

BT-R900
Bluetooth GPS Receiver
User's Manual



Date: April 2006
Version: 2.1

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Manual Revision History

Revision	Date	Update Summary
Issue 1.0	March 2006	Initial release
Issue 2.1	April 2006	Update

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0. Quick Installation

1. Have the battery full charged.
Before using the battery, please put it in BT-R900 and have it recharged for 4 hours.
2. Turn on your PDA.
Execute the Wireless function. If your PDA has no built-in Wireless function, you need an optional CF or SD Wireless card and activate the Wireless function.
3. Connect BT-R900 with PDA.
 - 3.1 Turn on the power of BT-R900. (Continued press power button 3 seconds.)
 - 3.2 Create a new Wireless connection on your PDA.
 - 3.3 Select the SPP Slave.
 - 3.4 Connection completed.

LED Indicators:

Symbol	LED Color	Status	Light Indication
Battery	Red	Light Twinkling Light On Light Off	Battery Low In Charging Battery Full or Not in charging
Wireless	Blue	Light On/Off 1 sec/1 sec Light On/Off Continued On	Linking Completed Pair Searching
GPS	Green	Light On/Off Continued On Light On/Off 1 sec/2 sec	Acquiring Satellites Position Fixed

4. Pass Word

The pass word for pair is " 0000 ".

1. Introduction

1.1 Overview

The BT-R900 is a GPS receiver with Wireless interface and built-in Patch antenna for high sensitivity to tracking signal. Based on the SiRF starIII high performance chipset

The BT-R900 is well suited to system integration and users who use PDA , Smart phone, Tablet PC and Notebook PC with Wireless devices. It satisfies a wide variety of applications. For car navigation, personal navigation or touring devices, tracking, and marine navigation purpose.

1.2 Main Features

- SiRF starIII Chipset 20 Channels all in view tracking
- High Sensitivity -159dBm
- Reacquisition Time: 0.1 second
- After device disconnects 30 minutes, the BT-R900 shall automatic turn off the power.
- Support Standard NMEA-0183 at 4800 bps baud rate
- Compatible with Wireless devices with Serial Port Profile (SPP)
- Lithium-ion rechargeable battery lasts for more than 10 hours of use
- Power On/Off button
- Dimension: 73mm x 45mm x 20mm
- Weight: 60g

1.3 Possible Applications

- Vehicle Tracking & Location-based Services
- Personal/Portable Navigation
- Car Navigation

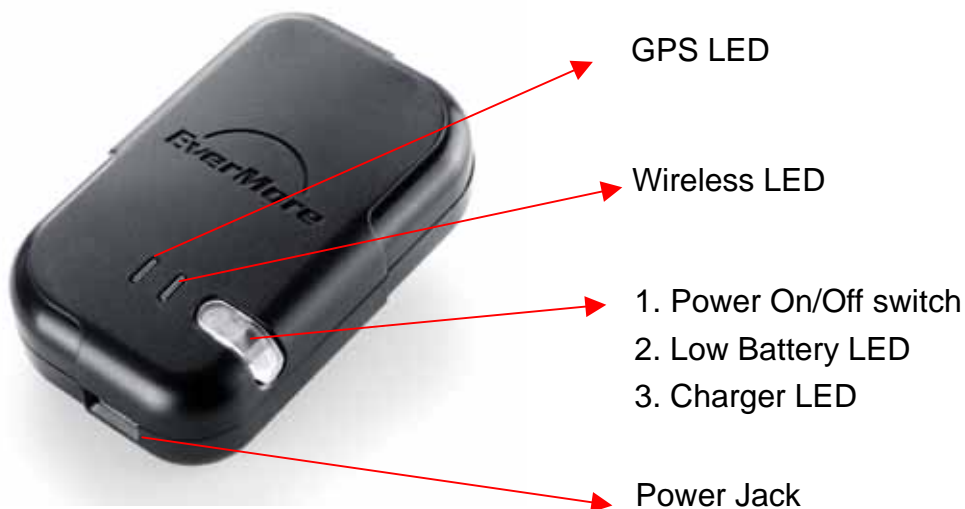
1.4 Package

Before you start up, make sure that your package includes the following items. If any items are missing or damaged, contact your dealer immediately.

- BT-R900 Bluetooth GPS Receiver
- CD with the User's Manual
- A USB charging cable
- Battery (3.7V/1050mAh lithium-ion rechargeable)
- DC Car Charger

2. Hardware Interface

2.1 LED Status



How to turn on the BT-R900: Continued press power button 3 seconds.

How to turn off the BT-R900: Continued press power button 3 seconds or automatic turn off.

LED Indicators:

Symbol	LED Color	Status	Light Indication
Battery	Red	Light Twinkling Light On Light Off	Battery Low In Charging Battery Full or Not in charging
Wireless	Blue	Light On/Off 1 sec/1 sec Light On/Off Continued On	Linking Completed Pair Searching
GPS	Green	Light On/Off Continued On Light On/Off 1 sec/2 sec	Acquiring Satellites Position Fixed

2.2 Power Jack

The power jack lets you to connect a USB port to charge battery.

3 . Installation

3.1 Wireless connection

<1> Power button

<1.1> Push Wireless “power on”, Wireless LED will be lighted for searching the Wireless device.

<2> On the PDA, make sure the Wireless device is available.

And select Wireless function.

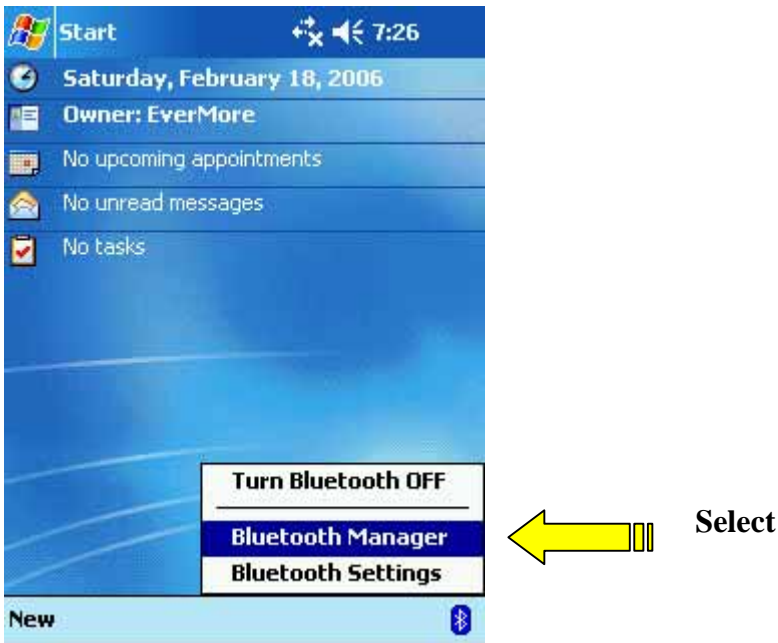


← Step 2

← Step 1

<3> **Open “Wireless Manager “ in the PDA**

<3.1> Click the Wireless icon and select Wireless manager.

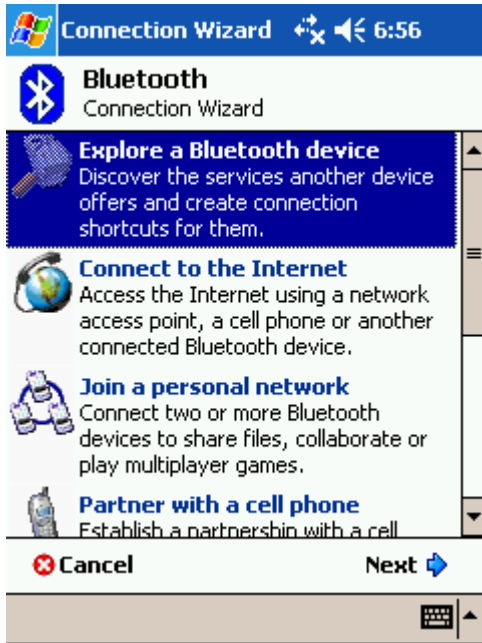


<3.2> Click “new” to connect device



<4> Search for Wireless device “BT-R900 “

<4.1> Click “check Wireless device “ and then click “next”

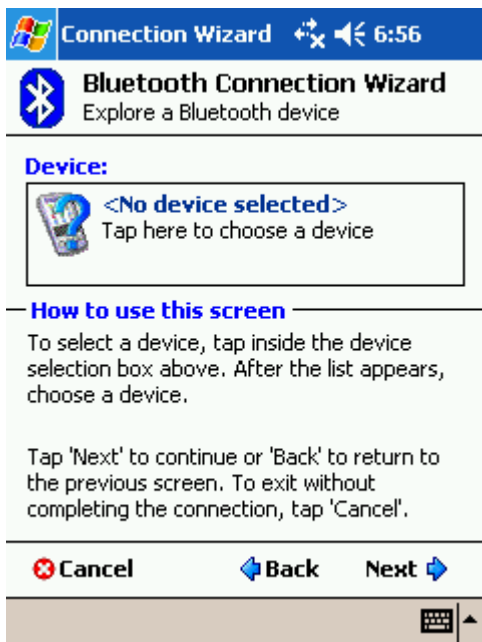


← Step 1

← Step 2

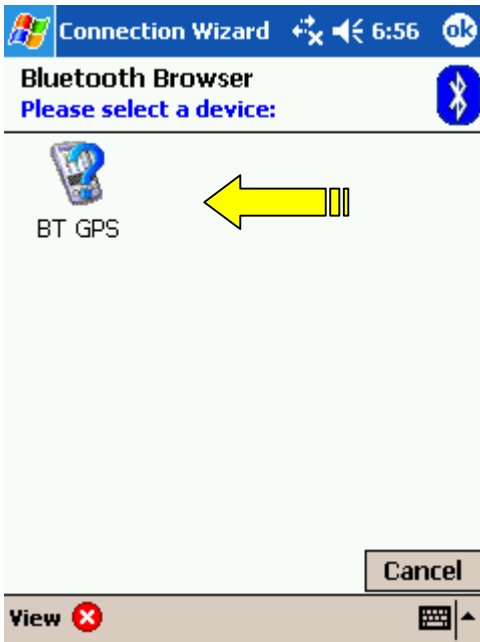
<5> Click “Device” to connect with Wireless Product

< 5.1 > Click “device” and find BT-R900



← Select

<5.2> Click “BT-R900 “to setup the device.

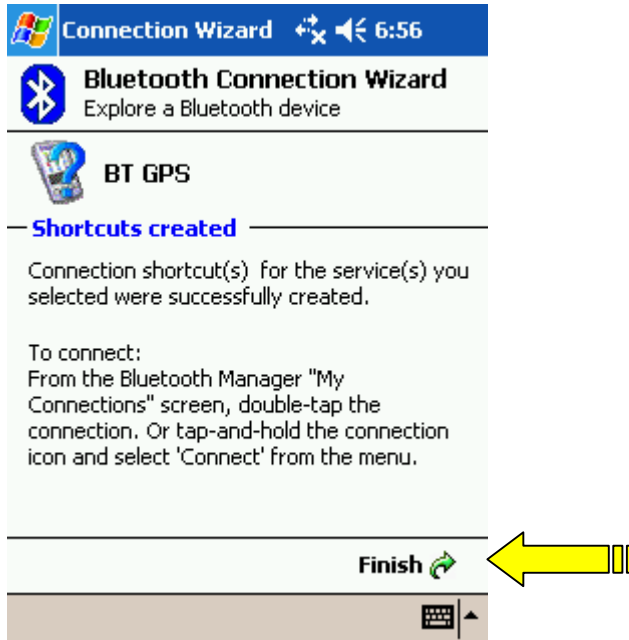


<6> Connect to SPP slave

<6.1> Click “SPP slave “and then click “next”



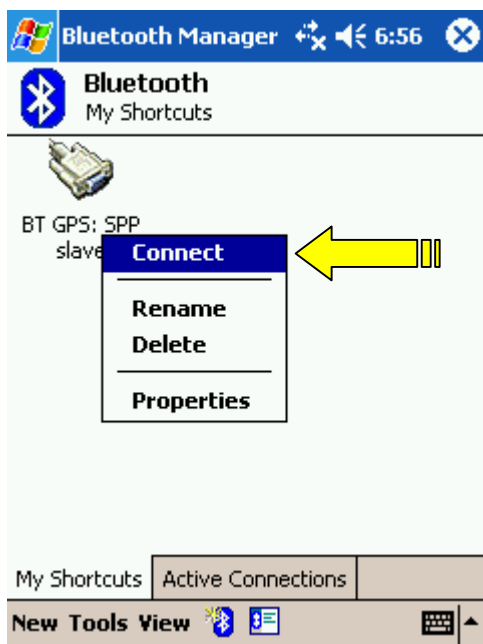
<6.2>Click “Finish”



<7>Connect PDA and GPS Device

<7.1 > Press “BT GPS” icon until pop up the new window

<7.2 > Click “connect” to access BT-R900 Wireless GPS device



3.2 Wireless GPS device for Notebook.

1. Turn the BT-R900 power on
2. Check the COM port number used by Wireless Device. (Example: COM 6).
3. Run navigation software and set the right COM port and 4800 Baud Rate.
4. Pass word " 0000 " .

4. Technical Specification

GPS Specification

Features	Description
General	L1 1575.42MHz, C/A code, 20-channel all in view tracking
Sensitivity	-159 dBm
Accuracy	Position: <15m(95%) without S/A Velocity: 0.1 m/sec without S/A Time: ± 100ns synchronized to GPS time
Acquisition	Cold start: 42 sec (average) Warm start: 38 sec (average) Hot start : 1 sec (average)
Update Rate	1 Hz
Reacquisition	0.1 sec
Dynamics	Altitude: 18,000m Max Velocity: 83m/s Acceleration: 4g Max
Protocol	NMEA-0183 V2.2 , Baud rate: 4800 , 8-None-1
Datum	WGS-84
NMEA Message	Default: GGA, GSA, GSV, RMC
Dimension	73mm x 45mmx 20mm
Weight	60g

Wireless Specifications

Features	Description
Standard	Wireless™ version 1.1 compliant (SPP slave)
Wireless™ Range (Open Environment)	Wireless™ Class 2 operation (Up to 10 meters, 30 Feet)
Wireless™ Output Level	+4dBm
Wireless™ Radio	<-84dBm at 1 e-3 BER

Power Specifications

Features	Description
Battery	Lithium-ion Rechargeable Battery 3.7V/1050mAh
Operation Current	100 mA (Typical)
Operation Time	10 hrs, after fully charged, in continuous
Charging time	4 hrs. (Typical)

Interface Specification

Features	Description
Interface	Wireless™ version 1.1 compliant (SPP slave)

Environmental Specification

Features	Description
Operation Temperature	-10°C to +60°C
Storage Temperature	-20°C to +85°C
Operating Humidity	5% to 95%

* Preliminary Specification, Subject To Change Without Notice

5 . Limited Warranty

The BT-R900 is warranted to be free from defects in material and functions for one year from the date of purchase. Any failure of this product within this period under normal conditions will be replaced at no charge to the customers

6. Appendix

EverMore Website

Welcome to EverMore website at <http://www.emt.com.tw> or <http://www.globalsources.com/gpsevermore.co> for updated product information and drivers download.

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7. Series Products Information

- **300 Series for EverMore BBP1202 Chipset:**
 - 1: GM-307 (USB G-Mouse)
- **500 Series for EverMore BBP1202 Chipset:**
 - 1: BT-R500 (Wireless GPS)
 - 2: GM-R500 (G-MOUSE)
 - 3: CF-R500 (CF Card GPS)
 - 4: CM-M500 (GPS Module)
 - 5: DL-200 (Data logger)
- **700 Series for Nemerix NJ1030 Chipset:**
 - 1: EB-N700 (Engine Board, with patch antenna)
 - 2: EB-N701 (Engine Board, without patch antenna)
 - 3: BT-R700 (Wireless GPS Type I)
 - 4: BT-R710 (Wireless GPS Type II)
 - 5: BT-R730 (Wireless GPS Type III)
 - 6: CF-R700 (CF Card GPS)
- **900 Series for SiRF StarIII Chipset:**
 - 1: BT-R900 (Bluetooth GPS)
 - 2: GM-R900 (G-Mouse)

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful 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 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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.