



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

All using Agencies of the Commonwealth, Participating Political  
Subdivision, Authorities, Private Colleges and Universities

Your SAP Vendor Number with us: 176943

**Purchasing Agent**

Name: Hosler Raeden  
Phone: 717-787-4103  
Fax:

**Supplier Name/Address:**  
JVCKENWOOD USA CORPORATION  
P.O. Box 22745  
LONG BEACH CA 90801-5745 US

**Please Deliver To:**

To be determined at  
the time of the Purchase Order  
unless specified below.

Supplier Phone Number: 8007520986

Supplier Fax Number: 310-761-8246

**Contract Name:**  
Two-Way Radio Equip/Serv - JVCKENWOOD

**Payment Terms**  
NET 30

Solicitation No.: \_\_\_\_\_ Issuance Date: \_\_\_\_\_  
Supplier Bid or Proposal No. (if applicable): \_\_\_\_\_ Solicitation Submission Date: \_\_\_\_\_

This contract is comprised of: The above referenced Solicitation, the Supplier's Bid or Proposal, and any documents attached to this Contract or incorporated by reference.

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 \_\_\_\_\_

Title \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_



**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  
[APETERSON@US.JVCKENWOOD.COM](mailto:APETERSON@US.JVCKENWOOD.COM)  
P.O. BOX 22745  
LONG BEACH CA 90801-5745

**SUBJECT:** Renewal of Contract: Two-Way Radio Equipment and Related Services  
Contract Number: **4400016321**  
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.

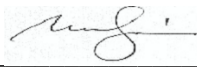
Thank you for your immediate response. If you have any questions, please feel free to contact me.

Raeden Hosler  
(717) 787-4103  
[rhosler@pa.gov](mailto:rhosler@pa.gov)

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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 

Mark Jasin

Title Executive VP and General Manager

Date 06/11/21

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



**FULLY EXECUTED**

Contract Number: 4400016321  
Original Contract Effective Date: 12/27/2016  
Valid From: 01/01/2017 To: 12/31/2021

All using Agencies of the Commonwealth, Participating Political  
Subdivision, Authorities, Private Colleges and Universities

**Purchasing Agent**

Name: Weikle John  
Phone: 717-787-4103  
Fax: 717-783-6241

Your SAP Vendor Number with us: 176943

**Supplier Name/Address:**

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

**Please Deliver To:**

To be determined at  
the time of the Purchase Order  
unless specified below.

Supplier Phone Number: 8007520986

Supplier Fax Number: 310-761-8246

**Contract Name:**

Two-Way Radio Equip/Serv - JVCKENWOOD

**Payment Terms**

NET 30

Solicitation No.:

Issuance Date:

Supplier Bid or Proposal No. (if applicable):

Solicitation Submission Date:

This contract is comprised of: The above referenced Solicitation, the Supplier's Bid or Proposal, and any documents attached to this Contract or incorporated by reference.

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:**

**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

No further information for this Contract

**Information:**

Supplier's Signature \_\_\_\_\_

Title \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_



**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  
Contract Number: **4400016321**  
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](mailto:jweikle@pa.gov)

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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  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.)



**FULLY EXECUTED**

Contract Number: 4400016321  
Original Contract Effective Date: 12/27/2016  
Valid From: 01/01/2017 To: 12/31/2020

All using Agencies of the Commonwealth, Participating Political  
Subdivision, Authorities, Private Colleges and Universities

**Purchasing Agent**

Name: Schwartz Thomas  
Phone: 717-346-3828  
Fax: 717-783-6241

Your SAP Vendor Number with us: 176943

**Supplier Name/Address:**

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

**Please Deliver To:**

To be determined at  
the time of the Purchase Order  
unless specified below.

Supplier Phone Number: 8007520986

Supplier Fax Number: 310-761-8246

**Contract Name:**

Two-Way Radio Equip/Serv - JVCKENWOOD

**Payment Terms**

NET 30

Solicitation No.:

Issuance Date:

Supplier Bid or Proposal No. (if applicable):

Solicitation Submission Date:

This contract is comprised of: The above referenced Solicitation, the Supplier's Bid or Proposal, and any documents attached to this Contract or incorporated by reference.

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:**

**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 \_\_\_\_\_

Title \_\_\_\_\_

Printed Name \_\_\_\_\_

Date \_\_\_\_\_



**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  
Contract Number: **4400016321**  
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.

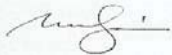
John Weikle  
(717) 787-4103  
[jweikle@pa.gov](mailto:jweikle@pa.gov)

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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  Title Mark Jasin- Executive VP and General  
Manager

Date 09/11/19

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



**FULLY EXECUTED**  
Contract Number: 4400016321  
Original Contract Effective Date: 12/27/2016  
Valid From: 01/01/2017 To: 12/31/2019

All using Agencies of the Commonwealth, Participating Political  
Subdivision, Authorities, Private Colleges and Universities

**Purchasing Agent**

Name: VAC  
Phone: 717-346-2670  
Fax: 717-783-6241

Your SAP Vendor Number with us: 176943

**Supplier Name/Address:**  
JVCKENWOOD USA CORPORATION  
P.O. Box 22745  
LONG BEACH CA 90801-5745 US

**Please Deliver To:**

To be determined at  
the time of the Purchase Order  
unless specified below.

Supplier Phone Number: 8007520986  
Supplier Fax Number: 310-761-8246

**Contract Name:**  
Two-Way Radio Equip/Serv - JVCKENWOOD

**Payment Terms**  
NET 30

Solicitation No.: \_\_\_\_\_ Issuance Date: \_\_\_\_\_  
Supplier Bid or Proposal No. (if applicable): \_\_\_\_\_ Solicitation Submission Date: \_\_\_\_\_

This contract is comprised of: The above referenced Solicitation, the Supplier's Bid or Proposal, and any documents attached to this Contract or incorporated by reference.

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:**

**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 \_\_\_\_\_  
Printed Name \_\_\_\_\_

Title \_\_\_\_\_  
Date \_\_\_\_\_





QUOT **Effective Date:**  
**11/08/2016**

**Bid Number:**  
**6500107392**

**Issuing Office:**  
Thomas Schwartz  
Commonwealth of Pennsylvania  
US

**Supplier Name/Address:**  
JVCKENWOOD USA CORPORATION  
P.O. Box 22745  
LONG BEACH CA 90801-5745 US  
Telephone # 8007520986 Fax # 310-761-8246  
Email: apeterson@us.jvckenwood.com  
Your SAP Vendor Number with us: 176943

**Please Return Quotation to:**  
Commonwealth of Pennsylvania  
US

**Type of Security furnished if required:**  
 Certified bank cashier's check  
 Irrevocable letter of credit  
 Certificate of deposit  
 Other as specified by bid  
 Bond - If annual bond:  
What is the name of the principal on the bond?

**Return Bid by:**  
**Bid Endng Date:**  
12/02/2016  
**Bid Endng Time:**  
12:00:00

**Please Deliver To:**

**Procurement Contact:**  
**Buyer: Thomas Schwartz**  
Phone:  
Fax:

**Expiration Date of Contract (if applicable)**  
**Delivery Date:**  
See Items

This Invitation For Bids is comprised of: Part I, General Information; Part II, Bid Requirements; Part III, Criteria For Selection; Part IV, IFB Specifications; Part V, Contract Clauses; any documents attached to this Invitation For Bids or incorporated by reference; and any addenda issued by the Issuing Office prior to Bid Opening.

Supplier's Signature \_\_\_\_\_ Title \_\_\_\_\_  
Printed Name \_\_\_\_\_ Date \_\_\_\_\_

The Bidder has completed and submitted this Bid in accordance with the instructions and requirements and terms and conditions of the Invitation For Bid. The Bidder has attached documents that are required to be submitted with this Bid and those attachments are incorporated by reference and made a part of this Bid. 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.

Item	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

<b>Total bid amount &gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;&gt;</b>				0.00
<b>ALL PRICES ARE F.O.B. DESTINATIONS</b>				



**ORIGINAL**  
QUOT - Invitation For Bid  
Two-Way Radio Equipment & Services

**Supplier Name:**  
JVCKENWOOD USA CORPORATION

**General Requirements for all Items:**

**Header Text**

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**

Total of Items  
on Previous Page



**ORIGINAL**  
QUOT - Invitation For Bid  
Two-Way Radio Equipment & Services

Page 3 of 3

**Supplier Name:**  
JVCKENWOOD USA CORPORATION

**\*\*\* Attributes Page \*\*\***

**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:** Y

**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



# LOBBYING CERTIFICATION FORM

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

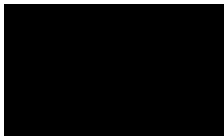
The undersigned certifies, to the best of his or her knowledge and belief, that:

(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: 11.22.16

## DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

0348-0046

(See reverse for public burden disclosure.)

<b>1. Type of Federal Action:</b> a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	<b>2. Status of Federal Action:</b> a. bid/offer/application b. initial award c. post-award	<b>3. Report Type:</b> a. initial filing b. material change <b>For Material Change Only:</b> year _____ quarter _____ date of last report _____
<b>4. Name and Address of Reporting Entity:</b>  <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known:	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>   Congressional District, if known:	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable: _____	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b> \$ _____	
<b>10. a. Name and Address of Lobbying Registrant</b> (if individual, last name, first name, MI):	<b>b. Individuals Performing Services</b> (including address if different from No. 10a) (last name, first name, MI):	
<b>11.</b> Information requested through this form is authorized by title 31 U.S.C. section 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 shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: Telephone No.: _____ Date:	
<b>Federal Use Only:</b>		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

## 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 organizational level 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](http://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.

- 
- 

<b>ITEM NUMBER</b>	<b>NAME OF MANUFACTURER</b>	<b>STATE (OR FOREIGN COUNTRY) OF MANUFACTURE</b>
<input type="checkbox"/>	<input type="checkbox"/> A <input type="checkbox"/>	<input type="checkbox"/> A <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> A <input type="checkbox"/>	<input type="checkbox"/> A <input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 

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**



**COSTARS PROGRAM ELECTION FORM**

**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

Mark Jasin/Executive Vice President & GM

Printed Name/Title

## Dedicated Contacts

	Contact Name	Contact Email	Contact Phone
A [redacted] [redacted]	A [redacted] [redacted]	<a href="mailto:apeterson@us.jvckenwood.com">apeterson@us.jvckenwood.com</a>	[redacted]
[redacted] [redacted]	[redacted] [redacted]	<a href="mailto:rgarcia@us.jvckenwood.com">rgarcia@us.jvckenwood.com</a>	[redacted]
[redacted] [redacted] [redacted]	[redacted] [redacted]	<a href="mailto:kcc-ts@us.jvckenwood.com">kcc-ts@us.jvckenwood.com</a>	[redacted]
[redacted] [redacted]	A [redacted] [redacted]	<a href="mailto:apeterson@us.jvckenwood.com">apeterson@us.jvckenwood.com</a>	[redacted]

# KENWOOD

## LAND MOBILE RADIO PRICE GUIDE

October, 2016 Edition







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- [NX-5400](#)
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- [NX-410 / 411](#)
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- [TK-D240V / 340U](#)
- [TK-190](#)
- [TK-2170 / 3170](#)
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- [TK-2360 / 3360](#)
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### 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](#)











NEXEDGE



NX-5200/5300

Table of Contents

VHF/UHF Digital & FM Analog Portable Radios

FIELD PROGRAMMING UNIT (FPU)

LIST

Table of contents for Field Programming Unit (FPU) section

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 (Master Key): For trunked system operator (SYSOP). Required for...
• KWD-ASK-AK (Access Key): For Dealers/contractors. Activated by KWD-ASK-MK...
• 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...
• Utilized by both SYSOPs and Dealers/Contractors. But Dealers/Contractors must be...
• Kenwood ships an encrypted \*.SKF file via E-Mail to the address provided on the...
• The \*.SKF securely embeds/encrypts the HSID.

OVER THE AIR PROGRAMMING (OTAP)

LIST

Table of contents for Over The Air Programming (OTAP) section

SOFTWARE UPGRADE LICENSES FOR KPG-180AP

Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.

Table listing software upgrade licenses for KPG-180AP with various model numbers and descriptions.

IMPORTANT NOTES

Important notes regarding software licenses and authentication requirements.

BATTERY READER

LIST

Table of contents for Battery Reader section







NEXEDGE™



# NX-5200/5300

VHF/UHF Digital & FM Analog Portable Radios

Table of Contents

<b>INSTALLATION / TUNING CHARGES, CONT</b>		<b>LIST</b>
	<b>A</b>	
	<b>A</b>	
	<b>Note</b>	
	<b>- Restricted Purchase Requirements -</b>	
	• Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking	
	• Must have KPG-DINK	
	• Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System	
	• Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive	
	• 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file.	
	<b>A:</b>	
	<b>A:</b>	
	<b>A:</b>	
	<b>Must order KNB-LSSM I.S. battery</b>	

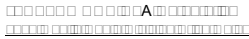
-- IMPORTANT NOTES regarding ENCRYPTION MODULES--  
Encryption modules, key loaders and radios containing encryption are export controlled A

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: A
- A
- A
- A
- A
- b) Ultimate Destination: A
- A
- A
- c) Intended Use of Radios:

**KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping**

A: A: A: A:



NX-5400 700/800MHz Digital & FM Analog Portable Radio

Table of Contents



<Standard Key Model > <Full Key Model >

All NX-5400 series portables include:

- Belt Clip (KBH)
- Universal Connector Cap
- User Guide
- Premium Warranty:

Purchase Battery, Charger, Antenna separately

Note: 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.

STANDARD

GENERAL FEATURES

- Standard Key Models (w/o numeric keypad)
- Full Key Models (w/ numeric keypad)
- Full Color
- Function/Status Icons
- Multi
- Date &
- Transmit/Busy/Call Alert/Warn LED
- On/Off Volume Knob
- Emergency/AUX Key
- Multi Digital Protocol
- Emergency Call Features
- Built-in
- Active Noise Reduction (ANR)
- KPG
- Flash Firmware Upgrading
- MIL
- IP

DIGITAL - NXDN® MODE

- NXDN
- AMBE+™ VOCODER
- Over
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN

DIGITAL - DMR MODE

- DMR Tier II Conventional
- AMBE+™ VOCODER
- LTR
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC
- Site Roaming

ANALOG MODE

- NPSAP Channels
- Conventional Zones
- LTR
- FleetSync
- OT / DOT
- Two
- DTMF
- Built-in

OPTIONAL

GENERAL FEATURES

- Front Panel Programming
- microSD/microSDHC Memory Card Slot
- Built-in
- Remote Control by Subscriber Units \*DMR Only (KWD)

DIGITAL - P25 MODE

- Conventional Features
- Phase
- Phase
- Conventional OTAR
- Trunking OTAR
- Conventional Voling Scan
- Packet Data required for Trunked OTAR/GPS

Due to spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed:

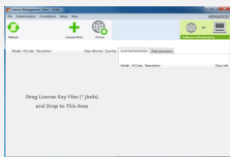
RADIO LIST

Table with 2 columns: Radio Model, Radio Features

CSA US APPROVED MODELS LIST

Must Order L-5039 & KNB-L55M Intrinsically Safe Battery per radio
\*Note microSD card is not allowed to use as Intrinsically Safe Option.

LICENSING SYSTEM LIST



KPT-300LMC License Management Client

- software
- radio feature license

NOTE: Account Request Form

Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1/10 Only. Windows XP is not supported.

SOFTWARE LICENSING OPTIONS LIST

TO PLACE AN ORDER FOR SOFTWARE:

- Complete the attached Software License Key Request Form.
- Submit along with your PO to the Land Mobile Order Desk via:
  - E-Mail: lmrorderdesk@us.jvkenwood.com
  - Fax: (310) 761-8246
- License Keys will be E-mailed to the address provided on the order form. A hard copy will follow by mail for your records.
 

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
15	40% OFF
25	45% OFF

FIELD PROGRAMMING UNIT (FPU) LIST

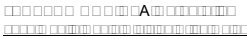
Table with 2 columns: FPU Model, FPU Features

Note: Requires KPT-300LMC for authentication









NX-5400
700/800MHz Digital & FM Analog Portable Radio

Table of Contents

OVER THE AIR PROGRAMMING (OTAP) LIST

• License includes Fifty (50) radios / One(1) NXDN
• Note: - Requires KPT-300LMC for authentication
- Radio to Radio OTAP for P25 Conventional system requires KWD-AP3-P25 license.
- NEXEDGE Type-D Trunking and DMR System not supported.

SOFTWARE UPGRADE LICENSES FOR KPG-180AP

Note: Includes package license for additional subscriber unit or license for additional profile attached to one computer running KPG-180AP software. All additional licenses require KPT-300LMC for authentication.

Table listing various software upgrade licenses for KPG-180AP with corresponding list numbers.

-- IMPORTANT NOTES --

Additional notes regarding software licenses and authentication requirements.

BATTERY READER LIST

Note: Requires KPT-300LMC for authentication

SOFTWARE UPGRADE LICENSES FOR KAS-12

Note: Upgrade License attaches to one computer running KAS-12 software. All additional licenses require KPT-300LMC for authentication.

Table listing software upgrade licenses for KAS-12 with corresponding list numbers.

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:

- 1. Complete the attached Radio Feature Request Form.
2. Submit the completed form along with your PO to the Land Mobile Order Desk via:
a) E-Mail: Imrorderdesk@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 Features LIST

Table listing General Radio Features with corresponding list numbers.

P25 Radio Features LIST

Table listing P25 Radio Features with corresponding list numbers.

DMR Radio Features LIST

Table listing DMR Radio Features with corresponding list numbers.

ANTENNAS LIST

Table listing Antennas with corresponding list numbers.

BATTERIES AND CHARGERS LIST

Table listing Batteries and Chargers with corresponding list numbers.

**NEXEDGE®** **NX-5400** Table of Contents  
**P25** 700/800MHz Digital & FM Analog Portable Radio

XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
<b>BATTERIES AND CHARGERS, CON'T</b>		<b>LIST</b>
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
<b>CARRYING ACCESSORIES</b>		<b>LIST</b>
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX
XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXX







NEXEDGE® P25 NX-5400 700/800MHz Digital & FM Analog Portable Radio Table of Contents

**INSTALLATION / TUNING CHARGES LIST**

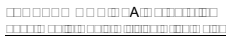
<b>Note</b> - <b>Restricted Purchase Requirements</b> - • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System • Must have KPG-D1NK. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System • Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an • 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file.		
A		
A		
<b>Must order KNB-LSSM I.S. battery</b>		

-- IMPORTANT NOTES regarding ENCRYPTION MODULES--  
Encryption modules, key loaders and radios containing encryption are export controlled A

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:
- b) Ultimate Destination
- c) Intended Use of Radios

**KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping**  
A  
A  
A



# NX-5700/5800/5900

Table of Contents

### VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios

#### STANDARD

##### GENERAL FEATURES

- Standard Microphone (KMC)
- Mounting Bracket (KMB)
- DC Cable (KCT)
- Blade Fuse
- User Guide
- Premium Warranty
- Multi Digital Protocol
- Emergency Call Features
- Built-in AEC
- DB
- Mobile Relay Station
- Cross Band Repeater (Only)
- Active Noise Reduction (ANR)
- KPG
- Flash Firmware Upgrading
- ML
- IP

##### DIGITAL – NXDN® MODE

- NXDN
- NXDN
- AMBE+™ VOCODER
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN

##### DIGITAL – DMR MODE

- DMR Tier II Conventional
- AMBE+™ VOCODER
- Late Entry
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC
- Site Roaming

##### ANALOG MODE

- Conventional Zones
- LTR
- FleetSync
- ARC
- OT / DOT
- Two
- DTMF
- Built-in

3. Future release

- NXDN
- NXDN
- AMBE+™ VOCODER
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN
- DMR Tier II Conventional
- AMBE+™ VOCODER
- Late Entry
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC
- Site Roaming
- Conventional Zones
- LTR
- FleetSync
- ARC
- OT / DOT
- Two
- DTMF
- Built-in



#### NX-5000(K-version) Mobiles include:

- Standard Microphone (KMC)
- Mounting Bracket (KMB)
- DC Cable (KCT)
- Blade Fuse
- User Guide
- Premium Warranty

A

\*BK-version comes with a RF deck only

1. 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.
2. Requires L-5023 DB25 Cable between Decks.

#### OPTIONAL

##### GENERAL FEATURES

- Front Panel Programming
- microSD/microSDHC Memory Card Slot
- Built-in
- Remote Control by Subscriber Units "DMR Only (KWD)

##### DIGITAL – P25 MODE

- Conventional Features
- Phase
- Conventional OTAR
- Trunking OTAR
- Conventional Voting Scan
- Packet Data required for Trunked OTAR/GPS

##### MOUNTING & REMOTE CONFIGURATIONS

(Order L-5023-L-5033 for KENWOOD Factory assembling)

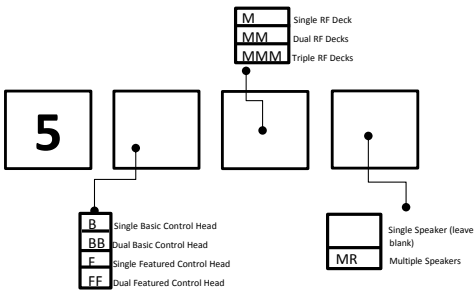
- Single Remote Control Head
- Dual Remote Control Heads
- Multiple RF Decks



RADIO (includes: KCH-19M, KMC-35, KMB-33M, and KCT-23M)	LIST

RF Deck Only	LIST
MUST purchase necessary accessories separately	

#### ACCESSORY CONFIGURATION KITS



Single Deck Single Head Remote Mount	LIST

Single Deck Dual Head Remote Mount	LIST

Dual Deck Single Head Single Speaker Remote Mount	LIST



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

1	1. Introduction	1
2	2. Features	2
3	3. Specifications	3
4	4. Mounting	4
5	5. Operation	5
6	6. Troubleshooting	6
7	7. Accessories	7
8	8. Remote Mount Configuration Request Form	8
9	9. Dual Deck Single Head Dual Speaker Remote Mount LIST	9
10	10. Appendix	10

Note: MUST submit the Remote Mount Configuration Request Form.





































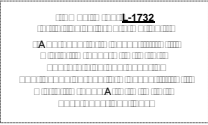
NEXEDGE® NX-220/320 VHF/UHF Digital & FM Analog Portable Radios Table of Contents



All 20 series NX portables include:

- Belt Clip (KH)
Instruction Manual
Premium Warranty

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



GENERAL FEATURES

- Emergency/AUX Key
Built-in Loudspeaker
Zone/CH# Voice Announcement
KMIC
Flash Firmware Upgrading
MIL
PC Serial Interface
SDM Manual Input
Transparent Data Mode

DIGITAL – GENERAL

- NXDN
AMBE™ VOCODER
Over-A
Over-A
Emergency Call
All Group Call
Status Messaging
Remote Stun/Kill Check
Short & Long Data Messages
GPS Location with Voice
NXDN

DIGITAL – CONVENTIONAL MODE

- 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 Queuing with Priority
Late Entry (UID & GID)
Priority Monitor ID's
Remote Group Add
System Auto Select

DIGITAL - MULTI-SITE IP NETWORKS

- Auto Roaming Registration
Group Registration
UID Lists for each network
Direct Frequency Assignment

SCAN

- Single Zone / Multi-
Single Priority Scan (Conventional)

ANALOG MODES – GENERAL

- Conventional & LTR
FleetSync
QT/DQT Two
Voice Inversion Scrambler

MPT ZONES (option)

- Single
Multi
Network Roaming / Registration

FleetSync®/II

- PTT ID ANI / Caller ID
Selective / Group Call
Emergency, Status & Text Messages

MDC-1200

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

Table listing radio models and their corresponding page numbers under the 'RADIO' section.

Table listing radio models and their corresponding page numbers under the 'LI-ion VALUE PACKAGES' section.

Table listing radio models and their corresponding page numbers under the 'RADIO' section.







**NEXEDGE<sup>®</sup>** **NX-220/320** Table of Contents  
VHF/UHF Digital & FM Analog Portable Radios

XXXXXXXXXXXX  
XXXXXXXXXXXX AXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXXXXX

**SOFTWARE & USB OPTIONS CONT** **LIST**

XXXXXXXXXXXX	XXXXXXXXXXXX <b>without ESN</b> XXXXXXXX XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	<b>Note:</b> <b>Must order L-1819.</b> XXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXXXXX	

**SERVICE RELATED ACCESSORIES** **LIST**

XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX

**INSTALLATION / TUNING CHARGES** **LIST**

XXXXXXXXXXXX	<b>A</b> XXXXXXXX	XXXX
XXXXXXXXXXXX	<b>A</b> XXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	<b>Must Order an I.S. Battery</b> XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX

**TYPE-D FIRMWARE/TUNING** **LIST**

XXXXXXXXXXXX	XXXXXXXXXXXX <b>L-1781</b> <b>L-1782</b> <b>Note:</b> XXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX <b>Type-C</b> XXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX <b>NEXEDGE Type-D Field Upgrade Form</b> XXXXXXXX	XXXX

**MPT FIRMWARE/ACCESSORIES/TUNING** **LIST**

XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	<b>Note:</b> <b>L-1727</b> XXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	<b>L-1729</b> <b>Note:</b> XXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX





NEXEDGE®

NX-240V/340U

Table of Contents

VHF/UHF Digital & FM Analog Portable Radios

CARRYING ACCESSORIES

LIST

Table listing carrying accessories with page numbers

MICROPHONES & AUDIO ACCESSORIES

LIST

Table listing microphones and audio accessories with page numbers

SERVICE RELATED ACCESSORIES

LIST

Table listing service related accessories with page numbers

TYPE-D TRUNKING ACTIVATION/TUNING

LIST

Table listing type-d trunking activation/tuning with page numbers

Red text label

NEXEDGE®

# NX-240V/340U

Table of Contents

VHF/UHF Digital & FM Analog Portable Radios

## TYPE-D TRUNKING ACTIVATION/TUNING, CON'T

LIST

1. **NEXEDGE Type-D Field Upgrade Form**

## INSTALLATION / TUNING CHARGES

LIST

Kenwood Communications, Inc.

**NEXEDGE** **NX-410/411** Table of Contents  
800/900 MHz Digital & FM Analog Portable Radios

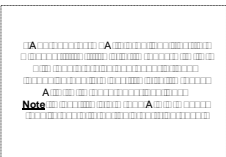


**410 portable includes:**

- Belt Clip (KBH)
- Universal Connector Cap
- Instruction Manual
- Premium Warranty: 3 Years

A A

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



Note

**GENERAL FEATURES**

- Backlit Dot Matrix LCD
- Function/Status LCD Icons
- Multi-Function Keypad
- Date & Time
- Transmit/Busy/Call Alert/Warn LED
- On/Off Volume Knob
- Emergency/AUX Key
- KMC
- KPG
- Flash Firmware Upgrading
- MIL
- IP
- PC Serial Interface
- SD Memory Card
- Transparent Data Mode

**DIGITAL – GENERAL**

- NXDN
- AMBE+™ VOCODER
- Over
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill Check
- Short & Long Data Messages
- GPS Location with Voice
- NXDN
- DES Encryption Module Option
- AES & DES Encryption Module Option
- AES/DES Software Key Loader Option

**DIGITAL – CONVENTIONAL MODE**

- Individual & Group Selective Call
- Mixed FM/Digital Operation
- Conventional IP Networks
- Site Roaming

**DIGITAL – TRUNKING MODE**

- Group Call & Broadcast Call
- Transmission Trunked Mode
- Message Trunked Mode
- Call Queuing with Priority
- Late Entry (UID & GID)
- Priority Monitor ID's
- Remote Group Add
- System Auto Select

**DIGITAL - MULTI-SITE IP NETWORKS**

- Auto Roaming Registration
- Group Registration
- UID Lists for each network
- Direct Frequency Assignment

**SCAN**

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

**ANALOG MODES – GENERAL**

- NPSAP Channels\*\*
- Conventional & LTR® Zones
- FleetSync® II, MDC-1200
- QT / DOT (Conventional Zones Only)
- Voice Inversion Scrambler
- Analog Scrambler Board Capability

**MPT ZONES (option)**

- Single
- Multi
- Network Roaming / Registration

**FleetSync®II**

- PTT ID ANI / Caller ID
- Selective / Group Call
- Emergency, Status & Text Messages

**MDC-1200**

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

\*\* 800 MHz model only.1

**RADIO** **LIST**

800 MHz	900 MHz	800/900 MHz
---------	---------	-------------

**CSA APPROVED I.S. MODEL** **LIST**

Must Order L-1750 & an Intrinsically Safe Battery per radio

800 MHz	900 MHz	800/900 MHz
---------	---------	-------------

**PACKAGE** **LIST**

800 MHz	900 MHz	800/900 MHz
---------	---------	-------------



<b>NEXEDGE<sup>®</sup></b>	<b>NX-410/411</b>	Table of Contents
800/900 MHz Digital & FM Analog Portable Radios		

XXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXX A XXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXX XXXXXXXXXXXXX

<b>ANTENNAS</b>	<b>LIST</b>
ANTENNA 1	1
ANTENNA 2	1
ANTENNA 3	1
ANTENNA 4	1

<b>BATTERIES AND CHARGERS</b>	<b>LIST</b>
CHARGER 1	2
CHARGER 2	2
CHARGER 3	2
CHARGER 4	2
[FM & CSA-us ntrinsically Safe Option]	
CHARGER 5	2
[CSA-us ntrinsically Safe Option]	
CHARGER 6	2
CHARGER 7	2
CHARGER 8	2
CHARGER 9	2
CHARGER 10	2
CHARGER 11	2
CHARGER 12	2
CHARGER 13	2
CHARGER 14	2
CHARGER 15	2
CHARGER 16	2
CHARGER 17	2
CHARGER 18	2
CHARGER 19	2
CHARGER 20	2

<b>CARRYING ACCESSORIES</b>	<b>LIST</b>
ACCESSORY 1	3
ACCESSORY 2	3
ACCESSORY 3	3
ACCESSORY 4	3
ACCESSORY 5	3
ACCESSORY 6	3
ACCESSORY 7	3
ACCESSORY 8	3
ACCESSORY 9	3
ACCESSORY 10	3
ACCESSORY 11	3
ACCESSORY 12	3
ACCESSORY 13	3
ACCESSORY 14	3
ACCESSORY 15	3
ACCESSORY 16	3
ACCESSORY 17	3
ACCESSORY 18	3
ACCESSORY 19	3
ACCESSORY 20	3

<b>MICROPHONES &amp; AUDIO ACCESSORIES</b>	<b>LIST</b>
MICROPHONE 1	4
MICROPHONE 2	4
MICROPHONE 3	4
MICROPHONE 4	4
MICROPHONE 5	4
MICROPHONE 6	4
MICROPHONE 7	4
MICROPHONE 8	4
MICROPHONE 9	4
MICROPHONE 10	4
MICROPHONE 11	4
MICROPHONE 12	4
MICROPHONE 13	4
MICROPHONE 14	4
MICROPHONE 15	4
MICROPHONE 16	4
MICROPHONE 17	4
MICROPHONE 18	4
MICROPHONE 19	4
MICROPHONE 20	4

**NEXEDGE<sup>®</sup>** **NX-410/411** Table of Contents  
 800/900 MHz Digital & FM Analog Portable Radios

Kenwood logo  
 Kenwood logo  
 Kenwood logo

<b>MICROPHONES &amp; AUDIO ACCESSORIES - CONT</b>		<b>LIST</b>
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo

<b>SOFTWARE OPTIONS</b>		<b>LIST</b>
Kenwood logo	<ul style="list-style-type: none"> <li>License Includes 10 radios / 1 Serial Port*</li> <li>To add more radios/serial ports, you must contact Kenwood Systems Division</li> </ul>	Kenwood logo
Kenwood logo	<b>Note:</b> A: Kenwood logo A: Kenwood logo Kenwood logo A: Kenwood logo	Kenwood logo
Kenwood logo	A: Kenwood logo Kenwood logo A: Kenwood logo	Kenwood logo
Kenwood logo	<b>Must order L-1812 for factory installation, or L-1813 for field-upgrade option</b> <b>MPT</b> <b>NOT</b> <b>30 FY2016</b>	Kenwood logo
Kenwood logo	<b>without ESN</b> <b>Note:</b> <b>Must order L-1819.</b>	Kenwood logo

<b>OPTION MODULES</b>		<b>LIST</b>
Kenwood logo	A: Kenwood logo Kenwood logo A: Kenwood logo Kenwood logo A: Kenwood logo	Kenwood logo
Kenwood logo	A: Kenwood logo Kenwood logo A: Kenwood logo Kenwood logo A: Kenwood logo	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b> <b>Note:</b>	Kenwood logo
Kenwood logo	<b>[Intrinsically Safe Approved Accessory]</b>	Kenwood logo

<b>SERVICE RELATED ACCESSORIES</b>		<b>LIST</b>
Kenwood logo	Kenwood logo	Kenwood logo

NEXEDGE NX-410/411 Table of Contents 800/900 MHz Digital & FM Analog Portable Radios

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Table with 2 columns: Section Name and LIST. Sections include INSTALLATION / TUNING CHARGES and MPT FIRMWARE/ACCESSORIES/TUNING.

□

NEXEDGE<sup>™</sup>

## NX-410/411

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800/900 MHz Digital & FM Analog Portable Radios

XXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXX

**-- IMPORTANT NOTES --**

Encryption modules, key loaders and radios containing encryption are export controlled. This document and its contents are the property of Kenwood. All rights reserved. No part of this document may be reproduced without the written permission of Kenwood. All trademarks are the property of their respective owners.

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:** The country to which the radios are being shipped.  
A: [Country Name]

**b) Ultimate Destination:** The country to which the radios are being shipped.  
A: [Country Name]

**c) Intended Use of Radios:** [Intended Use]

**KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping**

A: [Validation Information]  
A: [Customer Shipping Information]  
A: [Additional Information]

# NEXEDGE NX-420

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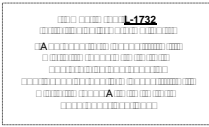
## 800 MHz Digital & FM Analog Portable Radios



**All 420 series NX portables include:**

- Belt Clip (KH1)
- Antenna (KRA)
- Instruction Manual
- Premium Warranty:

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



### GENERAL FEATURES

- Backlit LCD & Keys
- Function / Status LCD Icons
- Transmit / Busy / Call Alert / Warn LED
- On / Off Volume Knob
- Emergency / AUX Key
- Built-in Speaker
- Zone / CH# Voice Announcement
- KMC
- KPG
- Flash Firmware Upgrading
- MIL
- IP
- PC Serial Interface
- SD-M Manual Input
- Transparent Data Mode

### DIGITAL – GENERAL

- NXDN
- AMBE™ VOCODER
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Sun / Kill/Check
- Short & Long Data Messages
- GPS Location with Voice
- NXDN

### DIGITAL – CONVENTIONAL MODE

- 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 Queuing with Priority
- Late Entry (UID & GID)
- Priority Monitor ID's
- Remote Re
- System Auto Select

### DIGITAL - MULTI-SITE IP NETWORKS

- Auto Roaming Registration
- Group Registration
- UID Lists for each network
- Direct Frequency Assignment

### SCAN

- Single Zone / Multi
- Single Priority Scan (Conventional)

### ANALOG MODES – GENERAL

- NPSAP Channels
- Conventional & LTR® Zones
- FleetSync® / II, MDC
- QT / DQT (Conventional Zones only)
- Voice Inversion Scrambler

### MPT ZONES (option)

- Single
- Multi
- Network Roaming / Registration

### FleetSync®II

- PTT ID ANI / Caller ID
- Selective / Group Call
- Emergency, Status & Text Messages

### MDC-1200

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

<b>RADIO</b>	<b>LIST</b>
Li-ion VALUE PACKAGES	LIST
PACKAGES	LIST
<b>SGS US I.S. APPROVED MODELS</b>	<b>LIST</b>
Must Order L-1732 & an Intrinsically Safe Battery per radio	

Table of Contents (continued) listing various features and their corresponding page numbers.

**NEXEDGE<sup>™</sup>** **NX-420** Table of Contents  
**800 MHz Digital & FM Analog Portable Radios**

XXXXXXXXXXXX  
 XXXXXXXXXXXXXXXXXXXXX  
 XXXXXXXXXXXA.XXX XXXXXXXX

<b>ANTENNAS</b>		<b>LIST</b>
XXXXA	XXXXXXXXXXA:XXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXA	XXXXXXXXXXXX XXXAXXXXX	XXXXX
XXXXA	XXXXXXXXXXXXXXXXXXXXA:XXXXX	XXXXX
XXXXA	XXXXXXXXXXXX XXXAXXXXX	XXXXX
<b>BATTERIES AND CHARGERS</b>		<b>LIST</b>
XXXXX	AAA:XXXXXXXXXXXXXXXXXXXXAA:XXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXA:XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXA:XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXA:XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	<b>[Intrinsically Safe Option]</b>	
XXXXX	XXXXXXXXXXXXA:XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXA:XXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXA:XXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXA:XXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX
<b>CARRYING ACCESSORIES</b>		<b>LIST</b>
XXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXX
XXXXX	XX	XXXXX
XXXXX	XX	XXXXX
XXXXX	XX	XXXXX
<b>MICROPHONES &amp; AUDIO ACCESSORIES</b>		<b>LIST</b>
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXX	XX	XXXXX
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXX	XX	XXXXX
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXX	XX	XXXXX
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXXA	XX	XXXXX
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXX	XX	XXXXX
XXXXX	XX	XXXXX
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXX	XX	XXXXX
XXXXX	<b>[Intrinsically Safe Approval Accessory]</b>	XXXXX
XXXXX	XX	XXXXX

**NEXEDGE** **NX-420** Table of Contents  
 800 MHz Digital & FM Analog Portable Radios

Small text in red at the top right, possibly a page number or version indicator.

**MICROPHONES & AUDIO ACCESSORIES, CON'T** LIST

Microphone	Accessories	Price
Microphone	Accessories	Price

**SOFTWARE OPTIONS** LIST

License	Price
License	Price

Note: License Includes 10 radios / 1 Serial Port\*

\* To add more radios/serial ports, you must contact Kenwood Systems Division

Note: MPT

NOT 30 FY2016

without ESN

Note: Must order L-1819.

**SERVICE RELATED ACCESSORIES** LIST

Accessories	Price
-------------	-------

**INSTALLATION / TUNING CHARGES** LIST

Installation	Price
Tuning	Price

Must Order an I.S. Battery

**MPT FIRMWARE/ACCESSORIES/TUNING** LIST

Firmware	Price
Accessories	Price

Note: L-1727

L-1729

Accessories	Price
-------------	-------







# TK-D240V/340U

Table of Contents

## VHF/UHF Digital & FM Analog Portable Radios



### All 40 series DMR portables include:

- Li-ion battery
- Fast charging
- Antenna (A)
- Belt Clip (KBH)
- Instruction Manual
- Standard Warranty: 2 years

Kenwood A series

Because of spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed;

- 144.000 MHz - 144.010 MHz
- 144.010 MHz - 144.020 MHz
- 144.020 MHz - 144.030 MHz
- 144.030 MHz - 144.040 MHz
- 144.040 MHz - 144.050 MHz
- 144.050 MHz - 144.060 MHz
- 144.060 MHz - 144.070 MHz
- 144.070 MHz - 144.080 MHz
- 144.080 MHz - 144.090 MHz
- 144.090 MHz - 144.100 MHz

### GENERAL FEATURES

- 128 channels
- Max. 1000mAh
- Transmit / Busy / Call Alert / Scan / Warn LED
- On/Off Volume Knob
- Digital/Analog
- 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
- Password Protected (Read/Write)
- MIL
- IP

### DIGITAL – CONVENTIONAL MODE

- Individual & Group Selective Call
- Conventional IP Networks

### SCAN

- Single Zone Scan
- Single Priority Scan (Conventional)

### ANALOG MODES – GENERAL

- Conventional Zones
- DTMF \*
- QT/DQT, Two
- Voice Inversion Scrambler

### FleetSync®

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

### GENERAL FEATURES

- DMR Tier II Conventional
- AMBE+<sup>TM</sup> VOCODER
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Monitor

\* Future Release

## RADIO LIST

TK-D240V	VHF	128 channels	1000mAh
TK-D240U	VHF	128 channels	1000mAh
TK-D340U	UHF	128 channels	1000mAh

## ANTENNAS LIST

KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh
KA-100	VHF/UHF	1000mAh



## TK-D240V/340U

Table of Contents

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

#### ANTENNAS con't

#### LIST

Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna

#### BATTERIES AND CHARGERS

#### LIST

Kenwood Battery	Kenwood Battery	Kenwood Battery
<b>Note:</b> Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna		
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna
Kenwood A Antenna	Kenwood A Antenna	Kenwood A Antenna

#### CARRYING ACCESSORIES

#### LIST

Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory

#### MICROPHONES & AUDIO ACCESSORIES

#### LIST

Kenwood Microphone	Kenwood Microphone	Kenwood Microphone
<b>Note:</b> Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna		
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
<b>Note:</b> Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna		
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
<b>Note:</b> Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna, Kenwood A Antenna		
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory

#### SERVICE RELATED ACCESSORIES

#### LIST

Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
Kenwood Accessory	Kenwood Accessory	Kenwood Accessory

#### INSTALLATION / TUNING CHARGES

#### LIST

Kenwood Accessory	Kenwood Accessory	Kenwood Accessory
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TK-2170/3170

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Compact VHF/UHF FM Portable Radios



All 170 series portables include:

- Belt Clip (KBH)
Enhanced Kenwood Audio
Instruction Manual
Standard Warranty

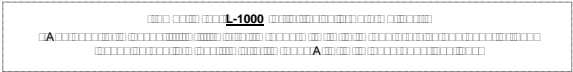
Order packages to include Battery, Charger & Antenna, or purchase Battery, Charger and Antenna separately.

GENERAL FEATURES

- 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
Speaker Mic Options
Windows
Windows
Field Programming & Tuning
Cloning
ML
ML.STD "Driven Rain"
IP
Intrinsically Safe Option\*

FleetSync®

- PTT ID Digital ANI
Selective Call & Group Call
Status Messaging
Emergency Status
Caller ID Display
Short Text Messages
PC Serial Interface



RADIO LIST table with columns for radio model and list reference

PACKAGES LIST table with columns for package name and list reference

Li-ion VALUE PACKAGES LIST table with columns for package name and list reference

ANTENNAS LIST table with columns for antenna model and list reference

Table of Contents for the right side of the page, listing various features and accessories.

TK-2170/3170

Table of Contents

Compact VHF/UHF FM Portable Radios

Table of Contents (continued)

ANTENNAS, CON'T LIST

Table listing antenna models and their corresponding page numbers.

BATTERIES AND CHARGERS LIST

Table listing battery and charger models, including intrinsically safe options, and their corresponding page numbers.

CARRYING ACCESSORIES LIST

Table listing carrying accessories and their corresponding page numbers.

MICROPHONES & AUDIO ACCESSORIES LIST

Table listing microphone and audio accessories, including intrinsically safe approved accessories, and their corresponding page numbers.







# TK-2180/3180

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VHF/UHF Trunking & Conventional Portable Radios

TK-2180/3180 VHF/UHF Trunking & Conventional Portable Radios  
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## CSA-US INTRINSICALLY SAFE APPROVED MODELS LIST

Must Order L-1804 & CSA Intrinsically Safe Battery per radio

TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1

## ANTENNAS LIST

TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1

## BATTERIES AND CHARGERS LIST

TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1

## CARRYING ACCESSORIES LIST

TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-2180	TK-2180 VHF/UHF Trunking & Conventional Portable Radio	1
TK-3180	TK-3180 VHF/UHF Trunking & Conventional Portable Radio	1



TK-3173

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UHF Trunking & Conventional Compact Portable Radio



All 173 series portables include:

- Belt Clip (KBH)
Speaker Mic
Instruction Manual
Standard Warranty

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

GENERAL FEATURES

- Conventional & LTR
Backlit LCD
Function / Status LCD Icons
Transmit / Busy / Call Alert / Warn LED
Orange Emergency / AUX Key
Enhanced Kenwood Audio
Companded Audio
Encryption / ANI Board Control
Easy Option Port
Emergency Call Features
Emergency Man
QT / DQT
DTMF Encode / Decode
Special Alert Tone Patterns
Call Key
Time Out Timer
Busy Channel Lockout
LCD Battery Status Indicator
Low Battery Alert
Weather
Speaker Mic Options
Windows
Field Programming & Tuning
Cloning

MIL

- MIL STD "Driven Rain"
IP
Intrinsically Safe Option\*

CONVENTIONAL ZONES

- QT / DQT
Two
Single / Two
Operator Selectable Tone
Single Priority Scan
Single & Multi
List Scan
Voice Inversion Scrambler Built
VOX Ready
Battery Saver

TRUNKED ZONES

- Kenwood LTR

FleetSync®

- PTT ID Digital ANI
Selective Call & Group Call
Status Messaging
Emergency Status
Caller ID Display
Short Text Messages
PC Serial Interface

Kenwood L-1000

RADIO LIST

Table with 2 columns: Radio Model, List Link

Li-ion VALUE PACKAGES LIST

Table with 2 columns: Package Name, List Link

PACKAGES LIST

Table with 2 columns: Package Name, List Link

ANTENNAS LIST

Table with 2 columns: Antenna Name, List Link

BATTERIES AND CHARGERS LIST

Table with 2 columns: Battery/Charger Name, List Link

BATTERIES AND CHARGERS, CONT LIST

Table with 2 columns: Battery/Charger Name, List Link

CARRYING ACCESSORIES LIST

Table with 2 columns: Accessory Name, List Link

MICROPHONES & AUDIO ACCESSORIES LIST

Table with 2 columns: Accessory Name, List Link

Vertical text on the right side of the page, likely a continuation of the table of contents or a list of links.





TK-2360/3360

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Compact VHF/UHF FM Portable Radios



GENERAL FEATURES

- List of general features including Special Alert Tone Pattern, Time Out Timer, Busy Channel Lockout, Low Battery Warning, Battery Saver, Windows Programming & Tuning, Password Protection, MIL, IP, Intrinsic Safe Option, FleetSync, PTT ID Digital ANI, Selective Call & Group Call, Paging Call, Status Messaging, Emergency Status, MDC-1200, PTT ID Digital ANI, Emergency Status, Radio Check, Radio Inhibit.

All 360 series portables include:

- Belt Clip (KBH), Instruction Manual, Standard Warranty.

Additional information regarding accessories.

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

Must Order L-1716 (Intrinsically Safe Battery) per radio

RADIO LIST

Table with 2 columns: Radio Model, List

Li-ion VALUE PACKAGES LIST

Table with 2 columns: Package Name, List

PACKAGES LIST

Table with 2 columns: Package Name, List

SGS US I.S. APPROVED MODELS LIST

Table with 2 columns: Model Name, List

Vertical list of product models and their corresponding list indicators.



**TK-2360/3360** Table of Contents  
Compact VHF/UHF FM Portable Radios

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**MICROPHONES & AUDIO ACCESSORIES, CON'T LIST**

Microphone A	[Intrinsically Safe Approval Accessory]	
Microphone B		
Microphone C		
Microphone D		
Microphone E		
Microphone F		
Microphone G		
Microphone H		
Microphone I		
Microphone J		

**OPTION MODULES LIST**

Option Module K	[Intrinsically Safe Approved Accessory]	
Option Module L		

**SERVICE RELATED ACCESSORIES LIST**

Service Accessory M		
Service Accessory N		

**INSTALLATION / TUNING CHARGES LIST**

Installation Charge O		
Installation Charge P		
Installation Charge Q		
Installation Charge R		
Installation Charge S		
Installation Charge T		
Installation Charge U		
Installation Charge V		
Installation Charge W		
Installation Charge X		
Installation Charge Y		
Installation Charge Z		

Must Order an I.S. Battery



TK-2312/3312

Table of Contents

VHF/UHF Conventional Portable Radios



All 312 series portables include:

- Li-Ion battery pack
• Fast charging
• Antenna
• Belt Clip (KBH)
• Instruction Manual
• Standard Warranty

GENERAL FEATURES

- Conventional Zones
• Single Priority Scan
• Single & Multi
• Backlit LCD
• Function / Status LCD Icons
• RSSI Indicator
• Transmit / Busy / Call Alert / Warn LED
• Enhanced Kenwood Audio
• Companded Audio (per CH)
• VOX Ready
• Voice Inversion Scrambler Built-in
• Emergency Call Features
• Lone Worker Alert
• QT / DQT
• Two
• Single / Two
• Operator Selectable Tone
• DTMF Encode / Decode
• FleetSync

- Special Alert Tone Pattern
• Call Key
• Time Out Timer
• Busy Channel Lockout
• LCD Battery Status Indicator
• Low Battery Alert
• Battery Saver
• Windows
• Wireless Cloning
• Password Protection
• MIL
• IP

FleetSync®

- PTT ID Digital ANI
• Selective Call & Group Call
• Status Messaging
• Emergency Status
• Caller ID Display
• Short Text Messages
• Send GPS Data (KMC)
• PTT ID & Emergency GPS
• Status Message Block GPS

MDC-1200

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

RADIO LIST

Table with 2 columns: Radio Model and List Reference

ANTENNAS LIST

Table with 2 columns: Antenna Model and List Reference

BATTERIES AND CHARGERS LIST

Table with 2 columns: Battery/Charger Model and List Reference

BATTERIES AND CHARGERS, CON'T LIST

Table with 2 columns: Battery/Charger Model and List Reference

CARRYING ACCESSORIES LIST

Table with 2 columns: Accessory Model and List Reference

MICROPHONES & AUDIO ACCESSORIES LIST

Table with 2 columns: Microphone/Audio Accessory Model and List Reference

Table of Contents for the right page, listing various sections and their corresponding page numbers.

# TK-2312/3312

Table of Contents

## VHF/UHF Conventional Portable Radios

Table of Contents

Introduction	1
Getting started	2
Operating the radio	3
Accessories	4
Service related accessories	5
Installation / Tuning charges	6
<b>SERVICE RELATED ACCESSORIES LIST</b>	
Accessories	5
Service related accessories	5
<b>INSTALLATION / TUNING CHARGES LIST</b>	
Installation / Tuning charges	6



# TK-2400/3400

Table of Contents

VHF/UHF Conventional Portable Radios

Introduction	1
Getting Started	1
Operating the Radio	1
<b>SERVICE RELATED ACCESSORIES</b>	<b>LIST</b>
Accessories	1
Installation / Tuning Charges	<b>LIST</b>
Installation	1

Kenwood Communications, Inc.  
Kenwood Communications, Inc. 1-800-4-A-KENWOOD  
Kenwood Communications, Inc. 1-800-4-A-KENWOOD





TK-2402V/3402U
VHF/UHF Conventional Portable Radios
Table of Contents



All 402 series portables include:

- Li-Ion battery
• Fast charging
• Antenna
• Belt Clip (KBH)
• Channel Stopper
• Instruction Manual
• Standard Warranty

GENERAL FEATURES

- Single Priority / Normal Scan
• Transmit / Busy / Call Alert Scan / Warn LED
• Enhanced Kenwood Audio
• Companded Audio (per CH)
• Voice Annunciation
• VOX Ready
• Voice Inversion Scrambler Built-in
• Emergency Call Features
• Lone Worker Alert (per CH)
• QT / DQT
• Two-Tone
• Single / Two-Tone
• DTMF Encode / Decode

- Special Alert Tone Pattern
• Time Out Timer
• Busy Channel Lockout
• Low Battery Warning
• Battery Saver
• Windows® Programming & Tuning
• Wireless Cloning
• Password Protection
• MIL
• IP

FleetSync®

- PTT ID Digital ANI
• Selective Call & Group Call
• Paging Call
• Emergency Status
• Send GPS Data (KMC)

MDC-1200

- PTT ID Digital ANI
• Emergency Status
• Radio Check
• Radio Inhibit

RADIO LIST

Table listing radio models and their corresponding page numbers.

ANTENNAS LIST

Table listing antenna models and their corresponding page numbers.

BATTERIES AND CHARGERS LIST

Table listing battery and charger models and their corresponding page numbers.

CARRYING ACCESSORIES LIST

Table listing carrying accessories and their corresponding page numbers.

MICROPHONES & AUDIO ACCESSORIES LIST

Table listing microphone and audio accessories and their corresponding page numbers.

Vertical text on the right side of the page, likely a page number or index reference.

**TK-2402V/3402U** Table of Contents  
VHF/UHF Conventional Portable Radios

Introduction	1
Getting Started	2
Operating the Radio	3
Accessories	4
Service Related Accessories	<b>LIST</b>
Installation / Tuning Charges	<b>LIST</b>

Kenwood Communications, Inc.  
Kenwood Communications, Inc.  
Kenwood Communications, Inc.





**ProTalk**

**TK-3230**  
UHF BRS Portable Radios

Table of Contents

**INSTALLATION / TUNING CHARGES**

**LIST**

1. Introduction 2. Installation 3. Tuning 4. Troubleshooting 5. Appendix

**-- NOTES --**

1. This manual is for the TK-3230 UHF BRS Portable Radios. For other models, please refer to the corresponding manual.

1. Introduction 2. Installation 3. Tuning 4. Troubleshooting 5. Appendix

## ProTalk

### PKT-23 UHF BRS Portable Radios

Table of Contents



**LT series portable includes:**

- Spring action belt clip
- Drop Protection
- Fixed Antenna
- Kenwood A-Net
- Instruction Manual
- Standard Warranty: 1 Year

Kenwood A-Net

#### GENERAL FEATURES

- 100 Channels, 100 Presets, 100 Memory Channels
- 50 W Power Output
- 40 W Power Output
- 20 W Power Output
- 10 W Power Output
- 5 W Power Output
- 1 W Power Output
- 0.5 W Power Output
- 0.2 W Power Output
- 0.1 W Power Output
- 0.05 W Power Output
- 0.01 W Power Output
- 0.005 W Power Output
- 0.001 W Power Output
- 0.0005 W Power Output
- 0.0001 W Power Output
- 0.00005 W Power Output
- 0.00001 W Power Output
- 0.000005 W Power Output
- 0.000001 W Power Output
- 0.0000005 W Power Output
- 0.0000001 W Power Output
- 0.00000005 W Power Output
- 0.00000001 W Power Output

RADIO	LIST
100 Channels, 100 Presets, 100 Memory Channels	100
50 W Power Output	100
40 W Power Output	100
20 W Power Output	100
10 W Power Output	100
5 W Power Output	100
1 W Power Output	100
0.5 W Power Output	100
0.2 W Power Output	100
0.1 W Power Output	100
0.05 W Power Output	100
0.01 W Power Output	100
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0.000005 W Power Output	100
0.000001 W Power Output	100
0.0000005 W Power Output	100
0.0000001 W Power Output	100
0.00000005 W Power Output	100
0.00000001 W Power Output	100
BATTERIES AND CHARGERS	LIST
100 Channels, 100 Presets, 100 Memory Channels	100
50 W Power Output	100
40 W Power Output	100
20 W Power Output	100
10 W Power Output	100
5 W Power Output	100
1 W Power Output	100
0.5 W Power Output	100
0.2 W Power Output	100
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0.00001 W Power Output	100
0.000005 W Power Output	100
0.000001 W Power Output	100
0.0000005 W Power Output	100
0.0000001 W Power Output	100
0.00000005 W Power Output	100
0.00000001 W Power Output	100
CARRYING ACCESSORIES	LIST
100 Channels, 100 Presets, 100 Memory Channels	100
50 W Power Output	100
40 W Power Output	100
20 W Power Output	100
10 W Power Output	100
5 W Power Output	100
1 W Power Output	100
0.5 W Power Output	100
0.2 W Power Output	100
0.1 W Power Output	100
0.05 W Power Output	100
0.01 W Power Output	100
0.005 W Power Output	100
0.001 W Power Output	100
0.0005 W Power Output	100
0.0001 W Power Output	100
0.00005 W Power Output	100
0.00001 W Power Output	100
0.000005 W Power Output	100
0.000001 W Power Output	100
0.0000005 W Power Output	100
0.0000001 W Power Output	100
0.00000005 W Power Output	100
0.00000001 W Power Output	100
MICROPHONES & AUDIO ACCESSORIES	LIST
100 Channels, 100 Presets, 100 Memory Channels	100
50 W Power Output	100
40 W Power Output	100
20 W Power Output	100
10 W Power Output	100
5 W Power Output	100
1 W Power Output	100
0.5 W Power Output	100
0.2 W Power Output	100
0.1 W Power Output	100
0.05 W Power Output	100
0.01 W Power Output	100
0.005 W Power Output	100
0.001 W Power Output	100
0.0005 W Power Output	100
0.0001 W Power Output	100
0.00005 W Power Output	100
0.00001 W Power Output	100
0.000005 W Power Output	100
0.000001 W Power Output	100
0.0000005 W Power Output	100
0.0000001 W Power Output	100
0.00000005 W Power Output	100
0.00000001 W Power Output	100
INSTALLATION / TUNING CHARGES	LIST
100 Channels, 100 Presets, 100 Memory Channels	100
50 W Power Output	100
40 W Power Output	100
20 W Power Output	100
10 W Power Output	100
5 W Power Output	100
1 W Power Output	100
0.5 W Power Output	100
0.2 W Power Output	100
0.1 W Power Output	100
0.05 W Power Output	100
0.01 W Power Output	100
0.005 W Power Output	100
0.001 W Power Output	100
0.0005 W Power Output	100
0.0001 W Power Output	100
0.00005 W Power Output	100
0.00001 W Power Output	100
0.000005 W Power Output	100
0.000001 W Power Output	100
0.0000005 W Power Output	100
0.0000001 W Power Output	100
0.00000005 W Power Output	100
0.00000001 W Power Output	100

-- NOTES --  
Kenwood USA, Inc. 1-800-955-6889  
www.kenwoodusa.com





**TK-690/790/890**  
**VHF/UHF FM Mobile Radios**

Table of Contents

Kenwood North America, Inc.  
 10000 Wilshire Blvd., Suite 1000  
 Beverly Hills, CA 90210

<b>Dual Band Dual Head Remote Mount, CONT</b>		<b>LIST</b>
TK-690/790/890	Remote Mount Kit	1
TK-690/790/890	Remote Mount Kit (with 10' Cable)	1
TK-690/790/890	Remote Mount Kit (with 20' Cable)	1
<b>FRONT PANELS &amp; REMOTE KITS</b>		<b>LIST</b>
TK-690/790/890	Front Panel Kit	1
TK-690/790/890	Front Panel Kit (with 10' Cable)	1
TK-690/790/890	Front Panel Kit (with 20' Cable)	1
TK-690/790/890	Front Panel Kit (with 30' Cable)	1
TK-690/790/890	Front Panel Kit (with 40' Cable)	1
TK-690/790/890	Front Panel Kit (with 50' Cable)	1
TK-690/790/890	Front Panel Kit (with 60' Cable)	1
TK-690/790/890	Front Panel Kit (with 70' Cable)	1
TK-690/790/890	Front Panel Kit (with 80' Cable)	1
TK-690/790/890	Front Panel Kit (with 90' Cable)	1
TK-690/790/890	Front Panel Kit (with 100' Cable)	1
<b>CABLES</b>		<b>LIST</b>
TK-690/790/890	10' Cable	1
TK-690/790/890	20' Cable	1
TK-690/790/890	30' Cable	1
TK-690/790/890	40' Cable	1
TK-690/790/890	50' Cable	1
TK-690/790/890	60' Cable	1
TK-690/790/890	70' Cable	1
TK-690/790/890	80' Cable	1
TK-690/790/890	90' Cable	1
TK-690/790/890	100' Cable	1
<b>MOBILE INSTALLATION ACCESSORIES</b>		<b>LIST</b>
TK-690/790/890	Mobile Mount Kit	1
TK-690/790/890	Mobile Mount Kit (with 10' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 20' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 30' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 40' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 50' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 60' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 70' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 80' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 90' Cable)	1
TK-690/790/890	Mobile Mount Kit (with 100' Cable)	1
<b>MICROPHONES AND SPEAKERS</b>		<b>LIST</b>
TK-690/790/890	Microphone Kit	1
TK-690/790/890	Microphone Kit (with 10' Cable)	1
TK-690/790/890	Microphone Kit (with 20' Cable)	1
TK-690/790/890	Microphone Kit (with 30' Cable)	1
TK-690/790/890	Microphone Kit (with 40' Cable)	1
TK-690/790/890	Microphone Kit (with 50' Cable)	1
TK-690/790/890	Microphone Kit (with 60' Cable)	1
TK-690/790/890	Microphone Kit (with 70' Cable)	1
TK-690/790/890	Microphone Kit (with 80' Cable)	1
TK-690/790/890	Microphone Kit (with 90' Cable)	1
TK-690/790/890	Microphone Kit (with 100' Cable)	1
<b>SERVICE RELATED ACCESSORIES</b>		<b>LIST</b>
TK-690/790/890	Service Kit	1
TK-690/790/890	Service Kit (with 10' Cable)	1
TK-690/790/890	Service Kit (with 20' Cable)	1
TK-690/790/890	Service Kit (with 30' Cable)	1
TK-690/790/890	Service Kit (with 40' Cable)	1
TK-690/790/890	Service Kit (with 50' Cable)	1
TK-690/790/890	Service Kit (with 60' Cable)	1
TK-690/790/890	Service Kit (with 70' Cable)	1
TK-690/790/890	Service Kit (with 80' Cable)	1
TK-690/790/890	Service Kit (with 90' Cable)	1
TK-690/790/890	Service Kit (with 100' Cable)	1
<b>Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:</b>		
TK-690/790/890	Front Panel Kit (with 10' Cable)	1
TK-690/790/890	Front Panel Kit (with 20' Cable)	1
TK-690/790/890	Front Panel Kit (with 30' Cable)	1
TK-690/790/890	Front Panel Kit (with 40' Cable)	1
TK-690/790/890	Front Panel Kit (with 50' Cable)	1
TK-690/790/890	Front Panel Kit (with 60' Cable)	1
TK-690/790/890	Front Panel Kit (with 70' Cable)	1
TK-690/790/890	Front Panel Kit (with 80' Cable)	1
TK-690/790/890	Front Panel Kit (with 90' Cable)	1
TK-690/790/890	Front Panel Kit (with 100' Cable)	1













NEXEDGE NX-720HG/820HG Table of Contents VHF/UHF Digital & FM Analog Mobile Radios



- All NX-x20 series mobiles include: Standard Microphone (KMC), Mounting Bracket, DC Cable (KCT), A, Instruction Manual, Premium Warranty.

GENERAL FEATURES

- Backlit LCD & Keys, Function/Status LCD Icons, Transmit/Busy/Call Alert/Warn LED, Blue Function/Status LED, On/Off Power Control, Emergency/AUX Key, Zone / CH Number Voice Announcement, DB, KPG, Flash Firmware Upgrading, MIL, IP, PC Serial Interface, SDM Manual Input, Transparent Data Mode, Built.

DIGITAL COMMON

- NXDN, AMBE+™ VOCODER, Over, Paging Call, Emergency Call, All Group Call, Status Messaging, Remote Stun/Kill/Check, Short & Long Data Messages, GPS Location with Voice, NXDN.

DIGITAL CONVENTIONAL MODE

- 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, Transmission Trunked Mode, Message Trunked Mode, Call Queuing with Priority, Late Entry (UID & GID), Priority Monitor ID's, Remote Group Add, System Auto Select.

DIGITAL - MULTI-SITE IP NETWORKS

- Auto Roaming Registration, Group Registration, UID Lists for each network, Direct Frequency Assignment.

SCAN

- Single Zone / Multi, Dual Priority Scan (Conventional).

ANALOG MODE - GENERAL

- Conventional & LTR® Zones, FleetSync®/II, MDC, QT / DOT & Two, Voice Inversion Scrambler.

MPT ZONES (option)

- Single, Multi, Network Roaming / Registration.

FleetSync® /II (FM)

- PTT ID ANI / Caller ID, Selective / Group Call, Emergency, Status & Text Messages.

MDC-1200

- PTT ID ANI / Radio Check & Inhibit.

MODEL LIST

MOBILE INSTALLATION ACCESSORIES LIST

CONTROL STATION INSTALLATION ACCESSORIES LIST

MICROPHONES AND SPEAKERS LIST

SOFTWARE & USB OPTIONS LIST

FleetSync® & NEXEDGE® AVL & MESSAGING LIST

SERVICE RELATED ACCESSORIES LIST

INSTALLATION / TUNING CHARGES LIST

Table of Contents (continued) listing various accessories and options.





NEXEDGE®

NX-740HV/840HU

Table of Contents

VHF/UHF Digital & FM Analog Mobile Radios



All NX-x40 series mobiles include:

- Standard Microphone (KMC)
• Mounting Bracket
• DC Cable (KCT)
• A
• Instruction Manual
• Premium Warranty

A

GENERAL FEATURES

- Max.
• Function/Status LED Dots
• Backlit Keys
• Transmit /Busy / Call Alert LED
• Blue Function/Status LED
• Emergency / AUX Key
• Voice CH# Announcement
• DB
• KPG
• MIL
• IP
• PC Serial Interface
• GPS Receiver Option

DIGITAL COMMON

- NXDN® Digital Air Interface
• AMBE+™ VOCODER
• Over
• Paging Call
• Emergency Call
• All Group Call
• Status Messaging
• Remote Stun/Kill
• Remote Check
• GPS Location with Voice
• NXDN® Scrambler Included

DIGITAL CONVENTIONAL MODE

- Individual & Group Selective Call
• Conventional IP Networks
• Site Roaming

DIGITAL – TYPE-D TRUNKING MODE \*

- Individual Call
• Group Call & All Group Call
• Emergency Call
• Paging Call
• Transmission Trunked Mode
• Late Entry
• ESN Validation
• Status Messaging

SCAN

- Single Zone Scan
• Single Priority Scan

ANALOG MODE - GENERAL

- Conventional Zones
• FleetSync®, MDC
• QT/DQT/Two
• Voice Inversion Scrambler

FleetSync®

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

MDC-1200

- PTT ID ANI
• Emergency, Radio Check & Inhibit

MODEL LIST

Table with 2 columns: MODEL and LIST

MOBILE INSTALLATION ACCESSORIES LIST

Table with 2 columns: MODEL and LIST

CONTROL STATION INSTALLATION ACCESSORIES LIST

Table with 2 columns: MODEL and LIST

MICROPHONES AND SPEAKERS LIST

Table with 2 columns: MODEL and LIST





NEXEDGE<sup>®</sup>

NX-900/901

Table of Contents

800/900 MHz Digital & FM Analog Mobile Radios



- NX-900 mobile includes:**
- Standard Microphone (KMC)
  - Mounting Bracket
  - DC Cable (KCT)
  - Blade Fuse
  - Instruction Manual
  - Premium Warranty:

GENERAL FEATURES

- Backlit Dot Matrix LCD
- Function/Status LCD Icons
- Multi-Function Keypad
- Date & Time
- Transmit/Busy/Call Alert/Warm LED
- On/Off Power Control
- Emergency/AUX Key
- DB
- KPS
- Flash Firmware Upgrading
- MIL
- IP
- PC Serial Interface
- SDM Manual Input
- Transparent Data Mode
- GPS Receiver Option

DIGITAL - GENERAL

- AMBE<sup>®</sup>™ VOCODER
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill
- Remote Check
- Short & Long Data Messages
- GPS Location with Voice
- NXDN
- DES Encryption Module Option
- AES & DES Encryption Module Option
- AES/DES Software Key Loader Option

DIGITAL CONVENTIONAL MODE

- 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 Queuing with Priority
- Late Entry (UID & GID)
- Priority Monitor ID's
- Remote Group Add
- System Auto Select

DIGITAL - MULTI-SITE IP NETWORKS

- Auto Roaming Registration
- Group Registration
- UID Lists for each network
- Direct Frequency Assignment

SCAN

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

ANALOG MODES - GENERAL

- NPS/PAC Channels
- Conventional & LTR® Zones
- FleetSync®/II, MDC
- QT / DQT (Conventional Zones Only)
- Voice Inversion Scrambler
- Analog Scrambler Board Capability

MPT ZONES (option)

- 
- 
- 

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

MODEL LIST

Model	Description	Part Number
-------	-------------	-------------

MOBILE INSTALLATION ACCESSORIES LIST

Accessory	Description	Part Number
-----------	-------------	-------------

Note: Order L-1776 if installation is required.

CONTROL STATION INSTALLATION ACCESSORIES LIST

Accessory	Description	Part Number
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MICROPHONES AND SPEAKERS LIST

Accessory	Description	Part Number
-----------	-------------	-------------

SOFTWARE & USB OPTIONS LIST

Option	Description	Part Number
--------	-------------	-------------

Must order L-1812 for factory installation, or L-1813 for field-upgrade option

MPT NOT 3Q FY2016

without ESN

Note: Must order L-1819

OPTION MODULES LIST

Module	Description	Part Number
--------	-------------	-------------

FleetSync<sup>®</sup> & NEXEDGE<sup>®</sup> AVL & MESSAGING LIST

Module	Description	Part Number
--------	-------------	-------------

**NEXEDGE** **NX-900/901** Table of Contents  
800/900 MHz Digital & FM Analog Mobile Radios

Table of Contents

**A** **Note:**

---

**Note:**

- Conventional & LTR operation.
- NEXEDGE
- Requires GA25 MCX GPS antenna.
- Refer to 180/NX-Series & KAS-10 In-Depth Technical Manuals for installation, programming & KAS-10
- Option: Order **L-1038**



NEXEDGE<sup>™</sup> NX-900/901 Table of Contents  
800/900 MHz Digital & FM Analog Mobile Radios

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-- IMPORTANT NOTES --

Encryption modules, key loaders and radios containing encryption are export controlled

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:  
A:
- b) Ultimate Destination:  
A:
- c) Intended Use of Radios:

KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping

A

NEXEDGE® NX-920G 800 MHz Digital & FM Analog Mobile Radios Table of Contents



All NX-x20 series mobiles include:

- Standard Microphone (KMC), Mounting Bracket, DC Cable (KCT), A, Instruction Manual, Premium Warranty

GENERAL FEATURES

- Backlit LCD & Keys, Function/Status LCD Icons, Transmitt/Busy/Call Alert/Warm LED, Blue Function/Status LED, On/Off Power Control, Emergency/AUX Key, Zone / CH Number Voice Announcement, DB, KPG, Flash Firmware Upgrading, MIL, IP, PC Serial Interface, SDW Manual Input, Transparent Data Mode, Built

DIGITAL GENERAL

- NXDN® Digital Air Interface, AMBE+™ VOCODER, Over, Paging Call, Emergency Call, All Group Call, Status Messaging, Remote Stun/Kill, Remote Check, Short & Long Data Messages, GPS Location with Voice, NXDN® Scrambler Included

DIGITAL CONVENTIONAL MODE

- 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 Queuing with Priority, Late Entry (UID & GID), Priority Monitor ID's, Remote Group Add, System Auto Select

DIGITAL - MULTI-SITE IP NETWORKS

- Auto Roaming Registration, Group Registration

- UID Lists for each network

- Direct Frequency Assignment

SCAN

- Single Zone / Multi, Dual Priority Scan (Conventional)

FM MODES - GENERAL

- NPSAP Channels, Conventional & LTR® or MPT Zones, FleetSync®II, MDC, QT / DQT (Conventional Zones Only), Voice Inversion Scrambler

MPT ZONES®

- Single, Multi, Network Roaming / Registration

FleetSync®/II (FM)

- PTT ID ANI / Caller ID, Selective / Group Call, Emergency, Status & Text Messages

MDC-1200

MODEL LIST

MOBILE INSTALLATION ACCESSORIES LIST

Table with 2 columns: Accessory Name, Part Number

CONTROL STATION INSTALLATION ACCESSORIES LIST

Table with 2 columns: Accessory Name, Part Number

MICROPHONES AND SPEAKERS LIST

MICROPHONES AND SPEAKERS, CONT LIST

Table with 2 columns: Accessory Name, Part Number

SOFTWARE OPTIONS LIST

Table with 2 columns: Option Name, Part Number

Table with 2 columns: Option Name, Part Number

FleetSync® & NEXEDGE® AVL & MESSAGING LIST

Table with 2 columns: Option Name, Part Number

SERVICE RELATED ACCESSORIES LIST

Table with 2 columns: Accessory Name, Part Number

INSTALLATION / TUNING CHARGES LIST

Table with 2 columns: Charge Name, Part Number

MPT FIRMWARE/ACCESSORIES/TUNING LIST

# NEXEDGE<sup>®</sup> NX-920G

800 MHz Digital & FM Analog Mobile Radios

Table of Contents

1-1	Introduction	1-1
1-2	Getting started	1-2
1-3	Basic operations	1-3
1-4	Advanced operations	1-4
1-5	Specifications	1-5
1-6	Accessories	1-6
1-7	Warranty	1-7
1-8	Legal	1-8
1-9	Appendix	1-9
1-10	Index	1-10

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**DMR** **TK-D740HV/840HU** Table of Contents  
 VHF/UHF Digital & FM Analog Mobile Radios



- All 40 series DMR mobiles include:
- Standard Microphone (KMC)
  - Mounting Bracket
  - DC Cable (KCT)
  - A
  - Instruction Manual
  - Standard Warranty:

A

Because of spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed:

- 
- 
- 

**GENERAL FEATURES**

- Transmit / Busy / Call Alert LED
- Max.
- Function/Status LED Dots
- Backlit Keys
- Transmit / Busy / Call Alert LED
- Emergency / AUX Key
- Digital/Analog Mixed Mode
- Voice CH# Announcement
- DB
- KPG
- MIL
- IP
- PC Serial Interface
- GPS Receiver Option

**DIGITAL COMMON**

- DMR Tier II Conventional
- AMBE+™ VOCODER
- Call Interrupt (Direct & Repeater Mode)
- Paging Call
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Monitor

**DIGITAL CONVENTIONAL MODE**

- Individual & Group Selective Call
- Conventional IP Networks

**SCAN**

- Single/Multi Zone Scan
- Single Priority Scan (Conventional)

**ANALOG MODE - GENERAL**

- Conventional Zones
- DTMF \*
- QT/DQT, Two
- Voice Inversion Scrambler (

**FleetSync®**

- FTT ID ANI
- Selective / Group Call
- Emergency Status
- Send GPS Data

NOT

Vertical text on the right side of the page.

MODEL	LIST
MOBILE INSTALLATION ACCESSORIES	LIST
CONTROL STATION INSTALLATION ACCESSORIES	LIST
MICROPHONES AND SPEAKERS	LIST
FleetSync® & NEXEDGE® AVL & MESSAGING	LIST





# TK-D740HV/840HU

Table of Contents

VHF/UHF Digital & FM Analog Mobile Radios

## SERVICE RELATED ACCESSORIES

LIST

Micro-USB Cable	1
Micro-USB Cable (with USB-A Connector)	1

## INSTALLATION / TUNING CHARGES

LIST

Installation / Tuning Charges	1
Installation / Tuning Charges (with USB-A Connector)	1

**Note** Installation / Tuning Charges are subject to change without notice.

## TK-7180/8180

Table of Contents

VHF/UHF Trunking & Convention Mobile Radios



### All 180 series mobiles include:

- Standard Microphone (KMC-300)
- Mounting Bracket
- DC Cable (KCT-1000)
- Blade Fuse
- Instruction Manual
- Premium Warranty: 3 Years

A standard microphone is included with the radio.

### GENERAL FEATURES

- Conventional & LTR
- MPT
- Remote Control Head Option
- Backlit Dot Matrix LCD
- Function / Status LCD Icons
- RSSI Indicator
- Date & Time
- Transmit / Busy / Call Alert / Warn LED
- Emergency / AUX Key
- Enhanced Kenwood Audio
- Front Panel Speaker
- Companded Audio
- Voice Inversion Scrambler Built-In
- Easy Option Port
- Encryption / ANI Board Control
- Emergency Call Features
- DTMF Encode / Decode
- Special Alert Tone Patterns
- Call Key
- Time Out Timer
- Busy Channel Lockout
- Timed Power Off
- DB-25 PC Serial Interface
- Ignition Sense
- Public Address / Horn Alert Option
- MIL
- MIL
- Windows
- Windows
- Front Panel Test / Tune
- Cloning
- MIL
- MIL STD "Driven Rain"
- IP

### CONVENTIONAL ZONES

- OT / DOT
- Two
- Single / Two
- Operator Selectable Tone
- Dual Priority Scan
- Single & Multi
- List Scan

### TRUNKED ZONES

- Kenwood LTR

### FleetSync®

- FleetSync
- PTT ID Digital ANI
- Selective Call & Group Call
- Status Messaging
- Emergency Status
- Caller ID Display
- Short & Long Text Messages
- Power On/Off Status Messages
- Input / Output Status Messages
- FleetSync
- Send GPS PF Key
- PTT ID & Emergency GPS Reporting
- Status Message Block GPS Reporting
- Ignition On/Off GPS Reporting
- VGS
- PC Serial Interface

### MPT ZONES (option)

- Single
- Multi
- Network Roaming / Registration

### MDC-1200

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

MODEL	LIST
TK-7180	
TK-8180	

MOBILE INSTALLATION ACCESSORIES	LIST
KA-300	
KA-300	
KA-300	
KA-300	

CONTROL STATION INSTALLATION ACCESSORIES	LIST
KA-300	
KA-300	
KA-300	

MICROPHONES AND SPEAKERS	LIST
KA-300	
KA-300	
KA-300	
KA-300	

FleetSync® MOBILE DATA TERMINAL	LIST
KA-300	
KA-300	
KA-300	

FleetSync® MESSAGING	LIST
KA-300	
Note	
- TK-7180/8180 base mobile requires a DB-25 PC serial cable to connect to the base computer (purchase separately)	
- Supports FleetSync® PTT ID, Emergency, Status/Text Messaging for all FleetSync compatible portables	
- KDS-100 fleet units are compatible with the KAS-2FSD FleetSync calling & messaging features.	
- Refer to KAS-2FSD spec sheet for detailed features & requirements	

FleetSync® AVL & MESSAGING	LIST
KA-300	
Note	
- Conventional & LTR operation only	
- Requires GA25 MCX GPS antenna	
- Option: Order L-1033	
KA-300	
Note	
- Conventional & LTR operation only	
- Requires GA25 MCX GPS antenna	
- Option: Order L-1033	

FIRMWARE OPTIONS	LIST
KA-300	

# TK-7180/8180

VHF/UHF Trunking & Conventional Mobile Radios

Table of Contents

TK-7180/8180 Table of Contents

1-1620
1-1620

**Note:** Refer to 180-Series "Tactical Feature Set" In-Depth Technical Manual for feature details (available at [www.kenwoodradio.com](#))

1-1625
1-1625

**Note:** Refer to 180-Series "Tactical Feature Set" In-Depth Technical Manual for feature details (available at [www.kenwoodradio.com](#))

## SERVICE RELATED ACCESSORIES LIST

KPG-89DK
KPG-89DK

KPG-89DK
KPG-89DK

**Note:** KPG-89DK is required for Tactical Feature Set. KPG-89DK is no longer supported or distributed by Kenwood

Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:








**TK-7302HV/8302HU**  
VHF/UHF Convention Mobile Radios

Table of Contents



**GENERAL FEATURES**

- [Detailed features list for TK-7302HV/8302HU mobile radios]
- Conventional Zones
- Single Priority Scan
- Single / Multi
- Function/Status LED Dots
- Blue Function/Status LED
- Transmit / Busy / Call Alert LED
- Backlit Keys
- Emergency / AUX Key
- Front Panel Speaker
- Companded Audio
- Voice CH# Announcement
- Voice Inversion Scrambler Built
- Encryption Board Control
- Emergency Call Features
- Lone Worker Alert
- QT / DQT
- Operator Selectable Tone
- Two
- Single & Two
- DTMF Encode / Decode
- Special Alert Tone Patterns
- Busy Channel Lockout
- Time Out Timer

- DB
- Ignition Sense
- Public Address / Horn Alert Output
- MIL
- MIL
- Windows® Programming & Tuning
- Cloning
- IP

**FleetSync® II (FM)**

- PTT ID Digital ANI
- Selective Call & Group Call
- Paging Call
- Status Messaging
- Emergency Status
- Input / Output Status Messages
- FleetSync® GPS Ready
- Send GPS PF Key
- PTT ID & Emergency GPS
- Ignition On/Off GPS Reporting

**MDC-1200**

- PTT ID Digital ANI
- Emergency Status
- Radio Check
- Radio Inhibit

**All 302 series mobiles include:**

- Standard Microphone (KMC)
- Mounting Bracket
- DC Cable (KCT)
- A
- Instruction Manual
- Standard Warranty:

A

MODEL	LIST
[Model Name]	[List Item]
[Model Name]	[List Item]
MOBILE INSTALLATION ACCESSORIES	
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]
CONTROL STATION INSTALLATION ACCESSORIES	
[Model Name]	[List Item]
[Model Name]	[List Item]
MICROPHONES AND SPEAKERS	
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]
[Model Name]	[List Item]

**Note:**







# TK-6110

Compact Low Band Mobile Radio

Table of Contents

## SERVICE RELATED ACCESSORIES

LIST

Accessories	1
Accessories	1

Contact Kenwood Parts for Price and Availability 800-367-7514 on the following:

Accessories	1
Accessories	1
Accessories	1

## INSTALLATION / TUNING CHARGES

LIST

Installation / Tuning Charges	1
-------------------------------	---

Kenwood North America, Inc.  
10000 Kenwood Drive  
Tomball, TX 77375-3000  
Tel: 281-291-1100  
www.kenwoodusa.com

# KENWOOD

## Land Mobile Radio Project 25 Price Guide



## 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](#)













**NEXEDGE<sup>®</sup>**  
**P25**  
**NX-5200/5300** Table of Contents  
**VHF/UHF Digital & FM Analog Portable Radios**

**L-5025**  
 Note: If you order only housing and perform Dealer Installation, IP67/68 Warranty Claim will not be eligible.

**MICROPHONES & AUDIO ACCESSORIES LIST**

**Compatible with ANR Feature**  
**Note:** [Intrinsically Safe Option]

**MICROPHONES & AUDIO ACCESSORIES, CON'T LIST**

**Note:** [Intrinsically Safe Option]

**ENCRYPTION MODULES LIST**

**A:** [Intrinsically Safe Option: Must be Kenwood installed for I.S.]

**SERVICE RELATED ACCESSORIES LIST**

**Note:** [Intrinsically Safe Option]

- 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

**- Restricted Purchase Requirements -**  
**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  
 • Purchase KWD-ASK-AK Access Keys if needed.

**INSTALLATION / TUNING CHARGES LIST**

**Note:** [Intrinsically Safe Option]

NEXEDGE<sup>®</sup> **NX-5200/5300** Table of Contents  
 P25 VHF/UHF Digital & FM Analog Portable Radios

INSTALLATION / TUNING CHARGES, CONT	LIST
Initial Destination	1-1
Ultimate Destination	1-1
Intended Use of Radios	1-1
<b>Note:</b> Restricted Purchase Requirements - • Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking • Must have KPG-D1NK. • Kenwood ships an encrypted *.SKF file via E-Mail to the address provided on the P25 Trunking System • Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive • 3-digit HEX HSID are securely encrypted & embedded in the *.SKF file.	
Initial Destination	1-1
Ultimate Destination	1-1
Intended Use of Radios	1-1
<b>Must order KNB-LSSM I.S. battery</b>	

-- IMPORTANT NOTES regarding ENCRYPTION MODULES--

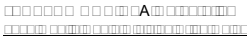
Encryption modules, key loaders and radios containing encryption are export controlled

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: [ ]
- b) Ultimate Destination: [ ]
- c) Intended Use of Radios: [ ]

KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping

Kenwood is pleased to announce that our radios are now NIST validated and meet the requirements of FIPS 140-2 and are available for export to all countries.



**NEXEDGE<sup>®</sup>**



**NX-5400**

Table of Contents

700/800MHz Digital & FM Analog Portable Radio



**STANDARD**

**GENERAL FEATURES**

- Standard Key Models (w/o numeric keypad)
- Full Key Models (w/ numeric keypad)
- Full Color
- Multi
- Function/Status Icons
- Multi
- Date &
- Transmit/Busy/Call Alert/Warn LED
- On/Off Volume Knob
- Emergency/AUX Key
- Multi Digital Protocol
- Emergency Call Features
- Built-in
- Built-in
- Built-in
- Active Noise Reduction (ANR)
- KPG
- Flash Firmware Upgrading
- MIL
- IP

1. 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.

**DIGITAL – NXDN® MODE**

- NXDN
- NXDN
- AMBE+™ VOCODER
- Over
- Over
- Paging Call
- Emergency Call
- All Group Call
- Status Messaging
- Remote Stun/Kill/Check
- Short & Long Data Messages
- GPS Location
- NXDN

**DIGITAL – DMR MODE**

- DMR Tier II Conventional
- AMBE+™ VOCODER
- PAGING CALL
- PAGING CALL
- Emergency Call
- All Group Call
- Late Entry
- Status Messaging
- Remote Control by Subscriber Units
- ARC
- Site Roaming

**ANALOG MODE**

- NPSPAC Channels
- Conventional Zones
- LTR
- FleetSync
- OT / DOT
- Two
- DTMF
- Built-in

**OPTIONAL**

**GENERAL FEATURES**

- Front Panel Programming
- microSD/microSDHC Memory Card Slot
- Built-in
- Remote Control by Subscriber Units
- DMR Only (KWD)

**DIGITAL – P25 MODE**

- Conventional Features
- Phase
- Phase
- Conventional OTAR
- Trunking OTAR
- Conventional Voting Scan
- Packet Data required for Trunked OTAR/GPS

<Standard Key Model > <Full Key Model >

All NX-5400 series portables include:

- Belt Clip (KBH)
- Universal Connector Cap
- User Guide
- Premium Warranty:

Buy A/B/C separately  
Purchase Battery, Charger, Antenna separately

**Note:** Due to spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed:

Due to spurious signal (birdie), the following frequencies (and ±10kHz ranges) are not allowed:

**RADIO**

LIST

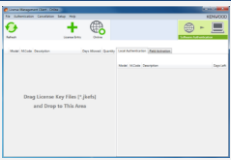
**CSA US APPROVED MODELS**

LIST

Must Order L-5039 & KNB-LS5M Intrinsically Safe Battery per radio  
\*Note microSD card is not allowed to use as Intrinsically Safe Option.

**LICENSING SYSTEM**

LIST



Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1/10 Only. Windows XP is not supported.

**KPT-300LMC License Management Client**

- software
- radio feature license

**NOTE:** Account Request Form\*

**SOFTWARE LICENSING OPTIONS**

LIST

**TO PLACE AN ORDER FOR SOFTWARE:**

1. Complete the attached Software License Key Request Form.
2. Submit along with your PO to the Land Mobile Order Desk via:
  - a) E-Mail: Imrorderdesk@us.jvkenwood.com
  - b) Fax: (310) 761-8246
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.  
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**

Quantity	Discount
1	---
2	10% OFF
5	35% OFF
15	40% OFF
25	45% OFF

**FIELD PROGRAMMING UNIT (FPU)**

LIST

Note: Requires KPT-300LMC for authentication











# NEXEDGE<sup>®</sup> P25 NX-5400 700/800MHz Digital & FM Analog Portable Radio Table of Contents

## ENCRYPTION MODULES, CONT LIST

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**Authentication by KPT-300LMC is required**

**Note:** XXXXXXXXXXXXXXXX A XXXXXXXXXXXXXXX

## SERVICE RELATED ACCESSORIES LIST

XXXXXXXXXXXXX

**Note:** XXXXXXXXXXXXXXXX A XXXXXXXXXXXXXXX

---

XXXXXXXXXXXXX

**Note:** XXXXXXXXXXXXXXXX A XXXXXXXXXXXXXXX

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**Note:** XXXXXXXXXXXXXXXX A XXXXXXXXXXXXXXX

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**Notes:**

- 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

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**- Restricted Purchase Requirements -**

**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

XXXXXXXXXXXXX

- Purchase KWD-ASK-AK Access Keys if needed.

## INSTALLATION / TUNING CHARGES LIST

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**Note:** XXXXXXXXXXXXXXXX A XXXXXXXXXXXXXXX

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**Note:** XXXXXXXXXXXXXXXX A XXXXXXXXXXXXXXX

XXXXXXXXXXXXX

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**(Must purchase module separately)**

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**(Must purchase module separately)**

XXXXXXXXXXXXX

**Note**

**- Restricted Purchase Requirements -**

- Trunked system operator (SYSOP) must provide 3-digit HEX HSID to Kenwood with P25 Trunking System
- Must have KPG-D1NK.
- Kenwood ships an encrypted \*.SKF file via E-Mail to the address provided on the P25 Trunking System
- Non-SYSOP entities ordering L-5005 must provide verifiable written authorization from SYSOP to receive an
- 3-digit HEX HSID are securely encrypted & embedded in the \*.SKF file.

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

XXXXXXXXXXXXX A XXXXXXXXXXXXXXX

**Must order KNB-LS5M I.S. battery**





		<b>NX-5700/5800/5900</b>		Table of Contents
		<b>VHF/UHF/700/800MHz Digital &amp; FM Analog Mobile Radios</b>		
XXXX	XX	XXXXXXXX	XX	XXXXXX
XXXXXX	XX	XXXXXX	XX	XXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>				
<b>Dual Deck Single Head Dual Speaker Remote Mount</b>				<b>LIST</b>
XXXXXX	XX	XXXXXX	XX	XXXXXX
	XX		XX	
	XX		XX	
	XX		XX	

 <b>NX-5700/5800/5900</b> <span style="float: right;">Table of Contents</span>	
VHF/UHF/700/800MHz Digital & FM Analog Mobile Radios	
<b>Dual Deck Single Head Dual Speaker Remote Mount, CONT</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX A XXXXXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	
<b>Dual Deck Dual Head Single Speaker Remote Mount</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	
<b>Dual Deck Dual Head Dual Speaker Remote Mount</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX A XXXXXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	
<b>Triple Deck Single Head Single Speaker Remote Mount</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	
<b>Triple Deck Single Head Triple Speaker Remote Mount</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX A XXXXXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	
<b>Triple Deck Dual Head Single Speaker Remote Mount</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	
<b>Triple Deck Dual Head Triple Speaker Remote Mount (MUST be KENWOOD Assembled)</b>	<b>LIST</b>
XXXXXXXXXX XXXXXXXXXX A XXXXXXXXXXXXX	XXXXXXXXXX
<b>Note: MUST submit the Remote Mount Configuration Request Form.</b>	









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

- □A□□□□ □□□□□□□□□□□□ □A□□A□□□□□□□□ □□□□□
- **Restricted Purchase Requirements -**
  - Notes:**
    - For NX-5000 series only.
    - Sold to trunked system operator (SYSOP) or SYSOP authorized entities only
    - Must have KPG-DINK
    - SYSOP must provide 3-digit HEX HSID to Kenwood with P25 Trunking System Keys Request Form
  - 
  - Purchase KWD-ASK-AK Access Keys if needed.
-



TK-5210G / 5310G
VHF/UHF FM Analog & P25 Digital Portable Radios
Table of Contents



All 5X10G series portables include:

- Belt Clip (KBH)
Universal Connector Cap
Instruction Manual
Premium Warranty

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

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

Basic Model

Standard Model

12 Keypad Model

STANDARD

GENERAL FEATURES

- RSSI Indicator
Personality Lists
Backlit Dot Matrix LCD
Function / Status LCD Icons
RSSI Indicator
Transmit / Busy / Call Alert / Warn LED
On/Off Volume Knob
Orange Emergency / AUX Key
Enhanced Kenwood Audio
Voice Annunciation
VOX Ready
Emergency Features
Tactical Group
Battery Level Indicator
Transceiver Password
Date & Windows
Self
Cloning
Easy Option Port
Voice Guide & Storage (Option)
Weather
MIL
IP
Immersion (IP)
Intrinsically Safe Option\*

DIGITAL - NXDN® MODE

- AMBE+
Talk Group ID Lists
Individual ID Lists
Caller ID Display
Remote Monitor/Remote Check
Radio Inhibit
Encryption Key Delete
Encryption Key Zeroize Option
Encryption Key Retention Option
DES Encryption Options
AES / DES Encryption Options
KPG
P
P

SCAN TYPES (FM & P25)

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

FM

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

Note

RADIO

LIST

Table with 2 columns: RADIO and LIST. It lists various radio models and their corresponding list items.

Table of contents listing page numbers for various sections.

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**TK-5210G / 5310G**  
 VHF/UHF FM Analog & P25 Digital Portable Radios

<b>CSA US APPROVED MODELS</b>		<b>LIST</b>
<i>Must Order L-1802 &amp; an Intrinsically Safe Battery per radio</i>		
TK-5210G (VHF)	TK-5210G (UHF)	
TK-5310G (VHF)	TK-5310G (UHF)	
TK-5210G (VHF)	TK-5310G (UHF)	
TK-5210G (VHF)	TK-5310G (UHF)	
TK-5210G (VHF)	TK-5310G (UHF)	
TK-5210G (VHF)	TK-5310G (UHF)	
TK-5210G (VHF)	TK-5310G (UHF)	

**note 1:** These radios are CSA-US approved for use in Class I, Division 2, Groups A, B, and C, Class II, Division 2, Groups E and F, and Class III, Division 2, Locations A, B, and C. They are not approved for use in Class I, Division 1, Groups A, B, and C, Class II, Division 1, Groups E and F, and Class III, Division 1, Locations A, B, and C.

<b>PACKAGES</b>	<b>*The 2% Radio Package Discount applied to Dealer Cost</b>	<b>LIST</b>
TK-5210G (VHF)		
TK-5210G (UHF)		
TK-5310G (VHF)		
TK-5310G (UHF)		

<b>ANTENNAS</b>		<b>LIST</b>
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		
AA-A		

<b>BATTERIES AND CHARGERS</b>		<b>LIST</b>
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	
AA-A	AA-A (Intrinsically Safe Option)	

TK-5210G (VHF) and TK-5210G (UHF) are CSA-US approved for use in Class I, Division 2, Groups A, B, and C, Class II, Division 2, Groups E and F, and Class III, Division 2, Locations A, B, and C. TK-5310G (VHF) and TK-5310G (UHF) are CSA-US approved for use in Class I, Division 2, Groups A, B, and C, Class II, Division 2, Groups E and F, and Class III, Division 2, Locations A, B, and C.





**TK-5210G / 5310G**  
VHF/UHF FM Analog & P25 Digital Portable Radios

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**SERVICE RELATED ACCESSORIES LIST**

Kenwood radio	Price	
Accessories		

**Note:** ...

**Analog & P25 Conventional Programming**

A "Dealer-Level" License ID is included with each KPG-95DG(NJK which only permits full analog conventional and P25 conventional programming. Data files created with a "Network-Level Licensed"

- 3-digit HEX System ID (HSID) and verifiable written authorization required from trunked system
- Purchase KPG-95DG(NJK & L-989 Network-Level License ID
- Kenwood ships an encrypted \*.SKF file on CD ROM
- The \*.SKF securely embeds/encrypts the 16-digit Network Level License ID & the HSID.

**P25 Trunked Programming Capability (licensed by either 1 or 2 below):**

- KPG-95DG(NJK with System Key File (\*.SKF)- See L-989**
  - For all TK-5x10 radio platforms (VER1, 2, 3 or later).
  - For TK-5x10G/5410/5910 VER 3 or later radio platforms only.
  - SYSOPs: Refer to KWD-ANK-MK Master Key
  - Dealers/contractors: Refer to KWD-ANK-AK Access Key
  - KPG-95DG(NJK (V7.0 or later) supports up to 16 KWD-ANK-AK Access Keys (16 trunked networks).
- KPG-95DG(NJK with Advanced Network Keys (ANK's)**
  - For TK-5x10G/5410/5910 VER 3 or later radio platforms only.
  - SYSOPs: Refer to KWD-ANK-MK Master Key
  - Dealers/contractors: Refer to KWD-ANK-AK Access Key
  - KPG-95DG(NJK (V7.0 or later) supports up to 16 KWD-ANK-AK Access Keys (16 trunked networks).

**INSTALLATION / TUNING CHARGES LIST**

Installation / Tuning	Charge	

**INSTALLATION / TUNING CHARGES, CONT LIST**

Installation / Tuning	Charge	

**IMPORTANT NOTES**

Encryption modules, key loaders and radios containing encryption are export controlled

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:

- Initial Destination:**
- Ultimate Destination:**
- Intended Use of Radios:**

**KWD-AE30 AES FIPS140-2 SCM , NIST Validation & Customer Shipping**

A:

A:

...



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

STANDARD



All 5X20 series portables include:
• Belt Clip (KBH)
• Universal Connector Cap
• Instruction Manual
• Premium Warranty:

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

Note

GENERAL FEATURES

- Backlit Dot Matrix LCD
• Function / Status LCD Icons
• RSSI Indicator
• Transmit / Busy / Call Alert / Warn LED
• Orange Emergency / AUX Key
• VOX Ready
• Emergency Features
• Battery Level
• Transceiver Password
• Date & Time
• Windows
• Easy Option Port
• Weather
• MIL
• IP
• Intrinsicly Safe Option

P25 DIGITAL

- AMBE+™ Enhanced VOCODER
• Talk Group ID Lists
• Individual ID Lists
• Caller ID Display
• Remote Monitor / Check, Radio Inhibit
• Encryption Key Zeroize and Retention
• DES Encryption Options
• AES & DES Encryption Options
• KPG
• P

SCAN TYPES (FM & P25)

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

ANALOG

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

FleetSync® III (FM)

- PTT ID Digital ANI
• Caller ID Display
• Status Messaging
• Emergency & Stun Statuses
• Selective & Group Call
• Text Messaging
• Send/Display GPS (KPG)

MDC-1200

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

RADIO LIST

Table with columns for radio models and their specifications.

CSA US APPROVED MODELS LIST

Must Order L-1803 & an Intrinsically Safe Battery per radio

Table with columns for radio models and their specifications.

CSA US APPROVED MODELS LIST

Must Order L-1803 & an Intrinsically Safe Battery per radio

Table with columns for radio models and their specifications.

PACKAGES LIST

\*The 2% Radio Package Discount applied to Dealer Cost.

Table with columns for radio models and their specifications.

ANTENNAS LIST

Table with columns for antenna models and their specifications.

BATTERIES AND CHARGERS LIST

Table with columns for battery and charger models and their specifications.

Table of contents entries on the right side of the page.

Table of contents entries on the right side of the page.



	<b>TK-5220/5320</b>	Table of Contents
	VHF/UHF FM Analog & P25 Digital Portable Radios	
1	Introduction	
2	Getting Started	
3	Operating Instructions	
4	Specifications	
5	Accessories	
6	Warranty	
7	Index	
8	Appendix	
9	Notes	
10	Other Models	

11	Technical Specifications
12	Dimensions
13	Weight
14	Power Consumption
15	Operating Temperature
16	Storage Temperature
17	Humidity
18	Shock
19	Vibration
20	Electromagnetic Interference
21	Electromagnetic Compatibility
22	Environmental Protection
23	Recycling



# TK-5220/5320

VHF/UHF FM Analog & P25 Digital Portable Radios

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TK-5220/5320 P25

### CARRYING ACCESSORIES

LIST

Hand strap	TK-5220/5320 P25	1
Hand strap	TK-5220/5320 P25	1
Hand strap	TK-5220/5320 P25	1
Hand strap	TK-5220/5320 P25	1
Hand strap	TK-5220/5320 P25	1
Hand strap	TK-5220/5320 P25	1
Hand strap	TK-5220/5320 P25	1

### SPECIAL COLOR HOUSING

LIST

Special Color Housing	TK-5220/5320 P25	1
Special Color Housing	TK-5220/5320 P25	1

### MICROPHONES & AUDIO ACCESSORIES

LIST

Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1
Microphone	TK-5220/5320 P25	1

### SOFTWARE OPTIONS

LIST

Software Option	TK-5220/5320 P25	1
Software Option	TK-5220/5320 P25	1



# TK-5220/5320

VHF/UHF FM Analog & P25 Digital Portable Radios

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## SOFTWARE OPTIONS, CONT

LIST

L-1694	[Intrinsically Safe Approved Accessory]	
L-1696	[Intrinsically Safe Approved Accessory]	
<b>Note:</b> A [Intrinsically Safe Option]- Must be Kenwood installed for I.S.		

## OPTION MODULES

LIST

A-1648	[Intrinsically Safe Approved Accessory]	
<b>Note:</b> A [Intrinsically Safe Option]- Must be Kenwood installed for I.S.		
A-1648	[Intrinsically Safe Approved Accessory]	
<b>Note:</b> A [Intrinsically Safe Option]- Must be Kenwood installed for I.S.		
A-1648	[Intrinsically Safe Approved Accessory]	
<b>Note:</b> A [Intrinsically Safe Option]- Must be Kenwood installed for I.S.		

## SERVICE RELATED ACCESSORIES

LIST

S-1648	[Intrinsically Safe Approved Accessory]	
S-1648	[Intrinsically Safe Approved Accessory]	
S-1648	[Intrinsically Safe Approved Accessory]	

## INSTALLATION / TUNING CHARGES

LIST

I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
<b>Note:</b> A [Intrinsically Safe Option]- Must be Kenwood installed for I.S.		
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	
I-1648	[Intrinsically Safe Approved Accessory]	



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



All P25 series mobiles include:

- RF Deck Only
Premium Warranty

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

STANDARD

GENERAL FEATURES

- Personality Lists
Enhanced Kenwood Audio
Zone/CH Voice Announce
Emergency Features
Tactical Group
Intercom
Public Address
Time Out Timer
Busy Channel Lockout
Ignition Sense
Timed Power Off
DB
Transceiver Password
Date &
Windows
Field
Cloning
Easy Option Ports
DB
MIL
MIL

MOUNTING CONFIGURATIONS

- Dash Mount
Single Control Head Remote Mount
Handheld Control Remote Mount
Dual Control Head Remote Mount

FRONT PANELS/CONTROL HEADS

- Built-in
MDC

P25 DIGITAL

- AMBE+
Talk Group ID Lists
Individual ID Lists
Caller ID Display
RSSI Indicator
Remote Monitor
Remote Check
Radio Inhibit
Encryption Key Delete
Encryption Key Zeroize Option
Encryption Key Retention Option
DES
AES FIPS
KPG
P

SCAN TYPES (FM & P25)

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

FM

- QT / DQT
Operator Selectable Tone
Two
DTMF Encode / Decode / Stun
Special Alert Tone Patterns
Horn Alert Output
Encryption / ANI Board Control
Companded Audio
FleetSync
MDC

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

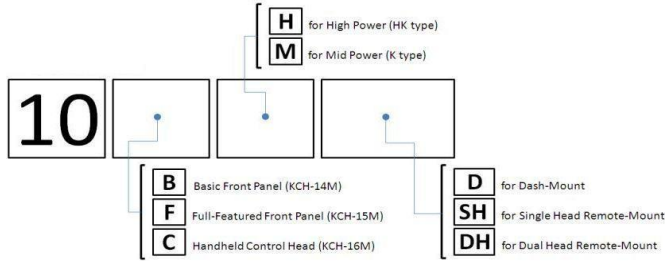
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**ACCESSORY CONFIGURATION SETS**

**LIST**

**CONFIGURATION SET DEFINITIONS**



**Dash Mount**

**LIST**

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**Single Head Remote Mount**

**LIST**

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**Dual Head Remote Mount**

**LIST**

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**Handheld Control Head Remote**

**LIST**

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**FRONT PANELS & REMOTE KITS**

**LIST**

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

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INSTALLATION / TUNING CHARGES - CONT'D LIST

Table with 2 columns: Description and LIST. Contains various technical specifications and their corresponding list items.

-- IMPORTANT NOTES -- Encryption modules, key loaders and radios containing encryption are export controlled

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:
b) Ultimate Destination:
c) Intended Use of Radios

KWD-AE30 AES FIPS140-2 SCM, NIST Validation & Customer Shipping
A...
A...
A...



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

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**MOBILE INSTALLATION ACCESSORIES, CONT** *LIST*

Mobile installation accessories  
 Mobile installation accessories

**CONTROL STATION INSTALLATION ACCESSORIES** *LIST*

Control station installation accessories  
 Control station installation accessories  
 Control station installation accessories

**MICROPHONES AND SPEAKERS** *LIST*

Microphones and speakers  
 Microphones and speakers  
 Microphones and speakers  
 Microphones and speakers  
**Note:** Microphones and speakers

**SOFTWARE OPTIONS** *LIST*

Software options  
 Software options  
 Software options  
**Note:** Software options

**OPTION MODULES** *LIST*

Option modules  
 Option modules  
 Option modules

**GPS Option** *LIST*

GPS Option  
**Note:** GPS Option  
 Provides GPS on Analog Conventional  
 Requires GA25MCX GPS antenna  
 Refer to 5720/5820-Series Service Manuals for installation. Refer to www.garmin.com for GPS15XL-W  
**Online Order L-1655:**  
**Note:** GPS Option



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

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### SERVICE RELATED ACCESSORIES LIST

...	...	...
...	...	...
...	...	...

### INSTALLATION / TUNING CHARGES LIST

...	...	...
...	...	...
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**Note** ...

**- Restricted Purchase Requirements -**  
 ...

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...	...	...
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<b>Low Power</b>	<b>KAS-10</b>
<b>NXR-5700</b>	<b>KPG-150AP</b>
<b>NXR-5800</b>	<b>KPG-180AP</b>
<b>NXR-700</b>	<b>KTI-4</b>
<b>NXR-710</b>	<b>NEXEDGE® Gen2</b>
<b>NXR-800</b>	<b>NEXEDGE® Bridge</b>
<b>NXR-810</b>	<b>NEXEDGE® MAX Dispatch Console</b>
<b>NXR-900</b>	
<b>NXR-901</b>	
<b>TKR-D710</b>	
<b>TKR-D710 LP PKG</b>	
<b>TKR-D810</b>	
<b>TKR-D810 LP PKG</b>	
<b>TKB-6900</b>	
<b>TKR-750</b>	
<b>TKR-850</b>	
<b>TKR-751</b>	
<b>TKR-851</b>	

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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

TKR-750	UHF/VHF Low Power Base Station with 10W Power Output	1-1
TKR-751	UHF/VHF Low Power Base Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-850	UHF/VHF Low Power Base Station with 10W Power Output	1-1
TKR-851	UHF/VHF Low Power Base Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Base Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Base Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Base Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Base Station with 10W Power Output and 12.5kHz Channel Spacing	1-1

### REPEATER STATION LIST

TKR-750	UHF/VHF Low Power Repeater Station with 10W Power Output	1-1
TKR-751	UHF/VHF Low Power Repeater Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-850	UHF/VHF Low Power Repeater Station with 10W Power Output	1-1
TKR-851	UHF/VHF Low Power Repeater Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and 12.5kHz Channel Spacing	1-1

### REPEATER STATION WITH DUPLEXER LIST

TKR-750	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer	1-1
TKR-751	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer and 12.5kHz Channel Spacing	1-1
TKR-850	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer	1-1
TKR-851	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer and 12.5kHz Channel Spacing	1-1
TKR-750/751/850/851	UHF/VHF Low Power Repeater Station with 10W Power Output and Duplexer and 12.5kHz Channel Spacing	1-1

### REPEATER STATION WITH CONVENTIONAL IP NETWORK FUNCTIONALITY LIST

TKR-750	UHF/VHF Low Power Repeater Station with 10W Power Output and Conventional IP Network Functionality	1-1
TKR-751	UHF/VHF Low Power Repeater Station with 10W Power Output and Conventional IP Network Functionality and 12.5kHz Channel Spacing	1-1
TKR-850	UHF/VHF Low Power Repeater Station with 10W Power Output and Conventional IP Network Functionality	1-1
TKR-851	UHF/VHF Low Power Repeater Station with 10W Power Output and Conventional IP Network Functionality and 12.5kHz Channel Spacing	1-1

### REPEATER STATION WITH DUPLEXER AND IP NETWORK FUNCTIONALITY LIST

TKR-750	UHF/VHF Low Power Repeater Station with 10W Power Output, Duplexer, and Conventional IP Network Functionality	1-1
TKR-751	UHF/VHF Low Power Repeater Station with 10W Power Output, Duplexer, and Conventional IP Network Functionality and 12.5kHz Channel Spacing	1-1
TKR-850	UHF/VHF Low Power Repeater Station with 10W Power Output, Duplexer, and Conventional IP Network Functionality	1-1
TKR-851	UHF/VHF Low Power Repeater Station with 10W Power Output, Duplexer, and Conventional IP Network Functionality and 12.5kHz Channel Spacing	1-1

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

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### BASIC ACCESSORIES

### LIST

Antenna (1)	Antenna (2)	Antenna (3)
Antenna (4)	Antenna (5)	Antenna (6)
Antenna (7)	Antenna (8)	Antenna (9)
Antenna (10)	Antenna (11)	Antenna (12)
Antenna (13)	Antenna (14)	Antenna (15)
Antenna (16)	Antenna (17)	Antenna (18)
Antenna (19)	Antenna (20)	Antenna (21)
Antenna (22)	Antenna (23)	Antenna (24)
Antenna (25)	Antenna (26)	Antenna (27)
Antenna (28)	Antenna (29)	Antenna (30)
Antenna (31)	Antenna (32)	Antenna (33)
Antenna (34)	Antenna (35)	Antenna (36)
Antenna (37)	Antenna (38)	Antenna (39)
Antenna (40)	Antenna (41)	Antenna (42)
Antenna (43)	Antenna (44)	Antenna (45)
Antenna (46)	Antenna (47)	Antenna (48)
Antenna (49)	Antenna (50)	Antenna (51)
Antenna (52)	Antenna (53)	Antenna (54)

### COMPONENTS

### LIST

Component (1)	Component (2)	Component (3)
Component (4)	Component (5)	Component (6)
Component (7)	Component (8)	Component (9)
Component (10)	Component (11)	Component (12)
Component (13)	Component (14)	Component (15)
Component (16)	Component (17)	Component (18)
Component (19)	Component (20)	Component (21)
Component (22)	Component (23)	Component (24)
Component (25)	Component (26)	Component (27)
Component (28)	Component (29)	Component (30)
Component (31)	Component (32)	Component (33)
Component (34)	Component (35)	Component (36)
Component (37)	Component (38)	Component (39)
Component (40)	Component (41)	Component (42)
Component (43)	Component (44)	Component (45)
Component (46)	Component (47)	Component (48)
Component (49)	Component (50)	Component (51)
Component (52)	Component (53)	Component (54)
Component (55)	Component (56)	Component (57)
Component (58)	Component (59)	Component (60)
Component (61)	Component (62)	Component (63)
Component (64)	Component (65)	Component (66)
Component (67)	Component (68)	Component (69)
Component (70)	Component (71)	Component (72)
Component (73)	Component (74)	Component (75)
Component (76)	Component (77)	Component (78)
Component (79)	Component (80)	Component (81)
Component (82)	Component (83)	Component (84)
Component (85)	Component (86)	Component (87)
Component (88)	Component (89)	Component (90)
Component (91)	Component (92)	Component (93)
Component (94)	Component (95)	Component (96)
Component (97)	Component (98)	Component (99)
Component (100)	Component (101)	Component (102)

NEXEDGE NXR-5700 VHF Digital & FM Base Repeaters - 136-174MHz Table of Contents



GENERAL

- General specifications and features list.

GENERAL OPTIONS

- List of general options and their descriptions.

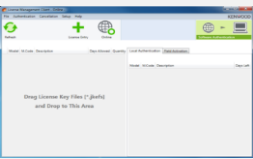
TRUNKING OPTIONS

- List of trunking options and their descriptions.

- 6.21.2016 Add KXK-3M3
8.4.2016 Add KSGCB20112
8.5.2016 Add KSGCB10206
8.12.2016 Add Gen1 Firmware capability and Vote System

NXR-5700 REPEATER LIST

LICENSING SYSTEM LIST



KPT-300LMC License Management Client software
NOTE: A Account Request Form
A

Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP

SOFTWARE LICENSE OPTIONS LIST

TO PLACE AN ORDER FOR SOFTWARE:

- 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.jvkenwood.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

Table with 2 columns: Discount Structure and Percentage OFF (10%, 35%, 40%).

Note:

Additional notes regarding software licensing and ordering.

NEXEDGE<sup>®</sup> NXR-5700 VHF Digital & FM Base Repeaters - 136-174MHz Table of Contents

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:

- 1. Complete the attached Radio Feature Request Form.
2. Submit along with your PO to the SYSTEMS Order Desk via:
a) E-Mail: systemsorderdesk@us.jvkenwood.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.

BASIC ACCESSORIES LIST

Table listing basic accessories with columns for part number and description.

RF BASE STATION AMPLIFIER OPTIONS LIST

Table listing RF base station amplifier options with columns for part number and description.

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Table listing RF repeater station amplifier options with columns for part number and description.

POWER SUPPLY OPTIONS LIST

Table listing power supply options with columns for part number and description.

MOUNTING CONFIGURATIONS LIST

Table listing mounting configurations with columns for part number and description.



NEXEDGE<sup>®</sup> **NXR-5700** Table of Contents  
VHF Digital & FM Base Repeaters - 136-174MHz

**MISC STATION OPTIONS, con't** *LIST*

Option 100	100MHz VHF FM Base Repeater (136-174MHz) <b>Note:</b> This option is not available for the NXR-5700-136 model.	100
Option 101	100MHz VHF Digital Base Repeater (136-174MHz) <b>Note:</b> This option is not available for the NXR-5700-136 model.	100
Option 102	100MHz VHF Digital Base Repeater (136-174MHz) <b>Note:</b> This option is not available for the NXR-5700-136 model.	100
Option 103	100MHz VHF Digital Base Repeater (136-174MHz) <b>Note:</b> This option is not available for the NXR-5700-136 model.	100

**COMPONENTS** *LIST*

Component 100	100MHz VHF FM Base Repeater (136-174MHz)	100
Component 101	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 102	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 103	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 104	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 105	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 106	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 107	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 108	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 109	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 110	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 111	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 112	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 113	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 114	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 115	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 116	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 117	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 118	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 119	100MHz VHF Digital Base Repeater (136-174MHz)	100
Component 120	100MHz VHF Digital Base Repeater (136-174MHz) <b>Note:</b> This component is not available for the NXR-5700-136 model.	100

**NEXEDGE®** **NXR-5800** Table of Contents  
 UHF Digital & FM Base Repeaters - 400-520MHz



**GENERAL**

- General Description
- Features
- Specifications
- Dimensions
- Mounting
- Power Requirements
- Environmental Conditions
- Safety
- Regulatory Compliance
- Accessories
- Troubleshooting
- Maintenance
- Warranty

**GENERAL OPTIONS**

- 12VDC Power Supply
- 24VDC Power Supply
- 48VDC Power Supply
- 100VAC Power Supply
- 200VAC Power Supply
- 500VAC Power Supply
- 1000VAC Power Supply
- A-Mode
- B-Mode
- C-Mode
- D-Mode
- E-Mode
- F-Mode
- G-Mode
- H-Mode
- I-Mode
- J-Mode
- K-Mode
- L-Mode
- M-Mode
- N-Mode
- O-Mode
- P-Mode
- Q-Mode
- R-Mode
- S-Mode
- T-Mode
- U-Mode
- V-Mode
- W-Mode
- X-Mode
- Y-Mode
- Z-Mode

**TRUNKING OPTIONS**

- 10 Trunk Channels
- 20 Trunk Channels
- 30 Trunk Channels
- 40 Trunk Channels
- 50 Trunk Channels
- 60 Trunk Channels
- 70 Trunk Channels
- 80 Trunk Channels
- 90 Trunk Channels
- 100 Trunk Channels
- 110 Trunk Channels
- 120 Trunk Channels
- 130 Trunk Channels
- 140 Trunk Channels
- 150 Trunk Channels
- 160 Trunk Channels
- 170 Trunk Channels
- 180 Trunk Channels
- 190 Trunk Channels
- 200 Trunk Channels

6.21.2016 Add KXK-3M3  
 8.4.2016 Add KSGCB20112  
 8.5.2016 Add KSGCB10206  
 8.12.2016 Add Gen1 Firmware capability and Vote System

**NXR-5800 REPEATER** **LIST**

Model	Power	Trunking	Options
NXR-5800	100W	10	None
NXR-5800	100W	20	None
NXR-5800	100W	30	None
NXR-5800	100W	40	None
NXR-5800	100W	50	None
NXR-5800	100W	60	None
NXR-5800	100W	70	None
NXR-5800	100W	80	None
NXR-5800	100W	90	None
NXR-5800	100W	100	None
NXR-5800	100W	110	None
NXR-5800	100W	120	None
NXR-5800	100W	130	None
NXR-5800	100W	140	None
NXR-5800	100W	150	None
NXR-5800	100W	160	None
NXR-5800	100W	170	None
NXR-5800	100W	180	None
NXR-5800	100W	190	None
NXR-5800	100W	200	None

**LICENSING SYSTEM** **LIST**



**KPT-300LMC License Management Client**

software

NOTE: A Account Request Form

Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP

Model	Power	Trunking	Options
KPT-300LMC	100W	10	None
KPT-300LMC	100W	20	None
KPT-300LMC	100W	30	None
KPT-300LMC	100W	40	None
KPT-300LMC	100W	50	None
KPT-300LMC	100W	60	None
KPT-300LMC	100W	70	None
KPT-300LMC	100W	80	None
KPT-300LMC	100W	90	None
KPT-300LMC	100W	100	None
KPT-300LMC	100W	110	None
KPT-300LMC	100W	120	None
KPT-300LMC	100W	130	None
KPT-300LMC	100W	140	None
KPT-300LMC	100W	150	None
KPT-300LMC	100W	160	None
KPT-300LMC	100W	170	None
KPT-300LMC	100W	180	None
KPT-300LMC	100W	190	None
KPT-300LMC	100W	200	None

**SOFTWARE LICENSE OPTIONS** **LIST**

**TO PLACE AN ORDER FOR SOFTWARE:**

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**

Quantity	Discount
1-9	---
10-49	10% OFF
50-99	35% OFF
100+	40% OFF

**Note:**

Kenwood Communications, Inc. | 1-800-541-4546



NEXEDGE® NXR-5800 UHF Digital & FM Base Repeaters - 400-520MHz Table of Contents

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:

- 1. Complete the attached Radio Feature 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 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.

BASIC ACCESSORIES LIST

Table listing basic accessories such as cables and antennas with their respective part numbers and descriptions.

RF BASE STATION AMPLIFIER OPTIONS LIST

Table listing RF base station amplifier options and their specifications.

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Table listing RF repeater station amplifier options and their specifications.

POWER SUPPLY OPTIONS LIST

Table listing power supply options and their specifications.

MOUNTING CONFIGURATIONS LIST

Table listing mounting configurations and their specifications.

WIRELIN REMOTE CONTROL OPTIONS LIST

Table listing wireline remote control options and their specifications.

WIRELIN REMOTE CONTROL OPTIONS, con't LIST

Table listing wireline remote control options, continued, and their specifications.

Gen1 TRUNKING CONFIGURATIONS LIST

Table listing Gen1 trunking configurations and their specifications.

Summary table with columns for GRADE-1 (BLUE) and GRADE-2 (YELLOW) showing checkmarks for various configurations.

**NEXEDGE®**  
**NXR-5800**  
UHF Digital & FM Base Repeaters - 400-520MHz

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**Gen2 TRUNKING CONFIGURATIONS** *LIST*

[Gen2 Trunking Configurations](#)

**ETHERNET SWITCH & ROUTER OPTIONS** *LIST*

This section provides information on the Ethernet switch and router options that can be used with the NXR-5800. For more information on these options, see the Ethernet Switch and Router Options section of the NXR-5800 User Manual.

**Note:** The Ethernet switch and router options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**Note:** The Ethernet switch and router options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**Note:** The Ethernet switch and router options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**EXTERNAL TRUNKING CONTROLLER OPTIONS** *LIST*

**Note:** The external trunking controller options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**Note:** The external trunking controller options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**MISC STATION OPTIONS** *LIST*

**Note:** The misc station options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**Note:** The misc station options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**Note:** The misc station options are not supported when the NXR-5800 is configured for Gen2 Trunking.

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**Note:** The misc station options are not supported when the NXR-5800 is configured for Gen2 Trunking.

**Note:** The misc station options are not supported when the NXR-5800 is configured for Gen2 Trunking.



NEXEDGE®

# NXR-700

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



### GENERAL

- Overview
- Features
- Applications
- Specifications
- Performance
- Installation
- Maintenance
- Troubleshooting
- Safety
- Environmental
- Accessories

### GENERAL OPTIONS

- Power
- Frequency
- Channel
- Mode
- A

### TRUNKING OPTIONS

- Trunking
- Priority
- Call Transfer
- Call Forwarding
- Call Forwarding No Answer
- Call Forwarding Busy
- Call Forwarding No Answer/Busy
- Call Forwarding No Answer/Busy/Unreachable
- Call Forwarding No Answer/Busy/Unreachable/Unavailable
- Call Forwarding No Answer/Busy/Unreachable/Unavailable/Unavailable
- Call Forwarding No Answer/Busy/Unreachable/Unavailable/Unavailable
- Call Forwarding No Answer/Busy/Unreachable/Unavailable/Unavailable

**End of life Notice**  
**End of August 2016**

### NXR-700 REPEATER LIST

Model	Description	Page
NXR-700	Standard	1
NXR-700	Standard	1
NXR-700	Standard	1

### BANDWIDTH OPTION: LIST

Model	Description	Page
NXR-700	Note: Bandwidth Option	2

### BASIC ACCESSORIES LIST

Model	Description	Page
NXR-700	Accessory 1	3
NXR-700	Accessory 2	3
NXR-700	Accessory 3	3
NXR-700	Accessory 4	3
NXR-700	Accessory 5	3
NXR-700	Accessory 6	3
NXR-700	Accessory 7	3
NXR-700	Accessory 8	3

### RF BASE STATION AMPLIFIER OPTIONS (K and K2 Models) LIST

Model	Description	Page
NXR-700	Option A	4
NXR-700	Option A	4
NXR-700	Option A	4
NXR-700	Option A	4
NXR-700	Option A	4
NXR-700	Option A	4

## NEXEDGE<sup>®</sup> NXR-700

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

### RF BASE STATION AMPLIFIER OPTIONS (K and K2 Models), con't LIST

RF Base Station Amplifier Options (K and K2 Models), con't	LIST
--	------

### RF BASE AMPLIFIER OPTIONS (E Model) LIST

RF Base Amplifier Options (E Model)	LIST
-------------------------------------	------

### RF REPEATER STATION AMPLIFIER OPTIONS (K and K2 Models) LIST

RF Repeater Station Amplifier Options (K and K2 Models)	LIST
---	------

### RF REPEATER AMPLIFIER OPTIONS (E Model) LIST

RF Repeater Amplifier Options (E Model)	LIST
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### POWER SUPPLY OPTIONS LIST

Power Supply Options	LIST
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### MOUNTING CONFIGURATIONS LIST

Mounting Configurations	LIST
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**NXR-700**

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

Mounting configurations for NXR-700 base stations and repeaters. (continued)

Mounting configurations for NXR-700 base stations and repeaters. (continued)

**MOUNTING CONFIGURATIONS, con't** **LIST**

Mounting configurations for NXR-700 base stations and repeaters. (continued)

Mounting configurations for NXR-700 base stations and repeaters. (continued)

**WIRELINE REMOTE CONTROL OPTIONS** **LIST**

Wireline remote control options for NXR-700 base stations and repeaters. (continued)

Wireline remote control options for NXR-700 base stations and repeaters. (continued)

Wireline remote control options for NXR-700 base stations and repeaters. (continued)

Wireline remote control options for NXR-700 base stations and repeaters. (continued)

Wireline remote control options for NXR-700 base stations and repeaters. (continued)

**ETHERNET SWITCH & ROUTER OPTIONS** **LIST**

Ethernet switch and router options for NXR-700 base stations and repeaters. (continued)

Ethernet switch and router options for NXR-700 base stations and repeaters. (continued)

Ethernet switch and router options for NXR-700 base stations and repeaters. (continued)

**INTERNAL TRUNKING AND NETWORKING OPTIONS** **LIST**

Internal trunking and networking options for NXR-700 base stations and repeaters. (continued)

Internal trunking and networking options for NXR-700 base stations and repeaters. (continued)

Internal trunking and networking options for NXR-700 base stations and repeaters. (continued)

Internal trunking and networking options for NXR-700 base stations and repeaters. (continued)

Internal trunking and networking options for NXR-700 base stations and repeaters. (continued)

	<b>GRADE-1 (BLUE)</b>	<b>GRADE-2 (YELLOW)</b>
AXR-700A	v	v
AXR-700A-1	v	v
AXR-700A-2	v	v
AXR-700A-3	v	v
AXR-700A-4	v	v
AXR-700A-5	v	v

NEXEDGE®

# NXR-700

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

Gen2 TRUNKING CONFIGURATIONS

LIST

[Gen2 TRUNKING CONFIGURATIONS](#)

## NEXEDGE®

# NXR-700

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

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Option 2	External Trunking Controller (ETC) - Advanced	Page 11

#### MISC STATION OPTIONS LIST

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Component 6	Power Supply - Dual Band with Note	Page 23
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### UHF High Performance Base Stations and Repeaters - 400-512 MHz



#### GENERAL

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

#### GENERAL OPTIONS

- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

#### TRUNKING OPTIONS

- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
- NOTE**
- [redacted]

**End of life Notice  
End of August 2016**

#### REPEATER

LIST

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

#### BANDWIDTH OPTION:

LIST

[redacted]	[redacted]	[redacted]
[redacted]	<b>Note:</b> [redacted]	[redacted]

#### BASIC ACCESSORIES

LIST

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

#### RF BASE STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

LIST

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

NEXEDGE®

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

RF BASE STATION AMPLIFIER OPTIONS (K, K2 and K3 Models), con't

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RF BASE STATION AMPLIFIER OPTIONS (E and E3 Models)

RF BASE STATION AMPLIFIER OPTIONS (E and E3 Models)

**RF BASE STATION AMPLIFIER OPTIONS (E and E3 Models)** **LIST**

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)

**RF REPEATER STATION AMPLIFIER OPTIONS (K, K2 and K3 Models)** **LIST**

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)

**RF REPEATER STATION AMPLIFIER OPTIONS (E and E3 Models)** **LIST**

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

**POWER SUPPLY OPTIONS** **LIST**

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

POWER SUPPLY OPTIONS

**POWER SUPPLY OPTIONS** **LIST**

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

MOUNTING CONFIGURATIONS

**MOUNTING CONFIGURATIONS** **LIST**

WIRELINE REMOTE CONTROL OPTIONS

WIRELINE REMOTE CONTROL OPTIONS

WIRELINE REMOTE CONTROL OPTIONS

WIRELINE REMOTE CONTROL OPTIONS

WIRELINE REMOTE CONTROL OPTIONS

WIRELINE REMOTE CONTROL OPTIONS

WIRELINE REMOTE CONTROL OPTIONS

NEXEDGE®

# NXR-800

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

Kenwood

**Note:** This manual is for the NXR-800 series. For information on other models, please refer to the appropriate manual.

Antenna

NEXEDGE®

## NXR-800

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

#### WIRELINE REMOTE CONTROL OPTIONS, con't LIST

Option 1	Provides remote control of the NXR-800 base station and repeater via a wireline connection. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Option 2	Provides remote control of the NXR-800 base station and repeater via a wireline connection. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Option 3	Provides remote control of the NXR-800 base station and repeater via a wireline connection. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Option 4	Provides remote control of the NXR-800 base station and repeater via a wireline connection. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100

#### TRUNKING CONFIGURATIONS LIST

Configuration 1	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 2	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 3	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 4	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 5	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 6	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 7	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Configuration 8	Provides trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100

	GRADE-1 (BLUE)	GRADE-2 (YELLOW)
Option 1	✓	✓
Option 2	✓	✓
Option 3	✓	✓
Option 4	✓	✓
Option 5	✓	✓
Option 6	✓	✓
Option 7	✓	✓
Option 8	✓	✓

#### ETHERNET SWITCH & ROUTER OPTIONS LIST

Option 1	Provides Ethernet switch and router options for the NXR-800 base station and repeater. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Option 2	Provides Ethernet switch and router options for the NXR-800 base station and repeater. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Option 3	Provides Ethernet switch and router options for the NXR-800 base station and repeater. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100

#### Gen2 TRUNKING CONFIGURATIONS LIST

Configuration 1	Provides Gen2 trunking configurations for the NXR-800 base station and repeater. This configuration is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
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#### EXTERNAL TRUNKING CONTROLLER OPTIONS LIST

Option 1	Provides external trunking controller options for the NXR-800 base station and repeater. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100
Option 2	Provides external trunking controller options for the NXR-800 base station and repeater. This option is required for the NXR-800 base station and repeater to be controlled via a wireline connection.	100



**NEXEDGE**  
**NXR-710**  
VHF High Performance Base Stations and Repeaters - High Band 136-174MHz

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- **Options A** (136.0-144.0 MHz) ...
  - **Options B** (144.0-148.0 MHz) ...
  - **Options C** (148.0-152.0 MHz) ...
  - **Options D** (152.0-156.0 MHz) ...
  - **Options E** (156.0-160.0 MHz) ...
  - **Options F** (160.0-164.0 MHz) ...
  - **Options G** (164.0-168.0 MHz) ...
  - **Options H** (168.0-174.0 MHz) ...
  - **Options I** (136.0-174.0 MHz) ...
  - **Options J** (136.0-174.0 MHz) ...
  - **Options K** (136.0-174.0 MHz) ...
  - **Options L** (136.0-174.0 MHz) ...
  - **Options M** (136.0-174.0 MHz) ...
  - **Options N** (136.0-174.0 MHz) ...
  - **Options O** (136.0-174.0 MHz) ...
  - **Options P** (136.0-174.0 MHz) ...
  - **Options Q** (136.0-174.0 MHz) ...
  - **Options R** (136.0-174.0 MHz) ...
  - **Options S** (136.0-174.0 MHz) ...
  - **Options T** (136.0-174.0 MHz) ...
  - **Options U** (136.0-174.0 MHz) ...
  - **Options V** (136.0-174.0 MHz) ...
  - **Options W** (136.0-174.0 MHz) ...
  - **Options X** (136.0-174.0 MHz) ...
  - **Options Y** (136.0-174.0 MHz) ...
  - **Options Z** (136.0-174.0 MHz) ...

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 KT3 including KPG-100DMA Network Adapter  
1.20.2016 Change KPG-60UW to KPG-60UM  
3.30.2016 Change KT1-5W and Labor Description

<b>NXR-710 REPEATER</b>		<b>LIST</b>
<b>BASIC ACCESSORIES</b>		<b>LIST</b>
<b>RF BASE STATION AMPLIFIER OPTIONS</b>		<b>LIST</b>
<b>RF REPEATER STATION AMPLIFIER OPTIONS</b>		<b>LIST</b>
<b>RF REPEATER STATION AMPLIFIER OPTIONS (cont.)</b>		<b>LIST</b>
<b>POWER SUPPLY OPTIONS</b>		<b>LIST</b>
<b>MOUNTING CONFIGURATIONS</b>		<b>LIST</b>
<b>WIRELINE REMOTE CONTROL OPTIONS</b>		<b>LIST</b>
<b>ETHERNET SWITCH &amp; ROUTER OPTIONS</b>		<b>LIST</b>
<b>TYPE-D TRUNKING OPTIONS</b>		<b>LIST</b>
<b>EXTERNAL TRUNKING CONTROLLER OPTIONS</b>		<b>LIST</b>
<b>MISC STATION OPTIONS</b>		<b>LIST</b>
<b>COMPONENTS</b>		<b>LIST</b>



NEXEDGE®  
**NXR-810**  
 UHF Base Stations and Repeaters - 400-520 MHz Table of Contents

**RF REPEATER STATION AMPLIFIER OPTIONS (cont.)** **LIST**

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RF Repeater Station Amplifier Options	10

**POWER SUPPLY OPTIONS** **LIST**

Power Supply Options	11
Power Supply Options	11
Power Supply Options	11
Power Supply Options	11

**MOUNTING CONFIGURATIONS** **LIST**

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Mounting Configurations	12
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Ethernet Switch & Router Options	14
Ethernet Switch & Router Options	14





NEXEDGE® NXR-900 Table of Contents 800 MHz High Performance Repeaters - 806 - 825, 851 - 870 MHz



GENERAL

- General specifications and features including frequency range, power output, and antenna requirements.

GENERAL OPTIONS

- List of optional features such as remote control, monitoring, and advanced filtering options.

TRUNKING OPTIONS

- List of trunking system options including scan, group call, and call transfer features.

1.20.2016 Change KPG-46UM to KPT-46XM
1.21.2016 Delete KPG-46UM and KPG-111DNK

NXR-900 REPEATER (K Model) LIST

Table listing various K Model repeater configurations and their corresponding page numbers.

BANDWIDTH OPTION: LIST

Table listing bandwidth options and their corresponding page numbers.

BASIC ACCESSORIES LIST

Table listing basic accessories such as cables, antennas, and mounting hardware with their page numbers.

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Table listing RF Repeater Station Amplifier options and their page numbers.

POWER SUPPLY OPTIONS LIST

Table listing power supply options and their page numbers.

MOUNTING CONFIGURATIONS LIST

Table listing mounting configurations and their page numbers.





# NEXEDGE®

## NXR-901

900 MHz High Performance Repeaters - 896-902, 935-941 MHz

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1.20.2016 Change KPG-46UM to KPT-46XM  
1.21.2016 Delete KPG-46UM and KPG-111DNK



### GENERAL

- General description
- Features
- Applications
- Specifications
- Dimensions
- Weight
- Environmental conditions
- Safety
- Warranty

### GENERAL OPTIONS

- General description
- Features
- Applications
- Specifications
- Dimensions
- Weight
- Environmental conditions
- Safety
- Warranty

### TRUNKING OPTIONS

- General description
- Features
- Applications
- Specifications
- Dimensions
- Weight
- Environmental conditions
- Safety
- Warranty

## NXR-901 REPEATER (K Model) LIST

## BANDWIDTH OPTION: LIST

Note: This option is available for the NXR-901 K Model only.

## BASIC ACCESSORIES LIST

- Power supply
- Mounting hardware
- Antennas
- Cables
- Filters
- Enclosures
- Cooling fans
- Test equipment

## RF REPEATER STATION AMPLIFIER OPTIONS LIST

- A-100
- A-200

## POWER SUPPLY OPTIONS LIST

- A-100
- A-200
- A-300
- A-400

## MOUNTING CONFIGURATIONS LIST

- A-100
- A-200



NEXEDGE® NXR-901 Table of Contents 900 MHz High Performance Repeaters - 896-902, 935-941 MHz

1.20.2016 Change KPG-46UM to KPT-46XM

Table of Contents with multiple rows listing document sections and their corresponding page numbers.

**DMR** **TKR-D710** Table of Contents  
**DMR VHF Repeaters\* - 136-174MHz**



**GENERAL**

- 
- 
- **A**
- **A**
- 
- 
- 
- 

**OPTIONS**

- 
- 
- 
- 
- 
- 
- 
- 
- 
- **A**
- 

1.20.2016 Created

3.30.2016 Delete KPG-1010DMR and add Labor Code for KTJ-5 and KPG-1010DMR

REPEATER	LIST
<p><b>Note:</b></p> <p><b>NOT</b></p>	

BASIC ACCESSORIES and LABOR	LIST
<p><b>Note:</b></p>	

RF BASE STATION AMPLIFIER OPTIONS	LIST
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	

RF REPEATER STATION AMPLIFIER OPTIONS	LIST
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	
• <b>A</b>	













**DMR** **TKR-D810** Table of Contents  
 DMR UHF Repeaters - 400-520MHz

**RF REPEATER STATION AMPLIFIER OPTIONS (cont.)** **LIST**

Option A	Description	Page
Option A	Description	Page

**POWER SUPPLY OPTIONS** **LIST**

Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page

**MOUNTING CONFIGURATIONS** **LIST**

Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page

**ANALOG WIRELINE REMOTE CONTROL OPTIONS** **LIST**

Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page

**ETHERNET SWITCH & ROUTER OPTIONS** **LIST**

Option A	Description	Page
Option A	Description	Page
Option A	Description	Page
Option A	Description	Page

**EXTERNAL ANALOG TRUNKING CONTROLLER OPTIONS** **LIST**

Option A	Description	Page
Option A	Description	Page









## TKB-6900 Series

Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz

Table of Contents


### GENERAL

- Frequency Range
- Frequency Step
- Maximum Power Output
- Operating Modes

### OPTIONS

- Power Supply Options
- Mounting Options
- RF Amplifier Options
- Accessories

### RADIO PACKAGES

TKB-6900	Standard 19" rack-mountable base station
TKB-6900D	Desktop base station
TKB-6900S	Standard 19" rack-mountable base station with speaker

### BASIC ACCESSORIES

TKB-6900	Standard 19" rack-mountable base station
TKB-6900D	Desktop base station
TKB-6900S	Standard 19" rack-mountable base station with speaker

### RF AMPLIFIER OPTIONS

Note: RF amplifier options are available for the desktop base station only.	
TKB-6900	Standard 19" rack-mountable base station with RF amplifier
TKB-6900D	Desktop base station with RF amplifier
TKB-6900S	Standard 19" rack-mountable base station with speaker and RF amplifier
TKB-6900S-1	Standard 19" rack-mountable base station with speaker, RF amplifier, and 10dB attenuator
TKB-6900S-2	Standard 19" rack-mountable base station with speaker, RF amplifier, and 20dB attenuator
TKB-6900S-3	Standard 19" rack-mountable base station with speaker, RF amplifier, and 30dB attenuator

### POWER SUPPLY OPTIONS

TKB-6900	Standard 19" rack-mountable base station with AC power supply
TKB-6900D	Desktop base station with AC power supply
TKB-6900S	Standard 19" rack-mountable base station with speaker and AC power supply
TKB-6900S-1	Standard 19" rack-mountable base station with speaker, RF amplifier, and AC power supply
TKB-6900S-2	Standard 19" rack-mountable base station with speaker, RF amplifier, and AC power supply
TKB-6900S-3	Standard 19" rack-mountable base station with speaker, RF amplifier, and AC power supply

### MOUNTING CONFIGURATIONS

TKB-6900	Standard 19" rack-mountable base station with 2-bay rack mount
TKB-6900D	Desktop base station with 2-bay rack mount
TKB-6900S	Standard 19" rack-mountable base station with speaker and 2-bay rack mount
TKB-6900S-1	Standard 19" rack-mountable base station with speaker, RF amplifier, and 2-bay rack mount
TKB-6900S-2	Standard 19" rack-mountable base station with speaker, RF amplifier, and 2-bay rack mount
TKB-6900S-3	Standard 19" rack-mountable base station with speaker, RF amplifier, and 2-bay rack mount
TKB-6900S-1-2	Standard 19" rack-mountable base station with speaker, RF amplifier, 10dB attenuator, and 2-bay rack mount
TKB-6900S-2-2	Standard 19" rack-mountable base station with speaker, RF amplifier, 20dB attenuator, and 2-bay rack mount
TKB-6900S-3-2	Standard 19" rack-mountable base station with speaker, RF amplifier, 30dB attenuator, and 2-bay rack mount



**TKB-6900 Series** Table  
Low Band Conventional Simplex Base Stations - 29.7 - 50 MHz

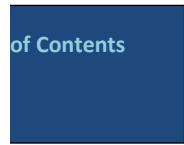
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**Note:**XX







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# TKR-750

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

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1.20.2016 Change KPG-46UM to KPT-46XM



**GENERAL**

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

**GENERAL OPTIONS**

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

**TRUNKING OPTIONS**

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

**RADIO PACKAGES LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	

**BASIC ACCESSORIES LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	

**RF BASE AMPLIFIER OPTIONS LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	

**RF REPEATER AMPLIFIER OPTIONS LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	

**POWER SUPPLY OPTIONS LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	

**MOUNTING CONFIGURATIONS LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	

**WIRELINE REMOTE CONTROL OPTIONS LIST**

TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	
TKR-750	TKR-750	





TKR-850 UHF Base Stations and Repeaters - 400-512 MHz Table of Contents

1.20.2016 Change KPG-46UM to KPT-46XM



GENERAL

- General specifications and features of the TKR-850.

GENERAL OPTIONS

- List of general options available for the TKR-850.

TRUNKING OPTIONS

- List of trunking options available for the TKR-850.

TKR-850 REPEATER LIST

Table listing various TKR-850 Repeater models and their page numbers.

BASIC ACCESSORIES LIST

Table listing basic accessories for the TKR-850 and their page numbers.

RF BASE STATION AMPLIFIER OPTIONS LIST

Table listing RF Base Station Amplifier options and their page numbers.

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Table listing RF Repeater Station Amplifier options and their page numbers.

POWER SUPPLY OPTIONS LIST

Table listing power supply options and their page numbers.

MOUNTING CONFIGURATIONS LIST

Table listing mounting configurations and their page numbers.

WIRESLINE REMOTE CONTROL OPTIONS LIST

Table listing wiresline remote control options and their page numbers.







TKR-851 UHF Base Stations and Repeaters - 450 - 480 MHz Table of Contents

1.20.2016 Change KPG-46UM to KPT-46XM



GENERAL OPTIONS

- List of general options for the TKR-851, including various power and control settings.

TRUNKING OPTIONS

- List of trunking options for the TKR-851.

TKR-851 REPEATER LIST

Table listing TKR-851 Repeater models and their corresponding page numbers.

BASIC ACCESSORIES LIST

Table listing basic accessories for the TKR-851 and their page numbers.

RF BASE STATION AMPLIFIER OPTIONS LIST

Table listing RF Base Station Amplifier options and their page numbers.

RF REPEATER STATION AMPLIFIER OPTIONS LIST

Table listing RF Repeater Station Amplifier options and their page numbers.

POWER SUPPLY OPTIONS LIST

Table listing power supply options and their page numbers.

MOUNTING CONFIGURATIONS LIST

Table listing mounting configurations and their page numbers.

WIRELINE REMOTE CONTROL OPTIONS LIST

Table listing wireline remote control options and their page numbers.



# KAS-10

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## GPS AVL & Dispatch Messaging Software (Version 2.x)

(12.12.2015) Add Notes and AMBE-3003 in the KSGCP50001

### Product Enhancements:

- AMBE-3000™ Vocoder Chip with USB Interface
- AMBE-3003™ Vocoder Chip with USB Interface
- AMBE-3000™ Vocoder Chip with USB Interface
- AMBE-3003™ Vocoder Chip with USB Interface

### Notes:

- AMBE-3000™ Vocoder Chip with USB Interface

## GPS AVL & DISPATCH LIST

AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	
AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	
AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	

## COMPANION PRODUCTS COMPUTERS LIST

AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	
AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	
AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	

## COMPUTER MONITORS LIST

AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	
AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	
AMBE-3000™ Vocoder Chip with USB Interface	AMBE-3003™ Vocoder Chip with USB Interface	



KPG-150AP OTAP Manager Table of Contents

General

- General information and features list.

Additional information and notes.

Main Features

- Main features and capabilities of the device.

Note: Important information regarding the device.

OTAP MANAGER LIST

Table listing OTAP Manager items and their corresponding page numbers.

ADDITIONAL LICENSES LIST

Table listing additional licenses and their corresponding page numbers.

-- IMPORTANT NOTES--

Important notes and warnings for the user.

# KPG-180AP

OTAP Manager for NX-5000 Series

Table of Contents

### General

- Introduction
- Getting Started
- System Requirements
- Installation
- Configuration
- Troubleshooting
- Appendix

### Main Features

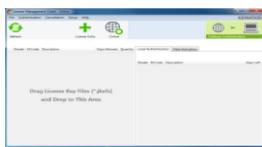
- License Management Client (LMC)
- License Key Request Form
- License Key Distribution
- License Key Activation
- License Key Deactivation
- License Key Renewal
- License Key Expiration
- License Key Audit

### Note:

- License Key Request Form is required for all license keys.
- License Key Request Form is available in the Appendix.

Kenwood Communications, Inc.  
1-800-451-7000  
www.kenwood.com

## LICENSING SYSTEM LIST



### KPT-300LMC License Management Client

The KPT-300LMC License Management Client is a software application that manages license keys for the KPG-180AP OTAP Manager.

The KPT-300LMC License Management Client is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

**NOTE:** A License Key Request Form is required for all license keys. The License Key Request Form is available in the Appendix.

The License Key Request Form is available in the Appendix. The License Key Request Form is available in the Appendix.

Note: KPT-300LMC is compatible with Windows Vista/7/8/8.1 Only. Windows XP is not supported.

## SOFTWARE LICENSING OPTIONS

### TO PLACE AN ORDER FOR SOFTWARE:

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.jvkenwood.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.

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

- License includes 50 radios / 1 NXDN Conventional and Type-C Air interface

Kenwood Communications, Inc.

### Note:

- Requires KPT-300LMC for authentication
- NEXEDGE Type-C IP Communication Profile is not included.
- Radio to Radio OTAP for P25 Conventional system requires KWD-AP3-P25 license.
- DMR System not supported.

Kenwood Communications, Inc.

# KPG-180AP

## OTAP Manager for NX-5000 Series

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### Software License Key Discount Structure

100	---
250	10% OFF
500	35% OFF
1000	40% OFF

### ADDITIONAL LICENSES

LIST

100	A	A	100	A	Note: A	
100	A	A	250	A	Note: A	
100	A	A	500	A	Note: A	
100	A	A		Air		
100	A			IP		
100	A			Radio to Radio Air	Note:	

**- IMPORTANT NOTES -**

This document is a summary of the software license key discount structure for the KPG-180AP OTAP Manager for NX-5000 Series. For more information, please contact your Kenwood representative.



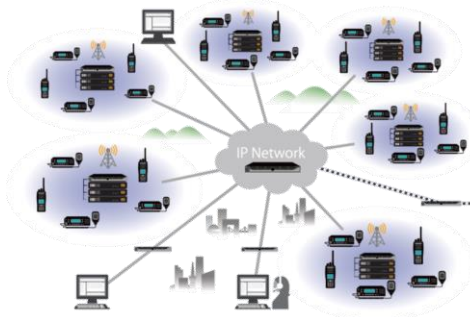
NEXEDGE® NEXEDGE® Generation2 System NEXEDGE Gen2 Table of Contents

Introduction text describing the system and its components.

Additional introductory text or notes.

FEATURES AND HIGHLIGHTS

- List of features and highlights for the NEXEDGE Gen2 system.



SERVER SOFTWARE LICENSING LIST

Table with columns for software name, licensing details, and notes. Includes 'Required' and 'Optional' categories.

Note: 1. Gen2 software must be installed and configured by JVCKENWOOD on KSGCP20000 servers. 2. All Gen2 Servers use Linux Cent OS 6.7. Linux should not be upgraded to new versions in the field. Security patches are allowed. 3. One server is required for each operating system.

SERVER HARDWARE LIST

Table listing server hardware specifications and configurations.



NEXEDGE® KPG-157SB NEXEDGE® Generation1 Bridge Table of Contents



General

- General features and highlights list.

Features and Highlights

- Features and highlights list.

Additional information regarding features and highlights.

Additional information regarding features and highlights.

SOFTWARE LIST

Table listing software components and their page numbers.

HARDWARE LIST

Table listing hardware components and their page numbers.

MOUNTING CONFIGURATIONS LIST

Table listing mounting configurations and their page numbers.

COMPONENTS LIST

Table listing components and their page numbers.

NEXEDGE®

## NEXEDGE® MAX Dispatch Console

Table of Contents



### General

- Introduction to the NEXEDGE MAX Dispatch Console
- System Requirements
- Installation and Configuration
- Troubleshooting

### MAX PRO WORKSTATIONS LIST

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MAX PRO WORKSTATION B	2
MAX PRO WORKSTATION C	3
MAX PRO WORKSTATION D	4
MAX PRO WORKSTATION E	5
MAX PRO WORKSTATION F	6
MAX PRO WORKSTATION G	7
MAX PRO WORKSTATION H	8
MAX PRO WORKSTATION I	9
MAX PRO WORKSTATION J	10
MAX PRO WORKSTATION K	11
MAX PRO WORKSTATION L	12
MAX PRO WORKSTATION M	13
MAX PRO WORKSTATION N	14
MAX PRO WORKSTATION O	15
MAX PRO WORKSTATION P	16
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MAX PRO WORKSTATION R	18
MAX PRO WORKSTATION S	19
MAX PRO WORKSTATION T	20
MAX PRO WORKSTATION U	21
MAX PRO WORKSTATION V	22
MAX PRO WORKSTATION W	23
MAX PRO WORKSTATION X	24
MAX PRO WORKSTATION Y	25
MAX PRO WORKSTATION Z	26

### WORKSTATION HARDWARE OPTION LIST

OPTION A	1
OPTION B	2
OPTION C	3
OPTION D	4
OPTION E	5
OPTION F	6
OPTION G	7
OPTION H	8
OPTION I	9
OPTION J	10
OPTION K	11
OPTION L	12
OPTION M	13
OPTION N	14
OPTION O	15
OPTION P	16
OPTION Q	17
OPTION R	18
OPTION S	19
OPTION T	20
OPTION U	21
OPTION V	22
OPTION W	23
OPTION X	24
OPTION Y	25
OPTION Z	26

### MAX RADIO GATEWAY INTERFACE AND OPTIONS LIST

OPTION A	1
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### MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (IP) LIST

OPTION A	1
OPTION B	2



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NEXEDGE® MAX Dispatch Console

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MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (DB-15) LIST

Table of Contents for DB-15 interface, listing options and page numbers.

Table of Contents for DB-15 interface, listing options and page numbers.

Table of Contents for DB-15 interface, listing options and page numbers.

Table of Contents for DB-15 interface, listing options and page numbers.

MAX DIGITAL RADIO GATEWAY INTERFACE AND OPTIONS (RJ-21) LIST

Table of Contents for RJ-21 interface, listing options and page numbers.

Table of Contents for RJ-21 interface, listing options and page numbers.

Table of Contents for RJ-21 interface, listing options and page numbers.

Table of Contents for RJ-21 interface, listing options and page numbers.

Table of Contents for RJ-21 interface, listing options and page numbers.

MAX SYSTEM HARDWARE/SOFTWARE LIST

Table of Contents for hardware/software, listing items and page numbers.

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NEXEDGE®

## NEXEDGE® MAX

### Dispatch Console

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#### RACK MOUNTING AND POWER EQUIPMENT LIST

RACK MOUNTING	□ Rack Mounting Kit (RMK) for 1U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 1U Rack with optional 1U Rack Mounting Bracket (RMK-1U-1) □ Rack Mounting Kit (RMK) for 2U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 2U Rack with optional 2U Rack Mounting Bracket (RMK-2U-1) □ Rack Mounting Kit (RMK) for 3U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 3U Rack with optional 3U Rack Mounting Bracket (RMK-3U-1) □ Rack Mounting Kit (RMK) for 4U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 4U Rack with optional 4U Rack Mounting Bracket (RMK-4U-1) □ Rack Mounting Kit (RMK) for 5U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 5U Rack with optional 5U Rack Mounting Bracket (RMK-5U-1) □ Rack Mounting Kit (RMK) for 6U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 6U Rack with optional 6U Rack Mounting Bracket (RMK-6U-1) □ Rack Mounting Kit (RMK) for 7U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 7U Rack with optional 7U Rack Mounting Bracket (RMK-7U-1) □ Rack Mounting Kit (RMK) for 8U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 8U Rack with optional 8U Rack Mounting Bracket (RMK-8U-1) □ Rack Mounting Kit (RMK) for 9U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 9U Rack with optional 9U Rack Mounting Bracket (RMK-9U-1) □ Rack Mounting Kit (RMK) for 10U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 10U Rack with optional 10U Rack Mounting Bracket (RMK-10U-1) □ Rack Mounting Kit (RMK) for 11U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 11U Rack with optional 11U Rack Mounting Bracket (RMK-11U-1) □ Rack Mounting Kit (RMK) for 12U Rack <b>Note</b> □ Rack Mounting Kit (RMK) for 12U Rack with optional 12U Rack Mounting Bracket (RMK-12U-1)	(RMK-1U-1) (RMK-2U-1) (RMK-3U-1) (RMK-4U-1) (RMK-5U-1) (RMK-6U-1) (RMK-7U-1) (RMK-8U-1) (RMK-9U-1) (RMK-10U-1) (RMK-11U-1) (RMK-12U-1)
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#### MONITORS AND NETWORK EQUIPMENT LIST

MONITORS	□ 15" Monitor (15M) □ 15" Monitor (15M) with optional 15" Monitor Mount (15M-1) □ 19" Monitor (19M) □ 19" Monitor (19M) with optional 19" Monitor Mount (19M-1) □ 22" Monitor (22M) □ 22" Monitor (22M) with optional 22" Monitor Mount (22M-1) □ 24" Monitor (24M) □ 24" Monitor (24M) with optional 24" Monitor Mount (24M-1)	(15M-1) (19M-1) (22M-1) (24M-1)
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#### SYSTEMS DOCUMENTATION LIST

SYSTEMS DOCUMENTATION	□ AEM-1000 User Manual <b>Note</b> □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-1) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-2) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-3) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-4) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-5) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-6) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-7) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-8) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-9) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-10) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-11) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-12)	(AEM-1000-1) (AEM-1000-2) (AEM-1000-3) (AEM-1000-4) (AEM-1000-5) (AEM-1000-6) (AEM-1000-7) (AEM-1000-8) (AEM-1000-9) (AEM-1000-10) (AEM-1000-11) (AEM-1000-12)
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#### CUSTOMER SUPPORT SERVICES (NON-DISCOUNTABLE) LIST

CUSTOMER SUPPORT SERVICES	□ AEM-1000 User Manual □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-1) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-2)	(AEM-1000-1) (AEM-1000-2)
---------------------------	--	------------------------------

#### ON-SITE OPERATION AND TECHNICAL TRAINING (NON-DISCOUNTABLE) LIST

ON-SITE OPERATION AND TECHNICAL TRAINING	□ AEM-1000 User Manual □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-1) □ AEM-1000 User Manual with optional AEM-1000 User Manual (AEM-1000-2)	(AEM-1000-1) (AEM-1000-2)
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NEXEDGE®

# NEXEDGE® MAX

Dispatch Console

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## ON-SITE TECHNICAL SUPPORT (NON-DISCOUNTABLE)

LIST

1000000000	A 1000000000 1000000000 1000000000 1000000000	1000000000
1000000000A	A 1000000000 1000000000 1000000000A 1000000000	1000000000
1000000000	A 1000000000 1000000000 1000000000 1000000000	1000000000

## EXTENDED LIMITED WARRANTY

LIST

1000000000	1000000000 1000000000 1000000000 1000000000 1000000000	1000000000 1000000000
1000000000	1000000000 1000000000 1000000000 1000000000 1000000000	1000000000 1000000000



**ORIGINAL**  
**BID - Invitation For Bid**  
**Two-Way Radio Equipment & Services**

BID Effective Date:

11/08/2016

Bid Invitation Number:

6100039075

**Issuing Office:**

Thomas Schwartz  
 Commonwealth of Pennsylvania  
 US

**Supplier Name/Address:**

Your SAP Vendor Number with us: \_\_\_\_\_

**Please Return Quotation to:**

Commonwealth of Pennsylvania  
 US

**Type of Security furnished if required:**

- Certified bank cashier's check
- Irrevocable letter of credit
- Certificate of deposit
- Other as specified by bid
- Bond - If annual bond:

What is the name of the principal on the bond? \_\_\_\_\_

**Return Bid by:**

**Bid Ending Date:**  
 12/02/2016

**Bid Ending Time:**  
 12:00:00

**Expiration Date of Contract (if applicable)**

**Delivery Date:**  
 See Items

**Please Deliver To:**

**Procurement Contact:**

Buyer: Thomas Schwartz  
 Phone:  
 Fax:

This Invitation For Bids is comprised of: Part I, General Information; Part II, Bid Requirements; Part III, Criteria For Selection; Part IV, IFB Specifications; Part V, Contract Clauses; any documents attached to this Invitation For Bids or incorporated by reference; and any addenda issued by the Issuing Office prior to Bid Opening.

Supplier's Signature \_\_\_\_\_ Title \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Date \_\_\_\_\_

The Bidder has completed and submitted this Bid in accordance with the instructions and requirements and terms and conditions of the Invitation For Bid. The Bidder has attached documents that are required to be submitted with this Bid and those attachments are incorporated by reference and made a part of this Bid. 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.

Item	Material/Service Desc	Qty	UOM	Unit Price	Total Line Item Price
1	Two-way Radio Equipment	1.000	Each	\$ _____	\$ _____

**General Requirements for all Items:**

**Header Text**  
 Addendum #1 posted 11/17/16  
 Addendum #2 posted 11/18/16  
 Addendum #3 posted 11/23/16  
 Addendum #4 posted 11/29/16

**ALL PRICES ARE F.O.B. DESTINATIONS**

List of Items Continued on Following Page





**ORIGINAL**  
**BID - Invitation For Bid**  
**Two-Way Radio Equipment & Services**  
Original Approval Date: 11/08/2016

Page 3 of 3

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](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:

<b>Contractor Classification</b>	<b>Required Administrative Fee</b>
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 [www.costars.state.pa.us](http://www.costars.state.pa.us) . 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 [www.costars.state.pa.us](http://www.costars.state.pa.us) .

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](http://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](mailto: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. Bid Modification Prior to Bid Opening. Bids may be modified only by written notice or in person prior to the exact hour and date specified for Bid opening.

- 1) 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. Bid Withdrawal Prior to Bid Opening. Bids may be withdrawn only by written notice or in person prior to the exact hour and date specified for Bid opening.

- 1) 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. Bid Withdrawal After Bid Opening. 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. Firm Bid. 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. Clarification and Additional Information. 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 Response

## **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 not 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. Agency: 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. Contracting Officer: The person authorized to administer this Contract for the Commonwealth and to make written determinations with respect to the Contract.

c. Days: Unless specifically indicated otherwise, days mean calendar days.

d. Developed Works or Developed Materials: 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. Documentation: 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. Services: 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 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.

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, et seq.), 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 and Contracting Officer. The Commonwealth may withhold from amounts otherwise due 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 contracting officer and 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 each 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 affiliates 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](http://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. Full Term Intention. 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. Non-Appropriation. 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 or any subsequent assignee of 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 LIABILITY FOR, NOR SHALL THE LESSEE 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. **Tax Exemption Financing.** 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. **Governmental Status.** 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. Worker's Compensation Insurance** 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. Public Liability and Property Damage Insurance** 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, teletype, 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.

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:

<b>Activity</b>	<b>Responsibility</b>	<b>Date</b>
Deadline to submit questions via email to <a href="mailto:RA-OITPurchases@state.pa.us">RA-OITPurchases@state.pa.us</a> with the subject line “IFB 6100039075 Question”	Bidders	<b>November 14, 2016 1:00PM EST</b>
Answers to questions posted to the PA eMarketplace portal website ( <a href="http://www.emarketplace.state.pa.us">http://www.emarketplace.state.pa.us</a> ).	Issuing Office	<b>November 17, 2016</b>
Please monitor the PA eMarketplace portal website for all communications regarding this IFB, such as addendums, answers to questions, revised appendices, etc.	Bidders	<b>Ongoing</b>
Bid package must be received by the Issuing Office at:  PASupplierPortal website ( <a href="http://www.pasupplierportal.state.pa.us">http://www.pasupplierportal.state.pa.us</a> ) no later than this date.	Bidders	<b>December 2, 2016 12:00PM EST</b>

## 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 ([RA-OITPurchases@state.pa.us](mailto:RA-OITPurchases@state.pa.us)), 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 in-scope 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 <http://www.oa.pa.gov/Policies/Pages/itp.aspx>

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 dedicated 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 trade-in 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 acceptable; 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.



# 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

Approved by OMB

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

0348-0046

(See reverse for public burden disclosure.)

<b>1. Type of Federal Action:</b> a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	<b>2. Status of Federal Action:</b> a. bid/offer/application b. initial award c. post-award	<b>3. Report Type:</b> a. initial filing b. material change <b>For Material Change Only:</b> year _____ quarter _____ date of last report _____
<b>4. Name and Address of Reporting Entity:</b>  <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known:	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>   Congressional District, if known:	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable: _____	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b> \$ _____	
<b>10. a. Name and Address of Lobbying Registrant</b> (if individual, last name, first name, MI):	<b>b. Individuals Performing Services</b> (including address if different from No. 10a) (last name, first name, MI):	
<b>11.</b> Information requested through this form is authorized by title 31 U.S.C. section 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 shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: Telephone No.: _____ Date:	
<b>Federal Use Only:</b>		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)



## 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 organizational level 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](http://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.

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<u>ITEM NUMBER</u>	<u>NAME OF MANUFACTURER</u>	<u>STATE (OR FOREIGN COUNTRY) OF MANUFACTURE</u>
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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:

**COSTARS PROGRAM ELECTION FORM**

**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

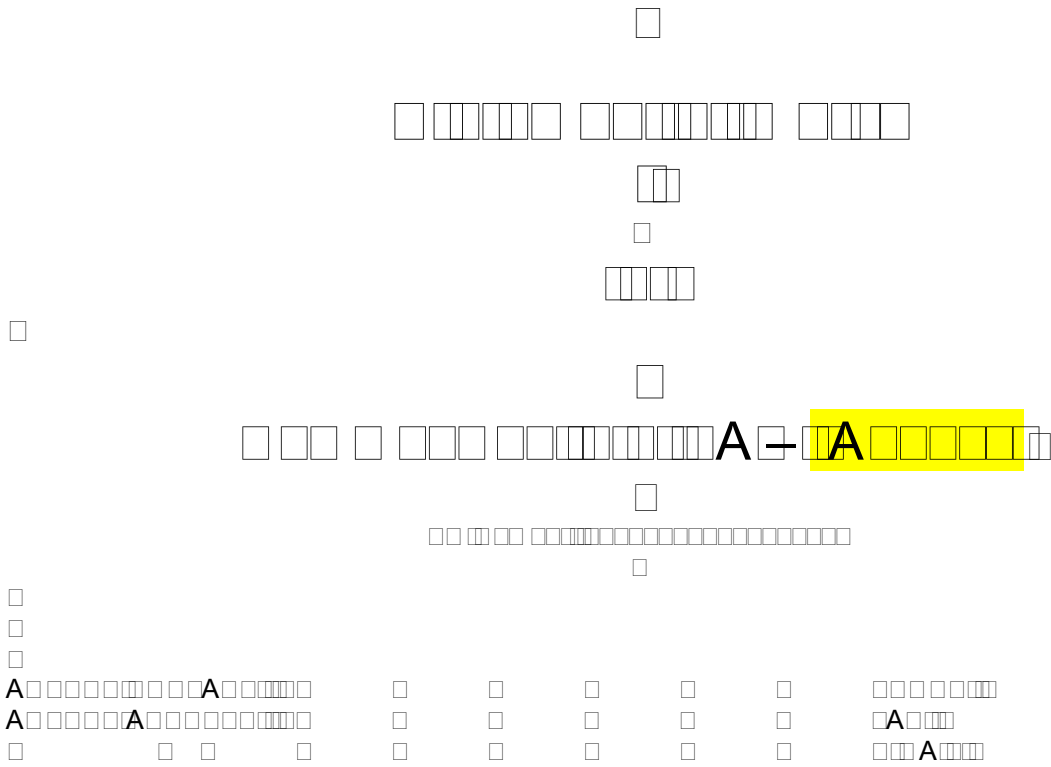
**Dedicated Contacts**

	<b>Contact Name</b>	<b>Contact Email</b>	<b>Contact Phone</b>
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# DHS Science and Technology Directorate Project 25 Compliance Assessment Program

## 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-and-technology/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**

Science and Technology

To learn more about P25 CAP, contact [SandTFRG@hq.dhs.gov](mailto:SandTFRG@hq.dhs.gov).

2016-06-24

**Date:** November 17, 2016

**Subject:** Two-Way Radio Equipment and Services

**Solicitation Number:** 6100039075

**Solicitation Due Date:** November 23, 2016

**Addendum Number:** 1

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**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, as 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. Millovich

**Title:** Commodity Specialist

**Phone:** 717-214-3434

**Email:** [RA-OITPurchases@pa.gov](mailto: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

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**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:

- 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, as 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. Millovich

**Title:** Commodity Specialist

**Phone:** 717-214-3434

**Email:** [RA-OITPurchases@pa.gov](mailto:RA-OITPurchases@pa.gov)

**Date:** November 23, 2016

**Subject:** Two-Way Radio Equipment and Services

**Solicitation Number:** 6100039075

**Solicitation Due Date:** November 29, 2016

**Addendum Number:** 3

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**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:

- 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, as 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:** Thomas M. Schwartz

**Title:** Commodity Specialist

**Phone:** 717-346-3828

**Email:** [RA-OITPurchases@pa.gov](mailto:RA-OITPurchases@pa.gov)

**Date:** November 29, 2016

**Subject:** Two-Way Radio Equipment and Services

**Solicitation Number:** 6100039075

**Solicitation Due Date:** December 1, 2016

**Addendum Number:** 4

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**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:

- 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, as 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:** Thomas M. Schwartz

**Title:** Commodity Specialist

**Phone:** 717-346-3828

**Email:** [RA-OITPurchases@pa.gov](mailto:RA-OITPurchases@pa.gov)

**Date:** 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

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**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:

- 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, as 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:** Thomas M. Schwartz

**Title:** Commodity Specialist

**Phone:** 717-346-3828

**Email:** [RA-OITPurchases@pa.gov](mailto:RA-OITPurchases@pa.gov)



**Date:** 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

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**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:

- 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, as 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:** Thomas M. Schwartz

**Title:** Commodity Specialist

**Phone:** 717-346-3828

**Email:** [RA-OITPurchases@pa.gov](mailto:RA-OITPurchases@pa.gov)

**Questions & Answers**  
 IFB 6100039075  
 Two-Way Radio Equipment and Services

#	Question	Answer
1	<p>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).</p> <p>V.35 CONTRACT-028.1 Contractor Integrity Provisions            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.</p> <p>Please confirm that this is acceptable, with the 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).</p>	<p>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.</p>
2	<p>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?</p>	<p>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.</p>
3	<p>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?</p>	<p>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.</p>
4	<p>In addition, all P25 radios must be CAP tested with all relevant documentation listed on the DHS site. Please confirm.</p>	<p>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.</p>

**Questions & Answers**  
**IFB 6100039075**  
**Two-Way Radio Equipment and Services**

#	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 "Calendar 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 "in-class" 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.

**Questions & Answers**  
**IFB 6100039075**  
**Two-Way Radio Equipment and Services**

#	Question	Answer
26	<p>A. <input type="checkbox"/> Are you looking for one (1) fixed discount for the contract or are we allowed to provide separate discounts by our product “category”.</p> <p>B. <input type="checkbox"/> My company offers several different lines of equipment, within the following Divisions:</p> <ul style="list-style-type: none"> <li>•Avionics</li> <li>•Marine</li> <li>•Landmobile</li> <li>•Amateur</li> </ul> <p>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?</p> <p>C. <input type="checkbox"/> 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.</p> <p>May we include all of our equipment to give our valued Pennsylvania End-user’s the ability to purchase off our entire product line?</p>	<p>A. <input type="checkbox"/> Bidders may submit different discounts for each product category.</p> <p>B. <input type="checkbox"/> Bidders may submit different discounts for each manufacturer in a product category.</p> <p>C. <input type="checkbox"/> 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.</p>
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.

**Questions & Answers**  
**IFB 6100039075**  
**Two-Way Radio Equipment and Services**

#	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.

**Questions & Answers**

IFB 6100039075

**Two-Way Radio Equipment and Services**

40	<p>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?</p> <p>Manufacturer Discount List Product Categories on current bid:</p> <ul style="list-style-type: none"><li>Mobile Devices and Accessories - Portable Hand Held Radios</li><li>Mobile Devices and Accessories - Vehicular Radios</li><li>Mobile Devices and Accessories - Other 2-way Radios and Accessories</li><li>Mobile Devices and Accessories - Mobile Antennas and Amplifiers</li><li>Mobile Devices and Accessories - Mobile Mounts and Power</li><li>Mobile Devices and Accessories - Mobile Radio Batteries and Chargers</li><li>Mobile Devices and Accessories - Device Protection and Carry Cases</li><li>Mobile Devices and Accessories - Mobile Radio Service Equipment</li><li>Fixed Station - Two-Way Radio Control Stations</li><li>Fixed Station - Two -Way Radio Consoles</li><li>Fixed Station - Two-Way Radio Base Stations</li><li>Fixed Station - Two-Way Radio Repeaters</li><li>Fixed Station - Accessories and Service Equipment</li><li>Fixed Station - Public Safety Interoperable Communications Equipment</li><li>Fixed Station - Voice and Data Switching Equipment</li><li>Testing Equipment - RF Antenna and Equipment Analyzers</li><li>Testing Equipment - Spectrum Analyzers</li><li>Testing Equipment - Frequency Counters</li><li>Testing Equipment - Service Monitors</li><li>Testing Equipment - Signal Generators</li><li>Testing Equipment - Other 2-way radio test equipment</li></ul>	<p>Appendix A, Manufacturer Discount List has been updated to include a “Network Infrastructure and Remote Communication Sites” category.</p>
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**Questions & Answers**  
IFB 6100039075  
Two-Way Radio Equipment and Services

#	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.