WDT92™

Rugged Mobile Computer with 1D/2D Imager

User's Manual

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Disclaimer

Patents

See the Safety & Regulatory Addendum for patent list.

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Introduction

Conventions

This manual uses the following conventions:

"Mobile computer" and "WDT92" refer to WDT92 mobile computer.

"Single Dock" refers to the WDT92 Single Slot Dock.

The label artworks may be only a draft. Refer to the product labels for more precise information.

Product Presentation

Wasp's WDT92 mobile computer represents an important evolution for the extremely successful Wasp product line of compact mobile computers that has set a new standard in the market! The strong commitment to the Retail market is confirmed, while WDT92 represents a reliable and rugged companion for Manufacturing, Transportation & Logistics and Healthcare verticals in all their typical warehousing applications. WDT92 features an all new architecture supporting tremendous speed improvements with Windows Embedded Compact (WEC7), while also supporting an easy migration path to Android.

Whether in department or specialty stores, in hyper stores and supermarkets, convenience stores, grocery or DIY, Wasp's WDT92 mobile computer fits most any retail in-store requirement for mobile data collection or validation. And with the optional pistol- grip, this unit is also ready for the demanding back-end receiving and warehousing environments as well!

The WDT92 mobile computer is primarily used by the retail store associate for traditional shop floor applications, but can also be used for backend receiving activities.

Equipped with the largest high-visibility color graphics display (3.2 in.) in its class, the WDT92 mobile computer helps users work more efficiently. With a choice of Windows Embedded or Android™ Operating Systems, the WDT92 mobile computer delivers the ultimate in ergonomics, intuitive user interface, computing and data capture technologies, combined with best-in-class ruggedness.

Out of the Box

The WDT92 package contains:

- WDT92 mobile computer
- Rechargeable battery pack
- Terminal emulation overlay
- Belt clip (handheld models only)
- Belt clip pivot (handheld models only)
- Hand-strap
- Lanyard (for pistol grip models only)
- Quick Start Guide
- Safety & Regulatory Addendum
- End User License Agreement (EULA) Sheet

Remove all the components from their packaging; check their integrity and compare them with all the packing documents.

Keep the original packaging for use when sending products to the technical assistance center. Damage caused by improper packaging is not covered under the warranty.

General View

Front View

Back View

Top View

Data Capture Window

Bottom View

HandyLink™ connector
(host/device)

NOTES

Install the Battery

To install the battery pack, insert the battery's alignment lugs into the recesses, then press firmly until the battery latch clicks twice:

Charge the Battery

The rechargeable battery pack is less than half of full charge when delivered. Charge the battery with the USB cable or with the single dock, before using the device.

During the charging process the charging LED positioned at the top left side of the display glows red constantly. Once the charging process has been completed**,** the charging LED glows green constantly. The charging LED flashes red when a charging error is detected.

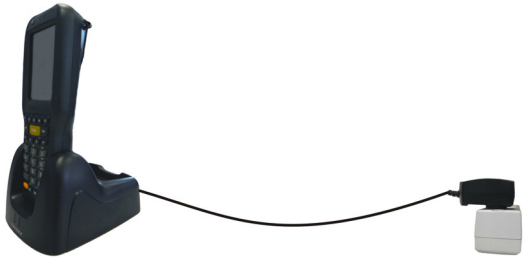
Charge with USB

You can use a standard micro USB to USB cable in conjunction with a power supply adapter to charge the WDT92 from a power outlet.

The Micro-USB port can also be used to charge the WDT92 battery pack from any self-powered USB hub or USB port on a computer.

Don't insert the wall charger into the micro USB port when the WDT92 is inserted into the dock.

Charge with the Single Slot Dock



You can also charge an additional battery pack by inserting it into the rear slot of the dock.

NOTE

The WDT92 may get warm during charging; this is normal and does not mean a malfunction.

CAUTION

By default, the battery pack is disconnected at the factory to avoid damage due to excessive draining.

Avoid storing batteries for long periods in a state of full charge or very low charge.

We recommend charging the battery pack every two to three months to keep its charge at a moderate level to maximize battery life.

Annual replacement of rechargeable battery pack avoids possible risks or abnormalities and ensures maximum performance.

The battery pack autonomy varies according to many factors, such as the frequency of barcode scanning, RF usage, battery life, storage, environmental conditions, etc.

Close to the limits of the working temperature, some battery performance degradation may occur.

The WDT92 should be charged at an ambient temperature between 0 - 35° C (32 to 95 °F) to achieve the maximum charging rate.

Never charge the device battery in a closed space where excessive heat can build up.

As a safety precaution, the battery may stop charging to avoid overheating.

To maximize battery life, turn off radios when they are not needed.

Replace the Battery

To replace the battery pack, follow the steps below:

1. Turn off the WDT92 (press the power key and wait for device power off).
2. Press the latch release button and pull the battery latch down:

3. Remove the battery pack.

4. Insert the new battery pack into the slot (see Install the Battery on page 7).

Do not incinerate, disassemble, short terminals, or expose to high temperature. Risk of fire and explosion. Use specified charger only. Risk of explosion if the battery is replaced by an incorrect type. Dispose of batteries as required by local authorities.

Use only Wasp approved batteries and accessories for battery charging.

Risk of explosion if battery is replaced by an incorrect type.

Dispose of used batteries according to the instructions.

Il y a risque d'explosion si la batterie est remplacée par une batterie de type incorrect.

Mettre au rebut les batteris usagées confor mément aux instructions.

Even if the storage temperature range is wider, it is recommended to store the terminal and the batteries at environmental temperature, in order to achieve the longest battery life.

WARNING

Installing, charging and/or any other action should be done by authorized personnel and following this manual.

The battery pack may get hot, explode, ignite, and/or cause serious injury if exposed to abusive conditions.

If the battery pack is replaced with an improper type, there is risk of explosion.

Do not place the battery pack in or near a fire or other heat source; do not place the battery pack in direct sunlight, or use or store the battery pack inside unventilated areas in hot weather; do not place the battery pack in microwave ovens, in clothes dryers, in high pressure containers, on induction cook surfaces or similar devices. Doing so may cause the battery pack to generate heat, explode or ignite. Using the battery pack in this manner may also result in a loss of performance and a shortened life expectancy.

To power the cradle, use only a Wasp approved power supply. The use of an alternative power supply will void the product warranty, may cause product damage and may cause heat, an explosion, or fire.

The area in which the units are charged should be clear of debris and combustible materials or chemicals.

Do not use the battery pack of this terminal to power devices other than this device.

Immediately discontinue use of the battery pack if, while using, charging or storing the battery pack, the battery pack emits an unusual smell, feels hot, changes colour or shape, or appears abnormal in any other way.

WARNING

Do not short-circuit the battery pack contacts connecting the positive terminal and negative terminal. This might happen, for example, when you carry a spare battery pack in your pocket or purse; accidental short–circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the contacts of the battery pack (these look like metal strips on the battery pack). Short–circuiting the terminals may damage the battery pack or the connecting object.

Do not apply voltages to the battery pack contacts.

Do not pierce the battery pack with nails, strike it with a hammer, step on it or otherwise subject it to strong impacts, pressures, or shocks.

Do not disassemble or modify (i.e. bend, crush or deform) the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite.

In case of leakage of liquid from the battery, avoid contact with liquid the skin or eyes. If the contact occurs, immediately wash the affected area with water and consult a doctor.

Do not solder directly onto the battery pack.

Do not expose the battery pack to liquids.

Avoid any knocks or excessive vibrations. If the device or the battery is dropped, especially on a hard surface, you should take it to the nearest Authorised Repair Centre for inspection before continuing to use it.

WARNING

If your device stops working for any reason, do not use its battery on other electronic devices without a prior check and approval by an Authorised Repair Centre.

Do not replace the battery pack when the device is turned on.

Do not remove or damage the battery pack's label.

Do not use the battery pack if it is damaged in any part.

Battery pack usage by children should be supervised.

Collect and recycle waste batteries separately from the device in compliance with European Directive 2006/66/EC, 2011/65, 2002/96/EC and subsequent modifications, with US and China regulatory laws and regulations about the environment.

NOTES

Install the MicroSD Card

WDT92 supports microSD memory cards. To access the microSD card slot and insert the card follow the steps below:

1. Turn off the WDT92.
2. Remove the battery pack (see Replace the Battery on page 11, steps 1 to 3).
3. Shift the cardholder upwards and then pull it up:

4. Insert the microSD card with the written part upward:

5. Lock the card into place by pushing the cardholder down and then shifting it downwards:

6. Insert the battery pack into the slot (Install the Battery on page 7).

Remove the MicroSD Card

To remove the microSD card, follow the steps above to access the microSD slot, and remove it from its slot.

CAUTION

Follow proper ESD precautions to avoid damaging the microprocessors in the WDT92 or the microSD card itself. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring that the operator is properly grounded.

Do not force the card. If you feel resistance, remove the card, check the orientation, and reinsert it.

Do not use the microSD card slot for any other accessories.

It is highly recommended that users latch the card cage's bale even when the card is not present.

Power On

The WDT92 turns on when the battery pack or the external supply is inserted and the **ON/OFF** Power button is pressed.

As soon as the mobile computer is on, the Windows Embedded Compact 7 desktop will appear on the screen. Wait a few seconds before starting any activity so that the mobile computer completes its startup procedure.

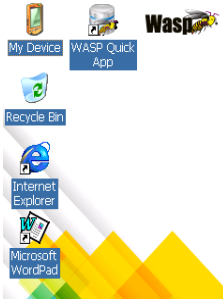
The mobile computer goes into power-off (low power with display and keyboard backlight off), when it is not used for more than a programmable timeout, which can be defined in the **Power** applet of the Control Panel. In this mode it can be awakened by the **ON/OFF** key.

NOTE

The mobile computer can also be awakened or suspended programmatically.

Desktop Window

As soon as the mobile computer is on, the Windows Embedded Compact 7 desktop appears on the screen. Wait a few seconds before starting any activity so that the mobile computer completes its startup procedure.



Windows Embedded Compact 7 Desktop

Taskbar

Icons	Descriptions
	The Start button opens the Start Menu.

	ActiveSync connection icon is displayed when connected to ActiveSync or Windows Mobile Device Center either by USB, RS232, or Bluetooth®. Double-tap it to open a status dialog box that will let you disconnect the ActiveSync session without physically disconnecting the device from the PC. It is the only way to disconnect a Bluetooth® ActiveSync connection.
	Battery icons display the system battery status.
	Bluetooth® Manager icon displays whether Bluetooth® is enabled, paired, or turned off. Double-tap this icon to open the Bluetooth® Manager control panel applet.
	Network connectoid icon displays whether you are connected or not to Ethernet, Wi-Fi, or Bluetooth® Personal Area Network.

Using the Stylus Pen

The stylus selects items and enters information. It functions as a mouse.

Double Tap	Double tap the screen with the stylus to open items and select options.
Drag	Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.
Tap-and-hold	Tap and hold the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

CAUTION

Use only original Wasp styluses supplied with the product itself.

In harsh applications, use of screen protectors should be taken into consideration, in order to extend the touch screen operating life.

To prevent damage to the screen, do not use sharp devices or any device other than the Wasp provided stylus.

Do not apply too much pressure when touching the screen.

For applications where an intensive use of the touch screen is foreseen, please consider that touch screen components are subject to progressive wear.

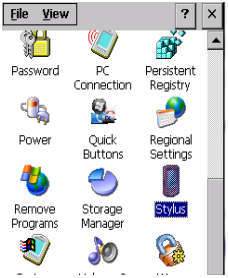
WEC7 Touch Screen Calibration

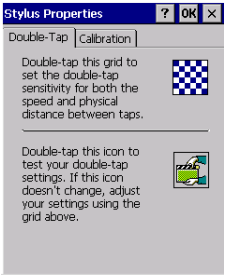
At the very first WDT92 startup, after any cold boot (if the user skipped stylus calibration earlier) or following a clean boot, a Welcome Wizard with Stylus Calibration comes up.

Also, you might need to recalibrate the touch screen (i.e. when you attempt to select an item with the stylus, another item is erroneously selected).

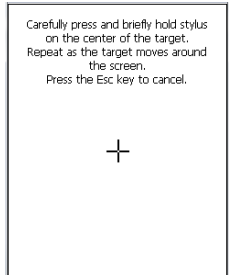
To recalibrate the touch screen, following the steps below:

1. Tap **Start** > **Settings** >**Control Panel**. Double tap the **Stylus** icon to open the **Stylus Properties** window:


File View
Password
PC Connection
Persistent Registry
Power
Quick Buttons
Regional Settings
Remove Programs
Storage Manager
Stylus


Stylus Properties
OK
Double-Tap
Calibration
Double-tap this grid to set the double-tap sensitivity for both the speed and physical distance between taps.
Double-tap this icon to test your double-tap settings. If this icon doesn't change, adjust your settings using the grid above.

Tap **Calibration** to open the **Calibration** tab. Tap **Recalibrate**:



2. Carefully press and briefly hold the stylus on the center of the target. Repeat as the target moves around the screen.
3. By completing the calibration procedure you implicitly accept the new calibration settings.
4. The new calibration settings are persistently saved in the Registry.

Keyboards

Alphanumeric Keypad (38 Keys)

Main Keys Functions

Key	Function
	The SCAN key starts data capture. If enabled, it also wakes up the mobile computer from low-power (see Quick Buttons on page 65). For pistol grip models only, the trigger performs the same function as the SCAN key.
	Arrow keys let you move forwards, backwards, upwards or downwards within text fields, scroll through a Menu list or browse among folder files.
	Yellow modifier (toggle key): when pressed before a standard key, it enables the character or function printed in yellow above the key.
	Blue modifier (one shot key): when pressed before a standard key, it enables the character or function printed in blue above the key.
	The ON/OFF Power button powers the WDT92 ON or OFF. It is placed on the upper left side of the terminal.

Special Function Icons

Icon	Function
	After a Blue modifier key press, the Start menu key opens the Start menu.
	After a Blue modifier key press, the File Manager key opens the file manager.
	After a Blue modifier key press, the Lock key locks the keyboard.

Icon	Function
	After a Blue modifier key press, the Backlight key turns the backlight on and off.
 	After a Blue modifier key press, the blue arrows allow moving forwards or backwards within the Internet Explorer browser pages.

Resetting the Terminal

There are several reset methods for the WDT92.

A warm boot terminates an unresponsive application and clears the working RAM, but preserves the file system. The Registry is restored from persistent memory if available or returned to factory default.

A cold boot forces all applications to close, completely reinitializing the system. It clears the working RAM, but the file system is preserved. The Registry is restored from persistent memory.

A clean boot restores the WDT92 to a clean configuration: both the Registry and the file system returns to a clean status that conforms to factory default.

Warm Boot

To perform a warm boot, press and hold the following keys simultaneously:

Cold Boot

To perform a cold boot, do the following steps:

1. Turn off the WDT92 by pressing the ON/OFF Power button.
2. Pull the battery latch down and remove the battery pack.
3. Simultaneously press the SCAN key and the Reset button in the battery compartment.
4. Insert the battery pack.
5. Turn on the WDT92 by pressing the ON/OFF Power button.

Clean Boot

To perform a clean boot, do the following steps:

1. Perform a Cold Boot (see Cold Boot).
2. Press and hold down the 'Esc' + '0' keys simultaneously, promptly after resetting:

A dialog box will appear asking for confirmation. Press the Enter Key.

	Warm Boot	Cold Boot	Clean Boot
Registry	Restored from flash	Restored from flash	Clean configuration (no user config)
File System	Preserved	Clean Installation (except for FlashDisk folder)	Clean Installation (no user files)

LED Indicators

The LEDs illuminate to indicate various functions or errors on the reader. The following tables list these indications.

LED	Status	Description
Charging LED (left side)	Red Constant	Light is solid red while charging.
	Green Costant	Light is solid green once the charging process has completed (full charge).
	Red Blink	Blinking red indicates a charge fault.
	Amber Blink	Light is blinking amber when the device raises a notification to the user.
Keyboard LED (center)	Off	Keyboard in primary.
	Yellow Constant	Yellow alternate key mode.
	Blue Constant	Blue alternate key mode.
	Pink	CapsLock enabled.
Good Read LED* (right side)	Red	Light is red from the time the user presses the scan key (or trigger) until the barcode is decoded (1D models), until the scanner times out (2D imager models).
	Green	Light changes to green when a good decode is completed.

* The Good Read LED has also a "Suspend LED" feature. The decode LED will glow red when the device begins to suspend, and will turn off when the suspend completes successfully.

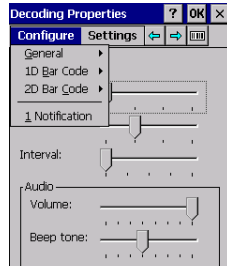
Control Panel

From the Start menu, tap **Settings** > **Control Panel.** Below is an expanded view of the Control Panel showing all of the applets.

Data Capture Configuration

Before you start reading barcodes, use the **Decoding Properties** window to view and configure all settings for the scanner.

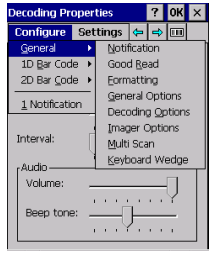
From the control panel main window, double tap the **Decoding** icon:



Tap **Configure** and select **General**, **1D barcode** or **2D barcode**, then use the menu or tap the left and right arrow keys to navigate the different pages of the **Decoding Properties** window. The menu options will change to reflect the items most recently selected.

General Decoding Properties

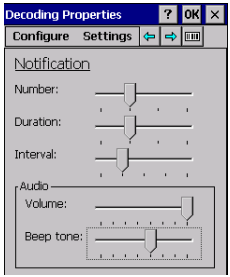
Tap **Configure** > **General** and select the desired configuration from the options shown in the figure below:



Notification

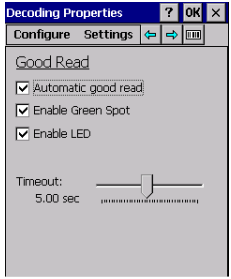
Use it to set the number, the duration and the interval of notifications (LED, green spot, beep or vibration) the scanner emits on a good read.

You can also set the volume and tone of the beeps.



Good Read

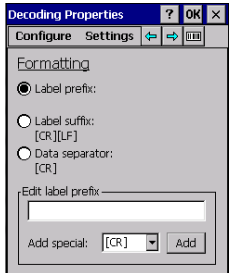
Use it to enable/disable good read notifications (LED, Green Spot, LED). Drag the **Timeout** slider to set the maximum amount of time the scanner attempt to decode after the scan key (or the trigger) is pressed:



Formatting

Allows to format the barcode text by enabling and configuring the use of prefix, suffix and data separator.

Scroll the **Add special** drop-down list to select a special character to be added in the current cursor position.



General Options

Select the **Label programming enable** check box to enable the scanner to read specific barcodes.

Scroll the **Symbology ID** drop-down list to select and add a code identifier prefix or suffix to the barcode string.

AIM ID (Association for Automatic Identification and Mobility) is an international barcode identifier. When **AIM IDs Before** is enabled, the AIM ID is inserted at the beginning of the decoded barcode.

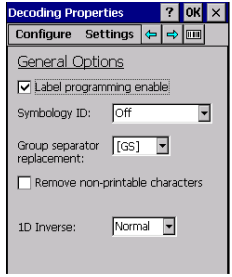
DL ID is a Wasp specific character identifier.

User ID is a user specific character identifier you can set in the related symbology settings menu.

Group Separator replacement is a non printable data separator character (ASCII code 1D hex). Scroll the **Group Separator replacement** drop-down list to select a string that will be used as GS data separator substituting the standard GS character.

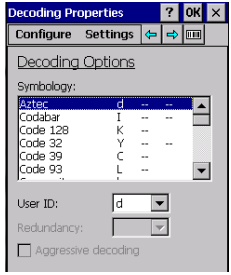
Select **Remove non-printable characters** to remove non-printable characters from a unicode string.

Use the **1D Inverse** drop-down list to enable the scanner to read inverse 1D barcodes.



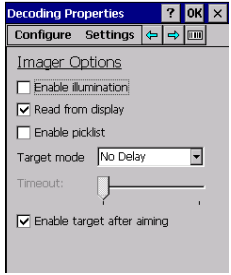
Decoding Options

Use it to configure the User ID for symbologies, Redundancy and Aggressive Decoding (if supported by the decoding module). Select a symbology to view or change the available properties settings.



Imager Options

It allows to customize the 2D imager behavior. It is only available on devices equipped with 2D decoding engines.



Enable illumination

If selected, it causes the scanner to turn on the illumination to aid decoding.

Read from display

It improves capability to read barcodes from LCD screen (e.g. displayed on smartphone display).

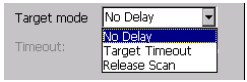
Enable picklist

If selected, it allows you to pick and decode a barcode from multiple barcodes printed close together, when the scan illumination intersects more than one barcode. Only the targeted barcode will be returned.

Target mode

If enabled, when the scan button is pressed, the scanner will project an aiming pattern to assist in centering over the barcode before

scanning. Use the drop-down list to select the desired targeting behavior:



No Delay

Target mode is disabled.

Target Timeout

Scanning takes place after a programmable time upon pressing the scan button. Drag the **Timeout** slider to set the maximum amount of time the scanner attempt to decode after target timeout.

Release Scan

Scanning takes place after the scan button is released. Drag the **Timeout** slider to set the scanning timeout after releasing the scan button.

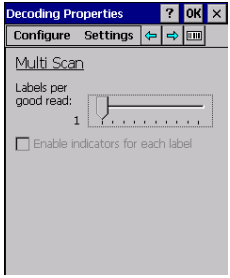
Enable target after aiming

It enables aiming before scanning.

Multi Scan

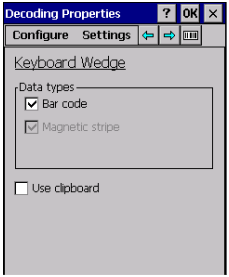
If enabled, the device goes on scanning until the number of **Labels for good read** is reached.

Select **Enable indicators for each label** to get an intermediate notification for each label decoded.



Keyboard Wedge

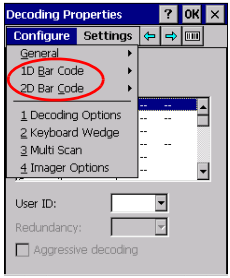
Use it to enable or disable the keyboard wedge for barcode scanner:

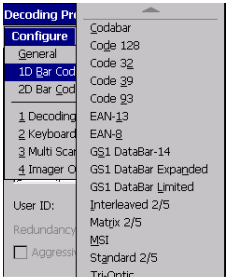


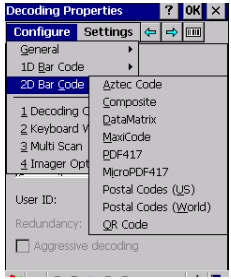
Symbology Settings

Each barcode symbology can be customized with additional settings that may affect that specific barcode decoding.

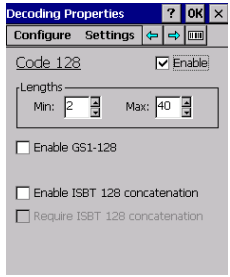
Tap **Configure** and use the **1D barcode**/ **2D barcode** drop-down menus to configure symbology decoding options:







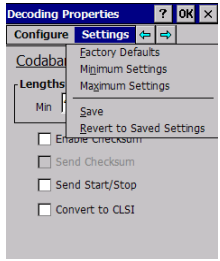
Refer to the sample symbology control panels for examples of the types of fields and options you can modify. The sample below shows the settings of a Code 128 barcode symbology:



Tap the left and right arrow keys to navigate the different pages of the barcode symbology pages.

Decoding Settings

Tap **Settings** to change symbologies settings or to restore previous configurations and/or other available default settings.



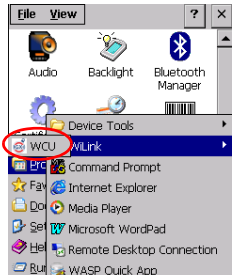
The settings are saved when you tap **Yes**. Any change you make is temporary and will be lost when the system restarts. To save these

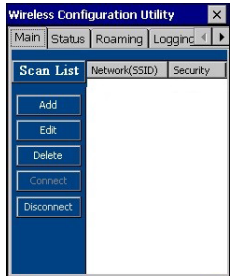
settings to a persistent storage, you need to save the **Registry** using the **Persistent Registry** applet in the **Control Panel**.

WCU (Wireless Configuration Utility)

Wireless Configuration Utility (WCU) is a user-mode application that provides an interface for configuring and operating an installed wireless network interface card (wireless adapter).

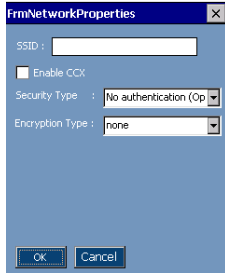
Tap **Start** > **Programs** > **WLink** > **WCU** to open the **WCU** screen:





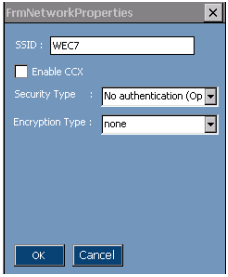
Create a New Profile

Select **Add** from the menu bar and enter information for the **SSID**, **Security Type** and **Encryption Type**:



Security Type: No Authentication (Open)

Open authentication allows any device to authenticate and then attempt to communicate with the access point. Using open authentication, any wireless device can authenticate with the access point, but the device can communicate only if its Wired Equivalent Privacy (WEP) keys match the access point's WEP keys.

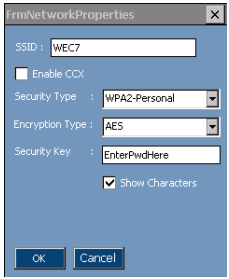


Security Type: WPA2-Personal

In case of pre-shared key (PSK) authentication, the access point sends an unencrypted challenge text string to any device that is attempting to communicate with the access point. The device that is requesting authentication encrypts the challenge text and sends it back to the access point. If the challenge text is encrypted correctly, the access point allows the requesting device to authenticate.

To create a profile with PSK authentication, follow the steps below:

1. Select the **Security Type** as **WPA2-Personal**
2. Select the **Encryption Type**
3. Enter the password in the **Security Key** field.

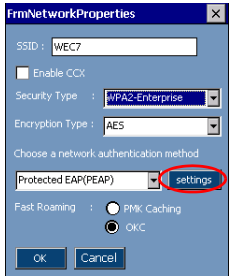


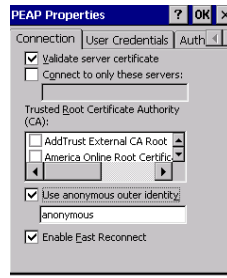
Security Type: WPA2-Enterprise

This authentication type provides the highest level of security for your wireless network. By using the Extensible Authentication Protocol (EAP) to interact with an EAP-compatible RADIUS server, the access point helps a wireless client device and the RADIUS server to perform mutual authentication and derive a dynamic unicast WEP key. The RADIUS server sends the WEP key to the access point, which uses the key for all unicast data signals that the server sends to or receives from the client. The access point also encrypts its broadcast WEP key (which is entered in the access point's WEP key slot 1) with the client's unicast key and sends it to the client.

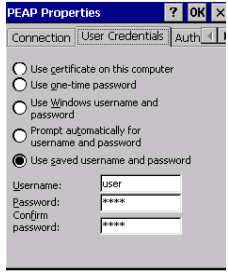
To create a profile with EAP authentication, follow the steps below:

1. Select the **Security Type** as **WPA2-Enterprise**
2. Select the **Encryption Type**
3. Tap **settings**. The **PEAP Properties** screen appears, where you can configure connection properties, source of user credentials and authentication properties (inner method) to be used:

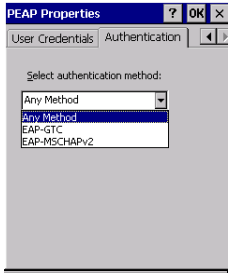




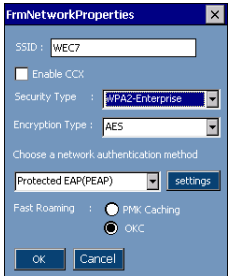
4. Tap the **User Credentials** tab to enter the EAP methods user credentials:



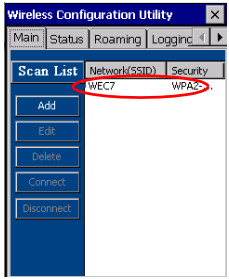
5. Tap the **Authentication** tab to select the EAP inner method:



Tap OK to complete:



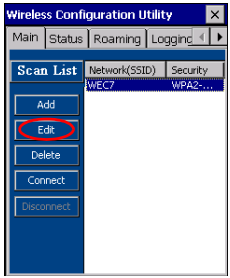
The new profile now appears in the WCU profile list:

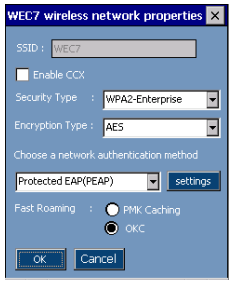


Each EAP profile can be either "Pairwise Master Key Caching (PMK)" or Opportunistic Key Caching (OKC). By default, OKC radio button is enabled for each of WLAN profile.

Edit a Profile

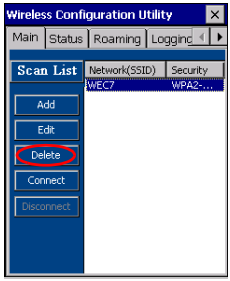
Select a profile in WCU profile list and tap **Edit** on the navigation menu bar:





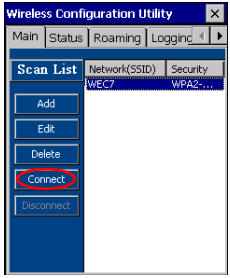
Delete a Profile

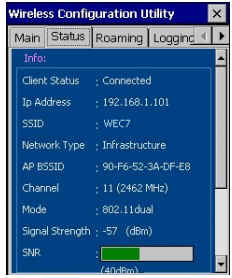
Select a profile in WCU profile list and tap **Delete** on the navigation menu bar:



Connect to a Profile

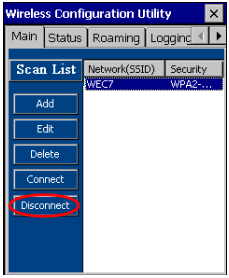
Select a profile in WCU profile list and tap **Connect** on the navigation menu bar. Tap the **Status** tab to display the connection status:

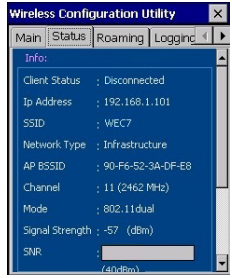




Disconnect from a Profile

Select a connected profile in WCU profile list and tap **Disconnect** on the navigation menu bar. Tap the **Status** tab to display the connection status:

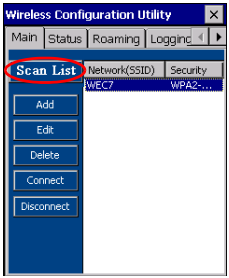


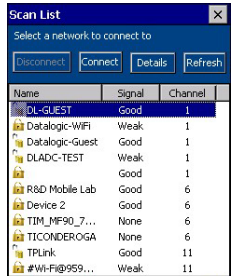


Browse Nearby Wireless Networks

The **Browse Nearby Wireless Networks** window shows the scan list entries of the WLAN driver. It is automatically refreshed periodically, without sending an explicit scan request to driver.

Tap **Scan List** in the Options menu. A window appears, that shows all the detected networks.





Connect to/Disconnect from a Network

1. Select a network from the list. Depending on whether or not the adapter network is connected to that network, the **Connect** or **Disconnect** button on the menu bar will be enabled.
2. Tap **Connect** or **Disconnect**.
3. WCU initiates the **Create New Profile** dialog box if the profile doesn't exist already.
4. Enter a profile name or leave the default name.
5. Select **Security Type** and **Encryption Type** settings for the new profile (see Create a New Profile on page 43).
6. Tap **OK** to save the profile and connect the adapter to the network, or **Cancel** to return to the current view without saving the profile.

Refresh

Tap Refresh to manually refresh the scan list. Each click on this button triggers a scan request to driver.

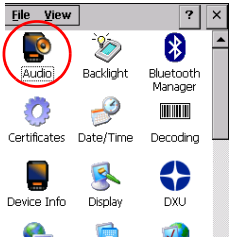
Audio Settings

There are two applets that control volume: **Audio** and **Volume & Sounds**.

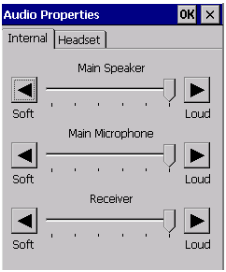
Audio

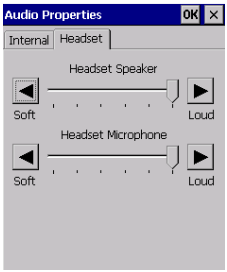
The **Audio Properties** window allows to set the volume for the speaker and the microphone.

From the control panel main window, double-tap the **Audio** icon:



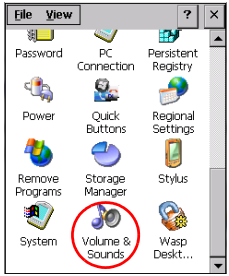
The audio control panel can be used to independently set the playback or recording volume for different types of audio inputs and outputs, such as a headset or the internal speakers and microphone.



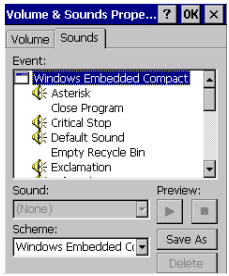


Volume & Sounds

From the control panel main window, double-tap the **Volume & Sounds** icon:



The **Volume & Sounds** applet configures audio features of all speakers and headphones.



Bluetooth® Manager Device Setup

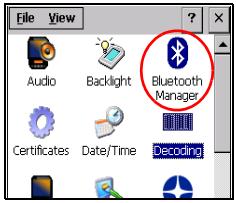
To create a Bluetooth® pairing between your device and another device that has Bluetooth® capabilities, ensure that the two devices are turned on, discoverable, and within close range.

By default, Bluetooth® is turned off. If you turn it on, and then turn off your device, Bluetooth® also turns off. When you turn on your device again, Bluetooth® turns on automatically.

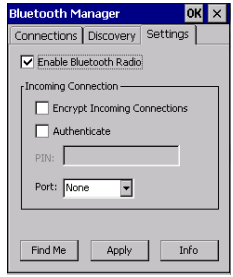
Enable Bluetooth®

To turn the Bluetooth® on:

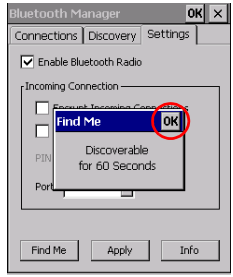
1. Double-tap the **Bluetooth Manager** icon from the **Control Panel** window:



2. Tap **Settings**. The Settings tab allows you to enable or disable the Bluetooth® radio and specify settings for Incoming Connections. Select **Enable Bluetooth Radio**.



3. If you're going to connect a serial device (i.e. a scanner) to the WDT92, use the **Port** control to select a virtual COM port to use for the connection.
4. Tap **Find Me** if you want to make the WDT92 discoverable to other Bluetooth® devices for 60 seconds, allowing them to set up a connection. Tap **OK** on the **Find Me** pop-up window.



5. Tap **Apply**.
6. Once the Bluetooth® radio is enabled, the terminal automatically starts searching for discoverable devices.

Connect to Other Bluetooth® Devices

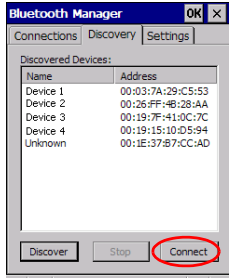
1. From the **Bluetooth Manager** control panel, tap **Connections**:

2. Search for available Bluetooth® devices by tapping the button for the type of device you want (**Printer**, **Serial** or **All**) or tap **Discovery** > **Discover** to skip this step. The WDT92 will search for Bluetooth® devices within range.

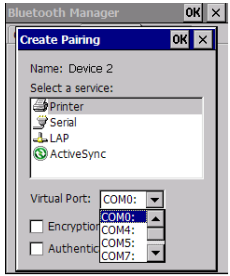
If you attempt to set up a connection when the Bluetooth® radio is disabled, you will receive a message reminding you that the radio is turned off, and asking if you want to turn it on. Tap Yes if you need to enable the Bluetooth® radio.

Icon	Service
	Dialup Networking
	Printer
	Object Push (OPP) Object Exchange (OBEX)
	ActiveSync
	Human Interface Device (HID) - Keyboard
	Serial
	Personal Area Network (PAN)
	Modem
	Headset
	Handsfree

3. Once searching is complete, Bluetooth® device profiles will be displayed in the **Discovery** tab. Flick the list and select a device to set up a connection and then tap **Connect**.

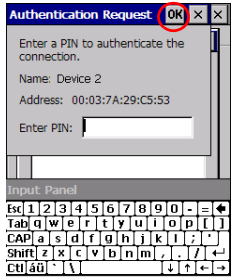


4. Select a service and configure any encryption, authentication, or virtual port options required by the service selected. Virtual Port allows you to specify the incoming port, which is used to communicate serially with an incoming device just as if it were a physical COM port. This option is available only if you have selected a Printer or Serial service.



5. To require Authentication, select the **Authenticate** check box, then tap **OK**.

6. The **Authentication Request** dialog box will request that you enter a PIN. Use the Input Panel or the keyboard to type the PIN. Tap **OK** to complete. The dialog box will also appear when an authentication request is received from another device.

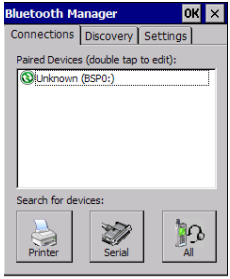


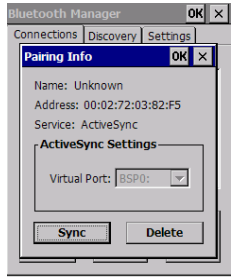
NOTE

You can also select Encrypt or Authenticate from the Settings tab of the Bluetooth Manager control panel.

Configure or Unpair Bluetooth® Devices

Once you have set up a pairing, you can view and edit the pairing settings by double-tapping the paired device from the **Connections** tab.





Use the **Virtual Port** drop-down menu to change the Virtual Port. Tap **Sync** to initiate a Sync (available only if the service is an ActiveSync connection). Tap **Delete** to remove the device pairing.

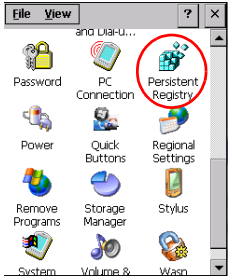
1. Tap **Settings** > **Bluetooth**.
2. Select a device from the **Paired Devices** list and tap the settings icon next to its name. The **Paired Bluetooth device** window displays on the screen:

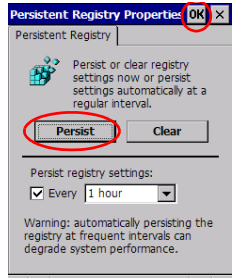
Persistent Registry

The Registry stores information that are necessary to configure the system for applications and hardware devices. The Registry also contains information that the operating system continually references to during operation.

To persist the Registry settings between boots, follow the steps below:

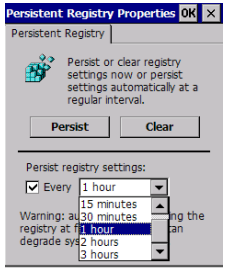
1. From the **Control Panel** main window, double-tap the **Persistent Registry** icon.
2. Tap **Persist**.
3. Tap **OK** to exit.





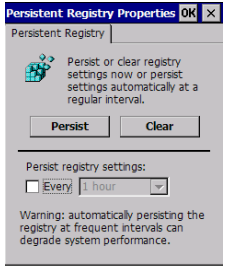
To change the Persistent Registry timing:

1. From the **Persistent Registry** window, select a time interval from the menu.
2. Tap **OK** to save and exit.



To cancel the Persistent Registry timing:

1. From the **Persistent Registry** window, deselect the **Persist Registry settings** check box
2. Tap **OK** to save and exit.



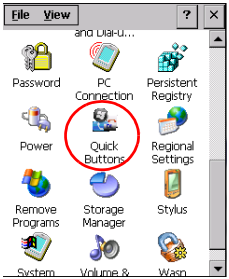
NOTES

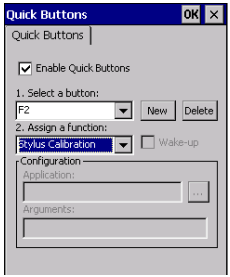
Quick Buttons

You can use the **Quick Buttons** tab to associate specific keys, such as **<F1>**-**<F10>**, with specific applications.

From the control panel main window, double tap the **Quick Buttons** icon to open the **Quick Buttons** tab.

Customize the program hardware buttons to launch your most used applications. Use the **Select a button** drop-down menu to select the button you want to assign a function to, and then select an application from the **Assign a function** drop-down menu.





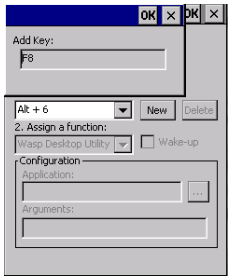
Command	Description
Select a Button	This drop-down list shows the available function keys to define. Select the desired one from the list.
New	Tap to define a new button.
Delete	Tap to delete the selected Button. You can only delete the Buttons you have added. You cannot delete the following buttons: **Alt + 6**, **Left Button**, **Pistol Trigger**, **Right Button**, **Scan**.

Command	Description
Assign a function	This drop-down list shows the available functions.
Application	Displays the path to the selected application.
Browse	Tap [...] to browse for application files. You can associate an executable program with the specified button.
Arguments	Type the command-line arguments that are needed for the specified application. This option is only available when **Launch Application** is selected from the **Assign a function** drop-down list.

Add a New Button

To define a new button, follow the steps below:

1. Tap New on the **Quick Buttons** tab to open the **Add Key** text box.
2. Enter the desired key combination.



3. Tap **OK** to save the new button. Tap **X** to cancel.

NOTE

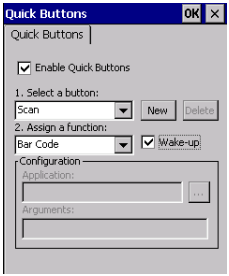
Make sure you do not attempt to add a button that is already defined.

CAUTION

The keyboard wedge can activate assigned buttons using alphanumeric characters. Barcodes containing characters associated with assigned buttons will trigger the action or application assigned to that button.

Triggers

Triggers are special customizable buttons that are mapped by default by **Quick Buttons**. Also, they can be set as wakeup buttons:

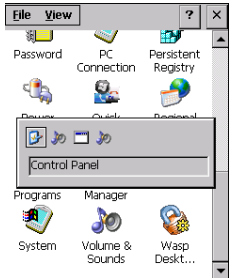


Triggers	Available Functions
Scan	barcode: activates the scanner.
Pistol Trigger	

Application Switcher

The application switcher provides the same functionality as the standard Windows® "Alt + Tab" function. This allows the user to switch between the various open applications.

The application switcher is activated via an assigned shortcut key specified in the **Quick Buttons** tab (see Persistent Registry on page 62). When the assigned button is pressed, the dialog box below is displayed:



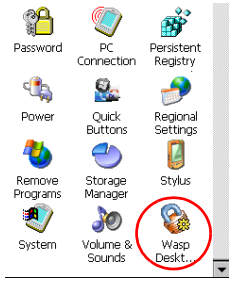
Press the assigned button to cycle through the running applications when the dialog box is open. Press **Enter** to switch to the selected application or **Esc** to close the application switcher.

Wasp Desktop Utility

Wasp Desktop Utility (WDU) allows administrators to configure Windows® devices to control individual user access. This includes the ability to:

- Prevent users from changing your device OS settings.
- Use the Application Selector to replace the desktop with a selection of authorized applications.
- Restrict user access in Internet Explorer.
- Set up configuration and customized error recovery mechanisms.
- Create quick access hot keys and configure trigger actions.

To open the WDU, double-tap the **Wasp Desktop Utility** icon on the Control Panel:

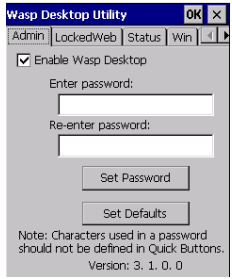


You can also open the WDU by pressing the appropriate key shortcut. The default is "Alt + 6".

NOTE

You can change the key combination and specific keys (such as <F1>-<F10>) by using Quick Buttons. See Quick Buttons on page 65 for more information.

Administrative Options (Admin tab)

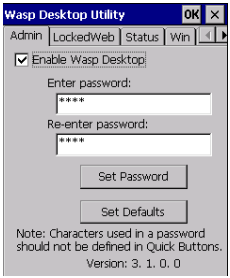


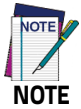
Command	Description
Enable Wasp Desktop	Select to activate the WDU functions such as Windows Access Restrictions and Application Selector.
Enter password	Allows to specify a password when this utility is launched.
Re-enter password	Re-enter the password for confirmation.
Set Password	Tap to enable the password.
Set Defaults	Tap to reset the default values of all the functions on all the tabs. After you select this option, you will receive a prompt to verify this selection.

Set a Password

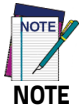
To set a password, follow the steps below:

1. Enter a password in the Enter password text box. By default the password is "1234". A password can consist of all standard keyboard characters.
2. Re-enter the password in the second text box.
3. Tap **Set Password** to enable the password.
4. Tap **OK** to close the **Password Set** dialog box.





Be sure to record the Password for future reference.



Tap "Set Password" before exiting WDU in order to store and activate your new password. It is not necessary to select Enable Wasp Desktop.

Set Defaults removes all custom settings and restore all the factory default settings, except a previously set password.

Change a Password

To change to a new password:

1. Enter a new value in the **Enter password** text box.
2. Re-enter the new value in the **Re-enter password** text box
3. Tap **Set Password**.

Remove a Password

To remove a password:

1. Enter blank in both password fields.
2. Tap **Set Password**.

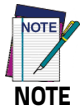
Password Request Dialog Box

Once the password is set, the next time you launch the **Wasp Desktop Utility**, the WDU password dialog box opens:

1. Type in your password using either the keypad on the unit, or using the stylus on the soft input panel (SIP). If you enter an incorrect password, the system will prompt you to input the correct one.
2. Tap OK to verify the password, or tap X to cancel.

Locked Web Browser Options (LockedWeb Tab)

Tap the **LockedWeb** tab to access the Locked Web Browser configuration.

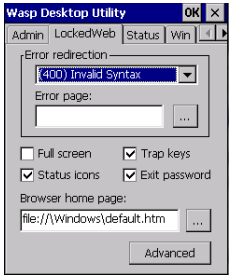


Locked Web Browser is disabled by default. To enable, use the Advanced Settings tab.

For further information about Locked Web Browser commands and metatags, see Locked Web Browser Options (LockedWeb Tab) on page 73.

Error Page Redirection

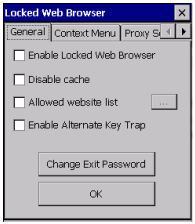
Use the **Error redirection** option to provide customized recovery from common errors. When an error occurs, the browser can redirect access to a specified error page with instructions on how to recover from the problem.

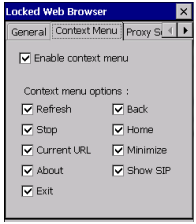


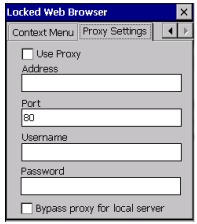
Error Redirection Options	
Error Type	The **Error Type** drop-down list displays available Error Types: (400) Invalid Syntax, (403) Request Forbidden, (404) Object Not Found, (406) No Response Format, (410) Page Doesn't Exist, (500) Internal Server Error, (501) Server Can't Do That, Generic Error, Network Disconnected.
Error Page	Edit this textbox to associate a website or html file with the specified error.
Other Options	
Full Screen	Sets the web browser in full screen mode.
Status Icon	Enables or disables the status icons view (see Status Icons Options (Status Tab) on page 78). The status icons can be configured on the **Status** tab of WDU.

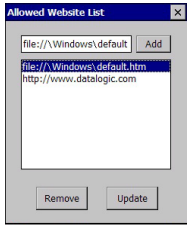
Trap Keys	When selected: ▪ all key presses will be trapped by the Locked Web Browser to prevent the user from accessing unsafe parts of the system. For example, pressing "Ctrl + O" to open a file will not work; ▪ safe key presses (e.g. Alpha numeric) will still get processed by the Locked Web Browser as normal. For example entering a number in a text field on a web page; ▪ Quick Buttons keys will not work in the LockedWeb Browser; ▪ all Locked Web Browser command keys will work (e.g. "Ctrl + O" to exit). When not selected: ▪ all keys will be processed normally by the system and the browser; ▪ Quick Buttons keys will work normally; ▪ all Locked Web Browser command keys will work (e.g. "Ctrl + O" to exit).
Other Options	
Exit password	When selected, you are prompted for a password to exit the Locked Web Browser. This password is different than the WDU password, with a default value of "0000", and can be changed in the **Advanced** settings.
Browser Home Page	Sets the Internet Explorer home page, regardless of the enable state of the Locked Web Browser.
Advanced	Allows to enable the Locked Web Browser and to configure advanced settings.

Advanced Settings







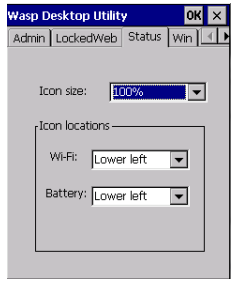
Advanced Locked Web Browser Options	
General	
Enable Locked Web Browser	Enables the Locked Web Browser when Internet Explorer is launched.
Disable Cache	Prevents the browser from loading the local intranet page from cache instead of navigating to the **Network Disconnected** error redirection page.
Allowed Website List	Restricts browsing only to files and URLs in the **Allowed Website List** (accessed by the ... button). The following dialog box appears:  Tap **Add** to add allowed URLs to the white list. Other sites will be restricted when the option is enabled. Domain names must be exactly specified.

Advanced Locked Web Browser Options	
Enable Alternate Key Trap	Allows for alternant method of capturing user keypresses to optimize lockdown experience. See also WDU LockedWeb tab Trap Keys option. Better choice is web page dependent.
Change Exit Password	Allows to change the password required to exit the Locked Web Browser (when the **Exit password** option is selected on the **LockedWeb** tab in WDU).
Context Menu	
Enable Context Menu	Enables the context menu accessed by a touch screen tap in the Locked Web Browser.
Refresh	Adds a **Refresh** item to the Locked Web Browser context menu.
Stop	Adds a **Stop** item to the Locked Web Browser context menu. Selecting during navigation stops the downloading of a page.
Current URL	Adds a **Current URL** item to the Locked Web Browser context menu. Selecting the item pops up a dialog displaying the URL for the current web page.
About	Adds an **About** item to the Locked Web Browser context menu. Selecting the item pops up the **About** dialog.
Back	Adds a **Back** item to the Locked Web Browser context menu. Selecting the item allows to navigate to the previous page.
Home	Adds a **Home** item to the Locked Web Browser context menu. Selecting the item allows to navigate to the IE home page.
Minimize	Adds a **Minimize** item to the Locked Web Browser context menu. Selecting the item minimizes the Locked Web Browser and allows access to other programs.
Show SIP	Adds a **Show SIP** item to the Locked Web Browser context menu. Selecting the item toggles the show state of the SIP.
Exit	Adds an **Exit** item to the Locked Web Browser context menu. Selecting the item exits the Locked Web Browser with an optional password (set in the Locked Web Browser Advanced options).

Advanced Locked Web Browser Options	
Proxy Settings	
Use Proxy	Enable proxy server to act as connection portal for access to a remote server.
Address	IP address of proxy server.
Port	Port of proxy server to use (default 80).
Username	User name on proxy server.
Password	Password for user name on proxy server.
Bypass proxy for local server	Enable bypass proxy server to access a local server.

Status Icons Options (Status Tab)

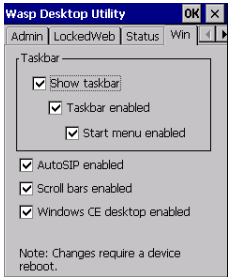
Tap the **Status** tab to access the Status Icons option. You can configure the view of some status icons that are used in **LockedWeb** and in **Application Selector** to display the status of Wi-Fi radio and battery.



Status Icons Options	
Icon size	Sets the status icons' size.
Icon locations	Selects the preferred location for each status icon.

Windows Controls (Win Tab)

Tap the **Win** tab to allow or restrict access to Windows system functions.



You can disable normal Windows functions such as the taskbar, leaving nothing but a blank workspace. This allows to run applications in full screen mode and prevents users from accidental or unauthorized use of the taskbar, Internet Explorer, and any other resident applications.

Windows Controls	
Show taskbar	Select to display/hide the Taskbar.
Taskbar enabled	Select to display the taskbar. This option is only available when **Show taskbar** is selected.

Windows Controls	
Start menu enabled	Select to display the **Start Menu**. This option is only available when **Taskbar enabled** is selected.
AutoSIP enabled	Enables the AutoSIP Windows feature.
Scroll bars enabled	Select to display horizontal and vertical scroll bars to help view large web pages which do not fit the screen. This control only takes effect in Locked Web Browser.
WEC7 desktop enabled	Select to display the desktop icons.

NOTE

Changes require a device reboot.

AppSelector Options (AppSelect Tab)

The Application Selector replaces the desktop and allows only authorized use of applications.

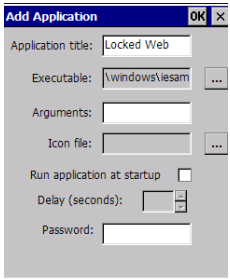
Tap the Application Selector tab (**AppSelect**) to edit, add, or delete applications for the application selector.

Application Selector Options	
Enable Application Selector	Select to enable the application selector.
Show status icons	Select to enable the status icons view (see Status Icons Options (Status Tab) on page 78). The status icons can be configured on the **Status** tab of WDU.
Authorized applications	List of applications that the user can access.
Application Selector Commands	
New	Tap to create a new application entry.
Edit	Tap to edit the selected entry.
Del	Tap to delete the selected entry.
Up/Down	Tap to move an entry up or down in the ListView.

Add Application

The **Add Application** dialog opens when you tap either **New** or **Edit**. Use it to configure and/or add/change a new application entry in the list.

Applications with the **Run Application at Startup** option enabled will start automatically when the Application Selector starts up.



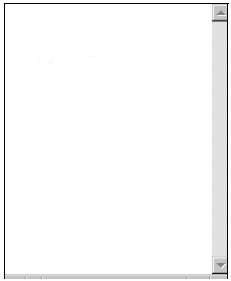
Command	Description
Application Title	Type the name of the application in the way it should appear on screen for the end-user.
Executable	Displays the path for the executable file you want to run.
Browse	Tap [...] to browse for the desired executable file. You can associate an executable program with the specified button. The results of this search are displayed in the **Executable** textbox.
Arguments	Type any command line arguments to be used when an application is executed.
Icon File	Displays the path to the desired icon file.
Browse	Tap [...] to browse for the desired icon file. The results of this search are displayed in the **Icon file** textbox.
Run Application at Startup	Select to force the application to auto start when the Application Selector starts up. Applications will be started in the order listed in the authorized application list.
Delay	Enter a delay duration in seconds in the combo box. This option delays auto start of application(s) to allow drivers to load before starting applications.
OK	Tap to add/save changes.
X	Tap to cancel.

App Selector (Application Selector)

The Application Selector is an application allowing a device to run in kiosk mode. The administrator can choose for the user to have access to the desktop or not.

The Application Selector can replace the desktop and limit the user to the specified list of applications.

By default, the Application Selector comes with no applications preset.



The administrator can customize this list as shown in AppSelector Options (AppSelect Tab) on page 80. Additionally, the page template can be modified to display a different background. Contact your Wasp representative for more information on this feature.

To run an application, tap its name.

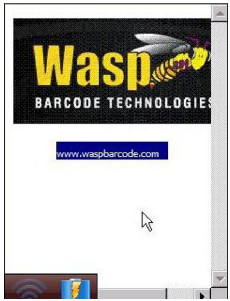
To exit the Application Selector, press "ALT + 6", deselect the **Enable Application Selector** check box on the **AppSelect Tab** and press **OK** to exit WDU.

Locked Web Browser

The Locked Web Browser is a browser helper object for Internet Explorer. It allows an administrator to define a restricted internet usage environment. Once in the restricted environment, a password is required to exit. This means users can only access web applications and websites set by the administrator.

NOTE

Configuration is set up through the WDU control panel. See Locked Web Browser Options (LockedWeb Tab) on page 73 for more information.



Full Screen Mode

CE Mode

In full screen mode, status icons may be used to display signal strength and battery status. In CE mode, the status bar is displayed but the user interaction is disabled.

In the restricted environment, the user can navigate by using the following keyboard shortcuts:

Home	Ctrl + 7
Refresh	Ctrl + 8
Cancel	Ctrl + 9
Exit	Ctrl + 0

For firmware versions 1.60 and greater, the following command line arguments are supported:

- /E optional parameter which allows for Exit without entering a password
- @URL optional parameter which specifies a URL to use as a home page.
- /C optional parameter which disables the ctrl keys (including the one to exit).

Locked Web Browser Special Metatags

General Metatag Comments

A metatag is a special HTML tag that stores information about a Web page but does not display in a Web browser. For example, metatags provide information such as the program used to create the page, a description of the page, and keywords relevant to the page.

As per the HTML specification, all metatags must be contained within a <head> ...

</head> tag set.

Also, the head tag set must be complete within the first 15K of the web page.

The Wasp Locked Web Browser defines some special metatags that allow the web application to interact with the device:

In particular, the special metatags allow it to:

- enable/disable scan engine triggers
- enable/disable specific symbologies in the scan engine
- easily assign a key press to a javascript function.

Metatag settings of trigger enable, symbology enable, or DL_Key assignments persist past the page in which they are loaded. The settings stay in effect until they are changed by another metatag.

Trigger Metatag

DL_Triggers – "Enable" or "Disable" all triggers

If the page contains this tag, the triggers are enable or disable depending on the "content=" value.

Example:

<meta http-equiv="DL_Triggers" content="Disable">

GetSerialNumber Meta-tag

DL_GetSerialNumber – Obtains the device serial number and sends it as an argument to a customer's javascript function.

Content – name of function to pass serial number to.

Example:

<meta http-equiv="DL_GetSerialNumber" content=

"Javascript:CustomerFunction">

When a page with this metatag is loaded, the content should be a javascript function that receives one parameter, the serial number. An example would be function CustomerFunction(SerialNumber).

Reboot – Warm Boot Device Metatag

DL_Reboot – Warm boot device.

Content – "OnPageLoad" – Warm boot immediately upon page load.

Example:

<meta http-equiv="DL_Reboot" content=" OnPageLoad ">

Exit Metatag

DL_Exit – Exit the Locked Web Browser.

Content – "OnPageLoad" – Exit immediately upon page load. If "Exit password" has been enabled in the Locked Web Browser options, the Exit password will be required before exit.

Example:

<meta http-equiv="DL_ Exit " content=" OnPageLoad ">

Decoding Metatags

Each decoding metatag has a possible content of "Enable" or "Disable". The settings are valid for the entire page (enables/disables each symbology).

DL_Code_39 DL_Code_128 DL_Code_I25 DL_Code_S25 DL_Code_M25 DL_Code_CODABAR DL_Code_93 DL_Code_UPCA DL_Code_UPCE DL_Code_EAN13 DL_Code_EAN8 DL_Code_MSI DL_Code_MSR DL_Code_GS1_14 DL_Code_GS1_LIMIT DL_Code_GS1_EXP DL_Code_PDF417 DL_Code_DATAMATIX

DL_Code_MAXICODE

DL_Code_TRIOPTIC

DL_Code_PHARMA39

DL_Code_RFID

DL_Code_MICROPDF417

DL_Code_COMPOSITE

DL_Code_QRCODE DL_Code_AZTEC

DL_Code_POSTAL

Examples:

<meta http-equiv="DL_Code_39" content="Disable">

<meta http-equiv="DL_Code_I25" content="Enable">

Key Press Metatags

The key press metatags can be used to call JavaScript functions. They have the name structure: "DL_Key_xxx" where xxx is the VKey code.

Example:

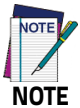
<meta http-equiv="DL_Key_13" content="Javascript:CheckEnter();">

Assigning a key press via a DL_Key metatag overrides its use on the page. For instance, when entering data in a text box a character assigned as a DL_Key would not be entered in the text box. Instead, the javascript action would occur.

Refer to the Microsoft website to find the list of all the possible Vkey codes:

http://msdn.microsoft.com/en-us/library/bb431750.aspx

http://msdn.microsoft.com/en-us/library/aa243025(VS.60).aspx



Because DL_Keys persist past the page in which they were loaded, the DL_Clear metatag is provided to clear the settings on subsequent page loads.

Scanning Metatags

DL_Scan – Captures scan results and sends barcode/tag value to a javascript function on the web page.

If the "content=" value is a javascript function the device will be taken out of keyboard wedge mode and start listening for scan events. A scanned barcode/tag result will be used as an argument to that javascript function which is then invoked.

If the "content=" value is "Wedge" then the device will stop listening for scanned event and enter keyboard wedge mode.

If the "content=" value is "Disable" then the device will stop listening for scanned events but not enter keyboard wedge mode.

Example:

<meta http-equiv="DL_Scan" content="Javascript:ValidateInput()">.

PAL and PAL Communicator

Pal is an easily customizable program that is ready-to-use for data entry needs.

Pal Communicator is a PC application that allows you to manage the data transfer between a host computer and mobile devices.

For further information refer to the Pal & Pal Communicator User's Guide, downloadable from our website (see Support Through the Website on page 163).

Autostart

The AutoStart program provides three functions:

- allows to create a list of applications (with optional command line arguments) to run automatically before loading CAB files;
- automatically reinstalls specified CAB files when the WDT92 is cold booted;
- allows to create a list of applications (with optional command line arguments) to run automatically after loading CAB files.

AutoStart launches each time the WDT92 is rebooted executing each line with the specified command line arguments. It will take into account any AutoStart options at the beginning of the line.

Upon a Cold Boot, AutoStart installs all the CAB files located in the \FlashDisk\CAB folder. If the CAB folder does not exist, no CAB files will be installed.

AutoStart will then run the **`Autostart.ini`** from the \flashDisk directory, executing each line with the specified command line arguments. It will take into account any AutoStart options at the beginning of the line.

Installing CAB Files

Copy any CAB files you want to install into the \FlashDisk\CAB folder. These CAB files will then be automatically in-stalled in alphabetical order the next time you start the device.

How AutoStart Uses Wceload

If you intend to create highly interactive installers, you should either install the CABs manually or review the section Interactive CAB Install on page 94.

In certain environments, CAB files will be deleted after execution. To prevent the CAB file from being deleted, write protect the file before copying the file onto the device.

CAB files are installed by AutoStart using the **Wceload.exe** application. The following table shows available command line option:

Option	Description
/noui	Specifies that you will not be prompted for any input during the installation. If the CAB file is signed, any responses will automatically be answered **Yes**. If the CAB is unsigned, then any responses will be answered **No**.
/silent	Suppresses dialog boxes during the installation.

Please refer to the Microsoft documentation on your device for further details on **Wceload.exe**.

Sample:

```
\Windows\Wceload.exe /delete 1 /noui /silent
"\FlashDisk\CAB\<cab file>"
```

Interactive CAB Install

If the CAB installer requires user interaction that must be performed during the AutoStart CAB installation process, you can specify a special file name to disable the silent mode installation. If this mode is specified, the CAB file will be installed with Wceload without any command line arguments specified.

An example of what AutoStart would execute is:

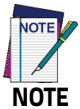
`\Windows\Wceload.exe <cab file>`

To force this mode of installation via AutoStart, rename the CAB file to include a **_** character before the **.cab** extension of the file.

Example:

`File.cab` should be renamed **`File_.cab`** to force AutoStart to not install the CAB in silent mode. This specially-named CAB file should be placed in the AutoStart folder with other CAB files intended for installation on the next reboot.

Autostart.ini



NOTE

A file named PreAuto.ini can also be created in addition to or instead of Autostart.ini. PreAuto.ini is executed before CAB files in the \FlashDisk\CAB folder are installed. Autostart.ini is executed after CAB files in the \FlashDisk\CAB folder are installed. The format for the PreAuto.ini is identical to that of Autostart.ini.

Autostart.ini is a text file that AutoStart will run upon startup of the WDT92, and after any CAB files are installed. This file should be placed in the \flashDisk folder. AutoStart will run the Autostart.ini file on each reboot of the device.

Line Formatting

Each line of the Autostart.ini can consist of Autostart options, an executable, and any command line arguments.

< Autostart option(s)> <full path to executable> <command line arguments>

Sample:

- \windows\pword.exe \file.doc

The following table breaks down the sample Autostart.ini line:

Autostart Option(s)	Full Path to Executable	Command Line Arguments
-	\windows\pword.exe	\file.doc

Spaces must be placed between each component of the line in the Autostart.ini.

If the executable path is in a folder that contains spaces in the name, quotes are required to distinguish what the actual executable name is. The following is an example of this:

```
"\Program Files\ScannerApp.exe" /run
    (valid)
\Program Files\ScannerApp.exe /run
    (invalid)
```

The second line is an invalid line because there is no way to distinguish the executable from the argument.

AutoStart Options

The table below shows the options you can use when writing a line in the Autostart.ini file.

Description	Character	Comments
Comment: This line will not be executed.	'#' OR ' ' (space)	This may only be used as the first character of the line. If the comment option is specified in the options elsewhere, it is ignored.
Do not wait on line completion: This will cause the line to execute and immediately move onto the next line.	'-'	
Query: Request user confirmation when running the executable.	'?'	This will halt parsing the Autostart.ini until the confirmation is answered. This is intended for debugging the Autostart.ini file.
Execute only on Cold Reset	'!'	
Execute only after a warm boot	'%'	

Cold Reset Only: This will cause the line to execute only after a Cold Reset.

NOTE

An empty line will be treated as a comment line.

Combining Options

Autostart options can be combined together as shown in the following sample:

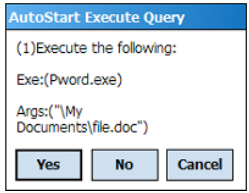
```
?- \Windows\Pword.exe
```

This line would:

- request confirmation before executing the line. The next line would not be processed before the confirmation is answered;
- run the next line without waiting on the current line to complete execution.

Query Option

The query option is intended for use when debugging the autostart.ini. When a line with this option is executed, the fol-lowing dialog box will appear with the specified executable and command line arguments. The populated fields shown in the AutoStart Execute Query are described the next table:



Field	Description
Line Number	The line number in the script being executed.
Exe	The executable as parsed by AutoStart.
Args	The argument as parsed by AutoStart.

NOTE

The fields may be broken up into multiple lines (as shown in the example) due to limited space in the dialog box.

AutoStart Query Options

Parentheses are used to surround the given field and make clear what the value of the field is.

The following table describes the results of each choice:

Button	Action
Yes	The current line will execute.
No	The current line will not execute. AutoStart will continue parsing the Autostart.ini.
Cancel	The current line will not execute and AutoStart will discontinue parsing the Autostart.ini.

Autostart.ini Samples

The next table is a collection of sample Autostart.ini lines:

Line	Description
? \windows\wceload.exe "\My Documents\Sample.cab"	This will confirm the execution of \Windows\wceload.exe with specified argument "\My Documents\Sample.cab"
\Program Files\App.exe	(invalid) This will execute \Program with the argument Files\App.exe.
\Program Files\App.exe /run	(invalid) This will execute \Program with the argument Files\App.exe /run.
"\Program Files\App.exe" /run	This will execute the program \Program Files\App.exe with the argument /run.
?- \Windows\Pword.exe	This will confirm the execution of \Windows\Pword.exe. If the execution is confirmed, AutoStart will immediately process the next line.
!"\Program Files\App.exe" /run	This will execute the program \Program Files\App.exe with the argument /run ONLY after a Cold Reset.

Tools

Windows Embedded Compact 7 SDK

The latest version of the Windows CE SDK can be downloaded from http://www.Wasp.com on the WDT92 product page. This installer includes a detailed help file and sample applications.

Prerequisites

- ActiveSync 4.5 for Windows XP computers: *http://www.microsoft.com/download/en/details.aspx?id=15*
- Windows Mobile Device Center 6.1 or newer for Windows 7 32-bit computers: http://www.microsoft.com/download/en/details.aspx?id=14
- Windows Mobile Device Center 6.1 or newer for Windows 7 64-bit computers: http://www.microsoft.com/download/en/details.aspx?id=3182
- For C, C++, C# development, Microsoft Visual Studio 2008:
  - Microsoft Visual Studio 2008 Service Pack 1: http://go.microsoft.com/fwlink/?LinkId=122094 or https://www.microsoft.com/en-us/download/details.aspx?id=13276 (iso file)
  - https://www.microsoft.com/en-us/download/details.aspx?id=11935: when debugging Windows Embedded Compact 7 application using the Visual Studio 2008 for Smart Devices debugger, a user might not be able to use the single step function. This update addresses this issue
  - http://www.microsoft.com/en-us/download/details.aspx?id=27729: an update is available for Microsoft Visual

Studio 2008 Service Pack 1 (SP1) that extends support for Windows Embedded Compact 7 (https://support.microsoft.com/en-us/kb/2468183)

- Windows Mobile 6 Professional Development Kits Refresh is required for all Windows Mobile or Windows Embedded Handheld 6.5 devices using C, C++, C# languages. Go to this link to download the file: http://www.microsoft.com/en-us/download/details.aspx?id=6135
- Windows Mobile 6 Professional Development Kits Refresh is also required for Windows CE devices using C, C++, C# languages when developing on a Windows 7 64-bit computer.

Data Capture

The WDT92 has an integrated imager that collects data by scanning barcodes.

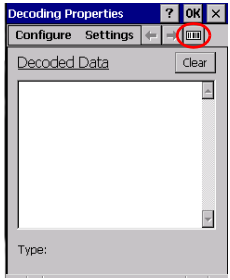
See Data Capture Configuration on page 32 for instructions on configuring the scanner settings.

Imager 1D Data Capture

The imager uses digital camera technology to take a digital picture of a barcode, the image is stored in memory and software decoding algorithms are executed to extract the data from the image.

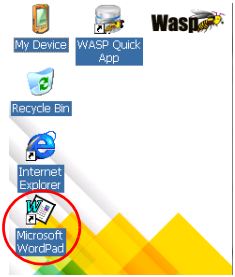
To scan a barcode symbol:

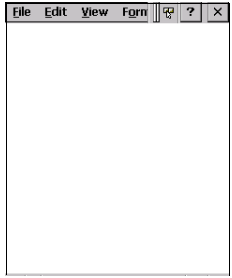
1. From the **Decoding Properties** window, tap the barcode icon to open the **Decoded Data** window.



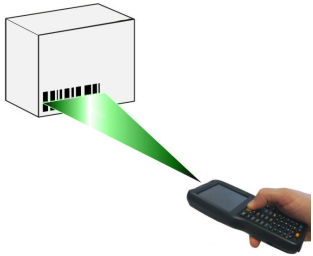
or

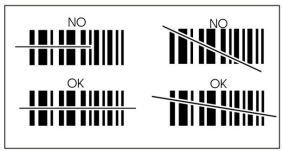
From the WEC7 desktop, double-tap the **Microsoft WordPad** icon:





2. Point the scan window at the barcode from a distance within the reading range.
3. Press the scan key or the pistol trigger. The green lighted band emitted by the imager must completely cross the barcode as shown in the figure on the next page.





If the scan has been successful:

- If enabled, the good read LED glows steadily green for a configurable time.
- If enabled, the good read beep plays.
- If enabled, the Green Spot projects a green spot onto the barcode image.
- The barcode type and content data display on the screen.

The field of view changes its size as you move the reader closer or farther away from the barcode.

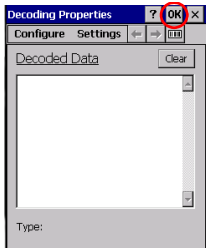
Scan symbols with smaller bars or elements (mil size) closer to the unit and those with larger bars or elements (mil size) farther from the unit. Hold the WDT92 between two and nine inches (depending on symbol density) from the symbol.

Imager 2D Data Capture

The imager uses digital camera technology to take a digital picture of a barcode, the image is stored in memory and software decoding algorithms are executed to extract the data from the image. The omni-directional scanning does not require that the operator orient the barcode to align with the scan pattern.

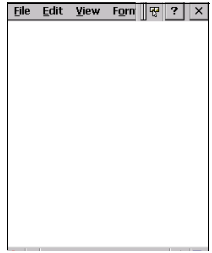
To scan a barcode symbol:

1. From the **Decoding Properties** window, tap the barcode icon to open the **Decoded Data** window.



or

From the WEC7 desktop, double-tap the Microsoft WordPad icon:



2. Point the scan window at the barcode from a distance within the reading range.
3. Press the scan key or the pistol trigger. The imager projects a laser aiming pattern similar to those used on cameras. The aiming pattern is used to position the barcode or object within the field of view.

4. Center the symbol in any orientation within the aiming pattern. Ensure the entire symbol is within the rectangular area formed by the brackets in the aiming pattern, then either wait for the timeout or release the scan key to capture the image. A red beam illuminates the symbol, which is captured and decoded.

Linear Bar Code

2D Matrix Symbol

If the scan has been successful:

- If enabled, the good read LED glows steadily green for a configurable time.
- If enabled, the good read beep plays.
- The barcode type and content data display on the screen.

The field of view changes its size as you move the reader closer or farther away from the barcode. The aiming pattern is smaller when the imager is closer to the barcode and larger when it is farther from the barcode.

Scan symbols with smaller bars or elements (mil size) closer to the unit and those with larger bars or elements (mil size) farther from the unit. Hold the WDT92 between two and nine inches (depending on symbol density) from the symbol, centering the aiming pattern cross hairs on the symbol.

Connections

There is more than one way to connect the WDT92 to a host PC running Windows. Each requires specific connections in order to function properly.

Windows Mobile® Device Center

The desktop application Windows Mobile® Device Center allows you to synchronize information between a desktop computer and your WDT92. Synchronization compares the data on the WDT92 with that on the desktop computer and updates both with the most recent information.

Windows Mobile® Device Center can be downloaded from Microsoft website www.microsoft.com. It is only compatible with Windows Vista and Windows 7; if you run Windows XP or earlier, you have to download Microsoft ActiveSync.

You can establish a connection to your WDT92 through the following interfaces:

- USB either directly or through the Single Dock.
- RS232 either directly or through the Single Dock.
- Bluetooth® (see Bluetooth® Manager Device Setup on page 55)

To establish a partnership between the WDT92 and a host PC, start Windows Mobile® Device Center and follow the steps below:

1. Connect the WDT92 to the host PC. Windows Mobile® Device Center configures itself and then opens.
2. On the license agreement screen, click Accept.
3. On the Windows Mobile® Device Center's Home screen, click Set up your device.

4. Select the information types that you want to synchronize, then click Next.
5. Enter a device name and click Set Up.

When you finish the setup wizard, Windows Mobile® Device Center synchronizes the mobile computer automatically. Microsoft® Office Outlook® emails and other information will appear on your device after synchronization.

NOTE

The WDT92 running WEC7 does not come equipped with Microsoft Office Outlook or any other application that allows users to view contact, calendar, e-mail, or task data. Users can view files copied to the WDT92 by WMDC's file synchronization feature.

USB Connection

USB Direct Connection

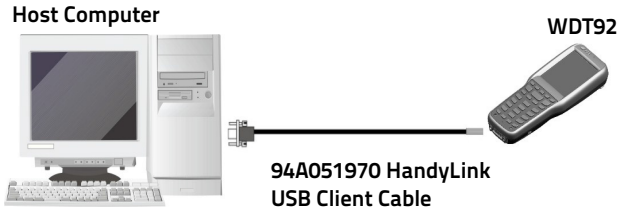
You can use any standard USB charge/communication cable to directly connect the WDT92 to a host computer and transfer data through the USB interface.

NOTE

Connection through the cable complies to USB 2.0 standard.

USB HandyLink™ Connection

You can use the Wasp HandyLink cable 94A051970 to directly connect the WDT92 to a host computer to transfer data through the USB interface.



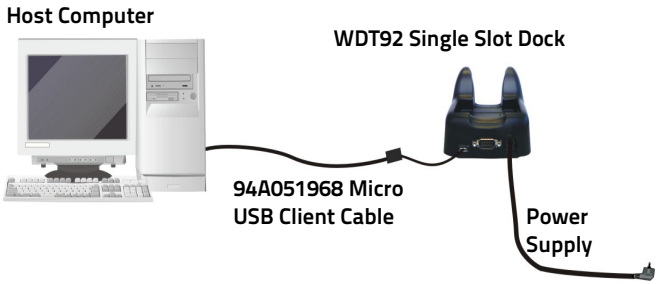
NOTE

The HandyLink cable complies to USB 2.0 standard.

USB Dock Connection

The Single Dock can be connected to the host computer by means of the Micro-B USB cord 94A051968.

Once the host computer has been turned on, insert the WDT92 mobile computer into the dock.



NOTE

Connection through the dock complies to USB 2.0 standard.

NOTE

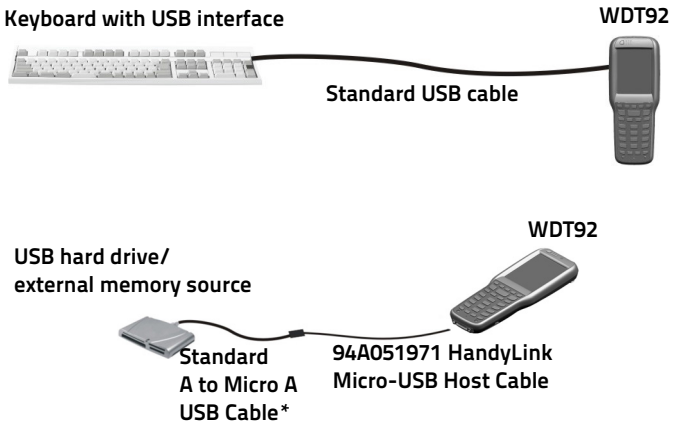
The actual data transfer speed can be appreciably lower than the maximum theoretical speed.

CAUTION

Don't insert the wall charger into the micro USB port when the WDT92 is inserted into the dock.

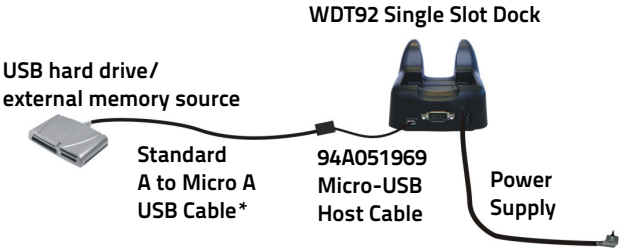
Connection to USB Peripherals

You can connect the WDT92 to a standard 101-key USB keyboard or to a standard USB flash memory device. Connect the terminal to a standard USB cable or to the Wasp 94A051971 HandyLink Micro-USB host cable (together with a standard USB cable* if needed). For all these devices maximum current draw must be less than 100mA.



* A standard USB cable is needed only if the USB hard driver or flash memory device does not include its own cable with a "A" plug on it.

Connect the Single Slot Dock to the peripheral by means of a Micro-A USB cord, or use a Micro-A to Std-A receptacle USB adapter such as Wasp 94A051969 (together with a standard USB cable* if needed).



NOTE

WDT92 works with most of the mentioned USB peripherals. Wasp cannot guarantee the interoperability of WDT92 with all devices on the market.

NOTE

Connection complies to USB 2.0 standard.

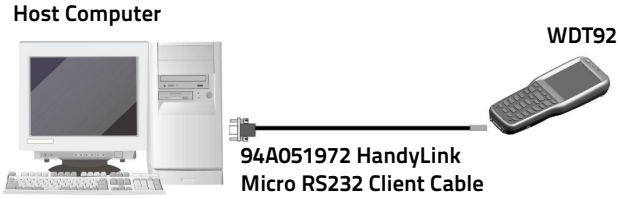
NOTE

The actual data transfer speed can be appreciably lower than the maximum theoretical speed.

* A standard USB cable is needed only if the USB hard driver or flash memory device does not include its own cable with a "A" plug on it.

RS232 Connection

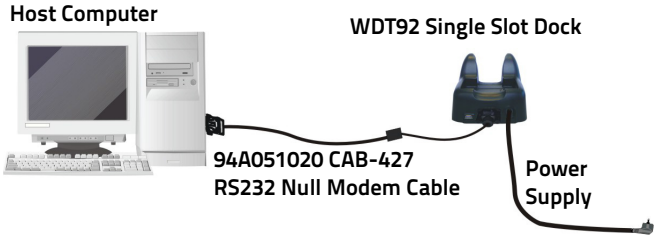
You can use the Wasp 94A051972 cable to directly connect the WDT92 to a host computer to transfer data through the RS232 interface.



RS232 Dock Connection

The Single Slot Dock can be connected to the Host by means of a standard null modem cable such as Wasp 94A051020 CAB-427 for 9-pin connections.

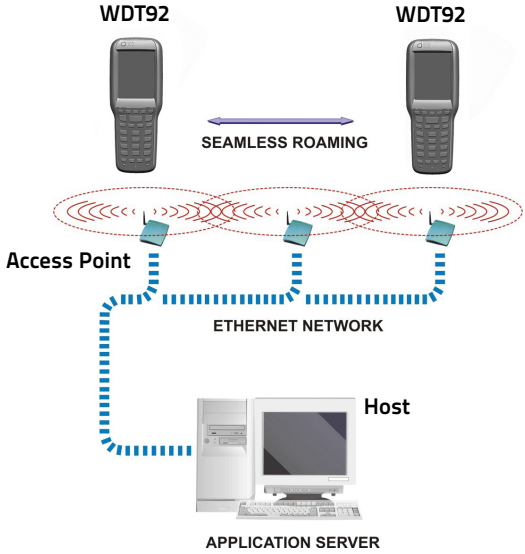
Once the host computer has been turned on, insert the WDT92 mobile computer into the cradle.



WLAN Connection

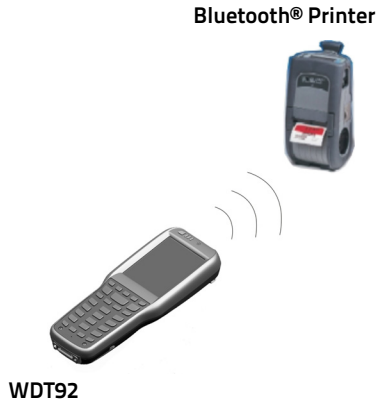
WDT92 802.11 a/b/g/n radio models can communicate with the host using the on-board Wi-Fi radio and an Access Point connected to a network.

For more information on this utility, refer to WCU (Wireless Configuration Utility) on page 43.



WPAN Connection

WDT92 Bluetooth® models can communicate with a Bluetooth® device, such as a printer, within a range of 10 m, using the on-board Bluetooth® module.



NOTE **To extend battery life, the Bluetooth® module is off by default. To enable the Bluetooth®, open the Bluetooth Manager Window (see Bluetooth® Manager Device Setup on page 55).**

NOTE **Suspending the terminal powers off the Bluetooth® radio and drops the Bluetooth® connection. When the terminal resumes, it takes approximately 10 seconds for the Bluetooth® radio driver to re-initialize the radio.**

Area coverage and Bluetooth® radio performance may vary, due to environmental conditions or interference caused by other devices (microwave ovens, radio transmitters, etc.).

Wireless and Radio Frequencies Warnings

WARNING

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications or attachments could damage the product and may violate laws and regulations.

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals generated by WDT92.

Wasp recommends persons with pacemakers or other medical devices to follow the same recommendations provided by Health Industry Manufacturers Associations for mobile phones.

Persons with pacemakers:

- **Should ALWAYS keep this device more than twenty five (25) cm from their pacemaker and/or any other medical device;**
- **Should not carry this device in a breast pocket;**
- **Should keep the device at the opposite side of the pacemaker and/or any other medical device;**
- **Should turn this device OFF or move it immediately AWAY if there is any reason to suspect that interference is taking place.**
- **Should ALWAYS read pacemaker or any other medical device guides or should consult the manufacturer of the medical device to determine if it is adequately shielded from external RF energy.**

WARNING

In case of doubt concerning the use of wireless devices with an implanted medical device, contact your doctor.

Turn this device OFF in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

An air bag inflates with great force. DO NOT place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If a vehicle's wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Turn off the device when in any area with a potentially explosive atmosphere. Observe restrictions and follow closely any laws, regulations, warnings and best practices on the use of radio equipment near fuel storage areas or fuel distribution areas, chemical plants or where any operation involves use of explosive materials.

WARNING

Do not store or carry flammable liquids, explosive gases or materials with the device or its parts or accessories.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked or shown.

Sparks in such areas could cause an explosion or fire, resulting in injury or even death.

Technical Features

Technical Data

Physical Characteristics	
Dimensions	Handheld: 19.3 x 7.6 x 4.2 cm (6.1 x 3.5 cm at keyboard) / 7.6 x 3.0 x 1.3 in (2.4 x 1.4 in at keyboard) Pistol Grip: 19.3 x 7.6 x 15.6 cm / 7.6 x 3.0 x 6.2 in
Weight	Handheld (with standard battery): 388 g / 13.7 oz Handheld (with hi-cap battery): 422 g / 14.9 oz Pistol Grip (with standard battery): 482 g / 17.0 oz Pistol Grip (with hi-cap battery): 516 g / 18.2 oz
Display	TFT / Transflective LCD with 240 x 320 pixel resolution LED backlight and integrated touch screen, 3.2 inch diagonal
Keyboard	50-key full alphanumeric, 38-key functional or 28-key numeric keyboard with backlight

Environmental	
Drop Resistance	Withstands drops from 1.8 m / 6.0 ft onto concrete
Particulate and Water Sealing Temperature	IP64 Operating: -10 to 50°C / 14 to 122°F Storage: -20 to 70°C / -4 to 158°F

Electrical	
Battery	Removable battery pack with rechargeable Lilon batteries MicroUSB for fast battery charging Standard: 3.7 V; 3,000 mAh (11.1 Watt-hours); standard on all handheld models Extended: 3.7 V; 5,200 mAh (19.2 Watt-hours); standard on all Pistol Grip models
Wireless Communications	
Local Area Network (WLAN)	TI Wi-Link 8, IEEE 802.11a/b/g/n Frequency Range: Country dependent, typically 2.4 and 5 GHz; Cisco Compatible CCX v4 Security
Personal Area Network (WPAN)	Bluetooth v4 with BLE (Android models) Bluetooth v2.1 + EDR (WEC7 models)
Interfaces	
Interfaces	Main connector with USB 2.0 High Speed Host (480 Mbps) and Client, RS-232 up to 115.2 Kbps MicroUSB port for power and communications Ethernet: via single dock (external module) or multi-slot dock

System	
Operating System	Microsoft Windows Embedded Compact 7 (WEC7)
Audio	Headset (not provided; it requires a HandyLink adapter) Main (rear) speaker Receiver (front) speaker
Expansion Slots	Micro Secure Digital slot (SDHC) up to 32 GB
Microprocessor	TI OMAP4 @ 1 GHz
Memory	RAM Memory: 1 GB Flash Memory: 8 GB (partially used for firmware and reserved data)

Software	
Applications	Pal Application Library pre-licensed
Configuration & Maintenance	42 Gears SureLock pre-licensed for device, SOTI MobiControl, Wasp Desktop Utility (WDU) pre-licensed for device lockdown
Development	Wasp Windows SDK™, MCL-Collection™
Browser	SureLock locked web browser pre-licensed

Decoding Capability	
1D / Linear Codes	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.
2D Codes	Aztec Code, Data Matrix, MaxiCode, PDF417, MicroPDF417, Micro QR Code, QR Code.
Postal Codes	Australian Post, Japanese Post, KIX Code, Royal Mail, USPS Intelligent Mail, USPS PLANET, USPS POSTNET.
GS1 Composite Codes	UPC/EAN/JAN Composites, GS1 DataBar Composites and GS1-128 Composite
Reading Performance	
2D Imager (Standard Range)	Megapixel sensor for extended range. White LED Illumination. Optical Resolution: 1D codes: 3 mils; 2D codes: 6.6 mils. Depth of Field (typical): 4.5 to 74 cm / 1.7 to 29.1 in (13 mil/EAN), depending on bar code density and type.
1D Imager	2500 pixel sensor; Sharp green LED scan line. Optical Resolution: 2.5 mils (linear codes). Depth of Field: 4.0 to 74 cm / 1.5 to 29.1 in (13 mil/EAN), depending on bar code density and type.

Safety & Regulatory	
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use.
Enviromental Compliance	Complies to EU RoHS.
Laser Classifications	VLD - Class 2 IEC/EN60825-1; Compliant with 21 CFR 1040.10 except for deviations pursuant to laser notice No. 50 dated June 24, 2007.
LED Classification	Exempt Risk Group IEC/EN62471.
Warranty	
Warranty	1-Year Factory Warranty.

Decode Distances

WDT92 Imager 1D Linear CCD

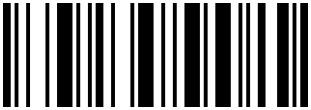
Resolution (mils)/ Barcode Type	Far Typical Working Ranges
3 mils Code 39	6.30 in 16 cm
5 mils Code 39	11.81 in 30 cm
10 mils Code 128	19.69 in 50 cm
13 mils EAN	25.20 in 64 cm
20 mils Code 39	47.24 in 120 cm

WDT92 Imager 2D

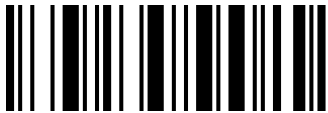
Resolution (mils)/ Barcode Type	Far Typical Working Ranges
3 mils Code 39	7.48 in 19 cm
5 mils Code 39	12.99 in 33 cm
10 mils Datamatrix	9.84 in 25 cm

13 mils EAN13	25.59 in 65 cm
15 mils Datamatrix	13.78 in 35 cm
20 mils Code 39	39.37 in 100 cm

Test Codes

High Density Codes - 0.25 mm (10 mils)
Code 39  17162
Interleaved 2/5  0123456784
Code 128  test

High Density Codes (continued) - 0.25 mm (10 mils)
80% EAN 13 
80% EAN 8 

Medium Density Codes - 0.38 mm (15 mils)
Code 39  17162
Interleaved 2/5  0123456784
Code 128  test

Medium Density Codes (continued) - 0.38 mm (15 mils)
100% EAN 13 
100% EAN 8 

Low Density Codes - 0.50 mm (20 mils)
Code 39  17162
Interleaved 2/5  0123456784
Code 128  test

Low Density Codes (continued) - 0.50 mm (20 mils)
120% EAN 13 
120% EAN 8 

2D Codes
Datamatrix ECC200  Example
Inverse Datamatrix ECC200  Example

NOTES

Maintenance

Cleaning the Device

Periodically clean the WDT92 device using a soft cloth slightly dampened with only water or Isopropyl Alcohol (70%). Do not use any other cleaning agents (e.g. different alcohol, abrasive or corrosive products, solvents) or abrasive pads to clean the device.

Dock Contacts Cleaning Procedure

All exterior metal contacts/connectors exposed to spills, dirt or debris accumulation require periodic cleaning to ensure best performance during charging and data transmission.

Use a soft, lint-free dry cloth or lens tissue to clean the product (contacts and plastics). An antistatic cloth is preferable but you can also use a cotton cloth. Avoid wool, synthetic cloths or other materials that can cause electrostatic discharges.

If the contacts are very dirty, clean them with a soft cloth moistened with a diluted non-aggressive cleaning solution or a diluted isopropyl alcohol solution (20% maximum). A cotton swab may be used only on hard-to-reach contacts.

Clean the contacts when you see traces of dirt or when you experience solid connection issues between the terminal and its dock (device not charging or intermittent communications). It is however suggested to clean the contacts every 6 months (more often if the environment is dusty).

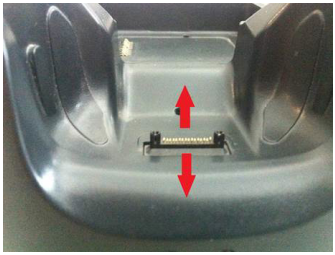
If the plastic areas are very dirty use only a cloth dampened with water.

CAUTION

Do not use abrasive or aggressive cleaning agents or abrasive pads to clean electric contacts, scan windows or plastics.

Cleaning the Dock Contacts

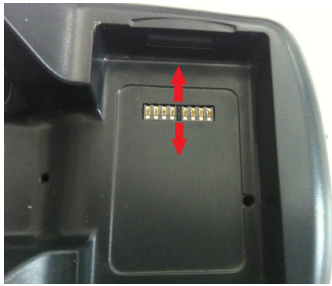
1. Remove the power cable before cleaning the contacts.
2. Use a soft dry cloth as suggested above. If the product is very dirty, moisten the cloth in a non-aggressive cleaning solution or diluted isopropyl alcohol solution (20% maximum).
3. Gently rub the cloth back and forth ONLY along the contacts, following the directions indicated by the red arrows. Use care not to leave any cloth residue.



4. Use a dry cloth to remove any dirt near the contacts area and to clean the plastic parts. If the plastic parts of the equipment are very dirty, slightly dampen the cloth with only water.
5. Repeat steps 2, 3 and 4 using a clean dry cloth.
6. Allow the cleaning solution to fully evaporate before powering up the product.

Cleaning the Dock Auxiliary Battery Contacts

1. Remove the power cable and the Ethernet module before cleaning the contacts.
2. Use a soft dry cloth as suggested above. If the product is very dirty, moisten the cloth in a non-aggressive cleaning solution or diluted isopropyl alcohol solution (20% maximum).
3. Gently rub the cloth back and forth ONLY along the contacts, following the directions indicated by the red arrows. Use care not to leave any cloth residue.



4. Use a dry cloth to remove any dirt near the contacts area and to clean the plastic parts. If the plastic parts of the equipment are very dirty, slightly dampen the cloth with only water.
5. Repeat steps 2, 3 and 4 using a clean dry cloth.
6. Allow the cleaning solution to fully evaporate before powering up the product.

Ergonomic Recommendations

In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

Safety and Regulatory Information

NOTE

Read this manual carefully before performing any type of connection to the WDT92.

The user is responsible for any damage caused by incorrect use of the equipment or by inobservance of the indication supplied in this manual.

General Safety Rules

- Before using the device and the battery pack, read carefully the chapter Battery on page 7.
- Use only the components and accessories supplied by the manufacturer for the specific WDT92 being used.
- Do not attempt to disassemble the WDT92, as it does not contain parts that can be repaired by the user. Any tampering will invalidate the warranty.
- When replacing the battery pack or at the end of the operative life of the WDT92, disposal must be performed in compliance with the laws in force in your jurisdiction.
- Do not submerge the WDT92 in liquid products.
- For further information or support, refer to this manual and to the Wasp web site: www.waspbarcode.com.

Power Supply

The device is intended to be supplied by a self-contained rechargeable Lithium Ion battery pack (UL listed LPS/SELV power source) and/or by UL Listed/CSA Certified Power Unit LPS/SELV power source which supplies power directly to the unit via the micro USB connector of the cable.

The device could be also used with Certified Accessories (Dock/Cradle). The Dock/Cradle accessories are intended to be supplied by a UL Listed/CSA Certified Power Unit LPS/SELV which supplies power via the power connector of the cable.

Any changes or modifications to equipment, not expressly approved by Wasp could void the user's authority to operate the equipment.

Laser Safety

The following information applies to Laser Aiming System, used on WDT92 variants with 2D imager.

The laser light is visible to the human eye and is emitted from the window indicated in the figure below.

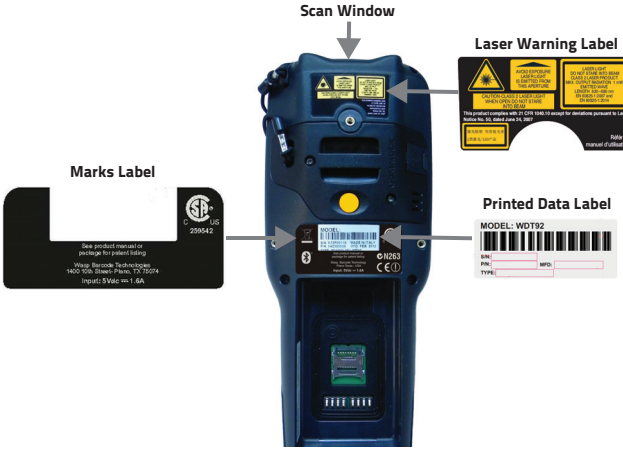
LASER LIGHT - DO NOT STARE INTO BEAM

CLASS 2 LASER PRODUCT

MAX OUTPUT RADIATION 1 mW

COMPLIANT WITH EN 60825-1 (2007) and EN 60825-1 (2014)

The artwork below may be only a draft. Please refer to the label attached to the product for information about certification marks.


Scan Window
Laser Warning Label
Marks Label
Printed Data Label
MODEL: WDT92
S/N:
P/N:
MFD:
TYPE:
See product manual or package for patent listing
Wasp Barcode Technologies
1400 10th Street• Plano, TX 75074
Input: 5Vdc == 1.6A
239542

ITALIANO	DEUTSCH	FRANÇAIS	ESPAÑOL
LA LUCE LASER È VISIBILE ALL'OCCHIO UMANO E VIENE EMESSA DALLA FINESTRA INDICATA NELLA FIGURA.	DIE LASER-STRAHLUNG IST FÜR DAS MENSCHLICHE AUGE SICHTBAR UND WIRD AM STRAHLAUS TRITTSFENSTER AUSGESENDET (SIEHE BILD)	LE RAYON LASER EST VISIBLE À L'OEIL NU ET IL EST ÉMIS PAR LA FENÊTRE DÉSIGNÉE SUR L'ILLUSTRATION DANS LA FIGURE	A LUZ LÁSER ES VISIBLE AL OJO HUMANO Y ES EMITIDA POR LA VENTANA INDICADA EN LA FIGURA.
LUCE LASER NON FISSARE IL FASCIO APPARECCHIO LASER DI CLASSE 2 MASSIMA POTENZA MEDIA DI USCITA: 1 mW LUNGHEZZA D'ONDA EMESSA: 630~680 nm CONFORME A EN 60825-1 (2007) E EN 60825-1 (2014)	LASERSTRAHLUNG NICHT IN DER STRAHL BLINKEN PRODUKT DER LASERKLASSE 2 MAXIMALE DURCHSCHNITTLICHE AUSGANGLEISTUNG: 1 mW WELLENLÄNGE: 630~680 nm ENTSPR. EN 60825-1 (2007) UND EN 60825-1 (2014)	RAYON LASER EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2 MAXIMUM PUISSANCE MOYENNE DE SORTIE: 1 mW LONGUER D'ONDE EMISE: 630~680 nm CONFORME A EN 60825-1 (2007) ET EN 60825-1 (2014)	RAYO LÁSER NO MIRAR FIJO EL RAYO APARATO LÁSER DE CLASE 2 MÁXIMA POTENCIA MEDIA DE SALIDA: 1 mW LONGITUD DE ONDA EMITIDA: 630~680 nm CONFORME A EN 60825-1 (2007) Y EN 60825-1 (2014)

ENGLISH

The following information is provided to comply with the rules imposed by international authorities and refers to the correct use of your device.

STANDARD LASER SAFETY REGULATIONS

This product conforms to the applicable requirements of both CDRH 21 CFR 1040 and EN 60825-1 at the date of manufacture.

For installation, use and maintenance, it is not necessary to open the device.

WARNING

Do not attempt to open or otherwise service any components in the optics cavity. Opening or servicing any part of the optics cavity by unauthorized personnel may violate laser safety regulations. The optics system is a factory only repair item.

WARNING

Use of controls or adjustments or performance of procedures other than those specified herein may result in exposure to hazardous visible laser light.

The product utilizes a low-power laser diode. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring at the beam as one would with any very strong light source, such as the sun. Avoid shining laser light into any person's eye, even through reflective surfaces such as mirrors, etc.

WARNING

Use of optical systems with the scanner will increase eye hazard. Optical instruments include binoculars, microscopes, eye glasses and magnifying glasses.

ITALIANO

Le seguenti informazioni vengono fornite dietro direttive delle autorità internazionali e si riferiscono all'uso corretto del terminale.

NORMATIVE STANDARD PER LA SICUREZZA LASER

Questo prodotto risulta conforme alle normative vigenti sulla sicurezza laser alla data di produzione: CDRH 21 CFR 1040 e EN 60825-1.

Non si rende mai necessario aprire l'apparecchio per motivi di installazione, utilizzo o manutenzione

ATTENZIONE

Non tentare di accedere allo scomparto contenete i componenti ottici o di farne la manutenzione.

L'apertura dello scomparto, o la manutenzione di qualsiasi parte ottica da parte di personale non autorizzato, potrebbe violare le norme della sicurezza. Il sistema ottico può essere riparato solamente alla fabbrica.

ATTENZIONE

L'utilizzo di procedure o regolazioni differenti da quelle descritte nella documentazione può provocare un'esposizione pericolosa a luce laser visibile.

Il prodotto utilizza un diodo laser a bassa potenza. Sebbene non siano noti danni riportati dall'occhio umano in seguito ad una esposizione di breve durata, evitare di fissare il raggio laser così come si eviterebbe qualsiasi altra sorgente di luminosità intensa, ad esempio il sole. Evitare inoltre di dirigere il raggio laser negli occhi di un osservatore, anche attraverso superfici riflettenti come gli specchi.

ATTENZIONE

L'uso di strumenti ottici assieme allo scanner può aumentare il pericolo di danno agli occhi. Tali strumenti ottici includono cannocchiali, microscopi, occhiali e lenti di ingrandimento.

DEUTSCH

Die folgenden Informationen stimmen mit den Sicherheitshinweisen überein, die von internationalen Behörden auferlegt wurden, und sie beziehen sich auf den korrekten Gebrauch vom Terminal.

NORM FÜR DIE LASERSICHERHEIT

Dies Produkt entspricht am Tag der Herstellung den gültigen EN 60825-1 und CDRH 21 CFR 1040 Normen für die Lasersicherheit.

Es ist nicht notwendig, das Gerät wegen Betrieb oder Installations-, und Wartungs-Arbeiten zu öffnen.

ACHTUNG

Unter keinen Umständen darf versucht werden, die Komponenten im Optikhohlraum zu öffnen oder auf irgendwelche andere Weise zu warten. Das Öffnen bzw. Warten der Komponenten im Optikhohlraum durch unbefugtes Personal verstößt gegen die Laser-Sicherheitsbestimmungen. Das Optiksystem darf nur werkseitig repariert werden.

ACHTUNG

Jegliche Änderungen am Gerät sowie Vorgehensweisen, die nicht in dieser Betriebsanleitung beschreiben werden, können ein gefährliches Laserlicht verursachen.

Der Produkt benutzt eine Laserdiode. Obwohl zur Zeit keine Augenschäden von kurzen Einstrahlungen bekannt sind, sollten Sie es vermeiden für längere Zeit in den Laserstrahl zu schauen, genauso wenig wie in starke Lichtquellen (z.B. die Sonne). Vermeiden Sie es, den Laserstrahl weder gegen die Augen eines Beobachters, noch gegen reflektierende Oberflächen zu richten.

ACHTUNG

Die Verwendung von Optiksystemen mit diesem Scanner erhöht die Gefahr einer Augenbeschädigung. Zu optischen Instrumenten gehören unter anderem Ferngläser, Mikroskope, Brillen und Vergrößerungsgläser.

FRANÇAIS

Les informations suivantes sont fournies selon les règles fixées par les autorités internationales et se réfèrent à une correcte utilisation du terminal.

NORMES DE SECURITE LASER

Ce produit est conforme aux normes de sécurité laser en vigueur à sa date de fabrication: CDRH 21 CFR 1040 s et EN 60825-1.

Il n'est pas nécessaire d'ouvrir l'appareil pour l'installation, l'utilisation ou l'entretien.

ATTENTION

Ne pas essayer d'ouvrir ou de réparer les composants de la cavité optique. L'ouverture de la cavité optique ou la réparation de ses composants par une personne non qualifiée peut entraîner le nonrespect des règles de sécurité relatives au laser. Le système optique ne peut être réparé qu'en usine.

ATTENTION

L'utilisation de procédures ou réglages différents de ceux donnés ici peut entraîner une dangereuse exposition à lumière laser visible.

Le produit utilise une diode laser. Aucun dommage aux yeux humains n'a été constaté à la suite d'une exposition au rayon laser. Eviter de regarder fixement le rayon, comme toute autre source lumineuse intense telle que le soleil. Eviter aussi de diriger le rayon vers les yeux d'un observateur, même à travers des surfaces réfléchissantes (miroirs, par exemple).

ATTENTION

L'utilisation d'instruments optiques avec le scanneur augmente le danger pour les yeux. Les instruments optiques comprennent les jumelles, les microscopes, les lunettes et les verres grossissants.

ESPAÑOL

Las informaciones siguientes son presentadas en conformidad con las disposiciones de las autoridades internacionales y se refieren al uso correcto del terminal.

NORMATIVAS ESTÁNDAR PARA LA SEGURIDAD LÁSER

Este aparato resulta conforme a las normativas vigentes de seguridad láser a la fecha de producción: CDRH 21 CFR 1040 y EN 60825-1.

No es necesario abrir el aparato para la instalación, la utilización o la manutención.

ATENCIÓN

No intente abrir o de ninguna manera dar servicio a ninguno de los componentes del receptáculo óptico. Abrir o dar servicio a las piezas del receptáculo óptico por parte del personal no autorizado podría ser una violación a los reglamentos de seguridad. El sistema óptico se puede reparar en la fábrica solamente.

ATENCIÓN

La utilización de procedimientos o regulaciones diferentes de aquellas describidas en la documentación puede causar una exposición peligrosa a la luz láser visible.

El aparato utiliza un diodo láser a baja potencia. No son notorios daños a los ojos humanos a consecuencia de una exposición de corta duración. Eviten de mirar fijo el rayo láser así como evitarían cualquiera otra fuente de luminosidad intensa, por ejemplo el sol. Además, eviten de dirigir el rayo láser hacia los ojos de un observador, también a través de superficies reflectantes como los espejos.

ATENCIÓN

El uso de sistemas ópticos con el escáner aumentará el riesgo de daños oculares. Los instrumentos ópticos incluyen binoculares, microscopios, lentes y lupas.

LED Class

LED illuminators integrated in the 1D and 2D imager are classified as "EXEMPT RISK GROUP" according to IEC62471.

FCC/IC Labeling

FCC ID: C53WDT92
IC: 11678A - WDT92
HVIN: WDT92 WB HH

FCC Compliance

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1)this device may not cause harmful interference, and

(2)this device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

This device is restricted to indoor use when operated in the 5.15 to 5.25 GHz frequency range.

Changes or modifications made to this equipment not expressly approved by Wasp may void the FCC authorization to operate this equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not

installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

ISED Compliance

NOTICE:

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1)this device may not cause harmful interference, and

(2)this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAUTION:

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

AVERTISSEMENT:

(i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiofrequency Radiation Exposure Information

This device was tested for handheld and body-worn conditions, according to international Standards covering human exposure to electromagnetic fields from radio devices.

More information about the relevant Standards for SAR measurement methods and procedures may be found in the CE DoC included in the product user manual available at www.waspbarcode.com website and at the FCC public listing www.fcc.gov under the FCC IDs specified in the FCC/IC labeling section.

US and Canada

For body worn operation, this device has been tested and meets the FCC/ISED RF exposure guidelines for use with an accessory that contains no metal and the positions the handset a minimum of 0 cm from the body. Use of other enhancements may not ensure compliance with FCC/ISED RF exposure guidelines.

Cet équipement peut être installé et utilisé à une distance minimale de 0 cm entre le radiateur et votre corps.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, expect those approved under the filing.

Radio Technologies and Frequency Bands

WDT92 incorporates the following radio technologies and supports the corresponding Frequencies and Radio-Frequency transmitted power, as specified below:

Radio Technology	Frequency Bands
WLAN IEEE 802.11b/g/n ▪ SISO 20MHz channels bandwidth (HT-20) ▪ MIMO support 20MHz channels bandwidth (HT-20)	2.4GHz Frequency Bands: 2.412 – 2.462 MHz
WLAN IEEE 802.11a/n ▪ SISO 20MHz and 40Mhz channels bandwidth (HT-20 and HT-40)	5GHz Frequency Bands: 5.180 – 5.240 MHz 5.260 – 5.320 MHz 5.500 – 5.700 MHz 5.735 – 5.825 MHz
Bluetooth® V4.0 – EDR/LE	2402-2480Mhz

Reference Documentation

For further information regarding WDT92 refer to the SDK Help on-line.

Support Through the Website

WASP provides several services as well as technical support through its website.
Please check our website at www.waspbarcode.com under **Support & Training** and click on the links indicated for further information including:

- Online Support Center
- Updates & Patches
- Warranty Claims
- Product Tutorials.

Warranty Terms and Conditions

The warranty period is 1 year for the device and 90 days for consumables (e.g. battery, power supply, cable etc.) from date of purchase at our company.

NOTES

Glossary

Access Point

A device that provides transparent access between Ethernet wired networks and IEEE 802.11 interoperable radio-equipped mobile units. Hand-held mobile computers, PDAs or other devices equipped with radio cards, communicate with wired networks using Access Points (AP). The mobile unit (mobile computer) may roam among the APs in the same subnet while maintaining a continuous, seamless connection to the wired network.

Applet

Diminutive form of app (application), it refers to simple, single-function programs that often ship with a larger product. Programs such as Windows' Calculator, File Manager, Control Panel and Notepad are examples of applets.

ASCII

American Standard Code for Information Interchange. A 7 bit-plus-parity code representing 128 letters, numerals, punctuation marks and control characters. It is a standard data transmission code in the U.S.

Barcode

A pattern of variable-width bars and spaces which represents numeric or alphanumeric data in binary form. The general format of a barcode symbol consists of a leading margin, start character, data or message character, check character (if any), stop character, and trailing margin. Within this framework, each recognizable symbology uses its own unique format.

Bit

Binary digit. One bit is the basic unit of binary information. Generally, eight consecutive bits compose one byte of data. The pattern of 0 and 1 values within the byte determines its meaning.

Bluetooth®

A standard radio technology using a proprietary protocol. The onboard Bluetooth® module in the device is compatible with the 2.1 protocol with Enhanced Data Rate (EDR).

Boot

The process a computer goes through when it starts. During boot, the computer can run self-diagnostic tests and configure hardware and software.

Byte

On an addressable boundary, eight adjacent binary digits (0 and 1) combined in a pattern to represent a specific character or numeric value. Bits are numbered from the right, 0 through 7, with bit 0 the low-order bit. One byte in memory can be used to store one ASCII character.

CDRH

Center for Devices and Radiological Health. A federal agency responsible for regulating laser product safety. This agency specifies various laser operation classes based on power output during operation.

Character

A pattern of bars and spaces which either directly represents data or indicates a control function, such as a number, letter, punctuation mark, or communications control contained in a message.

Decode

To recognize a barcode symbology (e.g., Codabar, Code 128, Code 3 of 9, UPC/EAN, etc.) and convert the content of the barcode scanned from a visual pattern into electronic data.

Density (Barcode Density)

The number of characters represented per unit of measurement (e.g., characters per inch).

Depth of Field (DOF)

The portion of a scene that appears acceptably sharp in the image. Although a lens can precisely focus at only one distance, the decrease in sharpness is gradual on each side of the focused distance, so that within the DOF, the unsharpness is imperceptible under normal viewing conditions.

Dock

A dock is used for charging the terminal battery and for communicating with a host computer, and provides a storage place for the terminal when not in use.

ESD

Electro-Static Discharge

Ethernet

The standard local area network (LAN) access method. A reference to "LAN", "LAN connection" or "network card" automatically implies Ethernet. Defined by the IEEE as the 802.3 standard, Ethernet is used to connect computers in a company or home network as well as to connect a single computer to a cable modem or DSL modem for Internet access.

Firmware

A software program or set of instructions programmed on a hardware device. It provides the necessary instructions for how the device communicates with the other computer hardware. Firmware is typically stored in the flash ROM of a hardware device. While ROM is "read-only memory," flash ROM can be erased and rewritten because it is actually a type of flash memory.

Flash Memory

Non-volatile memory for storing application and configuration files.

Host

A computer that serves other mobile computers in a network, providing services such as network control, database access, special programs, supervisory programs, or programming languages.

IEC

International Electrotechnical Commission. This international agency regulates laser safety by specifying various laser operation classes based on power output during operation.

IEEE 802.11

A set of standards carrying out wireless local area network (WLAN) computer communication in the 2.4, 3.6 and 5 GHz frequency bands. They are created and maintained by the IEEE LAN/MAN Standards Committee.

LAN

Local area network. A radio network that supports data communication within a local area, such as within a warehouse of building.

Laser

Light Amplification by Stimulated Emission of Radiation.The laser is an intense light source. Light from a laser is all the same frequency, unlike the output of an incandescent bulb. Laser light is typically coherent and has a high energy density.

Light Emitting Diode (LED)

A low power electronic light source commonly used as an indicator light. It uses less power than an incandescent light bulb but more than a Liquid Crystal Display (LCD).

Liquid Crystal Display (LCD)

A display that uses liquid crystal sealed between two glass plates. The crystals are excited by precise electrical charges, causing them to reflect light outside according to their bias. They use little electricity and react relatively quickly. They require external light to reflect their information to the user.

MIL

1 mil = 1 thousandth of an inch.

Null Modem Cable

RS-232 serial cable where the transmit and receive lines are crosslinked. In some cables there are also handshake lines crosslinked. In many situations a straight through serial cable is used, together with a null modem adapter. The adapter contains the necessary crosslinks between the signals.

One shot key

Pressing a one shot key actives the state. The state remains active until any other key is pressed. If you hold down a one shot state key and you press another key the state will remain active until you release the one-shot key.

Pairing

A Bluetooth® pairing occurs when two Bluetooth® devices agree to communicate with each other and establish a connection.

Parameter

A variable that can have different values assigned to it.

RAM

Random Access memory. Data in RAM can be accessed in random order, and quickly written and read.

Resolution

The narrowest element dimension which is distinguished by a particular reading device or printed with a particular device or method.

RF

Radio Frequency.

Scanner

An electronic device used to scan barcode symbols and produce a digitized pattern that corresponds to the bars and spaces of the symbol. Its three main components are:

- Light source (laser or photoelectric cell) - illuminates a barcode.
- Photodetector - registers the difference in reflected light (more light reflected from spaces).
- Signal conditioning circuit - transforms optical detector output into a digitized bar pattern.

SDK

Software Development Kit.

Symbol

A scannable unit that encodes data within the conventions of a certain symbology, usually including start/stop characters, quiet zones, data characters and check characters.

Symbology

The structural rules and conventions for representing data within a particular barcode type (e.g. UPC/EAN, Code 39, PDF417, etc.).

Toggle key

Pressing a toggle key activates the state. The state remains active until the toggle key is pressed again.

USB

Universal Serial Bus. Type of serial bus that allows peripheral devices (disks, modems, printers, digitizers, data gloves, etc.) to be easily connected to a computer. A "plug-and-play" interface, it allows a device to be added without an adapter card and without rebooting the computer (the latter is known as hot-plugging). The USB standard, developed by several major computer and telecommunications companies, supports data-transfer speeds up to 12 megabits per second, multiple data streams, and up to 127 peripherals.

Visible Laser Diode (VLD)

A solid state device which produces visible laser light.

WLAN

A Wireless Local Area Network links devices via a wireless distribution method (typically spread-spectrum or OFDM radio), and usually provides a connection through an access point to the wider internet. This gives users the mobility to move around within a local coverage area and still be connected to the network.

WPAN

A Wireless Personal Area Network is a personal area network - a network for interconnecting devices centered around an individual person's workspace - in which the connections are wireless. Typically, a wireless personal area network uses some technology that permits communication within about 10 meters - in other words, a very short range.

NOTES

www.waspbarcode.com

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