li>KMC-47GPS Speaker Mic Option</li> </ul>	Group Registration		(10.28.2011) Add KRA-
		<ul> <li>KPG-111D Windows<sup>®</sup> FPU</li> </ul>	NEXEDGE Generation1 System Bridge		(11.07.2011) Add KRA-
		<ul> <li>Flash Firmware Upgrading</li> <li>MIL-STD-810 C/D/E/F/G</li> </ul>	<ul> <li>8 Trunked Networks per radio (each in a</li> </ul>	zone)	(12.22.2011) Change Kl
410 portable include	es:	<ul> <li>IP54/55 Water &amp; Dust Intrusion</li> </ul>	UID Lists for each network		(03.01.2012) KMB-23 D
Belt Clip (KBH-11)		PC Serial Interface     SDM Manual Input	NEXEDGE Generation2 System (option)		(03.01.2012) KMC-51M
<ul> <li>Universal Connector</li> <li>Instruction Manual</li> </ul>	rCap	Transparent Data Mode	<ul> <li>1,152 sites Wide Area System</li> <li>Direct Frequency Assignment</li> </ul>		(05.04.2012) KLH-154K
Premium Warranty:	3 Years*		Sheet Frequency Assignment		(11.13.2012) Add ISK2
		<ul> <li>DIGITAL – GENERAL</li> <li>NXDN<sup>®</sup> Digital Air Interface</li> </ul>	SCAN		(02.13.2013) Change th
* All Accessories / option	is: 1 Year	<ul> <li>AMBE+2<sup>™</sup> VOCODER</li> </ul>	<ul> <li>Single Zone / Multi-Zone / List Scan</li> <li>Dual Priority Scan (Conventional)</li> </ul>		(07.23.2013) Add multi s
Order packages to inc	clude Battery,	<ul> <li>6.25 &amp; 12.5 kHz Channels</li> <li>Over-the-Air Alias</li> </ul>			(07.24.2013) Combine s
Charger & Antenna, c		<ul> <li>Over-the-Air Programming</li> </ul>	ANALOG MODES - GENERAL		(9.30.2013) Reorganize
Charger, and Antenna	a separately.	Paging Call     Emergency Call	<ul> <li>25** &amp; 12.5 kHz Channels</li> <li>NPSPAC Channels**</li> </ul>		(10.3.2013) Replaced lin
		Emergency Call     All Group Call	Conventional & LTR® Zones		(09.02.2015) Discontinu
		Status Messaging	<ul> <li>FleetSync8/II, MDC-1200, DTMF</li> <li>QT / DQT (Conventional Zones Only)</li> </ul>		(02.18.2016) NEXEDGE
		Remote Stun/Kill/Check     Short & Long Data Messages	<ul> <li>Voice Inversion Scrambler</li> </ul>		
		<ul> <li>GPS Location with Voice</li> </ul>	<ul> <li>Analog Scrambler Board Capability</li> </ul>		(02.19.2016) Add KVC-
* Approved by CSA Int Classes I, II & III, Div. 1	ternational Inc. for	NXDN® Scrambler Included     DES Encryption Module Option	MPT ZONES (option)		(03.30.2016) Delete KP0
F, G and are also ap	proved for non-	<ul> <li>AES &amp; DES Encryption Module Option</li> </ul>	<ul> <li>Single-Site Trunking</li> </ul>		(03.30.2016) Delete KW
Incendive use in Class	I, Div. 2, Groups	AES/DES Software Key Loader Option	Multi-Site Network Trunking     8 Network Capacity		(03.30.2016) Delete old
A, B, C, D hazardo Note: Class I, Div 2 G		DIGITAL – CONVENTIONAL MODE	<ul> <li>Network Roaming / Registration</li> </ul>		(04.21.2016) Add Gen2
require use of a portal	ble carrying case.	<ul> <li>64 Radio Access Numbers (RAN)</li> <li>Individual &amp; Group Selective Call</li> </ul>	FleetSvnc®/II		(05.12.2016) Change C
		Mixed FM/Digital Operation	PTT ID ANI / Caller ID		(05.26.2016) Add KWD
		Conventional IP Networks	<ul> <li>Selective / Group Call</li> </ul>		(08.25.2016) Delete KV0
		Site Roaming	<ul> <li>Emergency, Status &amp; Text Messages</li> </ul>		(08.25.2016) Delete KW
			MDC-1200		(08.25.2016) Delete KV(
			PTT ID ANI / Caller ID		(10.05.2016) Add KNB-
			Emergency, Radio Check & Inhibit		
RADIO			** 800 MHz model only.1	LIST	
NX-410K2	806-870MHz 3W, 1	4 characters Alphanumeric LCD, 6 Control Keys	s, Full Keypad	850.00	
NX-411K2	896-941MHz 2.5W	, 14 characters Alphanumeric LCD, 6 Control Ke	eys, Full Keypad	850.00	
CSA APPROVED	I.S. MODEL			LIST	
	Mu	st Order L-1750 & an Intrinsically Safe Battery p	er radio		
NX-410-ISK2	806-870MHz 3W, 1	4 characters Alphanumeric LCD, 6 Control Keys	s, Full Key (I.S.)	850.00	
NX-411-ISK2	896-941MHz 2.5W	, 14 characters Alphanumeric LCD, 6 Control Ke	eys, Full Key (I.S)	850.00	
PACKAGE				LIST	
NX-410K2-LKP		4 characters Alphanumeric LCD, 6 Control Keys age (NX-410K2 + KNB-33L + KSC-32 + KBH-11		1,060.00	
		age (INA-410K2 + KINB-33L + K3C-32 + KBH-11			

896-941MHz 2.5W, 14 characters Alphanumeric LCD, 6 Control Keys, Full Keypad Li-Ion Battery Package (NX-411K2 + KNB-33L + KSC-32 + KBH-11 + KRA-38K)

# NX-410/411

#### (01.14.2011) OTAP Deleted (01.14.2011) KPG-36UM Deleted (02.01.2011) KPG-36AM replaced by KPG-36UM (02.01.2011) KCT-53UM deleted (03.08.2011) Add KPG-150AP (03.24.2011) Add KRA-36 (10.19.2011) Add KPG-151AE (10.19.2011) Add KWD-AE20/AE21/DE21 (10.19.2011) Add L-1723/1724/1725 (10.19.2011) Add -IMPORTANT NOTES-(10.28.2011) Add NX-411 900MHz (10.28.2011) Add KRA-38K (11.07.2011) Add KRA-39 (12.22.2011) Change KRA-24M to KRA-38K in PKG (03.01.2012) KMB-23 Description Updated (03.01.2012) KMC-51M & 52W were added (05.04.2012) KLH-154K2 needs KLH-6SW (11.13.2012) Add ISK2 (02.13.2013) Change the FPU to "DN (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (9.30.2013) Reorganized Accessories/Optic tallation (10.3.2013) Replaced line art with photographs (09.02.2015) Discontinue KRA-24M (02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select) (02.19.2016) Add KVC-23 (03.30.2016) Delete KPG-AE151 and Add KPG-AE1/DE1 (03.30.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (03.30.2016) Delete old labor and add new labor for SCMs (04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK. (05.12.2016) Change CSA-us to Universal Battery (05.26.2016) Add KWD-LIC-USB and L-1819 (08.25.2016) Delete KVC-20 for discontinuation (08.25.2016) Delete KWR-1 for discontinuation (08.25.2016) Delete KWR-1 for discontinuation

(10.05.2016) Add KNB-73LCM

1,060.00

250.00

96.50

114.00

52.50

NEXEDGI	<sup>E⁺</sup> NX-410/411	Table of Contents
	800/900 MHz Digital & FM Analog Portable Radios	
ANTENNAS	700/000 Mile White Astense	LIST
KRA-32K	700/800 MHz Whip Antenna	35.00
KRA-36	700/800 MHz Stubby Antenna	25.00
KRA-38K	800/900 MHz Whip Antenna	35.00
KRA-39	900 MHz Stubby Antenna	25.00
BATTERIES AN		LIST
KNB-54N	2500 mAh, Ni-MH battery - requires KSC-32/326K charger	87.50
KNB-33L	2000 mAh, Li-ion battery - requires KSC-32/326K charger	105.00
KNB-41NC	2500 mAh, Ni-MH battery - requires KSC-32/326K charger [FM & CSA-us ntrinsically Safe Option]	136.50
KNB-73LCM	2000 mAh, Li-ion battery - requires KSC-32/326K charger [CSA-us ntrinsically Safe Option]	139.00
KNB-43L	3300 mAh, Li-Polymer battery - requires KSC-32/326K charger	163.00
KBP-6	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included Note: the color of the case is orange.	68.50
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC <u>Note</u> : Includes 110/220V auto-switching AC adapter with U.Sstyle line cord plug; requires plug adapter for 220V Euro-style outlets (not supplied).	70.00
KSC-326K	Rapid rate 6-unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACC	CESSORIES	LIST
KBH-10	Low profile spring action belt clip (for use with KNB-33L Only)	8.35
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148/154)	36.75
KLH-154K2	Heavy duty leather carrying case for NX-210K2/410K2/411K2 Note: No belt loop flap is included. Must order KLH-6SW for belt loop.	44.25
MICROPHONES	& AUDIO ACCESSORIES	LIST
KMC-51DM	MIL-SPEC, IP54/55 DSP Digital Noise-canceling Speaker Mic [see note 1]	250.00
	[Intrinsically Safe Approved Accessory] * CSA Intrinsically Safe Approved except for Group C gases	
KMC-52WDM	MIL-SPEC, IP67 (Immersion) DSP Digital Noise-canceling Speaker Mic <u>[see note 1]</u> Note: Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards	300.00
	[Intrinsically Safe Approved Accessory] * CSA Intrinsically Safe Approved except for Group C gases	
	[Note 1]: To adjust microphone settings different from factory default, download KPG-147NC configuration software and special configuration firmware from Kenwood Tools (no charge).	
KMC-47GPSD	GPS Speaker Microphone [Intrinsically Safe Approved Accessory] * CSA Intrinsically Safe Approved except for Group C gases	290.00

[Intrinsically Safe Approved Accessory] \* CSA Intrinsically Safe Approved except for Group C gases MIL-SPEC, Speaker Mic. with Antenna Connector

Note: 5/16" Coax cable hex wrench included (antenna is not included). MIL-SPEC, IP54/55 Noise-canceling Speaker Mic

MIL-SPFC, IP34/b5 Noise-canceing Speaker Mic [Intrinsically Safe Approved Accessory] MIL-SPEC, IP57 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory] <u>Note</u>: Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards 3.5mm carphone kit for KMC-SZ/EX/41/M42WM Speaker Mics [Intrinsically Safe Approved Accessory]

[Intrinsically Safe Approved Accessory]

KMC-40

KMC-41M

KEP-1

KMC-42WM

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NEXEDGE	<sup>e</sup> NX-410/411	Table of Contents
	800/900 MHz Digital & FM Analog Portable Radios	
MICROPHONES of	& AUDIO ACCESSORIES - CON'T	LIST
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Approved Accessory]	215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00
SOFTWARE OPT		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. • License Includes 10 radios / 1 Serial Port* • To add more radios/serial ports, you must contact Kenwood Systems Division [1:a00-TRUMKING]	550.00
KPG-AE1K	Note: INXEDGE Tweeb DTunking and DMR not succonted. AES/DES Encryption Software Key Loader for KWD-AES1K Authentication by KPT-300LMC is required Note: KPC-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPC-9E1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00
KWD-NX2G-10	Gen2 Enhanced Option for NX-'00/"10/"11/"20 Portables & Mobiles Must order L-1812 for factory installation, or L-1813 for field-upgrade option Note:	17.00
KWD-LIC-USB	MPT Firmware and FPU do NOT compatible. MPTs will be available on 3Q FY2016. USB Hardware Key for activating KWD-NX2C-10 options to NX-00*10/*11/20 series without ESN, KWD-LIC-USB stores KWD-NX2C-10 options to NX-00*10/*11/20 series seperately and includes KPG-97USB software for activating radios. Note: - Must purchase KWD-NX2G-10 seperately. - Must purchase KWD-NX2G-10 seperately. - KWD-LIC-USB caunot be recharguable. Must purchase it per every orders.	N/C
OPTION MODULI	- KWD-LIC-USB can store up to 50,000 KWD-NX2G-10 Gen2 Upgrade Options.  S	LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1632 if installation is required. KWD-AE30K requires: a Motorola KV-3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled tem (ECCN 5A002A.1). [Intrinsically Safe Option]. Must be Kerwood installed for I.S.	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1833 if installation is required. Note: Requires KPG-E1/DE's oftware key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) [Intrinsically Safe Option]- Must be Kenwood installed for I.S.	550.00
KCT-48VU	External Vibration Unit [Intrinsically Safe Approved Accessory] Note: Audio accessories cannot be used when this option installed.	49.00
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory] - Must be Kenwood installed for I.S.	22.00
SERVICE RELAT	ED ACCESSORIES	LIST
KPG-111DNK	Windows <sup>®</sup> Programming Software for NX-200/210/300/410/411/700/800/900/901 (Compliant with FCC Part 90 Narrowbanding)	103.25

KENWOOD
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NEXEDGE	<sup>E*</sup> NX-410/411	Table of Contents
	800/900 MHz Digital & FM Analog Portable Radios	
INSTALLATION /	TUNING CHARGES	LIST
L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
L-1671	NX-210/410/411 Portable KCT-57MS Installation (for NXDN <sup>®</sup> / FleetSync <sup>®</sup> )	20.00
L-1691	NX-410/411 Programming (with basic TX/RX check)	37.50
L-1750	Configure NX-210/410/411 for Intrinsically Safe Must order an I.S. battery,	70.00
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)	25.00
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	NC
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	125.00
L-1832	Install KWD-AE30K in NX-210G/410/411 series Portable (Must purchase module separately)	75.00
L-1833	Install KWD-AE31K in NX-210G/410/411 series Portable (Must purchase module separately)	75.00
MPT FIRMWARE	ACCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) Note: - Must order <u>L-1727</u> for Network Level License ID & programming privileges. - Gen2 Enhanced Option (KWD-NZG-10) for MPT will be available on 30 FY2016.	103.25
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio Must order L-1729 Note: Not compatible with any other firmware options. Rado does not retain LTR runking features once the MPT option is installed.	66.70
L-1726	Install MPT option in NX series radio	25.00
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	158.33
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to attr:: Kerwood LMR Tuning, Long Beach for installation. Include Kerwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. Notes: see NX series MPT Introduction Sales Bulletin for details.	85.00
L-1729	NOTE: See NA Series MPT Introduction Sales Eulerin for details. NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC
L-1730	Install KCT-57MS (for MPT Emergency Call)	20.00

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#### NEXEDGE"

NX-410/411 800/900 MHz Digital & FM Analog Portable Radios

#### -- IMPORTANT NOTES --

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most courties. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

even in being returned to Nerwood later:
a) Initial Destination: Initial delivery point if different from Ultimate Destination
(customer distubilion center, headquarters, dealership, manufacturer's representative)
\* Business/Agency Name:
\* Address:
\* Unitiate Destination: Final delivery point(s); deployment/distribution
\* Business/Agency Name:
\* Address:
\* Contact Person Name:
\* Address:
\* Contact Person Name:
\* Contact Person Name

KWD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from J/CKENVOOD USA Corporation directly to the end user outsomer by a trusted carrier (FEDEX, UPS or a designated J/CKENWOOD USA Corporation employee), shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use outsomer about ther AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

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#### NEXEDGE'

# All 420 series NX portables include: • Belt Clip (KBH-12) • Antenna (KRA-33K) • 2-PIN Connector Cap • Instruction Manual • Premium Warranty: 3 Years\*

\* All Accessories / options: 1 Year

Order packages to include Battery, & Charger, or purchase Battery, & Charger separately.

# --- Must Order L-1732 for Intrinsically Safe Option \* Approved for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-incendive use in Classes I, II & III Div. 2, Groups A, B, C, D, F, G hazardous locations.

CENERAL FEATURES 3.0 W (606 - 570 MHz) 220 CH-GID / 128 Zonas 4 Front FP Kays, 12:Kay Keyaad 8 Character Alphanumeric Aliases Backill LCO & Keys Function / Status LCD Lons 1 Transmit (Bayy Call Alert / Wan LED 0 n / Of Volume Knob 3 Gila FP Keys 3 Gila FP Keys 2 Sind FPK Volce Announcement 3 Gila PF Volce Announcement 500 mW Speaker Audio 2 Sone / CH# Volce Announcement 5 KMC 44GPS Speaker Mc Option 2 Sone / CH# Volce Announcement 5 KMC 44GPS Speaker Mc Option 1 FPG-51 ti DDW Windows<sup>4</sup> FPU 4 Will-STD-810 CD/EF/G 1 FP4/55 Dusk W Water Intrusion PC Serial Interface 3 SDM Manual Input 1 Transparent Data Mode GENERAL FEATURES

NX-420 800 MHz Digital & FM Analog Portable Radios

#### DIGITAL - GENERAL

DIGITAL – GENERAL • NOXP® bigital Ar interface • AMBE+2<sup>118</sup> VOCODER • 6.25 & 12 & Hz Channels • Over-the-Air Alias • Bioring Call • Sistering • Stanburg Call • Sistering • Stanburg Call • Sistering • Stanburg • Orable • Short & Long Data Messages • OPS Location with Voice • NXDN® Scrambler Included

DIGITAL – CONVENTIONAL MODE • 64 Radio Access Numbers (RAN) • Individual & Group Selective Call • Mixed FM / Digital Operation • Conventional IP Networks • Site Roaming

DIGITAL - TRUNKING MODE DIGITAL – TRUNKING MC Individual Private Call Group Call & Broadcast Call Telephone Interconnect Transmission Trunked Mode Message Trunked Mode Call Queuing with Priority Late Entry (UID & GID) 4 Priority Monitor ID's Remote Re-Grouping System Auto Select

DIGITAL - MULTI-SITE IP NETWORKS HEXEDGE Generation1 System
 48site Trunkied IP Network
 Auto Roaming Registraition
 Group Registration NEXEDGE Generation1 System Bridge • 8 Trunked Networks per radio (each in a zone) • UID Lists for each network

NEXEDGE Generation2 System (option) • 1,152 sites Wide Area System • Direct Frequency Assignment

SCAN • Single Zone / Multi-Zone / List Scan • Single Priority Scan (Conventional)

ANALOG MODES - GENERAL ANALOG MODES - GENERAL 25 & 12.5 kHz Channels • NPSPAC Channels • Conventional & LTR® Zones • FleetSync® / II, MDC-1200, DTMF • QT / DQT (Conventional Zones only) • Voice Inversion Scrambler (16 Codes)

MPT ZONES (option) Single-Site Trunking
 Multi-Site Network Trunking
 8 Network Capacity
 Network Roaming / Registration

FleetSync<sup>®</sup>/II • PTT ID ANI / Caller ID Selective / Group Call
 Emergency, Status & Text Messages

MDC-1200 • PTT ID ANI / Caller ID • Emergency, Radio Check & Inhibit

RADIO		LIST
NX-420K3	806 - 870 MHz 3W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys, Full Keypad	550.00
Li-ion VALUE PA	CKAGES	LIST
NX-420K3-SLKVP	Li-ion Value Pack (NX-420K3 + KNB-55L + KSC-25LSK)	658.30
NX-420K3-LKVP	Hi-Cap Li-ion Value Pack (NX-420K3 + KNB-57L + KSC-25LSK)	696.30
PACKAGES		LIST
NX-420K3-SLKP	Standard Slim Package (NX-420K3 + KNB-55L + KSC-25SK)	672.00
NX-420K3-LKP	Premium Package (NX-420K3 + KNB-57L + KSC-25SK)	710.00
SGS US I.S. APPI	ROVED MODELS	LIST
	Must Order L-1732 & an Intrinsically Safe Battery per radio	
NX-420-ISK3	806 - 870 MHz 3W, 260 CH, 8 characters Alphanumeric LCD, 4 PF Keys, Full Keypad	550.00

(03.05.2012) Created (03.05.2012) Delete KVC-3 (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs (03.19.2014) Adding I.S. options (9.22.2014) Changed included antenna to KRA-38K (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select) (02.19.2016) Add KVC-23 (4.11.2016) Delete KHS-23 for Discontinuation (04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK. (05.10.2016) Delete Imortant Notes (05.26.2016) Add KWD-LIC-USB and L-1819 (06.16.2016) Change description for KSC-25SK/LSK (06.21.2016) Add L-1835 (06.22.2016) Change description for KMB-16 (08.25.2016) Delete KWR-1 for discontinuation

(10.04.2016) Delete KHS-25

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NEXEDGE	NX-420	Table of Contents
	800 MHz Digital & FM Analog Portable Radios	
ANTENNAS	800 MHz Whip Antenna 1/4 wave end feed	LIST
KRA-24M	700/800 MHz Whip Antenna 700/800 MHz Whip Antenna	36.75
KRA-32K	700/800 MHz Stubby Antenna	35.00
KRA-36	800/900 MHz Whip Antenna	25.00
KRA-38K BATTERIES AND		35.00 LIST
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	49.00
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers	173.00
NIVID-10	(chargers not included)	173.00
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers	191.00
1011B 20	(chargers not included)	101.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KNB-68LC	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	112.00
	[Intrinsically Safe Option] 1480 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	00.00
KNB-55L	1400 mAh, Ni-MH battery	60.00
KNB-56N		65.00
KNB-57L KSC-25SK	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger 110 volt Rapid rate single unit charger for	98.00
KSC-25SK	KNB-26N/40LC(V)/55L/56N/57L/68LC	62.00
KSC-256K	Rapid rate 6-Unit charger for KNB-25A/26N/35L/40LC(V)/55L/56N/57L/68LC	630.00
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC Li-ion Battery	48.30
KSC-30	110 volt Regular rate single unit charger for KNB-25A/26N/56N	31.50
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25 chargers	
KVC-4	(chargers not included)	84.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACCE	SSORIES	LIST
KBH-12	Spring action belt clip	8.35
KBH-13DS	Leather swivel belt loop with portable D-Ring attachment	28.85
KLH-179K3	Heavy-Duty Leather Case w/Swivel Belt Loop for NX-220K3/320K3/K6/420K3 (Full Keypad)	49.00
KLH-180K3	Nylon carrying case for NX-220K3/320K3/K6/420K3 (Full Keypad)	26.30
MICROPHONES &	AUDIO ACCESSORIES	LIST
440 40000	GPS Speaker Microphone	005.00
KMC-48GPS	[Intrinsically Safe Approval Accessory] MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	265.00
KMC-45D	Intrinsically Safe Approval Accessory]	86.00
KMC-21	Compact speaker microphone	51.50
	[Intrinsically Safe Approval Accessory]	
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Approval Accessory]	52.50
KHS-7	Single muff headset w/boom mic	70.00
	[Intrinsically Safe Approval Accessory]	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT	105.00
	[Intrinsically Safe Approval Accessory]	400.05
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	368.00
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	336.00
	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low	

(03.05.2012) Created (03.05.2012) Delete KVC-3 (07.23.2013) Add multi system

KENWOOD	)
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NEXEDG	<sup>≘°</sup> NX-420	Table of Contents
	800 MHz Digital & FM Analog Portable Radios	
	& AUDIO ACCESSORIES, CON'T	LIST
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
SOFTWARE OP		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. • License Includes 10 radios / 1 Serial Port*	550.00
	To add more radios/serial ports, you must contact Kenwood Systems Division [1-800-TRUNKING]	
	Note: NEXEDGE Type-D Trunking and DMR not supported.	
KWD-MS10	Stationary & Motion Detection	60.00
	Must Order L-1700 or L-1835 to activate this feature. Gen2 Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles	17.00
KWD-NX2G-10	Must order <u>L-1812</u> for factory installation, or <u>L-1813</u> for field-upgrade option Note:	17.00
	MPT Firmeware and FPU do NOT compatible. MPTs will be available on 3Q FY2016.	
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series	N/C
	without ESN. KWD-LIC-USB stores KWD-NX2G-10 options which are purchased seperately and includes KPG-97USB software for activating radios.	
	seperately and includes KPG-970SB software for activating radios. Note:	
	- Must order L-1819.	
	- Must purchase KWD-NX2G-10 seperately.	
	<ul> <li>KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order.</li> <li>KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders.</li> </ul>	
	<ul> <li>KWD-LIC-USB can store up to 50,000 KWD-NX2G-10 Gen2 Upgrade Options.</li> </ul>	
SERVICE RELAT	ED ACCESSORIES	LIST
KPG-141DNK	Windows <sup>®</sup> Programming Software for NX-220/320/420	103.25
KPG-22UM	(Compliant with FCC Part 90 Narrowbanding) USB Programming interface cable	158.50
	/ TUNING CHARGES	LIST
L-836	Assemble KMB-16 with six KSC-25/25L	15.00
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	17.00
L-1699	NX-220/320/420 Programming (with basic TX/RX check)	37.50
L-1699 L-1700	Install KWD-MS10 Stationary & Motion Detection Option	
	KWD-MS10 Stationary & Motion Detection Option FIELD-UPGRADE	
L-1835	Configure NX-220/320/420 for Intrinsically Safe	NC
L-1732	Must Order an I.S. Battery	70.00
L-1812	Install Gen2 Enhanced Option in NX series radio	25.00
	(Must purchase KWD-NX2G-10 separately)	
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE	NC
L-1819	(Must purchase KWD-NX2G-10 separately) Create KWD-LIC-USB and store KWD-NX2G-10	125.00
L-1019	(Must purchase KWD-NX2G-10 separately)	125.00
MPT FIRMW <u>ARE</u>	ACCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT	103.25
	(Compliant with FCC Part 90 Narrowbanding)	103.23
	(Dealer Level License ID included)	
	Note:	
	<ul> <li>Must order L-1727 for Network Level License ID &amp; programming privileges.</li> <li>Gen2 Enhanced Option (KWD-NX2G-10) for MPT will be available on 3Q FY2016.</li> </ul>	
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio	66.70
	Must order L-1729	00.70
	Note: Not compatible with any other firmware options.	
1 1726	Radio does not retain LTR trunking features once the MPT option is installed. Install MPT option in NX series radio	25.00
L-1726	Network Level License ID for KPG-143D(N) NX series Programmer	25.00
L-1727	INCLIVITING LEVEL LIVENSE ID TOLIN A CONTRACT AND A	158.33

(03.05.2012) Created (03.05.2012) Delete KVC-3 (07.23.2013) Add multi system

NEXED	NX-420	Table of Contents
	800 MHz Digital & FM Analog Portable Radios	
MPT FIRMW	ARE/ACCESSORIES/TUNING, CON'T	LIST
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to atm: Kenwood LMR Tuning. Long Beach for installation. Include Kenwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. <u>Note:</u> see NX series MPT Introduction Sales Bullein for details	85.00
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC
L-1730	Install KCT-57MS (for MPT Emergency Call)	20.00

(03.05.2012) Created (03.05.2012) Delete KVC-3 (07.23.2013) Add multi system

**Table of Contents** 



# TK-D240V/340U

VHF/UHF Digital & FM Analog Portable Radios



## All 40 series DMR portables include:

- Li-ion Battery (KNB-45L)
- Fast Charger (KSC-35SK)
- Antenna [KRA-26M(VHF)/27M(UHF)]
- Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Instruction Manual
- Standard Warranty: 2 Years\*\*
- \*\* All Accessories / options: 1 Year

# Because of spurious signal (birdie),

### the following frequencies (and ±10kHz ranges) are not allowed;

- 147.0000 422.4000 483.0000
- 153.6000 441.0000 499.2000 168.0000 441.6000 504.0000
- 172.8000 460.8000 518.4000
- 403.2000 462.0000 • 420.0000 • 480.0000

## **GENERAL FEATURES**

- 5 W (136-174 MHz) VHF • 4 W (450-520, 400-470 MHz) UHF
- Max. 16 CH per Zone
- 2 Conventional Zones
- Transmit / Busy / Call Alert / Scan / Warn LED
- On/Off Volume Knob
- 2 PF Keys
- 1.0 W Speaker Audio
- 16-Position Mechanical Selector
- Digital/Analog Mixed Mode
- Zone / CH# Voice Announcement
- VOX Ready
- Emergency Call Features Lone Worker Alert (per CH)
- Time Out Timer
- · Busy Channel Lockout
- Low Battery Warning
- Battery Saver
- KPG-166DN Windows FPU
- Password Protected (Read/Write)
- MIL-STD-810 C/D/E/F/G
- IP54/55 Dust & Water Protection

## **GENERAL FEATURES**

- DMR Tier II Conventional
- AMBE+2<sup>™</sup>VOCODER
- 12.5 kHz Channels
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry

VHF Low-profile helical antenna 136-150 MHz

- Status Messaging
- Remote Monitor

## **DIGITAL – CONVENTIONAL MODE**

- · Individual & Group Selective Call
- Conventional IP Networks

## SCAN

- Single Zone Scan
- Single Priority Scan (Conventional)

## ANALOG MODES - GENERAL

- 12.5 kHz Channels
- Conventional Zones
- DTMF \*
- QT/DQT, Two-Tone \*
- Voice Inversion Scrambler (16 Codes) \*

## FleetSvnc®

- PTT ID ANI
- · Selective / Group Call
- Paging Call
- · Emergency Status

\* Future Release

RADIO		LIST
TK-D240VK	136-174 MHz VHF 5W, 16 Ch / 2 Zones	409.00
TK-D340UK	450-520 MHz UHF 4W, 16 Ch / 2 Zones	409.00
TK-D340UK2	400-470 MHz UHF 4W, 16 Ch / 2 Zones	409.00
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
KRA-27M3	UHF whip antenna 403-430 MHz	14.00
KRA-41M	VHF stubby antenna 148-162 MHz	13.70
KRA-41M2	VHF stubby antenna 162-174 MHz	13.70
KRA-41M3	VHF stubby antenna 136-150 MHz	13.70
KRA-42M	UHF stubby antenna 440-490 MHz	13.70
KRA-42M2	UHF stubby antenna 470-520 MHz	13.70
KRA-42M3	UHF stubby antenna 403-430 MHz	13.70
KRA-22M	VHF low profile antenna 148-162 MHz	13.70
KRA-22M2	VHF low profile antenna 162-174 MHz	13.70

KRA-22M3

13.70



# TK-D240V/340U

**Table of Contents** 

VHF/UHF Digital & FM Analog Portable Radios

ANTENNAS co	on't	LIST
KRA-23M	UHF low profile antenna 450-490 MHz	13.70
KRA-23M2	UHF low profile antenna 470-520 MHz	13.70
KRA-23M3	UHF low profile antenna 403-430 MHz	13.70
BATTERIES A	ND CHARGERS	LIST
KMB-28	Six Unit Charger Adapter for the KSC-23BK/28/35SK chargers	208.50
	(chargers not included)	
	Note: The six KSC-xx AC wall Adapters are NOT used in the KMB-28 installation A supplied in-line AC- DC switching power supply with six DC plugs supply the six installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters.	
	Dimensions: 10.6(W) x 2.4(H) x 9.5(D) inches, Weight: approx. 10 lbs. (loaded with chargers/radios) 2000 mAh, Li-ion battery - requires KSC-35K/SK charger	<u> </u>
KNB-45L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	63.00
KNB-69L		75.00
KNB-29N	1500 mAh, Ni-MH battery - requires KSC-43K charger	36.75
KSC-35SK	110-220 volt Fast rate single unit charger for KNB-45L/69L	31.50
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	36.70
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger & KNB-45L Li- ion battery (charger not included)	36.70
CARRYING AC		LIST
KBH-10	Spring action belt clip	8.35
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-187	Nylon case for TK-*200/*202/*300/*302/*400/*402, NX-*40/TK-*40 Series	14.70
MICROPHONE	S & AUDIO ACCESSORIES	LIST
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) <u>Note:</u> KMC-45 (Non D version) is not compatible with TDMA operaiton.	86.00
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	52.50
KMC-21	Compact speaker microphone	51.50
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT Note: Available for Analog only. NOT compatible withDigital (TDMA) operations.	368.00
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT <u>Note:</u> Available for Analog only. NOT compatible withDigital (TDMA) operations.	336.00
KHS-7	Single muff headset w/boom mic	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT	105.00
	Note: Available for Analog only. NOT compatible withDigital (TDMA) operations.	
KHS-8BL	Two-Wire palm mic w/earphone (black) <b>Note:</b> Available for Analog only. NOT compatible withDigital (TDMA) operations.	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
1/110 00	Note: Available for Analog only. NOT compatible withDigital (TDMA) operations.	44.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	
	ATED ACCESSORIES	30.00 LIST
KPG-166DNK	Windows <sup>®</sup> Programming Software for TK-D240V/340U/740HV/840HU	103.25
KPG-22UM	USB Programming interface cable	158.50
	N / TUNING CHARGES	LIST
L-1798	TK-D240V/340U Programming (with basic TX/RX check)	37.50

		TK-190	Table of Contents	
	_	Low Band VHF Portable Radio		(02.10.2010) KNB-52N Added (02.10.2010) L-835 & L-979 Rer (02.10.2010) USTC (IS) Option (03.02.2011) Replace KPG-36A
190 series portal Belt Clip Universal Conne Instruction Manu Channel Selector Mechanical stop 8 - Standard Warra - Standard Warra	ector Cap Jal or & dressing plate nty: 2 Years*	GENERAL FEATURES • 6 W (29, 7-37, 0, 35.0-50.0 MHz) • 16 Channels • 0 T / DQT • Priority Scan • 7-Character Alphanumeric Aliases • Lighted 13-Segment LCD • Inverting LCD Display • Juigt Sub-Display • Function / Status LCD Icons • Transmit / Busy / Call Alert / Warn LED • 2 Top Panel PF keys • 2 Side PF Keys • Orange Emergency / AUX Key (side) • 2-Position PF Toggle Switch (top) • 500 mW Speaker Audio • Encryption / ANI Board Control • Emergency Call Features • Emergency Man-Down Option	Two-Tone Decode     Operator Selectable Tone     DTMF Encode / Decode     Time Out Timer     Busy Channel Lockout     Low Battery Alert     Battery Saver     Weather-sealed ACC Connector     MIL-Spec Speaker Mic Options     Windows® Programming & Tuning     Windows® Primware Uploading     Front Panel Test / Tune     Cloning     MIL-STD-810 C/D/E/G     MIL-STD "Driven-Rain"	(03.02.2011) Delete CIM-1000/C (03.02.2011) Delete L-1038/103 (03.02.2011) Delete KNB-17A (03.08.2011) Added MIL-G (04.06.2011) Change L-1618 to (06.30.2011) Delete KNB-17BK (06.30.2011) Delete KNB-17BK (03.01.2012) KSC-19 Descriptio (03.01.2012) KSC-19 Descriptio (03.01.2012) KSC-19 Descriptio (03.01.2012) KVC-3 & 4 Descrip (10.10.2012) Delete KNB-21NC (02.25.2013) Delete KNB-21NC (02.25.2013) Reorganized Acces (10.3.2013) Reorganized Acces
242/2				(10.27.2015) Delete KVC-3
RADIO			LIST	(03.31.2016) Add SGS I.S. Labo
TK-190K TK-190K2		29.7 – 37.0 MHz 6W, 16 Channels 35.0 – 50.0 MHz 6W, 16 Channels	<u> </u>	(06.22.2016) Change description
	Important Notice:		it from unning must be	
	If this transceiver within a 500 kHz r The physical condi is worn, bent or da new, properly adju: performance, dam: portions of your ra When transmitting	is programmed for more than one channel, the transm	e original KRA-21 antenna replace the antenna with a ay cause poor tter energy on the metal die when transmitting.	
ANTENNA	If this transceiver within a 500 kHz r The physical condi is worn, bent or da new, properly adju: performance, dam: portions of your ra When transmitting	Is programmed for more than one channel, the transm range. Ition of the antenna may affect the radio's performance. If the maged, immediately have your Kenwood authorized dealer sted KRA-21 antenna. Failure to follow these instructions m age to your transceiver, and may also place excess transmi dio, which could make the transceiver uncomfortable to han if your hand feels uncomfortable, contact your Kenwood d	e original KRA-21 antenna replace the antenna with a ay cause poor tter energy on the metal die when transmitting.	
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KRA-21 BATTERIES A	If this transceiver within a 500 kHz ir The physical condi is worn, bent or da new, properly adjup performance, dam portions of your ra When transmitting transmitting transmitters Tunable VHF Lo Note: Antenna bar Caution: he Tk-16 so will result in a p in the transmitters ND CHARGERS	Is programmed for more than one channel, the transm range. It is not the antenna may affect the radio's performance. If the maged, immediately have your Kenwood authorized dealer sted KRA-21 antenna. Failure to follow these instructions ma- age to your transceiver, and may also place excess transmi dio, which could make the transceiver uncomfortable to han if your hand feels uncomfortable, contact your Kenwood d cribbe national control of the set of the set of the set of the we Band helical antenna 29.7-50MHz. Id width is 1 MHz 40 antenna must be cut per the antennas cutting chart and i oorly matched antenna, poor performance and most probal	e original KRA-21 antenna replace the antenna with a ay cause poor titer energy on the metal die when transmitting, eater for a transceiver	
KRA-21	If this transceiver within a 500 kHz ir The physical condi is worn, bent or da new, properly adju performance, dam portions of your ra When transmitting iveneration and nor Tunable VHF Lo Note: Antenna bar <u>Caution</u> : the TK-15 so will result in a p in the transmitters 20100 mAh, Ni-M 2100 mAh, Ni-M	Is programmed for more than one channel, the transm range. ition of the antenna may affect the radio's performance. If the maged, immediately have your Kenwood authorized dealer stot KRA-21 antenna. Failure to follow these instructions may age to your transceiver, and may also place excess transm dio, which could make the transceiver uncomfortable to ham, it your hand feels uncomfortable, contact your Kenwood d cellula extenses conferences. We Band helical antenna 29.7-50MHz. div with is 1 MHz 00 antenna must be cut per the antennas cutting chart and i confy matched antenna, poor performance and most probal final power amplifier circuit.	e original KRA-21 antenna replace the antenna with a ay cause poor tter energy on the metal dle when transmitting. ealer for a transceiver	
KRA-21 <i>BATTERIES A</i> KNB-22N	If this transceiver within a 500 kHz if The physical condi is worn, bent or da new, properly adjup performance, dam portions of your ra When transmitting uccession, and new Tunable VHF Lo Note: Antenna bar Caution: he TK-16 so will result in a Caution: he TK-16 so will result in a Caution: he TK-16 so will result in a 2100 mAh, Ni-M 2100 mAh, Ni-M	is programmed for more than one channel, the transmange. ange. its programmed for more than one channel, the transmange. its on of the antenna may affect the radio's performance. If the maged, immediately have your Kenwood authorized dealer sted KRA-21 antenna. Failure to follow these instructions may age to your transceiver, and may also place excess transmi dio, which could make the transceiver uncomfortable to han if your hand feels uncomfortable, contact your Kenwood d citike extense conferences w Band helical antenna 29.7-50MHz. div with is 1 MHz 00 antenna must be cut per the antennas cutting chart and i ioorly matched antenna, poor performance and most probal final power amplifier circuit. H battery - requires KSC-24 charger H battery - requires KSC-24 charger Approved Accessory] H battery	e original KRA-21 antenna replace the antenna with a ay cause poor titer energy on the metal die when transmitting. ealer for a transceiver	
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KRA-21 BATTERIES A KNB-22N KNB-51NC KNB-52N KBP-4 KSC-19	If this transceiver within a 500 kHz ir The physical condi is worn, bent or da new, properly adjup performance, dam work of your ra When transmitting useneration - nod nor Tunable VHF Lo Note: Arthenna bar <u>Caution</u> : the TK-15 so will result in a p in the transmitters 2100 mAh, Ni-M 2100 mAh, Ni-M [Intrinsically Safe 1400 mAh, Ni-M A A Alkaline Refi 110 volt Regular	is programmed for more than one channel, the transm range. ition of the antenna may affect the radio's performance. If the maged, immediately have your Kenwood authorized dealers sted KRA-21 antenna. Failure to follow these instructions m age to your transceiver, and may also place excess transm id, which could make the transceiver uncomfortable to han if, your hand feels uncomfortable, contact your Kenwood de neible extenses renies and the state of the state of the state w Band helical antenna 29.7-50MHz. width is 1 MHz 00 antenna must be cut per the antennas cutting chart and i cortly matched antenna, poor performance and most probal final power amplifier circuit. H battery - requires KSC-24 charger H battery - requires KSC-24 charger Approved Accessory] H battery H battery Pack (12 AA; 9V) cells not included rate single unit desk charger for KNB-16/17A/17B/5	e original KRA-21 antenna replace the antenna with a ay cause poor titer energy on the metal die when transmitting. ealer for a transceiver	
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KRA-21 BATTERIES A KNB-22N KNB-51NC KNB-52N KBP-4 KSC-19	If this transceiver within a 500 kHz if The physical condi is worn, bent or da new, properly adjup performance, dam portions of your ra When transmitting uccoexise, and new Tunable VHF Lo Note: Antenna bar Caution: he TK-16 so will result in a p in the transmitters 2100 mAh, Ni-M 2100 mAh,	is programmed for more than one channel, the transm ange. ition of the antenna may affect the radio's performance. If the maged, immediately have your Kenwood authorized dealers sted KRA-21 antenna. Failure to follow these instructions m age to your transceiver, and may also place excess transm id, which could make the transceiver uncomfortable to han if, your hand feels uncomfortable, contact your Kenwood de neible extenses renicement w Band helical antenna 29.7-50MHz. width is 1 MHz 80 antenna must be cut per the antennas cutting chart and i corly matched antenna, poor performance and most probal final power amplifier dircut. H battery - requires KSC-24 charger H battery - requires KSC-24 charger Approved Accessory] H battery - requires KSC-24 charger Approved Accessory] H battery Statery Pack (12 AA; 9V) cells not included irate single unit charger 6/17A/17B/20N/21N/22N/22N/22N/25N	e original KRA-21 antenna replace the antenna with a ay cause poor titer energy on the metal die when transmitting. ealer for a transceiver	
KRA-21 BATTERIES A KNB-22N KNB-51NC KNB-52N KBP-4 KSC-19 KSC-24	If this transceiver within a 500 kHz ir The physical condi is worn, bent or da new, properly adjup performance, dam portions of your ra When transmitting <u>baccoation</u> and a for Note: Antenna bar <u>Caution</u> : the TK-15 so will result in a p in the transmitters <b>ND CHARGERS</b> 2100 mAh, Ni-M (Intrinsically Safe 1400 mAh, Ni-M (Intrinsically Safe 1400 mAh, Ni-M (Intrinsically Safe 110 volt Regular 110 volt Regular 110 volt Regular 110 volt Rapid ra for KNB-14/15/11 Six Unit Chargers not inc	is programmed for more than one channel, the transm range. its programmed for more than one channel, the transm range. its not the antenna may affect the radio's performance. If the maged is unmediately have your Kenwood authorized dealer stot KRA-21 antenna. Failur to follow these instructions m age to your transceiver, and may also place excess transm dio, which could make the transceiver uncomfortable to han if your hand feels uncomfortable, contact your Kenwood d teleble extense. celecement w Band helical antenna 29.7-50MHz. dwidth is 1 MHz 00 antenna must be cut per the antennas cutting chart and i oorly matched antenna, poor performance and most probal final power amplifier circuit. H battery - requires KSC-24 charger H battery - requires KSC-24 charger Approved Accessory] H battery Itable Battery Pack (12 AA; 9V) cells not included 'rate single unit charger 6/17A/17B/20N/21N/22N/22NC/52N Adapter for the KSC-16/20/24/25/25L chargers Juded)	e original KRA-21 antenna replace the antenna with a ay cause poor titer energy on the metal die when transmitting, ealer for a transceiver	

.10.2010) L-835 & L-979 Removed .10.2010) USTC (IS) Option Deleted .02.2011) Replace KPG-36AM/KCT-53UM with KPG-36UM .02.2011) Delete CIM-1000/CABLE 3.02.2011) Delete L-1038/1039/1617 3.02.2011) Delete KNB-17A 3.08.2011) Added MIL-G .06.2011) Change L-1618 to L-1060. .30.2011) Delete KNB-17BK 30.2011) Change KSC-24/E Descriptions .09.2011) Delete KSC-19M & 24E .01.2012) KSC-19 Description include KNB-52N .01.2012) KMB-16 & 23 Description Updated .01.2012) KVC-3 & 4 Description Updated .10.2012) Delete KVC-5A .15.2012) Delete KNB-22NC & Add KNB-51NC .25.2013) Delete KNB-21N 30.2013) Reorganized Accessories/Options/Installation .3.2013) Replaced line art with photographs

.31.2016) Add SGS I.S. Labor

.22.2016) Change description for KMB-16

	TK-190	Table of Contents
	Low Band VHF Portable Radio	
CARRYING AC	CESSORIES	LIST
KBH-10	Spring action belt clip	8.35
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-78B	Heavy duty leather carrying case for TK-190/290/390/5400 (Non DTMF keypad models)	44.25
KLH-88	Cordura Nylon carrying case for TK-190/290/390/5400 (Non DTMF keypad models)	26.30
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148/154)	36.75
KLH-141	Extra Heavy-Duty Cordura Nylon carrying case for TK-190/290/390 (all battery packs; no keypad access)	34.75
MICROPHONE	S & AUDIO ACCESSORIES	LIST
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics [Intrinsically Safe Approved Accessory]	52.50
KMC-25A	MIL-SPEC. Noise canceling Speaker mic [Intrinsically Safe Approved Accessory] <u>Note</u> : KMC-25 is not compatible with the TK-190 due to the effects of RF at low band frequencies; the KMC-25A is the compatible model. The KMC-26 Speaker microphone with antenna connector CANNOT be used due to the inadequate ground plane properties on a speaker microphone at low band	96.50
	frequencies (the TK-190 does not have an RF pin on its accessory connector).	
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	368.00
OPTION MODU	[Intrinsically Safe Approved Accessory]	LIST
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S. Order L-1618 for FleetSynce@ operations	22.00
SERVICE RELA	ATED ACCESSORIES	LIST
KPG-36XM	USB Programming interface cable	158.50
KPG-59DK	Windows <sup>®</sup> Program Software for TK-190/6110 (Version 2.00)	68.50
	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:	20100
E30-3325-05	Portable-to-Portable Cloning cable (For TK-190/290/390/480/481 Only)	
INSTALLATION	N / TUNING CHARGES	LIST
-836	Assemble KMB-16 with six KSC-20's/24's	15.00
-837	Install KNB-21N/22N/22NC/51NC/52N battery	0.00
870	Simultaneous transpond and alert feature up-grade for 90-series mobiles & portables	50.00
911	TK-190/TK-6110 Programming (with basic TX/RX check)	25.00
914	Cut KRA-21 Low Band Antenna	10.00
961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
979	Configure TK-190 for Intrinsically Safe Must Order an I.S. Battery	70.00
L-1060	80/90 PORTABLE KCT-57MS INSTALLATION (FOR FLEETSYNC)	20.00

(02.10.2010) KNB-52N Added (02.10.2010) L-835 & L-979 Removed (02.10.2010) USTC (IS) Option Deleted

		TK-2170/3170	Table of C	Contents	
		Compact VHF/UHF FM Portable Radio	os		(02.10.2010) KLH-138 Description Change (02.10.2010) KNB-25A/26N/35L are Replaced by KNB-55L/56N/57L
					(02.10.2010) 6 New Packages Replace the Old 4 Packages. (02.26.2010) KHS-1 Discontinued
All 170 series porta Pelt Clip (KBH-12) 2-PIN Connector C 1-Struction Manual Standard Warranty All Accessories / optio Order packages to in Charger & Antenna, Charger and Antenna	ables include: Cap y: 2 Years* ons: 1 Year include Battery, or purchase Battery,	GENERAL FEATURES • 5 W (136-174 MHz) Models • 4 W (450-490, 400-430 MHz) Models • Conventional Zones • 128 Channels / 128 Zones • Single Priority Scan • Single A Multi-Zone Scan • List Scan • 8 Character Alphanumeric Aliases • Backit LCD • Function / Status LCD Icons • Transmit / Busy / Call Alert / Warn LED • 4 Front Panel PF keys • 3 Side PF Keys • Orange Emergency / AUX Key • 12-Key DTMF / PF Keypad Models • 500 mV Audio Power • Enhanced Kenwood Audio • Companded Audio • VOX Ready • Voice Inversion Scrambler Built-in • Encrybion / ANI Board Control • Easy Option Port (20-Pin) • Emergency Call Features • 0T / DQT • Two-Tone Decode	Operator Selectable Tone     DTMF Encode / Decode     Special Alert Tone Pattern     Call Key     Time Out Timer     Busy Channel Lockout     LCD Battery Status Indicator     Low Battery Alert     Battery Saver     Weather-sealed ACC Connector     Speaker Mic Options     Windows® Programming & Tuning     Windows® Programming & Tuning     Cloning     MIL-STD-810 C/D/E/F/G     Status Messaging     PTT ID Digital ANI     Selective Call & Group Call     Status Messaging     Emergency Status     Caller ID Display		(03.03.2011) KPG-22AM/KCT-53UM replaced by KPG-22UM (03.03.2011) Delete CIM-1000/CABLE (03.03.2011) Delete L-1049/1050/1608 (03.03.2011) Added KMC-48GPS (03.08.2011) Added MIL-G (04.06.2011) KNB-55L/56N/57L were added to the descriptions of the c (10.27.2011) Add KSC-25L & Packages (12.09.2011) Delete KSC-25E & 30E (03.01.2012) KMB-16 & 23 Description Updated (03.01.2012) KMB-16 & 23 Description Updated (03.01.2012) KNB-40LC changed to KNB-40LCV (07.16.2012) Delete KMC-17 (07.16.2012) KMC-45 is I.S. approved (07.16.2012) JE Rating Changed (Div 1 Grp C-G) (12.05.2012) Delete KHS-31 (12.05.2012) Delete KHS-8BE/9BE (01.29.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs
			PC Serial Interface		(1.13.14) Corrected package pricing (3.19.14) Corrected package pricing
		Must Order <u>L-1000</u> for Intri     * Approved for Classes I, II & III, Div. 1, Groups C     Incendive use in Class I, Div. 2, Group	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non-		
ADIO		Must Order L-1000 for Intri * Approved for Classes I, II & III, Div. 1, Groups C	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non-	LIST	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3
	136-174 MHz 5W, 12	Must Order L-1000 for Intri * Approved for Classes I, II & III, Div. 1, Groups C	PC Serial Interface insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.	LIST 350.00	<ul> <li>(3.19.14) Corrected package pricing</li> <li>(6.4.2015) Replace KSC-25L with KSC-25LSK</li> <li>(6.17.2015) Replace KSC-25 with KSC-25SK</li> <li>(9.17.2015) Replace KNB-40LCV with KNB-68LC</li> <li>(10.27.2015) Delete KVC-3</li> <li>(1.5.2016) Change/Add Charger and Battery Compatibility</li> </ul>
K-2170K		Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group	PC Serial Interface insically Safe Option     D, E, F, G and are also approved for non     s A, B, C, D hazardous locations.  4-key	350.00	<ul> <li>(3.19.14) Corrected package pricing</li> <li>(6.4.2015) Replace KSC-25L with KSC-25LSK</li> <li>(6.17.2015) Replace KSC-25 with KSC-25SK</li> <li>(9.17.2015) Replace KNB-40LCV with KNB-68LC</li> <li>(10.27.2015) Delete KVC-3</li> <li>(1.5.2016) Change/Add Charger and Battery Compatibility</li> <li>(1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK</li> </ul>
K-2170K K-2170K2	136-174 MHz 5W, 12	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD,	PC Serial Interface insically Safe Option     D, E, F, G and are also approved for non- is A, B, C, D hazardous locations.      4-key     4 + 12-key	350.00 400.00	<ul> <li>(3.19.14) Corrected package pricing</li> <li>(6.4.2015) Replace KSC-25L with KSC-25LSK</li> <li>(6.17.2015) Replace KSC-25 with KSC-25SK</li> <li>(9.17.2015) Replace KNB-40LCV with KNB-68LC</li> <li>(10.27.2015) Delete KVC-3</li> <li>(1.5.2016) Change/Add Charger and Battery Compatibility</li> </ul>
<-2170K <-2170K2 <-3170K	136-174 MHz 5W, 12 450-490 MHz 4W, 12	Must Order <u>L-1000</u> for Intri     * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Groups     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,	PC Serial Interface insically Safe Option     C, D, E, F, G and are also approved for non     s A, B, C, D hazardous locations.      4-key 4-key 4 + 12-key 4-key	350.00	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D
K-2170K K-2170K2 K-3170K K-3170K4	136-174 MHz 5W, 12 450-490 MHz 4W, 12	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD,	PC Serial Interface insically Safe Option     C, D, E, F, G and are also approved for non     s A, B, C, D hazardous locations.      4-key 4-key 4 + 12-key 4-key	350.00 400.00 367.00	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23
K-2170K K-2170K2 K-3170K K-3170K4 ACKAGES	136-174 MHz 5W, 12 450-490 MHz 4W, 12	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD,	PC Serial Interface insically Safe Option C, D, E, F, G and are also approved for non s A, B, C, D hazardous locations.      4-key     4 + 12-key     4 + 12-key	350.00 400.00 367.00 417.00	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK
K-2170K K-2170K2 K-3170K K-3170K4 ACKAGES K-2170-NKP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package	Must Order <u>L-1000</u> for Intri     Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Groups     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,	PC Serial Interface insically Safe Option     C, D, E, F, G and are also approved for non     s A, B, C, D hazardous locations.      4-key     4 + 12-key     4 + 12-key 26M)	350.00 400.00 367.00 417.00 <i>LIST</i>	<ul> <li>(3.19.14) Corrected package pricing</li> <li>(6.4.2015) Replace KSC-25L with KSC-25LSK</li> <li>(6.17.2015) Replace KSC-25 with KSC-25SK</li> <li>(9.17.2015) Replace KNB-40LCV with KNB-68LC</li> <li>(10.27.2015) Delete KVC-3</li> <li>(1.5.2016) Change/Add Charger and Battery Compatibility</li> <li>(1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK</li> <li>(1.14.2016) Change form KMC-45 to KMC-45D</li> <li>(02.19.2016) Add KVC-23</li> <li>(06.16.2016) Change description for KSC-25SK/LSK</li> <li>(07.08.2016) Add KEP-1</li> </ul>
<ul> <li><a>2170K</a></li> <li><a>2170K2</a></li> <li><a>3170K</a></li> <li><a>3170K4</a></li> <li><a>4CKAGES</a></li> <li><a></a></li></ul>	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package	Must Order <u>L-1000</u> for intri     * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Groups     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     20 CH / 128 Zone Conventional;	PC Serial Interface insically Safe Option     C, D, E, F, G and are also approved for non     s A, B, C, D hazardous locations.      4-key     4 + 12-key     4 + 12-key     26M) RA-26M)	350.00 400.00 367.00 417.00 <i>LIST</i> 460.50	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6
(-2170K (-2170K2 (-3170K (-3170K4 (-3170K4 (-2170-NKP (-2170-SLKP (-2170-LKP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Groups 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, 29 CH / 128 Zone Conventional; 8 Character LCD, 20 CH / 128 Zone Conventional; 8 Character LCD, 21 CH / 128 Zone / 128 Zone Conventional;	PC Serial Interface insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.      4-key     4+12-key     4+42-key     4+12-key 26M) 26M) RA-26M) RA-26M)	350.00 400.00 367.00 417.00 <i>LIST</i> 460.50 486.00	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K K-3170K4 ACKAGES K-2170-NKP K-2170-SLKP K-2170-LKP K-3170-NKP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Sim P VHF Premium Packa UHF Basic Package	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Groups 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, 29 CH / 128 Zone Conventional; 8 Character LCD, 20 CH / 128 Zone Conventional; 8 Character LCD, 21 CH / 128 Zone / 128 Zone Conventional;	PC Serial Interface insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.      4-key     4 + 12-key     4 + 12-key     26M)     RA-26M)     27M)	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K K-3170K4 ACKAGES K-2170-NKP K-2170-NKP K-3170-NKP K-3170-NKP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Sim P VHF Premium Packa UHF Basic Package	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Groups 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, (TK-2170K + KNB-56N + KSC-30 + KRA-2 ) (TK-2170K + KNB-55L + KSC-25SK + KR (TK-3170K + KNB-55L + KSC-30 + KRA-2 ) Package (TK-3170K + KNB-55L + KSC-25SK + KR     )	PC Serial Interface  insically Safe Option  , D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4+12-key  4+12-key  26M)  8A-26M)  RA-26M)  RA-26M)  RA-27M)	350.00 400.00 367.00 417.00 <i>LIST</i> 460.50 488.00 524.00 477.50	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K4 <b>ACKAGES</b> K-2170-NKP K-2170-SLKP K-3170-NKP K-3170-SLKP K-3170-SLKP K-3170-SLKP K-3170-LKP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Basic Package UHF Standard Slim P UHF Premium Packa	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, (TK-2170K + KNB-56N + KSC-30 + KRA-2 // CK-2170K + KNB-55L + KSC-25SK + KR (TK-3170K + KNB-55L + KSC-30 + KRA-2 <sup>2</sup> Package (TK-3170K + KNB-55L + KSC-25SK + KR <sup>2</sup>	PC Serial Interface  insically Safe Option  , D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4+12-key  4+12-key  26M)  8A-26M)  RA-26M)  RA-26M)  RA-27M)	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 477.50 503.00	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K4 <b>ACKAGES</b> K-2170-NKP K-2170-SLKP K-3170-NKP K-3170-SLKP K-3170-SLKP K-3170-LKP K-3170-LKP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Basic Package UHF Standard Slim P UHF Premium Packa ACKAGES	Must Order <u>L-1000</u> for Intri Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, (TK-2170K + KNB-56N + KSC-30 + KRA- 29 Character LCD, KNB-55L + KSC-25SK + KR (TK-3170K + KNB-56L + KSC-25SK + KR 49 (TK-3170K + KNB-56L + KSC-25SK + KR     49 (TK-3170K + KNB-57L + KSC-25SK + KR	PC Serial Interface  insically Safe Option  , D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4 + 12-key  4 + 12-key  26M)  AA-26M)  RA-26M)  RA-26M)  RA-27M)  RA-27M)  RA-27M)	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 477.50 503.00 541.00 <b>LIST</b>	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
(-2170K (-2170K2 (-3170K4 (-3170K4 (-2170-NKP (-2170-SLKP (-2170-SLKP (-3170-SLKP -ion VALUE P (-2170-SLKVP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Basic Package UHF Standard Slim P UHF Premium Packa ACKAGES VHF Lihon Value Pac	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, (TK-2170K + KNB-56N + KSC-30 + KRA- 29 CHC-2170K + KNB-55L + KSC-25SK + KR (TK-3170K + KNB-57L + KSC-25SK + KR 29 CTK-3170K + KNB-57L + KSC-25SK + KR CK (TK-2170K + KNB-55L + KSC-25SK + KR	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous tocations.  4-key  4-key  4 + 12-key  4 + 12-key  26M)  26M)  26M)  26A-26M)  27M)  27M  27M  27M  27M  27M  27M	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 477.50 503.00 541.00 <b>LIST</b> 472.30	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K4 K-3170K4 K-2170-NKP K-2170-NKP K-2170-LKP K-3170-NKP K-3170-SLKP K-3170-LKP K-2170-SLKVP K-2170-SLKVP K-2170-SLKVP K-2170-SLKVP K-2170-SLKVP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Package UHF Standard Slim P UHF Premium Packa ACKAGES VHF Li-ion Value Pac VHF Hi-Cap Li-ion Va	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, 29 CH / 128 Zone Conventional; 8 Character LCD, 20 CH / 128 Zone Conventional; 8 Cha	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4 + 12-key  26M)  26M)  27M)  27M)  27M)  27M)  27M)  27M)  4-26M)  CRA-26M)  CRA-26M  CRA-26M  CRA-26M  CRA-26M  CRA-26M  CRA-26M  CRA-26M	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 477.50 503.00 541.00 <b>LIST</b> 472.30 510.30	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
(-2170K (-2170K2 (-3170K4 <b>4CKAGES</b> (-2170-NKP (-2170-SLKP (-3170-SLKP (-3170-SLKP (-3170-SLKP (-2170-SLKVP (-2170-SLKVP (-2170-SLKVP (-3170-SLKVP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Basic Package UHF Standard Slim P UHF Premium Packa ACKAGES VHF Li-ion Value Pac UHF Li-ion Value Pac	Must Order <u>L-1000</u> for intri     * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone C	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4 + 12-key  26M)  26M)  26M)  27M)  27M)  27M)  77M)  77M)  77M  77M	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 503.00 541.00 <b>LIST</b> 472.30 541.00 <b>LIST</b> 472.30 510.30 489.30	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K4 ACKAGES K-2170-NKP K-2170-SLKP K-3170-SLKP K-3170-SLKP K-3170-SLKP K-2170-SLKVP (-2170-SLKVP (-2170-SLKVP (-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Basic Package UHF Standard Slim P UHF Premium Packa ACKAGES VHF Li-ion Value Pac UHF Li-ion Value Pac	Must Order <u>L-1000</u> for Intri * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group 28 CH / 128 Zone Conventional; 8 Character LCD, 28 CH / 128 Zone Conventional; 8 Character LCD, 29 CH / 128 Zone Conventional; 8 Character LCD, 20 CH / 128 Zone Conventional; 8 Cha	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4 + 12-key  26M)  26M)  26M)  27M)  27M)  27M)  77M)  77M)  77M  77M	350.00           400.00           367.00           417.00           LIST           460.50           486.00           524.00           477.50           503.00           541.00           LIST           472.30           510.30           527.30	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K4 ACKAGES K-2170-NKP K-2170-SLKP K-2170-SLKP K-3170-SLKP K-3170-SLKP K-2170-SLKVP K-2170-SLKVP K-2170-SLKVP K-3170-SLKVP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Standard Slim P UHF Premium Packa ACKAGES VHF Li-ion Value Pac UHF Li-ion Value Pac UHF Li-ion Value Pac UHF Li-ion Value Pac	Must Order <u>L-1000</u> for Intri  Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group  28 CH / 128 Zone Conventional; 8 Character LCD,  29 Ch / 128 Zone Conventional; 8 Character LCD,  20 CH / 128 Zone Conventional; 8 Character LCD,  20 CH / 128 Zone Conventional; 8 Character LCD,  20 CH / 128 Zone Conventional; 8 Character LCD,  21 CH / 128 Zone Conventional; 8 Character LCD,  22 Ch / 128 Zone Conventional; 8 Character LCD,  23 CH / 128 Zone Conventional; 8 Character LCD,  24 CH / 128 Zone Conventional; 8 Character LCD,  25 CH / 128 Zone Conventional; 8 Character LCD,  26 CH / 128 Zone Conventional; 8 Character LCD,  27 Character LCD,  28 CH / 128 Zone Conventional; 8 Character LCD,  28 CH / 128 Zone Conventional; 8 Character LCD,  29 Ch / 170K + KNB-55L + KSC-25LSK + KI  20 Character LCD,  20 Ch / 128 Zone Conventional; 8 Character LCD,  20 Ch / 128 Zone Conventional; 8 Character LCD,  20 Ch / 128 Zone Conventional; 8 Character LCD,  20 Ch / 128 Zone Conventio	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4 + 12-key  26M)  26M)  26M)  27M)  27M)  27M)  77M)  77M)  77M  77M	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 477.50 503.00 541.00 <b>LIST</b> 472.30 510.30 489.30 527.30 <b>LIST</b>	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
K-2170K K-2170K2 K-3170K4 ACKAGES K-2170-NKP K-2170-SLKP K-2170-SLKP K-3170-SLKP K-3170-SLKP K-3170-SLKVP K-2170-SLKVP K-2170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP K-3170-SLKVP	136-174 MHz 5W, 12 450-490 MHz 4W, 12 450-490 MHz 4W, 12 VHF Basic Package VHF Standard Slim P VHF Premium Packa UHF Basic Package UHF Standard Slim P UHF Premium Packa ACKAGES VHF Li-ion Value Pac UHF Li-ion Value Pac UHF Li-ion Value Pac UHF Li-ion Value Pac UHF Li-ion Value Pac VHF Hi-Cap Li-ion Value Pac	Must Order <u>L-1000</u> for intri     * Approved for Classes I, II & III, Div. 1, Groups C Incendive use in Class I, Div. 2, Group     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     28 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     29 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     210 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone Conventional; 8 Character LCD,     220 CH / 128 Zone C	PC Serial Interface  insically Safe Option C, D, E, F, G and are also approved for non- s A, B, C, D hazardous locations.  4-key  4-key  4 + 12-key  26M)  26M)  26M)  27M)  27M)  27M)  77M)  77M)  77M  77M	350.00 400.00 367.00 417.00 <b>LIST</b> 460.50 486.00 524.00 477.50 503.00 541.00 <b>LIST</b> 472.30 510.30 489.30 527.30 <b>LIST</b> 13.70	(3.19.14) Corrected package pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23 (06.16.2016) Change description for KSC-25SK/LSK (07.08.2016) Add KEP-1 (07.18.2016) Delete TK-3170K3/K6 (08.25.2016) Delete KWR-1 for discontinuation
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TK-2170 · 3170

	TK-2170/3170	Table of Contents
	Compact VHF/UHF FM Portable Radios	
ANTENNAS, C		LIST
KRA-23M2	UHF Low-profile helical antenna 470-512 MHz	13.70
KRA-23M3	UHF Low-profile helical antenna 403-430 MHz	13.70
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
KRA-27M3	UHF whip antenna 400-450 MHz	14.00
	ND CHARGERS	LIST
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	49.00
KNB-55L	1480 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	60.00
KNB-56N	1400 mAh, Ni-MH battery	65.00
KNB-57L	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	98.00
KNB-68LC	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger [Intrinsically Safe Option]	112.00
KSC-25LSK	100-240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC Li-ion Battery	48.30
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC	62.00
KSC-30	110 volt Regular rate single unit charger for KNB-25A/26N/56N	31.50
KSC-256K	Rapid rate 6-Unit charger for KNB-25A/26N/35L/40LC(V)/55L/56N/57L/68LC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	173.00
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25 chargers (chargers not included)	84.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING AC		LIST
KLH-138	Heavy-Duty Leather Case w/Swivel Belt Loop for 160/170/173/360 (Non DTMF keypad)	49.00
KLH-139	Heavy-Duty Leather Case w/Swivel Belt Loop for 170/173 (w/ DTMF keypad)	49.00
KBH-12	Spring action belt clip	8.35
KBH-13DS	Leather swivel belt loop with portable D-Ring attachment	28.85
	S & AUDIO ACCESSORIES	LIST
KMC-48GPS	GPS Speaker Microphone	265.00
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	86.00
	[Intrinsically Safe Approval Accessory]	
KMC-21	Compact speaker microphone [Intrinsically Safe Approval Accessory]	51.50
KEP-1	3.5mm earphone kit for KMC-48GPS Speaker Mics [Intrinsically Safe Approval Accessory]	52.50
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	52.50
KHS-10-BH	[Intrinsically Safe Approved Accessory] Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00
KHS-10-OH	Intrinsically Safe Approved Accessory] Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	336.00
KHS-7	Single muff headset w/boom mic	70.00
KHS-7A	[Intrinsically Safe Approval Accessory] Lt. Wt Single muff headset w/boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25

(02.10.2010) KLH-138 Description Change (02.10.2010) KNB-25A/26N/35L are Replaced by KNB-55L/56N/57L (02.10.2010) 6 New Packages Replace the Old 4 Packages.

	TK-2170/3170 Compact VHF/UHF FM Portable Radios	Table of Contents
MICROPHONES	& AUDIO ACCESSORIES, CON'T	LIST
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
<b>OPTION MODUL</b>	LES	LIST
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S. Order <u>L-1609</u> for FleetSync® operations	22.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-101DNK	Windows <sup>®</sup> Programming Software for TK-2170/3170/3173 (Compliant with FCC Part 90 Narrowbanding) Note: self-programming function is not available.	103.25
KPG-22UM	USB Programming interface cable	158.50
INSTALLATION	/ TUNING CHARGES	LIST
L-836	Assemble KMB-16 with six KSC-25/25L	15.00
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	17.00
L-992	TK-2170/3170 Programming (with basic TX/RX check)	37.50
L-1000	Configure TK-2170/3170 for Intrinsically Safe Must Order an I.S. Battery	70.00
L-1609	170/173 Portable KCT-57MS Installation (for FleetSync®)	20.00

(02.10.2010) KLH-138 Description Change (02.10.2010) KNB-25A/26N/35L are Replaced by KNB-55L/56N/57L (02.10.2010) 6 New Packages Replace the Old 4 Packages.

11-2100/3100		
VHF/UHF Trunking & Conventional Portable Radios		
GENERAL FEATURES • 5 W (136-174 MHz) Models • 5 W (450-520, 400-470 MHz) Models • Conventional & LTR <sup>®</sup> Zones • 12 Character Alphanumeric Aliases	• MIL-STD-8 • MIL-STD "E • IP-54/55 W • Intrinsically	
 Backlit Dot Matrix LCD     · 3-Digit Sub-Display     Function / Status LCD Icons     RSSI Indicator     Date & 12/24 Hour Time Clock     Transmit / Busy / Call Alert / Warn LED     · 4 Front Panel PF keys     2 Side PF Keys	CONVENTIC • 512 Channe • QT / DQT • Two-Tone I • Single / Tw • Operator S • Dual Priorit • Single & M	

TK-2180/3180

# All 180 series portables include: • Belt Clip (KBH-11) • Universal Connector Cap • Instruction Manual

- Premium Warranty: 3 Years\*
- \* All Accessories / options: 1 Year

Order packages to include Battery & Charger, or purchase Battery, Charger, and Antenna separately.

- 2 Side PF Keys
   Orange Emergency / AUX Key
   12-Key DTMF / PF Keypad
   500 mW Audio Power
   Enhanced Kenwood Audio
- Companded Audio
- Companded Audio
   VOX Ready
   Voice Inversion Scrambler Built-in
   Encryption / ANI Board Control
   Easy Option Port
   Emergency Call Features
   Emergency Man-Down Option
   DTMF Encode / Decode
   Special Atert Tone Patterns
   Call Key
   Time Out Timer
   Busy Channel Lockout
   LCD Battery Status Indicator
   Low Battery Netre
   Battery Saver

- Weather-sealed ACC Connector MIL-Spec Speaker Mic Option Windows<sup>®</sup> Programming & Tuning Windows<sup>®</sup> Firmware Uploading

- Front Panel Test/Tune
- Cloning

\* Approved for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A,B, C, D hazardous locations. <u>Note</u>: Class I, Div 2 Group A & B Gases require use of a portable carrying case.

MIL-STD-810 C/D/E/F/G
<ul> <li>MIL-STD "Driven-Rain"</li> </ul>
<ul> <li>IP-54/55 Water &amp; Dust Intrusion</li> </ul>
<ul> <li>Intrinsically Safe Option*</li> </ul>

# IONAL ZONES nels / 128 Zones

- Decode
- wo-Tone Encode Selectable Tone
- Oud Priority Scan
   Single & Multi-Zone Scan
   List Scan
- TRUNKED ZONES 512 GID / 128 Zones
   Kenwood LTR® Features

## MPT ZONES (option)

Single-Site Trunking
 Multi-Site Network Trunking
 8 Network Capacity
 Network Roaming / Registration

## FleetSvnc®

- FleetSync<sup>®</sup> or FleetSync<sup>®</sup> II FizetSync<sup>®</sup> or FleetSync<sup>®</sup> II PTT ID Digital ANI Selective Call & Group Call Status Messaging Emergency Status Caller ID Display Short Text Messages Deurs O.(Of Status Message

- Short Text Messages
   Power On/Off Status Messages
   PC Serial Interface
   Send/Display GPS (KMC-38GPS)
   PTT ID & Emergency GPS Reporting
   Status Message Block GPS Reporting

## MDC-1200 • PTT ID Digital ANI

Caller ID Display
 Emergency Status
 Radio Check

(02.10.2010) Replace KNB-32N with KNB-54N (including Packages) (02.10.2010) KNB-31A and Its Packages are Deleted (02.26.2010) KMC-40 is not IS for 180 series (03.02.2011) Replace KPG-36AM/KCT-53UM with KPG-36UM (03.02.2011) Replace KMC-38GPS with KMC-47GPS (03.02.2011) Delete CIM-1000/CABLE (03.02.2011) Delete L-1018/1019/1610 (03.08.2011) Added MIL-G (03.08.2011) Added KVC-20L (03.01.2012) KMB-23 Description Updated (03.01.2012) KMC-51M & 52W were added (07.27.2012) Add KCT-51 (11.13.2012) Change KNB-41NC to KNB-41NC-FM (01.29.2013) Change the FPU to "DN" (02.13.2013) L-1051 Description Change (9.30.2013) Reorganized Accessories/Options/Installation (9.30.2013) Combined MPT (10.3.2013) Replaced line art with photographs (1.13.2014) Corrected Package Pricing (8.7.2015) FM Discontinue Notice (1.5.2016) Change FM Model to CSA-us Model (1.5.2016) Change KNB-41NC-FM to KNB-41NC-CSA-US (1.5.2016) Delete L-994 and add L-1804 (1.21.2016) Revive KNB-41NC-FM (02.19.2016) Add KVC-23 (05.12.2016) Change to Universal Battery (08.25.2016) Delete KVC-18 for discontinuation (08 25 2016) Delete KVC-20 for discontinuation (08.25.2016) Delete KWR-1 for discontinuation

(09.30.2009) Labor Code (L-1051) is added. (10.16.2009) KMC-40 is added

	Radio Inhibit	
RADIO		LIST
TK-2180K	136-174 MHz 5W, 512 CH / 128 Zone CONV-& LTR	543.00
TK-2180K2	136-174 MHz 5W, 512 CH / 128 Zone CONV-& LTR with DTMF keypad	595.00
TK-3180K	450-520 MHz 5W, 512 CH / 128 Zone CONV-& LTR	560.00
TK-3180K2	400-470 MHz 5W, 512 CH / 128 Zone CONV-& LTR	560.00
TK-3180K3	450-520 MHz 5W, 512 CH / 128 Zone CONV-& LTR with DTMF Keypad	613.00
TK-3180K4	400-470 MHz 5W, 512 CH / 128 Zone CONV-& LTR with DTMF Keypad	613.00
PACKAGES	* The 2% Radio Package Discount applied to Dealer Cost	LIST
TK-2180K-NKP	VHF NiMH Battery Package (TK-2180K + KNB-54N + KSC-32 + KBH-11)	700.50
TK-2180K-LKP	VHF Li-Ion Battery Package (TK-2180K + KNB-33L + KSC-32 + KBH-11)	718.00
TK-3180K-NKP	UHF NiMH Battery Package (TK-3180K + KNB-54N + KSC-32 + KBH-11)	717.50
TK-3180K2-NKP	UHF NiMH Battery Package (TK-3180K2 + KNB-54N + KSC-32 + KBH-11)	717.50
TK-3180K-LKP	UHF Li-Ion Battery Package (TK-3180K + KNB-33L + KSC-32 + KBH-11)	735.00
TK-3180K2-LKP	UHF Li-Ion Battery Package (TK-3180K2 + KNB-33L + KSC-32 + KBH-11)	735.00

	TK-2180/3180	Table of Contents
	VHF/UHF Trunking & Conventional Portable Radios	
CEA LIE INTRINE	ICALLY SAFE APPROVED MODELS	LIST
COA-OO INTRINO	Must Order L-1804 & CSA Intrinsically Safe Battery per radio	LIST
TK-2180-ISCK	136-174 MHz 5W, 512 CH / 128 Zone CONV-& LTR	543.00
TK-2180-ISCK2	136-174 MHz 5W, 512 CH / 128 Zone CONV-& LTR with DTMF keypad	595.00
TK-3180-ISCK	450-520 MHz 5W, 512 CH / 128 Zone CONV-& LTR	560.00
TK-3180-ISCK2	400-470 MHz 5W, 512 CH / 128 Zone CONV-& LTR	560.00
TK-3180-ISCK3	450-520 MHz 5W, 512 CH / 128 Zone CONV-& LTR with DTMF Keypad	613.00
TK-3180-ISCK4	400-470 MHz 5W, 512 CH / 128 Zone CONV-& LTR with DTMF Keypad	613.00
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-20M3	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
KRA-27M2 KRA-27M3	UHF whip antenna 400-450 MHz	14.00
KRA-27M3 KRA-22M	VHF low-profile helical antenna 148-162 MHz	
	VHF low-profile helical antenna 162-174 MHz	13.70
KRA-22M2	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-22M3	UHF low-profile helical antenna 450-490 MHz	13.70
KRA-23M	UHF low-profile helical antenna 470-512 MHz	13.70
KRA-23M2	UHF low-profile helical antenna 403-430 MHz	13.70
KRA-23M3		13.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz Broad-band VHF helically loaded whip antenna 140-170 MHz	34.25
KRA-28		42.00
BATTERIES AND		LIST
KNB-54N	2500 mAh, Ni-MH battery - requires KSC-32/326K charger	87.50
KNB-33L	2000 mAh, Li-ion battery - requires KSC-32/326K charger	105.00
KNB-41NC	2500 mAh, Ni-MH battery - requires KSC-32/326K charger [FM & CSA-us ntrinsically Safe Option]	136.50
KNB-43L	3300 mAh, Li-Polymer battery - requires KSC-32/326K charger	163.00
KBP-6	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	68.50
NDF-0	Note: the color of the case is orange	00.50
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC	70.00
	<u>Note:</u> Includes 110/220V auto-switching AC adapter with U.Sstyle line cord plug; requires plug adapter for 220V Euro-style outlets (not supplied).	
KSC-326K	Rapid rate 6-unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers	191.00
	(chargers not included)	101100
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACCE	ESSORIES	LIST
KBH-10	Low profile spring action belt clip (for use with KNB-33L Only)	8.35
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
	Leather swivel belt loop / detachable swivel D-Ring attachment	20.30
	Loader of the box roop / detabliable of the bit hing back	
KLH-6SW	Heavy duty leather carrying case for TK-2180/3180 (Non DTMF keypad models)	
KLH-6SW KLH-122	Heavy duty leather carrying case for TK-2180/3180 (Non DTMF keypad models)	
KLH-6SW	Heavy duty leather carrying case for TK-2180/3180 (Non DTMF keypad models) Heavy duty leather carrying case for TK-2180/3180 (DTMF keypad models) Cordura Nylon carrying case for TK-2180/3180 (Non DTMF keypad models)	44.25 44.25 26.30

(09.30.2009) Labor Code (L-1051) is added. (10.16.2009) KMC-40 is added (02.10.2010) Replace KNB-32N with KNB-54N (including Packages)

	TK-2180/3180	Table of Contents
	VHF/UHF Trunking & Conventional Portable Radios	
CARRYING ACC	ESSORIES, CON'T	LIST
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap	36.75
WODODUONEO	for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148/154)	
KMC-51DM	& AUDIO ACCESSORIES MIL-SPEC, IP54/55 DSP Digital Noise-canceling Speaker Mic [see note 1]	LIST
KMC-52WDM	MIL-SPEC, IP67 (Immersion) DSP Digital Noise-canceling Speaker Mic [see note 1]	<u>250.00</u> 300.00
	Note: Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards	300.00
	<u>Inote 1</u> : To adjust microphone settings different from factory default, download KPG-147NC configuration software and special configuration firmware from Kenwood Tools (no charge).	
KMC-47GPSD	GPS Speaker Microphone	290.00
KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector Note: 5/16" Coax cable hex wrench included (antenna is not included).	250.00
KMC-41M	MIL-SPEC, IP54/55 Noise-canceling Speaker Mic	96.50
	[Intrinsically Safe Approved Accessory]	
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory]	114.00
	Note: Radio does not have an IP67 Immersion option; meets MIL STD810 rain standards	
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics [Intrinsically Safe Approved Accessory]	52.50
<ct-51< td=""><td>Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)</td><td>215.00</td></ct-51<>	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	215.00
	[Intrinsically Safe Approved Accessory]	
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	184.00
KHS-14	[Intrinsically Safe Approved Accessory] Lt. Wt. Single muff headset w/boom mic & In-line PTT	100.00
\п5-14	[Intrinsically Safe Approved Accessory]	126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT	420.00
	[Intrinsically Safe Approved Accessory] Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	200.00
KHS-15-OH	[Intrinsically Safe Approved Accessory]	368.00
OPTION MODUL		LIST
KCT-48VU	External Vibration Unit	49.00
	[Intrinsically Safe Approved Accessory] Note: Audio accessories cannot be used when this option installed.	
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury)	22.00
	[Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S. Order L-1610 for CIM-1000, K-20, K-26 & L-1611 for FleetSync® operations	
FIRMWARE OPT		LIST
KWD-180TFS	TFS Tactical Feature Set Field Upgrade Kit for 180-Series	105.00
	Must order L-1624 Note: Refer to 180-Series "Tactical Feature Set" In-Depth Technical Manual for feature details (available	
	from technical support). Not compatible with any other firmware options.	
	TED ACCESSORIES	LIST
KPG-36XM	USB Programming interface cable	158.50
KPG-89DNK	Windows <sup>®</sup> Programming Software for TK-2180/3180/7180/8180 (Compliant with FCC Part 90 Narrowbanding)	103.25
	Note: Self-programming & Tactical Feature Set* functions are not available.	
	* KPG-89DK is required for Tactical Feature Set. KPG-89DK is no longer supported or distributed by Kenwood.	
NSTALLATION /	/ TUNING CHARGES	LIST
-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
-963	TK-2180/3180 Programming (with basic TX/RX check)	37.50
1051	TK-2180/3180 TFS INSTALLATION	100.00
	<u>Note</u> : KPG-89DK is required to program the TFS (Tactical Feature Set). KPG-89DK is no longer supported or distributed by Kenwood. TFS will not work with KPG-89DNK.	
1611	180 Portable KCT-57MS Installation (for FleetSync®)	20.00
-1619	180 Portable KWD-180MPT FIELD-UPGRADE (Must purchase KWD-180MPT separately)	NC
-1624	180 Portable KWD-180TFS FIELD-UPGRADE (Must purchase KWD-180TFS separately)	NC
1804	Configure TK-2180-IS/3180-IS for CSA Intrinsically Safe	70.00
	Must order an I.S. battery, /ACCESSORIES/TUNING	LIST
WD-180MPT	MPT Trunking Field Upgrade Kit for 180-Series	43.75
	Must order L-1619	43.75
	Note: Refer to 180-Series MPT Price Pages and 180-Series MPT In-Depth Technical Manuals for feature details (available from technical support). Not compatible with any other firmware options	
	Radio does not retain all normal 180-Series conventional or LTR trunking features once the MPT option	
	is installed.	
-1012	Install MPT option in 180-Series radio	16.67
-1013	Network Level License ID for KPG-96D(N) 180-Series Programmer	158.33
1014	Retrofit Install of MPT option in 180-Seires radio	85.00
	For previously purchased 180-Series radios. Order L-1014 through LMR order desk/rep. Ship radios to attn: Kenwood LMR Tuning, Long Beach for installation. Include Kenwood order number for L-1014	
	provided by order desk & copy of company P.O. or P.O. number.	
	Note: Only certain Serial Number Lots produced in late 2004 and later can be retrofitted - see 180-Series MPT Introduction Sales Bulletin for details	
-1061	Install KCT-57MS (for MPT Emergency Call)	20.00

(09.30.2009) Labor Code (L-1051) is added. (10.16.2009) KMC-40 is added (02.10.2010) Replace KNB-32N with KNB-54N (including Packages)

## **TK-3173**

## **UHF Trunking & Conventional Compact Portable Radio**



All 173 series portables include: • Belt Clip (KBH-12) • 2-PIN Connector Cap

- Instruction Manual
- Standard Warranty: 2 Years\*

\* All Accessories / options: 1 Year

Order packages to include Battery, Charger & Antenna, or purchase Battery, Charger, and Antenna separately.

## GENERAL FEATURES

- 4 W, 450-490 MHz
   Conventional & LTR<sup>®</sup> Zones
- 8 Character Alphanumeric Aliases
   Backlit LCD
- Function / Status LCD Icons
- Transmit / Busy / Call Alert / Warn LED
   4 Front Panel PF keys
   3 Side PF Keys
- Orange Emergency / AUX Key
   500 mW Audio Power
   Enhanced Kenwood Audio
   Companded Audio

- Companded Audio
   Encryption / ANI Board Control
   Easy Option Port (20-Pin)
   Emergency Call Features
   Emergency Man-Down Option
   QT / DQT

- DTMF Encode / Decode
   Special Alert Tone Patterns

- Call Key
   Time Out Timer
   Busy Channel Lockout
   LCD Battery Status Indicator

- Lob Battery Status Indicator
   Low Battery Alert
   Weather-sealed ACC Connector
   Speaker Mic Options
   Windows® Programming & Tuning
- · Windows® Firmware Uploading
- Field Programming & Tuning Cloning

- MIL-STD-810 C/D/E/F/G MIL-STD "Driven-Rain"
  - IP-54/55 Water & Dust Intrusion
     Intrinsically Safe Option\*

## CONVENTIONAL ZONES

- L28 Channels / 128 Zones
   QT / DQT
   Two-Tone Decode
   Single / Two-Tone Encode
   Operator Selectable Tone
   Single & Multi-Zone Scan
   List Scan

- List Scan
   Voice Inversion Scrambler Built-in
   VOX Ready
- · Battery Saver

TRUNKED ZONES • 250 GID / 128 Zones • Kenwood LTR<sup>®</sup> Features

- FleetSync<sup>®</sup> PTT ID Digital ANI
- Selective Call & Group Call
- Status Messaging
   Emergency Status
   Caller ID Display
- Short Text Messages PC Serial Interface

--- Must Order L-1000 for Intrinsically Safe Option ---\* Approved for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-Incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations.

RADIO		LIST
TK-3173K	450-490 MHz 4W, 128 CH / 128 Zone Conventional; 8 Character LCD, 4-key	399.00
TK-3173K4	450-490 MHz 4W, 128 CH / 128 Zone Conventional; 8 Character LCD, 4 + 12-key	448.00
Li-ion VALUE PA	ACKAGES	LIST
TK-3173-SLKVP	Li-ion Value Pack (TK-3173K + KNB-55L + KSC-25LSK + KRA-27M)	521.30
TK-3173-LKVP	Hi-Cap Li-ion Value Pack (TK-3173K + KNB-57L + KSC-25LSK + KRA-27M)	559.30
PACKAGES		LIST
TK-3173-NKP	Basic Package (TK-3173K + KNB-56N + KSC-30 + KRA-27M)	509.50
TK-3173-SLKP	Standard Slim Package (TK-3173K + KNB-55L + KSC-25SK + KRA-27M)	535.00
TK-3173-LKP	Premium Package (TK-3173K + KNB-57L + KSC-25SK + KRA-27M)	573.00
ANTENNAS		LIST
KRA-23M	UHF Low-profile helical antenna 450-490 MHz	13.70
KRA-27M	UHF whip antenna 440-490 MHz	14.00
BATTERIES AND	CHARGERS	LIST
KBP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	49.00
KNB-55L	1480 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	60.00
KNB-56N	1400 mAh, Ni-MH battery	65.00
BATTERIES AND	O CHARGERS, CON'T	LIST
KNB-57L	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	98.00
KNB-68LC	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger [Intrinsically Safe Option]	112.00
KSC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC Li-ion Battery	48.30
KSC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC	62.00
KSC-30	110 volt Regular rate single unit charger for KNB-25A/26N/56N	31.50
KSC-256K	Rapid rate 6-Unit charger for KNB-25A/26N/35L/40LC(V)/55L/56N/57L/68LC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	173.00
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00
KVC-4	Vehicular charger adapter for the KSC-16/18/20/24/25 chargers (chargers not included)	84.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACC		LIST
KLH-138	Heavy-Duty Leather Case w/Swivel Belt Loop for 160/170/173/360 (Non DTMF keypad)	49.00
KLH-139	Heavy-Duty Leather Case w/Swivel Belt Loop for 170/173 (w/ DTMF keypad)	49.00
KBH-12	Spring action belt clip	8.35
KBH-13DS	Leather swivel belt loop with portable D-Ring attachment	28.85
MICROPHONES	& AUDIO ACCESSORIES	LIST

(02.10.2010) KNB-25A/26N/35L are Replaced by KNB-55L/56N/57L (02.10.2010) 3 New Packages Replace the Old 2 Packages (02.26.2010) KHS-1 Discontinued (03.03.2011) KPG-22AM/KCT-53UM replaced by KPG-22UM (03.03.2011) Delete CIM-1000/CABLE (03.03.2011) Delete L-1049/1050/1608 (03.03.2011) Added KMC-48GPS (03.08.2011) Added MIL-G (04.06.2011) KNB-55L/56N/57L were added to the descriptions of the chargers (10.27.2011) Add KSC-25L & Packages (12.09.2011) Delete KSC-25E & 30E (03.01.2012) KMB-16 & 23 Description Updated (03.01.2012) KVC-3 & 4 Description Updated (07.12.2012) KNB-40LC changed to KNB-40LCV (07.16.2012) Delete KMC-17 (07.16.2012) KMC-45 is I.S. approved (07.16.2012) IS Rating Changed (Div 1 Grp C-G) (12.05.2012) Add KHS-31 (12.05.2012) Delete KHS-8BE/9BE (01.29.2013) Change the FPU to "DN" (9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs (1.13.2014) Corrected Package Pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC (10.27.2015) Delete KVC-3 (1.5.2016) Change/Add Charger and Battery Compatibility (1.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK (1.14.2016) Change form KMC-45 to KMC-45D (02.19.2016) Add KVC-23

(4.11.2016) Delete KHS-23 for Discontinuation (06.16.2016) Change description for KSC-25SK/LSK (06.22.2016) Change description for KMB-16

(07.08.2016) Add KEP-1

(02.10.2010) KLH-138 Description Change

(08.25.2016) Delete KWR-1 for discontinuation (10.04.2016) Delete KHS-25

GPS Speaker Microphone

KMC-48GPS

265.00

	TK-3173	Table of Contents
	UHF Trunking & Conventional Compact Portable Radio	
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) [Intrinsically Safe Approval Accessory]	86.00
KMC-21	Compact speaker microphone [Intrinsically Safe Approval Accessory]	51.50
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Approved Accessory]	52.50
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	336.00
KHS-7	Single muff headset w/boom mic [Intrinsically Safe Approval Accessory]	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
OPTION MODU	ILES	LIST
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]. Must be Kenwood installed for I.S. Order L-1609 for Files/Non@ operations	22.00

(02.10.2010) KLH-138 Description Change (02.10.2010) KNB-25A/26N/35L are Replaced by KNB-55L/56N/57L (02.10.2010) 3 New Packages Replace the Old 2 Packages.

	TK-3173	Table of Contents
	UHF Trunking & Conventional Compact Portable Radio	
SERVICE RELA	TED ACCESSORIES	LIST
KPG-101DNK	Windows <sup>®</sup> Programming Software for TK-2170/3170/3173 (Compliant with FCC Part 90 Narrowbanding) Note: SelF-programming function is not available.	103.25
INSTALLATION	/ TUNING CHARGES	LIST
L-836	Assemble KMB-16 with six KSC-25/25L	15.00
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	17.00
L-993	TK-3173 Programming (with basic TX/RX check)	37.50
L-1001	Configure TK-3173 for Intrinsically Safe Must order an I.S. battery	70.00
L-1609	170/173 Portable KCT-57MS Installation (for FleetSync®)	20.00

(02.10.2010) KLH-138 Description Change (02.10.2010) KNB-25A/26N/35L are Replaced by KNB-55L/56N/57L (02.10.2010) 3 New Packages Replace the Old 2 Packages.

		IK-2360/3360		
	Co	ompact VHF/UHF FM Portable Radios		
All 360 series portal • Belt Clip (KBH-12) • 2-PIN Connector Ce • Instruction Manual • Standard Warranty: • All Accessories / optior Order packages to im	ap 2 Years* Is: 1 Year	GENERAL FEATURES • 5W (136-174 MHz) • 5W (450-520, 400-470 MHz) • 16 Conventional Channels • Single Priority / Normal Scan • Transmit / Busy / Call Alert / Scan / Wam LED • 4-Color LED (Blue/Red/Green/Orange) • 3 PF Keys (w/Hold Function) • Orange Emergency / AUX Key • 500 mW Audio Power • Enhanced Kenwood Audio • Companded Audio (per CH) • Voice CH# Announcement • VOX ready • Voice Inversion Scrambler Built-in • 16 Scrambler Codes (per CH) • Emergency Man-Down Option • Lone Worker Alert • QT / DQT • Two-Tone Decode • Single / Two-Tone Encode • DTMF Encode / Decode	<ul> <li>Special Alert Tone Pattern</li> <li>Time Out Timer</li> <li>Busy Channel Lockout</li> <li>Low Battery Warning</li> <li>Battery Saver</li> <li>Windows Programming &amp; Tuning</li> <li>Password Protection</li> <li>MIL-STD-810 C/D/E/F/G</li> <li>IP-54/55 Water &amp; Dust Intrusion</li> <li>Intrinsically Safe Option*</li> </ul> FleetSync® <ul> <li>PTT ID Digital ANI</li> <li>Selective Call &amp; Group Call</li> <li>Paging Call</li> <li>Status Messaging</li> <li>Emergency Status</li> </ul> MDC-1200 <ul> <li>PTT ID Digital ANI</li> <li>Emergency Status</li> <li>Radio Check</li> <li>Radio Inhibit</li> </ul>	
Charger & Antenna, o Charger and Antenna		Must Order L-1716 for Intrins * Approved for Classes I, II & III, Div. 1, Groups Court Insective use is Classes U. 8. 2010 arXiv: 2010.	D, E, F, G and are also approved for non-	
Charger and Antenna			D, E, F, G and are also approved for non-	
Charger and Antenna	a separately.	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups	D, E, F, G and are also approved for non- s A, B, C, D, F, G hazardous locations.	<i>LIST</i> 211.00
Charger and Antenna RADIO TK-2360K	136-174 MHz 5W, 16 C	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00
Charger and Antenna RADIO TK-2360K TK-3360K	a separately.	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	-
Charger and Antenna RADIO TK-2360K TK-3360K TK-3360K2	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50
Charger and Antenna RADIO TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50
Charger and Antenna <b>RADIO</b> TK-2360K TK-3360K2 <b>Li-ion VALUE PA</b> TK-2360-SLKVP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional H Conventional	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <i>LIST</i>
Charger and Antenna RADIO TK-2360K TK-3360K2 <i>Li-ion VALUE PA</i> TK-2360-SLKVP TK-2360-LKVP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <i>LIST</i> 333.30
Charger and Antenna RADIO TK-2360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-SLKVP TK-2360-SLKVP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-Ion Value Pack VHF Hi-Cap Li-ion Value UHF Li-Ion Value Pack	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <i>LIST</i> 333.30 371.30
Charger and Antenna RADIO TK-2360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-LKVP TK-2360-SLKVP TK-3360-LKVP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-Ion Value Pack VHF Hi-Cap Li-ion Value UHF Li-Ion Value Pack	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-55L + KSC-25LSK + KR	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <b>LIST</b> 333.30 371.30 349.80
Charger and Antenna RADIO TK-2360K TK-3360K Li-ion VALUE PA TK-2360-SLKVP TK-2360-LKVP TK-3360-SLKVP TK-3360-SLKVP PACKAGES TK-2360-NKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-Ion Value Pack VHF Hi-Cap Li-ion Value UHF Li-Ion Value Pack	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-55L + KSC-25LSK + KR	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <b>LIST</b> 333.30 371.30 349.80 387.80 <b>LIST</b> 321.50
Charger and Antenne RADIO TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-LKVP TK-3360-LKVP PACKAGES TK-2360-NKP TK-2360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-57L + KSC-25LSK + KR e Pack (TK-3360K + KNB-57L + KSC-25LSK + KR	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 LIST 333.30 371.30 349.80 387.80 LIST 321.50 347.00
Charger and Antenna TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-SLKVP TK-3360-SLKVP PACKAGES TK-2360-NKP TK-2360-SLKP TK-2360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-57L + KSC-25LSK + KR e Pack (TK-3360K + KNB-56N + KSC-30 + KRA-26M (TK-2360K + KNB-55L + KSC-25SK + KRA-2	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 LIST 333.30 371.30 349.80 LIST 321.50 347.00 385.00
Charger and Antenna RADIO TK-2360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-SLKVP TK-3360-SLKVP TK-2360-SLKP TK-2360-SLKP TK-2360-SLKP TK-2360-SLKP TK-2360-LKP TK-2360-LKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package VHF Standard Slim Pac VHF Premium Package UHF Basic Package	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-57L + KSC-25LSK + KR (TK-2360K + KNB-56N + KSC-30 + KRA-26M kage (TK-2360K + KNB-55L + KSC-25SK + KRA-2 (TK-2360K + KNB-57L + KSC-25SK + KRA-2 (TK-2360K + KNB-57L + KSC-25SK + KRA-2 (TK-3360K + KNB-57L + KSC-30 + KRA-27M	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 LIST 333.30 371.30 349.80 387.80 LIST 321.50 387.00 385.00 338.00
Charger and Antenna RADIO TK-2360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-SLKVP TK-2360-LKVP TK-2360-LKVP TK-2360-LKP TK-2360-LKP TK-2360-LKP TK-2360-LKP TK-2360-SLKP TK-2360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-Ion Value Pack VHF Hi-Cap Li-Ion Value UHF Hi-Cap Li-Ion Value VHF Basic Package VHF Standard Slim Pac VHF Basic Package UHF Basic Package	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-55L + KSC-25LSK + KR e Pack (TK-3360K + KNB-57L + KSC-25LSK + KR (TK-2360K + KNB-57L + KSC-25SK + KRA-26) (TK-2360K + KNB-57L + KSC-25SK + KRA-27) (TK-2360K + KNB-56N + KSC-30 + KRA-27) (TK-3360K + KNB-56N + KSC-30 + KRA-27) (TK-3360K + KNB-55L + KSC-25SK + KRA-27)	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <b>LIST</b> 333.30 349.80 387.80 <b>LIST</b> 321.50 347.00 385.00 385.00 385.00 385.00
Charger and Antenna RADIO TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-3360-SLKVP TK-3360-LKVP TK-2360-SLKP TK-2360-SLKP TK-2360-SLKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package VHF Standard Slim Pac VHF Premium Package UHF Standard Slim Pac	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-3360K + KNB-55L + KSC-25LSK + KR e Pack (TK-3360K + KNB-57L + KSC-25LSK + KR (TK-2360K + KNB-57L + KSC-25SK + KRA-26) (TK-2360K + KNB-57L + KSC-25SK + KRA-27) (TK-2360K + KNB-56N + KSC-30 + KRA-27) (TK-3360K + KNB-56N + KSC-30 + KRA-27) (TK-3360K + KNB-55L + KSC-25SK + KRA-27)	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <b>LIST</b> 333.30 371.30 349.80 387.80 <b>LIST</b> 321.50 347.00 385.00 385.00 363.50 401.50
Charger and Antenna RADIO TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-3360-SLKVP TK-3360-LKVP TK-2360-SLKP TK-2360-SLKP TK-2360-SLKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF LI-ion Value Pack VHF HI-Cap Li-ion Valu UHF Hi-Cap Li-ion Valu UHF Basic Package VHF Standard Slim Pac VHF Premium Package UHF Basic Package UHF Basic Package UHF Standard Slim Pac UHF Premium Package UHF Premium Package	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-3360K + KNB-55L + KSC-25LSK + KRA-260 (TK-2360K + KNB-55L + KSC-25SK + KRA-260 (TK-2360K + KNB-55L + KSC-25SK + KRA-270 (TK-3360K + KNB-55L + KSC-25SK + KRA-270)	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <b>LIST</b> 333.30 349.80 387.80 <b>LIST</b> 321.50 347.00 385.00 385.00 385.00 385.00
Charger and Antenna RADIO TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-SLKVP TK-3360-LKVP PACKAGES TK-2360-NKP TK-2360-SLKP TK-3360-NKP TK-3360-NKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package VHF Standard Slim Pac UHF Premium Package UHF Premium Package UHF Premium Package UHF Premium Package ROVED MODELS Must Orde	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-2360K + KNB-57L + KSC-25LSK + KR (TK-2360K + KNB-55L + KSC-25LSK + KR e Pack (TK-3360K + KNB-55L + KSC-25LSK + KRA- (TK-2360K + KNB-55L + KSC-25SK + KRA- (TK-2360K + KNB-55L + KSC-25SK + KRA- (TK-3360K + KNB-55L + KSC-25SK + KRA- (TK-3360K + KNB-55L + KSC-25SK + KRA- (TK-3360K + KNB-57L + KSC-25SK + KRA- (TK-3360K + KNB-57L + KSC-25SK + KRA- transform) + KRA-25K + KRA- (TK-3360K + KNB-57L + KSC-25SK + KRA- transform) + KRA-25K + KRA- (TK-3360K + KNB-57L + KSC-25SK + KRA- transform) + KRA-25K + KRA- (TK-3360K + KNB-57L + KSC-25SK + KRA- transform) + KRA-25K + KRA-25K + KRA- transform) + KRA-25K + KRA-2	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 <b>LIST</b> 333.30 371.30 349.80 387.80 <b>LIST</b> 321.50 347.00 385.00 385.00 363.50 401.50
Charger and Antenna <b>RADIO</b> TK-2360K TK-3360K2 <b>Li-ion VALUE PA</b> TK-2360-SLKVP TK-2360-SLKVP TK-3360-SLKVP <b>TK-3360-SLKVP</b> TK-2360-SLKP TK-2360-SLKP TK-2360-SLKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP TK-3360-LKP SGS US I.S. APP TK-2360-ISK	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 450-520 MHz 5W, 16 C OKAGES VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package VHF Standard Slim Pac VHF Premium Package UHF Premium Package UHF Standard Slim Pac UHF Standard Slim Pac UHF Standard Slim Package ROVED MODELS Must Orde 136-174 MHz 5W, 16 C	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR CTK-2360K + KNB-55L + KSC-25LSK + KR (TK-3360K + KNB-55L + KSC-25LSK + KR (TK-3360K + KNB-56N + KSC-30 + KRA-26M (TK-2360K + KNB-55L + KSC-30 + KRA-26M (TK-3360K + KNB-55L + KSC-30 + KRA-26M (TK-3360K + KNB-55L + KSC-30 + KRA-27M (TK-3360K + KNB-55L + KSC-35K + KRA-27M (TK-3360K + KNB-55L + KSC-35K + KRA-27M (TK-3360K + KNB-55L + KSC-35K + KRA-27M (TK-3360K + KNB-57L + KSC-35K + KRA-27M + KA-27M + KA	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 LIST 333.30 371.30 349.80 387.80 LIST 321.50 347.00 385.00 338.00 338.00 338.00 401.50 LIST 211.00
Charger and Antenna RADIO TK-2360K TK-3360K TK-3360K2 Li-ion VALUE PA TK-2360-SLKVP TK-2360-SLKVP TK-3360-LKVP PACKAGES TK-2360-NKP TK-2360-SLKP TK-3360-NKP TK-3360-NKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP TK-3360-SLKP	136-174 MHz 5W, 16 C 450-520 MHz 5W, 16 C 400-470 MHz 5W, 16 C <b>CKAGES</b> VHF Li-ion Value Pack VHF Hi-Cap Li-ion Valu UHF Li-ion Value Pack UHF Hi-Cap Li-ion Valu VHF Basic Package VHF Standard Slim Pac UHF Premium Package UHF Premium Package UHF Premium Package UHF Premium Package ROVED MODELS Must Orde	* Approved for Classes I, II & III, Div. 1, Groups C, Incentive use in Classes I, II & III, Div. 2, Groups H Conventional H Conventional (TK-2360K + KNB-55L + KSC-25LSK + KR CTK-2360K + KNB-55L + KSC-25LSK + KR (TK-3360K + KNB-55L + KSC-25LSK + KR (TK-3360K + KNB-56N + KSC-30 + KRA-26M (TK-2360K + KNB-55L + KSC-30 + KRA-26M (TK-3360K + KNB-55L + KSC-30 + KRA-26M (TK-3360K + KNB-55L + KSC-30 + KRA-27M (TK-3360K + KNB-55L + KSC-35K + KRA-27M (TK-3360K + KNB-55L + KSC-35K + KRA-27M (TK-3360K + KNB-55L + KSC-35K + KRA-27M (TK-3360K + KNB-57L + KSC-35K + KRA-27M + KA-27M + KA	D, E, F, G and are also approved for non- A, B, C, D, F, G hazardous locations.	211.00 227.50 227.50 LIST 333.30 371.30 349.80 387.80 LIST 321.50 347.00 385.00 385.00 385.00 363.50 401.50 LIST

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## 02.18.2010) KMC-17 Deleted

(02.18.2010) KNB-55L/56N/57L are added to KSC's Descriptions (02.26.2010) KHS-1 Discontinued (03.03.2011) KPG-22AM/KCT-53UM replaced by KPG-22UM 03.03.2011) Added KMC-48GPS 03.08.2011) Added MIL-G 10.27.2011) Add KSC-25L & Packages 12.09.2011) Delete KSC-25E & 30E (01.17.2012) Intrinsically Safe Package Option (01.17.2012) Added KNB-40LCV (01.17.2012) Added L-1716 (01.17.2012) I.S. Accessories (03.01.2012) KMB-16 & 23 Description Updated (03.01.2012) KVC-3 & 4 Description Updated 12.05.2012) Add KHS-31 12.05.2012) Delete KHS-8BE/9BE 02.13.2013) Change the FPU to "DN" (9.30.2013) Reorganized Accessories/Options/Installation 10.3.2013) Replaced line art with photographs 1.13.2014) Corrected Package Pricing (6.4.2015) Replace KSC-25L with KSC-25LSK (6.17.2015) Replace KSC-25 with KSC-25SK (9.17.2015) Replace KNB-40LCV with KNB-68LC 10.27.2015) Delete KVC-3 .5.2016) Change/Add Charger and Battery Compatibility I.5.2016) Change KSC-25K/25LK to KSC-25SK/25LSK 1.14.2016) Change form KMC-45 to KMC-45D 02.19.2016) Add KVC-23 4.11.2016) Delete KHS-23 for Discontinuation 06.16.2016) Change description for KSC-25SK/LSK 06.22.2016) Change description for KMB-16 08.25.2016) Delete KWR-1 for discontinuation

10.04.2016) Delete KHS-25

	TK-2360/3360	Table of Contents
	Compact VHF/UHF FM Portable Radios	
ANTENNAS		LIST
KRA-22M	VHF Low-profile helical antenna 148-162 MHz	13.70
KRA-22M2	VHF Low -profile helical antenna 162-174 MHz	13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-23M	UHF Low-profile helical antenna 450-490 MHz	13.70
KRA-23M2	UHF Low-profile helical antenna 470-512 MHz	13.70
KRA-23M3	UHF Low-profile helical antenna 403-430 MHz	13.70
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
(RA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
(RA-27M2	UHF whip antenna 470-520 MHz	14.00
(RA-27M3	UHF whip antenna 400-450 MHz	14.00
	ID CHARGERS	LIST
(BP-5	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	49.00
KNB-68LC	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger [Intrinsically Safe Option]	112.00
KNB-55L	1480 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	60.00
KNB-56N	1400 mAh, Ni-MH battery	65.00
KNB-57L	2000 mAh, Li-ion battery - requires KSC-25SK/25LSK/256K charger	98.00
(SC-25LSK	100~240 volt rapid rate single unit charger for KNB-40LC(V)/55L/57L/68LC Li-ion Battery	48.30
(SC-25SK	110 volt Rapid rate single unit charger for KNB-26N/40LC(V)/55L/56N/57L/68LC	62.00
<sc-30< td=""><td>110 volt Regular rate single unit charger for KNB-25A/26N/56N</td><td>31.50</td></sc-30<>	110 volt Regular rate single unit charger for KNB-25A/26N/56N	31.50
(SC-256K	Rapid rate 6-Unit charger for KNB-25A/26N/35L/40LC(V)/55L/56N/57L/68LC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-16	Six Unit Charger Adapter for the KSC-16/20/24/25/25L chargers (chargers not included)	173.00
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00
VC-4	Vehicular charger adapter for the KSC-16/18/20/24/25 chargers (chargers not included)	84.00
<vc-23< td=""><td>Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, &amp; TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only</td><td>300.00</td></vc-23<>	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING AC	CESSORIES	LIST
KLH-138	Heavy-Duty Leather Case w/Swivel Belt Loop for 160/170/173/360 (Non DTMF keypad)	49.00
(BH-12	Spring action belt clip	8.35
(BH-13DS	Leather swivel belt loop with portable D-Ring attachment	28.8
	S & AUDIO ACCESSORIES	
MC-48GPS	GPS Speaker Microphone	265.00
	[Intrinsically Safe Approval Accessory]	205.00
(MC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack) [Intrinsically Safe Approval Accessory]	86.00
KMC-21	Compact speaker microphone	51.50
KEP-2	[Intrinsically Safe Approval Accessory] 2.5mm earphone kit for KMC-17/45 Speaker Mic [Intrinsically Safe Approval Accessory]	52.50
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	368.00
(HS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	336.00
KHS-7	Single muff headset w/boom mic [Intrinsically Safe Approval Accessory]	70.00

(02.18.2010) KMC-17 Deleted

(02.18.2010) KNB-55L/56N/57L are added to KSC's Descriptions (02.26.2010) KHS-1 Discontinued

	TK-2360/3360 Compact VHF/UHF FM Portable Radios	Table of Contents
MICROPHONES	S & AUDIO ACCESSORIES, CON'T	LIST
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT [Intrinsically Safe Approval Accessory]	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
<b>OPTION MODU</b>	LES	LIST
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]- Must be Kenwood installed for I.S. Order L <sup>472</sup> for FleetSyno® operations	22.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-128DNK	Windows <sup>®</sup> Programming Software for TK-2360/3360 (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-22UM	USB Programming interface cable	158.50
INSTALLATION	/ TUNING CHARGES	LIST
L-836	Assemble KMB-16 with six KSC-25/25L	15.00
L-961	Assemble KMB-23 with six KSC-24/25/25L/32 (Rapid Rate, 120 Volt versions only)	17.00
L-1678	TK-2360/3360 Programming (with basic TX/RX check)	37.50
L-1679	TK-2360/3360 Portable KCT-57MS Installation (for FleetSync®/MDC)	20.00
L-1716	Configure TK-2360/3360 for Intrinsically Safe Must Order an I.S. Battery	70.00

(02.18.2010) KMC-17 Deleted (02.18.2010) KNB-55L/56N/57L are added to KSC's Descriptions (02.26.2010) KHS-1 Discontinued

Table of Contents

All 312 series porta - Li-ion Battery (KNB - Fast Charger (KSC - Antenna (KRA-26) - Belt Clip (KBH-10) - 2-PIN Connector C - Instruction Manual - Standard Warranty * All Accessories / optio	8-45L) ≻35SK) M (VHF)/27M (UHF)] ≋ap ∵ 2 Years*	GENERAL FEATURES 5 W (136-174 MHz) Model 5 W (450-520, 400-470 MHz) Models Conventional Zones 128 Channels / 128 Zones Single Priority Scan 8 Character Alphanumeric Aliases Backlit LCD Function / Status LCD Icons RSSI Indicator 7 Transmit / Busy / Call Alert / Warn LED 4-Color LED (Blue/Red/Green/Orange) 7 Front Panel PF keys 2 Side PF Keys 500 mW Audio Power Enhanced Kenwood Audio Companded Audio (per CH) VOX Ready Voice Inversion Scrambler Built-in 16 Scrambler Codes (per CH) Euner Worker Alert QT / DQT Two-Tone Decode Single / Two-Tone Encode Operator Selectable Tone DTMF Encode / Decode FileetSync®/MDC-1200 (per Zone)	<ul> <li>Special Alert Tone Pattern</li> <li>Call Key</li> <li>Time Out Timer</li> <li>Busy Channel Lockout</li> <li>LCD Battery Status Indicator</li> <li>Low Battery Alert</li> <li>Battery Saver</li> <li>Windows® Programming &amp; Tuning</li> <li>Wireless Cloning</li> <li>Password Protection</li> <li>MIL-STD-810 C/D/E/F/G</li> <li>IP-54/55 Water &amp; Dust Intrusion</li> <li>FleetSync®</li> <li>PTT ID Digital ANI</li> <li>Selective Call &amp; Group Call</li> <li>Status Messaging</li> <li>Emergency Status</li> <li>Caller ID Display</li> <li>Short Text Messages</li> <li>Send GPS Data (KMC-48GPS)</li> <li>PTT ID &amp; Emergency GPS Reporting</li> <li>Status Message Block GPS Reporting</li> <li>Tent ID Digital ANI</li> <li>Caller ID Display</li> <li>Emergency Status</li> <li>Caller ID Ciplay</li> <li>Emergency Status</li> <li>Caller ID Ciplay</li> <li>Emergency Status</li> <li>Radio Check</li> </ul>		(12.17.20 (12.17.20 (03.03.20 (03.03.20 (03.03.20 (05.25.20 (10.19.20 (11.04.20 (12.05.20 (12.05.20 (12.05.20 (10.3.20 <sup>-1</sup> (11.20.20 (11.20.20 (11.20.20) (11.20.20 (11.20.20) (12.20) (1
RADIO			Radio Check	LIST	(10.04.20
TK-2312K	136-174 MHz VHF 5V	V, 128 Ch. [1]		350.00	
TK-3312K	450-520 MHz UHF 5V			350.00	
TK-3312K2	400-470 MHz UHF 5V	V, 128 Ch. [2]		350.00	
ANTENNAS				LIST	
KRA-16M	VHF stubby antenna	148-162 MHz		13.70	
(RA-16M2	VHF stubby antenna	162-174 MHz		13.70	
<ra-16m3< td=""><td>VHF stubby antenna</td><td></td><td></td><td>13.70</td><td></td></ra-16m3<>	VHF stubby antenna			13.70	
KRA-17M	UHF stubby antenna			13.70	
KRA-17M2	UHF stubby antenna			13.70	
KRA-17M3	UHF stubby antenna 4	403-430 MHz al antenna 148-162 MHz		13.70	
KRA-22M KRA-22M2	•	al antenna 140-102 MHz		<u>13.70</u> 13.70	
KRA-22M2		al antenna 136-150 MHz		13.70	
(RA-23M)	-	al antenna 450-490 MHz		13.70	
<ra-23m2< td=""><td>UHF Low-profile helic</td><td>al antenna 470-512 MHz</td><td></td><td>13.70</td><td></td></ra-23m2<>	UHF Low-profile helic	al antenna 470-512 MHz		13.70	
KRA-23M3		al antenna 403-430 MHz		13.70	
KRA-26M	VHF helical antenna 1			14.00	
KRA-26M2	VHF helical antenna 1 VHF helical antenna 1			14.00	
<u> </u>	UHF whip antenna 44			<u>14.00</u> 14.00	
KRA-27M2	UHF whip antenna 47			14.00	
(RA-27M3	UHF whip antenna 40			14.00	
BATTERIES AN	D CHARGERS			LIST	
KNB-45L	2000 mAh, Li-ion batte	ery - requires KSC-35K/E/SK charger		63.00	
KNB-69L		ery - requires KSC-35K/SK charger		75.00	
KNB-29N		ery - requires KSC-43K charger		36.75	
	D CHARGERS, CO			LIST	
<u>(SC-35SK</u>		e single unit charger for KNB-45L Li-ion battery e single unit charger for KNB-29N/45L/69L		<u>31.50</u> 36.70	
KSC-43K KMB-28	Six Unit Charger Adap (chargers not included <u>Note:</u> The six KSC-xx AC switching power supply wi profile and less weight that	oter for the KSC-23BK/28/35SK chargers	bases. This unit is lower	208.50	
	110~220 volt Fast rate ion battery (charger n	e DC vehicular charger adapter for KSC-35SK o		36.70	
	Spring action belt clip			LIST	
(BH-10 (BH-8DS		op with portable D-Ring attachment		<u>8.35</u> 26.30	
KLH-6SW		pp / detachable swivel D-Ring back		22.00	
(LH-178		rrying case for TK-2312/3312		44.25	
	& AUDIO ACCESS	ORIES		LIST	
(MC-48GPS	GPS Speaker Microph			265.00	
(MC-45D		peaker microphone (Built-in 2.5mm miniature ea	arphone jack)	86.00	
(MC-21	Compact speaker mic			51.50	
KEP-1		or KMC-48GPS Speaker Mics or KMC-17/45 Speaker Mic		52.50	
KEP-2				52.50	

## TK-2312/3312 **VHF/UHF Conventional Portable Radios**

## GENERAL FEATURES

### (09.21.2010) KLH-178K Deleted (09.30.2010) Caller ID Display was added (12.17.2010) KLH-178 Added

KBH-8DS Added KLH-6SW Added KPG-22AM/KCT-53UM replaced by KPG-22UM Replace KSC-35K/E with KSC-35SK Delete KMB-25 Added KSC-31E 128ch Antennas Added Add KVC-22 Delete KSC-31E Add KHS-31 Delete KHS-8BE/9BE Change the FPU to "DN" Reorganized Accessories/Options/Installation Replaced line art with photographs Delete note for antenna under models. Change form KMC-45 to KMC-45D Delete KHS-23 for Discontinuation Add KNB-69L Add KEP-1 Delete KWR-1 for discontinuation Delete KHS-25

	TK-2312/3312 VHF/UHF Conventional Portable Radios	Table of Contents
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT	336.00
KHS-7	Single muff headset w/boom mic	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-22UM	USB Programming interface cable	158.50
KPG-134DNK	Windows <sup>®</sup> Programming Software for TK-2312/3312 (Compliant with FCC Parl 90 Narrowbanding) <u>Note</u> : Self-programming function is not available.	103.25
INSTALLATION	/ TUNING CHARGES	LIST
L-1688	TK-2312/3312 Programming (with basic TX/RX check)	37.50

(09.07.2010) Created (09.21.2010) KLH-178K Deleted (09.30.2010) Caller ID Display was added 00

# **KENWOOD**

All 400 series por - Li-ion Battery (K) - Fast Charger (KS - Antenna [KRA-2 - Belt Clip (KBH-11 - 2-PIN Connector - Instruction Manue - Standard Warran - All Accessories / op	NB-45L) SC-35SK) 66M(VHF)/27M(UHF)] 0) Cap al ity: 2 Years*	<ul> <li>4 &amp; 16 Channel Models</li> <li>Single Priority / Normal Scan</li> <li>Transmit / Busy / Cail Alert Scan / Warn LED</li> <li>4-Color LED (Blue/Red/Green/Orange)</li> <li>2 PF Keys</li> <li>1.0 W Speaker Audio</li> <li>Enhanced Kenwood Audio</li> <li>Companded Audio (per CH)</li> <li>Voice Annunciation</li> <li>VOX Ready</li> <li>Voice Inversion Scrambler Built-in</li> <li>16 Scrambler Codes (per CH)</li> <li>Emergency Call Features</li> <li>Lone Worker Alert (per CH)</li> <li>QT / DQT</li> <li>Two-Tone Decode</li> <li>Single / Two-Tone Encode</li> <li>DTMF Encode / Decode</li> </ul>	<ul> <li>Low Battery Warning</li> <li>Battery Saver</li> <li>Windows® Programming &amp; Tuning</li> <li>Wireless Cloning</li> <li>Password Protection</li> <li>ML-STD-810 C/D/E/F/G</li> <li>IP-54/55 Water &amp; Dust Intrusion</li> </ul> FIeteSync@ <ul> <li>PTT ID Digital ANI</li> <li>Selective Call &amp; Group Call</li> <li>Paging Call</li> <li>Emergency Status</li> <li>Send GPS Data (KMC-48GPS)</li> </ul> MDC-1200 <ul> <li>PTT ID Digital ANI</li> <li>Emergency Status</li> <li>Radio Check</li> </ul>	
RADIO				LIST
TK-2400K	136-174 MHz VHF 2	W, 4 Ch.		250.00
TK-2400K2	136-174 MHz VHF 2	W, 16 Ch.		267.00
TK-3400K	450-520 MHz UHF 2			267.00
TK-3400K2	450-520 MHz UHF 2	W, 16 Ch.		284.00
ANTENNAS				LIST
KRA-41M	VHF stubby antenna			13.70
KRA-41M2	VHF stubby antenna			13.70
KRA-41M3	VHF stubby antenna			13.70
KRA-42M KRA-42M2	UHF stubby antenna UHF stubby antenna			<u>13.70</u> 13.70
(RA-421012 (RA-22M	VHF low profile anter			13.70
(RA-22M2	VHF low profile anter			13.70
(RA-22M3		cal antenna 136-150 MHz		13.70
KRA-23M	UHF low profile anter			13.70
KRA-23M2	UHF low profile anter	nna 470-520 MHz		13.70
KRA-26M	VHF helical antenna	146-162 MHz		14.00
<ra-26m2< td=""><td colspan="2">VHF helical antenna 162-174 MHz</td><td>14.00</td></ra-26m2<>	VHF helical antenna 162-174 MHz		14.00	
KRA-26M3	VHF helical antenna 136-150 MHz		14.00	
KRA-27M	UHF whip antenna 440-490 MHz UHF whip antenna 470-520 MHz		14.00	
KRA-27M2		70-520 MHz		14.00
	ND CHARGERS			LIST
KNB-45L KNB-69L		tery - requires KSC-35K/SK charger		63.00 75.00
KNB-29N		tery - requires KSC-35K/SK charger tery - requires KSC-43K charger		36.75
KSC-35SK		te single unit charger for KNB-45L/69L		31.50
KSC-43K		te single unit charger for KNB-29N/45L/69L		36.70
KMB-28	(chargers not include <u>Note:</u> The six KSC-xx AC switching power supply w profile and less weight th	pter for the KSC-23BK/28/35SK chargers d) vall Adapters are NOT used in the KMB-28 installation A s vith six DC plugs supply the six installed KSC-xx charger bas an similar Kenwood six unit charger adapters. (4(H) x 9.5(D) inches, Weight: approx. 10 tbs. (loaded with c	es. This unit is lower	208.50
BATTERIES AI	ND CHARGERS, CO		· · · · · · · · · · · · · · · · · · ·	LIST
KVC-22	110~220 volt Fast rat	te DC vehicular charger adapter for KSC-35SK cha	arger & KNB-45L Li-	36.70
	ion battery (charger r	not included)		
CARRYING AC				LIST
KBH-10	Spring action belt clip			8.35
KBH-8DS KLH-6SW		op with portable D-Ring attachment		26.30
(LH-651) (LH-187		op / detachable swivel D-Ring back 00/*202/*300/*302/*400/*402 Series		22.00
	S & AUDIO ACCES			LIST
KMC-48GPS	GPS Speaker Microp			265.00
(MC-45D		Speaker microphone (Built-in 2.5mm miniature earp	phone jack)	86.00
(MC-21	Compact speaker mi			51.50
KEP-1		for KMC-48GPS Speaker Mics		52.50
KEP-2	2.5mm earphone kit f	for KMC-17/45 Speaker Mic		52.50
		tion behind-the-headset w/noise cancel boom mic		368.00
KHS-10-BH	Hvy-duty noise reduction over-the-headset w/noise cancel boom mic /in-line PTT		-line PTT	336.00
KHS-10-BH KHS-10-OH	Single muff headset w/boom mic			70.00
KHS-10-BH KHS-10-OH KHS-7		Lt. Wt Single muff headset w/boom mic & in-line PTT		105.00
KHS-10-BH KHS-10-OH KHS-7 KHS-7A	Lt. Wt Single muff he			
KHS-10-BH KHS-10-OH KHS-7 KHS-7A KHS-8BL	Lt. Wt Single muff he Two-Wire palm mic w	v/earphone (black)		103.25
KHS-10-BH KHS-10-OH KHS-7 KHS-7A	Lt. Wt Single muff he Two-Wire palm mic w Three-Wire lapel mic	v/earphone (black)	ear receiver	

# GENERAL FEATURES • 2 W (136-174 MHz) VHF • 2 W (450-520 MHz) UHF • 4 & 16 Channel Models

TK-2400/3400

VHF/UHF Conventional Portable Radios

- Special Alert Tone Pattern
   Time Out Timer
   Busy Channel Lockout
   Low Battery Warning

(11.27.2012) Created

(9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs (1.14.2016) Change form KMC-45 to KMC-45D

(4.11.2016) Delete KHS-23 for Discontinuation (07.08.2016) Add KEP-1 (10.04.2016) Delete KHS-25

	TK-2400/3400 VHF/UHF Conventional Portable Radios	Table of Contents
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
SERVICE REL	ATED ACCESSORIES	LIST
KPG-22UM	USB Programming interface cable	158.50
KPG-160DK	Windows <sup>®</sup> Programming Software for TK-2400/3400	103.25
INSTALLATIO	N / TUNING CHARGES	LIST
L-1757	TK-2400/3400 Programming (with basic TX/RX check)	37.50

(11.27.2012) Created

(9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs

Time Out Timer

Time Out Timer
 Low Battery Warning
 Battery Saver
 Windows® Programming & Tuning
 Wireless Cloning
 Password Protection
 MIL-STD-810 C/D/E/F/G
 IP-54/55 Water & Dust Intrusion

Table of Contents

# ProTalk

# TK-2400VP/3400UP

## **VHF/UHF BRS Portable Radios**



GENERAL FEATURES

- GENERAL FEATURES 2 W (151-159 MHz) VHF 2 W (451-470 MHz) UHF 4 & 16 Channel Models 90 UHF & 27 VHF Pre-programmed Banked Frequencies Normal Scan Transmit / Busy / Call Alert / Scan / Warn LED 2 PF Keys Super Lock (Manager Key Lock) 1.0 W Speaker Audio Enhanced Kernwood Audio Companded Audio Voice Announcement Channel Confirmation Mode

- Channel Confirmation Mode
   VOX Ready
   Voice Inversion Scrambler Built-in
   QT / DQT

- All 400P series portables include: Li-ion Battery (KNB-45L) Fast Charger (KSC-35SK) Antenna (KRA-26M(VHF)/27M(UHF)] Belt Clip (KBH-10) 2-PIN Connector Cap Instruction Manual Standard Warranty: 2 Years\*

\* All Accessories / options: 1 Year

10 Call Alerting Tones	

RADIO		\ LIST
TK-2400V4P	151-159 MHz VHF 2W, 4 Ch.	247.00
TK-2400V16P	151-159 MHz VHF 2W, 16 Ch.	264.00
TK-3400U4P	451-470 MHz UHF 2W, 4 Ch.	264.00
TK-3400U16P	451-470 MHz UHF 2W, 16 Ch.	275.00
ANTENNAS		LIST
KRA-41M	VHF stubby antenna 148-162 MHz	13.70
KRA-42M	UHF stubby antenna 440-490 MHz	13.70
KRA-22M	VHF low profile antenna 148-162 MHz	13.70
KRA-23M	UHF low profile antenna 450-490 MHz	13.70
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
BATTERIES AN	D CHARGERS	LIST
KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	63.00
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	75.00
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	36.75
KSC-35SK	110~220 volt Fast rate single unit charger for KNB-45L/69L	31.50
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	36.70
KMB-28	Six Unit Charger Adapter for the KSC-23BK/28/35SK chargers (chargers not included) Note: The six KSC-xx AC wall Adapters are NOT used in the KMB-28 installation A supplied in-line AC-DC switching power supply with six DC plugs supply the six installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters. Dimensions: 10.6(W) x 2.4(H) x 9.5(D) inches, Weight: approx. 10 lbs. (loaded with charger#adaios)	208.50
KVC-22	110-220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger & KNB-45L Li-ion battery (charger not included)	36.70

## (11.27.2012) Created

(9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs (1.14.2016) Change form KMC-45 to KMC-45D

(4.11.2016) Delete KHS-23 for Discontinuation (10.04.2016) Delete KHS-25

# ProTalk

## TK-2400VP/3400UP VHF/UHF BRS Portable Radios

CARRYING AC	CESSORIES	LIST
KBH-10	Spring action belt clip	8.35
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-187	Nylon case for TK-*200/*202/*300/*302/*400/*402 Series	14.70
MICROPHONES	S & AUDIO ACCESSORIES	LIST
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	52.50
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancel boom mic /in- line PTT	368.00
KHS-10-OH	Hvy-duty noise reduction over-the-headset w/noise cancel boom mic /in-line PTT	336.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
KHS-7	Single muff headset w/boom mic	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KMC-21	Compact speaker microphone	51.50
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	86.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-22UM	USB Programming interface cable	158.50
KPG-160DK	Windows <sup>®</sup> Programming Software for TK-2400/3400	103.25

-- NOTES --

\* Please see Kenwood's ProTalk® MAP (Minimum Advertised Price) policy.

(11.27.2012) Created

(9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs

Special Alert Tone Pattern

Battery Saver
 Windows® Programming & Tuning

· IP-54/55 Water & Dust Intrusion

Paging Call
 Emergency Status
 Send GPS Data (KMC-48GPS)

Busy Channel Lockout
 Low Battery Warning

Wireless Cloning
 Password Protection

• MIL-STD-810 C/D/E/F/G

FleetSync® • PTT ID Digital ANI • Selective Call & Group Call

Time Out Timer

Table of Contents

# TK-2402V/3402U **VHF/UHF Conventional Portable Radios**

## All 402 series portables include:

- Li-ion Battery (KNB-45L)
   Fast Charger (KSC-35SK)
   Antenna [KRA-26M(VHF)/27M(UHF)]
   Belt Clip (KBH-10)
- 2-PIN Connector Cap
- Channel Stopper
   Instruction Manual

### GENERAL FEATURES • 5 W (136-174 MHz) VHF

- 5 W (450-520 MHz) UHF 16 Channels
- Single Priority / Normal Scan
- Transmit / Busy / Call Alert Scan / Warn LED
   4-Color LED (Blue/Red/Green/Orange)
- 2 PF Keys 1.0 W Speaker Audio
- Enhanced Kenwood Audio
   Companded Audio (per CH)
- Voice Annuciation
   VOX Ready
   Voice Inversion Scrambler Built-in

- 16 Scrambler Codes (per CH)
  Emergency Call Features
- Lone Worker Alert (per CH)
   QT / DQT
- Two-Tone Decode o-Tone Encode
- ode / Decode
- Standard Warranty: 2 Years\*

KHS-10-OH

KHS-7

KHS-7A

KHS-8BL

<ul> <li>Single / Two</li> </ul>
<ul> <li>DTMF Enco</li> </ul>



- PTT ID Digital ANI
   Emergency Status Radio Check
   Radio Inhibit

MDC-1200

* All Accessories / op		LICT
RADIO		LIST
TK-2402VK	136-174 MHz VHF 5W, 16 Ch.	284.00
TK-3402UK	450-520 MHz UHF 5W, 16 Ch.	300.00
ANTENNAS		LIST
KRA-41M	VHF stubby antenna 148-162 MHz	13.70
KRA-41M2	VHF stubby antenna 162-174 MHz	13.70
KRA-41M3	VHF stubby antenna 136-150 MHz	13.70
KRA-42M	UHF stubby antenna 440-490 MHz	13.70
KRA-42M2	UHF stubby antenna 470-520 MHz	13.70
KRA-22M	VHF low profile antenna 148-162 MHz	13.70
KRA-22M2	VHF low profile antenna 162-174 MHz	13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-23M	UHF low profile antenna 450-490 MHz	13.70
KRA-23M2	UHF low profile antenna 470-520 MHz	13.70
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
BATTERIES A	ND CHARGERS	LIST
KNB-45L	2000 mAh, Li-ion battery - requires KSC-35K/SK charger	63.00
KNB-69L	2550 mAh, Li-ion battery - requires KSC-35K/SK charger	75.00
KNB-29N	1500 mAh, NiMH battery - requires KSC-43K charger	36.75
KSC-35SK	110-220 volt Fast rate single unit charger for KNB-45L/69L	31.50
KSC-43K	110~220 volt Fast rate single unit charger for KNB-29N/45L/69L	36.70
KMB-28	Six Unit Charger Adapter for the KSC-23BK/28/35SK chargers (chargers not included) Note: The six KSC-xx AC wall Adapters are NOT used in the KMB-28 installation A supplied in-line AC-	208.50
	DC switching power supply with six DC plugs supply the six installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kenwood six unit charger adapters. Dimensions: 10.6(W) x 2.4(H) x 9.5(D) inches, Weight: approx. 10 lbs. (loaded with chargers/radios)	
KVC-22	110~220 volt Fast rate DC vehicular charger adapter for KSC-35SK charger & KNB-45L Li- ion battery (charger not included)	36.70
CARRYING AC	CESSORIES	LIST
KBH-10	Spring action belt clip	8.35
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-187	Nylon case for TK-*200/*202/*300/*302/*400/*402 Series	14.70
	S & AUDIO ACCESSORIES	LIST
KMC-48GPS	GPS Speaker Microphone	265.00
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature earphone jack)	86.00
KMC-21	Compact speaker microphone	51.50
KEP-1	3.5mm earphone kit for KMC-48GPS Speaker Mics	52.50
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	52.50
KHS-10-BH	Hvy-duty noise reduction behind-the-headset w/noise cancel boom mic /in-line PTT	368.00
		000.00

Hvy-duty noise reduction over-the-headset w/noise cancel boom mic /in-line PTT

### (11.27.2012) Created

(10.3.2013) Replaced line art with photographs (1.14.2016) Change form KMC-45 to KMC-45D (4.11.2016) Delete KHS-23 for Discontinuation

(07.08.2016) Add KEP-1 (08.04.2016) Add KNB-69L (10.04.2016) Delete KHS-25

Single muff headset w/boom mic

Two-Wire palm mic w/earphone (black)

Lt. Wt Single muff headset w/boom mic & in-line PTT

336.00

70.00

105.00

103.25

## TK-2402V/3402U VHF/UHF Conventional Portable Radios

KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-22UM	USB Programming interface cable	158.50
KPG-159DNK	Windows <sup>®</sup> Programming Software for TK-2402VK/3402UK	103.25
	(Compliant with FCC Part 90 Narrowbanding)	
INSTALLATION	/ TUNING CHARGES	LIST
L-1756	TK-2402VK/3402UK Programming (with basic TX/RX check)	37.50

(11.27.2012) Created (10.3.2013) Replaced line art with photographs (1.14.2016) Change form KMC-45 to KMC-45D

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# ProTalk

## **TK-3230 UHF BRS Portable Radios**

- GENERAL FEATURES UHF 1.5 Watt or 500 mW Transmit Power Extra Durable Polycarbonate Housing Small (2 1/16" W × 1 1/8" D × 4 1/16" H) & Lightweight (5.5 oz) Li-lon battery with over 14 Hours Talk Time (5/5/90 duty cycle) Over 18 Hours Talk Time (with Battery Save On) 5/5/90 duty cycle) Over 18 Hours Talk Time (with Battery Save On) 5/5/90 duty cycle) G4 User-Programmable Memory Bank Frequencies Channel Scan Wireless Cloning Mode Key Lock/Super Lock User Programmable QT (39) and DQT (83) Signaling 10 Call Alert Tones Voice Scrambler Speaker Mute Function Compander

- XLS series portable includes: Spring action belt clip Rapid Rate Drop-in charger Fixed Antenna 2000 mAh Li-ion Battery

- Instruction Manual
   Standard Warranty: 2 Years\*
- \* All Accessories / options: 1 Year
- Speaker Mute Function
   Compander
   SelCall (for Caller ID)
   LCD Battery Meter & Low Battery Alert
   VOX (Voice-activated transmit) w/3 Sensitivity Levels
   Time Out Timer
   2 Color Transmit / Busy LED/ Backlit LCD Display
   3 Function Keys: Menu, Call, Monitor
   Audia Accessony. Jack

- Audio Accessory Jack
   Antenna (fixed non-removable)
   Passes 8 Rugged Mil-Spec 810 C, D, E, F & G Standards

RADIO		LIST
TK-3230K	464-467 MHz UHF 1.5W or 500 mW, 6 Ch. Portable Transceiver	225.00
BATTERIES A	ND CHARGERS	LIST
KNB-46L	Li-Ion battery (Same as supplied with TK-3230)	47.25
KSC-37	Li-Ion Rapid rate charger (Same as supplied with TK-3230)	31.50
KMB-27	Six Unit Charger Adapter for the KSC-28/37 chargers (chargers not included)	208.50
	Note: The six KSC-xx AC wall Adapters are NOT used in the KMB-27 installation A supplied in-line AC-DC switching power supply with six DC plugs supply the six installed KSC-xx charger bases. This unit is lower profile and less weight than similar Kerwood six unit charger adapters. Dimensions: 10.6(W) x 2.4(H) x 9.5(D) inches, Weight: approx. 10 lbs. (loaded with chargers/radios).	
CARRYING AC	CESSORIES	LIST
KBH-14M	Spring action belt clip (Same as supplied with TK-3230)	9.35
KLH-150	Nylon case for TK-3230 (Black)	14.70
MICROPHONE	S & AUDIO ACCESSORIES	LIST
KEP-2	2.5mm earphone kit for KMC-17/45 Speaker Mic	52.50
KHS-10-BH	Hvy-duty behind-the-headset w/noise cancelling boom mic & in-line PTT	368.00
KHS-10-OH	Hvy-duty over-the-headset w/noise cancelling boom mic & in-line PTT	336.00
KHS-7	Single muff headset w/boom mic	70.00
KHS-7A	Lt. Wt Single muff headset w/boom mic & in-line PTT	105.00
KHS-8BL	Two-Wire palm mic w/earphone (black)	103.25
KHS-9BL	Three-Wire lapel mic w/earphone (black)	166.00
KHS-22	Behind-the-Head Headset with flexible boom mic and in-line PTT single ear receiver (low profile wire head band)	41.00
KHS-26	Clip Mic w/earphone	28.00
KHS-27	D-Ring Ear Hanger w/PTT & Mic	24.50
KHS-31C	C-Ring Ear Hanger w/PTT & Mic	30.00
KMC-45D	MIL-SPEC, IP54/55 Speaker microphone (Built-in 2.5mm miniature	86.00

(09.09.2009) 6ch/64table Version Up (02.26.2010) HMC-3 Discontinued (11.29.2010) MAP \$ is added (11.29.2010) Delete KMB-25

(03.08.2011) Added MIL-G (12.05.2012) Add KHS-31 (12.05.2012) Delete KHS-8BE/9BE (9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs (1.14.2016) Change form KMC-45 to KMC-45D (4.11.2016) Delete KHS-23 for Discontinuation (10.04.2016) Delete KHS-25

earphone jack)

Compact speaker microphone

KMC-21

51.50

ProTal	K TK-3230 UHF BRS Portable Radios	Table of Contents
INSTALLATIO	DN / TUNING CHARGES	LIST
L-1077	Change Channel to other frequencies or program TK-3230	25.00

(09.09.2009) 6ch/64table Version Up (02.26.2010) HMC-3 Discontinued (11.29.2010) MAP \$ is added

-- NOTES --

\* Please see Kenwood's ProTalk® MAP (Minimum Advertised Price) policy.

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# **ProTalk**

# **PKT-23**

## **UHF BRS Portable Radios**

· UHF 1.5 Watt or 500 mW Transmit Power

**GENERAL FEATURES** 

(12.09.2013) Created



# LT series portable includes: • Spring action belt clip

- Drop-in charger
- Fixed Antenna 1430 mAh Li-ion Battery
- Instruction Manual
- Standard Warranty: 2 Years\*
- \* All Accessories / options: 1 Year

- Over 15 Hours Talk Time (with Battery Save On) 5/5/90
  4 Channel Operation (factory pre-set)
  99 User-Programmable Memory Bank Frequencies
  Channel Scan
  Wireless Cloning Mode
  Key Lock/Super Lock
  User Programmable QT (39) and DQT (168) Signaling
  Bell Tone Alert
  Speaker Mute Function
  VOX (Voice-activated transmit) w/5 Sensitivity Levels
  Voice Announcement
  Time Qut Timer

 Extra Durable Polycarbonate Housing
 Small (1.8" W x 0.8" D x 3.3 H) & Lightweight (3.9 oz) • Li-Ion battery with over 11 Hours Talk Time (5/5/90 duty cycle) Over 15 Hours Talk Time (with Battery Save On) 5/5/90 duty cycle

- Time Out Timer
   LED Battery Status Indicator
- 2 Function Keys
- 1-PIN Audio Accessory Jack
- Micro USB Port
- Antenna (fixed non-removable)
- · Passes IP54 & 11 Rugged Mil-Spec 810 C, D, E, F & G Standards

RADIO		LIST
PKT-23K	451-470 MHz UHF 1.5W or 500 mW, 4 Ch. Ultra Compact Portable	175.00
BATTERIES A	AND CHARGERS	LIST
KNB-71L	Li-Ion battery (Same as supplied with PKT-23K)	25.00
KSC-44K	Li-Ion Fast rate charger/AC Power Supply (Same as supplied with PKT-23K)	25.00
KMB-44K	Six Unit Charging Cup and Muli-AC Adapter (Charging Cups not included)	167.00
CARRYING A	CCESSORIES	LIST
KBH-20M	Belt Clip (Same as supplied with PKT-23K & bulk PKT-23BKP)	9.35
MICROPHON	ES & AUDIO ACCESSORIES	LIST
KHS-33	Clip Mic w/earphone single pin (only compatible with PKT-23)	28.00
KHS-34	C-Ring Ear Hanger w/PTT & Mic single pin (only compatible with PKT-23)	35.00
INSTALLATIO	DN / TUNING CHARGES	LIST
L-1773	Change channel to other frequencies or program PKT-23	25.00

-- NOTES --

\* Please see Kenwood's ProTalk® MAP (Minimum Advertised Price) policy.

	TK-690/790/890 VHF/UHF FM Mobile Radios	Table of Contents	(02.10.2010) KMB-9 Description Change (03.08.2011) Delete TK-790BK2, 790K, 890BK3, 890K (03.08.2011) Delete CM 4000(CABLE
All Accessories / options: 1 Year	GENERAL FEATURES           45W & 110W (148-174 MHz)           40W (450-490, 480-512 MHz)           100W -75W (450-480 MHz)           110W (29.7-37.0, 35.0-43.0, 39.0-50.0 MHz)           160 Channels           Dual Priority Scan           Single / Multi Group Scan           QT / DQT           Operator Selectable Tone           Two-Tone Decode / Stun           Encryption / ANI Board Control           Emergency Call Features           Companded Audio           Intercom           Public Address           Time Out Timer           Busy Channel Lockout           Ignition Sense           Time Power Off	FleetSync® • PTT ID Digital ANI • Emergency Status MOUNTING CONFIGURATIONS • Dash Mount • Single Head Remote Mount • Dual Head Remote Mount • Dual Head Remote Mount • Dual Head / Dual Band Remote Mount • Backlit Dot Matrix LCD • Busy, Call Alert, Warn LED • CDD Dimmer Control • Power On/Off Switch • Rotary Volume Knob • Rotary Selector Knob • Backlit Keys	(03.08.2011) Delete CIM-1000/CABLE (03.08.2011) Delete L-1036/1037 (03.08.2011) Replace KPG-43AM/KCT-53UM with KPG-43UN (03.08.2011) Added MIL-G (02.13.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced Line Art with Photograph (09.22.2014) TK-890BK2 Removed - Discontinued (11.20.2015 YU) removed KCK-6 (discontinued)
Important Information (TK-890; UHF)	DB-25 Accessory Connector     7 Programmable AUX Inputs     6 Programmable AUX Outputs     Windows® Programming & Tuning	PF Key Label Inserts     Microphone Jack     MILSTD 810 512.X Driven Rain	

\* The lowest receive channel spread range is the factory default tuning if not otherwise specified. Refer to the table (right); order L-850 (no charge) and specify receive spread at the time of ordering. Out of range orders cannot be accepted.

\* TX Power is derated at 470-480 MHz for TK-890HBK:

- 450-469 MHz (100 W) - 470-480 MHz (75 W)

Windows<sup>®</sup> Firmware Uploading

Model

K-890BK/K

TK-890BK2

TK-890HBK

RF Deck

Freq. Range

450-490

ctory Default:

480-512

actory Default: Order L-850

450-480

orv Default

Order L-850

Windows® Firmware Uploading
 Panel Tuning
 Cloning
 MIL-STD-810 C/D/E/F/G
 MIL-Spec Noise-Cancel Mic (included)
 MIL-Spec 12-Key DTMF Mic Option

RX

Ch. Spread

20 MHz

450-470

460-480

470-490

20 MHz

480-500 492-512

20 MHz

450-470

ТΧ

Ch. Spread

40 MHz

450-490

450-490

450-490

32 Mhz

480-512 480-512

30 MHz

450-480

## KCH-10 FRONT PANEL

- \*8-Character Alphanumeric Aliases
   \*5 PF Keys
   UP/DOWN Keys
   Built-in Front Speaker

KCH-11 FRONT PANEL • 14-Character Alphanumeric Aliases • 13 PF Keys • UP/DOWN Keys • External Speaker Required

	Order L-850: 460-480 450-480	
RADIO		LIST
TK-690HBK	29.7-37.0 MHz, 110W, 160 Channels (R.F. DECK ONLY)	1,071.00
TK-690HBK2	35.0-43.0 MHz, 110W, 160 Channels (R.F. DECK ONLY)	1,071.00
TK-690HBK3	39.0-50.0 MHz, 110W, 160 Channels (R.F. DECK ONLY)	1,071.00
TK-790BK	148-174 MHz, 45W, 160 Channels (R.F. DECK ONLY)	767.00
TK-790HBK	148-174 MHz, 110W, 160 Channels (R.F. DECK ONLY)	1,239.00
TK-890BK	450-490 MHz, 40W, 160 Channels (R.F. DECK ONLY)	819.00
TK-890HBK	450-480 MHz, 100/75W, 160 Channels (R.F. DECK ONLY)	1,292.00

	TK-690/790/890	Table of Contents
	VHF/UHF FM Mobile Radios	
	Y CONFIGURATION SETS <u>ON SET DEFINITIONS</u>	
	for High Power (HK type)	l Band
	HM for High Power (HK type)	
	for Mid Power (K type) for Mid Power & Mid Power Dual	
9		
	Basic Front Panel (KCH-10) for Dash-Mount (Single Band	1
	F Juli-Featured Front Panel (KCH-11) SH1 for Single Head Remote-Mou	nt (Single Band)
	DH1 for Dual Head Remote-Moun	t (Single Band)
	BB for Dual Band Remote-Mount     Note: All KCH-10 / Basic Control Head configurations are shipped with the control heads 4W internal	
	speaker enabled. Order L-891 to enable the 13W external speaker output for KES-5 speaker use. This	
	will disconnect the control heads internal 4W speaker !	
	Note: Order an Labor code for each model if factory packaging is required: L-846 Package Dash/Single Head Remote*	
	L-847 Package Dual Head Remote	
	L-848 Package Dual Band Remote L-849 Package Dual Band Dual Head Remote	
	(* TK-790K/890K are pre-packaged & fully assembled: basic front, medium power, dash mount mobiles.	
	No need to use the assembly labor code L-846.)	
Single Band D		LIST
9BHD1	KCH-10, KCT-23M2, KMB-9, KMC-27	
9BMD1		326.50
	KCH-10, KCT-23M, KMB-5, KMC-27	296.50
-	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5	296.50 471.75
9FMD1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5	296.50 471.75 441.75
9FMD1 Single Band Si	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount	296.50 471.75 441.75 <i>LIST</i>
)FMD1 Single Band Si )BHSH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27	296.50 471.75 441.75 <i>LIST</i> 564.00
9FMD1 Single Band Sl 9BHSH1 9BMSH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27	296.50 471.75 441.75 <i>LIST</i> 564.00 530.75
9FMD1 Single Band Si 9BHSH1 9BMSH1 9FHSH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5	296.50 471.75 441.75 <i>LIST</i> 564.00 530.75 709.25
9FMD1 Single Band Sl 9BHSH1 9BMSH1 9FHSH1 9FHSH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5	296.50 471.75 441.75 <i>LIST</i> 564.00 530.75 709.25 676.00
9FMD1 Single Band Si 9BHSH1 9BMSH1 9FHSH1 9FHSH1 9FMSH1 Single Band D	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 ual Head Remote Mount	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i>
9FMD1 Single Band Si 9BHSH1 9BMSH1 9FHSH1 9FHSH1 Single Band D 9BHDH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 Ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 Ingl Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00
9FMD1 Single Band Si 9BHSH1 9BMSH1 9FHSH1 9FHSH1 9FMSH1 Single Band D 9BHDH1 9BMDH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75
9FMD1 Single Band S 9BHSH1 9BMSH1 9FHSH1 9FMSH1 Single Band D 9BHDH1 9BMDH1 9FHDH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2), KES-5(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FMSH1 9FMSH1 96MDH1 9BHDH1 9FHDH1 9FMDH1	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FHSH1 9FMSH1 9BHDH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9FMDH1 Dual Band Single	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) gle Head Remote Mount	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i>
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FHSH1 9FMSH1 9FMSH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9FMDH1 9FMDH1 904 Band Sin 9BHHDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FHSH1 9FMSH1 9FMDH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9FHDH1 9FHDH3 9FHDH3 9FHDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 Ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Inal Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M4, X2), KMB-9(x2) KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-5, KMB-9	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,264.50 1,264.50 <i>LIST</i> 761.50 728.25
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FHSH1 9FHSH1 9FMSH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9Dual Band Sini 9BHHDB 9BHMDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50 728.25 695.00
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FMSH1 9FMSH1 9FMDH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9BHHDB 9BHMDB 9BHMDB 9FHHDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M4, KMB-9, KMC-27(x2), KES-5(x2) KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-9, KMB-5, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-5, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-5, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50 728.25 695.00 906.75
9FMD1 Single Band Si 9BHSH1 9FHSH1 9FMSH1 9FMSH1 9FMDH1 9BHDH1 9FHDH1 9FHDH1 9BHMDB 9BHMDB 9FHDB 9FHMDB 9FHMDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) gle Head Remote Mount KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-5, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2) KCH-11, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2)	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50 728.25 695.00
9FMD1 Single Band Si 9BHSH1 9FMSH1 9FMSH1 9FMSH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9FHDB 9BHMDB 9FHHDB 9FHHDB 9FHMDB 9FHMDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) gle Head Remote Mount KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M4(x2), KMB-9(x2) KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KCT-23M4, KMB-5, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2) KCH-11, KRK-7DB, KMC-27, KES-5, KCT-22M2, KCT-23M4(x2), KMB-9(x2) KCH-11, KRK-7DB, KMC-27, KES-5, KCT-22M2, KCT-23M4(x2), KMB-9(x2)	296.50 471.75 441.75 564.00 530.75 70925 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50 728.25 695.00 906.75 873.50
9FMD1 Single Band Si 9BHSH1 9FMSH1 9FMSH1 9FMSH1 9BHDH1 9BHDH1 9FHDH1 9FHDH1 9FHDH1 9FHDH1 9BHMDB 9BHMDB 9BHMDB 99FHHDB 9FHMDB 9FHMDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Wal Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) gle Head Remote Mount KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M4(x2), KMB-9(x2) KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2) KCH-11, KRK-7DB, KMC-27, KES-5, KCT-22M2, KCT-23M3(x2), KMB-5(x2) I Head Remote Mount	296.50 471.75 441.75 564.00 530.75 709.25 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50 728.25 695.00 906.75 873.50 840.25
98HSH1 995MSH1 975HSH1 975MSH1 975MSH1 975HDH1 975HDH1 975HDH1 975HDH1 975HDH1 975HDH1 985HMDB 985HMDB 975HMDB 975HMDB	KCH-11, KCT-23M2, KMB-9, KMC-27, KES-5 KCH-11, KCT-23M, KMB-5, KMC-27, KES-5 ingle Head Remote Mount KCH-10, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27 KCH-10, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 KCH-11, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5 Ual Head Remote Mount KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-10(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2) KCH-11(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2) gle Head Remote Mount KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3, KMB-5, KMB-9 KCH-10, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2) KCH-11, KRK-7DB, KMC-27, KCT-22M2, KCT-23M3(x2), KMB-5(x2) KCH-11, KRK-7DB, KMC-27, KES-5, KCT-22M2, KCT-23M3(x2), KMB-5(x2)	296.50 471.75 441.75 564.00 530.75 70925 676.00 <i>LIST</i> 1,004.00 970.75 1,294.50 1,261.25 <i>LIST</i> 761.50 728.25 695.00 906.75 873.50

(02.10.2010) KMB-9 Description Change (03.08.2011) Delete TK-790BK2, 790K, 890BK3, 890K (03.08.2011) Delete CIM-1000/CABLE

	TK-690/790/890	Table of Contents
	VHF/UHF FM Mobile Radios	
Dual Band Dual H	ead Remote Mount, CON'T	LIST
9FFHH	KCH-11(x2), KMC-27(x2), KRK-8DBH, KCT-22M2(x2), KCT-23M4(x2), KMB-9(x2), KES- 5(x2)	1,408.00
9FFHM	KCH-11(x2), KMC-27(x2), KRK-8DBH, KCT-22M2(x2), KCT-23M3, KCT-23M4, KMB-5, KMB-9, KES-5(x2)	1,374.75
9FFMM	KCH-11(x2), KMC-27(x2), KRK-8DBH, KCT-22M2(x2), KCT-23M3(x2), KMB-5(x2), KES- 5(x2)	1,341.50
FRONT PANEL	.S & REMOTE KITS (Order Configuration Sets for full install accessories)	LIST
KCH-10	Basic Control Panel	147.00
KCH-11	Full Featured Control Panel	231.00
KRK-5	Single Control Head Remote Mount Kit	147.00
KRK-6DH	Dual Control Head Remote Mount Kit	252.00
KRK-7DB	Dual Band Control Head Remote Mount Kit	262.50
KRK-8DBH	Dual Band Dual Head Remote Mount Kit	283.50
CABLES		LIST
KCT-18	Ignition sense cable	13.70
KCT-22M	Control cable - 8 Feet	73.50
KCT-22M2	Control cable - 17 Feet (Standard accessory config. set cable)	84.00
KCT-22M3	Control cable (25 Feet)	94.50
KCT-23M	DC Cable (35/45W Dash mount)	31.50
KCT-23M2	DC Cable (75/110W Dash mount)	38.75
KCT-23M3	DC Cable (35/45W Remote mount)	34.75
KCT-23M4	DC Cable (75/110W Remote mount)	45.25
MOBILE INSTA	ALLATION ACCESSORIES	LIST
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max)	42.00
KMB-10	Key Lock Adapter for use with KMB-4/5/6	26.30
KMB-5	Medium Power Mounting Bracket (35W/45W models)	14.00
KMB-9	Heavy Duty Mounting Bracket with built-in key lock	36.75
MICROPHONE	S AND SPEAKERS	LIST
KES-5	External Speaker (40W max input)	61.25
KMC-27	Rugged standard microphone with noise canceling, MIL-STD and driven rain features	104.00
KMC-28	DTMF microphone (MIL-SPEC, Noise canceling)	163.00
KMC-9B	Desk top microphone	96.50
SERVICE REL	ATED ACCESSORIES	LIST
KPG-43UM	USB Programming interface cable	158.50
KPG-44DNK	Windows <sup>®</sup> Programming Software for TK-690/790/890 (Compliant with FCC Part 90 Narrowbanding)	68.50
	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:	
K29-5276-03	Key Inserts for 90-series mobile (AN, D/A, DIM, HA, HC, IC, MON, OPT, OST, PA)	
K29-5277-03	Key Inserts for 90-series mobile (RCL, RPT, SCN, SP, SPM, SQ, TA, <up arrow="">, <down arrow="">)</down></up>	
K29-5305-03	Key Inserts for 90-series mobile (CH1, CH2, CH3, CH4, CH5, AUXA, AUXB, AUXC, EMG, ORG)	
S76-0434-05	1 Amp Relay for 90-series mobile	

(02.10.2010) KMB-9 Description Change (03.08.2011) Delete TK-790BK2, 790K, 890BK3, 890K (03.08.2011) Delete CIM-1000/CABLE

	TK-690/790/890	Table of Contents
	VHF/UHF FM Mobile Radios	
NSTALLA	TION / TUNING CHARGES	LIST
L-846	Package Dash/Single Head Remote for 90-series mobiles	17.00
L-847	Package Dual Head Remote for 90-series mobiles	34.00
L-848	Package Dual Band Remote for 90-series mobiles	34.00
L-849	Package Dual Band Dual Head Remote for 90-series mobiles	50.00
L-850	Tune TK-890 receiver channel spread (20 MHz max.); specify receive spread	NC
L-854	90 Mobile Programming (with basic TX/RX check)	30.00
858	Modify 90-series mobile Single Band (Single Head) Mobile for Pyramid Vehicular Repeater	75.00
L-859	Modify 90-series mobile Single Band (Dual Head) Mobile for Pyramid Vehicular Repeater	75.00
L-861	Install Horn Alert output relay for 90-series mobiles (1 amp max.) Part #S76-0407-05 Relay incl.	70.00
-862	Install Key Inserts for 90-series mobiles	15.00
	Note: For new radio tune orders only. Installs only the included KCH-10/11 key inserts. Must specify keys and placement (see Service Manuals for placement diagram, pg. 14). Also, see Service Manuals for technical details (pg. 14). Other Key Inserts are available from Parts Dept. See the "Service Related Accessories" section of the 90-series mobiles price pages for more information.	
L-864	KCT-22A Extended Control Head Cable (up to 50 ft. max.) <u>Note</u> : Please specify exact length at 1ft. increments when ordering. <u>Caution</u> : Extended control head cables exhibit a loss in speaker audio power to the control heads. For either type control head (KCH-10/11), it is recommended that the 13W audio output modification be implemented to drive extended cable runs and a KES-5 external speaker be used. Refer to the service manual pg. 15-17 for 13W modifications. Installing new radio firmware (hex files) wai the KPG-44D software nor checking the firmware "checksum" is not possible through an extended control head cable. A standard KCT-22 cable of 25 ft. or less should be used when this has to be done. Normal KPG-44D radio parameter programming is possible at extended lengths.	190.00
L-865	KCT-22A Extended Control Head Cable (up to 100 ft. max.) Note: Please specify exact length at 1ft. increments when ordering. Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads. For either type control head (KCH-10/11), it is recommended that the 13W audio output modification be implemented to drive extended cable runs and a KES-5 external speaker be used. Refer to the service manual pg. 15-17 for 13W modifications. Installing new radio firmware (hcs/ftes) via the KPG-44D software nor checking the firmware "checksum" is not possible through an extended control head cable. A standard KCT-22 cable of 25 ft. or less should be used when this has to be done. Normal KPG-44D radio parameter programming is possible at extended lengths.	245.00
L-866	KCT-23A-K2 Two Conductor 75/110W High Power DC Cable (2 Conductor: 1x23 ft. positive, 1x23 ft. negative; AWG #10) <u>Note</u> : This cable substitutes for the ff: DC Cables: -> KCT-23M2 75/110W Dash Mount DC Cable: 4 Conductor: 2x10 ft. positive, 2x10 ft. negative -> KCT-23M2 75/110W Remote Mount DC Cable: 4 Conductor: 2x23 ft. positive, 2x23 ft. negative	75.00
L-867	Jumper foil for SB to pin 14 of accessory connector for 90-series mobile (Ref. 90-Series Mobile Service Manual, page 17/18)	25.00
870	Simultaneous transpond and alert feature up-grade for 90-series mobiles & portables	50.00
-883	Modify 90-series mobile for KCT-18	25.00
- 891	External speaker modification for 90-series mobile Control Head (13W)	10.00
-903	R640 mic input modification for 90-series mobile	17.00
-910	Install firmware 094F (90-series mobile * and # DTMF without PTT) <u>Note</u> : The firmware 094F gives the 90-series mobile the ability to generate a DTMF tone from the * and # keys without pushing the PTT button.	17.00
-912	90-Series mobile low imp. mic. Input at RF deck	10.00
917	EXT PTT / Local KMC-27 mic disable Purpose: Disables the KMC-27 mobile hand mic element when 90-series mobile external PTT is active. For use with data modems, GPS AVL data units, headset systems (motorcycles, ambulance, fire engines), vehicle intercom	17.00
L-921	Modify 90-series mobile Dual Band (Single Head) for Pyramid Vehicular Repeater	75.00
L-922	Modify 90-series mobile Dual Band (Dual Head) for Pyramid Vehicular Repeater	75.00

(02.10.2010) KMB-9 Description Change (03.08.2011) Delete TK-790BK2, 790K, 890BK3, 890K (03.08.2011) Delete CIM-1000/CABLE Table of Contents

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VEXEDGE'

All NX series mobiles include: • Standard Microphone (KMC-35) • Mounting Bracket • Dc Cable (KCT-23M) • Blade Fuse • Instruction Manual • Premium Warranty: 3 Years\*

\* All Accessories / options: 1 Year

r	
* TX Power	is derated at 490-512 MHz
NX-800K:	450-489 MHz (30 W) 490-512 MHz (25 W)
NX-800HK:	450-512 MHz (25 W) 450-489 MHz (45 W) 490-512 MHz (40 W)
L	490-512 IVINZ (40 VV)

GENERAL FEATURES JENEKAL FEATURES 30W / 50W 138-174 MHz) Models 30W / 45W (400-470, 450-520 MHz) Models 512 CH-GID / 128 Zones Dash & Remote Mount 14 Character Alphanumeric Aliases Backill Dot Martix LCD Function/Status LCD Icons 4 Mithi Janguage Disclay -Function/Status LCD Icons
 -Function/Status LCD Icons
 Multi-Language Display
 Date & 12/24 Hour Time Clock
 TransmitBusyCall AlertVM an LED
 -On/Off Power Control
 - 4 UpDown Selectors
 - 6 Front PF Keys
 - 8 Prant PF Keys
 - 9 Pr

NX-700/800 VHF/UHF Digital & FM Analog Mobile Radios

DIGITAL – GENERAL • NXDN\* Digital Air Interface • AMBE+2\*\* VOCODER • 625 & 12.5 kHz Channels • Over-the-Air Alias • Over-the-Air Programming • Paging Call • Emergency Call • All Group Call • Status Messaging • Remote Sturt/Kill/Check • Short & I. on Data Messagin Remote Sturi/Kill/Check
 Short & Long Data Messages
 GPS Location with Voice
 NXDN® Scrambler Included
 DES Encryption Module Option
 AES & DES Encryption Module Option
 AES/DES Software Key Loader Option

DIGITAL CONVENTIONAL MODE 64 Radio Access Numbers (RAN)
 Individual & Group Selective Call
 Mixed FM/Digital Operation
 Conventional IP Networks
 Site Roaming

DIGITAL TRUNKING MODE - Individual Private Call Group Call & Broadcast Call - Telephone Interconnect - Transmission Trunked Mode - Message Trunked Mode - Call Queeling with Priority - Call Cueling and Priority

DIGITAL - MULTI-SITE IP NETWORKS NEXEDGE Generation1 System • 48site Trunkied IP Network • Auto Roaming Registration • Group Registration

NEXEDGE Generation1 System Bridge • 8 Trunked Networks per radio (each in a zone) • UID Lists for each network

NEXEDGE Generation2 System (option) • 1,152 sites Wide Area System • Direct Frequency Assignment

SCAN • Single Zone / Multi-Zone / List Scan • Dual Priority Scan (Conventional) ANALOG MODES - GENERAL

ANALOG MODES - GENERAL + 25 & 12.5 kHz Channels - Conventional & LTR<sup>®</sup> Zones - FleetSync<sup>9</sup>/II, MDC-1200, DTMF - QT / DQT & Two-Tone (Conventional Zones Only) - Voice Inversion Scrambler - Analog Scrambler Board Capability

MPT ZONES (option) • Single-Site Trunking • Multi-Site Network Trunking • 8 Network Capacity • Network Roaming / Registration

FleetSync<sup>©</sup>II (FM) • PTT ID ANI / Caller ID • Selective / Group Call • Emergency, Status & Text Messages

MDC-1200 • PTT ID ANI / Caller ID • Emergency, Radio Check & Inhibit

(02.26.2010) NEXEDGE is registered (02.26.2010) GPS15XL-W replaced GPS15L-W (02.26.2010) Description of GA25MCX changed (08.26.2010) KVT-11,KAS-11, L-1687 are added (03.04.2011) Added VER 2.5 Features (03.04.2011) Delete CIM-1000/CABLE (03.04.2011) Delete L-1090/1091 (03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (03.08.2011) KAS-10 Version Up (descriptions) (03.08.2011) Add KPG-150AP (10.19.2011) Add KPG-151AE (10.19.2011) Add KWD-AE20/AE21/DE21 (10.19.2011) Add L-1720/1721/1722 (10.19.2011) Add -IMPORTANT NOTES (10.27.2011) Add KWD-NX10MPT (10.27.2011) Add L-1729 (10.25.2012) Add PassPort Optio (02.13.2013) Change the FPU to "DN (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (10.3.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced Line Art with Photograph (11.20.2015 YU) removed VGS-1 (we continue the production but don't offer for new order or inquiry ) (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34 (02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select) (03.30.2016) Delete KPG-AE151 and Add KPG-AE1/DE1 (03.30.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (03.30.2016) Delete old labor and add new labor for SCMs (04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK (05.26.2016) Delete KGS-3 (05.26.2016) Add KWD-LIC-USB and L-1819

(10.02.2009) KWD-P25C & L-1663 are added

MODEL		LIST
NX-700K	136-174 MHz 30W, 512 CH / 128 Zone	725.00
NX-700HK	136-174 MHz 50W, 512 CH / 128 Zone	850.00
NX-800K	450-520 MHz 30W, 512 CH / 128 Zone	725.00
NX-800K2	400-470 MHz 30W, 512 CH / 128 Zone	725.00
NX-800HK	450-520 MHz 45W, 512 CH / 128 Zone	850.00
NX-800HK2	400-470 MHz 45W, 512 CH / 128 Zone	850.00
MOBILE INST	ALLATION ACCESSORIES	LIST
KAP-2	Horn Alert/P.A. Relay Option	63.00
KCT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line)	13.70
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
KMB-10	Key lock adapter	26.30
KRK-10	Remote Control Kit (a remote control cable (23 ft) is included)	105.00

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NEXEDG	<sup>=·</sup> NX-700/800	Table of Contents
	VHF/UHF Digital & FM Analog Mobile Radios	
MOBILE INSTAL	LATION ACCESSORIES, CON'T	LIST
KRK-13	Dual Control Head Kit (a control head, remote cables, and KMC-35 microphone included) <u>Note</u> : some operations have limitations. Please refer to Application Note avib. on Kenwood Tools. <u>Order:</u> L-1776 if Installation is required.	959.00
KCT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	31.50
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	34.75
CONTROL STAT	ION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
MICROPHONES	AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input <u>Note:</u> requires KAP-2 (PA/HA unit) installed	61.25
FIRMWARE OP1	TIONS	LIST
KWD-P25C	P25 Flash upgrade; NX-200/300/700/800 Must order <u>L-1663</u> Mote: KWD-P25C will be Kenwood factory installed only (units must be returned for upgrade)	792.00
SOFTWARE & U		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. • License Includes 10 radios / 1 Serial Port* • To add more radios/serial ports, you must contact Kenwood Systems Division [1-800-TRUNKING]	550.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00
KWD-NX2G-10	Gen2 Enhanced Option for NX-'00/'10/'11/'20 Portables & Mobiles <u>Must order L-1812 for factory installation, or L-1813 for field-upgrade option</u> Note: MPT Firmeware and FPU do NOT compatible. MPTs will be available on 3Q FY2016.	17.00
KWD-LIC-USB	Microsoftantian and the second s	N/C
<b>OPTION MODUL</b>		LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1830 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Rem (ECCN 5A002A.1).	850.00
KWD-AE31K	AVID-AESIN IS all U.S. DOCISE EXPORT CONTINUE NEIT (ECCN SA002A-1). AES & DES Encryption Module (Mutil: Key) Order a Labor Code L-1831 if installation is required. Note: Requires KPC-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	550.00

(10.02.2009) KWD-P25C & L-1663 are added (02.26.2010) NEXEDGE is registered (02.26.2010) GPS15XL-W replaced GPS15L-W

NEXEDGE	<sup>2</sup> NX-700/800	Table of Contents
	VHF/UHF Digital & FM Analog Mobile Radios	
FleetSync <sup>®</sup> & NE	EXEDGE <sup>®</sup> AVL & MESSAGING	LIST
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <u>Note:</u> shipped lose only; Install GA25MCX antenna to GPS15XL-W before vehicle install; Refer to 180NX-Series In-depth Technical Manuals for mobile installation.	62.00
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync & NEXEDGE AVL Mote: • Conventional & LTR operation • NEXEDGE <sup>®</sup> Conventional & Trunking operation • NEXEDGE <sup>®</sup> Conventional & Trunking operation • Requires CA25 MCX GPS antenna • Refer to 180/MX-Series & KAS-10 In-Depth Technical Manuals for installation, programming & KAS-10	130.25
	software setup. Refer to www.garmin.com for GPS-15L-W technical specifications.	
KAS-10	Centre Carlos Carlos L 4000 (Las Konnel Les Desta installation FleetSync & NEXEDCE ALV & Messaging Software with NEXEDCE Trunking VoIP Dispatch <u>Note:</u> - Users can chose to operate Messaging AVL or VoIP or all three if desired. Compatible with Windows <sup>®</sup> XP, VISTA & 7 and Microsoft <sup>®</sup> MapPoin <sup>®</sup> 2006/2009/2010 (certain format bitmap images can be imported). Relet to KAS-10 product spec sheets and manuals for details.	434.00
	- NEXEDGE Gen2, Type-D Trunking and DMR System not supported	LIST
KPG-46XM	USB Programming interface cable	
		158.50
KPG-111DNK	Windows <sup>®</sup> Programming Software for NX-200/210/300/410/411/700/800/900/901 (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-163DNK	Programming software for NX-200/300/700/800 with PassPort/NEXEDGE Options Installed (12.5 /6.25 CH bandwidths only) • Programs NEXEDGE, RassPorte, ITR & analog Conventional modes. • Not for use on a standard NEXEDGE radios. • KPG-1110(M usite b installed in PC prior to installing KPG-163DNK.	165.00
PGM-NX-PP	PassPort ESN Generator device for NX-200/300/70/0800 <u>Note</u> ; PGM-NX-PF is stocked in minimum quantities. Please anticipate a minimum of 30 day lead time and call order desk to verify availability. • The TK-x180 PassPort ESN Generator device is NOT compatible for NX-x00 ESN loads. • The PGM-NX-PP requires older KPG-38AM (protabile) & KPG-48AM (mobile) radio program interface cables with serial DBB and an aftermarket DB9F-to-DB25M adapter (*KPG-XXUM* USB style cables are not compatible)	200.00
INSTALLATION /	TUNING CHARGES	LIST
L-1085	NX-700/800 Programming (with basic TX/RX check)	37.50
-1094	Install KAP-2 (Default) HR1/Internal Sp./PA	25.00
-1098	Install Garmin GPS15XL-W in NX-Series mobile for FleetSync® AVL	100.00
-1099	Assemble NX-700/800/900/901 with KRK-10 Remote Kit	42.00
1663	NX-700/800 P25 Conventional Software Upgrade	
L-1743	Must order a KWD-P2SC firmware option Install PassPort-Classic / NEXEDGE option in NX- 200/300/700/800 • Order one pradio	80.00
L-1744	KPC-183DNK required to program radio     Install PassPort-Enhanced / NEXEDGE Option in NX- 200/300/700/800     Order one per radio     ViCe 1620/W required to encourse radio	108.35
1830	- KPC-163DNK required to program radio Install KWD-AE30K in NX-700/800/900/901 series Mobile (Must purchase module separately)	75.00
1831	(Must purchase module separately) Install KWD-AE31K in NX-700/800/900/901 series Mobile (Must purchase module separately)	75.00
-1745	(Must purchase module separately) Field Retroff PassPort-Classic / NEXEDGE option for NX-200/300/700/800 (order one option per the number of ESNs required) - ESN activation file with ordered number of ESNs and firmware will be shipped on a CD ROM. Allow 15 business days AR0. - KPG-163DNK required to program radio - Requires PGM-MX-PP PassPort ESN Generator device	80.00
	<ul> <li>Requires PGM-NX-PP PassPort ESN Generator device</li> <li>Note: The TK-x180 PassPort ESN Generator device is NOT compatible for NX-x00 ESN loads.</li> </ul>	

(10.02.2009) KWD-P25C & L-1663 are added (02.26.2010) NEXEDGE is registered (02.26.2010) GPS15XL-W replaced GPS15L-W

NEXEDGE	<sup>E*</sup> NX-700/800	Table of Contents
	VHF/UHF Digital & FM Analog Mobile Radios	
INSTALLATION /	TUNING CHARGES, CON'T	LIST
L-1746	Field Retrofit PassPort-Enhanced / NEXEDGE Option for NX-200/300/700/800 orders (order option one per the number of ESNs required) - ESN activation file with ordered number of ESNs and firmware will be shipped on a CD ROM. Allow 15 business days ARO. - KPG-163DNK required to program radio	108.35
	Requires PGM-NX-PP PassPort ESN Generator device     Note: The TK-x180 PassPort ESN Generator device is NOT compatible for NX-x00 ESN loads.	
L-1776	Assemble NX-700/800/900/901 with KRK-13 Dual Remote Kit	42.00
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)	25.00
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	NC
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	125.00
MPT FIRMWARE	/ACCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Deater Level License ID included) <u>Note:</u> - Must order Lc122 for Network Level License ID & programming privileges.	103.25
KWD-NX10MPT	- <u>Gen2 Enhanced Option (KWD-NX2G-10) for MPT will be available on 3Q FY2016.</u> MPT Trunking Field Upgrade Kit for NX series radio Must order <u>L1728</u> <u>Note</u> : Not compatible with any other firmware options. Radio does not retain LTR trunking features once the MPT option is installed.	66.70
L-1726	Install MPT option in NX series radio	25.00
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	158.33
-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L1728 through LMR order desk/rep. Ship radios to attn: Kerwood LMR Turing1. cong Beach for installation. Include Kerwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number.	85.00
L-1729	Note: see NX series MPT Introduction Sales Bulletin for details NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC

- IMPORTANT NOTES -Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See www.bis.gov for more information regranding sport regulations. DO NOT SHIP encryption Itemse outside the U.S. whole yrope DCOBIES Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative) \* Business/Agency Name:

\* Address: \* Contact Person Name:

\* Contact Person Name: • Contact Person b) Utimate Destination: Final delivery point(s); deployment/distribution \* BusinessAgency Name: \* Address \* Contact Person Name: \* Contact Person Name: \* Contact Person Name: • Contact Person Name:

C) memore use of reatios: Law enforcement, security, operations, etc. KWD-A23 0AES FPS140-2 SCM, NRT Validation A Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from J/CKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated J/CKENWOOD USA Corporation employee), shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

(10.02.2009) KWD-P25C & L-1663 are added (02.26.2010) NEXEDGE is registered (02.26.2010) GPS15XL-W replaced GPS15L-W Table of Contents

### NEXEDGE"

GD

All NX-x20 series mobiles include: • Standard Microphone (KMC-35) • Mounting Tracket • DC Cable (KCT-23M) • 15A Fuse • Instruction Manual • Premium Warranty: 3 Years\* \* All Accessories / options: 1 Year CENERAL FEATURES - 50W (136-174 MHz) Modal - 45W (400-474, 260-520 MHz) Models - 280 CH-GID / 128 Zones - 10 Charator Alphanumetic Alases - Backill LCD & Keys - TransmitBusyCall Alert/Warn LED - Blue Function/Status LED - 0mORI Power Control - 4 UpDown Status LED - 0mORI Power Control - 4 UpDown Status ALED - 0mORI Power Control - 4 UpDown Status ALED - 0mORI Power Control - 4 UpDown Status ALED - 0mORI Power Control - 0000 Power Control - 0000 Power Control - 0000 Power Control - 00000 Power Control - 0000 Power Control -

NX-720HG/820HG

VHF/UHF Digital & FM Analog Mobile Radios

DIGITAL COMMON NXDN<sup>®</sup> Opial Ar Interface - AMBE-2<sup>™</sup> VOCODER 6.25 8.12 KHz Channels - Over-the-Air Alias - Over-the-Air Alias - Over-the-Air Arborgamming2 - Paging Call - Benergency Call - All Group Call - Remote StainKill/Check - Short & Long Data Messages - GPS Location with Voice - NXDN<sup>®</sup> Scrambler Included

DIGITAL CONVENTIONAL MODE 64 Radio Access Numbers (RAN) individual & Group Selective Call Mixed FM/Digital Operation Conventional IP Networks Site Roaming DIGITAL TRUNKED MODE Individual Private Call Group Call & Broadcast Call Telephone Interconnect I Transmission Trunked Mode Message Trunket Mode Latte Entry (UID & GID) Latte Entry (UID & GID) 4 Priority Monitor ID's Remote Group Add System Auto Select

DIGITAL - MULTI-SITE IP NETWORKS NEXEDGE Generation 1 System - 48site Trunkied IP Network - Auto Roaming Registration - Group Registration

NEXEDGE Generation1 System Bridge +8 Trunked Networks per radio (each in a zone) +UID Lists for each network NEXEDGE Generation2 System (option) +1,152 sites Wide Area System Direct Frequency Assignment

SCAN • Single Zone / Multi-Zone / List Scan • Dual Priority Scan (Conventional)

- Dual Phortry Scan (Conventional)
ANALOG MODE - GENERAL
- 12.5 KHz Channels
- Conventional & LTR® Zones
- Conventional & LTR® Zones
- To JOT & Two-Tone
(Conventional Zones Only)
- Voice Inversion Scrambler (16 Codes)
- Voice Inversion Scrambler (16 C

Voice Inversion Scrambler (16 Codes
 MPT ZONES (option)
 Single-Site Trunking
 Multi-Site Network Trunking
 8 Network Capacity
 Network Roaming / Registration

B Network Capacity
 Network Roaming / Registration
 FleetSync® /II (FM)
 PTT ID ANI / Caller ID
 Selective / Group Call
 Emergency, Status & Text Messages
 MDC-1200

MDC-1200 • PTT ID ANI / Caller ID • Emergency, Radio Check & Inhibit (09.17.2012) Created

(07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages

(10.3.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced Line Art with Photograph

(5.13.2015) Add Type-D Firmware and Labor Code

(11.20.2015 YU) substituted from KPG-46UM to KPG-46XM.

(11.20.2015 YU) substituted from KMB-24 to KMB-34

(02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select)

(04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK (05.10.2016) Delete Imortant Notes

(05.10.2016) Delete Imortant No (05.26.2016) Delete KGS-3

(05.26.2016) Add KWD-LIC-USB and L-1819

MODEL LIST NX-720HGK 136-174 MHz 50W, 260 CH / 128 Zone 684.00 NX-820HGK 450-520 MHz 45W, 260 CH / 128 Zone 684.00 NX-820HGK2 400-470 MHz 45W, 260 CH / 128 Zone 684.00 MOBILE INSTALLATION ACCESSORIES LIST KCT-60M DB15-to-15pin Molex Adapter Cable 29.00 KCT-18 Ignition sense cable (requires KCT-60M Acc. Cable Option) 13.70 KCT-36 Extension Cable for KCT-34/35/39/40M/60M; 117.6 inches (9.8 ft.) 43.75 KLF-2 Line Filter (suppresses alternator whine, 25dB, 25A max). 42.00 KMB-10 Key lock adapter 26.30

CONTROL STAT	ION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series), (mobile mounting hardware included)	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
MICROPHONES	AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12-key DTMF (8-pin mod. plug)	94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input <u>Note:</u> requires KCT-60M installed.	61.25
SOFTWARE & U		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. - License Incluses 10 radios / 15 erail Port* - To add more radiosizerial ports, you must contact Kenwood Systems Division (1-900-TRUNKING)	550.00
KWD-NX2G-10	Coor Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles     Must order L-1812 for factory installation, or L-1813 for field-upgrade option     Note:     MPT Firmeware and FPU do NOT compatible. MPTs will be available on 3Q FY2016.	17.00
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series without ESN, KWD-LLC-USB stores KWD-NX2G-10 options which are purchased seperately and holudes KPG-97USB software for activating radios. Note: Must order L1819. - Must purchase KWD-NX2G-10 seperately. - KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders. - KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders. - KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders.	N/C
EleetSync <sup>®</sup> & N	EXEDGE <sup>®</sup> AVL & MESSAGING	LIST
KAS-10	FleetSync & NEXEDGE AVL & Messaging Software     with NEXEDGE Trunking VoIP Dispatch     Mote:     Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with     Windows *Rv. VISTA & 7 and Microsoft*NapPoint*2006/2009/2010 (certain format bitmap images can be     imported). Refer to KAS-10 product spec sheets and manuals for details.     WEXEDGE Genz Trunch Turking and DMB system on 4 surrograded	434.00
KRA-40GM	GPS Antenna	42.00
SERVICE RELAT	ED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-141DNK	Windows <sup>®</sup> Programming Software for NX-220/320/720/820 (Compliant with FCC Part 90 Narrowbanding)	103.25
INSTALLATI <u>ON</u>	TUNING CHARGES	LIST

NEXEDG	E* NX-720HG/820HG VHF/UHF Digital & FM Analog Mobile Radios	Table of Contents
L-1812	Install Gen2 Enhanced Option in NX series radio	25.00
L-1813	(Must purchase KWD-NX2G-10 separately) NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE	NC
L-1819	(Must purchase KWD-NX2G-10 separately) Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10	125.00
TYPE-D FIRMW	(Must purchase KWD-NX2G-10 separately) ARE/TUNING	LIST
KWD-NXD20K	Type-D Trunking Firmware Must order <u>L-1781 of L-1782.</u> Note: Not compatible with any other firmware. Radio does not retain <u>Type-C</u> trunking leatures once the Type-D Firmware is installed.	NC

(09.17.2012) Created (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (10.3.2013) Reorganized Accessories/Options/Installation

NEXEDGE	NX-720HG/820HG           VHF/UHF Digital & FM Analog Mobile Radios	Table of Contents
TYPE-D FIRMWA	RE/TUNING, CON'T	LIST
L-1781	Install Type-D Trunking Firmware in NX series radio. Factory operation for new radio order.	NC
L-1782	Type-D Trunking Firmware FIELD-UPGRADE. To place an order, please complete the <u>NEXEOSE Type-D Field Upgrade Form</u> available on Kenwood Tools under Forms. Required information includes the exact model #s and serial number for each radio to be updated.	NC
KPG-176DNK	Programming Software for NX-x20 Series Type-D functions	103.25
MPT FIRMWARE	/ACCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) Note: - Must order L-1727 for Network Level License ID & programming privileges. - Gen2 Enhanced Option (KWD-NZG-10) for MPT will be available on 30 FY2016.	103.25
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio Must order <u>L1728</u> Note: Nat compatible with any other firmware options. Radio does on treatin LTR trunking features once the MPT option is installed.	66.70
L-1726	Install MPT option in NX series radio Network Level License ID for KPG-143D(N) NX series Programmer	25.00
L-1727		158.33
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios: Order L-1728 through LMR order desk/rep. Ship radios to attn: Kerwood LMR Tuning, Long Beach for installation. Include Kerwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. Notes: see NX series MPT Introduction Sales Bulletin for details	85.00
L-1729	NX Series Radio MPT Firmware FiELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC

(09.17.2012) Created (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (10.3.2013) Reorganized Accessories/Options/Installation

### NEXEDGE



# All NX-x40 series mobiles include: • Standard Microphone (KMC-35) • Mounting Bracket • DC Cable (KCT-23M)

- 15A Fuse
   Instruction Manual
- Premium Warranty: 3 Years\*
- \* All Accessories / options: 1 Year

## NX-740HV/840HU

### VHF/UHF Digital & FM Analog Mobile Radios

GENERAL FEATURES • 50 W (136-174 MHz) Model • 45 W (450-520 MHz) Model • Max. 16 CH per Zone 2 Conventional Zones
 2-Digit LED Channel Display
 Function/Status LED Dots Function/Status LED Dots
 Backlit Keys
 Transmit /Busy / Call Alert LED
 Blue Function/Status LED
 9 Programmable Function Keys
 Emergency / AUX Key
 4W Speaker Audio
 Voice CH# Announcement
 D045 Accement Interferen DB15 Accessory Interface
 8 Programmable I/O Ports
 KPG-175DN Windows® FPU MIL-STD-810 C/D/E/F • IP-54 Water & Dust Intrusion • PC Serial Interface • GPS Receiver Option

### DIGITAL COMMON

DIGITAL COMMON NXDN® Digital Air Interface AMBE+2<sup>™</sup> VOCODER 6.25 & 12.5 kHz Channels Over-the-Air Ailas (TX Only) Paging Call All Group Call All Group Call Status Messaging Remote SturvKill Pagente Check Remote Check
 GPS Location with Voice NXDN® Scrambler Included

### DIGITAL CONVENTIONAL MODE

64 Radio Access Numbers (RAN)
 Individual & Group Selective Call
 Conventional IP Networks
 Site Roaming

### DIGITAL - TYPE-D TRUNKING MODE \*

Table of Contents

- Individual Call
   Group Call & All Group Call
- Emergency Call
   Paging Call
   Transmission Trunked Mode
- Late Entry
   ESN Validation
- Status Messaging \* Hardware Version 2.0 can be abailable.

### SCAN Single Zone Scan Single Priority Scan

### ANALOG MODE - GENERAL

12.5 kHz Channels
Conventional Zones
FleetSync®, MDC-1200, DTMF QT/DQT/Two-Tone
 Voice Inversion Scrambler (16 Codes)

# FleetSync® • PTT ID ANI

- · Selective / Group Call
- · Emergency Status · Send GPS Data MDC-1200

PTT ID ANI
 Emergency, Radio Check & Inhibit

### (02.26.2014) Created

(03.19.2014) Delete: GPS15XL-W, GA25MCX options (03.19.2014) Delete bullet: GPS Receiver Option (03.19.2014) Delete bullet: GPS Location w/ Voice

### (03.19.2014) Delete bullet: Send GPS Data

(04.06.2015) Updated Vers. 2.0 Features (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34 (12.12.2015) Add Type-D Trunking (05.16.2016) Change KPG-175DK to KPG-175DNK (06.15.2016) Add L-1779

MODEL		LIST
NX-740HVK	136-174 MHz VHF 50W, 16 Ch / 2 Zones	484.00
NX-840HUK	450-520 MHz UHF 45W, 16 Ch / 2 Zones	484.00
MOBILE INSTA	LLATION ACCESSORIES	LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	29.00
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	13.70
KCT-36	Extension Cable for KCT-34/35/39/40M/60M; 117.6 inches (9.8 ft)	43.75
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
KMB-10	Key lock adapter	26.30
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
MICROPHONES	S AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)-same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12-key DTMF (8-pin mod. plug)	94.50
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input Note: requires KCT-60M installed.	61.25

NEXEDGI	E* NX-740HV/840HU VHF/UHF Digital & FM Analog Mobile Radios	Table of Contents
FleetSync <sup>®</sup> & N	EXEDGE® AVL & MESSAGING	LIST
GPS15XL-W	Garmin Internal GPS Receiver Board for NEXEDGE/FleetSync AVL <u>Note:</u> • Conventional operation only. • Requires GA25 MCX GPS antenna. • Refer to www.garmin.com for GPS-15XL-W technical specifications. • Option: Order <u>L1779</u> for Kenwood Long Beach installation.	130.25
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <u>Note</u> : shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	62.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-175DNK	Windows <sup>®</sup> Programming Software for NX-740HV840HU	103.25
TYPE-D TRUNK	ING ACTIVATION/TUNING	LIST
KWD-NXD40K	Type-D Trunking Option. Must order <u>L-1800 or L-1801.</u> <u>Note</u> : Compatible with firmware version 3.00 or later. Only Hardware <u>Version 2.0</u> can be available.	10.00
L-1800	Factory Activation of Type-D Trunking Option.	NC
L-1801	Type-D Trunking Option FIELD-UPGRADE. To place an order, please complete the <u>NEXEDGE Type-D Field Upgrade Form</u> available on Kenwood Tools under Forms. Required information includes the exact model #s and serial number for each radio to be updated.	NC
INSTALLATION	/ TUNING CHARGES	LIST
L-1778	NX-740H/840H Programming (with basic TX/RX check)	37.50
L-1779	Install Garmin GPS15XL-W in NX-x40 Series mobile <u>Note</u> : The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.	100.00

Table of Contents

### NEXEDGE<sup>®</sup>

NX-900 mobile includes: • Standard Microphone (KMC-35) • Mounting Bracket • DC Cable (KCT-23M) • Blade Fuse • Instruction Manual • Premium Warranty: 3 Years\*

\* All Accessories / options: 1 Year

# 800/900 MHz Digital & FM Analog Mobile Radios GENERAL FEATURES • 15W (806-870 MHz) Mode • 15W (896-941 MHz) Mode • 512 CH-GID / 128 Zones

NX-900/901

- 159/ (380-541 M4-2) Model
 - 151/ (380-561 V42 Zones
 - Dash & Remote Mount
 - 14 Character Alphanumetic Allases
 - Backlit Dot Matrix LCD
 - Function/Status LCD Icons
 - Multi-anguage Display
 - Function/Status LCD Icons
 - Multi-anguage Display
 - Constant Constant Constant
 - Constant Constant
 - Constant Constant
 - Constant Constant
 - Constan

DIGITAL – GENERAL DIGITAL – GENERAL NOND<sup>®</sup> Digital Ar Interface AMBE+2<sup>104</sup> VOCODER 6.25 & 12.5 kHz Channelis 0. Over-the- Air Alias 0. Over-the- Air Programming 1. Over-the- Air Programming 1. Brongenzy Call 4. Brongenzy Call 4. Brongenzy Call 1. Brongenzy Call 1.

 NXDN® Scrambler Included
 DES Encryption Module Option
 AES & DES Encryption Module Option
 AES/DES Software Key Loader Option DIGITAL CONVENTIONAL MODE 64 Radio Access Numbers (RAN)
 Individual & Group Selective Call
 Mixed FM/Digital Operation
 Conventional IP Networks
 Site Roaming

DIGITAL TRUNKING MODE Individual Private Call Group Call & Broadcast Call Telephone Interconnect Transmission Trunked Mode Message Trunked Mode Call Queeing with Priority Late Entry (UID & GID) 4 Priority Monitor ID s Remote Group Add System Audo Select

### DIGITAL - MULTI-SITE IP NETWORKS • 48site Trunkied IP Network

 Auto Roaming Registration
 Group Registration NEXEDGE Generation1\_System Bridge • 8 Trunked Networks per radio (each in a zone) • UID Lists for each network

NEXEDGE Generation2 System (option) • 1,152 sites Wide Area System • Direct Frequency Assignment

SCAN

• Single Zone / Multi-Zone / List Scan

• Dual Priority Scan (Conventional)

ANALOG MODES - GENERAL AVALUO MODES - GENERAL - 25\*\* & 12.5 kHz Channels NPSPAC Channels - Conventional & LTR® Zones - FleetSync®/II, MDC-1200, DTMF - QT / DQT (Conventional Zones Only) - Voice Inversion Scrambler - Analog Scrambler Board Capability

MPT ZONES (option) • Single-Site Trunking • Multi-Site Network Trunking • 8 Network Capacity • Network Roaming / Registration

FleetSync®/II (FM) • PTT ID ANI / Caller ID • Selective / Group Call • Emergency, Status & Text Messages

MDC-1200 • PTT ID ANI / Caller ID • Emergency, Radio Check & Inhibit

995.00 995.00
995.00
LIST
63.00
13.70
42.00
26.30
105.00
959.00

KCT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	31.50
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	34.75
CONTROL STAT	ION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supplies	48.00
100.45	(mobile mounting hardware included) DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	170.00
KPS-15		173.00
	AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input	61.25
	Note: requires KAP-2 (PA/HA unit) installed.	
SOFTWARE & U	SB OPTIONS	LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software.	550.00
	License Includes 10 radios / 1 Serial Port*	
	<ul> <li>To add more radios/serial ports, you must contact Kenwood Systems Division [1-800-TRUNKING].</li> </ul>	
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K	525.00
	Authentication by KPT-300LMC is required	
	Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K	368.00
	Authentication by KPT-300LMC is required	
	Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	
KWD-NX2G-10	Gen2 Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles Must order L-1812 for factory installation, or L-1813 for field-upgrade option	17.00
	Note:	
	MPT Firmeware and FPU do NOT compatible. MPTs will be available on 3Q FY2016.	
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series	N/C
	without ESN. KWD-LIC-USB stores KWD-NX2G-10 options which are purchased	
	seperately and includes KPG-97USB software for activating radios. Note:	
	- Must order L-1819.	
	- Must purchase KWD-NX2G-10 seperately.	
	<ul> <li>KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order.</li> </ul>	
	<ul> <li>KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders.</li> <li>KWD-LIC-USB can store up to 50,000 KWD-NX2G-10 Gen2 Upgrade Options.</li> </ul>	
<b>OPTION MODUL</b>		LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key)	850.00
INTE ALCOIN	Order a Labor Code L-1830 if installation is required.	000.00
	KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
	KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1).	
KWD-AE31K	AES & DES Encryption Module (Multi-Key)	550.00
	Order a Labor Code L-1831 if installation is required.	
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key	
	loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
FlootCurro® - N	EXEDGE <sup>®</sup> AVL & MESSAGING	LIST
FleetSync & N	EXEDGE AVL & MESSAGING	LIST

(03.08.2011) Add KPG-150AP (03.08.2011) KAS-10 Version Up (descriptions) (10.19.2011) Add KPG-151AE (10.19.2011) Add KWD-AE20/AE21/DE21 (10.19.2011) Add L-1720/1721/1722 (10.19.2011) Add -IMPORTANT NOTES-(10.28.2011) Add NX-901 900MHz (02.13.2013) Change the FPU to "DN (04.08.2013) Add KWD-NX10MPT (04.08.2013) Add L-1729 (07.23.2013) Add multi system (07.24.2013) Combine standard and MPT price pages (10.3.2013) Reorganized Accessories/Optio allation (10.3.2013) Replaced Line Art with Photograph (11.20.2015 YU) removed VGS-1 (we continue the production but don't offer for new order or inquiry ) (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34 (02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select) (03.30.2016) Delete KPG-AE151 and Add KPG-AE1/DE1 (03.30.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (03.30.2016) Delete old labor and add new labor for SCMs (04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK (05.26.2016) Delete KGS-3 (05.26.2016) Add KWD-LIC-USB and L-1819

(12.22.2010) Created

(01.14.2011) OTAP Deleted (01.14.2011) KPG-46UM Deleted

(02.01.2011) KCT-53UM deleted

(02.01.2011) KPG-46AM replaced by KPG-46UM

NEXEDGE	, 800/900 MHz Digital & FM Analog Mobile Radios	Table of Contents
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W Note: shipped loose only, Install GA25MCX antenna to GPS15XL-W before vehicle install; Refer to 180/NX-Series In-depth Technical Manuals for mobile installation.	62.00
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync & NEXEDGE AVL <u>Note</u> : • Conventional & LTR operation. • NEXEDGE <sup>®</sup> Conventional & Trunking operation. • Requires GA25 MCX GPS antenna. • Refer to 180n/X-Series & KAS-10 In-Depth Technical Manuals for installation, programming & KAS-10 software setup. Refer to tww.garmin.com for GPS-15L-W technical specifications. • Option: Order La@8 for Kanwood Long Beach installation.	130.25

(12.22.2010) Created (01.14.2011) OTAP Deleted (01.14.2011) KPG-46UM Deleted

NEXEDGE	<sup>2</sup> NX-900/901	Table of Contents
	800/900 MHz Digital & FM Analog Mobile Radios	
FleetSync® & NE	XEDGE® AVL & MESSAGING, CON'T	LIST
KAS-10	FleetSync & NEXEDGE AVL & Messaging Software with NEXEDGE Trunking VoIP Dispatch <u>Note:</u> - Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with Windows <sup>®</sup> XP, WISTA & 7 and Microsoft <sup>®</sup> MapPoint <sup>®</sup> 2006/2009/2010 (certain format birmap images can be	434.00
	imported). Refer to KAS-10 product spec sheets and manuals for details.	
	ED ACCESSORIES	LIST
KPG-111DNK	Windows <sup>®</sup> Programming Software for NX-200/210/300/410/411/700/800/900/901 (Compliant with FCC Part 90 Narrowbanding).	103.25
KPG-46XM	USB Programming interface cable	158.50
INSTALLATION /	TUNING CHARGES	LIST
L-1094	Install KAP-2 (Default) HR1/Internal Sp./PA	25.00
L-1098	Install Garmin GPS15XL-W in NX-Series mobile for FleetSync® AVL	100.00
L-1099	Assemble NX-700/800/900/901 with KRK-10 Remote Kit	42.00
L-1687	NX-700/800/900/901 Flow Control Modification	60.00
L-1692	NX-900/901 Programming (with basic TX/RX check)	37.50
L-1776	Assemble NX-700/800/900/901 with KRK-13 Dual Remote Kit	42.00
L-1812	Install Gen2 Enhanced Option in NX series radio (Must purchase KWD-NX2G-10 separately)	25.00
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	NC
L-1819	Create KWD-LIC-USB and store KWD-NX2G-10 (Must purchase KWD-NX2G-10 separately)	125.00
L-1830	Install KWD-AE30K in NX-700/800/900/901 series Mobile (Must purchase module separately)	75.00
L-1831	Install KWD-AE31K in NX-700/800/900/901 series Mobile (Must purchase module separately)	75.00
MPT FIRMWARE/	ACCESSORIES/TUNING	LIST
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT (Compliant with FCC Part 80 Narrowbanding) (Dealer Level License ID included) Note: - Must order <u>L-1727</u> (or Network Level License ID & programming privileges. - Gen2 Enhanced Option (KWD-NX2G-10) for MPT will be available on 3Q FY2016.	103.25
KWD-NX10MPT	MPT Trunking Field Upgrade Kit for NX series radio Must order <u>L-1729</u> <u>Note</u> : Not compatible with any other firmware options. Radio does not retain LTR trunking features once the MPT option is installed.	66.70
L-1726	Install MPT option in NX series radio	25.00
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	158.33
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to attr:: Kerwood LMR Tuning, Long Beach for installation. Include Kerwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. Nots: see NX series MPT Introduction Sales Bulletin for details.	85.00
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE (Must purchase KWD-NX10MPT separately)	NC

(12.22.2010) Created (01.14.2011) OTAP Deleted (01.14.2011) KPG-46UM Deleted

NEXEDGE"	NX-900/901 800/900 MHz Digital & FM Analog Mob	Table of Contents
IMPORTANT NOTES		

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to must countris. See anywe bigs of for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

Sentination: Initial delivery point if different from Ultimate Destination
 (customer distribution center, headquarters, dealership, manufacturer's representative)
 Business/Agency Name:
 \*Adforss:
 Contact Person Name:
 Other Destination: Final delivery point(s); deployment/distribution
 \*Business/Agency Name:
 \*Adforss:
 \*Adforss:
 \*Contact Person Name:
 \*Contact Perso

\* Contact Phone: c) Intended Use of Radios: Law enforcement, security, operations, etc.

WUD-AE30 AE5 FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AE5 FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from J/CKENVOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated J/CKENWOOD USA Corporation employee); shippinghanding by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about the AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

(12.22.2010) Created (01.14.2011) OTAP Deleted (01.14.2011) KPG-46UM Deleted Table of Contents

### NEXEDGE<sup>®</sup>

# 0.0 GD

All NX-x20 series mobiles include: • Standard Microphone (KMC-35) • Mounting Bracket • DC Cable (KCT-23M) • 15A Fuse Instruction Manual
 Premium Warranty: 3 Years\*

\* All Accessories / options: 1 Year

# GENERAL FEATURES GENERAL FEATURES - 150/ (68-67) MH2) Model - 150/ (68-67) MH2) Model - 150/ (68-67) MH2) Model - 10 Character Aphanumeric Aliases - Backill LCD & Krys - TransmitBusyCall Alert/Warn LED - Blue Function/Status LED - 0n/OIf Power Control - 4 UpDown Status - LED - 0n/OIf Power Control - 4 UpDown Selectors - 6 Front PF Keys - 4W Speaker Audio - 4W Speaker Audio - 4W Speaker Audio - 10B-15 Accessory Connector - 6 Programmable AUX IC0s - KPG-141D Windows® FPU - Flash Firmware Upgrading - ML-STD-31 Co/DE/F/G - PC-Serial Interface - SDM Manual Input - Transparent Data Mode - Built-in CPS Receiver

NX-920G

800 MHz Digital & FM Analog Mobile Radios

# DIGITAL GENERAL DIGITAL GENERAL NIXDNE Digital Àr Interface - AMBE-2<sup>110</sup> VOCODER - 6.25 & 12.5 Ht Channels - 0ver-the-Air Alias - 0ver-the-Air

DIGITAL CONVENTIONAL MODE

- CONVENTIONAL Mi - 64 Radio Access Numbers (RAN) - Individual & Group Selective Call - Mixed FM/Digital Operation - Conventional IP Networks - Site Roaming

DIGITAL TRUNKING MODE Individual Private Call Group Call & Broadcast Call Telephone Interconnect Transmission Trunked Mode Message Trunked Mode Call Queeing with Priority Late Entry (UID & GID) 4 Priority Monitor ID's Remote Group Add System Audu Select

DIGITAL - MULTI-SITE IP NETWORKS NEXEDGE Generation1 System • 48site Trunkied IP Network • Auto Roaming Registration • Group Registration

NEXEDGE Generation1 System Bridge • 8 Trunked Networks per radio (each in a zone) • UID Lists for each network

NEXEDGE Generation2 System (option) • 1,152 sites Wide Area System • Direct Frequency Assignment

SCAN Single Zone / Multi-Zone / List Scan
 Dual Priority Scan (Conventional)

FM MODES - GENERAL • 25 & 12.5 kHz Channels • NPSPAC Channels • NPSPAC Channels • Conventional 2 A Charles • FleetSync8/III, MDC-1200, DTMF • QT / DQT (Conventional Zones Only) • Voice Inversion Scrambler (16 Codes)

MPT ZONES\* • Single-Site Trunking • Multi-Site Network Trunking • 8 Network Capacity • Network Roaming / Registration

FleetSync@/II (FM) • PTT ID ANI / Caller ID • Selective / Group Call • Emergency, Status & Text Messages MDC 4200

	MDC-1200	
MODEL		LIST
NX-920GK	806-870 MHz 15W, 260 CH / 128 Zone	862.0
MOBILE INSTAL	LATION ACCESSORIES	LIST
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	13.7
KCT-36	Extension Cable for KCT-34/35/39/40M/60M; 117.6 inches (9.8 ft)	43.7
KCT-60M	DB15-to-15pin Molex Adapter Cable	29.0
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.0
KMB-10	Key lock adapter	26.3
CONTROL STAT	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.0
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.0
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.0
	AND SPEAKERS	LIS
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.5
KMC-36	MIL-SPEC Standard electret mobile microphone with 12-key DTMF (8-pin mod. plug)	94.5
	AND SPEAKERS, CON'T	LIS
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.0
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.2
KES-5	External speaker, 40W max input	61.2
	Note: requires KCT-60M installed.	
SOFTWARE OP		LIST
KPG-150AP	NEXEDGE OTAP Manager Windows Software. • License Includes 10 radios / 1 Serial Port*	550.0
	<ul> <li>To add more radios/serial ports, you must contact Kenwood Systems Division</li> </ul>	
	[1-800-TRUNKING]. Gen2 Enhanced Option for NX-*00/*10/*11/*20 Portables & Mobiles	47.0
KWD-NX2G-10	Must order L-1812 for factory installation, or L-1813 for field-upgrade option	17.0
	Note: <u>MPT</u> Firmeware and FPU do <u>NOT</u> compatible. MPTs will be available on <u>3Q FY2016</u> .	
KWD-LIC-USB	USB Hardware Key for activating KWD-NX2G-10 options to NX-*00/*10/*11/*20 series without ESN, KWD-LIC-USB stores KWD-NX2G-10 options which are purchased	N/0
	seperately and includes KPG-97USB software for activating radios.	
	Note: - Must order L-1819.	
	- Must purchase KWD-NX2G-10 seperately.	
	<ul> <li>KWD-LIC-USB Request Form that can be downloaded from Dealer Tools is required to order.</li> <li>KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders.</li> </ul>	
	<ul> <li>KWD-LIC-USB cannot be rechargeable. Must purchase it per every orders.</li> <li>KWD-LIC-USB can store up to 50,000 KWD-NX2G-10 Gen2 Upgrade Options.</li> </ul>	
FleetSync <sup>®</sup> & N	EXEDGE <sup>®</sup> AVL & MESSAGING	LIS
KAS-10	FleetSync & NEXEDGE AVL & Messaging Software	434.0
	with NEXEDGE Trunking VoIP Dispatch Note:	
	<ul> <li>Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with</li> </ul>	
	Windows® XP, VISTA & 7 and Microsoft®MapPoint®2006/2009/2010 (certain format bitmap images can be	
	imported). Refer to KAS-10 product spec sheets and manuals for details. - NEXEDGE Gen2_Type-D_Trunking and DMR_System not supported	
KRA-40GM	GPS Antenna	42.0
SERVICE RELA	TED ACCESSORIES	LIS
KPG-141DNK	Windows <sup>®</sup> Programming Software for NX-220/320/420/720/820/920 (Compliant with FCC Part 90 Narrowbandino).	103.2
KPG-46XM	USB Programming interface cable	158.5
INSTALLATION	/TUNING CHARGES	LIS
L-1727	Network Level License ID for KPG-143D(N) NX series Programmer	158.3
L-1751	NX-720HG/820HG/920G Programming (with basic TX/RX check)	37.5
L-1812	Install Gen2 Enhanced Option in NX series radio	25.0
	(Must purchase KWD-NX2G-10 separately)	
L-1813	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KWD-NX2G-10 separately)	N
L-1813 L-1819	NX Series Radio Gen2 Enhanced Option FIELD-UPGRADE (Must purchase KW0-NX2G-10 separately) Create KW0-DLC-USB and store KWD-NX2G-10 (Must purchase KW0-NX2G-10 separately)	125.0

### (07.17.2013) Created

(10.8.2013) Adjust and organize options/accessories/etc. (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM.

(11.20.2015 YU) substituted from KMB-24 to KMB-34

(02.18.2016) NEXEDGE Gen2 Option added, Product description updated (Gen2 Compatible, System Auto Select)

(04.21.2016) Add Gen2 note for KWD-NX2G-10 and KPG-143DNK.

(05.26.2016) Delete KGS-3 (05.26.2016) Add KWD-LIC-USB and L-1819

NEXEDGE	E' NX-920G 800 MHz Digital & FM Analog Mobile Radios	Table of Contents
KPG-143DNK	Windows <sup>®</sup> Programming Software for NX series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) Nate: - Must order L-1727 for Network Level License ID & programming privileges. - Gen2 Enhande Odiotin (WPM-NX2G-10) for MPT will be available on 30 FY2016.	103.25
KWD-NX10MPT	Optic Limitistics Optication (NVLOF USED) for this 1 million seminate of Optimization     MPT Trunking Field Upgrade Kit for NX series radio     Must order L+1729     Moster Refer to NX series MPT Price Pages. Not compatible with any other firmware options.     Radio does not retain LTR trunking features once the MPT option is installed.	66.70
L-1726	Install MPT option in NX series radio	25.00

(07.17.2013) Created (10.8.2013) Adjust and organize options/accessories/etc. (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34

NEXED	GE <sup>*</sup> NX-920G	Table of Contents
	800 MHz Digital & FM Analog Mobile Radios	
MPT FIRMW	ARE/ACCESSORIES/TUNING, CON'T	LIST
L-1728	Retrofit Install of MPT option in NX series radio For previously purchased NX series radios. Order L-1728 through LMR order desk/rep. Ship radios to attn: Kerwood LMR Tuning, Long Beach for instaliation. Include Kerwood order number for L-1728 provided by order desk & copy of company P.O. or P.O. number. Note: see NX series MPT Introduction Sales Bullein for details.	85.00
L-1729	NX Series Radio MPT Firmware FIELD-UPGRADE (Must ourchase KWD-NX10MPT separately).	NC

(07.17.2013) Created (10.8.2013) Adjust and organize options/accessories/etc. (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34

Table of Contents

### DMR

## **TK-D740HV/840HU**

### VHF/UHF Digital & FM Analog Mobile Radios

# GENERAL FEATURES • 50 W (136-174 MHz) Model • 45 W (450-520, 400-470 MHz) Model • Max. 16 CH per Zone • 2 Conventional Zones • 2-Digit LED Channel Display • Function/Status LED Dots • Backlit Keys • Transmit /Busy / Call Alert LED • 9 Programmable Function Keys • Emergency / AUX Key

9 Programmable Function Key Emergency / AUX Key 4W Speaker Audio Digital/Analog Mixed Mode Voice CH# Announcement DB15 Accessory Interface 8pin Programmable I/O Ports KPC-166DN Windows® FPU MIL-STD-810 C/D/E/F/G IIP54 Dust & Water Protection PC Serial Interface GPS Receiver Option

DIGITAL COMMON • DMR Tier II Conventional • AMBE+2™ VOCODER

AMBE+2™ VOCODER
 12.5 kHz Channels
 Call Interrupt (Direct & Repeater Mode)
 Paging Call
 Emergency Call
 All Group Call
 Late Entry
 Status Messaging
 Remote Monitor

# All 40 series DMR mobiles include: • Standard Microphone (KMC-35) • Mounting Bracket • DC Cable (KCT-23M)

- 15A Fuse
   Instruction Manual
- Standard Warranty: 2 Years\*\*

\*\* All Accessories / options: 1 Year

Because of spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed;				
• 149.7000	• 422.4000 • 480.0000			
<ul> <li>172.8000</li> </ul>	• 441.6000 • 499.2000			
<ul> <li>403.2000</li> </ul>	• 460.8000 • 518.4000			

 Individual & Group Selective Cal
 Conventional IP Networks SCAN Single/Multi Zone Scan
 Single Priority Scan (Conventional)

ANALOG MODE - GENERAL • 12.5 kHz Channels • Conventional Zones • DTMF \* • OT/DQT, Two-Tone \* • Voice Inversion Scrambler (16 Codes) \*

DIGITAL CONVENTIONAL MODE

FleetSync® • PTT ID ANI • Selective / Group Call • Emergency Status • Send GPS Data

\*1 Status Message for FleetSync is <u>NOT</u> supported. \*2 Please see important notice in the GPS15XL-W.

### (11.20.2015) Created

(11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34 (01.08.2016) Changed L-5040 to L-1799 (1.19.2016) Add TK-D840UK (6.15.2016) Release Fimrware v1.7.

MODEL		LIST
TK-D740HVK	136-174 MHz VHF 50W, 16 Ch / 2 Zones	484.00
TK-D840HUK	450-520 MHz UHF 45W, 16 Ch / 2 Zones	484.00
MOBILE INSTA	LLATION ACCESSORIES	LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	29.00
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	13.70
KCT-36	Extension Cable for KCT-34/35/39/40M/60M; 117.6 inches (9.8 ft)	43.75
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
KMB-10	Key lock adapter	26.30
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) <u>Note:</u> Available for Analog only. NOT compatible withDigital (TDMA) operations.	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series).	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
MICROPHONES	S AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)-same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12-key DTMF (8-pin mod. plug)	94.50
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input Note: requires KCT-60M installed	61.25
FleetSync <sup>®</sup> & N	IEXEDGE <sup>®</sup> AVL & MESSAGING	LIST
GPS15XL-W	Garmin Internal GPS Receiver Board for DMR/FleetSync® AVL <u>Important Notice:</u> Firmware version 1.2 or later to use GPS functions require to be updated WITHOUT a GPS Reciever initialy. Once firmware is updated 1.2 or later, it may be allowed any firmware version up with installed GPS Receiver. Please see Dealer Tools under support for the detail. <u>Note</u> : • Conventional operation only • Requires GA25 MCX GPS antenna	130.25
GA25MCX	Refer to www.garmin.com for GPS-15XL-W technical specifications.     Ontion: Order L-1834 for Kenwood Long Baach installation     Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W     Note: shipped loose only, Install GA25MCX antenna to GPS15XL-W before vehicle install.	62.00

DMR	<b>TK-D740HV/840HU</b> VHF/UHF Digital & FM Analog Mobile Radios	Table of Contents
SERVICE RELA	TED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-166DNK	Windows <sup>®</sup> Programming Software for TK-D240V/340U/740HV/840HU	103.25
INSTALLATION	/ TUNING CHARGES	LIST
L-1799	TK-D740HV/840HU Programming (with basic TX/RX check)	37.50
L-1834	Install Garmin GPS15XL-W in TK-Dx40 Series mobile <u>Note</u> : The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.	100.00

			A	
	117			
-	-	SPATCH	U	4044000

All 180 series mobiles include: • Standard Microphone (KMC-35) Mounting Bracket
 DC Cable (KCT-23M)
 Blade Fuse
 Instruction Manual Premium Warranty: 3 Years\*

\* All Accessories / options: 1 Year

\* TX Power is derated at 490-512 MHz TK-8180K: 450-489 MHz (30 W) 490-512 MHz (25 W) TK-8180HK: 450-489 MHz (45 W) 490-512 MHz (40 W)

CHINKING & CONVENTION MODIA CENERAL FEATURES - 30/50 W (136-174 MHz) - 30/45 W (453-72 MHz) - Conventional & LTR<sup>2</sup> Zones - MPT132 Trunking Option - Remote Control Head Option - 12 Character Alphanumeric Aliases - Backitt Dot Matin LO - 12 Character Alphanumeric Aliases - Backitt Dot Matin LO - Toramit / Busy / Call Alert / Warn LED - 6 Backitt PF Keys - Emergency / AUX Key - Emergency / AUX Key - Emergency / AUX Key - Entragency Alug - Walce Inversion & ambier Built-- Compande Audia - Voice Inversion & ambier Built-- Emergency / AIM Board Control - Bencylion / All Board Control - Bencylion / All Board Control - Bencylion / All Board Control - Emergency Call Features - DTME Encode / Decode - Special Alert Tone Patterns - Call Key - Time Out Timer - Busy Channel Lockout - Timed Power Off - BeJaS Accessory Connector - 9 Programmable AUX Coputs - yoniton Semandra Mac - ML-Spec 12 Key DTMF Mic Option - MiL-Spec Standard Mic - MiL-Spec 12-Key DTMF Mic Option - Mic Spec 12-Key DTMF Mic Option - Mic Spec 12-Key DTMF Mic Option - Mic Spec 12-Key DTMF M

TK-7180/8180

VHF/UHF Trunking & Convention Mobile Radios

# CONVENTIONAL ZONES

• 512 Channels / 128 Zones • QT / DQT • Two-Tone Decode • Single / Two-Tone Encode • Operator Selectable Tone • Dual Priority Scan • Single & Multi-Zone Scan • List Scan

TRUNKED ZONES • 512 GID / 128 Zones • Kenwood LTR® Features

Kenwood LTR\* Features
 FleetSync®
 FleetSync®
 FleetSync®
 FleetSync®
 Sync®
 Sync®
 Sync®
 Sync®
 Sync®
 Sync®
 Sync®
 Status Messaging
 Short & Long Text Messages
 Input / Output Status Messages
 Short Root Reporting
 YGS1 (PS Data Storage
 YGS1 (PS Data Storage
 YCS) Hort Countput

MPT ZONES (option) Single-Site Trunking
 Multi-Site Network Trunking 8 Network Capacity
 Network Roaming / Registration

MDC-1200 • PTT ID Digital ANI • Caller ID Display • Emergency Status • Radio Check

(02.26.2010) GPS15XL-W replaced GPS15L-W (02.26.2010) Description of GA25MCX changed (03.08.2011) Delete KGP-2A/2B (03.08.2011) Delete CIM-1000/CABLE (03.08.2011) Delete L-1020/1021 (03.08.2011) KAS-10 Version Up (descriptions)

(09.30.2009) Labor Code (L-1052) is added.

(03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (03.08.2011) Added MIL-G

(02.13.2013) Change the FPU to "DN"

(02.13.2013) L-1052 Description Change

- (10.3.2013) Reorganized Accessories/Options/Installation
- (10.3.2013) Replaced Line Art with Photograph
- (10.3.2013) Combine MPT
- (11.20.2015 YU) removed VGS-1 (we continue the production but don't offer for new order or inquiry )
- (11.20.2015 YU) removed KDS-100 (discontinued) (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM.
- (11.20.2015 YU) substituted from KMB-24 to KMB-34

(08.25.2016) Delete KGS-3 for discontinuation

	Radio Inhibit	
MODEL		LIST
TK-7180K	136-174 MHz 30W, 512 CH / 128 Zone CONV-& LTR	586.00
TK-7180HK	136-174 MHz 50W, 512 CH / 128 Zone CONV-& LTR	718.00
TK-8180K	450-520 MHz 30W, 512 CH / 128 Zone CONV-& LTR	604.00
TK-8180HK	450-520 MHz 45W, 512 CH / 128 Zone CONV-& LTR	735.00
TK-8180K2	400-470 MHz 30W, 512 CH / 128 Zone CONV-& LTR	604.00
TK-8180HK2	400-470 MHz 45W, 512 CH / 128 Zone CONV-& LTR	735.00
MOBILE INSTA	LLATION ACCESSORIES	LIST
KAP-2	Horn Alert/P.A. Relay Option Note: For MPT, HA operates in Trunked Mode only.	63.00
KCT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line).	13.70
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
KMB-10	Key lock adapter.	26.30
KRK-10	Remote Control Kit (a remote control cable (23 ft) is included).	105.00
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug).	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak).	173.00

MICROPHONE	S AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input <u>Note:</u> requires KAP-2 (PA/HA unit) installed.	61.25
FleetSync® M	DBILE DATA TERMINAL	LIST
KPG-71DK	Windows <sup>®</sup> Programming Software for KDS-100	103.25
KCT-40M	Radio Interface Cable for KGP-2A/2B & KDS-100	29.00
KCT-36	Extension Cable for KCT-34/35/39/40M; 117.6 inches (9.8 ft)	43.75
FleetSync <sup>®</sup> M	ESSAGING	LIST
KAS-2FSD	FleetDispatchPRO: FleetSync® messaging dispatch software for PC <u>Note</u> : TK-7180/8180 base mobile requires a DB-25 PC serial cable to connect to the base computer (purchase aftermarket separately). Supports FleetSync® PTI ID, Emergency, Status/Text Messaging for all FleetSync compatible portables & mobiles. + KDS-100 fleet units are compatible with the KAS-2FSD FleetSync calling & messaging features. + Refer to KAS-2FSD spec sheet for detailed features & requirements	384.00
FleetSync <sup>®</sup> A\	L & MESSAGING	LIST
KAS-10	FleetSync & NEXEDGE AVL & Messaging Software with NEXEDGE Trunking VoIP Dispatch <u>Note:</u> Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with Windows <sup>®</sup> XP, VISTA & 7 and Microsoft <sup>®</sup> MapPoint <sup>®</sup> 2008/2009/2010 (certain format bitmap images can be imported). Refer to KAS-10 product spec shears and manuals for details.	434.00
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync® AVL <u>Note</u> - Conventional & LTR operation only - Requires GA25 MCX GPS anterna - Oution: Order <b>I-1033</b> of Kenwood Long Beach installation	130.25
GA25MCX	Control On-dash Style Magnetic base GPS Antenna for GPS15XL-W Mote: shipped lose only: Instal GA25MCX antenna to GPS15XL-W before vehicle install; Refer to 180/NK-Series In-depth Technical Maruals for mobile installation.	62.00
FIRMWARE OF	NONS	LIST

	<b>TK-7180/8180</b> VHF/UHF Trunking & Convention Mobile Radios	Table of Contents
KWD-180MPT	MPT Trunking Field Upgrade Kit for 180-Series Must order L-1620 Note: Refer to 180-Series MPT Price Pages and 180-Series MPT In-Depth Technical Manuals for feature details (available from technical support). Not compatible with any other firmware options Radio does not retain all normal 180-Series conventional or LTR trunking features once the MPT option is installed.	43.75
KWD-180TFS	TFS Tactical Feature Set Field Upgrade Kit for 180-Series Must order <u>L-1625</u> <u>Note</u> : Refer to 180-Series "Tactical Feature Set" In-Depth Technical Manual for feature details (available from technical support). Not compatible with any other firmware options.	105.00
SERVICE RELAT	TED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-89DNK	Windows <sup>®</sup> Programming Software for TK-2180/3180/7180/8180 (Comptiant with FCC Part 90 Narrowbanding) Mote: Self-orgarmming & Tacical Feature Set functions are not available. * KPG-89DK is required for Tactical Feature Set. KPG-89DK is no longer supported or distributed by Kanword	103.25
	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:	
E30-3382-05	Clone cable	
J29-0662-03	Mounting bracket for TK-7180/8180/7160/8160same as supplied w/ radio (order N99- 2039-05 for mounting screw set).	

	TK-7180/8180 VHF/UHF Trunking & Convention Mobile Radios	Table of Contents
INSTALLATION	/ TUNING CHARGES	LIST
L-965	TK-7180/8180 Programming (with basic TX/RX check)	37.50
L-966	Install KAP-2 (Default) HR1/Internal Sp./PA	25.00
L-968	Assemble TK-7180/8180 with KRK-10 Remote Kit	42.00
L-1010	Install KAP-2 (External Sp.) HR1/External Sp./PA	25.00
L-1033	Install Garmin GPS15XL-W in 180-Series mobile for FleetSync® AVL <u>Note</u> : The KGS-3 & GPS15XL-W are not compatible with KGP-2A/2B AVL systems.	100.00
L-1052	TK-7180/8180 TFS INSTALLATION <u>Note</u> : KPG-89DK is required to program the TFS (Tactical Feature Set). KPG-89DK is no longer supported or distributed by Kenwood. TFS will not work with KPG-89DNK.	100.00
L-1620	180 Portable KWD-180MPT FIELD-UPGRADE (Must purchase KWD-180MPT separately)	NC
L-1625	180 Portable KWD-180TFS FIELD-UPGRADE (Must purchase KWD-180TFS separately)	NC
MPT FIRMWAR	E/ACCESSORIES/TUNING	LIST
KMC-32	Standard mobile microphone with 16-key DTMF (8-pin mod. plug)	70.00
KPG-96DNK	Windows <sup>®</sup> Programming Software for 180-Series MPT (Compliant with FCC Part 90 Narrowbanding) (Dealer Level License ID included) Note: Must order L-1013 for Network Level License ID & programming privileges.	103.25
L-1012	Install MPT option in 180-Series radio	16.67
L-1013	Network Level License ID for KPG-96D(N) 180-Series Programmer	158.33
L-1014	Retrofit Install of MPT option in 180-Seires radio (for previously purchased 190 Series radios) Order <u>L-1014</u> hrough LMR order desk/rep. Ship radios to attn: Kenwood LMR Tuning, Long Beach for installation. Include Kenwood order number for L-1014 provided by order desk & copy of company P.O. or P.O. number P.O. number Motig: Only certain Serial Number Lots produced in late 2004 and later can be retrofitted - see 180-Series MPT Introduction Sales Bullein for details.	85.00

(09.30.2009) Labor Code (L-1052) is added. (02.26.2010) GPS15XL-W replaced GPS15L-W (02.26.2010) Description of GA25MCX changed

### TK-7360HV/8360HU v2.0 VHF/UHF Trunking & Convention Mobile Radios

GENERAL FEATURES



All 360 series mobiles include: • Standard Microphone (KMC-35) Mounting Bracket
 DC Cable (KCT-23M) 15A Fuse
 Instruction Manual

Standard Warranty: 2 Years\*

\* All Accessories / options: 1 Yea

### CONVENTIONAL ZONES Solution (136-174 MHz) Model 45 W (450-520 MHz) Model Conventional & LTR® Zones 10-Character Alphanumeric Aliases CONVENTIONAL ZONES 128 Channels / 128 Zones QT / DQT Two-Tone Decode Single & Two-Tone Encode Operator Selectable Tone Backlit LCD & Keys Function/Status LCD Icons

 Single Priority Scan
 Single / Multi-Zone Scan Blue Function / Status LED
 Transmit /Busy / Call Alert LED
 10 Programmable Function Keys TRUNKED ZONES • 128 GID / 128 Zones • Kenwood LTR® Feature

FleetSync<sup>6</sup> //II (FM) • PTT ID Digital ANI • Selective Call & Group Call • Paging Call • Status Messaging • Emergency Status • Caller ID Display • Input / Output Status Messages • FleetSync<sup>®</sup> GPS Ready • Send GPS PF Key • PTT ID & Emergency GPS Reporting • GPS Auto Reporting

MDC-1200 • PTT ID Digital ANI • Caller ID Display • Emergency Status • Radio Check • Radio Inhibit

Transmit /Busy / Call Alert LED
 To Programmable Function Keys
 Emergency / AUX Key
 Front Panel Speaker
 Companded Audio
 Voice Inversion Scrambler Built-in
 16 Scrambler Codes (per CH)
 Encryption / Board Control
 Emergency Call Features
 Lone Worker Alert
 DTMF Encode / Decode
 Special Alert Tone Patterns
 Busy Channel Lockout
 Timed Ower Off
 DBaf S Accessory Interface
 Be Togrammable 1/0 Ports
 Ightion Sense
 Public Address / Horn Alert Output
 MiL-Spec 12-Key DTMF Mic Option
 Easy Option Ports (26-pin)
 Cloning
 MIL-STD-810 C/D/E/F/G
 IP54 Water & Dust Intrusion

### (12.13.2010) Created

(03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (11.08.2011) Add LTR Features (06.07.2012) Description changed to include "trunking" (02.13.2013) Change the FPU to "DN

(10.3.2013) Reorganized Accessories/Options/Installation

(10.3.2013) Replaced Line Art with Photograph (11.20.2015 YU) removed VGS-1 (we continue the production but don't offer for new order or inquiry ) (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM.

(11.20.2015 YU) substituted from KMB-24 to KMB-34

MODEL LIST 136-174 MHz 50W, 128 CH / 128 Zone CONV-& LTR TK-7360HVK 467.00 450-520 MHz 45W, 128 CH / 128 Zone CONV-& LTR TK-8360HUk 484.00 MOBILE INSTALLATION ACCESSORIES LIST KCT-60M DB15-to-15pin Molex Adapter Cable 29.00 Ignition sense cable (requires KCT-60M Acc. Cable Option) KCT-18 13.70 Extension Cable for KCT-34/35/39/40M/60M; 117.6 inches (9.8 ft) KCT-36 43.75 Line Filter (suppresses alternator whine, 25dB, 25A max). KLF-2 42.00 KMB-10 Key lock adapte 26.30 STATION INSTALLATION ACCESSORIES CONTROL LIST Control Station Desktop Microphone (8-pin mod. plug) KMC-9C 86.00 Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK-5x10/6110 series). (mobile mounting hardware included) DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak) KMB-34 48.00 KPS-15 173 00 MICROPH AND SPEAKERS LIST MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied MIL-SPEC Standard electret mobile microphone with 12-key DTMF (8-pin mod. plug) KMC-35 KMC-36 52.50 94.50 KMC-9C Control Station Desktop Microphone (8-pin mod. plug) 86.00 KES-3S External speaker (compact low profile; black case; 3.5 mm phono plug-in) 44.25 External speaker, 40W max input Note: requires KCT-60M installed. KES-5 61.25

	TK-7360HV/8360HU v2.0 VHF/UHF Trunking & Convention Mobile Radios	Table of Contents
FleetSync <sup>®</sup> AV	L	LIST
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync® AVL <u>Note</u> • Conventional operation only • Requires GA25 MCX GPS antenna • Refer to www.garmin.com for GPS-15L-W technical specifications. • Oction: "Order 1-1690 for Kenvood Long Beach installation	130.25
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <u>Note</u> : shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	62.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-135DNK	Windows <sup>®</sup> Programming Software for TK-7360/8360	103.25
KPG-46XM	USB Programming interface cable	158.50
	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:	
E30-3382-05	Clone cable	
J29-0662-03	Mounting bracket - same as supplied w/ radio (order N99-2039-05 for mounting screw set)	
INSTALLATION	/ TUNING CHARGES	LIST
L-1689	TK-7360/8360 Programming (with basic TX/RX check)	37.50
L-1690	Install Garmin GPS15XL-W in 360-Series mobile for FleetSync <sup>®</sup> AVL	100.00
L-1693	Install VGS-1 Voice Guide & Storage Unit <u>Note:</u> VGS-1 installation precludes any ANI or encryption board installation.	25.00

(12.13.2010) Created (03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (11.08.2011) Add LTR Features (06.07.2012) Description changed to include "trunking"

	C-7302HV/8302HU UHF Convention Mobile Radios	Table of Contents	(02.26.2010) GPS15XL-W replaced GPS15L-W (02.26.2010) Description of GA25MCX changed (02.26.2010) TK-8302UK/HUK is Available
All 302 series mobiles include: • Standard Microphone (KMC-35) • Mounting Bracket • DC Cable (KCT-23M) • 15A Fuse • Instruction Manual • Standard Warranty: 2 Years*	ENERAL FEATURES 50 W (136-174 MHz) Model 45 W (450-520 MHz) Model Conventional Zones Single Priority Scan Single / Multi-Zone Scan 2-Digit LED Channel Display Function/Status LED Dots Blue Function/Status LED Transmit /Busy / Call Alert LED Backlit Keys 9 Programmable Function Keys Emergency / AUX Key Front Panel Speaker Companded Audio Voice O+# Announcement (8 Languages) Voice Inversion Scrambler Built- 16 Scrambler Codes (per CH) Encryption Board Control Emergency Call Features Lone Worker Alert QT / DQT Operator Selectable Tone Two-Tone Decode Single & Two-Tone Encode DTMF Encode / Decode Special Alert Tone Patterns Busy Channel Lockout Time Out Timer	<ul> <li>DB15 Accessory Interface</li> <li>8 Programmable I/O Ports</li> <li>1 ginition Sense</li> <li>Public Address / Horn Alert Output</li> <li>MLI-Spec Standard Mic</li> <li>MIL-Spec Standard Mic</li> <li>MIL-Spec Standard Mic</li> <li>MIL-STD-810 C/D/E/F/G</li> <li>IP-54 Water &amp; Dust Intrusion</li> </ul> <b>FleetSync<sup>9</sup> /II (FM)</b> <ul> <li>PTT ID Digital ANI</li> <li>Selective Call &amp; Group Call</li> <li>Paging Call</li> <li>Status Messaging</li> <li>Emergency Status</li> <li>Send GPS PF Key</li> <li>PTT ID &amp; Emergency GPS Reporting</li> <li>Iptic / Output Status Messages</li> <li>FleetSync<sup>8</sup> (PS Ready</li> <li>Send GPS PF Key</li> <li>PTT ID &amp; Emergency GPS Reporting</li> <li>Method Check</li> <li>Radio Inhibit</li> </ul>	(02.26.2010) L-1643 Description Changed (03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (03.08.2011) Added MIL-G (02.13.2013) Change the FPU to "DN" (03.20.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced Line Art with Photograph (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM. (11.20.2015 YU) substituted from KMB-24 to KMB-34

TK-7302HVK	136-174 MHz 50W, 16 CH / 2 Zone Conventional	350.00
TK-8302HUK	450-520 MHz 45W, 16 CH / 2 Zone Conventional	367.00
MOBILE INSTA	LLATION ACCESSORIES	LIST
KCT-60M	DB15-to-15pin Molex Adapter Cable	29.00
KCT-18	Ignition sense cable (requires KCT-60M Acc. Cable Option)	13.70
KCT-36	Extension Cable for KCT-34/35/39/40M/60M; 117.6 inches (9.8 ft)	43.75
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
KMB-10	Key lock adapter	26.30
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
MICROPHONES	S AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12-key DTMF (8-pin mod. plug)	94.50
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input <u>Note:</u> requires KCT-60M installed.	61.25

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	TK-7302HV/8302HU VHF/UHF Convention Mobile Radios	Table of Contents
FleetSync <sup>®</sup> AV	L	LIST
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSync® AVL <u>Note:</u> • Conventional operation only. • Requires GA25 MCX GPS antenna. • Refer to www.garmin.com for GPS-15L-W technical specifications. • Option: Order <u>L-1643</u> for Kerwood Long Beach installation.	130.25
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W <u>Note</u> : shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	62.00
SERVICE RELA	TED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-124DNK	Windows <sup>®</sup> Programming Software for TK-7302/8302 (Compliant with FCC Part 90 Narrowbandino). Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:	103.25
E30-3382-05	Clone cable	
J29-0662-03	Mounting bracket - same as supplied w/ radio (order N99-2039-05 for mounting screw set).	
INSTALLATION	/ TUNING CHARGES	LIST
L-1642	TK-7302/8302 Programming (with basic TX/RX check)	37.50
L-1643	Install Garmin GPS15XL-W in 302-Series mobile for FleetSync <sup>®</sup> AVL	100.00

(02.26.2010) GPS15XL-W replaced GPS15L-W (02.26.2010) Description of GA25MCX changed (02.26.2010) TK-8302UK/HUK is Available (02.26.2010) L-1643 Description Changed

		TK-6110	Table of Contents
		Compact Low Band Mobile Radio	
		GENERAL FEATURES • 70 W (29.7-37.0, 35.0-50.0 MHz)	QT/DQT Encode & Decode     Operator Selectable Tone
		32 Channels	Two Tone Decode
		<ul> <li>Single Priority Scan</li> <li>8 Character Alphanumeric LCD</li> </ul>	DTMF Encode & Decode     Time Out Timer
		<ul> <li>3 Digit Sub-Display and Icons</li> </ul>	<ul> <li>Busy Channel Lockout</li> <li>15 Pin Accessory Connector</li> </ul>
All 6110 seri	ies mobiles include:	Transmit / Busy / Call Alert / Warn LED     Up/Down Channel Selector	MIL-Spec / Noise-Cancel
<ul> <li>Standard M</li> </ul>	licrophone (KMC-27B)	Volume Knob     Power On/Off Button	Microphone <ul> <li>M-Type Antenna Connector</li> </ul>
<ul> <li>Mounting Bi</li> <li>DC Cable (H</li> </ul>		<ul> <li>Power On/Off Button</li> <li>7 Programmable Radio Keys</li> </ul>	Ignition Sense
<ul> <li>Instruction I</li> </ul>	Manual	Front Panel Speaker	Timed Power Off
<ul> <li>Standard W</li> </ul>	/arranty: 2 Years*	<ul> <li>Noise Blanker Function</li> <li>Encryption / ANI Board Control</li> </ul>	Horn Alert     Cloning
* All Accessorie	es / options: 1 Year	Emergency Call Features	PC Programming & Tuning     MIL-STD-810 C/ D/ E
	IMPORTANT NOTICE		
		tput power will be significantly reduced with VSWR = 1.5 or g rformance (nominal; transmission line losses not included).	greater.
	VSWR 1.2 or less	Output Power 70W or more	
	1.3-1.5	60W or more	
	More than ?	.5 60W or less	
	TK-6110K Frequency Bandwidth	TK-6110K2	
	29.7MHz 0.4MHz (+/-0.1	Frequency Bandwidth 20MHz) 35.0MHz 1.0MHz (+/-0.5MHz)	
	33.0MHz 0.4MHz (+/-0.2	20MHz) 40.0MHz 1.8MHz (+/-0.9MHz)	
	37.0MHz 1.0MHz (+/-0.1		
	<ol> <li>The TK-6110 design elir mobiles:</li> </ol>	ninates the need for the following accessories typical of Kenw	rood compact
	a. KCT-19: 15-pin acces	sory connector is built in.	
		output is provided on the 15-pin connector (see service manu	al for maximum
	current rating). Audio Power: 3W internal:	speaker / 10W external speaker (KES-5).	
	FleetSync® is not available	for the TK-6110.	
	KES-3(S) is not compatible The following frequencies	e, use KES-5. are not allowed in the TK-190 and TK-6110 models: 33.6 MHz	z and 42.0 MHz.
IODEL			LIST
K-6110K	VHF Low Band 29.7 -	37.0 MHz 70W, 32 Channels	788.00
<-6110K2	VHF Low Band 35.0 -	50.0 MHz 70W, 32 Channels	788.00
ABLES			LIST
CT-18	Ignition sense cable		13.70
OBILE INSTA	LLATION ACCESSO	RIES	LIST
LF-2	Line Filter (suppresses	alternator whine, 25dB, 25A max).	42.00
ICROPHONE	S AND SPEAKERS		LIST
MC-27B	Standard dynamic mol	ile microphone (8-pin mod. plug)	42.00
MC-28A	MIL-SPEC & Noise Ca	nceling dynamic mobile microphone (8-pin mod. plu	g) w/ DTMF 163.00
MC-9C	Control Station Deskto	p Microphone (8-pin mod. plug)	86.0
ES-5		k input; blk,. case, 5"x5"x2-9/16"	61.2
IISCELLANEC	Note: plugs into TK-6110 6 DUS ITEMS	-pin molex acc. conn.	LIST
		upply (117/230 VAC; 23A max. continuous, 25A pea	

(03.08.2011) Delete CIM-1000/CABLE (03.08.2011) Delete L-1040/1041 (03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (10.3.2013) Reorganized Accessories/Options/Installation

(10.3.2013) Replaced Line Art with Photograph

(11.20.2015 YU) removed KMC-27A (discontinued) (11.20.2015 YU) substituted from KPG-46UM to KPG-46XM.

	<b>TK-6110</b> Compact Low Band Mobile Radio	Table of Contents
SERVICE RELA	ATED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-59DK	Program Software for TK-190/6110 (Version 2.00)	68.50
	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:	
E30-3382-05	Clone cable	
J29-0662-03	Mounting bracket (Same as supplied)	
N99-0395-05	Screw set for mounting bracket Part #J29-0662-03	
INSTALLATION	I / TUNING CHARGES	LIST
L-911	TK-190/TK-6110 Programming (with basic TX/RX check)	25.00

(03.08.2011) Delete CIM-1000/CABLE (03.08.2011) Delete L-1040/1041 (03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM (10.3.2013) Reorganized Accessories/Options/Installation

# Land Mobile Radio Project 25 Price Guide



Effective Date: October, 2016

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# **Table of Contents:**

### **Portables**

NX-5200 / 5300

NX-5400

TK-5210G / 5310G

TK-5220 / 5320

# **Mobiles**

NX-5700 / 5800 / 5900

TK-5710G / 5810G

TK-5720 / 5820

**TK-5910** 

# Updates in October, 2016 Edition

Portable Mobile	Series	Model	Page	Updates
Portable	NX-5200 · 5300	KWD-5300CV	4	Add KWD-5300CV DMR Tier II Conv. License
Portable	NX-5200 • 5300	KWD-5007RC	4	Add KWD-5007RC Remote Control License for DMR
Portable	NX-5200 · 5300	KPG-180AP	4	Add NXDN IP License to KPG-180AP as default
Portable	NX-5400	KWD-5300CV	11	Add KWD-5300CV DMR Tier II Conv. License
Portable	NX-5400	KWD-5007RC	11	Add KWD-5007RC Remote Control License for DMR
Portable	NX-5400	KPG-180AP	11	Add NXDN IP License to KPG-180AP as default
Mobile	NX-5700 • 5800 • 5900	KWD-5300CV	18	Add KWD-5300CV DMR Tier II Conv. License
Mobile	NX-5700 • 5800 • 5900	KWD-5007RC	18	Add KWD-5007RC Remote Control License for DMR
Mobile	NX-5700 • 5800 • 5900	KPG-180AP	18	Add NXDN IP License to KPG-180AP as default
Mobile	NX-5700 • 5800 • 5900	L-5022	18	Add USB Mobile Cable for SD Card Direct Access
Mobile	NX-5700 • 5800 • 5900	L-5023	18	Add DB25 Cable for Mobile Relay Station

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### NEXEDGE<sup>®</sup> P25



<Standard Key Model > <Full Key Model >

All NX-5000 series portables include: • Belt Clip (KBH-11) • Universal Connector Cap • User Guide • Premium Warranty: 3 Years\*

All Accessories / options: 1 Year

Purchase Battery, Charger, Antenna separately

<u>\*Note</u>: To maintain immersion specs (IP67/68), all warranty service must be done by one of the three National Kenwood Authorized Service Centers. IP67/68 Certification is valid under the 3 year premium warranty. No re-certification is available.

Because of spurious signal (birdie), following frequencies (and ±10kHz ranges) are not allowed;				
<ul> <li>144.0000</li> <li>147.4560</li> <li>153.6000</li> <li>172.0325</li> <li>172.8000</li> </ul>	• 384.0000 • 403.2000 • 422.4000 • 432.0000 • 441.6000	• 460.8000 • 480.0000 • 499.2000 • 518.4000		

### NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios

STANDARD

STANDARD	
GENERAL FEATURES	<ul> <li>DIGITAL – NXDN<sup>©</sup> MODE</li> <li>NXDN<sup>®</sup> Conventional / TYPE-C (Gen1/Gen2)</li> </ul>
- 5 W (380-470, 450-520 MHz) Models - 1024 CH-610 / 128 Zones - Standard Key Models (win numeric keypad) - Full Key Models (win numeric keypad) - Full Cotor 1.74' (240 x 180 pixels) Transflecture FT Display - Multi-line Taxt Display - Multi-line Taxt Display - Multi-language Display - Datle & 1224 Hour Time Clock - Transmit/Busy/Call Alert(Warn LED - Or/Off Volume Knob - 16P-Osition Mechanical Selector (wi a stopper) - 4-way Directional-pad (D-pad)	Trunking - AMBE+2** VOCCODE 6.25.8 1.2.5 kHz Channels - Over-the-Ar Programming (requires KPG-180AP OTAP Manager Software) - Paging Call - All Group Call - All Group Call - Status Messaging - Remote StunKIIICheck - Short & Long Data Messages - GPS Location - NXDN* Scrambler
2 Position Laver Switch     Emergency/LAIX Key     3 Side PF Keys     With Speaker Audio     Multi Digital Potocol     Multi Digital Potocol     Subtrio GPS Receiver / Antenna     Built-no GPS Receiver / Antenna     Built-no BK Receiver / Antenna     Built-no BK Receiver / Antenna     Built-no BK Rocker / Antenna     BK Rocker / Antenna	DIGITAL – DMR MODE     DMR Tier II Conventional     AMBE 72 WOCODER     12.5 kHz Channels     Call Interrupt (Direct & Repeater Mode)     Paging Call     Emergency Call     Call Convention     Call     Call Reproduct     Call     Call Reproduct     Call     C
<ul> <li>Color Housing Option</li> <li>Multi Digital Protocol can be used for two[2] of the three[3] Digital Protocols set by programming software. P25/DMR Digital Protocols are options.</li> </ul>	ANALOG MODE Conventional Zones UTR® Zones FleetSync®/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status, Text Messages

### ANALOG MODE

 Conventional Zones
 LTR<sup>®</sup> Zones
 FleetSync<sup>®</sup>/II: PTT ID ANI, Caller ID Display,
 Selective/Group Call, Emergency Status, Text Messages • MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check & Inhibit • QT / DQT Turo Toop (Conventional Zones Only) • QT / DQT • Two-Tone (Conventional Zones Only) • DTMF

2. Future relea

- (01.26.2015) Added Qtv breaks to KPG-D1NK Software (15+ 40%, 25+ 45%) (03.25.2015) Modified for Firmware Version 1.4, ASK and adding KPG-180AP, KPG-36XM, Color Housing (05.13.2015) Modified for adding LTR, FleetSync (10.09.2015) Added KNB-N4M and KBP-8M (10.09.2015) Change expression for KWD-5003BT and KWD-5106DT (10.13.2015) Added Software Upgrade Options for KPG-180AP (12.17.2015) Added notes for P25 Conventional license in KPG-180AP line (12.17.2015) Added notes for TDMA operation (12,18,2015) Remove future release (01.14.2016) Add KNB-LS5M (01.14.2016) Add KNB-N4 and KNB-LS5M in KAS-12 description (01.14.2016) Add CSA US Package Models (01.14.2016) Add CSA US Options Note (01.18.2016) Add KAS-12PRO (02.19.2016) Add KVC-23 (04.21.2016) Add note for KAS-12PRO (04.21.2016) Add KPG-93AUT (05.10.2016) Add KCT-48VU (09.23.2016) Add DMR Mode (09.23.2016) Add Remote Control
- (09.23.2016) Add IP Profile to KPG-180AP (10.04.2016) Add KRA-28/29

### GENERAL FEATURES

OPTIONAL

GENERAL F2A1URES
 4000 Channel (KU/D-5002EL License Key Activation required)
 Front Panel Programming (KU/D-5001E) License Key Activation required )
 imicroSDImicroSDHC Memory Card Stot (KU/D-5003EL License Key Activation required)
 Built-In Bluetooth® Module for Data (KU/D-5033EL License Key Activation required)
 Built-In Bluetooth® Module for Data (KU/D-5033EL License Key Activation required)
 256-bit AES Encryption (KU/D-4E30K/31K Encryption Module required)

### DIGITAL - P25 MODE

DIGHTAL - F23 mODE
 Conventional Factures (<u>KVD-5100CV</u> License Key Activation required)
 Phase 1 Trunking Features (<u>KVD-5100CV & 5101TR</u> License Keys Activation required)
 Phase 1 Trunking Features (<u>KVD-5100CV & 5101TR</u> & 5102TL License Keys Activation required)
 Conventional OTAR (<u>KVD-5102K</u> License Keys Activation required)
 Trunking OTAR (<u>KVD-5102K</u> License Keys Activation required)
 Packet Data required for Trunking OTAR(<u>SVD-5105DT</u> License Keys Activation required)

DIGITAL - DMR MODE

DMR Tier 2 Conventional Features (KWD-5300CV License Key Activation required))

NEXEDG	NX-52	00/5300 Analog Portable Radios	Table of Contents
RADIO			LIST
tandard Key Model			2.0.
IX-5200K2	VHF (136-174MHz), 6.0 Watts NXDN Conve		825.00
IX-5300K2 IX-5300K5	UHF (450-520MHz), 5.0 Watts NXDN Conv UHF (380-470MHz), 5.0 Watts NXDN Conve		825.00 825.00
ull Key Models			LIST
X-5200K3	VHF (136-174MHz), 6.0 Watts NXDN Conve	entional / TYPE-C (Gen1/Gen2) Trunking	875.00
X-5300K3	UHF (450-520MHz), 5.0 Watts NXDN Conve		875.00
X-5300K6	UHF (380-470MHz), 5.0 Watts NXDN Conve (ED MODELS)	entional / TYPE-C (Gen1/Gen2) Trunking	875.00
SA US APPRO		Intrinsically Safe Battery per radio	LIST
X-5200-ISCK2		to use as Intrinsically Safe Option.	825.00
IX-5200-ISCK3	VHF (136-174MHz), 6.0 Watts NXDN Conve		875.00
X-5300-ISCK2	UHF (450-520MHz), 5.0 Watts NXDN Conv		825.00
X-5300-ISCK3 X-5300-ISCK5	UHF (450-520MHz), 5.0 Watts NXDN Conve UHF (380-470MHz), 5.0 Watts NXDN Conve		875.00
IX-5300-ISCK6	UHF (380-470MHz), 5.0 Watts NXDN Conve		875.00
ICENSING SYS	TEM		LIST
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NEXEDGE	NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
KWD-AP2-CP	Additional NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	417.00
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	800.00
Requires firmware version 1.4	a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles. I or higher for the NX-5000 Series portables and mobiles 5 or higher for the NXR-x00/NXR-x10 repeaters.	
BATTERY READER		LIST
KAS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/N4/LS5 & KSC-Y32 (Windows® Vista/7/8/8.1) Mete: Requires KPT-300LMC for authentication	85.00
	LICENSES FOR KAS-12 ches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authenticati	on.

NEXEDGI	<sup>≝</sup> NX-5200/5300	Table of Contents
P25	VHF/UHF Digital & FM Analog Portable Radios	
- And Table Control		
ATTERY READER,		LIST 350.00
	Add Battery Management with Database Must require KAS-12K Battery Reader Software to upgrade	350.00
KAS-12PRO	Note:	
	<ul> <li>A Windows® PC may be required as a Database Server which KAS-12DU (Free) software is installed.</li> <li>Requires KPT-300LMC for authentication</li> </ul>	
	- Requires KP1-300LMC for authentication	
	E LICENSE OPTIONS	
	e same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that red users for the account.	can then be viewed / shared
Complete the     Submit the co     a) E-Mail: Im     b) Fax: (310)     License Keys     Note: Radio Feature	DRDER FOR RADIO FEATURE LICENSES: attached Radio Feature Request Form. mpleted form along with your PO to the Land Mobile Order Desk via: rorderdesk@us.lyckenwood.com 761-8246 will be E-mailed to the address provided on the request form. A hard copy will follow by m e License Keys can be transferable from a radio to radio <u>within 72 hours</u> count started from being authen radio is authenticated by KPT-300LMC, 72 hours is reset and count started from thest.	
		1167
General Radio Featu KWD-5000CH	License Key for 4000 Channel Expansion	LIST 420.00
KWD-5001FP	License Key for Front Panel Programming	300.00
KWD-5002SD	License Key for microSD Memory Card Slot Activation	105.00
KWD-5003BT	License Key for Bluetooth Serial Port Profile (Required for Date Communication) <u>Note</u> : Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT.	35.00
	You can pair with any Bluetooth audio device without this option.	10 00
KWD-5007RC	License Key for Remote Control by Subscriber Units <u>Note:</u>	40.00
	- DMR Mode only. NXDN Mode will be version up. P25 Mode is NOT available.	
	<ul> <li>The license is required for only Transmitting of Remote Control.</li> <li>PC command for Remote Control does <u>NOT</u> require the license.</li> </ul>	
P25 Radio Features		LIST
(WD-5100CV	License Key for P25 Conventional	575.00
KWD-5101TR KWD-5102TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV) License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	<u> </u>
KWD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	700.00
KWD-5105VT	License Key for P25 Conventional Voting Scan	120.00
<wd-5106dt< td=""><td>License Key for P25 Trunking OTAR/GPS Data <u>Note</u>: Conventional (OTAR/GPS) does NOT require KWD-5106DT.</td><td>180.00</td></wd-5106dt<>	License Key for P25 Trunking OTAR/GPS Data <u>Note</u> : Conventional (OTAR/GPS) does NOT require KWD-5106DT.	180.00
DMR Radio Features		LIST
KWD-5300CV	License Key for DMR Tier II Conventional	60.00
ANTENNAS		LIST
KRA-26M KRA-26M2	VHF helical antenna 146-162 MHz VHF helical antenna 162-174 MHz	<u> </u>
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
<u> </u>	UHF whip antenna 400-450 MHz VHF low-profile helical antenna 148-162 MHz	14.00
KRA-22M KRA-22M2	VHF low-profile helical antenna 162-174 MHz	<u>13.70</u> 13.70
KRA-22M3	VHF low-profile helical antenna 136-150 MHz	13.70
KRA-23M	UHF low-profile helical antenna 450-490 MHz	13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz UHF low-profile helical antenna 403-430 MHz	13.70
KRA-23M3 KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	<u>13.70</u> 34.25
<pre><ra-28< pre=""></ra-28<></pre>	Broad-band VHF helically loaded whip antenna 140-170 MHz	42.00
ANTENNAS, COI		LIST
KRA-29 BATTERIES AND	Broad Band UHF Whip Antenna 380-430 MHz	36.75
KNB-L1M	Li-ion 2000mAh (Compact Slim)	LIST 115.00
KNB-L2M	Li-ion 2600mAh (Standard)	135.00
KNB-L3M	Li-ion 3400mAh (High Capacity)	175.00
KNB-N4M	Ni-MH 2500mAh CSA US Intrinsically Safe Battery Li-ion 2000mAh	145.00
KNB-LS5M	Note:	200.00
	Due to the I.S. circuitry on the KNB-LS5M, the cells may lose charge during storage. To prevent loss of capacity during storage, charge the battery	
	for 10 minutes at least every 4 months with the KSC-32, KSC-Y32K or KSC-326K.	
KBP-8M	[Intrinsically Safe Option] AA Alkaline Refillable Battery Pack (12 AA: 9V). Cells not included.	106.00
	Note: The color of the case is International Orange.	
KSC-Y32K	Rapid rate single unit charger (Long-Life Charge Mode capable with KAS-12 Software)	115.00
KSC-32 KSC-326K	Rapid rate single unit charger Rapid rate 6-unit charger	70.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	<u>630.00</u> 33.75
<vc-15< td=""><td>Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes</td><td>119.00</td></vc-15<>	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes	119.00
<vc-23< td=""><td>KSC-mobile bracket &amp; cigarette lighter cable DC adapter) Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-</td><td>300.00</td></vc-23<>	KSC-mobile bracket & cigarette lighter cable DC adapter) Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK-	300.00
WU-23	x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACC		LIST
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment Leather swivel belt loop / detachable swivel D-Ring back	26.30
KLH-6SW KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	22.00
	Heavy duty leather carrying case for NX-5000 series with KNB-L1/L2/L3/LS5	44.25
KLH-200K3	(for both keypad models)	
KLH-200K3	Nylon carrying case for NX-5000-series with KNR-L1/L2/L2/LS/	00.00
KLH-200K3	Nylon carrying case for NX-5000-series with KNB-L1/L2/L3/LS5 (for both keypad models)	26.30
	(for both keypad models)	26.30 <i>LIST</i>

NEXEDG	=	Table of Contents
P25	NX-5200/5300	
Canto	VHF/UHF Digital & FM Analog Portable Radios	
WD-OH-5000	Orange Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order L-5025 for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically	40.00
	Safe Option must be installed by Kenwood.)	
	Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.	
	& AUDIO ACCESSORIES	LIST
(MC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <u>Compatible with ANR Feature</u> <u>Note:</u> only compatible with a NX-5000 series portable	130.00
MC-42WDM	[Intrinsically Safe Option] MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic	114.00
(MC-49	[Intrinsically Safe Option] MIL-SPEC, Speaker Mic. with Antenna Connector	250.00
	<u>Note</u> : 5/16" Coax cable hex wrench included (antenna is not included). [Intrinsically Safe Option]	
EP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics [Intrinsically Safe Option]	52.50
EP-2	2.5mm earphone kit for KMC-49 Speaker Mic [Intrinsically Safe Option]	52.50
CT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Option]	215.00
HS-11BL	2-wire palm mic w/earphone, universal connector (Black)	156.50
MCROPHONES a	[Intrinsically Safe Option] & AUDIO ACCESSORIES, CON'T	LIST
HS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black)	184.00
	Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	
(HS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT Note: NOT compatible with TDMA operations	126.00
(HS-15-BH	[Intrinsically Safe Option] Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT	420.00
по-то-вп	Note: NOT compatible with TDMA operations	420.00
HS-15-OH	[Intrinsically Safe Option] Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT	368.00
	Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	
NCRYPTION MO	DDULES	LIST
WD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-5003 if installation is required.	850.00
	KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
	Intrinsically Safe Ontion1- Must be Kenwood installed for I.S.	
WD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code <u>L-5004</u> if installation is required.	550.00
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	
CT-48VU	Intrinsically Safe Ontion-Must be Kenwood installed for LS. External Vibration Unit	49.00
	Note: Audio accessories cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features	
PG-AE1K	[Intrinsically Safe Option] AES/DES Encryption Software Key Loader for KWD-AE31K	525.00
	Authentication by KPT-300LMC is required	525.00
PG-DE1K	Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A). DES Encryption Software Key Loader for KWD-AE31K	368.00
CODE III	Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	300.00
PG-36XM	ED ACCESSOR/ES Full Speed USB Programming interface cable	LIST 158.50
PG-93	Note: This cable with USB mode may used for SD Card Direct Access. Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
PG-93AUT	KVL-4000 Radio Authentication Cable	330.00
	Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	
WD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <u>Notes:</u> Enables P25 Trunked system programming privileges in a KPG-D1NK.	208.00
	<ul> <li>For NX-5000 series only.</li> <li>Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key.</li> </ul>	
	Must have KPG-D1NK.     Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in	
WD-ASK-MK	hatter, USB Key must be reliared since the excitation set undee not work after 3 wars Master Key for activating KWD-ASK-AK Access Keys	500.00
WD-AGR-WIK	- Restricted Purchase Requirements -	500.00
	Notes: • For NX-5000 series only.	
	<ul> <li>Sold to trunked system operator (SYSOP) or SYSOP authorized entities only</li> <li>Must have KPG-D1NK.</li> </ul>	
	<ul> <li>SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools.</li> </ul>	
	Purchase KWD-ASK-AK Access Keys if needed.	
	TUNING CHARGES Account Registration Key	LIST
-5000	Note: specify the number of PC's used for Radio Feature License Activation.	NC
-5001	Factory Activation of Radio Feature Licenses (per Radio) <u>Note:</u> Must purchase Radio Feature Licenses separately.	120.00
-5002	KPT-300LMC's History Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check)	37.50
		51.00

NEXEDGE	NX-5200/5300 VHF/UHF Digital & FM Analog Portable Radios	Table of Contents
INSTALLATION / T	UNING CHARGES, CON'T	LIST
L-5003	Install KWD-AE30K in NX-5000 series Portable	75.00
L-5004	(Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)	75.00
L-5005	KPG-D1NK System Key File (SKF)           Note: Enables P25 Trunked system programming privileges in a KPG-D1NK.           - Restricted Purchase Requirements -           - Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request From placed on Kenwood Tools.           - Must have KPG-D1NK.           - Kerwood ships an encrypted 'SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kerwood Tools.           - Non-SYSOP Filtes ordering L-S065 must provide veriflable written authorization from SYSOP to receive an "SKF file.           - 3-digit HEX HSID are securely encrypted & embedded in the "SKF file.	132.00
L-5024	Assemble Yellow Housing KWD-YH-5000 with NX-5000 series Portable	27.00
L-5025	Assemble Orange Housing KWD-OH-5000 with NX-5000 series Portable	27.00
L-5039	Configure NX-5200/5300/5400 for CSA US Intrinsically Safe Must order KNB-LS5M I.S. battery	70.00

### -- IMPORTANT NOTES regarding ENCRYPTION MODULES--

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Leanses and/or compliances.
Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment
even if being returned to Kenwood later:
a) Initial Destination: Initial delivery point if different from Ultimate Destination
(customer distribution center, headquarters, dealership, manufacturer's representative)
\* Business/Agency Name:
\* Contact Person Name:
\* Contact Person Name:
\* Ultimate Destination: Final delivery point(s); deployment/distribution
\* Business/Agency Name:
\* Address:
\* Contact Person Name:
\* Contact

KWD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kerwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kerwood USA Corporation employee); shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kerwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

	NX-5400	Table of Content	5	
P25 700/80	00MHz Digital & FM Analog Portable	e Radio		
	STANDARD GENERAL FEATURES • 3 W (700/800 MHz) Models • 1024 CH-GID / 128 Zones • Standard Key Models (wio numeric keypad)	DIGITAL – NXDN® MODE NXDN® Conventional NXDN® TYPE-C (Gen1/Gen2) Trunking (only in 800MHz)		(01.26.2015) Added Qty breaks to KPG-D1NK Software (15+ 40%, 25+ 45%) (03.25.2015) Modified for Firmware Version 1.4, ASK and adding KPG-180AP, KPG-36XM, Color (05.13.2015) Modified for adding LTR, FleetSync
	Full Key Models (w/ numeric keypad) Full Color 1.74 (240 x 180 pixels) Transflective TFT Display Function/Status Icons Multil-Inarguage Display Date & 1224 Hour Time Clock Multil-Language Display Date & 1224 Hour Time Clock TarasmitMusyCall Antown Hore Position Mechanical Selector (w/ a stopper) 4-way Directional-pad (D-patient) 2 Position Lever Switch EmergencyALX Key 3 Side PF Keys 1W Speaker Audio	- AMBE <sup>+</sup> 2 <sup>™</sup> VOCODER     - Cast 8 - Cast		(10.09.2015) Added KNB-N4M and KBP-8M (10.09.2015) Change expression for KWD-5003BT and KWD-5106DT (10.13.2015) Added Software Upgrade Options for KPG-180AP (12.17.2015) Added notes for P25 Conventional license in KPG-180AP line (12.17.2015) Added notes for TDMA operation (12.18.2015) Remove future release (01.14.2016) Add KNB-LS5M (01.14.2016) Add KNB-N4 and KNB-LS5M in KAS-12 description (01.14.2016) Add CSA US Package Models (01.14.2016) Add CSA US Options Note
standard Key Mode) > <full key="" model=""> All IX-5400 series portables include: • Belt Clip (KBH-11) Universal Connector Cap User Guide • Premium Warranty: 3 Years* All Accessories / options: 1 Year</full>	Multi Digital Protocol <sup>1</sup> Emergency Call Features     Built-in GPS Receiver / Antenna     Built-in Gutooth* Module     Built-in Motion %ensor     Built-in Motion %ensor     Built-in Motion DESS ncryption     (4 keys programmable by KPG-01(NK)         - Active Noise Reduction (ANR)         - KPG-01NWindows* PPU     - Flash Firmware Upgrading	OMR Tier II Coventional     AMBE+2™OCOEDER     125 kHz Channels     Call Interrupt (Direct & Repeater Mode)     Paging Call     Emergency Call     Ial Group Call     Late Entry     Status Messaging	x x x x x x	(01.18.2016) Add KAS-12PRO (02.19.2016) Add KVC-23 (04.21.2016) Add kVC-23 (04.21.2016) Add KPG-93AUT (05.10.2016) Add KCT-48VU (09.23.2016) Add DMR Mode
Purchase Battery, Charger, Antenna separately	MIL-STD-810 C/D/E/F/G     IP67/68 Immersion	Remote Control by Subscriber Units     ARC4 Encryption <sup>2</sup> Site Roaming <sup>2</sup>	x x	(09.23.2016) Add Remote Control (09.23.2016) Add IP Profile to KPG-180AP
Note: To maintain immersion spees (P67/68), all avaranty service must be done by one of the three Vational Kerwood Authorized Service Centers. P67/68 Certification is valid under the 3 year premium warranty. No re-certification is available.	<ol> <li>Multi Digital Protocol can be used for two(2) of the thre(2) Digital Protocol set by programming software. P25/DMR Digital Protocols are options.</li> </ol>	ANALOG MODE     NPSPAC Channels     Conventional Zones     ITR* Zones     TFR* Zones     TF		
	OPTIONAL			
Due to spurious signal (birdie), the following frequencies (and ±10kHz ranges)	GENERAL FEATURES 4000 Channel (KWD-5000CH License Key Activat Front Panel Programming (KWD-5001FP License microSD/microSDHC Memory Card Slot (KWD-50 Builti-Biuetodhé Module for Data (KVD-5003E) Remote Control by Subscriber Unitor 50MR Only 256-bit AES Encryption (KWD-AE30X/31K Encryp	Key Activation required ) <u>02SD</u> License Key Activation required) I License Key Activation required) (KWD-5007RC License Key Activation required)	x	
are not allowed: •864.000	DIGITAL – P25 MODE     ornventional Features ( <u>KWD-5100CV</u> , Liones KA Drinst 1 Tunking Features ( <u>KWD-5100CV</u> , <u>5101</u> Phase 2 Tunking Features ( <u>KWD-5100CV</u> , <u>5101</u> Ornventional OTAR ( <u>KWD-5103RK</u> <u>5106DT</u> Liones Conventional OTAR ( <u>KWD-5103RK</u> <u>5106DT</u> Liones Conventional Voling Scan ( <u>KWD-5103T</u> Liones	<u>1TR</u> License Keys Activation required) <u>1TR &amp; 5102TR</u> License Keys Activation required) Activation required)		
ADIO		VD-5106DT License Keys Activation required)		
K-5400K2 700 / 800 MHz, 3.0 Wat	tts Analog Standard Key Model	VD-5106DT License Keys Activation required)	00	
<-5400K2		VD-5106DT         License Keys Activation required)           L1:         825.           875.         L1:           tery per radio         825.           Safe Option.         825.           875.         875.	00 00 57 00 00	
4-5400K2 700 / 800 MHz, 3.0 Walk, 4-5400K3 700 / 800 MHz, 3.0 Walk, 5400K3 700 / 800 MHz, 3.0 Walk, 50 Hz, 50 Walk, 70 Hz, 50 Walk, 70 Hz, 30 Walk, 30 Wa	tts Analog Standard Key Model tts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat D card is not allowed to use as Intrinsically S tts Analog Standard Key Model tts Analog Full Key Model KPT-300LMC License Management	VD-5106DT License Keys Activation required)  Lt  825.  875.  tery per radio 825. 875. Lt  ters Client	00 00 57 00 00	
<-5400K2	tts Analog Standard Key Model tts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat D card is not allowed to use as intrinsically S tts Analog Standard Key Model tts Analog Full Key Model WWW MODEL The Standard Key Model KPT-300LMC is a required software package and radio feature license keys for the NX-50	VD-5106DT License Keys Activation required)  LLR 825. 875. LR tery per radio Safe Option. 825. 875. LR t Client t Client t used to authenticate software (FPU) 000 Series radios.	00 00 57 00 00	
<-5400K2	tts Analog Standard Key Model tts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat D card is not allowed to use as intrinsically S tts Analog Standard Key Model tts Analog Full Key Model WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	UD-5106DT License Keys Activation required)         LL         825.         875.         LR         safe Option.         825.         875.         LR         tery per radio         safe Option.         825.         875.         LR         tery per radio.         825.         825.         825.         826.         827.         828.         829.         829.         829.         829.         829.         829.         829.         829.	00 00 57 00 00	
<-5400K2	tts Analog Standard Key Model tts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat 5039 & KNB-LS5M Intrinsically Safe Bat 5039 & KNB-LS5M Intrinsically Safe 5039 & KNB-LS5M Intrinsically Safe 5039 & KNB-LS5M Intrinsically Safe 5039 & KNB-LS5M Intrinsically Safe 503 & KNB-LS5M Intrinsically Safe 504 & KNB-LS5M Intrinsically Safe 504 & KNB-LS5M Intrinsically Safe 504 & KNB-LS5M Intrinsically Safe 505 & KB-LS5M Intrinsically Safe	VD-5106DT License Keys Activation required)  LLR 825. 875. LR tery per radio Safe Option. 825. 875. LR t Client e that is used to authenticate software (FPU) 000 Series radios. d from Kenwood Tools and is also supplied (, KAS-12, and KPG-AE/IDE1300LMC to authenticate the software lete the enclosed * <u>Account Request Form*</u> s provided on the Account Request Form.	00 00 57 00 00	
<-5400K2	Itts Analog Standard Key Model Itts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Interinsically Safe 50 Card is not allowed to use as Interinsically Safe 50 Card is available as a free download with applicable software, such as KPG-D1NH 50 Card is not use. To receive a license key, compl and return to the Land Mobile Order Desk. License Keys will be E-Mailed to the address And copy will follow by mail for your record lient	UD-5106DT License Keys Activation required)         LR           825.         875.           LR         825.           875.         LR           tery per radio         825.           Safe Option.         825.           875.         1.1           tery per radio.         825.           875.         1.1           tery per radio.         825.           875.         1.1           tery per radio.         1.1           8 that is used to authenticate software (FPU)         000 Series radios.           14 from Kenwood Tools and is also supplied         4. KAS-12, and KPG-AE1/DE1.           -300LMC to authenticate the software ferm."         a provided on the Account Request Form."           spervided on the Account Request Form.         15.	00 00 57 00 00 00 57	
<5400K2	Itts Analog Standard Key Model Itts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Intrinsically Safe 50 Card is not allowed to use as Interinsically Safe 50 Card is not allowed to use as Interinsically Safe 50 Card is available as a free download with applicable software, such as KPG-D1NH 50 Card is not use. To receive a license key, compl and return to the Land Mobile Order Desk. License Keys will be E-Mailed to the address And copy will follow by mail for your record lient	UD-5106DT License Keys Activation required)           LL           825.           875.           LL           825.           876 Option.           825.           875.           LL           825.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.           877.     <	00 00 57 00 00 00 57	
C-5400K2     700 / 800 MHz, 3.0 Walk     C-5400K3     700 / 800 MHz, 3.0 Walk     C-5400K3     Too / 800 MHz, 3.0 Walk     C-5400-ISCK2     700 / 800 MHz, 3.0 Walk     C-5400-ISCK2     700 / 800 MHz, 3.0 Walk     C-5400-ISCK3     700 / 800 MHz, 3.0 Walk     C-5400-ISCK3     700 / 800 MHz, 3.0 Walk     C-5400-ISCK3     Too / 800 MHz, 3.0 Walk     C-5400     C-54	tts Analog Standard Key Model tts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat 2020 A Standard Key Model 1020 A Standard Key Model 1020 C Standard Key Model 1020	VD-5106DT License Keys Activation required)	00 00 37 00 00 00 00 00 00 00 00 00 00 00 00 00	
C-5400K2     700 / 800 MHz, 3.0 Walk     C-5400K3     700 / 800 MHz, 3.0 Walk     C-5400K3     Too / 800 MHz, 3.0 Walk     C-5400-ISCK2     700 / 800 MHz, 3.0 Walk     C-5400-ISCK2     700 / 800 MHz, 3.0 Walk     C-5400-ISCK3     700 / 800 MHz, 3.0 Walk     C-5400-ISCK3     700 / 800 MHz, 3.0 Walk     C-5400-ISCK3     Too / 800 MHz, 3.0 Walk     C-5400     C-54	tts Analog Standard Key Model tts Analog Full Key Model 5039 & KNB-LS5M Intrinsically Safe Bat D card is not allowed to use as intrinsically S tts Analog Standard Key Model TEX Analog Full Key Model FOR Comparison of the Safe Safe Safe Safe Safe Safe Safe Saf	VD-5106DT License Keys Activation required)	00 00 37 00 00 00 00 00 00 00 00 00 00 00 00 00	

NEXEDGE"	NX-5400 700/800MHz Digital & FM Analog Portable Radio	Table of Contents
	P25 Trunked Programming Capability (licensed by either 1 or 2 below): 1. USB Key Type: Advanced System Key (ASK)- See KWD-ASK-MK and AK + For NX-8000 series radios. • KWD-ASK-MK (Master Key): For trunked system operator (SYSOP). Required for activating KWD-ASK-AK Access keys. Securely embeds/encrypts the HSID. • KWD-ASK-AK (Access Key): For Dealers/contractors. Activated by KWD-ASK-MK Master Key. • KPC-D1NK supports up to 16 KWD-ASK-AK Access Keys (16 trunked networks).	
	Software Key Type: System Key File (SKF)- See L-5005     For NX-5000 series radios.     S-digit HEX System ID (HSID) with verifiable written authorization required from     SYSOP.     Utilized by both SYSOPs and Dealers/Contractors. But Dealers/Contractors must be     permitted from SYSOP to order and use SKF.     Kenwood ships an encrypted *SKF file via E-Mail to the address provided on the P25     Tunking System Keys Request Form placed on Kenwood Tools.     The *.SKF securely embeds/encrypts the HSID.	

	<sup>≘</sup> NX-5400	
P25	700/800MHz Digital & FM Analog Portable Radio	
over the air pro KPG-180AP	OTAP Manager Software (Windows® Vistal/7/8/8.1/10) OTAP Manager Software (Windows® Vistal/7/8/8.1/10) License includes Fifty (50) radios / One(1) <u>NXON</u> Conventional and Type-C <u>Air</u> Communication Profile One(1) <u>NXON</u> Conventional and Type-C <u>IP</u> Communication Profile	LIST 884.00
	Note: - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>P25 Conventional system</u> requires <u>KWD-AP3-P25</u> license. - NEXEDGE Type-D Tumkina and DMR System not supported.	
ote: Includes package	RADE LICENSES FOR KPG-180AP license for additional subscriber unit or license for additional profile attached to one computer running KPG- ire KPT-300LMC for authentication.	180AP software. All
WD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	1667.00
WD-AP5250	Additional 250 Radio Package License for 1 PC	2917.00
WD-AP5500	Note:         License includes 250 subscriber radios OTAP License.           Additional 500 Radio Package License for 1 PC           Note:         License includes 500 subscriber radios OTAP License.	4167.00
WD-AP1-CA	NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	250.00
WD-AP2-CP	NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	417.00
WD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.	800.00
IMPORTANT NOTES-		
equires firmware versior	d to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles. 1.4 or higher for the NX-5000 Series portables and mobiles	
equires firmware versior BATTERY READER	2.5 or higher for the NXR-x00/NXR-x10 repeaters.	LIST
(AS-12K	License Key for KAS-12 Battery Reader Software for KNB-L1/2/3/N4/LS5 & KSC-Y32 (Windows® Vista/7/8/8.1) Note: Requires KPT-300LMC for authentication	85.00
	DE LICENSES FOR KAS-12 attaches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authentic:	ation.
	Add Battery Management with Database	350.00
AS-12PRO	Must require KAS-12K Battery Reader Software to upgrade Note: - A Windows® PC may be required as a Database Server which KAS-12DU (Free) software is installed.	
	- Requires KPT-300LMC for authentication	
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NEXEDGE	NX-5400 700/800MHz Digital & FM Analog Portable Radio	Table of Contents
KSC-326K	Rapid rate 6-unit charger	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACCE	ESSORIES	LIST
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case	36.75
KLH-200K3	Heavy duty leather carrying case for NX-5000 series with KNB-L1/L2/L3/LS5 (for both keypad models)	44.25

	<sup>=</sup> NX-5400	Table of Contents
25	700/800MHz Digital & FM Analog Portable Radio	
CARRYING ACC	ESSORIES, CON'T	LIST
KLH-201K3	Nylon carrying case for NX-5000-series with KNB-L1/L2/L3/LS5 (for both keypad models)	26.30
SPECIAL COLO	R HOUSING	LIST
KWD-YH-5000	Yellow Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order <u>L-5024</u> for Factory Install. (Eligible for warranty of IP67/68 immersion / Intrinsically Safe Option must be installed by Kenwood.) Note: If you order only housing and perform Dealer Instalation, IP67/68 Warranty Claim will not be eligible.	40.00
KWD-OH-5000	Orange Housing Kit for NX-5000 series Portables (Standard Key Model Only) Order <u>L-5025</u> for Factory Install. (Eligible for warranty of IP67/68 Immersion / Intrinsically Safe Option must be installed by Kenwood.) <b>Note:</b> If you order only housing and perform Dealer Instalation, IP67/68 Warranty Claim will not be eligible.	40.00
MICROPHONES	& AUDIO ACCESSORIES	LIST
KMC-54WDM	MIL-SPEC, IP67 (Immersion) Speaker Mic <u>Compatible with ANR Feature</u> <u>Note</u> only compatible with a NX-5000 series portable [Intrinsically Safe Option]	130.00
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Option]	114.00
KMC-49	MIL-SPEC, Speaker Mic. with Antenna Connector <u>Note</u> : 5/16° Coax cable hex wench included (antenna is not included). [intrinsically Safe Option]	250.00
KEP-1	3.5mm earphone kit for KMC-41/42W/54W Speaker Mics [Intrinsically Safe Option]	52.50
KEP-2	2.5mm earphone kit for KMC-49 Speaker Mic [Intrinsically Safe Option]	52.50
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Option]	215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Option]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	184.00
KHS-14	Lt. Wt. Single multi-based w/boom mic & In-line PTT Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	126.00
KHS-15-BH	Immissary Sub option Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & PTT Note: NOT compatible with TDMA operations Intrinsically Safe Option]	420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & PTT Note: NOT compatible with TDMA operations [Intrinsically Safe Option]	368.00
ENCRYPTION M	ODULES	LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code <u>1-5003</u> in traitaliation is required. KWD-AE30K requires: a Motorola KVI.3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled item (ECCN 5A002A.1) [Intrinsically Safe Option]- Must be Kenwood Installed for LS.	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L <u>50004</u> il installation is required. <u>Nete</u> : Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD- AE31K is an U.S. DOC/BIS Export Controlled Item (ECON 5A002A.1) Intrinsically 346 Oction-Must be Kenwood installed for LS.	550.00
KCT-48VU	External Vibration Unit Mate: Auto accessorise cannot be used when this option installed. KCT-48VU does not support the P25 digital mode calling or paging features Intrinsically Safe OctionI	49.00
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Mate: KPG-AE1 is a U.S. DCCIBIS Export Controlled Item (ECCN 5D002A)	525.00

NEXEDG	E <sup>*</sup> NX-5400	Table of Contents
P25	700/800MHz Digital & FM Analog Portable Radio	
(12 Santa		
ENCRYPTION	10DULES, CON'T	LIST
(PG-DE1K	DES Encryption Software Key Loader for KWD-AE31K	368.00
	Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	
		1167
	TED ACCESSORIES	LIST
KPG-36XM	Full Speed USB Programming interface cable <u>Note:</u> This cable with USB mode may be used for SD Card Direct Access.	158.50
(PG-93	Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
KPG-93AUT	KVL-4000 Radio Authentication Cable	330.00
	Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	550.00
KWD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming	208.00
	<u>Notes:</u> Enables P25 Trunked system programming privileges in a KPG-D1NK. <ul> <li>For NX-5000 series only</li> </ul>	
	<ul> <li>Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key</li> </ul>	
	Must have KPG-D1NK     Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in	
	battery. USB Key must be replaced since the expiration set up dose not work after 3 years.	
WD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys	500.00
	- Restricted Purchase Requirements -	000.00
	Notes:	
	For NX-5000 series only.     Sold to trunked system operator (SYSOP) or SYSOP authorized entities only	
	Must have KPG-D1NK	
	SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed	
	on Kenwood Tools.  • Purchase KWD-ASK-AK Access Keys if needed.	
INSTALLATION		
-5000	/ TUNING CHARGES	LIST
	/ TUNING CHARGES Account Registration Key	LIST
2 0000	Account Registration Key <u>Note:</u> specify the number of PC's used for Radio Feature License Activation.	LIST NC
	Account Registration Key <u>Note</u> : specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio)	NC
	Account Registration Key <u>Note</u> : specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> : Must purchase Radio Feature Licenses separately.	NC
5001	Account Registration Key <u>Note</u> : specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio)	NC 120.00
5001	Account Registration Key <u>Nete:</u> specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> : Must purchase Radio Feature Licenses separately. KPT:30ULCP: History Menu will not display the Radio Features activated by Factory.	NC 120.00 37.50
5001 5002 5003	Account Registration Key <u>Note</u> , specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> , Must purchase Radio Feature Seature Licenses separately. KPT-300L/CF bilstory Menu will not display the Radio Features activated by Factory, NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately)	NC 120.00 37.50 75.00
5001 5002 5003	Account Registration Key <u>Note</u> , specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory. NX-520065300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable	NC 120.00 37.50 75.00
5001 5002 5003 5004	Account Registration Key <u>Note</u> , specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> , Must purchase Radio Feature Seatores esparately. KPT: 300.UKC 5 History Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately)	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key <u>Note</u> , specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> Must purchase Radio Feature Licenses separately. KPT-300LMC's History Menu will not display the Radio Features activated by Factory. NX-520065300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key <u>Note</u> ; specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> ; Must purchase Radio Feature Licenses separately. KPT:300L/KCP shirory Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-D1NK System Key File (SKF) <u>Note</u> : Enables P25 Trunked system programming privileges in a KPG-D1NK.	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-30ULCV Shistor Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KVND-AE30K in NX-5000 series Portable (Must purchase module separately) Install KVND-AE30K in NX-5000 series Portable (Must purchase module separately) KPG-01NK System Key File (SKF) Note: Enables P25 Trunkel system programming privileges in a KPG-01NK. - Restricted Purchase Requirements - * Trunkel system operator (SYSOP) must provide 3-digit HEX HSID to Kerwood with P25 Trunking System	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key <u>Note</u> ; specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> ; Must purchase Radio Feature Licenses separately. KPT:300L/KCP shirory Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-D1NK System Key File (SKF) <u>Note</u> : Enables P25 Trunked system programming privileges in a KPG-D1NK.	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key <u>Note</u> , specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> , Must purchase Radio Feature Licenses separately. KPT:300LPC's History Menu will not display the Radio Features activated by Factory. NX-52005300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-D1NK System Key File (SKF) <u>Note</u> Enables P25 Trunked system programming privileges in a KPG-D1NK. - Restricted Purchase Requirements - • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed to Rerwood Tods.	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-30ULC6 Shistor Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-011NK System Key File (SKF) Note: Enables P25 Trunkel separately KFC-011NK System Rey File (SKF) Note: Enables module negarately KFC-011NK System Rey File (SKF) Note: Enables Form Inaced on Kerwood Tocls. Nust have KFC-011NK. Nerwood ships an encrypted ".SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kerwood Tocls.	NC 120.00 37.50 75.00 75.00
5001 5002 5003	Account Registration Key <u>Note</u> , specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) <u>Note</u> , Must purchase Radio Feature Licenses separately. KPT-300LVCF Shirory Menu will not display the Radio Features activated by Factory, NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-D1NK System Key File (SKF) Note: Frables P25 Tunkel system programming privileges in a KPG-D1NK. • Restricted Purchase Requirements - • Trunkel system operator (SYSOP) runs provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Must have KPG-D1NK. • Sequest Form placed on Kenwood Tools.	NC 120.00 37.50 75.00 75.00
5001 5002 5003 5004	Account Registration Key Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-30ULC6 Shistor Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-011NK System Key File (SKF) Note: Enables P25 Trunkel separately KFC-011NK System Rey File (SKF) Note: Enables module negarately KFC-011NK System Rey File (SKF) Note: Enables Form Inaced on Kerwood Tocls. Nust have KFC-011NK. Nerwood ships an encrypted ".SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kerwood Tocls.	NC 120.00 37.50 75.00 75.00
-5001 -5002 -5003 -5004 -5005	Account Registration Key Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-30ULC6 History Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) KPG-DTINK System Key File (SKF) Note: Enablese P25 Trunkel system programming privileges in a KPG-DTINK. - Restricted Purchase Requirements - 'Trunkel system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tock. - Must have KPO-DTINK. - Kerwood ships an encrypted 'SKF file via E-Mail to the address provided on the P25 Trunking System Keys Request Form placed no Kenwood Tock. - Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an -SKF file.	NC 120.00 37.50 75.00 75.00 132.00
-5001 -5002 -5003 -5004 -5005	Account Registration Key Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio) Note: Must purchase Radio Feature Licenses separately. KPT-30ULCV Shistor Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE30K in NX-5000 series Portable (Must purchase module separately) KPC-011NK System Key File (SKF) Note: Enablese module separately) KPC-011NK System Key File (SKF) Note: Enablese module separately) KPC-011NK System Rey File (SKF) Note: Enablese module separately) KPC-011NK System Rey File (SKF) Note: Enablese module separately) KPC-011NK System Rey File (SKF) Note: Enablese module separately) KPC-011NK System Forg Trankel System programming privileges in a KPG-011NK. • Rewood ships an encrypted Ts/KF file va E-Mail to the address provided on the P25 Trunking System Keys Request Form placed on Kerwood Tock. • Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an * SKF file.	NC 120.00 37.50 75.00 75.00 132.00 27.00
-5001 -5002 -5003 -5004 -5005	Account Registration Key  Mote, specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio)  Note: Must purchase Radio Feature Licenses separately. KPT-300LKC's History Menu will not display the Radio Features activated by Factory. NX-5200/5300/5400 Programming (with basic TX/RX check) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) Install KWD-AE31K in NX-5000 series Portable (Must purchase module separately) KPG-D1NK System Key File (SKF) Note: Enablem S25 Tunkel system programming privileges in a KPG-D1NK. • Restricted Purchase Requirements - • Tunked system operan (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. • Must are KFG-D1NK. • Service 1 - Store 1 - S	

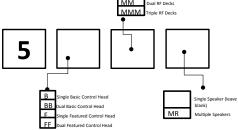
NEXEDGE	NX-5400 700/800MHz Digital & FM Analog Portable Radio	Table of Contents
A Constant of P	ding ENCRYPTION MODULES-	
Encryption modules, key loar regulations and may either requ the consignee and the intended	aming ENX NT FIRM WOULES- deers and radios containing encryption are export controlled by the U.S. Department of Com- ire an Export License, are eligible for a License Exception (ENC) or are exportable with No License use. High level exception is a special commodity that may require an export license to most court O NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or co	Required (NLR) depending on the country, tries. See www.bis.gov for more information
Kenwood may request the fo even if being returned to Ken	Illowing information to be submitted at time of order (this information must meet Kenwood wood later:	I internal approvals prior to shipment

ven if being returned to Kenwood late:
a) hittial Destination: Initial delivery point if different from Ultimate Destination
(customer distribution center, headquarters, dealership, manufacturer's representative)
\* Business/Agency Name:
\* Contact Person Name:
\* Othinate Destination: Final delivery point(s); deployment/distribution
\* Business/Agency Name:
\* Address:
\* Contact Person Name:
\* Contact Person Name

KWD-AE30 AE5 FIP5140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AE5 FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kerwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kerwood USA Corporation employee); shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kerwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

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NEXEDG	E	NX-5700/5800/5900	Table of Contents
P25	VHF/UH	F/700/800MHz Digital & FM Analog N	lobile Radios
		STANDARD	
		GENERAL FEATURES	DIGITAL - NXDN <sup>®</sup> MODE
		<ul> <li>50 W (136-174 MHz) Models</li> <li>45 W (380-470, 450-520 MHz) Models</li> </ul>	NXDN® Conventional0     NXDN® TYPE-C (Gen1/Gen2) Trunking (except
	1111	<ul> <li>35 W (700/800 MHz) Models</li> </ul>	(UUMHZ)
mal	COUNT 19	1024 CH-GID / 128 Zones     Full Color 2.55" (154 x 422 pixels) TFT Display	AMBE+2™ VOCODER     6.25 & 12.5 kHz Channels
		Multi-line Text Display     Function/Status Icons	Over-the-Air Alias     Over-the-Air Programming     (requires KPG-180AP OTAP Manager Software)
CI DI		Multi-Language Display     Date & 12/24 Hour Time Clock	Paging Call
	ispatch CH 1	Transmit/Busy/Call Alert/Warn LED     Emergency/AUX Key	Emergency Call     All Group Call
		• 4W Speaker Audio     • DB-25 Accessory Connector	Status Messaging     Remote Stun/Kill/Check
		Multi Digital Protocol <sup>1</sup>	<ul> <li>Short &amp; Long Data Messages</li> </ul>
NX-5000(K-version	*) Mobiles include:	Emergency Call Features     Built-in GPS Receiver     Built-in Bluetooth® Module	GPS Location     NXDN® Scrambler
Standard Microph     Mounting Bracket	ione (KMC-35) (KMB-33M)	<ul> <li>Built-in 56-bit DES Encryption</li> </ul>	DIGITAL - DMR MODE
DC Cable (KCT-2	3M)	(4 keys programmable by KPG-D1(N)K) • Moblie Releay Station <sup>2</sup> (DMR Mode <sup>3</sup> ) • Cross Band Repeater (Only	DMR Tier II Conventional     AMBE+2 <sup>™</sup> VOCODER
Blade Fuse     User Guide		<ul> <li>Active Noise Reduction (ANR)</li> </ul>	<ul> <li>12.5 kHz Channels</li> </ul>
Premium Warran	ty: 3 Years	KPG-D1N Windows® FPU     Flash Firmware Upgrading	Call Interrupt (Direct & Repeater Mode)     Paging Call
All Accessories / optic	ns: 1 Year	MIL-STD-810 C/D/E/F/G     IP54/55	Emergency Call     All Group Call
*BK-version comes witi	h a RE deck only		Late Entry     Status Messaging
Dir Version comes with	a th acce only	<ol> <li>Multi Digital Protocol can be used for two(2) of the three(3) Digital Protocols set by</li> </ol>	Remote Control by Subscriber Units     ARC4 Encryption <sup>3</sup>
		programming software. P25/DMR Digital Protocols are options.	Site Roaming 3
		2. Requires <u>L-5023</u> DB25 Cable between	ANALOG MODE
		Decks.	Conventional Zones     LTR <sup>®</sup> Zones
			FleetSync®/II: PTT ID ANI, Caller ID Display, Selective/Group Call, Emergency Status,
			Text Messages
			<ul> <li>MDC-1200: PTT ID ANI, Caller ID Display, Emergency, Radio Check &amp; Inhibit</li> </ul>
			QT / DQT     Two-Tone (Conventional Zones Only)
			DTMF     Built-in Voice Inversion Scrambler <u>3 Future release</u>
		OPTIONAL	Built-in Voice Inversion Scrambler     3. Future release
• 4000 Channel (KWD	-5000CH License Kev Activ	vation required)	<ul> <li>Built-in Voice Inversion Scrambler</li> </ul>
4000 Channel ( <u>KWD</u> Front Panel Program     microSD/microSDHC	-5000CH License Key Activ ming (KWD-5001FP Licens Memory Card Slot (KWD-	vation required) se Key Activation required ) 50/25D License Key Activation required)	Built-in Voice Inversion Scrambler     A Future release     MOUNTING & REMOTE CONFIGURATIONS     (Order L-S023-L-S038 for IREMVODD Factory assembling     · KCH-205 Factory assembling
4000 Channel (KWD Front Panel Program microSD/microSDHC	-5000CH License Key Activ ming (KWD-5001FP Licens Memory Card Slot (KWD-	vation required) se Key Activation required ) 50/25D License Key Activation required)	Built-in Voice Inversion Scrambler     3. Future release     MOUNTING & REMOTE CONFIGURATIONS     (Order 1-5023-1-5038 for KENWOOD Factory assembling     • KCH-202 Factory Control Head     Single Remote Control Head     (KRK kit & KC-71 Cable required)
4000 Channel ( <u>KWD</u> Front Panel Program     microSD/microSDHC	-5000CH License Key Activ ming (KWD-5001FP Licens Memory Card Slot (KWD-	vation required)	Built-in Voice Inversion Scrambler     3. Future release     MOUNTING & REMOTE CONFIGURATIONS     (Order 1-5023-1-5038 for KENWOOD Factory assembling     • KCH-2025 Factory Control Head     Single Remote Control Head     (KKK ki & KCT-21 Cable required)     • Dual Remote Control Head
4000 Channel ( <u>KWE</u> Front Panel Program microSD/microSDHC Built-in Bluetooth® N Remote Control by S	<u>-5000CH</u> License Key Activ ming ( <u>KWD-5001FP</u> Licens Memory Card Slot ( <u>KWD-</u> lodule for Data ( <u>KWD-5003</u> subscriber Unites *DMR On	vation required) se Key Activation required ) 50/25D License Key Activation required)	Built-in Voice Inversion Scrambler     3. Future release     MOUNTING & REMOTE CONFIGURATIONS     (order 1-503-1-503 for KENWOOD Factory assembling     * CDL-208, Featured Control Head     Single Remote Control Head     Single Remote Control Head     Control Head     Control Head     Single Remote Control Head     Control Head     Single Remote Control Head     Control Head     Single Remote Control Head     Konge Remote Control Head     Single Remote Remote Control Head     Single Remote Control Head     Single Remote Remote Remote Remote Remote
4000 Channel ( <u>KWD</u> Front Panel Program     microSD/microSDHC     Built-in Bluetooth® M     Remote Control by S     DIGITAL – P25     Conventional Feature	<u>-5000CH</u> License Key Activ ming ( <u>KWD-5001FP</u> Licens Memory Card Stot ( <u>KWD-</u> lodule for Data ( <u>KWD-5003</u> subscriber Unites *DMR On <b>MODE</b> as ( <u>KWD-5100CV</u> License I	vation required) te Key Activation required ) <u>000250</u> Loanse Key Activation required) <u>11 Loanse (Key Activation required)</u> y (KWD-5007RC Loanse Key Activation required) Xey Activation required)	Built-in Voice Inversion Scrambler     3. Future release     Control Logard, Loga
4000 Channel ( <u>KWE</u> Front Panel Program microSD/microSDHC Built-in Bluetooth® M Remote Control by S DIGITAL – P25 I Conventional Feature Phase 1 Trunking Fe Phase 2 Trunking Fe      Phase 2 Trunking Fe      Phase 2 Trunking Fe      Phase 1 Trunking Fe      Phase 1 Trunking Fe      Phase 2 Trunking Fe	L-5000CH License Key Activ ming (KWD-5001EP Licens Memory Card Slot (KWD- lodule for Data (KWD-5003 iubscriber Unites *DMR On MODE ss (KWD-5100CV License I tatures (KWD-5100CV & 51 atures (KWD-5100CV & 51	vation required) te Key Activation required ) <u>500255</u> License Key Activation required) <u>501255</u> License Key Activation required) y (KWD-5007RC License Key Activation required) (sy Activation required) <u>011B</u> License Key Activation required) <u>011B</u> License Keys Activation required)	Built-in Voice Inversion Scrambler     3. Future release     MOUNTING & REMOTE CONFIGURATIONS     (order 1-503-1-503 for KENWOOD Factory assembling     * CDL320R, Featured Control Head     Single Remote Control Head     Single Remote Control Head     Control Head     Control Head     Single Remote Control Head     Control Head     Control Head     Single Remote Control Head     Control Head     Single Remote Control Head     Konge Remote Control Head     Single Remote Control Head     Single Remote Control Head     Single Remote Control Head     Konge Remote Control Head     Single Remote Remote Control Head     Single Remote Control Head     Single Remote Control Head
4000 Channel ( <u>KWE</u> Front Panel Program microSD/microSDHC Built-in Bluetooth® M Built-in Bluetooth® M DIGITAL – P25 Conventional Feature Phase 1 Trunking Fe Conventional OTAR (KW	<u>15000CH</u> License Key Acti ming ( <u>KWD-5001EP</u> License Memory Card Stot ( <u>KWD-5003</u> ubscriber Unites ' <u>DHR On</u> <b>MODE</b> ss ( <u><u>KWD-5100CV</u> License I tatures (<u>KWD-5100CV &amp; 51</u> <u>atures (<u>KWD-5100CV &amp; 51</u> <u>15-5103CK &amp; 5106DT License Ke</u> <u>D-5103CK &amp; 5106DT License Ke</u></u></u>	vation required) te Key Activation required ) <u>50025D</u> License Key Activation required) <u>511 License Key Activation required</u> ) <u>1111</u> License Key Activation required <u>51111</u> License Keys Activation required <u>51111</u> License Keys Activation required <u>511111</u> License Keys Activation required <u>511111</u> License Keys Activation required <u>5111111111111111111111111111111111111</u>	Built-in Voice Inversion Scrambler     3. Future release     MOUNTING & REMOTE CONFIGURATIONS     (order 1-503-1-503 for KENWOOD Factory assembling     * CDL320R, Featured Control Head     Single Remote Control Head     Single Remote Control Head     Control Head     Control Head     Single Remote Control Head     Control Head     Control Head     Single Remote Control Head     Control Head     Single Remote Control Head     Konge Remote Control Head     Single Remote Control Head     Single Remote Control Head     Single Remote Control Head     Konge Remote Control Head     Single Remote Remote Control Head     Single Remote Control Head     Single Remote Control Head
4000 Channel ( <u>KWE</u> Front Panel Program microSD/MicroSDHC Built-in Bluetoottl® N Remote Control by S DIGITAL – P25 1 Conventional Feature Phase 1 Trunking Fe Phase 2 Trunking Fe Conventional OTAR Trunking OTAR ( <u>KW</u>	L5000CH License Key Actin ming (KWD-5001FP Licens Memory Card Slot (KWD- fouther Unites "DMR On MODE ss (KWD-5100CV, License I atures (KWD-5100CV, & 51 atures (KWD-5100CV)	vation required) te Key Activation required ) <u>50025D</u> License Key Activation required) <u>511 License Key Activation required</u> ) <u>1111</u> License Key Activation required <u>51111</u> License Keys Activation required <u>51111</u> License Keys Activation required <u>511111</u> License Keys Activation required <u>511111</u> License Keys Activation required <u>5111111111111111111111111111111111111</u>	Bulli-h Voice Inversion Scanable         2. Arutre reases         Contract and an article scanable scanabl
±000 Channel (KUW)     Front Panel Peggam     microSDImicroSDHC     Bull-in Bluetooth0 h     Remote Control by S     DIGITAL – P25     Conventional Feature     Phase 1 Trunking Fr     Conventional OTAR (KW     Conventiona	5000CEL License Key Acti iming (KWD-5001EP License Memory Card Silot (KWD- Sidoule for Data (KWD-5000 ubiscriber Unites "DMR On MODE se (KWD-5100CY License Key KWD-5100CY License Key KWD-5100CY License Key KWD-5100CY Silonee Key KWD-5100CY License Key KCH-10M, KMC-35, KMB-3 VHF (136-174MHz),	vation required) te Key Activation required ) <u>50025D</u> Licenses Key Activation required) <u>511</u> License Key Activation required) <u>911TR</u> License Keys Activation required) <u>911TR</u> License Keys Activation required) <u>911TR</u> License Keys Activation required) <u>911TR</u> License Keys Activation required) <u>911TR</u> Activation required)	Bulli-In Voice Inversion Scambler <u>3</u> Autor release <u>14 Autor release     <u>14 Autor release     (ord L-Sada) for Kittwood Factory assembling     (ord L-Sada) for Kittwood Factory assembling     (Kitty L-Sada)     (Kitty</u></u>
4000 Channel (KUW) Front Panel Program microSD/microSDHC Built-in Buletocht% N. Remote Control by S DIGITAL – P25 Conventional Feature Phase 1 Trunking Fe Phase 2 Trunking Fe Phase 2 Trunking For Phase 2 Trunking For Conventional Voting Packet Data require ADIO (includes: X-5700K X-5800K	5000CL License Key Acti Memory Card Sict ( <u>KVD-500</u> double for Date ( <u>KVD-500</u> ubscriber Unites "DMR On MODE St ( <u>KVD-5100CX</u> & 51 St ( <u>KVD-5100CX</u> & 51 CKVD-5103RK License Ke CKVD-5103RK License Ke CKVD-5103RK License Ke CKVD-5103RK License Ke CKVD-5103RK License Ke CKCH-19M, KMC-55, KMD-5 VHF (136-174MHz), UHF (450-520MHz),	vation required) te Key Activation required ) <u>50025D</u> Loanse Key Activation required) <u>51 Loanse Key Activation required</u> ) y (WD-5007RC Loanse Key Activation required) <u>51 Loanse Key Activation required</u> ) <u>51 R § 1021E Loanse Key Activation required</u> ) <u>51 R § 1021E Loanse Key Activation required</u> ) <u>7 Activation required</u> ) <u>6 Key Activation required</u> ) <u>51 Key Activation required</u> ) <u>50 Watts NXDN Conventional / TYPE-C (Gen1/G</u> 54 Watts NXDN Conventional / TYPE-C (Gen1/G	Built-In Voice Inversion Scrambler     3. Ruture nelease     Control 1-5023-1-5036 for KENV0000 Factory assembling     Control 1-5023-1-5036 for KENV0000 Factory assembling     Control 1-5023     Control 1-502
4000 Channel (KUW)     Front Parel Program     microSD/microSDHE     Built-in Buletocht® N     Remote Control by S     DIGITAL – P25     Conventional Feature     Phase 1 Trunking Fe     Phase 2 Trunking Fe     Phase 2 Trunking FR     Phase 2 Trunking FR     Conventional Volting     Fackt Data require     ADIO (includes:     X-5700K     X-5800K     X-5800K	SOBOCH License Key Acti iming (KWD-Sobiet E License Memory Card Sici (KWD- Sobiet for Data (KWD-Sobiet MODE Statusses (KWD-SitoCY License Ie shaltres (KWD-SitoCY & Si SitoCY License Ie SitoCY License Ie Datasets (KWD-SitoCY & Si Datasets (KWD-SitoCY & Si Datasets (KWD-SitoCY & Si Datasets (KWD-SitoCY & Si CKUD-SitoCY License Ie Datasets (KWD-SitoCY & Si CKUD-SitoCY License Ie KCH-104, KMC-35, KMB-3 VHF (136-174MHz), UHF (136-230MHz), UHF (380-470MHz),	vation required) te Key Activation required ) <u>50025D</u> Loarnes Key Activation required) <u>51 Leanes Key Activation required</u> ) <u>10 Leanes Key Activation required</u> ) <u>10 TR Leanes Key Activation required</u> ) <u>10 TR 5 (1002 Leanes Key Activation required</u> ) <u>10 TR 5 (1002 Leanes Key Activation required</u> ) <u>10 TR 5 (1002 Leanes Key Activation required</u> ) <u>10 Key Activation required</u> <u>10 Key Activation required</u> <u>10 Key Activation Regiment</u> <u>10 </u>	• Built-In Voice Inversion Scrambler         3. Ruture network         3. Ruture network         Control L-Su22-1-Su33 for KENWOOD Factors assembling         Single Remote Control Head         Single Remote Control Head         Single Remote Control Head         KICH-1920 Resolution Indiana         KICH-1920 Resolution         KICH-1920 Resolution Indiana         KICH-1920 Resolution
4000 Channel (KUW) Front Panel Program microSDIMicroSDHC Bulli-In Bluetochth N Remote Control by S DIGITAL – P2S Conventional Featur Phase 1 Turking FC Conventional Votary Phase 1 Turking FC Conventional Votary Phase 1 Turking FC Conventional Votary Conventional Votary Conventional Conventional Votary Conventional Votary Conventional Votary Con	SOBOCH License Key Acti iming (KWD-Sobiet E License Memory Card Sici (KWD- Sobiet for Data (KWD-Sobiet MODE Statusses (KWD-SitoCY License Ie shaltres (KWD-SitoCY & Si SitoCY License Ie SitoCY License Ie Datasets (KWD-SitoCY & Si Datasets (KWD-SitoCY & Si Datasets (KWD-SitoCY & Si Datasets (KWD-SitoCY & Si CKUD-SitoCY License Ie Datasets (KWD-SitoCY & Si CKUD-SitoCY License Ie KCH-104, KMC-35, KMB-3 VHF (136-174MHz), UHF (136-230MHz), UHF (380-470MHz),	vation required) te Key Activation required ) <u>50025D</u> Loanse Key Activation required) <u>51 Loanse Key Activation required</u> ) y (WD-5007RC Loanse Key Activation required) <u>51 Loanse Key Activation required</u> ) <u>51 R § 1021E Loanse Key Activation required</u> ) <u>51 R § 1021E Loanse Key Activation required</u> ) <u>7 Activation required</u> ) <u>6 Key Activation required</u> ) <u>51 Key Activation required</u> ) <u>50 Watts NXDN Conventional / TYPE-C (Gen1/G</u> 54 Watts NXDN Conventional / TYPE-C (Gen1/G	Built-In Voice Inversion Scambler     3. Ruture release     Control Contr
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•000 Channel (K2W)     Front Panel Program     microSD/microSDHC     Built-in Bluetochild N     Bailt-in Bluetochild N     Conventional Control by S     DIGITAL – P32     DIGITAL – P32     DIGITAL – P32     DIGITAL – P32     Turnking Cranter Structure     Phase 1 Turnking Cranter     Turnking Cranter     Conventional CTAR (KM     Framework Structure)     Pravel Data require     ADIO (includes:     X-5000K     X-5800K     X-5800K     X-5500BK     X-5700BK	5000CL License Key Actin iming (KWD-5001FP License Memory Card Sild (KWD-5003 ublacriber Unites "DMR On MODE           Status (KWD-5100CV & 510 (KWD-5100CV & 510 Sild (KWD-5100CV & 510 Sild (KWD-510CV & 510 Sild (KCH-19 Control Head, NX-5700K (50W, 131 (KCH-19 Control Head,	vation required) te Key Activation required ) <u>50025D</u> Loanse Key Activation required) <u>511 Loanse Key Activation required</u> ) y (WD-5007RC Loanse Key Activation required) <u>01TR Loanse Key Activation required</u> ) <u>01TR Loanse Key Activation required</u> ) <u>01TR Loanse Key Activation required</u> ) <u>01TR 45 (102TR Loanse Keys Activation required</u> ) <u>10TR 45 (102TR Loanse Keys Activation required</u> ) <u>10TR 5007</u> Loanse Keys Activation required) <u>10TR 5007</u> Loanse Keys Activation required) <u>10TR 5007</u> Loanse Keys Activation required) <u>10TR 5007</u> Loanse Keys Activation required) <u>504 Matts NXDN Conventional / TYPE-C (Gen1/G</u> <u>5174 MHz</u> ) RF Deck Only <u>10TS purchase necessary accessories sonarted</u> <u>5174 MHz</u> ) RF Deck Only <u>10TS Functions</u>	Built-In Voice Inversion Scampile 3. Future release 3. Future release Control Laboration Control Indease Control Laboration Control Indease (KEK) KALS & KCT-21. Cables requires) Control Indease (KEK) KALS & KCT-21. Cables requires) Control Laboration Control Cable + KWD-5004KR Control Cable + KW
<ul> <li>4000 Channel (K2W)</li> <li>Font Panel Program</li> <li>microSD/microSDHC</li> <li>Builstin Bluetcottifik N</li> <li>Remide Control by S</li> <li>DIGITAL – P2S</li> <li>Conventional Feature</li> <li>Phase 1 Trunking F</li> <li>Conventional OTAR (KW)</li> <li>Conventional OTAR (KW)</li> <li>Conventional OTAR (KW)</li> <li>Source Control (Control (Con</li></ul>	5000CL License Key Actin iming (KWL-5001FE) License Memory Card Sild (KWD- Solubier Drate KWD-5103 ubscriber Unites "DMR On MODE           55 (KWD-5100CY & Lisense I satures (KWD-5100CY & SI SildWD-5100CY & SI SildWD-510CY & SI	vation required) te Key Activation required ) <u>50025D</u> Loanse Key Activation required) <u>511 Leanse Key Activation required</u> ) y (WD-5007RC Loanse Key Activation required) <u>511 Leanse Key Activation required</u> ) <u>511 Key Loanse Keys Activation required</u> ) <u>511 Key Loanse Keys Activation required</u> ) <u>511 Key Loanse Keys Activation required</u> ) <u>510 Keys NXDN Conventional / TYPE-C (Gen1/G <u>54 Watts NXDN Conventional / TYPE-C (Gen1/G</u> <u>5174 MHz</u>) RF Deck Only <u>KMC-55 Microphone, KMB-33 Bracket, KCT-23 DC Cab</u> <u>520 MHz</u>) RF Deck Only <u>KMC-55 Microphone, KMB-33 Bracket, KCT-23 DC Cab</u></u>	Built-In Voice Inversion Scambler 3. Future release 3. Future release Control Laboration Control Heads Control Cable + KWD-Southing Control Cable
<ul> <li>4000 Channel (KUW)</li> <li>4000 Channel (KUW)</li> <li>Front Panel Program</li> <li>microSDDMicroSDHC</li> <li>Builstin Bluetochift A</li> <li>Remote Control by S</li> <li>DIGITAL – P2S</li> <li>Conventional Feature</li> <li>Phase 1 Trunking Feature</li> <li>Conventional OTAR (KW)</li> <li>Packet Data require</li> <li>AS500K</li> <li>X-5800K</li> <li>X-5700BK</li> <li>X-5700BK</li> <li>X-5800K2</li> <li>X-5800K2</li> <li>X-5800BK</li> <li>X-5800BK2</li> </ul>	5000CL License Key Actin iming (KWL-5000LFP License Memory Card Sild (KWD- Solubier Drate KWD-5000 ubscriber Unites "DMR On MODE           55 (KWD-5100CY & 510 solubacriber Unites "DMR On MODE           55 (KWD-5100CY & 510 solubacriber Unites "DMR On MODE           56 (KWD-5100CY & 510 solubacriber Unites "DMR On Mode           57 (KWD-5100CY & 510 solubacriber Unites "DMR On D-5105RK & 5105CY License Key Solubacriber Unites "DMR On D-5105RK & 5105CY License Key VIHF (136-174MH2), UHF (380-470MH2), T00 / 800 MHz, 30'33           700 / 800 MHz, 30'33           NX-5700K (50W, 131 (KCH-19 Control Head, NX-5500K2 (45W, 45)           NX-5700K (50W, 131 (KCH-19 Control Head, NX-5500K2 (45W, 45)	vation required) te Key Activation required ) <u>50025D</u> Loanse Key Activation required) <u>511 Leanse Key Activation required</u> ) y (WD-5007RC Loanse Key Activation required) <u>611TR Leanse Key Activation required</u> ) <u>611TR Leanse Key Activation required</u> ) <u>610501</u> (Leanse Key Activation required) <u>610501</u> (Leanse Key Activation required) <u>61051001</u> (L	Built-In Voice Inversion Scrambler <u>3. Krutre release</u> <u>3. Krutre release</u> <u>3. Krutre release</u> <u>4. Krutre 1.4028-1.4028 Biot KRUNOOD Features     <u>4. Krutre 1.4028-1.4028 Biot KRUNO Features     <u>4. Krutre 1.4028-1.4028 Biot KRUNO Features     <u>4. Krutre 1.4028-1.4028 Biot KRUND Features     <u>4. Krutre 1.4028-1.4028 Biot KRUND Features     <u>4. Krutre 1.4028-1.4028 Biot KRUND Features     <u>4. Krutre 1.4028 Biot KRUND Features     </u> <u>4. Krutre 1.4028 Biot Krutres     </u> <u>4. Krutre 1.4028 Biot Krutres     <u>4. Krutres     </u> <u>4. Krutres     <u>4. Krutres     <u>4. Krutres     </u> <u>4. Krutres     <u>4. Krutres     <u>4. Krutres     </u> <u>4. Krutr</u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u>
•000 Channel (K2W)     Front Panel Program     microSD/microSDHC     Built-in Bluetochth A     Bailt-in Bluetochth A     Remote Control by S     DIGITAL – P32     DIGITAL – P32     DIGITAL – P32     DIGITAL – P32     Turnking Cranta      Turnking Cranta      Conventional OTAR (K2)	<u>5000C1</u> License Key Acti Memory Card Sici ( <u>KWD-50</u> ubacriber Unites "DMR On <b>MODE</b> <b>s</b> ( <u>KWD-5100C2</u> , <u>License</u>   <b>s</b> ( <u>KWD-5100C2</u> , <u>S</u> <u>5</u> <b>s</b> ( <u>KWD-5100C2</u> , <u>S</u> <u>5</u> <b>s</b> ( <u>KWD-5100C2</u> , <u>S</u> <u>5</u> <b>s</b> ( <u>KWD-5100C1</u> ) <b>s</b> ( <u>KWD-5100C1) <b>s</b> (<u>KWD-5100C1) <b>s</b> (<u>KWD-5100C1) <b>s</b></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u>	vation required) te Key Activation required ) <u>50025D</u> License Key Activation required) <u>511 License Key Activation required</u> ) <u>511 Key Activation required</u> ) <b>512 Key Activation required</b> ) <b>513 Key Activation required</b> ) <b>514 Key Activation required</b> ) <b>514 Key Activation required</b> ) <b>514 Watts NXDN Conventional</b> / TYPE-C (Gen1/G <b>514 Watts NXDN Conventional</b> / TYPE-C (Gen1/G <b>514 Watts NXDN Conventional</b> / MPE-C (Gen1/G <b>514 Watts NXDN Conventional</b> / S00MHz TYPE-C (C <b>115 Mutts NXDN Conventional</b> / S00MHz TYPE-C (C <b>115 Mutts NXDN Conventional</b> / S00MHz TYPE-C (D <b>115 Deck Conly</b> <b>116 C Deck Conly</b> <b>117 Mutts 117 Deck Conly</b> <b>117 Mutts 117 Deck Conly</b>	Built-In Voice Inversion Scambler <u>3. Future release 3. Future release 3. Future release 4. Control Index 4. Control Index 4. Control Index 4. Control Index 5. Control Index 6. Control</u>
Front Pranel Program microSDIFIC Bankin Biotochibi, M Bankin Biotochibi, M Bankin Biotochibi, M Bankin Carolita J Conventional Feature Phase 1 Tunking Fe Phase 2 Tunking Fe Phase 1 Tunking Fe Phase 2 Tunking Fe	<u>5000C1</u> License Key Acti Memory Card Sici ( <u>KWD-50</u> ubacriber Unites "DMR On <b>MODE</b> <b>s</b> ( <u>KWD-5100C2</u> , <u>License</u>   <b>s</b> ( <u>KWD-5100C2</u> , <u>S</u> <u>5</u> <b>s</b> ( <u>KWD-5100C2</u> , <u>S</u> <u>5</u> <b>s</b> ( <u>KWD-5100C2</u> , <u>S</u> <u>5</u> <b>s</b> ( <u>KWD-5100C1</u> ) <b>s</b> ( <u>KWD-5100C1) <b>s</b> (<u>KWD-5100C1) <b>s</b> (<u>KWD-5100C1) <b>s</b></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u></u>	vation required) te Key Activation required ) <u>50025D</u> Licenses Key Activation required) <u>511 License Key Activation required</u> ) <u>711B Key 1021B License Keys Activation required</u> ) <u>711B Key 1021B </u>	Built-In Voice Inversion Scrambler 3. Kurur release 3. Kurur release Autor Release Auto
4000 Channel (KUW)     Front Panel Program     incroSDImicroSDHC     Bull-in Bulecodn®     Parente Control by S     Digital Bull-in Bulecodn®     Parente Control by S     Digital Pase     Conventional Feature     ADIO (Includes)     Variant equire     ADIO (Includes)     Variant equire     ADIO (Includes)     Variant equire     X-5700K     X-5800K     X-5800K     X-5700BK     X-5800BK     X-5800BK     X-5800BK     X-5800BK     X-5800BK     X-5800BK     X-5800BK	<u>5000C1</u> License Key Acti Memory Card Siot ( <u>KWD-503</u> ubscriber Unites "DMR On <b>MODE</b> <b>ISOURCE Unites "DMR On MODE</b> <b>ISOURCE UNITES (</b> <u>KWD-50100C</u> ) & 52 <b>ISOURCE UNITES</b> <b>ISOURCE UNITE</b>	vation required) te Key Activation required ) <u>50025D</u> Licenses Key Activation required) <u>511 License Key Activation required</u> ) <u>711B Key 1021B License Keys Activation required</u> ) <u>711B Key 1021B </u>	Built-In Voice Inversion Scambler <u>3. Future release 3. Future release 3. Future release 4. Control Index 4. Control Index 4. Control Index 4. Control Index 5. Control Index 6. Control</u>



\* Multiple Speakers configurations allow simultaneous monitoring of multiple RF Decks.

Single Deck Sin	ngle Head Remote Mount	LIST
5BM	KCH-19M, KRK-14HM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M, KMC-35	560.25
5FM	KCH-20RM, KRK-15BM, KCT-71M2, KCT-23M3, KMB-33M, KMC-35, KES-5, KCT-72M	919.20
L-5029	Package Single Deck Single Head Remote (MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation).	75.00
Single Deck Du	al Head Remote Mount	LIST
5BBM	KCH-19M(x2), KRK-14HM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M, KMC- 35(x2)	1021.75
5FFM	KCH-20RM(x2), KRK-15BM, KCT-71M2(x2), KCT-23M3, KMB-33M, KMC-35(x2), KES-5(x2), KCT-72M(x2)	1739.65
L-5030	Package Single Deck Dual Head Remote (MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation).	140.00
Dual Deck Sing	le Head Single Speaker Remote Mount	LIST
5BMM	KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB- 33M(x2), KMC-35	704.00

(12.11.2014)	Add KRK-14H/15B and KCT-71M2/M3
(12.11.2014)	Add L-5020 & L-5021
(03.25.2015)	Modified for Firmware Version 1.4, ASK and adding KPG-180AP, KCT-73MIC/PTT, KPG-46XM, KCT-72M
(05.13.2015)	Modified for adding LTR, FleetSync
(6.19.2015) K	CH-20RM is added
(08.11.2015)	Version 1.6 & 700/800MHz Added
(08.20.2015)	KMB-34 added
(10.09.2015)	Change expression for KWD-5003BT and KWD-5106DT
(10.13.2015)	Added Software Upgrade Options for KPG-180AP
(12.17.2015)	Added notes for P25 Conventional license in KPG-180AP line
(04.21.2016)	Add note for KCH-20RM about no license activation.
(04.21.2016)	Add KPG-115AUT
(05.26.2016)	Add KAS-10
(09.23.2016)	Add DMR Mode
(09.23.2016)	Add Remote Control
(09.23.2016)	Add IP Profile to KPG-180AP
(10.04.2016)	Add L-5022/5023

(12.9.2014) Delete "[Available Dec'14]"

	SE* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
5FMM	KCH-20RM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35, KES-5, KCT-72M	1062.95
L-5031	Package Dual Deck Single Head Remote (MUST purchase NX-5x00(8) RF Decks and the Kit with this labor for full installation). Note: MUST submit the Remote Mount Configuration Request Form.	85.00
Dual Deck Single	Head Dual Speaker Remote Mount	LIST
5BMM-MR	KCH-19M, KRK-14HM, KRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB- 33M(x2), KMC-35, KES-5(x2), KAP-2(x2)	952.50

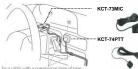
October, 2016
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NEXEDG	<sup>GE*</sup> NX-5700/5800/5900	Table of Contents
P25	VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	
Dual Dook Single H	ead Dual Speaker Remote Mount, CON'T	LIST
5FMM-MR	KCH-20RM, RRK-15BM(x2), KCT-71M2, KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35, KES-5(x2), KAP-2(x2)	1213.50
L-5032	Package Dual Deck Single Head Dual Speaker Remote (MUST purchase NX-5x00(8) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	150.00
Dual Deck Dual Hea	ad Single Speaker Remote Mount	LIST
5BBMM	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2)	1165.50
5FFMM	KCH-20RM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2), KES-5(x2), KCT-72M(x2)	1883.40
L-5033	Package Dual Deck Dual Head Single Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kir with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	150.00
Dual Deck Dual Hea	ad Dual Speaker Remote Mount	LIST
5BBMM-MR	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2), KES-5(x2), KAP-2(x2)	1414.00
5FFMM-MR	KCH-20RM(x2), KRK-15BM(x2), KCT-71M2(x2), KCT-71M4, KCT-23M3(x2), KMB-33M(x2), KMC-35(x2), KES-5(x2), KAP-2(x2)	1936.00
L-5034	Package Dual Deck Dual Head Dual Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	155.00
Triple Deck Single	Head Single Speaker Remote Mount	LIST
5BMMM	KCH-19M, KRK-14HM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35	847.75
5FMMM	KCH-20RM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB-33M(x3), KMC- 35, KES-5, KCT-72M	1206.70
L-5035	Package Triple Deck Single Head Single Speaker Remote (MUST purchase NX-5x00(8) RF Decks and the Kit with this lator for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	140.00
Triple Deck Single	Head Triple Speaker Remote Mount	LIST
5BMMM-MR	KCH-19M, KRK-14HM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35, KES-5(x3), KAP-2(x3)	1220.50
5FMMM-MR	KCH-20RM, KRK-15BM(x3), KCT-71M2, KCT-71M4(x2), KCT-23M3(x3), KMB-33M(x3), KMC- 35, KES-5(x3), KAP-2(x3)	1481.50
L-5036	Package Triple Deck Single Head Triple Speaker Remote (MUST purchase NX-5x00(8) RF Decks and the Kit with this lator for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	150.00
Triple Deck Dual He	ead Single Speaker Remote Mount	LIST
5BBMMM	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT- 23M3(x3), KMB-33M(x3), KMC-35(x2)	1309.25
5FFMMM	KCH-20RM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35(x2), KES-5(x2), KCT-72M(x2)	2027.15
L-5037	Package Triple Deck Dual Head Single Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	160.00
Triple Deck Dual He	ead Triple Speaker Remote Mount ( <u>MUST be KENWOOD Assembled</u> )	LIST
5BBMMM-MR	KCH-19M(x2), KRK-14HM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT- 23M3(x3), KMB-33M(x3), KMC-35(x2), KES-5(x3), KAP-2(x3)	1682.00
5FFMMM-MR	KCH-20RM(x2), KRK-15BM(x3), KCT-71M2(x2), KCT-71M4(x2), KCT-23M3(x3), KMB- 33M(x3), KMC-35(x2), KES-5(x3), KAP-2(x3)	2204.00
L-5038	Package Triple Deck Dual Head Triple Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	180.00

NEXEDO	GE* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
FRONT PANEL	S & REMOTE KITS	LIST
KCH-19M	Basic Control Panel	180.00
KCH-20RM	Full Featured Remote Control Panel <u>Note</u> : - microSD License (KWD-5002SD) and Bluetooth SPP License (KWD-5003BT) are <u>NOT</u> required for both KCH-20RM and connected RF Decks KCH-20RM and connected RF Decks can be used of microSD and Bluetooth SPP with <u>NO</u> License Activation. - <u>Remote configuration only</u> , No Internal Speaker included. KES-5/3 is required.	600.00
KRK-14HM	Control Head Interface Kit for KCH-19M	159.00
KRK-15BM	Control Head Remote Kit for a RF Deck	50.00
CABLES		LIST
KCT-71M2	Remote Control Cable (17 feet)	70.00
CT-71M3	Remote Control Cable (25 feet)	80.00
KCT-71M4	Remote Control Cable (1.6 feet)	45.00
CT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	31.50
CT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	34.75
IOBILE INSTA	LLATION ACCESSORIES	LIST
AP-2	Horn Alert/P.A. Relay Option	63.00
CT-46	Ignition sense cable (plugs directly into mobile chassis ignition sense line)	13.70
CT-72M	External Accessory Connection Cable for KCH-19M / KCH-20RM	36.70
(LF-2	Line Filter (suppresses alternator whine, 25dB, 25A max).	42.00
(MB-10	Key lock adapter	26.30
(MB-33M	Standard Mounting Bracket	14.00
(PS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
RA-40GM	GPS Antenna	42.00
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug) Note: NOT compatible with TDMA operations	86.00
(MB-34	Control Station Mounting Case for KPS-15 Power Supply and Portables (excludes TK- 5x10/6110 series). (mobile mounting hardware included)	48.00
(PS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
	S AND SPEAKERS	LIST
(MC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug)	52.50
MC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	94.50
ES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
ES-5	External speaker, 40W max input Note: requires KAP-2 (PA/HA unit) or KCT-72M (connection cable) installed.	61.25
CT-73MIC	External Microphone kit w/ 9.8 ft. cord for Safer Driving	27.00
CT-74PTT	External PTT Switch kit w/ 9.8 ft cord for Safer Driving	23.00

To promote driver safety and meet hands-free regulations in certain region NX-5000 series mobile offers external microphone and PTT as options.

NOTE: Connecting to the radio via DB25 terminal on backside of RF Deck or via optional KCT-72 "Connection Cable" on backside of KCH-19M and KCH-20R\*. KCT-73MIC is not compatible with other NX/TK-mobile radios.



NEXEDO		NX-5700/5800/5900	Table of Contents
LICENSING SY	'STEM		LIST
Constitution of the little Constitution of the little Co		KPT-300LMC License Management Client	
The first harpen	Nor You Service and Annual	KPT-300LMC is a <u>required</u> software package that is used to authentical and <b>radio feature license</b> keys for the NX-5000 Series radios.	te software (FPU)
Drag License Key Files (* Jitefs and Drop to This Area		KPT-300LMC is available as a free download from Kenwood Tools and with applicable software, such as KPG-D1NK, KAS-12, and KPG-AE1/I	
		NOTE: A license key is required for the KPT-300LMC to authenticate th prior to use. To receive a license key, complete the enclosed "Account and return to the Land Mobile Order Desk.	
Note: KPT-300LN Windows Vista/7	1C is compatible with /8/8.1/10 Only. Windows XP	License Keys will be E-Mailed to the address provided on the Account R	Request Form.
KPT-300LMC	License Management C	Client	NC
L-5000	KPT-300LMC License I CENSE OPTIONS	Key	NC
<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3' 3. License Ketion</li> </ol>		nse Key Request Form. Id Mobile Order Desk via:	
<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3'</li> <li>License Key</li> </ol>	he attached Software Licer ng with your PO to the Lan Imrorderdesk@us.jvckenw I0) 761-8246 ys will be E-mailed to the a	nse Key Request Form. d Mobile Order Desk via: vood.com address provided on the order form. A hard copy will follow by mail for r each PC with software installed. A single license key will not authoriz y Discount Structure	e multiple PCs.
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<ol> <li>Complete ti</li> <li>Submit alor a) E-Mail: b) Fax: (3'</li> <li>License Key</li> </ol>	he attached Software Lices growth your PO to the Lan Introdredsk @us.jvckenw (i) 761-8246 ys will be E-mailed to the a license key is required to Software License Key UNING UNIT (FPU) License Key for KPG-D Programming Software Note: Requires KPT-30 P25 Trunked Prog 1. USB Key Type: - For N2-SiC-MK ( activating KWD-AS: - KWD-ASIC-MK ( Master Key.	nse Key Request Form. d Mobile Order Desk via: rood.com address provided on the order form. A hard copy will follow by mail for r each PC with software installed. A single license key will not authoriz y Discount Structure y Discount Structure 100 100 100 100 100 100 100 10	ee multiple PCs.

NEXEDGI	E* NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
OVER THE AIR PRO	GRAMMING (OTAP)	LIST
KPG-180AP	OTAP Manager Software (Windows® Vista/78/8.1/10) - License includes Fifty (50) relias(-) One(1) <u>WEND</u> Communication Profile and One(1) <u>NXDN</u> Conventional and Type-C <u>IP</u> Communication Profile	884.00
	Note: - Requires KPT-300LMC for authentication - Radio to Radio OTAP for <u>E25 Computing system</u> requires <u>KWD-AP3-P25</u> license. - MEXPEGRE TransD Transburg and DMR System root supported	
Note: Includes package	RADE LICENSES FOR KPG-180AP license for additional subscriber unit or license for additional profile attached to one computer running K lire KPT-300L for authentication.	PG-180AP software. All
KWD-AP5100	Additional 100 Radio Package License for 1 PC Note: License includes 100 subscriber radios OTAP License.	1667.00
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.	2917.00
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.	4167.00
KWD-AP1-CA	NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	250.00
KWD-AP2-CP	NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2).	417.00
	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station	800.00

Requires immute version 1.5 of higher for the NX-5000 Settes policialities and incluses
Requires immute version 2.5 of higher for the NX-5000 NXR-s10 expectences.
RADIO FEATURE LICENSE OPTIONS
PCs registered under the same KPT-300LIKC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared /
managed by all registered users for the account.

<u>\* TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:</u>
 1. Complete the attached Radio Feature Request Form.
 Submit the completed form along with your PO to the Land Mobile Order Desk via:
 a) E-Mail: Imorderdesk@us.jvckenwood.com
 b) Fax: (310) 761-8246
 3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

# Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.

General Radio Featu	res	LIST
KWD-5000CH	License Key for 4000 Channel Expansion	420.00
KWD-5001FP	License Key for Front Panel Programming	300.00
<wd-5002sd< td=""><td>License Key for microSD Memory Card Slot Activation</td><td>105.00</td></wd-5002sd<>	License Key for microSD Memory Card Slot Activation	105.00
WD-5003BT	License Key for Bluetooth Serial Port Profile (Required for Date Communication)	35.00
	Note: Voice Communication for Bluetooth Head Set does NOT require KWD-5003BT. You can pair with any Bluetooth audio device without this option.	
WD-5004MR	License Key for Multiple RF Decks Receiver	N/C
	Note: Required ONLY for the radios with S/N: B5900000 or earlier.	
WD-5007RC	License Key for Remote Control by Subscriber Units	40.00
	Note: - DMR Mode only. NXDN Mode will be version up. P25 Mode is NOT available.	
	The license is required for only Transmitting of Remote Control.	
	- PC command for Remote Control does NOT require the license.	
25 Radio Features		LIST
WD-5100CV	License Key for P25 Conventional	575.00
WD-5101TR	License Key for P25 Phase 1 Trunking (requires KWD-5100CV)	520.00
WD-5102TR	License Key for P25 Phase 2 Trunking (requires KWD-5100CV & KWD-5101TR)	400.00
WD-5103RK	License Key for P25 OTAR (requires KWD-5106DT for a Trunking Operation)	700.00
WD-5105VT	License Key for P25 Conventional Voting Scan	120.00
WD-5106DT	License Key for P25 Trunking OTAR/GPS Data	180.00
	Note: Conventional (OTAR/GPS) does NOT require KWD-5106DT.	
MR Radio Features		LIST
WD-5300CV	License Key for DMR Tier II Conventional	60.00
NCRYPTION N	AES FIPS140-2 & DES Encryption Module (Multi-Key)	LIST
WD-AE30K	AES FIPS 140-2 & DES Encryption Module (Multi-Rey) Order a Labor Code L-5007 if installation is required.	850.00
	KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device.	
WD-AE31K	KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) AES & DES Encryption Module (Multi-Key)	550.00
WD-AESIK	Order a Labor Code L-5008 if installation is required.	550.00
	Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device.	
PG-AE1K	KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) AES/DES Encryption Software Key Loader for KWD-AE31K	525.00
	Authentication by KPT-300LMC is required	525.00
	Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	
PG-DE1K	DES Encryption Software Key Loader for KWD-AE31K	368.00
	Authentication by KPT-300LMC is required	
	Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1)	
	EXEDGE® AVL & MESSAGING	LIST
AS-10	FleetSync & NEXEDGE AVL & Messaging Software with NEXEDGE Trunking VoIP Dispatch	434.00
	Note:	
	- Users can chose to operate Messaging, AVL or VoIP or all three if desired. Compatible with	
	Windows® XP, VISTA & 7 and Microsoft®MapPoint®2006/2009/2010 (certain format bitmap images can be imported). Refer to KAS-10 product spec sheets and manuals for details.	
	- NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Trunking and DMR System not supported NEXEDGE Gen2 Type-D Ty	
SERVICE RELA	TED ACCESSORIES	LIST
(PG-46XM	Full Speed USB Programming interface cable	158.50
(PG-115	Note: This cable with USB mode may be used for SD Card Direct Access. Encryption Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
PG-115AUT	KVL-4000 Radio Authentication Cable	330.00
	Note: Only capable for P25 Radio Authentication. Not available for Encryption Key Loading.	
WD-ASK-AK	Access Key for KPG-D1NK P25 trunked programming <u>Notes:</u> Enables P25 Trunked system programming privileges in a KPG-D1NK.	208.00
	• For NX-5000 series only	
	Must be activated by trunked system operator (SYSOP) with KWD-ASK-MK Master Key	
	<ul> <li>Must have KPG-D1NK</li> <li>Configurable expiration period of KWD-ASK-AK set by KWD-ASK-MK is available for 3 years for built in</li> </ul>	
	battery. USB Key must be replaced since the expiration set up dose not work after 3 years.	

NEXEDGI P25	E NX-5700/5800/5900 VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	Table of Contents
KWD-ASK-MK	Master Key for activating KWD-ASK-AK Access Keys - Restricted Purchase Requirements -	500.00

- Kestricted Purchase Requirements -Notess: - For INX-5000 series only. - Sold to trunked system operator (SYSOP) or SYSOP authorized entities only - Must have KPC-D1NK - SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form placed on Kenwood Tools. - Purchase KWD-ASK-AK Access Keys if needed.

NEXED	GE* NX-5700/5800/5900	Table of Contents
P25	VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	
NSTALLATIO	DN / TUNING CHARGES	LIST
-5000	Account Registration Key	NC
5004	Note: specify the number of PC's used for Radio Feature License Activation. Factory Activation of Radio Feature Licenses (per Radio)	100.00
-5001	Note: Must purchase Radio Feature Licenses separately.	120.00
	KPT-300LMC's History Menu will not display the Radio Features activated by Factory.	
-5006	NX-5700/5800 Programming (with basic TX/RX check)	37.50
-5007	Install KWD-AE30K in NX-5000 series Mobile (Must purchase module separately)	75.00
-5008	(Must purchase module separately) Install KWD-AE31K in NX-5000 series Mobile	75.00
	(Must purchase module separately)	73.00
-5005	KPG-D1NK System Key File (SKF)	132.00
	<u>Note</u> : Enables P25 Trunked system programming privileges in a KPG-D1NK. - Restricted Purchase Requirements -	
	Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking	
	System Keys Request Form placed on Kenwood Tools.	
	<ul> <li>Must have KPG-D1NK.</li> <li>Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System</li> </ul>	
	Keys Request Form placed on Kenwood Tools.	
	Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive	
	an *.SKF file.	
-5015	<ul> <li>3-digit HEX HSID are securely encrypted &amp; embedded in the *.SKF file.</li> <li>Install KAP-2 (Default) HR1/Internal Sp./PA</li> </ul>	25.00
	Assemble NX-5000 Mobile for Single Remote Head Control	
<u>-5016</u> -5020	KCT-71 Extended Control Head Cable (up to 50 ft. max.)	42.00
-5020	Note: Please specify exact length at 1ft. increments when ordering.	190.00
	Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads.	
-5021	KCT-71 Extended Control Head Cable (up to 100 ft. max.)	245.00
	Note: Please specify exact length at 1ft. increments when ordering.	
-5022	Caution: Extended control head cables exhibit a loss in speaker audio power to the control heads. USB Mobile Cable for SD Card Direct Access Support	95.00
-3022	Note: microSD function reuires KWD-5002SD license.	90.00
-5023	DB25 Cable for Mobile Relay Station (Conventional Only)	35.00
	Note: - Mobile Relay Station requires Multi RF Deck Configuration. The cable requires between Decks.	
	Built-in GPS and Bluetooth are not available with Mobile Relay Station.	
	- DMR is not avaialbe and version up later.	
-5029	Package Single Deck Single Head Remote	75.00
-3029	(MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation)	75.00
-5030	Package Single Deck Dual Head Remote	140.00
	(MUST purchase NX-5x00(B) RF Deck and the Kit with this labor for full installation)	
5031	Package Dual Deck Single Head Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	85.00
	Note: MUST submit the Remote Mount Configuration Request Form.	
-5032	Package Dual Deck Single Head Dual Speaker Remote	150.00
	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	
-5033	Note: MUST submit the Remote Mount Configuration Request Form. Package Dual Deck Dual Head Single Speaker Remote	150.00
-3033	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	150.00
	Note: MUST submit the Remote Mount Configuration Request Form.	
-5034	Package Dual Deck Dual Head Dual Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	155.00
	Note: MUST submit the Remote Mount Configuration Request Form.	
-5035	Package Triple Deck Single Head Single Speaker Remote	140.00
	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	10.00
5000	Note: MUST submit the Remote Mount Configuration Request Form. Package Triple Deck Single Head Triple Speaker Remote	450.00
-5036	Package Triple Deck Single Head Triple Speaker Remote (MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	150.00
	Note: MUST submit the Remote Mount Configuration Request Form.	
-5037	Package Triple Deck Dual Head Single Speaker Remote	160.00
	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation) Note: MUST submit the Remote Mount Configuration Request Form.	
-5038	Package Triple Deck Dual Head Triple Speaker Remote	180.00
	(MUST purchase NX-5x00(B) RF Decks and the Kit with this labor for full installation)	100.00
	Note: MUST submit the Remote Mount Configuration Request Form.	

-- IMPORTANT NOTES regarding ENCRYPTION MODULES--

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depanding on the country. the consignee and the intended use. Tigh level encryption is a special commonly that may require an export license to most countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

regarding expot regulations. Do NOT SHIP encryption items outside the U.S. without proper DOCRIS Export Licenses and/or compliances.
Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood laternal even if afferent from Ultimate Destination
about the distribution centre, headquarters, dealership, manufacturer's representative)
Usubmised Segregory Name:
\*Address:
\*Contact Preson Name:
\*D Ultimate Destination: Final delivery point(s); deployment/distribution
\*Business/Agency Name:
\*Contact Preson Name:
\*C

KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from Kerwood USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated Kerwood USA Corporation remployee); shippinghandling by a desire or other entity is not acceptable. This may or may not be required by localisated permitted are or business/industrial user. Please Check with the end use customer about their AES encrystein handling requirements before ordering. Kerwood will not be responsible for shipments of KWD-AE30K modules to encreacus

Table of Contents TK-5210G / 5310G VHF/UHF FM Analog & P25 Digital Portable Radios STANDARD DIGITAL - NXDN\* MODE
 225 Digital Conventional
 225 Digital Trunking Option
 225 Digital Trunking Option
 AMBE ?2\*
 FinAnaced VOCODER
 Taik Group ID Lists
 Individual ID Lists
 Caller ID Display
 Remote Monitor/Remote Check
 Radio Inhibit
 Encryption Key Delete
 Encryption Key Retention Option
 DES Encryption Options
 AES / DES Encryption Options
 KPC-93 KVL Key Loader Interface Cable
 P25 GPS Loadion GENERAL FEATURES GENERAL FEATURES 5 Watt (136-174 MHz) 4 Watt (450-520, 380-470 MHz) 100 Zones / 1024 Channels (K-K6) Personality Lists • Backiit Dot Matrix LCD Personality Liss
 Packill Dot Matrix LCD
 Packill Dot Matrix LCD
 16 Character Alphanumeric Aliases
 - 16 Character Alphanumeric Aliases
 - 16 Character Alphanumeric Aliases
 Soligit Sub-Display
 Function / Status LCD Icons
 RSSI Indicator
 Transmit / Busy / Call Alert / Wam LED
 OnOff Volume Knob
 - 2-Position PF Lever Switch
 - 3-Position PF Lever Switch
 - 3-Position PF Lever Switch
 - 3-Rosition PF Concentric Switch
 - 3 Fostion PF Concentric Switch
 - 12-Rey DTMF PF Keys
 Orange Emergency / AUX Key
 - Channeed Kenwood Audio
 - Voice Annuncation All 5X10G series portables include • Belt Clip (KBH-11) • Universal Connector Cap • Instruction Manual • Premium Warranty: 3 Years\* P25 GPS Location
 P25 OTAR Option SCAN TYPES (FM & P25) • Single Zone/Multi-Zone Scan • Scan Lists • Conventional Scan • Limited Talk Group Scan • Priority Monitor Scan • Dual Priority Scan Enhaniced Kenwood Audio
 Voice Annucation
 Voice Annucation
 Voice Annucation
 Voice Annucation
 Voice Annucation
 Voice Annucation
 Tastical Group
 Battery Level Indicator
 Transceiver Password
 Date & 1224 Hour Time Clock
 Windows® Programming & Tuning
 Self-Programming & Tuning
 Self-Programming & Tuning
 Schart & Charger, or purchase Battery, Charger, and Anteni separately. FM • QT / DQT • Operator Selectable Tone • Two-Tone Encode / Decode • DTMF Encode / Decode / Stun • Special Alert Tone Patterns • Encryption / ANI Board Control • Compared Audio Cloning Easy Option Port Easy Option Port
 Voice Guide & Storage (Option)
 Weather-Sealed Accessory Connector
 MIL-STD-810 C/D/E/F/G
 IP54/55 Water & Dust Protection
 Immersion (IP66/67/68) Option
 Intrinsically Safe Option\*

\* Approved for Classes I, II & III, Div. 1, Groups D, E, F, G and are also approved for non-locendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations. <u>Note</u>: Class I, Div 2 Group A & B Gases require use of a portable carrying case.

RADIO		LIST
TK-5210GK2	136-174MHz 5W, 1024 CH, Standard Model	1,490.00
TK-5210GK3	136-174MHz 5W, 1024 CH, 12 Keypad Model	1,630.00
TK-5310GK2	450-520 MHz 4W, 1024 CH, Standard Model	1,490.00
TK-5310GK3	450-520 MHz 4W, 1024 CH, 12 Keypad Model	1,630.00
TK-5310GK5	380-470 MHz 4W, 1024 CH, Standard Model	1,490.00
TK-5310GK6	380-470 MHz 4W, 1024 CH, 12 Keypad Model	1,630.00

- Companded Audio FleetSync® /II PTT ID / Caller ID Display / MDC-1200 PTT ID / Caller ID Display / Emergency

(11.22.2010) Features added a) 100 Zones / 1024 Channels b) 32 Zones / 128 Channels c) Voice Guide & Storage (Option) d) IP68 e) AMBE+2 Enhanced VOCODER f) P25 GPS Location (Conventional) g) P25 OTAR Option (Conventional) (11.22.2010) KMC-47GPS\* replaces 38GPS \*not Intrinsic Safe Option (11.22.2010) CIM-1000K-26/CIM-CABLE Discontinued L-1022/1023 Discontinued I -1613 Discontinued (11.22.2010) Descriptions of KBH-8DS/KLH-6SW were changed (11.22.2010) Adding Serial number information (11.22.2010) Adding "note 1" for limited availability (11.22.2010) Delete K7 from the packages (11.22.2010) Color Versions are added (11.22.2010) Deleted KWD-DE20 (03.02.2011) Added KMC-49 (03.02.2011) Replace KPG-36AM/KCT-53UM with KPG-36UM (03.08.2011) Added MIL-G (03.08.2011) Remove IS Color Housing Option (03.08.2011) Added KVC-20L (06.30.2011) Correct KWD-RK20 Description (09.27.2011) Revise KPG-95DGK (for ANK) (09.27.2011) Add KWD-ANK-MK & AK (09.27.2011) Revise L-989 (03.01.2012) KMB-23 Description Updated (03.01.2012) KMC-51M & 52W were added (04.02.2012) Li-Polymer Battery Package (not Li-ion Battery Package) (04.03.2012) YH/OH version in IS packages

(11.19.2010) Copied from TK-5210/5310

- (07.27.2012) KCT-51 is an IS Approved option. (09.04.2012) L-1733 added (09.04.2012) Delete "Conventional" from GPS & OTAR (11.13.2012) Change KNB-41NC to KNB-41NC-FM (01.29.2013) Change the FPU to "DN"
- (07.22.2013) 13% Price reduction
- (07.22.2013) KWD-TR20 Price reduction (08/30/2013) Price Reduction / Trunking option
- (9.30.2013) Immersion Option indicated on accessories
- (9.30.2013) Reorganized Accessories/Options/Installation
- (10.3.2013) Replaced line art with photographs
- (1.12.2016) Change models from FM to CSA
- (04.06.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (04.06.2016) Delete old labor and add new labor for SCMs

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### P25



\* All Accessories / options: 1 Yea

Order packages to include Battery & Charger.

### G models are Ver 3 Hardware (starting S/No. B03xxxxx )

Basic Model No LCD display; no front panel keys - TK-5210GK, TK-5310GK/GK4 Standard Model 16-Character Alphanumeric LCD 4 control keys - TK-5210GK2, TK-5310GK2/K5

12 Keypad Model 16-Character Alphanumeric LCD 4 control keys DTMF/Function keypad - TK-5210GK3, TK-5310GK3/K6

P25	TK-5210G / 5310G VHF/UHF FM Analog & P25 Digital Portable Radios	Table of Contents
CSA US APPROV	ED MODELS	LIST
	Must Order L-1802 & an Intrinsically Safe Battery per radio	
TK-5210-ISCGK2	136-174MHz 5W, 1024 CH, Standard Model	1,490.00
TK-5210-ISCGK3	136-174MHz 5W, 1024 CH, 12 Keypad Model	1,630.00
TK-5310-ISCGK2	450-520 MHz 4W, 1024 CH, Standard Model	1,490.00
TK-5310-ISCGK3	450-520 MHz 4W, 1024 CH, 12 Keypad Model	1,630.00
TK-5310-ISCGK5	380-470 MHz 4W, 1024 CH, Standard Model	1,490.00
TK-5310-ISCGK6	380-470 MHz 4W, 1024 CH, 12 Keypad Model	1,630.00

[note 1]: these models are stocked in minimum quantities. Please anticipate a minimum 90-day lead time and call order desk to verify availability.

	order desk to verify availability.	
PACKAGES	<u>* The 2% Radio Package Discount applied to Dealer Cost</u>	LIST
TK-5210GK2-NKP	VHF NiMH Battery Package (TK-5210GK2 + KNB-54N + KSC-32 + KBH-11)	1,648.00
TK-5210GK2-LKP	VHF Li-Ion Battery Package (TK-5210GK2 + KNB-43L + KSC-32 + KBH-11)	1,723.00
TK-5310GK2-NKP	UHF NiMH Battery Package (TK-5310GK2 + KNB-54N + KSC-32 + KBH-11)	1,648.00
TK-5310GK2-LKP	UHF Li-Ion Battery Package (TK-5310GK2 + KNB-43L + KSC-32 + KBH-11)	1,723.00
ANTENNAS		LIST
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
KRA-27M3	UHF whip antenna 400-450 MHz	14.00
KRA-22M	VHF low-profile helical antenna 148-162 MHz	13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-23M	UHF low-profile helical antenna 450-490 MHz	13.70
KRA-23M2	UHF low-profile helical antenna 470-512 MHz	13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	13.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	34.25
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	42.00
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz	36.75
BATTERIES AND	CHARGERS	LIST
KNB-54N	2500 mAh, Ni-MH battery - requires KSC-32/326K charger	87.50
	[Immersion Option compatible]	
KNB-33L	2000 mAh, Li-ion battery - requires KSC-32/326K charger	105.00
	[Immersion Option compatible]	
KNB-41NC	2500 mAh, Ni-MH battery - requires KSC-32/326K charger [FM & CSA-us ntrinsically Safe Option]	136.50
KNB-43L	3300 mAh, Li-Polymer battery - requires KSC-32/326K charger	163.00
KBP-6	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	68.50
	Note: the color of the case is orange	
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC Note: Includes 110/220V auto-switching AC adapter with U.Sstyle line cord plug; requires plug adapter	70.00
	for 220V Euro-style outlets (not supplied).	
KSC-326K	Rapid rate 6-unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75

(11.19.2010) Copied from TK-5210/5310 (11.22.2010) Features added: a) 100 Zones / 1024 Channels

(04.21.2016) Delete Color Housing Packages (04.21.2016) Add KPG-93AUT (05.03.2016) Price Changes (05.04.2016) Delete KNB-41NC-FM & CSA-us and Add KNB-41NC Universal Battery (08.25.2016) Delete KVC-20 for discontinuation (08.25.2016) Delete KVC-18 for discontinuation

P25	TK-5210G / 5310G VHF/UHF FM Analog & P25 Digital Portable Radios	Table of Contents
BATTERIES AND	) CHARGERS, CON'T	LIST
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers (chargers not included)	191.00
KVC-15	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included; includes KSC-mobile bracket & cigarette lighter cable DC adapter)	119.00
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00
CARRYING ACC	ESSORIES	LIST
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-6SW	Leather swivel belt loop / detachable swivel D-Ring back	22.00
KLH-133K2	Heavy duty leather carrying case for TK-5*10 Standard Models	44.25
KLH-133K3	Heavy duty leather carrying case for TK-5*10 12 Keypad Models	44.25
KLH-134K2	Cordura Nylon carrying case for TK-5*10 Standard Models	26.30
KLH-134K3	Cordura Nylon carrying case for TK-5*10 12 Keypad Models	26.30
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148/154)	36.75
MICROPHONES	& AUDIO ACCESSORIES	LIST
KMC-51DM	MIL-SPEC, IP54/55 DSP Digital Noise-canceling Speaker Mic	250.00
KMC-52WDM	MIL-SPEC, IP67 (Immersion) DSP Digital Noise-canceling Speaker Mic	300.00
	[note 2]: To adjust microphone settings different from factory default, download KPG-147NC	
KMC-47GPSD	configuration software and special configuration firmware from Kenwood Tools (no charge). GPS Speaker Microphone	000.00
		290.00
KMC-41M	MIL-SPEC, IP54/55 Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory]	96.50
KMC-42WDM	MIL-SPEC, IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory] [MSHA Approved Accessory]	114.00
KMC-26	MIL-SPEC, Noise canceling Speaker mic w/Antenna Connector (ant. not incl.)	115.50
KMC-49	[Intrinsically Safe Approved Accessory] [MSHA Approved Accessory] MIL-SPEC, Speaker Mic, with Antenna Connector [Intrinsically Safe Approved Accessory] Note: 51°F Coax cable have xench included (attenna is not included).	250.00
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics [Intrinsically Safe Approved Accessory] [MSHA Approved Accessory]	52.50
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector)	215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00
KHS-15-BH	Intrinsically Safe Approved Accessory] Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory] [MSHA Approved Accessory]	420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory] [MSHA Approved Accessory]	368.00

(11.19.2010) Copied from TK-5210/5310 (11.22.2010) Features added: a) 100 Zones / 1024 Channels

(11.19.2010) Copied from TK-5210/5310 (11.22.2010) Features added: a) 100 Zones / 1024 Channels

P25	TK-5210G / 5310G VHF/UHF FM Analog & P25 Digital Portable Radios	Table of Contents
FIRMWARE OP	TIONS	LIST
KWD-RK20	OTAR Option for KWD-AE30K Encryption Module in TK-5x10 series (OTAR in P25 Conventional & Trunked Modes) • Requires KWD-AE30K module. • <u>L1108</u> (for portable) & <u>L1734</u> (for mobile) Installation (no charge) • <u>L1733</u> (for portable) & <u>L1734</u> (for mobile) Field Upgrade Option	830.00
	<u>Note:</u> - Supports OTAR in P25 Conventional & Trunked modes (Not compatible with GK7 64 CH Model) - Compatible with Motorola KMF P25 OTAR (excludes Motorola-proprietary non-TIA/P25 KMF features ) - Requires KPG-95D/DG(N) V7.10 or later for radio programming	
	TK-Sx10 VER2: Requires KPG-95D VS.40 or later for raido programming TK-Sx10/9610: Requires KPG-95D VS.00 or later for raido programming TK-Sx10C: Requires KPG-95DC(N) for raido programming TK-Sx10 VER2: Option deletes self-programming, cloning and analog FleetSync® (except PTT ID/Emergency) when installed.	
	KWD-RK20 is an U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)	
KWD-TR20	Trunking Option for TK-5210/5310/52102/53105, TK-5710/5810/5710G/5810G KWD-TR20 support:16 Trunking Network Must order L-1055 for factory installation, or L-1067 for field-upgrade option Mote: KP6-500/505 (C)N Requires Network Level License ID to program trunked network radio parameters (see KP6-95D/95DC(N) for purchase restrictions & requirements) Compatible with TK-5210 version 2 (SN 8050000 or later); TK-5310 (SN 80900000 or later); Version 2 (SN 8050000); TK-5810 (SN 80900000 or later); All TK-5100 Series are compatible	334.00
SOFTWARE OP	TIONS	LIST
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a L2. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00
OPTION MODUL	ES	LIST
KCT-48VU	External V/bration Unit [Intrinsically Safe Approved Accessory] Note: Audio accessories cannot be used when this option installed. KCT-49U does not support the P25 digital mode calling or paging features	49.00
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) [Intrinsically Safe Approved Accessory]-Must Reamvood installed for I.S. Order L=163 for CIM-1000, K20, K28 & L=1614 for FleetSync8/P25 Emergency operations	22.00
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Mult-Key) Order a Labor Code L-1820 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1). Intrinsically Safe Option)- Must be Kenwood installed for LS.	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1821 fi installation is required. Note: Requires KPC-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) [Intrinsically Safe Option]- Must be Kenwood installed for LS.	550.00

	TK-5210G / 5310G	Table of Contents
P25	VHF/UHF FM Analog & P25 Digital Portable Radios	
Contra Contra	VHF/UHF FM Analog & P25 Digital Portable Radios	
SERVICE RELAT	ED ACCESSORIES	LIST
KPG-36XM	USB Programming interface cable	158.50
KPG-93	KVL-3000/3000 Plus/4000 Interface Cable for TK-5x10, TK-5x10G & TK-5x20 Portables	262.50
KPG-95DGNK	Windows® Programming Software for TK-5x10 & TK-5x10G Portables & Mobiles (Compliant with FCC Part 90 Narrowanding) Note: Self-rogramming function is not available.	628.00
	Analog & P25 Conventional Programming A "Dealer-Leve" License ID is included with each KPG-95DG(N)K which only permits full analog conventional and P25 conventional programming. Data files created with a "Network-Level Licensed" KPG-95DG(N)K and containing P25 programmed P25 trunked network parameters can be loaded and viewed with a Dealer-Level Licensed KPG-95DG(N)K, but the trunked network parameters cannot be changed.	
	P25 Trunked Programming Capability (licensed by either 1 or 2 below):           1. KPO-95DG(NK with System Key File (*SKF) Sup L-989           For all TK-Sk01 radio platforms (VER1, 2, 3 or later).           - 3 digk HEX System 1D (HSID) and verifiable written authorization required from trunked system operator (SYSOP).           - Purchase KPO-95DG(NK & L-969 Network-Level License ID           - Kernwood ships an encrypted *.5KF file on CD ROM           - TK-SkT0G/SH (With Advanced Network Keys (ANK*3)           - For HSK-SkT0G/SH (With Advanced Network Keys (HSK*3)<	
KWD-ANK-AK	Access Key for KPG-95DG(N)K P25 trunked programming Motes: - For TK-Skr0G/54105910 VER 3 or later radio platforms only - Must be activated by a SYSOP with KWD-ANK-MK Master Key. - Must have KPG-95DG(N)K (V7.0 or later); L-959 is NOT required. - Battery Life: 3 years (non-serviceable; key must be replaced)	208.00
KWD-ANK-MK	Master Key for activating KWD-AnK-KA KACess Keys Restricted Purchase Requirements - Notes: For TK-Sx100/5410/5910 VER 3 or later radio platforms only. Sold to SYSOP authorized entities only Must have KPG-SBDG(NK) V/7.0 or later ymil H-369 Network-Level License ID SYSOP must provide 3-digit HEX HSID to Kenwood. Purchase KWD-ANK-KA Kocess Keys if needed.	500.00
INSTALLATION /	TUNING CHARGES	LIST
-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
-989	KPG-95D/95DG(N) Network Level ID (encrypted data file)	132.00
-990	TK-5x10 & TK-5x10G Portable Programming (Basic TX/RX check only with factory test freq.s or dealer/customer provided KPG-95D/95DG(N) data file)	125.00
-1055	Install KWD-TR20 Trunking Option in TK-5210/5310/5210G/5310G (Must purchase KWD-TR20K separately)	N/C
-1067	TK-5210/5310 KWD-TR20 FIELD-UPGRADE (Must purchase KWD-TR20 separately)	42.00
-1108	Install KWD-RK20 OTAR Option in TK-5x10 & TK-5x10G Series (Must purchase KWD-RK20 separately)	N/C
-1614	TK-5x10 & TK-5x10G Series Portable KCT-57MS Installation (for P25/FleetSync®)	20.00
-1733	KWD-RK20 Field Upgrade Option for TK-5x10/5x10G/5410 (Must purchase KWD-RK20 separately)	42.00
-1802	Configure TK-5x10-ISCG for CSA US Intrinsically Safe Must order KNB-41NC I.S. battery,	100.00
-1820	Install KWD-AE30K in TK-5x10 Series Portables (Must purchase module separately)	75.00
INSTALLATION /	TUNING CHARGES, CON'T	LIST
L-1821	Install KWD-AE31K in TK-5x10 Series Portables	75.00

IMPORTANT NOTES Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR
 regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the
 country, the consignee and the intended use. High level encryption is begind a competition are export locense are exported by the U.S. Department of Commerce Bureau of Industry & Security EAR
 regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the
 country, the consignee and the intended use. High level encryption is begind to rate according to the export license formed intense to most countries. See www.bis.gov for more
 information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

even in being returned to Netwood later: a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative) \* Business/Agency Name: \* Address: Contact Person Name: \* Ultimate Destination: Final delivery point(s); deployment/distribution \* Business/Agency Name: \* Address: \* Contact Person Name: \* Contact Person Name: \* Contact Penson Name: \*

WUD-AE30 AE5 FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AE5 FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from J/CKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated J/CKENWOOD USA Corporation employee); shippinghanding by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about ther AE5 encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

(11.19.2010) Copied from TK-5210/5310 (11.22.2010) Features added a) 100 Zones / 1024 Channels

Table of Contents

### TK-5220/5320 VHF/UHF FM Analog & P25 Digital Portable Radios

RSSI Indicator
 Transmit / Busy / Call Alert / Warn LED
 On/Off Volume Knob
 16-Position Selector Knob
 4 Front Menu-Driven PF Keys

STANDARD

\*\* Approved for Classes I, II & III, Div. 1, Groups C, D, E, F, G and are also approved for non-incendive use in Class I, Div. 2, Groups A, B, C, D hazardous locations. <u>Note</u>: Class I, Div 2 Group A & B Gases require use of a portable carrying case.

P25

Is-Presition Selector Knob
 Is-Presition Selector Knob
 Grand Media
 Gra

# GENERAL FEATURES • 5 Watt (136-174 MHz) • 5 Watt (400-470, 450-520, 380-400 MHz) • 128 Zones / 512 Channels • Backlit Dot Matrix LCD • 14 Character Alphanumeric Aliases • 3-Digit Sub-Display • Function / Status LCD Icons • RSSI Indicator • Transmit (Javar) LED

P25 DIGITAL
 P25 Digital Conventional
 AMBE+2™ Enhanced VOCODER
 Talk Group ID Lists
 Individual ID Lists
 Collert D Display
 Remote Monitor / Check, Radio Inhibit
 Encryption Key Zeroize and Retention
 DES Encryption Options
 AES & DES Encryption Options
 KPG-93 KVL Key Loader Interface Cable
 P25 Digital Trunking Option

### SCAN TYPES (FM & P25)

 Single Zone/Multi-Zone Scan
 Scan Lists Conventional Scan Limited Talk Group Scan
 Priority Monitor Scan
 Dual Priority Scan

### ANALOG

QT / DQT Operator Selectable Tone Two-Tone Decode / Encode
 DTMF Encode / Decode / Stun
 Special Alert Tone Patterns
 Companded Audio

### FleetSync® /II (FM)

Pretsynce //i (r/m)
 PTT ID Digital ANI
 Caller ID Display
 Status Messaging
 Emergency & Stun Statuses
 Selective & Group Call
 Text Messaging
 Send/Display GPS (KPG-47GPS)

MDC-1200 • PTT ID Digital ANI • Caller ID Display • Emergency Status • Radio Check • Radio Inhibit

RADIO		LIST
TK-5220K	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	860.00
TK-5220K2	136-174MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	910.00
TK-5320K	450-520MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	860.00
TK-5320K2	400-470MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	860.00
TK-5320K3	450-520MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	910.00
TK-5320K4	400-470MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	910.00
CSA US APPROV	ED MODELS	LIST
	Must Order L-1803 & an Intrinsically Safe Battery per radio	
TK-5220-ISCK	136-174MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	860.00
TK-5220-ISCK2	136-174MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	910.00
TK-5320-ISCK	450-520MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	860.00
TK-5320-ISCK2	400-470MHz 5W, 14 characters Alphanumeric LCD, 6 Control Keys	860.00
CSA US APPROV	ED MODELS	LIST
	Must Order L-1803 & an Intrinsically Safe Battery per radio	
TK-5320-ISCK3	450-520MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	910.00
TK-5320-ISCK4	400-470MHz 5W, 14 characters Alphanumeric LCD, Full Keypad	910.00
PACKAGES	* The 2% Radio Package Discount applied to Dealer Cost	LIST
TK-5220K-LKP	VHF Li-Ion Battery Package (TK-5220K + KNB-47L + KSC-32 + KBH-11)	1,035.00
TK-5220K-LHKP	VHF Hi Cap Li-Ion Battery Package (TK-5220K + KNB-48L + KSC-32 + KBH-11)	1,053.00
TK-5320K-LKP	UHF Li-Ion Battery Package (TK-5320K + KNB-47L + KSC-32 + KBH-11)	1,035.00
TK-5320K-LHKP	UHF Hi Cap Li-Ion Battery Package (TK-5320K + KNB-48L + KSC-32 + KBH-11)	1,053.00
TK-5320K2-LKP	UHF Li-Ion Battery Package (TK-5320K2 + KNB-47L + KSC-32 + KBH-11)	1,035.00
TK-5320K2-LHKP	UHF Hi Cap Li-Ion Battery Package (TK-5320K2 + KNB-48L + KSC-32 + KBH-11)	1,053.00
ANTENNAS		LIST
KRA-22M	VHF low-profile helical antenna 148-162 MHz	13.70
KRA-22M2	VHF low-profile helical antenna 162-174 MHz	13.70
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz	13.70
KRA-23M	UHF low-profile helical antenna 450-490 MHz	13.70
KRA-23M3	UHF low-profile helical antenna 403-430 MHz	13.70
KRA-25	High gain VHF helically loaded whip antenna 148-162 MHz	34.25
KRA-26M	VHF helical antenna 146-162 MHz	14.00
KRA-26M2	VHF helical antenna 162-174 MHz	14.00
KRA-26M3	VHF helical antenna 136-150 MHz	14.00
KRA-27M	UHF whip antenna 440-490 MHz	14.00
KRA-27M2	UHF whip antenna 470-520 MHz	14.00
KRA-27M3	UHF whip antenna 400-450 MHz	14.00
KRA-28	Broad-band VHF helically loaded whip antenna 140-170 MHz	42.00
KRA-29	Broad Band UHF Whip Antenna 380-430 MHz	36.75
BATTERIES AND	CHARGERS	LIST
KNB-47L	1950 mAh, Li-ion battery - requires KSC-32/326K charger	105.00
KNB-48L	[Immersion Option compatible] 2550 mAh, Li-ion battery - requires KSC-32/326K charger	122.50
KINB-48L	[Immersion Option compatible]	122.50
KNB-50NC	2000 mAh, Ni-MH battery - requires KSC-32/326K charger	157.50
KND 701 0 004 110	[FM & CSA-us Intrinsically Safe Option]	010.00
KNB-72LC-CSA-US	1880 mAh, Li-ion battery - requires KSC-32/326K charger [CSA-us Intrinsically Safe Option]	210.00
KBP-7	AA Alkaline Refillable Battery Pack (6 AA; 9V) cells not included	68.50
1/00 00	Note: the color of the case is orange	=
KSC-32	Rapid rate single unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC <u>Note:</u> Includes 110/220V auto-switching AC adapter with U.Sstyle line cord plug; requires plug	70.00
	adapter for 220V Euro-style outlets (not supplied).	
KSC-326K	Rapid rate 6-unit charger for KNB-31A/32N/33L/41NC/43L/47L/48L/50NC	630.00
KMB-30M	Wall Mount Bracket for KSC-326K/256K	33.75
KMB-23	Six Unit Charger Adapter for the KSC-16/20/24/25/25L/32 chargers	191.00
KVC-15	(chargers not included)	
	Rapid rate DC vehicular charger adapter for the KSC-32 (chargers not included;	119.00

### (08.31.2009) KNB-50NC does not fit in KLH-148K or KLH-148K2 (09.02.2009) LKP Packages are added (09.02.2009) KMC-40 & KVC-20L are added.

(09.02.2009) Labor Codes are added. (09.10.2009) an IS notice is added (10.16.2009) IS is certified (10.27.2009) KLH-137ST is added (08.13.2010) IP67 Packages are added (12.06.2010) KMC-47GPS replaced KMC-38GPS (03.02.2011) Delete "\*" (Future Availability) (03.02.2011) Add KBP-7 (03.02.2011) Add KWD-TR30 (03.02.2011) Add L-1694/1696/1698 (03.02.2011) Replace KPG-36AM/KCT-53UM with KPG-36UM (03.08.2011) Added MIL-G (03.08.2011) Delete TK-5x20-ISWK (05.25.2011) Add KWD-YH20 (05.25.2011) Add KWD-IM20 (05.25.2011) Add L-1713 (10.28.2011) KLH-148K/K2 Description changed (01.17.2012) \$110 added to the WK Package (03.01.2012) KMB-23 Description Updated (03.01.2012) KMC-51M & 52W were added (03.19.2012) Add KWD-YH20-P25 & KWD-OH20-P25 (03.19.2012) Add I -1713 & I -1738

(03.19.2012) Add ISW Models (03.27.2012) Add YH/OH for W models (07.27.2012) Add KCT-51 (07.27.2012) KWD-AE20/AE21/DE21 are I.S. approved (02.13.2013) Change the FPU to "DN" (04.29.2013) Add 380-400MHz (07.22.2013) 13% Price reductio (07.22.2013) KWD-TR30 Price reduction (08.30.2013) Price Reduction / Trunking option (9.30.2013) Immersion Option indicated on accessories (9.30.2013) Reorganized Accessories/Options/Installation (10.3.2013) Replaced line art with photographs

(11.6.2013) Added 'options" to P25 Digital bullets for AES/DES (04.23.2014) TK-5320K5 / K6 - Added "direct" to note for sales (7.28.2014) Removed "Encryption / ANI Board Control" from Analog Options (04.06.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (04.06.2016) Delete old labor and add new labor for SCMs (04.21.2016) Add KVC-23 (04.21.2016) Add KNB-72LC (05.03.2016) Price Changes (05.04.2016) Delete IP67 Package (05.04.2016) Delete KNB-50NC-CSA-US and change KNB-50NC for Universal Battery (04.21.2016) Add KNB-72LC (05.03.2016) Price Changes (08.25.2016) Delete KVC-20 for discontinuation



P25	TK-5220/5320 VHF/UHF FM Analog & P25 Digital Portable Radios	Table of Contents
KVC-23	Rapid rate DC vehicular charger for TK-5x10/5x20, NX-5x00/x00/x10/x20, TK-x180, TK- x170, & TK-x360 portables with Lithium Ion /Lithium Polymer/NiMH packs only	300.00

P25	<b>TK-5220/5320</b> VHF/UHF FM Analog & P25 Digital Portable Radios	Table of Contents
CARRYING ACCE	ESSORIES	LIST
KBH-11	Spring action belt clip (2.5")	14.70
KBH-8DS	Leather swivel belt loop with portable D-Ring attachment	26.30
KLH-137ST	Firemen's Heavy-Duty Leather Shoulder Strap for a Heavy-Duty Leather Case (KLH-75B/76B/78B/79B//92/122/123/133/148/154)	36.75
KLH-148K	Heavy duty leather carrying case for NX-200/300/TK-5220/5320 (Non DTMF keypad models)	44.25
KLH-148K2	Heavy duty leather carrying case for NX-200/300/TK-5220/5320 (DTMF keypad models)	44.25
KLH-149K	Nylon carrying case for NX-200/300/TK-5220/5320 (Non DTMF keypad models) Nylon carrying case for NX-200/300/TK-5220/5320 (DTMF keypad models)	26.30
KLH-149K2		26.30
SPECIAL COLOR	HOUSING	LIST
KWD-YH20-P25	Yellow Housing Kit for TK-5x20 portables (6 Control Keys Version Only) Order L-1713 for Factory Install. (required for Intrinsically Safe & IP67 radio orders)	40.00
KWD-OH20-P25	Orange Housing Kit for TK-5x20 portables (6 Control Keys Version Only) Order <u>L-1738</u> for Factory Install. (required for Intrinsically Safe & IP67 radio orders)	40.00
MICROPHONES &	AUDIO ACCESSORIES	LIST
KMC-51DM	MIL-SPEC, IP54/55 DSP Digital Noise-canceling Speaker Mic [see note 2]	250.00
KMC-52WDM	ML-SPEC. IP67 (Immersion) DSP Digital Noise-canceling Speaker Mic <u>[see note 2]</u> Important Moster_Portable radio does not have an IP67 Immersion option; meets MIL ST0810 rain <u>standards</u> . [note 2]: To adjust microphone settings different from factory default, download KPG-147NC	300.00
	configuration software and special configuration firmware from Kenwood Tools (no charge).	
KMC-47GPSD	GPS Speaker Microphone (FM Conventional mode only does not operate in P25 modes)	290.00
KMC-40	MIL-SPEC, Speaker Mic. with Antenna Connector [Intrinsically Safe Approved Accessory] Note: 5/16° Coax cable hex wrench included (antenna is not included).	250.00
KMC-41M	MIL-SPEC, IP54/55 Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory]	96.50
KMC-42WDM	MIL-SPEC. IP67 (Immersion) Noise-canceling Speaker Mic [Intrinsically Safe Approved Accessory] Important Nets: Portable radio does not have an IP67 Immersion option; meets MIL STD810 rain standards	114.00
KEP-1	3.5mm earphone kit for KMC-25/26/41M/42WM Speaker Mics [Intrinsically Safe Approved Accessory]	52.50
KCT-51	Hirose 6-pin Adapter (adapts KVL/aftermarket audio acc. to portable connector) [Intrinsically Safe Approved Accessory]	215.00
KHS-11BL	2-wire palm mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	156.50
KHS-12BL	3-wire mini lapel mic w/earphone, universal connector (Black) [Intrinsically Safe Approved Accessory]	184.00
KHS-14	Lt. Wt. Single muff headset w/boom mic & In-line PTT [Intrinsically Safe Approved Accessory]	126.00
KHS-15-BH	Hvy-duty noise reduction behind-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	420.00
KHS-15-OH	Hvy-duty noise reduction over-the-headset w/noise cancelling boom mic & in-line PTT [Intrinsically Safe Approved Accessory]	368.00
SOFTWARE OPT		LIST
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00

P25	<b>TK-5220/5320</b> VHF/UHF FM Analog & P25 Digital Portable Radios	Table of Contents
SOFTWARE OP	TIONS, CON'T	LIST
KWD-TR30	Trunking Option for TK-5220/5320, TK-5720/5820 KWD-TR30 support Trunking Network Must order <u>L1984</u> for factory installation, or <u>L1986</u> for field-upgrade option <u>Network</u> KPG-112D(N) Ver2.0 or later Requires Network Level License ID to program trunked network radio nagrameters. See KPG-1210(N). Vio curdense sensiticitors. Struitements)	250.00
<b>OPTION MODUL</b>	ES	LIST
KCT-48VU	External Vibration Unit [Intrinsically Safe Approved Accessory] <u>Note</u> : Audio accessories cannot be used when this option installed. KCT-48/VJ does not support the P25 digital mode calling or paging features	49.00
KCT-57MS	Man-Down Internal Tilt Switch (Non-Mercury) Intrinsically Safe Approved Accessory) Must be Kenwood installed for I.S. Order L-1643 for P25/Hest/Sw06MDC-1200 operations	22.00
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (MultrKey) Order a Labor Code L-1824 if Installation is required. KVD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KVD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A-1). Intrinsically Safe Option)- Must be Kenwood installed for I.S.	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1825 if installation is required. Note: Requires KPC-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1) [Intrinsically Safe Option]- Must be Kenwood installed for I.S.	550.00
SERVICE RELAT	TED ACCESSORIES	LIST
KPG-112DNK	Windows® Programming Software for TK-5*20 Series (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-36XM	USB Programming interface cable	158.50
KPG-93	TK-5210/5310/5410/5220/5320/5400 KVL-3000/3000 Plus/4000 Interface Cable	262.50
INSTALLATION .	/ TUNING CHARGES	LIST
L-961	Assemble KMB-23 with six KSC-32K's (Rapid Rate, 120 Volt version only)	17.00
L-1644	TK-5220/5320 Programming (Basic TX/RX check only with factory test freq.s or dealer/customer provided KPG-112D data file)	125.00
L-1646	Multi-Channel Encoder Modification	25.00
L-1648	TK-5220/5320 Portable KCT-57MS Installation (for P25/FleetSync®/MDC-1200)	20.00
L-1694	Install KWD-TR30 Trunking Option in TK-5220/5320 (Must purchase KWD-TR30 separately)	N/C
L-1696	TK-5220/5320 KWD-TR30 FIELD-UPGRADE (Must purchase KWD-TR30 separately)	N/C
L-1698	KPG-112D(N) Network Level ID (encrypted data file) <u>Note</u> : Enables Trunking system programming privileges; See KPG-112D(N) Network Level ID	132.00
L-1713	Assemble Yellow Housing KWD-YH20-P25 with TK-5X20 Portable	27.00
L-1738	Assemble Orange Housing KWD-OH20-P25 with TK-5X20 Portable	27.00
L-1803	Configure TK-5220/5320 for CSA US Intrinsically Safe Must order KNB-50NC I.S. battery	70.00
L-1824	Install KWD-AE30K in TK-5220/TK-5320 Portables (Must purchase module separately)	75.00
L-1825	Install KWD-AE31K in TK-5220/TK-5320 Portables (Must purchase module separately)	75.00



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### TK-5220/5320 VHF/UHF FM Analog & P25 Digital Portable Radios

### -- IMPORTANT NOTES --

Encryption modules, key leaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the interded use. High level encryption is a special commonly that may require an export license to most courties. See anywe bis gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

 a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative)
 \* Business/Agency Name: Address:
 Contact Person Name:
 Contact Person
 Duttimate Destination: Final delivery point(s); deployment/distribution
 Butimate Destination: Final delivery point(s); deployment/distribution
 Butimate Destination:
 Contact Person Name:
 Contact Person Name:
 Contact Person Name: \* Contact Phone: c) Intended Use of Radios: Law enforcement, security, operations, etc.

KWD-AE30 AE5 FIPS140-2 SCM, NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from J/CKENVOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated J/CKENWOOD USA Corporation employee); shippinghandling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer abot their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

25	TK-5710G / 5810 VHF/UHF FM & P25 Digital Mobile		(11.22.2010) Copied from TK-5710/5810
<b>3</b> #	vin form i m a 125 bigital mobile	Naulos	(11.22.2010) Features added:
	STANDARD		a) 100 Zones / 1024 Channels
	GENERAL FEATURES	P25 DIGITAL	
	• 50W & 110W (136-174 MHz)	P25 Digital Conventional	b) Voice Guide & Storage (Option)
	• 45W & 100 W (450-520, 400-470 MHz)	P25 Digital Trunking Option	c) HHCH Added
	100 Zones / 1024 Channels	<ul> <li>AMBE+2<sup>™</sup> Enhanced VOCODER</li> </ul>	,
Company Inne	Personality Lists	Talk Group ID Lists	d) AMBE+2 Enhanced VOCODER
COCHISE VED	Enhanced Kenwood Audio     Zone/CH Voice Announce	Individual ID Lists	
	Emergency Features	Caller ID Display     RSSI Indicator	e) P25 GPS Location (Conventional)
	Tactical Group	Remote Monitor	<li>f) P25 OTAR Option (Conventional)</li>
	Intercom	Remote Check	(11.22.2010) Delete "VHF Version 2 radio"
10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Public Address	Radio Inhibit	(11.22.2010) CIM-1000K-26/CIM-CABLE Discontinued
	Time Out Timer	Encryption Key Delete	L-1024/1025 Discontinued
0 0	Busy Channel Lockout     Ignition Sense	Encryption Key Zeroize Option     Encryption Key Retention Option	(11.22.2010) GPS Option is added.
	Timed Power Off	DES 16-Key SCM Option	(11.22.2010) Delete KWD-DE20
	DB-25 & 9-Pin Accessory Connectors	<ul> <li>AES FIPS 140-2 &amp; DES 16-Key SCM Option</li> </ul>	(06.30.2011) Correct KWD-RK20 Description
P25 series mobiles include:	Transceiver Password	<ul> <li>KPG-94 KVL Key Loader Interface Cable</li> </ul>	(06.30.2011) Collect KWD-RK20 Description
RF Deck Only	Date & 12/24 Hour Time Clock	P25 GPS Location	
onfiguration Set & Assembly Labor Code must order for a Complete Mobile.)	Windows <sup>®</sup> Programming & Tuning     Windows <sup>®</sup> Firmware Uploading	P25 OTAR Option	(09.27.2011) Revise KPG-95DGK (for ANK)
Premium Warranty: 3 Years*	Field-Programming & Tuning		(09.27.2011) Add KWD-ANK-MK & AK
	Cloning	SCAN TYPES (FM & P25)	(09.27.2011) Revise L-989
All Accessories / options: 1 Year	<ul> <li>Easy Option Ports (26-pin)</li> </ul>	Single Zone/Multi-Zone Scan	(09.04.2012) Delete "Conventional" from GPS & OTAR
	DB-25 & 9-Pin Accessory Connectors     MIL-STD 810 C/D/E/F, IP-54	Scan Lists	(09.04.2012) L-1734 added
	MIL-STD 810 C/D/E/F, IP-54     MIL-STD Noise-Cancel Mic	Conventional Scan     Limited Talk Group Scan	(02.13.2013) Change the FPU to "DN"
	MIL-STD 12-Key DTMF Mic Option	Priority Monitor Scan	(08.30.2013) Price Reduction - Radios / Trunking option
G models are Ver 3 Hardware	,	Dual Priority Scan	(10.3.2013) Reorganized Accessories/Options/Installation
starting S/No. B03xxxxx )	MOUNTING CONFIGURATIONS		
	Dash Mount	FM	(10.3.2013) Replaced Line Art with Photograph
TX Power is derated at 500-520 MHz for TK-5810HBK:	Single Control Head Remote Mount     Handheld Control Remote Mount	• QT / DQT	(04.06.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE
	Dual Control Head Remote Mount	Operator Selectable Tone     Two-Tone Encode / Decode	(04.06.2016) Delete old labor and add new labor for SCMs
450-499 MHz (100 W)	Dual control field itemote mount	DTMF Encode / Decode / Stun	(05.03.2016) Price Changes
500-520 MHz (60 W)	FRONT PANELS/CONTROL HEADS	Special Alert Tone Patterns	
	KCH-14 Front Panel	Horn Alert Output	
	12-Character Alphanumeric Aliases	Encryption / ANI Board Control	
	<ul> <li>5 PF Keys</li> <li>Built-in Front Speaker</li> </ul>	Companded Audio     FleetSync® /II PTT ID / Caller ID Display /	
	KCH-15 Front Panel	Emergency	
	14-Character Alphanumeric Aliases	MDC-1200 PTT ID / Caller ID Display /	
	11 PF Keys	Emergency	
	KCH-16M Handheld Control Head		
	<ul> <li>14-Character Alphanumeric Aliases</li> <li>9 PF Keys</li> </ul>		
	12-Key DTMF/Function Keypad		
	,		

RADIO		LIST
TK-5710BGK	136-174MHz 10-50W 100 Zones/1024 Channels (R.F. DECK ONLY)	1,490.00
TK-5710HBGK	136-174MHz 50-110W 100 Zones/1024 Channels (R.F. DECK ONLY)	2,060.00
TK-5810BGK	450-520 MHz 5-45W 100 Zones/1024 Channels (R.F. DECK ONLY)	1,490.00
TK-5810BGK2	400-470 MHz 5-45W 100 Zones/1024 Channels (R.F. DECK ONLY)	1,490.00
TK-5810HBGK	450-520 MHz 50-100W 100 Zones/1024 Channels (R.F. DECK ONLY)	2,060.00
TK-5810HBGK2	400-470 MHz 50-100W 100 Zones/1024 Channels (R.F. DECK ONLY)	2,060.00

P25	TK-5710G / 5810G VHF/UHF FM & P25 Digital Mobile Radios	able of Contents
ACCESSORY	CONFIGURATION SETS	LIST
CONFIGURATION	SET DEFINITIONS	
1	Image: Control Panel (KCH-15M)         Image: Control Panel (KCH-16M)	
Dash Mount		<u>LIST</u>
10BHD	KCH-14M, KCT-23M2, KMB-9, KMC-27	683.50
0BMD	KCH-14M, KCT-23M, KMB-5, KMC-27	653.50
10FHD	KCH-15M, KCT-23M2, KMB-9, KMC-27, KES-5	744.75
10FMD	KCH-15M, KCT-23M, KMB-5, KMC-27, KES-5	714.75
Single Head Remo	An and the Mount	LIST
10BHSH	KCH-14M, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27	921.00
IOBMSH	KCH-14M, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27	887.75
IOFHSH	KCH-15M, KRK-5, KCT-22M2, KCT-23M4, KMB-9, KMC-27, KES-5	982.25
10FMSH	KCH-15M, KRK-5, KCT-22M2, KCT-23M3, KMB-5, KMC-27, KES-5	949.00
		0.000
Dual Head Remot		<u>LIST</u>
10BHDH	KCH-14M(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2)	1,718.00
10BMDH	KCH-14M(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2)	1,684.75
10FHDH	KCH-15M(x2), KRK-6DH, KCT-22M2(x2), KCT-23M4, KMB-9, KMC-27(x2), KES-5(x2)	1,840.50
10FMDH	KCH-15M(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-5, KMC-27(x2), KES-5(x2)	1,807.25
Handheld Control	Head Remote	LIST
10CHSH	KCH-16M, KRK-11M, KCT-22M2, KCT-23M4, KMB-9, KES-5	1,056.75
10CMSH	KCH-16M, KRK-11M, KCT-22M2, KCT-23M3, KMB-9, KES-5	1,046.25
	LS & REMOTE KITS (Order Configuration Sets for full install accessories)	LIST
	Basic Remote Control Head w/ 12 Alphanumeric Display (4W Front Speaker)	504.00
KCH-14M	Note: All KCH-14 / Basic Control Head configurations are shipped with the control heads 4W internal speaker enabled. Order L-1008 to enable the 13W external speaker output for KES-5 speaker use.	
KCH-14M KCH-15M	speaker enabled. Order L-1008 to enable the 13W external speaker output for KES-5 speaker use. This will disconnect the control heads internal 4W speaker I Full-Featured Remote Control Head w/14 Alphanumeric Display	504.00
	speaker enabled. Order L-1008 to enable the 13W external speaker output for KES-5 speaker use. This will disconnect the control heads internal 4W speaker !	504.00

P25	TK-5710G / 5810G VHF/UHF FM & P25 Digital Mobile Radios	Table of Contents
HANDHELD CON	ITROL HEAD REMOTE (Order Configuration Sets for full install accessories)	LIST
KCH-16M	Handheld Control Head for P25 Mobiles	546.00
KRK-11M	Note: requires KRK-11M, KCT-22M/M2/M3, & KES-5 KCH-16M HHCH Interface Kit for Single Head Remote	283.50
CABLES		283.50
	Ignition sense cable	
KCT-18	Control cable - 8 Feet	13.70
KCT-22M KCT-22M2	Control cable - 17 Feet (Standard accessory config. set cable)	73.50
KCT-22M2	Control cable - 25 Feet	94.50
KCT-23M	DC Cable (10-50W Dash mount)	31.50
KCT-23M2	DC Cable (50-110W Dash mount)	38.7
KCT-23M3	DC Cable (10-50W Remote mount)	34.75
KCT-23M4	DC Cable (50-110W Remote mount)	45.2
	LATION ACCESSORIES	LIST
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max)	42.00
KMB-10	Key Lock Adapter for use with KMB-4/5/6	26.30
KMB-5	Medium Power Mounting Bracket (10-50W models)	14.00
KMB-9	Heavy Duty Mounting Bracket with built-in key lock	36.7
-	AND SPEAKERS	LIST
KES-5	External Speaker (40W max input)	61.25
KMC-27	MIL-SPEC noise-canceling mobile hand microphone	104.00
KMC-28	MIL-SPEC DTMF noise-canceling mobile hand microphone	163.00
KMC-9B	Desk top microphone	96.50
SERVICE RELAT	ED ACCESSORIES	LIST
KPG-43UM	USB Programming interface cable	158.50
KPG-94	KVL-3000/3000 Plus/4000 Interface Cable for TK-5x10 & TK-5x10G Mobiles	262.50
KPG-95DGNK	Windows® Programming Software for TK-5x10 & TK-5x10G Portables & Mobiles (Compliant with FCC Part 90 Narrowbanding)	628.00
	Conspanse man root has too han one analyze too han one analyze too han one analyze too han one analyze too han one and too han	
	A "Dealer-Level" License ID is included with each KPG-95D/DG(N)K which only permits full analog	
	conventional and P25 conventional programming. Data files created with a "Network-Level Licensed" KPG-95D/95DG and containing P25 programmed P25 trunked network parameters can be loaded and	
	viewed with a Dealer-Level Licensed KPG-95D/DG(N)K, but the trunked network parameters cannot be changed.	
	P25 Trunked Programming Capability (licensed by either 1 or 2 below): 1. KPG-950G(NJK with System Key File (".SKF)- <u>See L-889</u> • For all TK-501 radio platroms (VER1, 2, 3 or later).	
	<ul> <li>3-digit HEX System ID (HSID) and verifiable written authorization required from trunked system operator (SYSOP).</li> <li>Purchase KPG-95DG(N)K &amp; L-989 Network-Level License ID</li> </ul>	
	<ul> <li>Kenwood ships an encrypted *.SKF file on CD ROM</li> <li>The *.SKF securely embeds/encrypts the 16-digit Network Level License ID &amp; the HSID.</li> </ul>	
	<ul> <li>KPG-95DG(N)K with Advanced Network Keys (ANK's)</li> <li>For TK-5x10G/5410/5910 VER 3 or later radio platforms only.</li> </ul>	
	SYSOPs: Refer to KWD-ANK-MK Master Key	
	Dealers/contractors: Refer to KWD-ANK-AK Access Key	

225	<b>TK-5710G / 5810G</b> VHF/UHF FM & P25 Digital Mobile Radios	Table of Contents
SERVICE RELAT	ED ACCESSORIES, CON'T	LIST
KWD-ANK-AK	Access Key for KPG-95DGK P25 trunked programming Notes: For TK-5x103/5410/5910 VER 3 or later radio platforms only Must be activated by a SYSOP with KWD-ANK-MK Master Key. Must have KPG-95BO(NK/V(7 0 or later): 999 is NOT required. • Battery Life: 3 years (non-serviceable; key must be replaced)	208.00
KWD-ANK-MK	Master Key for activating KWD-ANK-AK Access Keys - Restricted Purchase Requirements - Motes: - For TK-5x103/5410/5910 VER3 or later ratio platforms only. - Sold to SYSOP or SYSOP authorized entratios only - Must have KPG-95DG(N)K (V7.0 or later) with L-980 Network-Level License ID - SYSOP must provide 3-digit HEX HSID to Kerwood. - Purchase KWD-ANK-AK Access Keys if needed.	500.00
K29-5276-03	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following: Key Inserts for 90-Series/TK-5710/5810 (AN, D/A, DIM, HA, HC, IC, MON, OPT, OST, PA)	
K29-5277-03	Key Inserts for 90-Series/TK-5710/5810 (RCL, RPT, SCN, SP, SPM, SQ, TA, <up arrow="">, <down arrow="">, 1x Clear key insert)</down></up>	
K29-5305-03	Key Inserts for 90-Series/TK-5710/5810 (CH1, CH2, CH3, CH4, CH5, AUXA, AUXB, AUXC, EMG, ORG)	
K29-9353-13	Key Inserts for TK-5710/5810 (2TN, AD, AR, CLK, FNC, PBK, SCP, SEC, SEL, SES)	
K29-9354-03	Key Inserts for TK-5710/5810 (GPS, STS, TAC, TON, RES, IDV, KDL, TGR, 2x Clear key inserts)	
K29-9356-03	Key Inserts for TK-5710/5810 (PAG, SIT, SRC, 7 X Clear key inserts)	
FIRMWARE OPT	IONS	LIST
KWD-RK20	OTAR Option for KWD-AE30K Encryption Module in TK-5x10 series (OTAR in P25 Conventional & Trunked Modes) - Requires KWD-AE30K module. - L-108 (for portable) & L-1719 (for mobile) Installation (no charge) - L-1733 (for portable) & L-1734 (for mobile) Field Upgrade Option Note: - Supports OTAR in P25 Conventional & Trunked modes (Not compatible with GK7 64 CH Model) - Compatible with Motorola KMF P25 OTAR (excludes Motorola-proprietary non-TU/P25 KMF features ) - Requires KPG-95D/DG(N) V7.10 or later for radio programming - TK-5x10 VER2. Requires KPO-95D V3.4 or later for radio programming	830.00
	TK-\$410/5910: Requires KPC-95D V6.00 or later for radio programming     TK-\$410/5910: Requires KPC-95D(N) for radio programming     TK-\$410 VER2: Option deletes self-programming, cloning and analog FleetSync® (except PTT ID/Emergency) when installed.     KWD-RK20 is an U.S. DOC/BIS Export Controlled Item (ECCN 5D002A)     See IMPORTANT NOTES -	
KWD-TR20	Trunking Option for TK-5210/5310/5210/5310G, TK-5710/5810/5710G/5810G KWD-TR20 support:16 Trunking Network Must order <u>L*1056</u> for factory installation, or <u>L-1068</u> for field-upgrade option <u>Note</u> : KPG-95D/95DG(N) Requires Network Level License ID to program trunked network radio parameters (see KPG-95D/95DG(N) for purchase restrictions as requirements) Compatible with TK-5210 Version 2 (SN 80600001 or later); TK-5310 (SN 809xxxx or later); TK-5710 Version 2 (SN806xxxxx); TK-5810 (SN 809xxxx or later); All TK-5x10G Series are compatible	334.00

P25	TK-5710G / 5810G VHF/UHF FM & P25 Digital Mobile Radios	Table of Contents
SOFTWARE OP	TIONS	LIST
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentitication by KPT-300LMC is required Note: KPG-AE1 is a L.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Expont Controlled Item (ECCN 5D992A.1).	368.00
OPTION MODUL	LES	LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1822 If installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1).	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1823 If installation is required. Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	550.00
GPS Option		LIST
GA25MCX	Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W Note: shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	62.00
GPS15XL-W	Garmin Internal GPS Receiver Board (P25 Conventional)     Note:     Provides GPS on P25 Conventional only (TIA-102.BAJB Tier I Location Service compliant; not for use     over trunked systems)     Requires 6A25MCX GPS antenna	130.25
INSTALLATION	/ TUNING CHARGES	LIST
L-862	Install Front Panel PF Key Label Inserts in TK-5x10, TK-5x10G & TK-x90 series Mobile (key names and positions must be specified)	15.00
864	KCT-22A Extended Control Head Cable (Specify length in 1 ft increments up to 50 ft. max.)	190.00
L-865	KCT-22A Extended Control Head Cable (Specify length in 1 ft. increments up to 100 ft. max.) Extended control head cables: Extended cables result in a loss of control head audio power. On KCH-14 use 13W audio output modifications per service manual Use a standard KCT-22 25 ft. or less cable for firmware installation.	245.00
L-866	Normal KPG-95D radio onrotaminini is nossible at extended lengths. Modify KCT-23M2/M41 10W High Power DC Cables from 4 to 2 Conductors (1x23 ft. positive, 1x23 ft. negative; AVIG #10) Two Conductor Modification: KCT-23M2 75/110W Dash Mount DC Cable (4 Conductor: 2x10 ft. positive, 2x23 ft. negative) KCT-23M2 75/110W Remete Mount DC Cable (4 Conductor: 2x23 ft. negative) KCT-23M2 75/110W Remete Mount DC Cable (4 Conductor: 2x23 ft. negative)	75.00
L-989	KPG-95D/95DG(N) Network Level ID (encrypted data file) Note: Enables Trunkd system programming privileges in a KPG-95DG(N)K. • Restricted Purchase Requirements - • 3-Digit HEX System ID (HSID) from SYSOP required • Must Purchase KPG-95DG(N)K (V7. 0r later) with L-989 • Renwood ships an encrypted * SkF file on CD ROM • Non-SYSOP entities ordering L-989 must provide verifiable written authorization from SYSOP to receive an * SKF file. • The 16-digit Network Level License ID & 3-digit HEX HSID are securely encrypted & embedded in the	132.00
L-1005	*SKF file. TK-5x10 & TK-5x10G Mobile Programming (Basic TX/RX check only with factory test freq.s or dealer/customer provided KPG-95D/95DG(N) data file)	125.00

(11.22.2010) Copied from TK-5710/5810 (11.22.2010) Features added:

P25	TK-5710G / 5810G VHF/UHF FM & P25 Digital Mobile Radios	

INSTALLATIO	DN / TUNING CHARGES - CONT'D	LIST
L-1006	Modify TK-5x10 & TK-5x10G Mobile for Horn Alert relay output	25.00
	(1 amp max.; relay factory installed already)	
L-1008	External Speaker modification for TK-5x10 & TK-5x10G mobile Control Head (13W)	10.00
	Note: All Basic Control Head (KCH-14M) configurations are shipped with the control heads 4W internal	
	speaker enables. Order L-1008 to enable the 13W external speaker output for KES-5 speaker use.	
	This will disconnect the control heads internal 4W speaker!	
L-1028	Package Dash/Single Head Remote for TK-5x10 & TK-5x10G mobiles	17.00
L-1029	Package Dual Head Remote for TK-5x10 & TK-5x10G mobiles	34.00
L-1056	Install KWD-TR20 Trunking Option in TK-5710/5810 & TK-5710G/5810G	N/C
	(Must purchase KWD-TR20K separately)	
L-1068	TK-5710/5810 & TK-5710G/5810G KWD-TR20 FIELD-UPGRADE (Must purchase KWD-	42.00
	TR20 separately)	
L-1109	Install KWD-RK20 OTAR Option in TK-5x10 & TK-5x10G Mobiles	N/C
	(Must purchase KWD-RK20 separately)	
L-1110	Package HHCH Remote for TK-5x10 & TK-5x10G mobiles	25.00
L-1734	KWD-RK20 Field Upgrade Option for TK-5x10/5x10G/5910	42.00
	(Must purchase KWD-RK20 separately)	
L-1822	Install KWD-AE30K in TK-5x10 Mobile	75.00
	(Must purchase module separately)	
L-1823	Install KWD-AE31K in TK-5x10 Mobile	75.00
	(Must purchase module separately)	

IMPORTANT NOTES IMPORTANT NOTES Information required parameter fractions containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR
 regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the
 country, the consignee and the intended use. High level encryption is a special commotify that may require an export licenses are officense. See work bis, gov for
 more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative) \* Business/Agency Name: \* Address:

\* Address:

Address:
 Contact Person Name:
 Contact Person Name:
 Contact Person Name:
 DUtimate Destination: Final delivery point(s); deployment/distribution
 Business/Acency Name:
 Address:
 Contact Person Name:
 Contact Person Name:
 Contact Person
 Intended Use of Radios: Law enforcement, security, operations, etc.

KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from JVCKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated JVCKENWOOD USA Corporation employee); shipping/handing by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer bouch their AES encorption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

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P25

### TK-5720 / 5820 VHF/UHF FM Analog & P25 Digital Mobile Radios



# All 5X20 series mobiles include: • Standard Microphone (KMC-35) • Mounting Bracket • DC Cable (KCT-23M) • Blade Fuse • Instruction Manual • Premium Warranty: 3 Years\*

- \* All Accessories / options: 1 Year

TX Power is derated at 490-512 MHz TK-5320: 450-489 MHz (45 W) 490-512 MHz (40 W)

# GENERAL FEATURES SOW (136-174 MHz) 45W (400-470, 450-520, 380-400MHz) 128 Zones / 512 Channels Emergency Features Public Address (KAP-2 Required) Time Out Timer Busy Channel Lockout Ugnition Sense Timed Power Off DB-258 & 9-Pin Accessory Connectors 9 Programmable AUX 1/Os 2 Programmable AUX 0/Uputs Transceiver Password

STANDARD

# Transceiver Password Date & 12/24 Hour Time Clock Date & 12/24 Hour I Ime Clock Windows® Programming & Tuning Windows® Firmware Uploading Easy Option Ports (26-pin) Voice Guide & Storage (option) Voice Guide & Storage (option) MIL-STD B10 C/D/E/F/G, IP-54 MIL-STD B10 C/D/E/F/G MIL-STD 12-Key DTMF Mic Option

# FRONT PANELS/CONTROL HEADS

 Dash & Remote Mount
 14 Character Alphanumeric Aliases
 Backlit Dot Matrix LCD • 3-Digit Sub-Display • Function/Status LCD Icons • RSSI Indicator • Transmit/Busy/Call Alert/Wam LED • On/Off Power Control • 4 Up/Down Selectors • 6 Front PF Keys • Emergency/AUX Key • 4W Speaker Audio 3-Digit Sub-Display

P25 DIGITAL P25 Digital Conventional
 AMBE+2™ Enhanced VOCODER
 Talk Group ID Lists Individual ID Lists Caller ID Display
 Remote Monitor / Check, Radio Inhibit Remote Monitor / Check, Radio Inhibit Encryption Key Zeroize and Retention DES Encryption Module Option AES & DES Encryption Module Option KPG-115 Key Loader Interface Cable P25 Digital Trunking Option

### SCAN TYPES (FM & P25)

 Single Zone/Multi-Zone Scan
 Scan Lists\* Scan Lists\*
Conventional Scan
Limited Talk Group Scan\* Priority Monitor Scan\*
 Dual Priority Scan

FM • QT / DQT • Operator Selectable Tone • Two-Tone Decode / Encode • DTMF Encode / Decode / Stun • Secord Alert Tone Dettore Special Alert Tone Patterns
 Companded Audio

# FleetSync® / II (FM)

FleetSync® / II (FM) PTT ID Digital ANI Caller ID Display Status Messaging Emergency & Stun Statuses Selective & Group Call Text Messaging Send/Display GPS

MDC-1200 PTT ID Digital ANI
 Caller ID Display
 Emergency Status
 Radio Check

### RADIO LIST TK-5720K 136-174 MHz 50W, 512 CH / 128 Zone 1,250.00 x 450-520 MHz 45W, 512 CH / 128 Zone TK-5820K 1,250.00 x TK-5820K2 400-470 MHz 45W, 512 CH / 128 Zone 1,250.00 x MOBILE INSTALLATION ACCESSORIES LIST KAP-2 Horn Alert/P.A. Relay Option 63.00 Ignition sense cable (plugs directly into mobile chassis ignition sense line) KCT-46 13.70 KLF-2 Line Filter (suppresses alternator whine, 25dB, 25A max). 42.00 Key lock adapter **KMB-10** 26.30 Remote Control Kit (a remote control cable (23 ft) is included) KRK-10 105.00 Dual Control Head Kit (a control head, remote cables, and KMC-35 microphone included) <u>Note</u>: some operations have limitations. Please refer to Application Note avib. on Kenwood Tools. <u>Order:</u> L-1777 if installation is required. KRK-13 959.00

### (09.02.2009) Labor Codes are added (03.08.2011) "Future Availability" is removed (03.08.2011) Added KWD-TR30

(03.08.2011) Added L-1695/1697/1698

### (03.04.2011) Replace KPG-46AM/KCT-53UM with KPG-46UM

(03.08.2011) The price of KPG-115 was input

(03.08.2011) Added MIL-G

(04.05.2011) Added GPS15xL-W and GA25MCX (02.13.2013) Change the FPU to "DN"

(04.29.2013) Add TK-5820K3 (380-400MHz)

(08.30.2013) Price Reduction - Radios / Trunking Option

(10.3.2013) Reorganized Accessories/Options/Insta

(10.3.2013) Replaced Line Art with Photograph

(11.6.2013) added "option" to bullet P25 Digital -AES & DES (3.31.2014) Add KRK-13

(3.31.2014) Add L-1777

(05.03.2016) Price Changes

(7.3.14) KES-3 Model number changed to KES-3S (7.28.2014) Removed "Encryption / ANI Board Control" from Analog Options (04.06.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (04.06.2016) Delete old labor and add new labor for SCMs

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P25	TK-5720 / 5820 VHF/UHF FM Analog & P25 Digital Mobile Radios	Table of Contents
MOBILE INSTA	LLATION ACCESSORIES, CON'T	LIST
KCT-23M	DC Cable (35-50W Dash mount; pos/neg. 10 ft. leads)	31.50
KCT-23M3	DC Cable (35-50W Remote mount; pos.23 ft.; neg. 3.3. ft. leads)	34.75
CONTROL STA	TION INSTALLATION ACCESSORIES	LIST
KMC-9C	Control Station Desktop Microphone (8-pin mod. plug)	86.00
KMB-34	Control Station Mounting Case for KPS-15 Power Supplies (mobile mounting hardware included)	48.00
KPS-15	DC Switching Power Supply (117/230 VAC; 23A max. continuous, 25A peak)	173.00
MICROPHONES	S AND SPEAKERS	LIST
KMC-35	MIL-SPEC Standard electret mobile microphone (8-pin mod. plug) - same as supplied	52.50
KMC-36	MIL-SPEC Standard electret mobile microphone with 12 keypad (8-pin mod. plug)	94.50
KMC-27B	Standard dynamic mobile microphone (8-pin mod. plug)	42.00
KMC-28A	MIL-SPEC & Noise Canceling dynamic mobile microphone (8-pin mod. plug) w/ DTMF	163.00
KES-3S	External speaker (compact low profile; black case; 3.5 mm phono plug-in)	44.25
KES-5	External speaker, 40W max input <u>Note:</u> requires KAP-2 (PA/HA unit) installed	61.25
SOFTWARE OF		LIST
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPO-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00
KWD-TR30	Trunking Option for TK-5220/5320, TK-5720/5820 KWD-TR30 support: 1 Trunking Network Must order <u>L1695</u> for factory installation, or <u>L1697</u> for field-upgrade option Note: KPG-1120(N) Ver2.0 or later Requires Network Level License ID to program trunked network radio parameters (see KPG-1120(N) for purchase restrictions & requirements)	250.00
OPTION MODU	ILES	LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1826 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN \$A002A.1).	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1827 if installation is required. Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	550.00
GPS Option		LIST
GPS15XL-W	Garmin Internal GPS Receiver Board for FleetSyno® AVL <u>Note:</u> • Provides GPS on Analog Conventional • Requires GA25MCX GPS anterna • Refer to 5720/5820-Series Service Manuals for installation. Refer to www.garmin.com for GPS15XL-W technical specifications.	130.25
GA25MCX	Ontion: Order L-1655 for Kenwood Long Beach installation Garmin On-dash Style Magnetic base GPS Antenna for GPS15XL-W	62.00
0, 20100	Note: shipped loose only; Install GA25MCX antenna to GPS15XL-W before vehicle install.	52.00

(03.08.2011) Added KWD-TR30 (03.08.2011) Added L-1695/1697/1698

(09.02.2009) Labor Codes are added. (03.08.2011) "Future Availability" is removed. (03.08.2011) Added KWD-TR30 (03.08.2011) Added L-1695/1697/1698

P25	TK-5720 / 5820 VHF/UHF FM Analog & P25 Digital Mobile Radios	Table of Contents
SERVICE RELA	TED ACCESSORIES	LIST
KPG-46XM	USB Programming interface cable	158.50
KPG-112DNK	Windows® Programming Software for TK-5*20 Series (Compliant with FCC Part 90 Narrowbanding)	103.25
KPG-115	Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
INSTALLATION	/ TUNING CHARGES	LIST
L-1652	TK-5720/5820 Programming (Basic TX/RX check only with factory test freq.s or dealer/customer provided KPG-112D(N) data file)	125.00
L-1653	TK-5720/5820 Install KAP-2 (Default) HR1/Internal Sp./PA	25.00
L-1654	TK-5720/5820 Install KAP-2 HR1/External Sp./PA	25.00
L-1655	Install Garmin GPS15XL-W in TK-5720/5820 mobiles for FleetSync® AVL	100.00
L-1656	Assemble TK-5720/5820 with KRK-10 Remote Kit	42.00
L-1695	Install KWD-TR30 Trunking Option in TK-5720/5820 (Must purchase KWD-TR30 separately)	N/C
L-1697	TK-5720/5820 KWD-TR30 FIELD-UPGRADE (Must purchase KWD-TR30 separately)	N/C
L-1698	KPG-112D(N) Network Level ID (encrypted data file) Note: Enables Trunking system programming privileges; See KPG-112D(N) Network Level ID (Trunking System Privileges) - Restricted Purchase Requirements - L1698: KPG-112D(N) Network Level ID (Trunking System Privileges) The KPG-112D(N) only ships with a "Dealer Level License ID" which permits Conventional FM and P25 Conventional radio programming privileges or yo, For radios with the P25 Trunking option installed, trunked/network programming privileges require a "Network Level License ID" generally reserved ONLY for the system owner or the system owners authorized operators/service centers. Purchasing the KPG- 112D(N) Network Level License ID will require 1) Written verifiable authorization from the systems owner/operator. 3) Purchase of a L-1698: KPG-112D(N) Network Level License ID bion. This option will include an encrypted KPG- 112D(N) Network Level License ID will require 1) Written verifiable authorization from the systems owner/operator. 3) Purchase of a L-1698: KPG-112D(N) Network Level License ID bion. This option will include an encrypted KPG- 112D(N) Network Devel License ID will require 1) System Network Level License ID & 3-digit hexadecimal System ID code.	132.00
L-1777	Assemble TK-5720/5820 with KRK-13 Dual Remote Kit	42.00
L-1826	Install KWD-AE30K in TK-5720/5820 Mobile (Must purchase module separately)	75.00
L-1827	(must por has income separately) Install KWD-AE31K in TK-5720/5820 Mobile (Must purchase module separately)	75.00

TK-5720 / 5820 P25 VHF/UHF FM Analog & P25 Digital Mobile Radios

IMPORTANT NOTES
Encryption modules, key
loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either
require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NR) depending on the country, the consignee and the
intended use. High level encryption is a special commodity that may require an export Icense to most countries. See www.bis.gov for more information regarding export
regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, 'NX-5200 • 5300'IA204+'NX-5200 • 5300'IB206 representative) \* Business/Agency Name: \* Address:

Address:
 Contact Person Name:
 Contact Person Name:
 Contact Person Name:
 DUltimate Destination: Final delivery point(s); deployment/distribution
 Business/Address:
 Address:
 Contact Person Name:
 Contact Person Name:
 Intended Use of Radios: Law enforcement security operations, etc.

KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping A secure delivery method direct to the end user customer is required by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from JVCKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated JVCKENWOOD USA Corporation employee); shipping/handing by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer bouch their AES encorption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

(09.02.2009) Labor Codes are added. (03.08.2011) "Future Availability" is removed.

(03.08.2011) Added KWD-TR30 (03.08.2011) Added L-1695/1697/1698 P25

# **KENWOOD**

# **TK-5910**

700/800 MHz FM Analog & P25 Digital Mobile Radio

### STANDARD

GENERAL FEATURES

MOUNTING CONFIGURATIONS
 Dash Mount
 Single Control Head Remote Mount

Handheld Control Remote Mount
 Dual Control Head Remote Mount

Backlit Keys
 MIL-STD 810 512.X Driven Rain

FRONT PANELS/CONTROL HEADS Backlit Dot Matrix LCD 3-Digit Sub-Display Transmit LED Busy/Call AlertWarn LED LCD Brightness Control Packli Krew

- GENERAL FEATURES 30W (763-806 MHz) 35W (806-870 MHz) 100 Zones / 1024 Channels Personality Lists Zone/CH Voice Announce Emergency Features Intercom
- 5910 series mobile includes: RF Deck Only (Configuration Set & Assembly Labor Code must be order for a Complete Mobile.)
- Premium Warranty: 3 Years\*
- \* All Accessories / options: 1 Year
- KCH-14 Front Panel 12-Character Alphanumeric Aliases 5 PF & UP/DOWN Keys PF Key Lobel Inserts Built-in Front Speaker KCH-15 Front Panel 14-Character Alphanumeric Aliases 11 PF Keys & UP/DOWN Keys PF Key Lobel Inserts External Speaker Required KHC-16 Handheld Control Head 14-Character Alphanumeric Aliases 5 PF Keys & UP/DOWNLEFT/RIGHT Keys Front PF Keys Name Display Intercom Public Address Time Out Timer Busy Channel Lockout Ignition Sense Timed Power Off DB-25.8 9-Pin Accessory Connectors Transceiver Password Date & 12/24 Hour Time Clock Windows® Programming & Tuning Windows® Firmware Uploading Field-Programming & Tuning MIL-STD 810 c/D/E/F/G, IP-54 MIL-STD Noise-Cancel Mic (included) MIL-STD 12-Key DTMF Mic Option Front PF Keys Name Display
   12-Key DTMF/Function Keypad
   External Speaker Required

### P25 DIGITAL

P25 Digital Conventional P25 Digital Trunking
AMBE+2™ Enhanced VOCODER
Talk Group ID Lists Talk Group ID Lists
 Individual ID Lists
 Caller ID Display
 RSSI Indicator
 Remote Monitor / Check, Radio Inhibit
 Encryption Key Zeroize & Retention
 DES Encryption Module Option
 AES & DES Encryption Module Option
 KPG-94 KVL Device Key Loader Cable
 P25 GPS Location P25 GPS Location
 P25 OTAR Option

SCAN TYPES (FM & P25) • Single Zone/Multi-Zone Scan • Scan Lists • Conventional Scan Limited Talk Group Scan
 Priority Monitor Scan
 Dual Priority Scan

Companded Audio
 NPSPAC Channels

# FM • QT / DQT Operator Selectable Tone OTMF Encode Horn Alert Output

RADIO		LIST
TK-5910BK	700/800 MHz 2-30/35W 100 Zones/1024 Channels (R.F. DECK ONLY)	1,740.00 x

### (12.17.2009) FCC Notice is deleted

(12.17.2009) Features are Updated with the official specsheet (12.17.2009) Labor Codes are added

### (12.17.2009) CIM-1000 Option is deleted.

(12.17.2009) Delete L-1006 (12.17.2009) Configurations are changed (02.10.2010) KMB-9 Description Change (02.11.2010) L-989 is added (03.08.2011) Replace KPG-43AM/KCT-53UM with KPG-43UM (03.08.2011) Added MIL-G

(09.27.2011) Revise KPG-95DGK (for ANK) (09.27.2011) Add KWD-ANK-MK & AK (09.27.2011) Revise L-989 (09.04.2012) L-1734 added (09.04.2012) Delete "future option" from VGS/Ltd Scan/GPS/OTAR (09.04.2012) added KWD-RK20 (02.13.2013) Change the FPU to "DN" (08.30.2013) Price Reduction - Radios Only (10.3.2013) Reorganized Accessorie es/Options/Ins (10.3.2013) Replaced Line Art with Photograph (10.21.2013) Removed Tactical Group from features - not supported (11.6.2013) Added "option" to P25 Digital bullet - AES/DES (04.06.2016) Delete KWD-AE20/AE21/DE21 and Add KWD-AE30/31 (04.06.2016) Delete old labor and add new labor for SCMs (05.03.2016) Price Changes

P25	TK-5910 700/800 MHz FM Analog & P25 Digital Mobile Radio	of Contents
ACCESSORY	CONFIGURATION SETS	LIST
	N SET DEFINITIONS	
1(	D	
	B       Basic Front Panel (KCH-14M)       D       for Dash-Mount         F       Full-Featured Front Panel (KCH-15M)       SH       for Single Head Remote-Mount         C       Handheld Control Head (KCH-16M)       DH       for Dual Head Remote-Mount	
Dash Mount		<u>LIST</u>
10BMD-9	KCH-14M, KCT-23M, KMB-9, KMC-27 KCH-15M, KCT-23M, KMB-9, KMC-27, KES-5	676.25
10FMD-9 Single Head Ren		737.50 LIST
10BMSH-9	KCH-14M, KRK-5, KCT-22M2, KCT-23M3, KMB-9, KMC-27	910.50
10FMSH-9	KCH-15M, KRK-5, KCT-22M2, KCT-23M3, KMB-9, KMC-27, KES-5	971.75
Dual Head Remo	nte Mount	LIST
10BMDH-9	KCH-14M(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-9, KMC-27(x2)	1,707.50
10FMDH-9	KCH-15M(x2), KRK-6DH, KCT-22M2(x2), KCT-23M3, KMB-9, KMC-27(x2), KES-5(x2)	1,830.00
Handheld Control	ol Head Remote KCH-16M, KRK-11M, KCT-22M2, KCT-23M3, KMB-9, KES-5	<u>LIST</u>
10CMSH		1,046.25
FRONT PAN	ELS & REMOTE KITS (Order Configuration Sets for full install accessories)	LIST
KCH-14M	Basic Remote Control Head w/ 12 Alphanumeric Display (4W Front Speaker) <u>Note</u> : All KCH-14/ Basic Control Head configurations are shipped with the control heads 4W internal speaker enabled. Order L-1008 to enable the 13W external speaker output for KES-5 speaker use. This will disconnect the control heads internal 4W speaker !	504.00
KCH-15M	Full-Featured Remote Control Head w/ 14 Alphanumeric Display	504.00
KRK-5	<u>Note</u> : requires an external speaker Single Control Head Remote Mount Kit	147.00
KRK-6DH	Dual Control Head Remote Mount Kit	252.00
HANDHELD	CONTROL HEAD REMOTE (Order Configuration Sets for full install accessories)	LIST
KCH-16M	Handheld Control Head for P25 Mobiles Note: requires KRK-11M, KCT-22M/M2/M3, & KES-5	546.00
KRK-11M	KCH-16M HHCH Interface Kit for Single Head Remote	283.50
CABLES		LIST
KCT-18	Ignition sense cable	13.70
KCT-22M	Control cable - 8 Feet	73.50
KCT-22M2	Control cable - 17 Feet (Standard accessory config. set cable)	84.00
KCT-22M3	Control cable - 25 Feet	94.50

(12.17.2009) Features are Updated with the official specsheet (12.17.2009) Labor Codes are added

P25	<b>TK-5910</b> 700/800 MHz FM Analog & P25 Digital Mobile Radio	Table of Contents
CABLES -CON	ליד	LIST
KCT-23M	DC Cable (Dash mount)	31.50
KCT-23M3	DC Cable (Remote mount)	34.75
MOBILE INSTA	LLATION ACCESSORIES	LIST
KLF-2	Line Filter (suppresses alternator whine, 25dB, 25A max)	42.00
KMB-9	Heavy Duty Mounting Bracket with built-in key lock	36.75
MICROPHONE	S AND SPEAKERS	LIST
KES-5	External Speaker (40W max input)	61.25
KMC-27	MIL-SPEC noise-canceling mobile hand microphone	104.00
KMC-28	MIL-SPEC DTMF noise-canceling mobile hand microphone Desk top microphone	163.00
KMC-9B		96.50
SERVICE REL	ATED ACCESSORIES	LIST
KPG-95DGK	Windows® Programming Software for TK-5x10 & TK-5x10G Portables & Mobiles (Compliant with FCC Part 90 Narrowbanding) <u>Note</u> : Self-programming function is not available.	628.00
	Analog & P25 Conventional Programming A Toeler-Level 'Licerse ID is included with each KPG-95D/DG(N)K which only permits full analog conventional and P25 conventional programming. Data files created with a "Network-Level Licensed" KPG- 95D/95DG(N) and containing P25 programmed P25 trunked network parameters can be loaded and viewed with a Dealer-Level Licensed KPG-95D/DG(N)K, but the trunked network parameters cannot be changed.	
	P25 Trunked Programming Capability (licensed by either 1 or 2 below):         1. KPC-950C(M) with System Key File (1-SKP)-Seb_1-989         - For all TK-Sx10 radio platforms (VER1, 2, 3 or later).         - Sdigit HES System D (HSID) and verifiable written authorization required from trunked system operator (SYSOP).         - Purchase KPG-950C(N) K & L-989 Network-Level License ID         - Kenwood ships an encrypted 'SKF file on CD ROM.         - The 'SKF securely embedsilencypts the 16-digit Network Level License ID & the HSID.         2. KPG-950C(N)(K) with Advanced Network Keys (AIK's)         - For TK-Sx10Cl641019010 VER3 or later radio platforms only.         SYSOPS: Refer to KWD-ANK-KAK Master Key         - Byserisciontractors: Refer to KWD-ANK-KAK Access Key         - Refer Source Vice Not Keys Supports up to 16 KWD-ANK-KAK Access Key	
KWD-ANK-MK	Master Key for activating KWD-ANK-AK Access Keys - Restricted Purchase Requirements - Notes: - For TK-Sx10G/5410/5910 VER 3 or later radio platforms only. - Sold to SYSOP or SYSOP authorized entities only - Must have KPG-95DC(N)K (V7.0 or later) with L-989 Network-Level License ID - SYSOP must provide 3-digit HEX HSID to Kenwood. - Purchase KWD-ANK-AK Access Keys if needed. - Battery Life: 9 years (non-serviceable; key must be replaced)	500.00
KWD-ANK-AK	Access Key for KPG-95DG(N)K P25 trunked programming Notes: • For TK-5x10G/5410/5910 VER 3 or later radio platforms only • Must be activated by a SYSOP with KWD-ANK-MK Master Key. • Must have KPG-95DG(N)K (V7.0 or later); L-989 is NOT required.	208.00
KPG-43UM	USB Programming interface cable	158.50
KPG-94	Key Loader Interface Cable for Motorola KVL-3000/3000 Plus/4000	262.50
K29-5276-03	Contact Kenwood Parts for Price and Availability 800-367-7514 on the following: Key Inserts for 90-Series/TK-5710/5810/5910 (AN, D/A, DIM, HA, HC, IC, MON, OPT, OST, PA)	

(12.17.2009) FCC Notice is deleted

(12.17.2009) Features are Updated with the official specsheet (12.17.2009) Labor Codes are added

P25	<b>TK-5910</b> 700/800 MHz FM Analog & P25 Digital Mobile Radio	Table of Contents
SERVICE REL	ATED ACCESSORIES - CONT'D	LIST
K29-5277-03	Key Inserts for 90-Series/TK-5710/5810/5910 (RCL, RPT, SCN, SP, SPM, SQ, TA, <up arrow&gt;, <down arrow="">, 1x Clear key insert)</down></up 	
K29-5305-03	Key Inserts for 90-Series/TK-5710/5810/5910 (CH1, CH2, CH3, CH4, CH5, AUXA, AUXB, AUXC, EMG, ORG)	
K29-9353-13	Key Inserts for TK-5710/5810/5910 (2TN, AD, AR, CLK, FNC, PBK, SCP, SEC, SEL, SES)	
K29-9354-03	Key Inserts for TK-5710/5810/5910 (GPS, STS, TAC, TON, RES, IDV, KDL, TGR, 2x Clear key inserts)	
K29-9356-03	Key Inserts for TK-5710/5810/5910 (PAG, SIT, SRC, 7 X Clear key inserts)	
FIRMWARE O	PTIONS	LIST
KWD-RK20	OTAR Option for KWD-AE30K Encryption Module in TK-5x10 series (OTAR in P25 Conventional & Trunked Modes) • Requires KWD-AE30K module. • L1733 (for portable) & L1709 (for mobile) Installation (no charge) • L1733 (for portable) & L1709 (for mobile) Field Upgrade Option Mote: • Supports OTAR in P25 Conventional & Trunked modes (Not compatible with GK7 64 CH Model) • Compatible with Motorola KMF P25 OTAR (excludes Motorola-proprietary non-TiA/P25 KMF features ) • Requires KRG-950/DG(N) V7.10 or later for radio programming • TK-54109E1C: Requires KPG-950 CK4 0 or later for radio programming • TK-541091: Requires KPG-950 CK4 0 or radio programming • TK-541091: Requires KPG-950 CK0 or later for radio programming • TK-541091: Requires KPG-950 CK0 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10 or later for radio programming • TK-541091: Requires KPG-950 CK10001 • KW10-RK20 is an U.S. DOC/BIS Export Controlled Item (ECCN 5D002A) • See IMPORTANT NOTES •	830.00
SOFTWARE C	OPTIONS	LIST
KPG-AE1K	AES/DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-AE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D002A).	525.00
KPG-DE1K	DES Encryption Software Key Loader for KWD-AE31K Authentication by KPT-300LMC is required Note: KPG-DE1 is a U.S. DOC/BIS Export Controlled Item (ECCN 5D992A.1).	368.00
OPTION MOD	ULES	LIST
KWD-AE30K	AES FIPS140-2 & DES Encryption Module (Multi-Key) Order a Labor Code L-1822 if installation is required. KWD-AE30K requires: a Motorola KVL3000 Plus/4000 key loader device. KWD-AE30K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1).	850.00
KWD-AE31K	AES & DES Encryption Module (Multi-Key) Order a Labor Code L-1823 if installation is required. Note: Requires KPG-AE1/DE1 software key loader or Motorola KVL3000 Plus/4000 key loader device. KWD-AE31K is an U.S. DOC/BIS Export Controlled Item (ECCN 5A002A.1)	550.00

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P25	<b>TK-5910</b> 700/800 MHz FM Analog & P25 Digital Mobile Radio	Table of Contents
INSTALLAT	ION / TUNING CHARGES	LIST
L-862	Install Front Panel PF Key Label Inserts in TK-5*10/90-series Mobile (key names and positions must be specified)	15.00
L-864	KCT-22A Extended Control Head Cable (Specify length in 1 ft increments up to 50 ft, max.)	190.00
L-865	KCT-22A Extended Control Head Cable (Specify length in 1 ft. increments up to 100 ft. max.) Extended cables control head cables: Extended cables result in a loss of control head audio power. On KCH-14 use 13W audio output modifications per service manual Use a standard KCT-22 25 ft. or less cable for firmware installation. Normal KPG-95D radio morraminging in socialitie at extended lengths.	245.00
L-989	KPG-95D/95DG(N) Network Level ID (encrypted data file) <u>Note</u> : Enables Trunked system programming privileges in a KPG-95DG(N)K. - Restricted Purchase Requirements - - 3-Digit HEX System ID (HSID) from SYSOP required - Must Purchase KPG-95DG(N)(K /7.0 citet) with L-989 - Kenwood ships an encrypted - 'SKF file on CD ROM - Non-SYSOP entities ordering L-989 must provide verifiable written authorization from SYSOP to receive an *SKF file. - The 16-digit Network Level License ID & 3-digit HEX HSID are securely encrypted & embedded in the - SKF file.	132.00
L-1005	TK-5*10 Programming (Basic TX/RX check only with factory test freq.s or dealer/customer provided KPG-95D/DG(N) data file)	125.00
L-1008	External Speaker modification for TK-5*10 mobile Control Head (13W) <u>Note</u> : All Basic Control Head (KCH-14M) configurations are shipped with the control heads 4W internal speaker enables. Order L-1008 to enable the 13W external speaker output for KES-5 speaker use. This will disconnect the control heads internal 4W speaker!	10.00
L-1028	Package Dash/Single Head Remote for 5*10 mobiles	17.00
L-1029	Package Dual Head Remote for 5*10 mobiles	34.00
L-1110	Package HHCH Remote for 5*10 mobiles	25.00
L-1734	KWD-RK20 Field Upgrade Option for TK-5x10/5x10G/5910 (Must purchase KWD-RK20 separately)	42.00
L-1822	Install KWD-AE30K in TK-5x10 Mobile (Must purchase module separately)	75.00
L-1823	Install KWD-AE31K in TK-5x10 Mobile (Must purchase module separately)	75.00

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P25

# **TK-5910**

700/800 MHz FM Analog & P25 Digital Mobile Radio

### -- IMPORTANT NOTES --

Encryption modules, key loaders and radios containing encryption are export controlled by the U.S. Department of Commerce Bureau of Industry & Security EAR regulations and may either require an Export License, are eligible for a License Exception (ENC) or are exportable with No License Required (NLR) depending on the country, the consignee and the intended use. High level encryption is a special commodity that may require an export license to most countries. See www.bis.gov for more information regarding export regulations. DO NOT SHIP encryption items outside the U.S. without proper DOC/BIS Export Licenses and/or compliances.

Kenwood may request the following information to be submitted at time of order (this information must meet Kenwood internal approvals prior to shipment even if being returned to Kenwood later:

a) Initial Destination: Initial delivery point if different from Ultimate Destination (customer distribution center, headquarters, dealership, manufacturer's representative) • Business/Agency Name: • Address: • Contact Person Name: Contact Postone:
 Ornate Thome:
 Ontact Postone:
 DyUtimate Destination: Final delivery point(s); deployment/distribution
 Business/Agency Name:
 Address: Address.
 Contact Person Name:
 Contact Phone:
 Contact Phone:
 C) Intended Use of Radios: Law enforcement, security, operations, etc.

KWD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping A socure delivery method direct to the end user customer is neglined by the NIST AES FIPS 140-2 validation rules. For U.S. Federal Government entities the SCM must ship from JVCKENWOOD USA Corporation directly to the end user customer by a trusted carrier (FEDEX, UPS or a designated JVCKENWOOD USA Corporation employee); shipping/handling by a dealer or other entity is not acceptable. This may or may not be required by local/state government agencies or business/industrial users. Please check with the end use customer about their AES encryption handling requirements before ordering. Kenwood will not be responsible for shipments of KWD-AE30K modules to erroneous destinations specified on an order.

(12.17.2009) FCC Notice is deleted

(12.17.2009) Features are Updated with the official specsheet (12.17.2009) Labor Codes are added

# SYSTEMS PRICE GUIDE

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Effective Date: August, 2016

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Low Power

NXR-5700

NXR-5800

KAS-10

KPG-150AP

KPG-180AP

KTI-4

**NEXEDGE®** Bridge

**NEXEDGE® MAX Dispatch Console** 

NXR-700

NEXEDGE<sup>®</sup> Gen2

NXR-800

NXR-810

**NXR-710** 

NXR-900

NXR-901

**TKR-D710** 

TKR-D710 LP PKG

**TKR-D810** 

**TKR-D810 LP PKG** 

TKB-6900

**TKR-750** 

**TKR-850** 

**TKR-751** 

TKR-851

# Updates in August, 2016 Edition

Series	Model	Page	Updates
NXR-5700	NXR-5700	6	FW Verup for Type-C Gen1 Trunking
NXR-5800	NXR-5800	10	FW Verup for Type-C Gen1 Trunking
NXR-5700	KSGCB10206	6	Add Programming Cable
NXR-5800	KSGCB10206	10	Add Programming Cable
TKR-740	TKR-740K	-	Deleted, Series Discontinued in 2011
TKR-840	TKR-840K	-	Deleted, Series Discontinued in 2011

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# TKR-750/751/850/851 and NXR-710/810

UHF/VHF Low Power Base Stations and Repeaters

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BASE STATION		LIST
TKB7500PS	Low Power Base Station, 146-174MHz (TKR-750K, KSGPS20200)	1,813.00
TKB7510PS	Low Power Base Station, 146-174MHz (TKR-751K, KSGPS20200)	1,638.00
TKB8500PS	Low Power Base Station, 450-480MHz (TKR-850K, KSGPS20200)	1,918.00
TKB8510PS	Low Power Base Station, 450-480MHz (TKR-851K, KSGPS20200)	1,743.00
NXB7100PS	Low Power Base Station, 136-174MHz (NXR-710K, KSGPS20200)	2,405.00
NXB8101PS	Low Power Base Station, 450-520MHz (NXR-810K, KSGPS20200)	2,405.00
NXB8102PS	Low Power Base Station, 400-470MHz (NXR-810K2, KSGPS20200)	2,405.00
REPEATER STA	TION	LIST
TKR7500PS	Low Power Repeater Station, 146-174MHz (TKR-750K, KSGPS20200)	1,813.00
TKR7510PS	Low Power Repeater Station, 146-174MHz (TKR-751K, KSGPS20200)	1,638.00
TKR8500PS	Low Power Repeater Station, 450-480MHz (TKR-850K, KSGPS20200)	1,918.00
TKR8510PS	Low Power Repeater Station, 450-480MHz (TKR-851K, KSGPS20200)	1,743.00
NXR7100PS	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200)	2,405.00
NXR8101PS	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200)	2,405.00
NXR8102PS	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200)	2,405.00
REPEATER STA	TION WITH DUPLEXER	LIST
	available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with	
	( and RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available	
	urnable and non-refundable). Pricing for special order duplexers may be higher. Low Power Repeater Station with Duplexer, 148-160MHz (TKR-750K,	0 500 00
TKR7500PSD	KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	2,508.00
TKR7510PSD	Low Power Repeater Station with Duplexer, 148-160MHz (TKR-751K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	2,333.00
TKR8500PSD	Low Power Repeater Station with Duplexer, 450-460MHz (TKR-850K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	2,613.00
TKR8510PSD	Low Power Repeater Station with Duplexer, 450-460MHz (TKR-851K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	2,438.00
NXR7100PSD	Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K, KSGPS20200, KSGDX62001, KSGCB20008, KSGCB20010)	3,100.00
NXR8101PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	3,100.00
NXR8102PSD	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20200, KSGDX63002, KSGCB20008, KSGCB20010)	3,100.00
REPEATER STA	TION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY	LIST
NXR7100PSI	Low Power Repeater Station, 136-174MHz (NXR-710K, KSGPS20200, KTI-3M)	2,670.00
NXR8101PSI	Low Power Repeater Station, 450-520MHz (NXR-810K, KSGPS20200, KTI-3M)	2,670.00
NXR8102PSI	Low Power Repeater Station, 400-470MHz (NXR-810K2, KSGPS20200, KTI-3M)	2,670.00
REPEATER STA	TION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY	LIST
	available for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with K and RX, and, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be	
	er (non-returnable and non-refundable). Pricing for special order duplexers may be higher.	
-	e mounted inside the Repeater; a separate Rack-Mount Power Supply is provided Low Power Repeater Station with Duplexer, 148-160MHz (NXR-710K,	
NXR7100PSDI	KSGPS20201, KSGDX62001, KTI-3M, KSGCB20008, KSGCB20010)	3,540.00
NXR8101PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	3,540.00
NXR8102PSDI	Low Power Repeater Station with Duplexer, 450-460MHz (NXR-810K2, KSGPS20201, KSGDX63002, KTI-3M, KSGCB20008, KSGCB20010)	3,540.00

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# TKR-750/751/850/851 and NXR-710/810 UHF/VHF Low Power Base Stations and Repeaters

DADIO ADDEDOOI		
BASIC ACCESSOR	RIES	LIST
KPG-46UM	Programming Cable	158.50
KPG-91DNK	Programming Software (TKR-750/751/850/851)	103.25
KPG-129DNK	Programming Software (NXR-710/810)	103.25
B51-8556-20	TKR-750 Service Manual	50.00
B51-8683-00	TKR-751 Service Manual	50.00
B51-8557-30	TRK-850 Service Manual	50.00
B51-8684-00	TRK-851 Service Manual	50.00
B51-8901-00	NXR-710 Service Manual	50.00
B51-8902-00	NXR-810 Service Manual	50.00
KMC-9C	Desktop Microphone	86.00
KSGMT30001	2RU Desktop Enclosure - 16" deep by 20.5" wide by 5" high	200.00
KSGMT30004	4RU Desktop Enclosure - 16" deep by 20.5" wide by 8.5" high	215.00
COMPONENTS		LIST
TKR-750K	Repeater, VHF, 146-174MHz, 25-50W	1,558.00
TKR-751K	Repeater, VHF, 146-174MHz, 25W	1,383.00
TKR-850K	Repeater, UHF, 450-480MHz 25-40W	1,663.00
TKR-851K	Repeater, UHF, 450-480MHz, 1-25W	1,488.00
NXR-710K	Repeater, Digital, VHF, 136-174MHz, 25-50W	2,150.00
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	2,150.00
KSGPS20200	DC Switching Power Supply	255.00
KSGDX62001	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F Note: This is the default frequency range. Other ranges may be available by special order.	595.00
KSGDX63002	Duplexer, UHF, 450-460MHz, 6 cavities, 5MHz sep, N-F	595.00
	Note: This is the default frequency range. Other ranges may be available by special order.	
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	50.00
KTI-3M	Network Interface Unit	265.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	430.00

License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records. License Management Client KPT-300LMC NC L-5000 KPT-300LMC License Key NC LIST SOFTWARE LICENSE OPTIONS TO PLACE AN ORDER FOR SOFTWARE: 10 Complete the attached Software License Key Request Form.
 1. Complete the attached Software License Key Request Form.
 2. Submit along with your PO to the SYSTEMS Order Desk via:
 a) E-Mail: systemsorderdesk@us.jvckenwood.com
 b) Fax: (678) 957-1880
 3. License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records. Software License Key Discount Structure 1 License Key 2 ~ 4 License Keys 10% OFF

	5 ~ 14 License Keys 15 ~ 24 License Keys	35% OFF 40% OFF	
KPG-D2NK	License Key for KPG-D2NK Programming Software for NXR-5000 Repeater (Windows® Vista/7/8/8.1) <u>Note:</u> - Requires KPT-300LMC for authentication. - To program NXR-5700, Type A/B USB Cable (KSGCB10206) may be required.		x 103.25

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NEXEDGE®	
	NXR-5700
	VHF Digital & FM Base Repeaters - 136-174MHz

RADIO FEATURE LICENSE OPTIONS PCs registered under the same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Features that can then be viewed / shared / managed by all registered users for the account.

TO PLACE AN ORDER FOR RADIO FEATURE LICENSES:
 Complete the attached Radio Feature Request Form.
 Submit along with your PO to the SYSTEMS Order Desk via:
 a) E-Mail: systemsorderdesk@us.jvckenwood.com
 b) Fax: (678) 957-1880

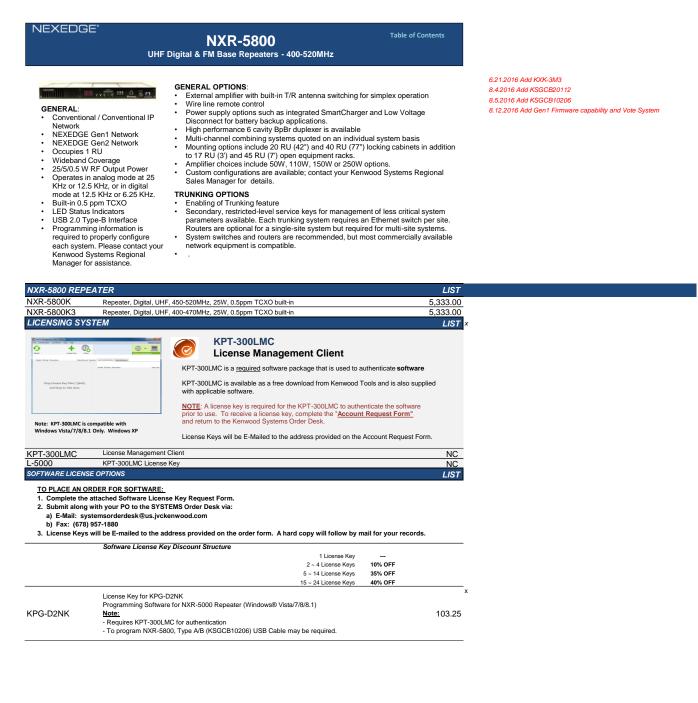
3. License Keys will be E-mailed to the address provided on the request form. A hard copy will follow by mail for your records.

Note: Radio Feature License Keys can be transferable from a radio to radio within 72 hours count started from being authenticated to a Radio. Once license transferred radio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.

KWD-NX50VTR	License Key for NXR-5000 Vote System	500.00
BASIC ACCESSO	DRIES	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator	3,333.00 ×
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
KSGCB10206	Programming USB A/B Cable	17.00
B5B-7216-10	NXR-5700 Service Manual	50.00
RF BASE STATIO	ON AMPLIFIER OPTIONS	LIST
Note: Includes Two Cables	for Radio Connectivity	
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	1,990.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22552	144-152MHz, 25W Input, 150W Output	3,720.00
KSGPA22553	152-162MHz, 25W Input, 150W Output	3,720.00
KSGPA22554	162-174MHz, 25W Input, 150W Output	3,720.00
RF REPEATER S	TATION AMPLIFIER OPTIONS	LIST
Note: Includes One Cable	for Radio Connectivity	
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1.665.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,060.00
POWER SUPPLY	OPTIONS	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON	FIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42 <sup>e</sup> (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00

NEXEDGE	E <sup>®</sup> NXR-5700	Table	of Contents
	VHF Digital & FM Base Repeaters - 136-174MHz		_
WIRELINE REMO	DTE CONTROL OPTIONS		LIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.		655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.		670.00
KSGTM20016	16 Channel Tone Termination Panel Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.		948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.		410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.		360.00
Gen1 TRUNKING	CONFIGURATIONS		LIST
KSGPG91800	Repeater Trunking Feature <u>Note</u> : One Feature required for each trunking repeater.		1,500.00
KSGPG91810	Multi-Site Networking Feature <u>Note</u> : One required for each networked site		11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSCPGKEY01) <u>Note:</u> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)		583.00
KPG-110SMK	System Manager Trunking Software <u>Note</u> : Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key		459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key		167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key		167.00
USB KEY FUNCTION (	OR CAPABILITY	GRADE-1	GRADE-2
PROGRAM GENERAL	SYSTEM PARAMETERS	(BLUE) √	(YELLOW)
ADD / DELETE / EDIT	USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	v	v
ASSIGN OR EDIT REP	PEATER NETWORK IP ADDRESSES	v	
ADD NEW REPEATER		v	
SWAP OUT SPARE RE	-	V V	
CONSTRUCT OR ADD		V	
	CONFIGURATIONS		LIST
	EXEDGE Gen2 Page.		
	TCH & ROUTER OPTIONS		LIST
	ed for each site; VPN router(s) may be required for multi-site systems depending on desired ed, VPN router(s) are required in addition to and in conjunction with network switch equipment. e also available.		
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.		250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch		375.00
KSGRT10004	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT10001) sold separately.		375.00
EXTERNAL TRU	NKING CONTROLLER OPTIONS		LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)		1,545.00
10004322			2,370.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)		
			LIST
KSGC459L			

NEXEDGE	E <sup>*</sup> <b>NXR-5700</b> VHF Digital & FM Base Repeaters - 136-174MHz	Table of Contents
MISC STATION (	DPTIONS, con't	LIST
KSGOMOD2	High Performance Site Management Modern (KSGMD20000, KSGCB22154) Note: Modern 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGCB20112	Coaxial BNC 12" Canble	28.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00



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	* NXR-5800 UHF Digital & FM Base Repeaters - 400-520MHz	Table of Contents
RADIO FEATURE LICE		
PCs registered under the managed by all registered	same KPT-300LMC Account Registration Key (License Key) will be able to authentic Radio Feat I users for the account.	ures that can then be viewed / shared
* TO PLACE AN OF	RDER FOR RADIO FEATURE LICENSES:	
1. Complete the at	tached Radio Feature Request Form.	
	ith your PO to the SYSTEMS Order Desk via: emsorderdesk@us.jvckenwood.com	
b) Fax: (678) 9	57-1880	
3. License Keys w	ill be E-mailed to the address provided on the request form. A hard copy will follow	by mail for your records.
	License Keys can be transferable from a radio to radio <u>within 72 hours</u> count started from bei dio is authenticated by KPT-300LMC, 72 hours is reset and count started from first.	ng authenticated to a Radio. Once
license transierred ra	iono is aumenticated by KP1-300LMC, 72 hours is reset and count started from first.	
KWD-NX50VTR	License Key for NXR-5000 Vote System	500.0
BASIC ACCESSC		LIS
KXK-3M3 KPG-149RM	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator Nexedge Repeater Monitoring Software	3,333.0 250.0
KSGCB10206	Programming USB A/B Cable	17.0
B5B-7217-10	NXR-5800 Service Manual	50.0
	N AMPLIFIER OPTIONS	LIS
Note: Includes Two Cables KSGPA23521	406-450MHz, 25W Input, 20-40W Output	1,950.0
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	1,950.0
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	2,600.0
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	2,600.0
KSGPA23551 KSGPA23553	406-450MHz, 25W Input, 150W Output 450-512MHz, 25W Input, 150W Output	<u>4,560.0</u> 4,560.0
	TATION AMPLIFIER OPTIONS	LIS
Note: Includes One Cable f		
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,665.0
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,665.0
KSGPA23511 KSGPA23513	406-450MHz, 25W Input, 50-100W Output 450-512MHz, 25W Input, 50-100W Output	<u>2,165.0</u> 2,165.0
KSGPA23541	406-450MHz, 25W Input, 150W Output	3,940.0
KSGPA23543	450-512MHz, 25W Input, 150W Output	3,940.0
POWER SUPPLY		LIS
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note</u> : Incompatible with 150W amplifier option.	475.0
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1 255 0
KSGPS20352	Note: Incompatible with 150W amplifier option.	1,355.0
KSGPS20701 KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply 70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	<u> </u>
MOUNTING CONI		LIS
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.0
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.0
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.0
KSGMT20020	42" (20RU) Locking Cabinet Crate for 42" (20RU) Locking Cabinet	2,000.0
KSGMT0C20U	Note: Optional for situations where extra protection during transportation is required.	345.0
KSGMT20001	Cabinet Solid Top Panel	90.0
KSGMT20002 KSGMT20003	Cabinet Fan Top Assembly Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	435.0
	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets) TE CONTROL OPTIONS	140.0 
		LIO
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.0
	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS,	
KSGTN02N	KSGCB32801)	670.0
	Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	
WIRELINE REMO	TE CONTROL OPTIONS, con't	LIS
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.7
KOOTDOON	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801)	
KSGTDC2A	<u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.0
	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)	200.0
KSGTALD1	<u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.	360.0
Gen1 TRUNKING	CONFIGURATIONS	LIS
KSGPG91800	Repeater Trunking Feature	1,500.0
K800001810	Note: One Feature required for each trunking repeater. Multi-Site Networking Feature	11,667.0
KSGPG91810	Note: One required for each networked site	11,667.0
KEODOKEVEM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01)	500.0
KSGPGKEYSM	Note: Only required when used as a trunking system. Software/Key package discount has been	583.0
	applied. (See component pricing below.) System Manager Trunking Software	
	Note: Additional Programming Software (One copy included with KSGPGKEYSM) Software	459.0
KPG-110SMK		
	cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key	
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key	167.0 167.0
KSGPGKEY01 KSGPGKEY02	Grade-1 Unlimited Access Secure USB Programming Key Grade-2 Limited Access Secure USB Programming Key	167.0 167.0 GRADE-1 GRADE-2
KSGPGKEY01 KSGPGKEY02 USB KEY FUNCTION C	Grade-1 Unlimited Access Secure USB Programming Key Grade-2 Limited Access Secure USB Programming Key DR CAPABILITY	167.0
KSGPGKEY01 KSGPGKEY02 USB KEY FUNCTION C PROGRAM GENERAL	Grade-1 Unlimited Access Secure USB Programming Key Grade-2 Limited Access Secure USB Programming Key	167.0 GRADE-1 GRADE-2

NEXEDGE	E <sup>°</sup> <b>NXR-5800</b> UHF Digital & FM Base Repeaters - 400-520MHz	Table of Contents
SWAP OUT SPARE R CONSTRUCT OR AD	D NEW SITES	ป ป
	G CONFIGURATIONS EXEDGE Gen2 Page.	LIST
ETHERNET SWI	TCH & ROUTER OPTIONS	LIST
	red for each site: VPN router(s) may be required for multi-site systems depending on desired led, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast raliable.	
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00
KSGRT10004	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT1000) sold separately.	375.00
EXTERNAL TRU	NKING CONTROLLER OPTIONS	LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00
MISC STATION O	OPTIONS	LIST
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF erwironments, includes interface cable.	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00

August,	2016
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NEXEDGE	E <sup>*</sup> <b>NXR-5800</b> UHF Digital & FM Base Repeaters - 400-520MHz	Table of Contents
MISC STATION C	DPTIONS, con't	LIST
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGCB20112	Coaxial BNC 12" Canble	28.00 ×
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00

#### NEXEDGE<sup>®</sup>

## NXR<sub>7</sub>700

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#### VHF High Performance Base Stations and Repeaters - High Band 136-174MHz



#### GENERAL:

- Integrated systems.
- Occupies 1 RU
- May be used as a standalone 5W low-power station or with an external power amplifier.
- 25W repeater that can be used either in local or low-power applications.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

#### GENERAL OPTIONS:

- External amplifiers with built-in T/R antenna switching for simplex operation
- · Wire line remote control
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 6 cavity BpBr duplexer is also available
- · Multi-channel combining systems are quoted on an individual system basis
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 50W, 110W, 150W or 250W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

#### **TRUNKING OPTIONS**

- Enabling of the NXR-700 trunking feature
- System management software that includes a master USB key & activation file, which hold a license ID unique to each system. This system manager software permits a system administrator to change critical features and permissions.
- Secondary, restricted-level service keys that manage less critical system parameters are also available. Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multisite systems. NOTE: Recommended models are listed herein, but most commercially available IP equipment is compatible as well.

#### End of life Notice End of August 2016

NXR-700 REPEA	ITER	LIST
NXR-700K	Repeater, Digital, VHF, 146-174MHz, 5W	5,333.00
NXR-700K2	Repeater, Digital, VHF, 136-154MHz, 5W	5,333.00
NXR-700E	Repeater, Digital, VHF, 146-174MHz, 25W	6,000.00
BANDWIDTH OF	PTION:	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <u>Note:</u> Only one KXK-3M3 required per site for each 6.25KHz operation.	3,333.00
BASIC ACCESS	ORIES	LIST
KSGCB60004	NXR-Series Programming Cable	25.00
KPG-109DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
B51-8794-00	NXR-700 Service Manual	50.00
B51-8826-00	NXR-700 Supplement Manual	50.00
KMC-9C	Desktop Microphone	86.00
KMC-35	Standard Mobile Microphone	52.50
RF BASE STATI	ON AMPLIFIER OPTIONS (K and K2 Models)	LIST
Note: Includes Two Cabl	es for Radio Connectivity	
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	3,720.00

NEXEDGE
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## NXR<sub>7</sub>700

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#### VHF High Performance Base Stations and Repeaters - High Band 136-174MHz

KSGPA22452		2 720 00
	144-152MHz, 3W Input, 150W Output	3,720.00
	ON AMPLIFIER OPTIONS (K and K2 Models), con't	LIST
KSGPA22453	152-162MHz, 3W Input, 150W Output	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	4,600.00
	FIER OPTIONS (E Model)	LIST
	es for Radio Connectivity	1 000 00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	1,990.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22552	144-152MHz, 25W Input, 150W Output 152-162MHz, 25W Input, 150W Output	3,720.00
KSGPA22553 KSGPA22554		3,720.00 3,720.00
	162-174MHz, 25W Input, 150W Output STATION AMPLIFIER OPTIONS (K and K2 Models)	
Note: Includes One Cabl		LIST
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	1,665.00
KSGPA22403	136-144MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22411 KSGPA22412	144-152MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22412 KSGPA22413	152-162MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	3,060.00
KSGPA22442	144-152MHz, 3W Input, 150W Output	3,060.00
KSGPA22443	152-162MHz, 3W Input, 150W Output	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	4,060.00
RF REPEATER A	AMPLIFIER OPTIONS (E Model)	LIST
Note: Includes One Cabl	e for Radio Connectivity	
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1,665.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,060.00
POWER SUPPLY	YOPTIONS	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note</u> : Incompatible with 150W or 250W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note</u> : Incompatible with 150W or 250W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON	IFIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00

NEXEDGE		Table	of Contents
	NXR <sub>7</sub> 00		
VI	HF High Performance Base Stations and Repeaters - High Band 13	6-174MHz	
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.		345.00
KSGMT20001	Cabinet Solid Top Panel		90.00
	FIGURATIONS, con't		LIST
KSGMT20002	Cabinet Fan Top Assembly		435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)		140.00
	DTE CONTROL OPTIONS		LIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.		655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.		670.00
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.		948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.		410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.		360.00
ETHERNET SWIT	TCH & ROUTER OPTIONS		LIST
	ired for each site; VPN router(s) may be required for multi-site systems depending on desired ded, VPN router(s) are required in addition to and in conjunction with network switch equipment. are also available.		
KSGNS10008	8-Port Managed Network Switch <b>Note:</b> 1RU Mounting Tray (KSGUT10001) sold separately.		250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch		375.00
KSGRT10004	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT10001) sold separately.		375.00
INTERNAL TRUN	IKING AND NETWORKING OPTIONS		LIST
KSGPG91800	Repeater Trunking Feature <u>Note</u> : One Feature required for each trunking repeater.		1,500.00
KSGPG91810	Multi-Site Networking Feature <u>Note</u> : One required for each networked site		11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <u>Note:</u> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)		583.00
KPG-110SMK	System Manager Trunking Software <u>Note</u> : Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key		459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key		167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key		167.00
USB KEY FUNCTION	OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL	- SYSTEM PARAMETERS	v	√
ADD / DELETE / EDIT	USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	v	v
ASSIGN OR EDIT REI	PEATER NETWORK IP ADDRESSES	v	
ADD NEW REPEATER		v	
SWAP OUT SPARE R		v	
CONSTRUCT OR ADI	D NEW SITES	v	

LIST

## **NEXEDGE**<sup>®</sup>

## NXR<sub>7</sub>700

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VHF High Performance Base Stations and Repeaters - High Band 136-174MHz

Gen2 TRUNKING CONFIGURATIONS

Please see the NEXEDGE Gen2 Page.

### **NEXEDGE**<sup>®</sup>

## NXR<sub>7</sub>700

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#### VHF High Performance Base Stations and Repeaters - High Band 136-174MHz

	INKING CONTROLLER OPTIONS	LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.0
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00
MISC STATION	OPTIONS	LIST
KSGDX12556	6 Cavity VHF BpBr Duplexer <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) Note: Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00

#### NEXEDGE<sup>®</sup>

## NXR-800 UHF High Performance Base Stations and <u>Repeaters - 400-512 MHz</u>

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# 

#### GENERAL:

- Integrated systems.
- Occupies 1 RU
- May be used as a standalone 5W low-power station or with an external power amplifier.
- Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- Programming information is required to properly configure each system. Please contact your Kenwood Systems Regional Manager for assistance.

#### **GENERAL OPTIONS:**

- External amplifiers with built-in T/R antenna switching for simplex operation.
- Wire line remote control.
- Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.
- High performance 4 and 6 cavity BpBr duplexers are also available
- Multi-channel combining systems are quoted on an individual system basis.
- Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks.
- Amplifier choices include 40W, 100W or 150W options.
- Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

#### **TRUNKING OPTIONS**

- Enabling of the NXR-800 trunking feature
- System management software that includes a master USB key & activation file, which hold a license ID unique to each system. This system manager software permits a system administrator to change critical features and permissions.
- Secondary, restricted-level service keys that manage less critical system parameters are also available.
- Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems. **NOTE**: Recommended models are listed herein, but most commercially available IP equipment is compatible as well.

## End of life Notice End of August 2016

REPEATER		LIST
NXR-800K	Repeater, Digital, UHF, 450-480MHz, 1-5W	5,333.00
NXR-800K2	Repeater, Digital, UHF, 480-512MHz, 1-5W	5,333.00
NXR-800K3	Repeater, Digital, UHF, 400-430MHz, 1-5W	5,333.00
NXR-800E	Repeater, Digital, UHF, 440-470MHz, 25W	6,000.00
NXR-800E3	Repeater, Digital, UHF, 400-430MHz, 25W	6,000.00
<b>BANDWIDTH OF</b>	PTION:	LIST
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <u>Note</u> : Only one KXK-3M3 required per site for each 6.25KHz operation.	3,333.00
<b>BASIC ACCESS</b>	ORIES	LIST
KMC-9C	Desktop Microphone	86.00
KMC-35	Standard Mobile Microphone	52.50
KSGCB60004	NXR-Series Programming Cable	25.00
KPG-109DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
B51-8795-00	NXR-800 Service Manual	50.00
B51-8827-00	NXR-800 Supplement Manual	50.00
RF BASE STATI	ON AMPLIFIER OPTIONS (K, K2 and K3 Models)	LIST
Note: Includes Two Cabl	les for Radio Connectivity.	
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	2,600.00

NEXEDGI	E <sup>°</sup> <b>NXR-800</b> UHF High Performance Base Stations and Repeaters - 400-512 MHz	Table of Contents
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,600.00
RF BASE STATI	ON AMPLIFIER OPTIONS (K, K2 and K3 Models), con't	LIST
KSGPA23451	406-450MHz, 3W Input, 150W Output	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,560.00
RF BASE STATI	ON AMPLIFIER OPTIONS (E and E3 Models)	LIST
Note: Includes Two Cabl	es for Radio Connectivity.	
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	4,560.00
	STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)	LIST
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	1,665.00
KSGPA23401 KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23411 KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	3,940.00
	STATION AMPLIFIER OPTIONS (E and E3 Models)	5,940.00
Note: Includes One Cabl		LIGT
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1 665 00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output 450-512MHz, 25W Input, 20-40W Output	<u> </u>
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,165.00
KSGPA23541	406-450MHz, 25W Input, 150W Output	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	3,940.00
POWER SUPPL		LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <b>Note:</b> Incompatible with 150W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note</u> : Incompatible with 150W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON		LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
WIRELINE REM	OTE CONTROL OPTIONS	LIST

JVCKENWOOD USA Corporation Systems Division Price Guide

KENWOOD

NEXEDGE	<b>NXR-800</b> UHF High Performance Base Stations and Repeaters - 400-512 MHz	Table of Contents
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00

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#### UHF High Performance Base Stations and Repeaters - 400-512 MHz

WIRELINE REMC	TE CONTROL OPTIONS, con't		LIST
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.		670.00
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.		948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.		410.00
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.		360.00
TRUNKING CON	FIGURATIONS		LIST
KSGPG91800	Repeater Trunking Feature <u>Note</u> : One Feature required for each trunking repeater.		1,500.00
KSGPG91810	Multi-Site Networking Feature <u>Note</u> : One required for each networked site		11,667.00
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <u>Note:</u> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)		583.00
KPG-110SMK	System Manager Trunking Software <u>Note</u> : Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key		459.00
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key		167.00
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key		167.00
USB KEY FUNCTION	OR CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
PROGRAM GENERAL	SYSTEM PARAMETERS	٧	V
ADD / DELETE / EDIT USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.		v	v
ASSIGN OR EDIT REPEATER NETWORK IP ADDRESSES		v	
ADD NEW REPEATER CHANNEL(S)			
SWAP OUT SPARE R	EPEATERS	v	

SWAP OUT SPARE REPEATERS CONSTRUCT OR ADD NEW SITES

#### **ETHERNET SWITCH & ROUTER OPTIONS** LIST Note: One switch is required for each site; VPN router(s) may be required for multi-site systems depending on desired configuration. When needed, VPN router(s) are required in addition to and in conjunction with network switch equipment. Multicast Router options are also available. 8-Port Managed Network Switch KSGNS10008 250.00 Note: 1RU Mounting Tray (KSGUT10001) sold separately. KSGNS10024 Rack Mounted 24-Port Managed Network Switch 375.00 4-Port Managed VPN Router **KSGRT10004** 375.00 Note: 1RU Mounting Tray (KSGUT1000) sold separately.

Gen2 TRUNKING CONFIGURATIONS LIST

Please see the NEXEDGE Gen2 Page.

EXTERNAL 1	RUNKING CONTROLLER OPTIONS	LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00

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### **NEXEDGE**<sup>®</sup>

# NXR-800

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#### UHF High Performance Base Stations and Repeaters - 400-512 MHz

MISC STATION C	OPTIONS	LIST
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray <u>Note</u> : Provides mounting space for up to two accessories.	50.00

NEXEDGI	E″ NXR-710	Table of Contents	
v	HF High Performance Base Stations and Repeaters - High Band 136-174M	IHz	
-	OPTIONS: • External amplifiers with built-in T/R antenna switching for si Wire line remote control.	mplex operation.	
GENERAL: • Occupies 21	Power supply options such as integrated SmartCharger an Disconnect for battery backup applications. High performance 6 cavity BoBr duplexer is also available.	-	1.23.2015 Added KPG-10DTR Type D Trunking Option 1.29.2015 Change description on KPG-10DTR to note 6.25 only
intermittent c	<ul> <li>Multi-channel combining systems are quoted on an individu</li> <li>Mounting options include 20 RU (42") and 40 RU (77") lock</li> </ul>	ual system basis ing cabinets in addition	5.8.2015 Added KTI-5 including KPG-1006DNA Network Adapter 1.20.2016 Change KPG-46UM to KPT-46XM
		wood Systems	3.30.2016 Change KTI-5M and Labor Description
	5 KHz or 6.25 KHz.		
XR-710 REPEA XR-710K ASIC ACCESS	Repeater, Digital, VHF, 136-174MHz, 25-50W	LIST 2,150.00	
PG-46XM PG-129DNK	UKIEs Programming Cable Repeater Programming Software	LIST 158.50 103.25	
PG-149RM 851-8901-00	Nexedge Repeater Monitoring Software NXR-710 Service Manual	250.00 50.00	
TI-3M WD-NX10VTR	Network Interface Unit - Required for Conv. IP Networking Functionality Voting System Option ON AMPLIFIER OPTIONS	265.00 500.00 LIST	
te: Includes Two Cable SGPA22423	on AnimpElPIER OF HONS es for Radio Connectivity and an Internal Antenna Relay. 136-174MHz, 3W liput, 25-50W Output	1,990.00	
(SGPA22400 (SGPA22410	136-144MHz, 3W Input, 55-110W Output 144-152MHz, 3W Input, 55-110W Output	2,505.00	
SGPA22420 SGPA22430 SGPA22451	152-162MHz, 3W Input, 55-110W Output 162-174MHz, 3W Input, 55-110W Output 136-144MHz, 3W Input, 150W Output	2,505.00 2,505.00 3,720.00	
SGPA22452 SGPA22453 SGPA22454	144-152MHz, 3W Input, 150W Output 152-162MHz, 3W Input, 150W Output 162-174MHz, 3W Input, 150W Output	3,720.00 3,720.00	
SGPA22258	152-162MHz, 3W Input, 250W Output 136-174MHz, 25W Input, 25-50W Output	3,720.00 4,600.00 1,990.00	
(SGPA22500 (SGPA22510 (SGPA22520	136-144MHz, 25W Input, 55-110W Output 144-152MHz, 25W Input, 55-110W Output 152-162MHz, 25W Input, 55-110W Output	2,505.00 2,505.00 2,505.00	
(SGPA22530 (SGPA22551	162-1743MHz, 25W Input, 55-110W Output 136-144MHz, 25W Input, 150W Output	2,505.00 3,720.00	
(SGPA22552 (SGPA22553 (SGPA22554	144-152MHz, 25W Input, 150W Output 152-162MHz, 25W Input, 150W Output 162-174MHz, 25W Input, 150W Output	3,720.00 3,720.00 3,720.00	
	STATION AMPLIFIER OPTIONS	5,720.00 LIST	
(SGPA22403 (SGPA22411	136-174MHz, 3W Input, 25-50W Output 136-144MHz, 3W Input, 55-110W Output	1,665.00 2,160.00	
(SGPA22412 (SGPA22413 (SGPA22414	144-152MHz, 3W Input, 55-110W Output 152-162MHz, 3W Input, 55-110W Output 162-174MHz, 3W Input, 55-110W Output	2,160.00 2,160.00 2,160.00	
(SGPA22441	136-144MHz, 3W Input, 150W Output	2,160.00	
RF REPEATER S	STATION AMPLIFIER OPTIONS (cont.) Tor Naco Connectanty, 144-152MHz, 3W Input, 150W Output	LIST 3,060.00	
(SGPA22443 (SGPA22444	152-162MHz, 3W Input, 150W Output 162-174MHz, 3W Input, 150W Output	3,060.00	
KSGPA22253 KSGPA22503 KSGPA22511	152-162MHz, 3W Input, 250W Output 136-174MHz, 25W Input, 25-50W Output 136-144MHz, 25W Input, 55-110W Output	4,060.00 1,665.00 2,160.00	
KSGPA22512 KSGPA22513	144-152MHz, 25W Input, 55-110W Output 152-162MHz, 25W Input, 55-110W Output	2,160.00 2,160.00	
KSGPA22514 KSGPA22541 KSGPA22542	162-174MHz, 25W Input, 55-110W Output 136-144MHz, 25W Input, 150W Output 144-152MHz, 25W Input, 150W Output	2,160.00 3,060.00 3.060.00	
KSGPA22543 KSGPA22544 POWER SUPPLY	152-162MHz, 25W Input, 150W Output 162-174MHz, 25W Input, 150W Output Y OPTIONS	3,060.00 3,060.00 LIST	
SGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply Note: Incompatible with 150W or 250W amplifier option.	475.00	
KSGPS20352 KSGPS20701	35A, 13.8VDC, 19' Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W or 250W amolifier cotion. 70A, 13.8VDC, 19' Wide Rack-Mounted Power Supply	1,355.00	
KSGPS20702 MOUNTING CON	T0A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger IFIGURATIONS	1,740.00 LIST	
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R) 7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,080.00	
KSGMCAB4 KSGMT20020	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U) 42" (20RU) Locking Cabinet	2,675.00	
KSGMT0C20U	Crante for 42° (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required. Cabinet Solid Top Panel	345.00	
KSGMT20002 KSGMT20003	Cabinet Fan Top Assembly Cabinet Sold Floor Panel (includes five pre-drilled openings and grommets) OTE CONTROL OPTIONS	435.00 140.00 LIST	
KSGTN02A	2 Charnel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) Nos: 2 of 4 wird, 600-Ohm balanced audo with monitor.	655.00	
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801)	670.00	
KSGTN10A	Note: 2 or 4 wire, 600-04m balanced autio with monitor and automatic line leveling, 10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801)	920.00	
KSGTM20016	Note: 2 or 4 wine, 600-Ohm balanced audio with monitor. 16 Channel Tone Termination Panel Note: 2 or 4 wine, 600-Ohm balanced audio with monitor.	948.75	
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Mate:</u> 2 or 4 wire, 800-Dhm balareed audio with morisor. Specify DC current sattings at time of robat 600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)	410.00	
(SGTALD1	Note: 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.	940.00	
DIFFERMENT SW bite: One switch is requi configuration. When nee fulticast Router options	TCH & ROUTER OPTIONS rest for each site; VPN rotating) may be required for multi-site systems depending on dealred ded, VPN rotating) are required in addition to and in conjunction with network switch equipment, are also available.	LIST	
KSGNS10008 KSGNS10024	8-Port Managed Network Switch Note: 1RU/Mountin Tran (KSGUT1001) sold searanaby. Rack Mounted 24-Port Managed Network Switch	250.00	
(SGRT10004 TYPE-D TRUNKI	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT10001) sold separately.	375.00 LIST	
WD-10DTR	Type-D Single Site Repeater Trunking Feature Note: One Feature required for each trunking receater. Only 5.25kHz operation is	250.00	
CTI-5M	available in Type-D Single Site Trunking. Network Adapter Device- Required for Type-D Trunking Web Access Note: For Inidi upgrade, please download KPG-1006DNA from TOOLS and install	432.00 ×	
-1794	to your KTI-5M. (Installation Manual is included.) Institution KPG-1006DNA Firmware for KTI-5M at Factory.	N/C ×	
SGC452L	NKING CONTROLLER OPTIONS LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	LIST 1,545.00 2,370.00	
MISC STATION	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801) OPTIONS 6 Cavity VHF BpBr Duplexer	2,370.00 LIST	
(SGDX12556	b Cavity VH= bjpt Dupteer Note: Bindpase/Bankinger Lipkseir, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable. Basic Site Management Modern (KSGMD10001, KSGCB22154)	3,095.00	
(SGOMOD1 (SGOMOD2	Basic Site Management Modern (KSSIMUTU001, KSGUB22154) Mote: Modern 2001 bits in be used with TR concepts, includes intraface rates. High Performance Site Management Modern (KSGMU20000, KSGCB22154) Mote: Modern 2000 bits, ettar statelly in high Fr winnormers, includes interface cable.	255.00	
(SGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19' rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00	
(SGVOT2A (SGOPTG1	Station Module Card for Signate-Aloise Voter (9VM-2) Pilot Tone Generator and Line Driver (PTG-10) Nete: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	1.530.00 885.00	
SGMS10010 COMPONENTS	Relay, Antenna, x10 Series, 50W	340.00 LIST	
SGMT13000 SGMT0C03R SGMT17000	Rack, Equipment, 3' Tail, 19 Inches Wide Crate for 3' Rack Rack, Equipment, 7' Tail, 19 Inches Wide	720.00 360.00 650.00	
SGMT0C07R SGMT20040	Crate for 7' Rack Cabinet, 40U wHardware Kit Pre-Punched Pontoon Base	550.00 2,155.00	
SGMT0C40U SGTM10012 SGTM10TCS	Crate for 40U Cabinet Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, withonitor Case, Tone Term Panel	520.00 560.00 65.00	
(SGCB32801 (SGTM10060	Cable, Interface, Tone to '50 Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	<u>30.00</u> 570.00	
SGTM20TCS SGTM10010 SGBCDCASE	Case, Tone Term Panel (N-Series) Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, wimon Case, Tone Term Panel	70.00 820.00 70.00	
(SGTM10003 (SGTM10021	Term panel, DC, 2ch, 2/4-wire, full duplex 600 Ohm Balanced Line Driver	315.00 265.00	
SGCB30532 01-9570 05-0123	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater) Controller, Dispatch Trunking (Zetron Model 452) Controller, Dispatch Trunking with Intercomment (Zetron Model 459)	40.00 1,515.00 2,340.00	
(SGMD10001 (SGCB22154	Modern, USR Cable,54",DB-9 Female (Controller) to DB-25 Male(Modern)	215.00	
(SGCB22154 (SGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00	

NXR-810 UHF Base Stations and Repeaters - 400-520 MHz

### OPTIONS: External amplifiers with built-in T/R antenna switching for simplex operation

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- GENERAL: Integrated Systems Occupies 2 RU May be used as a standalone 25 W continuous or 40W intermittent duty station or in conjunction with a particular parties compliant
- an external power amplifier. Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.
- External amplifiers with built-in T/R antenna switching for simplex operation Wire line remote control. Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications. High performance 4 and 6 cavity BpBr duplexer are also available. Multi-channel combining systems are quoted on an individual system basis Mounting options include 20 RU (42') and 40 RU (77') locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks. Amplifier choices include 40W, 100W or 150W options. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

1.23.2015 Added KPG-10DTR Type D Trunking Option 1.29.2015 Change description on KPG-10DTR to note 6.25 only 5.8.2015 Added KTI-5 including KPG-1006DNA Network Adapter 1.20.2016 Change KPG-46UM to KPT-46XM 3.30.2016 Change KTI-5M and Labor Description

NXR-810 REPEA	TER	LIST
NXR-810K	Repeater, Digital, UHF, 450-520MHz, 1-40W	2,150.00
NXR-810K2	Repeater, Digital, UHF, 400-470MHz, 1-40W	2,150.00
BASIC ACCESSO	ORIES	LIST
KPG-46XM	Programming Cable	158.50
KPG-129DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
B51-8902-00	NXR-810 Service Manual	50.00
KTI-3M	Network Interface Unit - Required for Conv. IP Networking Functionality	265.00
KWD-NX10VTR	Voting System Option	500.00
RF BASE STATIO	ON AMPLIFIER OPTIONS	LIST
Note: Includes Two Cables	s for Radio Connectivity.	
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	1,950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	1,950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	4,560.00
RF REPEATER S	TATION AMPLIFIER OPTIONS	LIST
Note: Includes One Cable	for Radio Connectivity.	
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	1,665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1,665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,665.00
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	2,165.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,165.00
		2,100.00

NEXEDG	<sup>≟</sup> <b>NXR-810</b> UHF Base Stations and Repeaters - 400-520 MHz	Table of Contents
RF REPEATER S	STATION AMPLIFIER OPTIONS (cont.)	LIST
Note: Includes One Cable	for Radio Connectivity.	
KSGPA23541	406-450MHz, 25W Input, 150W Output	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	3,940.00
POWER SUPPLY	( OPTIONS	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note</u> : Incompatible with 150W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note</u> : Incompatible with 150W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON	IFIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42 <sup>*</sup> (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
WIRELINE REMO	DTE CONTROL OPTIONS	LIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) Note; 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00
KSGTM20016	16 Channel Tone Termination Panel Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note</u> : 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.00
KSGTALD1	Ober Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)     Note: 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be     configured to support 4-wire E&M interface applications.	360.00
ETHERNET SWI	TCH & ROUTER OPTIONS	LIST
Note: One switch is requir	ed for each site; VPN router(s) may be required for multi-site systems depending on desired ded, VPN router(s) are required in addition to and in conjunction with network switch equipment.	
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00
KSGRT10004	4-Port Managed VPN Router	375.00

NEXEDGE		Table of Contents
	NXR-810	rasie of contents
	UHF Base Stations and Repeaters - 400-520 MHz	
TYPE-D TRUNKI	NG OPTIONS	LIST
KWD-10DTR	Type-D Single Site Repeater Trunking Feature Note: One Feature required for each trunking repeater. Only 6.25kHz operation is available in Type-D Single Site Trunking.	250.00
KTI-5M	Network Adapter Device- Required for Type-D Trunking Web Access <u>Note</u> : For field upgrade, please download KPG-1006DNA from TOOLS and install to your KT15M. (Installation Manual is included.)	432.00
L-1794	Instilation KPG-1006DNA Firmware for KTI-5M at Factory.	N/C
EXTERNAL TRU	NKING CONTROLLER OPTIONS	LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1.545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	3,540.00
MISC STATION C	DPTIONS	LIST
	6 Cavity UHF BoBr Duplexer (450-470MHz Only)	2101
KSGDX13546	Note: Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	3,095.00
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,775.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10)	
	Note: For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00
KSGMS10010	Relay, Antenna, x10 Series, 50W	340.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060 KSGTM20TCS	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor Case. Tone Term Panel (N-Series)	570.00
KSGTM201CS KSGTM10010	Case, Tone Term Panel (N-Series) Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	70.00
KSGBCDCASE	Case, Tone Term Panel	820.00 70.00
KSGBCDCASE KSGTM10003	Case, Tone Term Panel Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10003 KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1.515.00
905-0123	Controller, Dispatch Trunking (Zetron Model 432) Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	2,340.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
	1RU Mounting Tray	
KSGUT10001	Note: Provides mounting space for up to two accessories.	50.00

GENERAL: • Integrated Systems. • Occupies 1 RU. • 360 mW transceiver unit used	<ul> <li>External amplifiers with built-in T/R antenna switching for simplex operation</li> <li>Wire line remote control</li> <li>Power supply options such as integrated SmartCharger and Low Voltage Disconnect for battery backup applications.</li> <li>High performance 4 cavity BpBr duplexer is also available</li> <li>Multi-channel combining systems are quoted on an individual system basis</li> <li>Mounting options include 20 RU (42°) and 40 RU (77°) locking cabinets in addition to 17 RU (3°) and 45 RU (7°) open equipment racks.</li> </ul>	
<ul> <li>with an external power amplifier.</li> <li>Operates in analog mode at 25 KHz or 12.5 KHz, or in digital mode at 12.5 KHz or 6.25 KHz.</li> <li>Programming information is required to properly configure each system. Please contact your Kenwood Systems Pacingeal Magase for</li> </ul>	<ul> <li>Amplifier choices include 75W and 130W options.</li> <li>Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.</li> <li>TRUNKING OPTIONS</li> <li>Enabling of the NXR-900 trunking feature.</li> <li>System management software that includes a master USB key &amp; activation file, which hold a license ID unique to each system. Feature-packed System Manager software provides full access to system parameters, permissions, log files, etc.</li> </ul>	
Regional Manager for assistance.	Secondary, restricted-level service keys that manage less critical system parameters are also available. Each trunking system requires an Ethernet switch at each site. Routers are optional for a single-site system but required for multi-site systems. NOTE: Recommended models are listed herein, but most commercially available IP equipment is compatible.	
NXR-900 REPEATER (K Model) NXR-900K Repeater, Digital, RX	306-825 MHz, TX 821-870 MHz 5,750.00	

BANDWIDTH OP	ANDWIDTH OPTION:	
KXK-3M3	6.25KHz "Very Narrow Band" Option High Stability Reference Oscillator <u>Note</u> : Only one KXK-3M3 required per site for each 6.25KHz operation.	3,333.00
BASIC ACCESS	DRIES	LIST
KSGCB60004	NXR-Series Programming Cable	25.00
KPG-109DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
B51-8946-00	NXR-900 Service Manual	50.00
KMC-9C	Desktop Microphone	86.00
KMC-35	Standard Mobile Microphone	52.50
RF REPEATER S	TATION AMPLIFIER OPTIONS	LIST
Note: Includes One Cable	for Radio Connectivity.	
KSGPA24181	764-870MHz, 250mW Input, 75W Output	2,900.00
KSGPA24131	764-870MHz, 250mW Input, 130W Output	3,830.00
POWER SUPPLY	( OPTIONS	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note</u> : Incompatible with 130W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 130W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON	FIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00

NEXEDGE"	• <b>NXR-900</b> 800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MI		of Contents	1.20.2016 Change KPG-46UM to KPT-46XM
MOUNTING CONF	GURATIONS (cont.)		LIST	, i i i i i i i i i i i i i i i i i i i
KSGMT20020	42" (20RU) Locking Cabinet		2,000.00	
KSGMT0C20U	Crate for 42 <sup>e</sup> (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.		345.00	
KSGMT20001	Cabinet Solid Top Panel		90.00	
KSGMT20002	Cabinet Fan Top Assembly		435.00	
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)		140.00	
WIRELINE REMOT	TE CONTROL OPTIONS		LIST	
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.		655.00	
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.		670.00	
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.		410.00	
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.		360.00	
TRUNKING CONFI	GURATIONS		LIST	
KSGPG91800	Repeater Trunking Feature <u>Note</u> : One Feature required for each trunking repeater.		1,500.00	
KSGPG91810	Multi-Site Networking Feature <u>Note</u> : One required for each networked site		11,667.00	
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) <u>Note:</u> Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)		583.00	
KPG-110SMK	System Manager Trunking Software <u>Note</u> : Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key		459.00	
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key		167.00	
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key		167.00	
USB KEY FUNCTION O	R CAPABILITY	GRADE-1 (BLUE)	GRADE-2 (YELLOW)	
	SYSTEM PARAMETERS	v	v	
ADD / DELETE / EDIT U	ISERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	v v	v v	
ADD / DELETE / EDIT U ASSIGN OR EDIT REPE	ISERS. TALKGROUPS, CLASSES OF SERVICE, ECT. EATER NETWORK IP ADDRESSES			
ADD / DELETE / EDIT U ASSIGN OR EDIT REPE ADD NEW REPEATER (	ISERS. TALKGROUPS, CLASSES OF SERVICE, ECT. EATER NETWORK IP ADDRESSES CHANNEL(S)	v v v		
ADD / DELETE / EDIT U ASSIGN OR EDIT REPE	SERS. TALKGROUPS, CLASSES OF SERVICE, ECT. EATER NETWORK IP ADDRESSES CHANNEL(S) PEATERS	v v		

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	800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MHz		
			1.20.2016 Change KPG-46UM to KPT-46XM
ETHERNET SWIT	CH & ROUTER OPTIONS	LIST	
	ed for each site: VPN router(s) may be required for multi-site systems depending on desired ed, VPN router(s) are required in addition to and in conjunction with network switch equipment. e also available.		
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	250.00	
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00	
KSGRT10004	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT10001) sold separately.	375.00	
EXTERNAL TRUN	IKING CONTROLLER OPTIONS	LIST	
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00	
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00	
MISC STATION O	PTIONS	LIST	
KSGDX14644	4 Cavity 800MHz BpBr Duplexer <u>Note</u> : Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz. Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable.	2,325.00	
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00	
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modern 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00	
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00	
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00	
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00	
COMPONENTS		LIST	
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00	
KSGMT0C03R	Crate for 3' Rack	360.00	
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00	
KSGMT0C07R	Crate for 7' Rack	550.00	
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00	
KSGMT0C40U	Crate for 40U Cabinet	520.00	
<sgtm10012< td=""><td>Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor</td><td>560.00</td><td></td></sgtm10012<>	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00	
SGTM10TCS	Case, Tone Term Panel	65.00	
(SGCB32801	Cable, Interface, Tone to '50	30.00	
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00	
SGTM20TCS	Case, Tone Term Panel (N-Series)	70.00	
(SGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00	
KSGTM10021	600 Ohm Balanced Line Driver	265.00	
SGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00	
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00	
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00	
<sgmd10001< td=""><td>Modem, USR</td><td>215.00</td><td></td></sgmd10001<>	Modem, USR	215.00	
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00	
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00	
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00	

#### NEXEDGE' Table of Contents **NXR-901** 900 MHz High Performance Repeaters - 896-902, 935-941 MHz 1.20.2016 Change KPG-46UM to KPT-46XM 1.21.2016 Delete KPG-46UM and KPG-111DNK GENERAL OPTIONS: 🖚 🗄 🖬 External amplifiers with built-in T/R antenna switching for simplex operation Wire line remote control Power supply options such as integrated SmartCharger and Low Voltage GENERAL: Disconnect for battery backup applications. High performance 4 cavity BpBr duplexer is also available Integrated Systems Occupies 1 RU High performance 4 cavity bpb objects is also available Multi-channel combining systems are quoted on an individual system basis Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3") and 45 RU (7") open equipment racks. Amplifier choices include 75W and 130W options. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details. . 360 mW transceiver unit used with an external power amplifier • Operates in analog mode at 12.5 KHz, or in digital mode at • 12.5 KHz or 6.25 KHz. Programming information is required to properly configure each system. Please contact TRUNKING OPTIONS Trunking options include enabling of the NXR-901 trunking feature System management software that includes a master USB key & activation file, which hold a license ID unique to each system. Feature-packed System Manager your Kenwood Systems Regional Manager for software provides full access to system parameters, permissions, log files, etc. Secondary, restricted-level service keys that manage less critical system parameters are also available. assistance.

Each trunking system requires an Ethernet switch at each site. Routers are
optional for a single-site system but required for multi-site systems. NOTE:
Recommended models are listed herein, but most commercially available IP equipment is

NXR-901 REPEA	IXR-901 REPEATER (K Model)	
NXR-901K	Repeater, Digital, RX 896-902MHz, TX 935-941MHz	5,750.00
BANDWIDTH OF	PTION:	LIST
KXK-3M3	"Very Narrow Band" Option High Stability Reference Oscillator <u>Note</u> : Only one KXK-3M3 required per site for 12.5KHz or 6.25KHz operation.	3,333.00
BASIC ACCESS	ORIES	LIST
KSGCB60004	NXR-Series Programming Cable	25.00
KPG-109DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
B53-7004-00	NXR-901 Service Manual	50.00
KMC-9C	Desktop Microphone	86.00
KMC-35	Standard Mobile Microphone	52.50
RF REPEATER	STATION AMPLIFIER OPTIONS	LIST
Note: Includes One Cabl	e for Radio Connectivity.	
KSGPA25172	928-943MHz, 250mW Input, 75W Output	2,900.00
KSGPA25132	935-940MHz, 250mW Input, 130W Output	3,830.00
POWER SUPPL	YOPTIONS	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note</u> : Incompatible with 130W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note</u> : Incompatible with 130W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CO	IFIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00

NEXEDGE	E° NXR-901 900 MHz High Performance Repeaters - 896-902, 935-941 MH		of Contents	1.20.2016 Change KPG-46UM to KPT-46XM
MOUNTING CON	FIGURATIONS (cont.)		LIST	
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)		2,675.00	
KSGMT20020	42" (20RU) Locking Cabinet		2,000.00	
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.		345.00	
KSGMT20001	Cabinet Solid Top Panel		90.00	
KSGMT20002	Cabinet Fan Top Assembly		435.00	
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)		140.00	
WIRELINE REMC	DTE CONTROL OPTIONS		LIST	
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.		655.00	
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.		670.00	
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.		410.00	
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.		360.00	
ETHERNET SWI1	TCH & ROUTER OPTIONS		LIST	
	ired for each site; VPN router(s) may be required for multi-site systems depending on desired ded, VPN router(s) are required in addition to and in conjunction with network switch equipment. are also available.			
KSGNS10008	8-Port Managed Network Switch		250.00	
KSGNS10024	Note: 1RU Mounting Tray (KSGUT10001) sold separately. Rack Mounted 24-Port Managed Network Switch		375.00	
KSGRT10004	4-Port Managed VPN Router		375.00	
	Note: 1RU Mounting Tray (KSGUT10001) sold separately.			
KSGPG91800	IKING AND NETWORKING OPTIONS Repeater Trunking Feature Note: One Feature required for each trunking repeater.		LIST 1,500.00	
KSGPG91810	Multi-Site Networking Feature Multi-Site Networking Feature Note: One required for each networked site		11,667.00	
KSGPGKEYSM	System Manager Software and Secure USB Key Package (KPG-110SMK, KSGPGKEY01) Note: Only required when used as a trunking system. Software/Key package discount has been applied. (See component pricing below.)		583.00	
KPG-110SMK	System Manager Trunking Software Mote: Additional Programming Software (One copy included with KSGPGKEYSM) Software cannot be opened without a valid KSGPGKEY01 or KSGPGKEY02 secure USB key		459.00	
KSGPGKEY01	Grade-1 Unlimited Access Secure USB Programming Key		167.00	
KSGPGKEY02	Grade-2 Limited Access Secure USB Programming Key		167.00	
JSB KEY FUNCTION	OR CAPABILITY	GRADE-1 (BLUE) √	GRADE-2 (YELLOW) √	
	USERS. TALKGROUPS, CLASSES OF SERVICE, ECT.	v	v	
	PEATER NETWORK IP ADDRESSES	٧		
ADD NEW REPEATER		v v		
CONSTRUCT OR ADI		v		
EXTERNAL TRUI	NKING CONTROLLER OPTIONS		LIST	
(SGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)		1,545.00	
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)		2,370.00	
MISC STATION C	OPTIONS     4 Cavity 900MHz BpBr Duplexer     Note: Bandpass/Bandreject duplexer, 250W continuous duty, minimum TX-RX 5MHz.		LIST 2,325.00	
(SGOMOD1	Includes RF cables, mounting and tuning. Includes one LMR-400 interface cable. Basic Site Management Modern (KSGMD10001, KSGCB22154) Note: Modern 2400 bps to be used with LTR controllers, includes interface cable.		255.00	
SGOMOD2	House: Modellin 2400 bps to be used with ETH Controllers, includes interface cable. High Performance Site Management Modem (KSGMD20000, KSGCB22154) Note: Modem 2400 bps, extra stability in high RF environments, includes interface cable.		1,215.00	
(SGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.		8,000.00	
(SGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)		1,530.00	
(SGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.		885.00	
COMPONENTS			LIST	
SGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide		720.00	
SGMT0C03R	Crate for 3' Rack		360.00	
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide		650.00	
0011700070	Crate for 7' Rack		550.00	
			0 455 00	
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base		2,155.00	
KSGMT0C07R KSGMT20040 KSGMT0C40U KSGTM10012			2,155.00 520.00 560.00	

NEXEDGE	, NXR-901 900 MHz High Performance Repeaters - 896-902, 935-941 MHz	Table of Contents
KSGCB32801	- Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray <u>Note</u> : Provides mounting space for up to two accessories.	50.00

#### 1.20.2016 Change KPG-46UM to KPT-46XM

DMR	TKR-D710 DMR VHF Repeaters* - 136-174MHz	Table of Contents           * Base Oppraitons are not available.	x
GENERAL: • Occupies 2 RU • Digital 12.5 kHz • Analog FM 25/12.5 kHz • 2 slot TDMA • Mixed Mode • Call Interruption • Conventional and Conventional IP* Network	OPTIONS: External amplifiers with built-in T/R antenna sw Wire line remote control. Power supply options such as integrated Sman Disconnect for battery backup applications. High performance 6 cavity BpBr duplexer is alt Multi-channel combining systems are quoted o Mounting options include 20 RU (42') and 40 f to 17 RU (3) and 45 RU (7') open equipment r Amplifier choices include 50W, 110W or 150W Custom configurations are also available; cont Regional Sales Manager for more details.	tCharger and Low Voltage so available. n an individual system basis RU (77") locking cabinets in addition acks. options.	
* Requires KTI-5			

1.20.2016 Created 3.30.2016 Delete KPG-1010DMR and add Labor Code for KTI-5 and KPG-1010DMR

REPEATER		LIST
TKR-D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W <u>Note</u> ; The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	2,225.00 ×
BASIC ACCESSO	DRIES and LABOR	LIST
KPG-46XM	Programming Cable	158.50
KPG-174DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
	Network Adapter Device - Required for Conv. IP Networking Functionality	
KTI-5M	Note: - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	432.00
L-1806	Instilation KPG-1010DMR Firmware and Option for KTI-5M	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	20.00
B5B-7228-00	TKR-D710 Service Manual	50.00
RF BASE STATIC	ON AMPLIFIER OPTIONS	LIST
Note: Includes Two Cables	for Radio Connectivity and an Internal Antenna Relay.	
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	1,990.00
KSGPA22400	136-144MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	2,505.00
KSGPA22451	136-144MHz, 3W Input, 150W Output	3,720.00
KSGPA22452	144-152MHz, 3W Input, 150W Output	3,720.00
KSGPA22453	152-162MHz, 3W Input, 150W Output	3,720.00
KSGPA22454	162-174MHz, 3W Input, 150W Output	3,720.00
KSGPA22258	152-162MHz, 3W Input, 250W Output	4,600.00
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	1,990.00
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22530 KSGPA22551	162-174MHz, 25W Input, 55-110W Output	2,505.00
KSGPA22552	136-144MHz, 25W Input, 150W Output	<u>3,720.00</u> 3.720.00
KSGPA22552 KSGPA22553	144-152MHz, 25W Input, 150W Output	
KSGPA22553	152-162MHz, 25W Input, 150W Output 162-174MHz, 25W Input, 150W Output	<u>3,720.00</u> 3.720.00
-	TATION AMPLIFIER OPTIONS	LIST
Note: Includes One Cable		
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	1,665.00
KSGPA22411	136-144MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	2,160.00
KSGPA22441	136-144MHz, 3W Input, 150W Output	3,060.00

DMR	TKR-D710	Table of Contents
	DMR VHF Repeaters* - 136-174MHz	
		* Base Oepraitons are not available.
	TATION AMPLIFIER OPTIONS (cont.)	LIST
Note: Includes One Cable KSGPA22442	for Radio Connectivity. 144-152MHz, 3W Input, 150W Output	3,060.00
KSGPA22442	152-162MHz, 3W Input, 150W Output	3,060.00
KSGPA22444	162-174MHz, 3W Input, 150W Output	3,060.00
KSGPA22253	152-162MHz, 3W Input, 250W Output	4,060.00
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1,665.00
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	2,160.00
KSGPA22541	136-144MHz, 25W Input, 150W Output	3,060.00
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,060.00
KSGPA22543	152-162MHz, 25W Input, 150W Output	3,060.00
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,060.00
POWER SUPPLY		LIST
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	475.00
	Note: Incompatible with 150W or 250W amplifier option. 35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	
KSGPS20352	Note: Incompatible with 150W or 250W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON	FIGURATIONS	LIST
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet	345.00
	Note: Optional for situations where extra protection during transportation is required.	
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
ANALOG WIREL	INE REMOTE CONTROL OPTIONS	LIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS,	055.00
KSGTNUZA	KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00
	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS,	
KSGTN02N	KSGCB32801)	670.00
	Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE,	000.00
KSGINIUA	KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00
	16 Channel Tone Termination Panel	
KSGTM20016	Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75
KOOTDOON	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801)	
KSGTDC2A	Note: 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.00
	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801)	
KSGTALD1	Note: 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be	940.00
	configured to support 4-wire E&M interface applications.	
	ICH & ROUTER OPTIONS ed for each site; VPN router(s) may be required for multi-site systems depending on desired	LIST
configuration. When need	led, VPN router(s) are required in addition to and in conjunction with network switch equipment.	
Multicast Router options a		
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00
KSGRT10004	4-Port Managed VPN Router	375.00
-	Note: 1RU Mounting Tray (KSGUT10001) sold separately.	
	LOG TRUNKING CONTROLLER OPTIONS	LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00

DMR	TKR-D710	Table of Contents
	DMR VHF Repeaters* - 136-174MHz	* Base Oepraitons are not available.
MISC STATION C	PTIONS	LIST
KSGDX12556	6 Cavity VHF BpBr Duplexer <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) Note: Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	820.00
KSGBCDCASE	Case, Tone Term Panel	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00

<ul> <li>Base Degrations are not available.</li> <li>Conserved and applications of the served as a served</li></ul>		TKR-D710 VHF Low Power Repeaters - 136-174MHz	Table of Contents
* Requires KTI-5	GENERAL: • Occupies 2 RU • Digital 125 kHz • Analog FM 25/12.5 kHz • 2 slot TDMA • Mixed Mode • Call Interruption • Conventional and Conventional	<ul> <li>External amplifiers with built-in T/R antenna st Wire line remote control.</li> <li>Power supply options such as integrated Sma Disconnect for battery backup applications.</li> <li>High performance 6 cavity BpBr duplexer is al Multi-channel combining systems are quoted Mounting options include 20 RU (42') and 40 to 17 RU (3') and 45 RU (7') open equipment Amplifier choices include 50W, 110W or 150W Custom configurations are also available; con</li> </ul>	Introduction Low Voltage Iso available. Iso an individual system basis RU (77°) locking cabinets in addition racks. V options.
TKR-D710 REPEATER LIST			

1.20.2016 Created 3.30.2016 Delete KPG-1010DMR and add Labor Code for KTI-5 and KPG-1010DMR

TKK-DTTU KEFEF		LIST
TKD D710K	Repeater, Digital, VHF, 136-174MHz, 5-50W	2.225.00 ×
TKR-D710K	<u>Note:</u> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	2,225.00
TKR-D710 REPEA		LIST
	Repeater Package Includes KSGPS20200 Power Supply (mounted inernally), 136-	x
TKR-D710KPS	174MHz Repeater 5-50W	2.443.00
	<u>Note:</u> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	,
REPEATER STAT	TION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY	LIST
	Depender Deskage instudes (CCDC20200 Device Supply (manated in the BA) The	X
	Repeater Package includes KSGPS20200 Power Supply (mounted inernally), The KTI-5M Network Adaptor and KPG-1010DMR, 136-174MHz Repeater	
TKR-D710KPSI	Note: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	2,895.00
	Output/External Monitor Switch/External PTT Switch are NOT available.	
REPEATER STAT	TION WITH DUPLEXER	LIST
	vailable for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a	2.01
	d RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by	
special order (non-returnab provided with an order.	ole and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be	
president in an order.		x
	Repeater Station 5-50W 148-160MHz includes KSGPS20200 Power Supply,	
TKR-D710KPSD	KSGDX62001 Duplexer, KSGCB20008 Cable, KSGCB20010 Cable Note: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	3,039.00
	Output/External Monitor Switch/External PTT Switch are NOT available.	
REPEATER STAT	TION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY	LIST
	vailable for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a	LI31
	d RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by	
	ole and non-refundable). Pricing for special order duplexers may be higher. Duplexer and KTI-5M are ter; a separate Rack-Mount Power Supply is included.	
mounted molde the repeat	Repeater Station 5-50W 148-160MHz includes KSGPS20201 Power Supply,	x
	KSGDX62001 Duplexer, KTI-5M and KPG-1010DMR, KSGCB20008 Cable,	
TKR-D710KPSDI	KSGCB20010 Cable.	3,470.00
	<u>Note:</u> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <b>NOT</b> available.	
BASIC ACCESSO	DRIES and LABOR	LIST
KPG-46XM	Programming Cable	158.50
KPG-174DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
	Network Adapter Device - Required for Conv. IP Networking Functionality	
KTI-5M	Note:	432.00
NTI-DIVI	- Must order L-1806 or L-1807 for DMR Conventional IP Configuration	432.00
	- Required for each repeaters	
L-1806	Instilation KPG-1010DMR Firmware and Option for KTI-5M	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	20.00
B5B-7228-00	TKR-D710 Service Manual	50.00
POWER SUPPLY		LIST
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	255.00
1/000000000	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	
KSGPS20400		475.00
KSGPS20400 KSGPS20352	Note: Incompatible with 150W or 250W amplifier option. 35A, 13.8VDC, 19' Wide Rack-Mounted Power Supply with SmartCharger	475.00

DMR_		Table of Contents
	TKR-D710	Table of contents
	DMR VHF Low Power Repeaters - 136-174MHz	* Base Oepraitons are not available.
MOUNTING CON		
KSGMRCK3		LIST
	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet Note: Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Note: Optional for situations where extra protection during transportation is required. Cabinet Solid Top Panel	90.00
	•	
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
	CH & ROUTER OPTIONS	LIST
	d for each site; VPN router(s) may be required for multi-site systems depending on desired ad, VPN router(s) are required in addition to and in conjunction with network switch equipment.	
Multicast Router options an		
KSGNS10008	8-Port Managed Network Switch	250.00
	Note: 1RU Mounting Tray (KSGUT10001) sold separately.	
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00
KSGRT10004	4-Port Managed VPN Router Note: 1RU Mounting Tray (KSGUT10001) sold separately.	375.00
MISC STATION O		LIST
	6 Cavity VHF BpBr Duplexer	
KSGDX12556	Note: Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz.	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154)	255.00
Reconner	Note: Modern 2400 bps to be used with LTR controllers, includes interface cable.	233.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
COMPONENTS	Note: Modem 2400 bps, extra stability in high RF environments, includes interface cable.	LIST
COMI ONENTS	Duplexer, VHF, 148-160MHz, 6 cavities, 4.5MHz sep, N-F	LIST
KSGDX62001	Note: This is the default frequency range. Other ranges may be available by special order.	595.00
	Fequencies must be provided with an order	
KSGCB20008	Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	50.00
KSGCB20010	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	430.00
KSGPS20200	DC Switching Power Supply	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGUT10001	1RU Mounting Tray	50.00
10001	Note: Provides mounting space for up to two accessories.	50.00

1.20.2016 Created 3.30.2016 Delete KPG-1010DMR and add Labor Code for KTI-5 and KPG-1010DMR

DMR	TKR-D810	Table of Contents	
	DMR UHF Repeaters - 400-520MHz	* Base Oepraitons are not available.	x
GENERAL: • Occupies 2 RU • Digital 12.5 kHz • Analog FM 25/12.5 kHz • Ask Mode • Mixed Mode • Call Interruption • Conventional and Conventional IP* Network	OPTIONS: • External amplifiers with built-in T/R antenna sw • Wire line remote control. • Power supply options such as integrated Smar Disconnect for battery backup applications. • High performance 4 and 6 cavity BpB rduplexe • Multi-channel combining systems are quoted 0 • Mounting options include 20 RU (42 <sup>2</sup> ) and 40 f to 17 RU (3) and 45 RU (7) open equipment r • Amplifier choices include 40W, 100W or 150W • Custom configurations are also available; cont Regional Sales Manager for more details.	rtCharger and Low Voltage er are also available. no an individual system basis RU (77°) locking cabinets in addition acks. (options.	

# Conventional and Conventional IP\* Network

\* Requires KTI-5

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TKR-D810 REPE	ATER	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <u>Note</u> : The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/Exernal Monitor Switch/Exernal PTT switch are NOT available.	2,225.00 <sup>x</sup>
TKR-D810K2	Repeater, Digital, UHF, 400-470MHz, 5-40W <u>Note</u> : The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are NOT available.	2,225.00 ×
BASIC ACCESSO	ORIES and LABOR	LIST
KPG-46XM	Programming Cable	158.50
KPG-174DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
	Network Adapter Device - Required for Conv. IP Networking Functionality	
KTI-5M	<u>Note:</u> - Must order L-1806 or L-1807 for DMR Conventional IP Configuration - Required for each repeaters	432.00
L-1806	Instilation KPG-1010DMR Firmware and Option for KTI-5M	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	20.00
B5B-7229-00	TKR-D710 Service Manual	50.00
RF BASE STATIO	ON AMPLIFIER OPTIONS	LIST
Note: Includes Two Cable	as for Radio Connectivity.	
KSGPA23421	406-450MHz, 3W Input, 20-40W Output	1.950.00
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	1.950.00
KSGPA23400	406-450MHz, 3W Input, 50-100W Output	2,600.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,600.00
KSGPA23451	406-450MHz, 3W Input, 150W Output	4,560.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,560.00
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23551	406-450MHz, 25W Input, 150W Output	4,560.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	4,560.00
RF REPEATER S	STATION AMPLIFIER OPTIONS	LIST
Note: Includes One Cable		
KSGPA23401	406-450MHz, 3W Input, 20-40W Output	1.665.00
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1.665.00
KSGPA23411	406-450MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23441	406-450MHz, 3W Input, 150W Output	3,940.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	3,940.00
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,665.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,665.00
KSGPA23503		

### KSGPA23513 450-512MHz, 25W Input, 50-100W Output 2,165.00

DMR	TKR-D810	Table of Contents
	DMR UHF Repeaters - 400-520MHz	* Base Oepraitons are not available.
RF REPEATER S	STATION AMPLIFIER OPTIONS (cont.)	LIST
Note: Includes One Cable	le for Radio Connectivity.	
KSGPA23541	406-450MHz, 25W Input, 150W Output	3,940.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	3,940.00
POWER SUPPLY	Y OPTIONS	LIST
KSGPS20200	DC Switching Power Supply 13.8VDC 20A	255.00
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note</u> : Incompatible with 150W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger Note: Incompatible with 150W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00
MOUNTING CON		LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2.675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Control Exercise Country Country     Country Country     Coun	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
	LINE REMOTE CONTROL OPTIONS	LIST
ANALOG MIKEL		EIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note</u> ; 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE,	000.00
KSGINIUA	KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75
	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801)	
KSGTDC2A	Note: 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time	410.00
	of order.	
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note</u> : 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also bi configured to support 4-wire E&M interface applications.	e 360.00
ETHERNET SWI	TCH & ROUTER OPTIONS	LIST
		LIST
	irred for each site: VPN router(s) may be required for multi-site systems depending on desired eded, VPN router(s) are required in addition to and in conjunction with network switch equipment. are also available.	
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00
KSGRT10004	4-Port Managed VPN Router	375.00
	Note: 1RU Mounting Tray (KSGUT10001) sold separately.	
	ALOG TRUNKING CONTROLLER OPTIONS	LIST
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	3,540.00

DMR		Table of Contents
	TKR-D810	Table of Contents
	DMR UHF Repeaters - 400-520MHz	* Base Oepraitons are not available.
		Base orginations are not a randouse.
MISC STATION O	PTIONS	LIST
1/00 D 1/105 10	6 Cavity UHF BpBr Duplexer (450-470MHz Only)	
KSGDX13546	Note: Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	3,095.00
	4 Cavity UHF BpBr Duplexer (450-470MHz Only)	
KSGDX23101	Note: Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface	1,775.00
	cable.	
KSGOMOD1	Basic Site Management Modern (KSGMD10001, KSGCB22154) Note: Modern 2400 bps to be used with LTR controllers, includes interface cable.	255.00
	Note: Modern 2400 bps to be used with LTR controllers, includes interface cable. High Performance Site Management Modern (KSGMD20000, KSGCB22154)	
KSGOMOD2	Note: Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	820.00
KSGBCDCASE	Case, Tone Term Panel	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00

TKR-D810 REPEATER

## KENWOOD

D	TKR-D810 IR UHF Low Power Repeaters - 400-520MHz	Table of Contents
GENERAL: • Occupies 2 RU • Digital 12.5 kHz • Analog FW Z5/12.5 kHz • 2 slot TDMA • Mixed Mode • Call Interruption • Conventional and Conventional IP* Network	<ul> <li>OPTIONS:</li> <li>External amplifiers with built-in T/R antenna swit Wire line remote control.</li> <li>Power supply options such as integrated Smart Disconnect for battery backup applications.</li> <li>High performance 6 cavity BpB roulpexer is also Multi-channel combining systems are quoted on Mounting options include 20 RU (42<sup>2</sup>) and 40 RU to 17 RU (3) and 45 RU (7) open equipment ra Amplifier choices include 50W, 110W or 150W c C ustom configurations are also available; contaa Regional Sales Manager for more details.</li> </ul>	Charger and Low Voltage o available. an individual system basis U (77°) locking cabinets in additic cks.

110W or 150W options. available; contact your K ore details.	enwood Systems	
	LIST	
tput/RX Audio	2,225.00 ×	

TKR-D810 REPEA	HER	LIST
TKR-D810K	Repeater, Digital, UHF, 450-520MHz, 5-40W <u>Note:</u> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	2,225.00
KR-D810K2	Output/External Monitor Switch/External PTT Switch are NOT available. Repeater, Digital, UHF, 400-470MHz, 5-40W Mote: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	2.225.00
	Output/External Monitor Switch/External PTT Switch are NOT available.	2,225.00
TKR-D810 REPEA		LIST
	Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 450-	
FKR-D810KPS	520MHz Repeater 5-40W	2,443.00
	Note: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	_,
-	Output/External Monitor Switch/External PTT Switch are <u>NOT</u> available. Repeater Package Includes KSGPS20200 Power Supply (mounted internally), 400-	
	470MHz Repeater 5-40W	
KR-D810K2PS	Note: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	2,443.00
	Output/External Monitor Switch/External PTT Switch are NOT available.	
REPEATER STAT	ION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY	LIST
	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI-	:
FKR-D810KPSI	5M Network Adopter and KPG-1010DMR, 450-520MHz Repeater	0.005.00
KR-D810KPSI	Note: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	2,895.00
	Output/External Monitor Switch/External PTT Switch are NOT available.	
	Repeater Package includes KSGPS20200 Power Supply (mounted internally), KTI- 5M Network Adopter and KPG-1010DMR, 400-470MHz Repeater	
		2,895.00
FKR-D810K2PSI		2,095.00
FKR-D810K2PSI	Note: The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio	2,895.00
	<u>Note:</u> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <u>NOT</u> available.	
REPEATER STAT	Note: The Control IO Pins of TX Data Input/TX Audio Input/FX Data Output/FX Audio Output/Edemt Monitor Switch/External PTT Switch are NOT available.	2,893.00
REPEATER STAT Note: Duplexers are not ava 5MHz split between TX and special order (non-returnable	<u>Note:</u> The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Audio Output/External Monitor Switch/External PTT Switch are <u>NOT</u> available.	
REPEATER STAT Note: Duplexers are not ava MHz split between TX and special order (non-returnable	Note: The Control IO Pins of TX Data Inpu/TX Audio Inpu/TX Data Outpu/TX Audio Dupu/Edemain Monirds Wink-Dixeman PTT Switch are NOT available. ION WITH DUPLEXER aliable for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a RX, and between 50-460MHz (UHF). Other frequencies or VHF band splits may be available by e and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be	LIST
REPEATER STAT Note: Duplexers are not ave MHz split between TX and pecial order (non-returnable rovided with an order.	Note:         The Control I/O Pins of TX Data Inpu/ITX Audio Inpu/IRX Data Outpu/RX Data           Outpu/External Monitor Switch/External PTT Switch are NOT evailable.         NOT HUPLEXER           allable for all frequencies.         The default range of duplexers are between 148-160 MHz (VHF) with a RX, and between 450-460MHz (UHF). Other frequencies or VHF bands splits may be available by e and non-refundable). Prioring for special order duplexers may be higher. Frequencies must be           Repeater Station 5-400M, 450-520MHz, Includes KSGPS20200 Power Supply,	LIST
REPEATER STAT Note: Duplexers are not ava MHz split between TX and pecial order (non-returnable rovided with an order.	Note: The Control IO Pins of TX Data Inpu/TX Audio Inpu/TX Data Outpu/TX Audio Dupu/Edemain Monirds Wink-Dixeman PTT Switch are NOT available. ION WITH DUPLEXER aliable for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a RX, and between 50-460MHz (UHF). Other frequencies or VHF band splits may be available by e and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be	LIST
REPEATER STAT Note: Duplexers are not ave MHz split between TX and pecial order (non-returnable rovided with an order.	Note:         The Control I/O Pins of TX Data Inpu/ITX Audio Inpu/IRX Data Outpu/IRX Audio Outpu/External Monitor Switch/External PTT Switch are NOT available.           ION WITH DUPLEXER         alable for all frequencies. The default range of duplexers are between 148-160 MHz (VHF) with a RX, and between 450-460MHz (UHF). Other frequencies or VHF band splits may be available by eard non-refundable. Princing for special arder duplexers may be higher. Frequencies are and non-feutness may be highers may be higher the special arder duplexers may be higher. Frequencies are used to the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies are used to the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplexers may be higher. Frequencies must be higher the special arder duplex that must be available.           Repeater Station 5-400W, 450-520MHz, Includes KSGPS20200 Power Supply, KSGDX63002 Duplexer, KSGCB2000B Cable, KSGCB20010 Cable.           Note:         The Control I/O Pins of TX Data Inpu/TX Audio Input/TX Data Output X Audio Input/TX Audio Input	LIST
REPEATER STAT Note: Duplexers are not ave MHz split between TX and pecial order (non-returnable rovided with an order.	Note:         The Control I/O Prins of TX Data Input/TX Audio Input/RX Data Output/RX Audio           Output/External Monitor Switch/External PTT Switch are NOT available.         Not Notify Switch/External PTT Switch are NOT available.           ION WITH DUPLEXER         Initial Subscription of duplexers are between 148-160 MHz (VHF) with a RX, and between 640-640MHz (VHF). Other frequencies or VHF band splits may be available by e and non-refundable). Pricing for special order duplexers may be higher. Frequencies must be the split s	LIST 3,039.00
REPEATER STAT tote: Duplexers are not ava MHz spill between TX and becala drafe (non-returnable rovided with an order. TKR-D810KPSD	Note:         The Control I/O Pins of TX Data Input/TX Audio Input/RX Data Output/RX Data         Data         Deat         Pund RX Data         Deat         Deat <thdeat< th="">         Deat         Deat         <t< td=""><td>LIST 3,039.00</td></t<></thdeat<>	LIST 3,039.00
REPEATER STAT tote: Duplexers are not ava MHz spill between TX and becala drafe (non-returnable rovided with an order. TKR-D810KPSD	Mote:         The Control I/O Prins of TX Data Input/TX Audio Input/RX Data Output/RX Audio           Output/External Monitor Switch/External PTT Switch are NOT available.         Not Notify Switch/External PTT Switch are NOT available.           ION WITH DUPLEXER         Initial Switch are Notify Switch and Switch are Notify Switch are Notify Switch and Switch are Notify Switch Switch are Notify Switch Switch are Notify Switch are Notify Switch are Notify Switch are Notify Switch Switch are Notify Switch are Notify Switch are Notify Switch Switch are Notify Switch are Notify Switch Switch are Notify Switch Switch Switch Switch are Notify Switch Sw	LIST 3,039.00
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1.20.2016 Created 3.30.2016 Delete KPG-1010DMR and add Labor Code for KTI-5 and KPG-1010DMR

DMR_		Table of Contents
	TKR-D810	Table of contents
	DMR UHF Low Power Repeaters - 400-520MHz	* Base Oepraitons are not available.
BASIC ACCESSO KPG-46XM	DRIES and LABOR Programming Cable	LIST 158.50
KPG-46AM KPG-174DNK	Repeater Programming Software	103.25
KPG-149RM	Nexedge Repeater Monitoring Software	250.00
N 0-143NW	Network Adapter Device - Required for Conv. IP Networking Functionality	230.00
	Note:	100.00
KTI-5M	- Must order L-1806 or L-1807 for DMR Conventional IP Configuration	432.00
	- Required for each repeaters	
L-1806	Instilation KPG-1010DMR Firmware and Option for KTI-5M	20.00
L-1807	KTI-5 Field Upgrade Option for DMR IP Network	20.00
B5B-7229-00	TKR-D710 Service Manual	50.00
POWER SUPPLY	DC Switching Power Supply 13.8VDC 20A	LIST
KSGPS20200	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	255.00
KSGPS20400	Note: Incompatible with 150W or 250W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,355.00
	Note: Incompatible with 150W or 250W amplifier option.	
MOUNTING CON	FIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet	345.00
	Note: Optional for situations where extra protection during transportation is required.	
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
	TCH & ROUTER OPTIONS ed for each site; VPN router(s) may be required for multi-site systems depending on desired	LIST
configuration. When need	led, VPN router(s) are required in addition to and in conjunction with network switch equipment.	
Multicast Router options a		
KSGNS10008	8-Port Managed Network Switch Note: 1RU Mounting Tray (KSGUT10001) sold separately.	250.00
KSGNS10024	Rack Mounted 24-Port Managed Network Switch	375.00
KSGRT10004	4-Port Managed VPN Router	375.00
	Note: 1RU Mounting Tray (KSGUT10001) sold separately.	
MISC STATION C		LIST
KSGDX12556	6 Cavity VHF BpBr Duplexer <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz.	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154)	255.00
	Note: Modern 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) Note: Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
COMPONENTS	rece. Income 2100 pps, out a stability in high fit environments, includes interface cable.	LIST
	Duplexer, VHF, 450-460MHz, 6 cavities, 5MHz sep, N-F	
KSGDX63002	Note: This is the default frequency range. Other ranges may be available by special order.	595.00
KSGCB20008	Fequencies must be provided with an order Cable, 10" 90 deg N-M to 90 deg BNC-M, RG-142 coaxial	50.00
KSGCB20000	Cable, 10", 90 deg N-M to 90 deg N-M, RG-142 coaxial	50.00
KSGPS20201	Power Supply, 20A, no meter, RM-2512 w/BB6 & 8 place fuse	430.00
KSGPS20200	DC Switching Power Supply	255.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGUT10001	1RU Mounting Tray	50.00
	Note: Provides mounting space for up to two accessories.	00.00

Table

# **TKB-6900 Series**

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz



### GENERAL:

- 110W
- Occupies 2 RU
- Equipment may be mounted in a cabinet enclosure or open rack
- May be used either by itself (50W continuous duty or 110W at 20% duty cycle) or as a driver for an external continuous duty RF amplifier (100W or 250W).

### OPTIONS:

- Power supply options inclu backup with integrated Sm and Low Voltage Disconne
- Mounting options include 2 and 40 RU (77") locking ca addition to 17 RU (3') and open equipment racks.
- T-R simplex antenna switc included in the basic unit a external amplifiers.
- Other configurations are al on a special order basis; p your Kenwood Systems Re Manager for more details.

RADIO PACKAG	ES
TKB6900SK1	29.7-37.0MHz (TK-690HBK, KCH-10, KCT-23M2, KMB-5, KSGUT50002)
TKB6900SK2	35.0-43.0MHz (TK-690HBK2, KCH-10, KCT-23M2, KMB-5, KSGUT50002)
TKB6900SK3	40.0-50.0MHz (TK-690HBK3, KCH-10, KCT-23M2, KMB-5, KSGUT50002)
BASIC ACCESS	ORIES
KPG-43UM	Programming Cable
KPG-44DNK	Programming Software
B51-8460-10	TK-690 Service Manual
RF AMPLIFIER C	OPTIONS
Note: Includes One Cable	e for Radio Connectivity.
KSGPA21101	30-36MHz, 50W Input, 100W Output
KSGPA21102	36-42MHz, 50W Input, 100W Output
KSGPA21103	42-50MHz, 50W Input, 100W Output
KSGPA21251	30-36MHz, 50W Input, 250W Output
KSGPA21252	36-42MHz, 50W Input, 250W Output
KSGPA21253	42-50MHz, 50W Input, 250W Output
POWER SUPPLY	YOPTIONS
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note:</u> Incompatible with 250W amplifier option.
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note:</u> Incompatible with 250W amplifier option.
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger
MOUNTING CON	IFIGURATIONS
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.
KSGMT20001	Cabinet Solid Top Panel
KSGMT20002	Cabinet Fan Top Assembly
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)
KSGMT20020	42" (20RU) Locking Cabinet

Table

# **TKB-6900 Series**

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz

# WIRELINE REMOTE CONTROL OPTIONS

KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.
MISC STATION O	PTIONS
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.
KSGOCWID	CWID Morse Code Generator <u>Note:</u> Specify call sign at time of order.
COMPONENTS	
TK-690HBK	Radio, Mobile, 29.7-37.0 MHz, 110w, 160 Ch (R.F. Deck Only)
TK-690HBK2	Radio, Mobile, 35.0-43.0 MHz, 110w, 160 Ch (R.F. Deck Only)
TK-690HBK3	Radio, Mobile, 40.0-50.0 MHz, 110w, 160 Ch (R.F. Deck Only)
KCH-10	Basic Control Panel, 90-Series
KCT-23M2	10' Cable, DC for High-Power Mobile
KMB-5	Mounting Bracket for TK-690 Mobile Radio
KSGUT50002	2RU Utility Tray for Equipment Mounting
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide
KSGMT0C03R	Crate for 3' Rack
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide
KSGMT0C07R	Crate for 7' Rack
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base
KSGMT0C40U	Crate for 40U Cabinet
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor
KSGTM10TCS	Case, Tone Term Panel
KSGCB32801	Cable, Interface, Tone to '50
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor
KSGTM20TCS	Case, Tone Term Panel (N-Series)
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon
KSGBCDCASE	Case, Tone Term Panel
KSGTM10003 KSGTM10021	Term panel, DC, 2ch, 2/4-wire, full duplex
KSC1111100001	600 Ohm Balanced Line Driver

Table



Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz

KSGUT10001

1RU Mounting Tray <u>Note:</u> Provides mounting space for up to two accessories.

August, 2016

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1.20.2016 Change KPG-46UM to KPT-46XM

# Table of Contents TKR-750 VHF Base Stations and Repeaters - High Band 136 - 174 MHz

:

External RF amplifiers with built-in T/R antenna switching for simplex

- GENERAL: Integrated Systems.
- Meghaled Systems. Occupies 2 RU. May be used as a continuous-duty 25W standalone low power station, a 50W intermittent duty station, or as a •
- driver for an external power amplifier.

## GENERAL OPTIONS:

- External RF amplifiers with built-in T/R antenna switching for simplex operation Wire line remote control. Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect. Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks Amplifier choices include 50 RU (42") or 150W options. A high performance 6 cavity BpBr duplexer is available. Multichannel combining systems are quoted on an individual system basis. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

### TRUNKING OPTIONS

- External controllers for LTR applications. PassPort systems are available by individual quotation.

RADIO PACKAG		LIST	
TKR-750K	Repeater, VHF, 146-174MHz, 25-50W		
TKR-750K2	Repeater, VHF, 146-1741/112, 25-50W	<u>1,558.00</u> 1,558.00	
BASIC ACCESS		LIST	
KPG-46XM	Programming Cable	158.50	
KPG-91DNK	Programming Software	103.25	
B51-8556-20	TKR-750 Service Manual	50.00	
RF BASE AMPL	IFIER OPTIONS	LIST	
	les for Radio Connectivity		
KSGPA22523	136-174MHz, 25W Input, 25-50W Output	1,990.00	
KSGPA22500	136-144MHz, 25W Input, 55-110W Output	2,505.00	
KSGPA22510	144-152MHz, 25W Input, 55-110W Output	2,505.00	
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	2,505.00	
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	2,505.00	
KSGPA22551 KSGPA22552	136-144MHz, 25W Input, 150W Output 144-152MHz, 25W Input, 150W Output	3,720.00 3,720.00	
KSGPA22553	152-162MHz, 25W Input, 150W Output	3,720.00	
KSGPA22554	162-174MHz, 25W Input, 150W Output	3,720.00	
RE REPEATER	AMPLIFIER OPTIONS	LIST	
Note: Includes One Cab			
KSGPA22503	136-174MHz, 25W Input, 25-50W Output	1,665.00	
KSGPA22511	136-144MHz, 25W Input, 55-110W Output	2,160.00	
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	2,160.00	
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	2,160.00	
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	2,160.00	
KSGPA22541 KSGPA22542	136-144MHz, 25W Input, 150W Output 144-152MHz, 25W Input, 150W Output	3,060.00	
KSGPA22542	144-152MHz, 25W Input, 150W Output 152-162MHz, 25W Input, 150W Output	3,060.00 3,060.00	
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,060.00	
POWER SUPPL		LIST	
	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply		
KSGPS20400	Note: Incompatible with 150W amplifier option.	475.00	
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note:</u> Incompatible with 150W amplifier option.	1,355.00	
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00	
KSGPS20702		1,740.00	
	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	,	
MOUNTING CON	IFIGURATIONS	LIST	
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00	
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00	
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00	
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00	
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00	
KSGMT20001	Cabinet Solid Top Panel	90.00	
KSGMT20002	Cabinet Fan Top Assembly	435.00	
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00	
WIRELINE REMO	OTE CONTROL OPTIONS	LIST	
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00	
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	670.00	
KSGTN10A	100 Channel BCD Tone Tenanico audio with monitor and automatic microrang. 10 Channel BCD Tone Tenanicon Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00	
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75	
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Notes</u> : 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.00	

	<b>TKR-750</b> VHF Base Stations and Repeaters - High Band 136 - 174 MHz	Table of Contents		
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note</u> : 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.	360.00	1.20.2016 Change KPG-46UM to KI	
EXTERNAL TRU	NKING CONTROLLER OPTIONS	LIST		
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00		
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00		
MISC STATION	OPTIONS	LIST		
KSGDX12556	6 Cavity VHF BpBr Duplexer <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	3,095.00		
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00		
KSGOMOD2	High Performance Site Management Modern (KSGMD20000, KSGCB22154) <u>Note</u> : Modern 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00		
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00		
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00		
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00		
KSGMS10050	Relay, Antenna, x50 Series, 50W	340.00		

COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	820.00
KSGBCDCASE	Case, Tone Term Panel	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories	50.00

# **TKR-850** UHF Base Stations and Repeaters - 400-512 MHz

# GENERAL OPTIONS:

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- GENERAL:
- Integrated Systems. Occupies 2 RU.
- Occupies 2 RU. May be used as a continuous-duty 25W standalone low power station, a 50W intermittent duty station, or as a driver for an external power amplifier.
- External RF amplifiers with built-in T/R antenna switching for simplex operation.
- Wire line remote control. Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect. Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3') and 45 RU (7') open equipment racks. Amplifier choices include 40W, 100W, or 150W options. A birth profermance 4 and 6 cavity BRPR dularyar are available.

- Ampliner choices include 40w, 100w, or 150w options. A high performance 4 and 6 cavity BpBr duplexer are available. Multichannel combining systems are quoted on an individual system basis. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

- TRUNKING OPTIONS
  External controllers for LTR applications.
  PassPort systems are available by individual quotation.

TKR-850 REPEA	ATER	LIST	
TKR-850K	Repeater, UHF, 450-480MHz, 25-40W	1,663.00	
TKR-850K2	Repeater, UHF, 480-512MHz, 25-40W	1,663.00	
TKR-850K3	Repeater, UHF, 400-430MHz, 25-40W	1,663.00	
BASIC ACCESS	ORIES	LIST	
KPG-46XM	Programming Cable	158.50	
KPG-91DNK	Programming Software	103.25	
B51-8557-30	TRK-850 Service Manual	50.00	
RF BASE STATI	ION AMPLIFIER OPTIONS	LIST	
Note: Includes Two Cab	oles for Radio Connectivity		
KSGPA23521	406-450MHz, 25W Input, 20-40W Output	1,950.00	
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	1,950.00	
KSGPA23500	406-450MHz, 25W Input, 50-100W Output	2,600.00	
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	2,600.00	
KSGPA23551	406-450MHz, 25W Input, 150W Output	4,560.00	
KSGPA23553	450-512MHz, 25W Input, 150W Output	4,560.00	
RF REPEATER :	STATION AMPLIFIER OPTIONS	LIST	
Note: Includes One Cab	ble for Radio Connectivity		
KSGPA23501	406-450MHz, 25W Input, 20-40W Output	1,665.00	
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,665.00	
KSGPA23511	406-450MHz, 25W Input, 50-100W Output	2,165.00	
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,165.00	
KSGPA23541	406-450MHz, 25W Input, 150W Output	3,940.00	
KSGPA23543	450-512MHz, 25W Input, 150W Output	3,940.00	
POWER SUPPL	Y OPTIONS	LIST	
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note:</u> Incompatible with 150W or 250W amplifier option.	475.00	
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note:</u> Incompatible with 150W or 250W amplifier option.	1,355.00	
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00	
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00	

MOUNTING CON	FIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
WIRELINE REMC	TE CONTROL OPTIONS	LIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00
KSGTM20016	16 Channel Tone Termination Panel Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75

### 1.20.2016 Change KPG-46UM to KPT-46XM

	<b>TKR-850</b> UHF Base Stations and Repeaters - 400-512 MHz	Table of Contents	
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.00	1.20.2016 Change KPG-46UM to KPT-46XM
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 6000hm balanced output. May also be configured to support 4-wire E&M interface applications.	360.00	
EXTERNAL TRU	INKING CONTROLLER OPTIONS	LIST	
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00	
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00	
MISC STATION	OPTIONS	LIST	
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	3,095.00	
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,775.00	
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00	
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00	
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19* rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00	
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00	
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00	
KSGMS10050	Relay, Antenna, x50 Series, 50W	340.00	

COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	820.00
KSGBCDCASE	Case, Tone Term Panel	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray <u>Note:</u> Provides mounting space for up to two accessories	50.00

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1.20.2016 Change KPG-46UM to KPT-46XM

# TKR-751 VHF High performance Base Stations and Repeaters - 146 - 174 MHz

- GENERAL:
- Integrated Systems Occupies 2 RU
- May be used as a continuous-duty 25W standalone low power station or as a driver for an external power amplifier.

- GENERAL OPTIONS:
  External RF amplifiers with built-in T/R antenna switching for simplex operation.
  Wire line remote control.
  Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect.
  Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3) and 45 RU (7') open equipment racks.
  Amplifier choices include 50W, 110W, 150W, or 250W options.
  A high performance 6 cavity BpBr duplexer is available.
  Multichannel combining systems are quoted on an individual system basis.
  Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

- TRUNKING OPTIONS
  External controllers for LTR applications.
  PassPort systems are available by individual quotation.

TKR-751 REPEA	TER	LIST	
TKR-751K	Repeater, VHF, 146-174MHz, 25W	1,383.00	
BASIC ACCESSO	DRIES	LIST	
KPG-46XM	Programming Cable	158.50	
KPG-91DNK	Programming Software	103.25	
B51-8683-00	TKR-751 Service Manual	50.00	
RF BASE STATIO	ON AMPLIFIER OPTIONS	LIST	
Note: Includes Two Cable			
KSGPA22423	136-174MHz, 3W Input, 25-50W Output	1,990.00	
KSGPA22410	144-152MHz, 3W Input, 55-110W Output	2,505.00	
KSGPA22420	152-162MHz, 3W Input, 55-110W Output	2,505.00	
KSGPA22430	162-174MHz, 3W Input, 55-110W Output	2,505.00	
KSGPA22452	144-152MHz, 3W Input, 150W Output	3,720.00	
KSGPA22453	152-162MHz, 3W Input, 150W Output	3,720.00	
KSGPA22454	162-174MHz, 3W Input, 150W Output	3,720.00	
KSGPA22258 KSGPA22510	152-162MHz, 3w Input, 250W Output 144-152MHz, 25W Input, 55-110W Output	4,600.00 2,505.00	
KSGPA22520	152-162MHz, 25W Input, 55-110W Output	2,505.00	
KSGPA22530	162-174MHz, 25W Input, 55-110W Output	2,505.00	
KSGPA22552	144-152MHz, 25W Input, 150W Output	3,720.00	
KSGPA22553	152-162MHz, 25W Input, 150W Output	3,720.00	
KSGPA22554	162-174MHz, 25W Input, 150W Output	3,720.00	
RF REPEATER S	TATION AMPLIFIER OPTIONS	LIST	
Note: Includes One Cable	e for Radio Connectivity		
KSGPA22403	136-174MHz, 3W Input, 25-50W Output	1,665.00	
KSGPA22412	144-152MHz, 3W Input, 55-110W Output	2,160.00	
KSGPA22413	152-162MHz, 3W Input, 55-110W Output	2,160.00	
KSGPA22414	162-174MHz, 3W Input, 55-110W Output	2,160.00	
KSGPA22442	144-152MHz, 3W Input, 150W Output	3,060.00	
KSGPA22443	152-162MHz, 3W Input, 150W Output	3,060.00	
KSGPA22444	162-174MHz, 3W Input, 150W Output	3,060.00	
KSGPA22253	152-162MHz, 3W Input, 250W Output	4,060.00	
KSGPA22512	144-152MHz, 25W Input, 55-110W Output	2,160.00	
KSGPA22513	152-162MHz, 25W Input, 55-110W Output	2,160.00	
KSGPA22514	162-174MHz, 25W Input, 55-110W Output	2,160.00	
Note: Includes One Cable	TATION AMPLIFIER OPTIONS (cont.)	LIST	
KSGPA22542	144-152MHz, 25W Input, 150W Output	3,060.00	
KSGPA22542	152-162MHz, 25W Input, 150W Output	3,060.00	
KSGPA22544	162-174MHz, 25W Input, 150W Output	3,060.00	
POWER SUPPLY			
	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply		
KSGPS20400	Note: Incompatible with 150W or 250W amplifier option.	475.00	
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,355.00	
KSGPS20701	Note: Incompatible with 150W or 250W amplifier option.	1.355.00	
KSGPS20701 KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1	
	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00	
MOUNTING CON	FIGURATIONS	LIST	
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00	
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00	
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00	
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00	
KSGMT0C20U	Crate for 42" (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00	
KSGMT20001	Cabinet Solid Top Panel	90.00	
KSGMT20002	Cabinet Fan Top Assembly	435.00	
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00	
WIRELINE REMC	TE CONTROL OPTIONS	LIST	

	<b>TKR-751</b> VHF High performance Base Stations and Repeaters - 146 - 174 MHz	Table of Contents	
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00	1.20.2016 Change KPG-46UM to KF
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	670.00	
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00	
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75	
(SGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) <u>Note</u> : 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.00	
SGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) Note: 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	360.00	
EXTERNAL TRU	NKING CONTROLLER OPTIONS	LIST	
SGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00	
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00	

MISC STATION C	PTIONS	LIST
KSGDX12556	6 Cavity VHF BpBr Duplexer <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty, minimum TX-RX 400 KHz. Includes one LMR-400 interface cable.	3,095.00
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00
KSGSNV12	Signal-to-Noise Modular Voting Comparator <u>Note:</u> 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00
KSGMS10050	Relay, Antenna, x50 Series, 50W	340.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00
KSGTM10TCS	Case, Tone Term Panel	65.00
KSGCB32801	Cable, Interface, Tone to '50	30.00
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	820.00
KSGBCDCASE	Case, Tone Term Panel	70.00
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00
KSGTM10021	600 Ohm Balanced Line Driver	265.00
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00
KSGMD10001	Modem, USR	215.00
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00
KSGUT10001	1RU Mounting Tray <u>Note</u> : Provides mounting space for up to two accessories.	50.00



### GENERAL:

- Integrated Systems. Occupies 2 RU. May be used as a continuous-
- duty 25W standalone low power station or as a driver for an external power amplifier. Built-in conventional controller.
- .
- :
- operation. Wire line remote control.
- .
- Wire line remote control. Power supply options include battery backup with integrated SmartCharger and Low Voltage Disconnect. Mounting options include 20 RU (42") and 40 RU (77") locking cabinets in addition to 17 RU (3") and 45 RU (7") open equipment racks. Amplifier choices include 40W, 100W, or 150W options. A high performance 4 and 6 cavity BpBr duplexer are available. Multichannel combining systems are quoted on an individual system basis. Custom configurations are also available; contact your Kenwood Systems Regional Sales Manager for more details.

### TRUNKING OPTIONS

•

- External controllers for LTR applications. PassPort systems are available by individual quotation.

TKR-851 REPEA	ATER	LIST
TKR-851K	Repeater, UHF, 450-480MHz, 1-25W	1,488.00
BASIC ACCESS	ORIES	LIST
KPG-46XM	Programming Cable	158.50
KPG-91DNK	Programming Software	103.25
B51-8684-00	TRK-851 Service Manual	50.00
RF BASE STAT	ON AMPLIFIER OPTIONS	LIST
Note: Includes Two Cat	eles for Radio Connectivity	
KSGPA23423	450-512MHz, 3W Input, 20-40W Output	1,950.00
KSGPA23420	450-512MHz, 3W Input, 50-100W Output	2,600.00
KSGPA23453	450-512MHz, 3W Input, 150W Output	4,560.00
KSGPA23523	450-512MHz, 25W Input, 20-40W Output	1,950.00
KSGPA23520	450-512MHz, 25W Input, 50-100W Output	2,600.00
KSGPA23553	450-512MHz, 25W Input, 150W Output	4,560.00
RF REPEATER STATION AMPLIFIER OPTIONS		LIST
Note: Includes One Cat	le for Radio Connectivity	
KSGPA23403	450-512MHz, 3W Input, 20-40W Output	1,665.00
KSGPA23413	450-512MHz, 3W Input, 50-100W Output	2,165.00
KSGPA23443	450-512MHz, 3W Input, 150W Output	3,940.00
KSGPA23503	450-512MHz, 25W Input, 20-40W Output	1,665.00
KSGPA23513	450-512MHz, 25W Input, 50-100W Output	2,165.00
KSGPA23543	450-512MHz, 25W Input, 150W Output	3,940.00
POWER SUPPL	YOPTIONS	LIST
KSGPS20400	40A, 13.8VDC, 19" Wide Rack-Mounted Power Supply <u>Note:</u> Incompatible with 150W amplifier option.	475.00
KSGPS20352	35A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger <u>Note:</u> Incompatible with 150W amplifier option.	1,355.00
KSGPS20701	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply	1,355.00
KSGPS20702	70A, 13.8VDC, 19" Wide Rack-Mounted Power Supply with SmartCharger	1,740.00

MOUNTING CON	FIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42 <sup>e</sup> (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
WIRELINE REMO	DTE CONTROL OPTIONS	LIST
KSGTN02A	2 Channel Tone Termination Panel (KSGTM10012, KSGTM10TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	655.00
KSGTN02N	N-Series 2 Channel Tone Termination Panel (KSGTM10060, KSGTM20TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor and automatic line leveling.	670.00
KSGTN10A	10 Channel BCD Tone Termination Panel (KSGTM10010, KSGBCDCASE, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor.	920.00
KSGTM20016	16 Channel Tone Termination Panel <u>Note:</u> 2 or 4 wire, 600-Ohm balanced audio with monitor.	948.75
KSGTDC2A	DC Termination Panel (KSGTM10003, KSGTM10TCS, KSGCB32801) Note: 2 or 4 wire, 600-Ohm balanced audio with monitor. Specify DC current settings at time of order.	410.00

### 1.20.2016 Change KPG-46UM to KPT-46XM

	<b>TKR-851</b> UHF Base Stations and Repeaters - 450 - 480 MHz	Table of Contents	1.20.2016 Change KPG-46UM to KPT-46XM
KSGTALD1	600 Ohm Line Driver (KSGTM10021, KSGTM10TCS, KSGCB32801) <u>Note:</u> 1 channel receive audio line driver panel, 2 wire, 600Ohm balanced output. May also be configured to support 4-wire E&M interface applications.	360.00	1.20.2010 Change A C-400M to A 1-40AM
EXTERNAL TRUI	NKING CONTROLLER OPTIONS	LIST	
KSGC452L	LTR Dispatch Trunking Controller (901-9570, KSGCB32801)	1,545.00	
KSGC459L	LTR Dispatch & Interconnect Trunking Controller (905-0123, KSGCB32801)	2,370.00	
MISC STATION C	OPTIONS .	LIST	
KSGDX13546	6 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 250W continuous duty. Includes one LMR-400 interface cable.	3,095.00	
KSGDX23101	4 Cavity UHF BpBr Duplexer (450-470MHz Only) <u>Note</u> : Bandpass/Bandreject duplexer, 350W continuous duty. Includes one LMR-400 interface cable.	1,775.00	
KSGOMOD1	Basic Site Management Modem (KSGMD10001, KSGCB22154) <u>Note</u> : Modem 2400 bps to be used with LTR controllers, includes interface cable.	255.00	
KSGOMOD2	High Performance Site Management Modem (KSGMD20000, KSGCB22154) <u>Note</u> : Modem 2400 bps, extra stability in high RF environments, includes interface cable.	1,215.00	
KSGSNV12	Signal-to-Noise Modular Voting Comparator Note: 19" rack mount; occupies 3RU. Order Station Module Cards below.	8,000.00	
KSGVOT2A	Station Module Card for Signal-to-Noise Voter (SVM-2)	1,530.00	
KSGOPTG1	Pilot Tone Generator and Line Driver (PTG-10) <u>Note:</u> For use with voting systems, supplies 600 Ohm balanced 2-wire audio.	885.00	
KSGMS10050	Relay, Antenna, x50 Series, 50W	340.00	
COMPONENTS		LIST	
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00	
KSGMT0C03R	Crate for 3' Rack	360.00	
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00	
KSGMT0C07R	Crate for 7' Rack	550.00	
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00	
COMPONENTS, o	con't	LIST	
KSGMT0C40U	Crate for 40U Cabinet	520.00	
KSGTM10012	Panel, Tone Term, 2 ch., no case, full dup, 2 or 4 wire, w/monitor	560.00	
KSGTM10TCS	Case, Tone Term Panel	65.00	
KSGCB32801	Cable, Interface, Tone to '50	30.00	
KSGTM10060	Panel, Tone Term (N-Series), 2 ch., no case, full dup, 2 or 4 wire, w/monitor	570.00	
KSGTM20TCS	Case, Tone Term Panel (N-Series)	70.00	
KSGTM10010	Panel, Tone Term, 10 ch., with case, full dup, 2 or 4 wire, w/mon	820.00	
KSGBCDCASE	Case, Tone Term Panel	70.00	
KSGTM10003	Term panel, DC, 2ch, 2/4-wire, full duplex	315.00	
KSGTM10021	600 Ohm Balanced Line Driver	265.00	
KSGCB30532	Cable, 32", DB-25 Male (Controller) to DB-25 Male(Repeater)	40.00	
901-9570	Controller, Dispatch Trunking (Zetron Model 452)	1,515.00	
905-0123	Controller, Dispatch Trunking with Interconnect (Zetron Model 459)	2,340.00	
KSGMD10001	Modem, USR	215.00	
KSGCB22154	Cable,54",DB-9 Female (Controller) to DB-25 Male(Modem)	40.00	
KSGMD20000	Modem, Tuff, with power cable and interface cable	1,175.00	
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories	50.00	

KAS-10	
GPS AVL & Dispatch Messaging Software (Version 2.x)	

(12.12.2015) Add Notes and AMBE-3003 in the KSGCP50001

- Product Enhancements: 999 Mobile ID Capacity NXDN® Scrambler included Up to 100 KAS-10 per system, 10 per site 100 Group Scan with four Priority Monitor IDs

Notes: • NEXEDGE Gen2, Type-D and DMR Systems not supported.

GPS AVL & DISPATCH		LIST
KAS-10	GPS AVL & Dispatch Messaging Software	434.00
	AMBE-3000 <sup>™</sup> Vocoder Chip with USB Interface	
KSGCP50001	Note: USB-300 <u>3</u> <sup>™</sup> multi pass Vocoder with USB does not compatbile with KAS- 10.	650.00
COMPANION PRODUCTS COMPUTERS		LIST
KSGCP30201	Windows Workstation PC	2,015.00
KSGCP40001	USB Desktop Microsphone	75.00
KSGSP10001	Multi-Media Desktop PC Speakers	50.00
KSGCP40002	USB Over the Head Headset with Microphone	90.00
KSGCP40003	Mini-Plug Over the Head Headset with Microphone	75.00
COMPUTER MONITORS		LIST
KSGCP30101	17" Anti-Glare Black LCD Monitor	375.00
KSGCP00014	19" Anti-Glare Black LCD Monitor	475.00
KSGCP30102	17" Anti-Glare Black ELO Touchscreen Monitor	1,045.00
KSGCP00015	19" Anti-Glare Black ELO Touchscreen Monitor	1,245.00

### Table of Contents **KPG-150AP** OTAP Manager

### General

- For NEXEDGE<sup>®</sup> digital 12.5/6.25 kHz Conventional, Type-C Trunking and Gen2 systems, the KPG-150AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater.
- Eliminates manual collection of portable and mobile radios from the field for reprogramming. Eliminates repeated connection and disconnection of individual radios.
- Reduces time spent programming field units.
- User interface and icons offer intuitive operational ease. Verification and logging features ensure efficient and reliable data control.

### Main Features

- an Features Accommodates multiple user-defined groups. Support for multiple serial ports facilitates transmission on different frequencies. Once stored in the OTAP manager, data for each radio can be easily reprogrammed. One-click programming allows multiple radios to share the same programming data without individual modification. KPG-150AP compares current and updated configurations, enabling transmission of only updated
- .
- programming data to save on-air time. Multiple sessions can be programmed and scheduled in advance, removing the need to be present for remote over-the-air reconfiguration.
- Auto retry options are also available in the case of OTAP failure.
- Each programming session is recorded by the software, indicating transmission success or failure for each radio
- Note: NEXEDGE Type-D Trunking system and DMR System not supported.

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-- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles. Requires firmware version 2.5 or higher for the NX-x00/NX-x10 mobiles and portables as well as the NXR-x00/NXR-x10 repeaters.

Requires firmware version 1.01 or higher for the NX-x20 portables.

# KPG-180AP OTAP Manager for NX-5000 Series

- General
   For NX-5000 Series radios, the KPG-180AP OTAP (Over the Air Programming) manager simplifies the task of reconfiguring subscribers, either directly or via repeater through NEXEDGE Conventional, Type-C Trunking and Gen2 Eliminates manual collection of portable and mobile radios from the field for reprogramming. Eliminates manual collection of portable and mobile radios from the field for reprogramming. Eliminates repeated connection and disconnection of individual radios. Reduces time spent programming field units. User interface and icons offer intuitive operational ease. Verification and logging features ensure efficient and reliable data control.
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- Verification and bugging reatures ensure endering and encode data standard
   Main Features
   Remote editing/adding features such as ID Lists, over-the-air aliases, channels, sites, and more.
   Once stored in the OTAP manager, data for each radio can be easily reprogrammed.
   One-click programming allows multiple radios to share the same programming data without individual modification.
   Each programming session is recorded by the software, indicating transmission success or failure for each radio.
   Multi-Protocol (NXDN/P25) capability.

Note: - NEXEDGE Type-D Trunking system and DMR System not supported. - P25 OTAP is only available for Conventional Radio to Radio.

	,		
LICENSING SY	STEM		LIST
Rome Mergenes Dev B. Dela 2 Tra Subsensator Ganadaes Inter Mel Maria International Inter Mel Maria International International		KPT-300LMC License Management Client	
State Milate Securities State	Steel Garly Social Adverture (MEASURE)	KPT-300LMC is a required software package that is used to authenticate software.	
Drag License Key Files (* jke and Drop to This Area	61	KPT-300LMC is available as a free download from Kenwood Tools and is also supplie with applicable software.	d
		NOTE: A license key is required for the KPT-300LMC to authenticate the software prior to use. To receive a license key, complete the enclosed "Account Request For and return to the Kenwood Systems Order Desk.	<u>m"</u>
Note: KPT-300LMC is Windows Vista/7/8/8 is not supported.		License Keys will be E-Mailed to the address provided on the Account Request Form. A hard copy will follow by mail for your records.	
PT-300LMC	License Management	Client	NC
-5000	KPT-300LMC License	Key	NC
<ol> <li>Complete the</li> <li>Submit along         <ul> <li>Submit along</li> <li>E-Mail: sy</li> <li>Fax: (678</li> <li>License Keys</li> </ul> </li> </ol>	will be E-mailed to the a	se Key Request Form. TEMS Order Desk via:	
	OTAP Manager Softw • License includes 50 rad	are los / 1 NXDN Conventional and Type-C <u>Air</u> Communication Profile	
KPG-180AP		Communication Profile is not included. for <u>P25 Conventional system</u> requires KWD-AP3-P25 license.	884.0

### (9.25.2015) Created. (12.17.2015) Added notes for P25 Conventional license.

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August,	2016
Augusi,	2010

KPG-180AP OTAP Manager for NX-5000 Series			Table of Contents	
	Software License Key Discount Structure			
	1 License Key			
	2 ~ 4 License Keys	10% OFF		
	5 ~ 14 License Keys	35% OFF		
	15 ~ 24 License Keys	40% OFF		
ADDITIONAL LIC	CENSES		LIST	
	icense for additional subscriber radio (mobile or portable) attached to one computer running KPG- ional licenses require KPT-300LMC for authentication.			
KWD-AP5100	Additional <b>100</b> Radio Package License for 1 PC <b>Note:</b> License includes 100 subscriber radios OTAP License.		1,667.00	
KWD-AP5250	Additional 250 Radio Package License for 1 PC Note: License includes 250 subscriber radios OTAP License.		2,917.00	
KWD-AP5500	Additional 500 Radio Package License for 1 PC Note: License includes 500 subscriber radios OTAP License.		4,167.00	
KWD-AP1-CA	NXDN Conventional Type-C Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as NEXEDGE Base Station Serial Interface for both Conventional and Trunking (Type-C Gen1/Gen2).		250.00	
KWD-AP2-CP	NXDN Conventional Type-C IP Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used NEXEDGE Repeater IP Interface for both Conventional and Trunking (Type-C Gen1/Gen2).		417.00	
KWD-AP3-P25	P25 Radio to Radio Air Communication Profile for 1 PC. Note: Price is per license on quantities of less than 16 licenses. Used as P25 Base Station Serial Interface for only Radio to Radio Communication.		800.00	

### -- IMPORTANT NOTES--

Base radios are connected to a computer using the KPG-36XM USB adapter for portables, or a KPG-46XM for mobiles. Requires firmware version 1.4 or higher for the NX-5000 Series portables and mobiles Requires firmware version 2.5 or higher for the NXR-x00/NXR-x10 repeaters.

# **KTI-4** Telephone Interconnect Adapter

**Table of Contents** 

### General

- Available only for NEXEDGE<sup>®</sup> digital trunking systems using the NXR-700/800/900 repeaters.
- Provides access to incoming and outgoing PSTN/PABX telephone calls when used in conjunction with a telephone patch panel.
- Serves as an Ethernet-based interface between the NEXEDGE<sup>®</sup> digital trunking system and an analog telephone patch panel

### **Main Features**

- Can be installed off-site using an IP network connection to the NEXEDGE® system.
- Up to 100 telephony lines per system; six lines per site.
- · DTMF control via AUX jack.
- Customizable DTMF command set and tone timer for telephone patch.
- Browser-based remote KTI-4 settings via the IP network.
- Individual telephone calling.
- · Speed dial.
- Configurable call restrictions (long-distance, international, etc.).
- AMBE+2<sup>™</sup> vocoder for digital audio speech conversion.
- NXDN<sup>®</sup> encryption included
- Status LEDs: Power, Communications, Full-Duplex, 100 Base-TX.

Interconnect Adapter		LIST
KTI-4M	Telephone Interconnect Adapter	570.00
901-9416	Model 30 Worldpatch	668.75
KSGUT10001	1RU Mounting Tray Note: Provides mounting space for up to two accessories.	50.00
L-8005	KTI-4M Calibration (Required)	75.00

NEXEDGE'

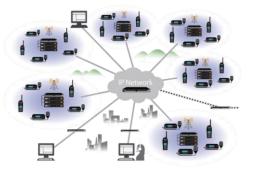
## **KENWOOD**

# NEXEDGE<sup>®</sup> Generation2 System

Generation2 (Gen2) is a new NEXEDGE® platform with additional features and enhanced capacity. NEXEDGE is a scalable solution and the server based architecture of Gen2 will meet your immediate and future needs. Current NXR-x00 repeaters can be upgraded to Gen2 firmware. Key features and enhancements include: Direct Frequency Assignment (DFA), call pre-emption, increased AVL capacity, and an increase to the number of site within a system.

### FEATURES AND HIGHLIGHTS:

Up to 1,152 sites Up to 24 System Controllers Up to 24 Multi-System Networks \* Browser Based Multi-Access Configuration All Gen1 Functionality Direct Frequency Assignment Call Pre-Emption for Console Fleet Priority Channel Dynamic Control Channel Increased GPS capacity SNMP Compatibility \* Network Management and Monitoring NXR-700/800/900/901/5700/5800 Compatible



\*Future Release

SERVER SOFTH	VARE LICENSING	LIST
KPG-1000SY	System Control Software *Required Note: Required one per 48 site or per each system code	16,667.00
KPG-1001ST	Site Control Software *Optional Note: Required one per site 10 channels or more.	2,500.00
KPG-1002GW	IP Gateway Software *Optional Note: Required for connecting NXIIP Interface Softwares. One per 100 position and up to 10 Gateway for 1 system.	8,334.00
KPG-1003NS	Network Manager Server Software *Optional Note: Required for monitoring above 101 devices or Multi System * (Different System Code) with Client. One up to 1,000 devices monitoring.	5,000.00

Note:

Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers.
 All Gen2 Servers use Linux Cent OS 6.7. Linux should <u>not</u> be upgraded to new versions in the field. Security patches are allowed. 3.One server is required for each operating system.

SERVER HARDWARE		LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. Note: - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	750.00

### (10.15.2015) Created. (07.29.2016) Change Description and price for KSGCP20000

NEXEDGE	<sup>≘°</sup> NEXE	EDGE <sup>®</sup> Generation2 System	Table of Contents
WINDOWS <sup>®</sup> APP	PLICATION LICEN	ISING	LIST
KPG-1004NC	A unique license ke	Client Software Network Management. ay is required for each PC with software installed. A single authorize multiple PCs. Requires KPT-300LMC for	3,334.00
1. Complete the 2. Submit along a) E-Mail: sys b) Fax: (678)	with your PO to the S stemsorderdesk@us.j 957-1880	cense Key Request Form. YSTEMS Order Desk via:	ny mail for your records.
	KPG-1004NC Soft	tware License Key Discount Structure	
		1 License Key	-
		2 ~ 4 License Keys	10% OFF
		5 ~ 14 License Keys 15 ~ 24 License Keys	35% OFF 40% OFF
Re-man fragmente la colorada de la c	ny Line Konstein Nie Klass Konstein State Klass Konstein	KPT-300LMC License Management Client KPT-300LMC is a required software package that is used to auther KPT-300LMC is available as a free download from Kenwood Took	
and Drop to This Assa	ompatible with	with applicable software. <u>NOTE</u> : A license key is required for the KPT-300LMC to authentic prior to use. To receive a license key, complete the enclosed " <u>Ac</u> and return to the Kenwood Systems Order Desk.	count Request Form"
Windows Vista/7/8/8.1 is not supported.	Only. Windows XP	License Keys will be E-Mailed to the address provided on the Accord A hard copy will follow by mail for your records.	ount Request Form.
KPT-300LMC	License Managem	ent Client	NC
L-5000	KPT-300LMC Lice	· ·	NC
REPEATER TRU	NKING AND MUL	TI SITE FEATURE	LIST
KWD-20CTR	Repeater Trunking Note: Required for	Feature each Trunking Repeater.	1,500.00
KWD-20CNT	Repeater Multi-Site Note: Only for Mul	e Feature ti-Site Trunking System. Required for each Trunking Repeater.	1,667.00

KWD-20CNT Note: Only for Multi-Site Trunking System. Required for each Trunking Repeater.

 REPEATER TRUNKING/MULTI-SITE FEATURE FOR MIGRATING FROM GEN1 TO GEN2

 1. No fees about Trunking/Multi-Site Features for existing Repeaters as Gen1.

 2. Adding new repeaters or sites after migrating Gen1 to Gen2 are charged Gen2 trunking/multi-site features. (KCT-20CTR/CNT)

# NEXEDGE<sup>®</sup> Table of Contents KPG-157SB NEXEDGE<sup>®</sup> Generation1 Bridge Features and Highlights 100 Group Calls. 1000 GID Exchange Sets. Call Types - Voice/Short Data/Long Data. Cross Band Networks\*. IP Remote Control, Configuration and Maintenance. Multi-Level Access Control. Communication and System Logging. Data Backup and Restore. NXR-700/800/900/901 Compatible. $\ominus$

- General Connects up to eight NXR-700/800/9001-based multi-site trunked networks. Subscribers from each network can
- . make/ receive voice and data calls to/from any trunked network.
- Can be installed at any trunked site through IP connectivity so it can be remotely configured and controlled from anywhere. •

\* All channels in NEXEDGE® network must be operating in the same bandwidth (6.25 kHz or 12.5 kHz).

(10.15.2015) Modified title to adding Generaiton1 (08.11.2016) Add KSGCP20000 (08.11.2016) Add L-8518

SOFTWARE		1.107
		LIST
KPG-157SB	Kenwood NEXEDGE Bridge Software	12,500.00
KSGPG92010	System Group Call Path License Note: License for block of 10 path activations. (Minimum of one block; maximum of 10 blocks per system)	10,000.00
KSGPGKEY03	Grade-1 Unlimited Access Secure USB Programming Key Note: Required for operation.	167.00
HARDWARE		LIST
KSGCP20000	Custom Rack Mounted Server with Advanced Support 3 year warranty, 7x24, support, next business day onsite service, 3 year warranty includes the hard drive. High priority technical hardware and software support. One server required for each operating system. Note: - L-8518 must be required for each server. - Must be provided and configured by KENWOOD.	5,500.00
L-8518	Labor for Installing and loading Linux OS and Application Software.	750.00
MOUNTING CON	FIGURATIONS	LIST
KSGMRCK3	3' (17RU) Aluminum Equipment Rack with Crate (KSGMT13000, KSGMT0C03R)	1,080.00
KSGMRCK7	7' (45RU) Aluminum Equipment Rack with Crate (KSGMT17000, KSGMT0C07R)	1,200.00
KSGMCAB4	77" (40RU) Locking Cabinet with Crate (KSGMT20040, KSGMT0C40U)	2,675.00
KSGMT20020	42" (20RU) Locking Cabinet	2,000.00
KSGMT0C20U	Crate for 42 <sup>e</sup> (20RU) Locking Cabinet <u>Note:</u> Optional for situations where extra protection during transportation is required.	345.00
KSGMT20001	Cabinet Solid Top Panel	90.00
KSGMT20002	Cabinet Fan Top Assembly	435.00
KSGMT20003	Cabinet Solid Floor Panel (includes five pre-drilled openings and grommets)	140.00
COMPONENTS		LIST
KSGMT13000	Rack, Equipment, 3' Tall, 19 Inches Wide	720.00
KSGMT0C03R	Crate for 3' Rack	360.00
KSGMT17000	Rack, Equipment, 7' Tall, 19 Inches Wide	650.00
KSGMT0C07R	Crate for 7' Rack	550.00
KSGMT20040	Cabinet, 40U w/Hardware Kit Pre-Punched Pontoon Base	2,155.00
KSGMT0C40U	Crate for 40U Cabinet	520.00

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## NEXEDGE

# **NEXEDGE® MAX**

**Dispatch Console** 

- General
  - End-to-end IP based telecommunications console system designed for mission critical dispatch applications.
- •
- Employs the latest, standards-based IP protocols and IT best practices. Offers highest levels of interoperability, scalability, and features. •
- Designed to connect directly to a NEXEDGE® Trunking Repeater • System (TRS) via IP connection.

MAX PRO WOR	KSTATIONS	LIST
KMX9050410	Kenwood MAX Pro Workstation Bundle	21,243.75
	Bundle Includes One (1) Operator Workstation PC, One (1) media Dock, Two (2) speakers, and power supply. <u>Note</u> : Licenses include: MAX Base Software, Individual Call, Tone Signaling/Paging, Telephone, Event Replay, Auxiliary I/O Control Feature Sets. All manuals are included in soft copy format with the MAX software.	
KMX9050411	Kenwood MAX Pro Workstation Bundle, PC not included	20,600.00
KMX9050412	Kenwood MAX Pro Workstation, Laptop Bundle <u>Note</u> : USB Headset included, Media Dock not included.	18,025.00
KMX9300258	MAX Pro Software	17,381.25
WORKSTATION	I HARDWARE OPTION	LIST
950-0032	Headset, 6-wire, Noise Cancelling <u>Note</u> : Dual Prong adapter which includes one headset top.	466.65
950-0033	Headset 4-Wire, Noise Cancelling <u>Note</u> : Dual Prong adapter which includes one headset top.	341.65
950-0454	Wireless Headset, 6-Wire, Noise Canceling (includes 1 additional battery) <u>Note</u> : Plantronics CA12CD improved belt-mounted PTT pack has secure battery retention and accepts Plantronics H-Series headset tops.	1,166.62
802-0115	Headset Top, Noise Cancelling	174.99
KMX9050413	Kenwood Desktop Microphone, Standard with Cable	550.00
KMX9050414	Kenwood Desktop Microphone, Shure with Cable	725.00
KMX9019695	Kenwood Media Dock XS Kit	4,893.75
KMX9500884	Kenwood Speakers Single (Cable Separate)	543.75
950-9102	Footswitch, Single w/ 10' cable	137.50
950-1082	Dual Prong Headset Jackbox Option (Single Volume Control)	475.00
950-1077	Dual Prong Headset Jackbox Option (Dual Volume Control) <u>Note</u> : Required for TRHI functionality.	1,168.75
709-0170-10	10 ft. Shielded Cat 5e cable for Speakers	25.00
MAX RADIO GA	TEWAY INTERFACE AND OPTIONS	LIST
901-9674	Model 6080 Relay Module	1,062.50
MAX DIGITAL RADI	O GATEWAY INTERFACE AND OPTIONS (IP)	LIST
KMX9019692	Kenwood MAX Digital Radio Gateway <u>Note</u> : Required when interfacing via IP directly to a NEXEDGE DMR, or P25 DFSI System.	3,862.50
KMX9300264	NEXEDGE Talkpath Interface <u>Note</u> : Requires license for each NEXEDGE Talkpath monitored at the console.	643.75

# NEXEDGE<sup>®</sup>

# NEXEDGE<sup>®</sup> MAX Dispatch Console

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MAX DIGITAL RADI	O GATEWAY INTERFACE AND OPTIONS (DB-15)	LIST
901-9675	MAX Radio Gateway Conventional (DB15) Hardware <u>Note</u> : This hardware variant is used when the radio is co-located with the MAX Radio Gateway and the cable can run directly from the unit to the radio itself. This device supports 2 radio connections. Includes one 10' shielded Cat 5e cable.	3,218.75
930-0229	Interface License (TK-x180,TK-5x10, NX-800/900) <u>Note</u> : Per Channel	387.50
709-7977-10	MAX Radio Gateway to Kenwood Radios (TK-x180, TK-5x10, NX-700/800/900) Cable (10 ft.)	131.25
709-7977-20	MAX Radio Gateway to Kenwood Radios (TK-x180, TK-5x10, NX-700/800/900) Cable (20 ft.)	156.25
MAX DIGITAL RADI	O GATEWAY INTERFACE AND OPTIONS (RJ-21)	LIST
901-9677	MAX Radio Gateway Conventional (RJ21) Hardware <u>Note</u> : This hardware variant is used when the site requires that the interconnects to be demarcated on punch down blocks. This device supports 2 radio connections. Includes one 10' shielded Cat 5e cable.	3,218.75
930-0229	Interface License (TK-x180,TK-5x10, NX-800/900) <u>Note</u> : Per Channel	387.50
709-0167-10	25-pr Cable, M180-M90 (10 ft.)	75.00
709-0167-25	25-pr Cable, M180-M90 (25 ft.)	75.00
709-0167-50	25-pr Cable, M180-M90 (50 ft.)	75.00
MAX SYSTEM H	IARDWARE/SOFTWARE	LIST
KMX9019694	Kenwood MAX Central <u>Note</u> : Hardware platform hosting the MAX Manager, Telephony Gateway, IP Voice Logger Gateway, and the Auxiliary I/O Gateway. Includes five (5) 10 ft. shielded CAT5e cables for connectivity.	4,118.75
930-0231	MAX Manager <u>Note</u> : Required for each MAX System.	3,993.75
930-0263	Fleetsync Signaling	262.50
930-0221	Block of 10 Radio Channels Licenses <u>Note</u> : Up to 50 Channels in the systems. Beyond 50 channels please contact Kenwood for pricing	3,862.50
930-0237	IP Voice Logger Channel Block License (Up to 10 radio channels)	581.25
930-0239	Auxiliary I/O Port License (Supports inputs and outputs up to 32)	2,256.25
950-1132	Auxiliary I/O Unit - 16 Inputs/16 Outputs	1,199.95
950-1147	Auxiliary I/O Unit - 16 Inputs/8 Outputs	1,091.62
950-1149	Expansion Auxiliary I/O Unit - 16 Inputs/16 Outputs	824.97
950-1148	Expansion Auxiliary I/O Unit - 16 Inputs/8 Outputs	791.64
930-0235	Telephone Gateway Services (1 per Max Central)	2,575.00
930-0236	Telephony Port License (1 license per line connection) <u>Note</u> : License not required if purchasing one of the gateways above.	81.25
950-1130	2 Port FXS VoIP Gateway with 2 port license <u>Note</u> : Unit requires use of 19" Rack 2U shelf (810-0142).	1,956.25
950-1131	12 Port FXS VoIP Gateway with 12 port license	5,987.50
950-1138	2 Port FXO VoIP Gateway with 2 port license <u>Note</u> : Unit requires use of 19" Rack 2U shelf (810-0142).	1,956.25
950-1139	12 Port FXO VoIP Gateway with 12 port license	5,987.50
930-0233	MAX Portal Remote Radio License <u>Note</u> : One remote Portal license is needed per Radio Gateway that is designated as remote device.	256.25

# NEXEDGE<sup>®</sup>

# NEXEDGE<sup>®</sup> MAX Dispatch Console

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RACK MOUNT	NG AND POWER EQUIPMENT	LIST
950-1142	Redundant 12VDC Power System <u>Note</u> : Supports up to 20 MAX Dispatch devices and includes 19" rack mount enclosure.	4,375.00
950-1143	Redundant 12VDC Power System <u>Note</u> : Supports up to 40 MAX Dispatch devices and includes 19" rack mount enclosure.	7,856.25
950-1133	Isolated 12VDC Power Supply System (non-Redundant) <u>Note</u> : Supports up to 20 MAX Dispatch devices	1,675.00
950-1134	12VDC Power Distribution Panel <u>Note</u> : Supports up to 40 MAX Dispatch devices.	575.00
950-1135	DIN Rail Mounting Kit <u>Note</u> : Generic Rack Mount Kit used for extra power supply mounting or other devices using DIN rail mounting.	612.50
950-0923	MAX Radio Gateway Power Supply Option <u>Note</u> : Used for powering one Radio Gateway.	87.50
950-0589	Radio Interface Module Single Unit Rack Mount Kit	137.50
950-0588	Radio Interface Module Dual Unit Rack Mount Kit	187.50
950-9351	Connectorized Punch down Block	81.25
950-9199	Connectorized Punch down Block (Protected) [Baseline Product]	937.50
802-0230	Protection Modules for 66-Block	31.25
810-0142	19" Rack 2U Shelf	125.00
MONITORS AN	D NETWORK EQUIPMENT	LIST
802-2311	Monitor, LCD Flatpanel, 23" (Resolution 1920 X 1080) (Recommended)	508.31
802-0748	Monitor, LCD Flatpanel, 22" (Resolution 1680 X 1050)	491.65
802-2313	Tech Global 23" WS Multi-Touch Monitor (Resolution 1920 X 1080)	4,933.14
802-2206	HP 21.5" WS Multi-Touch Monitor (Resolution 1920 X 1080)	908.30
950-1128	24-Port Managed Gigabit Switch - Cisco	2,831.25
950-1129	48-Port Managed Gigabit Switch - Cisco	4,893.75
KMX9501136	MAX Solutions Workstation PC	3,087.50
SYSTEMS DOC	CUMENTATION	LIST
395-0098	MAX Dispatch Manual Set <u>Note</u> : CD includes complete suite of MAX Dispatch Manuals.	31.25
025-9638	MAX System Overview Manual	62.50
025-9645	MAX System Installation Manual	62.50
025-9624	MAX Radio Gateway (DB15) Product Manual	62.50
025-9648	MAX Radio Gateway (RJ21) Product Manual	62.50
025-9649	MAX Operation Manual	62.50
025-9647	MAX Central Product Manual	62.50
025-9650	MAX Dispatch Console Design Manual	62.50
025-9630	Model 6080 Manual	62.50
025-9625	MAX Digital Radio Gateway Product Manual	62.50
025-9658	Media Dock XS Manual	62.50
CUSTOMER SU	IPPORT SERVICES (NON-DISCOUNTABLE)	LIST
Note: Factory Training	in Redmond, WA	
X97-344F	MAX Dispatch Factory Technical Training, First Person	1,833.37
X97-344A	MAX Dispatch Factory Technical Training, Additional person	916.69
	ATION AND TECHNICAL TRAINING (NON-DISCOUNTABLE)	LIST
X98-344F	MAX Dispatch On-site Training, First Day	5,516.78
X98-344A	MAX Dispatch On-site Training, Additional Day	3,675.07
		5,075.07

# **NEXEDGE**<sup>®</sup>

# NEXEDGE<sup>®</sup> MAX Dispatch Console

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ON-SITE TECH	INICAL SUPPORT (NON-DISCOUNTABLE)	LIST
X93-344F	MAX Dispatch On-site Technical Support, First Day	5,516.78
X93-344A	MAX Dispatch On-site Technical Support, Additional Day	3,675.07
X93-344R	MAX Dispatch On-site Technical Support, Travel Day	1,841.70
EXTENDED LI	MITED WARRANTY	LIST
X61-1344	Extended Limited Warranty per year (4% of System List Price)	Factory Quote
X61-5344	Extended Limited Warranty 5 year from Ship Date (14% of System List Price)	Factory Quote

	6. Å.	ORIGINAL BID - Invitat Two-Way Ra		r Bid uipment & Servic	Page 1 of 3	
		BID Effective Da	BID Effective Date: Bid Invit			
		11/08/2016	11/08/2016 6100			
Issuing Thomas Sc Commonwe US	shwartz ealth of Pennsylvania	Supplier Name/Address:				
	• • • •					
	Return Quotation to: ealth of Pennsylvania	Type of Securit	•	•	Return Bid by:	
US		Certified ban	etter of cre		Bid Ending Date: 12/02/2016	
		<ul><li>Other as spe</li><li>Bond - If ann</li></ul>	cified by to ual bond:		<b>Bid Ending Time:</b> 12:00:00	
Please D	Please Deliver To: Please Deliver To: Procurement Contact: Buyer: Thomas Schwartz Phone:				Expiration Date of Contract (if applicable)	
		Fax:				
Part IV, IF	ation For Bids is comprised of: Part I, Gen FB Specifications; Part V, Contract Clause ; and any addenda issued by the Issuing	es; any documents at	tached to			
Supplier's	s Signature	Title				
Pr	inted Name	Date				
conditions	er has completed and submitted this Bid in s of the Invitation For Bid. The Bidder has achments are incorporated by reference a d agrees, if this Bid is accepted, to provide specified.	attached documents nd made a part of thi	s that are s Bid. Th	required to be submit the Bidder, intending to	tted with this Bid and be legally bound hereby,	
ltem	Material/Service Desc	Qty	UOM	Unit Price	Total Line Item Price	
1	Two-way Radio Equipment	1.000	Each	\$	\$	
Header Te Addendur Addendur Addendur	Requirements for all Items:					
		ALL PRICES	ARE F.C	D.B. DESTINATIONS	List of Items Continued on Following Page	

	ORIGINAL Page 2 of 3 BID - Invitation For Bid Two-Way Radio Equipment & Services Original Approval Date: 11/08/2016	
	Supplier Name:	
Addendum #5 posted 11/29/16 Addendum #6 posted 11/30/16		

Enter total bid amount here >>>	·>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
---------------------------------	--

ALL PRICES ARE F.O.B. DESTINATIONS



# ORIGINAL Page 3 of 3 BID - Invitation For Bid Two-Way Radio Equipment & Services Original Approval Date: 11/08/2016

Supplier Name: \_\_\_\_\_

# \*\*\* Attributes Page \*\*\*

\*\*\* No further information for this bid \*\*\*

**Mandatory** QUESTION #02 - Is the offer in accordance with the "Representations and Authorizations" listed in section "Submission – 001.1" of the attached solicitation document? **Response:** 

Mandatory QUESTION #01 - Has the submitter read, and does the submitter understand, the "Representations and Authorizations" listed in section "Submission – 001.1" of the attached solicitation document? Response:

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# PART I - GENERAL INFORMATION PART I - GENERAL INFORMATION I.1 IFB-001.1 Purpose (Oct 2006)

The Commonwealth of Pennsylvania (Commonwealth) is issuing this Invitation for Bids (IFB) to meet the needs of OFFICE OF ADMINISTRATION to satisfy a need for TWO-WAY RADIO EQUIPMENT & SERVICES.

### I.2 IFB-005.1 Type of Contract (Oct. 2006)

If the Issuing Office enters into a contract as a result of this IFB, it will be a Established Price Contract contract containing the Contract Terms and Conditions as shown in Part V of this IFB.

#### I.3 IFB-008.1C No Pre-bid Conference (Oct. 2006)

There will be no pre-bid conference for this IFB. If there are any questions, please forward them to the Issuing Office prior to the bid opening date and time.

### I.4 IFB-009.1 Questions (February 2012)

All questions regarding the IFB must be submitted in writing to the email address of the Issuing Officer provided in the solicitation. While there is no set timeline for the submittal of questions, questions received within 48 hours prior to the bid due date and time will be answered at the discretion of the Commonwealth. All questions received will be answered, in writing, and such responses shall be posted to eMarketplace as an addendum to the IFB. The Issuing Officer shall not be bound by any verbal information nor shall it be bound by any written information that is not either contained within the IFB or formally issued as an addendum by the Issuing Office. The Issuing Office does not consider questions to be a protest of the specifications or of the solicitation.

#### I.5 IFB-010.1 Addenda to the IFB (Oct. 2006)

If the Issuing Office deems it necessary to revise any part of this IFB before the bid response date, the Issuing Office will post an addendum to its website at HTTP://WWW.OA.PA.GOV it is the Bidder's responsibility to periodically check the website for any new information or addenda to the IFB.

#### I.6 IFB-011.1B Submission of Bids – Electronic Submittal (May 2011)

a. Bids are requested for the item(s) described in the Invitation For Bids and all the documents referenced in the form (collectively called the IFB). Bidders must submit their bids through the Commonwealth's electronic system (SRM).

b. It is the responsibility of each bidder to ensure that its Bid is received through the electronic system prior to the date and time set for the opening of bids ("Bid Opening Time"). No Bid shall be considered if it arrives after the Bid Opening Time, regardless of reason for the late arrival.

Bids that are timely received prior to the Bid Opening Time shall be opened publicly in the presence of one or more witnesses at the time and place designated in this IFB for the Bid opening.

c. Bids must be firm. If a Bid is submitted with conditions or exceptions or not in conformance with the terms

and conditions referenced in the IFB Form, it shall be rejected. The Bid shall also be rejected if the items offered by the Bidder are not in conformance with the specifications as determined by the Commonwealth.

d. The Bidder, intending to be legally bound hereby, offers and agrees, if this Bid is accepted, to provide the awarded items at the price(s) set forth in this Bid at the time(s) and place(s) specified.

#### I.7 IFB-024.1 Bid Protest Procedure (April 2016)

The Bid Protest Procedure is on the DGS website at http://www.dgs.pa.gov/Documents/Procurement%20Forms/Handbook/Pt1/Pt%20I%20Ch%2058%20Bid%20Protests.pdf

### I.8 IFB-025.1 Electronic Version of this IFB (Oct 2006)

This IFB is being made available by electronic means. If a Bidder electronically accepts the IFB, the Bidder acknowledges and accepts full responsibility to insure that no changes are made to the IFB. In the event of a conflict between a version of the IFB in the Bidder's possession and the Issuing Office's version of the IFB, the Issuing Office's version shall govern.

### I.9 IFB-027.1 COSTARS Program (April 2016)

**COSTARS Purchasers.** Section 1902 of the Commonwealth Procurement Code, 62 Pa.C.S. § 1902 ("Section 1902"), authorizes local public procurement units and state-affiliated entities (together, "COSTARS Members") to participate in Commonwealth procurement contracts that the Department of General Services ("DGS") may choose to make available to COSTARS Members. DGS has identified this Contract as one which will be made available for COSTARS Members' participation.

A. Only those entities registered with DGS are authorized to participate as COSTARS Members in this Contract. A COSTARS Member may be either a local public procurement unit or a state-affiliated entity.

- 1. A "local public procurement unit" is:
  - Any political subdivision (local government unit), such as a municipality, school district, or commission;
  - Any public authority (including authorities formed under the Municipality Authorities Act of 1955 or other authorizing legislation, such as the Public Transportation Law or the Aviation Code);
  - Any tax-exempt, nonprofit educational institution or organization;
  - Any tax-exempt, nonprofit public health institution or organization;
  - Any nonprofit fire, rescue, or ambulance company; and
  - Any other entity that spends public funds for the procurement of supplies, services, and construction (such as a council of governments, an area government, or an organization that receives public grant funds).

The Department reserves the right to review and determine eligible applicants as Local Public Procurement Units on a case-by-case basis.

2. A state-affiliated entity is a Commonwealth authority or other Commonwealth entity that is not a Commonwealth agency. The term includes:

- The Pennsylvania Turnpike Commission;
- The Pennsylvania Housing Finance Agency;
- The Pennsylvania Municipal Retirement System;
- The Pennsylvania Infrastructure Investment Authority;

- The State Public School Building Authority;
- The Pennsylvania Higher Education Facilities Authority, and
- The State System of Higher Education.

3. A complete list of local public procurement units and state-affiliated entities that have registered with DGS and that are authorized to procure items from the Contract can be found at http://www.costars.state.pa.us/SearchCOMember.aspx

B. COSTARS Members have the option to purchase from this Contract, from any DGS contract established exclusively for COSTARS Members in accordance with the requirements of Section 1902, from any other cooperative procurement contracts, or from their own procurement contracts established in accordance with the applicable laws governing such procurements. The Contractor understands and acknowledges that there is no guarantee that a COSTARS Member will place an order under this Contract, and that the decision to procure from this Contract is within the sole discretion of each COSTARS Member.

C. DGS is acting as a facilitator for COSTARS Members who may wish to purchase under this Contract. COSTARS Members that participate in this Contract and issue purchase orders ("POs") to Contractors are third party beneficiaries who have the right to sue and be sued for breach of this Contract without joining the Commonwealth or DGS as a party. The Commonwealth will not intervene in any action between a Contractor and a COSTARS Member unless substantial interests of the Commonwealth are involved.

D. COSTARS Members electing to participate in this Contract will order items directly from the Contractor and be responsible for payment directly to the Contractor.

E. Those Contractors electing to permit COSTARS Members to procure from this Contract shall pay the Required Administrative Fee applicable to the Contractor's classification:

Contractor Classification	Required Administrative Fee
Department of General Services Self-Certified Small Business Bidder	\$500
All Other Bidders	\$1,500

1. Each bidder electing to permit COSTARS Members to participate in the Contract must submit the COSTARS Program Election to Participate form with its bid submittal and pay the applicable Administrative Fee upon Contract award in order to sell the awarded items/services to COSTARS Members. If the bidder is a Department of General Services Self-Certified Small Business, a copy of its active Small Business Procurement Initiative (SBPI) certificate must be included with the bid submittal.

2. At the beginning of each Contract year and upon any Contract renewal, the Contractor shall submit a check for the required amount, payable to "Commonwealth of PA". The Contractor must pay the Administrative Fee at each contract renewal date to continue to sell the awarded items/services to COSTARS Members. If the bidder is a Department of General Services Self-Certified Small Business, a copy of its active SBPI certificate must be included with the Administrative Fee for each contract year and upon each renewal.

F. DGS has registered the COSTARS name and logo (together, the "COSTARS Brand") as a trademark with the Pennsylvania Department of State. Therefore, the Contractor may use the COSTARS Brand only as permitted under in this Subsection.

1. The Contractor shall pay the Administrative Fee covering its participation in the program, including without limitation any use of the COSTARS Brand, for each year of the Contract period. The fee is payable upon Contract

award and prior to the renewal date for each succeeding Contract period.

2. DGS grants the Contractor a nonexclusive license to use the COSTARS Brand, subject to the following conditions:

a. The Contractor agrees not to transfer to any third party, including without limitation any of its subcontractors or suppliers, any privileges it may have to use the COSTARS Brand under this Contract.

b. The Contractor agrees not to use the COSTARS Brand to represent or imply any Commonwealth endorsement or approval of its products or services.

c. The Contractor is permitted to use the COSTARS Brand in broadcast, or Internet media solely in connection with this Contract and any other Contract with the Commonwealth under which it has agreed to make sales to COSTARS Purchasers. The Contractor may use the COSTARS Brand on business cards, brochures, and other print publications so long as the purpose is to identify the Contractor as a COSTARS vendor, and only so long as the required Contract fee is kept current.

d. Should this Contract terminate for any reason, the Contractor agrees promptly to remove the COSTARS Brand from any and all print and electronic media and to refrain from using the COSTARS Brand for any purpose whatsoever from the date of Contract termination forward.

e. The Contractor agrees to defend, indemnify, and hold harmless the Commonwealth of Pennsylvania and DGS from and against all claims, demands, liabilities, obligations, costs, and expenses of any nature whatsoever arising out of or based upon the Contractor's use of the COSTARS Brand.

f. The Contractor agrees it has no property rights in the use of the COSTARS Brand by virtue of this nonexclusive license. The Contractor expressly waives any claims, including without limitation due process claims that may otherwise be available under the law in the event of any dispute involving these terms of use.

G. The Contractor shall furnish to the DGS COSTARS Program Office a quarterly electronic Contract sales report detailing the previous quarter's Contract purchasing activity, using the form and in the format prescribed by DGS. The Contractor shall submit its completed quarterly report no later than the fifteenth calendar day of the succeeding Contract quarter.

1. The Contractor shall submit the reports via the web-based COSTARS Suppliers' Gateway at <u>www.costars.state.pa.us</u>. If a Contractor does not have access to the Internet, the Contractor shall send the reports, using the form and in the format prescribed by DGS, on compact disc via US Postal Service to the DGS COSTARS Program Office, Bureau of Procurement, 6th Floor Forum Place, 555 Walnut Street, Harrisburg, PA 17101-1914.

2. For each PO received, the Contractor shall include on the report the name and address of each COSTARS-Registered Purchaser that has used the Contract along with the sales date, and dollar volume of sales to the specific Purchaser for the reporting period.

3. DGS may suspend the Contractor's participation in the COSTARS Program for failure to provide the Quarterly Sales Report within the specified time.

H. Additional information regarding the COSTARS Program is available on the DGS COSTARS Website at <u>www.costars.state.pa.us</u>.

1. If the Contractor is aware of any qualified entity not currently registered and wishing to participate in the COSTARS Program, please refer the potential purchaser to the DGS COSTARS Website at www.costars.state.pa.us , where it may register by completing the online registration form and receiving DGS confirmation of its registration. To view a list of currently-registered COSTARS member entities, please visit the COSTARS website.

2. Direct all questions concerning the COSTARS Program to:

Department of General Services COSTARS Program 555 Walnut Street, 6th Floor Harrisburg, PA 17101 Telephone: 1-866-768-7827 E-mail GS-PACostars@state.pa.us

### I.10 IFB-028.1 Participating Addendum with an External Procurement Activity (Dec 6 2006)

Section 1902 of the *Commonwealth Procurement Code*, 62 Pa.C.S. Section 1902, permits external procurement activities to participate in cooperative purchasing agreements for the procurement of services, supplies or construction.

- a. **Definitions.** The following words and phrases have the meanings set forth in this provision:
  - 1) *External procurement activity:* The term, as defined in 62 Pa. C. S. Section 1901, means a 'buying organization not located in the Commonwealth [of Pennsylvania] which if located in this Commonwealth would qualify as a public procurement unit [under 62 Pa. C.S. Section 1901]. An agency of the United States is an external procurement activity.'
  - 2) Participating addendum: A bilateral agreement executed by the Contractor and an external procurement activity that clarifies the operation of the Contract for the external procurement activity concerned. The terms and conditions in any participating addendum shall affect only the procurements of the purchasing entities under the jurisdiction of the external procurement activity signing the participating addendum.
  - 3) *Public procurement unit:* The term, as defined in 62 Pa. C. S. Section 1901, means a 'local public procurement unit or purchasing agency.'
  - 4) *Purchasing agency:* The term, as defined in 62 Pa. C. S. Section 103, means a 'Commonwealth agency authorized by this part or any other law to enter into contracts for itself or as the agent of another Commonwealth agency.'
- b. **General.** A participating addendum shall incorporate the terms and conditions of the Contract resulting from this IFB. The Contractor shall not be required to enter into any participating addendum.

#### c. Additional Terms.

- 1) A participating addendum may include additional terms that are required by the law governing the external procurement activity.
- 2) A participating addendum may include new, mutually agreed upon terms that clarify ordering procedures specific to a participating external procurement activity.
- 3) The construction and effect of any participating addendum shall be governed by and construed in accordance with the laws governing the external procurement activity.
- 4) If an additional term requested by the external procurement activity will result in an increased cost to the Contractor, the Contractor shall adjust its pricing up or down accordingly.

#### d. Prices.

- 1) **Price adjustment** For any costs affecting the percent markup that the Contractor will or will not incur or that differ from costs incurred or not incurred in the fulfillment of this Contract, the Contractor shall adjust its pricing up or down accordingly. These costs may include, but not be limited to:
  - a) State and local taxes;
  - b) Unemployment and workers compensation fees;

- c) E-commerce transaction fees; and
- d) Costs associated with additional terms, established pursuant to the Contract.
- 2) The Contractor's pricing for an external procurement activity shall be firm and fixed for the duration of the initial term of the Contract. After the initial term of the Contract, if the Contract is renewed, the Contractor's pricing may be adjusted up or down based on market conditions only with the mutual agreement of both the Contractor and any external procurement activity.

#### e. Usage Reports on External Procurement Activities.

The Contractor shall furnish to the Contracting Officer an electronic quarterly usage report, preferably in spreadsheet format no later than the fifteenth calendar day of the succeeding calendar quarter. Reports shall be e-mailed to the Contracting Officer for the Contract. Each report shall indicate the name and address of the Contractor, contract number, period covered by the report, the name of the external procurement activity that has used the Contract and the total volume of sales to the external procurement activity for the reporting period.

f. Electronic Copy of Participating Addendum. The Contractor, upon request of the Contracting Officer, shall submit one electronic copy of the participating addendum to the Contracting Officer within ten days after request.

### I.11 IFB-029.1 Prices (Dec 6 2006)

The bid submitted by the successful Bidder will be incorporated into any resulting Contract and the Bidder will be required to provide the awarded item(s) at the prices quoted in its Bid.

# I.12 IFB-030.1 Approved Equal (Nov 2006)

Whenever an item is defined in this IFB by trade name and catalogue number of a manufacturer or vendor, the term 'or approved equal,' if not inserted therewith shall be implied. Any reference to a particular manufacturer's product either by trade name or by limited description is solely for the purpose of more clearly indicating the minimum standard of quality desired, except where a 'no substitute' is requested. When a 'no substitute' is requested, the Issuing Office will consider Bids for the referenced product only. The term 'or approved equal' is defined as meaning any other make which, in the sole opinion of the Issuing Office, is of such character, quality, and performance equivalence as to meet the standard of quality of products specified for which it is to be used equally as well as that specified. A Bidder quoting on a product other than the referenced product shall: a) furnish complete identification in its Bid of the product it is offering by trade name, brand and/or model number; b) furnish descriptive literature and data with respect to the substitute product it proposes to furnish; and c) indicate any known specification deviations from the referenced product.

#### I.13 IFB-031.1 Alternates (Oct 2013)

A Bidder who wants to offer an alternate must notify the Issuing Office in writing, at least five (5) days prior to the scheduled Bid opening, that the Bidder intends to offer an alternate in its Bid. An "alternate" is a product that deviates from the requirements of the specifications in its composition, qualities, performance, size dimension, etc. The written notification from the Bidder must include a complete description of the alternate and must identify the product's deviations from the specifications. Upon receipt of the notification, the Issuing Office will determine whether the alternate is acceptable. If the Issuing Office, in its discretion, determines that the alternate is acceptable, the Issuing Office will issue a change notice to the invitation for bids that revises the specifications. If no change notice is issued revising the specification, a Bid offering the alternate will not be considered for award. If an item or items in the IFB are designated "no substitute," this provision does not apply and no alternate may be proposed by a bidder nor will any alternate be considered by the Issuing Office.

### I.14 IFB-032.1 New Equipment (Nov 2006)

Unless otherwise specified in this invitation for bids, all products offered by Bidders must be new or remanufactured. A 'new' product is one that will be used first by the Commonwealth after it is manufactured or produced. A 'remanufactured' product is one which: 1) has been rebuilt, using new or used parts, to a condition which meets the original manufacturer's most recent specifications for the item; 2) does not, in the opinion of the Issuing Office, differ in appearance from a new item; and 3) has the same warranty as a new item. Unless otherwise specified in this invitation for bids, used or reconditioned products are not acceptable. This clause shall not be construed to prohibit Bidders from offering products with recycled content, provided the product is new or remanufactured.

### I.15 I-IFB-033.1 Modification or Withdrawal of Bid (Nov 2006)

- a. <u>Bid Modification Prior to Bid Opening</u>. Bids may be modified only by written notice or in person prior to the exact hour and date specified for Bid opening.
  - If a Bidder intends to modify its Bid by written notice, the notice must specifically identify the Bid to be modified and must be signed by the Bidder. The Bidder must include evidence of authorization for the individual who signed the modification to modify the Bid on behalf of the Bidder. The Bid modification must be received in a sealed envelope. The sealed envelope must identify the assigned Collective Number and the Bid Opening Time, and should state that enclosed in the envelope is a Bid modification
  - 2) If a Bidder intends to modify its Bid in person, the individual who will modify the Bid must arrive in the Bid Opening Room prior to the Bid Opening Time, show a picture identification and provide evidence of his/her authorization to modify the Bid on behalf of the Bidder. If a Bidder intends to modify its Bid in person, the Bidder may do so only in the presence of an agency employee. (The agency employee will observe the actions taken by the individual to modify the Bid, but will not read the Bid or the modification).
- b. <u>Bid Withdrawal Prior to Bid Opening</u>. Bids may be withdrawn only by written notice or in person prior to the exact hour and date specified for Bid opening.
  - If a Bidder intends to withdraw its Bid by written notice, the notice shall specifically identify the Bid to be withdrawn and shall be signed by the Bidder. The Bidder must include evidence of authorization for the individual who signed the bid withdrawal to withdraw the bid on behalf of the Bidder. Except as provided in Subparagraph c, below, bid withdrawals received after the exact hour and date specified for the receipt of Bids shall not be accepted.
  - 2) If a Bidder intends to withdraw its Bid in person, the individual who will withdraw the Bid must arrive in the Bid Opening Room prior to the Bid Opening Time, show a picture identification and provide evidence of his/her authorization to withdraw the Bid on behalf of the Bidder.
- c. <u>Bid Withdrawal After Bid Opening</u>. Bidders are permitted to withdraw erroneous Bids after Bid opening only if the following conditions are met:
  - 1) The Bidder submits a written request for withdrawal.
  - 2) The Bidder presents credible evidence with the request that the reason for the lower Bid price was a clerical mistake as opposed to a judgment mistake and was actually due to an unintentional arithmetical error or an unintentional omission of a substantial quantity of work, labor, material, or services made directly in the compilation of the Bid.
  - 3) The request for relief and supporting evidence must be received by the Issuing Office within three (3) business days after Bid opening, but before award of the contract.
  - 4) The Issuing Office shall not permit a Bid withdrawal if the Bid withdrawal would result in the award of the contract on another Bid of the same Bidder, its partner, or a corporation or business venture owned by or in

which the bidder has a substantial interest.

- 5) If a Bidder is permitted to withdraw its Bid, the Bidder cannot supply any material or labor or perform any subcontract or other work agreement for the awarded contractor, without the written approval of the Issuing Office.
- d. <u>Firm Bid.</u> Except as provided above, a Bid may not be modified, withdrawn, or cancelled by any Bidder for a period of sixty (60) days following the time and date designated for Bid opening, unless otherwise specified by the Bidder in its Bid. If the lowest responsible Bidder, as determined by the Issuing Office, withdraws its Bid prior to the expiration of the award period or fails to comply with the requirements set forth in the IFB including but not limited to any requirement to submit performance or payment bonds or insurance certificates within the required time period, the Bidder shall be liable to the Commonwealth for all costs and damages associated with the re-award or re-bid including the difference between the Bidder's price and the actual cost that the Commonwealth pays for the awarded items.
- e. <u>Clarification and Additional Information</u>. After the receipt of Bids, the Issuing Office shall have the right to contact Bidders for the purpose of seeking:
  - 1) Clarification of the Bid which confirms the Issuing Office's understanding of statements or information in the Bid or;
  - 2) Additional information on the items offered; provided the IFB does not require the rejection of the Bid for failure to include such information.

### I.16 I-IFB-034.1 Rejection of Bids (Nov 2006)

The Issuing Office reserves the right to reject any and all Bids, to waive technical defects or any informality in Bids, and to accept or reject any part of any Bid if the best interests of the Commonwealth are thereby served.

#### I.17 Submission-001.1 Representations and Authorizations (Oct 2013)

By submitting its proposal, each Offeror understands, represents, and acknowledges that:

A. All of the Offeror's information and representations in the proposal are material and important, and the Issuing Office may rely upon the contents of the proposal in awarding the contract(s). The Commonwealth shall treat any misstatement, omission or misrepresentation as fraudulent concealment of the true facts relating to the Proposal submission, punishable pursuant to 18 Pa. C.S. § 4904.

B. The Offeror has arrived at the price(s) and amounts in its proposal independently and without consultation, communication, or agreement with any other Offeror or potential offeror.

C. The Offeror has not disclosed the price(s), the amount of the proposal, nor the approximate price(s) or amount(s) of its proposal to any other firm or person who is an Offeror or potential offeror for this RFP, and the Offeror shall not disclose any of these items on or before the proposal submission deadline specified in the Calendar of Events of this RFP.

D. The Offeror has not attempted, nor will it attempt, to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.

E. The Offeror makes its proposal in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.

F. To the best knowledge of the person signing the proposal for the Offeror, the Offeror, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last **four** years been convicted or found liable for any act prohibited by State or

Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as the Offeror has disclosed in its proposal.

G. To the best of the knowledge of the person signing the proposal for the Offeror and except as the Offeror has otherwise disclosed in its proposal, the Offeror has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Offeror that is owed to the Commonwealth.

H. The Offeror is not currently under suspension or debarment by the Commonwealth, any other state or the federal government, and if the Offeror cannot so certify, then it shall submit along with its proposal a written explanation of why it cannot make such certification.

I. The Offeror has not made, under separate contract with the Issuing Office, any recommendations to the Issuing Office concerning the need for the services described in its proposal or the specifications for the services described in the proposal.

J. Each Offeror, by submitting its proposal, authorizes Commonwealth agencies to release to the Commonwealth information concerning the Offeror's Pennsylvania taxes, unemployment compensation and workers' compensation liabilities.

K. Until the selected Offeror receives a fully executed and approved written contract from the Issuing Office, there is no legal and valid contract, in law or in equity, and the Offeror shall not begin to perform.

# PART II - REQUIREMENTS PART II - REQUIREMENTS II.1 IFB-006.1b COSTARS Program Election to Participate (July 2012)

If the bidder is willing to sell the awarded items/services at the same prices and/or discounts, and in accordance with the contractual terms and conditions, to COSTARS members, the bidder should complete and return the COSTARS Program Election to Participate form which is an attachment to this IFB. If the bidder is asserting that it is a Department of General Services Certified Small Business, the bidder must submit its active certification with the bid response.

# II.2 II-IFB-008.1b Lobbying Certification and Disclosure – Electronic Submission. (Oct 2006).

With respect to an award of a federal contract, grant, or cooperative agreement exceeding \$100,000 or an award of a federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000 all recipients must certify that they will not use federal funds for lobbying and must disclose the use of non-federal funds for lobbying by filing required documentation. Offerors must complete and return the Lobbying Certification Form and the Disclosure of Lobbying Activities Form, which are attached to and made a part of this IFB. The completed and signed Lobbying Certification Form and the Disclosure of Lobbying Activities Form should be submitted with the Bid Response. Commonwealth agencies will not contract with outside firms or individuals to perform lobbying services, regardless of the source of funds.

# II.3 II-IFB-016.1 Post-Submission Descriptive Literature (Dec 2006)

The Commonwealth may, during its evaluation of the bids, require any bidder to submit cuts, illustrations, drawings, prints, test data sheets, specification sheets and brochures which detail construction features, design, components, materials used, applicable dimensions and any other pertinent information which the Issuing Office may require in order to evaluate the product(s) offered. The required information must be submitted within two (2) business days after notification from the Issuing Office. Failure to submit the required information prior to the expiration of the second business day after notification shall result in the rejection of the bid as non-responsive.

# II.4 II-IFB-017.1b Reciprocal Limitations Act – Electronic Submittal (February 2007)

This procurement is subject to the Reciprocal Limitations Act. Bidders must complete and submit with the Bid Response the State of Manufacture Chart, which is contained in GSPUR-89 ("Reciprocal Limitations Act Requirements") which is attached to and made part of this IFB. The completed State of Manufacture Chart should be submitted as part of the Bid Reponse

# PART III - SELECTION CRITERIA PART III - SELECTION CRITERIA III.1 III-IFB-001.1a Mandatory Responsiveness Requirements (Oct 2006)

To be eligible for selection, a bid must be:

- a. Timely received from a Bidder;
- b. Properly signed by the Bidder.

# III.2 III-IFB-006.1f Method of Award - All Bidders (April 2011)

Award will be made to all responsive and responsible bidders.

### III.3 III-IFB-007.1 Awards (May 2011)

Unless all Bids are rejected, and except as otherwise provided by law, award will be made through the issuance of a contract/purchase order in accordance with the method of award. Unless otherwise specified by the Issuing Office in the IFB form the Commonwealth reserves the right to award by item or on a total Bid basis, whichever is deemed more advantageous to the Commonwealth. In cases of discrepancies in prices, the unit price will be binding unless the unit price is obviously in error and the extended price is obviously correct, in which case the erroneous unit price will be corrected. As a condition for receipt of award of a contract/purchase order, the Bidder must be registered in the Commonwealth of Pennsylvania's Vendor Master file. In order to register, bidders must visit the Pa Supplier Portal at https://www.pasupplierportal.state.pa.us/ or call the Customer Support Center at 877-435-7363 or 717-346-2676.

# III.4 III-IFB-008.1 Tie Bids (Nov 2006)

All tie bids will be broken by the Issuing Office.

### III.5 III-IFB-009.1 Prompt Payment Discounts (Nov 2006)

Prompt payment discounts will not be considered in making an award. If prompt payment discounts are offered by any Bidder, however, the Issuing Office will take advantage of such offer.

# III.6 III-IFB-010.1 Option for Separate Competitive Bidding Procedure (Nov 2006)

The Commonwealth reserves the right to purchase products or services covered under this Contract through a separate competitive bidding procedure, whenever Commonwealth deems it in the best interest of the Commonwealth. The right will generally be exercised only when a specific need for a large quantity of the product or service exists or when the price offered is significantly lower than the Contract price.

#### III.7 III-IFB-014.1 Rebates (Nov 2006)

Any rebate applicable at the time of bid should be taken into consideration by the bidder in calculating its bid price. Bidders must specifically state in their bid proposal, when applicable, that rebates have been considered in arriving at the bid price. Following award, the Commonwealth will assign to the awarded bidder, any rebates which the bidder stated that he took into consideration. If the bidder fails to include such a statement, the Commonwealth will receive the full benefit of the manufacturer's rebate.

# PART IV - WORK STATEMENT PART IV - WORK STATEMENT IV.1 IFB-001.1a Specifications (Nov 2006)

The Commonwealth is seeking bids to procure the item(s) set forth in the attached document entitled "Specifications."

# PART V - CONTRACT TERMS and CONDITIONS PART V - CONTRACT TERMS and CONDITIONS V.1 CONTRACT-001.1b Contract Terms and Conditions (Nov 30, 2006)

The Contract with the awarded bidder (who shall become the "Contractor") shall include the following terms and conditions:

# V.2 CONTRACT-002.1a Term of Contract – Contract (May 2012)

The initial term of the Contract shall be 03 year(s) and 00 month(s).

The term of the Contract shall commence on the Effective Date (as defined below) and shall end on the Expiration Date identified in the Contract, subject to the other provisions of the Contract.

The Effective Date shall be: a) the Effective Date printed on the Contract after the Contract has been fully executed by the Commonwealth (signed and approved as required by the Commonwealth contracting procedures) or b) the "Valid from" date printed on the Contract, whichever is later.

# V.3 CONTRACT-002.2b Renewal of Contract Term – Mutual (Oct 2013)

The Contract may be mutually renewed for a maximum of 2 additional 1 year term(s), so long as the Commonwealth provides written notice to Contractor of its intention to extend the Contract by letter dated not less than 090 days prior to the expiration of the term of the agreement, or any extension thereof, and the Contractor consents to the renewal not less than 060 days prior to the expiration of the term of the agreement or any extension thereof. The renewal may be exercised as individual or multiple year terms(s). Any renewal will be under the same terms, covenants and conditions. No further document is required to be executed to renew the term of the contract.

### V.4 CONTRACT-002.3 Extension of Contract Term (Nov 30 2006)

The Commonwealth reserves the right, upon notice to the Contractor, to extend any single term of the Contract for up to three (3) months upon the same terms and conditions.

# V.5 CONTRACT-003.1a Signatures – Contract (July 2015)

The Contract shall not be a legally binding contract until the fully-executed Contract has been sent to the Contractor. No Commonwealth employee has the authority to verbally direct the commencement of any work or delivery of any supply under this Contract prior to the Effective Date. The Contractor hereby waives any claim or cause of action for any service or work performed prior to the Effective Date.

The Contract may be electronically signed by the Commonwealth. The electronically-printed name of the Purchasing Agent represents the signature of that individual who has the authority, on behalf of the Commonwealth, to bind the Commonwealth to the terms of the Contract. If the Contract output form does not have "Fully Executed" at the top of the first page and does not have the name of the Purchasing Agent printed in the appropriate box, the Contract has <u>not</u> been fully executed.

The fully-executed Contract may be sent to the Contractor electronically or through facsimile equipment. The electronic transmission of the Contract shall require acknowledgement of receipt of the transmission by the Contractor. Receipt of the electronic or facsimile transmission of the Contract shall constitute receipt of the fully-executed Contract.

The Commonwealth and the Contractor specifically agree as follows:

a. No handwritten signature shall be required in order for the Contract to be legally enforceable.

b. The parties agree that no writing shall be required in order to make the Contract legally binding, notwithstanding

contrary requirements in any law. The parties hereby agree not to contest the validity or enforceability of a genuine Contract or acknowledgement issued electronically under the provisions of a statute of frauds or any other applicable law relating to whether certain agreements be in writing and signed by the party bound thereby. Any genuine Contract or acknowledgement issued electronically, if introduced as evidence on paper in any judicial, arbitration, mediation, or administrative proceedings, will be admissible as between the parties to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of a genuine Contract or acknowledgements under either the business records exception to the hearsay rule or the best evidence rule on the basis that the Contract or acknowledgement were not in writing or signed by the parties. A Contract or acknowledgment shall be deemed to be genuine for all purposes if it is transmitted to the location designated for such documents.

c. Each party will immediately take steps to verify any document that appears to be obviously garbled in transmission or improperly formatted to include re-transmission of any such document if necessary.

# V.6 CONTRACT-004.1a Definitions (Oct 2013)

As used in this Contract, these words shall have the following meanings:

a. <u>Agency:</u> The department, board, commission or other agency of the Commonwealth of Pennsylvania listed as the Purchasing Agency. If a COSTARS entity or external procurement activity has issued an order against this contract, that entity shall also be identified as "Agency".

b. <u>Contracting Officer:</u> The person authorized to administer this Contract for the Commonwealth and to make written determinations with respect to the Contract.

c. <u>Days:</u> Unless specifically indicated otherwise, days mean calendar days.

d. <u>Developed Works or Developed Materials</u>: All documents, sketches, drawings, designs, works, papers, files, reports, computer programs, computer documentation, data, records, software, samples or any other tangible material without limitation authored or prepared by Contractor as the work product covered in the scope of work for the Project.

e. <u>Documentation:</u> All materials required to support and convey information about the services required by this Contract. It includes, but is not necessarily restricted to, written reports and analyses, diagrams, maps, logical and physical designs, system designs, computer programs, flow charts, disks, and/or other machine-readable storage media.

f. <u>Services:</u> All Contractor activity necessary to satisfy the Contract.

# V.7 CONTRACT-005.1a Purchase Orders (July 2015)

Commonwealth agencies may issue Purchase Orders against the Contract. These orders constitute the Contractor's authority to make delivery. All Purchase Orders received by the Contractor up to and including the expiration date of the Contract are acceptable and must be performed in accordance with the Contract. Each Purchase Order will be deemed to incorporate the terms and conditions set forth in the Contract.

Purchase Orders may be electronically signed by the Agency. The electronically-printed name of the purchaser represents the signature of that individual who has the authority, on behalf of the Commonwealth, to authorize the Contractor to proceed.

Purchase Orders may be issued electronically or through facsimile equipment. The electronic transmission of a purchase order shall require acknowledgement of receipt of the transmission by the Contractor. Receipt of the electronic or facsimile transmission of the Purchase Order shall constitute receipt of an order. Orders received by the Contractor after 4:00 p.m. will be considered received the following business day.

a. No handwritten signature shall be required in order for the Contract or Purchase Order to be legally enforceable.

b. The parties agree that no writing shall be required in order to make the Purchase Order legally binding. The parties hereby agree not to contest the validity or enforceability of a Purchase Order or acknowledgement issued electronically under the provisions of a statute of frauds or any other applicable law relating to whether certain

agreements be in writing and signed by the party bound thereby. Any Purchase Order or acknowledgement issued electronically, if introduced as evidence on paper in any judicial, arbitration, mediation, or administrative proceedings, will be admissible as between the parties to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of Purchase Orders or acknowledgements under either the business records exception to the hearsay rule or the best evidence rule on the basis that the Purchase Order or acknowledgement were not in writing or signed by the parties. A Purchase Order or acknowledgement shall be deemed to be genuine for all purposes if it is transmitted to the location designated for such documents.

c. Each party will immediately take steps to verify any document that appears to be obviously garbled in transmission or improperly formatted to include re-transmission of any such document if necessary.

Purchase Orders under ten thousand dollars (\$10,000) in total amount may also be made in person or by telephone using a Commonwealth Purchasing Card. When an order is placed by telephone, the Commonwealth agency shall provide the agency name, employee name, credit card number, and expiration date of the card. Contractors agree to accept payment through the use of the Commonwealth Purchasing Card.

#### V.8 CONTRACT-006.1 Independent Prime Contractor (Oct 2006)

In performing its obligations under the Contract, the Contractor will act as an independent contractor and not as an employee or agent of the Commonwealth. The Contractor will be responsible for all services in this Contract whether or not Contractor provides them directly. Further, the Contractor is the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from the Contract.

# V.9 CONTRACT-007.01a Supplies Delivery (Nov 30 2006)

All item(s) shall be delivered F.O.B. Destination. The Contractor agrees to bear the risk of loss, injury, or destruction of the item(s) ordered prior to receipt of the items by the Commonwealth. Such loss, injury, or destruction shall not release the Contractor from any contractual obligations. Except as otherwise provided in this contract, all item(s) must be delivered within the time period specified. Time is of the essence and, in addition to any other remedies, the Contract is subject to termination for failure to deliver as specified. Unless otherwise stated in this Contract, delivery must be made within thirty (30) days after the Effective Date.

# V.10 CONTRACT-007.02 Estimated Quantities (Nov 30 2006)

It shall be understood and agreed that any quantities listed in the Contract are estimated only and may be increased or decreased in accordance with the actual requirements of the Commonwealth and that the Commonwealth in accepting any bid or portion thereof, contracts only and agrees to purchase only the materials and services in such quantities as represent the actual requirements of the Commonwealth. The Commonwealth reserves the right to purchase materials and services covered under the Contract through a separate competitive procurement procedure, whenever Commonwealth deems it to be in its best interest.

# V.11 CONTRACT-008.1a Warranty. (Oct 2006)

The Contractor warrants that all items furnished and all services performed by the Contractor, its agents and subcontractors shall be free and clear of any defects in workmanship or materials. Unless otherwise stated in the Contract, all items are warranted for a period of one year following delivery by the Contractor and acceptance by the Commonwealth. The Contractor shall repair, replace or otherwise correct any problem with the delivered item. When an item is replaced, it shall be replaced with an item of equivalent or superior quality without any additional cost to the Commonwealth.

# V.12 CONTRACT-009.1c Patent, Copyright, and Trademark Indemnity (Oct 2013)

The Contractor warrants that it is the sole owner or author of, or has entered into a suitable legal agreement concerning either: a) the design of any product or process provided or used in the performance of the Contract which

is covered by a patent, copyright, or trademark registration or other right duly authorized by state or federal law or b) any copyrighted matter in any report, document or other material provided to the Commonwealth under the contract.

The Contractor shall defend any suit or proceeding brought against the Commonwealth on account of any alleged patent, copyright or trademark infringement in the United States of any of the products provided or used in the performance of the Contract.

This is upon condition that the Commonwealth shall provide prompt notification in writing of such suit or proceeding; full right, authorization and opportunity to conduct the defense thereof; and full information and all reasonable cooperation for the defense of same.

As principles of governmental or public law are involved, the Commonwealth may participate in or choose to conduct, in its sole discretion, the defense of any such action.

If information and assistance are furnished by the Commonwealth at the Contractor's written request, it shall be at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written authorization.

The Contractor shall indemnify and hold the Commonwealth harmless from all damages, costs, and expenses, including attorney's fees that the Contractor or the Commonwealth may pay or incur by reason of any infringement or violation of the rights occurring to any holder of copyright, trademark, or patent interests and rights in any products provided or used in the performance of the Contract.

If any of the products provided by the Contractor in such suit or proceeding are held to constitute infringement and the use is enjoined, the Contractor shall, at its own expense and at its option, either procure the right to continue use of such infringement products, replace them with non-infringement equal performance products or modify them so that they are no longer infringing.

If the Contractor is unable to do any of the preceding, the Contractor agrees to remove all the equipment or software which are obtained contemporaneously with the infringing product, or, at the option of the Commonwealth, only those items of equipment or software which are held to be infringing, and to pay the Commonwealth: 1) any amounts paid by the Commonwealth towards the purchase of the product, less straight line depreciation; 2) any license fee paid by the Commonwealth for the use of any software, less an amount for the period of usage; and 3) the pro rata portion of any maintenance fee representing the time remaining in any period of maintenance paid for. The obligations of the Contractor under this paragraph continue without time limit. No costs or expenses shall be incurred for the account of the Contractor without its written consent.

# V.13 CONTRACT-009.1d Ownership Rights (Oct 2006)

The Commonwealth shall have unrestricted authority to reproduce, distribute, and use any submitted report, data, or material, and any software or modifications and any associated documentation that is designed or developed and delivered to the Commonwealth as part of the performance of the Contract.

# V.14 CONTRACT-010.1a Acceptance (Oct 2006)

No item(s) received by the Commonwealth shall be deemed accepted until the Commonwealth has had a reasonable opportunity to inspect the item(s). Any item(s) which is discovered to be defective or fails to conform to the specifications may be rejected upon initial inspection or at any later time if the defects contained in the item(s) or the noncompliance with the specifications were not reasonably ascertainable upon the initial inspection. It shall thereupon become the duty of the Contractor to remove rejected item(s) from the premises without expense to the Commonwealth within fifteen (15) days after notification. Rejected item(s) left longer than fifteen (15) days will be regarded as abandoned, and the Commonwealth shall have the right to dispose of them as its own property and shall retain that portion of the proceeds of any sale which represents the Commonwealth's costs and expenses in regard to the storage and sale of the item(s). Upon notice of rejection, the Contractor shall immediately replace all such rejected item(s) with others conforming to the specifications and which are not defective. If the Contractor fails, neglects or refuses to do so, the Commonwealth shall then have the right to procure a corresponding quantity of such

item(s), and deduct from any monies due or that may thereafter become due to the Contractor, the difference between the price stated in the Contract and the cost thereof to the Commonwealth.

### V.15 CONTRACT-010.2 Product Conformance (March 2012)

The Commonwealth reserves the right to require any and all Contractors to:

1. Provide certified data from laboratory testing performed by the Contractor, or performed by an independent laboratory, as specified by the Commonwealth.

2. Supply published manufacturer product documentation.

3. Permit a Commonwealth representative to witness testing at the Contractor's location or at an independent laboratory.

- 4. Complete a survey/questionnaire relating to the bid requirements and specifications.
- 5. Provide customer references.
- 6. Provide a product demonstration at a location near Harrisburg or the using agency location.

#### V.16 CONTRACT-010.3 Rejected Material Not Considered Abandoned (March 2012)

The Commonwealth shall have the right to not regard any rejected material as abandoned and to demand that the Contractor remove the rejected material from the premises within thirty (30) days of notification. The Contractor shall be responsible for removal of the rejected material as well as proper clean-up. If the Contractor fails or refuses to remove the rejected material as demanded by the Commonwealth, the Commonwealth may seek payment from, or set-off from any payments due to the Contractor under this or any other Contract with the Commonwealth, the costs of removal and clean-up. This is in addition to all other rights to recover costs incurred by the Commonwealth.

#### V.17 CONTRACT-011.1a Compliance With Law (Oct 2006)

The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in the performance of the Contract.

#### V.18 CONTRACT-013.1 Environmental Provisions (Oct 2006)

In the performance of the Contract, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations, including, but not limited to: the Clean Streams Law Act of June 22, 1937 (P.L. 1987, No. 394), as amended 35 P.S. Section 691.601 et seq.; the Pennsylvania Solid Waste Management Act, Act of July 7, 1980 (P.L. 380, No. 97), as amended, 35 P.S. Section 6018.101 et seq.; and the Dam Safety and Encroachment Act, Act of November 26, 1978 (P.L. 1375, No. 325), as amended , 32 P.S. Section 693.1.

#### V.19 CONTRACT-014.1 Post-Consumer Recycled Content (Oct 2013)

Except as specifically waived by the Department of General Services in writing, any products which are provided to the Commonwealth as a part of the performance of the Contract must meet the minimum percentage levels for total recycled content as specified by the Environmental Protection Agency in its Comprehensive Procurement Guidelines, which can be found at http://www.epa.gov/epawaste/conserve/tools/cpg/index.htm .

#### V.20 CONTRACT-014.3 Recycled Content Enforcement (February 2012)

The Contractor may be required, after delivery of the Contract item(s), to provide the Commonwealth with documentary evidence that the item(s) was in fact produced with the required minimum percentage of post-consumer and recovered material content.

### V.21 CONTRACT-015.1 Compensation (Oct 2006)

The Contractor shall be required to furnish the awarded item(s) at the price(s) quoted in the Purchase Order. All item(s) shall be delivered within the time period(s) specified in the Purchase Order. The Contractor shall be compensated only for item(s) that are delivered and accepted by the Commonwealth.

### V.22 CONTRACT-015.2 Billing Requirements (February 2012)

Unless the Contractor has been authorized by the Commonwealth for Evaluated Receipt Settlement or Vendor Self-Invoicing, the Contractor shall include in all of its invoices the following minimum information:

- Vendor name and "Remit to" address, including SAP Vendor number;
- Bank routing information, if ACH;
- SAP Purchase Order number;
- Delivery Address, including name of Commonwealth agency;

- Description of the supplies/services delivered in accordance with SAP Purchase Order (include purchase order line number if possible);

- Quantity provided;
- Unit price;
- Price extension;
- Total price; and
- Delivery date of supplies or services.

If an invoice does not contain the minimum information set forth in this paragraph, the Commonwealth may return the invoice as improper. If the Commonwealth returns an invoice as improper, the time for processing a payment will be suspended until the Commonwealth receives a correct invoice. The Contractor may not receive payment until the Commonwealth has received a correct invoice.

Contractors are required to establish separate billing accounts with each using agency and invoice them directly. Each invoice shall be itemized with adequate detail and match the line item on the Purchase Order. In no instance shall any payment be made for services to the Contractor that are not in accordance with the prices on the Purchase Order, the Contract, updated price lists or any discounts negotiated by the purchasing agency.

#### V.23 CONTRACT-016.1 Payment (Oct 2006)

a. The Commonwealth shall put forth reasonable efforts to make payment by the required payment date. The required payment date is: (a) the date on which payment is due under the terms of the Contract; (b) thirty (30) days after a proper invoice actually is received at the "Bill To" address if a date on which payment is due is not specified in the Contract (a "proper" invoice is not received until the Commonwealth accepts the service as satisfactorily performed); or (c) the payment date specified on the invoice if later than the dates established by (a) and (b) above. Payment may be delayed if the payment amount on an invoice is not based upon the price(s) as stated in the Contract. If any payment is not made within fifteen (15) days after the required payment date, the Commonwealth may pay interest as determined by the Secretary of Budget in accordance with Act No. 266 of 1982 and regulations promulgated pursuant thereto. Payment should not be construed by the Contractor as acceptance of the service performed by the Contractor. The Commonwealth reserves the right to conduct further testing and inspection after payment, but within a reasonable time after performance, and to reject the service if such post payment testing or inspection discloses a defect or a failure to meet specifications. The Contractor agrees that the Commonwealth may set off the amount of any state tax liability or other obligation of the Contractor or its subsidiaries to the Commonwealth against any payments due the Contractor under any contract

with the Commonwealth.

b. The Commonwealth shall have the option of using the Commonwealth purchasing card to make purchases under the Contract or Purchase Order. The Commonwealth's purchasing card is similar to a credit card in that there will be a small fee which the Contractor will be required to pay and the Contractor will receive payment directly from the card issuer rather than the Commonwealth. Any and all fees related to this type of payment are the responsibility of the Contractor. In no case will the Commonwealth allow increases in prices to offset credit card fees paid by the Contractor or any other charges incurred by the Contractor, unless specifically stated in the terms of the Contract or Purchase Order.

# V.24 CONTRACT-016.2 ACH Payments (Aug 2007)

a. The Commonwealth will make contract payments through the Automated Clearing House (ACH). Within 10 days of award of the contract or purchase order, the contractor must submit or must have already submitted their ACH information within their user profile in the Commonwealth's procurement system (SRM).

b. The contractor must submit a unique invoice number with each invoice submitted. The unique invoice number will be listed on the Commonwealth of Pennsylvania's ACH remittance advice to enable the contractor to properly apply the state agency's payment to the invoice submitted.

c. It is the responsibility of the contractor to ensure that the ACH information contained in SRM is accurate and complete. Failure to maintain accurate and complete information may result in delays in payments.

### V.25 CONTRACT-017.1 Taxes (Dec 5 2006)

The Commonwealth is exempt from all excise taxes imposed by the Internal Revenue Service and has accordingly registered with the Internal Revenue Service to make tax free purchases under Registration No. 23-23740001-K. With the exception of purchases of the following items, no exemption certificates are required and none will be issued: undyed diesel fuel, tires, trucks, gas guzzler emergency vehicles, and sports fishing equipment. The Commonwealth is also exempt from Pennsylvania state sales tax, local sales tax, public transportation assistance taxes and fees and vehicle rental tax. The Department of Revenue regulations provide that exemption certificates are not required for sales made to governmental entities and none will be issued. Nothing in this paragraph is meant to exempt a construction contractor from the payment of any of these taxes or fees which are required to be paid with respect to the purchase, use, rental, or lease of tangible personal property or taxable services used or transferred in connection with the performance of a construction contract.

#### V.26 CONTRACT-018.1 Assignment of Antitrust Claims (Oct 2006)

The Contractor and the Commonwealth recognize that in actual economic practice, overcharges by the Contractor's suppliers resulting from violations of state or federal antitrust laws are in fact borne by the Commonwealth. As part of the consideration for the award of the Contract, and intending to be legally bound, the Contractor assigns to the Commonwealth all right, title and interest in and to any claims the Contractor now has, or may acquire, under state or federal antitrust laws relating to the products and services which are the subject of this Contract.

#### V.27 CONTRACT-019.1 Hold Harmless Provision (Nov 30 2006)

a. The Contractor shall hold the Commonwealth harmless from and indemnify the Commonwealth against any and all third party claims, demands and actions based upon or arising out of any activities performed by the Contractor and its employees and agents under this Contract, provided the Commonwealth gives Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act (71 P.S. Section 732-101, <u>et seq.</u>), the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under such terms as it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of

such suits.

b. Notwithstanding the above, neither party shall enter into any settlement without the other party's written consent, which shall not be unreasonably withheld. The Commonwealth may, in its sole discretion, allow the Contractor to control the defense and any related settlement negotiations.

#### V.28 CONTRACT-020.1 Audit Provisions (Oct 2006)

The Commonwealth shall have the right, at reasonable times and at a site designated by the Commonwealth, to audit the books, documents and records of the Contractor to the extent that the books, documents and records relate to costs or pricing data for the Contract. The Contractor agrees to maintain records which will support the prices charged and costs incurred for the Contract. The Contractor shall preserve books, documents, and records that relate to costs or pricing data for the Contract for a period of three (3) years from date of final payment. The Contractor shall give full and free access to all records to the Commonwealth and/or their authorized representatives.

### V.29 CONTRACT-021.1 Default (Oct 2013)

a. The Commonwealth may, subject to the Force Majeure provisions of this Contract, and in addition to its other rights under the Contract, declare the Contractor in default by written notice thereof to the Contractor, and terminate (as provided in the Termination Provisions of this Contract) the whole or any part of this Contract or any Purchase Order for any of the following reasons:

1) Failure to begin work within the time specified in the Contract or Purchase Order or as otherwise specified;

2) Failure to perform the work with sufficient labor, equipment, or material to ensure the completion of the specified work in accordance with the Contract or Purchase Order terms;

3) Unsatisfactory performance of the work;

4) Failure to deliver the awarded item(s) within the time specified in the Contract or Purchase Order or as otherwise specified;

5) Improper delivery;

6) Failure to provide an item(s) which is in conformance with the specifications referenced in the Contract or Purchase Order;

7) Delivery of a defective item;

8) Failure or refusal to remove material, or remove and replace any work rejected as defective or unsatisfactory;

- 9) Discontinuance of work without approval;
- 10) Failure to resume work, which has been discontinued, within a reasonable time after notice to do so;
- 11) Insolvency or bankruptcy;
- 12) Assignment made for the benefit of creditors;

13) Failure or refusal within 10 days after written notice by the Contracting Officer, to make payment or show cause why payment should not be made, of any amounts due for materials furnished, labor supplied or performed, for equipment rentals, or for utility services rendered;

14) Failure to protect, to repair, or to make good any damage or injury to property;

15) Breach of any provision of the Contract;

16) Failure to comply with representations made in the Contractor's bid/proposal; or

17) Failure to comply with applicable industry standards, customs, and practice.

b. In the event that the Commonwealth terminates this Contract or any Purchase Order in whole or in part as provided in Subparagraph a. above, the Commonwealth may procure, upon such terms and in such manner as it determines, items similar or identical to those so terminated, and the Contractor shall be liable to the Commonwealth for any reasonable excess costs for such similar or identical items included within the terminated part of the Contract or Purchase Order.

c. If the Contract or a Purchase Order is terminated as provided in Subparagraph a. above, the Commonwealth, in addition to any other rights provided in this paragraph, may require the Contractor to transfer title and deliver immediately to the Commonwealth in the manner and to the extent directed by the Contracting Officer, such partially completed items, including, where applicable, reports, working papers and other documentation, as the Contractor has specifically produced or specifically acquired for the performance of such part of the Contract or Purchase Order as has been terminated. Except as provided below, payment for completed work accepted by the Commonwealth shall be at the Contract price. Except as provided below, payment for partially completed items including, where applicable, reports and working papers, delivered to and accepted by the Commonwealth shall be in an amount agreed upon by the Contractor for such completed or partially completed works, such sum as the Contracting Officer determines to be necessary to protect the Commonwealth against loss.

d. The rights and remedies of the Commonwealth provided in this paragraph shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

e. The Commonwealth's failure to exercise any rights or remedies provided in this paragraph shall not be construed to be a waiver by the Commonwealth of its rights and remedies in regard to the event of default or any succeeding event of default.

f. Following exhaustion of the Contractor's administrative remedies as set forth in the Contract Controversies Provision of the Contract, the Contractor's exclusive remedy shall be to seek damages in the Board of Claims.

# V.30 CONTRACT-022.1 Force Majeure (Oct 2006)

Neither party will incur any liability to the other if its performance of any obligation under this Contract is prevented or delayed by causes beyond its control and without the fault or negligence of either party. Causes beyond a party's control may include, but aren't limited to, acts of God or war, changes in controlling law, regulations, orders or the requirements of any governmental entity, severe weather conditions, civil disorders, natural disasters, fire, epidemics and quarantines, general strikes throughout the trade, and freight embargoes.

The Contractor shall notify the Commonwealth orally within five (5) days and in writing within ten (10) days of the date on which the Contractor becomes aware, or should have reasonably become aware, that such cause would prevent or delay its performance. Such notification shall (i) describe fully such cause(s) and its effect on performance, (ii) state whether performance under the contract is prevented or delayed and (iii) if performance is delayed, state a reasonable estimate of the duration of the delay. The Contractor shall have the burden of proving that such cause(s) delayed or prevented its performance despite its diligent efforts to perform and shall produce such supporting documentation as the Commonwealth may reasonably request. After receipt of such notification, the Commonwealth may elect to cancel the Contract, cancel the Purchase Order, or to extend the time for performance as reasonably necessary to compensate for the Contractor's delay.

In the event of a declared emergency by competent governmental authorities, the Commonwealth by notice to the Contractor, may suspend all or a portion of the Contract or Purchase Order.

# V.31 CONTRACT-023.1a Termination Provisions (Oct 2013)

The Commonwealth has the right to terminate this Contract or any Purchase Order for any of the following reasons.

Termination shall be effective upon written notice to the Contractor.

a. **TERMINATION FOR CONVENIENCE**: The Commonwealth shall have the right to terminate the Contract or a Purchase Order for its convenience if the Commonwealth determines termination to be in its best interest. The Contractor shall be paid for work satisfactorily completed prior to the effective date of the termination, but in no event shall the Contractor be entitled to recover loss of profits.

b. **NON-APPROPRIATION**: The Commonwealth's obligation to make payments during any Commonwealth fiscal year succeeding the current fiscal year shall be subject to availability and appropriation of funds. When funds (state and/or federal) are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal year period, the Commonwealth shall have the right to terminate the Contract or a Purchase Order. The Contractor shall be reimbursed for the reasonable value of any nonrecurring costs incurred but not amortized in the price of the supplies or services delivered under the Contract. Such reimbursement shall not include loss of profit, loss of use of money, or administrative or overhead costs. The reimbursement amount may be paid from any appropriations available for that purpose.

c. **TERMINATION FOR CAUSE**: The Commonwealth shall have the right to terminate the Contract or a Purchase Order for Contractor default under the Default Clause upon written notice to the Contractor. The Commonwealth shall also have the right, upon written notice to the Contractor, to terminate the Contract or a Purchase Order for other cause as specified in the Contract or by law. If it is later determined that the Commonwealth erred in terminating the Contract or a Purchase Order for cause, then, at the Commonwealth's discretion, the Contract or Purchase Order shall be deemed to have been terminated for convenience under the Subparagraph a.

### V.32 CONTRACT-024.1 Contract Controversies (Oct 2011)

a. In the event of a controversy or claim arising from the Contract, the Contractor must, within six months after the cause of action accrues, file a written claim with the contracting officer for a determination. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum. At the time the claim is filed, or within sixty (60) days thereafter, either party may request mediation through the Commonwealth Office of General Counsel Dispute Resolution Program.

b. If the Contractor or the contracting officer requests mediation and the other party agrees, the contracting officer shall promptly make arrangements for mediation. Mediation shall be scheduled so as to not delay the issuance of the final determination beyond the required 120 days after receipt of the claim if mediation is unsuccessful. If mediation is not agreed to or if resolution is not reached through mediation, the contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.

c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

#### V.33 CONTRACT-025.1 Assignability and Subcontracting (Oct 2013)

a. Subject to the terms and conditions of this paragraph, this Contract shall be binding upon the parties and their respective successors and assigns.

b. The Contractor shall not subcontract with any person or entity to perform all or any part of the work to be performed under this Contract without the prior written consent of the Contracting Officer, which consent may be withheld at the sole and absolute discretion of the Contracting Officer.

c. The Contractor may not assign, in whole or in part, this Contract or its rights, duties, obligations, or responsibilities hereunder without the prior written consent of the Contracting Officer, which consent may be withheld at the sole and absolute discretion of the Contracting Officer.

d. Notwithstanding the foregoing, the Contractor may, without the consent of the Contracting Officer, assign its rights to payment to be received under the Contract, provided that the Contractor provides written notice of such assignment to the Contracting Officer together with a written acknowledgement from the assignee that any such payments are subject to all of the terms and conditions of this Contract.

e. For the purposes of this Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.

f. Any assignment consented to by the Contracting Officer shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all of the terms and conditions of the Contract and to assume the duties, obligations, and responsibilities being assigned.

g. A change of name by the Contractor, following which the Contractor's federal identification number remains unchanged, shall not be considered to be an assignment hereunder. The Contractor shall give the Contracting Officer written notice of any such change of name.

# V.34 CONTRACT-026.1 Other Contractors (Oct 2006)

The Commonwealth may undertake or award other contracts for additional or related work, and the Contractor shall fully cooperate with other contractors and Commonwealth employees, and coordinate its work with such additional work as may be required. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Commonwealth employees. This paragraph shall be included in the Contracts of all contractors with which this Contractor will be required to cooperate. The Commonwealth shall equitably enforce this paragraph as to all contractors to prevent the imposition of unreasonable burdens on any contractor.

# V.35 CONTRACT-027.1 Nondiscrimination/Sexual Harassment Clause (March 2015)

The Contractor agrees:

1. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate in violation of the *Pennsylvania Human Relations Act* (PHRA) and applicable federal laws against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

2. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

3. The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment Clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

4. The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

5. The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers subject to *Title VII* of the *Civil Rights Act of 1964*, as amended, that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the contracting agency and the Bureau of Small Business Opportunities (BSBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.

6. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.

7. The Contractor's and e ach subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of these provisions.

8. The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

### V.36 CONTRACT-028.1 Contractor Integrity Provisions (January 2015)

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth contracting and procurement process.

**1. DEFINITIONS.** For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

**a.** "Affiliate" means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.

**b.** "**Consent**" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of the execution of this contract.

c. "Contractor" means the individual or entity, that has entered into this contract with the Commonwealth.

**d.** "Contractor Related Parties" means any affliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of 5 percent or more interest in the Contractor.

e. "Financial Interest" means either:

(1) Ownership of more than a five percent interest in any business; or

(2) Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.

**f.** "Gratuity" means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money,

services, employment, or contracts of any kind. The exceptions set forth in the *Governor's Code of Conduct, Executive Order 1980-18*, the *4 Pa. Code §7.153(b)*, shall apply.

**g.** "Non-bid Basis" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.

2. In furtherance of this policy, Contractor agrees to the following:

**a.** Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commonwealth.

**b.** Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to the Contractor activity with the Commonwealth and Commonwealth employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

**c.** Contractor, its affiliates, agents, employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order of the Governor of Pennsylvania, statement of policy, management directive or any other published standard of the Commonwealth in connection with performance of work under this contract, except as provided in this contract.

**d.** Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than the Contractor's submission of the contract signed by Contractor.

**e.** Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Parties have not:

(1) been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;

(2) been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;

(3) had any business license or professional license suspended or revoked;

(4) had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and

(5) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal or contract a written explanation of why such certification cannot be made and the Commonwealth will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commonwealth in writing if at any time during the term of the contract it becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause if it

learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

**f.** Contractor shall comply with the requirements of the *Lobbying Disclosure Act* (65 *Pa.C.S.* §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the *Section 1641 of the Pennsylvania Election Code* (25 *P.S.* §3260a).

**g.** When contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or the Office of the State Inspector General in writing.

**h.** Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that is has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commonwealth in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

**i.** Contractor shall cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of an Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commonwealth and any such subcontractor, and no third party beneficiaries shall be created thereby.

**j.** For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation or otherwise.

# V.37 CONTRACT-029.1 Contractor Responsibility Provisions (Nov 2010)

For the purpose of these provisions, the term contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania (Commonwealth). The term contractor includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

1. The Contractor certifies, in writing, for itself and its subcontractors required to be disclosed or approved by

the Commonwealth, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid/Contract, a written explanation of why such certification cannot be made.

2. The Contractor also certifies, in writing, that as of the date of its execution of this Bid/Contract it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal if such liabilities or obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.

**3.** The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or, to the best knowledge of the Contractor, any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

**4.** The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

**5.** The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

6. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the Internet at http://www.dgs.state.pa.us/ or contacting the:

Department of General Services Office of Chief Counsel 603 North Office Building Harrisburg, PA 17125 Telephone No: (717) 783-6472 FAX No: (717) 787-9138

# V.38 CONTRACT-030.1 Americans with Disabilities Act (Oct 2006)

- a. Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. Section 35.101 et seq., the Contractor understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Contract or from activities provided for under this Contract on the basis of the disability. As a condition of accepting this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. Section 35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.
- b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of Subparagraph a. above.

# V.39 CONTRACT-031.1 Hazardous Substances (Oct 2013)

The Contractor shall provide information to the Commonwealth about the identity and hazards of hazardous substances supplied or used by the Contractor in the performance of the Contract. The Contractor must comply with Act 159 of October 5, 1984, known as the "Worker and Community Right to Know Act" (the "Act") and the

regulations promulgated pursuant thereto at 4 Pa. Code Section 301.1 et seq.

a. Labeling. The Contractor shall ensure that each individual product (as well as the carton, container or package in which the product is shipped) of any of the following substances (as defined by the Act and the regulations) supplied by the Contractor is clearly labeled, tagged or marked with the information listed in Subparagraphs (1) through (4):

- 1) Hazardous substances:
- a) The chemical name or common name,
- b) A hazard warning, and
- c) The name, address, and telephone number of the manufacturer.
- 2) Hazardous mixtures:
- a) The common name, but if none exists, then the trade name,
- b) The chemical or common name of special hazardous substances comprising .01% or more of the mixture,
- c) The chemical or common name of hazardous substances consisting 1.0% or more of the mixture,
- d) A hazard warning, and
- e) The name, address, and telephone number of the manufacturer.
- 3) Single chemicals:
- a) The chemical name or the common name,
- b) A hazard warning, if appropriate, and
- c) The name, address, and telephone number of the manufacturer.
- 4) Chemical Mixtures:
- a) The common name, but if none exists, then the trade name,
- b) A hazard warning, if appropriate,
- c) The name, address, and telephone number of the manufacturer, and

d) The chemical name or common name of either the top five substances by volume or those substances consisting of 5.0% or more of the mixture.

A common name or trade name may be used only if the use of the name more easily or readily identifies the true nature of the hazardous substance, hazardous mixture, single chemical, or mixture involved.

Container labels shall provide a warning as to the specific nature of the hazard arising from the substance in the container.

The hazard warning shall be given in conformity with one of the nationally recognized and accepted systems of providing warnings, and hazard warnings shall be consistent with one or more of the recognized systems throughout the workplace. Examples are:

- · NFPA 704, Identification of the Fire Hazards of Materials.
- · National Paint and Coatings Association: Hazardous Materials Identification System.
- · American Society for Testing and Materials, Safety Alert Pictorial Chart.
- · American National Standard Institute, Inc., for the Precautionary Labeling of Hazardous Industrial Chemicals.

Labels must be legible and prominently affixed to and displayed on the product and the carton, container, or package so that employees can easily identify the substance or mixture present therein.

b. Material Safety Data Sheet. The contractor shall provide Material Safety Data Sheets (MSDS) with the information required by the Act and the regulations for each hazardous substance or hazardous mixture. The Commonwealth must be provided an appropriate MSDS with the initial shipment and with the first shipment after an MSDS is updated or product changed. For any other chemical, the contractor shall provide an appropriate MSDS, if the manufacturer, importer, or supplier produces or possesses the MSDS. The contractor shall also notify the Commonwealth when a substance or mixture is subject to the provisions of the Act. Material Safety Data Sheets may be attached to the carton, container, or package mailed to the Commonwealth at the time of shipment. **V.40 CONTRACT-032.1 Covenant Against Contingent Fees (Oct 2006)** 

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the Commonwealth shall have the right to terminate the Contract without liability or in its discretion to deduct from the Contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

# V.41 CONTRACT-033.1 Applicable Law (Oct 2006)

This Contract shall be governed by and interpreted and enforced in accordance with the laws of the Commonwealth of Pennsylvania (without regard to any conflict of laws provisions) and the decisions of the Pennsylvania courts. The Contractor consents to the jurisdiction of any court of the Commonwealth of Pennsylvania and any federal courts in Pennsylvania, waiving any claim or defense that such forum is not convenient or proper. The Contractor agrees that any such court shall have in personam jurisdiction over it, and consents to service of process in any manner authorized by Pennsylvania law.

#### V.42 CONTRACT- 034.1b Integration (Nov 30 2006)

This Contract, including the Invitation for Bids, the Contractor's bid, all referenced documents, and any Purchase Order constitutes the entire agreement between the parties. No agent, representative, employee or officer of either the Commonwealth or the Contractor has authority to make, or has made, any statement, agreement or representation, oral or written, in connection with the Contract, which in any way can be deemed to modify, add to or detract from, or otherwise change or alter its terms and conditions. No negotiations between the parties, nor any custom or usage, shall be permitted to modify or contradict any of the terms and conditions of the Contract. No modifications, alterations, changes, or waiver to the Contract or any of its terms shall be valid or binding unless accomplished by a written amendment signed by both parties.

# V.43 CONTRACT-034.2b Order of Precedence - IFB (Dec 6 2006)

In the event there is a conflict among the documents comprising this Contract, the Commonwealth and the Contractor agree on the following order of precedence: the Contract; the IFB; and the Contractor's Bid in Response to the IFB.

#### V.44 CONTRACT-034.3 Controlling Terms and Conditions (Aug 2011)

The terms and conditions of this Contract shall be the exclusive terms of agreement between the Contractor and the Commonwealth. All quotations requested and received from the Contractor are for obtaining firm pricing only. Other terms and conditions or additional terms and conditions included or referenced in the Contractor's quotations, invoices, business forms, or other documentation shall not become part of the parties' agreement and shall be disregarded by the parties, unenforceable by the Contractor and not binding on the Commonwealth.

### V.45 CONTRACT-035.1a Changes (Oct 2006)

The Commonwealth reserves the right to make changes at any time during the term of the Contract or any renewals or extensions thereof: 1) to increase or decrease the quantities resulting from variations between any estimated quantities in the Contract and actual quantities; 2) to make changes to the services within the scope of the Contract; 3) to notify the Contractor that the Commonwealth is exercising any Contract renewal or extension option; or 4) to modify the time of performance that does not alter the scope of the Contract to extend the completion date beyond the Expiration Date of the Contract or any renewals or extensions thereof. Any such change shall be made by the Contracting Officer by notifying the Contractor in writing. The change shall be effective as of the date of the change, unless the notification of change specifies a later effective date. Such increases, decreases, changes, or modifications will not invalidate the Contract, nor, if performance security is being furnished in conjunction with the Contract, release the security obligation. The Contractor agrees to provide the service in accordance with the change order. Any dispute by the Contractor in regard to the performance required by any notification of change shall be handled through Contract Controversies Provision.

# V.46 CONTRACT-037.1a Confidentiality (Oct 2013)

(a) The Contractor agrees to protect the confidentiality of the Commonwealth's confidential information. The Commonwealth agrees to protect the confidentiality of Contractor's confidential information. In order for information to be deemed confidential, the party claiming confidentiality must designate the information as "confidential" in such a way as to give notice to the other party (notice may be communicated by describing the information, and the specifications around its use or disclosure, in the SOW). Neither party may assert that information owned by the other party is such party's confidential information. The parties agree that such confidential information shall not be copied, in whole or in part, or used or disclosed except when essential for authorized activities under this Contract and, in the case of disclosure, where the recipient of the confidential information has agreed to be bound by confidentiality requirements no less restrictive than those set forth herein. Each copy of such confidential information shall be marked by the party making the copy with any notices appearing in the original. Upon termination or cancellation of this Contract or any license granted hereunder, the receiving party will return to the disclosing party all copies of the confidential information in the receiving party's possession, other than one copy, which may be maintained for archival purposes only, and which will remain subject to this Contract's security, privacy, data retention/destruction and confidentiality provisions (all of which shall survive the expiration of this Contract). Both parties agree that a material breach of these requirements may, after failure to cure within the time frame specified in this Contract, and at the discretion of the non-breaching party, result in termination for default pursuant to the DEFAULT provision of this Contract, in addition to other remedies available to the non-breaching party.

(b) Insofar as information is not otherwise protected by law or regulation, the obligations stated in this Section do not apply to information:

(1) already known to the recipient at the time of disclosure other than through the contractual relationship;

(2) independently generated by the recipient and not derived by the information supplied by the disclosing party.

(3) known or available to the public, except where such knowledge or availability is the result of unauthorized disclosure by the recipient of the proprietary information;

(4) disclosed to the recipient without a similar restriction by a third party who has the right to make such disclosure; or

(5) required to be disclosed by law, regulation, court order, or other legal process.

There shall be no restriction with respect to the use or disclosure of any ideas, concepts, know-how, or data processing techniques developed alone or jointly with the Commonwealth in connection with services provided to the Commonwealth under this Contract.

(c) The Contractor shall use the following process when submitting information to the Commonwealth it believes to

be confidential and/or proprietary information or trade secrets:

(1) Prepare an un-redacted version of the appropriate document, and

(2) Prepare a redacted version of the document that redacts the information that is asserted to be confidential or proprietary information or a trade secret, and

- (3) Prepare a signed written statement that states:
- (i) the attached document contains confidential or proprietary information or trade secrets;

(ii) the Contractor is submitting the document in both redacted and un-redacted format in accordance with 65 P.S. § 67.707(b); and

(iii) the Contractor is requesting that the document be considered exempt under 65 P.S. § 67.708(b)(11) from public records requests.

(4) Submit the two documents along with the signed written statement to the Commonwealth.

### V.47 CONTRACT-043.1 Leasing Additional Terms and Conditions (Oct 2013)

To the extent that the Contractor offers the Commonwealth or any purchasing agency ("Lessee") the option to lease any items covered by the Contract, these Leasing Terms And Conditions shall, in addition to the other terms and conditions of the Contract, govern the Lease, except to the extent the Contractor assigns a Lease to an Initial Assignee, in which case the Initial Assignee shall be bound to the obligations of the Contractor only as specified in these Leasing Terms and Conditions. If a Lessee desires to lease contract items, the Lessee shall indicate its leasing election on the PO issued to the Contractor ("Lease PO"). By issuing a Lease PO, the Lessee explicitly agrees to these Leasing Terms and Conditions. Any items covered by a Lease shall be called "Leased Property" in these Leasing Terms and Conditions. To the extent that there is a conflict between the other terms and conditions of the Contract and these Leasing Terms and Conditions, these Leasing Terms and Conditions shall prevail to the extent that the Lessee has elected a leasing option.

#### A. Term of Lease

The Contractor may provide any Leased Property under the Contract for any term up to 60 months, including a Fair Market Value Option for Lease/Purchases. The Lessee shall identify the term selected, as well as its election of either a Lease or Lease/Purchase option, on the Lease PO. The Lease term shall commence on the date the Lessee accepts the Leased Property by executing the Acceptance Certificate, and the term shall continue for the length specified on the Lease PO. The form of the Acceptance Certificate can be found on the Forms page of the Department of General Services' webpage (www.dgs.state.pa.us).

If the Contractor delivers the Leased Property in more than one delivery, unless otherwise specified in the Specifications for this procurement, the Lessee will provide separate acceptance certificates for each delivery of the items, and the Lessee will make periodic payments for the Leased Property corresponding to the amount of the Leased Property delivered and accepted 30 days prior to the payment due date.

# **B.** Payments

1. <u>Full Term Intention</u>. The Lessee shall pay the applicable monthly or annual rent payment for the Leased Property for the full Lease term, unless the Lessee terminates the Lease, either for Contractor default as set forth in the Default provision of the Contract or for non-appropriation of funds as specified in this section.

2. <u>Non-Appropriation</u>. The Lessee's obligation is payable only and solely from funds allotted for the purpose of the Lease. If sufficient funds are not appropriated for continuation of performance under any Lease for any fiscal year subsequent to the one in which the Lessee issued the Lease PO, the Lessee may return the Leased Property to the Contractor/Initial Assignee (as applicable), and thereafter the Contractor/Initial Assignee shall release the Lessee of all further obligations under the Lease, provided:

a. The Lessee delivers unencumbered title to the Leased Property to the Contractor or Initial Assignee (if applicable);

b. The Lessee returns the Leased Property to the Contractor/Initial Assignee in good condition, reasonable wear and tear excepted; and

c. The Lessee gives 30 days written notice of the failure of appropriations to the Contractor/Initial Assignee, along with a certification that the Leased Property is not being replaced by similar items from another vendor. In the event the Lessee returns the Leased Property for failure of appropriations, the Lessee shall pay all amounts then due under the Lease through the end of the fiscal year for which sufficient funds were appropriated for the Lease.

### C. Title

1. Title to the Leased Property shall not pass to the Lessee but shall remain in the Contractor or Initial Assignee, whichever applies; except in the case of a Lease/Purchase, the title shall pass to the Lessee upon payment of the final installment or other concluding payment option.

a. Upon payment of the final installment or other concluding payment option, neither the Contractor nor its assignee shall have any further interest in the Leased Property.

b. The Leased Property shall remain personal property and shall not become a fixture or affixed to real property without consent of the Contractor/assignee.

c. At the request of the Contractor or Initial Assignee, the Lessee will join the Contractor/assignee in executing one or more UCC-1 financing statements.

d. The Lessee will keep the Leased Property free and clear of all encumbrances except the Contractor's/assignee's security interest.

#### D. Use And Location Of, and Alteration to Leased Property

The Lessee shall keep the Leased Property within the confines of the Commonwealth of Pennsylvania and shall inform the Contractor/Initial Assignee upon request of the location of the Leased Property. The Lessee, at its own cost and expense, shall maintain the Leased Property in good operating condition and will not use or deal with the Leased Property in any manner which is inconsistent with the terms of the Contract or any applicable laws and regulations. The Lessee agrees not to misuse, abuse, or waste the Leased Property and the Lessee will not allow the Leased Property to deteriorate, except for ordinary wear and tear resulting from their intended use. No alterations, changes, or modifications to the Leased Property shall be made without the approval of the Contractor/Initial Assignee.

#### E. Risk of Loss

The Contractor shall assume and bear the risk of loss or damage to, or theft of, the Leased Property and all component parts while the Leased Property or parts are in the Lessee's possession, unless the Lessee could have prevented such loss, damage, or theft by exercising reasonable care or diligence in the use, protection, or care of the Leased Property or parts. No loss or damage to the Leased Property or parts shall impair any Contractor or Lessee obligation under the Lease, except as expressly provided in these Leasing Terms and Conditions. If the damage could not have been prevented by the Lessee's exercise of reasonable care or diligence, and the Contractor determines the Leased Property or parts can be economically repaired, the Contractor shall repair or cause to be repaired all damages to the Leased Property or their parts. In the event that the any of the Leased Property or their parts are stolen or destroyed, or if in the Contractor's opinion they are rendered irreparable, unusable, or damaged, the affected Leased Property shall be considered a total loss and the Lease shall terminate as to that Leased Property, and the Lessee's obligation to pay rent for the affected Leased Property shall be deemed to have ceased as of the date of the loss.

#### F. Warranties

1. The Lessee shall have the benefit of any and all manufacturer or supplier warranties for the Leased Property

during the Lease term.

2. The Contractor/Initial Assignee and any subsequent assignee warrants that neither the Contractor/Initial Assignee or subsequent assignee, nor anyone acting or claiming through these parties by assignment or otherwise, will interfere with the Lessee's quiet enjoyment of the Leased Property so long as no event of default as defined in Subsection J of this Section shall have occurred and be continuing.

### G. Liability

1. The Lessee assumes all risks and liabilities for injury to or death of any person or damage to any property, arising out of the Lessee's possession, use, operation, condition, or storage of any Leased Property, whether such injury or death be of agents or employees of the Lessee or of third parties, and whether such property damage be to the Lessee 's property or the property of others; provided, however, that the damage or injury results from the action or inaction of the Lessee, its agents or employees, and provided that judgment has been obtained against the Lessee, its agents or employees. This provision shall not be construed to limit the governmental immunity of any Lessee.

2. The Lessee shall, during the Lease term, either self-insure or purchase insurance to cover the risks it has assumed under Paragraph 1 of this Subsection, including but not limited to risks of public liability and property damage.

#### H. Assignment

1. The Lessee shall not assign any Lease PO or other interest in the Leased Property without the prior written consent of the Contractor or its assignee. The Contractor may assign, and/or grant security interests in whole or in part in, the Lease PO and Leased Property to an Initial Assignee, who in turn may further assign and/or grant a security interest in a Lease to a subsequent assignee without the Lessee's consent. Any other Contractor assignment shall require the Lessee's prior written consent. Upon written notice to the Lessee, the Contractor may assign payments under any Lease to a third party.

2. The Contractor may assign, without Lessee consent, any Lease PO to a third party ("Initial Assignee") who will fund the purchase of the Leased Property. The Initial Assignee may take title to, and assume the right to receive all rental payments for, the Leased Property. The Contractor shall notify the Lessee of any Lease PO assignment in its acknowledgment of the Lease PO to the Lessee, providing the Lessee with a copy of the assignment agreement between the Contractor and the Initial Assignee.

3. Notwithstanding any provisions to the contrary in the Contract, in the event of an assignment to an Initial Assignee, the Initial Assignee shall be bound only to the Contractor's obligations specified in these Leasing Terms and Conditions. An Initial Assignee shall not be responsible for any of the Contractor's additional representations, warranties, covenants, or obligations under the Contract Documents. By issuing a Lease PO, the Lessee waives any claims it may have under the Lease against the Initial Assignee for any loss, damage, or expense caused by, defect in, or use or maintenance of any Leased Property. The Lessee acknowledges that the Initial Assignee is not the supplier of the Leased Property and is not responsible for their selection or installation. After the ordering Lessee executes, and the Initial Assignee receives, an Acceptance Certificate, if any portion of the Leased Property is unsatisfactory for any reason, the ordering Lessee shall, nevertheless, continue to make payments under the applicable Lease terms and shall make any claim against the Contractor or the manufacturer, not against the Initial Assignee.

4. After a Lessee executes and the Initial Assignee receives an Acceptance Certificate:

a. The Lessee shall, regardless of whether any portion of the Leased Property is unsatisfactory for any reason, nevertheless, continue to make payments under the applicable Lease and shall make any claim relating to the Leased Property against the Contractor or the manufacturer, not against the Initial Assignee or any subsequent assignee; and

b. The rights of the Initial Assignee and any subsequent assignee to receive rental payments are absolute and unconditional and shall not be affected by any defense or right of set-off.

5. Warranty Disclaimer

IN THE EVENT THE CONTRACTOR ASSIGNS A LEASE TO AN INITIAL ASSIGNEE, SUCH INITIAL ASSIGNEE AND ANY SUBSEQUENT ASSIGNEE MAKE NO WARRANTY (OTHER THAN A WARRANTY OF QUIET ENJOYMENT OF THE LEASED PROPERTY), EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. AS TO THE INITIAL ASSIGNEE AND ANY SUBSEQUENT ASSIGNEE, THE LESSEE TAKES THE LEASED PROPERTY "AS IS". IN NO EVENT SHALL THE INITIAL ASSIGNEE OR ANY SUBSEQUENT ASSIGNEE HAVE ANY REMEDY AGAINST, THE INITIAL ASSIGNEE OR ANY SUBSEQUENT ASSIGNEE FOR CONSEQUENTIAL DAMAGES, LOSS OF SAVINGS, OR LOSS OF USE.

### I. Financing and Prepayment

1. If the Contractor is not the supplier of the Leased Property, the Contractor will pay the charges for the Leased Property directly to the supplier. In the event the Contractor assigns the Lease to an Initial Assignee, the Initial Assignee will pay the charges directly to the Contractor or the supplier, as applicable. If the Contractor has assigned rental payments under the Lease to an Initial Assignee, the Lessee's obligation to make rental payments for the Leased Property for which the Lessee has executed and delivered acceptance certificates shall not be affected by any discontinuance, return, or destruction of any license or licensed program materials, or by any Lessee dissatisfaction with any Leased Property.

2. The Lessee may at any time terminate the financing for any Leased Property by prepaying its remaining rental payments. The Lessee shall provide notice of the intended prepayment date, which shall be at least one month after the date of the notice. Depending on market conditions at the time, the Contractor/Initial Assignee may reduce the balance of the remaining rental payments to reflect the requested prepayment and shall advise the Lessee of the balance to be paid.

3. If the Lessee purchases Contract items related to Leased Property prior to the expiration of the Lease term, or if the Lease is terminated for any reason except non-appropriation as described in Subsection B of this Subsection, and if the Leased Property has been delivered and the Lessee has executed and delivered to the Contractor an acceptance certificate, the Lessee shall prepay such Leased Property.

## J. Remedies for Default

1. If the Lessee does not make a required payment within 30 days after its due date and such nonpayment continues for 15 days after receipt of written notice from the Contractor/Initial Assignee that the Lessee is delinquent in payment, if the Lessee breaches any other provision under these Leasing Terms and Conditions and such breach continues for 15 days after receipt of written notice of the breach from the Contractor/Initial Assignee, or if the Lessee files any petition or proceeding (or has a petition or proceeding filed against it) under any bankruptcy, insolvency, or similar law, the Contractor/Initial Assignee may pursue and enforce the following remedies, individually or collectively:

#### a. Terminate the applicable Lease.

b. Take possession of any or all Leased Property in the Lessee's possession, without any court order or other process of law. For such purpose, upon written notice of its intention to do so, the Contractor or its assignee may enter upon the premises where the Leased Property may be and remove and repossess the Leased Property, from the premises without being liable to the Lessee in any action or legal proceedings. The Contractor/assignee may, at its option, sell the repossessed Leased Property at public or private sale for cash or credit. The Lessee shall be liable for the Contractor's/assignee's expenses of retaking possession, including without limitation the removal of the Leased Property and placing the Leased Property in good operating condition (if not in good operating condition at the time of removal) in accordance with the manufacturer's specifications. Repossessed Leased Property shall include only those items that were leased or lease/purchased under the Lease.

c. Recover from the Lessee all rental payments then due, plus the net present value of the amount of the remaining rental payments. The present value of such remaining rental payments shall be calculated using a discount rate equal to the average of the weekly two- and three-year Treasury Constant Maturities published by the Federal

Reserve Board for the last calendar week of the month preceding the contractor's/assignee's termination of the applicable Lease. The Treasury Constant Maturities are published in Statistical Release .15 and may be accessed via the Federal Reserve Board's Internet website.

2. In the event of Contractor default under the Default provision of the Contract, the Lessee may pursue one or more of the following remedies:

a. If the rental payments under the Lease have been assigned to an Initial Assignee, the Lessee shall continue to make payments for that Leased Property which has been delivered and for which the Lessee has provided acceptance certificates to the Contractor/Initial Assignee.

b. The Lessee may cancel, without liability for payment, its order for any Leased Property which has not been delivered and for which it has not issued acceptance certificates. In this instance, the amount of the rental payments will be recalculated to take into consideration and pay for the actual amount of Leased Property which was delivered and accepted. If no Leased Property has been delivered and accepted, the Lessee may terminate the Lease without liability for any payment.

c. If payments have not been assigned, the Lessee may set off or counterclaim any and all damages incurred by the Lessee as a result of the Contractor's default against its obligation to make rental payments.

## K. Purchase Option

If the Lessee is not in default, it shall have the right at the expiration of the Lease term to buy the Leased Property "as is with no additional warranty" by tendering the purchase option amount the parties have established. For any Lease with a Fair Market Value Option, the fair market value of the equipment shall be established by the Contractor/Initial Assignee and shall not exceed the then-current purchase price of the Leased Property as established in the Contract. Upon the Lessee's exercise of a purchase option and payment of the required amount to the Contractor/Initial Assignee, all right, title, and interest in the Leased Property shall pass to the Lessee.

#### L. Extension

If the Lessee does not elect to purchase the Leased Property at the expiration of a Lease term, and the Lessee is not in default under the Lease, the Lessee may elect to extend the Lease by written notification to the Contractor/Initial Assignee. The Lessee will make any elective extension under the same Leasing Terms and Conditions, including any rent payable (not less than fair market rental value), and will continue until the earlier of termination by either party upon one month's prior written notice, or five years from the date of installation.

## M. Return of Leased Property

At the expiration or termination of a Lease for any Leased Property, or upon Contractor/Initial Assignee demand pursuant to Subsection J. of this Section, the Lessee shall promptly return the Leased Property, freight prepaid, to any location in the continental United States specified by the Contractor/Initial Assignee. The Lessee shall pay the required rent for the Leased Property until they have been shipped to the Contractor.

1. Since DGS has, as a matter of policy, determined that all hard drives contain information that is confidential or sensitive, the Contractor shall, at its discretion, either remove and destroy any hard drive from the Leased Property or clean the hard drive to Office of Administration/U.S. Department of Defense standards, and the Contractor shall provide written certification to the Lessee that the hard drive has been destroyed or cleaned to Office of Administration/U.S. Department of Defense standards.

2. Except in the event of a total loss of any or all Leased Property as described in Subsection E. of this Section, and except for any costs associated with the removal, destruction, and cleaning of any hard drives, the Lessee shall pay any costs the Contractor/Initial Assignee incurs to restore the Leased Property to good operating condition in accordance with the Contract specifications. All parts the Contractor/Initial Assignee may remove and replace shall become the Contractor's/Initial Assignee's property.

3. The Contractor's/Initial Assignee's costs associated with the cleaning of any hard drive to Office of Administration/U.S. Department of Defense standards and the removal and destruction of any hard drive(s) shall be

included in the rental amount. The Lessee shall not be required to pay additional charges for the Contractor's/Initial Assignee's cleaning of a hard drive to Office of Administration/U.S. Department of Defense standards nor for the Contractor's/Initial Assignee's removal and destruction of any hard drive(s) upon the return of a Leased item.

## N. Compliance with Internal Revenue Code

1. <u>Tax Exemption Financing</u>. If it intends to provide tax exempt financing, the Contractor/Initial Assignee must file, in timely fashion, any reports the Internal Revenue Service may require with respect to the order under the Internal Revenue Code (IRC). The Lessee shall cooperate with the Contractor/Initial Assignee in the preparation and execution of these documents. The Lessee shall also keep a copy of each notification of assignment with the Lessee's counterpart of the order and shall not, during the Lease term, permit the Leased Property to be directly or indirectly used for a private business use within the meaning of Section 141 of the IRC.

2. <u>Governmental Status</u>. Eligible Lessees include State entities or political subdivisions of a State for the purpose of Section 103(a) of the IRC as well as tax exempt non-profit corporations and entities under 501(c)(4) of the IRC. Any misrepresentation of a Lessee's status under the IRC shall constitute an event of default by the Lessee. If the Internal Revenue Service rules that the Lessee does not so qualify under either Section 103(a) or 501(c)(4) of the IRC, or if the Lessee fails to cooperate with the Contractor/Initial Assignee in the preparation and execution of any reports required under Section 124 or 149 of the IRC (including 8038G and 8038GC forms), the Lessee will, upon demand, pay the Contractor/Initial Assignee a sum the Contractor/Initial Assignee determines sufficient to return the Contractor/Initial Assignee to the economic status it would otherwise have received.

### **O.** Governing Law

All Leases made under these Leasing Terms and Conditions shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania, except that the parties agree that Article 2A of the Uniform Commercial Code shall not apply or govern transactions under these Leasing Terms and Conditions.

### P. Notices

Service of all notices under these Leasing Terms and Conditions shall be sufficient if delivered to the Lessee at the address set forth in the applicable Lease PO, or to the Contractor/Initial Assignee at the address set forth in its acknowledgment of the Lease PO, including any attached document. Notices by mail shall be effective when deposited in the U.S. mail, properly addressed, with sufficient paid postage. Notices delivered by hand or by overnight courier shall be effective when actually received.

## V.48 CONTRACT-045.1 Insurance - General (Dec 12 2006)

The Contractor is required to have in place during the term of the Contract and any renewals or extensions thereof, the following types of insurance, issued by companies acceptable to the Commonwealth and authorized to conduct such business under the laws of the Commonwealth of Pennsylvania:

- A. <u>Worker's Compensation Insurance</u> for all of the Contractor's employees and those of any subcontractor, engaged in work at the site of the project as required by law.
- **B.** <u>Public Liability and Property Damage Insurance</u> to protect the Commonwealth, the Contractor, and any and all subcontractors from claims for damages for personal injury (including bodily injury), sickness or disease, accidental death and damage to property including the loss of use resulting from any property damage, which may arise from the activities performed under the Contract or the failure to perform under the Contract, whether such performance or non-performance be by the Contractor, by any subcontractor, or by anyone directly or indirectly employed by either. The minimum amounts of coverage shall be \$250,000 per person and \$1,000,000 per occurrence for bodily injury, including death, and \$250,000 per person and \$1,000,000 per occurrence for property damage. Such policies shall be occurrence rather than claims-made policies and shall not contain any endorsements or any other form designated to limit and restrict any action by the Commonwealth, as an additional insured, against the insurance coverage in regard to work performed for the Commonwealth.

Prior to commencement of the work under the Contract and at each insurance renewal date during the term of the Contract, the Contractor shall provide the Commonwealth with current certificates of insurance. These certificates or policies shall name the Commonwealth as an additional insured and shall contain a provision that the coverage's afforded under the policies will not be cancelled or changed until at least thirty (30) days written notice has been given to the Commonwealth.

The Commonwealth shall be under no obligation to obtain such certificates from the Contractor(s). Failure by the Commonwealth to obtain the certificates shall not be deemed a waiver of the Contractor's obligation to obtain and furnish certificates. The Commonwealth shall have the right to inspect the original insurance policies.

## V.49 CONTRACT-046.1 Manufacturer's Price Reduction (Oct 2006)

If, prior to the delivery of the awarded item(s) by the Contractor, a price reduction is announced by the original equipment manufacturer, a comparative price reduction will be given to the Commonwealth by the Contractor.

## V.50 CONTRACT-051.1 Notice (Dec 2006)

Any written notice to any party under this Contract shall be deemed sufficient if delivered personally, or by facsimile, telecopy, electronic or digital transmission (provided such delivery is confirmed), or by a recognized overnight courier service (e.g., DHL, Federal Express, etc.) with confirmed receipt, or by certified or registered United States mail, postage prepaid, return receipt requested, and sent to following:

a. If to the Contractor: the Contractor's address as recorded in the Commonwealth's Supplier Registration system.

b. If to the Commonwealth: the address of the Issuing Office as set forth on the Contract.

## V.51 CONTRACT-052.1 Right to Know Law (Feb 2010)

a. The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL") applies to this Contract. For the purpose of these provisions, the term "the Commonwealth" shall refer to the contracting Commonwealth agency.

b. If the Commonwealth needs the Contractor's assistance in any matter arising out of the RTKL related to this Contract, it shall notify the Contractor using the legal contact information provided in this Contract. The Contractor, at any time, may designate a different contact for such purpose upon reasonable prior written notice to the Commonwealth.

c. Upon written notification from the Commonwealth that it requires the Contractor's assistance in responding to a request under the RTKL for information related to this Contract that may be in the Contractor's possession, constituting, or alleged to constitute, a public record in accordance with the RTKL ("Requested Information"), the Contractor shall:

1. Provide the Commonwealth, within ten (10) calendar days after receipt of written notification, access to, and copies of, any document or information in the Contractor's possession arising out of this Contract that the Commonwealth reasonably believes is Requested Information and may be a public record under the RTKL; and 2. Provide such other assistance as the Commonwealth may reasonably request, in order to comply with the RTKL with respect to this Contract

RTKL with respect to this Contract.

d. If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that the Contractor considers exempt from production under the RTKL, the Contractor must notify the Commonwealth and provide, within seven (7) calendar days of receiving the written notification, a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL.

e. The Commonwealth will rely upon the written statement from the Contractor in denying a RTKL request for the Requested Information unless the Commonwealth determines that the Requested Information is clearly not protected

from disclosure under the RTKL. Should the Commonwealth determine that the Requested Information is clearly not exempt from disclosure, the Contractor shall provide the Requested Information within five (5) business days of receipt of written notification of the Commonwealth's determination.

f. If the Contractor fails to provide the Requested Information within the time period required by these provisions, the Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth.

g. The Commonwealth will reimburse the Contractor for any costs associated with complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

h. The Contractor may file a legal challenge to any Commonwealth decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts, however, the Contractor shall indemnify the Commonwealth for any legal expenses incurred by the Commonwealth as a result of such a challenge and shall hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth, regardless of the outcome of such legal challenge. As between the parties, the Contractor agrees to waive all rights or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL.

i. The Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Contractor has Requested Information in its possession.

# **SPECIFICATIONS**

# FOR

# **TWO-WAY RADIO EQUIPMENT & SERVICES**

**ISSUING OFFICE** 

# OFFICE OF ADMINISTRATION, OFFICE FOR INFORMATION TECHNOLOGY

# **INVITATION FOR BID NUMBER**

6100039075

DATE OF ISSUANCE

**NOVEMBER 8, 2016** 

# **SPECIFICATIONS**

# FOR

# **TWO-WAY RADIO EQUIPMENT & SERVICES**

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# **CALENDAR OF EVENTS**

The Commonwealth will make every effort to adhere to the following schedule:

Activity	Responsibility	Date
Deadline to submit questions via email to <u>RA-</u> <u>OITPurchases@state.pa.us</u> with the subject line "IFB 6100039075 Question"	Bidders	November 14, 2016 1:00PM EST
Answers to questions posted to the PA eMarketplace portal website ( <u>http://www.emarketplace.state.pa.us</u> ).	Issuing Office	November 17, 2016
Please monitor the PA eMarketplace portal website for all communications regarding this IFB, such as addendums, answers to questions, revised appendices, etc.	Bidders	Ongoing
Bid package must be received by the Issuing Office at: PASupplierPortal website (http://www.pasupplierportal.state.pa.us) no later than this date.	Bidders	December 2, 2016 12:00PM EST

# PART I

## **GENERAL INFORMATION**

# I-1. Issuing Office:

The Office of Administration ("Issuing Office") has issued this Invitation for Bid ("IFB") on behalf of the Commonwealth. The sole point of contact in the Commonwealth for this IFB is Tom Schwartz (<u>RA-OITPurchases@state.pa.us</u>), 613 North St., Finance Building – Rm. 506, Harrisburg, PA 17120, the Issuing Officer for this IFB. Please refer all inquiries to the Issuing Officer.

The Issuing Officer is the sole point of contact concerning this IFB. Any violation of this condition may be cause for the Issuing Office to reject the offending Bidder's bid. If the Issuing Office later discovers that the Bidder has engaged in any violations of this condition, the Issuing Office may reject the offending Bidder's bid or rescind its contract award. A Bidder must not distribute any part of its bid beyond the Issuing Office. Any Bidder who shares information contained in its bid with other Commonwealth personnel and/or competing Bidder personnel may be cause for the Issuing Office to reject the offending Bidder's bid.

# I-2. Bid Submission:

Bids must be submitted electronically via the PASupplierPortal website on or before the due date specified in the Calendar of Events. Any bid submitted to the Issuing Office in hardcopy format will be rejected. Please refer to Section I.6, IFB-011.1B Submission of Bids – Electronic Submittal (May 2011), of the IFB. The following documentation must be completed and returned with a Bidder's bid:

- Appendix A, Manufacturer Discount List: Bidders should submit pricing for all inscope equipment and services which they intend to sell through their contract resulting from this IFB. Bidders may submit different discounts for each product category, and for each manufacturer within a product category.
- Appendix B, Lobbying Certification Form
- Appendix C, State of Manufacture Chart
- Appendix D, COSTARS Program Election Form (if applicable)
- Appendix E, Dedicated Contacts
- **Manufacturer Authorization Letter** (if applicable): If a Bidder is submitting as a reseller, it must submit a Manufacturer Authorization Letter which clearly states the Bidder is authorized to provide the OEM's two-way radio equipment and services to the Commonwealth for this IFB. The Manufacturer Authorization Letter must reference the Commonwealth IFB 6100039075 for Two-Way Radio Equipment & Services. A Bidder must submit a Manufacturer Authorization Letter for each OEM which the Bidder is proposing, unless the Bidder is the OEM.

• **Manufacturer Price List**: A Bidder must submit a document and/or web link to the OEM's current retail price list for each OEM the Bidder is proposing. The OEM's current retail price list must include all two-way radio equipment & services provided by the OEM. A Bidder must be capable of providing all two-way radio equipment & services provided by an OEM.

Failure to submit the documentation listed above will result in the bid being rejected. The submission of any documentation other than what is listed above may result in the bid being rejected.

# I-3. Information Technology Policies:

This IFB is subject to the Information Technology Policies ("ITP") issued by the Office of Administration, Office for Information Technology ("OA-OIT"). ITP's may be found at <a href="http://www.oa.pa.gov/Policies/Pages/itp.aspx">http://www.oa.pa.gov/Policies/Pages/itp.aspx</a>

All bids must be submitted on the basis that all ITPs are applicable to this procurement. It is the responsibility of the Bidder to read and be familiar with the ITPs. Notwithstanding the foregoing, if the Bidder believes that any ITP is not applicable to this procurement, it must list all such ITPs in its bid, and explain why it believes the ITP is not applicable. The Issuing Office may, in its sole discretion, accept or reject any request that an ITP not be considered to be applicable to the procurement. The Bidder's failure to list an ITP will result in its waiving its right to do so later, unless the Issuing Office, in its sole discretion, determines that it would be in the best interest of the Commonwealth to waive the pertinent ITP.

# I-4. Bidding Reference Material:

Registration Guide Bidding Guide Attaching Documents Electronic Bidding Portal

# PART II

## REQUIREMENTS

## **II-1.** General Requirements:

## A. Account Management:

The Contractor must provide a dedicated account manager who will be the main point of contact for all requests, and will be responsible for the coordination of all orders and the resolution of any issues. The Issuing Office will consider the account manager to be the sole point of contact with regard to contractual and purchase order matters.

## **B.** Dedicated Contacts:

Bidders must identify the following dedicated contacts in Appendix J, Dedicated Contacts:

- Account Manager: The account manager must be main point of contact for all requests, and will be responsible for the coordination of all orders and the resolution of any sales issues.
- Service Manager: The service manager must be main point of contact for the resolution of any service issues that are escalated from the service desk.
- Service Desk Number: The service desk number must be a toll free dedicated number for Commonwealth warranty and service calls.
- OEM Contact: (only required if the Contractor is not the OEM). Contractors must arrange support from this contact for the resolution of any issues that require OEM intervention.

The Contractor must provide notice of change in dedicated contacts within thirty (30) days to the Commonwealth. Advance notification and employee overlap is not required for changes in didicated contacts due to resignations, death and disability, dismissal for cause or dismissal as a result of termination of a subcontract or any other cause that is beyond the control of the selected Contractor or its subcontractor. However, the Commonwealth must approve the replacement staff.

## C. Subcontracting:

Any services which are not provided by the Contractor must be provided by an OEM Authorized Service Provider that must be approved in advance by the Commonwealth.

Authorized dealers are not permitted. Contractors are not permitted to allow authorized dealers to quote equipment and services through any contract resulting from this IFB.

## **D.** Technicians:

All Technicians assigned to repair, fix or service equipment, must have a minimum of five (5) years demonstrated experience and must also be certificated by the OEM in order to provide maintenance. The Commonwealth reserves the right to audit technician qualifications at any time during the term of the Contract.

# E. Pricing:

# **1. Additional Discounts:**

Contractors are encouraged to offer lower prices for all requests for quotes, especially requests for quotes with high quantities. The Commonwealth may negotiate additional price concessions on all orders. Please refer to Section V.48 of the IFB.

# 2. Trade-In:

The Contractor may allow the Commonwealth to trade-in existing equipment for credit toward a new order. A tradein must be agreed to by the Commonwealth and the Contractor. The Contractor must provide fair market value when accepting a trade-in.

# 3. Price Lists:

Contractors may update their price list throughout the term of the contract to reflect the introduction of new products, manufacturer's price changes, as well as deletions and substitutions of a manufacturer's discontinued items.

# F. Orders:

# 1. Order Acceptance:

The Contractor must be capable of accepting orders via the Commonwealth's purchasing credit card (Pcard) in addition to SRM purchase orders; the Commonwealth's standard order type. Please refer to Section V.6 of the IFB.

# 2. Order Shipment:

- **a.** The Contractor must securely and properly package the equipment for shipment, storage and stocking in appropriate, clearly labeled, shipping containers and according to accepted commercial practice, without extra charge for packing materials, cases, or other types of containers. All containers and packaging will become and remain property of the Commonwealth.
- **b.** All orders must include a packaging slip which includes, at a minimum: Commonwealth agency, requestor name, order quantity and SRM purchase order number.
- **c.** Partial shipments may be requested by any Commonwealth agency. If not requested, partial shipments are acceptable only if authorized by the Commonwealth agency that ordered the equipment.

**d.** The Contractor must ensure all incorrect shipments are corrected within ten (10) business days from the date the Contractor is notified by the Commonwealth. The business days of the Commonwealth are as follows; 7:30 to 5:00pm, Monday through Friday, excluding state holidays. Please refer to Section II-3 D of these specifications.

# 3. Order Delivery:

All orders for equipment must be delivered to the location specified by the Commonwealth within ten (10) business days for Off-the-shelf equipment and thirty (30) business days for custom ordered equipment unless otherwise agreed upon between the Commonwealth and the vendor. Please refer to Section II-3 D of these specifications. Off-the-shelf equipment refers to equipment that the Contractor currently has in stock. Custom ordered equipment refers to equipment that the Contractor does not have in stock and must special order on behalf of the Commonwealth. Orders must be delivered between the business hours of 7:30 AM and 5:30 PM, Monday through Friday, excluding state holidays. Calculation of delivery time does not include the day that the purchase order is issued, but does include the day of delivery. When a specific delivery date is agreed upon for a full delivery or partial delivery, delivery must occur on the requested date. The Contractor must store all equipment in its own facilities until the agreed upon delivery date. Please refer to Section V.9 CONTRACT-007.01a Supplies Delivery (Nov 30 2006) of the IFB.

The Contractor, within twenty-four (24) hours after receiving an order, must notify the Commonwealth of any potential delivery delays. Evidence of inability or intentional delays will be cause for the cancellation or suspension of a contract.

# G. Quoting:

The Commonwealth is not responsible for any charges not included on the quote, nor is the Commonwealth responsible for any charges in the quote that are contrary to the IFB, these specifications or law.

# H. Literature:

User manuals and operating instructions must be provided with each piece of equipment. Delivery is considered complete if these requirements is met by delivery one (1) copy of each required manual or if there are web manuals or a tutorial is available online.

## I. Training:

Training, up to 4 hours, related to purchased and installed equipment will be provided to the Commonwealth at no cost. Online/web training or instructor led training are accceptable; however, the Contractor shall obtain Commonwealth approval prior to implementing the method of the training.

# J. Americans with Disabilities Act:

Upon request, the Contractor must be able to identify any equipment being offered that may be used or adapted for use by visually, hearing or other physically impaired individuals.

# **II-2.** Equipment Requirements:

Bidders should refer to Appendix A, Manufacturer Discount List for a full listing of categories of equipment.

# A. Parts and Accessories:

In addition to two-way radios, the Commonwealth reserves the right to procure parts and accessories related to the equipment, including but not limited to, antennas and amplifiers, mounts and power supplies, batteries and chargers, device protection and carrying cases, control stations, consoles, repeaters, test equipment, etc.

- **B. P25 Specifications:** The specifications listed in this subsection B. apply only to radios intended for use on the P25 Radio Network (STARNet). Additional information is included in Appendix H, P25 Compliance Assessment Program.
  - 1. Radios must be capable of P25 Phase 2 (TDMA) operation.
  - **2.** Radios that are operationally required to operate statewide must be dual-band enabled and capable of operating in the VHF and 800MHz frequency bands.
  - 3. Radios must be traceable to the P25 compliance assessment program.
  - **4.** Radios must conform to the authentication service as defined by the P25 Authentication standard TIA102.AACE.

# C. Compliance:

Equipment shall comply with all applicable Federal Communications Commission (FCC) requirements. All components shall meet or exceed all applicable Electronic Industries Alliance (EIA) standards. Upon request by a Using Agency of the Commonwealth, awarded Contractors may be required to submit a Certificate of Conformance to the Agency for adherence and compliance to FCC requirements and/or EIA standards applicable to the equipment or components being purchased.

# **II-3.** Services Requirements:

Contractors may offer to provide additional related services in conjunction with the equipment items they are offering to supply to the Commonwealth under this Contract ("Ancillary Services"). However, any Ancillary Services offered must be: (1) expressly authorized in the original IFB/Contract, (2) directly related to the delivery, installation or normal use of the product or component parts purchased, (3) limited to the actual product or component parts purchased, and (4) initiated/ordered at the time of product purchase. Stand-alone services and services for products not purchased from this Contract, including

existing equipment for which component parts from this Contract are purchased, are not within the scope of this Contract. Ancillary services include, but are not limited to, the following:

- Maintenance & Support
- Warranty & Extended Warranty Services
- Customization (any modification to a Contract item to meet Purchaser-specific requirements)
- Installation

# A. Quality and Reliability:

The awarded Contractors must perform quality repairs to all equipment maintained under this agreement. After equipment is serviced, the equipment must perform in an efficient manner with a minimum amount of down time.

- 1. 90-Day (Rolling) Repetitive Service: If a single asset requires three (3) service calls for any service issues within a 90-day rolling time period, the Contractor will be required to notify the agency to discuss the issues and make suggestions as to what should be done with the device. If the cause of excessive service calls is determined to be due to an operator error, misuse, or abuse by the Commonwealth, associated repair time will not be a factor in determining satisfactory machine performance. Also, The Commonwealth will discuss repetitive failures caused by a known equipment manufacturing defect with the awarded Contractor.
- 2. The Commonwealth will require contractors to provide new, non-refurbished parts. Replacement parts must be made available for at least three (3) years after the warranty expiration. If a product has reached the end of life and new parts are not readily available, the Commonwealth realizes refurbished parts will be the only option. All new and refurbished parts will be covered under additional warranty by the contractor for a minimum of 180 days after installation or longer if provided by the parts manufacturer. The Commonwealth will permit the permanent "Swap-Out" of contract covered equipment. "Swap-Out" is defined as the permanent replacement of the total unit with total component replacement. A "Swap-Out" permanent replacement will only take place in the event that it is agreed upon by both the Agency and Contractor that a "Swap-Out" is in the best interest of The Commonwealth.
- **3.** The awarded contractors must apply all Original Equipment Manufacturer (OEM) mandatory engineering changes to all contract covered equipment, at no cost to The Commonwealth and restore all contract covered equipment to original functionality, as defined by the OEM.

# **B. Installation:**

Installation as used in this Contract is limited to delivery in place with no permanent attachment to the real property. Installation of component parts into existing equipment of the Purchaser is permitted. This Contract may not be used to purchase initial equipment for installation in new construction. However, fastening a product to an existing building floor, wall, ceiling or roof which can later be removed without damaging the building and connecting to existing electrical, plumbing and HVAC fixtures is permitted. Installation which involves the process of building, altering, repairing, improving or demolishing a structure or building or other improvements of any kind to any real property are defined by law to be construction activities and are not permitted for this Contract. Installation and construction activities for purchasers that are governmental entities, including the Using Agencies, are subject to certain laws regarding public construction, which may include but are not limited to:

The Pennsylvania Prevailing Wage Act, 43 P.S. Sections 165-1 et seq. The Secretary of Labor and Industry will determine any applicable wage rates by each craft or work classification needed to perform the Contract installation for a government unit.

The Steel Products Procurement Act, 73 P.S. §§ 1881-1887, and the Trade Practices Act, 71 P. S. § 773.101 et seq., which place restrictions upon the source of certain steel, cast iron and aluminum products allowed to be used in the performance of public agency contracts.

The Separations Act of 1913, 71 P.S. § 1618 (and 53 P.S. § 1003 for municipalities), which requires the solicitation of separate bids and the award of separate contracts where design/specifications are developed for more than one type of electrical, plumbing or HVAC work.

Any additional laws, regulations or policies that may apply to the installation, including but not limited to performance security, payment bonding, insurance and progress/prompt payment requirements.

## C. New Products, Services, and New Technologies:

The Contractor must insure that the Commonwealth will continually be made aware of new innovation and "state-of-the-art" technologies. Education on products, services and technologies must be provided to the Commonwealth. Website, Newsletter, user groups and email are acceptable methods of providing this information.

## **D.** Warranty Service:

The bid price shall include a minimum one-year warranty covering parts and labor against defects in workmanship and materials for all equipment purchased under this Contract. For depot repair for small/portable devices, the Contractor will be responsible for all pick-up, shipping and return charges. Depot returns are to be completed with three (3) business days of receipt of warranted equipment. For all fixed station equipment purchased under this Contract, Contractors must include a one-year on-site warranty. During the warranty period, the Contractor shall repair or replace defective components and/or units at no cost to the Commonwealth. The warranty period shall commence upon acceptance of the items by the Commonwealth. Please refer to Section V.13 CONTRACT-010.1a Acceptance (Oct 2006) of the IFB.

- **1.** The Contractor must honor the warranty specified by the OEM for all equipment being offered, at no additional cost to the Commonwealth.
- 2. The Contractor must include the most recent software and firmware patches, fixes and upgrades, if available from the OEM, on equipment during the warranty period, at no additional cost to the Commonwealth.
- **3.** The Contractor must provide a central point of contact to address warranty service issues. The Contractor must make available technical support contacts through the internet and provide a toll-free contact number.
- **4.** The Contractor must be capable of receiving service calls on a twenty-four (24) hour per day basis, 365 days of the year, during a warranty period. The Contractor must have service technicians and the support infrastructure available to provide warranty services that meet the service level agreement specified within the statement of work which is attached to the associated purchase order.
- **5.** The Contractor may provide warranty services outside of business hours if agreed upon by the Commonwealth and the Contractor.
- **6.** The Contractor must provide warranty services for the full term of any lease, at no additional cost to the Commonwealth.
- 7. The Contractor must be capable, either directly or through the OEM, to perform on-site warranty services. Warranty is defined as the standard provided by the OEM for the period of time indicated in the Contract. On-site services must be completed by the end of the next business day.

# E. Maintenance/Extended Warranty Services:

- **1.** The Contractor must, if requested by the Commonwealth, provide maintenance/extended warranty services for all equipment being offered.
- **2.** The Contractor must provide a written quote for all maintenance/extended warranty service orders which the Commonwealth will attach to the associated SRM purchase order.
- **3.** Orders for maintenance/extended warranty services made during the term of the contract may extend up to two (2) years past the expiration date of the contract.

# F. Service Level Agreements (SLAs):

The following SLAs apply to the Contractor's performance with the individual agency.

IFB Requirement	Service Level Agreements	Service Credit
Delivery of off-the-shelf equipment.	Within ten (10) business days.	5% of the cost of the order for each occurrence.
Delivery of custom order equipment.	Within thirty (30) business days or agreed upon delivery date.	5% of the cost of the order for each occurrence.
Incorrect shipment to the Commonwealth.	Corrected within ten (10) business days.	5% of the cost of the order for each occurrence.
The Contractor must provide the Commonwealth with quarterly reports detailing equipment purchasing activity, performance and customer satisfaction.	The reports must be provided to the Commonwealth no later than fifteen (15) business days after the end of the quarter.	If the Contractor fails to meet the SLA for two (2) quarters within a calendar year, the Contractor will be ineligible to receive orders from any agency in the Commonwealth for six (6) months.

The Contractor must reimburse the Commonwealth within forty-five (45) days of the missed SLA. The Contractor must pay the service credits by deducting the amount from an invoice or by sending a check addressed to the Commonwealth of Pennsylvania for the amount of the service credit. All checks must be sent to the following address:

Office of Comptroller Operations Revenue & Cash Management 555 Walnut St., 9th Floor Harrisburg PA 17101-1925

The Contractor must attach, along with its check, a breakdown of the reimbursement which includes, at a minimum: Commonwealth agency, SRM purchase order number and reimbursement amount.

# **II-4.** Reporting Requirements:

## A. Quarterly Reports:

The Contractor must provide quarterly reports to the Office of Administration, Office of Information Technology, Bureau of IT Procurement. The Contractor must provide quarterly reports to the Commonwealth no later than fifteen (15) business days after the end of a quarter. A quarter is defined by the Commonwealth as follows:

- Quarter 1: January through March
- Quarter 2: April through June
- Quarter 3: July through September
- Quarter 4: October through December

The Contractor must utilize Appendix E, Quarterly Report Template. A quarterly report must consist of, and include at a minimum:

- **1.** Sales Summary Report which includes, at a minimum: Agency Information, Equipment Information and Order Information.
- 2. SLA Summary Report which includes, at a minimum: Agency Name, Off-the-shelf delivery actual service level, Custom delivery actual service level, Incorrect Shipment Correction actual service level, and Quarterly report delivery actual service level.
- **3.** Outstanding Issues Summary report which includes, at a minimum: Agency Information and Outstanding Issue Summary.

# **B.** Additional Reports:

Additional reports may be added, or removed, by the Commonwealth at any time.

## Manufacturer Discount List

	Manufacturer Discount List		a
Category	Manufaturer Name	Link to Manuacturer's Price List Equipment Discount	Services Discount
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# LOBBYING CERTIFICATION FORM

# Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) **If any** funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed under Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than **\$100,000** for such failure.

SIGNATURE:

TITLE:

DATE:\_\_\_\_\_

# DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 (See reverse for public burden disclosure.)

1. Type of Federal Action:	2. Status of Federal	Action:	3. Report Type:	
a. contract	a. bid/of	ffer/application	a. initial filing	
b. grant	b. grant b. initia		b. material change	
c. cooperative agreement d.	c. post-a	award	For Material Change Only:	
loan			year quarter	_
e. loan guarantee f.			date of last report	
loan insurance				
4. Name and Address of Reporting	Entity:	5. If Reporting Ent	ity in No. 4 is a Subawardee, Enter Name and	
	-	Address of Prime	•	
Prime Subaward	ee			
Tier	, if known :			
		Congressional Di	strict, if known:	
6. Federal Department/Agency:			Name/Description:	
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		CFDA Number, if	applicable:	
8. Federal Action Number, if know	n:	9. Award Amount,	if known:	
		\$		
10. a. Name and Address of Lobby		1	orming Services (including address if	
(if individual, last name, first	name, MI):	different from N		
		(last name, first i	name, MI):	
<b>11.</b> Information requested through this form is authorized in a particular set of the s	d by title 31 U.S.C. section	Signature:		Print
1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure				Title:
				mue:
shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for		Telephone No.:	Date:	
each such failure.				
			Authorized for Local Deproduction	
Federal Use Only:			Authorized for Local Reproductio Standard Form LLL (Rev. 7-97)	11

## INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- 1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
- 2. Identify the status of the covered Federal action.
- 3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
- 4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
- 5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
- 6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizationallevel below agency name, if known. For example, Department of Transportation, United States Coast Guard.
- 7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
- 8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
- 9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
- 10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).

#### 11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

## STATE OF MANUFACTURE CHART

## THIS FORM MUST BE COMPLETED AND RETURNED WITH THE BID

The Reciprocal Limitations Act 146 requires the Department to give Pennsylvania resident bidders a preference against a non-resident bidder from any state that gives or requires a preference to bidders from that state. The amount of preference shall be equal to the amount of preference applied by the state of the non-resident bidder. More information on this Act, or how to claim preference, can be obtained at our internet site at www.dgs.state.pa.us, by faxing a request to 717 787 -0725, or by calling Vendor Services at 717 787-2199 or 4705.

All bidders must complete the following chart by listing the name of the manufacturer and the state (or foreign country) of manufacture for each item. If the item is domestically produced, the bidder must indicate the state in the United States where the item will be manufactured. This chart must be completed and submitted with the bid or no later than two (2) business days after notification from the Department of General Services to furnish the information. Failure to complete this chart and provide the required information prior to the expiration of the second business day after notification shall result in the rejection of the bid.

ITEM NUMBER	NAME OF MANUFACTURER	STATE (OR FOREIGN COUNTRY) OF MANUFACTURE

## BIDDER'S RESIDENCY

A. In determining whether the bidder is a nonresident bidder from a state that gives or requires a preference to bidders from that state, the address given on the first page of this invitation for bid shall be used by the Department of General Services. If that address is incorrect, or if no address is given, the correct address should be provided in the space below:

Correct Address:

If awarded a Contract, our firm agrees to sell the awarded items/services at the same prices and/or discounts, and in accordance with the contractual terms and conditions, to registered COSTARS Members who elect to participate in the contract. Our firm also agrees to pay the applicable Administrative Fee (\$1500 or \$500 for a Department of General Services Certified Small Business) at the beginning of each contract year and upon each contract renewal date.

If you are a Department of General Services Certified Small Business, you must submit a copy of your active certification with your bid response.

Corporate or Legal Entity Name

Signature/Date

Printed Name/Title

	Dedicated Contacts				
	Contact Name	Contact Email	Contact Phone		
Account Manager:					
Service Manager:					
Service Desk number:					
OEM contact:					

PURCHASER INFORMATION	NETWORKING EQUIPMENT INFORMATION			ORDER INFORMATION		
COPA Agency	Original Equipment Manufacturer	Description	Part Number	SKU Number	Total Quantity	Total Value (\$-,)
	l	L	L	l	l	L

DUDCUASED INFORMATION		ACHIEVED SE	RVICE LEVEL	
PURCHASER INFORMATION	SLA 100%	SLA 100%	SLA 100%	SLA 100%
COPA Agency	Off-The-Shelf Orders	Custom Orders	Incorrect Shipment Corrections	Quarterly Report Delivery
			Concetions	Derivery
L				

PURCHASER INFORMATION					
COPA Agency	Street Address	City	State	Zip Code	Outstanding Issue Summary
COLA Agency	Street Address	City	State	Zip Code	
	•				

# Statement of Work

for

# Commonwealth of PA – (Agency)

PO Number: \_\_\_\_\_

AGENCY CONTACT: AGENCY ADDRESS:

PHONE: FAX: E-MAIL:

#### A. Introduction

This Statement of Work ("SOW") is made ("Effective Date"), by and between the Commonwealth of PA – ("Agency"), with its principal office located at ("Address") (hereinafter referred to as "Customer") and Supplier, Inc, a corporation organized under the laws of the Provider's State, with its principal place of business at Insert Address (hereinafter referred to as "insert Company name"). Supplier name and Customer may also be referred individually as "Party" or collectively as "Parties."

Agency name is responsible for promptly obtaining all required consents necessary for the Supplier to provide the services described in this Statement of Work. A required consent means any consent or approval required to give Supplier name software, firmware and other products to enable us and our subcontractors to perform the services set forth in this Statement of Work without infringing on the ownership or license rights (including patent and copyright) of the providers or owners of such products.

The Supplier will be relieved of all liability related to the failure of the Agency to possess all required consents necessary for the Supplier to provide the services described in this Statement of Work.

Any terms and conditions not set forth in this SOW are governed by the terms and conditions of the Pennsylvania Insert contract # and contract name.

#### B. Project Overview and Tasks

Supplier name will perform the following tasks (the "Project"):

Supplier to insert exact description of work to be performed

Agency Requirements & Room Preparation:

Any requirements for the agency must be inserted here

#### C. Time Estimates / Delivery Schedule

The actual Project start date will depend on following:

(below are examples only, ensure dates are provided)

- 1.) Scheduled availability of a qualified systems engineer. 5/10/06
- 2.) Receipt of equipment. 5/20/06
- 3.) Completion necessary cabling, ISP connection, etc. by other vendors if applicable. 5/20/06
- 4.) Receipt of signed SOW from Customer prior to proposed start date. 5/5/06

#### D. Project Cost

Project Cost is: \$

All work associated with the Project is performed during Mondays through Fridays, between the hours of 8am and 5pm local time, excluding holidays.

(Ensure an exact costing breakdown is provided)

### E. SOW Acceptance

This SOW is acceptable. I (We) hereby acknowledge and confirm that I (We) have read this SOW and accept and approve the scope of work and related terms. I (We) understand that if additional work is required that by its nature was not known or determined at the time this SOW was executed, a written change order describing the additional work and any related expenses is required.

Please sign and FAX to Supplier at "fax number"

"Supplier"	Commonwealth of PA – " <mark>Agency</mark> "
Approved (date):	Authorized Agency Name
Authorized Supplier Signature	Authorized Agency Signature
Authorized Supplier Signature	Title

## F. Project Completed and Accepted

The Project was completed in accordance with this SOW. I (We) hereby accept as completed all work indicated in this SOW. I (We) acknowledge at there is nothing that should prevent prompt payment in accordance with the terms indicated above.

Approved (date): \_\_\_\_\_

Authorized Agency Name

Authorized Supplier Signature

Authorized Agency Signature

Authorized Supplier Signature

Title

PLEASE ATTACH HARD COPY OF PURCHASE ORDER REFERENCING THIS SOW

# Formal Compliance Testing for Land Mobile Radios

To successfully respond to both day-to-day and large-scale incidents, first responders must be able to communicate with each other regardless of equipment make or model. Today, this can be challenging because communications equipment manufacturers often use different approaches to implement systems that leave their products incompatible. Land mobile radio networks are still the network of choice for first responders' mission critical voice needs. Project 25 (P25) is a suite of standards that enables interoperability among digital two-way land mobile radio communications products created for use by public safety professionals. The U.S. Department of Homeland Security Science and Technology Directorate (S&T) partnered with the Department of Commerce Public Safety Communications Research program to establish the P25 Compliance Assessment Program (P25 CAP).

P25 CAP is a formal, independent process for ensuring communications equipment declared by the supplier actually is P25 compliant and tested against the standards with publicly published results. Through this open standards testing process, P25 CAP provides responders confidence the communications equipment they use will be interoperable, regardless of manufacturer. Specifically, this voluntary program provides public safety agencies with evidence that the communications equipment they purchase is tested against and complies with the P25 standards for performance, conformance and interoperability. Compliance testing concludes with official summary test reports and suppliers' declaration of compliance, which are available to first responders at https://www.dhs.gov/science-andtechnology/p25-cap. This website also provides a repository of all information on P25 CAP.

## Helping to Ensure Interoperability by Informing Procurement Decisions

By arming first responders with the necessary information they need to make informed procurement decisions, P25 CAP helps advance interoperability in the public safety environment. In addition, by encouraging the purchase of P25 CAP-compliant communications equipment in grant guidance, P25 CAP helps to ensure federal grant funds are used to purchase interoperable solutions for local, tribal and state first responders. Ultimately, this promotes interoperability and reduces waste and poor investments in untested equipment.

# **Program Framework and Path Forward**

S&T selected three internationally recognized laboratory accreditation bodies to review and accredit participating P25 CAP laboratories. Once accredited, the laboratory can test land mobile radio equipment for compliance. There are currently eight labs recognized to conduct P25 CAP testing. Recently, S&T developed a series of program logos to better communicate these facets of P25 CAP among its stakeholders. P25 CAP laboratories will be able to display a seal to distinguish themselves as a competent test facility. In addition, partnering accreditation bodies will be able to use a logo to show stakeholders they are a participating accreditation body.



A series of P25 CAP logos for use by DHS and participating stakeholders

S&T has partnered with the Association of Public Safety Communications Officials to support its efforts with the program and help re-establish the program's governance structure. To this end, S&T created the P25 CAP Advisory Panel (AP), which provides the views of active local, state, tribal, territorial and federal government users of portable, handheld, mobile vehicle-mounted radios and infrastructure, including repeaters, consoles and gateways. The P25 CAP AP provides recommendations to S&T for strategic direction of the P25 CAP, addresses user input to improve the P25 CAP compliance process and provides feedback to P25 standards committees. S&T's program policies will be laid out through the issuance of its Compliance Assessment Bulletins.



Homeland Security



Date:	November 17, 2016
Subject:	Two-Way Radio Equipment and Services
Solicitation Number:	6100039075
Solicitation Due Date:	November 23, 2016
Addendum Number:	1

# To All Offerors/Bidders:

The Commonwealth of Pennsylvania defines a solicitation "Addendum" as an addition to or amendment of the original terms, conditions, specification or instruction of a procurement solicitation (e.g. Invitation for Bids, Request for Quotes and Request for Proposals).

## The following changes have been made to the solicitation identified above:

The Commonwealth has posted the following documentation as part of this addendum:

- IFB 6100039075 Two-Way Radio Equipment and Services (rev. 11.17.16)
- Specifications (rev. 11.17.16)
- Questions & Answers

## For electronic solicitations responses via the PASupplierPortal:

- Attach this addendum to your solicitation response.
- To attach the Addendum, download the Addendum and save to your computer. Move to "My Notes", use the "Browse" button to find the document you just saved and press "Add" to upload the document.
- Review the Attributes section of our solicitation response to ensure you have responded, ad required, to any question relevant to solicitation addenda issues subsequent to the initial advertisement of the solicitation opportunity,

Except as amended by this Addendum, the terms, conditions, specification, and instruction of the solicitation and any previous solicitation addenda, remain as originally written.

Very truly yours,

Name:Joseph M. MillovichTitle:Commodity SpecialistPhone:717-214-3434Email:RA-OITPurchases@pa.gov



Date:	November 18, 2016
Subject:	Two-Way Radio Equipment and Services
Solicitation Number:	6100039075
Solicitation Due Date:	November 23, 2016
Addendum Number:	2

The Commonwealth of Pennsylvania defines a solicitation "Addendum" as an addition to or amendment of the original terms, conditions, specification or instruction of a procurement solicitation (e.g. Invitation for Bids, Request for Quotes and Request for Proposals).

#### The following changes have been made to the solicitation identified above:

The Commonwealth has posted the following documentation as part of this addendum:

- Specifications (rev. 11.18.16)
- Questions & Answers (rev. 11.18.16)

#### For electronic solicitations responses via the PASupplierPortal:

- Attach this addendum to your solicitation response.
- To attach the Addendum, download the Addendum and save to your computer. Move to "My Notes", use the "Browse" button to find the document you just saved and press "Add" to upload the document.
- Review the Attributes section of our solicitation response to ensure you have responded, ad required, to any question relevant to solicitation addenda issues subsequent to the initial advertisement of the solicitation opportunity,

Except as amended by this Addendum, the terms, conditions, specification, and instruction of the solicitation and any previous solicitation addenda, remain as originally written.

Very truly yours,

Name:Joseph M. MillovichTitle:Commodity SpecialistPhone:717-214-3434Email:RA-OITPurchases@pa.gov



<b>Date:</b> November 23, 2016	
Subject:	Two-Way Radio Equipment and Services
Solicitation Number:	6100039075
Solicitation Due Date:	November 29, 2016
Addendum Number:	3

The Commonwealth of Pennsylvania defines a solicitation "Addendum" as an addition to or amendment of the original terms, conditions, specification or instruction of a procurement solicitation (e.g. Invitation for Bids, Request for Quotes and Request for Proposals).

#### The following changes have been made to the solicitation identified above:

The Commonwealth has posted the following documentation as part of this addendum:

- Specifications (rev. 11.23.16)
- Questions & Answers (rev. 11.23.16)

Please note that the new point of contact for this IFB will be Tom Schwartz. Part I, Section I-1 of the Specifications has been updated to reflect this change.

Please note that Bidders may modify their bids at any time prior to the due date.

#### For electronic solicitations responses via the PASupplierPortal:

- Attach this addendum to your solicitation response.
- To attach the Addendum, download the Addendum and save to your computer. Move to "My Notes", use the "Browse" button to find the document you just saved and press "Add" to upload the document.
- Review the Attributes section of our solicitation response to ensure you have responded, ad required, to any question relevant to solicitation addenda issues subsequent to the initial advertisement of the solicitation opportunity,

Except as amended by this Addendum, the terms, conditions, specification, and instruction of the solicitation and any previous solicitation addenda, remain as originally written.

Very truly yours,



Date:	November 29, 2016
Subject:	Two-Way Radio Equipment and Services
Solicitation Number:	6100039075
Solicitation Due Date:	December 1, 2016
Addendum Number:	4

The Commonwealth of Pennsylvania defines a solicitation "Addendum" as an addition to or amendment of the original terms, conditions, specification or instruction of a procurement solicitation (e.g. Invitation for Bids, Request for Quotes and Request for Proposals).

#### The following changes have been made to the solicitation identified above:

The Commonwealth has posted the following documentation as part of this addendum:

- Questions & Answers (rev. 11.29.16)
- Specifications (rev. 11.29.16)

Please be advised that the bid due date has been extended to Thursday December 1, 2016 at 12:00pm.

#### For electronic solicitations responses via the PASupplierPortal:

- Attach this addendum to your solicitation response.
- To attach the Addendum, download the Addendum and save to your computer. Move to "My Notes", use the "Browse" button to find the document you just saved and press "Add" to upload the document.
- Review the Attributes section of our solicitation response to ensure you have responded, ad required, to any question relevant to solicitation addenda issues subsequent to the initial advertisement of the solicitation opportunity,

Except as amended by this Addendum, the terms, conditions, specification, and instruction of the solicitation and any previous solicitation addenda, remain as originally written.

Very truly yours,



<b>Date:</b> November 29, 2016	
Subject:	Two-Way Radio Equipment and Services
Solicitation Number:	6100039075
Solicitation Due Date:	December 2, 2016 12:00 PM
Addendum Number:	5

The Commonwealth of Pennsylvania defines a solicitation "Addendum" as an addition to or amendment of the original terms, conditions, specification or instruction of a procurement solicitation (e.g. Invitation for Bids, Request for Quotes and Request for Proposals).

#### The following changes have been made to the solicitation identified above:

The Commonwealth has posted the following documentation as part of this addendum:

- Appendix A, Manufacturer Discount List (rev. 11.29.16)
- Questions & Answers (rev. 11.29.16)

#### For electronic solicitations responses via the PASupplierPortal:

- Attach this addendum to your solicitation response.
- To attach the Addendum, download the Addendum and save to your computer. Move to "My Notes", use the "Browse" button to find the document you just saved and press "Add" to upload the document.
- Review the Attributes section of our solicitation response to ensure you have responded, ad required, to any question relevant to solicitation addenda issues subsequent to the initial advertisement of the solicitation opportunity,

Except as amended by this Addendum, the terms, conditions, specification, and instruction of the solicitation and any previous solicitation addenda, remain as originally written.

Very truly yours,



<b>Date:</b> November 30, 2016	
Subject:	Two-Way Radio Equipment and Services
Solicitation Number:	6100039075
Solicitation Due Date:	December 2, 2016 12:00 PM
Addendum Number:	6

The Commonwealth of Pennsylvania defines a solicitation "Addendum" as an addition to or amendment of the original terms, conditions, specification or instruction of a procurement solicitation (e.g. Invitation for Bids, Request for Quotes and Request for Proposals).

#### The following changes have been made to the solicitation identified above:

The Commonwealth has posted the following documentation as part of this addendum:

- Specifications (rev. 11.30.16)
- Questions & Answers (rev. 11.30.16)

#### For electronic solicitations responses via the PASupplierPortal:

- Attach this addendum to your solicitation response.
- To attach the Addendum, download the Addendum and save to your computer. Move to "My Notes", use the "Browse" button to find the document you just saved and press "Add" to upload the document.
- Review the Attributes section of our solicitation response to ensure you have responded, ad required, to any question relevant to solicitation addenda issues subsequent to the initial advertisement of the solicitation opportunity,

Except as amended by this Addendum, the terms, conditions, specification, and instruction of the solicitation and any previous solicitation addenda, remain as originally written.

Very truly yours,

#	Question	Answer
	The IFB mentions 'subcontractors' does that mean that the Commonwealth of Pennsylvania will allow a Contractor to utilize Authorized Dealers to support both product sales and service? We have a strong network of Dealers in your region that we would like to put under our contract and give the option to the End-user to either work directly with them or our company (they choose).	
1	<ul> <li>V.35 CONTRACT-028.1 Contractor Integrity Provisions</li> <li>Section 1.2.d. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than the Contractor's submission of the contract signed by Contractor.</li> </ul>	Authorized dealers are not permitted. Contractors are not permitted to allow authorized dealers to quote equipment and services through their contract. Please refer to Part II, Section II-1C of the Specifications.
	understanding that our company is the primarily contract holder and would be responsible for all actions thereunder. Also, other than the Authorized Dealer's Contact information, what would the Commonwealth require within our proposal to support these folks being added as our subcontractors (aka Authorized Resellers).	No. not all of the Contractor's equipment must be
2	It is my understanding that all contractors' equipment must be P25 Phase II capable in order to be on the state contract. Is this correct?	No, not all of the Contractor's equipment must be P25 capable. The P25 requirements only apply to radios intended for use on the P25 Radio Network (STARNet). Please refer to Part II, Section II-2B.
3	According to the specifications, it appears that contractors must offer dual-band enabled VHF/800 MHz radios in order to participate on this new contract, correct?	No, only P25 Phase II radios must be dual-band enabled and capable of operating in the VHF and 800MHz frequency bands. Please refer to Part II, Section II-2B.
4	In addition, all P25 radios must be CAP tested with all relevant documentation listed on the DHS site. Please confirm.	Yes, all P25 radios must be CAP tested and declared compliant with all relevant documentation listed on the applicable United States Department of Homeland Security website. Please refer to Part II, Section II-2B and Appendix H, P25 Compliance Assessment Program.

#	Question	Answer
5	What is the contract duration including renewal options for the project?	Section V.2 CONTRACT-002.1a Term of Contract – Contract (May 2012) of the IFB has been revised and Section V.3 CONTRACT- 002.2b Renewal of Contract Term – Mutual (Oct 2013) of the IFB has been added. The term of the contract is three (3) years with two (2) one (1) year renewal options.
6	Is there a means to add Financing Options (3 -5-10 years) as a consideration to this contract, or is there another vehicle within the Commonwealth to address?	Section V.46 CONTRACT-043.1 Leasing Additional Terms and Conditions (Oct 2013) of the IFB provides a leasing option.
7	Specifications, I-2, page 4: Our company offers our own equipment and some products from an OEM. The OEM products we offer are only a fraction of the portfolio from that OEM. We can offer full services for those products. Do we still need to submit pricing for the entire OEM portfolio and be able to offer their entire portfolio?	Bidders should submit pricing for all in scope equipment and services which they intend to sell through their contract resulting from this IFB. Please refer to Part I, Section I-2 of the Specifications.
8	Specifications: Are we able to take exceptions or partially comply to requirements within the specification document?	No. By submitted a bid a Bidder agrees and accepts the specification without exception. Please refer to subsection c of I.6 IFB-011.1B Submission of Bids – Electronic Submittal (May 2011) of the IFB.
9	Specifications II-1, B Dedicated Contacts, page 6: Our company provides a toll free number for warranty and service for all customers. Will this be sufficient to meet this requirement?	Yes, a toll free number is sufficient.
10	Are we able to take exceptions or partially comply to requirements within the Terms and Conditions document named IFB 6100039075 - Two-Way Radio Equipment and Services?	No. Please refer to subsection c. of I.6 IFB-011.1B Submission of Bids – Electronic Submittal (May 2011) of the IFB.
11	Are there any such pricing forms bidders are to fill with their proposals?	Yes, Bidders must complete and submit Appendix A, Manufacturer Discount List. Please refer to Part I, Section I-2 Bid Submission of the Specifications.

# Questions & Answers IFB 6100039075

Two-Way Radio Equipment and Services

#	Question	Answer
12	On Page 5 of 14 in the "Specifications For Two-Way Radio Equipment & Services," under I-2 Bid Submission, it states that the submission of any documentation other than what is listed under this section may result in the bid being rejected; however, on page 6 of 14 in the same specs, under II-1. General Requirements, B, it states bidders must identify the dedicated contacts in Appendix J, Dedicated Contacts. Appendix J, Dedicated Contacts form is not listed under section I-2 Bid Submissions. Please provide Appendix J, Dedicated Contacts form and clarify if this form shall be provided by bidders at the time of submission.	Part I, Section I-2 of the Specifications has been revised to include Appendix E, Dedicated Contacts as a required document.
13	Would the Commonwealth consider allowing commercial vendors to include suggested edits to the contract's T&C's, particularly regarding insurance, supplier information and intellectual property, and additional reasonable risk mitigation terms?	No, please refer to subsection c of I.6 IFB-011.1B Submission of Bids – Electronic Submittal (May 2011) of the IFB.
14	Would the Commonwealth consider an extension of the deadline for submission of questions? There is a conflict between the information provided in I.3 IFB-008.1C No Pre-bid Conference and I.4 IFB- 009.1 Questions and the IFB and the "Calandar of Events" in the Specifications document.	Bidders may submit questions until the due date identified in the Calendar of Events. The Commonwealth will make every effort to respond to questions submitted after the deadline.
15	Specifications II-1 General Requirements: Section E, Pricing: 1. Additional Discounts The last sentence says refer to Section V. 47 of the IFB, did you mean a different section of the IFB, possibly V.48?	Yes, Part II, Section II-1.E.1. has been revised to reference Section V.48.
16	Specifications II General Requirements: Section F, 3 Order Delivery: the information provided says XX business days, but does not state from what point in time. Can you clarify when the guaranteed delivery dates start from? Is it guaranteed within the requested delivery date or some other time frame?	Part II, Section II-1.F.2.d. has been revised to indicate that all incorrect shipments must be corrected within ten (10) business days from the date the Contractor is notified by the Commonwealth.
17	Specifications II-2 Equipment Requirements: Section A, 2: "Replacement parts must be made available for at least three (3) years after the warranty expiration at no cost to the Commonwealth." This is ambiguous can you please clarify what exactly the Commonwealth expects to receive "at no cost" during the three year period after warranty?	Part II, Section II-3.A.2. has been revised to remove the statement "at no cost to the Commonwealth".

# Questions & Answers IFB 6100039075

# Two-Way Radio Equipment and Services

#	Question	Answer
18	Specifications II-3 Services Requirements: Section F, Row 2 of the table: "Within twenty (30) business days." There appears to be a conflict between the numerical and word version, can you please confirm you intended to write "thirty" as also indicated previously in the document?	Part II, Section II-3.F. has been revised to indicate that custom order equipment must be delivered within thirty (30) business days.
19	Specifications II-4 Reporting Requirements: Would the Commonwealth be amenable to aligning the reporting dates with the fiscal calendar of the Vendor? Specifically, our quarters always end near the calendar quarter-end, but may be a few days away as our quarters always end on a Saturday.	No, the Commonwealth is not amenable to this request.
20	Will the Awarded Contractor have the opportunity to update their contract price list at various times during the year to reflect the introduction of new products, manufacturer's price changes, as well as deletions and substitutions of a manufacturer's discontinued items?	Yes, Contractor's will have the opportunity to update their contract price list at various times during the year to reflect the introduction of new products, manufacturer's price changes, as well as deletions and substitutions of a manufacturer's discontinued items. Please refer to Part II, Section II-1 E.3 of the Specifications.
21	II-4. Reporting Requirements: A. Quarterly Reports: Appendix E, Quarterly Report Template: Will the awarded Contractor also be required to provide these reports for COSTARS sales under the Contract?	Yes, Contractors must report sales to COSTARS members in accordance with subsection G. of I.9 IFB-027.1 COSTARS Program (April 2016) of the IFB.
22	F. Service Level Agreements (SLAs). Will the SLAs listed also apply to COSTARS sales under the Contract?	Yes, the SLAs also apply to COSTARS sales. Please refer to Section II. 1 IFB-006.1b COSTARS Program Election to Participate (July 2012) of the IFB.
23	Part II Requirements; Letter F Orders; #3 Order Delivery: Would the state consider extending their expected delivery date for "off-the-shelf" equipment from (30) days to (60) days?	No, the expected delivery date for "off-the-shelf" equipment will remain at thirty (30) days.
24	Part II Requirements; Letter I Training: Would the state please clarify if online training and webinars will suffice? Or, does the training have to be "inclass" trainings lead by a live instructor?	Online/web training may be sufficient; however, the Commonwealth must approve the method of the training. Please refer to Part II, Section II-1 J of the Specifications.
25	State of Manufacture Chart: At the top of the page, it is stated, "This form must be completed and returned with the bid." But, in the middle of the second paragraph, it is stated, "This chart must be completed and submitted with the bid or no later than two business days after notification from the Dept of General Services to furnish the information." Would you please clarify if this chart must be submitted with our bid?	Pursuant to Part I, Section I-2 of the Specifications, Bidders must submit Appendix C, State of Manufacture Chart along with their bid.

#	Question	Answer
	<ul><li>A. Are you looking for one (1) fixed discount for the contract or are we allowed to provide separate discounts by our product "category".</li><li>B. My company offers several different lines of equipment, within the following Divisions:</li></ul>	
26	<ul> <li>Avionics</li> <li>Marine</li> <li>Landmobile</li> <li>Amateur</li> <li>Being these are all considered "two-way radios"; are we allowed to submit each Division's product within Appendix A at their respective proposed/fixed discounts from the MSRP?</li> <li>C. I see within the answer to Questions 2-3 you confirm that equipment not being used on the STARNet are allowed on the contract; and within Question 4 if the Vendor is submitting P25 compliant gear on the contract it must also be not only Phase II, but also CAP Compliant if the End-user's intention is to use on STARNet.</li> <li>May we include all of our equipment to give our valued Pennsylvania End-user's the ability to purchase off our entire product line?</li> </ul>	<ul> <li>A. Bidders may submit different discounts for each product category.</li> <li>B. Bidders may submit different discounts for each manufacturer in a product category.</li> <li>C. As set forth in Part I, Section I-2 of the Specifications, Bidders should submit pricing for all in-scope equipment and services which they intend to sell through their contract resulting from this IFB. Do not provide pricing for equipment categories not provided for in Appendix A, Manufacturer Discount List.</li> </ul>
27	Can you forward the a copy of the COSTARS Program election form.	Appendix D, COSTARS Program Election Form, is available in the same location where the Questions and Answers are posted for this IFB, on eMarketplace and the PA Supplier Portal.
28	How often is the COSTAR admin fee due?	The COSTAR administration fee is due annually. Please refer to Part I, Section I.9 IFB-027.1 COSTARS Program (April 2016) of the IFB.
29	Can you send us this specifications document that is referenced on page 15?	The specifications document referred to in Part IV, Section IV.1 IFB-001.1a of the IFB is available in the same location where the Questions and Answers are posted for this IFB, on eMarketplace and the PA Supplier Portal.
30	Can you forward us an audit checklist of all documents that are required for award of contract?	Bidders must submit the applicable documents listed in Part I, Section I-2 of the Specifications.
31	We manufacture our own parts can we sell these parts on this contract??	Yes, Bidders may sell products which they manufacture through their contract resulting from this IFB.
32	Is there a minimum purchase amount to use this contract?	No, there is no minimum purchase amount to use this contract.

#	Question	Answer
33	Does the contact require 3 quotes if there a threshold for the 3 quote requirement \$2,500?	Commonwealth agencies must solicit quotes from all contractors who offer the same products when the value of the order is estimated to exceed \$10,000.
34	Can you forward the lobbying cert and disclosure we need to complete?	Appendix B, Lobbying Certification For, is available in the same location where the Questions and Answers are posted for this IFB, on eMarketplace and the PA Supplier Portal.
35	For the state of manufacture form do you want every item number we sell? We have thousands of parts?	Bidders should list all of the states or foreign countries where the equipment they intend to sell through their contract is manufactured. Bidders need not list every item.
36	Do we need to have insurance endorsed to the commonwealth of PA prior to award?	No, prior to the commencement of work, Contractors are required to provide the Commonwealth with current certificates of insurance. See Section V.48 CONTRACT-045.1 Insurance - General (Dec 12 2006) of the IFB for additional information.
37	Because the pricing will be filled out via Appendix A, Manufacturer Discount Price List and the Manufacturer Price List, this form (the Bidder's bid output) may not be automatically populated per Page 14 of the Bidders Guide instructions. This form is pulled up when we select the "Print Preview" button to see our entire response in PDF format. Please confirm if we will need to separately fill this form out and get it signed and uploaded as an attachment at the time of submission.	Bidders are not required to fill out and attach the bid output form.
38	General Information: I-2 Bid Submission: Manufacturer Authorization Letters (if applicable): Are Manufacturer Authorization Letters required for Awarded Contractor's original part numbers which may contain another OEM's equipment?	As set forth in Part I, Section I-2 of the Specifications, if a Bidder is submitting a bid as a reseller of OEM two-way radio equipment and services, then that Bidder must submit a Manufacturer Authorization Letter from each OEM whose equipment they are reselling. Bidders that are OEMs are not required to submit Manufacturer Authorization Letters for equipment containing components made by other manufacturers.
39	With the impending Thanksgiving Holiday it has become increasing difficult to gather all information required. Would a two-week extension of the 11-23 IFB due date be possible?	The bid due date has been extended to December 2, 2016 at 12 p.m.

40	In reading through the bid, it appears to me that this bid is for radio equipment, but not for the equipment that powers and supports the radio equipment. Specifically, the Appendix A, Manufacturer Discount List has the product categories (below) which does not appear to have a category for DC Power Plants, Batteries, HVAC Systems, DC/AC Inverters, and related equipment. On the current contract we are supplying Batteries, Battery Racks, DC Power Plants, Outdoor Enclosures, HVAC, etc that was listed under a "Network Infrastructure and Remote Communication Sites" category which is not on this bid. Am I missing something? Manufacturer Discount List Product Categories on current bid: Mobile Devices and Accessories - Portable Hand Held Radios Mobile Devices and Accessories - Vehicular Radios Mobile Devices and Accessories - Other 2-way Radios and Accessories - Mobile Antennas and Amplifiers Mobile Devices and Accessories - Mobile Mounts and Power Mobile Devices and Accessories - Mobile Mounts and Power Mobile Devices and Accessories - Mobile Radio Batteries and Chargers Mobile Devices and Accessories - Mobile Radio Batteries and Chargers Mobile Devices and Accessories - Mobile Radio Service Equipment Fixed Station - Two-Way Radio Control Stations Fixed Station - Two-Way Radio Control Stations Fixed Station - Two-Way Radio Repeaters Fixed Station - Two-Way Radio Repeaters Fixed Station - Accessories and Service Equipment Fixed Station - Accessories and Service Equipment Fixed Station - Noice and Data Switching Equipment Testing Equipment - RF Antenna and Equipment Analyzers Testing Equipment - Spectrum Analyzers Testing Equipment - Spectrum Analyzers Testing Equipment - Spectrum Analyzers Testing Equipment - Signal Generators Testing Equipment - Other 2-way radio test equipment	Appendix A, Manufacturer Discount List has been updated to include a "Network Infrastructure and Remote Communication Sites" category.

#	Question	Answer
41	Please advise if microwave and other data network components will be part of this contract.	Appendix A, Manufacturer Discount List has been updated to include a "Network Infrastructure and Remote Communication Sites" category which includes microwave and other data network components.
42	Please note that the specifications are incompatible with licensed microwave network gear, namely, the delivery timeframe.	Specifications Part II, Section II-1.F.3. and Part II, Section II-3.F. have been revised to indicate that custom order equipment must be delivered within thirty (30) business days or agreed upon delivery date between the Commonwealth and vendor.