

POWER

- Use the power switch to turn the receiver on and off.
- The removable battery provides 11 hours of power.
- The battery takes approximately 2 ½ hours to charge fully.
- You can charge the battery using the universal wall power supply or the vehicle power adaptor.
- You can use the receiver while it is charging.



RECEIVER LED DISPLAY

LED	LED status	Receiver status	
Bluetooth 	Blue	Flashing every 1 second	On and waiting to connect
		Flashing every 2 seconds	Connected with field computer
GPS 	Green	Solid	On and searching for satellites
		Flashing	Generating position fixes
Power 	Red	Solid	Battery level is low (2.5% or less)
	Orange	Solid	Battery is charging (LED turns off when battery is fully charged)
	During normal operation, the Power LED is not lit		

SAFETY INFORMATION

Note: For full safety information, please refer to the GPS Pathfinder XB Receiver Legal Notices

 WARNING - RECHARGEABLE LITHIUM-ION BATTERY

- 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, leaking battery fluid.
 - Do not expose the battery to fire, high temperature, or direct sunlight.
 - 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.
- 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.
- 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 for its intended use and according to the instructions in the product documentation.

 WARNING—AC ADAPTOR

To use an AC adaptor safely:

- Use only an AC adaptor that is intended for the GPS Pathfinder XB receiver. Using any other external power source can damage the product and may void the warranty.
- Make certain that the input voltage on the adaptor matches the voltage in your location.
- Make certain that the adaptor has prongs compatible with your outlets.
- AC adaptors are designed for indoor use only. Avoid using the AC adaptor in wet or outdoor areas.
- Unplug the AC adaptor from power when not in use.
- Do not short the output connector.

This is the August 2006 release (Revision A) of the GPS Pathfinder XB Receiver Getting Started Guide. © 2006, Trimble Navigation Limited. All rights reserved. This product is protected by US and international copyright, trademark, and patent law as described in the GPS Pathfinder XB Receiver Legal Notices. For applicable product limited warranty information, please refer to that document, or consult your Trimble dealer.



GPS Pathfinder® XB receiver



The GPS Trimble® Pathfinder XB receiver is a small, lightweight, and portable GPS receiver for use with any field computer that has Bluetooth® wireless technology. The high-sensitivity receiver tracks GPS even in difficult environments, and provides accurate positioning with real-time (SBAS) or postprocessed differential correction.

With its low profile and wireless connectivity, the GPS Pathfinder XB receiver is the ultimate in mobility and flexibility.



You can use the GPS Pathfinder XB receiver with the following software:

- Trimble TerraSync™ software or the Trimble GPScorrect™ extension for ESRI ArcPad software, for productive GIS data collection and maintenance
- Trimble GPS Pathfinder Office software, for planning your field sessions and for powerful GPS data processing
- Trimble GPS Analyst™ extension for ESRI ArcGIS software, for working with GPS data directly inside the ESRI ArcGIS Desktop software
- GPS Pathfinder Tools Software Development Kit (SDK), for integrating GPS data and adding value to an existing mapping and GIS software package
- Trimble GPS Controller software, for configuring realtime (SBAS) options and NMEA output settings
- Other GPS field software that accepts NMEA messages

GPS PATHFINDER XB RECEIVER

The receiver is an integrated GPS receiver, antenna, Bluetooth radio, and battery—all you need—in a small and lightweight unit that connects to a field computer without any cables.

Note: For real-time differential correction, select the integrated SBAS (WAAS/EGNOS) receiver in the Real-time Settings area of the GPS Controller software or your GPS field software.

Note: By default, the receiver outputs NMEA data. Use the GPS Controller software to configure which NMEA messages are output.

FIELD COMPUTER WITH CONTROLLING SOFTWARE

The GPS Pathfinder XB receiver uses the Serial Port Profile to connect to a field computer that has Bluetooth wireless technology. To operate the receiver, you can use GPS field software on a range of computers, including a Pocket PC running Microsoft® Windows Mobile® software, a laptop, or a Tablet PC.



CHARGING THE INTERNAL BATTERY

Note: Charge the battery before using it for the first time.

The receiver contains an internal, rechargeable Lithium-ion battery. Charge the battery in the receiver, using the universal wall power supply or the vehicle power adaptor. You can use the receiver while it is charging.

- When the battery is charging, the Power LED is orange.
- When the battery is charged, the Power LED is off.



CONNECTING OVER BLUETOOTH

1. Turn on the GPS Pathfinder XB receiver.
 2. On the field computer, ensure that Bluetooth is enabled.
 3. Start a scan for nearby devices. The receiver scans for devices and the field computer displays a list of those that are available. The GPS Pathfinder XB receiver appears in the list as “BTGPS.”
 4. Select the GPS Pathfinder XB receiver.
 5. If required, exchange Bluetooth passkeys to complete the connection. The GPS Pathfinder XB receiver has a default passkey of “0183” which is automatically exchanged if required.
 6. In your GPS field software, select the COM port assigned to the Bluetooth connection on the field computer. Once a Bluetooth connection has formed, the Bluetooth LED changes from flashing once every second to flashing once every two seconds.
- For more information, refer to the documentation for your GPS field software.



TROUBLESHOOTING

Problem	Solution
The GPS receiver does not turn on.	Check that the battery is charged.
	Check that the battery has been inserted correctly. Check that the contacts on the battery and receiver are aligned.
The GPS receiver is on, but is not communicating with the field computer.	Ensure that the Bluetooth link from the field computer has formed correctly.
	Check that another field computer is not connected to the receiver. The Bluetooth LED flashes once every two seconds when it is connected to a field computer.
	Turn off the receiver and the Bluetooth radio on the field computer, and then turn them on again. Then form the Bluetooth link again.
The GPS receiver is not outputting any positions, or is not outputting positions every second.	Make sure the GPS receiver has a clear view of the sky.
	If NMEA data is required, use the GPS Controller software to configure the NMEA output settings, and ensure that the software is correctly configured.
	Use either the GPS Controller software, or other GPS field software, to reset the receiver.
The GPS receiver is not tracking an SBAS satellite.	Make sure you are within the area covered by the SBAS reference station network.
	Use the GPS Controller software, or other GPS field software, to configure Integrated SBAS as the real-time correction source.
Not all of the required NMEA messages are being output.	Use the GPS Controller software to configure which NMEA messages are output.
The accuracy of the recorded GPS positions is poorer than expected.	You may be operating in an area of high multipath or electrical interference. Move to an area with fewer obstructions, or move away from power lines and cellular phone base stations, and use offsets to collect data.
	Use real-time or postprocessed differential GPS.
More than one GPS receiver appears in the list of available devices.	Turn off the other GPS receiver, scan for nearby devices, and then form the Bluetooth link again.

Federal Communications Commission (FCC) Statement

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.

15.105(b)

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment 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.

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:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.