# WORKABOUT PRO4 HAND-HELD COMPUTER

(Windows Embedded Hand-Held 6.5)

# **USER GUIDE**

# WORKABOUT PRO4 HAND-HELD COMPUTER USER GUIDE

8000295-002 Rev. A April 2019 This user manual supports the model number 7528X which contains the approved radio module 21-148603-0B. The applicable FCC ID and Industry Canada numbers are as follows:

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## **Revision History**

Changes to the original guide are listed below:

Change Date		Description
-001 Rev A	04/2015	Zebra rebranding.
-002 Rev. A	4/2019	Correct USB Host pin maximum current value on page A-2.

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## **ABOUT THIS GUIDE**

## **About This Guide**

This user guide describes how to configure, operate, and maintain the Workabout Pro4 Hand-Held Computer.

- Chapter: About This Guide. provides a basic overview of the Workabout Pro4 Hand-Held.
- Chapter 1: Basic Operation. describes the steps required to get the Workabout Pro4 ready for operation.
- Chapter 2: Getting to Know Your Workabout Pro4. describes Workabout Pro4 features, including how to charge and maintain the battery, the keyboard features, the display, using the internal scanner, etc. This chapter also describes how to navigate the Microsoft® Windows® Embedded Hand-Held 6.5 Today screen, how to transfer data between the Workabout Pro4 and a PC and how to manage files and folders.
- **Chapter 3: Programs.** provides a description of the Microsoft<sup>®</sup> Windows<sup>®</sup> Embedded Hand-Held 6.5 Programs applets and how to use them.
- Chapter 4: Settings. provides details about Microsoft® Windows® Embedded Hand-Held Settings applets and how to use them.
- Chapter 5: Peripheral Devices & Accessories. describes the peripherals and accessories available for your Workabout Pro4 computer.
- Appendix A: Port Pinouts. describes pinouts for the Workabout Pro4 docking connector, connectors, battery contacts, and vehicle cradle cable connectors.
- Appendix B: DataWedge. points to detailed documentation about the DataWedge mobile device application that allows any application to receive data from barcode, RFID, magnetic stripe and serial devices.
- Appendix C: Scanner Services. details the Scanner Services application.
- Appendix D: Internal Imager & Scanner Specifications. lists the specifications for the Workabout Pro4 scanners and imagers.
- Appendix E: Workabout Pro4 Specifications. lists the specifications for your Workabout Pro4 computer, radios, and battery.

Appendix F: Wireless Zero Config Settings. outlines how to launch and use Wireless Zero Config to configure the radio.

Appendix G: Wireless Wide Area Network (WWAN). provides WWAN configuration information.

## **Text Conventions**



**NOTE** Notes highlight additional helpful information.



**IMPORTANT** 

These statements provide particularly important instructions or additional information that is critical to the operation of the equipment.



WARNING!

These statements provide critical information that may prevent physical injury, equipment damage or data loss.

## **Overview of the Workabout Pro4 Hand-Held Computer**

The Workabout Pro4 is a modular, industrial hand-held computer available in two form factors: Long and Short. Several options are available to suit applications in courier/delivery, field service, meter reading, asset management, warehousing and logistics, manufacturing and other specialized data capture applications.



**NOTE** The Workabout Pro4 Hand-Held Computer is a body-worn device. To maintain compliance with the FCC RF exposure guidelines, use a Zebra approved carrying case. Use of non-approved accessories may violate FCC RF exposure guidelines.



**NOTE** For product specifications, refer to Appendix E: Workabout Pro4 Specifications

#### Model

7528X, 7528XP, 7528XLF, 7528XHF, 7528XPLF, 7528XPHF, 7528XUHFE, 7528XUHFE, 7528XUHFN & 7528XPUHFN

#### Platform (standard)

- CPU: Sitara™ AM37x ARM Cortex™-A8 1 GHz processor
- Memory: 512 MB RAM/4GB Flash

#### **Operating System**

Microsoft Windows® Embedded Hand-Held 6.5

## **Bundled Applications**

- Internet Explorer® 6
- Wordpad<sup>®</sup>
- ActiveSync<sup>®</sup>®
- Microsoft® Office (Windows Hand-Held Embedded 6.5 only)

#### **Terminal Emulations**

- TekTerm Client Terminal Emulation
- Wavelink Terminal Emulation

#### **Additional Software**

- Kiosk
- MobiControl
- A.R.C.
- Total Recall/TweakIt/Dr. Debug
- · Windows® Mobile Device Center

#### **Wireless Data and Voice Communications**

#### Standard

- Bluetooth® Integrated Bluetooth® V2.0 + EDR
- WLAN 802.11a/b/g/n WiFi. Optional diversity antenna module available.



**NOTE** Optional diversity antenna module available (model number RA3052).

## Optional

WWAN - UMTS/HSPA+ WAN radio with GPS receiver (supports AGPS, GLONASS and SBAS)



**NOTE** Data only. In the Americas the Workabout Pro4 is not approved to be used with any VoIP application using Wide Area Network (WAN) or Wireless Local Area Network (WLAN).

GPS within the Options below -- option 1 or 2

Option 1: GPS receiver with SBAS support

Option 2: GPS receiver with GLONASS support (only available with WWAN option)

 $\checkmark$ 

**NOTE** 802.11a/b/g/n and Bluetooth are available simultaneously.

## **Barcode Scanners (optional)**

- SE9651D Laser
- SE655 1D Imager
- SE1524 1D Laser
- SE4500 1D/2D Imager



**NOTE** All scan engines are available factory configured or user installable as either an end-cap or slim pod.

#### **RFID Modules**

- LF Module
  - Frequency: 125 kHz
  - Protocols supported: EM 4x02; EM 4x05; EM 4x50; EM 4200; Q5; Hitag 1 & 2; Hitag S

- UHF Module
  - Frequency: 868 MHz or 915 MHz
  - Protocols supported: EPC Class 1 Gen 2; ISO 18000-6C
- HF Module
  - Frequency: 13.56 MHz
  - Protocols supported: ISO14443 type A, B and C, ISO 15693; NFC "Reader to Tag" Mode; full Mifare support
  - Data encryption: 2 SAM slots; ID1 SAM format; Class A, B and C

#### **User Interface**

- Display
  - Transflective colour/touch display 9.4 cm (3.7 in) VGA/QVGA (640 x 480)
  - Sunlight visibility with 240 cd/m<sup>2</sup> brightness
- Keyboards
  - Alphanumeric (7528 Long)
  - QWERTY or Numeric (7528 Short)
  - High reliability keypad with ultra-white backlight
- Voice & Audio
  - Push-to-Talk VoIP over WiFi (In the Americas the Workabout Pro4 is not approved to be used with any VoIP application using Wide Area Network (WAN) or Wireless Local Area Network (WLAN).)
  - Standard integrated microphone and receiver.
  - Standard high volume 86dBA beeper (95dBA beeper with extended ranger laser).
  - Optional speech module, certified with Vocollect and Wavelink Speakeasy clients.

#### **Power Management**

- 4400 mAh Lithium-ion battery Model No. WA3010
- 2850 mAh Lithium-ion battery Model No. WA3025
- 4680 mAh Lithium-ion battery Model No. WA3026
- Super capacitor power backup

## **Regulatory Labels**

Each scanner has a laser warning label accompanied by a protective housing and certificate label.



**WARNING!** 

Using controls or adjustments or performing procedures other than those specified herein may result in hazardous radiation exposure.

## SE655 LED Device — Class 1

#### **LED Compliance Statement**

Classified as "EXEMPT RISK GROUP" according to IEC 62471:2006 and EN 62471:2008

Figure 1 SE655 End-Cap LED Warning Label - Class 1



Figure 2 SE655 Slim Pod Laser Window Warning Label

CLASS 1 LED PRODUCT. LED KLASSE 1. APPAREIL À LED DE CLASSE1. 1类LED产品. COMPLIES WITH IEC 60825 -1: 2007 (Ed.2.0) AND IEC62471: 2006 (Ed.1.0); EN 62471: 2008.

CLASS 1 LED PRODUCT LED KLASSE 1.
APPAREIL Å LED DE CLASSE1.
1% LED M. COMPLIES WITH IEC
60825 -1: 2007 (Ed.2.0) AND
IEC62471: 2006 (Ed.1.0);
EM 62471: 2008

## SE965, SE4500 & SE1524 Lasers – Class 2

Figure 3 SE965 End-Cap Laser Warning Label



Figure 4 SE965 Slim Pod Laser Window Warning Label





Figure 5 SE965 Protective Housing and Certificate Label



Figure 6 SE4500 End-Cap Laser/LED Warning Label



Figure 7 SE4500 Slim Pod Laser Window Warning Label





Figure 8 SE4500 Protective Housing and Certificate Label



Figure 9 SE1524 Laser Warning Label



## **CHAPTER 1 BASIC OPERATION**

## **Workabout Pro4 Features**

Figure 1-1 Front View of the Workabout Pro4 7528 Long Alphanumeric Keyboard



Figure 1-2 Front View of Workabout Pro4 7528 Short Numeric Keyboard (QWERTY keyboard also available)



## **Workabout Pro4 Modules Available**

To see a current list of Workabout Pro4 accessories and modules, go to the website at:

http://www.zebra.com/US-EN/Product+Lines/Psion/?WT.mc id=psion us p handheld

## **Documents Available**

To see a current list of documents and download what you need, go to the Knowledge Base on IngenuityWorking community website:

http://www.ingenuityworking.com/knowledge/w/knowledgebase/product-manuals.aspx

## **Preparing the Workabout Pro4 for Operation**

## The Batteries

The Workabout Pro4 can be powered by the following Lithium-ion battery packs:

- 4400 mAh WA3010
- 2850 mAh WA3025
- 4680 mAh WA3026



IMPORTANT

Before charging the battery, it is critical that you review the battery safety guidelines in the Workabout Pro4 Hand-Held Computer Regulatory & Warranty Guide (PN 8000296).

Battery packs shipped from the factory are charged to approximately 40% and must be fully charged prior to use. Batteries can be charged using a variety of chargers and docking cradles. For detailed information, see Battery Details on page 2-1.

## Replacing the Battery Pack



#### IMPORTANT

Always switch the unit off before changing the battery (see Switching the Workabout Pro4 On and Off on page 1-3). However, assuming the default power saving parameters and battery reserve level have not been altered, battery swap time is a minimum of minutes — you will not lose data if the battery is replaced within this time frame.



**NOTE** If you are using a cradle or an external power supply, you can insert an uncharged battery and use the device while the battery charges.

Assuming the default power saving parameters and battery reserve level have not been altered, a battery can be removed for up to 4 minutes without losing data. Beyond 4 minutes, the hand-held may reboot.

## Removing the Battery Pack

- 1. If your unit is equipped with a hand strap, unhook it from the base of the battery.
- Turn the latches at the bottom of the battery to unlock the battery cover. Remove the battery.

## Installing the Battery Pack

- 1. Insert the charged battery into the unit making certain that the contacts on the battery match those on the hand-held. Replace the battery cover and lock both latches to secure the battery in place.
- 2. If your computer is equipped with a hand strap, re-attach the clip to the slot at the base of the battery.
- Switch the unit on (see Switching the Workabout Pro4 On and Off on page 1-3).

## Switching the Workabout Pro4 On and Off

Follow the instructions below for your Workabout Pro4.

#### Switching the Workabout Pro4 On

Press and hold the [Power] button down for at least one second.

When the unit is turned off, it automatically enters a power-saving "suspend" state. When the Workabout Pro4 is switched on from the suspend state, operation resumes within a few seconds in the screen in which you were working prior to turning the computer off.



#### **IMPORTANT**

If your Workabout Pro4 fails to power up, consider the following troubleshooting options:

The battery may be overheated (>60C°), a non-Zebra battery may be installed, or the battery may have fallen below the configured Suspend Threshold. See Suspend Threshold and Estimated Battery Backup on page 4-6 for details.

To switch on the hand-held, you will need to replace the overheated battery.

However, if you supply AC power to the Workabout Pro4 with a battery that falls below the configured Suspend Threshold, the unit will switch on.

## **Switching the Workabout Pro4 Off**

To switch off the Workabout Pro4, press the [Power] button. The Workabout Pro4 will automatically enter the Suspend state.



## **IMPORTANT**

Turning off the hand-held does not result in a complete shutdown; rather, the unit enters a power-saving, "suspend" state. When the Workabout Pro4 is turned on from suspend state, operation resumes within a few seconds.

To shut down the unit, press and hold down the [Power] button until the Power Option screen is displayed where you can choose the **Power off** option.

## **Resetting the Workabout Pro4**

To perform a variety of Workabout Pro4 resets, you can use the keyboard shortcuts described below.

## **Performing a Warm Reset**

During a warm reset, running programs are halted. The contents of the file system, Application directory (Flash Disk), and the registry are preserved. Keep in mind, however, that RAM content is not preserved.

 Press and hold down the [FN/BLUE] key and the [Power] button simultaneously for a minimum of four seconds.

The splash screen appears, and the unit resets.



**NOTE** You do not need to reset your unit after configuring the radio.

## **Performing a Cold Reset**

A cold reset reinitializes all hardware. All RAM including the RAM disk is erased. Non-volatile storage such as the Application directory (Flash disk) is preserved, as is the file system.

To execute a cold reset:

Press and hold down the [FN/ORANGE] key, the [FN/BLUE] key, and the [Power] button, simultaneously for a minimum of four seconds.

## **Performing a Clean Start**



#### **IMPORTANT**

It is important to note that for Fusion, configuration is stored in the Application folder – it does not default to the WiFi configuration. The Application folder is not affected by a clean boot.

A clean start returns the Workabout Pro4 to factory settings, flushes the registry keys and deletes volatile storage.

 Press and hold down the [FN/BLUE] key, the [Power] button and the [Front SCAN] key simultaneously for a minimum of six seconds.

The Workabout Pro4 displays the Boot to BooSt menu.

- On an alpha and QWERTY keyboard, type .clean.
- On a numeric keyboard, type .25326.

## **Boot to BooSt**

If you choose Boot to BooSt, the BooSt menu is loaded.

- 1. Press and hold down the [FN/BLUE] key, [Power] button and [Front SCAN] key for a minimum of four seconds.
- 2. Press [1] to launch the OS.

## **Attaching Carrying Accessories**

Zebra recommends that a carrying accessory — a hand strap — be installed on the Workabout Pro4 before use. For detailed information, see Carrying Accessories on page 5-1.

## **Calibrating the Touchscreen**

The Workabout Pro4 touchscreen feature is factory-calibrated and ready-to-go; however, over time the touchscreen operating parameters may change, and it may need to be recalibrated for correct operation. Refer to Calibrating the Touchscreen on page 2-8 for details.

## **Imager and Scanner Options**

Appendix D: Internal Imager & Scanner Specifications lists their current model numbers, descriptions, and specifications.

## **Connectivity**

For information on connecting the Workabout Pro4 to a PC, refer to Data Transfer Between Workabout Pro4 and a PC on page 2-25.

The Workabout Pro4 contains an 802.11a/b/g/n radio module. The Fusion Wireless Companion software contains applications to create wireless profiles. To configure the radio, follow the steps outlined under the heading Fusion Wireless Companion - Setting Up the 802.11a/b/g/n Radio on page 4-27.

To configure your Bluetooth settings, go to Bluetooth Setup on page 4-10.

If you have a GPS (Global Positioning System) module, you can choose from a set of GPS profiles built into the modem and set up AGPS (Assisted Global Positioning System). See GPS (Global Positioning System) on page 4-52.

## **Data Transfer**

Data transfer options vary slightly depending on the type of operating system installed in your PC. Various options exist depending on whether you are using Windows XP or earlier, Windows Vista® or Windows 7. For connection details, refer to Data Transfer Between Workabout Pro4 and a PC on page 2-25.

## **Phone Communication**

If the Cinterion PHS8-P HSPA+ radio modem is installed and enabled, the Phone icon and the GSM signal strength icon will appear when you tap on the navigation bar at the top of the screen. The keyboards are equipped with [Talk] and [End] phone keys. For details about using the phone options, refer to The Phone on page 3-2The Phone on page 3-2 and The Phone – Managing Settings on page 4-40.

# CHAPTER 2 GETTING TO KNOW YOUR WORKABOUT PRO4

## **Operating System**

Microsoft® Windows® Embedded Hand-Held 6.5

## **Battery Details**

Workabout Pro4 Hand-Held Computer is available with the following Lithium-ion battery pack options:

- 4400 mAh battery Model Number WA3010
- 2850 mAh battery Model Number WA3025
- 4680 mAh battery Model Number WA3026
- Super capacitor power backup

Re view the following sections for detailed battery information:

- Installation: Preparing the Workabout Pro4 for Operation on page 1-2.
- Power settings: Power on page 4-5.
- Chargers and cradles: Chapter 5: Peripheral Devices & Accessories.
- Specifications: Battery Specifications on page E-2.
- Contact pinout: Battery Contact Pinout on page A-2.

## **Battery Safety**



IMPORTANT

Before attempting to install, use, or charge the battery pack, it is <u>critical</u> that you review and follow the important safety guidelines in the quick reference guide entitled Workabout Pro4 Hand-Held Computer Regulatory & Warranty Guide, PN 8000296

## **Battery Swap Time**

Assuming the default power saving parameters and battery reserve level have not been altered, battery swap time is a minimum of 4 minutes — you will not lose data if the battery is replaced within this time frame.

To protect data, the safest place to store data is on a microSD memory card or externally on a USB memory stick or on a PC. You can also save data in the "Application" (Flash Disk) partition of the file system.

Refer to Suspend Threshold and Estimated Battery Backup on page 4-6 for details about reserving battery power for data backup purposes.

The Suspend Threshold adjustment in the Power Properties tab allows you to determine the battery capacity at which the Workabout Pro4 will be shut down. If left at the default value, Maximum Operating Time, the unit will run until the battery is completely empty; the RAM is only backed up for a short period of time. If you choose Maximum Backup Time, the Workabout Pro4 shuts off with more energy left in the battery so RAM can be backed up for a longer period of time.



#### **IMPORTANT**

If your Workabout Pro4 fails to power up, consider the following troubleshooting options:

The battery may be overheated (>60C°), a non-Zebra battery may be installed, or the battery may have fallen below the configured Suspend Threshold. See Suspend Threshold and Estimated Battery Backup on page 4-6 for details.

To switch on the hand-held, you will need to replace the overheated battery.

However, if you supply AC power to the Workabout Pro4 with a battery that falls below the configured Suspend Threshold, the unit will switch on.

## **Charging the Battery**



#### **IMPORTANT**

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO INSTRUCTIONS.

Batteries shipped from the factory are charged to approximately 40% of capacity. Lithium-ion battery packs must be fully charged before use. These batteries can be charged with a variety of chargers and docking cradles. For detailed information about these accessories, please see Chapter 5: Peripheral Devices & Accessories.

Normally, it takes 3 to 4 hours to charge a battery.



#### **IMPORTANT**

To avoid damaging the battery, chargers will not begin the charge process until the battery temperature is between 0°C to 45°C (32°F to 113°F).

## The Keyboard

Keyboard options varied depending on the Workabout Pro4 model

Workabout Pro4 Version	Keyboard Type Available
Workabout Pro4 Long	Alphanumeric only
Workabout Pro4 Short	Numeric or QWERTY

This hand-held is equipped with a [Power] button in the lower left corner of the keyboard.

The [FN/BLUE] modifier key provides access to additional keys and system functions. These functions are colour coded in blue print above the keyboard keys.



**NOTE** Almost all keys can be reprogrammed to suit your requirements.

## The [Power] Button

The [Power] button in the lower left corner of the keyboard switches the unit on and off.

## Standard Keys

## The [ENTER] Key

The [ENTER] key is used to execute the usual Enter keyboard functions.

## The [SHIFT] Key

The [SHIFT] key is used to display uppercase alpha characters and to provide access to other symbols and functions on the numeric keyboards. Press the [SHIFT] key to turn the shift state 'on' (it will be represented in the shift-state indicator in the navigation bar at the top of the screen), then press another key to access the shifted function of that key.

Press the [SHIFT] key twice to lock the shift state on (the shift-state will be outlined in a black frame to indicate it is locked 'on'). It is now in CAPS LOCK mode. Press [SHIFT] again to turn the shift state off.

#### The Arrow Keys

The [Arrow] keys are located near the top of the keyboard, and are represented on the keyboard as triangles pointing in different directions. The [Arrow] keys move the cursor around the screen in the direction of the arrow: up, down, left and right. The left arrow key should not be confused with the [BACKSPACE] key which is depicted as a left arrow. The cursor is the flashing box or underline character that indicates where the next character you type will appear.

## The [BACKSPACE/DEL] Key

The [BACKSPACE] key (represented on the keyboard as an arrow pointing left) moves the cursor one character to the left, erasing the previous key stroke.

The [DEL] key ([FN] +[BACKSPACE]) erases the character at the current cursor position.

#### The [CTRL] and [ALT] Key

The [CTRL] and [ALT] keys modify the function of the next key pressed and are application dependent. Pressing either key twice locks it 'on'. Pressing the key once again unlocks it.

## The [TAB] Key

Typically, the [TAB] key moves the cursor to the next field to the right or downward.

## The [ESC] Key

Generally, this key is used as a keyboard shortcut to close the current menu, dialog box, or activity.

## The [SPACE] Key

The [SPACE] key is represented on the keyboard by a long, horizontal line bracketed by a small vertical line on each side. Pressing this key inserts a blank space between characters. In a Windows dialog box, pressing the [SPACE] key enables or disables a checkbox.

## The [SCAN] Key

The Workabout Pro4 is equipped with a single [SCAN] key at the top of the keyboard and two [SCAN] buttons located on the left and right sides of the unit. [SCAN] keys activate the scanner beam. For units that do not have internal scanners, these keys can be remapped to serve other functions.

## Volume Control – [UP ARROW] [DOWN ARROW]

The volume keys are located above the [UP ARROW] and [DOWN ARROW] and are labelled with blue icons - the [UP ARROW] is labelled with a plus (+) symbol indicating volume increase while the [DOWN ARROW] is labelled with a minus (-) symbol indicating volume decrease.

- To increase the volume, press the [FN/BLUE] key followed by the [UP ARROW] key.
- To decrease the volume, press [FN/BLUE] followed by the [DOWN ARROW] key.

## **Modifier Keys**

The [SHIFT], [CTRL], [ALT], [FN/BLUE] and [FN/ORANGE] keys are modifier keys. Pressing a modifier key changes the function of the next key pressed. For example, on a Workabout Pro4 Short Qwerty keyboard, a bracket is printed in orange print above the [U] key. Pressing the [FN/ORANGE] key followed by the [U] key displays a bracket rather than the letter U.

The [SHIFT], [CTRL] and [ALT] keys operate much like a desktop keyboard except that they are not chorded (two keys held down simultaneously). The modifier key must be pressed first followed by the key whose function you want modified.

## **Activating Modifier Keys**

When a modifier key is pressed, it is represented in the shift-state indicator icon in the navigation bar at the top of the screen, making it easier to determine whether or not a modifier key is active. For example, when the [FN/BLUE] key is pressed, it is represented in blue in the shift-state indicator icon at the top of the screen.

Figure 2-1 Shift-State Indicator Icon

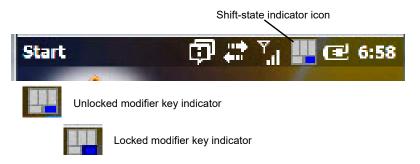


## **Locking Modifier Keys**

When a modifier key is locked 'on', it will remain active until it is pressed again to unlock or turn it off.

To help you identify when a modifier key is locked 'on', the key is represented in the shift-state indicator icon with a black frame around it.

Figure 2-2 Shift-State Indicator Icon – Locked/Unlocked Modifier Key



Once a modifier key is unlocked or turned off, it is no longer displayed in the shift-state indicator icon.



NOTE The locking function of the modifier keys can be changed so that pressing a modifier key once will lock it 'on'.

If you disable the 'One Shot' function of the key, pressing it once will lock the key 'on'. Pressing the same key a second time will unlock or turn it 'off'. Refer to OneShots on page 4-35 for details.

## **Function Keys and Macro Keys**

In addition to the standard keyboard functions, the Workabout Pro4 supports Function keys and Macro keys (Macro keys are only available on Workabout Pro4 Long units).

All function keys and macro keys can be custom defined for each application.

## **Function Keys**

Function keys perform special, custom-defined functions within an application. These keys are accessed by pressing one of the dedicated function keys on the keyboard, or through the appropriate [SHIFT] or [FN] key sequence, depending on the keyboard variant being used.

All Workabout Pro4 keyboards are equipped with a total of 14 function keys. Function keys [F1] to [F4] located near the top of the keyboard are directly accessible – a key combination is not required. Ten additional function keys from [F1] to [F10] are colour coded in blue print on the unit body; these keys are accessed by executing a key combination, [FN/BLUE] followed by the appropriate key.

For example, to access [F6] on a QWERTY keyboard:

Press the [FN/BLUE] key followed by the [F] alpha key – the alpha key to which function key [F6] is mapped.

## Macro Keys (Workabout Pro4 Long only)



IMPORTANT Refer to Macro Keys on page 4-36 for details about creating macros.

Workabout Pro4 Long units are equipped with 10 Macro keys. Workabout Pro4 Short hand-helds are not equipped with these keys. Macro keys can be programmed to replace frequently used keystrokes, along with the function of executable keys like the [ENTER] key, the [BACKSPACE] key, any function key and arrow key,

Alphanumeric keyboards have ten macro keys: [M1] to [M10]. These keys are colour coded in orange print above the numeric keys.

To access a macro key:

Press the [FN/ORANGE] key followed by the appropriate numeric key from [1] to [0].
 For example, to access macro key [M1], press [FN/ORANGE] [1]. To access macro key [M2], press [FN/ORANGE] [2], and so on.

Whether your keyboard does or does not have macro keys physically stamped on the keyboard, up to 15 macro functions can be added using the Scancode Remapping function. Refer to Scancode Remapping on page 4-38 for details about mapping keys.

## Numeric Keyboards — Accessing Alpha Keys

On Numeric Workabout Pro4 keyboards, all alphabetic characters are printed on the unit plastic in blue typeface above the keys. Alpha characters are accessed by pressing the [FN] modifier key, then pressing another key on the keyboard.

Alpha Modified Numeric 789 keyboards have each blue alphabetic character assigned as a single [FN]-shifted character on individual keys.

Numeric 123 keyboards have telephone-style alphabetic keys, with the blue alphabetic characters located in groups of 3 or 4 above each of the numeric keys. To access characters on these keyboards, a few extra steps are needed, as described below.

## **Choosing a Single Alpha Character**



**NOTE** The following examples assume that the [FN/ORANGE] key is enabled as 'Lock' mode in the 'One Shot' screen (accessed by choosing Start>Settings>Personal>Buttons icon). In 'Lock' mode, pressing the [FN/ORANGE] key once locks it 'on'. Refer to OneShot/Lock on page 4-36 for details.

The examples below illustrate how to access A, B and C, all of which are printed in blue characters above the numeric key [2] on a numeric keyboard.



IMPORTANT

The letters you choose appear in the shift-indicator icon at the top of the screen, providing a visual indicator of which letter will be displayed on the screen.

To choose the letter 'a':

- 1. Press the [FN/ORANGE] key, and press the numeric key [2].
- 2. Press the **[FN/ORANGE]** key again to unlock or turn it off.



**NOTE** To choose the second, third or fourth alpha character assigned to a numeric key, you may want to lock the [FN/ORANGE] key 'on'. Remember that depending on how your Workabout Pro4 is set up in the 'One Shots' tab, you may find that you need to press the [FN/ORANGE] key twice to lock it 'on'. Refer to OneShot/Lock on page 4-36 for details.

To choose the letter 'b':

- 1. Lock the [FN/ORANGE] key 'on', and press [2] twice.
- 2. Press the [FN/ORANGE] key again to unlock or turn it off.

To choose the letter 'c':

- 1. Lock the [FN/ORANGE] key 'on', and press [2] three times.
- 2. Press the [FN/ORANGE] key again to unlock or turn it off.



**NOTE** Keep in mind that there is a timeout of one second between key presses when sequencing through the alphabetic characters on a key. If you pause longer than one second between key presses, the alphabetic character that is displayed at that time will be entered.

#### **Creating Uppercase Letters**

To display capital letters, you need to first lock the [SHIFT] key 'on'.

Press the [SHIFT] key twice.

All alpha keys are displayed in uppercase until you press the [SHIFT] key again to 'unlock' (switch off) the function of this key.

### **Choosing Multiple Alpha Characters**

Lock the [FN/ORANGE] key 'on'

Each time you press a numeric key from [2] through [9], an alpha character will be displayed on the screen. Remember that you can refer to the softkey bar for a visual indication of which alpha key will be displayed on the screen.



**NOTE** Once you have finished typing alpha characters, remember to turn off or unlock the [FN/ORANGE] key. Check the shift-state indicator icon (refer to Figure 2-1 Shift-State Indicator Icon on page 2-4) to make certain that the key is turned off.

### The Keypad Backlight

The intensity of the keypad backlight can be configured using the Backlight icon accessed by tapping on Start>Settings>System>Backlight. Refer to Backlight - Screen and Keypad on page 4-47 for details about this option.



**NOTE** Keep in mind that this option may be restricted to supervisory use only.

# The Display

The Workabout Pro4 is equipped with display backlighting to improve character visibility in low light conditions. The backlight switches on when a key is pressed.

# Adjusting the Display Backlight

To set the backlight intensity and the duration of time that the backlight will remain on, you'll need to choose the Backlight icon.

Tap on Start>Settings and then, tap on System>Backlight icon.

Refer to Backlight – Screen and Keypad on page 4-47 for details.

### **Calibrating the Touchscreen**

If your touchscreen has never been aligned (calibrated) or if you find that the stylus pointer is not accurate when you tap on an item, follow the steps below.

Tap on Start>Settings>System. Tap on the Screen icon.



The General tab is displayed in which you can correct alignment and choose screen orientation (see Screen Orientation on page 2-8 for details).



• Tap on the **Align Screen** button, and follow the directions on the screen to align (calibrate) the screen.



**NOTE** This window provides two additional tabs: ClearType and Text Size. Tapping on the ClearType tab allows you to enable the ClearType option to smooth screen font appearance. The Text Size tab allows you to increase or decrease the size of the font displayed on the screen.

# **Screen Orientation**

In addition to screen calibration, the Screen icon allows you to determine how your screen will be oriented – portrait or landscape (right- or left-handed).

- Tap on Start>Settings>System icon.
- Tap on the Screen icon.
- In the General tab, tap on the orientation that best suits the way in which you use your Workabout Pro4.

### Locking the Touchscreen

If you need to lock your touchscreen to protect against accidental actions:

- At the Today screen, tap on the Start icon.
- Tap on the Lock icon in the softkey bar at the bottom of the screen. A sliding lock is displayed on the screen.





 Place the stylus on the sliding lock, flick it to the right and release to unlock the touchscreen and display the screen options.

# **Indicators**

The Workabout Pro4 uses a LED (Light Emitting Diode), onscreen messages, and audio tones as indicators.

### **LED**

The Workabout Pro4 is equipped with a single, orange coloured LED. This section outlines what the LED indicates.

Charge LED Behaviour	Indication
3 flashes, pause, repeat	'Power on' was attempted. Unit will retry.
Rapid blinking for 1 second	Reset or resume is being ignored because the battery door is open. If the door is closed during this process, reset or resume will proceed normally.
Fast blip (500 ms period, 13% duty cycle)	Windows is in "unattended mode".
Slow blink (2 second period, 50% duty cycle)	Charge temperature fault.
Solid Orange	Booting/resuming.

### **Audio Indicators**

The Workabout Pro4 supports several audio options, including a Bluetooth headset. Sounds are emitted through the front receiver. The beeper provides a variety of sounds and can be configured to emit a sound to signal a number of events such as screen taps, notifications, and so on. Information on configuring sounds is detailed in Sounds Tab on page 4-9.

# **Inserting the microSD Card and SIM Card**

There are two slots available when the battery is removed from the battery compartment — the smaller slot to the left is used to load the microSD (Secure Digital) card, which provides additional non-volatile memory to your Workabout Pro4, and the slot to the right is used to load a SIM (Subscriber Identity Module) card, which allows access to the Voice option, access to the Internet, and so on.

### **Inserting and Removing the Cards**

- 1. Switch off the power to the Workabout Pro4.
- 2. Remove the battery.

To insert a microSD card:

- 1. Flip up the rubber cover of the microSD card door on the left.
- 2. Slide the microSD card into the slot until it clicks into place. (The microSD slot is spring-loaded.)
- 3. Push the rubber cover back in place.
- 4. To remove the microSD card, lift the rubber cover and push the microSD card inward until it pops out of the slot.

The SIM slot is equipped with a release tab. To insert a SIM card:

- 1. Slide the SIM card into the slot on the right until it clicks into place.
- 2. To remove the SIM card, depress the metal release tab and slide the card out of the slot.

# **Scanners and Imagers**



IMPORTANT

It is critical that you review the "Laser Warnings" in the Workabout Pro4 Hand-Held Computer Regulatory & Warranty Guide (PN 8000296) before using any of the scanners described in this chapter.



**NOTE** To enable a newly-installed imager or scanner, press and hold down the [FN/BLUE] key and the [Power] button for a minimum of three seconds.

The Workabout Pro4 supports a wide range of scanner options to address a variety of user application requirements. Refer to the following sections for detailed information:

- Scanner list and specifications: Appendix D: Internal Imager & Scanner Specifications.
- Configuration: Appendix B: DataWedge, Appendix C: Scanner Services and Manage Triggers on page 4-55.
- Scanning Techniques outlines the mechanics of a successful scan.
- Barcode Parameters: Appendix C: Scanner Services.
- · Troubleshooting provides some helpful suggestions should the scan fail.

# **Basic Scanner Operations**

- Turn the hand-held on. Wait until the unit has booted up completely.
- Aim at the barcode and press the scan key or the trigger. A scan beam and a warning indicator appear until
  a successful decode is achieved or six seconds have elapsed.

# **Scanning Techniques**

- Hold the scanner at an angle. Do not hold it perpendicular to the barcode.
- Do not hold the scanner directly over the barcode. In this position, light can reflect back into the scanner's exit window and prevent a successful decode.

- Scan the entire barcode. If you are using a 1D or PDF laser scanner, make certain that the scan beam crosses every bar and space on the barcode, including the margins on either end of the symbol.
- If you are using a 2D imaging scanner, make certain the red, oval shaped framing mark is centered within the barcode you want to scan.
- When using imaging scanners, do not move the scanner while decoding the barcode. Movement blurs the image.
- Hold the scanner farther away for larger barcodes.
- Hold the scanner closer for barcodes with bars that are close together.

### **Troubleshooting**

If the scanner is not working, investigate the following:

- Is the unit on?
- Check that the barcode symbology being scanned is enabled for the hand-held you are using. Check any other parameters that affect the scanning procedure or the barcode.
- Check the barcode to make sure it is not damaged. Try scanning a different barcode to verify that the problem is not with the barcode.
- Check that the barcode is within the proper range.
- Does the hand-held display the warning without scanning? This suggests a hardware problem in the hand-held.
- Is the laser beam scanning across the barcode?
- Once the scan beam has stopped, check the scanner window for dirt or fogging.

# **Operating 1D Internal Laser Scanners**

- Turn the hand-held on. Wait until the unit has booted up completely.
- Aim at the barcode and press the scan key or the trigger. A scan beam and a warning indicator appear until a successful decode is achieved or six seconds have elapsed.

# **Operating 2D Internal Imagers**

An imager scanner takes a snap shot of a single barcode or multiple barcodes (at one time). It can find a barcode regardless of its orientation — that is, even a barcode printed at a 45 degree angle to the hand-held will be decoded successfully.



**NOTE** When scanning **multiple** barcodes, ensure that all of the desired barcodes are within the field of view of the scanner. It is possible that even when all barcodes are within the field of view, not all of them will be decoded. Only successfully decoded barcodes are passed to the application program. The application program then issues a warning, asking that you scan the missing barcodes.

When scanning a single barcode, ensure that only the desired barcode is within the field of view of the scanner.

Because imager scanners generally have a shorter depth of field than laser scanners, some practise may be required to find the optimal distance from the types of barcodes being scanned. Although the imager includes illumination LEDs, ambient light will help the imager decode the barcodes, especially if the barcode is far from the hand-held.



#### **IMPORTANT**

Keep in mind that the imager scanner is a camera, and the LED illumination is a flash. Glare can be an issue on reflective media such as plastic coated barcodes, just as glare is an issue for photographers. When pointing at a shiny surface, either shift the barcode to the side or top, or angle the barcode so that the glare reflects away from the imager scanner.

Most imagers take several 'snap shots' of the barcode in order to decode it. It is normal for the LEDs to flash two or three times. Hold the unit steady between flashes to improve decode performance.

- Turn the hand-held computer on. Wait until the unit has booted up completely.
- Aim at the barcode and press the scan key or the trigger. Hold the trigger until a successful or failed scan
  result is obtained.
- When the scan button or trigger is pressed, a red, oval shaped light (the framing marker) is displayed.
   Centre the framing marker in the field either in the centre of the barcode you want to scan or in the centre of the area in which multiple barcodes are to be scanned.

The illumination LEDs will flash (typically several times) and a picture of the barcode is taken.

# Navigating in Windows Embedded Hand-Held 6.5 and Applications

Graphic user interfaces like Windows Embedded Hand-Held 6.5 for portable devices or desktop Windows (XP, Windows 7, etc.) utilize 'point and click' navigation. On the Workabout Pro4, this is accomplished using a touchscreen and stylus rather than a mouse.

# **Navigating Using a Touchscreen**



**NOTE** If the touchscreen is not registering your screen taps accurately, it may need recalibration. Refer to Calibrating the Touchscreen on page 2-8.

A touchscreen is a standard feature on all Workabout Pro4 hand-held computers. Each is shipped with a stylus – a pointing tool.

- Use the stylus to tap on the appropriate icon to open files and folders, launch applications and programs, make selections, and so on. You can also use your finger rather than the stylus.
- Tap and flick the stylus or your finger on the screen to scroll through the options on a screen.
- Tap on the navigation bar to display additional icons.

# **Navigating Using the Keyboard**

If you prefer to use the keyboard to move the cursor around the screens on your Workabout Pro4, refer to table following for a description of the navigation keys.

Operation	Key or Key Combination
Switch between active applications	[ALT] [TAB]
Open task manager	[ALT] [ESC]
Move the cursor	Arrow keys
Open file, folder or icon	[ENTER]

Operation	Key or Key Combination
Exit & Save	[ENTER]
Close/Exit & Do Not Save	[ESC]
Navigate Dialog Boxes	[TAB]
	To move cursor up [SHIFT] [TAB]
	To display the contents of the next 'tab' in a dialog box [CTRL] [TAB]
Select Radio Button/Press Button	[SPACE]
Go to Start Menu	[Windows]

Keep in mind that unlike a desktop computer, the Workabout Pro4 does not support key chording (pressing two keys at the same time). You must press one key followed by the next in sequence.

# The Today Screen

The Today screen provides quick access to a default list of applets such as phone, voicemail, and so on. This screen is also equipped with a navigation bar along the top of the screen which provides access to hotkeys. Hotkeys act as shortcuts to apps. Along the bottom of the screen, a softkey bar contains softkeys that help you navigate – in particular, the Start button which provides access to everything else you'll need to work with Windows Embedded Hand-Held 6.5.



- Use the stylus or your finger to scroll to and highlight the option you want to work with. The highlighted
  option displays information specific to the applet. For example, highlighting the Calendar option lets you
  know if there are any appointments.
- Tap on any highlighted option to display the associated dialog box. Note that you can also double-tap on any option to display the associated dialog box.

Depending on which option you tap on, the softkeys at the bottom of the screen change to help support working with the particular option you've chosen.

# **Customizing the Today Screen**

The items you see in the Today screen are Windows defaults. To customize the screen to suit your purposes:

• Tap on the **Start** button. Tap on the **Settings** icon followed by the **Home** icon.

In the scrolling tab bar at the top of the screen, scroll to the **Items** tab.



The items you select will appear in the Today screen. Once you've chosen the items to appear on the Today screen, you can also tailor the order in which you want the items to appear:

Highlight an item. Tap on the Move Up and Move Down buttons to order your selections.

When you choose items for the Today screen using this method, the appearance of the Today screen will change to a list format.

### The Today Screen Default Options

A list of options are available from the Today screen. Keep in mind that these can be altered using the method described above in Customizing the Today Screen on page 2-13. You can also refer to Shell Settings on page 4-60 for additional customization options.

#### **Pictures**

This option provides access to the Pictures & Videos applet. Refer to Pictures & Videos on page 3-14 for details.

#### Music

Tapping on the Music option displays the Windows Media applet. Refer to Windows Media on page 3-18 for details.

### **DataWedge**

DataWedge is a mobile device application that allows any application to receive data from barcode, RFID, magnetic stripe and serial devices.

Refer to Appendix B: DataWedge for pointers to detailed documentation.

#### **Phone**

- Scroll to and highlight the **Phone** option to learn if you've missed any calls.
- Tap the stylus on the highlighted **Phone** option to display the phone console.

Refer to The Phone on page 3-2 for details about using the phone.

#### Voicemail

Highlighting Voicemail lets you know if you have any new voice messages. Tapping the stylus on this option displays the phone console so that you can dial the phone number to access your voice messages.

If your service supports voicemail but it has not been set up:

Tap on Voicemail in the Today screen.



Type your voicemail number.

### **Time, Date and Alarms**

Tap on Start>Alarms icon to display Clock & Alarms screen.



#### **Setting the Alarm**

You can set a maximum of three alarms.

- In the **Alarms** tab, tap on the **Time** or **Day** in the Clock & Alarms screen. An Alarm Settings screen is displayed.
- To set the time, **highlight** the **hours** and then the **minutes** in the clock and use the arrow keys to increase or decrease the numbers, or type the hours and minutes directly from the keyboard or soft keyboard.
- · Type a description in the Description field.
- Tap on the day on which you want the alarm to go off Sunday through Saturday.
- Next, choose the Sound you can tap on the Play button to experiment with the sounds. You can also choose No Sound.
- In the drop-down menu below the Play button, you can choose how the alarm will behave, whether or not it will repeat and so on.
- Tap on **OK** to save your changes.

### **Setting the Time and Date**

To set the time on the Workabout Pro4:

- If it is not already displayed, tap on the **Time** tab at the top of the screen.
- Choose the appropriate Time Zone, set the Date, and the current Time.

### **Text Messages**

In the Today screen, highlighting Text lets you know if you have any new text messages. Tapping the stylus on this option displays the Text Messages screen.



To compose and send a text message on your Workabout Pro4:

- Tap on the Menu softkey, and choose New from the menu.
- In the To field, type the name of the person to whom you want to send a text message, or to insert a number from your contacts list, tap on Menu>Add Recipient, and choose a name.
- Tap your stylus in the message area, and type your message.
- Tap on the **Send** softkey to deliver your message.



Once you send the message, your message is displayed in the Inbox and a conversation icon is displayed in the softkey bar.

Highlighting the text message and tapping on the conversation softkey automatically connects to the sender's information so you can compose a reply.

### **E-mail Notification**

If you have any e-mail, highlighting this option lets you know if you have any unread e-mail. To view e-mail:

• Tap on the **E-mail** option in the Today screen, or tap on **Start** followed by the **E-mail** icon to launch your e-mail.



**NOTE** Refer to Synchronizing E-mail with Outlook (PC with Windows XP OS) on page 3-7 and Synchronizing E-mail with Outlook (PC with Windows Vista or Windows 7) on page 3-9 for details about synchronizing your e-mail.

### **Calendar of Upcoming Appointments**

This option is used to map out all your upcoming appointments, meetings and so on in the weeks, months and years ahead.



**NOTE** You can synchronize the Calendar so that any meetings, appointments and so on are displayed on your Workabout Pro4 Today screen as well as on your PC. Refer to Synchronizing E-mail with Outlook (PC with Windows XP OS) on page 3-7 and Synchronizing E-mail with Outlook (PC with Windows Vista or Windows 7) on page 3-9 for details about synchronizing your e-mail.

In the Today screen, tap on Calendar, or tap on Start>Calendar icon to display the calendar applet.



The default calendar displays any scheduled appointments. To choose the format of your calendar:

Tap on the Calendar softkey – this key scrolls through the calendar formats.



### **Creating and Editing Appointments**

In the Calendar screen, tap on the Menu softkey in the softkey bar, and then tap on New Appointment.

Figure 2-3 Appointment Detail Screen



- In the Subject field, name the appointment.
- Complete the remaining fields to reflect your appointment details.

#### Adding Reminders

If you want to be reminded in advance of an appointment:

- Tap on the Reminder field, and choose **Remind me** from the drop-down menu.
- Tap the field below the Reminder field, and tap on the number in the field to display a drop-down menu where you can define a numeric value of 1, 5, 10, 15, 30. Tap on **minute(s)** to display a drop-down menu from which you can choose the time unit for your reminder minute(s), hour(s), day(s) or week(s).
- Tap **OK** to finish. You are returned to the view you were in before adding the reminder.
- Tap the appointment in the Calendar screen to display it in a summary screen. The reminder is indicated
  by the small, bell icon.
- If you've no further additions for the appointment, tap on **OK**. Otherwise, move to the Categories section following.

#### **Using Categories**

Categories help you organize and track the different types of data you keep on your Workabout Pro4.

To assign an appointment to a category:

Tap on the Menu softkey, and choose Edit.

The Appointment tab is displayed.

Scroll down to the Categories field, and tap on it to display your options.



- Tap in the checkbox next to the category to which you want to assign the appointment.
- Tap **OK**. Your appointment is assigned to the category or categories you chose.



**NOTE** You can create a new category by tapping on the New softkey at the bottom of the screen.

#### **Attendees**

This option allows you to define required and optional attendees for your meeting. When you tap on this option, your contacts are displayed where you can choose attendees.

#### **Status**

Tapping on Status lists your availability - Free, Tentative, Busy, or Out of Office.

### Sensitivity

This option allows you to indicate the nature of the appointment – Normal, Personal, Private, or Confidential.

#### **Deleting Appointments**

Tap and hold the stylus on the appointment you want to delete, and tap on Delete Appointment.

#### **Favorites**

The Favorites option connects you to Internet favourites. Tap and drag your stylus on this option, and choose Add/Remove to edit your list of favourites.

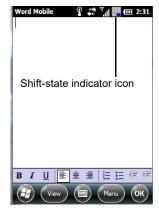
# **Using the Navigation Bar and Hotkeys**

The navigation bar along the top of the screen provides access to icons or hotkeys that, when tapped, provide shortcuts to associated apps.



#### **Shift-State Indicator Icon**

The navigation bar at the top of the screen can also display the shift-state indicator icon. This icon indicates active modifier keys – [SHIFT], [ALT], [CTRL], [SYM] and [BLUE/FN].

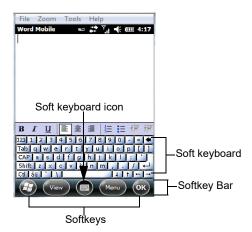


When a modifier key is pressed, it is displayed in the shift-state indicator icon. In the example above, the [BLUE/FN] key was activated.

To distinguish a 'locked' modifier key – a key that has been locked 'on' – from a modifier key that is only active until the next key is pressed, 'locked' keys are encircled in a black frame in the shift-state indicator icon. Refer to Activating Modifier Keys on page 2-4 for details.

# The Softkey Bar

The Workabout Pro4 is equipped with a softkey bar at the bottom of the screen. It displays softkeys that allow you to access menus and commands. Note that the softkeys change to reflect the program with which you are working. It also displays the soft keyboard icon.



#### Softkeys

Tapping on a softkey displays information associated with the softkey – for example, in the sample screen above, the Menu softkey displays the commands associated with Word Mobile. The View softkey allows you to tailor how the Word document will be displayed.

#### The Soft Keyboard Icon

Tapping on the soft keyboard icon displays an onscreen keyboard you can use as an alternative to the Workabout Pro4 keyboard.

### The Start Button

The Start button provides access to a screen of applets available on your Workabout Pro4.

Tap on the Start button in the lower-left corner of the softkey bar to display your programs.

# **Managing Files and Folders**

Windows Embedded Hand-Held 6.5 files are stored in folders and sub-folders that are accessible with File Explorer. You can open, save, rename, copy and paste files in the same manner as you would on any desktop PC.

- Tap on the Start button.
- Use the stylus to scroll to the File Explorer icon.



Tap on the icon to display the File Explorer screen.



### **Creating a New Folder**

- Tap Start>File Explorer.
- Tap the Menu softkey, and in the pop-up menu, choose New Folder.
- Use the Workabout Pro4 keyboard or the soft keyboard to assign a name to the folder.

### Renaming, Copying, and Deleting a File

- To access any of these functions, press and hold the stylus on the file you want to work with. A ring of dots is displayed followed by a pop- up menu.
- Choose the appropriate command from the menu.

# **Using Menus**

In Windows Embedded Hand-Held 6.5, the menu is located in the softkey bar at the bottom of the screen.



To execute a command:

 Tap on Menu to display the commands associated with it, and then tap on the command you want to execute.

# **Pop-Up Menus**

Pop-up menus are available in many screens and programs. They offer quick access to a group of useful commands in addition to those available in the menu bar. To display a pop-up menu:

 Gently press and hold the stylus on the screen. A ring of dots is displayed on the screen followed by a pop-up menu.



Tap on the command you want to execute.

# **Programs – Using Applications**

• Tap the **Start** button in the softkey bar to display the programs installed on your Workabout Pro4.

Figure 2-4 Program Icons



#### Opening an Application

• Tap on a the **Program** icon to launch the associated program.

#### Minimizing an Application

Tap on the X button in the lower-right corner of an application screen to minimize the application.



**NOTE** Although it looks like a Close button, this button does not close the application – it only minimizes it.

### **Opening, Closing and Switching Applications**

- Tap on Start>Settings>System icon. Use your stylus to scroll to the Task Manager icon.
- Tap on Task Manager to display the associated screen.



The Task Manager screen lists all running tasks (applications). This applet provides a number of options to manage your opened applications.

- End Task: To shut down an application, highlight the program in the list, and tap on the End Task softkey in the softkey bar at the bottom of the screen.
- End All Tasks: To shut down all applications, tap on the Menu softkey, and choose End All Tasks.
- **Switch To:** To make an application listed in this screen active, highlight the application, and tap on **Menu>Switch To**.

For additional information about the Task Manager, refer to Task Manager on page 4-72.

# **Settings**

Tap Start followed by the Settings icon to display the setting options for your Workabout Pro4.

Figure 2-5 Settings Icons



Along with icons that provide information about your unit and allow you to adjust the appearance and behaviour of your Workabout Pro4, an additional group of icons is stored in three folders – Personal, System and Connections. Refer to Chapter 4: Settings for details about the options available to you.

# Kiosk

Kiosk allows the administrator to tailor how the Workabout Pro4 operates and the options the user can access. Note that the look of the Today screen will change from icons that are finger accessible to a list of items that is best accessed using a stylus.



**IMPORTANT** For details about this application, refer to Kiosk on page 4-59.

### Data Transfer Between Workabout Pro4 and a PC

Data transfer options vary slightly depending on the type of operating system installed in your PC.

For Windows XP SP2 operating systems or earlier, Microsoft® ActiveSync® connectivity software can be used to connect your Workabout Pro4 to a PC.

If the Windows Vista®, Windows 7 or later, operating system is installed in your PC, ActiveSync is not required to transfer data between your Workabout Pro4 and your PC. You do need to install the Windows Mobile Device Center.

By using a Single Bay USB Cradle with your Workabout Pro4, you can connect to a PC with a cable and:

- View Workabout Pro4 files from Windows Explorer.
- Drag and drop files between Workabout Pro4 and the PC in the same way that you would between PC drives.
- Back up Workabout Pro4 files to the PC, restore them from the PC to the hand-held again, etc.

### **Uploading Data in a Single Bay USB Cradle**

The Single Bay USB Cradle allows the hand-held to upload transaction data to a server computer when a radio link is not available. When Workabout Pro4 is properly inserted in a docking cradle, a cradle icon is displayed in the navigation bar at the top of the screen.

### **Using Microsoft ActiveSync**



**NOTE** If you use a serial port to connect devices like Workabout Pro4 to your desktop computer, the connection may not succeed because ActiveSync has trouble connecting at non-default baud rates.

To work around this problem, set the ActiveSync baud rate on the desktop to use the same baud rate as the device. You can set the baud rate by editing the registry on the desktop host computer, as detailed in the steps outlined at the following website:

http://support.microsoft.com/kb/324466

To install ActiveSync, follow the step-by-step instructions provided with the program's setup wizard. For details, go to the following website and type ActiveSync into the search box:

http://www.microsoft.com/downloads/en/default.aspx

# **Using Windows Mobile Device Center**

If you are running Windows Vista, Windows 7, or later, your data transfers do not require ActiveSync. Instead, you will need to download Windows Mobile Device Center. For instructions, go to the following website and type the name into the search box:

http://www.microsoft.com/downloads/en/default.aspx

To transfer data between your PC and your hand-held:

- Tap on **Start>Computer** to display the drives. Workabout Pro4 will be visible here.
- Open drives, files and folders as you would on your PC.

### **General Maintenance**

### **Caring for the Touchscreen**

The touchscreen is covered with a thin, flexible polyester plastic sheet with a conductive coating on the inside. The polyester can be permanently damaged by harsh chemicals and is susceptible to abrasions and scratches. Using sharp objects on the touchscreen can scratch or cut the plastic, or crack the internal conductive coating. The chemicals listed below must not come into contact with the touchscreen:

- mustard, ketchup
- · sodium hydroxide
- · concentrated caustic solutions
- benzyl alcohol
- concentrated acids

If the touchscreen is used in harsh environments, consider applying a disposable screen protector (WA6113). These covers reduce the clarity of the display slightly but will dramatically extend the useful life of the touch-screen. When they become scratched and abraded, they are easily removed and replaced.

Do not to expose the touchscreen to direct sunlight for prolonged periods of time. If this is unavoidable, use a UV screen protector to extend the life of the screen.

# **Cleaning the Workabout Pro4**



#### **IMPORTANT**

Do not immerse the unit in water. Dampen a soft cloth with mild detergent to wipe the unit clean.

To prevent damage to the touchscreen, use only your finger or the stylus (pen) supplied with your Workabout Pro4.

- Use only mild detergent or soapy water to clean the hand-held unit.
- Avoid abrasive cleaners, solvents or strong chemicals for cleaning. The Workabout Pro4 has a plastic case
  that is susceptible to harsh chemicals. The plastic is partially soluble in oils, mineral spirits, aircraft de-icing
  fluid, and gasoline. The plastic slowly decomposes in strong alkaline solutions.
- Exposure to aircraft de-icing fluids can degrade the plastics on the Workabout Pro4. If the Workabout Pro4 is used near aircraft de-icing environments, regular rinsing with water is recommended.
- To clean ink marks from the keypad and touchscreen, use isopropyl alcohol.

# **CHAPTER 3 PROGRAMS**

# **Programs**

Workabout Pro4 programs are all available from the Start screen.

• Tap on the **Start** button in the lower-left corner of the Today screen to display the Start screen.



Tapping on an icon in this screen launches the associated applet.



**IMPORTANT** 

For details about the options contained under the Settings icon, refer to Chapter 4: Settings.

# Home

Tapping on the Home icon in the Start screen displays the Today screen.





**IMPORTANT** For details about the Today screen, refer to The Today Screen on page 2-13.

# **The Phone**

The Workabout Pro4 can be equipped with optional phone capabilities.



**IMPORTANT** 

In the Americas the Workabout Pro4 is not approved to be used with any VoIP application using Wide Area Network (WAN) or Wireless Local Area Network (WLAN).



**NOTE** The Phone option is only available on units equipped with the Cinterion PHS8-P GSM/GPRS/EDGE/UMTS/HSPA+ Radio.

To access the phone pad on a unit that includes the phone option:

• Tap on Start>Phone icon.



### The Onscreen Phone Keypad

The onscreen phone keypad provides phone services like those you may find on your cellular phone. You can use the phone keypad provided with your Workabout Pro4 to, for example, send and receive phone calls, make conference calls, view your call history, set up speed dial numbers, etc.

### Sending & Ending Phone Calls Using the Onscreen Phone Keypad

To display the onscreen phone keypad:

Tap on Start>Phone icon.



**NOTE** You can also press the [Talk] key on the Workabout Pro4 keyboard to display the phone keypad providing it has been activated. The [Talk] key is labelled with a green telephone receiver icon.



To make a phone call:

• Use the phone keypad to enter the phone number. Tap on [Talk] to connect the call.

When you tap on the [Talk] button to connect to a phone number, the [Talk] button toggles to become the [End] button. When you've completed your call and want to disconnect:

Tap on [End] button on the onscreen phone keypad.

### Sending & Ending Calls Using the Workabout Pro4 Keyboard

Units equipped with a WWAN radio can be ordered with a phone option – the keyboard provides a [Talk] and an [End] key on the physical keyboard.

- Press the [Talk] key to answer a call or to display the onscreen phone keypad so you can initiate a call.
- Press the [End] key to terminate a phone call.

### Making a Conference Call

To set up a conference call between yourself and two or more other parties:

- In the phone keypad, type the first phone number. Tap on [Talk].
- While you are connected to the first number, tap on **Menu>Hold**.
- Type the second number. Tap on [Talk].
- Tap on Menu>Conference.
- To add another party, tap on Menu>Hold, type the number, and then tap Menu>Conference.

Tap on [End] to disconnect all calls.

### **Programming Speed Dial**

The phone keypad provides a Speed Dial button for quick access to frequently used numbers.

In the phone keypad, tap on the Speed Dial button to display the speed dial Phone dialog box.



This dialog box lists the phone numbers and the speed dial key to which the phone number has been assigned.

Tap on the Speed Dial Number (the number to the left of the phone number you want to dial), or
 Tap on the Call softkey in the softkey bar at the bottom of the screen; the number is dialled for you.

#### Using the Phone Keypad to Program a Speed Dial

There are a number of ways to add a speed dial number. You can create a speed dial number using the Contacts list or by using the Speed Dial button on the phone keypad.

### Adding a New Phone Number

- In the phone keypad, tap on the Speed Dial button.
- In the speed dial Phone dialog box, tap on Menu>New.
- In the list, choose a contact for a speed dial.



Type a contact name in the field where the cursor is displayed, or tap on a name in the list.



A sequential speed dial key is automatically assigned in the Location field. You can tap on the arrows to the right of the Location field to change the auto assignment.

### Using the Contact List to Program a Speed Dial

• Tap on **Start** followed by the **Contacts** icon.



• Tap on the **Contact** to which you want to assign a speed dial number.



In the Summary screen, tap on Menu>Add to Speed Dial.

# **Managing Phone Settings**

You can adjust phone settings such as the ring type and tone, choose phone services such as barring calls, and you can also determine network selections.



For details, refer to The Phone – Managing Settings on page 4-40.

### **RFID**

For detailed information about RFID, refer to Workabout Pro4 RFID Mobile Computer Integrator Guide, PN MN001066A01.

# **Text Messages**

Tapping on the Text option in the Today screen displays this screen.



This option allows you to compose, send and receive text messages using your Workabout Pro4.



**IMPORTANT** For details about using the Text Messages feature, refer to Text Messages on page 2-16.

### E-mail





**NOTE** If your e-mail is already synchronized, go to Sending an E-mail on page 3-10.

The E-mail program is used to send and receive e-mail on your Workabout Pro4. It also provides access to text messages.

To send and receive e-mail, you'll need to synchronize your PC or connect to a Post Office Protocol 3 (POP3) or Internet Message Access Protocol 4 (IMAP4) mail server.

For each of these methods, you need to set up an e-mail account with one exception – Outlook e-mail accounts are set up by default.

#### **Folders**

If you use an Outlook e-mail account, messages in the Inbox folder in Outlook are automatically synchronized with your Workabout Pro4. You can use ActiveSync on your PC to synchronize additional folders. The folders and messages you move are mirrored on the server.

For POP3 accounts, if you move e-mail messages to a folder you create, the link between the messages on the Workabout Pro4 and the copies on the mail server are broken. When you next connect, the mail server will recognize that the messages are missing from the Workabout Pro4 Inbox folder and delete them from the server, preventing duplication of messages. Keep in mind however that you will not have further access to messages that you moved to folders from anywhere except with the Workabout Pro4.

For IMAP4 accounts, the folders you create and the messages you move are reflected on the server, making messages available any time whether you connect to your mail server from your Workabout Pro4 or your PC.

# Synchronizing E-mail with Outlook (PC with Windows XP OS)



**IMPORTANT** 

For PCs running Windows Vista or Windows 7, follow the guidelines under Synchronizing E-mail with Outlook (PC with Windows Vista or Windows 7) on page 3-9.

By synchronizing the Workabout Pro4 E-mail program with Outlook on your PC, your e-mail is available on both the Workabout Pro4 and on your PC.



**NOTE** Synchronizing e-mail does not require that the Workabout Pro4 have an independent connection to the Internet.

• In ActiveSync on your PC, tap on **Tools>Options** in the tool bar at the top of the screen.

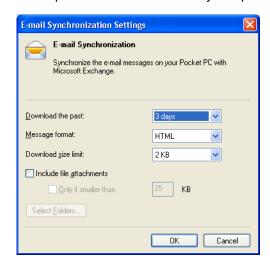


Make certain that a check mark is displayed in the checkbox next to E-mail. Tap on OK.

Once you check E-mail for synchronization, Outlook e-mail messages are synchronized as part of the general synchronization process. The next time you synchronize with ActiveSync, the e-mail in Outlook on your PC will be transferred to the Messaging program on your Workabout Pro4.

### **Changing Synchronization Settings**

In ActiveSync on your PC, double-tap the E-mail item in the Sync Options tab.



• Tap on the **Select Folder** button.



• Add a check mark next to the folders in this screen that you want to synchronize with your Workabout Pro4, and tap on OK.

The E-mail Synchronization screen is displayed again.

- If you want to accept file attachments, add a check mark next to Include file attachments. To limit the size, tap on Only if smaller than, and specify a size in the KB box.
- Tap on OK.

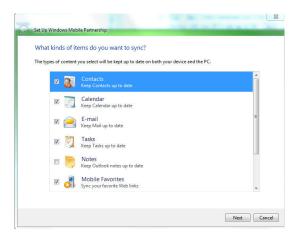
# Synchronizing E-mail with Outlook (PC with Windows Vista or Windows 7)

PCs running Windows Vista or Windows 7 use Windows Mobile Device Center in place of ActiveSync.



In the Windows Mobile Device Center, tap on Set up your device.





Make certain that a check mark is displayed in the checkbox next to E-mail. Tap on Next.



**NOTE** If an Exchange Server is detected, a screen is displayed where you can enter the Server address, your user name and so on, and sync the Workabout Pro4 with the Exchange Server directly over a cellular or wireless network when you are not connected to your PC. This is an optional step that you can skip.

• Tap on **Skip** and then tap on **Setup**.

When E-mail is checked for synchronization, Outlook e-mail messages are synchronized as part of the general synchronization process. The next time you synchronize with Windows Mobile Center, the e-mail in Outlook on your PC will be transferred to the Messaging program on your Workabout Pro4.

# Sending an E-mail

E-mail messages are stored in the Outbox folder and are sent to recipients the next time you sync or connect to your e-mail server to send and receive mail.

- Tap on Start>E-mail.
- · Choose the e-mail account you want to use.
- Tap on Menu>New.
- In the To, Cc, or Bcc fields, enter an **e-mail address**.

Keep in mind that you can also use your Contacts to choose an e-mail recipient provided an e-mail address is associated with the contact.

- Tap Menu>Add Recipient, and then choose a contact from the list.
- If you're sending an email to multiple people, use a semicolon (;) between addresses.

### Contacts

Contacts are available with your e-mail, text messages, voice messages and your phone.

Tap on Start>Contacts to display your contacts.



# **Working with the Contacts List**

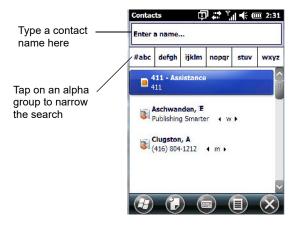
The Contacts screen allows you to work with existing entries, search for a particular contact and create new entries.

#### **Contact Menu Commands**

A Menu softkey at the bottom of the screen provides additional commands that allow you to work with the contacts in this list.



### **Searching for a Contact**



To search for a particular entry:

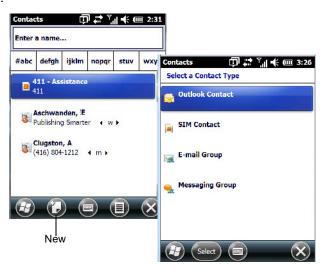
- Tap on the Enter a name field, and type the name you are searching for in the Contacts list.
- To narrow your search to names beginning with a particular letter, tap on the appropriate alpha character grouping.

### **Communicate Tab - Adding Contacts**

### **Adding a New Contact**

The New softkey located to the right of the Start softkey allows you to add additional entries to your contacts list.

Tap on the New softkey.



- Choose the contact type to which you want to add an entry.
- Tap on the Select button to display the Communicate screen. Tap on each of the options you want to complete for the new contact you are creating. Each item you tap on in this screen produces an associated pop-up screen in which you can enter the appropriate information. For example, in the sample screen following, tapping on Add a name displays an associated screen for you to complete.



 When you've completed the information for the contact entry, tap on OK. The new contact is displayed in the Contacts list.

### **Info Tab**



This tab allows you define a ring tone for a particular contact. You can also add additional addresses related to your contact (work and home), and information about your contact such as a job title, office location and fax number.

### **Notes Tab**



This screen allows you to enter useful information about your contact.

# **Internet Explorer**

You can connect to Internet Explorer in two ways: by connecting the Workabout Pro4 directly to the Internet or by connecting through your PC (see ActiveSync® on page 3-23).

# **Browsing Web Sites**

There is little difference between the standard Internet Explorer found on your PC and that found on your Workabout Pro4, sometimes referred to as Pocket Internet Explorer. You can enter URLs, set a 'home page', turn images on and off, e-mail links to friends, and so on.

To go to a web site:

- Connect your Workabout Pro4 to the Internet. (If you're not certain how to do this, refer to Connections Connecting to the Internet on page 4-18).
- Tap on Start>Internet Explorer to open Internet Explorer.

- Tap on the address bar the field near the top of the screen where URLs are entered to highlight the current URL.
- Type a new URL in the address bar.

Tapping on the softkeys in the softkey bar at the bottom of the screen displays Internet Explorer commands like those you find on your PC.



# Calendar

This option is used to map out all your upcoming appointments, meetings and so on in the weeks, months and years ahead.





IMPORTANT

Refer to Calendar of Upcoming Appointments on page 2-17 for details about this feature.

# **Alarms**

Refer to Time, Date and Alarms on page 2-15 for details about this applet.

# **Pictures & Videos**

The Pictures & Videos applet allows you to snap photographs and record video footage. It is also a photo and video viewing program.



IMPORTANT

The Pictures & Videos program can only display .bmp or .jpg formats. Photos in other formats will need to be converted on your PC before they are transferred to the Workabout Pro4.

# **Using the Camera**

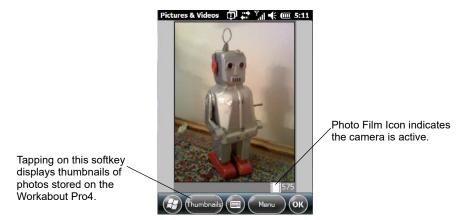
Tap on Start>Pictures & Videos.



Keep in mind that if there are no pictures stored on your Workabout Pro4 as yet, you'll only see the Camera icon in this screen.

Tap on the Camera icon to activate the camera.

The screen will display the image your camera is pointed at. (The camera is built into the back of the Workabout Pro4.)



• Frame the image in the Workabout Pro4 screen. Press [ENTER] to snap the photograph.

### **Photo Menu**

When the camera is activated, tapping on Menu displays a set of commands to help you modify how your camera operates, the quality of the photos it takes, and so on. You can also use this menu to activate the video recorder rather than the still camera.



**J** 

**NOTE** Video is a toggle command. When the 'Still' camera is activated, Video is available in this menu. When the video recorder is activated, 'Still' (camera) is available in this menu.

### **Moving Photos to the Workabout Pro4**

- · Connect your device to your PC with ActiveSync.
- Locate the pictures on your PC, and drag photos from their folder to the Mobile Device (Workabout Pro4). The Workabout Pro4 can be found under Computer (My Computer on PCs running Windows XP).

# **Opening a Photo**

• To open a photo, tap on **Start>Pictures & Videos**. You'll see a thumbnail of your photos.

· Tap on a thumbnail to open the photo.



**J** 

**NOTE** If you've stored your photos on a storage card, you'll need to tap on the storage card icon to display your photos.

### **Deleting a Photo**

- Press and hold the stylus on the thumbnail photo you want to delete to display a pop-up menu. Tap
  on Delete.
- · Confirm your choice when prompted.

# **Editing a Photo**

- · Tap on a thumbnail photo to open it.
- Tap on Menu>Edit.

The Rotate command is now displayed in the softkey bar. Additional editing tools are listed in the Menu.

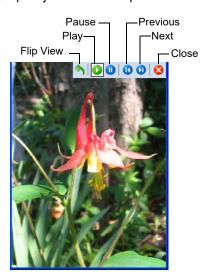
### **Creating a Slide Show**

To view a slide show:

• Tap on the Menu>Play Slide Show.

The slide show begins – in slide show mode, photos are displayed for about five seconds, one after the other.

To display the slide show tool bar, tap anywhere on the photo.



# **Using the Video Recorder**

• Tap on the Camera icon.



In the bottom-right corner of the camera screen, tap on Menu>Video.



• Press [ENTER] to begin recording.



To end the video, press [ENTER] again, or tap on the Stop softkey.



**NOTE** When the Video recorder is activated, a Menu is available to tailor the operation of the recorder, the quality of the recording, and so on.

# Windows Media

Windows Media allows you to play music and videos on your Workabout Pro4. You can use Windows Media to play digital audio and video files that are stored on your Workabout Pro4 or on the web.

To work with this applet, tap on Start>Windows Media.

For details about using this applet, refer to:

http://www.microsoft.com/windowsphone/en-us/howto/wp6/music/windows-media-player-mobile.aspx

# **Messenger (Windows Live)**

Windows Live Messenger is an instant messaging service. Refer to the Microsoft web site for details.



# Windows Live

Windows Live is a free online service that provides operators with a free mobile phone back-up solution by wirelessly synchronizing contacts, calendar appointments, and so on with a password-protected online portal.

When you tap on Windows Live and accept the license agreement, a Setup screen is displayed. Follow the setup steps to set up your Windows Live ID so that you can begin using this service.

# **Notes**

The Notes application is an electronic notepad you can use to jot down your ideas quickly. You can enter text using the soft keyboard, the Workabout Pro4 keyboard, or you can create a handwritten note on the screen by using the transcriber. You can also record a message.

Notes can also be shared through e-mail and synchronization with your PC.

Tap on Start>Notes to launch this application.



Tap on the New softkey to display a blank note.

# **Creating a Note Using the Soft Keyboard**

The soft keyboard icon is available by default. It is a replica of a standard keyboard. Use your stylus to type letters, numbers, symbols and so on.



When you've completed your note, tap on OK.

Your note is automatically saved. The file name is the first line of the note if you used the keyboard – otherwise, it's named Note1, Note2 and so on.

# **Creating and Converting Handwritten Notes to Text**

To create a handwritten note using the transcriber:

Tap and hold the stylus on the soft keyboard icon to display the pop-up menu.



Choose Transcriber from the menu.

When you choose Transcriber, you can write notes in your own handwriting. Workabout Pro4 converts the notes into typed text for you.

A Transcriber Intro screen is displayed to provide information to help you work with the Transcriber.



When you choose Transcriber, the soft keyboard icon changes to an icon of a hand poised to write a note.

- At the top of the Transcriber Intro screen, tap on **OK**.
- In the blank Note screen, use your stylus to write a note as clearly as possible.

The text in the note is converted from handwritten to printed text.



# **Renaming a Note**

- Press and hold the stylus on the file name in the Notes screen that you want to rename. In the pop-up menu, choose **Rename/Move**.
- In the Name field, type the new name.



**NOTE** Remember that if you want to use the soft keyboard to type a new name, you'll need to tap and hold the stylus on the Transcriber icon, and choose Keyboard from the popup menu.

You can also move the note to a new Folder and/or a new Location.

When you've made the changes you need, tap on OK.

# **Recording Notes**

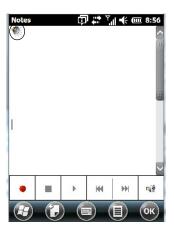
It is sometimes easier to record a note than to write it down just to make certain that you've captured an idea before it drifts away. To make an audio recording:

- Tap on the **New** softkey to open a fresh note.
- Tap on Menu>View Recording Toolbar.



- Tap on the Record button a beep alerts you that your device is now ready to record.
- Begin speaking into the microphone on the Workabout Pro4. Make certain that you move the Workabout Pro4 to within a few feet of the source of the sound you want to record.
- Tap on the **Stop** button when you've completed your recording.
- Tap on **OK** to save the recorded note.

A speaker icon is displayed in the note indicating the presence of a recording within the note.



- To play the recorded note, tap on the speaker icon.
- Tap on **Menu**, and choose **View Recording Toolbar** again to turn off the feature.

# **Task Notification**

Tasks lets you create lists of entries representing your responsibilities, upcoming projects, and so on. If you've assigned any tasks, this option lets you know how many active tasks you have.



**NOTE** You can synchronize the Task Notification option so that any tasks are displayed on your Workabout Pro4 as well as your PC. Refer to Synchronizing E-mail with Outlook (PC with Windows XP OS) on page 3-7 and Synchronizing E-mail with Outlook (PC with Windows Vista or Windows 7) on page 3-9. Each section outlines how to synchronize options other than e-mail.

Tap on Start>Tasks to display the Tasks screen.



### **Creating a Task**

- In the Tasks screen, tap in the field labelled Tap here to add a new task.
- Type your task description.
- Press [ENTER] to add the task to your list.



### **Editing a Task**

• Tap on a **task** in the task you want to edit. Tap on the **Edit** softkey in the softkey bar to display a detailed task screen where you can define task characteristics.

Each of the nine items in this screen, when tapped, displays a drop-down menu where you can choose from a list of options.

Once you've completed all the appropriate fields, tap on OK to save your changes.



**NOTE** You can also tap on the Notes tab to add additional information about the task you are defining.

### **Deleting a Task**

- Press and hold the stylus on a task until a pop-up menu is displayed.
- Tap on **Delete Task**.

### Marking a Task as Completed

In the Tasks list, tap the checkbox next to the items that are completed.

### **Sorting Tasks**

Tap on the Menu softkey, and tap on Sort By.

You can choose from **Status**, **Priority**, **Subject**, **Start Date** or **Due Date**. The tasks are arranged in the list according to the criterion you chose.

#### Limiting the Tasks Displayed in the Task Screen

Tap on Menu in the softkey bar, and tap on Filter.

You can choose **All Tasks**, **Recently Viewed**, **No Categories**, **Active Tasks** or **Completed Tasks**. The tasks are displayed on the screen according to the preference you chose.

# **File Explorer**

Windows Embedded Hand-Held 6.5 files are stored in folders and sub-folders that are accessible through File Explorer. You can open, save, rename, copy and paste files in the same manner as you would on any desktop PC.



**IMPORTANT** Refer to Managing Files and Folders on page 2-21 for details about this feature.

# **ActiveSync®**

ActiveSync® is Microsoft PC connectivity software that can be used to connect the Workabout Pro4 to PCs running this software. You can synchronize the Workabout Pro4 with your PC using this utility.



By connecting the Workabout Pro4 to a PC through your single bay USB cradle and running ActiveSync or Mobile Device Center on your PC, you can view Workabout Pro4 files, drag and drop files between the Workabout Pro4 and the PC, connect to the Internet, and so on.

# **Synchronization**



#### **IMPORTANT**

For information about using ActiveSync and Mobile Device Center on your PC, refer to Synchronizing E-mail with Outlook (PC with Windows XP OS) on page 3-7 and Synchronizing E-mail with Outlook (PC with Windows Vista or Windows 7) on page 3-9.

To download either ActiveSync or Mobile Device Center, visit <a href="https://www.microsoft.com">www.microsoft.com</a>, click on the Download tab and use the Search box at the top of the screen to locate the item you need to download.

# **Internet Sharing**

This option allows you to use your Workabout Pro4 to connect your PC to the Internet. Before you can use Internet Sharing, you must make certain that you have established a data connection on your Workabout Pro4.



# **Creating an Internet Connection**

Follow the steps in this section only if you have not already setup an Internet connection.

You'll need the following information before you begin:

From your cellular service provider: data connectivity information, access point name and PAP/CHAP security settings.

From your Internet service provider (ISP) or wireless service provider: access point name and password and any additional security information.

For a GPRS, 1xRTT or dialup connection:

- Tap on Start>Settings>Connections. Tap on the Connections icon.
- Under My Work Network, tap Add a new modem connection.
- Type a name for the connection, and choose Cellular Line (GPRS), or for 1xRTT connections, choose Cellular Line. Tap on Next.
- Type the phone number or access point name provided by your service provider, and tap Next.
- Type the **credentials** supplied by your service provider, and tap **Finish**.

# **Using Internet Sharing**



**NOTE** Make certain that your data connection is running and that you can access the Internet from the Workabout Pro4. If you are using a USB cable to connect to your PC, you will need to disable the ActiveSync USB connection.

- On your PC, open the **ActiveSync** window, and tap on **File>Connection Settings**. If you are using Windows Mobile Device Center, tap on Mobile Device Settings>Connection Settings.
- Disable Allow USB connection by tapping in the checkbox to the left of this option.
- Connect the Workabout Pro4 to your PC using Bluetooth or a USB cable.
- On your Workabout Pro4, tap Start>Internet Sharing.

- Choose the PC Connection type USB or Bluetooth.
- Choose the network connection that the Workabout Pro4 should use to connect to the Internet.
- Tap **Connect**. It takes approximately 30 seconds to establish a connection. (If you are prompted to turn on Bluetooth, tap **Yes**.)

#### For PC Running Windows XP or Earlier

If you are using a Bluetooth connection, execute the following steps on your PC:

- Tap Start>Control Panel>Network Connections.
- Right-click on Bluetooth Network Connections, and click on Bluetooth Network Devices.
- If the Workabout Pro4 is listed as a Network Access Point, choose Connect. If it is not listed, choose
   Create a new connection and use the New Connection Wizard to add the Workabout Pro4 to the list.

#### For PC Running Windows Vista or Windows 7

If you are using a Bluetooth connection, execute the following steps on your PC:

- Tap Start>Control Panel>Network & Sharing Center.
- Double-tap on Set up a new connection or network.
- In the Choose a connection option screen, double-click on Connect to a Bluetooth personal area network (PAN).

A Devices and Printers screen is displayed.



**NOTE** Make certain that Bluetooth is enabled on your Workabout Pro4 and that it is discoverable – on your Workabout Pro4, tap on Stat>Srettings>Connections. Tap on the Bluetooth icon. Scroll to the Mode tab. If they are not already enabled, tap in the checkbox (add an 'x') next to Turn on Bluetooth and **Discoverable**.

In the Devices and Printers screen, tap on the Add a device button.

Your Workabout Pro4 is displayed in the Add a device screen.

Double-tap on your Workabout Pro4 icon.

You are asked to choose a pairing option – Create a pairing code for me, or Enter the device's pairing code.

- If a pairing code has been assigned to your Workabout Pro4, choose **Enter the device's pairing code**, and type the **Workabout Pro4 passcode** on your PC and on your Workabout Pro4.
- If a pairing code has not been assigned to your Workabout Pro4, choose **Create a pairing code for me**, and type the **Workabout Pro4 passcode** on your PC and on your Workabout Pro4.

A message will appear on your Workabout Pro4 indicating that you have successfully paired your Workabout Pro4 with your PC. Your Workabout Pro4 will appear in Control Panel>Devices and Printers.

# **Task Manager**

The Task Manager screen lists all running tasks (applications) or processes. This applet provides a number of options to manage these.





**IMPORTANT** For details about using the Task Manager, refer to Task Manager on page 4-72.

# **Search Phone**

This feature allows you to conduct a search through the data stored on your phone.

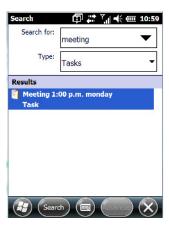
Tap on Start>Search Phone icon.



- Tap in the Search For field, and type the information or a fragment of the information for which you are searching.
- In the **Type:** drop-down menu, choose the location in which you want to conduct the search.



Tap on the Search softkey at the bottom of the screen.



The results of your search are displayed in the Search screen.

# **Office Mobile**

This icon contains the following abridged Microsoft programs: Excel Mobile, OneNote Mobile, PowerPoint Mobile, SharePoint Workspace Mobile and Word Mobile.



Tap on Start>Office Mobile.

### **Excel Mobile**

Excel Mobile is an abridged version of Microsoft Excel, an electronic spreadsheet program. If you're familiar the Excel application on your PC, you'll be able to navigate Excel Mobile.

In addition to providing the tools to manipulate text and numeric values like statistics, percentages, using formulas that perform calculations, and so on, this program can also include graphics such as pie charts.

Excel Mobile allows you to copy Excel workbooks from your PC onto your Workabout Pro4 and update them while you're away from your desk.

- Tap on Start>Office Mobile>Excel Mobile.
- If a list of workbooks is displayed rather than a new sheet, you'll need to create a new workbook. To create a workbook:
- In Excel Mobile, tap the Menu>File>New.

#### OneNote Mobile

You can use OneNote Mobile to take notes wherever you are and then synchronize your notes with a notebook section in the OneNote version on your PC. For example, you can:

- Snap pictures of business cards on your Workabout Pro4 and then bring them into OneNote on your PC.
- Create short text notes and voice recordings on your Workabout Pro4 to remind you about important meetings, ideas, etc. and synchronize them with your notes.
- Prepare information in OneNote on your PC and then transfer it to your Workabout Pro4 where it will be available to you wherever you and your Workabout Pro4 go.



### **IMPORTANT**

Remember that you must have Microsoft Office OneNote 2010 and the latest version of ActiveSync or Windows Mobile Device Center installed on your PC before you can set up a partnership between your Workabout Pro4 and your PC.

#### Setting Up a Partnership

- Start Office OneNote and ActiveSync or Windows Mobile Center on your PC.
- Connect the Workabout Pro4 to your PC; you can use a USB cable or a Bluetooth connection.

When a connection is established between the Workabout Pro4 and your PC, ActiveSync displays a New Partnership screen.



- Choose Standard partnership, and tap on Next.
- To share information between OneNote Mobile and Office OneNote 2010 on your PC, tap Synchronize with this desktop computer, and then tap on Next.
- Tap on **Finish** to begin the partnership between the Workabout Pro4 and the PC. Now you'll be able to pass notes back and forth between your PC and your Workabout Pro4.

#### **Creating A Note**

- Tap on Start>OfficeMobile>OneNote Mobile icon. Tap on New in the softkey bar to display a blank note.
- Tap on New to create a note page. Begin typing.
- When you complete your note, tap on **Done**.



**NOTE** Remember that you can tap on the Menu softkey to Undo typing, add Formats (Bold, Italic, Underline, Strikethrough), and include Lists (Numbered, Bulleted, Clear).

#### **Using the OneNote Menu**

Tapping on Menu displays a list of options to help you work with the OneNote Mobile applet.



• Undo, Redo, Cut, Copy and Paste: These commands operate in the same way as they do in any Windows Office application.

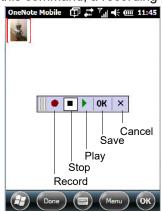
- **Format:** Tapping on this command lists the formatting options you can apply to your note: Bold, Italic, Underline, Strikethrough and Clear All.
- **Take Picture:** When you tap on this option, the Workabout Pro4 switches to camera mode so that you can snap a picture to include in your note.



Press **[ENTER]** to snap a photo that is automatically inserted into your note.



- **Insert Picture:** Tapping on this command automatically displays your My Pictures folder where you can tap on an existing picture to insert it into your note.
- Insert Recording: When you tap on this command, a recording panel is displayed.



Tap on the **Record** button to record your message.

Tap on **Stop** when you've completed your message.

Tap on Play to listen to your voice message.

To discard your message, tap on **X** – the **Cancel** button.

To save your message, tap on **OK**. An audio icon is displayed in your note. You can tap on it to listen to your message.



#### Synchronizing Workabout Pro4 One Note With PC OneNote

Connect the Workabout Pro4 to your PC using either a USB cable or Bluetooth.

When the connection is complete, take one of the following steps:

- In Microsoft ActiveSync on your PC, choose Sync or
- On your Workabout Pro4, tap on Start>ActiveSync, and then tap on Sync.

During synchronization, the notes you created on your Workabout Pro4 are copied to a new Office OneNote 2010 notebook called OneNote Mobile on your PC. When synchronization is done, you can drag the transferred notes into any other sections and other notebooks on your PC.

### Word Mobile

If you've used Microsoft Word on your PC, Word Mobile will be familiar to you. Keep in mind however that Word Mobile is designed for a small screen and limited memory.



**NOTE** Keep in mind also that a Word document created on your PC can lose key formatting features such as styles and tables if you make changes to it on your Workabout Pro4.

Tap on Start>Office Mobile>Word Mobile.



**NOTE** If you've already created a Word document, it will be listed in a Word Mobile window. To launch a new Word document, you'll need to tap on the New softkey.

### **Text Input Modes**

In addition to the soft keyboard, you can enter text using the Workabout Pro4 keyboard, soft keyboard or the transcriber.



**IMPORTANT** 

Refer to Notes on page 3-18 for details about the transcriber and soft keyboard text input methods.

### **Sharing Documents with your PC**

Documents created on a PC are recognized by your Workabout Pro4. However, some formatting is lost when a Word document is converted to a Word Mobile document. This loss also occurs when you open a .doc file and change it on the Workabout Pro4.



#### **IMPORTANT**

To avoid problems, work on copies of .doc files. In addition, keep in mind that you can use the Terminal Services Client program to log onto a desktop PC that is also running Terminal Services, and then you can use any program on your PC, including Microsoft Word (rather than Word Mobile).

Refer to Remote Desktop Mobile on page 3-32.

### **PowerPoint Mobile**

PowerPoint Mobile works just like the desktop version that may be installed on your PC. To launch this program on your Workabout Pro4:

Tap on Start>Office Mobile>PowerPoint Mobile.

# **SharePoint Workspace Mobile**

SharePoint Workspace Mobile allows you to open, edit, and save documents that are on a SharePoint site (a web site that lets you and others share and collaborate on documents, projects, schedules, and so on).

- Tap on Start>Office Mobile>SharePoint Mobile.
- Tap on the Address softkey to highlight the web address field. Type the SharePoint address you want to access.
- Tap on **Go** to access documents in the SharePoint site you specified.



**NOTE** To access a SharePoint site using SharePoint Workspace Mobile from inside your organization, you need to set up a Wi-Fi connection that lets you access a SharePoint site on your company's network.

# **PartnerUp**

This app displays a number of pre-loaded applications. Tapping on an app in the list takes you to an associated web site.

The operator can then install the application. If a license is required, it can be obtained by sending an e-mail to the software license mailbox or by contacting a Sales Rep from the contact web page.

http://www.zebra.com/US-EN/Pages/Contact Us

Additional pieces of software such as a server must be obtained through Zebra.



# Kiosk

Kiosk allows the administrator to tailor how the Workabout Pro4 operates and the options the user can access. Note that the look of the Today screen will change from icons that are finger accessible to a list of items that is best accessed using a stylus.



**IMPORTANT** For details about this application, refer to Kiosk on page 4-59.

# **Modem Link**

Modem link allows you to use the GPRS connectivity on your phone to connect your laptop or PC to the Internet.



# **Remote Desktop Mobile**

This program allows you to log onto a Windows Terminal Server and run the desktop programs from the server on your Workabout Pro4.



# **Connecting to a Terminal Server**

- Tap on Start>Remote Desktop Mobile
- In the Remote Desktop screen, choose a Computer from the drop-down menu.
- Type your **User name**, **Password**, and **Domain** (if required). Tap on **Connect**.

# **Disconnecting Without Ending a Session**



**IMPORTANT** 

These commands are accessed from the Start menu in the <u>Terminal Services screen</u> used to access the PC's commands. Do NOT use the Start menu on your Workabout Pro4.

- In the Remote Desktop Connection window, tap on **Start>Shutdown**.
- Tap on Disconnect>OK.

# **Ending a Session**

- In the Terminal Services Client screen, tap on Start>Shutdown.
- Tap on Log Off>OK.

# **CHAPTER 4 SETTINGS**

# **Overview of Software**

# **Software Advantage**

Software Advantage is a collection of applications and features designed to support system administrators and end users. These tools enable enterprises to customize the product to meet their needs and to maximize productivity.

- App Launch Keys
- Battery Health
- Bluetooth Manager
- DataWedge
- Dr. Debug
- PartnerUp
- Fusion Wireless Companion
- Kiosk
- Manage Triggers
- Scanner
- Total Recall
- TweakIt

### **Microsoft Software**

Windows Embedded Hand-Held (WEH) 6.5 is a 32-bit, real-time Operating System. The OS is compatible with line of business applications written for Windows Mobile 6.x that protects previous investments in the Windows Mobile platform.

Some other major components of WEH 6.5 are:

Office Mobile 2010 (Word, Excel, PowerPoint, OneNote SharePoint)

- Internet Explorer 6
- · Remote Desktop protocol

# **Settings**

The applets contained under the Settings icon in the Start screen allow you to tailor how your Workabout Pro4 behaves, the appearance of the Today screen, and so on. The Settings applications are further divided into Personal, System, and Connection options.



# **Clocks & Alarms**

Refer to Time, Date and Alarms on page 2-15 for details about this applet.

# Lock

This option allows you to assign a password to protect access to your phone service.

Tap on Start>Settings, and then tap on the Lock icon.





It is critical that you store your password in a safe place. If you forget it, a 'clean start' must be performed by certified personnel. A clean start returns the Workabout Pro4 to factory settings. Only the data stored in a CF or SD memory card are preserved.

- Tap in the checkbox next to Prompt if phone unused for to turn on password protection for your phone service.
- Choose the amount of time that the unit can remain idle before you are prompted to enter your password.
- In the Password type drop-down menu, choose the type of password you prefer to assign. Simple PIN allows you to enter a minimum of four numeric characters. Strong alphanumeric requires a minimum of 7 characters and must contain at least three of the following: uppercase and lowercase alpha characters, numbers and punctuation.
- Type your password in the Password field.
- Retype your password in the Confirm field.
- Tap on OK. A dialog box asks whether or not you want to save your password settings. Tap on YES to save your password assignment.

# **Home**

The Home applet is used to customize your Today screen.

Tap on Start>Home icon to display this applet.



# Appearance Tab — Changing the Theme (Background)

The Appearance tab allows you to change the background appearance of the Today screen.

 Tap on the theme or background you want to use. Tap on OK to assign the background you've chosen to your Workabout Pro4.



**NOTE** You can also use a personal picture as your background. Tap on the checkbox to the left of Use this picture as the background, and tap on the Browse button to locate your picture.

# **Beaming a Theme to Another Device**

You can also beam your selection to another device. To scan for visible devices and beam a theme:

Choose a theme or background, and tap on the Beam button.



The Workabout Pro4 scans for visible devices within range of the hand-held and lists them in the Beam screen.

Tap on the device to which you want to send the theme.

A File Receive Confirmation dialog box appears on the device to which you are beaming the theme. If the recipient taps on **OK**, the file is downloaded onto their device. Note that the recipient can also tap on Browse to store the theme file in a different location.

Once the recipient clicks on OK to accept the file, the device you chose is marked as Done.



# Items Tab – Customizing the Today Screen



The items you see in the Today screen are Windows Default items. The Items tab allows you to customize the screen to suit your purposes.



**NOTE** Refer to Customizing the Today Screen on page 2-13 for details about this screen.

# **Power**

The Power applet provides information about the battery installed in your Workabout Pro4, and it allows you to define the behaviour of your Workabout Pro4 to minimize power consumption.

Tap on Start>Settings>Power icon.

# **Battery Power**



This tab monitors and displays the current battery capacity of the battery installed in the Workabout Pro4.

### **Advanced Tab**



This tab allows you to tailor how long the Workabout Pro4 can remain idle before the screen is turned off while running on battery power and also on external power.



**NOTE** The options in the screen behave like Suspend mode. If the screen turns off, the unit is in suspend mode – tapping on the touchscreen or pressing a key opens the screen in which you were working before it was 'turned off'.

- To determine behaviour when the unit is running On battery power, tap in the checkbox to the left of Turn
  off screen if device is not used for.
- Tap in the drop-down menu next to this option, and choose the number of **minutes** the unit can remain idle before the screen is turned off.
- To determine behaviour when the unit is running On external power, tap in the checkbox to the left of **Turn** off screen if device is not used for, and choose a value in the associated drop-down menu.

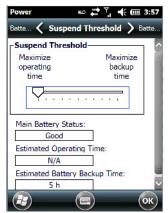
### **Battery Details Tab**

In the scrolling tab bar, tap on the Battery Details tab.



This tab lists the specifications and battery capacity status of the battery installed in the Workabout Pro4. This is a view-only screen.

# **Suspend Threshold and Estimated Battery Backup**



The Estimated Battery Backup is the amount of battery power that has been reserved or set aside to protect data until a fully charged battery can be installed in the Workabout Pro4. When the battery capacity is depleted up to the Estimated Battery Backup Time reserve specified in the Suspend Threshold tab, the Workabout Pro4 shuts off automatically and uses the reserve power to preserve the data stored on the Workabout Pro4. Once the unit shuts down, it cannot be switched on until a fresh battery is installed, or the unit is inserted in a single bay USB cradle, four bay Ethernet cradle, or vehicle-cradle.

- Slide the **Suspend Threshold** button to the right to increase the battery capacity reserved for backup purposes. Data will be preserved to a maximum of 100 hours.
- Slide the **Suspend Threshold** button to the left to decrease the power reserved for backup purposes; this increases the Workabout Pro4 operating time the amount of time the Workabout Pro4 will operate before shutting down but reduces the power reserved for backup purposes to a minimum of 24 hours.

Internal super-capacitors will protect the data stored in the Workabout Pro4 while the depleted battery is swapped for a fully charged one.



**NOTE** Once the battery is removed, the super-capacitor will preserve the data stored on the Workabout Pro4 for approximately 4 minutes. It is critical that you install a charged battery before this time elapses.

# **Battery Health**

The Battery Health tab provides an estimate of battery health based on a number of different measurements, beyond battery capacity.



**IMPORTANT** The Battery Health Meter is an estimate and should not be depended on to provide a 100% account of battery condition.

In the scrolling tab bar, tap on the Battery Health tab.



#### **Current Battery Health Meter**

The Current Battery Health Meter default values are shown here as \*\*\*\*\* (Excellent), \*\*\* (Used), and \* (Battery should be replaced).

To display the Battery Health Meter:

Tap on the navigation bar, scroll to and click on the battery hotkey.



The image above shows the default Excellent status screen.

### **Enable Battery Health Service**

This option allows you to enable or disable the battery health service.

#### **Show Popup UI on Device-Resume**

The drop-down menu attached to Show Popup UI on Device-Resume allows you to determine when the battery status pop-up user interface (UI) will appear based on the battery health.

#### **Edit – Changing Ratings Text**

You can customize the ratings text with the Edit button. By enclosing your text within the html tag used for Bold <br/> (or removing the tag to unbold the text), you can change the text that will appear in the pop-up battery status screen. For example, the default text Excellent might be changed to: Battery is excellent, and will last one day shift.

#### **Wakeup Sources**

This dialog box allows you to choose the actions that will wake your unit from a suspend state.



# **Sound & Notifications**

The Sounds & Notifications icon allows you to specify when your Workabout Pro4 will emit sounds.

### **Sounds Tab**

Tap on Start>Settings, and then tap on the Sounds & Notifications icon to display this dialog box.



• Tap on the **checkboxes** and **radio buttons** to enable the event(s) that will cause your unit to emit a sound.

### **Notifications Tab**



This tab allows you to choose an event, and for each event, choose the audio notification or sound that the Workabout Pro4 will emit for that event. For example, suppose you choose Wireless network detected from the Event: drop-down menu. If you check Play sound, the unit will emit an audible sound when a network is detected. You can also choose a number of associated options to tailor this option to your needs.

- Choose an event from the Events drop-down menu.
- Choose the relevant options for the Event you've chosen.
- To test your choice, tap on the arrow in the dialog box.

# **Connections Folder**

This folder icon contains the applets you'll need to set up connections using Bluetooth and an 802.11 radio.

• Tap on Start>Settings>Connections folder icon.



### Beam

Enabling the Beam applet makes your Workabout Pro4 visible and available to others wanting to beam information to your unit.



# **Bluetooth Setup**



#### **IMPORTANT**

By default, units with the Windows Embedded Hand-Held operating system use the Microsoft Bluetooth Manager stack described in this section. However, the Stonestreet One BTExplorer is also available.

To switch **from** Microsoft Bluetooth **to** BTExplorer, use Tweaklt to set the following registry values:

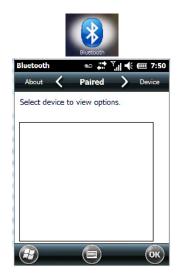
- [HKEY\_LOCAL\_MACHINE\SOFTWARE\\SymbolBluetooth]
   "SSStack"=dword:1
- 2. Warm reset

To switch **from** BTExplorer back **to** Microsoft Bluetooth, use Tweaklt to set the following registry values:

- HKEY\_LOCAL\_MACHINE\SOFTWARE\\SymbolBluetooth]
   "SSStack"=dword:0
- [HKEY\_LOCAL\_MACHINE\Software\Microsoft\Bluetooth] "HWStatus"=dword:3
- 3. Warm reset

Bluetooth is a global standard for wireless connectivity for digital devices and is intended for Personal Area Networks. The technology is based on a short-range radio link that operates in the ISM band at 2.4 GHz. When two Bluetooth-equipped devices come within a 10 meter range of each other, they can establish a connection. Because Bluetooth utilizes a radio-based link, it does not require a line-of-sight connection in order to communicate.

Tap on Start>Settings. Tap on the Connections Folder icon followed by the Bluetooth icon.



### **Turning the Bluetooth Radio On**

Before pairing a headset or any other Bluetooth device with your Workabout Pro4, make certain that the Bluetooth device power is enabled and that the radio is switched on; it is enabled by default. If, for some reason, it has been disabled:

- · Scroll to the Mode tab.
- Tap in the checkbox next to Turn on Bluetooth.
- Turn your Bluetooth device on and place it within a few feet of your Workabout Pro4.
- If needed, set your Bluetooth device to visible (discoverable) so that the hand-held can detect it and establish a connection.

### The Devices Tab - Scanning for Bluetooth Devices

Scroll to the **Device** tab.



• To discover and list all Bluetooth devices in range of the Workabout Pro4, tap on the **Scan** button in the softkey bar at the bottom of the screen.

The Workabout Pro4 scans for Bluetooth devices within a 10 meter range. Any Bluetooth devices within range appear in the Bluetooth list box. Any existing devices previously discovered and listed will also be displayed.



**NOTE** To limit the scope of the scan to a particular type of device, refer to Filtering by Class of Device (COD) in the next section.

The Clear button removes all Bluetooth devices listed except those with currently paired and connected services.

### **Device Pop-up Menu**

The Device pop-up menu allows you to pair a device, update a device name or delete a device from the list.



Pair begins the pairing process by querying the services and profiles of the discovered device. An authentication dialog box is displayed the first time a Bluetooth device is paired.

Rename allows a new name to be assigned to a highlighted device.

Refresh Name repeats the device name query, updating the name. This command is useful if a device is listed without a name (unknown), or if a device name has been changed remotely.

Delete removes this device from the list.

#### Filtering by Class of Device (COD)

The drop-down menu at the top of the Device tab allows you to limit the scope of the scan to a particular type of device. If, for example, you choose Computer from this menu, only computers within range of the Workabout Pro4 are listed in the Device tab. Choosing All lists all detected devices.



### **Pairing a Device**

If you intend to pair a device (a headset, for example), power the device on and bring it within 10 meters of the Workabout Pro4 before proceeding with the discovery process described below.

To pair devices:

- Follow the manufacturer's instructions to place the remote device in pairing mode.
- Choose the **Devices** tab and **Scan** for devices in your area.
- When the scan is complete, tap on the device to which you want to pair.
- In the pop-up menu, choose Pair.

An authentication dialog box is displayed.

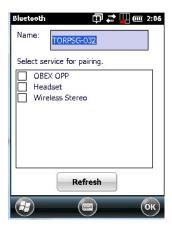


- If the remote device has authentication enabled, type the **PIN** in this dialog box.
- To proceed without authentication, tap on Next.



**NOTE** If a remote device has authentication enabled and you've skipped the authentication process, a pop-up screen will ask if you want to allow the remote device to connect to the Workabout Pro4. Tap on **Yes** and type the PIN. When authentication is complete, tap on **Done**.

After entering the device PIN, the Services dialog appears with a list of services available for that device.



- Click in the checkbox to the left of the service to activate it.
- · Click on Done.



**NOTE** If you choose a service requiring additional information, associated dialog box is automatically displayed where further details can be completed.

Once you've completed the information:

Tap on Next and then in the Services screen, tap on OK.

### **Servers Tab**



When a remote Bluetooth device initiates a Bluetooth connection to the Workabout Pro4, the remote device is considered the 'Bluetooth master' and the hand-held, the 'Bluetooth slave'. In order for the remote device to connect to the Workabout Pro4, the Workabout Pro4 must offer a service in the form of a server. The Servers tab allows these services to be enabled and configured. There are three server services available: Serial, Scanner and OBEX OPP (Object Exchange-Object Push Profile).

Serial server enables the Serial Port Profile server; a Serial Port can be selected from the drop-down menu. Keep in mind that when a port is chosen, an application must be open (connected) to the chosen port for a remote device to be able to connect.

Scanner server enables a Serial Port Profile server and then relays it to the Scanner Service (SCS). This is used for Bluetooth barcode scanners that operate in client mode. SCS opens the server port and handles the scanner input.

OBEX OPP server enables the Object Push Profile server. A warm reset must be performed on the Workabout Pro4 after a change is made to this option. The OPP Server allows other Bluetooth devices to send files to this device.

 Tap on the checkbox to activate the server – the associated port name is displayed beside the server name.

#### **Mode Tab**



When Turn on Bluetooth is checked, Bluetooth features are available. If this option is disabled, you cannot send or receive information using Bluetooth.

When Discoverable is enabled, other Bluetooth devices within range (approximately 10 meters) can detect your Workabout Pro4 and can establish a bond or use a Bluetooth service. Note that other devices can detect your unit whether or not a bond has been created.

#### **About Tab**



Name displays the broadcasted name of the Workabout Pro4. The name can be changed in the About applet – tap on **Start>Settings>System>About** icon. Tap on the **Device ID** tab, and change the name.

Local Address displays the MAC address (BD Addr) of the Bluetooth chip.

HCI Version & LMP Version display the version of the chip firmware.

Component indicates the version of the Bluetooth Subsystem (the manager, drivers, etc).

Profiles lists the supported profiles on this specific Workabout Pro4.

#### Paired Tab

This tab lists all paired devices and their corresponding services. The format of the name is <Device Name>:<Service Name>. Additional information may appear in this screen such as the Port Numbers for Serial Profiles service.



• Tap and hold down the stylus on an item in the Paired tab to display an associated pop-up menu.



This is a service-dependent menu – that is, it varies slightly depending on the service chosen in the Servers tab.

### **Query Services and Remove Commands**



**NOTE** The Query Services and Remove commands are available in all service-dependent menus, regardless of the type of service chosen.

- Query Services displays a Services dialog box where a pairing service is chosen.
- Remove unpairs the highlighted service and deletes the entry from the tab.

#### **OBEX OPP (Object Exchange-Object Push Profile) Commands**

The OPP defines two roles – a Push Server and a Push Client. Push Server is the device that provides an object exchange server. Push Client is the device that pushes and pulls objects to and from the Push Server.

OBEX OPP contains the following unique menu option:

• Send File displays an Open File dialog box where the file to be sent can be selected. When the transmission begins, another dialog box tracks the progress of the file transmission.

#### HSP/HFP (Headset Profile/Hands-Free Profile) Service Commands

The HSP (Headset Profile) allows users to connect their device to Bluetooth enabled headsets and other audio devices.

HSP/HFP services provide the following unique menu options:

- Connect Audio establishes an audio connection to the Bluetooth headset.
- Disconnect Audio disconnects the audio connection from the Bluetooth headset.
- Volume Control displays a dialog box where the headset and microphone volume can be adjusted.

# **Connecting Using a Bluetooth GPRS Phone**

Once you've completed the Bluetooth settings, you can go ahead and set up communication through your Bluetooth-equipped phone.

Before you begin, make certain that the Bluetooth phone is turned on, that the Bluetooth radios in your Workabout Pro4 and phone are enabled (turned on), and that the hand-held and phone are within 10 metres of each other. Both should be discoverable.

1. Tap on **Start>Settings**, and then tap on the **Connections** folder icon.

2. Tap on the Connections icon. Under ISP: WWAN - GPRS, tap on Add a new modem connection.





3. Type a name for the connection.



4. Tap on the **Select a modem** drop-down menu, and choose Bluetooth. Tap on **Next**.



**NOTE** If you are using another device to connect to the Internet, you can choose a different modem from the drop-down menu.



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- 5. Make certain that the phone is discoverable. Some phones also need to be pairable in order to accept a bonding request. Refer to your phone documentation for additional information.
- 6. If the phone appears in the My Connections list, skip to step 13. If not, go to step 7.
- 7. In the list, tap the **phone** you want to connect to, and then tap on the **Next** button. (Note that if your phone is not listed, tap on Add new device, and choose the phone from the list.)
- 8. In the PIN screen, type a **personal identification number** (PIN) you can enter up to 16 characters.
- 9. Enter the same PIN on the phone.
- 10. If you wish, you can edit the name of the phone in the Name field.
- 11. Tap on the **Finish** button.
- 12. In the My Connections list, tap on the **phone**, and then on **Next**.
- 13. Enter the dial-up phone number for this connection, and tap on Next.
- 14. In the User name, Password and Domain fields, enter the **logon information** for this connection, and tap on **Finish**.

You can begin using the Bluetooth phone connection, for example, to send and receive e-mail, browse the Internet with Internet Explorer, and so on.

# **Connections – Connecting to the Internet**

To activate a connection, make certain that any necessary equipment (such as a radio) is installed in your Workabout Pro4.

You'll need the following information from your ISP to make an Internet connection:

- ISP server phone number,
- user name, and
- · password.

You'll need to tap on **Start>Settings**, and then tap on the **Connections** folder icon to display the connections applets.



1. In the Connections screen, tap on the **Connections** icon.



- **NOTE** In the Connections window, the Tasks tab is used to create new connections and manage existing ones. The Advanced tab allows you to choose a network. If you need to change these settings, contact your ISP or network administrator before making changes.
- 2. Under ISP: WWAN GPRS, tap on Add a new modem connection.
- 3. In the **Select a modem** drop-down menu, choose a modem connection. If you haven't already created a modem connection, refer to Modem Connection Setup on page 4-19.
- 4. To connect to the Internet, launch the program you want to use. For example, launch Internet Explorer on your Workabout Pro4 to browse the Internet. Your Workabout Pro4 automatically connects.



**NOTE** To set up a network card or wireless network connection to your ISP, add a new connection under My Work Network.

# **Modem Connection Setup**

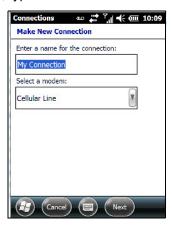
Before you begin, you'll need the following information from your ISP or network administrator: telephone number, password, domain name, and TCP/IP settings.

If your Workabout Pro4 does not have access to a mobile phone network, insert a modem card in the unit.

- 1. Tap Start>Settings. Tap on the Connections folder icon followed by the Connections icon.
- To create a new connection in either ISP: WWAN GPRS or My Work Network, tap on Add a new modem connection.



3. In the Make New Connection screen, type a **name** for the connection.



4. In the drop-down menu under Select a modem, tap on your modem type.

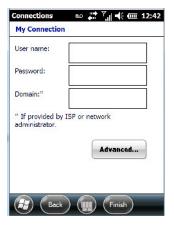


# WARNING! If your modem is not listed in the drop-down menu, choose Hayes Compatible on COM1.

5. In the My Connections screen, enter the **phone number** exactly as you want it dialed. If, for example, you need to dial 9 for an outside line, enter 9 at the beginning of the phone number.



6. Tap on the **Next** button.



 Type the User Name, Password and Domain Name as provided by your ISP or network administrator.



**NOTE** Generally, you will not need to change any of the Advanced settings. For information about Advanced Modem Settings, review the next section.

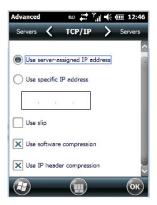
Changes to Advanced settings are only required in the following instances:

- To change the baud rate settings, dialing string commands or credit card options.
- To change port settings.
- To enter TCP/IP settings because the server to which you are connecting does not dynamically assign addresses.
- 8. Tap on the Finish button.

# **Advanced Modem Settings**

# TCP/IP Settings Tab

If your server assigns IP addresses dynamically, you will not need to change these settings. If you need to make changes, contact your ISP or network administrator for addresses.



#### **Server Settings Tab**

If your server assigns IP addresses dynamically, you will not need to change these settings.



Servers requiring assigned IP addresses may also need a way to map computer names to IP addresses. The Workabout Pro4 supports a variety of name resolution options: DNS, Alt DNS, WINS and Alt WINS.

Your ISP or network administrator can determine which name resolution you need, and can also provide the server address. In addition, you will want to ask if alternate addresses are available. An alternate address may allow you to connect when the primary server is not available.

## **Domain Enroll**

To protect sensitive company data, businesses use firewalls and proxy servers to limit access to company resources to company employees only. If you need to access information on your company server remotely, the Domain Enrollment utility allows you to sync your Workabout Pro4 credentials with your company enrollment server, allowing you to access your work remotely.

• Tap on Start>Settings>Connections>Domain Enroll.



Tap on the Enroll button.



- Enter your **enrollment password** supplied by your company's network administrator or generated from your company pre-enrollment wizard.
- Type your company e-mail address and the enrollment password provided by your network administrator.



**NOTE** If you uncheck Automatically discover server, a Server field is displayed where you must manually enter the server name.

Allow a few minutes for your Workabout Pro4 to sync and enroll in your company domain. You may need to restart your unit after the enrollment process is completed.

#### **Network Cards**

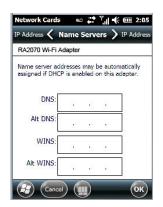
When the network card is inserted in your unit for the first time, the Network Settings screen is displayed automatically so that you can configure the card. If it does not appear, or if you want to change settings:

- Tap on **Start>Settings>Connections**.
- Tap on the Network Cards icon.



If you need to specify server information, double-tap on the appropriate adaptor, and then tap on the IP
Address and/or Name Servers tab.





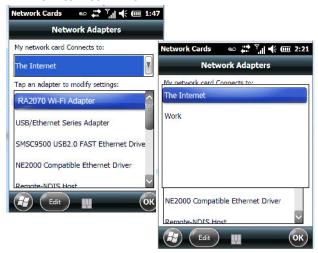


**NOTE** Because most networks use DHCP, you should not need to change these settings unless instructed to do so by your network administrator.

- If necessary, use a network cable to connect the network card to your network. Refer to the documentation shipped with your network card for details.
- To activate the connection, launch the desired program (e.g., Internet Explorer). The Workabout Pro4 will connect automatically.

### **Changing Network Card Settings**

- If you use your network card in two locations like work and home, you'll need to change the network to which the network card connects.
- Tap on Start>Settings>Connections>Network Cards.
- In the Configure Network Adapters dialog box, tap on the drop-down menu below My network card connects to, and choose either **The Internet** or **Work**.



# **VPN Connection Setup**

A VPN connection provides a secure connection to servers through the Internet.

Before you begin, you need the following information from your network administrator: password, domain name, TCP/IP settings and a host name or IP address of the VPN server.

• Tap on Start>Settings. Tap on the Connections folder icon followed by the Connections icon.



Under My Work Network, tap on Add a new VPN server connection.



- In the Name field, type a **name** for this connection.
- In Host name/IP, type the VPN server name or IP address.
- Tap on the VPN type radio button next to the type of authentication for your Workabout Pro4: IPSec/L2TP
  or PPTP. Your network administrator will let you know which option applies to your unit.
- Tap on Next.
- Choose the type of authentication in this screen. If you choose A pre-shared key, type the key provided by your network administrator.
- Tap on Next.
- Type your **user name**, **password** and **domain name**. If a domain name was not provided to you, try the connection without entering a domain name.



- **NOTE** Normally, you will not need to change any advanced settings. You will need to make changes only under only the following circumstances:
  - The server to which you are connecting does not dynamically assign addresses, and TCP/IP settings need to be entered.
  - Server DNS or WINS settings need to be changed.

If you need to edit the Advanced settings, refer to Advanced Modem Settings on page 4-21 for details about this tab.

Tap on Finish.

 Launch a program like Internet Explorer to activate the connection. The VPN connection will start automatically.

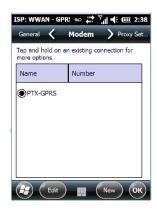
# **Managing an Existing Connection**

Once you've defined a connection, a new option appears in the first Connections screen – Manage existing connections.

#### **Editing a Connection**

- Tap on **Start>Settings>Connections folder** icon. Tap on the **Connections** icon.
- Tap on Manage existing connections.





- To launch a connection from this screen, press and hold the stylus on the connection you want to activate. Choose **Connect** from the pop-up menu.
- To delete a connection, press and hold the stylus on the connection you want to delete. Choose **Delete** from the pop-up menu.



**NOTE** You can also create a new connection by tapping on the New button. To make changes to the settings for this connection, tap on Edit.

#### **Changing a Connection Setting Name**

Your Workabout Pro4 has two sets of connection settings: My ISP and My Work Network. If you want to change one or both of these options to something more familiar to you, follow these steps.

- Tap on Start>Settings. Tap on the Connections folder icon followed by the Connections icon.
- Under My Work Network or My ISP, tap on Manage existing connections.
- Tap on the General tab.



- Type the name you prefer in the field below Enter a name for these settings.
- Tap on OK.

## **Proxy Server Tab**



**NOTE** If you are connected to your ISP or private network during synchronization, the Workabout Pro4 will download the appropriate settings during synchronization from your PC. If these settings are not on your PC, or if they need to be changed, you'll need to set up the proxy server connection manually.

To set up the proxy server connection manually, you'll need the following information: proxy server name, server type, port, type of Socks protocol used, and the user name and password.

- Tap Start>Settings. Tap on the Connections tab followed by the Connections icon.
- Under My Work Network, tap on Set up my proxy server.



- Tap in the checkbox next to This network connects to the Internet and This network uses a proxy server to connect to the Internet.
- In the Proxy server field, type the **proxy server name**.
- Tap on **OK** to save your changes.



**NOTE** If you need to change advanced settings such as a port number or proxy server type, you'll need to tap on the Advanced button rather than tapping on OK. Advanced settings are described in "Changing Advanced Proxy Server Settings" in the next section.

#### **Changing Advanced Proxy Server Settings**

• To change advanced settings such as the port number or proxy server type, tap on the **Advanced** button.



- Tap on the proxy type you want to change. For the appropriate server type, type the proxy server name and port.
- Tap on OK.

# **Selecting a Network**



**NOTE** Normally, you will not need to change these settings. Contact your ISP or network administrator before making any changes.

Private networks are used for work-related activities. Internet networks are used for home connection to your ISP. The My Work Network settings are used for private network connections (corporate networks), while My ISP settings are used for Internet network connections.

When you use programs such as Internet Explorer, your Workabout Pro4 automatically connects using private network settings under My Work Network or Internet settings under My ISP, depending on specifications. You can determine how your Workabout Pro4 connects.

Tap Start>Settings>Connections folder icon.



• Tap on the **Connections** icon, and then tap on the **Advanced** tab.



- Tap on Select Networks.
- In the appropriate list, choose My ISP or My Work Network.

# Fusion Wireless Companion - Setting Up the 802.11a/b/g/n Radio



**NOTE** For information about setting up your radio using Windows Wireless Zero Config, refer to Appendix F: Wireless Zero Config Settings.

Workabout Pro4 contains an integrated 802.11a/b/g/n radio module. The Fusion Wireless Companion software is used to configure the radio for one or more wireless network profiles. Each profile specifies the security parameters used to connect to a particular WLAN as identified by its Extended Service Set Identification (ESSID). The Fusion Wireless Companion software also allows the operator to control which profile out of a set of profiles is used to connect. Follow the steps in this section to help configure the radio in your unit.



#### **WARNING!**

Due to regulatory requirements, this unit is set to Enable 802.11d by default. If your Access Point does not support this setting, your unit may not be able to properly connect to the network.

A network profile contains settings for SSID (Service Set Identifier) and security options.



**NOTE** In most situations, the configuration of your 802.11 radio will require parameter settings and access keys from a network administrator.

### **Connecting to the Internet**

To connect to the Internet on a WLAN when using Fusion Wireless Companion, ensure that the network card setting is set to Internet:

- Ensure the Fusion radio is enabled and a profile is configured.
- Tap on Start>Settings>Connections>Wi-Fi.
- In the My network card Connects to drop-down menu, choose The Internet.
- Tap on OK.

#### **Fusion Setup**



**NOTE** WLAN configuration information must be obtained from the system administrator before performing Fusion setup procedures.

• In the Today screen, tap on the **Fusion** softkey at the bottom of the screen to display the Fusion Launcher dialog box. Alternately, you can tap on **Start>Wireless Companion>Wireless Launch**.



**NOTE** The Fusion setup example following uses Open encryption. Depending on what you choose, the setup may vary slightly.



The Fusion Launcher items and their corresponding applications are summarized below.

Application	Description
Find WLANS	Displays a list of the WLANs active in the area.
Manage Profiles	Used to create new profiles and manage and edit existing profiles.

Application	Description
Manage Certs	Used to manage authentication certificates.
Manage PACs	Used to manage a list of Protected Access Credentials (PAC) used with Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST) authentication.
Options	Provides options which allow the user to configure the Fusion option settings.
Wireless Status	Displays the status of the current wireless connection (view only).
Wireless Diagnostics	Provides tools with which to diagnose problems encountered with the wireless connection.
Log on/off	Displays the Network Login dialog box used to log on to a particular profile or to log off the currently active profile.
Fusion Help	Displays extensive on-device Help.

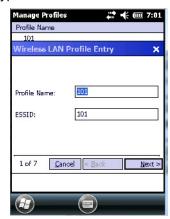
# **Creating a New Profile**



#### **IMPORTANT**

The steps below describe how to manually create a network. Keep in mind that this is intended only as an <u>example</u> and may vary from your own network requirements. If, for example, you are using a different type of security for your network, the fields you complete may not match those described here.

- Tap on Manage Profiles.
- Tap and hold the stylus on the Manage Profiles window, and choose Add from the pop-up menu to display the Wireless LAN Profile Entry window.
- In the Profile Name dialog box, type a name for the profile
- In the ESSID Profile ID dialog box, type the ESSID.



Tap Next to display the Operating Mode dialog box.



- In the Operating Mode drop-down menu, choose **Infrastructure**. (Keep in mind that because the Regulatory option for this unit is set to Enable 802.11d by default, the operating mode is limited to Infrastructure.
- Tap Next to display the Security Mode dialog box.



- In the Security Mode drop-down menu, choose Legacy (Pre-WPA).
- In the Authentication drop-down menu, choose None.
- Tap Next to display the Encryption dialog box.



- Choose an Encryption Type from the drop-down menu.
- Tap Next to display the IPv4 Address Entry dialog box.

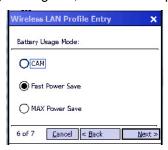


Ensure that all three items are checked. Tap on Next.

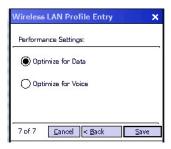


**NOTE** These IPv4 Address Type options are enabled (checked) by default. If you deselect one or more of them, additional dialog boxes are displayed where you can specify the IP Address, Subnet Mask, Preferred Gateway and Alternate Gateway.

Tap Next to display the Battery Usage dialog box, and choose a power consumption option.



• Tap **Next** to display the Performance Settings dialog box, and choose one of the performance options.



· Tap Save.

# **Launching an Existing Profile**

Your configured network profiles are listed in the Manage Profiles screen.

- To activate a profile in the Manage Profiles screen, tap and hold the stylus on the profile you want to launch.
- In the drop-down menu, choose Connect.

#### **Resetting the Radio to Default Factory Settings**

Resetting your unit, including a clean start, will not return the radio settings to the default values. To reset the radio to factory settings:

- Tap on **Start>Wireless Companion>Wireless Launch** to display the Fusion Launcher screen.
- In the Fusion Launcher screen, choose Options.
- In the drop-down menu, choose Data Management. Tap on the Reset Options and Reset Datastore buttons, and tap on OK.
- Press and hold down the [FN/BLUE] and [Power] button to perform a warm reset.

# Wireless Manager – Turning the Radio On and Off

The Wireless Manager icon acts as a connection manager, providing access to all network connection types.

• Tap on Start>Settings>Connections folder icon. Tap on the Wireless Manager icon.



This screen is used to switch the wireless network connection on and off. This screen also provides access to the setup screens for each wireless connection.

- To turn connections on and off, tap on the item(s) in the list.
- To turn off all wireless connections, tap on All.

The Menu softkey at the bottom of the screen provides a shortcut to the setup screens for each of the options listed in the Wireless Manager screen.



# **Personal Folder**

Tap on Start>Settings>Personal icon.



# App Launch Keys

This icon allows you to map a key to an application so that you can then launch the application from a single key-press.

Tap on Start>Setting>Personal>App Launch Keys icon.



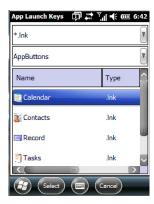
To assign an application key:

Tap the Add button.



• Press the key you want to use to launch an application. (If an unsupported key is pressed, a message appears on this screen letting you know.)

The cursor moves to the App field and a new screen is displayed where you can choose the application to which you want to assign the application key. If you need to, you can Browse through the information in your hand-held until you locate the application you want to launch.



• Once you've selected the file you want to map, tap on **OK**.

The cursor moves to the Data field. You can use this field if you need to assign special parameters to your application launch key. If you don't want to assign any parameters, you can leave the Data field blank. If, for

example, you want to assign an application launch key to launch the Word Mobile application, you can leave this field blank. If you want to assign an application launch key that will open a specific document in the Word Mobile application, you need to browse to and choose that document while the cursor is in the Data field.

Tap on OK.



- If you need to Edit, Remove or Add another App Launch Key, you can do it from this final screen. Otherwise, tap on **OK** to save your Application Launch Key.
- To launch the application you chose, press the application key you assigned.

### **Buttons**

A number of apps are included under this icon.

Tap on the Start>Settings>Personal>Buttons icon to display the apps.

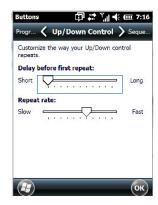


# **Program Buttons Tab**

In the Program Buttons tab, you can customize the program hardware buttons to open your most used programs.

- Under Select a button, tap on the button to which you want to assign a program.
- Choose a program from the **Assign** drop-down menu.

# **Up/Down Control Tab**



• Tap on **Start>Settings>Personal>Buttons** icon to display this screen. Scroll to the **Up/Down Control** tab.

Sliding the Delay before first repeat bar to the left decreases the delay between key repeats while sliding the bar to the right increases the repeat delay time.

Sliding the Repeat rate bar to the left slows the rate at which an [Up/Down] button repeats when pressed. Sliding the bar to the right increases the key repeat rate.

#### **OneShots**



The options in this tab allow you to determine how modifier keys on your Workabout Pro4 behave. For each modifier key – [ALT], [SHIFT], [CTRL], [FN/ORANGE] and [FN/BLUE] – you have the following options in the drop-down menu: Lock, OneShot, and OneShot/Lock.



**IMPORTANT** 

Once you've assigned a OneShot mode to a modifier key, you need to tap on the OK button at the top of the tab to activate your selection.

#### Lock

If you choose Lock from the drop-down menu, pressing a modifier key once locks it 'on' until you press the modifier key a second time to unlock or turn it off.

#### **OneShot**

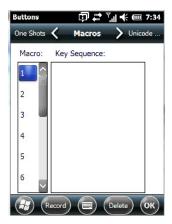
If you choose OneShot, the modifier key remains active only until the next key is pressed.

#### OneShot/Lock

OneShot/Lock allows you to combine these functions. When you choose this option and you press the modifier key once, it remains active only until the next key is pressed.

If you press the modifier key twice, it is locked 'on', remaining active until the modifier key is pressed a third time to turn it 'off'.

### **Macro Keys**



A macro key is a single keypress that can be configured to output up to 200 characters (including [ENTER], [BACKSPACE], [DEL], function keys, arrow keys, etc.). This feature can save time and effort when entering frequently used key sequences. For example, a macro key can be programmed to output a standard signature, such as "Sincerely yours, Bob" with a single keypress.

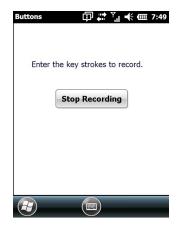
For all keyboard types, you can program up to 15 macro keys. Some Workabout Pro4 keyboards have macros keys ([M1], [M2] and so on) that are physically present on the keyboard. When you record a macro sequence and assign it to one of these predetermined macro keys, pressing that key (e.g., [M1]) executes the macro and sends the programmed key sequence to the hand-held as if it were entered from the keyboard.

If your keyboard does not have dedicated macro keys, or if you wish to use macro keys beyond the ones that are already present on the keyboard, you need to use Scancode Remapping to remap keyboard keys to act as macro keys (see Scancode Remapping on page 4-38). For example, if you record a key sequence to Macro 7, you could then use Scancode Remapping to remap the [z] key so that pressing it executes Macro 7 rather than the letter [z].

#### **Recording and Saving a Macro**

In the Macro menu, highlight a Macro number. Tap on the Record button.

A Record Macro screen is displayed.



- Type the **macro sequence** you want to assign to a keyboard key. You can type text and numbers, and you can program the function of special keys into a macro.
- When you've finished recording your macro sequence, tap on the Stop Recording button.

A new screen displays the macro sequence you created.

- Tap on the Save button to save your macro. Your macro key sequence is listed in the Macro screen.
- Tap on **OK** to save your macro key assignment.

#### **Executing a Macro**

To execute a macro, press the key to which you've assigned the macro.



**NOTE** Keep in mind that if you plan to program additional macros beyond the Macro keys on your keyboard, or if your keyboard is not equipped with dedicated macro keys, you will need to use Scancode Remapping on page 4-38 to assign a keyboard key that will act as a macro key.

#### **Deleting a Macro**

- In the Macros tab, highlight the macro number you want to delete.
- Tap on the **Delete** button.

# **Unicode Mapping**

• Tap on the Unicode Mapping tab to display this screen.



The Unicode Mapping tab is used to map combinations of virtual key values and [CTRL] and [SHIFT] states to Unicode<sup>™</sup> values. This tab shows the configured Unicode character along with the Unicode value. For example, "a (U+0061)" indicates that the character "a" is represented by the Unicode value "0061", and so on. Keep in mind that Unicode configurations are represented as hexadecimal rather than decimal values.

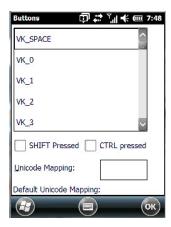
All user-defined Unicode mappings are listed in the Unicode Mapping tab in order of virtual key value, and then by order of the shift state. If a Unicode mapping is not listed, the Unicode mapping is mapped to the default Unicode value.

#### **Adding and Changing Unicode Values**



**NOTE** Changes to Unicode mappings are not saved until you exit the Unicode Mapping tab by tapping on [OK].

Tap on the Add/Edit button.



- Highlight a value in the Unicode mapping list.
- Position the cursor in the Unicode Mapping field, and type a Unicode value for the highlighted key.



**NOTE** To add a shifted state – [SHIFT] and/or [CTRL], tap on the checkbox next to SHIFT Pressed and/or CTRL Pressed.

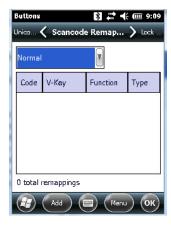
#### **Removing Unicode Values**

In the Unicode Mapping tab, highlight the item you want to delete, and tap on the Remove button.

# **Scancode Remapping**

A scancode is a number that is associated with a physical key on a keyboard. Every key has a unique scancode that is mapped to a virtual key, a function, or a macro. Scancode Remapping allows you to change the functionality of any key on the keyboard. A key can be remapped to send a virtual key (e.g. VK\_F represents the 'F' key; VK\_RETURN represents the [ENTER] key, etc.), perform a function (e.g. turn the scanner on, change volume/contrast, etc.) or run a macro.

There are four different tables of scancode mappings: the Normal table, the Orange table, the Blue table and the Shift table. The Normal table defines unmodified key presses; the Blue table defines key presses that occur when the [FN/BLUE] modifier is on; the Orange table defines key presses that occur when the [FN/ORANGE] modifier is on; the Shift table defines key presses that occur when the [SHIFT] modifier is on. The default mappings of these scancodes can be overwritten for each of these four tables using Scancode Remapping.



The first column in the Scancode Remapping tab displays the scancodes in hexadecimal. If the scancode is remapped to a virtual key, that virtual key is displayed in the column labelled V-Key. In the column labelled Function, virtual keys that are 'Shifted' or 'Unshifted' are displayed.

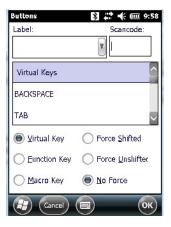
If the scancode is remapped to a function or a macro, the first and second columns remain blank while the third column contains the function name or macro key number (e.g., Macro 2).

#### Adding a Remap

To add a new remapping:

Tap the Add button at the bottom of the dialog box.

The Remap Scancode dialog box is displayed.



Type the scancode in hexadecimal in the field labelled Scancode.



**NOTE** The Label field displays the default function of the scancode you are remapping.

#### Virtual Key, Function and Macro

The radio buttons at the bottom of the dialog box allow you to define to what the scancode will be remapped to: Virtual Key, Function or Macro.

When Virtual Key is selected, you can choose to force [SHIFT] to be on or off when the virtual key is sent. If No Force is selected, the shift state is dependent on whether the shift state is on or off at the time the virtual key is sent.

When Function is selected, a list of valid functions appears in the dialog box.

When Macro is selected, the macro keys available on your unit are listed in the dialog box.

- Choose Virtual Key>Function or Macro.
- Choose a function from the Function list, and tap on **OK**.

## Editing a Scancode Remap

- In the Scancode Remapping tab, tap on the remap you want to edit.
- Tap on the Edit button, and make the appropriate changes.
- Tap on **OK** to save your changes.

#### Removing a Remap

- In the Scancode Remapping tab, highlight the scancode you want to delete, and tap on the Menu button, and choose Remove.
- Tap on OK.

# **Lock Sequence Tab**

The Lock Sequence tab allows you to lock the hand-held keyboard to prevent keys from being pressed accidentally when, for example, the unit is inserted in a holster.



- To lock the keyboard, tap in the checkbox next to Enable key lock sequence.
- Tap in the checkbox next to Keyboard locked at startup.
- In the Key sequence drop-down menu, choose the key sequence you need to type to unlock the keyboard.
- Reset the Workabout Pro4 press and hold down the [FN/BLUE] key and the Power button.



**NOTE** It is useful to leave the Show popup message enabled (default) so that anyone attempting to use the Workabout Pro4 keyboard will see the key sequence they will need to enter to unlock the keyboard displayed on the screen.

A locked keyboard icon is displayed in the softkey bar when the keyboard is locked.



Type the key sequence to unlock the keyboard.

# **The Phone – Managing Settings**



**NOTE** The Phone option is only available on units equipped with the Cinterion PHS8-P GSM/GPRS/EDGE/UMTS/HSPA+ Radio.

An optional phone feature is available for your Workabout Pro4 hand-held. This section details how to tailor phone settings like the ring type and tone, phone services, and so on.



#### **IMPORTANT**

For details about sending and ending calls, making conference calls, managing contacts, and so on, refer to The Phone on page 3-2.

You can adjust phone settings such as the ring type and tone, choose phone services such as barring calls, and so on. There are a number of ways you can access phone settings.

• In the Navigation Bar, tap on the Phone Settings hotkey.



• In the pop-up Phone bubble, tap on the Settings link, or



Tap on Start>Settings>Personal icon>Phone icon.

### **Phone: Sounds Tab**



#### **Ring Type and Ring Tone**

The SIM card phone number is displayed at the top of this screen. The Ring Type drop-down menu allows you to tailor the type of ring used for incoming calls. The Ring Tone drop-down menu allows you to determine the ring tone of incoming phone calls. To test the ring type and tone you've chosen, you can tap on the Play button just below the Ring tone menu. Tap on the Stop button to end the sound test.

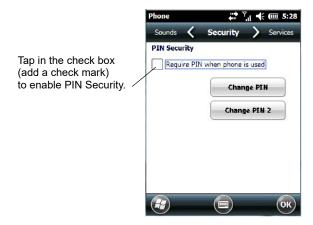


**NOTE** For details about setting up Ring type and Ring tone to help you identify other 'events' such as successful scans, missed calls, voice mails, and so on, refer to Notifications Tab on page 4-9.

### **Keypad**

This option allows you to determine the type of sound that keypad keys emit as you press them. You can also turn off keypad sounds.

# **Phone: Security Tab**



This option allows you to enable or change a PIN (Personal Identification Number) so that your phone function is protected from unauthorized use. Your SIM card manufacturer provides the default PIN which you can change in this field.

#### **Changing a PIN**

• Tap on the **Change PIN** button and use the phone keypad to enter your existing SIM card PIN. Tap on the **[Enter]** button in the phone keypad.





#### **IMPORTANT**

If you enter an incorrect PIN, a message is displayed letting you know that you'll need to re-enter the correct value.

You have a limited number of chances to enter the correct PIN. The number varies for different services. If you exceed this number, the SIM will be disabled automatically. You will be asked to enter a PUK (Personal Unlocking Key). In some cases, the PUK is printed somewhere on your SIM package. If this is not the case, you will need to call customer support.

Once you've entered the correct PIN, a new screen appears asking that you enter your new PIN.



• Type your **new PIN** – a number consisting of between 4 and 8 digits. Tap on **Enter**.

A new message lets you know that you need to confirm your new PIN.

• Retype your **new PIN**. Tap on **[Enter]** when you're finished.

#### **Enabling PIN Security**

To activate PIN security:

Tap in the checkbox to the left of Require PIN when phone is used.

When security is enabled, you will be prompted to enter a PIN before you are allowed to use the phone.



**NOTE** Whenever this option is enabled or disabled, you will be asked to enter your PIN.

## **Phone: Services Tab**



The Services tab allows you to customize the behaviour of your phone. You can, for example, block all incoming calls, tailor to whom your caller ID will be transmitted, set up call forwarding and so on.



**NOTE** Keep in mind that some services may not be supported by your network, or they may not have been subscribed to.

Tap on the service you want to set up. Tap on Get Settings.

The service dialog boxes allow you to tailor your available services to meet your requirements.

## **Voice Mail Setup**

If your service includes Voice Mail, choosing this option for the first time displays a screen in which you can enter your voice mail provider phone number.

#### **Phone: Network Tab**



**\** 

**NOTE** For details about choosing networks, refer to Network Configuration on page G-6.

# **Phone: Data Tab**



This screen is used to configure your WWAN data connection to the ISP.

**√** 

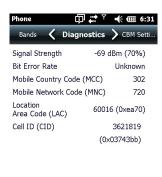
**NOTE** For details about setting up your data connection, refer to Appendix G: Wireless Wide Area Network (WWAN).

## **Phone: Bands Tab**



By default, all frequency bands are enabled. Bands should not be disabled without knowledge about which bands are used by your network; an incorrect setting will prevent the WWAN modem from finding the network.

# **Phone: Diagnostics Tab**





The Diagnostics tab lists details about each network found. The information in this screen may be useful to support personnel if they are attempting to diagnose a problem with your network.

#### **Phone: CMB Tab**





The Cell Broadcast Message (CBM) can be used by the network operator to send the same message to all the users within a certain area at once. This option is turned off by default.

# **System Folder**

Tap on Start>Settings>System icon to display a group of system apps.



#### **About**

Tapping on Start>Settings>System tab, and then the About icon displays a grouping of tabs that provide device information.



#### **Version Tab**

This tab outlines the Windows Embedded Handheld 6.5 Professional version, processor information, memory size and a description of the expansion card, if one is in use.

#### **Device ID Tab**

This tab provides fields in which you can assign a Device name and Description (optional) for the Workabout Pro4. This name is used by the Workabout Pro4 to identify itself to other devices.

Keep in mind that this must be a unique name across a network. If you are unable to connect to a network because another device with the same name is already connected, you'll need to assign a new name here.

#### Copyrights

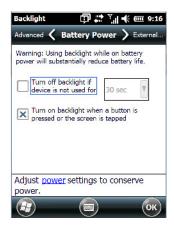
The Copyrights tab lists the copyright information for the software loaded on your Workabout Pro4.

# **Backlight – Screen and Keypad**

Tapping on Start>Settings>System icon followed by the Backlight icon allows you to determine the backlight and power properties of the Workabout Pro4.



# **Battery Power Tab**



This tab allows you to tailor the Workabout Pro4 backlight behaviour to best preserve battery life.

 To define how long the backlight should stay on when the Workabout Pro4 is not in use, tap in the checkbox to the left of Turn off backlight if device is not used for.



**NOTE** This option is essentially 'suspend' mode. If the backlight is turned off, tapping on the screen or pressing a key displays the screen in which you were working before the backlight turned off.

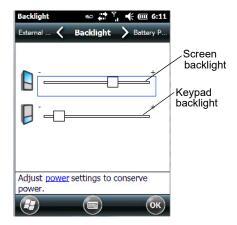
- Tap on the drop-down menu, and choose the number of seconds or minutes the backlight will remain on when the hand-held is idle.
- To **Turn on backlight when a button is pressed or the screen is tapped**, tap in the checkbox to the left of this option.

#### **External Power Tab**



This tab determines the behaviour of the backlight when the hand-held is using external rather than battery power. Refer to the instructions in Battery Power Tab on page 4-47.

# **Backlight Tab**



This tab allows you to tailor the backlight behaviour of the Workabout Pro4 screen and keypad to best preserve battery life. The top sliding button adjusts the screen brightness while the bottom sliding button adjusts the keypad brightness.

• Slide the buttons to the left to decrease brightness and to the right to increase brightness.

## **Certificates**

- Tap on **Start>Settings**, and then tap on the **System** icon.
- Tap on the Certificates icon.



A public key is transmitted as part of a certificate. The certificates listed in the Certificates tabs ensure that the submitted public key is, in fact, the public key that belongs to the submitter. The hand-held checks that the certificate has been digitally signed by a certification authority that the hand-held explicitly trusts.

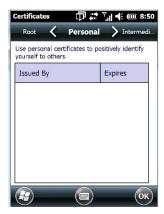
Your Workabout Pro4 has certificates already preinstalled in the unit. Personal certificates establish your identity, intermediate certificates, as the name suggests, identify intermediate certification authorities and root certificates establish the identity of the servers with which you can connect.

## **Choosing a Certificate**

Normally, certificates already configured for your network are chosen automatically by the Workabout Pro4. If a certificate cannot be chosen automatically, you must choose it from the Certificates list.

To choose a certificate, tap the desired certificate. Your Workabout Pro4 will connect automatically.

#### **Personal Tab**



The Personal tab lists the name of the certificate issuer and the expiration date.

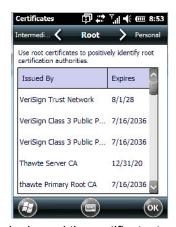
- To view additional information about a personal certificate, tap on a certificate in the list.
- To delete a certificate, tap and hold the stylus on the item you want to delete until a pop-up menu is displayed. Tap on the **Delete** command.

#### **Intermediate Certificates**

The items in this list help identify intermediate certification authorities.



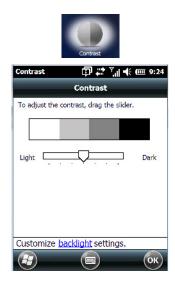
#### **Root Certificates**



- To view details about a certificate who issued the certificate, to whom it was issued, the issue date and the expiry date tap on a certificate in the list.
- To delete a certificate, tap and hold the stylus on a certificate. In the pop-up menu, tap on **Delete**.

## **Contrast**

Tapping on the Contrast icon displays a screen in which you can tailor the screen contrast.



Drag the sliding button between Light and Dark to achieve the desired screen colour contrast.

# **Customer Feedback**

This option allows Microsoft to track how you use your Workabout Pro4 so that they can make improvements to the software. The radio buttons in this screen allow you to turn this feature on or off.



# Dr. Debug

Dr. Debug is an error diagnostic tool.

Tap on Start>Settings>System. Tap on the Dr. Debug icon.



### **Status**



This tab indicates the status (on/off) of the tools. Tapping on Browse logs displays error logs for your review.

## **Utilities**

There are a number of utilities available through Dr. Debug. The NetLog utility is used to log network traffic. The RilLog utility captures Radio Interface Layer (RIL) debug outputs. When you tap on the Start button, debug data is collected so that, if necessary, it can be forwarded to a technician for evaluation.



# **Settings**





- Choose an **Error Level** from the drop-down menu.
- To change the location where debug information will be stored, tap on the button to the right of the Log Folder option.

# **Encryption**

This option allows you to encrypt the data on your storage card.

Tap on Start>Settings>System tab>Encryption icon.



# **Error Reporting**

Error Reporting allows you to enable or disable Microsoft error reporting prompts.

Tap on Start>Settings. Tap on the System icon followed by the Error Reporting icon.



# **GPS (Global Positioning System)**

With a Global Positioning System (GPS) receiver, you can locate your exact position on a map. However, even without a GPS receiver, several different mapping programs can run on your Workabout Pro4.

Tap on Start>Settings>System tab>GPS icon.





 Tap on the GPS program port drop-down menu, and choose the communication port that the GPS software will use to communicate with the GPS receiver.



**NOTE** Your Workabout Pro4 may automatically detect the GPS receiver that you are using and enter the settings in the Hardware tab. If not, you'll need to enter this information yourself. You can find this information in the user manual of the GPS receiver.

Windows Embedded Hand-Held automatically manages access to the GPS receiver. However, some programs may not work with automatic configuration. If this is the case:

Tap on the Access tab, and disable Manage GPS automatically (recommended).



You can go to:

http://www.microsoft.com/windowsphone/en-gb/howto/wp7/web/use-maps-to-find-a-place.aspx

if a map-viewing program is not included with your Workabout Pro4, and copy the file to your Workabout Pro4.

Tap on the Hardware tab, and set the GPS hardware port to COM2. Set the Baud rate to 4800.



# **GPS Settings**

This applet allows you to define how the GPS module operates.

#### **GPS Tab**





The GPS tab provides two options for the GPS Source depending on the radio installed in the unit: On-board GPS if a WiFi radio is installed or WAN GPS if a PH8 radio is installed.



**NOTE** Leave GPS on in suspend is only available with the WAN GPS source. If this option is enabled, the GPS remains on even when the hand-held is in suspend mode to provide better satellite fix response time.

#### **On-Board GPS**



#### **Enable SBAS**

SBAS (Satellite Based Augmentation System) downloads satellite ephemeris (orbital) data to the hand-held, increasing the likelihood of finding and keeping a fix in poor coverage areas.

#### **Enable SUPL**

Enabling SUPL (Secure User Plane Location) is an IP based protocol for Assisted GPS to receive information of GPS satellites quickly via IP rather than the slower process over GPS satellite signalling.

#### Use Zebra Server

This option is available when Enable SUPL is chosen so that the hand-held can be connected to the Zebra Server.

#### Server Name and Port

These fields are used to enter your server IP address and Port number.

#### User ID Type

IMSI (International Mobile Subscriber Identity) is used to identify the device on a cellular network. It is also used to identify the radio on the network. To protect the identity of the radio subscriber, this signal is rarely sent out.

MSISDN (Mobile Station International Subscriber Directory Number) reads the phone number of the SIM card to identify the subscriber. IMSI is often used as a key in the subscriber database while MSISDN is the number normally dialled to connect a call to the device. A SIM has a unique IMSI that does not change, while the MSISDN can change in time – different MSISDNs can be associated with one SIM.

#### **WAN GPS**





#### Enable GLONASS (Global Navigation Sputnik System)

Enabling this option provides support for Russian satellites. Selecting GLONASS prompts a search for GLONASS satellites first, then GPS satellites.

#### **Enable AGPS**

AGPS (Assisted Global Positioning System) reduces the fix time and increases the likelihood of finding and keeping a fix in poor coverage areas. AGPS downloads satellite ephemeris (orbital) data to the hand-held periodically through the radio. The downloaded data is used by the GPS module to speed the process of getting a fix.

#### **Enable AGPS for GLONASS**

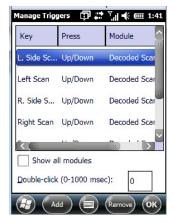
This option, as the title suggests, enables AGPS for GLONASS satellite connections.

# **Manage Triggers**

Manage Triggers allows you to configure how barcode scanners and other devices are triggered. You can configure the trigger ID for each trigger button for both single- and double-click, and the double-click time.

• Tap on Start>Settings>System>Manage Triggers icon.





# **Trigger Mappings**

A trigger mapping is an association between a particular key on the keyboard and a driver or application, the module(s) – sometimes referred to as "trigger consumer(s)" – of the trigger source. Along with keyboard keys, trigger sources can also be grip triggers, external hardware triggers or software-based. When the specified key is pressed, the trigger consumer (for example, a decoded scanner) is sent a message.



#### **IMPORTANT**

It is not possible to have two or more identical mappings — for example [F1] cannot be mapped to the Non-Decoded Scanner twice — even if the trigger type is different.

A keyboard key that is used as a trigger source will no longer generate key data or perform its normal function. For example, if the space button is used as a trigger source, it will not be able to send space characters to applications.

#### **Double-Click**

When a key is pressed and released, then pressed again within the configured time (between 0 to 1000 milliseconds), a double-click occurs. See also Trigger Press Type on page 4-56.

#### **Show All Modules**

By default, the trigger mapping list only shows active mappings. Mappings for drivers or applications that are not currently active are not normally displayed. By checking this checkbox, all mappings, both active and inactive, are displayed.

#### Add

Tapping this button brings up the Add mapping dialog (see below), so that you can add new trigger mappings.

## Edit

Tapping this button brings up the Edit mapping dialog, so that you can edit existing trigger mappings.

#### Remove

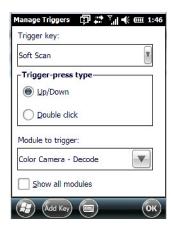
Tapping this button removes an existing mapping.

#### OK

The OK button in the Manage Triggers screen saves all changes made. If the [ESC] key is pressed, all changes are discarded.

## **Add and Edit Trigger Mapping**

Tap on Add to add a new trigger map, or tap on Edit to edit an existing trigger map.



#### **Trigger Key**

This drop-down list allows you to specify the source of the trigger events, such as the Grip Trigger, Left Scan, etc., for the trigger module selected.



**NOTE** It is possible to map the same source to different modules (trigger consumers) – for example, to both the Imager and Non-Decoded Scanner. If so, both devices/operations will occur simultaneously. This is not recommended in most cases, especially with devices such as Imagers.

It is also possible to map different sources to the same module (trigger consumer).

#### Add Key

Only existing trigger sources are shown in the Source combo-box. To add a new source to this list, tap on the **Add Key** button. A dialog box pops up, allowing you to select the keyboard key to use as a trigger source.



#### **Trigger Press Type**

You can enable either an **Up/Down** or **Double Click** response to a trigger press. Normally, when a trigger (keyboard key, etc.) is pressed and released, a "trigger down" event is sent to the "owner" – that is, the application receiving the trigger press information – followed by a "trigger up". If Double Click is chosen in this menu,

when the trigger is pressed, released, and then pressed again, a "double-click" event will occur. If a mapping with the Up/down type has also been configured for the same source, it will only receive the first set of trigger events.

### **Module to Trigger**

This identifies the driver or application receiving the trigger presses.

#### **Show All Modules**

By default, inactive owners are not shown. By checking this checkbox, all owners, both active and inactive, are displayed.

# **Managed Programs**

Managed Programs lets you view, download and install applications that are deployed by the System Center Mobile Device Manager (a server-side solution that helps enable IT to have control of their device deployment with respect to security, management and access to the corporate network).

To access Managed Programs:

Tap on Start>Settings>System tab>Managed Programs icon.





**NOTE** The system administrator can provide the details needed Managed Programs effectively.

# **Memory**

This applet allows you to view memory use and storage card memory allocation. To display the options for this applet:

Tap on Start>Settings. Tap on the System tab followed by the Memory icon.

### **Main Tab**



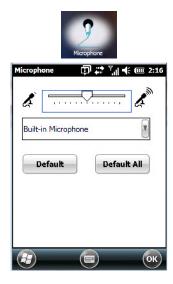
This tab lists the memory allocated for file and data storage and for program storage.

# **Storage Card**



The Storage Card screen indicates the total storage card or RAM disk memory along with the amount in use.

# Microphone



Use this dialog box to adjust the gain for the specific microphones associated with your hand-held.

• Tap on the drop-down menu, and choose the microphone for which you want to adjust the gain.



 Slide the tab at the top of the dialog box to the left to decrease the gain and to the right to increase the gain. Tapping on the Default button sets the current microphone you've chosen to the default gain. Tapping on Default All sets all microphones listed to their default gain.

# **PartnerUp**



Tapping on this icon displays a number of pre-loaded applications. Tapping on an app in the list takes you to an associated web site.

The operator can then install the application. If a license is required, it can be obtained by sending an e-mail to the software license mailbox or by contacting a Sales Rep.

Tapping on a preloaded client in the PartnerUp screen displays a drop-down menu from which the operator can choose from an array of related options.

## **Kiosk**

Kiosk allows the administrator to tailor how the Workabout Pro4 operates and the options the user can access. Note that the look of the Today screen will change from icons that are finger accessible to a list of items best accessed using a stylus.

Tap on Start>Settings>System>Kiosk icon.



If an administrator password is not yet set, this is indicated at the bottom of this screen. Tapping on the Administrator Password option displays the following screen.



Type a New password, and then re-enter it in the Confirm new password field.



**NOTE** Once an administrative password is assigned, each time Kiosk is launched, a dialog box will be displayed requesting the password.

#### Kiosk Menu



The Kiosk menu provides access to the categories to help you tailor the look and operation of the Workabout Pro4 for the user.

## **Administrator Password**

If you want to change an existing password, you need to complete the Administrator Password screen:



- Tap on the Administrator password option, and type your current password.
- In the next field, type a **New password**. Retype the new password in the **Confirm new password** field, and tap on **OK**.

# **Shell Settings**

The Shell Settings option allows the administrator to tailor what operators see and what is available to them when Workabout Pro4 is powered on. Note that these changes are not visible until the unit switches from Administrator Mode to User Mode. A Kiosk Access screen, the screen in which you can switch from Administrator to User Mode, is displayed automatically once you've finished making changes and have tapped on OK.

### **Applications Tab**

This tab allows the administrator to choose the applications that will be available to the user.



Tap in the checkbox next to each application you want displayed on the Today screen.

Once the Workabout Pro4 is set to User Mode, the selected items from the Application screen are listed in the Today screen. A Kiosk Access screen, the screen in which you can switch from Administrator to User Mode, is displayed automatically once you've finished making changes and have tapped on OK. See "Activating a Change – User Mode" on page 193 details.

The look of the Today screen differs significantly from the original version, appearing as a list of available items more suitable for a stylus than finger touch.

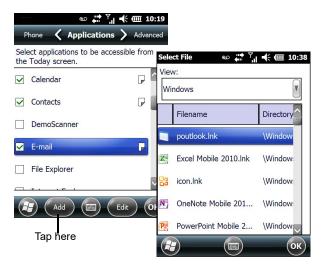


## **Adding Applications**

The Add and Edit buttons allow you to search for applications in the storage areas on your Workabout Pro4 (e.g., Windows, My Device, etc.), and add applications to the list of items in the Today screen.

You can add a maximum of 18 applications, after which the Add button is greyed out. and the following message is displayed: Maximum 18 entries reached.

 To add additional applications that will be accessible to the user from the Today screen, tap on the Add button at the bottom of the Application screen. The Select File screen is displayed.



The View drop-down menu at the top of this screen displays the storage areas in the Workabout Pro4.



Tapping on a storage area – Windows for example – displays the applications you can add to the Today screen from that storage area.

### **Advanced Tab**

This tab provides a number of options to restrict what is available on start up.



## Start Button and Notification Restrictions

The drop-down menu at the top of the Advanced tab allows you to limit access to the Notifications at the top of the screen and the Start button at the bottom of the screen.



When you choose an option, for example, Disable access to Start and Notifications, the sample bar below the drop-down menu marks the disallowed items in red.



# Kiosk App Restrictions

To remove Kiosk from the Start screen:

• Tap in the **checkbox** next to Administrator access in Start Menu to deselect it. The x should not be present in the checkbox.

The Administrator Key Sequence drop-down menu provides three key sequences you can use to gain access to Kiosk when it is not accessible from the Start screen.





**NOTE** If you disable "Administrator access in Start Menu" or if you "Disable Start", the only way to access Kiosk or the Start screen applications is to type an "Administrator Key Sequence". In these cases, it is important that you make note of the key sequence you've chosen.

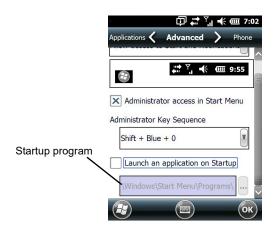
## Launching an Application at Startup

If you enable Launch an application on Startup, a screen is displayed where you can choose the application that will be launched automatically when the Workabout Pro4 is powered up.



- Tap in the checkbox next to Launch an application at Startup.
- Tap in the View menu at the top of the Select File screen, and choose the storage area from which you
  want to choose an application.
- Next, tap on the **application** you want the Workabout Pro4 to launch on startup.

Your choice is displayed in the Advanced tab.



Tap on OK.



**NOTE** Remember that changes do not take effect until the Workabout Pro4 is set to User Mode and the unit is reset.

### **Phone Tab**



The Phone tab allows you to define the phone buttons accessibility on the Workabout Pro4 keyboard by choosing an item from the Configure the Phone Dialer buttons drop-down menu.



**NOTE** Remember that changes do not take effect until the Workabout Pro4 is set to User Mode and the unit is reset.

## **Restrictions**

The Restrictions screen allows the administrator to restrict access to applications.



**NOTE** Remember that changes do not take effect until the Workabout Pro4 is set to User Mode and the unit is reset. Refer to Activating a Change – User Mode on page 4-69.

## **Application Tab**



Tapping in the View menu displays a drop-down menu where you can define restrictions for each storage area of the Workabout Pro4. Restricted items are marked in the checkbox to the left – in the sample screen above, solitaire.exe is restricted.

### **Advanced Tab**



The Advanced tab lists system features you can block from user access. Tapping in the checkbox to the left of a feature adds a check mark indicating it is blocked.

## **Notifications**



The Notifications tab allows you to choose which pop-up notifications are blocked from user view.

## **Control Panel Settings**

This options allows you to tailor items displayed in both the Settings screen and in the Today screen.



**NOTE** Remember that changes do not take effect until the Workabout Pro4 is set to User Mode and the unit is reset. Refer to Activating a Change – User Mode on page 4-69.

### **Hide Tab**

The Hide tab under the Control Panel allows you to determine which applications will be hidden in the Settings screen that is displayed when the operator taps on the Start button.



Remember that only unchecked items in this list are hidden.

#### **Accessible Tab**

The Accessible tab allows you to choose which items will be accessible in the Today screen.



## **Import and Export Settings**

This option enables you to Export your settings file (.xml), and save it in the location of your choice. In addition, an administrator has the option to Import these settings from one device to multiple devices of the same operating system.



**IMPORTANT** 

A copy of this file should also be saved in a central repository for all .xml files with a predefined name so that other utilities can locate it.



Tapping on the Export button displays an Export Settings screen. The default Name – Kiosk\_Settings – can be changed by the administrator even after it has been saved.



The .xml file contains all of the Kiosk configured settings, including the Administrator Password. When the file is imported to a device, the new password is applied immediately.



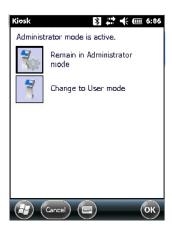
- Whether choosing to import or export files, the same file location options will be listed. Following the action, a message stating the success of the operation and the location of the file is displayed.
- With the exception of the password, changes made to settings take effect only after a warm reset. If further
  changes to the configuration are made, they will overwrite the changes caused by the import operation.
  After importing a file, a dialog box appears requesting a reset now or later.

## Activating a Change – User Mode

To activate changes, you'll need to switch from Administrator to User Mode. This Kiosk Access screen is displayed automatically once you've finished making changes and have tapped on OK.

In the tab where you've made the changes, tap on OK. In the next screen – the Kiosk menu screen – tap
on OK.

A new screen, the Kiosk Access screen, is displayed.



• Tap on Change to User mode.

You'll need to reset the Workabout Pro4 so that the changes you specified can take effect.



• Tap on **Yes** to reset the Workabout Pro4 and activate your changes.

# **Regional Settings**

To display the Regional Settings screen, tap on **Start>Settings**, and then tap on the **System** icon followed by the **Regional Settings** icon.



Tap on the drop-down menu to choose your language and region.

Once you've selected a language and region, you may need to adjust the way numbers, currency, the time and the date appear in your Workabout Pro4.

 Tap on the tab associated with each of the items, and choose how each item should be displayed on your Workabout Pro4.

# **Remove Programs**

Tap on Start>Settings. Tap on the System icon followed by the Remove Program icon.



Tapping on the Remove Programs icon displays a screen listing the programs that can be removed from your unit.

Total storage memory available:

To remove a program, highlight it and then tap on the Remove button.

# **DataWedge**



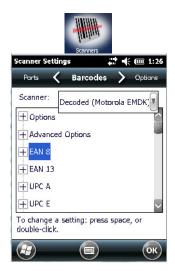
**IMPORTANT** Go to www.zebra.com/support for help with this application.

DataWedge is a mobile device application that allows any application to receive data from barcode, RFID, magnetic stripe and serial devices.

Tap on Start>Settings, and then tap on System followed by the DataWedge icon.



## **Scanner Services**



**J** 

**NOTE** For information about the Options, Translations, and Ports settings, see Appendix C: Scanner Services.



**IMPORTANT** 

The default barcode application is DataWedge. If you prefer to use the Scanner Services application, you'll need to take a few extra steps to display the icon. Follows the steps in the bulleted points below.

• Tap on Start>Settings>System>TweakIt icon.



• Under the Advanced tab, tap on Advanced Services Settings, and double-tap on Scanner Services.

- In the Scanner Services dialog box, uncheck Use DataWedge (Uncheck for Psion Legacy).
- Press and hold down the [FN/BLUE] and [Power] buttons to reset the unit.



**IMPORTANT** To enable a newly-installed scanner, press and hold down the [FN/BLUE] key and the [Power] button simultaneously for a minimum of three seconds.

### Screen

Tap Start>Settings. Tap on the System icon, and then tap on the Screen icon.



This icon allows you to align (calibrate) your touchscreen, turn ClearType on and off and adjust the size of the text displayed on the Workabout Pro4 screen.



**IMPORTANT** Refer to Calibrating the Touchscreen on page 2-8.

# **System Properties**

This program identifies the computer software and hardware components, indicating which components are installed, their identification, version or part numbers, and whether they are enabled or disabled.

Tap on Start>Settings>System, and then tap on the System Properties icon.



Tapping on the Export button creates a log (SystemProperties.xml) of your current components, which is placed in the My Devices folder in Windows Explorer.

Instead of expanding each section individually, you can also choose to open all the lists at once by tapping on the Expand button, which will then change to a Collapse button to enable you to collapse all the sections as well.

# Task Manager

The Task Manager screen lists all running tasks (applications) or processes. This applet provides a number of options to manage these.

• Tap on **Start>Settings**. Tap on **System**, and then the **Task Manager** icon – the Task Manager screen is opened.



• End Task: To shut down an application, highlight the program in the list, and tap on the End Task softkey in the softkey bar at the bottom of the screen.

## Task Manager Menu

The Task Manager menu provides additional options to help you manage your applications.

• Tap on the **Menu** softkey at the bottom of the screen.



- Switch To: Makes the highlighted application active.
- End All Tasks: Shuts down all applications listed.
- View: Allows you to list either all running applications or all processes.
- **Sort By:** Allows you to sort active applications or processes based on Memory size, CPU or application or process Name.
- Refresh: Updates the list of applications or processes.
- Exit: Closes the Task Manager.

## **Total Recall**

Total Recall is a utility developed to maintain applications and settings during a cold boot, as well as clone settings to other devices. This utility creates a restore point of a device at a known state. This can be used as a backup of the device (the administrator can clean the terminal and restore the profile at any time), or a clone (the administrator can store different configurations for different uses to clone to other hand-held computers).



**NOTE** Total Recall works differently (e.g. restore on cold boot or on clean boot) on different OS platforms and versions (e.g. Windows CE 5.0, 6.0, Windows Mobile, Windows Embedded Hand-held). For detailed information and other updates on Total Recall information, please go to the Ingenuity Working website at:

http://www.ingenuityworking.com/knowledge/w/knowledgebase/total-recall.aspx

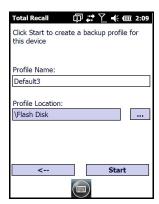
Tap on Start>Settings>System. Tap on the Total Recall icon.



In the start up screen, you can choose from four options: Create Backup, Create Clone, Manage Profile, and Delete Profile.

## Creating a Backup

Tap on the Create Backup button to begin the process.



This dialog box displays the Profile Name and the storage destination for the profile file.

In the Profile Name field, type a name for a profile.

• If you want to choose another location for your backup file (optional), tap on the [...] button to the right of the Profile Location field and choose one of a number of folders.



### **IMPORTANT**

Any profile not stored in persistent memory (Application directory (Flash Disk), external USB drive) will be erased during a clean boot; therefore, you should store profiles on a persistent drive.

When performing an autorestore, the program only searches for the profile located in the \Application\ or \Flash Disk\TotalRecall folder. If you store your profile anywhere else it will not be restored. Only one profile can reside in that folder.

- Tap on **Start**. A backup of the current settings will be created and saved to the specified location. The unit will then reboot.

To view profiles and choose restore options, refer to Managing Profiles on page 4-76.

## **Creating a Clone**

Cloning allows you to copy settings or configurations from one computer to another. There are two types of clones to choose from: a Full Clone and a Settings Only Clone.

A Full Clone contains all files, most of the registry, and the settings files.



#### **IMPORTANT**

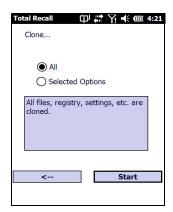
The target device for a Full Clone MUST have the same model type and OS build as the source, otherwise problems can occur. For example, if the target device has a newer build of the OS, the new build may have a different set of registry keys that may conflict with the source.

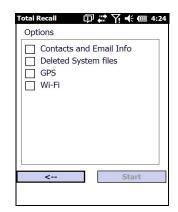
A Settings Only Clone can be copied to a wider array of devices, but it should not be used as an autorestore profile.

- Tap on the **Create Clone** button to begin the process. Your Workabout Pro4 model type and OS will be identified in the cloning statement to ensure that you target devices of the same type.
- Give the clone profile a name and location.



- · Tap on Next.
- In the next screen, choose **All** for a Full Clone, or **Selected Options** for a Settings Only Clone. If you choose Selected Options, a menu will open to enable you to decide which options you want cloned.



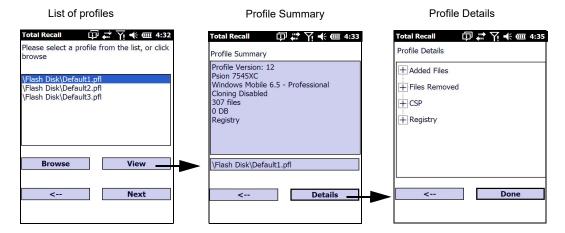


# **Managing Profiles**

You can view profiles and choose profile options from the menus in this section.

## Viewing a Profile

Tap on the Manage Profile button to see your list of profiles. Highlight a profile, and then you can choose
to View the Profile Summary and go on to the next menu, Profile Details.



## **Profile Options**

Tap on the Manage Profile button to see your list of profiles, as shown above. Highlight a profile, and tap
on the Next button to choose from options to restore or clone the profile. You can choose from four profile
options: Restore Now, Set for Autorestore, Upload to A.R.C., and Clone to USB.



Next, tap on the option button you want to use:

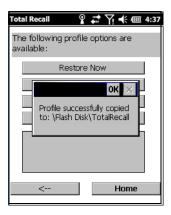
- Restore Now restores the profile immediately. If you are restoring a profile that is a backup or Full Clone, the computer will clean reset first; if the profile is a Settings Only Clone, it will not.
- Set for AutoRestore creates a profile that is automatically restored following a cold reset or a clean start. The profile is stored in the \Application\ or \Flash Disk\TotalRecall folder.



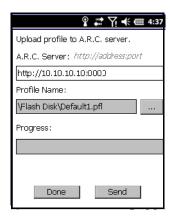
#### **IMPORTANT**

After setting an autorestore profile, that profile will overwrite any other profile already placed in the \Application\ or \Flash Disk\TotalRecall folder.

In an autorestore, Total Recall only restores the profile located in the \Application\ or \Flash Disk\TotalRecall folder. If you store your profile anywhere else it will not be restored.

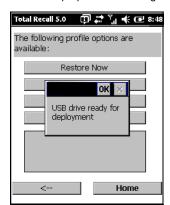


Upload to A.R.C – uploads the profile to the Active Remote Configuration server. After you tap on Send,
a message will come up either confirming that the upload was complete or that the connection to the
server failed.



- Clone to USB writes a clone of the profile to the USB drive. After you tap on the button, a message will come up either confirming that the USB drive is ready for deployment, or that it is not available.
- When you are ready to install the profile on another unit, turn on the next computer to be cloned and insert
  the USB key. The profile will be automatically installed to the computer's \Application\ or \Flash Disk\TotalRecall folder. There is a short delay in deployment so that you can cancel the process if needed.





Autorun installation on next Workabout Prc



# **Deleting a Profile**

In the Total Recall home screen, tap on Delete Profile.



• Highlight the backup you want to delete, and tap on the [-->](Next) button.

A warning pop-up screen appears asking if you're certain that you want to delete this file.

• Tap on the **Yes** to delete the file.

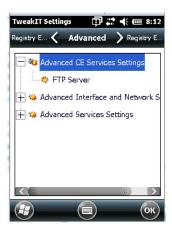
## **TweakIT**

- Tap on Start>Settings>System.
- Tap on the TweakIT Settings icon.



This utility allows you to 'tweak' or adjust system settings such as the interface, network and servers.

# **Advanced CE Services Settings**



## **FTP Server**

This option is enabled by default to allow file transfers. Keep in mind that data transfer in either direction is restricted to the Temp folder – that is, files are always loaded from the FTP Server to the Temp folder and from the Temp folder to the FTP Server.

If this option is disabled, a warm reset must be performed to accept the change.

# **Advanced Interface and Network Settings**



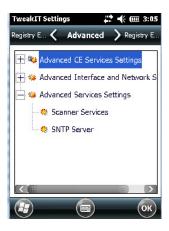
#### **Enable IPv6**

This option allows you to enable Internet Protocol, version 6, that has been published to use 128-bit IP address (replacing version 4).

## **Modem Logging**

When this option is enabled, the Workabout Pro4 logs AT commands (e.g., dial-out information, password string, etc.) that the administrator can monitor for debugging purposes. Modem commands are stored in: \MdmLog.txt.

# **Advanced Services Settings**



### **Scanner Services**

The Scanner Services option is used to activate legacy Scanner Services application and turn off the Data-Wedge application.

## **SNTP (Simple Network Time Protocol) Server**

The SNTP Server Name typed in this dialog box is used to synchronize Workabout Pro4 time with that of the time server. A warm reset must be performed once the server name has been entered.

### **Registry Editor**

This option is reserved for senior administrators who have a strong understanding of registry keys and values. Careless registry editing can cause irreversible damage to the Workabout Pro4.



# CHAPTER 5 PERIPHERAL DEVICES & ACCESSORIES

### **Carrying Accessories**

There is a variety of carrying accessories to help the operator work safely and comfortably with the Workabout Pro4.

Carrying Accessory	Model Number
Hand Strap - 7528 Long	WA6025
Hand Strap - 7528 Short	WA6125
Shoulder Strap for carrying case	CV6021
Carry Case -7528 Long Standard	WA6080
Carry Case - 7528 Long with universal end-cap - open ended	WA6081
Carry Case - 7528 Short Standard	WA6180
Carry Case - 7528 Short with universal end cap - open ended	WA6181
Rubber Boot - 7528 Long with GSM	WA6400
Rubber Boot - 7528 with SE1524ER laser end-cap	WA6402
Soft Holster and Belt - for use with pistol grip	WA6083
Pouch Nylon with metal swivel and belt loop	WA6084
Pistol Grip for slim pod	WA6003
Pistol Grip - Flush Mount for SE1524ER laser and other end cap scanners	WA6103



**IMPORTANT** 

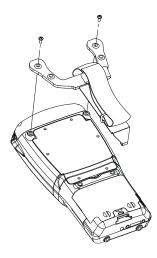
Do not use adhesives such as Loctite to secure screws on carrying accessories. These chemicals may damage the plastic casing.

### **Attaching the Hand Strap**

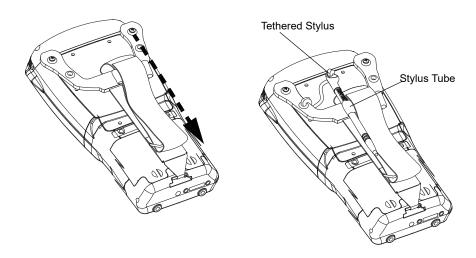
The hand strap can be attached to the back of the Workabout Pro4 to provide a secure means for operators to carry the hand-held.

The hand strap is attached to the back of unit using two Phillips head screws provided with this accessory.

• Use a Phillips screwdriver to attach the strap to the two threaded inserts on the back of the Workabout Pro4, near the top of the unit.



• Stretch the hand strap toward the base of the Workabout Pro4, and hook the bottom of the strap into the slot near the base of the battery pack. A tethered stylus and optional external stylus tube can be attached to the hand strap as illustrated below



### **Attaching the Pistol Grip**

There are a number of pistol grips available to you depending on the type of scanner/imager installed in your hand-held. Refer to the table in Carrying Accessories on page 5-1 for a list of pistol grip model numbers and the scanners/imagers with which they are compatible.



**NOTE** The few steps required to attach the pistol grip to the Workabout Pro4 are common to all types of pistol grips. However, if you plan to use the Flush Mount Pistol Grip (WA6103), you'll need to install a special trigger back plate before following these steps to attach the pistol grip. Refer to The Trigger Back Plate Kit with Flush Mount Pistol Grip on page 5-3.

The pistol grip is attached to the four threaded inserts on the back of the Workabout Pro4. Four Phillips head screws are provided with this accessory.





**NOTE** Prior to installation, make sure the trigger mechanism is securely snapped into the pistol grip body and that the trigger operates properly.

- Position the pistol grip so that it fits snugly over the back of the unit and the holes in the pistol grip are aligned with the threaded inserts on the back of the Workabout Pro4.
- Tighten the screws to a torque of 3 lbs-in (3 kgf-cm) to secure the pistol grip in place.
- · Insert the stylus in the base of the pistol grip.

### The Trigger Back Plate Kit with Flush Mount Pistol Grip

The trigger back cover kit, model number WA9301, provides a special back cover that incorporates a scanner interface board and a switch; and triggers the SE1524ER long range laser, model number WA9022. WA9301 is required for WA9022 to function (with or without a pistol grip). This kit is also compatible with the Flush Mount Pistol Grip, model number WA6103.

The trigger back cover kit, model number WA9302, provides a special back cover that incorporates a scanner interface board and a switch. This kit enables a pistol grip to trigger the following end cap scanners for the Workabout Pro4:

Model Number	End-Cap	
WA9016	SE965 end-cap	
WA9018	SE655 end-cap	
WA9020	SE4500 end-cap	

The pistol grip is available separately from this kit as model number WA6103.



#### **WARNING!**

The installation of this scanner/imager end-cap must be performed using the appropriate anti-static devices. If unavailable, discharge static from your body by touching a grounded metallic object before opening any covers on the unit.



#### **WARNING!**

The use of optical instruments with this product will increase eye hazard. This product may contain a laser scanner that emits less than 1.4 mW maximum radiant power at a wavelength of 650 nm. This product complies with CRH 21 CFR 1040 Class II and IEC 60825-1:1993+A1:1997+A2:2001 Class 2 laser product.

#### **Before You Begin**



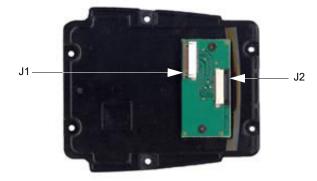
**WARNING!** 

Back up any data in RAM before you begin.

#### **Installing the Back Plate**

- If your unit is using AC power, disconnect it.
- Remove the stylus from the end-cap.
- Remove the battery pack.
- Loosen the four screws securing the end-cap, and remove the end-cap.
- Unlatch the two connectors on the interface board on the new back plate.

Figure 5-1



Position the lower end of the new back plate next to the back opening of the unit.

• Insert the flex cable from the end-cap into J2 on the interface board. The contacts on the flex cable face towards the interface board.

Figure 5-2



- 1. Latch the connector.
- 2. Flip the back plate upwards.
- 3. Insert the flex cable from the Workabout Pro4 main logic board into J1 on the interface board. The contacts on the flex cable face towards the interface board.
- 4. Latch the connectors.
- 5. Cut the Kapton tape square provided in two equal pieces.
- 6. Remove the Kapton tape from the release liner. Apply one piece over the end of the flex cable and the imager's flex connector. Apply the other piece over the other end of the flex cable and the back plate flex connector, as shown in Figure 5-1. This secures the flex cable at both ends.
- 7. Turn the back plate over.



8. Fasten the new back plate onto the Workabout Pro4 using the supplied screws (PN 9009770).



9. Insert the battery, and install the battery cover.

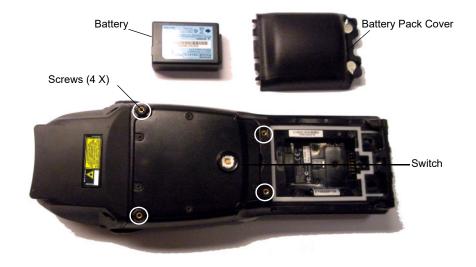
#### **Installing the Flush Mount Pistol Grip**

The Flush Mount Pistol Grip, model WA6103, is intended for use with Workabout Pro4 units (7528 Long and 7528 Short) which have the Trigger Back Plate installed. Review the first few paragraphs at the beginning of The Trigger Back Plate Kit with Flush Mount Pistol Grip on page 5-3 for a list of compatible scanners/imagers.



**IMPORTANT** Back up any data in RAM before you begin.

- 1. If your unit is using AC power, disconnect it.
- 2. Remove the battery cover and battery pack.
- 3. Remove the screw-on cap, if present, from the switch in the middle of the back plate.



4. Lower the Flush Mount Pistol Grip into place over the back plate, aligning the screw inserts on the hand-held with the screw holes in the pistol grip.



- 5. Insert and tighten the four screws provided with the pistol grip.
- 6. Replace the battery and battery cover.
- 7. Insert the stylus in the bottom of the pistol grip handle.

### **Protective Carrying Case**

A carrying case is available for the Workabout Pro4 to shield the unit from damage. It is equipped with a soft plastic window to protect the unit display and keyboard. A variety of cases are available, depending on the type of end-cap attached to your unit.

### **Soft Shell Holster**

A soft shell holster with removable belt and swivel holster pad can be used to hang a Workabout Pro4 with a pistol grip from your waist

Figure 5-3 Soft Shell Holster



- Insert the belt in the swivel holster pad.
- Attach the pad on either the left or right side of the holster case, depending on whether you are left- or right-handed.
- Fasten the belt comfortably around your waist. Slide the adjustable ring on the belt to tighten the holster in place.
- Connect the safety tether cord to one of the clips on the bottom of the soft shell holster. Connect the other end to the hole in the end of the Workabout Pro4 pistol grip. This tether will catch the unit in case of a drop. The tether can be adjusted to the operator's height. The clips will break away in case of a severe force.

### **The Batteries**



**NOTE** Review Appendix E: Workabout Pro4 Specifications for details.

The Workabout Pro4 will operate with the following Lithium-Ion battery packs:

- 4400 mAh battery pack (Model Number WA3010)
- 2850 mAh battery pack (Model Number WA3025)
- 4680 mAh battery pack (Model Number WA3026)

### **Adaptor Cable Options**

The following adaptors can be ordered for your Workabout Pro4:

Adaptor Cable Description	Model Number
Tether to USB A cable. This cable is used to connect USB devices such as USB Flash memory devices.	WA1002
Tether to Dsub9 converter Cable	WA4020-G2
USB to Ethernet adaptor.	WA4071
RS232 adaptor for single bay USB cradle WA4003-G2.	WA4015-G1

### **Chargers and Cradles**



**IMPORTANT** 

Keep in mind when ordering a charger or cradle, you must also order the appropriate power cord separately.

Zebra offers a variety of chargers and cradles for the Workabout Pro4. These include:

- AC Adaptor Model No. PS1050-G1
- Automotive Adaptor Model No. WA3113-G2
- Single Bay USB Cradle Model No. WA4003-G2
- Single Bay Cradle for 7528 Long Model No. WA4204-G2
- Four Bay Ethernet Cradle for 7528 Short Model No. WA4304-G2
- Four Slot Battery Charger with AC Adapter 110-240V no lead WA3004-G1
- Port Replicator Model No. WA4005-G1
- Powered Vehicle Cradles Model Nos. WA1210-G2 and WA1310-G2
- CLA (5V DC Jack) Model No. PS3050

### Installation – Chargers and Cradles

When installing a charger or cradle, consider the following guidelines.

- Keep chargers and cradles away from excessive dirt, dust and contaminants.
- Chargers will not charge batteries outside an ambient temperature range of 0° C to 45 °C (32° F to 113° F). It is recommended that the charger or cradle be operated at room temperature – between 18° C and 25° C (64° F to 77° F) for maximum performance.

After unpacking your unit:

- Visually inspect the charger for possible damage.
- Install the IEC power cord and apply power.

### **Power Consumption Considerations**

Check to ensure the mains circuit supplying chargers and/or cradles is adequate for the load, especially if several chargers and cradles are being powered from the same circuit.

- Four Slot Battery Charger can consume up to 2A @ 120VAC or 1A @ 240VAC.
- Four Bay Ethernet Cradle can consume up to 3A @ 120VAC or 1.5A @ 240VAC.

### **Operator Controls**

Workabout Pro4 cradles and chargers have no operator controls or power switches.

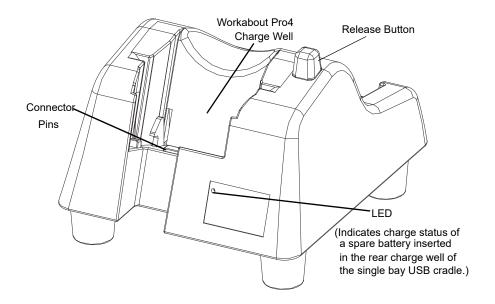
### **Important Charger Safety Instructions**

- **SAVE THESE INSTRUCTIONS** This manual contains important safety and operating instructions for battery chargers.
- Before using the battery charger, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
- The mains power cord shall comply with national safety regulations of the country where the equipment is to be sold.
- Use of an attachment not recommended or sold by the battery charger manufacturer may result in fire, electric shock, or personal injury.
- To reduce risk of damage to the electric plug and cord when unplugging the charger, pull the plug rather than the cord.
- Make sure the cord is positioned so that it is not stepped on, tripped over, or otherwise subjected to damage or stress.
- Do not operate the charger with a damaged cord or plug. Replace immediately.
- Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged in any
  way; it should be inspected by qualified service personnel.
- Do not disassemble the charger; it should be repaired by qualified service personnel. Incorrect reassembly
  may result in electric shock or fire.
- To reduce risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in fire or electric shock. If an extension cord must be used, make sure:
  - The plug pins on the extension cord are the same number, size and shape as those on the charger.
  - The extension cord is properly wired and in good electrical condition and that the wire size is larger than 16 AWG.
- Do not expose the charger to rain or snow.
- Do not place batteries in the charger if they are cold from extended exposure to a freezer or outside temperatures below 10°C (50°F). Allow them to warm up to room temperature for at least two hours.
- Do not use the charger if, after an overnight charge, any of the batteries feel warmer than the charger housing. The charger should be inspected by qualified service personnel.
- Do not use the charger if any of the batteries or the charger get more than lukewarm. The equipment should be inspected by qualified personnel.

### **Single Bay USB Cradle**

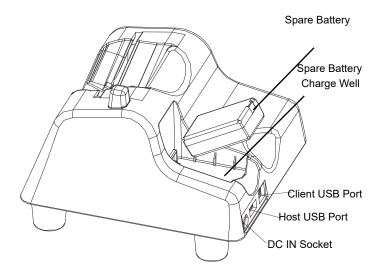
The Workabout Pro4 can be inserted in a Single Bay USB Cradle, model number WA4003-G2.

Figure 5-4 Single Bay USB Cradle



NOTE The single bay USB cradle is shipped with its own user manual. It is critical that it be reviewed for additional information and updates.

Figure 5-5 Back Of Single Bay USB Cradle



**IMPORTANT** 

This single bay USB cradle can only be used to charge Zebra approved Lithium-Ion batteries.

### Charging a Battery Installed in the Workabout Pro4

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS.

- Insert the DC power cable to the DC IN socket on the single bay USB cradle. Plug the pronged end of the
  cable into an AC outlet.
- Slide the hand-held into the cradle, making certain that the LIF (Low Insertion Force) port on base of the Workabout Pro4 is securely seated on the cradle connector pins. An icon is displayed briefly in the navigation bar at the top of the hand-held screen indicating that the unit is properly installed in the station —

The LED on the Workabout Pro4 lights up indicating that the unit has external power and battery charging will begin. It is safe to leave the unit in the single bay USB cradle while it is not in use – the battery will not be overcharged.

### **Charging a Spare Battery**

Insert the battery in the spare battery charge well at the back of the single bay USB cradle, aligning the
contacts on the battery with the contacts in the spare battery charge well.

### **Battery Charge Duration**

A fully discharged battery can take up to 4 hours to charge. The single bay USB cradle stops applying power to the battery when it is fully charged – there is no risk of overcharge if the battery remains in the charge well.

### **Charger LED Indicators**

The single bay USB cradle is equipped with a single dual-coloured LED indicator in the lower-right corner of the front panel.

LED Behaviour	Charge Status
Off	No battery detected in the slot.
Solid Green	Charge complete.
Fast Flashing Green	Battery charged to less than 80% of capacity.
Slow Flashing Green	Battery charged to greater than 80% of capacity.
Solid Red	Battery temperature outside of charge range – 0° C to 50 °C.
Flashing Red	Battery is not charging. Battery fault.



**NOTE** Battery charging continues whether the hand-held is switched on or off.

### **Troubleshooting the Charging Operation of the Cradle**

The Four Bay Ethernet Cradle – WA4204-G2 & WA4304-G2 on page 5-14 LED operation also applies to the charging behaviour of the single bay USB cradle.

### Linking a Workabout Pro4 to a PC

The single bay USB cradle can be connected to a PC so that you can exchange files in the same way that you would between PC drives. A USB cable is included with your single bay USB cradle.



**NOTE** For details about data transfer through Windows XP and ActiveSync and through Vista, refer to Data Transfer Between Workabout Pro4 and a PC on page 2-25

To link the Workabout Pro4 to a PC:

- Insert the hand-held in the single bay USB cradle.
- Insert the USB cable into the single bay USB cradle Client USB connector. Attach the other end of the cable to a USB port on the PC.

### **Linking a Workabout Pro4 to an Ethernet Network**

An USB-Ethernet adaptor cable – model number WA4010-G1 – is used to connect the Workabout Pro4 to an Ethernet network through a single bay USB cradle.

Figure 5-6 USB-Ethernet Adaptor Cable



- Insert the adaptor's USB connector into the Host USB port on the single bay USB cradle.
- Connect your network Ethernet cable to the Ethernet port on the adaptor cable.

#### **Network Access**

The hand-held unit automatically detects insertion into the cradle and loads the appropriate drivers to communicate with the USB-Ethernet converters.

#### **Network Addressing**

The host application uses standard TCP/IP protocol to name, locate and communicate with a specific Workabout Pro4 on the network. If a link is established between a Workabout Pro4 and a host, the application on the host and on the hand-held must have a recovery mechanism in the event that the Workabout Pro4 is removed from the cradle, interrupting the link.

### **Troubleshooting the Single Bay USB Cradle Operations**

The indicators, applications and drivers required to use and monitor the single bay USB cradle as a dock (as opposed to a charger) are installed on the Workabout Pro4 – no applications are present on the cradle itself.

### AC Wall Adaptor - Model #PS1050-G1

The AC wall adaptor available for your Workabout Pro4 allows you to operate your hand-held using AC power while charging the battery inserted in the unit.

Adaptor plugs suitable for use in the following countries are shipped with the AC wall adaptor: United Kingdom, Australia, Europe and North America.



- Choose the adaptor plug that is suitable for use in your country. Slide the adaptor plug into the Universal AC power supply, snapping it into place. These two pieces, coupled together, are referred to as an AC wall adaptor.
- Insert the DC power plug into the DC IN socket at the base of Workabout Pro4, located between the tether and LIF ports.
- Plug the pronged end into an AC outlet.

### Four Bay Ethernet Cradle – WA4204-G2 & WA4304-G2

Figure 5-7 Four Bay Ethernet Cradle



**\** 

**NOTE** WA4204-G2 is designed for Workabout Pro4 Long models; WA4304-G2 is designed for Workabout Pro4 Short models.

The four bay Ethernet cradle is shipped with a manual. It is critical that this manual be reviewed for additional information and updates.

The four bay Ethernet cradle permits each of four docked Workabout Pro4s to communicate with a 10/100 BaseT Ethernet network at greater than 2Mbps. It also provides sufficient power to operate and fast charge the batteries in the units.

### **Four Bay Ethernet Cradle Setup**

After unpacking the unit:

- Visually inspect the unit for any damage.
- · Install the IEC power cord and apply power.

A green indicator in the lower-right corner of the front panel lights up to indicate that power is present.

Attach a CAT5 RJ45 network patch cable (supplied) between your network and the RJ45 jack on the rear
of the cradle.

A green LED is illuminated next to the RJ45 connector when a valid network link is established.

A user application must be loaded onto each Workabout Pro4 that utilizes the four bay Ethernet cradle for communication. When the network is connected and this application is loaded, the four bay Ethernet cradle is ready for use.

### **Four Bay Ethernet Cradle Indicators**

The four bay Ethernet cradle is equipped with a power indicator LED and RJ45 link and traffic indicator LEDs. When a valid network link is established, a green LED is illuminated next to the RJ45 connector.

### Inserting a Workabout Pro4 in the Four Bay Ethernet Cradle

Slide the unit into the cradle portion of the four bay Ethernet cradle until lightly latched.

The hand-held detects that it is in a four bay Ethernet cradle and momentarily displays the appropriate icon in the navigation bar at the top of the screen – . The LED on the hand-held unit lights up to show it has external power and may start charging the battery.

Interaction with the Workabout Pro4 while in the four bay Ethernet cradle is a function of the user application software used to communicate with the host network.

#### **Network Access**

The four bay Ethernet cradle has one 10/100 Ethernet port. You can insert up to four hand-held units. The hand-helds are connected to an internal USB hub. The hand-held unit automatically detects insertion into a four bay Ethernet cradle and loads the appropriate drivers to communicate with the USB/Ethernet converters.

#### **Network Addressing**

Although the USB converters have fixed Ethernet MAC addresses, there is generally no correlation between these addresses and a specific hand-held. The host application uses standard TCP/IP protocol to name, locate and communicate with a specific Workabout Pro4 on the network.

If a link is established between a Workabout Pro4 and a host, the application on the host and on the hand-held must have a recovery mechanism in the event that the Workabout Pro4 is removed from the cradle and the link is interrupted.

### **Battery Charging – LED Behaviour**

The four bay Ethernet cradle supplies DC power to enable the Workabout Pro4 internal fast charger. Charge status is displayed on the hand-held LED – the LED turns red while the battery is being charged and turns green once the charge is complete. If the battery is fully charged when the unit is inserted in the cradle, the

LED flashes red for less than a second and then turns green. Battery charging continues whether the Workabout Pro4 is switched on or off.

It can take up to 4 hours to fully charge the internal battery.

### **Troubleshooting**

The indicators, applications and drivers required to use and monitor the cradle are installed on the Workabout Pro4 – no indicators or applications are present on the cradle itself.

#### **Network Link Unsuccessful**

If a network link fails, the Workabout Pro4 application alerts the operator that the link was unsuccessful.

#### Hand-Held LED does not Light when Docked

- Check that the four bay Ethernet cradle has power is the Power LED on the cradle illuminated?
- Try inserting the Workabout Pro4 in another well in the four bay Ethernet cradle.
- Check for dirt or contamination on the docking contacts at the bottom of the Workabout Pro4. Wipe the contacts with a damp cloth if necessary.
- Check the pogo pins inside the cradle for dirt. Gently wipe with a damp cloth if they appear to be dirty or discoloured.
- Check that the pogo pins are not bent or damaged.
- Remove and reinsert the Workabout Pro4 in the cradle, and check that the latch is holding the unit in place (the pogo pins must be compressed for proper contact).
- Make certain that the battery installed in the Workabout Pro4 is not defective.

### **Four Slot Battery Charger**

The four slot battery charger is designed to charge up to four Lithium Ion batteries at one time.



### Charging the Battery

 Slide the battery into a charge well, aligning the contacts on the battery with the contacts in the charge well.

### **Battery Charge Duration**

A fully discharged battery can take up to 4 hours to charge. The four slot battery charger stops applying power to the battery when it is fully charged – there is no risk of overcharge if the battery remains in the charge well. The 75% charge indicator is handy if you need a quick recharge – a quick charge often takes less than one hour.

#### Charge Indicators – The LEDs

Each battery charge well is equipped with an LED to indicate the charge status of the battery. When a battery is inserted in the charger, the colour and behaviour of the LED associated with the charge well in use indicates the status of the charge. Refer to the table below the heading Charger LED Indicators on page 5-12 for details.

### **Troubleshooting**

#### **Excessive Charge Duration**

The charger is equipped with a recalibration function – a function that fully discharges and then fully recharges the battery. This process is necessary to recalibrate the battery capacity gauge internal to the battery. The charger attempts recalibration when:

- the battery capacity is at less than 30%, and
- the battery has undergone more than 40 partial charge cycles since the last full discharge.

#### Indicator Flashing Red

If the indicator flashes red:

- Remove all batteries and disconnect the mains power cable.
- Wait at least 20 seconds, and then plug the cable in again.

If any of the charge well LEDs continue to flash red, the charger is defective and requires service. If all indicators are flashing red, there is a power supply problem and the charger requires service.

#### Power LED Does Not Light Up

- Remove all batteries, and unplug the charger.
- Connect another device to the mains outlet to ensure there is power.
- Remove the IEC mains power cable from the charger, and check it for damage.
- Reconnect the mains cable in the charger and mains outlet.

If the power LED still does not light up:

Unplug the mains cable, and check the fuse at the rear of the charger.

If the fuse appears to be intact, the charger requires service.

#### Indicator Does Not Light When Battery Installed

- Remove the battery, and clean the contacts on the battery and the charge well.
- Reinstall the battery, and check that it is fully seated in the charger well.
- Inspect the charge well contacts for damage (are they bent, flattened, twisted or broken).
- Try inserting a battery that you know to be working in the charger well.
- Reconnect the mains power cable, and check that the charger well indicator flashes at power up.

### The Vehicle Cradle

The vehicle cradle is a highly ruggedized, single station cradle. Although it provides quick insertion and removal, the cradle holds the Workabout Pro4 securely even when operated in high vibration environments.

The model number for vehicle cradles varies depending on the type of hand-held:

- Workabout Pro4 Long
- Workabout Pro4 Short

A port replicator option is available for powered vehicle cradles. Refer to The Port Replicator on page 5-20 for details.

### **Vehicle Cradle Mounting Recommendations**



#### IMPORTANT

Shock and vibration specifications for the Workabout Pro4 are verified using Zebra-approved RAM mounts and mounting hardware. Use of non-certified Zebra mounting hardware is not recommended, and may void warranty coverage.

Before mounting a vehicle cradle in a vehicle, there are a number of operator safety issues that require careful attention. An improperly mounted cradle may result in one or more of the following: operator injury, operator visibility obstruction, operator distraction and/or poor ease of egress for the operator. Zebra strongly recommends that you seek professional mounting advice from the vehicle manufacturer.

Cable routing within a vehicle cab also requires careful consideration, especially for separately tethered scanners and other devices with loose cables.

Note also that for better protection, the equipment should be mounted inside the vehicle roll cage.

Pedestal mounts are recommended for all fixed mount locations because they offer optimal operator access. In addition, for safety reasons, only pedestal mounts with fully locking joints should be used in vehicles. Always adjust the pedestal for the optimum viewing angle, and securely tighten the hex and wing screws.

The most effective way to mount the vehicle cradle is to use the four #8-32 threaded inserts on the rear of the unit. Bolts must not extend more than 10mm (3/8") into the cradle.

To accommodate the service loop of the connector cable, leave a 4" clearance at the bottom of the cradle. Leave a 7" (minimum) clearance at the top of the cradle to allow easy removal of the hand-held. Also remember to leave at least a 3" clearance at the sides of the cradle to allow activation of the release knobs. Refer to the detailed assembly instructions that are packaged with the cradle when selecting a mounting location.

### **Mounting Template**

The vehicle cradle is shipped with detailed mounting instructions including a drill template.

### **Wiring Guidelines**

Before installing cables between the cradle and other devices, review the following:

- Ensure that drilling holes will not damage the vehicle or its wiring.
- Protect cable runs from pinching, overheating and physical damage.
- Use grommets to protect cables that pass through metal.
- Use plastic straps and tie-downs to secure cables and connectors in their desired location, away from areas where they may get snagged or pulled.
- Keep cables away from heat sources, grease, battery acid and other potential hazards.
- Keep cables away from control pedals and other moving parts that may damage the cables or interfere with the operation of the vehicle.

### **Using the Vehicle Cradle**

If your Workabout Pro4 is equipped with a shoulder strap or cover, these accessories need to be removed before installing the unit in a vehicle cradle. There is no need to remove hand straps, pistol grips or tethered devices from the unit.

- Slide the Workabout Pro4 into the cradle, and press firmly downward until it locks into place. On a vehicle, it's a good idea to pull up on the Workabout Pro4 to be certain that it is secure.
- To remove the unit, press firmly on the RELEASE button on the front face of the unit until it releases from it latch. The hand-held will be slightly raised so that it can be removed.

### **Maintaining the Vehicle Cradle**

Two latches in the cradle hold the Workabout Pro4 firmly in place. Although these latches are designed for robustness and endurance, they will wear over time and will no longer lock the hand-held securely in the cradle. For replacement parts and instructions contact Zebra. Partial disassembly is required.

### **Powered Cradle Installation in High Voltage Vehicles**

Voltages exceeding 60VDC are considered hazardous. For powered cradle installations on vehicles with batteries above this voltage, ensure the powered cradle power connector is mounted in a dry location on the vehicle, or that the connector is insulated with an appropriate waterproof material after installation. The connector must also be installed out of the vehicle operator's reach. Exposing an accessible power connector to water or other liquids could create a hazardous situation resulting in serious injury or death.

Installation of powered cradles in vehicles that operate above 60VDC require special consideration.

Due to the hazardous voltages present on these vehicles, it is necessary to ensure that the powered cradle power supply cable connector is not accessible to the vehicle operator, and does not get exposed to water or other liquids. This can be accomplished in one of the following ways:

- Ensure the power connector is installed in a dry location on the vehicle, away from the vehicle operator's reach (perhaps under a vehicle dash or in a sealed housing).
- Cover the power connector with a waterproof heat shrink material.
- Wrap the connector securely with a waterproof electrical tape in an area out of the vehicle operators reach.

All other installation requirements outlined in this document should also be followed for High Voltage vehicles to insure safe installation and operation of the powered cradle.

### **Powered Vehicle Cradle Installation**

The powered cradle is designed to allow the Workabout Pro4 to be powered by a vehicle battery. The battery installed in the hand-held is also recharged by the vehicle battery. This option accepts DC power sources ranging from 9 to 20V, with optional pre-regulator.

The vehicle cradle can be ordered with the powered cradle option installed.

Applying a voltage greater than that specified or reversing or reversing polarity may result in permanent damage to the cradle power option and will void the product warranty.

### **Wiring Vehicle Power to the Cradle**

An optional 1.8 meter (6 foot) extension power cable (CA1210) compatible with your powered vehicle cradle can be purchased from Zebra. This optional cable should be wired to a filtered, fused (maximum 10A) accessory supply on the vehicle. The power cradle draws no more than 8A (less if the accessory supply is greater than 12V). Any additional wiring, connectors or disconnects used should be rated for at least 10A.

The red lead of the power cable attaches to the positive vehicle supply. The black lead connects to the negative supply – this should be connected to a proper terminal block and not to the vehicle body. The power cradle is fully isolated and can be used with both negative and positive chassis vehicles.

You may have the option of connecting power before or after the 'key' switch. It is preferable to wire the power cradle after the key switch – that is, it cannot be turned on without the key on. However, if the operator switches the key off repeatedly for long periods during a shift, it may make more sense to wire the cradle before the switch.

A car lighter adaptor (CA3002) is another option to power the vehicle cradle.

Keep in mind that the Workabout Pro4 will continue to operate with or without vehicle power as long as its battery has sufficient charge.

If an unfused power source must be used, a fuse assembly (PN 19440) must be added to the extension power cable (the fuse and instructions are supplied with the cable). Use only a 10A slow blow UL approved fuse in the fuse assembly.

### **The Port Replicator**



The port replicator (Model# WA4005-G1) is an optional accessory that allows tethered devices as well as mounted peripherals (e.g., bar code printers or weigh scales) to be attached to the vehicle cradle. The replicator can be used with or without the cradle power option.

The functionality of the Workabout Pro4 tether port is replicated into RS-232 serial interfaces by the port replicator. It provides the user with 3 DB9 serial interfaces as well as one Type B USB port (for connecting a Host device).

### **Scanners and Imagers**

The Workabout Pro4 supports a wide range of scanner/imager options to address a variety of user application requirements. Refer to Appendix C: Scanner Services for details about configuring the unit installed in your hand-held.

Scanners/imagers available for your hand-held include:

Scanner/Imager	Description
SE4500	1D/2D imager
SE965	1D laser scanner
SE655	1D imager
SE1524	1D laser scanner

It is critical that you review the safety information in the Workabout Pro4 Hand-Held Computer Regulatory & Warranty Guide, PN 8000296, before proceeding.

### **Scanning Techniques**

For helpful hints, refer to Scanning Techniques on page 2-10.

### **Troubleshooting**

If the scanner is not working, refer to Troubleshooting on page 2-11.

### **Operating 1D Laser Scanners**

For helpful scanning tips, refer to Operating 1D Internal Laser Scanners on page 2-11.

### **Operating 2D Imagers**

For helpful tips when using an imager, refer to Operating 2D Internal Imagers on page 2-11.

### **Bluetooth Peripherals**

The Workabout Pro4 is equipped with a Bluetooth radio, making it is possible to communicate with a variety of Bluetooth peripherals, including GSM/GPRS handsets, scanners, printers, and so on.

The range of the Bluetooth radio is limited to approximately 5 meters.

Zebra provides built-in support for the Bluetooth peripherals listed below.

- GSM/GPRS universal handset
- Bluetooth printer
- Bluetooth headset

Keep in mind that Bluetooth and IEEE 802.11b/g radios both operate in the 2.4GHz band. Although the Workabout Pro4 includes features to minimize interference, performance of the system will not be optimal if you use both radios simultaneously. Typically, when both radios operate in the hand-held at the same time, they cannot transmit simultaneously – this has a negative impact on overall system throughput. To minimize the impact on the backbone 802.11g network, Zebra recommends using Bluetooth peripherals that have low transaction rates (such as printers and scanners).

Refer to Bluetooth Setup on page 4-10 for information about setting up your Bluetooth devices for communication. In addition, review the manual shipped with your Bluetooth device to determine the method used to pair with the Workabout Pro4 host.

# **APPENDIX A PORT PINOUTS**

# **LIF (Low Insertion Force) Pinout**

PIN#	Signal Name
1	Ground
2	Ground
3	USB Host Data Plus, For connecting USB devices
4	USB Host Data Minus, For connecting USB devices
5	USB Host Power, for powering USB devices (5V, 500mA Max)
6	DC Power in, for supplying power to Workabout Pro4/ charging battery (5V, 3A)
7	DC Power in, for supplying power to Workabout Pro4 / charging battery (5V, 3A)
8	LIF Detect, determines if a device is attached to the LIF
9	USB Device Data Minus, for operating the Workabout Pro4 as a USB device
10	USB Device Data Plus, for operating the Workabout Pro4 as a USB device
11	Ground
12	Ground



**NOTE** All USB pins have over current protection.

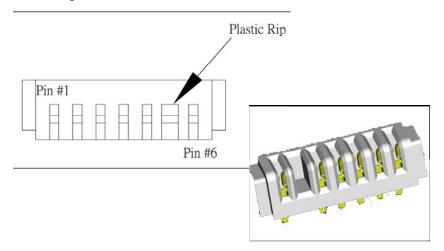
### **Tether Port Pinout**

PIN#	Signal Name
1	Ground
2	USB Data Plus (can be configured as Host or Device)
3	USB Data Minus (can be configured as Host or Device)
4	USB VBUS (can provide 5V, 100mA Max for powering USB Devices)
5	RS232 Tx data
6	RS232 Rx Data
7	Tether detect resistor ID. Determines what kind of device is attached to the Tether port
8	DC Power In
9	DC Power In
10	DC Power In
11	RS232 CTS
12	RS232 RTS
13	RS232 DSR
14	RS232 DTR
15	RS232 DCD
16	RS232 RI
17	Ground
18	Ground
19	Ground
20	Ground

## **Battery Contact Pinout**

PIN#	Signal Name	Function
1	P-	Power Pin for Battery Pack Negative
2	DQ	Maxim DS2762 Data
3	TH (GND)	Ground
4	P+	Power Pin for Battery Pack Positive
5	PS	Power Switch Sensor
-	Plastic Rip	-
6	P-	Power Pin for Battery Pack Negative

# **Positive Female Battery Connector**



# **APPENDIX B DATAWEDGE**

### **DataWedge**

DataWedge is a Zebra mobile device application that reads data from input devices and sends it as keystrokes to consumer applications executing in the foreground on the mobile devices.



Tap on Start>Settings> System>DataWedge icon.

### Where to Find More Information

For DataWedge support, go to:

www.zebra.com/support

# **APPENDIX C SCANNER SERVICES**

### **Scanner Services**



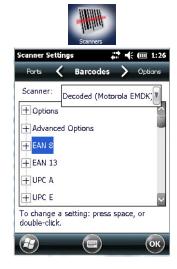
#### **IMPORTANT**

The default barcode application is DataWedge. If you prefer to use the Scanner Services application, you'll need to take a few extra steps to display this option. Follow the steps below.

- Tap on Start>Settings>System.
- Tap on the TweakIt icon. Under the Advanced tab, tap on Advanced Services Settings, and double-tap on Scanner Services.
- In the Scanner Services dialog box, uncheck Use DataWedge (Uncheck for Psion Legacy).
- Press and hold down the [FN/BLUE] and [Power] buttons to reset the unit.

The Scanners icon provides dialog boxes in which you can tailor barcode scanner configurations and choose the barcodes your scanner will recognize.

Tap on Start>Settings> System>Scanners icon.



The parameters are preset with the default settings of the decoded scanner installed in the unit.



**NOTE** To determine the type of scanner installed in your unit, tap on Start>Setting>System>System Properties icon.

All internal scanners can be configured using these dialog boxes.



**IMPORTANT** 

To enable a newly-installed scanner, press and hold down the [FN] key and the [Power] key simultaneously for a minimum of three seconds.

### **Restoring Default Settings**

If you want to restore the factory defaults after making changes, the defaults can be applied to a selected parameter, sub-tree of parameters, or all scanner parameters.

Press and hold the stylus on a symbology to display a pop up a menu.



 Choose Default parameter to reset only the parameter you selected, or choose Default all settings to reset all scanner parameters to default settings.

### Decoded (Zebra EMDK)

This section describes the tabs used to configure this scanner type.

#### **Barcodes Tab**

#### **Options**

#### **Laser On Time**

The value assigned to this parameter determines how long the laser will remain on when the scan button or trigger is pressed.

Double-tapping on this parameter displays a dialog box in which you can enter a value between 5 and 99. The value is measured in tenths of seconds.

#### **Picklist Mode**

Picklist mode lets you target a single barcode within a group. The bar code closest to the aiming cross hair is decoded.

### **Advanced Options**

#### Scan Mode

This parameter sets the method of scanning to Scan beam only.

#### **Aim Duration**

This parameter determines the total time the aiming pattern appears before the scanner laser begins sweeping. When you double-tap on this parameter, a dialog box is displayed in which you can enter a value from 0 to 30 (0 to 3 sec.). A value of **0** (zero) disables the aiming-dot.

#### **Linear Security Level**

This parameter allows you to select the security level appropriate for your barcode quality. There are four levels of decode security for linear code types (e.g., Code 39, Interleaved 2 of 5). Higher security levels should be selected for decreasing levels of barcode quality. As security levels increase, the scanner's decode speed decreases.

Double-tapping on this parameter displays a dialog box in which you can enter a value from 1 to 4.

Linear security level 1 specifies that the following code types must be successfully read twice before being decoded:

Codabar	All
MSI Plessey	4 or less
D 5 of 5	8 or less
I 2 of 5	8 or less

Linear security level 2 specifies that all types of codes must be successfully read twice before being decoded.

Linear security level 3 specifies that code types other than the following must be successfully read twice before being decoded. The following codes must be read three times:

MSI Plessey	4 or less
D 2 of 5	8 or less
I 2 of 5	8 or less

Linear security level 4 requires that all code types be successfully read three times before being decoded.

#### **Use LED lighting**

This option enables and disables the illumination LEDs. In bright light, for example outdoors, the LEDs can remain off saving power.

#### **Barcode Symbologies**

The table below list the available symbologies.



#### **IMPORTANT**

To improve the decode speed and performance, enable only those codes that are required by the application.

Zebra EMDK Barcode Symbologies				
EAN 8	TLC-39			
EAN 13	Trioptic (disabled)			
UPC-A	PDF-417			
UPC-E	Macro PDF-417			
UPC-E1	Micro PDF-417			
UPC/EAN	Macro-Micro PDF-417			
Code 11 (disabled)	2D Aztec (disabled)			
Code 39	2D Data Matrix			
Code 93 (disabled)	2D Maxicode			
Code 128	2D QR Code			
Codabar	Postal: Australian (disabled)			
Composite AB (disabled)	Postal: Canadian (disabled)			
Composite C (disabled)	Postal: Japanese (disabled)			
Code 11 (disabled)	Postal: Kix (disabled)			
Discrete 2 of 5 (disabled)	Postal: Korean (disabled)			
GS1 DataBar (disabled)	Postal: PlaNET (disabled)			
Interleaved 2 of 5 (disabled)	Postal: PostNET (disabled)			
Matrix 2 of 5 (disabled)	Postal: Royal Mail (disabled)			
MSI Plessey (disabled)				

### **Options Tab**

The Options tab allows you to tailor the double-click parameters, the display options associated with your scanner, and data handling.



#### **Double Click Parameters**

#### Click Time (msec)

This parameter controls the maximum gap time (in milliseconds) for a double-click. If the time between the first and second clicks of the scanner trigger is within this time, it is considered a double-click. The allowable range is 0 to 1000. A value of zero disables this feature.

A double-click produces different results depending on whether or not a value is assigned in the "Click Data" parameter. If a value is assigned for the "Click Data" parameter, double-clicking the scanner trigger inserts the "Click Data" value rather than initiating a scan.

#### **Click Data**

For both integrated and external scanners, this parameter determines which character is sent to the application installed in your Workabout Pro4 following a double-click. A dialog box appears, asking that you press the key you want to insert. The ASCII/Unicode key value of the keypress is displayed.

#### **Display Parameters**

#### Scan Result

When this parameter is enabled, the type of barcode and the result of the scan appear on the screen. Note that this information is only displayed after a successful decode and is visible only while the scanner button is pressed. When the button is released, this information is cleared from the screen.

#### **Scan Indicator**

When this parameter is enabled, the laser warning logo appears on the display whenever the scanner is activated.

#### Scan Result Time (msec)

The value assigned to the "Scan Result Time (sec)" parameter determines how long the scan results of a successful scan are displayed on the screen. Time is measured in seconds, and a value of "0" (zero) disables the parameter. When you choose this option, a dialog box appears where you can enter a value.



**NOTE** To remove the scan result from the screen before the "Result Time" has expired, point the scanner away from the barcode and press the trigger.

#### Good Scan Beep and Bad Scan Beep

These parameters determine whether or not the Workabout Pro4 emits an audible scanner beep when a good (successful) scan or a bad (unsuccessful) scan is performed. Set these parameters to tailor the behaviour of this parameter.

#### **Multiple Beep Tones**

This parameter determines whether or not multiple beeps will be allowed.

#### **Soft Scan Timeout**

This parameter is used by the Mobile Devices SDK Scan function (soft-scan: starting a scan session via the SDK function, instead of a physical user trigger press). The value assigned to this parameter determines the soft-scan timeout from 1 to 10 sec. (default is 3 sec.).

#### Scan Log File

If this parameter is enabled, the input barcode and the modified/translated output barcode are logged in the file \Flash Disk (or \Application)\ScanLog.txt. Keep in mind that if the "Scan Log File" is enabled, there is a slight performance effect when performing multiple scans since the log file is written to persistent storage.

#### **Data Handling**

This option allows you to choose the code page your Workabout Pro4 will use to display data – Default Local ASCII or ISO-8859-1 Latin 1.

#### Codepage:

Tapping on this option displays a window in which you can define the code page your Workabout Pro4 will use – either Default Local ASCII or ISO-8859-1 Latin 1

If you choose Default Local ASCII, the code page of the local OS is used. For example, if the local OS uses double-byte Chinese characters, choosing this option will filter data through the local ASCII of that OS and display it accurately, in this example, using double-byte characters.

If you choose ISO-8859-1 Latin 1, data will be displayed according to the character mapping of this Latin 1 code page, ignoring the local OS code page.

#### **Data Transmission:**

Tapping on this option displays a window in which you can how data will be handled – either Paste data or Wedge data.

If Paste data is enabled (highlighted), the barcode output is copied to the system clipboard and then automatically pasted to an application.

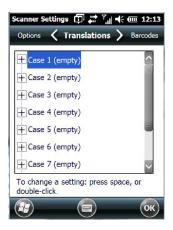
If Wedge data is enabled, each character that composes the barcode data is turned into a keyboard sequence that is transmitted to the cursor location of the current application – that is, to the application, it looks like the barcode data was typed on the keyboard.



**NOTE** The default Paste data option is a faster method of data transmission.

#### **Translations Tab**

The Translations tab allows you to define up to 10 cases, each consisting of up to 10 rules in sequential order. Only one case will be applied to a barcode and a case will only be applied if all rules specified in the case are successful – if a rule within a case fails, the entire case fails.



In the Translations tab, double-tap on a Case # to create rules.



• Tap on the **No rule** drop-down menu to display the rules.



When you choose a rule, an associated screen is displayed in which you can define the rule.



### **Case Rules**

The case rules are defined as follows:

- No rule ignored.
- Match at index matches the match string at a specified index.
- Match and replace at index matches the match string at a specified index and replaces/changes it.
- Replace at index replaces/changes unspecified data in a given range.

- Add barcode prefix/suffix adds a global prefix or suffix.
- Verify barcode size verifies the barcode size. This rule should generally be assigned first, before creating subsequent rules.
- Search and replace replaces all instances of the match string. (Note that this rule cannot fail.)



#### **IMPORTANT**

Keep in mind that the effects of previously applied rules must be taken into account when creating subsequent rules. For example, if the barcode size is important, it should be checked before any rules that might change the size are applied.

The information about the status of each case/rule is displayed in the scan log file (see "Scan Log File") when enabled. This is useful if a case fails, and you are trying to determine why a rule is failing.

## Ports Tab – Port Replicator Port A (COM5) and Port B (COM6)

Port Replicator Port A (COM5) and Port B (COM6) are standard RS-232 DE-9 DTE ports on the Workabout Pro4 port replicator module, available on some cradle types.

#### **Enabled**

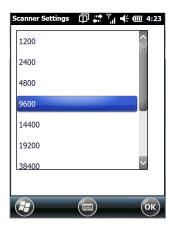
This parameter must be set to **on** in order for Workabout Pro4 to recognize the device connected to the Port Replicator 9-pin (COM5).

#### Power (COM6 only)

Pin 9 on Workabout Pro4 COM6 is reserved for 5V power out and is defaulted to OFF. This parameter must be set to **on** to enable power to a Vehicle cradle.

#### **Baud**

Double-tapping on this parameter displays a pop-up window in which you can choose an appropriate rate of data transfer.



#### **Data Bits**

This parameter determines the number of data bits included in each asynchronous data byte. Most devices use 8-bit data bytes. Double-tapping on this option displays a pop-up window in which you can choose either 7 or 8 data bits.

#### **Parity**

This parameter determines the type of parity checking used on the data going through the port replicator port. Double-tapping on this option displays a pop-up window in which you can choose the appropriate parity.

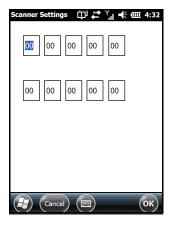


#### **Stop Bits**

This parameter specifies the number of stop bits — 1, 1.5 or 2 — used for asynchronous communication.

#### **Trigger On Sequence and Trigger Off Sequence**

If a SICK scanner connected to an Workabout Pro4 port requires a serial stream of data bytes to trigger the scanner on and another to trigger the scanner off, the Trigger On Sequence and Trigger Off Sequence parameters allow you to define these serial streams.



Double-tapping on Trigger On Sequence or Trigger Off Sequence displays a screen with a hex array of 10 elements.

These parameters work in conjunction with Manage Triggers sending on and off data streams to the trigger module you assigned. For example, suppose you launch Manage Triggers and choose Decoded Scanner as the 'module to trigger'. Next, you assign a 'trigger key' — for this example, . (period). To define the serial stream of data bytes to control the on and off function of the 'trigger key', enter a hex value in the Trigger On Sequence and the Trigger Off Sequence fields. When you press the trigger key, the Trigger On Sequence is sent and when you release the trigger key, the Trigger Off Sequence is sent, turning the trigger key on and off.

## APPENDIX D INTERNAL IMAGER & SCANNER SPECIFICATIONS

This appendix lists specifications for the following internal scanners. For a current list of model numbers and descriptions for Workabout Pro4 scanner pod and back cover kits, please contact your Zebra representative or go to:

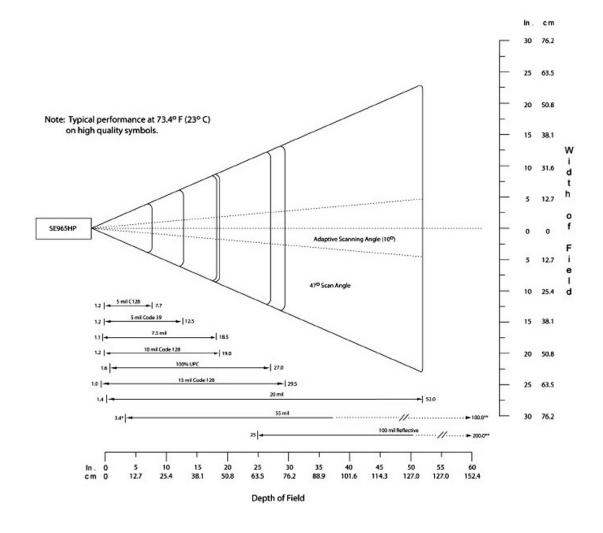
http://www.zebra.com/US-EN/Product+Lines/Psion/?WT.mc\_id=psion\_us\_p\_handheld

## **SE965 1D Laser Scanner**

SE965	
Dimensions	0.46 in. H x 0.85 in. W x 0.61 in. D
	11.75 mm H x 21.6 mm W x 15.5 mm D
Weight	0.27 oz./7.6 g
Configuration	Decoded
Interface	SSI Control over TTL Serial on a 12-pin ZIF connector
Scan Angle	Wide (default): 47 ° (typical)
	Medium: 35° (typical)
	Narrow: 10° (typical)
	Note: The SE965 scan engine does not require margin on either side of the barcode to decode. The 47° scan line provides identical scanning performance to older scan engines with a scan line of 53°.
Skew Tolerance	± 40° from normal
Pitch Tolerance	± 65° from normal
Roll Tolerance	± 35° from vertical
Specular Dead Zone	± 8°
Optical Resolution	0.005 in. minimum element width
Scan Repetition Rate	104 (± 12) scans/sec (bidirectional)
Print Contrast	Minimum 25% absolute dark/light reflectance measured at 650 nm

SE965	
Ambient Lighting Toler- ance	Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED <sup>5</sup> . 450 Ft Candles (4,844 Lux) Sunlight 8000 Ft Candles (86,111 Lux)
Operating Temperature	-22° F to 140° F/ -30° C to 60° C
Storage Temperature	-40° F to 158° F/ -40° C to 70° C

## **SE965 Decode Zones**



## SE655 1D Imager

Parameter	Specifications Specification Specification Specification Specification Specification Specification Specificatio
Physical Characteristics	
Dimensions	0.3 in. H x 0.94 in. W x 0.47 in. DUMTS/HSPA+: Five band, 800/850/900/1900/2100MHz 7.7 mm H x 23.8 mm W x 12.0 mm D
Weight	<7 grams
Interface	Serial

Characteristics  Scan angle 53.3° ± 3°  Field of view Horizontal: 53° ± 3°  Vertical: 0.4°  Illiumination LED 630 ± 30 nm  Skew tolerance ± 30° from normal  Pitch tolerance ± 65° from normal  Roll tolerance ± 25° from vertical  Optical resolution 5 mil  Scan repetition rate Nominally 50 scans/second  Minimum print contrast 20% MRD measured at 630 nm  Power on to first scan 300 milliseconds  User Environment  Ambient light 0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature 4° to 122° F/-20° to 50° C  Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V  Camera/Aim Operating Current: 165mA  Low Power Current: 115lA typical  Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Class ffication Intended for use in CDRH Class I/IEC  Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI-FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Parameter	Specifications Specific Specif
Field of view	Performance Characteristics	
Vertical: 0.4°	Scan angle	53.3° ± 3°
Skew tolerance ± 30° from normal  Pitch tolerance ± 65° from normal  Roll tolerance ± 25° from vertical  Optical resolution 5 mil  Scan repetition rate Nominally 50 scans/second  Minimum print contrast 20% MRD measured at 630 nm  Power on to first scan 300 milliseconds  User Environment  Ambient light 0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature -4° to 122° F/-20° to 50° C  Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 185mA Low Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Classification Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI-FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Field of view	
Pitch tolerance ± 65° from normal  Roll tolerance ± 25° from vertical  Optical resolution 5 mil  Scan repetition rate Nominally 50 scans/second  Minimum print contrast 20% MRD measured at 630 nm  Power on to first scan 300 milliseconds  User Environment  Ambient light 0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature -4° to 122° F/-20° to 50° C  Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V  Camera/Aim Operating Current: 165mA  Low Power Current: 115iA typical  Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Classification Intended for use in CDRH Class I/IEC  Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI-FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Illumination	LED 630 ± 30 nm
Roll tolerance ± 25° from vertical  Optical resolution 5 mil  Scan repetition rate Nominally 50 scans/second  Minimum print contrast 20% MRD measured at 630 nm  Power on to first scan 300 milliseconds  User Environment  Ambient light 0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature -4° to 122° F/-20° to 50° C  Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115iA typical Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Class if devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Skew tolerance	± 30° from normal
Optical resolution 5 mil  Scan repetition rate Nominally 50 scans/second  Minimum print contrast 20% MRD measured at 630 nm  Power on to first scan 300 milliseconds  User Environment  Ambient light 0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature -4° to 122° F/-20° to 50° C  Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115iA typical Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Classification Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Pitch tolerance	± 65° from normal
Scan repetition rate  Minimum print contrast  20% MRD measured at 630 nm  Power on to first scan  300 milliseconds  User Environment  Ambient light  0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature  -4° to 122° F/-20° to 50° C  Storage temperature  -40° to 158° F/-40° to 70° C  Humidity  Operating: 5% – 95% non-condensing  Power  Camera/Aim Input Voltage: 3.3V ± 0.3V  Camera/Aim Operating Current: 165mA  Low Power Current: 115iA typical  Power Supply Noise: 100mV p-p max.  Shock  2000 G  Regulatory  Classification  Intended for use in CDRH Class I/IEC  Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI/RFI  EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Roll tolerance	± 25° from vertical
Minimum print contrast  20% MRD measured at 630 nm  Power on to first scan  300 milliseconds  User Environment  Ambient light  0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature  -4° to 122° F/-20° to 50° C  Storage temperature  -40° to 158° F/-40° to 70° C  Humidity  Operating: 5% – 95% non-condensing  Power  Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115iA typical Power Supply Noise: 100mV p-p max.  Shock  2000 G  Regulatory  Classification  Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI/RFI  EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Optical resolution	5 mil
Power on to first scan  User Environment  Ambient light  Off. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature  -4° to 122° F/-20° to 50° C  Storage temperature  -40° to 158° F/-40° to 70° C  Humidity  Operating: 5% – 95% non-condensing  Power  Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115iA typical Power Supply Noise: 100mV p-p max.  Shock  2000 G  Regulatory  Classification  Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI-FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Scan repetition rate	Nominally 50 scans/second
User Environment  Ambient light	Minimum print contrast	20% MRD measured at 630 nm
Ambient light 0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)  Operating temperature -4° to 122° F/-20° to 50° C  Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115lA typical Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Classification Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Power on to first scan	300 milliseconds
Operating temperature	User Environment	
Storage temperature -40° to 158° F/-40° to 70° C  Humidity Operating: 5% – 95% non-condensing  Power Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115ìA typical Power Supply Noise: 100mV p-p max.  Shock 2000 G  Regulatory  Classification Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Ambient light	0 ft. candles (0 Lux) to 10,000 ft.(110,000 Lux)
Humidity  Operating: 5% – 95% non-condensing  Power  Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115ìA typical Power Supply Noise: 100mV p-p max.  Shock  2000 G  Regulatory  Classification  Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI/RFI  EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Operating temperature	-4° to 122° F/-20° to 50° C
Power  Camera/Aim Input Voltage: 3.3V ± 0.3V Camera/Aim Operating Current: 165mA Low Power Current: 115ìA typical Power Supply Noise: 100mV p-p max.  Shock  2000 G  Regulatory  Classification  Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI/RFI  EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Storage temperature	-40° to 158° F/-40° to 70° C
Camera/Aim Operating Current: 165mA Low Power Current: 115iA typical Power Supply Noise: 100mV p-p max.  Shock  2000 G  Regulatory  Classification  Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI/RFI  EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Humidity	Operating: 5% – 95% non-condensing
Regulatory  Classification Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety UL, VDE, and CUL recognized  EMI/RFI EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Power	Camera/Aim Operating Current: 165mA Low Power Current: 115ìA typical
Classification  Intended for use in CDRH Class I/IEC Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI-FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Shock	2000 G
Class 1 devices  Electrical Safety  UL, VDE, and CUL recognized  EMI/RFI  EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Regulatory	
EMI/RFI EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B	Classification	
, , , , , , , , , , , , , , , , , , , ,	Electrical Safety	UL, VDE, and CUL recognized
Environmental RoHS Compliant	EMI/RFI	EMI- FCC Part 15 Class B, ICES-003 Class B, CISPR Class B, Japan VCCI Class B
	Environmental	RoHS Compliant

## **SE655 Decode Ranges**

		Typical	Guaranteed
Code 128	Near	2.75 in./70 mm	3.90 in./99 mm
5 mil	Far	8.25 in./210 mm	6.25 in./159 mm
Code 39	Near	2.25 in./57 mm	3.15 in./80 mm
5 mil	Far	9.75 in./248 mm	8.00 in./203 mm
Code 39	Near	1.50 in./38 mm	2.50 in./64 mm
7.5 mil	Far	12.75 in./324 mm	10.25 in./260 mm
100%	Near	2.00* in./51 mm	2.25 in./57 mm
UPC-A	Far	15.75 in./400 mm	11.00 in./279 mm
Code 39	Near	1.50* in./38 mm	2.00* in./51 mm
20 mil	Far	24.0 in./610 mm	18.25 in./464 mm

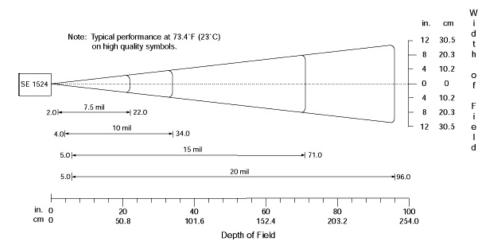
Note: The distances marked with an asterisk (\*) are a result of the field of view (FOW) limitation.

## **SE1524ER – 1D Laser Scanner**

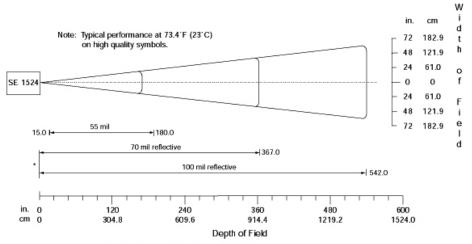
Parameter	Specification
Туре	Laser Class 2
Light Source	Visible Laser Diode 650 nm
Scan Rate	35 (± 5) scans/sec (bi-directional).
Scan Angle/Field of View	13.5° ± 0.7°
Scan Patterns	Linear
Minimum Print Contrast	Minimum 25% absolute dark/light reflectance measured at 650 nm.
Symbologies	UPC/EAN, Code 128, UCC.EAN128, RSS, Code 39, Code 93, I 2 of 5, Discrete 2 of 5, Codabar, MSI.
Programmable Parameters	Laser On Time, Aim Duration, Power Mode, Trigger Mode, Bi-directional Redundancy, Symbology types/lengths, Data formatting.
Ambient Light	Artificial: 450 ft. candles (4,844 Lux)  Sunlight: 4,000 ft. candles (86,112 Lux).
Laser Output Power (peak)	1.26 mW

## **SE1524ER Decode Zones**

SE1524ER Decode Zone A (Short Range, Small Codes)



SE1524ER Decode Zone B (Long Range, Large Codes)



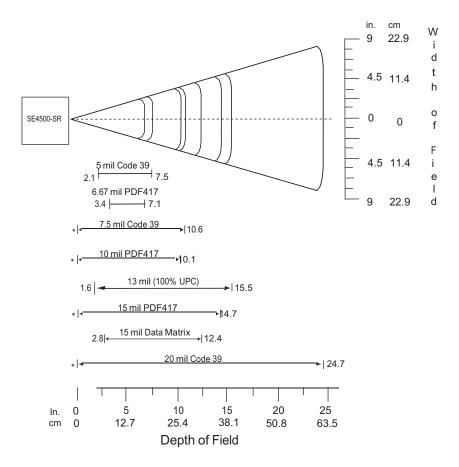
<sup>\*</sup> Near range determined by degree of reflectivity and width of bar code.

## SE4500SR – 1D/2D Imager

Parameter	Specification
Power Requirements - Input	3.3 V ± 0.3 V at 23° C
Voltage	
Operating Mode Supply Currents C):	(conditions VCC=VCC_SENSOR=VCC_ILLUM = 3.3VDC) (at 23°
Low Power	500 μΑ
Idle	18 mA
Image Acquisition	80 mA
Illumination Enabled	200 mA
Maximum Operating Current	250 mA (aiming on during exposure, illumination enabled)
Maximum Sensor Power Supply	100 mVp-p (3.3 V, 10 Hz - 100 kHz) for decoding
Noise* (at 23° C)	30 mVp-p (3.3 V, 10 Hz - 100 kHz) for image capture
Optical Resolution	SR focus: 5.0 mil (Code 39), 6.7 mil (PDF417)
*For better image quality in image For additional	capture applications, use an additional filter on VCC_SENSOR.
1.	de a separately regulated 3.3 V supply for the sensor.
Specular Dead Zone:	
Illumination On	Up to 20° depending on target distance and substrate glossiness
Illumination Off	None
Skew Tolerance	± 60°
Pitch Angle	± 60°
Roll	360°
Ambient Light Immunity (Sunlight)	9000 ft. candles (96,900 lux)
Imaging Sensor:	
Image Resolution	752 H x 480 V pixels (Wide VGA)
Grey Scale	256 levels (8 bits per pixel)
Field of View (FOV)	SE4500-SR: 39.6° horizontal, 25.7° vertical
Focusing Distance from Front of Engine (SR)	8 in. / 20.3 cm
Aiming Element:	
Visible Laser Diode (VLD)	655 ± 10 nm
Central Dot Optical Power	0.6 mW (typical)
Pattern Angle	40° horizontal, 30° vertical
Illumination System:	
LEDs	625 ± 5 nm (dominant wavelength)
Pattern Angle	60° x 40° at 80% center intensity

Parameter	Specification
Shock	2000 G $\pm$ 5% applied via any mounting surface at -30° and 55° C for a period of 0.85 $\pm$ 0.05 msec
	2500 G ± 5% applied via any mounting surface at 23° C for a period of
	0.85 ± 0.05 msec
Vibration	Unpowered SE4500 withstands a random vibration along each of the X,
	Y, and Z axes for a period of one hour per axis (6 G rms), defined as follows:
	20 to 80 Hz Ramp up at 0.04 G <sup>2</sup> /Hz at 3 dB/octave
	80 to 350 Hz 0.04 G <sup>2</sup> /Hz
	350 Hz to 2 kHz Ramp down at 0.04 G <sup>2</sup> /Hz at 3 dB/octave
ESD	± 2 kV @ connector
Laser Safety Class	CDRH / IEC Class 2
LED Class	IEC Class 1M
Maximum Engine Dimensions	11.8 mm H x 21.50 mm W x 16.3 mm D
	0.46 in. H x 0.85 in.W x 0.64 in. D
Weight	8.0 grams (0.28 oz)
Electrical Interface	21 pin 0.3 mm pitch ZIF connector

## **SE4500SR Decode Zone**



## APPENDIX E WORKABOUT PRO4 SPECIFICATIONS

## The Workabout Pro4 Hand-Held Computer (7528 Long and 7528 Short)



**NOTE** Performance specifications are nominal and subject to change without notice.

#### **Hardware**

### **Dimensions and Weight**

#### 7528 Long

- 223 mm x 75/100 mm x 31/42 mm (8.78 x 2.95/3.94 x 1.22/1.65 inches)
- 526 g (18.6 oz)

#### **7528 Short**

- 200 mm x 75/100 mm x 31/42 mm (7.87 x 2.95/3.94 x 1.22/1.65 inches)
- 461 g (16.2 oz)

#### **Processor and Memory**

- CPU: Sitara™ AM37x ARM Cortex™-A8 processor
- Memory: 512 MB RAM/4GB Flash

#### **Operating System**

Microsoft Windows<sup>®</sup> Embedded Hand-Held 6.5

#### **Power Management**

- Battery Packs (Lithium-ion): 4400 mAh, 2850 mAh, 4680 mAh
- Super capacitor power backup

#### **Expansion Ports**

- Micro SD slot
- 100-Pin Expansion Interface

- Dedicated USB port
- · Audio port

### Camera (optional)

Optional colour, 8Mpixel, autofocus, 4X digital zoom, Bright LED flash, video capable

#### **Environmental**

- Standard operating temperature: -20°C to +50°C (-4°F to +122°F)
- Storage temperature: -40°C to +60°C (-40°F to +140°F)
- Humidity: 5% to 95% non-condensing
- IP Sealing: IP65, IEC 60529
- Drop rating: 1.5 m (5 ft), 26 drops to polished concrete (powered with options and accessories), multiple
   1.8m (6 ft) drops to polished concrete
- ESD: ± 8 kV contact, ± 15 kV air discharge

## **Regulatory Approvals**

- Worldwide Safety, EMC, RF, Laser approvals
- CE Mark
- E Mark (vehicle cradles)
- RoHS compliant
- WEEE compliant
- REACH compliant

## **Battery Specifications**

## **Rechargable Lithium-ion Battery**

#### **Electrical Specifications**



**NOTE** The electrical specifications apply for ambient temperature TAMB of 0° to +40°C unless otherwise stated.

Item	Description	Specifications	Remark
1	Interface Chipset	Maxim DS2762	-
2	Rated Voltage	3.7 V	Typical
10	Charging Temperature	0 °C to 40° C	Typical

## **Safety License**

Item	Licenses	Standard
1	UL 1642	The lithium-ion cell has been listed and pass the UL1642 standard by UL Lab. File No. MH12383.
2	UL 2054	The WA3010 battery pack passes the UL 2054 battery standard with File No. MH29921.
3	IEC/UL60950-1	The WA3025 and WA3026 battery packs pass the IEC/UL60950-1 standard and are UL listed with File No. MH29577.
4	2004/108/ECEMC Directive	The battery packs comply with 2004/108/EC EMC Directive.
5	2011/65/EU	The materials of the battery packs are used in accordance with the European RoHS directive.
6	2006/66/EC	The battery packs meet the EU Battery Directive.

## **Wireless Radios**

## 802.11a/b/g/n Radio



**NOTE** A GPS/WiFi Diversity Kit, Model Number RA3052 is an available option for this radio.

Parameter	Sub-parameter	Specifications Specification Specification Specification Specification Specification Specification Specificatio
Form Factor		Embedded surface mount module, 15.0 x 15.0 mm
		* This is a combo module containing both Wi-Fi 802.11a/b/g/n and Bluetooth V4.0 LE radio
Antenna Port	802.11a/b/g/n	2x U.FL jacks. Switched diversity.
Antenna Type	802.11a/b/g/n	PCB substrate patch antenna. Covers 2400-2484 MHz @ <2:1 VSWR and 5150-5850MHz @ <2.5:1 VSWR.
		* Number of antenna: one or two, depending on configuration.
Antenna Gain	802.11b/g/n	5 dBi
	802.11a/n	4 dBi
Transmit Power	802.11b	+20 dBm max (depending on region)
	802.11g	+19 dBm max (depending on region)
	802.11a	+17.5 dBm max (depending on region)
	802.11n (2.4 GHz)	+17 dBm max (depending on region)
	802.11n (5 GHz)	+17.5 dBm max (depending on region)
Frequency Range	802.11b/g/n	2400-2483.5 MHz
	802.11a/n	5150-5350 MHz, 5480-5720 MHz and 5725-5845 MHz

Parameter	Sub-parameter	Specifications Specification Specification Specification Specification Specification Specification Specificatio	
Channels	802.11b/g/n	1 to 14.	
		Up to 14 channels (depending on country).	
		Only 3 channels are non-overlapping.	
	802.11a/n	36, 40, 44, 48, 52, 56, 60, 64	
		100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140	
		149, 153, 157, 161, 165	
		Up to 24 channels (depending on country). All channels are non-overlapping.	
RX Sensitivity	802.11b	-86 dBm @ 11 Mbps,	
(hardware)		-94 dBm @ 1 Mbps	
	802.11g	-73 dBm @ 54 Mbps,	
		-89 dBm @ 6 Mbps	
	802.11a	-71 dBm @ 54 Mbps,	
		-87 dBm @ 6 Mbps	
	802.11n (2.4 GHz)	-71 dBm @ MCS7 (65 Mbps),	
		-88 dBm @ MCS0 (6.5Mbps)	
	802.11n (5 GHz)	-68 dBm @ MCS7 (65 Mbps),	
		-87 dBm @ MCS0 (6.5Mbps)	
Data Rates	802.11b	1,2,5.5,11 Mbps	
	802.11a/g	6,9,12,18,24,36,48,54 Mbps	
	802.11n	6.5,13,19.5,26,39,52,58.5,65 Mbps	
EVM	802.11b	35% max	
	802.11g	-25 dB max @ 54 Mbps,	
		-5 dB max @ 6 Mbps	
	802.11a	-25 dB max @ 54 Mbps,	
		-5 dB max @ 6 Mbps	
	802.11n (2.4 GHz)	-28 dB max @ MCS7 (65 Mbps),	
		-5 dB max @ MCS0 (6.5 Mbps)	
	802.11n (5 GHz)	-28 dB max @ 54 Mbps,	
		-5 dB max @ 6 Mbps	
WiFi-BT Co-existent	PTA	This software feature is not enabled in Workabout Pro4.	

## Cinterion PHS8-P GSM/GPRS/EDGE/UMTS/HSPA+ Radio

Parameter	Specifications Specification Specificati	
General		
Frequency bands	GSM/GPRS/EDGE: Quad band, 850/900/1800/1900 MHz	
	UMTS/HSPA+: Five band, 800/850/900/1900/2100 MHz	
GSM class	Small MS	
Output power (accord-	Class 4 (+33 dBm ±2 dB) for EGSM850	
ing to Release 99)	Class 4 (+33 dBm ±2 dB) for EGSM900	
	Class 1 (+30 dBm ±2 dB) for GSM1800	
	Class 1 (+30 dBm ±2 dB) for GSM1900	
	Class E2 (+27 dBm ±3 dB) for GSM 850 8-PSK	
	Class E2 (+27 dBm ±3 dB) for GSM 900 8-PSK	
	Class E2 (+26 dBm +3 /-4 dB) for GSM 1800 8-PSK	
	Class E2 (+26 dBm +3 /-4 dB) for GSM 1900 8-PSK	
	Class 3 (+24 dBm +1/-3 dB) for UMTS 2100, WCDMA FDD Bd I	
	Class 3 (+24 dBm +1/-3 dB) for UMTS 1900,WCDMA FDD Bd II	
	Class 3 (+24 dBm +1/-3 dB) for UMTS 900, WCDMA FDD Bd VIII	
	Class 3 (+24 dBm +1/-3 dB) for UMTS 850, WCDMA FDD Bd V	
	Class 3 (+24 dBm +1/-3 dB) for UMTS 800, WCDMA FDD Bd VI	
HSPA		
3GPP Release 6, 7	DL 14.4Mbps, UL 5.7Mbps	
	UE CAT. [1-6], 11, 12 supported	
	Compressed mode (CM) supported according to 3GPP TS25.212	
UMTS features		
3GPP Release 6, 7	DL 14.4Mbps, UL 5.7Mbps	
	UE CAT. 1-12 supported	
	Compressed mode (CM) supported according to 3GPP TS25.212	
GSM GPRS/EGPRS		

Parameter	Specifications Specific Specif
Data transfer	GPRS:
	- Multislot Class 10
	- Full PBCCH support
	- Mobile Station Class B
	- Coding Scheme 1 - 4
	EGPRS:
	- Multislot Class 10
	- EDGE E2 power class for 8 PSK
	- Downlink coding schemes - CS 1-4, MCS 1-9
	- Uplink coding schemes - CS 1-4, MCS 1-9
	- SRB loopback and test mode B
	- 8-bit, 11-bit RACH
	- PBCCH support
	- 1 phase/2 phase access procedures
	- Link adaptation and IR
	- NACC, extended UL TBF
	- Mobile Station Class B
	CSD:
	- V.110, RLP, non-transparent
	- 14.4 kbps
	- USSD
SMS	Point-to-point MT and MO
	Cell Broadcast
	Text and PDU mode
GNSS Features	,
Protocol	NMEA
Modes	Standalone GNSS
	Assisted GNSS
	- Control plane-E911
	- User plane- gpsOneXTRA™
General	GPS and GLONOSS
	Power saving modes
Software	T
AT commands	Hayes, 3GPP TS 27.007 and 27.005, and proprietary Cinterion Wireless Modules commands
SIM Application Toolkit	SAT Release 99

Parameter	Specifications
Audio	Audio speech codecs
	GSM: AMR, EFR, FR, HR
	3GPP: AMR
	echo cancellation, noise suppression
Interface	
Antenna	50Ohms. Main GSM/UMTS antenna, UMTS diversity antenna, GNSS antenna (passive)
USB	USB 2.0 High Speed (480Mbit/s) device interface, Full Speed(12Mbit/s) compliant
UICC interface	Supported chip cards: UICC/SIM/USIM 3V, 1.8V
Special features	
Phonebook	SIM and phone
Antenna	SAIC (Single Antenna Interference Cancellation) / DARP (Downlink Advanced Receiver Performance)
	RX diversity (receiver type 3i-16-QAM)

## Bluetooth Radio

Parameter	Specifications Specification Specification Specification Specification Specification Specification Specificatio
Manufacturer	Zebra PN 21-148603-02
Form Factor	Embedded surface mount module, 15 x 15 mm
	* This is a combo module containing both Wi-Fi 802.11a/b/g/n and Bluetooth V4.0 LE radio
Antenna Port	U.FL jack
Antenna Type	Surface mount PIFA antenna. Covers 2400-2484 MHz @ <2.5:1 VSWR
Antenna Gain	0 dBi
Transmit Power	1 mW (0 dBm)
Frequency Range	2.400-2.4835 GHz
Channels	79
RX Sensitivity	-91 dBm @ 1Mbps
	-83 dBm @ 3Mbps
Data Rates	V1.2=732.2 kbps and 57.6 kbps asymmetric, 433.9 kbps symmetric
	V2.0=2 & 3 Mbps
IEEE802.11	Co-existent is realized through antenna isolation.
Coexistence	SW co-existent disabled in WAP4.

## APPENDIX F WIRELESS ZERO CONFIG SETTINGS

## **Wireless Zero Config**

This appendix describes how to set up your radio using Windows Wireless Zero Configuration – an alternative to the Wireless Companion.



**NOTE** For details about using Wireless Companion, refer to Fusion Wireless Companion - Setting Up the 802.11a/b/g/n Radio on page 4-27.

In the Today screen, tap on the softkey at the bottom of the screen.



In the Launch screen, tap on Options.



- Choose WLAN Management from the drop-down menu, and tap on Save
- Tap on the radio button next to Windows Manages WLAN, and tap on Save and OK.

Press and hold down the [Power] button and the [FN/BLUE] key to reset the unit.

Wireless Zero Config will be listed in the Today screen.



Tap on Wireless Zero Config in the Today screen.

## **Configuring the Unit Using Wireless Zero Config**

- In the Wi-Fi screen, tap on Add New....
- Type the appropriate SSID (Service Set Identifier) in the Network name: dialog box. The Network name field can contain a maximum of 32 characters.



- Choose the type of connection in the drop-down menu next to Connects to.
- · Tap on Next.
- In the Configure Network Authentication screen, choose the appropriate **Authentication**, **Data Encryption**, **Network key** and **Key index** for your network. These are outlined below. Keep in mind that these options vary depending on the type of Authentication chosen.
- Authentication: Several subtypes of network authentication services are supported: Open, Shared, WPA, and WPA-PSK, WPA2 and WPA2-PSK.
- Open authentication does not provide security. When this option is chosen, the hand-held connects to wireless networks which do not use authentication or encryption.
- Under Shared authentication, each wireless station is assumed to have received a secret shared key over a secure channel that is independent from the 802.11 wireless network communications channel.

- Under WPA and WPA-PSK authentication, the use of 802.1x authentication is required. For wireless networks without a Remote Authentication Dial-In User Service (RADIUS) infrastructure, WPA supports the use of a preshared key. For wireless networks with a RADIUS infrastructure, Extensible Authentication Protocol (EAP) and RADIUS is supported.
- **Encryption**: WEP (Wired-Equivalent Privacy) encryption prevents others from accidentally accessing your network. If you are not using encryption, you can choose Disabled from the drop-down encryption menu. Otherwise, leave this field as is.
- AES (Advanced Encryption Standard) is a standard for protecting data through encryption. AES supports
  key sizes of 128 bits, 192 bits and 256 bits and will serve as a replacement for the Data Encryption Standard (DES). In addition to the increased security that comes with larger key sizes, the AES algorithm is a
  symmetrical block cipher that can encrypt (encipher) and decrypt (decipher) information.
- TKIP (Temporal Key Integrity Protocol) uses the original WEP programming but wraps additional code at
  the beginning and end to encapsulate and modify it. Like WEP, TKIP uses the RC4 stream encryption algorithm as its basis. The new protocol, however, encrypts each data packet with a unique encryption key, and
  the keys are much stronger than those of its predecessor.
- Network Key: This field becomes available if you deselect The key is automatically provided. This text box
  is used to specify a 5 or 13 ASCII character sequence or an equivalent 10 or 26 Hexadecimal digit
  sequence that matches the active WEP key on the access point. It is set to automatically provide a key
  by default.
- **Key Index**: This field becomes available if you deselect The key is automatically provided. This field is used to identify the WEP key.
- Tap on Next to display the screen in which you can choose the EAP (Extensible Authentication Protocol) type.



When Use IEEE 802.1x network access control is enabled, **EAP** types are available in the drop-down menu. The items will vary depending on your network setup.

Keep in mind that some authentication protocols require that you select a Certificate. By tapping on the Properties button, you can select a Certificate.

• Tap on **Finish** when the configuration is complete.

# APPENDIX G WIRELESS WIDE AREA NETWORK (WWAN)

## **Wireless WAN**

Zebra offers the Cinterion PH8-P HSPA+ WWAN radio. An Workabout Pro4 Hand-Held Computer equipped with a GSM/GPRS radio has wide area networking capabilities. With this radio and a SIM card, you can wirelessly transfer data, and you use the Workabout Pro4 voice option to place phone calls.

## **Navigation Bar Icons**

Wireless WAN icons are displayed in the navigation bar at the top of the screen that identify the packet data service and the signal strength.

When a modem detects that a packet data service is available, a letter is added to the signal strength icon indicating the type of service. Keep in mind that the signal strength icon is displayed without a letter if packet data service is not available, or if it is available but not yet initialized.

The symbols in the navigation bar identifying the modem connection are as follows:

- G GSM/GPRS
- E GSM/EDGE
- U UMTS 3G
- H UMTS/HSPA+

## **Establishing a Packet Data Connection**

To display the Data tab through which you can configure a connection:

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 Tap on the a Navigation bar at the top of the screen to display the hotkeys. Tap on the Phone Settings hotkey.

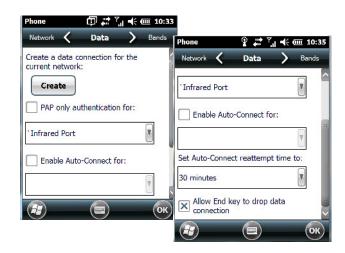


• In the Phone Settings bubble, tap on **Settings** to display the phone setting tabs.



Scroll to the **Data** tab.

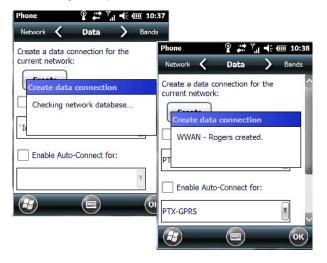
Figure G-1 Data Tab



By default the connection uses CHAP (Challenge Handshake Authentication Protocol); however, if your ISP does not support CHAP, tapping in the box to the left of PAP only authentication for: directs the connection to use PAP (Password Authentication Protocol) instead.

Tap on the Create button.

A home data connection is automatically set up.



To connect to the Internet, tap on the Start>Internet Explorer icon.



**NOTE** Any application that needs Internet access will establish a packet data connection – for example, e-mail.

## **Disconnecting from a Network**

To disconnect from the network:

- Tap on the **navigation bar** at the top of the screen, and then tap on the **Phone Settings hotkey**. In the pop-up Phone bubble, tap on **Wireless Manager**.
- Tap on the **Menu** button in the softkey bar at the bottom of the Wireless Manager screen, and choose **Disconnect Cellular Data**.

## **Advanced Packet Data Configuration**

In most cases, when a GSM/GPRS/EDGE radio and SIM are installed in your hand-held, setup is automatic. Follow the steps outlined under the heading "Establishing a Packet Data Connection" to make a connection. The information in this section is for advanced setup purposes.

Manual configuration should only be necessary if:

- One or more parameters in the database are incorrect or a new operator is not yet in the database. (The database should be corrected for subsequent software releases.)
- An operator has assigned individual GPRS user names and passwords.
- A very large site has its own Access Point Name (APN). Such connections must be configured manually.
- A customer has subscribed for a static IP address. By definition this must be configured manually.

## **Manually Adding a New Modem Connection**

• Tap on Start>Settings>Connections folder icon. Tap on the Connections icon.



Choose Add a new modem connection.

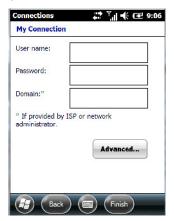
In most cases, you should choose Add a new modem connection from ISP: WWAN - GPRS. However, if you need to use a Proxy server, choose this option from My Work Network.



- Enter a connection name (optional).
- Choose Cellular Line (GPRS) from the Modem drop-down menu.
- Tap on Next.



Type the Access Point Name, and tap on Next.



- If required, type a **User name** and **Password**.
- If you need to specify TCP/IP and Server information (i.e., you are using a static IP address) tap on the **Advanced...** button to complete the necessary details.
- Tap on **Finish** to create a new connection.

## The Security Tab – Entering a PIN

This option allows you to assign a PIN (Personal Identification Number) so that your SIM card is protected from unauthorized use.



**NOTE** For details about assigning a PIN number, refer to "Phone: Security Tab".

## **Bands**



By default, all frequency bands are enabled. Bands should not be disabled without knowledge about which bands are used by your network; an incorrect setting will prevent the WWAN modem from finding the network.

## **Cell Broadcast Message (CBM)**

The Cell Broadcast Message (CBM) can be used by the network operator to send the same message to all the users within a certain area at once. This option is turned off by default.



### **Network Configuration**



By default the radio modem automatically chooses from the available and allowed networks (allowed networks are the home network and all other networks with which the home network has a roaming agreement). You

may find there are some situations in which you want to override this default behaviour. For example, you might want to disable roaming if you find yourself in a border area where the home network is not available but a foreign roaming partner is available. Abroad, you may find that an available network does not have GPRS roaming agreements. In this case, you'll need to manually select the network which you know supports GPRS roaming.

Automatic network selection is enabled by default. You can also choose a network manually from the drop-down menu.



**NOTE** Your home network operator will need to let you know which other networks have roaming agreements. Even when a network is listed with an Available status, it does not necessarily follow that it can be used or that the roaming agreement covers GPRS.

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