/ISUS®

GPS-BT100

Bluetooth GPS Receiver

Quick Start Guide

ASUS GPS-BT100 specifications summary

Chipset	SiRF Star IIe/LP
Channels	12 parallel satellite-tracking channels
Frequency	1575.42 MHz
Receiver	L1, C/A code
Average Acquisition Time	Reacquisition : 0.1 seconds Update rate : every one second Snap Start : <3 seconds at <25 minutes off period Hot start : <8 seconds Warm start : <38 seconds Cold start : <45 seconds
Receiver accuracy	Normal : 5 ~ 25 meters CEP without SA EGNOS/WAAS : <2.2 meters, horizontal 95% of time <5 meters, vertical 95% of time Velocity : within 0.1 meters per second Time : 1 microsecond synchronized GPS time
Antenna	Built-in passive patch antenna Optional external active antenna (MMCX connector)
Bluetooth	Frequency : 2.4 ~ 2.48 GHz Input sensitivity : -80 dbm
Power supply	Built-in rechargeable Lithium-ion battery 5 V DC (through the mini-USB port)
Operating time	150 hours when in idle mode* 14 hours when in active mode
Ideal operating conditions	Altitude : <18,000 meters (60,000 feet) Velocity : <515 meters per second (700 knots) Acceleration : 4 G. Jerk : 20 meters per second (maximum)
Physical features	Dimensions : 52 mm x 85 mm x 21 mm Weight : < 75 grams

Specifications are subject to change without notice.

*Based on ASUS testing.

Welcome!

Thank you for choosing the ASUS GPS-BT100!

The ASUS GPS-BT100 is a Bluetooth Global Positioning System (GPS) receiver that provides accurate information on your location through your ASUS Personal Digital Assistant (PDA), notebook, or desktop computer.

Featuring the latest in GPS technology, the ASUS GPS-BT100 is a dependable mobile companion anytime, anywhere you are.

Package contents

Before you start installing and using the ASUS GPS-BT100, check the package for the following items.

- ✓ ASUS GPS-BT100
- ✓ AC power charger with wall adapter
- ✓ Windshield holder
- ✓ Travel charger with car lighter adapter (5 V DC/≧0.5 A* or 5 V DC/≧2.0 A with Y-cable**)
- ✓ Quick start guide
- ✓ Warranty card
- ✓ Carrying case

Optional items:

GPS external MMCX antenna

Mini-USB to USB cable (UART interface) with driver CD

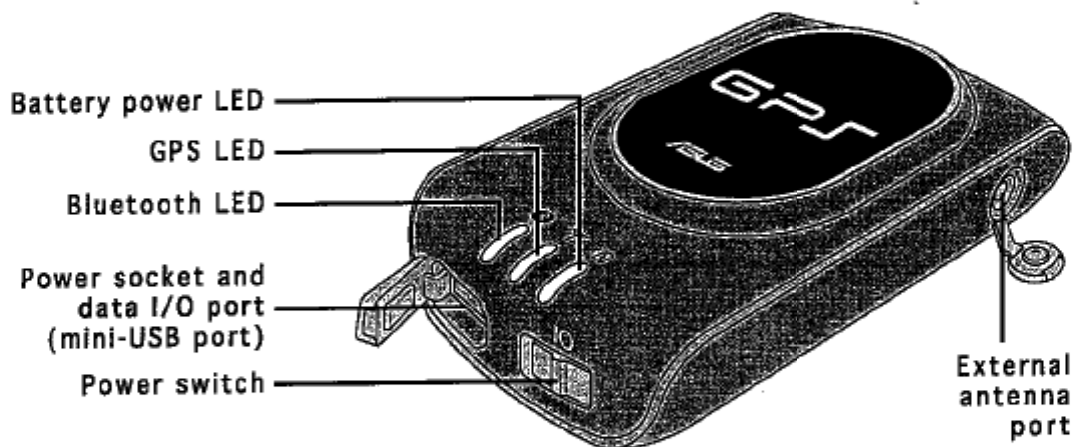> **NOTE.** Contact your retailer if any of the items is damaged or missing.

* Included in the ASUS GPS-BT100 stand-alone package.
** Included in the ASUS PDA bundled GPS-BT100 package.

Features

- Enhanced navigation performance in urban, canyon, and foliage environments
- Wide range of use including land/marine navigation, fleet management, personal navigation, tracking system, and mapping
- High-speed signal acquisition (1920 time/frequency search channels)
- Bluetooth Serial Port Profile (SPP) compatible for easy integration with your PDA or notebook with Bluetooth capability
- Mini-USB port for devices with no Bluetooth capability (using the optional mini-USB to USB cable)
- Built-in Wide Area Augmentation System (WAAS)/European Geostationary Navigation Overlay Service (EGNOS) demodulator

Device layout

Battery power LED

GPS LED

Bluetooth LED

Power socket and data I/O port (mini-USB port)
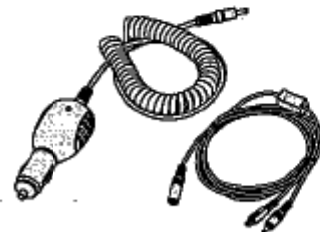
Power switch

External antenna port

Accessories

AC power charger with wall adapter

Windshield holder

Travel charger (5 V DC/≥0.5 A) with mini-USB plug *(included in the ASUS GPS-BT100 stand-alone package)*

Travel charger (5 V DC/≥2.0 A) with Y-cable *(included in the ASUS PDA bundled GPS-BT100 package)*

LED indicators

The ASUS GPS-BT100 comes with three light-emitting diode (LED) indicators that tell the device status. Refer to the table below for the LED indications.

LED	Color	Status	Description
Bluetooth ⓑ	Blue	On	Waiting for connection to a Bluetooth device.
		Off	• The device is off. • The Bluetooth interface is in power saving mode. • Connected to another device via the mini-USB port.
	Blue	Blinking once every 3 seconds	Connected to a Bluetooth device.
GPS Ⓨ	Green	On	Searching for satellite data.
		Off	The GPS function is in power saving mode.
	Green	Blinking	Position is fixed.
Battery Ⓝ	Orange	Blinking once every 3 seconds	Battery power is low.
	Orange	Blinking once every second	Battery power is too low to perform a function.
	Orange	On	Battery is charging.
	Green	On	Battery is fully charged.

System requirement

Before installing the ASUS GPS-BT100, make sure that your PDA, notebook and/or computer system has a Bluetooth or USB interface (using the optional mini-USB port to USB port cable).

IMPORTANT!

- You must charge the ASUS GPS-BT100 battery before using it. On initial charging, it takes about three hours to fully charge the battery.

- Use only the supplied power charger and adapter when charging the device battery. Using other models may damage the device!

- Do not change the device Baud rate! The decive cannot receive GPS data when the Baud rate is changed arbitrarily.

Installation procedures

Step 1: Place the ASUS GPS-BT100 device at a location with a clear view of the sky.
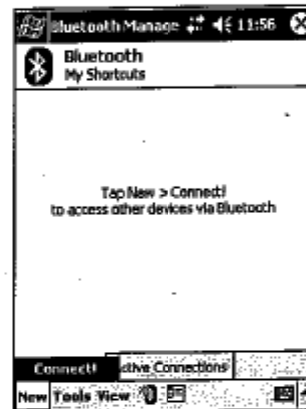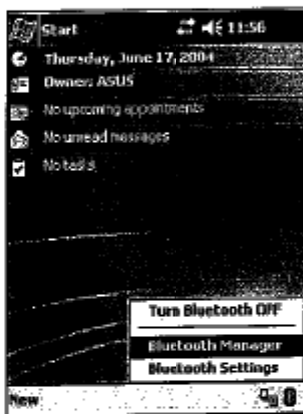
IMPORTANT! On hot weather, do not leave the ASUS GPS-BT100 inside a vehicle or closed compartment with no air conditioning. Very high temperatures may damage the device battery or affect the battery performance!
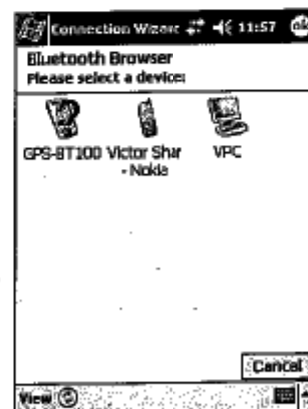
Step 2: Turn on the ASUS GPS-BT100 device.

Step 3: Set up the Bluetooth in your PDA.

To set up the Bluetooth in your PDA:

1. Tap the Bluetooth icon █ on the bottom of the PDA display, then select **Bluetooth Manager** from the pop-up menu. The **Bluetooth Manager** window appears.

2. Tap **New**, then select **Connect** from the pop-up menu. The Bluetooth Connection Wizard window appears.

3. Tap the option **Explore a Bluetooth device** to search the ASUS GPS-BT100 device.
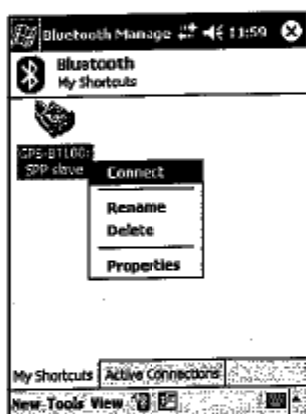

4. The PDA displays the detected Bluetooth device(s) within its range. Tap the GPS-BT icon.
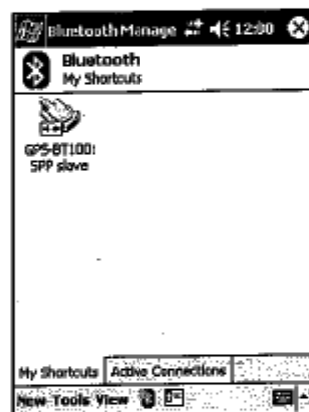
5. Tap **SPP slave** from the Service selection field, then tap **Next**.

6. The PDA automatically creates a shortcut for the selected Bluetooth device. Tap **Finish** to display the Bluetooth shortcuts.

7. Tap and hold the **GPS-BT100: SPP slave** icon, then select **Connect** from the pop-up menu.

8. The PDA connects to the ASUS GPS-BT100 device. Tap (X) to close the **Bluetooth Manager** window.

IMPORTANT! If the PDA prompts you to enter the Bluetooth passkey, use the PDA soft keyboard to enter the default passkey (1234).

**Step 4: Launch a navigation application (e.g. PaPaGO!®, eMap, etc.) on your PDA to get your GPS information.**

Using the device in your vehicle

With the supplied ASUS PDA accessories, you can install, charge, and use the ASUS GPS-BT100 device in your vehicle and get your GPS information while travelling.

Using the travel charger (5 V DC/≧2.0 A) with Y-cable

The travel charger with the Y-cable allows you to charge the ASUS GPS-BT100 and your PDA or notebook at the same time. Follow these instructions to install and charge the device:
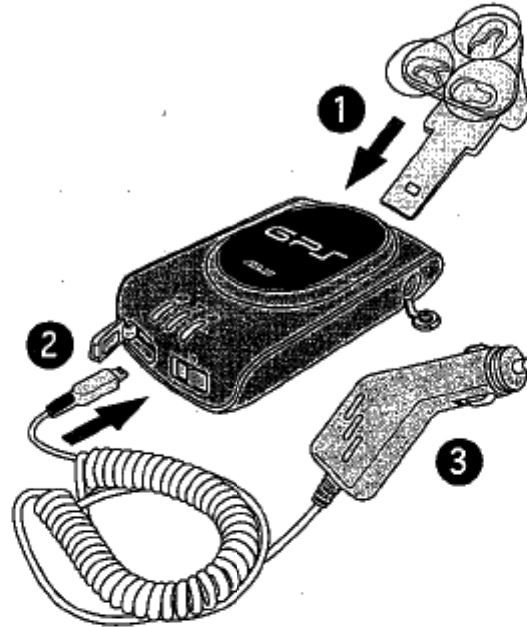
1. Insert the windshield holder foot to the hole at the back of the device until it fits in place.
2. Position the device such that its top faces out from the windshield or window. Press the windshield holder suction caps firmly against the vehicle windshield or window until it is in place.
3. Connect the travel charger plug to the Y-cable socket.
4. Connect the Y-cable mini-USB plug to the ASUS GPS-BT100 mini-USB port.
5. Connect the RCA power plug to the PDA adapter or notebook power socket.
6. Insert the travel charger adapter to the vehicle cigarette lighter.
7. Follow the instructions on the previous section and on the GPS installation guide to use the device.
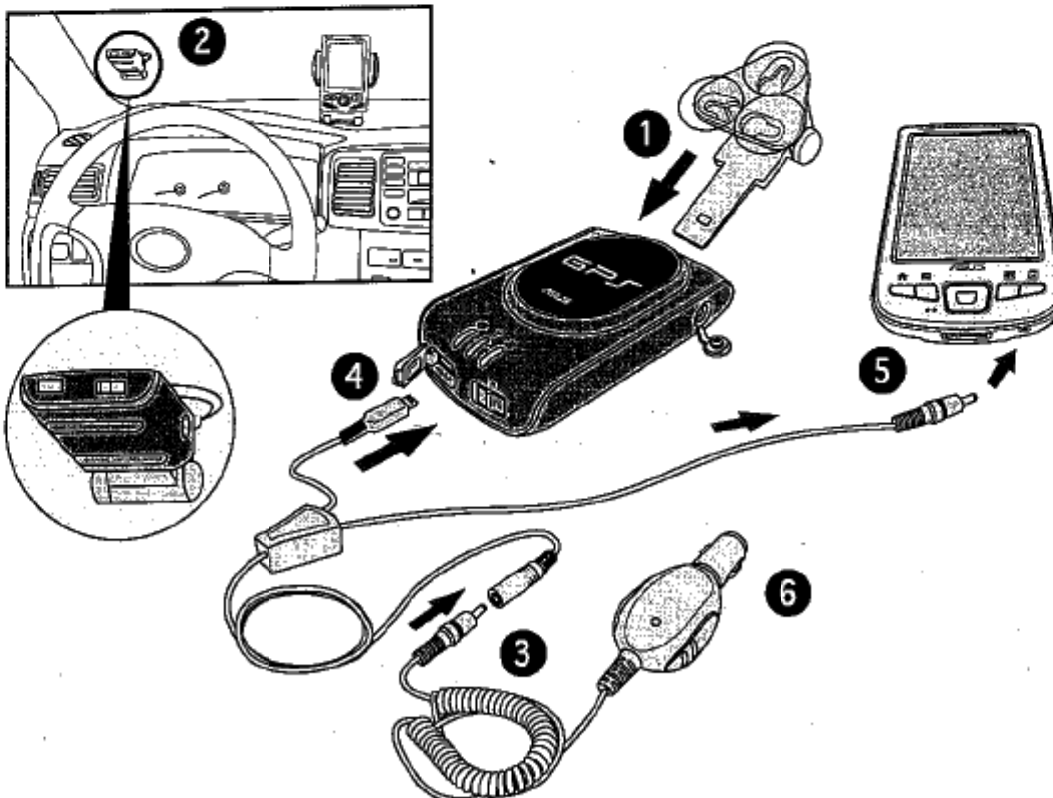
Using the travel charger (5 V DC/≧0.5 A) with a mini-USB plug

Follow these instructions if your package came with a travel charger with a mini-USB plug.

1. Follow steps 1 to 2 of the previous section.

2. Connect the mini-USB plug to the ASUS GPS-BT100 mini-USB port.

3. Insert the travel charger adapter to the vehicle cigarette lighter.

4. Follow the instructions on the previous section and on the GPS installation guide to use the device.

Troubleshooting

Problem	Solution
I have established Bluetooth connection, but the PDA does not receive any GPS data.	• Check if other device or software application is using the virtual COM port where the ASUS GPS-BT100 device is trying to use. Turn off the other device or software application using the virtual COM port. • Reset your PDA or close other software applications running on your PDA. • Use your navigation application to set the virtual COM port Baud rate the same as that of the ASUS GPS-BT100.
The "Search GPS automatically" feature of my navigation application cannot detect the ASUS GPS-BT100 or the navigation application fails to receive GPS data.	• Use your navigation application to set the virtual COM port Baud rate the same as that of the ASUS GPS-BT100. • The battery power may be low. Fully discharge the device, then recharge.

Troubleshooting

Problem	Solution
I need to click the GPS-BT100 device twice when using the "Search GPS automatically" feature of my navigation application such as PaPaGO!	• Disable the "Search GPS automatically" feature of the PDA navigation application. • Determine the virtual COM port where the ASUS GPS-BT100 device is connected to, then establish connection to the ASUS GPS-BT100 device manually.
The navigation application closes automatically or performs continuous GPS device scanning when using the "Search GPS automatically" feature.	• Use the latest version of the software application, then try again. • Disable the auto-search GPS function of the PDA navigation application, then establish connection to the ASUS GPS-BT100 manually.
The GPS-BT100 device cannot fix my position for a long time (more than five minutes).	• The car windshield tint is blocking the ASUS GPS-BT100 view of the sky. Try installing the device on another location inside your vehicle. You can also install an external antenna (optional) for better data acquisition. • Heavy foliage, vegetation, or structures are blocking the ASUS GPS-BT100 view of the sky. Try moving to an open space. • The device usually takes more time to acquire GPS data during first time use. Data acquisition also takes time when you use the device after charging it from a full battery discharge. • The device memory data may be corrupted. Fully discharge the device, then recharge
The GPS LED turns off after a period of time.	When there is no connection between the ASUS GPS-BT100 and a device (e.g. PDA), the GPS function automatically turns off to save battery power. The GPS function is automatically restored when a device connects to the ASUS GPS-BT100.
The Bluetooth LED turns off after a period of time.	The ASUS GPS-BT100 is in idle mode to save battery power. Turn off the device, then turn on again to activate the Bluetooth function.
The battery is not yet fully charged after more than five hours of charging.	The ASUS GPS-BT100 features a high temperature protection mechanism that prevents battery charging on places with high temperature. Try charging the device at a cooler location.

APPENDIX

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This manufacture is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. Such modification could void the user's authority to operate the equipment.

Prohibition of co-location
This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

Declaration of Conformity for R&TTE directive 1999/5/EC
Essential requirements – Article 3
Protection requirements for health and safety – Article 3.1a
Testing for electric safety according to EN 60950 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b
Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2
Testing for radio test suites according to EN 300 328-2 has been conducted. These are considered relevant and sufficient.