

TDS NOMAD

GETTING STARTED GUIDE



Limited Warranty & Liability Limitations

This product is limited warranted against defects in materials and workmanship for twelve (12) months from the original date of purchase. Nomad accessories and peripherals are limited warranted against defects in materials and workmanship for ninety (90) days from the original date of purchase. If notice is received of such defects during the limited warranty period, the proven defective product(s) will either be repaired or replaced, at the manufacturer's option. Replacement products may be either new or like new.

The manufacturer does not warrant that the operation of the products will be uninterrupted or error free. If the product is not, within a reasonable time, repaired or replaced to a condition as limited warranted, the customer will be entitled to a refund of the purchase price upon prompt return of the product.

Limited warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts, or supplies not supplied by manufacturer, (c) unauthorized modification, or misuse, (d) operation outside of the published environmental specifications for the product, or (e) physical damage due to external causes, including accident, abuse, misuse or problems with electrical power. Water damage caused by improper installation of the Expansion Caps or I/O Boots is not covered by warranty. Removal of the back case voids the limited warranty. There are important seals that will break and the Nomad will no longer be waterproof.

To the extent allowed by local law, the above limited warranties are exclusive and no other warranty or condition, whether written or oral, is expressed or implied, specifically disclaiming any implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

To the extent allowed by local law, the remedies in this limited warranty statement are the customer's sole and exclusive remedies. Except as indicated above, in no event will the manufacturer or its suppliers be liable for loss of data or for direct, special, incidental, consequential (including lost profit or data), or other damage, whether based in contract, tort, or otherwise.

Reference Materials

Nomad support (TDS):

E-mail: support@tdsway.com

Web site: www.tdsway.com. Click on Support/Downloads and select Nomad.

Windows Mobile:

www.microsoft.com/windowsmobile/default.mspx

Accessories:

You can expand the Nomad handheld computer's capabilities by purchasing accessories.

Go to www.tdsway.com/products.

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Welcome

Congratulations on your purchase of the most powerful and advanced handheld computer 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 unit.

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
PDA Keypad
Expansion Cap**

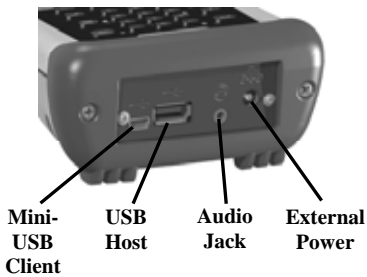


**Front View
Numeric Data Keypad
Expansion Cap**

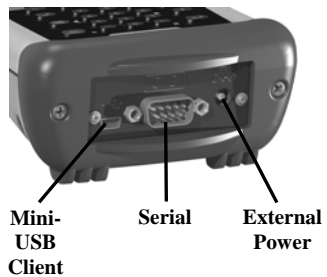


*See settings for assignable application buttons (keys)

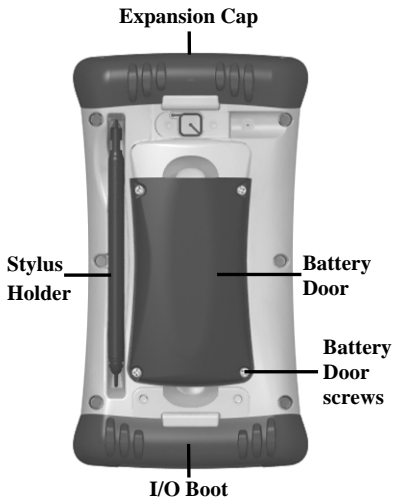
USB I/O Boot



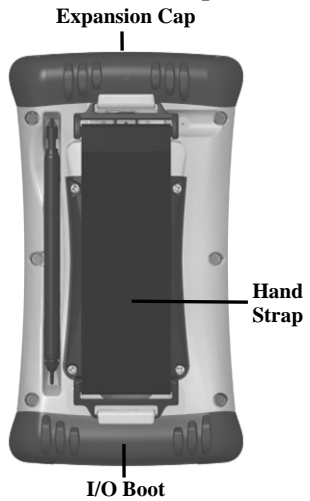
Serial I/O Boot



Back View



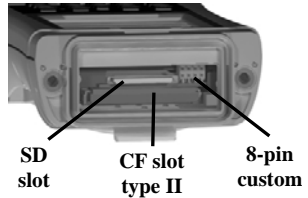
Back View with hand strap



Standard Expansion Cap



Standard without Cap



An Extended Cap, sold as an accessory, can be used for oversized CompactFlash (CF) and Secure Digital (SD) cards.

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

Unit Setup

1. Install the battery

The Lithium-Ion (Li-Ion) battery and battery cover are shipped detached from the unit. Insert the battery into the compartment so the connectors on the battery mate with the pins in the battery compartment. Press firmly. Place the battery door over the battery, with the flat side of the battery door at the top.

Remove the cap from the end of the stylus to expose a Philips screwdriver, or use a small #1 Philips head screwdriver to finger-tighten the four screws in the battery door.

NOTE: DO NOT use the screwdriver part of the stylus on the touchscreen or it will scratch your screen. Only use the spring-tip end of the stylus.



IMPORTANT: Fully charge the battery once it's installed in the unit. The battery gauge may not be accurate until it has been fully charged at least one time, which should take approximately 4 ½ hours. The battery LED (right side of unit) will turn green once it's fully charged.

2. Charge the battery

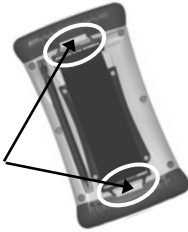
The AC adapter that ships with your unit has multi-national plugs that fit almost every electrical outlet in the world. Connect the appropriate AC plug to the AC adapter for your country. Plug into an electrical outlet and plug the barrel end of the AC adapter into the unit.

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

3. Install the screen protector

To keep the touchscreen clean and protected, install the screen protector following the instructions provided in the screen protector package. 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 is not covered under warranty.



4. Attach the hand strap

Attach the hand strap to the back case, as shown.

5. Turning your unit on and off

The unit should boot up when the battery is installed. If not, press and release the green **Power** key on the keypad. To turn your unit off, press and release the **Power** key again.

One of the most convenient features of your 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 use the **Power** key 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 12 on how to perform a Clean Boot.

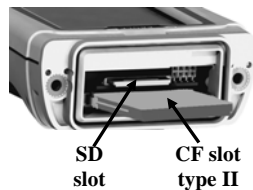
9. Using the expansion ports

To access the expansion ports, use the Philips screwdriver end of the stylus or a small #1 Philips head screwdriver to rotate the two quarter-turn fasteners counter-clockwise and remove the Expansion Cap.



Under the Expansion Cap is a Secure Digital (SD) expansion slot. (SD cards greater than 2GB are not currently supported). There is also a CompactFlash (CF) type II slot and an 8-pin proprietary connector (for third-party developer use).

Gently insert cards with the front of the card facing toward the display side of the unit. Insert the card into the slot and release; the card should catch in the slot. Always push the card in straight, never at an angle or forced.

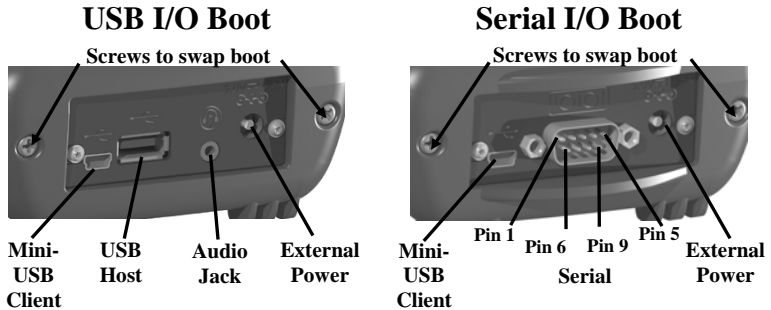


To eject an SD card, gently press the top of the card to release it. To eject a CF card, press the eject button located next to the CF card.

NOTE: DO NOT use the unit without reattaching the cap and the boot. The unit is **NOT** sealed when the cap or boot is off and water damage can occur, voiding the warranty.

10. I/O Boots

There are two types of boots available. The boots can be swapped by loosening the screws pointed out in the picture below.



Both boots have a mini-USB client that uses a USB 2.0 A male to mini-USB B 5-pin cable (included with the unit). The Mini-USB can be used to connect to a personal computer (PC).

USB I/O Boot: This boot has a mini-USB client, a USB host port (to connect to USB client devices) and an audio jack that is wired for a headset with a mono speaker(s) and microphone combination. (It is not for stereo headsets.)

NOTE: Many USB host peripheral devices supported on personal computers are **not** supported by this unit. There are two classes of USB devices that have native support in the OS:

- 1.) USB Human Interface Devices (HID). Examples include keyboards and some barcode scanners.
- 2.) USB Mass-Storage devices. Examples include memory keys, hard disks, some digital cameras and memory card readers.

Before purchasing a USB peripheral, check with the manufacturer to ensure that it will operate with one of these natively supported USB classes. Some devices have no applicability in Windows Mobile. For example, mice do not make sense to use with your unit because it is designed to be touchscreen operated.

Serial I/O Boot: This boot has a mini-USB client, and is for use with serial devices. NOTE: COM1 is always reserved in software for the 9-pin port, even if you don't have a unit with a serial boot.

Working with the Unit and the Battery

Battery life: The Lithium-Ion (Li-Ion) battery life is dependent upon the application and operating environment. Repeated usage of the keypad and display backlight, heavy usage of the 802.11 (Wireless LAN or WLAN), cold temperatures, GPS, and high power consumption CF and SD devices can all reduce the battery life. Other factors that may have some impact on battery life include heavy usage of the Bluetooth radio and heavy processing by the CPU, but these factors are typically less significant.

Tips for extending the battery life:

- **Keypad backlight:** The default is off. Using this backlight could reduce your battery life by up to 25%. For information on changing the backlight settings, see page 17.
- **Display backlight:** The default is on, at 65% of full brightness. Minimize the amount of time the backlight stays on when idle. Dim the backlight to only as bright as required to view the display.
- **802.11:** If your unit comes with 802.11 (WLAN) installed, use ONLY when necessary. Turn off when not needed.
- **Cold temperatures:** Keep the unit as warm as possible. If feasible, keep it inside your coat or a vehicle when not in use.
- **GPS:** Ensure that the GPS-aware applications that communicate with the GPS are closed when not in use. The Today screen indicates if the GPS is running.
- **Expansion ports:** Select low-power consumption CF and SD cards and use them only when necessary.
- **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 battery: The battery can be charged in the unit or separate from the unit with an external battery charger (sold separately, as an accessory). 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 unit. The unit will be fully charged in about 4.5 hours. A full charge is indicated by the battery LED (right side of the unit) turning green. The manufacturer

recommended temperature range for charging the battery is between +32°F and +113°F (0 C and +45 C). If the battery temperature is outside of this range, the battery will not charge.

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

Battery Status (right LED)

Color	Function
Off	On battery power
Solid yellow	Charging on AC adapter
Solid green	Fully charged on AC adapter
Blinking yellow	Battery problem during charging (temperature out of range, defective or missing battery)

Changing the battery: The battery is designed to be quickly changed. The unit saves enough power that if you swap the battery within approximately one minute, it will not trigger a reset. If the saved power runs out before the new battery is installed, 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 battery, perform the following steps:

1. Close open applications and save data in case the battery exchange takes too long.
2. Remove the hand strap from the unit.
3. Enter the **Replace Battery** mode (ensures that alarms will not wake up the unit while changing the battery). Press and hold the **Power** key and tap **Replace Battery**. See page 12.
4. Use the supplied stylus or a small #1 Philips head screwdriver to loosen the four screws in the battery door.
5. Remove the battery from the unit.
6. Quickly insert the replacement battery onto the unit.
7. Place the battery door over the battery, with the flat side of the battery door at the top of the unit. Use the stylus or screwdriver to finger-tighten the four screws.
8. Replace the hand strap.
9. Turn the unit ON to resume operation.

Calibrating the battery: The battery has an internal gauge that provides an estimate of the amount of energy in the battery as it charges and discharges. If your battery is showing inaccuracy in the power gauge or large jumps in capacity, (i.e. the power is reading 50% and goes dead shortly thereafter) it may need calibration.

Tap **Start / Settings / System / Power / Calibration** to see if the message reads *Calibration recommended* or *Calibration not necessary*.

If calibration is recommended or the battery is reporting inaccurately, perform the following:

1. Plug in the AC adapter. The unit **MUST** stay charging while doing the calibration or you may need to restart the process.
2. Ensure the temperature is between +32°F and +113°F (0 C and +45 C) while charging.
3. Tap **Start Calibration**.
4. During the calibration process, the **Power** key is disabled temporarily and the backlight is turned up to 100%.

It takes up to 25 hours to complete the calibration. A notification will state *Calibration is complete*. It is recommended to **not use your unit during the calibration process**, so calibrate when the use of the unit is not required. If you wish to stop the calibration process, tap **Start / Settings / System / Power / Calibration / Stop Calibration**.

Possible error messages that can occur during calibration:

Error Message	Solution
Battery is not charging, aborting	Battery temperature may be out of range. Wait until battery temperature settles and try again.
Discharge became invalid, restarting	Calibration will restart itself.
AC power is in an unknown or uncontrolled state; aborting	Plug in unit and restart calibration. Try a different AC adapter and restart calibration. If it continues to fail, have the unit serviced.

Speaker and microphone

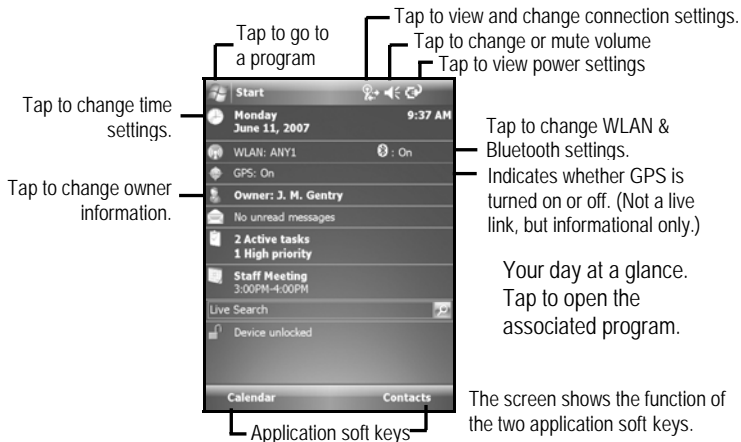
Your unit comes with an integrated speaker and a microphone. It also has an audio jack that is wired for a headset with a mono speaker(s) and mic combination. It is not for stereo headsets.

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 change the volume or mute all sounds, tap the speaker icon in the status bar of the Today screen.

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**.

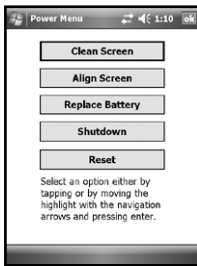


Power key features

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 Screen: Disables the touchscreen for cleaning. Press the enter key to re-enable the touchscreen.

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

Replace Battery: Ensures that alarms will not wake up the unit while changing the battery.

Shutdown: Intended for long term storage to put the unit in its lowest power mode. Running application state, unsaved data, and real-time clock settings will be lost. Internal GPS


parameters will be reset to their default settings. To take the unit out of the shutdown mode, press the power key and the unit will boot up. NOTE: While in shutdown mode, the battery LED does not work, but if the AC adapter is plugged in, it will still charge.

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, GPS settings and databases are preserved.

Perform a Clean Boot

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



Hold down the **Power** key and press the right soft key  to display a countdown. Continue to hold down **both** keys until it counts down to zero, followed by a brief appearance of the boot screen. Continue to hold both keys down until a screen appears warning that if you continue, this operation will clear the persistent

store. Follow the instructions on the screen **ONLY** if you want to completely clear your unit.

NOTE: GPS applications installed will need to be reinstalled, but certain configuration parameters of the internal GPS receiver (baud, parity, etc.) will remain unchanged.

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.

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 does not support a Recycle Bin. Once a file is deleted, it cannot be recovered.

Notification LEDs

At the top of the unit are two LEDs that provide status information. The LED states are shown in the following table.

LED	Color	Function
Battery Status (right LED)	Off	On battery power
	Solid yellow	Charging on AC adapter
	Solid green	Fully charged on AC adapter
	Blinking yellow	Battery problem during charging (temperature out of range, defective or missing battery)
Notification (left LED)	Off	No notifications
	Blinking yellow	Appointment/task due

GPS

Tap **Start / Settings / System / System Information / Wireless** to see if your unit has built-in GPS. If you do, COM2 is the dedicated hardware port for the built-in GPS (COM1 is dedicated to the external 9-pin). The GPS is compatible with applications that accept the NMEA position information using a default setting of 9600 bps.

If you want to use GPS capabilities on your unit, you must install a GPS-aware application.

The GPS is turned on when a GPS-aware application accesses it, and it is turned off when all GPS-aware applications are closed. To see if the GPS is on or off, refer to the Today screen. You cannot modify its state from there. Running the GPS will impact the Nomad's battery performance, so the GPS should be turned off when not in use.

GPS settings: To allow your unit to use multiple GPS-aware applications to obtain GPS data simultaneously, your unit can manage access to your GPS. If you are using only one GPS-aware application, these settings do not need to be changed.

To use multiple GPS-aware applications, tap **Start / Settings / System / GPS** and select the following tabs:

Access: The GPS Intermediate Driver allows multiple applications to access the GPS receiver. This driver is disabled by default. To enable the GPS Intermediate Driver, select the **Manage GPS automatically** check box.

Hardware: COM2 is the hardware port dedicated for the built-in GPS. Verify that COM2 is selected. The internal GPS communicates at 9600 baud by default. If this baud setting has been modified by a third party program, you will need to adjust the baud rate to match the baud rate of the receiver.

Programs: Programs that use GPS need to know which port to use to access GPS data. Ensure that the COM port on the GPS-aware application is set to the same port as shown in the Programs tab of the GPS applet. The programs port must be a different port than the hardware port. NOTE: Some GPS-aware applications may not communicate over GPD ports.

If you are unable to connect to the GPS using the default GPS settings, you can restore it to factory default settings by performing a shutdown. See page 12.

Using the stylus

Ensure that you **DO NOT** use the metal screwdriver of the stylus on the touchscreen; it will scratch your screen. Only use the spring-tip end of 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.

Status indicators

Following are some of the status indicators seen on your unit.

Icon	Description	Icon	Description
	Battery power is low		Indicates that one or more networks are present. Tap to access an available network
	Battery power is very low		Wireless LAN connected
	Battery communication error		Active connection, but not currently synchronizing
	Battery charging		Inactive connection to computer or wireless network
	Battery level		Synchronizing
	Battery calibration in progress		Synchronizing error
	Instant messages received		E-mail has been received
	Speaker is on		Pending alarm
	Speaker is off (or in mute position)		

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.


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 12 about how to perform a Clean Boot.

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 hand side 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.

If your unit has the numeric data keypad, the yellow  function key (sticky FN) accesses the tasks in yellow, including the Navigation arrows. There are several settings that can be changed under **Keyboard Options**.

Auto release: Press and release the function key to access a yellow task for one use. It then goes back to the keytop tasks.

Manual release: This is the default. Press the function key to toggle it on and off. Yellow tasks remains active until the function key is pressed again to input the keytop tasks.

Disabled: The function key has to be held down while pressing any other key to access the yellow task.

Play Sticky Key Sounds: To turn the sound off for sticky key sounds, remove the check in the box.

Input

Tap **Personal / Input**. You can change settings related to input method, word completion, voice recording and other options.

Today

Tap **Personal / Today**. This screen allows you to customize the Today screen.

Backlight for display and keypad

Tap **System / Backlight**. Change the settings as follows:

Display backlight: The default is on. Tap **Battery Power**, **External Power** and **Brightness** tabs to change settings.

Keypad backlight: The default is off. Scroll by tapping the arrows over to **Keypad Battery**, **Keypad External** and **Keypad Brightness** tabs to change settings.

Encryption

Tap **System / Encryption**. To prevent sensitive data on a CF or SD storage 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.

Power

Tap **System / Power** to view the approximate battery power remaining. Tap the **Advanced** tab and choose the settings for automatically turning off the unit when not in use.

Tap **System / Power / Calibration** to see if the message reads *Calibration recommended* or *Calibration not necessary*. For more information on calibration, refer to page 10.

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**.

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, wireless configurations, plus battery and card port information.

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.

(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 will need to upgrade it to version 4.5 or greater 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 mini-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. As noted earlier, 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 that 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 try changing the check box **Enable advanced network functionality**.

Bluetooth

All units come with embedded Bluetooth capability—a short-range wireless communication technology. Devices with Bluetooth capabilities can exchange information (beam) over a distance of about 30 feet (10 meters), without requiring a physical connection.

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.

COM Ports: Available only for Bluetooth-connected devices that support serial (COM) connections.

Power: Maintain Bluetooth connections when device is turned off. When this check box is selected, Bluetooth connections on your unit are not terminated when your unit is turned off (suspended). When the unit is turned back on, the Bluetooth connections are intact, provided the other Bluetooth device is still connected. (The other device may not have this feature and may disconnect.) **NOTE:** Communication cannot occur with other Bluetooth devices while your unit is suspended.

Power: Allow Bluetooth activity to turn the device on. When this check box is selected, another Bluetooth device can send data and your unit will turn on and reply if necessary. **NOTE:** It is strongly recommended that your unit be configured to automatically turn off when not in use. (See the power section on page 17.) Otherwise, another Bluetooth device could turn on your unit, transfer data and if your unit does not turn off again, it will drain your battery.

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, see below.)

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. The details of 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.
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. You can change the name of the other device, if desired 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 the PC on page 19.
2. Set up a partnership between your unit and the PC. See above about creating a partnership. 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**.
4. Tap **Start / Programs / ActiveSync / Menu / Connect via Bluetooth**.

NOTE: Windows Mobile 6 does not support printing without additional third-party software.

Bluetooth-enabled headphone: You can use a Bluetooth stereo A2DP headphone only. Bluetooth handsfree audio devices that are typically used with cell phones are not supported.

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.

802.11 (WLAN)

If your unit comes with built-in 802.11 (also called Wireless LAN or WLAN) 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**.

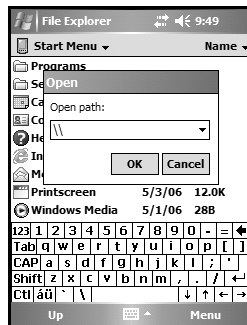
The WLAN is off by default; however the on/off state will persist after a reset. To turn the WLAN on or off, tap **WLAN** from the **Today** screen or tap **Start / Settings / Connections / Wireless Manager** and tap **Wireless LAN**. The unit will automatically detect wireless networks or hot spots. (There can 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: The **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.

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 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 name and 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.

Additional connectivity

Your unit supports several additional kinds of connections. If you do not have embedded WLAN or GPS, you can purchase CF or SDIO 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 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.

For more information on creating these connections, see the Web site listed under reference materials on the cover of this manual.

Installing additional software on your unit

The unit can run third-party software designed for Windows Mobile 6. 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.

Caring for your Unit

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. Ensure that you **DO NOT** use the metal screwdriver end of the stylus on the touchscreen or it will scratch your screen. Only use the spring-tip end of the stylus.

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 will void your warranty.**

Use the screen protectors included with the unit to keep the touchscreen clean and protected, following the instructions provided on the screen protector package.

Case vent hole

A Gore-Tex membrane is used at the vent hole to equalize the atmospheric pressure within the unit and to prevent dust, water, etc. from entering. The 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.



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.

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 quarter turn fasteners on the cap are clamped. Keep the bottom boot and its connectors as dry as possible. If the boot does get wet, dry off the contacts as much as possible.

Removal of the back case torx screws or failure to reattach the cap or boot could cause leakage and will void your warranty.

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 temperatures rise 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 (-4°F / -20 C and below), you can expect your battery life to be shortened. When working in very cold conditions, consider carrying a fully charged, spare battery in a warm place. The unit is designed so that battery replacement can be easily done. The battery performance will improve by keeping the unit and the spare battery warm (for instance, keeping them inside your coat).

Safe Use of your Unit

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.

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.

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 158 °F (70 C). Do not short external contacts. Do not disassemble or mistreat the battery. Failure to follow those instructions may present risk of explosion, fire or high temperatures. There are no user-serviceable parts in the battery pack.
- Handle a damaged 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.
- Lithium-Ion batteries are classified by the U. S. Federal Government as non-hazardous waste and are safe for disposal in the normal municipal waste stream. These batteries, however, do contain recyclable materials and are accepted for recycling.

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 the input voltage on the adapter matches the voltage in your location. Make certain the 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.

Environmental Specifications

TEMPERATURE	Operation: -22 to +140 °F (-30 to +60 C) Storage: -40 to +158 °F (-40 to +70 C) Shock: MIL-STD-810F, Method 503.4
HUMIDITY	MIL-STD-810F, Method 507.4
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 510.3, Procedure I & 2
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

Hardware Specifications

OS	Windows Mobile 6
CPU	Marvel PXA320 XScale 806 MHz
RAM (VOLATILE)	128 MB DDR SDRAM
FLASH STORAGE MEMORY	512 to 1G MB of nonvolatile Nand Flash storage
DISPLAY	480 x 640 pixel (VGA) color TFT with LED backlight
KEYPAD	PDA or Data Numeric
BATTERY LIFE	15 hours continuous room temperature operation with default settings and no use of embedded radios
BATTERY CHARGING	4 to 4.5 hours to full charge
BATTERY CAPACITY	5200 mAh Li-Ion rechargeable
I/O BOOTS	USB Boot: Mini-USB client, USB host, Audio Jack, Power Serial Boot: Mini-USB client, RS-232 serial (9-pin), Power
SOUND	Integrated sealed speaker and microphone. Audio jack is for a headset with mono speaker(s) and mic.
EXPANSION PORTS	Standard: SD slot, CF Type II, 8-pin custom connector
INTEGRATED WIRELESS CONNECTIVITY	All units have Integrated Bluetooth Optional Wireless LAN and GPS

Troubleshooting

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

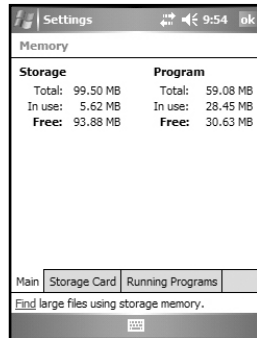
Consider carrying a fully charged spare battery in the field. The unit is designed so that battery replacement can be easily done.

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 running applications. Tap **Storage Card** to view available memory on memory cards that may be installed. If there is more than one card installed, tap on the dropdown arrow to select the different cards.



Memory	
Storage	Program
Total: 99.50 MB	Total: 59.08 MB
In use: 5.62 MB	In use: 28.45 MB
Free: 93.88 MB	Free: 30.63 MB

Main Storage Card Running Programs

Find large files using storage memory.

How can I make the display more viewable?

The default backlight brightness is set to about 65 percent of the maximum brightness. 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 background theme found under **Start / Settings / Personal / Today**. Confirm that you have only one screen protector in place.

Can I use my SDIO device with my unit?

SDIO devices work as long as they are supported with Windows 6 drivers. An Extended Cap, sold as an accessory, can be used for oversized SD cards.

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. (Refer to **Connecting to a PC** on page 19 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.

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.

Can I use my USB memory stick (or mouse, keyboard, cell phone or other USB device) with my unit?

Memory sticks and many other USB devices will work. Other USB devices may require special drivers that must come from the device manufacturer. Check with the device manufacturer to see if the device is supported under Windows Mobile.

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.

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: Nomad
Product Options: ALL

conforms to the following Product Specifications:

R&TTE Directive 1999/5/EC	EN 61000-3-2 (2000)
ETSI EN 300 328 V1.6.1 (2004)	EN 61000-3-3 (2001)
ETSI EN 301 489-1 V1.5.1 (2004)	EN 61000-4-3 (2002)
ETSI EN 301 489-17 V1.2.1 (2002)	EN 61000-4-2 (2001)
EN 55022 (1998)	EN 61000-4-4 (2004)
CISPR 22 (2005)	EN 61000-4-5 (2001)
EN 55024 (1998), Amendments A1:2001, A2:2003	EN 61000-4-6 (2004)
EN 60950-1 (2001)	EN 61000-4-11 (2004)
CFR 47, Part 15, Subpart B	

Supplementary Information:

In addition, the product is battery powered and the AC adapter provided with this product has been certified to IEC 60950 +A1, A2, A3, A4, A11.

As manufacturer, we declare under our sole responsibility that the equipment follows the provisions of the Standards stated above.

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.

NOTICE for TDS European Union Customers

For product recycling instructions and information, please go to: http://www.tdsway.com/support/product_recycling.

Recycling in Europe:

To recycle TDS or Trimble 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:

Trimble Europe BV
c/o Menlo Worldwide Logistics
Meerheide 45
5521 DZ Eersel, NL



This product complies with international regulations for Restriction on Hazardous Substances Directive (RoHS)



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All other brand names and trademarks are property of their respective owners.

Display images shown may vary slightly from actual display. Specifications and data subject to change.



TRIPOD DATA SYSTEMS

A TRIMBLE COMPANY

P.O. Box 947

Corvallis OR 97339

FOR MORE INFORMATION, VISIT:

TDSWAY.COM

OR CALL 541-753-9322



900-0051-XXQ