



# **GPS Bluetooth Receiver User's Guide**

# GPS Bluetooth Receiver *User's Guide*

## Table of Contents

1.	Read Me First.....	p.3
2.	Box Contents.....	p.3
3.	Getting Started.....	p.3
4.	Hardware Description.....	p.7
5.	LED Indicator.....	p.8
6.	Smart Power Management Mechanism/Vibration Sensor.....	p.9
7.	Specifications.....	p.10

# GPS Bluetooth Receiver *User's Guide*

## 1. Read Me First

1. The battery must be charged for at least 8 hours for the 'INITIAL' use. The LED1 (ORANGE) will turn off after 3 hours' charging, please keep on charging for 5 more hours. Thereafter, for each time's battery charging please fully charge for 3 hours.
2. We strongly recommend that remove the battery if the device will not be used for over 2 weeks. Do not remove the battery within 2 weeks.
3. For fast data tracking purpose staying still before get fixed is recommended. (FIX then GOES!!)
4. Please note that the device will only receive the signal under the open sky. In this case, putting the device under the windshield is recommended.

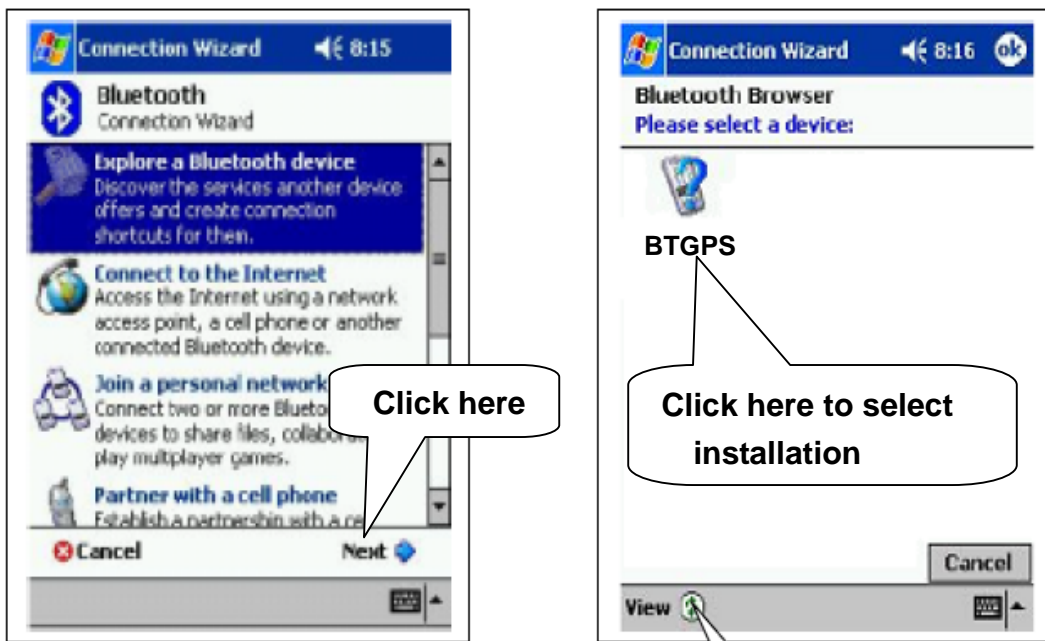
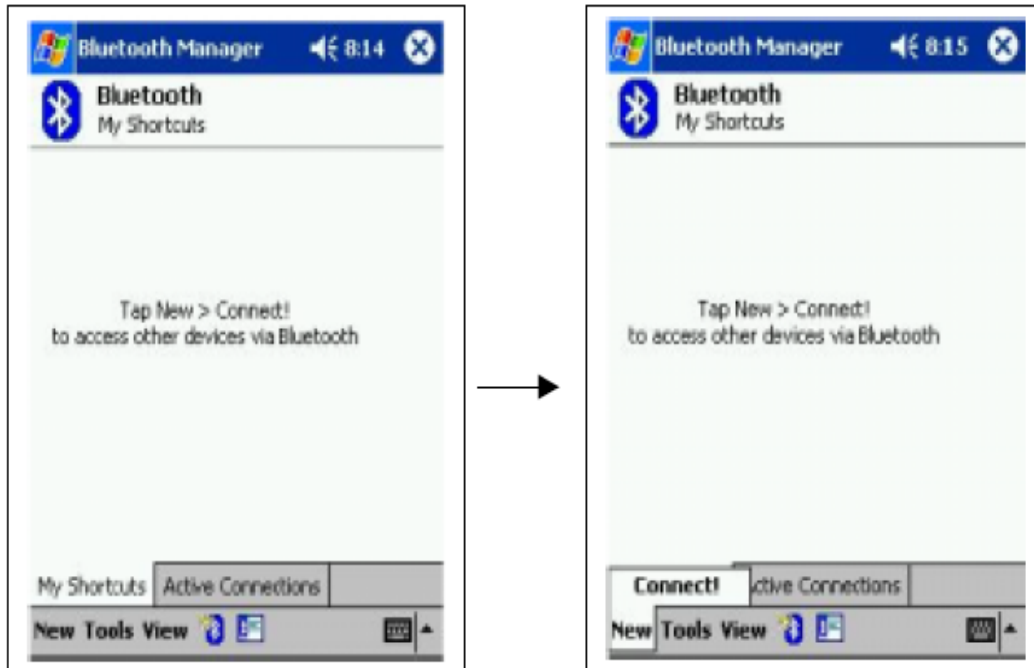
## 2. Box Contents

1. GPS Bluetooth Receiver
2. Lithium-ion rechargeable battery
3. Car charger
4. Power adapter
5. Document CD
6. Anti-Slip Rubber Pad

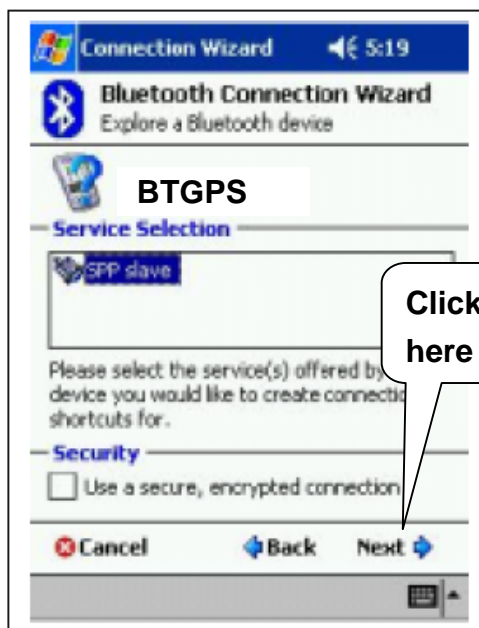
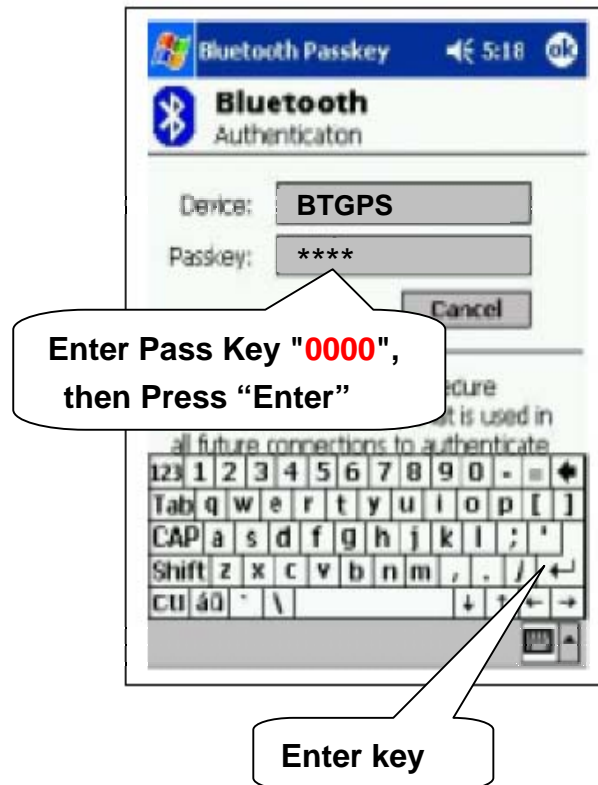
## 3. Getting Started

1. Install the battery
2. Turn on the GPS Bluetooth receiver.  
Press the power button for 1 second or until the LED2 (GPS Fix Status) turns into **RED** and LED4 (Bluetooth Status) turns into **Blue**.
3. Activate Bluetooth function of your PDA / PC  
Prior to activating the Bluetooth function of your PDA / PC, please make sure the device is equipped with Bluetooth function, and the driver software has been installed.
4. Activate Bluetooth Manager & Established New Connections.  
Illustrations using HP 2100 PDA as follows:
  1. First, find the device with which you wish to establish connection.
  2. Open "Bluetooth Manager" on your pocket PC.
  3. Press "New".
  4. Press "Connect".

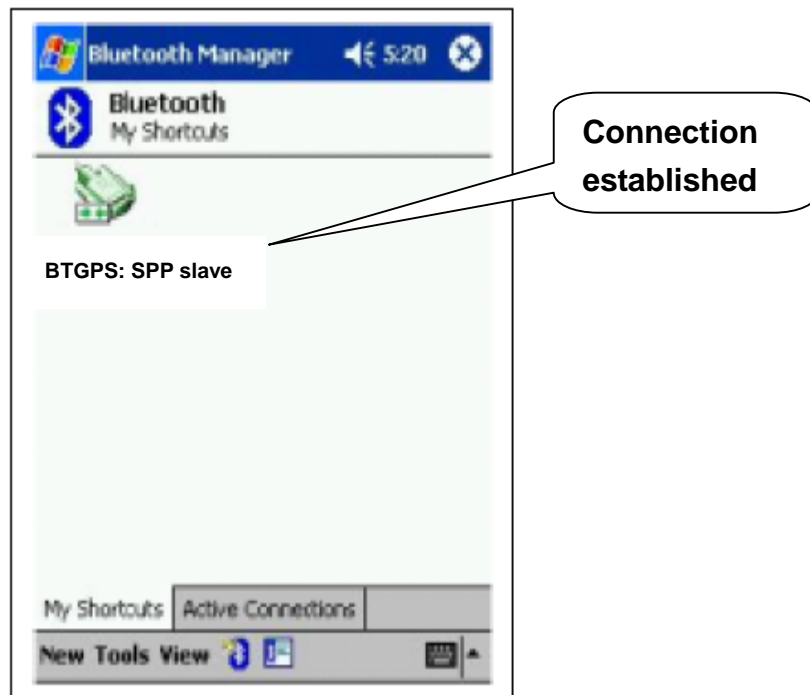
# GPS Bluetooth Receiver *User's Guide*



# GPS Bluetooth Receiver *User's Guide*



# GPS Bluetooth Receiver *User's Guide*



**The connection between GPS Bluetooth receiver and PDA has been successfully established**

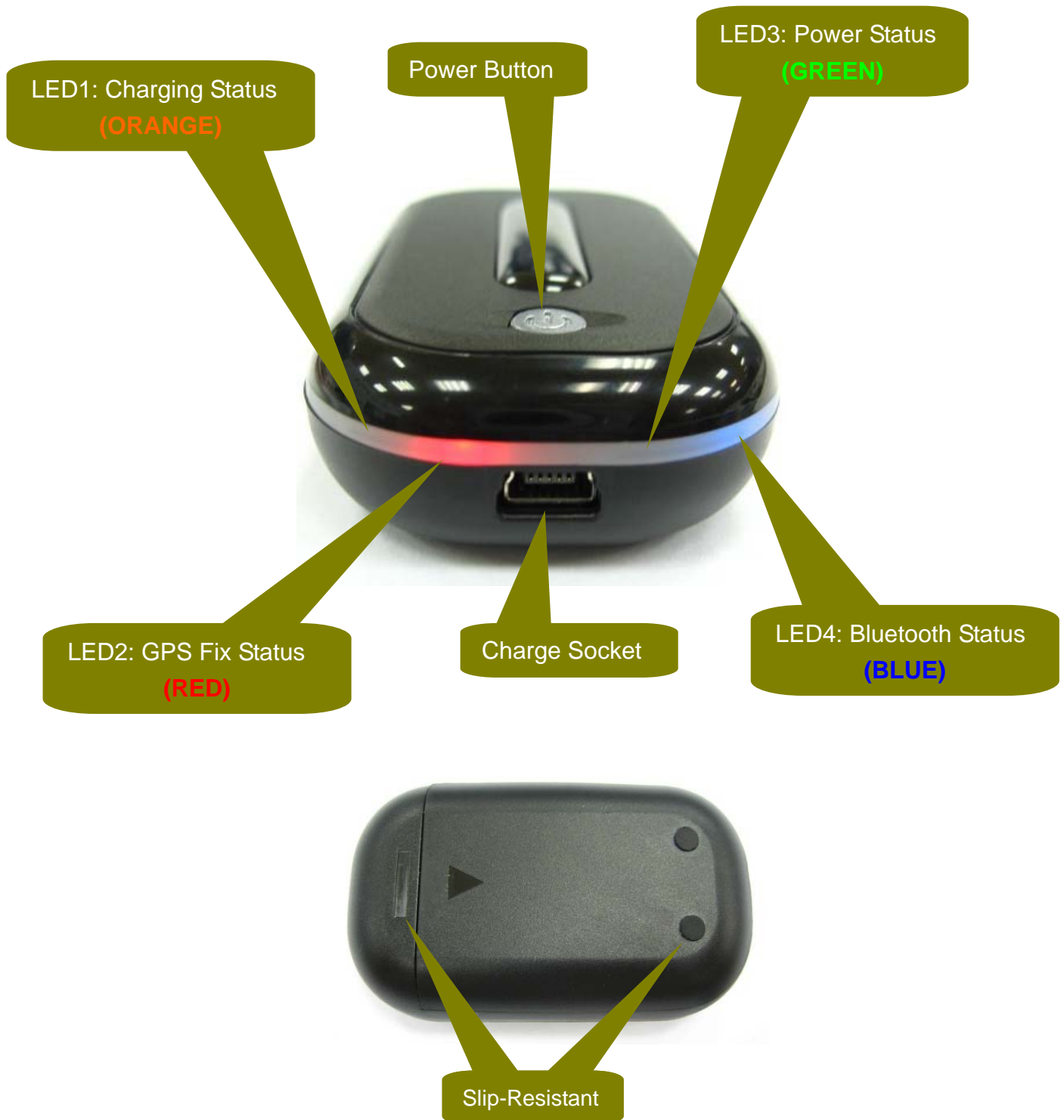
## 5. Turn off the GPS Bluetooth receiver

Press the power button for 1 second, all LEDs will go off.

**We recommend that close the E-map before turning off the GPS Bluetooth receiver, in order to avoid any possible PDA /PC freeze.**

# GPS Bluetooth Receiver *User's Guide*

## 4. Hardware Description



# GPS Bluetooth Receiver *User's Guide*

## 5. LED Indicator

Power on:

LED1: Charging Status	LED2: GPS Fix Status	LED3: Power Status	LED4: Bluetooth Status
N/A	Red (Keep ON) GPS not fixed yet!	N/A	Blue Blinking very quickly for the first 5 sec., then blinking slowly (in pairing mode)

GPS get fixed/Bluetooth connected:

LED1: Charging Status	LED2: GPS Fix Status	LED3: Power Status	LED4: Bluetooth Status
N/A	Red Blinking	N/A	Blue Blinking quickly

- Low battery: LED3 (GREEN) blinking for every 1 second
- Charging: LED1 (ORANGE) ON; the GPS Bluetooth receiver will automatically turns on
- Battery is fully charged: LED1 (ORANGE) turns off



**GPS Bluetooth operates on OS with Bluetooth function that supports SPP**

**In order to avoid any unexpected problem, DO NOT attempt to change the default baudrate**

# GPS Bluetooth Receiver *User's Guide*

## 6. Smart Power Management Mechanism/Vibration Sensor

### <Power ON the GPS Bluetooth Receiver>

- a. If Bluetooth is not connected in 5 minutes, GPS will be turned off (Bluetooth keep pairing...)
- b. If Bluetooth is not connected in 1 hour, the device will be turned off
- c. In case the GPS Bluetooth Receiver has been moved or shaken...**the vibration sensor is then activate:**
- d. Bluetooth ON automatically, and trying to pair with the other Bluetooth device:
- e. If Bluetooth is connected, then GPS ON automatically
- f. If Bluetooth is not connected in 1 hour, the device will be turned off

# GPS Bluetooth Receiver *User's Guide*

## 7. Specifications

### GPS Features

Chipset	Skytraq low power chipset
Frequency	L1, 1575.42MHz
C/A Code	1.023MHz chip rate
Channels	Supports 44 channels
Antenna (Internal)	Built-in low noise antenna

### Sensitivity

To – 159dBm Tracking, Superior Urban Canyon  
Performance

### Time to First Fix (TTFF)

Cold Start	30 sec, average
Warm Start	28 sec, average
Hot Start	1 sec, average
Reacquisition	0.1 sec
Update rate	1 Hz (std.)

### Accuracy

Position	5m CEP without SA 10m 2D, RMS
Velocity	0.1m/sec, without SA
Time	1 $\mu$ s synchronized to GPS time

### Power

Built-in rechargeable 950mAh Li-ion battery and 5V DC  
input

Operation Current	~50mA (Average)
Operation Time	Up to 20hrs, fully charged, in continuous mode
Charging time	3.0hrs. (Typical)

### Datum

WGS-84

### Dynamic Conditions

Altitude	<18,000 m (60,000feet)
Velocity	<515 m/s (1000 knots)
Acceleration	<4G
Motional Jerk	20m/sec <sup>3</sup> max.

### Interface

Communication Protocol: Communicate with host  
platform via Bluetooth (class 2) serial port profile

Bluetooth communication distance 10meters (Typical)

GPS Protocol: Default: NMEA-0183 - GGA, GSA, GSV,  
RMC; Skytraq Binary

Data bit: 8, stop bit: 1 (Default)

### Device Size and Weight

77.05 (L) X 46.10 (W) X 19.50 (H) mm  
3.03 (L) X 1.81 (W) X 0.77 (H) inch

60g (battery included)

### Accessories

Car charger (12V in, 5V output)  
AC adaptor (5.3V output, 500mA)

### Environmental Characteristics

Operating Temperature	- 10°C to + 60°C
Storage Temperature	- 20°C to + 85°C

*All specifications are subject to change without notice*