

USER GUIDE

Trimble Juno Series Handhelds: TNJ31 and TNJ32

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This is the February 2012 release (Revision A) of the *Juno Series Handhelds User Guide*, covering Models TNJ31 and TNJ32. The Juno series handheld's operating system is based on Microsoft Windows Embedded Handheld 6.5 Professional operating system.

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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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.

The radio devices used by this equipment are classified under 47 CFR §15.247 as spread spectrum transmitter equipment. In accordance with OET Bulletin 65 supplement C Edition 1-01, the device operates at low power levels where there is a high likelihood of compliance with the RF exposure standards, is categorically excluded from routine environmental evaluation as set forth in CFR 47 section 2.1093. The radiated output power of this equipment produces a calculated SAR that is significantly below the FCC radio frequency exposure limits.

Equipment that is additionally fitted with a wireless GSM/UMTS is certified to satisfy US requirements as stipulated in 47 CFR Parts 22 and 24.

The external antenna connector provided in this device is for GPS antennas only.

aGPS and emergency calls (T932 handheld only)

When you make an emergency call, your phone can use assisted Global Positioning System (aGPS) satellite signals to tell the emergency response center your approximate location.

The aGPS functionality may be limited, so:

- Always tell the emergency response center your best knowledge of your location.
- Remain on the phone for as long as the emergency response center instructs you.
- aGPS might not work for emergency calls if your local emergency response center does not process aGPS location information. For details, contact your local authorities.

aGPS performance

For best results:

- Go outside and away from underground locations, covered vehicles, structures with metal or concrete roofs, tall buildings, and tree cover. Indoor performance might improve if you move closer to unobstructed windows.
- Move away from electronic devices that might interfere with or block aGPS satellite signals, for example radios and entertainment equipment.

If your phone cannot find strong aGPS satellite signals, the location of the nearest cell tower in contact with your phone is automatically provided to the emergency response center.

aGPS technology

This mobile device incorporates aGPS technology in order to comply with emergency caller location requirements. aGPS technology also can be used in other applications to track and monitor a user's location-for example, to provide location specific data. Users who do not want such tracking and monitoring should avoid using such applications. aGPS uses your wireless service provider's network and therefore airtime, data charges, and/or additional charges may apply in accordance with your service plan. Contact your wireless service provider for details.

Note - this service is not provided by all networks. Please contact your cellular service provider if you wish to confirm that this service is provided.

Canada

This Class B digital apparatus complies with Canadian ICES-003.

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.

Cet appareil numérique de la classe B est conforme à la norme NNB-003 du Canada.

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.

Europe

This product has been tested and found to comply with all requirements for CE Marking and sale within the European Economic Area (EEA). It is classified and marked as being Class 2 Radio Equipment under 2000/299/EC, as Bluetooth and Wi-Fi approvals are country specific. Please consult your local distributor for more information.



The Juno series handheld has Bluetooth and Wi-Fi approval in most EU countries, and the TNJ31 and TNJ32 are also compliant with GSM and UMTS conformity assessment requirements specified by the European Council Directive, Radio and Telecommunication Terminal Equipment 1999/5/EC. These requirements provide reasonable protection against harmful interference when the equipment is operated appropriately in a residential or commercial environment.

Australia and New Zealand

This product conforms with the regulatory requirements of the Australian Communications and Media Authority (ACMA) EMC and Radiocommunications framework, thus satisfying the requirements for C-Tick Marking and sale within Australia and New Zealand.



Equipment that is additionally fitted with a wireless GSM/UMTS satisfies the requirements for A-Tick Marking and sale in Australia and New Zealand. The A-Tick Marking is an indication to the user that the product is suitable for connection to a telecommunications network operated by a carrier or carriage service provider.



Taiwan – Battery Recycling Requirements

The product contains an internal Lithium-ion battery. Taiwanese regulations require that waste batteries are recycled. 廢電池 請回收



Notice to Our European Union Customers

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

Recycling in Europe: To recycle 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





Safety information

The Trimble® Juno® series handhelds contain a Bluetooth® radio and a Wi-Fi radio. The TNJ32 handheld also contains a GSM/UMTS. In some situations, you may be required to turn off the radios. For example, aviation authority regulations restrict the use of radios on board aircraft.

Turning off the integrated radios

To prevent the handheld from emitting radio signals, do one of the following:

- To turn off the handheld, press and hold the **Power** button to display the Power menu, then tap *Shutdown*.
- To turn off the Bluetooth, Wi-Fi, and GSM/UMTS radios:
 - a. Tap the title bar on the *Home* or *Start* screen, and then on the pull-down list, tap the  or  icon.
 - b. In the *Connectivity* or the *Phone* dialog, select *Wireless Manager*.
 - c. Tap **All** to turn off all radios. The status fields below the Wi-Fi, Bluetooth, and Phone buttons change to *Off*.

Deactivating the integrated radios

The Juno series handheld is shipped with Wi-Fi and Bluetooth wireless technology activated. You may need to deactivate the Wi-Fi and/or Bluetooth radio in the handheld if the country in which you are working does not approve the use of Wi-Fi and/or Bluetooth wireless technology. If you are unsure about whether the Juno series handheld's radios are approved for use in your country, check with your Trimble reseller.

Use the Radio Activation Manager software to deactivate the integrated Wi-Fi and/or Bluetooth radio, or to reactivate the radios if they have been deactivated. The Radio Activation Manager software runs on an office computer.

The latest copy of the software is available for download from the Trimble website. Go to www.trimble.com/support.shtml, click the link for your receiver type, (TNJ31 or TNJ32), click **Downloads**, click **Juno Series** and then click **Radio Activation Manager**.

Exposure to radio frequency radiation from Bluetooth and Wi-Fi transmitters

This device is approved as a portable device with respect to Radio Frequency (RF) exposure compliance. The radiated output power of the internal wireless radio transmitters is less than 10 milliwatt, which results in exposure levels far below the FCC radio frequency exposure limits, even when operated in close proximity to the body. The internal wireless radios operate within guidelines found in international radio frequency safety standards and recommendations, which reflect the consensus of the international scientific community. Trimble therefore believes the internal

wireless radios are safe for use by users. The level of electromagnetic energy emitted is hundreds of times lower than the electromagnetic energy emitted by wireless devices such as mobile phones. However, the use of wireless radios may be restricted in some situations or environments, such as on aircraft. If you are unsure of restrictions, you are encouraged to ask for authorization before turning on the wireless radios.

Exposure to radio frequency radiation from cellular wireless transmitters

Juno series handheld equipment uses cellular wireless radios that have been designed and manufactured to meet safety requirements for limiting exposure to radio waves. When used in accordance with the instructions set forth in this manual, the equipment has been independently verified to not exceed the emission limits for safe exposure to radio frequency (RF) energy as specified by the Federal Communications Commission of the U.S. Government in 47 CFR §2.1093.

These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organization through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for all wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR; the SAR limit set by the FCC¹ is 1.6W/kg.

Tests for SAR on the Juno series handhelds have been undertaken using the standard operating positions adopted by the FCC that test the device for SAR while it is transmitting at the highest certified power level in all tested frequency bands.

The FCC has granted an Equipment Authorization for this device on the basis that all reported SAR levels have been evaluated to be compliant with the FCC RF exposure guidelines.

SAR information on this device is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID: JUP96410 (model TNJ31) or JUP96420 (phone model TNJ32).

For documentation relating to the SAR values of the Juno series handhelds, go to the Trimble Support website at www.trimble.com/support.shtml, select the required Juno series handheld (TNJ31 or TNJ32), select the Technical Support tab, and then click Compliance Information.

¹. In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety .

AC adaptor safety

To charge the handheld's battery, use the international adaptor kit provided with the Juno series handheld (see [Powering the handheld, page 17](#)).

C

WARNING – To use AC adaptors safely:

- Use only the AC adaptor intended for the Juno series handheld. Using any other AC adaptor can damage the handheld and may void your warranty. Do not use the AC adaptor with any other product.
 - Make certain that the input voltage on the adaptor matches the voltage and frequency in your location.
 - Make certain that the adaptor has prongs compatible with your outlets.
 - Do not use the AC adaptor in wet outdoor areas; it is designed for indoor use only.
 - Unplug the AC adaptor from power when not in use.
 - Do not short the output connector.
 - Be aware that there are no user-serviceable parts in this product.
 - If the AC adaptor becomes damaged, replace it with a new Trimble AC adaptor.
-

Battery safety

The rechargeable Lithium-ion battery is supplied partially charged. Charge the battery completely before using it for the first time (see [Powering the handheld, page 17](#)). If the battery has been stored for longer than six months, charge it before use.

C

WARNING – Use only the battery intended for the Juno series handheld. Using any other battery can damage the handheld and may void your warranty. If the battery becomes damaged or stops charging fully, replace it with a new battery.

C

WARNING – Do not damage the rechargeable Lithium-ion battery. A damaged battery can cause an explosion or fire, and can result in personal injury and/or property damage. To prevent injury or damage:

- Do not use or charge the battery if it appears to be damaged. Signs of damage include, but are not limited to, discoloration, warping, and leaking battery fluid.
 - Do not store or leave your device near a heat source such as near a fireplace or other heat-generating appliance, or otherwise expose it to temperatures in excess of 70 °C (158 °F) such as on a vehicle dashboard. When heated to excessive temperatures, battery cells could explode or vent, posing a risk of fire.
 - Do not immerse the battery in water.
 - Do not use or store the battery inside a vehicle during hot weather.
 - Do not drop or puncture the battery.
 - Do not open the battery or short-circuit its contacts.
-

C

WARNING – Avoid contact with the rechargeable Lithium-ion battery if it appears to be leaking. Battery fluid is corrosive, and contact with it can result in personal injury and/or property damage.

To prevent injury or damage:

- If the battery leaks, avoid contact with the battery fluid.
 - If battery fluid gets into your eyes, immediately rinse your eyes with clean water and seek medical attention. Do not rub your eyes!
 - If battery fluid gets onto your skin or clothing, immediately use clean water to wash off the battery fluid.
-

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- C** **WARNING** – Charge and use the rechargeable Lithium-ion battery only in strict accordance with the instructions. Charging or using the battery in unauthorized equipment can cause an explosion or fire, and can result in personal injury and/or equipment damage.
- To prevent injury or damage:
- Do not charge or use the battery if it appears to be damaged or leaking.
 - Charge the Lithium-ion battery only in a Trimble product that is specified to charge it. Be sure to follow all instructions that are provided with the battery charger.
 - Discontinue charging a battery that gives off extreme heat or a burning odor.
 - Use the battery only in Trimble equipment that is specified to use it.
 - Use the battery only for its intended use and according to the instructions in the product documentation.
-

Note – Many administrations have regulations relating to the recycling or safe disposal of batteries. Please consult http://www.trimble.com/about_ev.shtml for more information.

Memory card use

The Juno series handheld provides a memory card slot, providing an alternative storage location to the storage memory in the handheld.

- C** **WARNING** – Static electricity can harm electronic components inside your handheld. To prevent static damage:
- Discharge static electricity from your body before you touch any of the electronic components inside your device, such as a memory module. You can do so by touching an unpainted metal surface.
-

- C** **WARNING** – The presence of any dust or moisture in the memory card slot may adversely affect the device and void your Trimble warranty. To prevent dust or moisture entering the memory card slot:
- When inserting or removing a memory card, place the handheld on a dust-free indoor surface.
-

External GPS antenna use

The Juno series handheld provides an external GPS antenna port. This port is for GPS antennas only.

- C** **WARNING** – The presence of any dust or moisture in the external antenna port may cause the external antenna to not work. To prevent dust or moisture entering the external antenna slot, take care when using the handheld with an external antenna in wet or dusty conditions.
-

About the Juno series handhelds

The Juno series handhelds includes the TNJ31 and TNJ32 handhelds. These rugged handhelds are rated IP54, and combine a high sensitivity GNSS receiver with the Windows® Embedded Handheld 6.5 Professional operating system.

The Juno series handhelds have built-in Bluetooth® wireless technology for cable-free connection to other devices, Wi-Fi connectivity for connections to networks, and an integrated 5MP camera with autofocus and flash.

The TNJ32 handheld also has an integrated GSM/UMTS for downloading and transmitting data, with support for voice calls and text messaging.

The integrated GNSS receiver provides accurate positioning information within 3 meters when using postprocessed or 5 meters with real-time differential corrections. For more information, see [Using the GNSS receiver, page 73](#).



About this user guide

The *Juno Series Handhelds User Guide* describes how to set up and use the Juno series handheld. The information in this guide supplements the information in the *Juno Series Quick Start Guide*, which you received with the handheld.

This guide describes how to:

- get started with the Juno series handheld
- use the Windows Embedded Handheld 6.5 Professional operating system.
- **use the GSM/UMTS in the TNJ32 handheld only.**
- synchronize information between a computer and the handheld.
- exchange information between the handheld and other devices.
- connect to the Internet or to a computer network.
- use the handheld's integrated GNSS receiver.
- use the handheld's integrated camera.

Even if you have used other Global Navigation Satellite System (GNSS) or Global Positioning System (GPS) products before, Trimble recommends that you spend some time reading this guide to learn about the special features of the product.

Collecting GNSS data

To collect GNSS data with the Juno series handheld, you must install GNSS field software onto the handheld.

You can use the Juno series handheld with compatible Mapping and GIS field and office software. For version numbers and a complete list, see the [Product Compatibility List](#) on www.trimble.com.

For more information on using the integrated GNSS receiver, see [Using the GNSS receiver, page 73](#).

What's in the box?

When you unpack the Juno series handheld, check that you have received all the components:



Inspect all contents for visible damage (scratches, dents) and if any components appear damaged, notify the shipping carrier. Keep the shipping and packaging material for the carrier's inspection

Accessories

The following optional accessories are available:

- Vehicle power adaptor
- Carry case with belt clip
- External patch antenna
- Screen protectors (2 pack) anti-glare or ultra-clear
- Vehicle mount
- Pole mount
- Replacement stylus (2 pack)
- Replacement International AC adaptor
- Replacement battery
- External battery charger
- Replacement wrist strap

For more information, go to [LINKS](#).

Use and care of the handheld

When using the handheld:

- Protect the touch screen by using your finger or the stylus provided, and avoid using excessive pressure and sharp or abrasive objects. To protect the touch screen from pressure and abrasive objects, Trimble recommends that you apply a screen protector.
- Keep the outer surface free of dirt and dust.
- Ensure that protective covers are appropriately fitted to the external antenna port, USB and power connectors, so that they are kept free from dirt, dust, fluid ingress, and electrostatic discharge.
- Protect the handheld from extreme temperatures. For example, do not leave the handheld on the dashboard of a vehicle.
- The handheld is rated IP54, but is not waterproof. Do *not* immerse the handheld in water, and be careful not to drop the handheld or subject it to any strong impact.

To clean the handheld, wipe it with a clean dry cloth.

Storage

If you are not going to use the handheld for three months or more, Trimble recommends that you do not leave the handheld in Suspend mode (see [page 21](#)). Instead, partially charge the battery and then turn off the handheld.

To prepare the Juno series handheld for storage:

1. Transfer any data that you need to an office computer.
2. Charge the battery to approximately 30%.

-
3. Press and hold the **Power** button to display the Power menu, then tap *Shutdown*.
 4. Store the handheld at room temperature.

To use the Juno series handheld after storage:

1. Press the **Power** key to turn on the handheld.
2. Recharge the battery (see [Charging the battery, page 19](#)).

Technical assistance

Go to the Juno series handheld technical support page on the Trimble website (www.trimble.com/mappingGIS/juno3d.aspx or www.trimble.com/mappingGIS/juno3b.aspx for the latest support information, including:

- FAQs
- support notes detailing support issues
- documentation
- the latest files available for download

Additional help

If you still cannot find the information that you need, contact your Trimble reseller.

Windows error reporting

If for any reason a Microsoft Windows Error Reporting dialog appears, indicating that the handheld or Trimble field software has encountered a problem and needs to close, you are prompted to send an error report to Microsoft.

Trimble recommends that you click **Send** and then click any subsequent links that are used to obtain additional information.

Trimble can access the report that is sent to Microsoft and use it to improve the Juno series handheld handheld.

Getting started

This section describes the main features of the Juno series handheld, and provides the information you need to get up and running with the handheld.

Parts of the Juno series handheld

The following pages show the main parts of the handheld.



Figure 1.1 Juno series handheld – TNJ31 and TNJ32 - front view

The function of each key is described below:

Key	Description
Start	Press to display the Windows Embedded Handheld <i>Start</i> screen.
Camera	Press to start the Camera application (see Using the camera, page 79).
Soft keys	By default these keys perform the same action as the left and right softkeys in the menu bar. Alternatively, program these keys to perform a selected action. To program the keys, use the <i>Buttons</i> control (see Buttons, page 33).

B **Tip** – To lock the screen and handheld keys without turning off the handheld, use the device lock option (see [Device lock, page 36](#)).

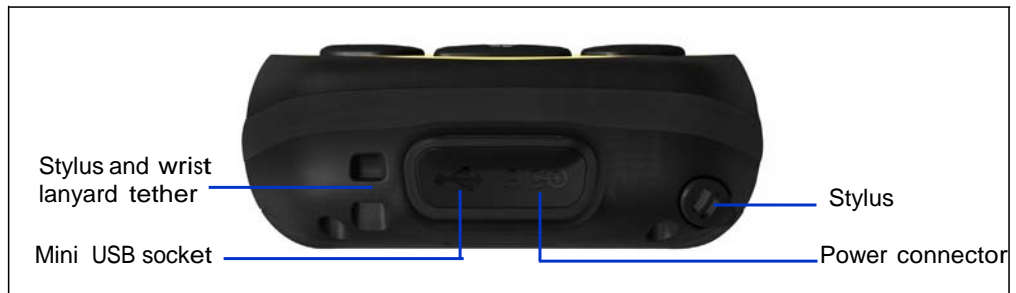


Figure 1.2 Juno series handheld – bottom view



Figure 1.3 Juno series handheld - back view

Powering the handheld

The Juno series handheld contains a rechargeable Lithium-ion battery.

Note – Charge the battery completely before using the handheld for the first time. If the battery has been stored for longer than six months, charge it before use. Trimble recommends charging the battery for four hours to recharge it fully.

Note – Cold temperatures, or using Bluetooth wireless technology or Wi-Fi connectivity, or using the GSM/UMTS consumes additional battery power and so shortens battery life between charges.

AC adaptor safety

C

WARNING – To use AC adaptors safely:

- Use only the AC adaptor intended for the Juno series handheld handheld. Using any other AC adaptor can damage the handheld and may void your warranty. Do not use the AC adaptor with any other product.
 - Make certain that the input voltage on the adaptor matches the voltage and frequency in your location.
 - Make certain that the adaptor has prongs compatible with your outlets.
 - Do not use the AC adaptor in wet outdoor areas; it is designed for indoor use only.
 - Unplug the AC adaptor from power when not in use.
 - Do not short the output connector.
 - Be aware that there are no user-serviceable parts in this product.
 - If the AC adaptor becomes damaged, replace it with a new Trimble AC adaptor.
-

Battery safety

C

WARNING – Do not damage the rechargeable Lithium-ion battery. A damaged battery can cause an explosion or fire, and can result in personal injury and/or property damage. To prevent injury or damage:

- Do not use or charge the battery if it appears to be damaged. Signs of damage include, but are not limited to, discoloration, warping, and leaking battery fluid.
 - Do not store or leave your device near a heat source such as near a fireplace or other heat-generating appliance, or otherwise expose it to temperatures in excess of 70 °C (158 °F) such as on a vehicle dashboard. When heated to excessive temperatures, battery cells could explode or vent, posing a risk of fire.
 - Do not immerse the battery in water.
 - Do not use or store the battery inside a vehicle during hot weather.
 - Do not drop or puncture the battery.
 - Do not open the battery or short-circuit its contacts.
-

C

WARNING – Avoid contact with the rechargeable Lithium-ion battery if it appears to be leaking. Battery fluid is corrosive, and contact with it can result in personal injury and/or property damage. To prevent injury or damage:

- If the battery leaks, avoid contact with the battery fluid.
 - If battery fluid gets into your eyes, immediately rinse your eyes with clean water and seek medical attention. Do not rub your eyes!
 - If battery fluid gets onto your skin or clothing, immediately use clean water to wash off the battery fluid.
-

C

WARNING – Charge and use the rechargeable Lithium-ion battery only in strict accordance with the instructions. Charging or using the battery in unauthorized equipment can cause an explosion or fire, and can result in personal injury and/or equipment damage. To prevent injury or damage:

- Do not charge or use the battery if it appears to be damaged or leaking.
 - Charge the Lithium-ion battery only in a Trimble product that is specified to charge it. Be sure to follow all instructions that are provided with the battery charger.
 - Discontinue charging a battery that gives off extreme heat or a burning odor.
 - Use the battery only in Trimble equipment that is specified to use it.
 - Use the battery only for its intended use and according to the instructions in the product documentation.
-

Inserting and removing the battery

To insert the battery into the handheld:

1. On the back of the handheld, turn the back cover lock counter-clockwise to unlock it. Pull the back cover toward you to remove it.
2. To insert the battery, angle the left side of the battery into the handheld first, with the label facing upwards. Press the battery flat until it clicks into place.
3. To replace the back cover, insert the bottom edge of the cover first, and then push it flat until the top clicks into place. Turn the lock clockwise to secure the back cover.



To remove the battery:

4. Remove the back cover of the handheld and then pull the right side of the battery towards you.

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CAUTION – The handheld is not sealed from water and dust when the battery is removed. Trimble recommends only removing the battery for short periods of time and only removing the battery indoors or from inside the protection of a vehicle.

Charging the battery

Charge the battery in the handheld (see [page 18](#)). To charge the battery, do one of the following:

- Connect the AC power adaptor to the Power socket on the handheld and then connect the adaptor to mains power. An international adaptor kit is provided with the handheld.
- Connect the optional vehicle power adaptor to the Power socket on the handheld and then connect the adaptor to the vehicle power source.

When the handheld is connected to a power source, the battery icon in the *Home screen* changes to . Fully charging the battery from empty takes approximately four hours. You can use the handheld while it is charging.


The Power LED around the Power button on the handheld indicates the battery power or charging status, as shown below:

Power source	LED state	Handheld/battery state
Battery power	Off	Off (in Suspend mode or turned off).
	Off	On and battery level is good.
	Flashing red	On and battery is low (less than 10%).
External power	Flashing green	Charging.
	Solid green	Charging is complete.


Avoid keeping the battery at full charge at high temperatures. For more information, see [Storage, page 14](#).

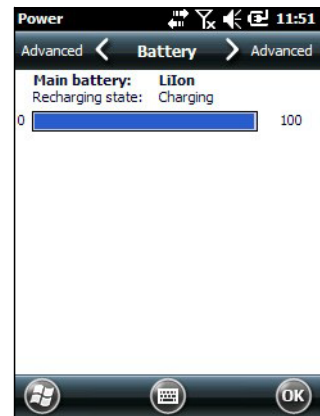
Note – The life of the battery can be significantly shortened if power is constantly supplied to the handheld. To avoid this issue, connect the handheld to an external power source only when the battery requires charging. Once fully charged, disconnect the external power source and allow the battery to discharge through normal use.

Checking the level of battery power

To check the level of battery power remaining at any time while the device is running, tap the title bar of the *Home* screen and then tap  in the pull-down list.


The Power control appears, displaying the *Battery* tab.

When the handheld battery is recharging from an external power source, the battery icon in the *Home* screen changes to . You can still tap the icon to view the level of battery power.



Low battery indicators

When the battery level reaches:

- 15%, the battery icon in the title bar of the *Home* screen changes to .
- 10%, the Power LED on the handheld flashes red and the Main battery low message appears on the handheld.
- 5%, the Main battery very low message appears on the handheld.

Trimble recommends that you recharge the battery when any of these indicators appear.

Conserving power

Although the handheld battery can operate for a full day without recharging, Trimble recommends that you do the following to reduce power consumption:

- Set the handheld to automatically turn off when idle. For more information, see [Suspend mode, page 21](#).
- Set the backlight to automatically turn off when the handheld is idle for a specified time. For more information, see [Backlight, page 38](#).
- Reduce the brightness setting for the backlight. For more information, see [Backlight, page 38](#).

- Turn off the integrated Bluetooth or Wi-Fi radios or GSM/UMTS whenever you are not using them. For more information, see [Turning on and turning off the integrated radios, page 49](#).
- Disconnect from the integrated GNSS receiver when GNSS data is not required, using the application's Disconnect or Deactivate GNSS command. When you disconnect from GNSS, the integrated GNSS receiver switches off and stops drawing power.

Note – Do not disconnect from GNSS if you will be reconnecting within about five minutes. A GNSS application can take up to 30 seconds to reactivate the integrated GNSS receiver, so disconnecting to save power can cost time.


Turning on and turning off the handheld

If the screen on the handheld is blank, the handheld is in Suspend mode or has been shut down. To turn on the handheld, press the **Power** key briefly (less than one second).

To turn off the handheld or put the handheld into Suspend mode, press the **Power** key briefly (less than one second). The handheld is placed in a very low power state, but the Bluetooth and wireless GSM/UMTS radios may remain active (see [Suspend mode, page 21](#))

To completely shut down the handheld, press the **Power** button until the *Power* menu appears and then tap **Shutdown**. All running applications are shut down, and the handheld is completely turned off.

The options available from the *Power* menu are as follows:

Button	Used to...
Power Settings	quickly access the Power Settings menus.
Backlight Settings	quickly access the Backlight Settings menu.
Shutdown	put the handheld into Shutdown mode. Applications are shut down and the handheld is completely turned off.
Reset	restart the handheld. If the handheld stops responding to the stylus, or if it does not respond when you press any of the keypad buttons, try a soft reset. For more information, see Resetting the handheld, page 22 .
	access the Align Screen Sequence. You can also press the left application key to access the Align Screen Sequence. If at any time the touch screen does not respond correctly to stylus taps, start the screen alignment sequence and follow the on-screen instructions.

Suspend mode

When you press the **Power** key to turn off the handheld, the handheld goes into Suspend mode. This is a low-power mode that maintains the main memory contents and keeps applications running but does not allow you to operate any of the handheld's functions. The handheld appears to be turned off. The integrated GNSS receiver is turned off and any application using GNSS is disconnected.

If a wireless radio is turned on, the Wi-Fi radio will be turned off, and the Bluetooth and wireless GSM/UMTS radios will remain turned on. The handheld is capable of receiving data via Bluetooth or the GSM/UMTS radio while it is in Suspend mode. The handheld is able to automatically wake up to calendar alarms if it is in Suspend mode.


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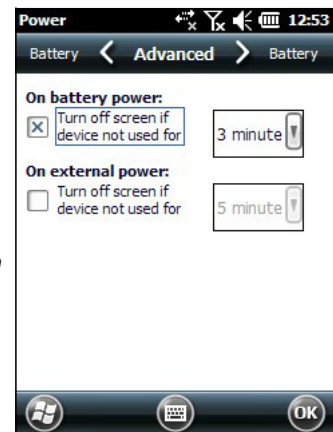
CAUTION – To save battery power, use the Wireless Manager to turn off the wireless radios before you place the handheld into Suspend mode.

To turn on the handheld when it is in Suspend mode, press the **Power** key. The handheld is immediately ready for operation. There may be a delay of up to 30 seconds while the integrated GNSS receiver and the Wi-Fi radio automatically reactivate.

You can configure the handheld to automatically enter Suspend mode when it has been idle for a specified time. By default, the handheld is set to enter Suspend mode if it is not used for three minutes.

To change the time before the handheld enters Suspend mode:

1. Tap the title bar of the *Home* or the *Start* screen and then tap . The Power control appears, displaying the *Battery* tab.
2. Tap the *Advanced* tab.
3. From the *On battery power* option, select the *Turn off screen if device not used for* check box and then select the idle time from the drop-down list.
4. Tap **OK**.



Resetting the handheld

If the screen on the handheld is blank, the handheld has turned off. Press the **Power** button to turn on the handheld.

If the handheld stops responding to the stylus, or if it does not respond when you press any of the keypad buttons, you may need to reset it. First, try a soft reset. If the handheld does not respond, perform a hard reset.

You can also reset the handheld to its factory default settings.

Performing a soft reset

A soft reset is similar to restarting a computer. A soft reset saves data and closes all open applications and then restarts the handheld. All data and settings are retained after a soft reset.

To perform a soft reset, use the tip of the stylus to lightly press the Reset button. Alternatively, press the **Power** button until the *Power* menu appears and then tap **Reset**.

Performing a hard reset

A hard reset retains settings and data that you have previously saved on the handheld. However, any unsaved data may be lost.

Note – Perform a hard reset only if a soft reset does not resolve the problem.

To perform a hard reset, press and hold the **Power** button and use the tip of the stylus to lightly press the Reset button.

Resetting to factory default settings

Reset the handheld to factory default settings to restore the handheld to its original state, or only if a soft reset and then a hard reset does not resolve the problem.

C **CAUTION** – Resetting the handheld to factory default settings erases **all** data, installed applications, and settings stored in the handheld, except for any data or applications that were pre-installed on the handheld or are stored on a memory card. It does not change the language of the operating system used on the handheld.

C **CAUTION** – If you have encrypted files on a memory card and you reset the handheld to factory default settings, the encryption key on the handheld is deleted. This means that any files you have encrypted on a memory card are permanently locked and unreadable by any device. For more information, see [Encrypting files on memory cards, page 25](#).

B **Tip** – To quickly and easily restore data deleted by performing a factory reset, synchronize the handheld with a computer **before** you reset the handheld to the factory default settings. Once the handheld is reset, resynchronize the handheld with the computer.


To reset the handheld to the factory default settings:

1. Press the **Power** button until the *Power* menu appears and then tap **Shutdown**.
2. Press and hold the two soft keys on the handheld.
3. While holding the soft keys, press and hold the **Power** key until the Hive Clean prompt appears.
4. Follow the on-screen instructions to continue the factory reset.

Storing data

The handheld has two types of memory:

- Storage memory is similar to the hard disk in a computer, and is used for storing programs and data.
- Program memory is similar to the RAM in a computer, and is used for running programs. You cannot use it to save data.

To check the memory capacity on the handheld, tap  / *Settings / System / Memory*. The Storage and Program columns show the current memory available, and the memory that is already in use.



Storage	Program
Total: 1518.51	Total: 196.62 MB
In use: 6.13 MB	In use: 34.04 MB
Free: 1512.38	Free: 162.58 MB

[Find large files using storage memory.](#)

Pre-installed documents and program files are not affected by power loss or resetting. However, you can still lose data if you accidentally delete or overwrite it.

C

CAUTION – The Windows Embedded Handheld 6.5 Professional operating system does not include a Recycle Bin. When you delete files from the handheld, they are deleted permanently.

Trimble recommends that you regularly copy important data to an office computer. For more information, see [Connecting to an office computer, page 44](#).

Memory cards

As an alternative to storage memory, you can save data to a memory card. Use either a microSD or a microSDHC (high capacity) memory card to securely transfer data to and from another device that supports microSD or microSDHC memory cards.

Note – The Juno series handheld does not support SDIO (SD input/output) cards.

C

CAUTION – The presence of any dust or moisture in the memory card slot may adversely affect the device and void your Trimble warranty. To prevent dust or moisture entering the memory card slot:

– When inserting or removing a memory card, place the handheld on a dust-free indoor surface.

C

CAUTION – Static electricity can harm electronic components inside the handheld. To prevent static damage, discharge static electricity from your body before you touch any of the electronic components inside your device, such as a memory module. You can do so by touching an unpainted metal surface.

To insert a microSD or microSDHC memory card:

1. Turn off the handheld. See [Turning on and turning off the handheld, page 21](#).
2. Place the handheld face down on a dust-free indoor surface.
3. Remove the battery cover door, and then remove the battery. See [Inserting and removing the battery, page 19](#).

-
4. Slide the card slot cover to the left and it will hinge open.
 5. Place the memory card in the slot with the swipes facing down.
 6. Lower the cover and slide it back to the right. The card is locked into place.
 7. Replace the battery and the battery cover door.

When you select the *Save As* option in an application, the memory card appears in the list of available storage locations.

Note – Do not store required data or applications to a memory card if the card will be removed. Data saved to a memory card is available only when the card is inserted in the handheld.

To remove the memory card from the memory card slot:

1. Turn off the handheld. See [Turning on and turning off the handheld, page 21](#).
2. Place the handheld face down on a dust-free indoor surface.
3. Remove the battery cover door, and then remove the battery. See [Inserting and removing the battery, page 19](#).
4. Slide the card slot cover to the left to open it, remove the card, then lower the card slot cover and slide it to the right to lock it.
5. Replace the battery and the battery cover door.

Encrypting files on memory cards

To prevent sensitive data on a memory card from being used if the card is lost or stolen, files can be encrypted as they are placed on the card.


When encryption is enabled, an encryption key is stored on the handheld. Files are encrypted as they are copied or written to the memory card. Files already saved on memory cards before enabling encryption are not automatically encrypted.

Note – Because the encryption key is stored on the handheld, encrypted files are only readable on the handheld on which they are initially encrypted. It is not possible to read encrypted files on the storage card with any other device, including another Juno series handheld or an office computer.

C

CAUTION – If you reset the handheld to the factory default settings, the encryption key is deleted and the handheld is no longer able to read any encrypted files on a memory card. This means that any files you have encrypted are permanently locked and unreadable by any device. To avoid being unable to read previously encrypted files, Trimble recommends that you use another device, such as an office computer, as the primary location for storing important data and to control the encryption of important files.

To enable encryption of files as they are written to a memory card:

1. Tap  / *Settings* / *System* / *Encryption*.
2. Select the *Encrypt files when placed on a storage card* check box.

Note – Encrypted files appear as ordinary files on the handheld they were encrypted on. If the memory card is inserted in another device, the files appear with a .menc file extension and cannot be opened.

To disable encryption, clear the *Encrypt files when placed on a storage card* check box.

Note – Disabling encryption does not remove encryption from any existing files on the memory card, but ensures that new files placed onto the memory card are not encrypted.

To encrypt files that are already stored on a memory card:

1. Copy the files to the handheld's internal memory or to an office computer.
2. Ensure encryption is enabled on the handheld.
3. Copy the files back to the memory card. The files are encrypted as they are written to the memory card.

To remove encryption from files so they can be read by other devices:

1. Insert the memory card in the handheld and then connect the handheld to an office computer (see [Connecting to an office computer, page 44](#)).
2. Copy the encrypted files from the memory card to the office computer.
3. To use the decrypted files on the handheld, copy the files from the office computer to the handheld's main memory.
4. To store the decrypted files on a memory card, ensure that encryption is not enabled on the handheld and then copy the decrypted files from the office computer to the memory card.

Installing and removing the SIM card

C CAUTION – The SIM card and its contents can be easily damaged by scratches or bending. Use caution when inserting or removing the card.

C CAUTION – The presence of any dust or moisture in the SIM card slot may adversely affect the device and void your Trimble warranty. To prevent dust or moisture entering the SIM card slot:
– When inserting or removing a SIM card, place the handheld on a dust-free indoor surface.

C CAUTION – Static electricity can harm electronic components inside the handheld. To prevent static damage, discharge static electricity from your body before you touch any of the electronic components inside your device, such as a memory module. You can do so by touching an unpainted metal surface.

To insert or remove a SIM card:

1. Turn off the handheld. See [Turning on and turning off the handheld, page 21](#).
2. Place the handheld face down on a dust-free indoor surface.
3. Remove the battery cover door, and then remove the battery. See [Inserting and removing the battery, page 19](#).
4. Insert or remove the SIM card as shown, with the gold contacts face down.
5. Replace the battery and the battery cover door.



Using the Windows Embedded Handheld operating system

The Juno series handhelds are powered by the Windows Embedded Handheld 6.5 Professional operating system. The main parts of the *Home* screen and the *Start* screen are shown below.

Home screen
Provides access to the key functions on your handheld. Scroll, and tap any item to open it.



Title bar
Contains status icons for important system functions.

Start button
Tap to open the Start screen, where you can access programs and system controls.



Tile bar
Contains touchable tiles providing access to applications, menus, and notifications.

Start screen
Tap any item on the menu to open it.



Connectivity icons
Tap either icon to access the Wireless Manager.







Lock device
Tap to lock the screen. Once locked, you have multiple points of unlock entry depending


Pull-down list
Tap anywhere on the title bar to open the title bar pull-down list, where you can access connectivity controls (the Wireless Manager), battery information, time and date settings, and volume.

Status indicators
























Status indicators that appear in the title bar at the top of the screen are as follows:






Battery status indicators



Icon	Description
	Battery has full charge (81-100%)
	Battery has high charge (61-80%)
	Battery has medium charge (41-60%)
	Battery has low charge (16-40%)
	Battery has very low charge (15% or less)
	Battery charging/using external power

The battery status icon on the title bar of the *Home* screen or the *Start* screen shows the status of the battery charge. Tap the title bar and then on the pull-down list tap the  icon to access the Power control dialog. See [Checking the level of battery power](#), page 20.



Network and modem status indicators


Icon	Description
	Connected to ActiveSync or Windows Mobile® Device Center (WMDC) on a computer
	Connected to a Bluetooth-enabled phone
	Disconnected from ActiveSync or WMDC
	Disconnected from a Bluetooth-enabled phone
	Wi-Fi radio is on
	Wi-Fi is detected
	Connected to a wireless network
	Maximum GSM/UMTS signal strength No
	GSM/UMTS signal
	GSM/UMTS is turned off
	No cellular service
	Searching for GSM/UMTS service
	Data is transferring using the GSM/UMTS
	No SIM card
	UMTS network is available
	UMTS network is connecting
	UMTS connection is active
	3G+ network is available
	Analog network is available
	EDGE network is available
	EDGE network is connecting
	EDGE connection is active
	GPRS network is available

Icon	
	GPRS network is connecting
	GPRS connection is active
	HSDPA network is available
	HSDPA network is connecting
	HSDPA connection is active

The network and modem status icons on the title bar of the *Home* screen or the *Start* screen show the status of each radio. Tap the title bar and then on the pull-down list tap the  or  icon. In the Connectivity or Phone dialog, select Wireless Manager and turn on or turn off the radio.
















Speaker status indicators






Icon	Description
	Speaker is on
	Speaker is off

The speaker status icon on the title bar of the *Home* screen or the *Start* screen shows the status of the speaker. Tap the title bar and then on the pull-down list tap the  icon to adjust the volume and to turn the speaker on or off.

Pre-installed programs

Programs that are pre-installed on the Juno series handheld are as follows:

Program	Function
 ActiveSync	Synchronize information between the handheld and a computer.
 Adobe Reader LE	Read PDF documents.
 Alarms	Set alarms.
 Calculator	Perform basic arithmetic functions.
 Calendar	Keep track of appointments and arrange meetings.
 Contacts	Keep track of your friends and colleagues.
 File Explorer	View and manage files.
 Internet Explorer	Browse the World Wide Web.
 Messenger	Send instant messages using Windows Live™ Messenger.
 Notes	Create handwritten, typed, or recorded notes.
 Pictures and Videos	Take, view, and edit pictures, or record and launch video clips.
 Search Device	Search for a file or item stored on the handheld.
 Tasks	Keep track of your tasks.
 Windows Live	Access Windows Live services, including email, instant messenger and Internet search.
 Windows Media	Play Windows Media® or MP3 audio and video files.

Program	Function
 E-mail	Write, send, and receive email messages. On the TNJ32 handheld, you can also access text messaging functions.
 Office Mobile 2010 (TNJ32 handheld only)	Provides access to these Office Mobile applications: Excel [®] Mobile 2010, PowerPoint [®] Mobile 2010, OneNote [®] Mobile 2010, SharePoint WorkSpace Mobile 2010, and Word Mobile.
 Text (TNJ32 handheld only)	Send, receive, and organize text messages.
 Phone (TNJ32 handheld only)	Access the phone functions.
 Flashlight (TNJ32 handheld only)	Use the camera LED flash as a flashlight.

Interacting with the handheld

To interact with the handheld, use the stylus or your finger to tap items on the touch screen, or to scroll up or down.

Action	Definition
Tap	Touch the screen once to open items and select options.
Tap and hold	Tap and hold the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.
Drag	Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.
Flick	Flick the stylus or your finger over the screen to scroll a page or a list up or down.

If at any time the touch screen does not respond correctly to stylus taps or your finger, realign it. For more information, see [Screen](#), page 37.

Entering information

Depending on the program you are using, you can enter information in several ways, as described below:

Input method	Description
Synchronizing	Use Microsoft connection management software to exchange information between the handheld and an office computer. For more information, see Connecting to an office computer , page 44.
Typing	Use the keyboard input panel to enter typed text by tapping keys on the on-screen keyboard.
Writing	Use the stylus like a pen to write directly on the screen.
Recording	Create a stand-alone recording or embed a recording into a note.

Using the on-screen keyboard

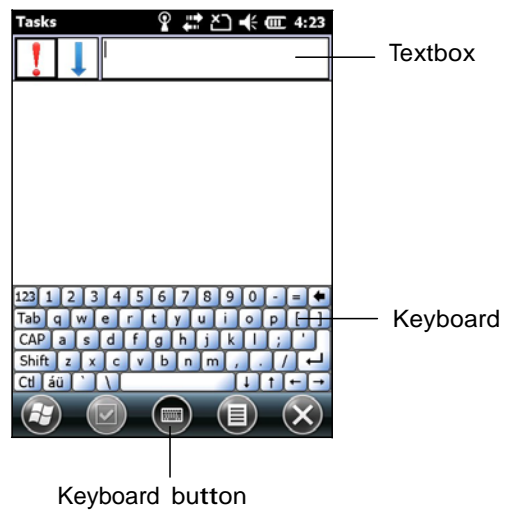
The keyboard button automatically appears in the tile bar of any application.

To display the keyboard, tap the keyboard button, or tap a text box in the application.


To enter characters, use your finger or the stylus to tap the keys on the keyboard. When you finish entering text in a field, tap **Tab** to accept the text you have entered and then move to the next field.

To enter special characters, tap **123** to display keyboards containing numbers and symbols. To switch back to the main keyboard, tap **123** again.

To hide the keyboard, tap the keyboard icon again.






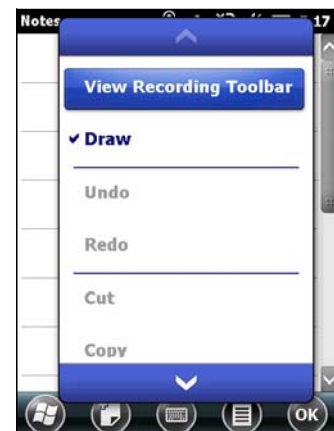
B

Tip – To make the keys larger, tap  / Settings / Personal / Input. In the *Input method* list, select Keyboard and then tap **Large Keys**.

Drawing and writing directly on screen

In some applications, for example Notes, you can draw (or write directly) on the screen using the stylus.





1. Tap  and then tap the Notes icon .
2. Tap the Menu  icon.
3. Select *Draw*.
4. Use the stylus to write or draw on the screen.




Making a recording

For handheld configurations equipped with an integrated microphone, you can create a stand-alone voice note or you can add a recording to a note. Then you can work with voice notes in the same way that you work with notes.


To make a recording:

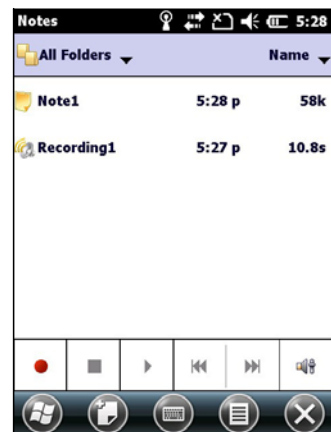
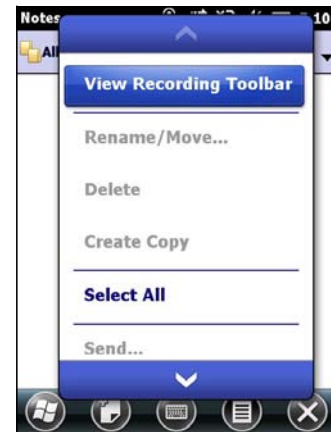
1. Tap  and then tap the Notes icon.
2. Tap the Menu  icon.
3. Do one of the following:
 - To create a stand-alone recording, in the screen displaying the list of notes, tap the Record button  to begin recording.
 - To add a recording to a note, create or open a note and then tap the Record button  to begin recording.

4. When you finish recording, tap the Stop button .

If you are creating a stand-alone recording, an icon appears in the note list.

If you are recording in an open note, an icon appears in the note. Tap **OK** to return to the note list.

To play a recording, tap the recording in the note list or open the note and then tap the  icon in the note.



Personalizing the handheld

Use the controls in the *Settings* area to customize the handheld. The following examples describe the available controls.

Buttons

Use the *Buttons* control under *Personal* settings to assign the action you want to be performed when you press the left or right application key.

By default, these keys perform the same action as the left and right tiles in the tile bar. Alternatively, program these keys to perform a selected action.

Application buttons can be programmed to perform one of the following types of actions:

- Run a selected application, for example Messaging or Calendar.
- Act as a software button, for example an OK/Close button or a scroll button.

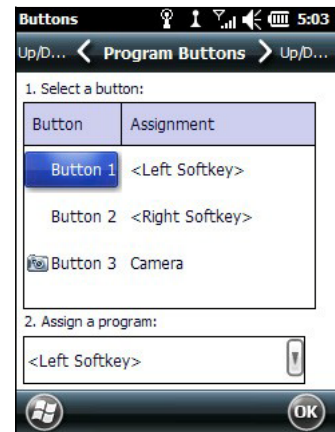
- View a selected screen, or part of a screen, for example return to the *Home* screen or launch the Context menu or Input panel.

To open the *Buttons* control:

- Tap  / *Settings* / *Personal* / *Buttons*.

To specify an action for the button:

1. Tap the *Program Buttons* tab.
2. Tap a button in the list to select it.
3. From the *Assign a program* drop-down list, select the action you want to occur when you press the button or tap the softkey.
4. Tap **OK**.




Home

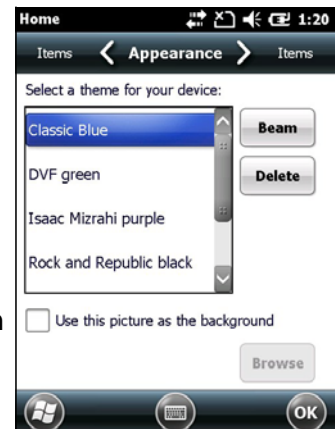
Use the *Home* settings to change the display theme that controls the appearance of the *Home* screen, and to customize how items appear on the *Home* screen.

Appearance

You can use a theme to customize the background picture on the *Home* screen, the color of the title and tile bars, menus, and messages.

To change the display theme:

1. Tap  / *Settings* / *Home*.
2. Tap the *Appearance* tab.
3. Do one of the following:
 - To use a predefined theme, select it from the list.
 - To select the picture that you want to display in the *Home* screen background, select the *Use this picture as the background* check box. Then tap **Browse** to search for a file on the handheld.
4. Tap **OK**.




Items


You can choose between:

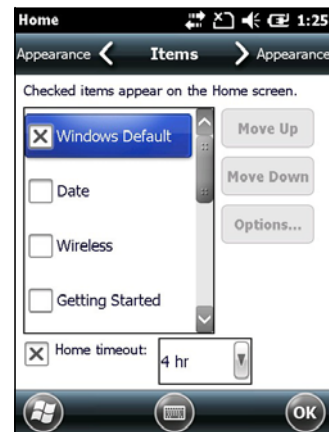
- the Windows default *Home* screen view, which allows you to flick through the list of entries, giving access to functions such as email, text messaging, current time, and Internet Explorer.
- customising which items appear on the *Home* screen and the order in which they appear.

To use the default *Home* screen view:


1. Tap  / *Settings* / *Home*.
2. Tap the *Items* tab.
3. Select the *Windows Default* check box.
4. Tap **OK**.

To customise the items which appear on the *Home* screen:

1. Tap  / *Settings* / *Home*.
2. Tap the *Items* tab.
3. Select or clear the check boxes to show or hide the *Home* screen items.
4. Use the **Move Up** and **Move Down** buttons to change where the selected item appears on the *Home* screen.
5. Tap **OK**.

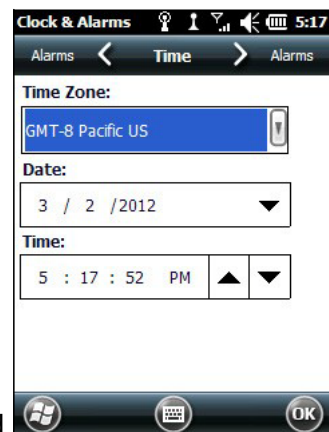


Set the time and date


1. On the *Home* screen, tap the clock item, or tap the title bar and then on the pull-down list, tap the clock icon . The *Clock & Alarms* screen appears.
2. Tap the *Time* tab.
3. In the *Time Zone* field, select the required time zone from the drop-down list.
4. In the *Date* field, tap the down arrow and then select the correct date.

Tip – On the calendar which appears, tap on the month or year to select the required value.

5. In the *Time* field, tap in turn the hour, minute, and second values and then tap the up or down arrows to set the correct time.



Device lock

Tap the *Device Lock* icon  on the *Start* screen to lock the screen and keypad while the handheld remains turned on.


Once the handheld is locked, the screen and most of the keys do not respond until the handheld is unlocked. The exception is the **Power** key, which always respond when pressed.

Communication with external devices such as a GNSS receiver, or external sensors used by GNSS field software, is not interrupted by locking the handheld. This means that you can keep using the GNSS field software when the handheld is locked. For example, you could lock the device so that you can safely transport it between features, while keeping the software connected to the GNSS receiver so that you can continue recording GNSS positions.

The lock screen provides multiple unlock sliders for different applications, when there are new notifications. For example, if a new email has arrived, an email unlock slider takes you straight to the email.



To unlock the device, slide the *Unlock* icon for the required application to take you straight to that application.



You can help to keep your data secure by requiring a password each time the handheld is turned on. Tap  / *Settings* / *Lock* to set a password or to change password settings.

Power

To open the *Power* control, do one of the following:


- Tap the title bar of the *Home* screen or the *Start* screen, and then tap .
- Tap  / *Settings* / *Power*.

Tap the *Battery* tab to check the battery level (see [Checking the level of battery power](#), page 20).

Tap the *Advanced* tab to set the time before the handheld turns off when idle (see [Suspend mode](#), page 21).

Sounds and notifications

Use the *Sounds & Notifications* control to set preferences for the speaker volume and system sounds. To open the *Sounds & Notifications* control:

- Tap  / *Settings* / *Sounds & Notifications*.

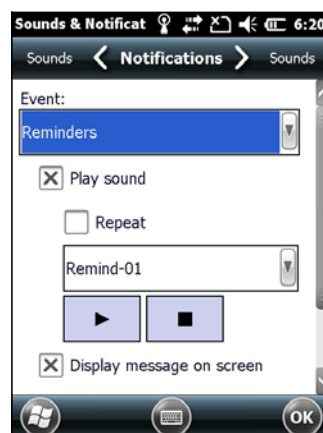
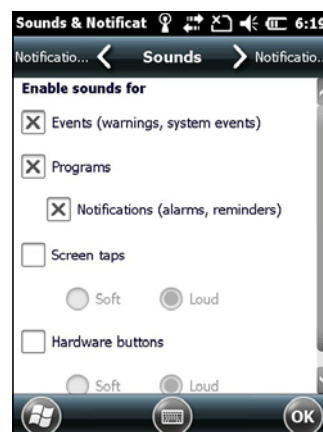
To turn on or turn off sounds:

1. Tap the *Sounds* tab.
2. Select or clear the check boxes to enable or disable categories of sounds.
3. If you select the *Screen taps* or *Hardware buttons* check boxes, select the *Soft* or *Loud* option to control the volume of the sounds.
4. Tap **OK**.

You can use predefined schemes to customize sounds, or you can create your own sound schemes.

To specify a sound scheme:

1. Tap the *Notifications* tab.
2. From the *Event* drop-down list, select an event.
3. Select the type of notification you want to receive for that event.
4. Tap **OK**.





Screen

Use the Screen control to align the touch screen or to change the appearance of text on the screen. To open the *Screen* control:

- Tap  / *Settings* / *System* / *Screen*.

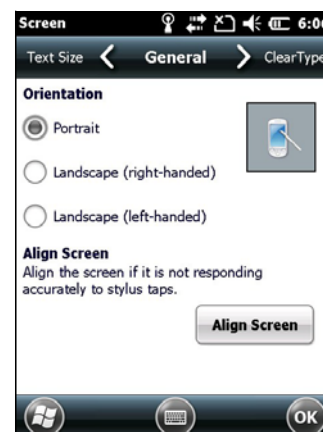
To change the screen settings:

1. Tap the *General* tab.
2. To change the orientation of the screen, select an option in the *Orientation* group.
3. To start the alignment sequence for the touch screen, tap  **Align Screen**.
4. Tap **OK**.

Note – To align the screen at any time, press and hold the **Power** button for 1 second until the *Power* menu appears and then tap .

Using ClearType font smoothing can make text easier to read on the screen.

Note – ClearType is already on by default on the Juno series handheld.



To enable ClearType:

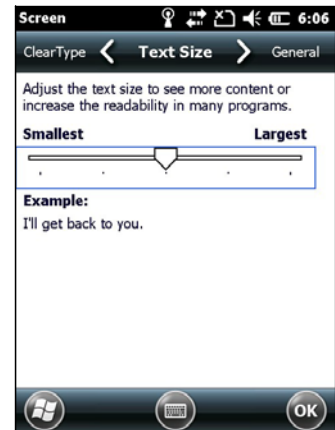
1. Tap the *ClearType* tab and then select the *Enable ClearType* check box.
2. Tap **OK**.

To change the size of text on screen:

1. Tap the *Text Size* tab.
2. Tap and drag the slider control to the left to make text smaller, or to the right to make text larger.

The example text below the slider shows how the text will appear on screen.

3. Tap **OK**.



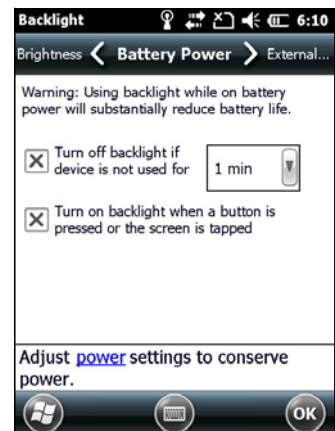
Backlight

The backlight makes the screen easier to read in low light, but uses extra power. Use the *Backlight* control to configure power-saving settings for the backlight. To open the *Backlight* control:

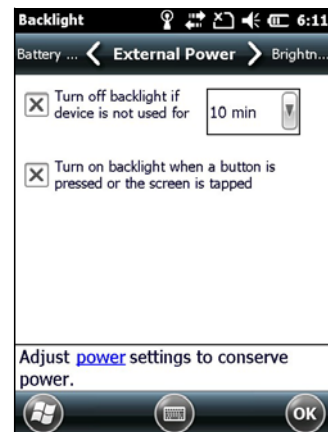
- Tap  / *Settings* / *System* / *Backlight*.

To set the backlight to automatically turn off:

1. To automatically turn off the backlight when the handheld is idle and is using *battery power*, tap the *Battery Power* tab. Select the *Turn off backlight* check box and then select a time from the drop-down list.

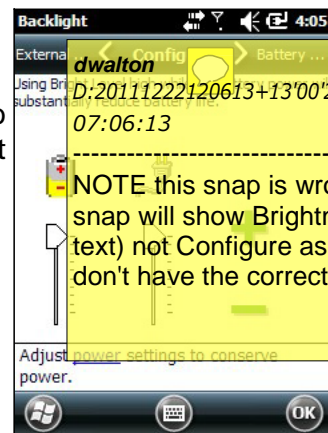


2. To automatically turn off the backlight when the handheld is idle and is using *external power*, tap the *External Power* tab. Select the *Turn off backlight* check box and then select a time from the drop-down list.
3. Tap **OK**.



To change the brightness:

1. Tap the *Brightness* tab.
2. Tap and drag the Brightness Level slider control to the left to make the backlight darker, or to the right to make the backlight brighter.
3. Tap **OK**.



Messaging

Use Messaging to send and receive email messages using the Juno series handheld. Messaging is the equivalent of your email Inbox.

To use email, you can do one of the following:

- Synchronize email messages with Microsoft Exchange or Microsoft Outlook® on an office computer.
- Send and receive email messages by connecting directly to an email server through an ISP or a network.

Synchronizing email messages

You can synchronize email messages on the handheld and the computer.

C

CAUTION – When you delete a message on the handheld, it is deleted from the office computer the next time you synchronize the devices.

To synchronize email, you must enable Inbox synchronization in the Microsoft ActiveSync technology (for Windows XP) or the WMDC (for Windows Vista or Windows 7). For more information, refer to the *ActiveSync Help* or the *WMDC Help* on the office computer.

During synchronization:

- Messages are copied from the mail folders of Exchange or Outlook on the office computer to the Messaging folder on the handheld. By default, you will receive messages from the past 3 days only, the first 100 lines of each message, and file attachments of less than 100 KB in size.
- Email messages in the Outbox folder on the handheld are transferred to Exchange or Outlook, and then sent from those programs.
- Email messages in subfolders in other email folders in Outlook are synchronized only if they were selected for synchronization (using ActiveSync technology or the WMDC).

To send and receive email for a synchronized Exchange or Outlook account, connect the handheld to the office computer. Synchronization automatically begins, and the handheld sends and receives email.

Connecting directly to an email server

In addition to synchronizing email messages with an office computer, you can send and receive email messages by connecting to an email server.


Before you can send and receive email, you must create an email account in the Messaging software.

Note – You must set up an Internet connection on the handheld before you can set up and use your email account. For more information, see [Connecting to a Wi-Fi access point, page 54](#), [Connecting to a Bluetooth-enabled device, page 55](#), or [Connecting to a Bluetooth-enabled phone for Internet access, page 61](#).

If you need to connect to different mailboxes, set up and name a different service for each connection.

Note – The Messaging software supports only the POP3 and IMAP4 protocols for incoming mail, and SMTP for outgoing mail.

To set up a mail service:

1. Tap  / E-mail.
2. Tap *Setup E-mail*.
3. Enter the email address for your account.
4. Enter a password. Select *Save password* if you want the device to remember your password.
5. Tap **Next**.
6. To automatically get connection settings for your email account from the Internet, select the check box.
7. Tap **Next**.

