SPECTRA PRECISION®
RECON® DATA COLLECTOR

GETTING STARTED GUIDE

SPECTRA PRECISION

Notice to Our European Union Customers

For product recycling instructions and more information, please go to www.spectraprecision.com/ev.shtml.

Recycling in Europe:

To recycle Spectra Precision WEEE (Waste Electrical and Electronic Equipment products that run on electrical power), call +31 497 53 24 30, and ask for the "WEEE Associate". Or, mail a request for recycling instructions to:

Spectra Precision, c/o Menlo Worldwide Logistics, Meerheide 45, 5521 DZ Eersel, NL.

Technical Assistance

If you have a problem and cannot find the information you need in the product documentation, contact your local Spectra Precision Authorized Distribution Partner. Alternatively, go to the Spectra Precision website at **www.spectraprecision.com** or request technical assistance from Spectra Precision support by emailing **support@spectraprecision.com**

Additional information on Windows Mobile products is available from: www.microsoft.com/windowsmobile/default.mspx.

Contents

Welcome

Congratulations on your purchase of one of the most advanced handheld computers available on the market today. The rugged design of your handheld allows you to work in harsh outdoor environments. You can operate your unit in blazing heat, subzero cold, driving rain or dusty job sites – places you could not take a consumer-grade handheld computer.

NOTE: Not all the features discussed in this manual will apply to every unit, as some of the features are offered as options. If the feature described does not apply to your unit, please disregard that section.

Device Hardware

Front View

Removable CF-Cap

Application Soft Keys*

Application Soft Keys*

Start

OK*

Power

Enter

Navigation pad

*Assignable application buttons;
see Settings

Back View

CF-Cap

Stylus holder

Latches

PowerBoot Module

Top View- without Cap

CF slot #2
Type I

CF slot #1
Type I & II
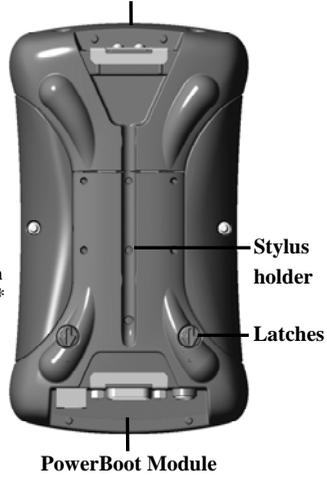
CompactFlash card slots
Some units do not have this feature

Bottom View

External Power

Serial

USB

NOTE: Be sure to read the warranty and safety information in this manual prior to using your unit.

Unit Setup

1. Charge the PowerBoot Module

The PowerBoot Module™ that contains the batteries is shipped detached from the unit. Before you insert the PowerBoot into the unit, you should charge it. If the AC adapter that came with your unit has multi-national plugs, connect the appropriate AC plug for

your country to the AC adapter. Plug into an electrical outlet and plug the barrel end of the AC adapter into the PowerBoot. Charge at least 12 hours before using.

Warning! Be sure to only use the AC adapter included with your unit. Use of other adapters will void the product warranty.

2. Attach the PowerBoot Module

To attach the PowerBoot, use a screwdriver or the flat head of the supplied stylus to turn the latches counter-clockwise until the arrows point downward towards the I/O ports on the PowerBoot. While applying pressure down and forward on the PowerBoot, firmly slide it onto the main unit as shown.
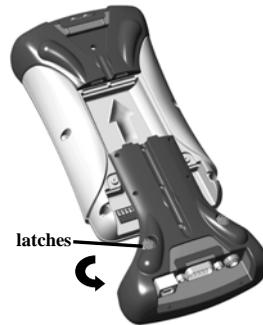
Lock the PowerBoot latches by turning them clockwise one half turn until the arrows on the latches point away from the I/O ports.

3. Attach the hand strap

Hold the hand strap clip at a 45-degree angle and push the clip onto the bracket. Repeat the process with the other end of the hand strap.

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4. Install the screen protector

To keep the touchscreen clean and protected, install the screen protector. Unprotected screens become scratched and scuffed over time. Screen protectors extend the life of the display by providing a protective and replaceable barrier between abrasive grit and the surface of the display. Screen damage associated with failure to use a screen protector may not be covered under warranty.

5. Turning your unit on and off

To turn your unit on, press and release the **Power** key on the lower left hand corner of the keypad. To turn your unit off, press and release the **Power** key again.

One of the most convenient features of the unit is "instant on" and "instant off" (also known as "suspend/resume"). There is no waiting for the unit to boot up every time it is turned on. "Instant on" does not occur on the first boot-up.

When the unit first turns on, the message "Tap the screen to set up your Windows Mobile-based device" will appear.

6. Align screen

The align screen message will display a series of targets to tap in sequence on the screen. Use the stylus to tap the targets firmly and accurately. Sometimes you need to repeat the alignment procedure more than once to provide a satisfactory alignment.

7. Location – time zone

Select your time zone location, set the time and date to the correct values and tap **Next**.

8. Password – lock (optional)

You do not have to provide a password unless you are concerned about unauthorized use. To eliminate using a password, tap **Skip**.

If you opt for password protection the password must be entered every time you turn the unit on or the **Power** key is pressed to resume operation.

WARNING: BE CERTAIN TO REMEMBER THE PASSWORD. The only way to recover from a forgotten password is to perform a Clean Boot and you will LOSE all application software, licenses, settings and data on your unit. See page 9 on how to perform a Clean Boot.

9. Using the CF expansion slots

If your unit comes with CompactFlash (CF) slots, use a small #1 Philips head screwdriver to unscrew the two screws on the top of the CF-Cap™ and remove the cap.

Gently insert a CF card or other device into one of the CF slots. Make sure the front of the card faces the display side of the unit. **Do not force the card into the slot.** The pins can be damaged if the card is not aligned correctly. CF slot #1 supports Type I & II cards. CF slot #2 supports Type I cards. Replace the CF-Cap and securely tighten the screws.

CF slot #2
Type I

CF slot #1
Type I & II
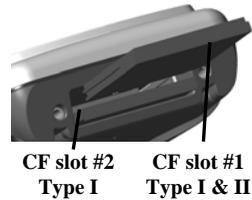
NOTE: DO NOT use the unit without reattaching the CF-Cap. The unit is NOT sealed when the CF-Cap is off and water damage can occur, possibly voiding the warranty.

10. I/O ports

The unit has USB and 9-pin serial ports. Connections via USB to a PC require an A-B USB cable (included with the unit). Serial connections require a 9-pin null-modem serial cable (not included with the unit).

External Power   Serial   USB

Pin 1   Pin 5
Pin 6   Pin 9
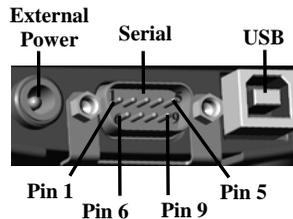
You may also increase your connectivity options with CF cards.

Working with the Unit

PowerBoot Module

The PowerBoot includes the batteries to power the unit, the power port used to charge the unit, and the I/O ports that are used to communicate with other devices using a USB or serial cable.

Battery Life: Battery life is dependent upon the application and operating environment. The PowerBoot contains 3800 mAh of battery power which typically translates to approximately 15 hours of battery life. Heavy usage of the 802.11g (WLAN), frequent backlight usage, high power consumption CF cards and cold temperatures can all significantly reduce the battery life.

Tips for extending battery life:
- *WLAN or Bluetooth:* If your unit comes with these options installed, use ONLY when necessary. Turn off when not needed.
- *Display backlight*: Tap **Start / Settings / System / Backligh**t to minimize the amount of time the backlight stays on, and dim it to only as bright as required to view the display.
- *CF Cards:* Select low-power consumption CF cards, and use them only when necessary.
- *Cold Temperatures:* Keep the unit as warm as possible. If feasible, keep it inside your coat or a vehicle when not in use.
- *Auto features*: Tap **Start / Settings / System / Power / Advanced.** To conserve battery power, specify your unit to turn off in a short time if not in use.

Charging the PowerBoot Module: *It is highly recommended to turn off the unit while charging.* If you use the WLAN while charging, you may actually drain the battery, in which case a battery charging screen warning will appear.

If you need to use the unit and the battery is really low, you MUST turn off the WLAN.

The PowerBoot can be charged when installed or separately from the main unit. Connect the appropriate AC plug to the AC adapter. Plug into an electrical outlet and plug
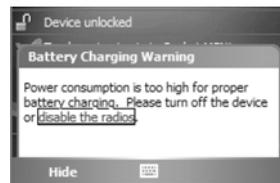
the barrel end of the AC adapter into the PowerBoot. If the unit is turned off, it will be fully charged in approximately 12 hours.

Swapping the PowerBoot Module: The PowerBoot is designed to be quickly changed (if you purchased additional PowerBoot Modules). The unit saves enough power that if you swap the PowerBoot within 30 seconds, it will not trigger a reset. If the saved power runs out before the new PowerBoot is connected, the unit will reset. This will not impact saved data, programs or configuration, however unsaved data will be lost and the time settings will need to be reset.

To change a PowerBoot Module, perform the following steps:
1. Save your data and turn the unit **OFF**.
2. Remove the hand strap.
3. Unlock the latches on both PowerBoot Modules. Use a screwdriver or the flat head of the supplied stylus to turn the latches counter-clockwise until arrows point downward towards the I/O ports on the PowerBoot.
4. With the unit upside down, remove the PowerBoot by using your thumbs to push and slide it away from the unit as shown in the illustration. Be careful to not press the **Power** key while the PowerBoot is detached.

Push Here to detach

5. Quickly slide the new PowerBoot onto the unit.
6. Lock the latches on the new PowerBoot by turning them clockwise one half turn until the arrows on the latches point away from the I/O ports.
7. Replace the hand strap.
8. Turn on the unit to resume operation.

Accessing Storage Memory using File Explorer

File Explorer (**Start / Programs / File Explorer**) lets you browse the contents of folders on your unit. To easily delete, rename, or copy an item, touch and hold the item.

NOTE: Unlike PCs, Windows Mobile® 6.0 does not support a Recycle Bin. Once a file is deleted, it cannot be recovered.

Using the stylus

Use the stylus to navigate and select objects on the screen.

*Tap***:** Tap the screen with the stylus to select or open an item. Tapping is the same as clicking the left button on a PC mouse.

*Drag***:** Hold the stylus on the screen and drag across the screen to select text and images.

*Touch and hold***:** To access a pop-up menu, touch and hold the stylus on an item name. A circle of dots will appear to indicate that a pop-up menu will soon appear. This action is similar to a right mouse click on a PC.

Storage Memory

Unlike many handhelds which can lose data if they lose power, all your data is always stored in non-volatile persistent storage memory. Losing power will not impact **saved** data or configurations other than the real time clock. This means that you do not have to use a RAM backup utility to protect your data. However, you can lose data by accidentally deleting or overwriting it. As with any computer system, we recommend that you regularly backup your data to removable media or to a PC.

Speaker and microphone

Your unit comes with an integrated speaker and a microphone. The speaker will allow you to hear a variety of media.

To record, tap **Start / Programs / Notes**. If you do not see the **Recording** toolbar, tap **Menu / View Recording Toolbar**. Tap the round record symbol on the screen. The unit will record until **Stop** is pressed. The recorded file will be saved in the Notes folder. To change the directory where recorded files will be saved, tap the folder icon and navigate to the desired folder.

To play the recorded file, tap the desired file from the Notes program. To begin another recording, tap the record symbol on the screen. You cannot play and record simultaneously; playback will be disabled during recording. To change the volume or mute all sounds, tap the speaker icon in the status bar of the Today screen.

Power key features

The **Power** key turns the unit on and off and performs a number of additional functions.

Turn backlight on/off: To toggle the backlight on or off, hold down the **Power** key for approximately 1 second. Once toggled off, the backlight will stay off until it is toggled back on. Screen taps and key presses will not cause it to turn on.

Power menu: Hold down the **Power** key for about 3 seconds to display a countdown. Continuing to press the **Power** key will cause a reset when the countdown reaches zero. If you release the **Power** key while the countdown is proceeding, you access the following menu. Tap an option or **OK** to exit.
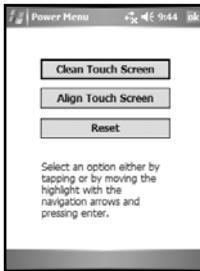
Clean Touch Screen: Disables the touchscreen for cleaning. Press the enter key to re-enable the touchscreen.

Align Touch Screen: Repeats the alignment procedure, if you are having trouble with the touchscreen.

Reset: Stops all running programs and restarts the unit. No file system data is lost, only open or unsaved files will be lost. All registry settings, control panel, personal information and databases are preserved.

Perform a Clean Boot

WARNING: All application software installed by the factory and the customer, plus licenses, settings and user data will be cleared if you perform this function!

Hold down the **Power** key to display a countdown. Continue to hold down the **Power** key until it counts down to zero and beeps twice. Then immediately hold down the Start and OK keys simultaneously. After a few seconds, a screen will come up warning that if you continue, this operation will clear the persistent store including all user data, applications and settings. Follow the instructions on the screen ONLY if you want to completely clear your unit.

The Today Screen

The Today screen provides information that you need for the day. Tap an item to view or edit details. To customize which items are shown on the Today screen, tap **Start / Settings / Today / Items**.

Tap to go to a program

Tap to view and change connection settings.

Tap to change or mute volume

Tap to view power settings

Tap to change time settings.

Tap to change WLAN & Bluetooth settings.

Tap to change owner information.

The Keypad

The screen shows the function of the two application soft keys

Start key

OK key

Enter key

Power key
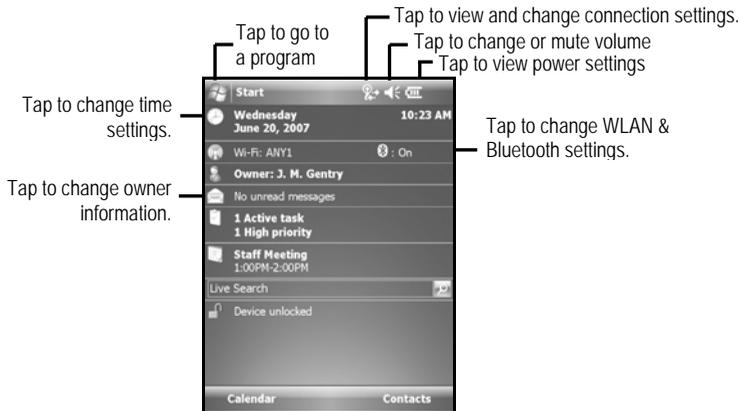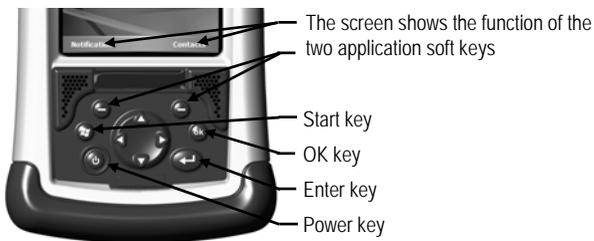
Communication

Your unit may offer multiple methods of communication with other devices as described below. Not all the features apply to every unit, as some of the features are offered as options. If the feature described does not apply to your unit, please disregard that section.

Connecting to a PC

Connecting your unit to a PC allows you to copy files, synchronize information, send and receive e-mail and install applications on your unit. Connectivity software is pre-installed on your handheld unit.

You will need to install connectivity software on your PC using the Getting Started CD that will automatically launch what is needed for your PC depending on the operating system (OS).

Windows XP SP2 or earlier*: Microsoft ActiveSync 4.5 or greater is required. (Microsoft Office Outlook 2000 and older is not supported by ActiveSync 4.5.) NOTE: If you have an earlier version of ActiveSync installed on your PC, you need to upgrade to version 4.5 prior to connecting to your unit.

Windows Vista*: Microsoft Windows Mobile Device Center ensures that synchronization will work correctly. NOTE: It does not recognize the serial port. You must connect by either USB or Bluetooth.

IMPORTANT: Do not connect your unit to the USB port on the PC until **after** you install connectivity software to your PC. If you prematurely connect the unit to your PC, your PC USB drivers may get into a confused state and will not connect. If you suspect that something like this has happened, uninstall the connectivity software on your PC, reboot, and reinstall.

After the connectivity software is installed on the PC, connect the unit to the PC:
1. Connect the USB end of the synchronization cable to the PC.
2. Turn on your unit.
3. Connect the USB end of the cable to your unit.

Troubleshooting connection problems
1. Confirm the unit is configured to communicate with the PC. Tap **Start / Programs / ActiveSync / Menu / Connections.** Confirm the box **Synchronize all PCs using this connection** is checked and **USB** is selected from the dropdown list.
2. Try disabling any personal firewall software running on the PC. TCP/IP ports need to be open.
3. Reset the unit.

4. If you have more than one unit, PC and/or cable, testing different combinations of equipment can help isolate the cause of the problem.
5. If you suspect the unit may have been connected to the PC USB port before the connectivity software was installed, then uninstall, reboot the PC, and reinstall.
6. Confirm the version of connectivity software used on your PC is the same as or later than the one on the Getting Started CD.
7. Tap **Start / Settings / Connections / USB to PC** and change the check box **Enable advanced network functionality**.

WLAN (802.11)

If your unit comes with built-in WLAN (also called Wireless LAN or 802.11) capability, you can wirelessly transmit data to and from your unit by connecting to available access points or hot spots. Once connected, you can access the Internet and other network information, send and receive email and use virtual private networks (VPNs) for secure remote access. To find out if you have WLAN installed in your unit, tap **Start / Settings / System / System Information / Wireless**.

The WLAN is off by default. To turn the WLAN on or off, tap **WLAN** from the **Today** screen or tap **Start / Settings / Connections / Wireless Manager** and tap **Wireless LAN**. The unit will automatically detect wireless networks or hot spots. (There may be a slight delay before it updates.) Turn it off when not in use to save battery power and possibly speed up other processes.

NOTE: There is a feature found under **Start / Programs / Wireless Access** where you can limit the number of networks to be visible. When **limit network visibility** is selected, only the ones listed can be used and other networks will not be visible. This feature is a convenience to keep other wireless networks from alerting your unit. If you want to add other wireless networks, change this setting.

Internet connection is one in which Virtual Private Network (VPN) services are not involved and proxy servers may or may not be utilized. This can include a typical **Internet** connection through a corporate wireless network. A **Work** connection allows you to view file shares on a corporate network.

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If you choose to create an **Internet** connection, open Internet Explorer Mobile on the unit (**Start / Internet Explorer**) to browse the Internet. Some features supported by PC browsers are not supported by Internet Explorer Mobile. For instance, there are no pop-up windows and some sites may not be accessible.

If you choose to create a **Work** connection, open File Explorer on your unit. Tap **Menu / Open Path / New Path** to open a window, allowing you to enter the name of a computer on the network on which you want to view file shares. Tap **OK**.

From here, you can browse the network file shares and copy and paste files between PCs on the network and the unit.

Exchange ActiveSync: Exchange ActiveSync, a component of Exchange Server, facilitates data synchronization between your unit and an Exchange server. This synchronization can occur over a network connection, allowing you to update calendars, contacts, tasks and the Inbox on your unit without directly connecting to a PC. The server must be running Exchange Server 2003 SP2 or later.

To use Exchange ActiveSync, confirm with your system administrator that an Exchange Server is available. The administrator will also provide you with a login name, password, server name, and domain name. To configure Exchange ActiveSync on your unit, tap **Start / Programs / ActiveSync / Menu / Add Server Source.** Enter the server address and confirm with your administrator whether the Exchange server requires an encrypted (SSL) connection. Tap **Next**. Enter the login name, password and domain in the next window. Tap **Next.** Choose the data types you want to synchronize and tap **Finish**.

Troubleshooting WLAN connection problems; If the unit seems to be connected to the network, but you are having difficulty using the network connection, tap Start / Settings / Connections / Network Cards / Network Adapters, and confirm that the connection is appropriately configured as either a Work or Internet connection.

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Bluetooth

If your unit comes with embedded Bluetooth capability—a short-range radio technology—your unit can exchange information (beam) with other Bluetooth-enabled devices over a distance of up to 30 feet (10 meters), without requiring a physical connection. To find out if you have built-in Bluetooth available in your unit, tap **Start / Settings / System / System Information / Wireless**.

Bluetooth settings: tap **Start / Settings / Connections / Bluetooth.**
> *Mode***:** To enable Bluetooth, select the check box **Turn on Bluetooth**. If you want other Bluetooth devices to find your unit, also select the check box **Make this device visible to other devices**.
> *Device*: Tap **Add new device** to search for other Bluetooth devices. For enhanced security, use passcodes.

Bluetooth file transfer between two units and/or a PC: To transfer files between two units and/or a PC does not always require a partnership. If your PC does require a partnership:
1. Confirm Bluetooth is enabled on both units and the receiving unit is visible.
2. Tap **Start / Programs / File Explorer** on the unit that is sending the file. Browse to the file to be sent, and touch and hold on it. Tap **Beam File**. Wait for several moments while the sending unit searches for Bluetooth devices in the vicinity.
3. Select the receiving unit from the list, and tap **Tap to send**. Wait a few moments while the file is transferred.
4. The receiving unit will open a window that says "Receiving Data" and ask if you want to save the file. If you tap **Yes,** the file will be saved in the My Documents folder.

Creating a Bluetooth Partnership: Bluetooth partnerships are required for connections to some PCs, printers, and headphones. Configuring Bluetooth connections vary depending upon how each Bluetooth device works. Refer to all device documentation.
1. Tap **Start / Settings / Connections / Bluetooth / Mode.** Ensure that both devices have Bluetooth turned on in the Mode area, are visible and within close range.
2. Tap **Start / Settings / Connections / Bluetooth / Devices / Add new device…** Wait a few moments while your unit searches for Bluetooth devices in the vicinity.

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3. Tap the name of the other Bluetooth device and tap **Next.** For enhanced security, use passcodes. Enter the same passcode on the other unit.
4. If desired, change the name of the other device and tap **Finish**.

Once a partnership has been created, the devices do not need to be configured as visible any more.

Bluetooth connection with a PC
1. Ensure that your PC has connectivity software installed. See Connecting to a PC on page 11.
2. Set up a partnership between your unit and the PC. See Creating a Bluetooth Partnership on page 14. Refer to your PC documentation for instructions.
3. After a few moments, select the PC from the Device list.
4. Confirm that ActiveSync service is available and place a check in the check box and tap **Finish**.
5. Tap **Start / Programs / ActiveSync / Menu / Connect via Bluetooth**.

Bluetooth connection with a printer: If the printer is Bluetooth-enabled via Bluetooth serial profile, it is possible to establish a Bluetooth connection.
1. Set up a partnership between your unit and the printer. (If the printer asks to connect to your unit, tap **No**.) Refer to your printer documentation to see if a passcode is required and for instructions.
2. After a few moments, select the printer from the Device list.
3. Confirm that serial port service is available and place a check in the check box and tap **Finish**.

NOTE: The Windows Mobile operating system does not support printing without additional third-party software.

Troubleshooting Bluetooth connection problems: If your unit cannot find another Bluetooth device, confirm that the device is within range (less than 30 feet / 10 meters) and no large objects obstruct the path of other Bluetooth-enabled devices. Also confirm that the device is turned on and has been configured to be discoverable**.**

Additional connectivity

Your unit supports several additional kinds of connections. If you do not have embedded Bluetooth or WLAN, you can purchase CF cards to add the functionality. The following types of additional connectivity are also possible:

Modem: The unit supports dial-up connections to an Internet Service Provider and sending and receiving e-mail with file attachments. You will need to purchase an external modem or a CF modem.

Web-enabled cell phones: The unit can connect to the Internet via Bluetooth and Web-enabled cell phones that are compatible with Windows Mobile devices. USB phone connections are not supported. Refer to your phone service provider for more information on establishing Internet connections via your cell phone.

Installing additional software on your unit

The unit can run third-party software designed for Windows Mobile. Most third-party software is installed by running a setup program on the PC while the unit is connected with ActiveSync or the Windows Mobile Device Center. Follow the setup instructions that came with your software. If prompted, perform a reset to complete the installation.

Safe Use of Your Unit

Battery safety

- Use only the battery supplied with your unit to power the unit. Use of other power sources could damage the unit, void your warranty and pose safety hazards.
- **Caution**: Do not expose to temperatures above +140 °F (+60 °C) Do not short external contacts. Do not disassemble or mistreat the battery. Failure to follow those instructions may present risk of exposure to harmful chemicals, explosion, fire or high temperatures. There are no user-serviceable parts in the battery pack.
- Handle a damaged or leaking battery with extreme care. If the electrolyte comes in contact with your skin, wash the exposed area with soap and water. If it comes in contact with the eye, flush the eye with water for 15 minutes and seek medical attention.

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- Do not expose the PowerBoot to storage temperatures above +95 °F (+35 °C) for extended periods.
- Do not charge the PowerBoot if the ambient temperature exceeds +95 °F (+35 °C) or is below +32 °F (0 °C).
- Contact your local waste disposal provider regarding the disposal or recycling of the PowerBoot.

AC adapter safety

- Use only AC and vehicle adapters intended for the unit. Other external power sources may damage your product and void the warranty.
- Make certain that the input voltage on the AC adapter matches the voltage in your location. Make certain that the AC adapter has prongs compatible with your outlets.
- AC adapters are designed for **indoor use only**. Avoid using the AC adapter in wet areas.
- Unplug the AC adapter from power when not in use.
- Do not short the output connector.

Carrying the unit

Due to radio frequency emissions, it is unsafe to operate the radio with the unit in a holster, dangling from a lanyard, or with any method that keeps the powered unit in very close proximity to the head or torso. For safe operation, carry the unit in your hand with the antennas located at least 8 inches (~20 cm) from the head or torso. See the following illustration for the correct and incorrect way to operate the unit.

Correct   **Incorrect**

Repair

Do not attempt to dismantle the unit for repair. There are no user-serviceable parts inside. For service, use the contact details listed on the cover of this manual or contact your local dealer.

Settings on your Unit

Tap **Start / Settings**. Tap any of the icons on the **Personal**, **System** or **Connections** tabs to customize the unit settings to your own preferences. Tap **OK** to exit the settings. Some of the more useful settings are described below.

Buttons (keys)

Tap **Personal / Buttons**. You can assign your favorite programs to several of the keypad buttons. The list of assignable keys is shown on the left side of the screen with the program that is assigned by default on the right. To reassign a key, select the key you wish to change in section 1 and choose the desired program or action from the pull-down list in section 2.

Lock (password)

If you want password protection from unauthorized use of your unit, tap **Personal / Lock**. The password must be entered every time you turn the unit on or resume operation.

WARNING: BE CERTAIN TO REMEMBER THE PASSWORD. The only way to recover from a forgotten password is to perform a Clean Boot. However, you will LOSE all application software, licenses, settings and data on your unit. See page 9 for instructions on how to perform a Clean Boot.

Sounds and Notifications

Tap **Personal / Sounds & Notifications**. You can change sound settings related to event notifications, buttons and screen taps. To change the volume, tap the speaker icon in the status bar of the Today screen. You can either change the volume or mute all sounds coming from the unit.

Encryption

Tap **System / Encryption.** To prevent sensitive data on a CF card from being used if the card is lost or stolen, files can be encrypted as they are placed on the card. However, they will only be readable on the unit on which they were initially encrypted. It will not be possible to read these files on the storage card with any other device or even from a PC. Files saved on storage cards before enabling encryption will not be encrypted.

NOTE: if you perform a Clean Boot on your unit, previously encrypted files on storage cards will no longer be readable by that unit or by any other device, including PCs.

Backlight

Tap **System / Backlight**. Tap **Battery Power**, **External Power** and **Brightness** tabs to change settings.

Memory

Tap **System / Memory** to see how much Storage memory (Flash) and Program memory (RAM) is available. Closing programs still leaves them resident in RAM. As more programs are started, available RAM decreases. If RAM resources become low, you can stop programs and remove them from RAM. First, ensure you have saved all your data. To stop a program, tap the tab **Running Programs**. You can stop individual programs or tap **Stop All**.

Power

Tap **System / Power** to view the approximate battery power remaining in 20% increments. This gauge may be inaccurate after first turning the unit on, or inserting or removing the external AC adapter. The battery driver constantly gathers information about the battery voltage and history and uses this information to report a charge level. It can take up to 30 minutes for the battery driver to gather enough information to more accurately report the charge level. Tap the **Advanced** tab and choose the settings for automatically turning off the unit when not in use.

Screen

Tap **System / Screen**. The orientation can be changed to landscape for some programs that are not screen aware. To change the size of the text on the screen, tap **Text Size** to see more content or increase the readability in many programs.

System Information

Tap System / System Information. Unit information can be found here including firmware version, serial number, processor speed, RAM and Flash size, plus wireless and battery information.

Caring for Your Unit

Mechanical shock

The unit is designed to resist damage for drops up to 4 ft (1.22 meters). However, you should protect the display from impact, pressure, or abrasive substances that can scratch it or crack it. The unit should not be dropped unnecessarily.

Cleaning the unit

Clean the unit with a soft cloth dampened with either water or a diluted mild detergent. **If a mild detergent is used, rinse with water to ensure all residue is removed. Do not use any chemical cleaners and do not put the unit in the dishwasher.**

Care of the touchscreen

Use only the included stylus or other devices specifically designed for use with touchscreens. The use of ballpoint pens, nails or other sharp objects to operate the touchscreen will scratch and/or damage the unit. Keep the touchscreen clean by gently wiping the display, using a soft cloth dampened either with clean water or glass cleaner. **Do not use abrasive cleaners or apply any cleaner directly to the display. Doing so may void your warranty.**

Use the screen protectors included with the unit to keep the touchscreen clean and protected. To apply a screen protector, first clean the display thoroughly. Peel the backing from the screen protector. Align the edge, and then drop the remainder onto the display. Use a credit card, if necessary, to squeeze the air from underneath the screen protector.

Case Vent Hole

A GoreTex membrane is used at the vent hole to equalize the atmospheric pressure within the unit and to prevent dust, water, etc. from entering. This vent **must** remain clear of any obstruction. Damage to the touchscreen will occur if the vent is covered. Covering the vent with stickers and labels may void the warranty.

Environmental Considerations

The unit's rugged design allows you to run your applications in harsh outdoor environments. Here are some considerations that will help you get the most out of your unit when working in very wet, hot or cold conditions.

Water

This unit is designed to withstand accidental immersion. To maintain the unit's water resistant seal, it is important to ensure that the screws on the CF-Cap are tightened but not over-tightened. Removal of the back case torx screws, or failure to reattach the CF-Cap screws could cause leakage and may void your warranty.

Because the PowerBoot is designed to easily disconnect from the unit, water can occasionally find its way onto the metal contacts between the battery and the unit. After working in very wet conditions remove the battery and check the contacts to see if they are wet. If so, dry the contacts on both the unit and the battery with a paper towel or clean cloth before storing for overnight or longer.

Temperature Range

The operational temperature range is from -22 °F to +140 °F (-30 °C to +60 °C). Although the unit is designed to be rugged, do not leave it in direct sunlight or in a parked vehicle in the sunlight for extended periods.

Batteries perform best at room temperature. The battery also has a very stable capacity as temperature rises above the human comfort level. However, cold temperatures cause battery life to drop and the colder the temperature the greater the reduction in available battery life. Under very cold conditions (-22°F / -30C and below), you can expect your battery life to be shortened considerably. When working in very cold conditions, consider carrying a fully charged, spare battery in a warm place. The battery performance will improve by keeping the unit and the spare battery warm (for instance, keeping them inside your coat).

Hardware Specifications

OS	Windows Mobile 6.0
CPU	200 MHz or 400 MHz Intel PXA255 XScale® processor
RAM (VOLATILE)	64 MB SDRAM
FLASH STORAGE MEMORY (NONVOLATILE)	128 or 256 MB of nonvolatile Flash storage
DISPLAY	240 x 320 pixel (¼ VGA) color TFT with LED front light
BATTERY LIFE	15 hours continuous room temperature operation with default settings and no embedded radios
BATTERY CHARGING	~12 hours to full charge (w/WLAN turned off)
BATTERY CAPACITY	3800 mAh NiMH rechargeable
I/O PORTS	Power, RS-232 serial (9-pin) and USB client
SOUND	Integrated sealed speaker and microphone
EXPANSION PORTS	Optional 2 CF slots - Type I and Type II
ENVIRONMENTAL	Submersible, drop-resistant, dust-proof (see Environmental section)
INTEGRATED WIRELESS CONNECTIVITY	Optional Integrated Bluetooth and WLAN capability

Environmental Specifications

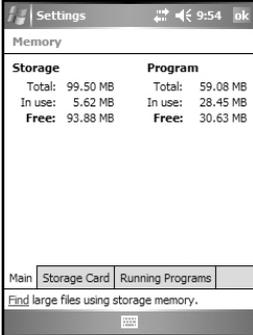| TEMPERATURE	Operation: -22 °F to +140 °F (-30 °C to +60 °C) Storage: -40 °F to +158 °F (-40 °C to +70 °C)
WATER	IP67, sealed against accidental immersion (submersible to 1 meter for 30 minutes) MIL-STD 810F, Method 512.4, Procedure 1
DROP	MIL-STD-810F, Method 516.5, Procedure IV 26 drops @4 ft. (1.22 m) onto plywood over concrete; 6 drops @-22 °F (-30 °C), 6 drops @+140 °F (+60 °C)
SAND AND DUST	IP67, sealed against dust, MIL-STD 810F, Method 510.4, Procedures I and II
VIBRATION	MIL-STD 810F Method 514.5, Procedure I & II
ALTITUDE	MIL-STD 810F, to 15,000 ft (4572 m) at a nominal temp. of +73 °F (+23 °C), Method 500.4, Procedures I, II, & III
EMI	Meets FCC class B requirements
RoHS COMPLIANT	This product complies with international RoHS regulations

Troubleshooting

How do I delete files?

Open File Explorer and browse to the file to be deleted. Touch and hold on the file and tap **Delete** from the menu that appears. **Unlike PCs, Windows Mobile does not support a Recycle Bin. Once you delete a file, it cannot be recovered.**

How can I tell how much memory is available?

Tap **Start / Settings / System / Memory** to view available free storage and program memory. The screen shot shows 94 MB of storage memory is available for files and 31 MB of program memory is available for applications. If a CF card is installed, tap **Storage Card** to view available memory.

How can I make the display more viewable?

Tap **Start / Settings / System / Backlight / Brightness**, and adjust the slider to increase display brightness; however, doing this will reduce battery life. You can also change the background theme found under **Start / Settings / Personal / Today.** Confirm that you have only one screen protector in place.

I am having intermittent problems with serial or USB communication.

Dirt, debris or oxidation on the contacts can interfere with the connection between the PowerBoot and the unit, resulting in intermittent serial or USB communication problems as well as battery power problems. Use rubbing alcohol and a Q-tip or similar tool to clean the contacts on both the battery and the unit, taking care not to leave fibers behind. Be sure to dry the contacts thoroughly before re-attaching the PowerBoot to the unit.

It is critically important that my battery doesn't fail during a job. Do you have any suggestions?

Consider carrying a fully charged spare battery in the field. The unit is designed so that battery replacement can be easily done.

I connected my unit to external power and nothing happened. Is something wrong with my battery?

Turn the unit off while charging. If a battery is really low, it can take a while for the unit to respond when external power is applied. Allow up to an hour after AC power is first applied to see whether the unit will turn on. Continue to charge for the full 12-hour period.

Can I work with Microsoft Office files in Word Mobile and Excel Mobile?

Office Mobile applications are trimmed down versions of the PC Microsoft Office applications. You can view simple documents and make simple changes on your unit. However, Mobile versions do not support all of the formatting and other features that are supported by the PC applications.

I see a low battery warning after using the unit for a few hours.

Confirm that the battery was charged for at least 12 hours while the unit was turned off. Be aware that certain usage conditions will have a significant impact on battery life: heavy use of WLAN, the backlight, high power consumption CF cards and cold temperatures.

I charged the unit overnight. Per the recommendations in this manual, the unit was turned off while on charge. When I turned it on this morning, the power gauge only reported 85 percent charge. Is something wrong with my battery?

Your battery is probably fine. While the unit is off, the battery driver is not able to gather information about the battery charge level. After turning the unit on, it will take a while -- perhaps a half hour or so -- for the power gauge to more accurately reflect the battery charge state.

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When I insert or remove the external AC adapter, the remaining power level jumps. What's going on?

The battery driver constantly gathers information about the battery voltage and history, and uses this information to report the charge level. Inserting or removing the external AC adapter changes the battery state, and resets the battery history information. It can take up to a half hour after changing the battery state before the battery driver has enough information to more accurately report the battery charge level.

I am trying to connect my unit to the Internet using a Web-enabled cell phone, but it refuses to connect.

Confirm the phone, cable, and login work by connecting to a PC.

If your cellular provider is also providing you with Internet access, contact your provider for information about how to connect a Windows Mobile device. Typically, the provider may require certain modem initialization strings or APN (Access Point Name) strings. If you try to establish the same connection from a PC, typically you install software from the cellular provider, which handles this configuration automatically.

If your ISP is separate from your cellular phone provider, then simply dialing the ISP from your phone should be sufficient. Enter the username and password needed with this ISP. Reduce your connection baud rate to 9600, or contact your cellular provider for specifics.

How can I see file extensions or file attributes?

The File Explorer included in Windows Mobile does not have any support for viewing file extensions like the Windows Explorer program on a PC.

There are two ways to get around this limitation. You can connect the unit to your PC and browse from the PC to view file extensions and attributes. (Refer to the **Connecting to a PC** on page 11 for details.) Alternatively, third-party file management programs are available for Windows Mobile devices that may support a Recycle bin, viewing file extensions, and more.

Regulatory Information

U.S.A.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

Korea

For users in Korea the power supply must have the "ek" mark (a Korean safety requirement) and can be purchased separately.

The ratings are: 5 Volts, 4 Amps.
Connector - Center positive standard 2.5 mm DC power connector.

Declaration of Conformity

Europe

According to ISO / IEC Guide 22 and EN 450 14

> **Manufacturer's Name:** Tripod Data Systems, Inc.
> **Manufacturer's Address:** 345 SW Avery Ave.
> Corvallis, OR 97333 USA
>
> Declares, under our sole responsibility, that the product:
> **Product Name:** Handheld Data Collector
> **Model Number:** Recon
> **Product Options:** ALL

conforms to the following Product Specifications:

Safety: EN60950-1:2001

EMC: EN 55022: 1994 +A1, A2: 1997 EN 55022: 1998 +A1:2000
EN 61000-3-2, 1995+A1+A2: 1998
EN 61000-3-2:2000   EN 61000-3-3:1995
EN 61000-3-3:1995+A1:2001 CFR 47, Part 15, Subpart B
EN 55024:1998*   EN 55024:1998+A1:2001*

R&TTE Directive 1999/5/EC:
EN 300 328 V1.6.1
EN 301 489-1 V1.4.1
EN 301 489-17 V1.2.1

Environmental: EU Directive 2002/95/EC
China RoHS

Supplementary Information:
In addition to meeting the above EMC requirements during system test, the AC
adapter provided with this product has been certified to IEC 60950 +A1, A2,
A3, A4, A11.
   * Product is battery powered.

Corvallis, OR USA

CAUTION:
Only approved accessories may be used with this equipment. In general, all
cables must be high quality, shielded, correctly terminated and normally
restricted to two meters in length. AC adapters approved for this product
employ special provisions to avoid radio interference and should not be altered
or substituted.

Unapproved modifications or operations beyond or in conflict with these
instructions for use may void authorization by the authorities to operate the
equipment.

Environmental Hazards

The product complies with international RoHS regulations.

有毒有害物质和元素
Toxic and Hazardous Substances and Elements

部件名称 Part Name	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr6+)	聚溴联苯 Poly-brominated biphenyls (PBB)	聚溴二苯醚 Poly-brominated diphenyl ethers (PBDE)	
印制电路组件 Printed Circuit Assemblies	X	O	O	O	O	O	(20)
显示 Display	X	O	O	O	O	O	(20)
键盘 Keypad	X	O	O	O	O	O	(20)
住房 Housing	O	O	O	O	O	O	
硬件 Hardware	O	O	O	O	O	O	

Product Period does not include these items

电池 Battery	X	O	O	O	O	O	(8)
交流适配器 AC adapter	X	O	O	O	O	O	(10)
电缆 cable	O	O	O	O	O	O	
开始指南 Getting Started Guide	O	O	O	O	O	O	
手带 Hand strap	O	O	O	O	O	O	
触控笔包 Stylus pkg.	O	O	O	O	O	O	
随带光盘 Companion CD	O	O	O	O	O	O	

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Spectra Precision
10355 Westmoor Drive
Suite #100
Westminster, CO 80021
USA

+1-720-587-4700 Phone
888-477-7516 (Toll Free in USA)
www.spectraprecision.com