WDT90™
Mobile Computer

User's Manual

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Patents

This product is covered by one or more of the following patents:

Design Pat.: EP 1,942,723.
U.S. Pat.: 5,311,000; 5,440,110; 5,481,098; 5,493,108; 5,686,716; 5,992,740; 6,412,698 B2; 6,415,978 B1; 6,454,168 B1; 6,478,224 B1; 6,513,714 B1; 6,561,427 B2; 6,585,157 B2; 6,808,114 B1; 6,997,385 B2;7,108,170 B2; 7,387,246 B2.
European Pat.: 681,257 B1; 789,315 B1; 1,128,315 B1; 1,396,811 B1; 1,413,971 B1

Additional patents pending.

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CONVENTIONS

This manual uses the following conventions:

“User” refers to anyone using a WDT90 mobile computer.
“mobile computer” and "WDT90" refer to WDT90 mobile computer.
“You” refers to the System Administrator or Technical Support person using this manual to install, configure, operate, maintain or troubleshoot a WDT90 mobile computer.
“Single Dock” refers to the WDT90 Single Slot Dock.
The label artworks may be only a draft. Refer to the product labels for more precise information.

REFERENCE DOCUMENTATION

For further information regarding WDT90 refer to the SDK Help on-Line.

SERVICES AND SUPPORT

Wasp Barcode Technologies provides several services as well as technical support through its website.
Please check our website at www.waspbarcode.com under “Support Center” and click on the links indicated for further information including:

- **Technical Support**
- **Updates & Patches**
- **Warranty Info**
- **Product Tutorials**

GENERAL VIEW

A) Color Display*
B) ON/OFF Power Key
C) LEDs
D) Receiver speaker
E) Front Scan Key
F) Keyboard

G) Laser Safety Label
H) Micro USB Charging Port (Power Only)
I) Loudspeaker
J) Product Label
K) Reset Key (under battery)
L) MicroSD Card Slot (under battery)
M) Trigger button (for use with the optional pistol trigger)

* Remove protective film cover before use

N) Data Capture Window

O) HandyLink™ Connector (host/device)

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1 INTRODUCTION

1.1 WDT90 DESCRIPTION

The WDT90 rugged mobile computer is particularly suitable for mobile commerce solutions in the retail environment both on store shelves and in the stock room. Thanks to one of the best ergonomic designs ever seen on the market, it reduces operator fatigue with no compromise in terms of reliability and robustness, resisting harsh environments, multiple drops, strong shocks and repetitive tumbles.
The WDT90 pistol grip version takes advantage of the best handle and trigger in the warehouse industry. Compact size and light weight combine to offer excellent balance, and superior handling.

WDT90's powerful processing efficiency derives from a dual processor architecture composed of microprocessor XScale PXA310 @ 624 MHz and a Cortex-M3, 32 bit @ 72 MHz. coprocessor Processing power combined with 256 MB RAM & and 512 MB Flash running Windows Embedded CE 6 r3 make for the best performance and flexibility in this market.

WDT90 offers the unique feature of integrated data capture technology combined with "green spot" feedback (Wasp patent), providing a "good read" green dot directly on the code, where the operator usually tends to be looking. Many features work together to facilitate easier and faster reading, such as 1D laser and 2D imager bar code readers with Green Spot. An inclined scan engine to allows the display to be seen while scanning bar codes, with no need to turn the wrist awkwardly while scanning.

WDT90 display is a TFT / Transflective color LCD, QVGA, with LED backlight and integrated touch screen, 81 mm (3.2 in) diagonal which means it is the largest standard resolution display (and the only one for the market today) in this class of products.

WDT90 wireless communication capabilities (Bluetooth®, IEEE 802.11a/b/g) enable fast transactions and complete interaction with information systems including the newest RF security protocols such as WPA™ and WPA2™. Moreover, Cisco Compatible Extensions CCX V4 certification permits all the advantages offered by the Cisco WLAN infrastructure to be exploited.

Wasp's software tools and strategic software alliances fit WDT90 to business practice. Wasp Desktop and Configuration utilities offer full and secure control over the device experience. Wavelink Avalanche enables rapid deployment and central management of WDT90 installations. Finally, Wasp's comprehensive service programs protect the WDT90 investment.

1.2 INSERTING A MICROSD CARD

The WDT90 supports microSD memory cards. To access the microSD card slot and insert the card, proceed as follows:

1. Turn off the WDT90.

2. Pull the battery latch down and remove the battery pack:

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's alignment lugs into the recesses, then press firmly until the battery latch clicks twice.

1.2.1 Removing the MicroSD Card

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

CAUTION

Follow proper ESD precautions to avoid damaging the microprocessors in the WDT90 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.

2 BATTERIES AND MAINTENANCE

NOTE

Rechargeable backup batteries and battery packs are not initially fully charged. Therefore the initial operation to perform is to charge them. See below.

CAUTION

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

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

2.1 CHARGING THE BATTERY PACK

NOTE

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

The battery icon on the Taskbar indicates when the battery pack is low.

You may recharge your battery pack by connecting a standard Micro-USB wall charger directly to the WDT90 Micro-USB charging port.

The Micro-USB port can also be used to charge the WDT90 battery pack from any self-powered USB hub or USB port on a computer, but only when the WDT90 is suspended.

Alternatively, it is also possible to recharge the battery pack by inserting the WDT90 into the single slot dock or the Ethernet four slot dock.

CAUTION

Don't insert the wall charger into the micro-USB port when the WDT90 is inserted into the dock.

The charging LED glows red when the main battery is recharging. It will glow green when the battery reaches full charge. The charging LED will flash red when a charging error is detected (see par. 4.5.1).

The stand alone battery pack may be recharged outside a WDT90 using the spare battery charging slot on the back of a single slot dock, an Ethernet four slot dock, or a four slot battery charger.

NOTE

It's recommended to charge batteries before first use.

CAUTION

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

Dispose of used batteries according to the instructions.

CAUTION

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.

CAUTION

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.

NOTE

Even if the storage temperature range is wider, in order to achieve the longest battery life, store the terminal and the spare batteries between 20 to 30º C (68 to 86º F).

WDT90 (including spare battery) should be charged at an ambient temperature between 0 - 35º C to achieve the maximum charging rate. Never charge the main device or spare batteries in a closed space where excessive heat can build up.

NOTE

The battery level may display incorrectly for several minutes after the WDT90 is disconnected from its charger if the charging cycle is not completed.

NOTE

The WDT90 may get warm during charging; this is normal and does not mean a malfunction.

2.2 REPLACING THE BATTERY PACK

To correctly replace the battery pack, proceed as follows.

1. Turn off the WDT90.
2. Pull the battery latch down as indicated in the figure below:

3. Remove the battery pack.

4. Insert the battery's alignment lugs into the recesses, then press firmly until the battery latch clicks twice:

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 and/or fire.

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.

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 mobile computer.

WARNING

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.

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.

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.

NOTE

In order to maximize operating autonomy, the WDT90 checks its battery level at all times. If the battery is not sufficiently charged, the WDT90 will not turn on when the ON/OFF Power button is pressed.

In this case, either substitute a sufficiently charged battery, insert the WDT90 into a powered cradle, or plug it into a wall charger.

NOTE

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

2.3 CLEANING THE MOBILE COMPUTER

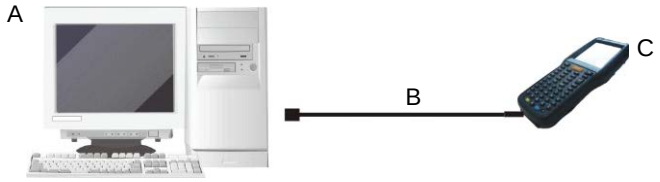
Periodically clean the WDT90 with a slightly dampened cloth.

Do not use alcohol, corrosive products or solvents.

3 CONNECTIONS

3.1 USB CONNECTION

Use a HandyLink cable to directly connect the WDT90 to a host computer to transfer data through the USB interface.



Key:

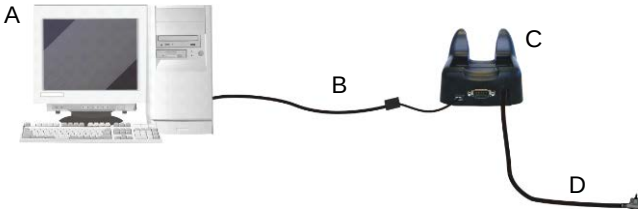
A	Host computer	C	WDT90
B	HandyLink USB Client Cable		

NOTE

The HandyLink cable complies to the USB 1.1 standard.

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

Once the host computer has been turned on, insert the WDT90 mobile computer into the cradle.



Key:

A	Host computer	C	WDT90 Single Slot Dock
B	Micro USB Client Cable	D	Power Adapter

NOTE

Connection through the cradle complies to USB 1.1 standard.

NOTE

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

CAUTION

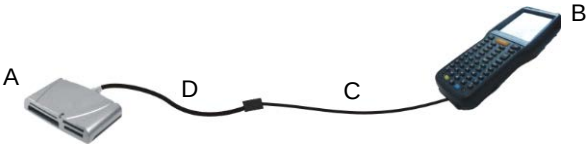
Don't insert the wall charger into the Micro-USB port when the WDT90 is inserted into the dock.

3.2 CONNECTION TO USB PERIPHERALS

You can connect the WDT90 to a standard 101-key USB keyboard or to a standard USB flash memory device. Connect the terminal to a HandyLink Micro-USB host cable. For all these devices maximum current draw must be less than 100mA.

Key:

A	Keyboard with USB interface	C	HandyLink Micro-USB Host Cable
B	WDT90		

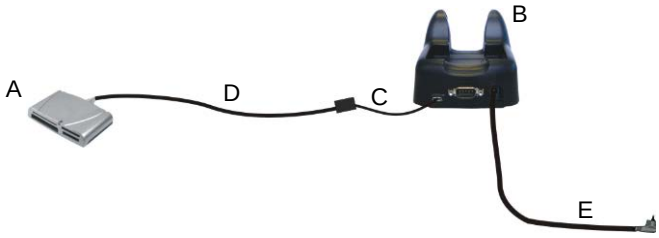


Key:

A	USB hard drive/ external memory source	C	HandyLink Micro USB Host Cable
B	WDT90	D	Standard A to Micro A USB Cable*

* 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 (together with a standard USB cable if needed).



A	USB Peripheral (memory)	D	Standard A to Micro A USB Cable*
B	WDT90 Single Slot Dock	E	Power Adapter
C	Micro-USB Host Cable		

NOTE

WDT90 works with most of the mentioned USB peripherals. Wasp cannot guarantee the interoperability of WDT90 with all devices on the market.

NOTE

Connection is compliant to USB 1.1 standard.

NOTE

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

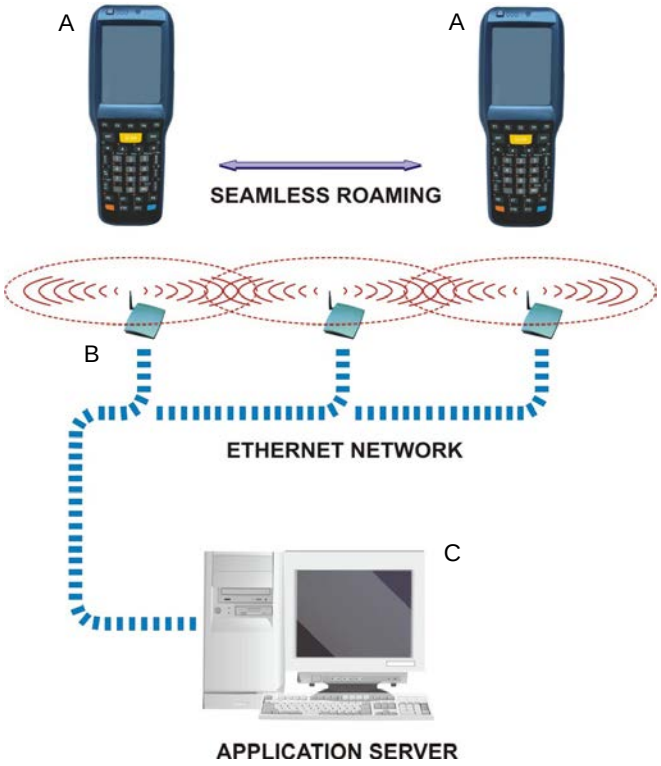
* A standard USB cable is needed only if the USB hard driver or flash memory device does not include its own cable with a "A" plug on it.

3.3 WLAN CONNECTION

WDT90 802.11 a/b/g radio models can communicate with the host using the on-board Wi-Fi radio and an Access Point connected to a network.

For models using the 802.11 a/b/g radio, you can find information about the applet for radio configuration: http://www.summitdata.com/SCU.htm.

To launch this utility you can tap the specific icon if it is visible on the taskbar or you can select the menu item: Start-> Summit and tap the “SCU” icon.



Key:

A) WDT90

B) Access point

C) Host – Application Server

NOTE

802.11 a/b/g radio module is on by default. In order to avoid wasting energy, you can switch it off using the SCU.

NOTE

Suspending the terminal powers off the 802.11 a/b/g radio and drops the radio connection. When the terminal resumes, depending on the radio power mode and security protocol selected, it may take up to 30 seconds for the 802.11 a/b/g radio driver to re-associate the radio to the network.

NOTE

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

NOTE

In case of heavy usage the WDT90 may get warm; this is normal and does not mean a malfunction.

3.4 WPAN CONNECTIONS

Wasp WDT90 Bluetooth® models can communicate with a Bluetooth® device, such as a printer, within a range of 10 m, using the on-board Bluetooth® module.

Key:

A) WDT90

B) Bluetooth® printer

NOTE *In order to extend battery life, the Bluetooth® module is off by default. If you need to have Bluetooth® working, the module must be powered on using the SCU (see par. 4.6.6), and perform the Discovery procedure (see par. 4.7.2).*

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

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

3.5 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. The antennas inside the WDT90 are not user-accessible and cannot be replaced by end users. Send any faulty equipment to Wasp for repair.

WARNING

Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals generated by WDT90.

WARNING

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.*

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

WARNING

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.

WARNING

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.

WARNING

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.

WARNING

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.

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.

4 USE AND FUNCTIONING

The use of the WDT90 depends on the application software loaded. However there are several parameters that can be set and utilities that can be used to perform some basic functions such as data capture, communications, file management, etc

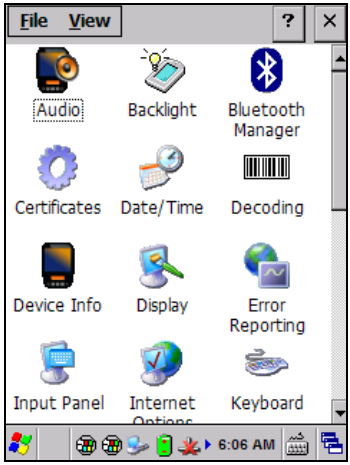
4.1 STARTUP

The WDT90 turns on when the battery pack or the external supply is inserted and the ON/OFF Power button is pressed.

After the battery pack is installed, use the [ON/OFF] key to turn the mobile computer on and off.

As soon as the mobile computer is on, the Windows CE 6.0 desktop will appear on the screen. Wait a few seconds before starting any activity so that the mobile computer completes its startup procedure.

Desktop



Control Panel

Use the stylus (par. 4.1.1) as suggested to select icons and options.

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 is defined in the POWER applet of the Control Panel. In this mode it can be awakened (resuming operation) by the [ON/OFF] key.

NOTE

The mobile computer can also be awakened or suspended programmatically.

4.1.1 Using the Stylus

The stylus selects items and enters information. The stylus functions like 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.

To recalibrate the touch screen use the Stylus applet (see par. 4.6.7).

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.

4.1.2 Touch Gestures

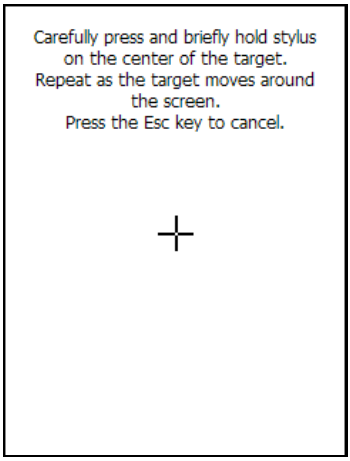
Touch gestures describe gestures in which you use a finger or stylus to make a short, directional movement over a control or object on the screen. Most gestures are a single stroke. Windows CE supports five kinds of gestures.

Tap:	A tap represents the left click of a mouse.
Double Tap:	A double tap represents the left double click of a mouse.
Hold:	The user can press and hold on the screen to represent the right click of a mouse.
Flick:	The user can move a finger across the screen to initiate per-pixel scrolling, and if this movement is fast enough, scrolling will continue after the finger is lifted.
Pan:	The user can press and hold on the screen and then drag the finger in any direction to represent a mouse move event.

4.2 WINDOWS CE TOUCH SCREEN CALIBRATION

In Windows CE, at the very first WDT90 startup, following a clean boot to restore the Registry to default values, the mobile computer startup (see par. 4.1) is preceded by the touch screen calibration screen.

The user must calibrate the touch screen (see par. 4.6.7)

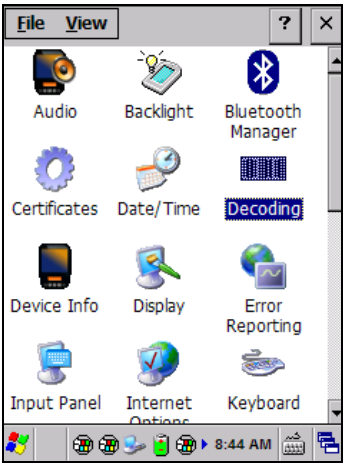


Touch Screen Calibration Screen

4.3 DATA CAPTURE

To capture data tap Start > Settings > Control Panel > double tap Decoding:

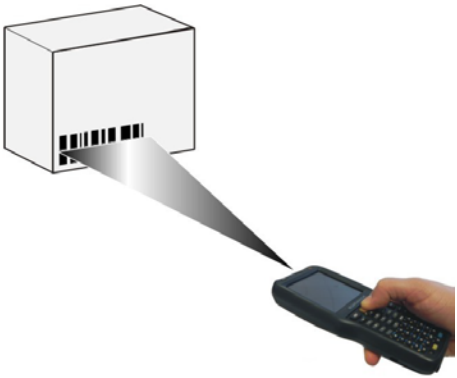
To configure and enable data capture parameters refer to par. 4.6.1.

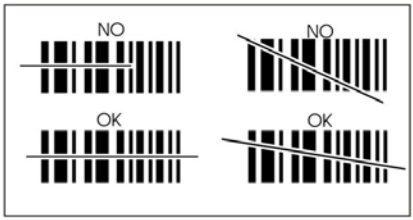


4.3.1 Laser Data Capture

To scan barcodes, point the WDT90 laser model onto the code from a distance within the reading range while pressing the SCAN key or the pistol trigger.

The lighted band emitted by the laser must completely cross the barcode as shown in the figure below.





If the scan has taken place correctly:

- the Good Read LED glows steadily Green for a configurable time;
- if enabled, the Good Read Beep plays;
- if enabled, the GreenSpot projects a green spot onto the bar code image.

4.4 DESCRIPTION OF THE KEYBOARDS

Alphanumeric Keyboard (38 Keys)

Main Keys Function

KEY	FUNCTION
	The SCAN key starts data capture. If enabled, it also wakes up the mobile computer from low-power (see par. 4.6.2). For pistol grip models only, the trigger performs the same function as the SCAN key.
	Cursor 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 WDT90 ON or OFF. It is placed on the upper left side of the terminal.
	After a Blue modifier key press, the blue arrows allow moving forwards or backwards within the Internet Explorer browser pages.

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 Backlight key turns the backlight on and off.

4.4.1 Resetting the WDT90

There are several reset methods for the WDT90.
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 WDT90 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 WDT90 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 WDT90 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	Preserved	Clean Installation (no user files)

4.5 STATUS INDICATORS

4.5.1 LED Status

The WDT90 provides three different LEDs signaling the mobile computer status.

LED	STATUS	
Good Read* (right side)	Red	Scanning LED is ON from the time the user hits the scan button (or trigger) until the bar code is decoded (laser models) Time-out (imager models).
	Green	Scanning LED is ON, showing a good decode.
Charging Status (left side)	Green	It is solid once the charging process has been completed (full charge).
	Red	It is solid while charging.
	Blinking Red	It blinks in case of charge fault.
	Blinking Amber	It blinks when the device raises a notification to the user.
Keyboard Status (center)	Off	Keyboard in primary.
	Solid Yellow	Yellow alternate key mode.
	Solid Blue	Blue alternate key mode
	Pink	CapsLock enabled.

*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.

4.5.2 Taskbar

The Taskbar provides quick view and links to the Wi-Fi, Bluetooth, and Clock settings. It also makes available the keyboard SIP and window selection.

Windows CE Taskbar

ICONS	DESCRIPTION
	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 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 icon displays the system battery status.
	It indicates that the battery is charging.
	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.

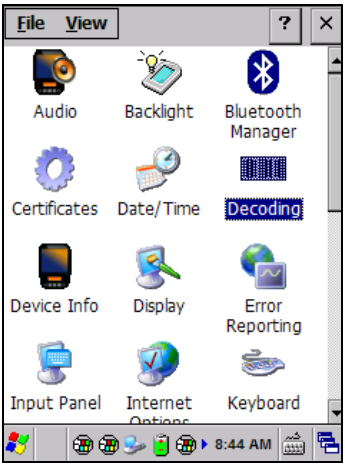
4.6 CONTROL PANEL

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

Windows CE Control Panel

4.6.1 Data Capture Configuration

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



There are two sections in the Decoding control panel, each containing additional pages. There are seven General Configuration pages and multiple Barcode symbology pages.

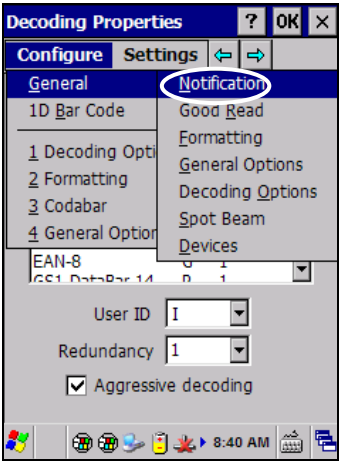
DECODING CONFIGURATION PAGES

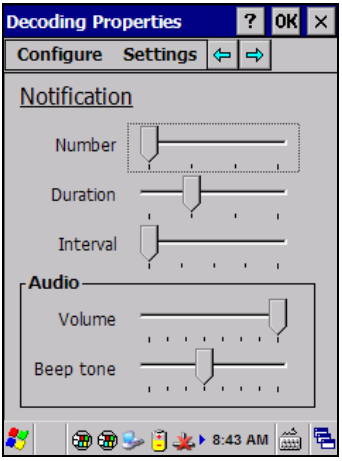
Select the desired configuration from the options shown in the figure below, and the other Decoding Properties figures on the following pages.

Select General,1D Bar Code or 2D Bar Code, then use the menu or tap the left and right arrow keys to navigate the different pages of the Decoding utility. The menu options will change to reflect the items most recently selected.

Notification

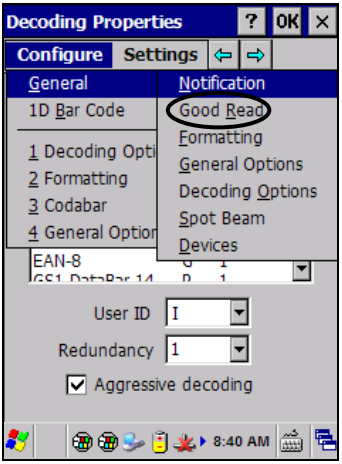
From the Decoding Properties page, tap Configure > General > Notification. Use it to set volume, tone, duration, and number of various types of beeps.

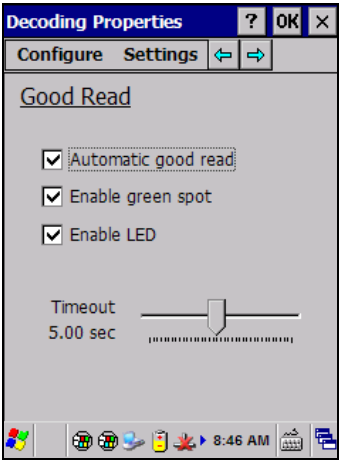




Good Read

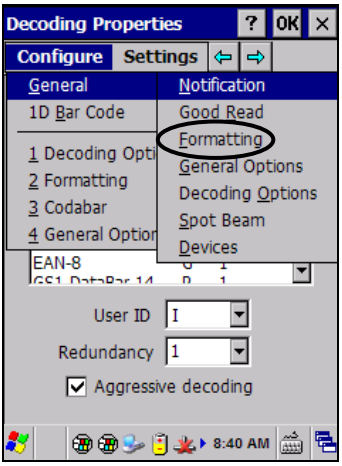
From the Decoding Properties page, tap Configure > General > Good Read. Use it to enable Good Read indications, the use of Green Spot, the LED indicators and to set the decoding timeout for decoding labels.

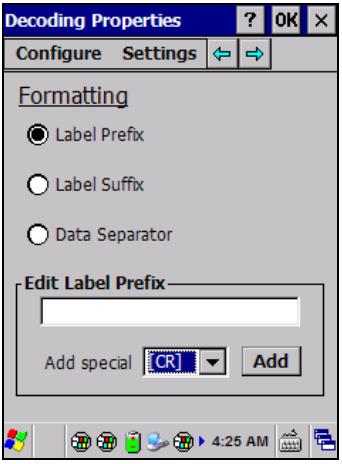




Formatting

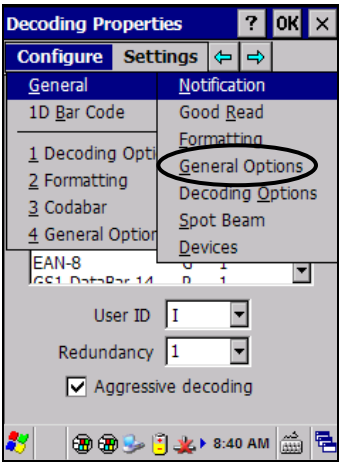
From the Decoding Properties page, tap Configure > General > Formatting. Use it to configure prefix, suffix and data separator character strings.

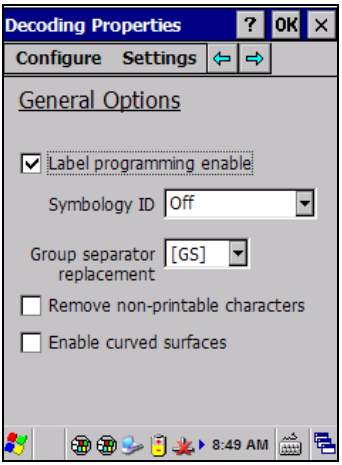




General Options

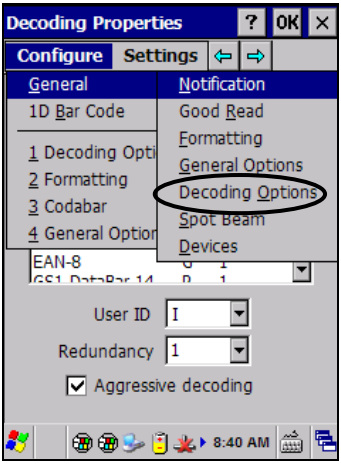
From the Decoding Properties page, tap Configure > General > General Options. Select from Label Programming Enable, Symbology IDs and Group Separator Replacement.

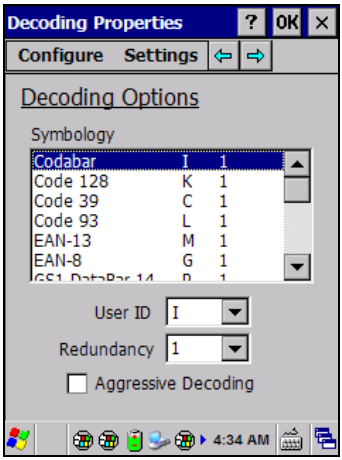




Decoding Options

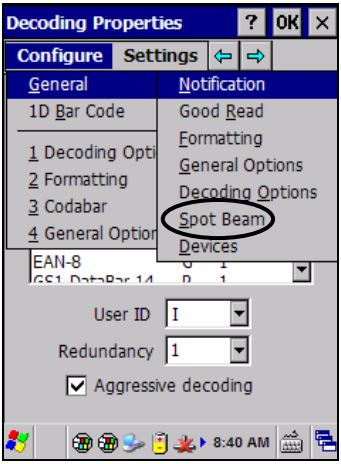
From the Decoding Properties page, tap Configure > General > Decoding Options. Use it to configure the User ID for symbologies, Redundancy and Aggressive Decoding (if supported by the decoding module). Select a symbology to view or change the available properties settings.

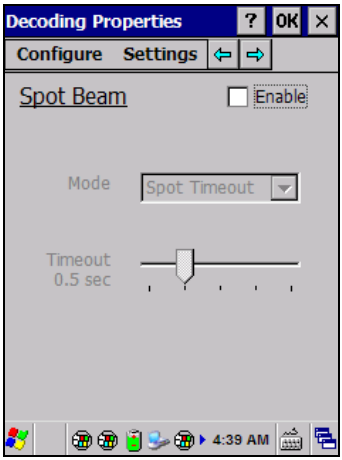




Spot Beam

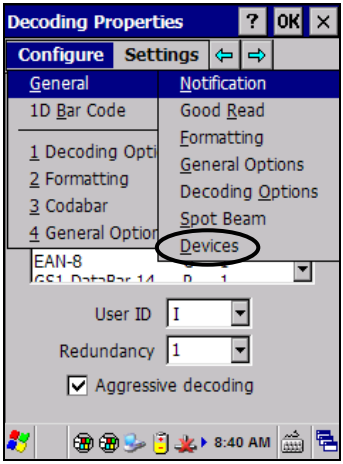
From the Decoding Properties page, tap Configure > General > Spot Beam. It allows enabling and configuration of Spot Beam and triggering modes.
It is only available on devices equipped with laser and advanced long range laser decoding modules that support the Spot Beam Feature.

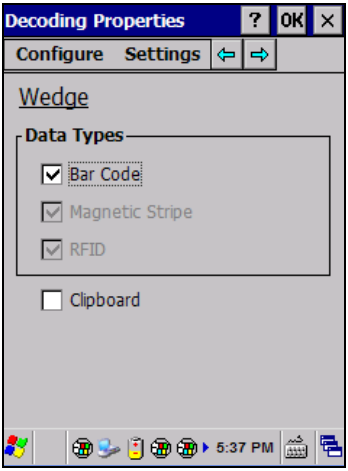




Devices

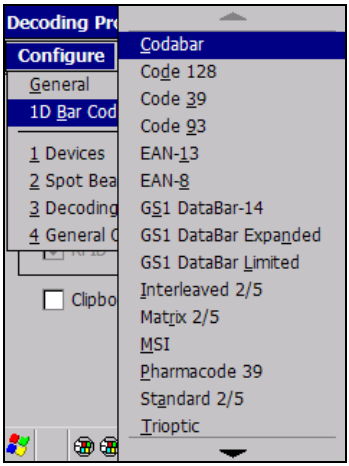
From the Decoding Properties page, tap Configure > General > Devices. Use it to enable or disable the keyboard wedge for Barcode scanner.





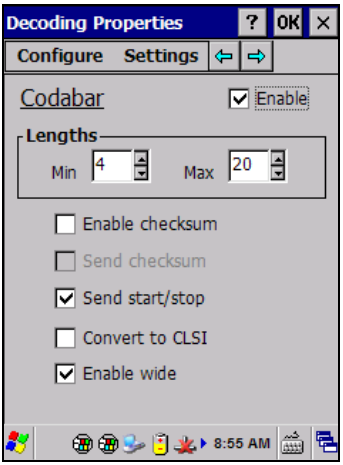
1D Barcode Symbology Pages

Use the drop-down menus from Configure > 1D Barcode, or tap the left and right arrow keys to navigate the different pages of the barcode symbology pages.



Select Configure > 1D Bar Code from the menu to view other configuration options.

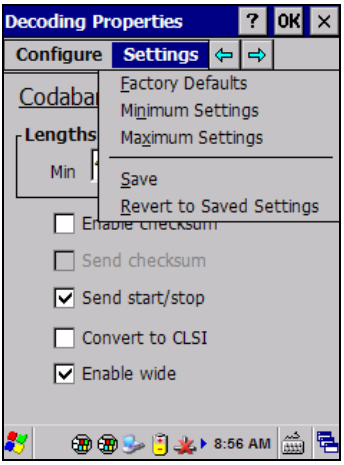
Each barcode symbology opens to its own page, as shown in the figure below. Refer to the sample symbology control panels for examples of the types of fields and options you can modify.



Decoding Settings

Select from the Decoding Properties Settings menu to restore previous configurations and/or other available default settings. Choose from:

- Factory Defaults
- Minimum Settings
- Maximum Settings
- Save (New Settings)
- Revert to Saved Settings

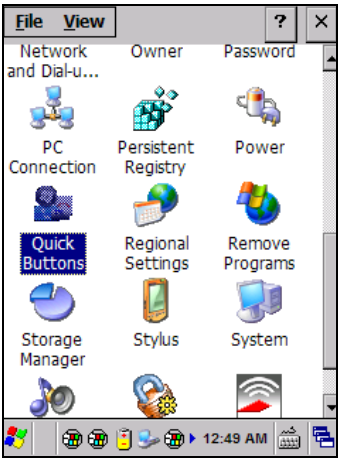


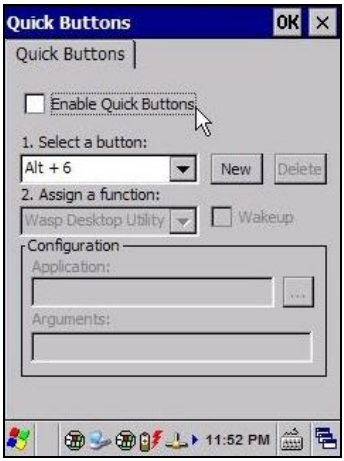
The settings are saved when you tap 'Yes'. To permanently save these settings you need to save the Registry using the Persistent Registry applet in the Control Panel.

When open, Decoding Properties acts as a simple barcode test tool that provides the Data decoded and the Data Type of the barcode scanned.

4.6.2 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.
On the Quick Buttons tab, customize the program hardware buttons to launch your most used applications. Under 'Select a button', select the button you want to assign a function to, and then select a program from 'Assign a function'.





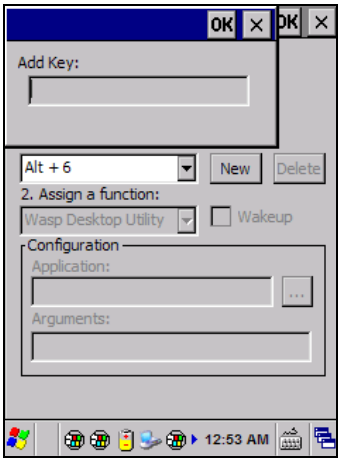
COMMAND	DESCRIPTION
Select a Button	This pull-down list displays the available function keys to define. Select the desired one from the list.
New	Select/tap to specify a new Button, not on the **“**Select a Button”list.
Delete	Tap to delete the selected Button. You can only delete the Buttons you have added. You cannot delete the following buttons: “Alt + 6”, “Left Button”, “Pistol Trigger”, “Right Button”, “Scan”
Assign a function	This pull-down list displays the available functions.
Application	Displays path to the selected application.
Browse	Select/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 in the “Assign a function” pull-down list.

Adding a new Button

When you select “New” on the Quick Buttons tab, this opens the “Add Key” dialog box.

To define a new Button, complete the following steps:

1. Enter the key combination in the “Add Key” textbox.



COMMAND	DESCRIPTION
Enter Key	Enter the desired key combination in this text box to define a Button.
OK	Select/tap **OK** to add the specified Button.
X	Select/tap **X** to cancel the specified Button.

NOTE

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

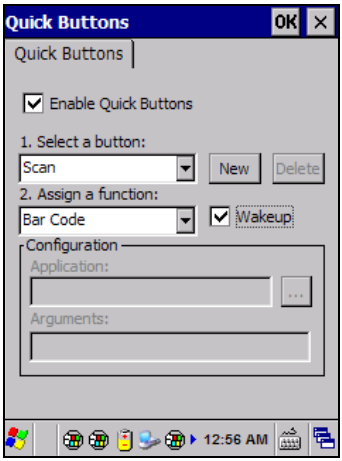
2. Select/tap OK to save the new Button. If you select/tap “X”, the key will not be saved.

CAUTION

It is possible for the keyboard wedge to activate assigned Buttons using alphanumeric characters. Barcodes containing characters associated with assigned Buttons will trigger the action or application assigned to that Button.

4.6.3 Triggers

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

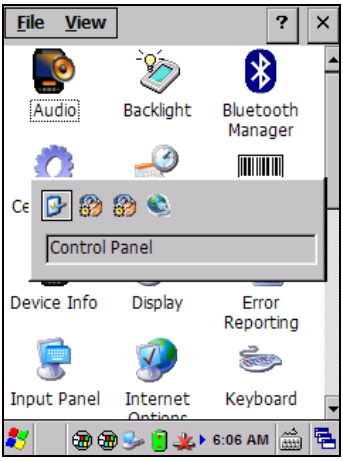


TRIGGERS	DEFAULT CONFIGURATION	
	Assigned Function	**Wake-up**
Scan	Bar Code	Enabled
Pistol Trigger	Bar Code	Disabled

4.6.4 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 par. 4.6.2.) When the assigned button is pressed, the dialog shown below will be displayed:



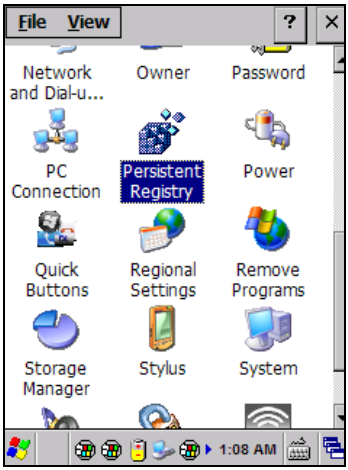
Press the assigned **button** to cycle through the running applications when the dialog is open. Press **<Enter>** to switch to the selected application or **<Esc>** to close the application switcher.

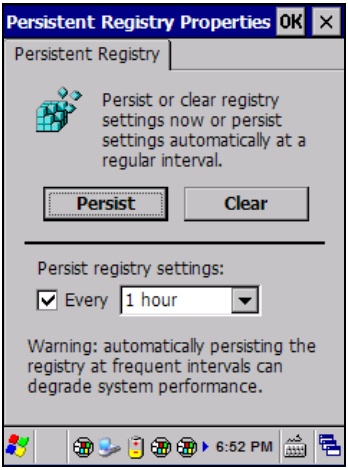
4.6.5 Persistent Registry

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, do the following steps:

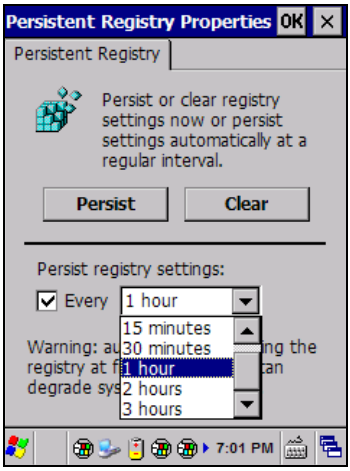
1. Select Start > Settings > Control Panel.
2. Double-tap the “Persistent Registry” icon.
3. Tap the “Persist” button.
4. Tap OK to exit.





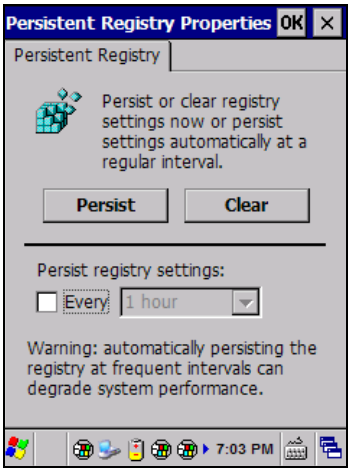
To change Persistent Registry timing, do the following steps:

1. Select Start > Settings > Control Panel.
2. Double-tap the “Persistent Registry” icon.
3. Select a time interval from the menu.
4. Tap OK to save and exit.



To deselect Persistent Registry timing, do the following steps:

1. Select Start > Settings > Control Panel.
2. Double-tap the ‘Persistent Registry’ icon.
3. Deselect the ‘Persist Registry settings’ box.
4. Tap OK to save and exit.



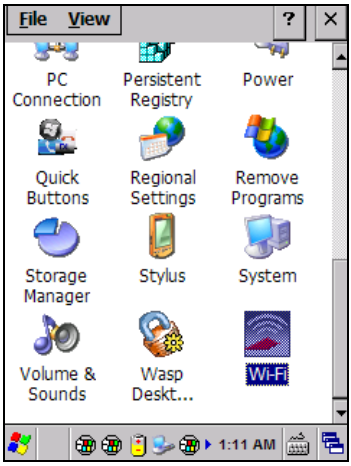
4.6.6 Wireless Communications

Wireless networking has a customized control, Summit Client Utility (SCU), specific to the radio. There are two methods to access the SCU.

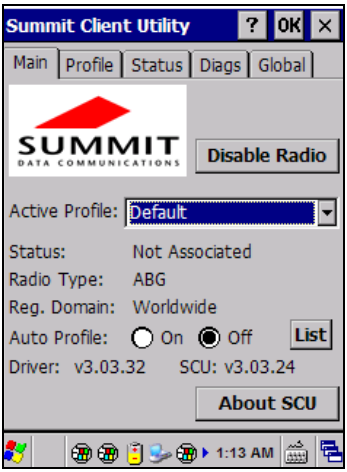
Start > Programs > Summit > SCU:

Or

From the Control Panel main window, double tap Wi-Fi to open the Summit Client Utility:

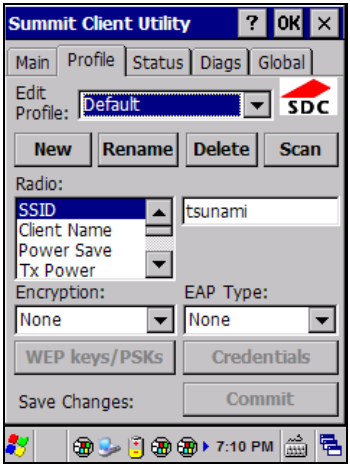


The SCU will open to the “Main” tab:



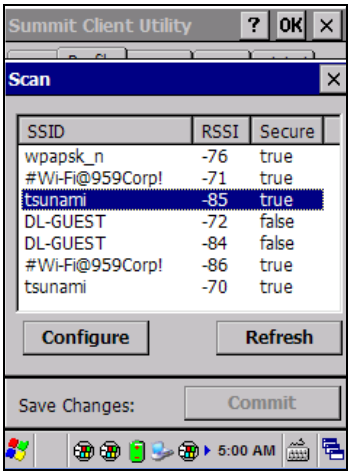
Summit Client Utility

1. To create a new profile, tap the "Profile" tab:

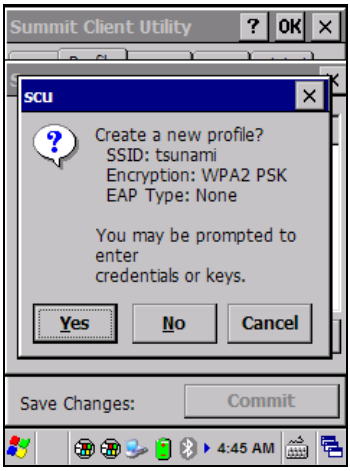


Information about the wireless network can be entered directly in the profile tab or by pressing “Scan” when the desired network ESSID is in range.

2. At the "Scan" screen, select the desired SSID:

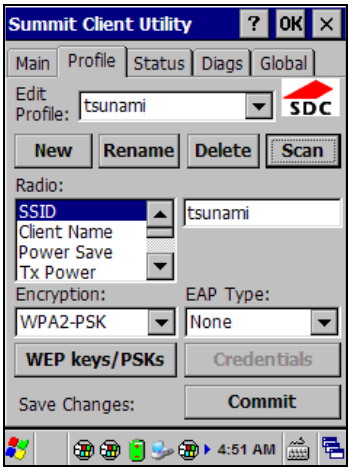


3. Click the "Configure" button



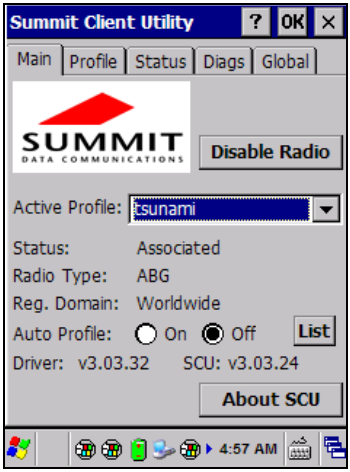
4. Follow the on-screen instructions to setup security parameters for your network. For more detailed settings specific to your installation please contact your wireless network administrator.

5. When finished, click “Commit” to save your settings.

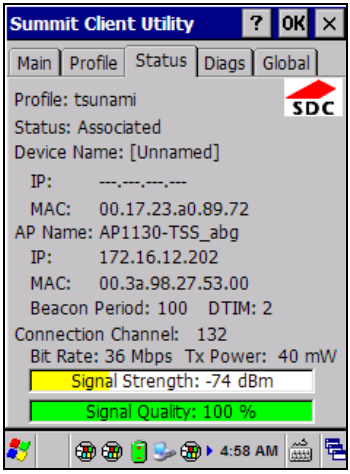


Return to the “Main” tab, if you have not previously selected “Commit” you will be prompted to save your changes.

At the “Main” tab select the profile you just created. If you used the “scan” button the desired profile will have the same name as the ESSID.



Use the “Status” tab to check connectivity to the network.



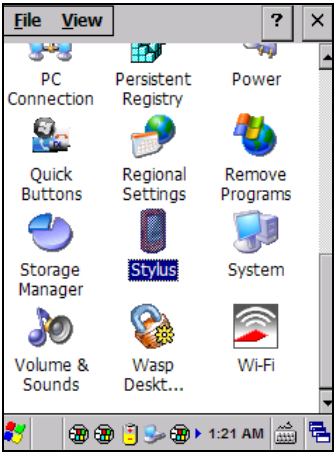
More detailed information about the applet for radio configuration can be found at http://www.summitdata.com/SCU.htm.

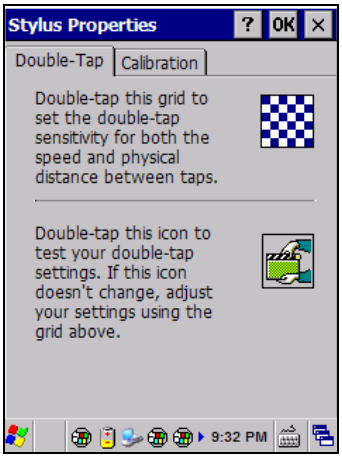
4.6.7 Stylus Calibration

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

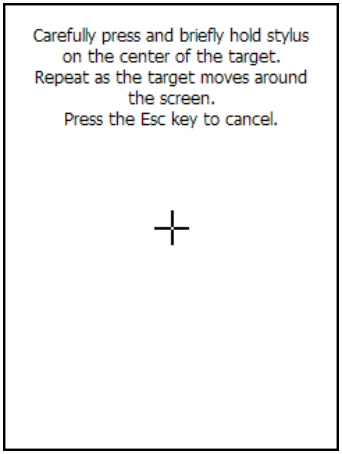
To recalibrate the touch screen, complete the following steps:

1. From the Control Panel main window, double tap Stylus to open the “Stylus Properties” applet window:





2. Tap ‘Calibration’ to open the Calibration screen. Tap ‘Recalibrate’:



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

Startup Stylus Calibration

When starting the terminal, a Welcome Wizard (with Stylus Calibration) comes up if valid calibration settings are not available. This happens in the following circumstances:

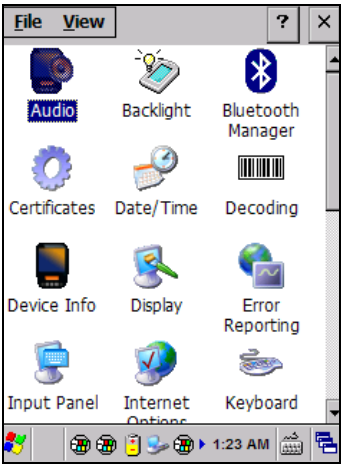
1. At the first startup of the terminal.
2. After any cold boot if the user skipped stylus calibration earlier.
3. After a Clean Boot.

4.6.8 Audio Settings

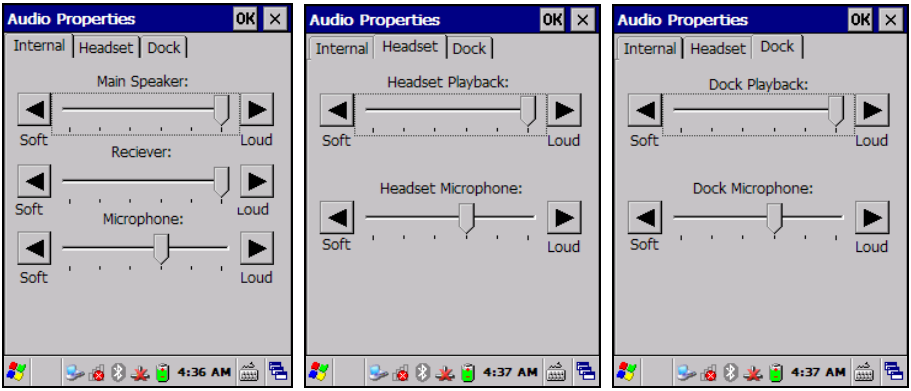
There are two applets that control volume: Audio and Volume & Sounds.

Audio

From the control panel main window, select the Audio applet by double tapping the 'Audio' icon:



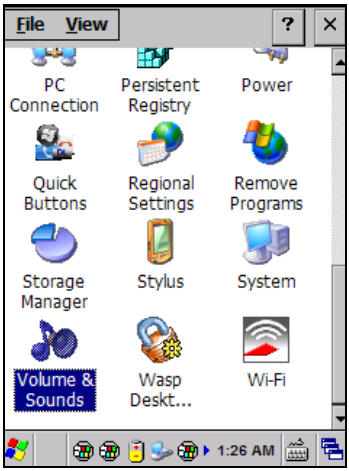
The audio control panel can be used to independently set the playback or recording volume for different types of audio inputs and outputs, such as a headset, powered mobile dock, or the internal speakers and microphone.



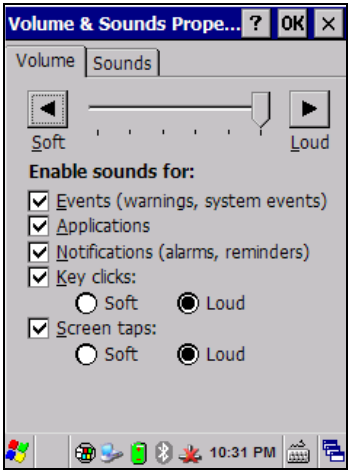
Audio Windows

Volume & Sounds

From the control panel main window, select the Volume & Sounds applet by double tapping the Volume & Sounds icon:



The Volume & Sounds applet configures audio features of all speakers and headphones and appears as follows:



Volume & Sounds Window

4.7 CONNECTING TO OTHER COMPUTERS

There is more than one way to connect the WDT90 to a host PC running Windows. Each requires specific connections in order to function properly.

4.7.1 Windows Mobile® Device Center

The desktop application Windows Mobile® Device Center gives you the ability to synchronize information between a desktop computer and your WDT90. Synchronization compares the data on the WDT90 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 WDT90 through the following interfaces:

- USB either directly or through the Single Dock
- RS232 either directly or through the Single Dock
- Bluetooth® (see par. 4.7.2)

To establish a partnership between the WDT90 and a host PC, start Windows Mobile® Device Center and follow the steps below:

1. Connect the WDT90 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.

NOTE

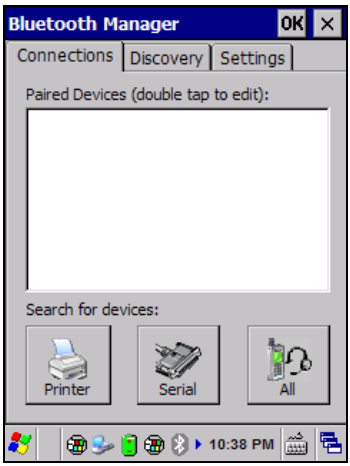
The WDT90 running Windows CE does not come equipped with Microsoft Office Outlook or any other application that allows users to view contact, calendar, e-mail, or task data. Users can view files copied to the WDT90 by WMDC's file synchronization feature.

4.7.2 Bluetooth® Manager Device Setup

Using the WDT90 to connect to another device

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.

1. From the Bluetooth Manager control panel tap 'Connections'.

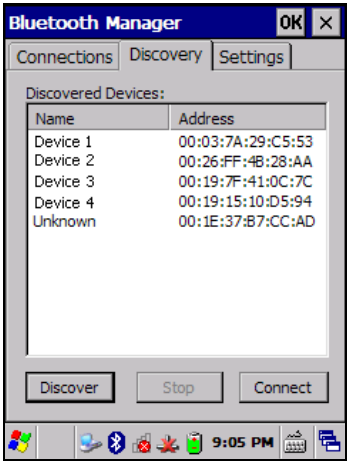


2. Search for available Bluetooth® devices by tapping the button for the type of device you want (Printer, Serial or All) or tap Discovery > Discover to skip this step. The WDT90 will search for Bluetooth® devices within range.

NOTE

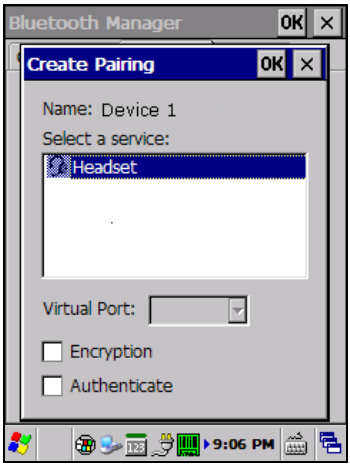
If you attempt to set up a connection when the Bluetooth® radio is disabled, you will receive a message reminding you that the radio is turned off, and asking if you want to turn it on. Tap Yes if you need to enable the Bluetooth® radio.

3. Once searching is complete, Bluetooth® device Profiles will be displayed in the Discovery tab. You can set up a connection to a device in the list by selecting the device and then tapping the 'Connect' button:



To create a pairing:

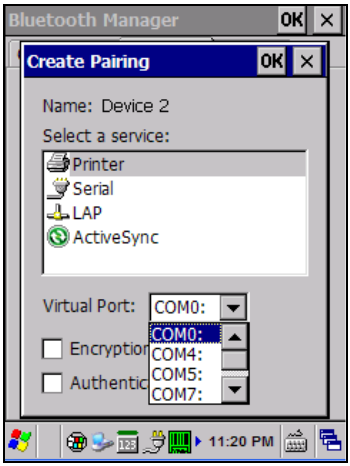
1. Select a service:



2. Configure any encryption, authentication, or virtual port options required by the service selected.

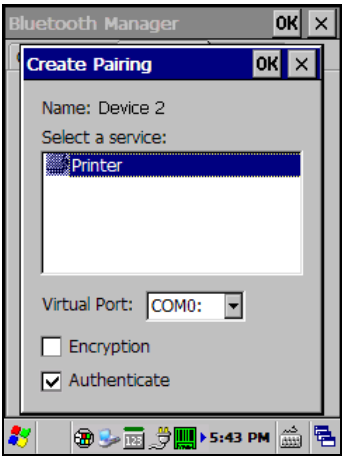
Icon	Service
	Dialup Networking
	Printer
	Object Push (OPP) Object Exchange (OBEX)
	ActiveSync
	Human Interface Device (HID) - Keyboard
	Serial
	Personal Area Network (PAN)
	Modem
	Headset
	Handsfree

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.

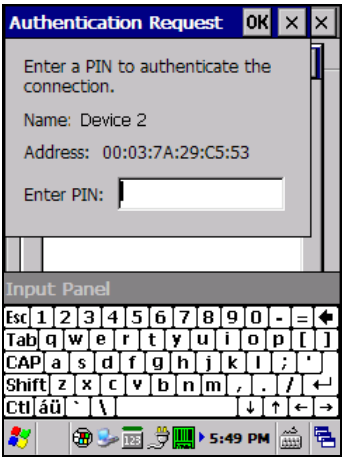


You can also select Encrypt or Authenticate from the Bluetooth® control panel to apply or modify those settings.

1. To require Authentication, check the checkbox, then tap OK.



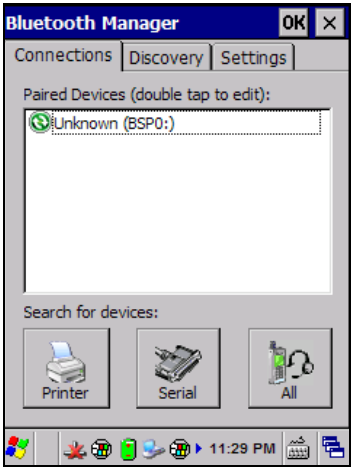
2. If required, the Authentication Request dialog will then open, requesting that you enter a PIN. Use the Input Panel or the keyboard to type the PIN.

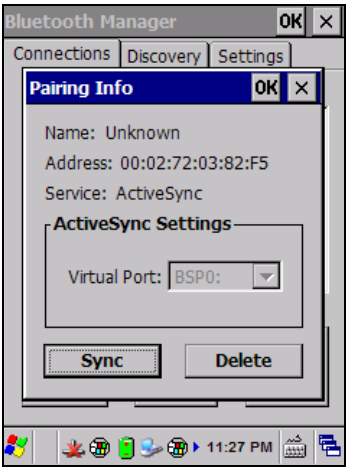


3. Tap OK to complete.

The dialog will also appear when an Authentication request is received from another device.

Once you have set up a pairing, you can view the settings by double-tapping its name from the Connections tab. Tap the arrow to change the Virtual Port, or Delete to remove the device pairing. Tap Sync to initiate a Sync (available only if the service is an ActiveSync connection).

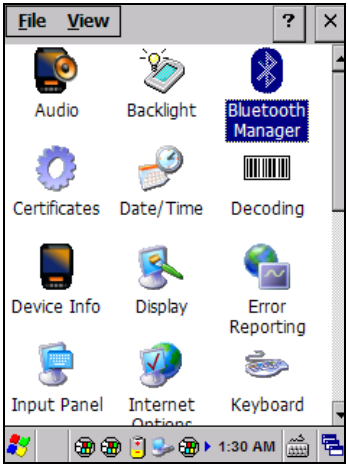


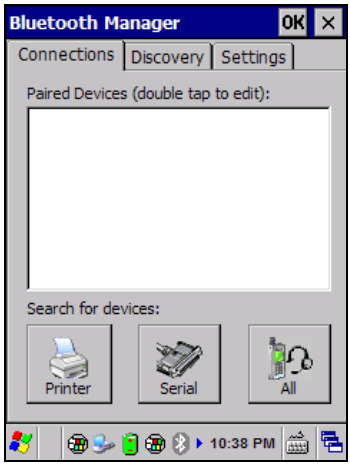


Using your device to connect to the WDT90

Before turning on Bluetooth®, ensure that the two devices are within close range and that both Bluetooth-enabled devices are discoverable.

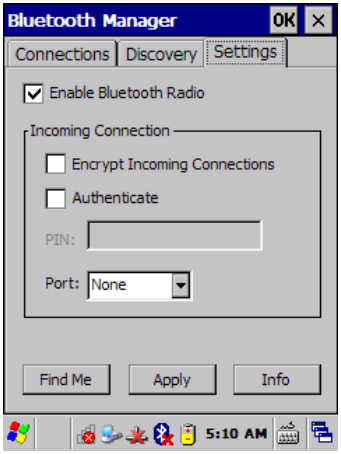
1. From the control panel main window, double tap the Bluetooth Manager icon to open the Bluetooth Manager control panel.



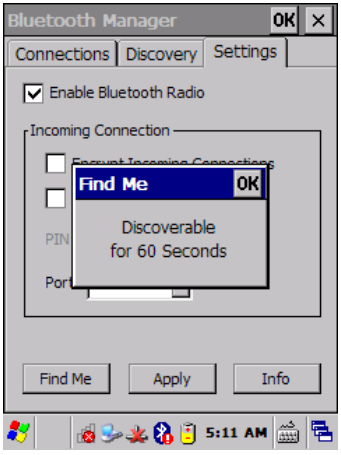


2. Tap Settings. The Settings tab allows you to enable or disable the Bluetooth® radio and specify settings for Incoming Connections.

3. Select or clear the “Enable Bluetooth Radio” check box.
   If you’re going to be attaching a serial device (i.e. a scanner) to the WDT90, 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 WDT90 discoverable to other Bluetooth® devices for 60 seconds, allowing them to set up a connection.



NOTE

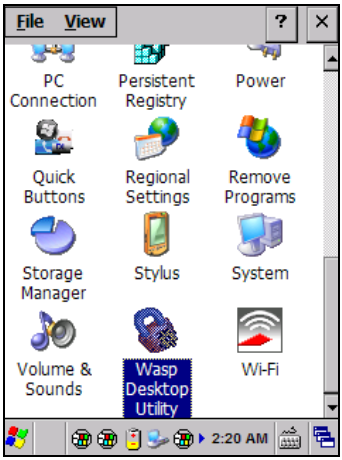
By default, Bluetooth® is turned off. If you turn it on, and then turn off your device, Bluetooth® also turns off. When you turn on your device again, Bluetooth® turns on automatically.

4.8 WASP DESKTOP UTILITY

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

- Prevent users from changing your device OS settings.
- Use 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 WDU for the first time, tap Start > Settings > Control Panel > or Start > Programs > Device tools > and then double tap the icon for “Wasp Desktop Utility”.



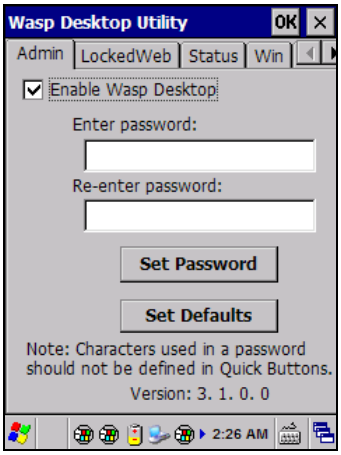
You can also open WDU by pressing the appropriate key shortcut. The default is “Alt + 6”.

NOTE

The key combination can be changed by using Quick Buttons to redefine the association for specific keys (such as <F1>-<F10>). See par. 4.6.2 for more information.

4.8.1 Administrative Options (Admin tab)

When you open the WDU control panel, the “Admin” tab appears.



COMMAND	DESCRIPTION
Enable Wasp Desktop	Select/tap this checkbox to activate the WDU functions such as Windows Access Restrictions and Application Selector.
Enter Password	Enter a password in the text box. This allows the user to specify a password when this utility is launched. By default the password is “1234”. A password can consist of all standard keyboard characters.
Re-Enter Password	Carefully re-enter the password in the second text box.
Set Password	Select/tap “Set Password” to enable the password. To change or remove the password, enter a new value, re-enter the new value, and select/tap “Set Password”.
Set Defaults	Select/tap “Set Defaults” 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.

Setting a Password

To set a password:

1. Enter a password in the field. This allows the user to specify a password when this utility is launched. By default the password is “1234”.

NOTE

Be sure to record the Password for future reference.

2. Re-enter the password in the second field.
3. Select/tap “Set Password” to enable the password.
4. Select/tap “OK” to close the “Set Password Confirmation” dialog.

NOTE

You must select/tap “Set Password” prior to exiting WDU in order to store and activate your new password. It is not necessary to select “Enable Wasp Desktop”.

CAUTION

If you select/tap “Set Defaults” it will remove all custom settings and restore all the factory default settings, except a previously set password.

Changing a Password

To change to a new password:

1. Enter a new value in the “Enter Password field”.
2. Re-enter the new value in the “Re-enter Password” field.
3. Select/tap “Set Password”.

Removing a Password

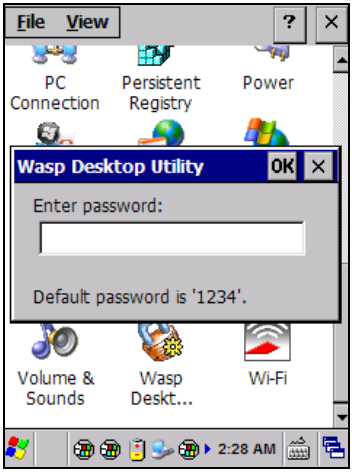
To remove a password:

1. Enter blanks in both “Password” fields.
2. Select/tap “Set Password”.

Password Request Dialog Box

Once the password is set, the next time you open the “Wasp Desktop Utility”, the WDU Password dialog box opens.

This dialog box will only open if a password was defined.



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. Select/tap “OK” to verify the password. Or tap “X” to cancel.

4.8.2 Locked Web Browser Options (LockedWeb tab)

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

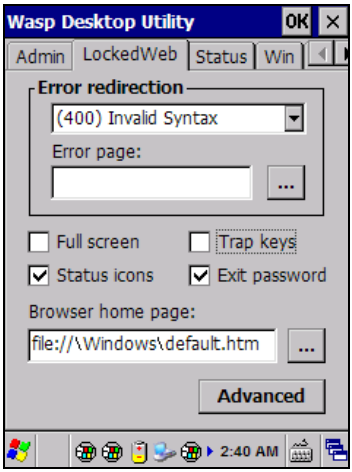
NOTE

Locked Web Browser is disabled by default. To enable, go to "Advanced settings" on the next page for more information.

For additional information about Locked Web Browser commands and metatags, see section 4.12, Locked Web Browser.

Error Page Redirection

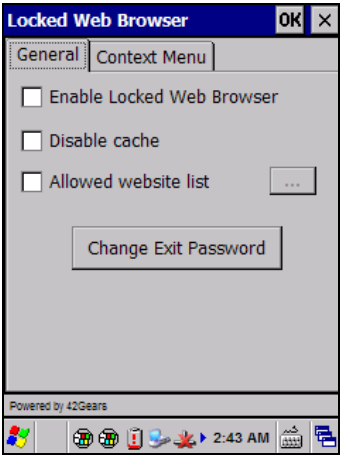
Use the Error Redirection option to provide customized recovery from common errors. When an error occurs, the browser can redirect access to a specified error page with instructions on how to recover from the problem.



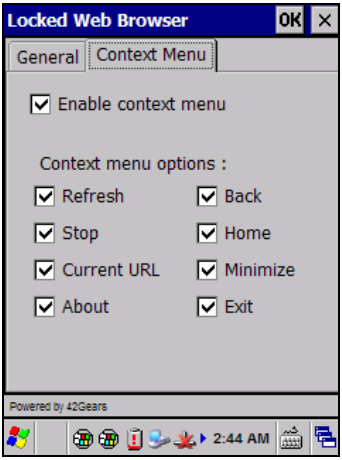
Locked Web Configuration Tab

Error Redirection options	
Error Type	The “Error Type” pull-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	Set the web browser in full screen mode. This is the only option available for Windows Mobile.
Status Icon	Enable or disable the status icons view (see par. 4.10.3). The status icons can be configured on the Status tab of WDU.
Trap Keys	When checked: – 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+0 to exit). – When unchecked: – 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+0 to exit).
Exit Password	When checked, a password will be required before the Locked Web Browser can exit. This password is different than the WDU exit password, with a default value of “0000”, and can be changed in the “Advanced” settings.
Browser Home Page	This sets the Internet Explorer home page, regardless of the enable state of the Locked Web Browser.
Advanced	Pressing this button will launch a dialog used to enable Locked Web Browser and to configure Advanced settings.

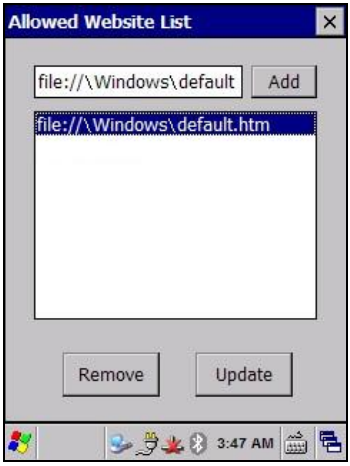
Advanced Settings



General Tab



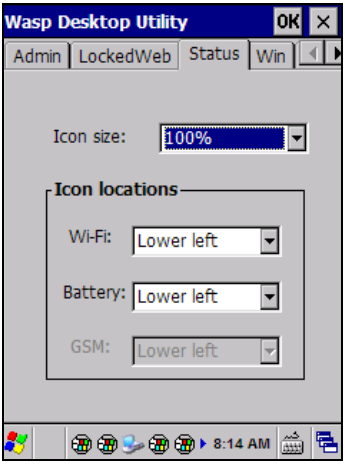
Context Menu

Advanced Locked Web Browser options	
General	
Enable Locked Web Browser	When checked, 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	Enables a “white list,” which restricts browsing only to files and URLs in the Allowed Website list (accessed by the “…” button). The following dialog appears:  **Allowed Website List** Click the “Add” button to add allowed URLs to the white list. Other sites will be restricted when the option is enabled. Domain names must be exactly specified.
Change Exit Password	Pressing this button brings up a dialog which allows the user 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 press in the Locked Web Browser.
Refresh	Adds a “Refresh” item to the Locked Web Browser context menu. Selecting the “Refresh” item refreshes the web page.
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 “About” item pops up the “About” dialog.
Zoom	(WEHH only) Adds a “Zoom” item to the Locked Web Browser context menu. Selecting the item brings up the IE Zoom Tool.
Back	Adds a “Back” item to the Locked Web Browser context menu. Selecting the “Back” item performs a navigation to the previous page.
Home	Adds a “Home” item to the Locked Web Browser context menu. Selecting the “Home” item navigates 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 “Show SIP” 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).

4.8.3 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, battery and GSM.



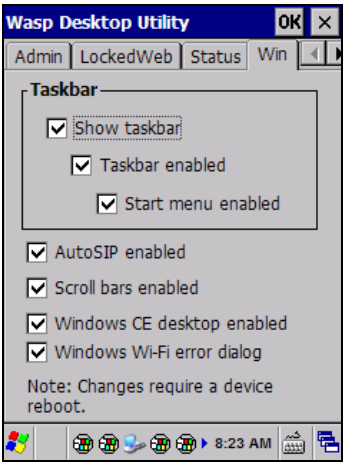
NOTE

The GSM status icon feature is available only on devices that support GSM.

Status Icons Options	
Set Status Icon Defaults	Restores the status icons’ factory settings.
Icon Size	Sets the status icons’ size.
Icon Location	Selects the preferred location for each status icon.

4.8.4 Windows Controls

Select/tap the “Win” (Windows Controls) tab to access the Windows Controls option. Use Windows controls 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 applications to be run in full screen mode and prevents users from accidental or unauthorized use of the taskbar, Internet Explorer, and any other resident applications.



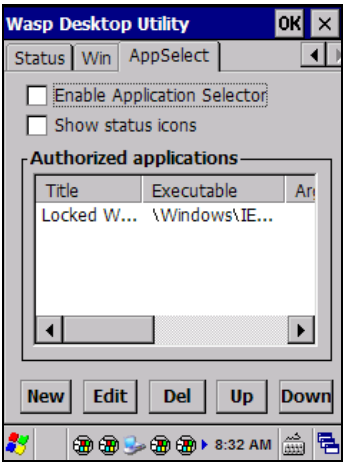
WINDOWS CONTROLS	
Show Taskbar	Select/tap “Show Taskbar” to specify whether the Taskbar is displayed or not
Taskbar Enabled	Select/tap “Taskbar Enabled” to specify whether the taskbar is accessible. This option is only available when the “Show Taskbar” is checked.
Start Menu Enabled	Select/tap “Start Menu Enabled” to specify whether the Start Menu is displayed or not. This option works only when “Task Bar Enabled” is checked.
AutoSIP Enabled	Enables the AutoSIP Windows feature.
Scroll Bars Enabled	This control only takes effect in Locked Web Browser. When checked, displays horizontal and vertical scroll bars to help view large web pages which do not fit the screen. When unchecked, scroll bars will not be present.
Windows CE Desktop Enabled	Windows CE Desktop Enabled specifies whether the desktop icons are accessible or not
Windows Wi-Fi Error Dialog	This control only takes effects in Locked Web Browser and Internet Explorer. When checked, the device will display a warning dialog when the Wi-Fi connected device moves out of range of an access point and the user attempts to navigate to a web page. This dialog box allows the user to reconfigure the Wi-Fi on the device. When unchecked, that dialog box will not appear and the “Network Disconnected” error page redirection is used to prevent users from reconfiguring the Wi-Fi on the device. Tap the “Locked Web Configuration Tab” to configure the “Network Disconnected” error page redirection (see par 4.10.2).

NOTE

Changes require a device reboot.

4.8.5 AppSelector Options (AppSelect tab)

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



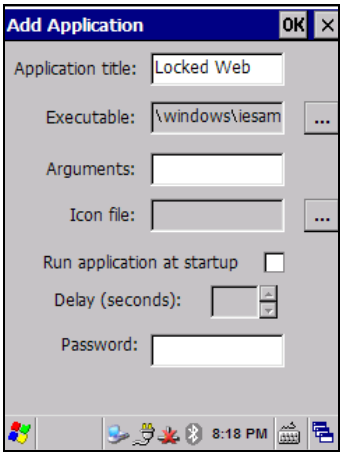
Application Selector Options	
Enable Application Selector	Select/tap "Enable Application Selector" to enable/disable the application selector. When enabled, the Application Selector replaces the desktop and allows only authorized use of applications.
Show status icons	Enable or disable the status icons view (see par. 4.10.3). The status icons can be configured on the Status tab of WDU.
Authorized Applications	This is a list of applications that the user can access.

Application Selector Commands	
New	Select/tap "New" to create a new application entry.
Edit	Select/tap "Edit" to edit the selected entry.
Del	Select/tap "Del" to delete the selected entry.
Up/Down	Select/tap "Up/Down" to move an entry up or down in the ListView.

Add Applications

The “Add Application” dialog opens when you tap either “New” or “Edit”. From the “Add Application” dialog the administrator can 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 this textbox in the way you wish it to appear for the user.
Executable	Displays the path for the executable file which you want to run.
Browse	Select/tap ... to browse for the desired executable file. The results of this search are placed in the “Executable” textbox.
Arguments	Type any command line arguments to be used when an application is executed.
Icon File	Displays the path/link to the desired icon file.
Browse	Select/tap ... to browse for the desired icon file. The results of this search are placed in the “Icon File” textbox.

COMMAND	DESCRIPTION
Run Application at Startup	Select/tap this box to force this 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 prior to starting applications.
OK	Select/tap “OK” to add/save changes.
X	Select/tap “X” to cancel the creation of this entry.

4.9 APPSELECTOR (APPLICATION SELECTOR)

The Application Selector is an application that allows 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.

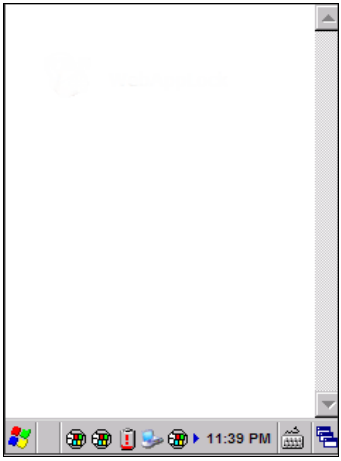


Figure 9 - Application Selector

The administrator can customize this list as shown in chapter 4.10.5.

To run an application, tap on its name.

Additionally, the page template can be modified to display a different background. Contact your Wasp representative for more information on this feature.

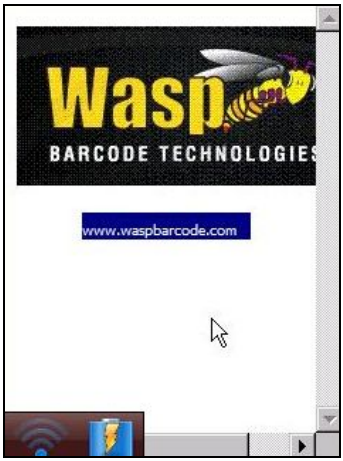
To exit from Application Selector, press ALT + 6, uncheck the 'Enable Application Selector' check box on the AppSelect Tab and press OK to exit WDU.

4.10 LOCKED WEB BROWSER

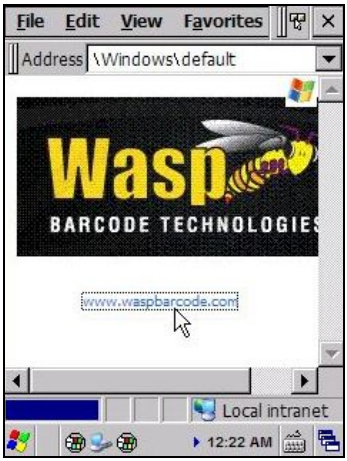
The Locked Web Browser is a browser helper object for Internet Explorer. It allows an administrator to define a restricted internet usage environment. Once in the restricted environment, a password is required to exit. This means users can only access web applications and websites set by the administrator.

NOTE

Configuration is set up through the WDU control panel. See section 4.10.2 for more information.



Full Screen Mode



CE Mode

In Full Screen mode, status icons may be used to display signal strength and battery state. For CE, a non-full screen mode exists that allows the status bar to be displayed but with user interaction disabled.

While in these modes, the user can navigate within the web application 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).

4.10.1 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

NOTE

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()”>
```

4.11 AUTOSTART

The AutoStart program provides three functions:

- Allows you to create a list of applications (with optional command line arguments) to run automatically prior to loading CAB files.
- Automatically reinstalls specified CAB files when the WDT90 is cold booted.
- Allows you to create a list of applications (with optional command line arguments) to run automatically after lo\ading CAB files.

AutoStart launches each time the WDT90 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 \CAB folder. If the CAB folder does not exist, no CAB files will be installed.

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

4.11.1 Installing CAB files

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

4.11.2 How AutoStart Uses Wceload

NOTE

If you intend to create highly interactive installers, you should either install the CABs manually or review the section on "Interactive CAB Install" in this chapter..

CAUTION

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
"\CAB\<cab file>"
```

4.11.3 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.

4.11.4 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 \Cab folder are installed. Autostart.ini is executed after CAB files in the \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 WDT90, and after any CAB files are installed. This file should be placed in the \root 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 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:

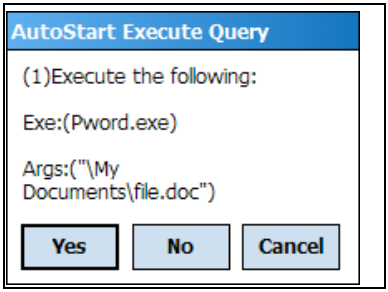
```
?- \Windows\Pword.exe
```

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 following dialog 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	This is 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.

AutoStart Query Options

Parentheses are used to surround the given field and make it very 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.

5 TECHNICAL FEATURES

5.1 TECHNICAL DATA

PHYSICAL CHARACTERISTICS	
DIMENSIONS (LxWxH)	Handheld: 193 x 76 x 42 mm, 61 x 35 at keyboard / 7.6 x 3 x 1.6 in, 2.4 x 1.4 in Pistol Grip: 193 x 76 x 156 mm / 7.6 x 3 x 6.2 in
WEIGHT	Handheld: 392 g / 13.8 oz., including standard battery Pistol Grip: 482 g / 17 oz., including standard battery
AUDIO	Headset (not provided; it requires a HandyLink adapter) Main (rear) speaker Receiver (front) Speaker
LEDS	Three LEDs Decoding Status/ Keyboard Status/ Charging Status
DISPLAY	Reflective TFT daylight readable colour display, 320 x 240 pixels (3.2" diagonal), 65K colours, backlit, touch screen
KEYBOARD	numeric 28keys, full-alphanumeric 50keys, alpha-numeric 38keys; Dimmable backlight
OPERATING TEMPERATURE*	-10º +50ºC (14º to 122ºF)
STORAGE TEMPERATURE	-20º +70ºC (-4º to 158ºF)
HUMIDITY**	95% non condensing for temperatures < 40 °C
DROP RESISTANCE***	Withstands drops from 1.5 m (5 ft) onto concrete
ENVIROMENTAL SEALING	IP64 standard for water and dust resistance
ESD PROTECTION	4 KV contact discharge, 8 KV air discharge

* WDT90 (including spare battery) should be charged at an ambient temperature between 0 - 35º C to achieve the maximum charging rate. Never charge the main device or spare batteries in a closed space where excessive heat can build up.
Close to the limits of the working temperature, some display and/or battery performance degradation may occur.

** Multiple rapid humidity and/or temperature variations may cause condensing.

*** Multiple drops can permanently damage the device.

SYSTEM	
OPERATING SYSTEM	Microsoft Windows CE 6.0
MICROPROCESSOR	XScale™ PXA310 @ 624 MHz
SYSTEM RAM MEMORY	512 MB
SYSTEM FLASH MEMORY	256 MB
POWER SUPPLY*	Removable battery pack with rechargeable Li-ion batteries; 3.7 V 3000/5200 mAh (11.10/19.24 Watt hours); micro USB power adapter for direct charge and power supply
COMMUNICATIONS	
INTERFACES	HandyLink connector: Integrated RS232 up to 115.2 Kbps, USB 1.1 Client, USB 1.1 Host
LOCAL AREA NETWORK (LAN)	Summit IEEE 802.11a/b/g Frequency range: Country dependent, typically 2.4 and 5.2 GHz CCX v4 Security
PERSONAL AREA NETWORK (PAN)	Bluetooth® Wireless Technology IEEE 802.15 Class 2 with EDR

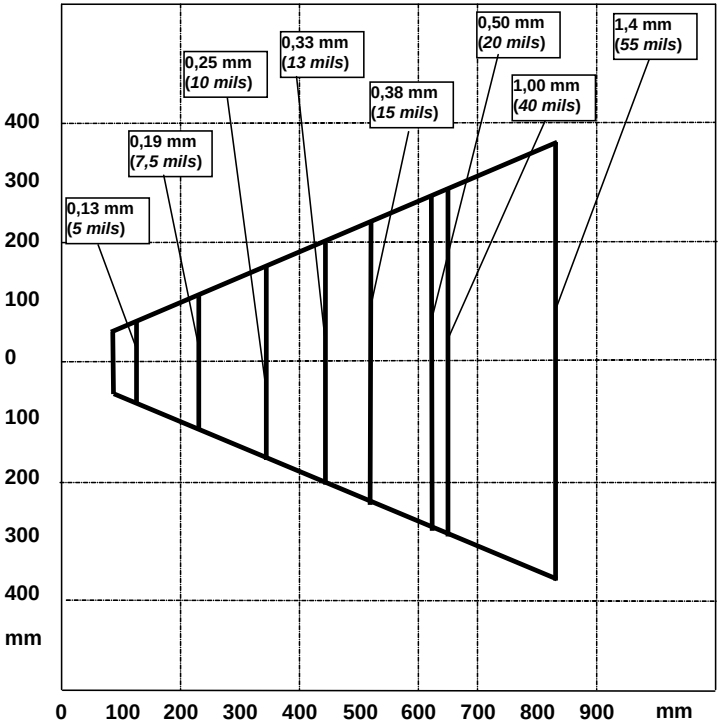
* Use only Wasp approved battery packs power adapters.

READING OPTIONS	
LASER CHARACTERISTICS	
SCANNING RATE	104 ± 12 scan/sec
OPTICAL RESOLUTION	0.10 mm / 4 mils
DEPTH OF FIELD	See reading diagrams (5.2)
SKEW ANGLE	± 50°
PITCH ANGLE	± 65°
LASER READER	VLD, wavelength 630~670 nm
BAR CODES	GS1 DataBar family, EAN/UPC, Code 39, 2/5 Codes, MSI, Codabar, Code 128, GS1-128, Code 93, Code 11, Pharmacode 39, Trioptic
LASER CLASSIFICATION	VLD - Class 2 IEC/EN 60825-1. Compliant with 21 CFR 1040-10 except for deviations pursuant to laser notice n. 50, dated June 24, 2007
IMAGER CHARACTERISTICS	
SCANNING RATE	60 frames/sec maximum
OPTICAL RESOLUTION	Linear codes 4 mils; 2D codes 5 mils
AIMING LASER	VLD, wavelength 640~660 nm
BAR CODES	UPC/EAN, 2 of 5 family, Code 39, Codabar, Code 128, GS1-128, Code 93, MSI, PDF417, MicroPDF417, Data Matrix, QR Code, GS1 DataBar family, Aztec Code, MaxiCode, Pharmacode 39, Trioptic, Composite, US POSTNET, US PLANET, USPS Intelligent Mail, Royal Mail RM4SCC, UPU FICS, Australian Post, KIX Code, Japanese Post
LASER CLASSIFICATION	VLD - Class 2 IEC/EN 60825-1. Compliant with 21 CFR 1040-10 except for deviations pursuant to laser notice n. 50, dated June 24, 2007
LED CLASSIFICATION	Exempt risk group IEC/EN 62471
ILLUMINATION SYSTEM	LEDs 600~630 nm

5.2 READING DIAGRAMS

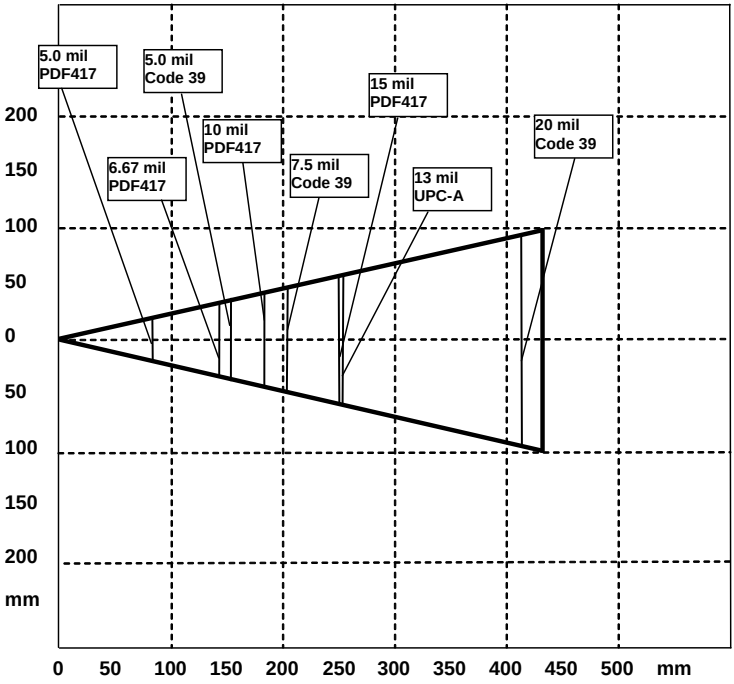
WDT90 SE950-DL

Guaranteed Reading Diagram – measured from the device nose (10° skew angle)



WDT90 SE4500-DL

Guaranteed Reading Diagram – Measured from the device nose (10° skew angle)



6 TEST CODES

High Density Codes

0.25 mm (10 mils)

Code 39

2/5 Interleaved

Code 128

80%

EAN 13

80%

EAN 8

Medium Density Codes

0.38 mm (15 mils)

Code 39

17162

Interleaved 2/5

0123456784

Code 128

test

100%

EAN 13

100%

EAN 8

Low Density Codes

0.50 mm (20 mils)

Code 39

17162

Interleaved 2/5

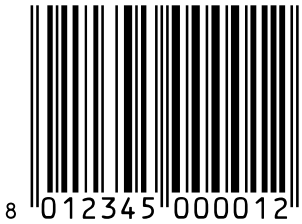
0123456784

Code 128

test

120%

EAN 13



120%

EAN 8

2D Codes

Datamatrix ECC200

Example

Inverse
Datamatrix ECC200

Example

SAFETY REGULATIONS

NOTE

Read this manual carefully before performing any type of connection to the WDT90 mobile computer.

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

- Use only the components supplied by the manufacturer for the specific WDT90 being used.
- Do not attempt to disassemble the WDT90 mobile computer, 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 WDT90 mobile computer, disposal must be performed in compliance with the laws in force in your jurisdiction.
- Before using the devices and the battery packs, read chap. 2.
- Do not submerge the WDT90 in liquid products.
- For further information, refer to this manual and to the Wasp web site: www.waspbarcode.com.

POWER SUPPLY

This device is intended to be supplied by a self-contained rechargeable lithium-ion battery pack (SELV, LPS) and/or by UL Listed/CSA Certified Power Unit marked “Class 2” or LPS power source which supplies power directly to the unit via the power connector of the cable.

LASER SAFETY

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

This information applies to both the WDT90 models with laser and Imager Aiming System.

I	D	F	E
La luce laser è visibile all'occhio umano e viene emessa dalla finestra indicata nella figura.	Die Laserstrahlung ist für das menschliche Auge sichtbar und wird am Strahlaustrittsfenster 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.	La 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 DI USCITA: 1 mW LUNGHEZZA D'ONDA EMESSA: 630~680 nm CONFORME A EN 60825-1 (2007)	LASERSTRAHLUNG NICHT IN DER STRAHL BLINKEN PRODUKT DER LASERKLASSE 2 MAXIMALE AUSGANGLEISTUNG: 1 mW WELLENLÄNGE: 630~680 nm ENTSPR. EN 60825-1 (2007)	RAYON LASER EVITER DE REGARDER LE RAYON APPAREIL LASER DE CLASSE 2 MAXIMUM PUISSANCE DE SORTIE: 1 mW LONGUER D'ONDE EMISE: 630~680 nm CONFORME A EN 60825-1 (2007)	RAYO LÁSER NO MIRAR FIJO EL RAYO APARATO LÁSER DE CLASE 2 MÁXIMA POTENCIA DE SALIDA: 1 mW LONGITUD DE ONDA EMITIDA: 630~680 nm CONFORME A EN 60825-1 (2007)

ENGLISH

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

STANDARD LASER SAFETY REGULATIONS
This product conforms to the applicable requirements of both CDRH 21 CFR 1040 Subchapter J and EN 60825-1:2007 at the date of manufacture.
For installation, use and maintenance, it is not necessary to open the device.

CAUTION

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.

CAUTION

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.

CAUTION

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 sezione J e EN 60825-1:2007.
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 60825-1:2007 und CDRH 21 CFR 1040 Subchapter J 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 beschrieben 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 sous-chapitre J et EN 60825-1:2007.
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 Sección J y EN 60825-1:2007.
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 illuminator integrated in the WDT90 models with SE-4500 imager engine are compliant with exempt risk group requirements according to EN62471:2008 and IEC62471:2006.

RADIO COMPLIANCE

In radio systems configured with mobile computers and access points, the frequencies to be used must be allowed by the spectrum authorities of the specific country in which the installation takes place. Be absolutely sure that the system frequencies are correctly set to be compliant with the spectrum requirements of the country.

The Radio modules used in this product automatically adapt to the frequencies set by the system and do not require any parameter settings.

Information for the User

ENGLISH

Contact the competent authority responsible for the management of radio frequency devices of your country to verify any possible restrictions or licenses required. Refer to the web site http://ec.europa.eu/enterprise/sectors/rtte/documents/contacts-points/spectr/ for further information.

ITALIANO

Contatta l'autorità competente per la gestione degli apparati a radio frequenza del tuo paese, per verificare eventuali restrizioni o licenze. Ulteriori informazioni sono disponibili sul sito:
http://ec.europa.eu/enterprise/sectors/rtte/documents/contacts-points/spectr/.

FRANÇAIS

Contactez l'autorité compétente en la gestion des appareils à radio fréquence de votre pays pour vérifier d'éventuelles restrictions ou licences. Pour tout renseignement vous pouvez vous adresser au site web:
http://ec.europa.eu/enterprise/sectors/rtte/documents/contacts-points/spectr/.

DEUTSCH

Wenden Sie sich an die für Radiofrequenzgeräte zuständige Behörde Ihres Landes, um zu prüfen ob es Einschränkungen gibt, oder eine Lizenz erforderlich ist. Weitere Informationen finden Sie auf der Web Seite:
http://ec.europa.eu/enterprise/sectors/rtte/documents/contacts-points/spectr/.

ESPAÑOL

Contacta la autoridad competente para la gestión de los dispositivos de radio frecuencia de tu país, para verificar cualesquiera restricciones o licencias posibles requerida. Además se puede encontrar mas información en el sitio web:
http://ec.europa.eu/enterprise/sectors/rtte/documents/contacts-points/spectr/.

FCC COMPLIANCE

FCC Regulations

- 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.
- This device 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 radiated 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.

  Changes or modifications not expressly approved by the party responsible for compliance could void the user‘s authority to operate the equipment.
- The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- This equipment has the capability to operate Wi-Fi in the 5 GHz Unlicensed National Information Infrastructure (U-NII) band. Because this band is shared with MSS (Mobile Satellite Service), the FCC has restricted such devices to indoor use only (see 47 CFR 15.407(e)). Since wireless hot spots operating in this band have the same restriction, outdoor services are not offered. Nevertheless, please do not operate this device in Wi-Fi mode when outdoors.

RF EXPOSURE INFORMATION (SAR)

This model device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the poser required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model device is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on the below FCC IDs:
FCC ID: C530060WDT90.

This device is compliant with SAR for general population /uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.

INDUSTRY CANADA COMPLIANCE

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

The County Code Selection feature is disabled for products marketed in the US/Canada.

This EUT is compliant with SAR for general population/uncontrolled exposure limits in IC RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528. This equipment should be installed and operated with minimum distance 1,5cm between the radiator & your body.

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.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

SAR COMPLIANCE

This product has been tested and found to comply with the following standards:

- For the used worst case positions, the portable device WDT90 from Wasp (FCC ID: C530060WDT90; Contains FCC ID: U4G004W) is in compliance with the IC RSS 102 Issue 4 [RSS 102] and Federal Communications Commission (FCC) Guidelines [OET 65] for uncontrolled exposure. SAR assessment in body worn was conducted with a distance of 15 mm between the housing of the handheld and the flat phantom.
- EN 62311:2008: assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz).

WEEE COMPLIANCE

Informazione degli utenti ai sensi della Direttiva Europea 2002/96/EC

L'apparecchiatura che riporta il simbolo del bidone barrato deve essere smaltita, alla fine della sua vita utile, separatamente dai rifiuti urbani.

Smaltire l'apparecchiatura in conformità alla presente Direttiva consente di:

- evitare possibili conseguenze negative per l'ambiente e per la salute umana che potrebbero invece essere causati dall'errato smaltimento dello stesso;
- recuperare materiali di cui è composto al fine di ottenere un importante risparmio di energia e di risorse.

Per maggiori dettagli sulle modalità di smaltimento, contattare il Fornitore dal quale è stata acquistata l'apparecchiatura o consultare la sezione dedicata sul sito www.waspbarcode.com.

Information for the user in accordance with the European Commission Directive 2002/96/EC

At the end of its useful life, the product marked with the crossed out wheeled wastebin must be disposed of separately from urban waste.

Disposing of the product according to this Directive:

- avoids potentially negative consequences to the environment and human health which otherwise could be caused by incorrect disposal
- enables the recovery of materials to obtain a significant savings of energy and resources.

For more detailed information about disposal, contact the supplier that provided you with the product in question or consult the dedicated section at the website www.waspbarcode.com.

Information aux utilisateurs concernant la Directive Européenne 2002/96/EC

Au terme de sa vie utile, le produit qui porte le symbole d'un caisson à ordures barré ne doit pas être éliminé avec les déchets urbains.

Éliminer ce produit selon cette Directive permet de:

- éviter les retombées négatives pour l'environnement et la santé dérivant d'une élimination incorrecte
- récupérer les matériaux dans le but d'une économie importante en termes d'énergie et de ressources

Pour obtenir des informations complémentaires concernant l'élimination, veuillez contacter le fournisseur auprès duquel vous avez acheté le produit ou consulter la section consacrée au site Web www.waspbarcode.com.

Información para el usuario de accuerdo con la Directiva Europea 2002/96/CE

Al final de su vida útil, el producto marcado con un simbolo de contenedor de bassura móvil tachado no debe eliminarse junto a los desechos urbanos.

Eliminar este producto de accuerdo con la Directiva permite de:

- evitar posibles consecuencias negativas para el medio ambiente y la salud derivadas de una eliminación inadecuada
- recuperar los materiales obteniendo así un ahorro importante de energía y recursos

Para obtener una información más detallada sobre la eliminación, por favor, póngase en contacto con el proveedor donde lo compró o consultar la sección dedicada en el Web site www.waspbarcode.com.

Benutzerinformation bezüglich Richtlinie 2002/96/EC der europäischen Kommission

Am Ende des Gerätelebenszyklus darf das Produkt nicht über den städtischen Hausmüll entsorgt werden. Eine entsprechende Mülltrennung ist erforderlich.

Beseitigung des Produkts entsprechend der Richtlinie:

- verhindert negative Auswirkungen für die Umwelt und die Gesundheit der Menschen
- ermöglicht die Wiederverwendung der Materialien und spart somit Energie und Resourcen

Weitere Informationen zu dieser Richtlinie erhalten sie von ihrem Lieferanten über den sie das Produkt erworben haben, oder besuchen sie unsere Hompage unter www.waspbarcode.com.

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.

Bar Code
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.

Baud Rate
A measure for data transmission speed.

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).

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.

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

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.

EEPROM
Electrically Erasable Programmable Read-Only memory. An on-board non-volatile memory chip.

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
Firmware is 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 Disk
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.

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.

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.

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.

Piconet
A piconet is a Bluetooth® PAN that links up to eight devices. Each piconet is controlled by one master device, and up to seven slave devices at any one time. Any device may be a member of more than one piconet, changing its membership as a user moves from one area to another.

RAM

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

RF

Radio Frequency.

RTC

Real Time Clock.

TDMA

Time division multiple access (TDMA) is digital transmission technology that allows a number of users to access a single radio-frequency (RF) channel without interference by allocating unique time slots to each user within each channel. The TDMA digital transmission scheme multiplexes three signals over a single channel. The current TDMA standard for cellular divides a single channel into six time slots, with each signal using two slots, providing a 3 to 1 gain in capacity over advanced mobile-phone service (AMPS). Each caller is assigned a specific time slot for transmission.

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.

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.

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