Juno T41/5

User Manual

Welcome

Thank you for purchasing a Juno T41/5 Rugged Handheld Computer (Terminal)!   This user manual will help you configure and use your device.

Important information for using the user manual

This user manual has been prepared to guide you through the configuration and operation of your device, which includes:

1. Initial configuration of the device

2. Operating basics

3. Navigating the operating system and software

4. Securing your device

Please read this user manual carefully before using your device for the first time. In particular, read the Important Safety Information and all of Chapter 1 before using your device.

This user manual describes features and functionality that may not be present on your particular device, as features vary by model.

Document conventions

It is important to understand the typographical conventions used in this user manual. The formatting of the text identifies special information:

1. CAPITAL — indicates the hardware items on the device.
   Example: press the POWER button.
2. **Bold** — indicates the items displayed on the screen, including icons, tiles, buttons, headings, field names and options.
   Example: tap the **E-mail** icon.
3. *Italic* — indicates the name of a screen/window as shown in the upper left corner of the display.
   Example: the *Settings* screen.

4. > — describes a procedure or a navigation path.
5. Example: Tap > **Settings** > **System** > **System Information** > **Wireless** is equivalent to:
   1. Tap the (Start) icon or press the (Start) button
   2. Tap the **Settings** icon
   3. Tap the **System** icon
   4. Tap the **System Information** icon
   5. On the *System Information* screen, slide left or right until the **Wireless** tab is displayed. You can also tap the < or > in the horizontal scroll bar to activate different tabs in the *System Information* screen.

Terms

The following terms are used throughout this user manual to describe user actions.
1. Press — press and quickly release a hardware button.
2. Tap — touch and quickly release an item displayed on the screen.
3. Select — tap an item in a list or tap a command from a menu.
4. Drag — tap and hold on the item and then move it to the target position without releasing your fingertip.
5. Slide — touch and drag to the left/right/up/down to move to the next item on the list.

Important safety information

- **THE DEVICE BATTERY IS PARTIALLY CHARGED WHEN SHIPPED NEW FROM THE FACTORY.**

- **DO NOT OPERATE THE DEVICE WITHOUT THE CARD SLOT COVER PROPERLY INSTALLED.**

- **YOUR WARRANTY IS INVALIDATED IF YOU OPEN OR TAMPER WITH THE OUTER CASING OF THE DEVICE. Unapproved modifications or operations beyond or in**

conflict with these instructions for use may void authorization by the authorities to operate the equipment.

- 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. THE POWER SUPPLY APPROVED FOR THIS PRODUCT EMPLOYS SPECIAL PROVISIONS TO AVOID RADIO INTERFERENCE AND SHOULD NOT BE ALTERED OR SUBSTITUTED.

Disclaimers

The manufacturer operates a policy of ongoing product development. The manufacturer reserves the right to make changes and improvements to any of the hardware and software products described in this document without prior notice.

The screenshots and other presentations shown in this user manual may differ from the actual screens and presentations generated by the actual product. The manufacturer does not warrant that this document is error-free.

Not all models are available in all regions of the world. Depending on the specific model purchased, the color and look of your device and accessories may not exactly match the graphics shown in this document. Not all models contain all of the hardware features and software applications described in this user manual.

All such differences are minor and the actual product will deliver the described functionality as presented in this User Manual in all material respects, subject to limitations of the particular model operated by the user.

Limited Warranty & Liability Limitations

This unit and battery are limited warranted against defects in materials and workmanship for twelve (12) months from the original date of purchase. All accessories and peripherals are limited warranted against defects in materials and workmanship for twelve (12) months 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 in conditions 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 accessories and service parts is not covered by warranty. Removal of or tampering with the back case voids the limited warranty. There are important seals that will be compromised and the device will no longer be water resistant (IP65) or waterproof (IP68).

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.

Standard Warranty Addendum

Trimble Navigation Limited
935 Stewart Drive
Sunnyvale, California 94085
United States of America

Notice to Australian Purchasers

The Australian Consumer Law
Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other

reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Trimble's warranty, as set out in the user manual accompanying this statement, or as described in the warranty card accompanying the Product you purchased, is in addition to any mandatory rights and remedies that you may have under the Australian Consumer Law.

Copyright

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Contents

Chapter 1 Getting Started

1.1 Device components

GPS Model

GPS + Barcodescanner Model

1. Color Band
The color band surrounding the screen is yellow or grey, and indicates IP65 or IP68, respectively.

2. Touchscreen
The capacitive touchscreen enables handwriting, drawing and making selections with your finger. An optional T41/5 Capacitive Stylus, sold separately, is available.

The touchscreen is on a rugged Gorilla® Glass panel, and to prevent cosmetic scratches, a screen protector is recommended. Follow the instruction below to apply the Screen Protector.

3. **Expanded feature location**
   Combo of Imager and/or enhanced GPS.

4. **Receiver (Ear)**
   When recording, you will receive your ears to hear recordings of other participants.

5. **Light Sensor**
   The Light Sensor detects ambient light in your environment. If the Backlight control is configured to use the Light Sensor, the screen brightness dims in a dark environment and brightens in a lighted environment.

6. **Notification LED**
   One tri-color LED (Red/Amber/Green) indicator is provided for user notifications. These include battery status and other operating system (OS) notifications. This indicator is capable of operating even when the device is in Shutdown mode.

   The LED status behavior is as follows:

Color	Pattern	Condition	Notes
Red	Solid	Low battery	Connect device to charger before pressing POWER.
Red	Blinking	Low battery and OS notification	
Amber	Solid	Charging	
Amber	Blinking	Charging and OS notification	
Amber	Blinking	OS notification, medium battery charge	

Color	Pattern	Condition	Notes
Green	Solid	Fully charged	
Green	Blinking	Fully charged and OS notification	
<Off>	n/a	Battery not low, no OS notification	

7. POWER button
- When the device is on, press and release to suspend or resume the device.
- Press and hold for 2 seconds to open the *Power Menu*.
- Press and hold for 6 to 8 seconds to force the device to Reset.

8. MCX port
The MCX port enables connecting an optional External GPS Antenna to provide improved GPS signal reception when operating the Juno T41/5 inside a vehicle or in other situations where the sky visibility is limited.

9. Accessory Latch
The accessory latch is designed to lock the connection of Extended Battery Pack.

10. Camera and Flash
- The camera takes pictures and records videos.
- The flash assists the camera in low-light conditions.

11. Speaker
Listen to audio media.

12. Wrist Strap tie point
Wrist strap tie points are provide on both sides of the device to accommodate left- and right-handed users.

13. OK button
Press to confirm your selection. Pressing this button is typically equivalent to tapping the **X** tile or **OK** tile on the Tile bar.

14. RIGHT button (⬜)

Press to activate the associated tile (if any) on the Tile bar.

15. Microphone

Recording

16. LEFT button (⬜)

Press to activate the associated tile (if any) on the Tile bar.

17. ⊞ button

Press to access the *Start* screen. Press again to access the Home screen.

18. T41/5 Custom Port

Connect the T41/5 Custom USB Client cable to this port to charge the device or connect to the device from a desktop or laptop computer.

Two optional accessories are available, the T41/5 USB Host Cable and the T41/5 9-Pin Serial Cable.

19. microSD storage card

Use the SD Card Access Tool to loosen the protective cover. A microSD storage card provides additional file storage.

20. VOLUME control and ACTION buttons

Press the + / - button to increase/decrease the volume for your device.

Press the ACTION button (between the + / - buttons) to select an option.

21. Headphone or Headset connector

Connect a 3.5 mm stereo headphone to listen to audio media or use the hands-free kit.

Connect a 3.5 mm stereo headset to listen to audio media.

1.2 Inserting a storage card and a SIM card

To install a microSD storage card and a SIM card in your device, you need to remove the cover on the left side using the SD/SIM Card Access Tool included with the device accessories.

NOTE: The device supports up to 32 GB SDHC microSD storage cards. SDXC cards are not supported.

1. Remove the cover on the left side of the device by unscrewing the screws.

2. Follow the illustration below to insert the storage card and the SIM card:
    - To insert the storage card: hold the card by the edges and gently insert it into the slot with the label facing the front of your device. Do not apply pressure to the center of the storage card while inserting the card.

SD Card
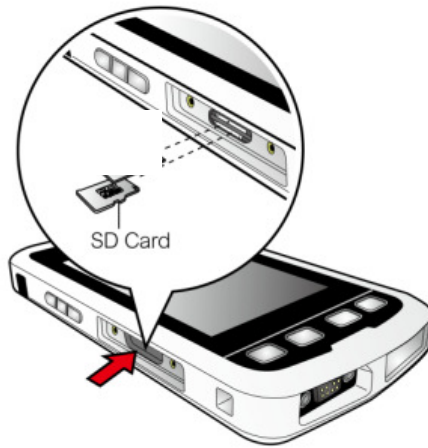
3. To remove a card, push the card to release from the slot.

NOTE: Make sure you have saved any data in open programs before removing the storage card.

4. Replace the cover and then secure it with the screws.

1.3 Charging the battery

IMPORTANT: Before using the Juno T41/5 for the first time, charge the device for at least 4 hours. The notification LED will turn green when fully charged.


CAUTION: Avoid Extreme Heat

- **The battery is designed to stop operating at or above 149 ℉ (65 ℃). If this status icon appears, the battery has overheated to 140 ℉ (60 ℃) or more.**

- **If the battery temperature exceeds 158 ℉ (70 ℃), the battery will be disabled and the device must be sent to an Authorized Service Provider to have the battery replaced.**

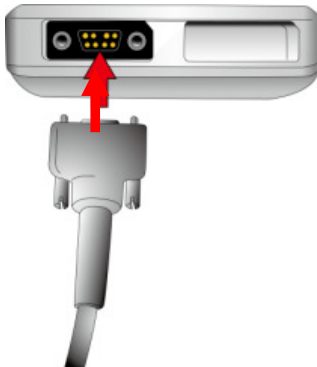**Operating Temperature Range: -22 °F to 140 °F (-30 °C to 60 °C)**
Storage Temperature Range: -40 °F to 158 °F (-40 °C to 70 °C)
Charging Temperature: 40 °C

CAUTION: Do not exceed specified storage temperature.

1. Connect the USB end of the T41/5 Custom USB Client cable to the AC charger.
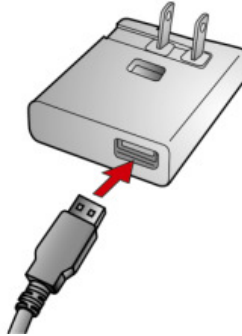
2. Connect the custom end of the T41/5 Custom USB Client cable to the connector on the bottom face of your device.

3. Plug the AC charger into a wall outlet. If needed, attach a plug converter onto the AC charger.
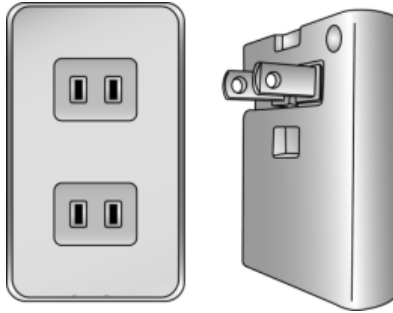
Tips for extending the battery life:
See Chapter 3.3 for tips on extending battery life.

1.4 Turning your device on and choosing your language

WARNING! BEFORE TURNING THE DEVICE ON, THE DEVICE MUST BE PLUGGED IN TO AN EXTERNAL POWER SOURCE. COMPLETE ALL STEPS IN *1.3 CHARGING THE BATTERY*.

1. Once you begin to charge your device, the device turns on automatically.

2. The *Welcome Wizard* will lead you through the setup process.

3. Select your preferred language by using the + or - (shown as UP or DOWN on the Wizard) buttons on the left side of the device, then press the ACTION (shown as ENTER on the Wizard) button to choose the language (the touchscreen is not enabled in the Wizard).

4. Use the + button to highlight the box next to **Yes, I want to use <language > as the language on the device**.

   a. Press the ACTION (ENTER) button to check the box.
   b. Press the - (DOWN) button 2 times to highlight the **Next >** box.
   c. Press the ACTION (ENTER) button to select **Next >**.

      Wait while your device is being configured for the language you selected.

   WARNING: The only way to change the language you have selected is to re-install the firmware using the Firmware update utility.

   NOTE: Only Microsoft applications and messages will be translated into languages other than English. All other error messages, notifications and other applications may appear in English.

5. Tap the screen to set up your device with a Security PIN (optional).

6. See Chapter 3 for instructions on setting the date and time on your device.

Chapter 2 Operating Basics

2.1 Home screen

The Home Screen is an easy way to launch common activities, such as checking text messages or checking e-mail. You can view high-level information at a glance, with notifications for Live services, e-mail, voicemail, SMS/MMS and more.

To navigate the Home screen, touch and slide your fingertip up or down on the screen; or drag the highlight bar to the desired item on the screen. The programs provided on the Home screen include:

• **pictures:** Select your photos from this menu.

• **music:** Select your music from this menu.

• **voicemail:** If your device has the wifi feature, select this item to access your voicemail.

• **time:** Select your time zone, set the time and date and set alarms.

• **text:** If your device has the wifi feature, select this item to compose and read text messages.

• **e-mail:** Select this item to read and compose e-mail.

• **calendar:** Select this item to manage appointments.

• **favorites:** Select this item to use *Internet Explorer Mobile.*

You can change to the classic Windows Mobile Today screen by tapping
🏁 > **Settings** > **Home**.

1. On the **Appearance** tab, change the theme to **Classic Blue**.
2. On the **Items** tab, uncheck **Windows Default** and select the items that you would like to appear on the Home screen.

2.2 Start screen

Press the ![button] button to access the *Start* screen where you can easily access the software installed on your device. Slide your fingertip up/down on the *Start* screen to browse more items and then access an item by tapping on the item.

2.3 Title bar

In Windows Embedded Handheld, the title bar is located at the top of the screen and it is touchable. Tap anywhere on the title bar to reveal a list of vertical icon slots, representing different categories of icons. Tap an icon to get additional notification or status information. The title bar also provides access to the Magnify tool, providing a closer look at the data on the screen. Simply tap the Magnify icon on the right end of the title bar to end magnify mode.

The Start, OK, and Close (X) icons have been moved from the Title bar to the Tile bar to improve consistency. Now, all navigation controls—Start, OK and Close—are in one place.

2.3.1 Title bar status indicators

The following table lists common status indicators seen in the Title bar.

Icon	Description	Icon	Description
	Battery power is low		Other networks are detected. Tap to access an available network
	Battery power is very low		Wireless network connected
	Battery communication error		Active connection, but not currently synchronizing
	Battery charging		Inactive connection to computer or wireless network
	Battery level		Synchronizing
	Battery out of temperature range WARNING		Synchronizing error
	Instant messages received		Pending alarm
	Speaker is on		E-mail has been received
	Speaker is off (or in mute position)		Tap to view more notifications
	Vibrate mode is on		Data call is in progress
	GPS receiver is off.		Roaming mode
	GPS receiver is on.		

2.4 Tile bar

The Tile bar is located at the bottom of the screen and the information displayed there is more uniform than on earlier versions of Windows® Mobile operating systems. The Tile bar uses touchable tiles, and these tiles can be activated by pressing the corresponding buttons on front keypad of your device.

Touchable tiles can be text strings or icons, depending on the screen, and they are at fixed positions on the Tile bar. For example, the Start icon is always in the far left position, and the OK or Close icon is always on the far right. If the Tile bar has a Keyboard icon, it is always in the third, or center position; if it has additional menu or feature access icons, they will be on either side of the Keyboard icon.

The buttons on the bezel below the screen correspond to the touchable tiles on the Tile bar. Press a button to activate the associated tile.

2.5 Power menu

Press and hold the POWER button for about 3 seconds until the *Power Menu* appears. Tap an option or **OK** to exit.
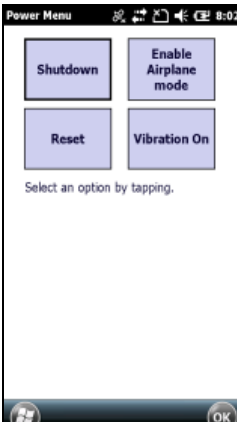
- **Shutdown:** Turn off the device.

- **Enable Airplane mode:** Enable the Airplane mode for the device.

- **Disable Airplane mode:** Disable the Airplane mode for the device.

- **Reset:** Restart the device.

- **Vibration On:** Enable the Vibration mode for the device.

NOTE: If the *Power Menu* does not appear when the POWER button is held down, and/or if you continue to hold down the POWER button for at least 7 seconds, the device will perform a hardware reset. It may take a few seconds for the device to start after the POWER button has been released.

2.6 Securing your device

You can customize the level of security you want to have on your device by locking the keypad or the entire device.

Lock the keypad

The keypad lock turns off the keypad functionality. This is a helpful feature if, for example, your device is turned off and in your pocket, and you want to prevent accidental button presses from activating the device.

To lock the keypad, press the button to access the *Start* screen, then press the LEFT button or tap the padlock tile on the Tile bar.
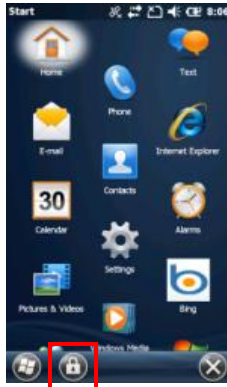
You will then see the following screen:

To unlock the keypad, slide the lock symbol.

Lock your device

Locking your device prevents access to personal data. When you enable this feature, your device will automatically lock after a specified time of inactivity. A screen will be displayed requiring your device lock password before access is granted.

To access the Lock menu, tap 🐾 > **Settings** > **Lock**
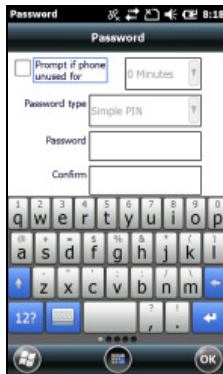
WARNING: BE CERTAIN TO REMEMBER THE PASSWORD.
The only way to recover from a forgotten password is to perform a
Clean Boot. However, you will LOSE all application software, licenses, settings and data on your device. For instructions on how to Perform a Clean Boot, see below..

2.7 Configuring the Onscreen Keyboard

The Soft Input Panel (also called S.I.P.) is a special on-screen keyboard for devices which do not have standard keyboards. The Juno T41/5 includes a custom S.I.P. application called **Resco Keyboard Pro**. To configure it, tap ⊞ > **Resco Keyboard Pro**.
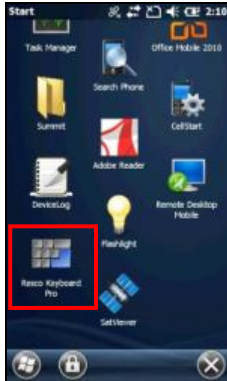
Resco Keyboard Pro allows you to customize your device for fast insertion of frequently used phrases, and to customize various features including haptic or audio feedback, basic or advanced gestures and more. *Resco Keyboard Pro* supports 39 languages.

2.8 Perform a Clean Boot / Factory Reset

WARNING: Application software installed by the customer and some licenses, settings and user data will be cleared if this function is performed!

1. Press and hold the POWER button to display the *Power Menu*.
2. Tap **Reset**.
3. When you see the screen goes completely black, press and hold the ⊞ button.
4. When you see the Juno T41/5 screen, press the RIGHT button while still holding the ⊞ button. Let go of both buttons.
5. Press the ACTION button on the left side of the device to clear the persistent store. Press any other button to cancel and continue booting normally.

2.9 Absolute Power Off mode

The Juno T41/5 features a battery cut-off mode that enables the device to enter the absolute lowest power mode possible, even lower than the SHUTDOWN power state. In this mode, the draw on the battery is less than 20 uA.

The primary purpose for this mode is to prolong the shelf life of the battery while the product is between the production factory and the customer. A secondary purpose is to ensure the device is completely powered down before shipping the product via air freight, or when putting the product into storage for an extended period, typically longer than a week.

NOTE: The sole method for exiting this mode is to charge the battery.

To activate the Absolute Power Off mode, follow these steps:

1. Disconnect the T41/5 USB Client cable, if connected.
2. Press and hold the POWER button to display the *Power Menu*.
3. Tap **Reset**. The screen will go black as the unit goes through reset.
4. When it comes out of reset, indicated by the Juno T41/5 splash screen appearing, press and hold the LEFT button () and the RIGHT button ().
5. A message will appear: "Please remove AC. System is turning off"
6. The device is now in Absolute Power Off mode.
7. Please note that the device will need to be reconnected to AC to power back on from this mode.

Chapter 3 Managing and Caring for Your Device

3.1 Changing basic settings

Personalizing the Home screen

The Home screen is the starting place for most of the tasks you perform on your device and gives you access to all the features and software programs of your device.

1. Tap ![icon] > **Settings** > **Home** > **Appearance**.
2. Select the available option from the list.
3. When done, tap **OK**.
4. To set a picture as the Home screen background:
   a. Select the **Use this picture as the background** option.
   b. Tap **Browse** to select the picture you want to use.
   c. When done, tap **OK**.

Setting the date, time, and alarms

1. Tap ![icon] > **Settings** > **Clock & Alarms** > **Time**.
2. Set the **Time zone**, **Date**, and **Time**.
3. When done, tap **OK**.
4. To set an alarm:
   a. On the *Clock & Alarms* screen, go to the **Alarms** tab.
   b. Tap on the alarm item to display the *Alarm Settings* screen, allowing you to change the Alarm settings. Tap **OK** to save the settings.
   c. Tap the checkbox on each available alarm item to enable or disable the alarm.
   d. When you enable an alarm, an Alarm icon appears on the Home screen.
   e. You may also need to check the **Sound alarms even when the device is set to silent or vibrate** checkbox.

Setting regional options

Your device comes with the regional settings that are appropriate for your

locale.

1. On the Home screen, tap > **Settings** > **System** > **Regional Settings**.
2. On the *Regional Settings* screen, select the **Region** tab and then select your preferred language from the list.
3. If desired, you can specify the **locale**, **date** and **time style**, as well as **number** and **currency** formatting options applicable to your region.
4. When done, tap **OK**.

3.2 Customizing sounds and notifications

You can choose how to be notified for incoming calls, reminders, new messages, alarms, and more.

Specifying the sound for an event

1. On the Home screen, tap > **Settings** > **Sounds & Notifications**.
2. From the **Sounds** tab, select the desired sound for each event.
3. When done, tap **OK**.

Setting the ring tone for incoming calls

1. On the Home screen, tap > **Settings** > **Sounds & Notifications**.
2. From the **Notifications** tab, select a ringtone in the Ring tone list.
3. When done, tap **OK**.

Copying a sound to your device

You can use a .wav, .mid, .wma, or .mp3 audio file on your device as a ring tone, notification, or reminder.

1. Connect the device to your PC using the T41/5 Custom USB Client cable.
2. On your PC, copy the sound file you want.
3. Explore the System contents:
   - In *Windows Mobile Device Center* on your PC, tap **File Management** > **Browse** the contents of your device.

- In *ActiveSync* on your PC, tap **Explore** and double-tap **My Windows Mobile-Based Device**.

4. Navigate to your device's **Application Data** > **Sounds** folder and then paste the audio file.

3.3 Managing battery power and data storage

Battery Life

The Lithium-ion polymer battery life is dependent upon the application and operating environment. For example, estimated battery life for a new battery is approximately 12 hours with the device turned on but idle, backlight at 15% and all radios and compass off.

Tips for extending the battery life:

- **Display backlight:** Tap 🔳 > **Settings** > **System** > **Backlight** to minimize the amount of time the backlight stays on and dim it to only as bright as required to view the display.
  Alternatively, verify that the backlight brightness is auto-adjusting based on the Light Sensor, by tapping 🔳 > **Settings** > **System** > **Backlight** > **Brightness** and checking the box for **Use Light Sensor to adjust the brightness**.
- **Wi-Fi, Bluetooth and camera:** Turn off when not needed.
- **GPS:** Ensure that the GPS-aware applications that communicate with the GPS are closed when not in use.
- **Flashlight:** Use the flashlight only when needed.
- **Cold temperatures:** Keep the device as close to room ambient temperature (77 °F or 25 °C) as possible. If feasible, keep it inside your coat or a vehicle when not in use.
- **Auto features:** Tap 🔳 > **Settings** > **Power** > **Advanced**. Specify your device to turn off in a short time if not in use. Tap 🔳 > **Settings** > **Bluetooth** > **Wake Settings**. Turn off **Allow Bluetooth activity to turn the device on**. Bluetooth could turn on your device, transfer data and drain the battery.
- **CPU:** Applications requiring significant computations by the CPU may have some impact on battery life, but this is typically less significant than managing the hardware features.

Changing the power management settings

You can use Power Management to check the battery, and configure settings that prolong battery life.

1. Tap ⊞ > **Settings** > **Power**.
2. On the *Power* screen, you can:
    - Select the **Battery** tab to check the amount of battery life remaining.
    - Select the **Advanced** tab to change the screen power settings.
3. To optimize battery usage, you can adjust the backlight settings:
    - Tap ⊞ > **Settings** > **System** > **Backlight**.
    - From the **Brightness** tab, adjust the proper backlight level and enable the Light Sensor to automatically adjust the backlight brightness.
4. From the **Battery Power** tab and **External Power** tab, set the backlight off settings
5. When done, tap OK.

Managing low battery

When the low-battery warning appears, do the following:

1. Immediately save your current data. All of your data is stored in non-volatile persistent storage memory. Losing power will not impact saved data or configurations other than the real-time clock. As with any computer system, we recommend that you regularly backup your data to removable media or to a PC.
2. Synchronize with your PC or use the AC adapter to charge the battery.
3. Turn off your device while it is charging, especially if it is charging from the PC USB power and not from the AC adapter power. Turn on Juno T41/5 only when you need to use it, until the battery is recharged.

Checking the System memory

1. Tap ⊞ > **Settings** > **System** > **Memory**.

2. From the **Main** tab and **Storage Card** tab, check the available memory and the available storage on your device.

3.4 Working with files

You can copy files between your device and computer, or copy files to a storage card installed on your device. You can also efficiently manage your files and folders using File Explorer.

Copying files to your computer

1. Connect your device to your PC.
2. Do one of the following, as appropriate to your PC:
   - In Windows Mobile Device Center on your PC, tap **File Management** > **Browse** the contents of your device.
   - In ActiveSync on your PC, tap **Explore**. This opens the Mobile Device folder for your device.
3. Browse your device for files that you want to copy to your PC.
4. Select and copy the files [Ctrl + C] and then paste them [Ctrl + V] to the destination folder in the PC.

Using File Explorer

File Explorer provides many easy-to-use features for file and folder management. File Explorer lets you browse and manage the contents of your device.

1. Tap > **File Explorer**. The root folder on the device is named **My Device**, and contains the following folders: **My Documents**, **Program Files**, **Windows**, and more.
2. Tap a folder or file to open it.
3. To return to an upper level folder, tap **Up**.
4. To copy files to a storage card:
   a. Verify the storage card is properly installed on your device.
   b. On the *File Explorer* screen, navigate to the appropriate folder.
   c. Select the file you want to copy, and then tap **Menu** > **Edit** > **Copy**.
   d. Tap **Menu** > **Storage Card**.
   e. Tap **Menu** > **Edit** > **Paste**.

NOTE: Unlike Windows® PC's, Windows Embedded Handheld does not

feature a Recycle Bin. Once a file is deleted, it cannot be recovered.

3.5 Adding and removing programs

Before you purchase additional programs for your device, make sure that they are compatible with the Windows Embedded Handheld operating system. Also, before you launch the program installer, check first whether the installer can directly run on Windows Embedded Handheld or needs to be run on a Windows PC.

Follow the setup instructions that came with your software. If prompted, perform a reset to complete the installation.

Installing a program directly on your device

1. If the installation file is a .cab file, download the file directly to your device, or download it to your PC and copy it to your device.
2. On your device, tap > **File Explorer** and navigate to the installation file.
3. Tap the file to start the installation process.
4. Choose whether to install the program into the main memory or your storage card, if you have the storage card inserted on your device.
5. Wait for the installation to complete.

Installing a program from your computer

1. If the installer is an .exe file such as Setup.exe, most likely, the installer needs to be run on a Windows PC. Download or copy it to your computer.
2. Connect your device to your computer using the USB cable, and then double-click the installation file on your computer to start the installation process.
3. Follow the on-screen instructions on your computer and your device to complete the installation.

Removing a program

1. Tap > **Settings** > **System** > **Remove Programs**.
2. Scroll to the program to remove and then tap **Remove**.

3.6 Using Task Manager

Task Manager allows you to view or stop the programs currently running on your device.

1. Tap > **Task Manager**.
2. On the *Task Manager* screen, select a program on the list and then tap **End Task**.
3. To stop all running programs, tap **Menu** > **End All Tasks**.
4. Tap **Menu** to open a menu where you can change the **view**, **sorting order**, **refresh** the screen, and more.

3.7 Checking the Device System information

Tap > **Settings** > **System** > **System Information**. Firmware version, serial number, processor speed, RAM and Flash size, wireless configurations, battery and card port information can be found here.

3.8 Caring for your Device

Cleaning the device

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

Care of the touchscreen

Use only your finger, the T41/5 stylus or other stylus devices specifically designed for use with capacitive touchscreens.

The use of ballpoint pens, nails or other sharp objects to operate the touchscreen will scratch and/or damage the device. Keep the touchscreen clean by gently wiping the display, using a soft, dampened cloth with either clean water or glass cleaner. Use a screen protector at all times, and change the screen protector according to manufacturer recommendations.

Do not use abrasive cleaners directly on the display. Doing so may void your warranty. Use the screen protectors included with the device to keep the touchscreen clean and protected, following the instructions provided on the screen protector package.

Mechanical shock

The device 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 device should not be dropped unnecessarily.

Environmental considerations

The device's rugged design. Here are some considerations that will help you get the most out of your device when working in very wet, hot or cold conditions.

Water: This device is designed to IP65 (yellow units) or IP68 (grey units). IPx5 is defined as resistant to driving rain and water spray.   IPx8 is defined as resistant to submersion in water up to 1 meter deep for up to 2 hours.

WARNING: Removal of the back case screws could cause leakage and will void your warranty.

NOTE: Although an optional accessory for the port cover is available and the audio jack has a protective cover, these are not required to maintain the seal against water. The covers are intended to keep mud, sand and other materials from blocking these ports.

Temperature range: The operational temperature range is from -22 °F to +144 °F (-30 °C to +60 °C). Although the device is designed to be rugged, do not leave it in direct sunlight in excessive heat or in a vehicle in the sunlight for extended periods as the internal temperature may exceed the operating or storage temperature limits.

Batteries perform best at room temperature. The battery has a stable capacity as temperatures rise; however, the colder the temperature, the greater the reduction in available battery capacity. Under very cold conditions (-4 °F / -20°C and below), the battery capacity is noticeably reduced. To improve the battery performance in very cold conditions, consider increasing the load on the battery, such as by adjusting the backlight to full brightness. Increasing the battery load causes the battery to generate heat, thus warming the battery and improving the performance. There are limits to how hard to push the battery before you reduce the run-time instead of increasing it.

3.9 Safe Use of your Device

Repair: Do not attempt to dismantle the device 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: Lithium-ion polymer batteries are classified by the U. S. Federal Government as non-hazardous waste and are safe for disposal in the normal municipal waste stream except where prohibited by local or regional regulations. These batteries contain recyclable materials and are accepted for recycling.

NOTE: In the event of a battery failure, return the device to Trimble or an Authorized Service Provider to have the battery replaced.   Trimble disposes used batteries in accordance with local regulations.

1. Do not disassemble or open, crush, bend or deform, puncture, or shred the battery assembly. There are no user-serviceable parts in the battery assembly.
2. Do not use battery if plastic case is cracked, compromised or punctured.
3. Do not attempt to separate the battery from the device.
4. Do not modify or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water or other liquids.
5. Do not expose to fire, explosion, or other hazard. Do not expose to temperatures above +158 °F (+70 °C). The battery is designed to stop functioning if it reaches an unsafe temperature.
6. Only use a charging system that has been qualified for use with the device.
7. In the event of a battery leak, do not allow the liquid to come in contact with the skin or eyes. If contact has been made, flush the affected area with water and seek medical advice.

Power supply safety: Use only AC and vehicle adapters intended for the device. Other external power sources may damage your product and void the warranty. Certification of this Class III product is only valid with the power supply – PSA10F-050Q.

- Ensure the input voltage on the power supply matches the voltage in your location. Ensure the power supply has prongs compatible with your outlets.
- The power supply is designed for indoor use only. Avoid using the power supply in wet areas.
- Unplug the power supply from power when not connected to the device.
- Do not create a short circuit in the power output connector.

Chapter 4 Connecting to a PC and Synchronizing Information

You can take information from your computer wherever you go by synchronizing them to your device. The following types of information can be synchronized:

- Microsoft Outlook® information, which includes Outlook e-mail, contacts, calendar, tasks, and notes
- Notes, which are created using Microsoft® Office OneNote® 2007
- Media, such as pictures, music and video
- Favorites, which are the bookmarked links to your favorite web sites
- Files, such as documents and other files

Before you can synchronize, you will first need to install and set up either ActiveSync or Windows Mobile Device Center on your computer.

After installing the synchronization software on your computer, connect the System to your computer using the T41/5 USB Client cable. Upon connecting the client cable to your device and your computer, choose to start the synchronization process.

ActiveSync or Windows Mobile Device Center only synchronizes data on your computer and System. If you have installed a storage card and you want to back up files from the storage card, use Windows Explorer on your computer to copy files from the storage card to your computer.

If you are sending your device to your local dealer or service center for repair or a hard reset, data from your device will be lost. It is recommended that you sync your device to your computer to back up your files. To back up files from the storage card to your computer, use Windows Explorer to copy files from the storage card to the computer.

4.1 Setting up Windows Mobile® Device Center

Microsoft Windows Mobile® Device Center is the replacement for Microsoft® ActiveSync® on Windows Vista® and newer. Some versions of Windows Vista® come with Windows Mobile Device Center already installed. If Windows Mobile Device Center is not available on your Windows Vista®, you can download it from the Microsoft website. Go to http://www.microsoft.com and search for Windows Mobile Device Center. When you connect your device to your computer and start Windows Mobile Device Center for the first time, you are asked to create a Windows Mobile partnership with your device. To create a partnership:

1. Connect your device to your PC. Windows Mobile Device Center configures itself and then opens.
2. You are given the option to Re**gister Online**, **Remind me Later**, or **Don't Register**.
3. On the *Windows Mobile Device Home* screen, click **Set up your device**.

NOTE: Choose **Connect without setting up your device** if you only want to transfer media files, check for updates, and explore your device but not sync Outlook information.

1. Select the information types that you want to synchronize then click **Next**.
2. Enter a name for your device and click **Set Up**.

When you finish the wizard, Windows Mobile Device Center synchronizes your device automatically. Notice that Outlook e-mail messages and other information will appear on your device after synchronization.

Using Windows Mobile Device Center

To open Windows Mobile Device Center, click > **All Programs** > **Windows Mobile Device Center** on your Windows Vista or newer computer.

On Windows Mobile Device Center, you can do the following:

- Click **Mobile Device Settings** to change synchronization settings.

- When you click **Pictures** > **Music and Video** > **<XX> new pictures**/**video clips are available for import**, a wizard guides you to tag and transfer photos from your device to the Photo Gallery on your computer.

- Click **Pictures** > **Music and Video** > **Add media to your device** from Windows Media Player to synchronize music and video files using Windows Media® Player.

- Click **File Management** > **Browse** the contents of your device to view documents and files on your device.

NOTE: See Windows Mobile Device Center Help for more information.

4.2 Setting up ActiveSync®

On a Windows® XP computer, you need to use Microsoft ActiveSync® 4.5 or later. If you do not have this software on your computer, you can download it from the Microsoft website. Go to http://www.microsoft.com and search for ActiveSync.

Setting up synchronization in ActiveSync

1. Connect your device to your computer. The *Synchronization Setup Wizard* automatically starts and guides you to create a synchronization partnership. Click **Next** to proceed.

2. To synchronize your device with your computer, clear the Synchronize directly with a server running Microsoft Exchange check box, and then click **Next**.

3. Select the information types that you want to synchronize, then click **Next**.

4. Select or clear the **Allow wireless data connections** check box according to your preference.

5. Click Finish.

When you finish the wizard, ActiveSync synchronizes your device automatically. Notice that Outlook e-mail messages and other information

appear on your device after synchronization.

4.3 Synchronizing with your computer

Connect your device to your PC to synchronize the information between your device and PC. While your device is connected, ActiveSync (or Windows Mobile Device Center on your PC) synchronizes every time you make a change on either the PC or your device.

Starting and stopping synchronization

You can manually synchronize either from your device or computer.

From your device:

1. Click > ActiveSync, and then click Sync.

2. To end synchronization before it completes, click Stop.

TIP: To delete a partnership with one computer completely, disconnect your device from that computer first. In *ActiveSync* on your device, tap **Menu > Options**, select the computer name, then tap **Menu > Delete**.

From Windows Mobile Device Center:

1. Click > All Programs > Windows Mobile Device Center.

2. Click at the lower left of the Windows Mobile Device Center.

3. To end synchronization before it completes, click .

From *ActiveSync* on your computer:

When you connect your device to your computer, ActiveSync automatically opens on your computer and synchronizes.

1. To manually start synchronization, click .

2. To end synchronization before it completes, click .

Selecting information to synchronize

You can change the information types and the amount of information to synchronize for each type either on your device or your computer. Follow the steps below to change synchronization settings on your device.

Before changing synchronization settings on your device, disconnect it from your computer.

NOTE: It is not possible to set ActiveSync Options if your device has not yet synchronized with your PC.

1. **In ActiveSync on your device, tap Menu > Options.**

2. **Select the check box for any items you want to synchronize. If you cannot select a check box, you might have to clear the check box for the same information type elsewhere in the list.**

3. **To change synchronization settings for an information type, for instance, E-mail, select it and tap Settings.**

4. **You can then set the download size limit, specify the time period of information to download, and more.**

Some information types such as Favorites, Files and Media cannot be selected in **ActiveSync Options** on your device. You can only select or clear these items from your computer's Windows Mobile Device Center or ActiveSync.

A computer can have sync partnerships with many different Windows Mobile, but a computer can have sync partnerships with at most two computers. To ensure that your device will synchronize properly with both computers, set up the second computer using the same synchronization settings you used on the first computer.

Outlook e-mail can be synchronized with only one computer.

Troubleshooting sync connection problems

In some cases, when the computer connects to the Internet or a local network, it may disconnect the connection with your device in favor of the Internet or network connection.

If this happens, on the device, click **> Settings > Connections > USB to PC**, then clear the **Enable advanced network functionality** check box.

Chapter 5 Using Additional Hardware Features

5.1 Flashlight

The dual LEDs for the camera flash can also be used as a flashlight. Tap
🏁 > **Flashlight** to toggle the Flashlight on and off.

5.2 Assigning Buttons (hardware buttons)

Tap 🏁 > **Settings** > **Personal** > **Buttons**. Under **Program Buttons**, your favorite programs can be assigned to several of the device buttons. The list of assignable buttons is shown on the left hand side with the program that is assigned by default on the right. To reassign a button, select the button in section 1 and change to the desired program or action from the pull-down list in section 2.

You can customize the way your Up/Down control repeats by changing the settings under the Up/Down Control tab.

CAUTION: Assigning a button to activate a program may disable the use of that button for specific uses in other programs. For example, if the ACTION button is assigned to open a specific program, it will no longer trigger the camera application to capture an image.

5.3 Compass Calibration

To re-calibrate the compass, tap 🏁 > **Settings** > **System** > **Compass Calibration**. Follow the instructions on the screen.

1. Select Calibrate to begin compass calibration.
2. Rotate the device 360 degrees in the horizontal plane.
3. Flip the device end-over-end returning to the horizontal position.
4. Roll the device completely over returning to the horizontal position.
5. Repeat steps 2 - 4 until the calibration complete message is displayed.

5.4 Working with Bluetooth

If your device comes with built-in Bluetooth capability, you can wirelessly transmit data to and from your device by connecting to available Bluetooth enabled devices. To find out if you have Bluetooth installed in your device, tap > **Settings** > **System** > **System Information** > **Wireless**.

Bluetooth capability is a short-range wireless communication technology that exchanges information (beam) over a distance of up to 30 feet (10 meters) without requiring a physical connection.

Bluetooth settings: tap > **Settings** > **Bluetooth**.

Mode: To enable Bluetooth, select the check box **Turn on Bluetooth**. If you want other Bluetooth devices to find your device, also check the **Make this device visible to other devices** checkbox.

Devices: 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.

Wake Settings: Allow Bluetooth activity to turn the device on. When this check box is selected, another Bluetooth device can send data and your device will turn on and reply if necessary, but only if Bluetooth is enabled.

NOTE: It is recommended that your device be configured to automatically turn off when not in use. Otherwise, another Bluetooth device could turn on your device, transfer data and if Juno T41/5 does not turn off again, drain the battery.

Receiving Beams: To allow the device to receive incoming beams, tap > **Settings** > **Connections** > **Beam** to open the *Beam* screen. Check the **Receive all incoming beams** checkbox and tap **OK**.

Creating a Bluetooth Partnership: Bluetooth partnerships are required for connections to some PC's, printers, and headphones.

Configuring Bluetooth connections vary depending upon how each Bluetooth device works. Refer to all device documentation.

1. Tap > **Settings** > **Bluetooth** > **Mode**. Ensure that both devices have Bluetooth turned on in the Mode area, are visible and within close range.
2. Tap **Devices** > **Add new device**… Wait a few moments while

your device searches for Bluetooth devices.

3. Tap the name of the other Bluetooth device and tap **Next**. For enhanced security, use passcodes. Enter the same passcode on the other device.

4. Under **Advanced**, you can change the name of the other device and add additional services, if available. Tap **Save**.

Creating a Bluetooth connection with a PC:

1. Ensure that your PC has connectivity software installed and has Bluetooth hardware.

2. Set up a partnership between your device and the PC. Refer to your PC documentation for instructions.

3. Once shown, select the PC from the Device list and tap **Next**.

4. Enter the passcode, if necessary and tap **Next**.

5. Confirm that ActiveSync service is available and place a check in the check box and tap **Finish**.

6. Tap > **ActiveSync** > **Menu** > **Connect via Bluetooth**.

Bluetooth-enabled headphone: You can use Bluetooth stereo headphones (A2DP) or a Bluetooth headset (HFP/HSP).   Any Bluetooth audio device supporting the A2DP, HFP, or HSP profiles should be compatible. Many Bluetooth headphones do not require a passcode to pair with your device.

Troubleshooting Bluetooth connection problems: If your device 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. Confirm that the device is turned on and has been configured to be discoverable.

5.5 Working with Wi-Fi

If your device comes with built-in Wi-Fi capability, you can wirelessly transmit data to and from your device by connecting to available access points or hot spots. To find out if you have Wi-Fi installed in your device, tap > **Settings** > **System** > **System Information** > **Wireless**.

The Wi-Fi is off by default; however the on/off state will persist after a reset. To turn the Wi-Fi on or off, do one of the following procedures:

- Touch the Title bar, tap the Connectivity icon and tap **Wireless Manager** to open the *Wireless Manager* screen, and tap **Wi-Fi**.
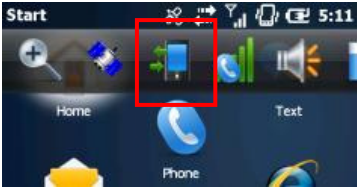
- Tap > **Settings** > **Connections** > **Wireless Manager** and tap **Wi-Fi**.

Once the Wi-Fi is turned on, it detects the wireless networks in the vicinity and gives you the option to connect to one. Turn Wi-Fi off when not in use to save battery power and possibly speed up other processes.

1. Wi-Fi by default is off. Tap **Wi-Fi** on the *Wireless Manager* screen to enable Wi-Fi as necessary.
2. After a few seconds, a *Multiple Networks Detected* or *Network Detected* pop-up window appears.
3. Tap the network to connect to and tap **OK**.
4. If the network requires authentication, the Network Log On dialog will open. For networks that require network keys, enter the network key into the dialog box and tap Connect to begin using the network.
5. Under **Network Adapters** tab, changes can be made to what your network card connects to and to modify adapter settings.

To update Wi-Fi connection settings:

1. On the *Wireless Manager* screen, tap **Menu** > **Wi-Fi Settings**.
2. Tap the name of the network to update the settings for.
3. The **Configure Wireless Network** wizard appears. Update settings and tap **Next** as needed to progress through the wizard.
4. Tap **Finish** to close the wizard and save the settings.

NOTE: If your device is connected to a PC that is connected to the Internet, the device will use the PC's Internet connection and Wi-Fi will not appear on the *Wireless Manager* screen. You may allow the simultaneous use of the PC and the Wi-Fi module by doing one of the following:

- In the ActiveSync software on your PC, select **File** > **Connection Settings** and check the **Allow wireless connection on the device when connected to the desktop** checkbox.

- In Windows Mobile Device Center software on your PC, click **Mobile Device Settings** > **Connection Settings** and check

the **Allow data connections on device when connected to PC** checkbox.

Using ActiveSync via Wi-Fi

Exchange ActiveSync, a component of Exchange Server, facilitates data synchronization between your device and an Exchange server. This synchronization can occur over a network connection, allowing you to update calendars, contacts, tasks and the Inbox on your device 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 device:

1. Tap ⊞ > **ActiveSync** > **Menu** > **Add Server Source**.
2. Enter your email address and tap **Next**.
3. Enter the **User name**, **Password** and **Domain** and tap **Next**.
4. The *Automatic Configuration* dialog will appear while the device attempts to connect to Exchange Server. If the system encounters difficulty, follow the directions of the dialogs that appear, such as the *Edit Server Settings* dialog.
5. Choose the data types you want to synchronize and tap **Finish**. Enter the **server address** and confirm with your administrator whether the Exchange server requires an encrypted (SSL) connection. Tap **Next**.

Troubleshooting Wi-Fi connection problems: If the device seems to be connected to the network, but you are having difficulty using the network connection, tap ⊞ > **Settings** > **Connections** > **Wi-Fi**. The **Network Cards** window will open and allow you to confirm that the connection is appropriately configured as either a Work or Internet connection. If you are unable to connect to a network, try connecting to another network without any security, such as a Wi-Fi hotspot, to determine if the issue is the hardware or the network.

Using the Summit Utilities

The Juno T41/5 software includes a Wi-Fi connection management and monitoring utility called the *Summit Client Utility* (SCU). SCU allows you to view all radio and security settings, and status; and enables you to troubleshoot connectivity issues.

The SCU software is useful for establishing network connections on networks that require more complex settings than the **Configure Wireless Network** wizard provided in the Windows Embedded Handheld operating system.

For more information how to use the SCU, please visit:
http://www.summitdata.com/documentation.html and click on the User's Guide.

Accessing the Summit Client Utility

To access SCU, tap > **Settings** > **Connections** > **Wi-Fi**. The Summit Client Utility window appears.
NOTE: There are two icons labeled **Wi-Fi**.

SCU has five tabs which may be accessed from the top of the screen:

- Main
- Profile
- Status
- Diags (for troubleshooting)
- Global

To view a tab, tap the tab bar at the top of the screen, or slide your finger left or right to view the next tab.
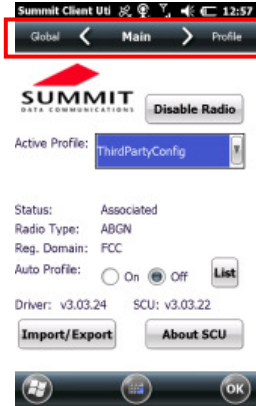
Main Window

The Main window provides an overview of the current wireless network connection configuration (Active Profile), a snapshot of connection information, and additional information regarding SCU (About SCU). You can also import and export settings configurations, which is useful if you have multiple devices to configure to access your local networks.

Profile Window

Profile settings are radio and security settings that are stored for each configuration profile. Tap New to create a new Profile and enter in the necessary connection settings for a Wi-Fi network access point. Scroll down to find the **Commit** button to save changes to the Profile.

Status Window

The Status window provides status information on the radio connection between the client device and the associated access point.
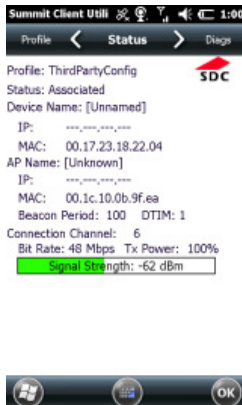
Diags Window

The Diags window enables you to troubleshoot connection issues with SCU.

Global Window

Global settings include radio and security settings that apply to all profiles and settings managed by SCU.
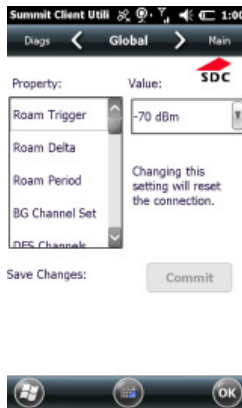
5.6 Working with the Camera

If your device comes with the built-in camera, you can capture photos and videos. To find out if you have a camera installed in your device, tap > **Pictures & Videos**. If you see the **Camera** icon, your device has the camera feature.

To capture pictures and videos, open the camera application:

1. Tap > **Pictures & Videos**.
2. Tap the **Camera** icon or the **Camera** tile, or press the LEFT button to activate the **Camera** tile.

The camera application starts and soon displays a camera preview on the entire display screen. The camera will be in either in Portrait or Landscape mode as per the camera settings or according to the device orientation. The Title bar and Tile bar will not be visible.

User Interface

Once the **Camera** icon is tapped, the preview screen shows. Tap on the **up** arrow ( ) to display the pop-up menu system and to access various camera features and settings.
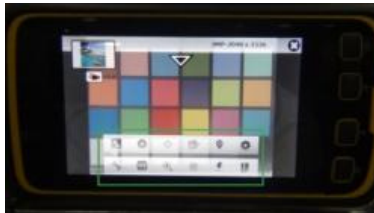
Tap on the down arrow ( ) to exit the menus.

Thumbnail Window

A thumbnail image is shown on top of the preview screen. This is the most recent image captured using the camera application. Tap on the thumbnail to return to Microsoft Pictures & Videos window and display a thumbnail preview of saved image and video files.
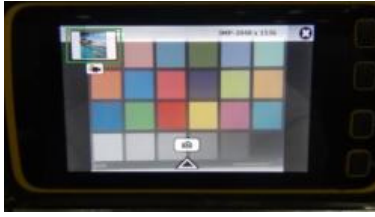
Capturing Images

If preview not focused, a quick double-tap on the preview screen focuses the image (if focus is enabled in settings menu). Focus success is indicated by a green box displayed at center of the screen.

The image can be captured after this by tapping on the Camera icon (📷) when the user interface is viewable on the image preview. You can also use the ACTION button to trigger the image capture.

Captured images are saved with the file extension of .JPG.

Capturing Videos

The camera application will switch from image mode to video mode by tapping the video icon (📹) below the thumbnail window. In video mode, the similar icon is used to switch to Image mode.

A tap of the capture/record button (⏺) will start capturing the video.

Captured video files are saved with the file extension of .WMV.

Closing application

To close the camera application, tap on the close (X) mark at the top right corner of the preview or press the OK button.

Image Camera Application Features

Tap on the **up** arrow ($\triangle$) to display the pop-up menu system to access various features and settings. The features and settings are described below.

White Balance (WB)

A tap on the White Balance icon, displays the following options.

- ▪ **Auto:** Select this option to adjust the White Balance automatically while taking pictures and videos in different lighting conditions.
- ▪ **Sunny:** Select this option when taking pictures and videos in full sunlight.
- ▪ **Incandescent:** Select this option when taking pictures and videos in places lit with Incandescent lighting.
- ▪ **Fluorescent:** Select this option when taking pictures and videos in places lit with Fluorescent lighting.

Selection of any option applies that setting to camera preview and to images captured.

Zoom Levels (🔍)

A tap on the Zoom icon displays the levels of digital zoom supported by camera application.

- ▪ **1.0x** [Minimum Zoom]
- ▪ **1.5x**
- ▪ **2.0x**
- ▪ **2.5x**
- ▪ **3.0x**
- ▪ **3.5x**
- ▪ **4.0x** [Maximum Zoom]

Selection of any option applies that setting to camera preview and to images captured.

NOTE: The Image Tagging of date-time and GPS on the image is not compatible with a Digital Zoom setting other than 1.0x. The EXIF tagging

is not affected by Digital Zoom.

Brightness (☀)

A tap on the Brightness icon enables adjustment of the Brightness offset.

- **+3** [Maximum Brightness]
- **+2**
- **+1**
- **0** [Normal Brightness]
- **-1**
- **-2**
- **-3** [Minimum Brightness]

Selection of any option applies that setting to camera preview and to images captured. Increase the Brightness if the subject is underexposed, or decrease the Brightness if the subject is overexposed. A common situation requiring adjustment to Brightness is capturing a scene with high contrast caused by direct exposure of light sources or areas of shading or shadows.

Flash Settings (⚡)

A tap on the Flash Settings icon displays the following options.

- **On:** Selection of this option enable the flash icon (⚡) on the screen and dual LEDs will flash while capturing images.
- **Off:** Selection of this option disables the LED flash.
- **Auto:** Selection of this option enable the LEDs to flash if needed to illuminate the scenes with low-light. The auto flash icon (⚡) will display on the screen.

Image Quality (📱)

A tap on the Image Quality icon displays the following options.

- **Economy:** Select this option should save the captured image with low quality (high compression).
- **Normal:** Select this option should save the captured image with medium quality (medium compression).
- **Fine:** Select this option should save the captured image with good quality (low compression).
- **Super Fine:** Select this option should save the captured image with very good quality (very low compression).

Images will be stored with the selected quality and the file size of the image increases as quality increases.

Camera Settings ( )

A tap on the Settings icon displays the sub menu which has **Still Resolution**, **Storage Selection**, **Focus**, **Image Review**, **Image Tagging** and **Application Settings**. These sub menu options are explained in further detail below.

Still Resolution

The still image resolution displays on the top right corner of the preview window when the camera user interface is visible.

Two aspect ratios are available on the Juno T41/5:

- 4:3
- 5:3

4:3 ( )

The 4:3 image resolutions available are:

- 1.3MP - 1280x960
- 3MP - 2048x1536
- 5MP - 2560x1920
- 8MP - 3264x2448

Select the desired image resolution.

5:3 ( )

The 5:3 image resolutions available are:

- WVGA - 800x480
- WXGA - 1280x768
- 2.4MP - 2000x1200
- 3.9MP - 2560x1536
- 6MP - 3264x1960

Select the desired image resolution.

Storage Select ( )

Tap on the Storage Select icon to display the following options:

- **Main Memory:** Save images to the on-board storage.

- ▪ **SD Card:** Save the images to the microSD card. This item is not selectable if no microSD card is installed.

Focus (⊕)

Tap on the Focus icon to display the following options.

- ▪ **Enable:** This enables the Auto Focus feature, which is activated with double-tap on the image preview.
- ▪ **Disable:** This disables the Auto Focus feature.

Image Review (🖼)

A tap on the Image Review icon will display the following options.

- ▪ **2 Seconds:** The captured image is displayed for 2 seconds.
- ▪ **3 Seconds:** The captured image is displayed for 3 seconds.
- ▪ **User Prompted:** The captured image is displayed until the user indicates to delete or save the image. See below for further information.
- ▪ **Off:** The captured image is not displayed. This mode is useful for capturing images as quickly as possible.

Image Tagging (📍)

Image tagging is the capture of date, time and location data on your images. The data may be stored in the EXIF data or both the EXIF data and on the visible image.

A tap on the Image Tagging icon will display the following sub menu and options.

- ▪ **Date**

  Date Source:
- ▪ **Device Date-Time:** Fetch the date-time from the device real-time clock.
- ▪ **GPS Date-Time:** Fetch the current GPS date-time.
  NOTE: If the current GPS time is not available (due to lack of GPS signal), the Device Date-Time is used.

  Stamp Settings:
- ▪ **EXIF:** Store the date-time information as EXIF data.
- ▪ **EXIF & Stamp:** Store the date-time information as EXIF data and embedded on the visible image.

- ▪ **Off:** Do not store date-time information.
- ▪ **GPS**

  Format:
- ▪ **Deg/Min/Sec:** Format in Degrees, Minutes, Seconds.
- ▪ **Decimal Degree:** Format in Degrees with decimal precision.

  Stamp Settings:
- ▪ **EXIF:** Store the location information as EXIF data.
- ▪ **EXIF & Stamp:** Store the location information as EXIF data and embedded on the visible image.
- ▪ **Off:** Do not store date-time information.

APP Settings (⚙)

Tap on the APP Settings icon to display a sub menu with the options described below.

- ▪ UI Orientation
- ▪ **Rotation on Tilt:** Enable the automatic rotation of the camera user interface based on device orientation/tilt.
- ▪ **Fixed Landscape:** Lock the camera application in landscape mode.
- ▪ **Fixed Portrait:** Lock the camera application in portrait mode.

  NOTE: This option only applies to the image capture and does not apply to video capture, which is only available in fixed landscape mode.
- ▪ Sounds
- ▪ **Enable:** This option enables the beep sound while focusing and click sound for capturing the images.
- ▪ **Disable:** This option disables the sound while focusing and capturing the images.
- ▪ Modify Prefix

  Select the Modify Prefix option to display the prefix window enabling you to edit the prefix of Image and Video files. By default, Image files append with prefix IMG and video files append with VID.

  The file is saved with a name that is auto generated with the prefix followed by a four digit number. The number is sequential.

Image Delete and Switch to Camera in Image review mode

When the Image Review mode is User Prompted, the camera application will display the capture image and show two icons.

- **DELETE (🗑)**

Tap the delete icon to delete the image from the storage.

- **CAMERA (📷)**

Tap the camera icon to save the image and return to image preview mode.

Video Camera Application Features

Tap on the **up** arrow (🔼) to display the pop-up menu system to access various features and settings. The features and settings are described below.

Many of the settings for image capture are the same for video capture, and these include **White Balance**, **Brightness** and **Focus**. Settings unique to video recording are as follows:

- **Audio settings (🎤)**
  Tap the Audio Settings icon to display the following options:
  - **Enable:** Audio capture from the MICROPHONE is enabled while recording.
  - **Disable:** The video that is recorded does NOT include any sound from the MICROPHONE.

- **Video Settings (🔧)**
  - Resolution (🖼)

    Tap the Video Resolution icon to display the following options:
  - **QVGA - 320x240**
  - **VGA - 640x480**
  - **WVGA - 800x480**

    Selection of any option applies that setting to camera preview and to videos captured.

  - **Storage Select** (⚪)

    Tap the Storage Select icon to display the following options:
  - **Main Memory:** Save videos to the on-board storage.

- ▪ **SD Card:** Save the videos to the microSD card. This item is not selectable if no microSD card is installed.

- • **Video Review (** **)**

  Tap the Video Review icon to display the following options:
  - ▪ On: If selected, the video review mode is enabled. After video capturing is completed, video review window enables the user to review the capture video by playing it back. Also, DELETE and VIDEO icons are enabled in the review window. A tap on the Delete ( ) icon, will delete the video file and return to the video preview window. A tap on the Video ( ) icon will save the video file and return to the video preview window.
  - ▪ **Off:** If selected, the video review feature is disabled. The application will return to the preview window after capturing the video and storing the video file.

- • **Pause Time-out (** **)**

  Tap the Pause Time-out icon to display the following options:
  - ▪ **10 seconds**
  - ▪ **20 seconds**
  - ▪ **60 seconds**
  - ▪ **Disable**

    Select an option to specify the timeout duration of the PAUSE feature while recording.

    While recording has the option to be STOPPED (and saved) or being PAUSED and continued. If paused, the video recording pauses for the selected time-out. Then the pause icon changes to a record icon, enabling the user to resume recording. The Stop icon ends the recording and saves the video file.

5.7 Working with GPS

Tap > **Settings** > **System** > **System Information** > **Wireless** to see if your device has GPS installed. 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 baud rate of 38400.

GPS settings:

If you are using only one GPS-aware application, these settings do not need to be changed. However, to use multiple GPS-aware applications, tap > **Settings** > **System** > **GPS** and select the following tabs:

- Access: The **GPS Intermediate Driver** (GPSID) allows multiple applications to access the GPS receiver. If the check box is unchecked, the GPSID is disabled.

- Hardware: COM2 is the hardware port dedicated for the built-in GPS. Verify that COM2 is selected. The internal GPS communicates at 38400 baud by default. If it has been modified by a third-party program, adjust to match the receiver baud rate.

- Programs: Programs that use GPS need to know which COM port to use to access GPS data. When using more than one GPS-aware application, the same GPSID port must be used in each application. Ensure that the COM port on the GPS-aware application(s) is set to the same GPSID port as shown in the Programs tab of the GPS applet. The program port must be a different port than the hardware port. By default, the GPS program port is COM3 and should not be modified unless directed by Technical Support.

NOTE: Some GPS-aware applications may not communicate over GPS program ports.

Exiting GPS applications

Any time you exit a GPS application (such as SatViewer) it is advisable to close the port gracefully, e.g. tap Disconnect from GPS and then exit the

application. Failure to do so may leave the port open and hinder the next GPS operation.

5.8 SatViewer

SatViewer provides information such as your current longitude, latitude, elevation, how many GPS satellites are visible and the quality of the computed coordinates.

To open *SatViewer*, tap > **SatViewer**. To begin monitoring GPS satellites, tap the **GPS** tab and the **Connect to GPS** button.
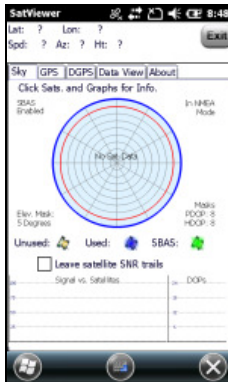
NOTE: External GPS receivers, Bluetooth GPS receivers or other external GPS devices are not supported and may not work correctly with SatViewer.

5.9 Battery Logger

The battery logger is useful for monitoring battery performance under certain user scenarios or to check if the battery has a performance issue.

To run the Battery Logger, tap > **File Explorer**. In the Windows folder, find **batlog** and tap it to start the program. Tap **File** > **Start Battery Logging**. The software will prompt you to specify where to log the data file.

The program analyzes and logs the following information about the battery:

- Charge cycles begun and % capacity at initiation
- Charge cycles fully completed
- Aborted charge cycles and % capacity at termination
- Provide notification when the number of charge cycles reaches 90% of the max

5.10 Barcode Scanning (For Scanner Version only)

5.10.1 How to Scan Barcode

Tap the **ScanAgent** [icon] icon to launch the button you assigned for scanning barcode under "**Bottons**" dialogue box

Option 2: Press the button you assigned for scanning barcode under "**Bottons**" dialogue box.

How to make Button Assignment
1. On Desktop, tap **Settings**.   2. Tap **Personal**.

3. Tap **Buttons**.

4. Tap the button you want to assign for barcode scanning, and then tap the drop-down list under "2. Assign a program".
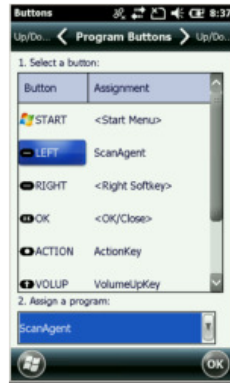
5. Tap "**ScanAgent**" and tap OK.
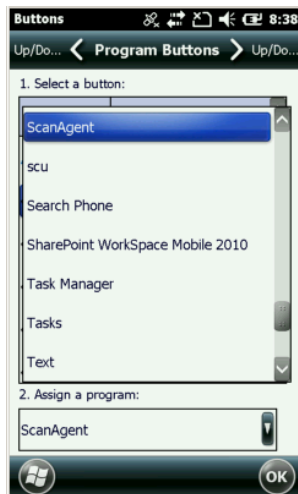
5.10.2 Scanner Setup
1. On Desktop, tap **Settings**.   2. Tap **Scanner**.

3. The **Scanner Setup** dialogue box shows.
   Tap **Scan Now** to test the functionality of the built-in scanner.

For further configurations, please tap **Edit Config**.

4. Once **Edit Config** tapped, the screen below shows:
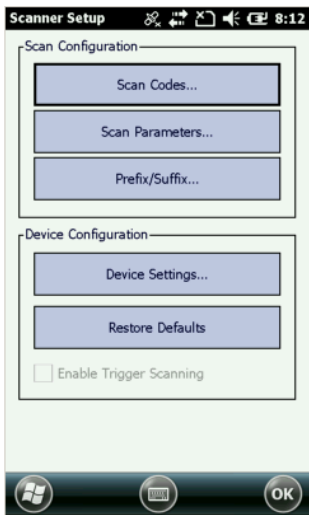
a. By tapping **Scan Codes**, you can enter **Supported Code** screen.
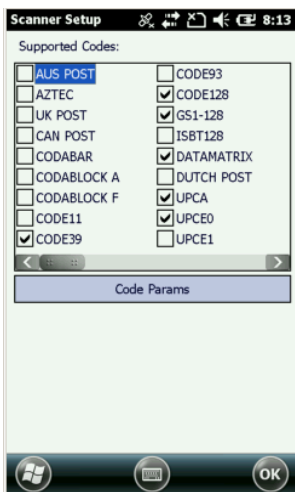
b. By tapping **Scan Parameter**, you can enter scan parameter
   configuration screen.
   Tap a parameter and enter a value into **Value** box and click **OK**.
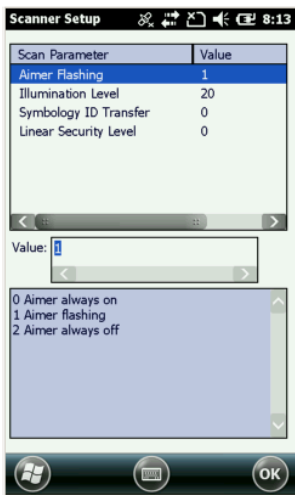
c. By tapping **Prefix**/**Sufix**, you can enter prefix/sufix configuration
   screen.
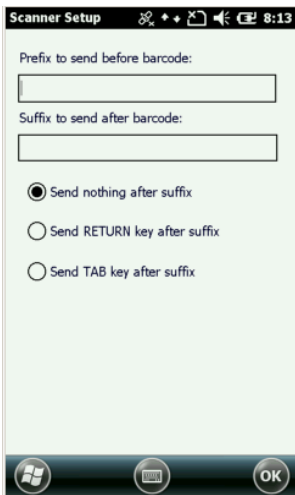
d. By tapping **Device Setting**, you can enter reader parameter configuration screen.
Tap a reader parameter and enter a value into **Value** box and click **OK**.
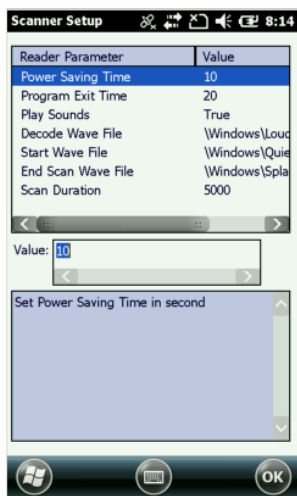
e. By tapping **Restore Defaults**, you can restore the scanner to default configurations.
Tap **Yes** to conform the message or **No** to cancel.
Tap a reader parameter and enter a value into **Value** box and click **OK**.

Appendix A: Regulatory Compliance

U.S.A. - FCC Statement

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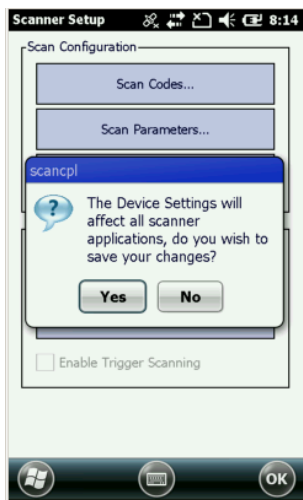e to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct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

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

FCC 15.21
You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
1) this device may not cause interference and
2) this device must accept any interference, including interference that may cause undesired operation of the device

FCC RF Radiation Exposure Statement:
For body worn operation, this computer has been tested and meets FCC RF

exposure guidelines when used with an accessory that

contains no metal and that positions the handset a minimum of 10 mm from the

body. Use of other accessories may not ensure compliance with FCC RF

exposure guidelines."

Exposure to Radio Frequency (RF) Signals

Your device contains a radio transmitter and receiver. The radiated output power is far below the international radio frequency exposure limits. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on the safety standards previously set by international standards bodies:

- **American National Standards Institute (ANSI) IEEE. C95.1-1992.**

- **National Council on Radiation Protection and Measurement (NCRP). Report 86. 1986.**

- **Int'l Commission on Non-Ionizing Radiation Protection (ICNIRP) 1996.**

- **Ministry of Health (Canada), Safety Code 6. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.**

SAR: 0.36w/kg

Use of unauthorized or modified antennas may impair call quality and damage the computer, causing loss of performance. To assure optimal computer performance and ensure human exposure to RF energy is within the guidelines set forth in the relevant standards; always use your device only in its normal-use position.

Avoiding contact with the antenna area when the computer is IN USE optimizes the antenna performance.

Telecommunications & Internet Association (TIA) information

Hearing Aids: Some digital wireless computer s may interfere with some hearing aids. In the event of such interference, you may want to consult your wireless service provider, or call customer service to discuss alternatives.

*Pacemakers and Other Medical Devices***:** The Health Industry Manufacturers Association recommends a minimum separation of six inches be maintained between a handheld wireless computer and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and

recommendations of Wireless Technology Research. Persons with pacemakers should use the ear opposite the pacemaker to minimize the potential for interference. Persons with pacemakers should exercise great caution if using a hands-free device such as a headset, as these persons may be at greater risk of the device not maintaining the recommended minimum six inches of separation from the pacemaker. If you have any reason to suspect that interference is taking place, turn the computer OFF immediately.

If you use any other personal medical device, consult the manufacturer of your device to determine if they are adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

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

Canada Compliance, Industrie Canada (IC)

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de classe B est conforme à la norme NMB-003.
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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

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

(2) l'utilisateur de l'appareil doit accepter tout brouillage adioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
RF Radiation Exposure Statement:
For body worn operation, this phone has been tested and meets RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 10 mm from the body.
Use of other accessories may not ensure compliance with RF exposure guidelines.
Déclaration de l'exposition aux radiations RF:
Pour le fonctionnement du corps, ce téléphone a été testé et répond aux directives d'exposition RF lorsqu'il est utilisé avec un accessoire qui ne contient pas de métal et qui place le combiné d'un minimum de 10 mm du corps.
Utilisation d'autres accessoires peut ne pas assurer le respect des directives d'exposition RF.

RoHS Statement

RoHS COMPLIANT 2002/95/EC

This device conforms to RoHS (Reduction Of Hazardous Sub-stances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

CAUTION: RISK OF EXPLOSION IF BATTERY IS DISPOSED OF INCORRECTLY.   DISPOSE OF THE DEVICE AND THE BATTERY ACCORDING TO INSTRUCTIONS FOR ELECTRONIC WASTE.

European Conformity Statement

Declaration of Conformity with Regard to the R&TTE 1999/5/EC and EMC 89/336/ EEC directives.

Europe

According to ISO / IEC Guide 22 and EN 450 14
  Manufacturer's Name: Trimble Navigation Limited.
  Manufacturer's Address: PO Box 947, Corvallis, OR 97339 USA
  Declares, under our sole responsibility, that the product:
  Product Name: Rugged Handheld Computer (Terminal) (JUNO T41/5)
  Model Number: JUNO/T41/5-BWG; JUNO/T41/5-BWS
  Regulatory Name: JUNO/T41/5-BWG; JUNO/T41/5-BWS
  Product Options: ALL

Conforms to the following Product Specifications:

EN300 440-1 v1.6.1:2010 and EN300 440-2 v 1.4.1:2010	EN 61000-3-2:2006
	EN 61000-3-3:2008
EN50360:2001/ EN62209-1:2006/EN62311:2008/ EN62209-2:2010	EN 61000-4-2:2001
	EN 61000-4-3:2006
EN301489-1 v1.9.2:2011; -3 v1.4.1: 2002; -7 v1.3.1: 2005; -17 v2.2.1: 2012; -24 v1.5.1: 2010	EN 61000-4-4:2004
	EN 61000-4-5:2006
EN55022/EN55024:2010	EN 61000-4-6:2005
EN300328 v1.7.1: 2006	EN 61000-4-11:2004
EN60950-1:2006+A11:2009+A1:2010+A12:2011	EN 60950-1:2001

Importer of Record: Trimble European Regional Fulfillment Center, Logistics Manager, Meerheide 45, 5521DZ Eersel, Netherlands.

Environmental Hazards

The product complies with international RoHS regulations.

Toxic and Hazardous Substances and Elements

Part Name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr6+)	Poly-brominated biphenyls (PBB)	Poly-brominated diphenyl ethers (PBDE)	
Printed Circuit Assemblies	X	O	O	O	O	O	20
Display	X	O	O	O	O	O	20
Keypad	X	O	O	O	O	O	20
Housing	O	O	O	O	O	O	
Hardware	O	O	O	O	O	O	

Product Period does not include these items

Battery	X	O	O	O	O	O	8
Power supply	X	O	O	O	O	O	10
Cable	O	O	O	O	O	O	
Manual	O	O	O	O	O	O	
Hand strap	O	O	O	O	O	O	
Stylus pkg.	O	O	O	O	O	O	
Companion CD	O	O	O	O	O	O	

The meter may be affected by static electricity interference.

please turn off the transmission function and wait a few minutes to start this function.

Taiwan

低功率電波輻射性電機管理辦法

第十二條： 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條： 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。低功率射頻電機需忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

SAR 標準值 2.0W/Kg，送測產品實測值為 0.36w/Kg