GPS*Instant* FIX

User's Guide

GPS-BT74R

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For further information, please contact

GPS*Instant*FIX
E-mail: sales@gpsinstantfix.com.tw
Web: www.gpsinstantfix.com.tw

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1. Read Me First

1. The battery must be charged for at least 8 hours for the 'INITIAL' use. The LED2 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 4 hours. (LED2 usually turn off after 3 hour's charging)
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

3. Getting Started

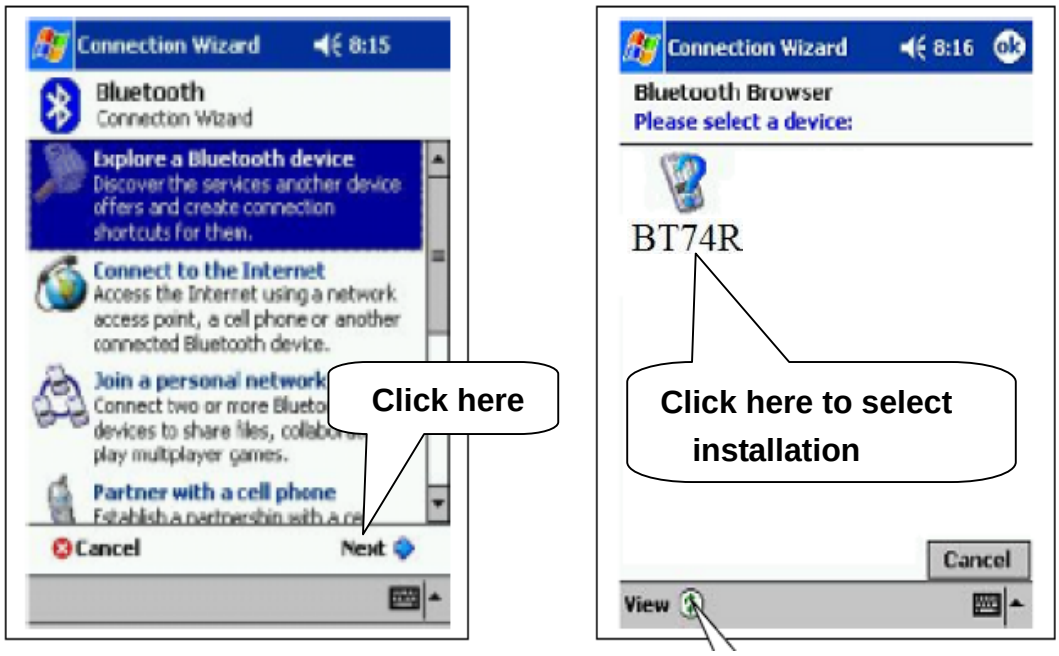
1. Install the battery

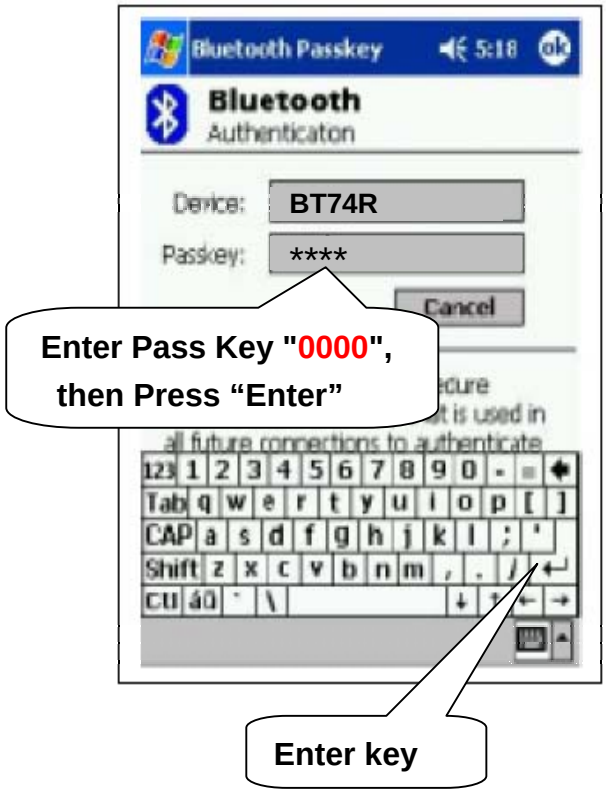
2. Turn on the GPS Bluetooth receiver.
   Press the power button for 1 second or until the LED1 (GPS Fix Status) turns into **Green** and LED3 (Bluetooth Status) turns into **Blue**.

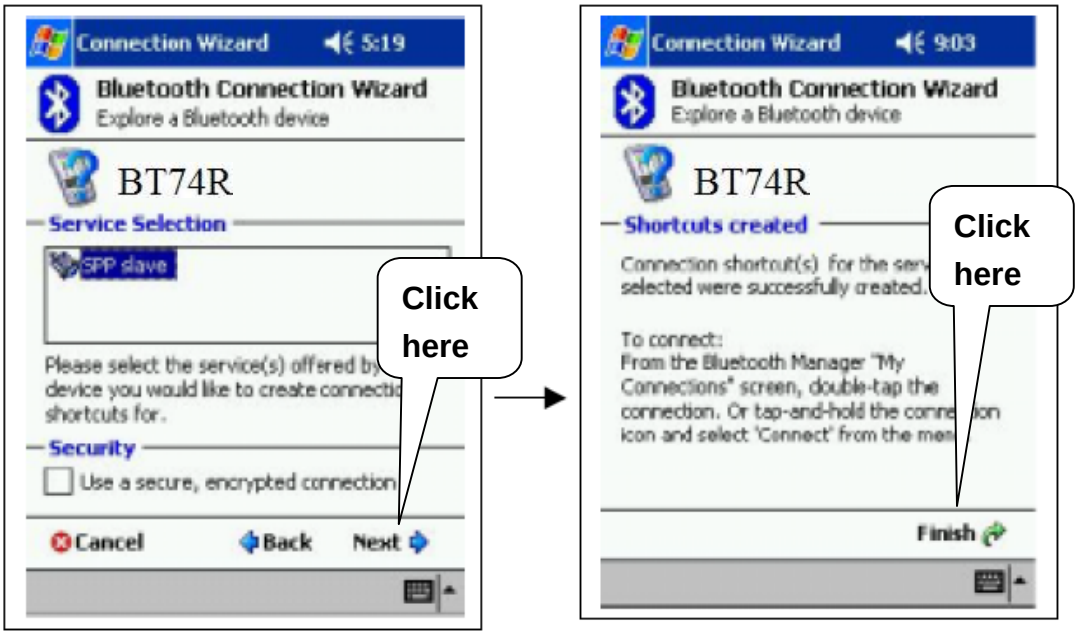
3. Activate Bluetooth function of your PDA / PC
   Prior to activating the Bluetooth function of your PDA / PC, please make sure the device is equipped with Bluetooth function, and the driver software has been installed.

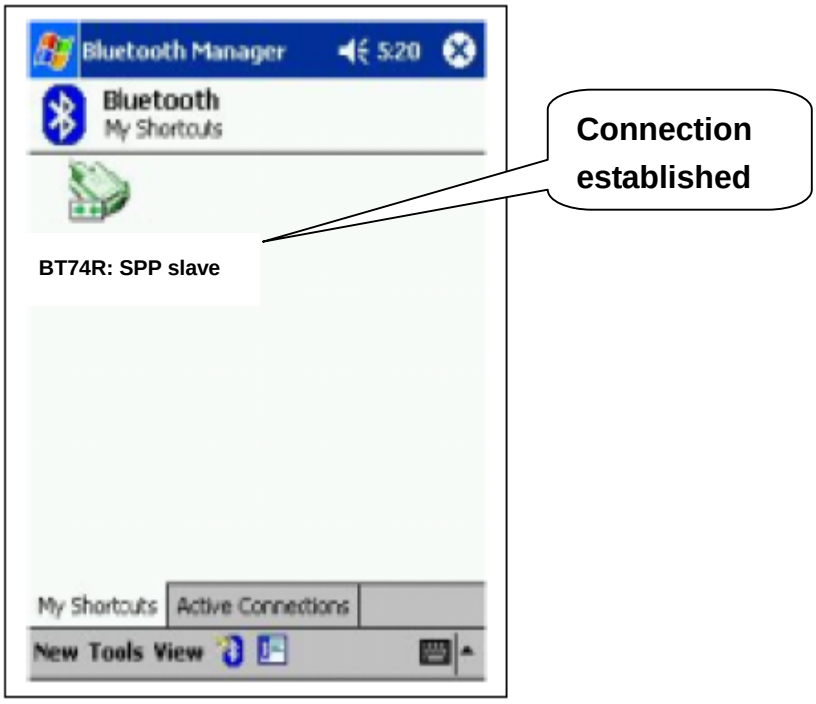
4. Activate Bluetooth Manager & Established New Connections.
   Illustrations using HP 2100 PDA as follows:
   1. First, find the device with which you wish to establish connection.
   2. Open "Bluetooth Manager" on your pocket PC.
   3. Press "New".
   4. Press "Connect".


Bluetooth Manager
8:14
Bluetooth
My Shortcuts
Tap New > Connect!
to access other devices via Bluetooth
My Shortcuts
Active Connections
New Tools View
Bluetooth Manager
8:15
Bluetooth
My Shortcuts
Tap New > Connect!
to access other devices via Bluetooth
Connect!
New Tools View


Connection Wizard
8:15
Bluetooth
Connection Wizard
Explore a Bluetooth device
Discover the services another device offers and create connection shortcuts for them.
Connect to the Internet
Access the Internet using a network access point, a cell phone or another connected Bluetooth device.
Join a personal network
Partner with a cell phone
Cancel
Next
Click here
Connection Wizard
8:16
Bluetooth Browser
Please select a device:
BT74R
Click here to select installation
Cancel
View


Bluetooth Passkey
5:18
ok
Bluetooth
Authenticaton
Device:
BT74R
Passkey:
****
Cancel
Enter Pass Key "0000", then Press "Enter"
Enter key


Connection Wizard
5:19
Bluetooth Connection Wizard
Explore a Bluetooth device
BT74R
Service Selection
SPP slave
Click here
Security
Use a secure, encrypted connection
Cancel
Back
Next
Connection Wizard
9:03
Bluetooth Connection Wizard
Explore a Bluetooth device
BT74R
Shortcuts created
To connect:
Click here
Finish



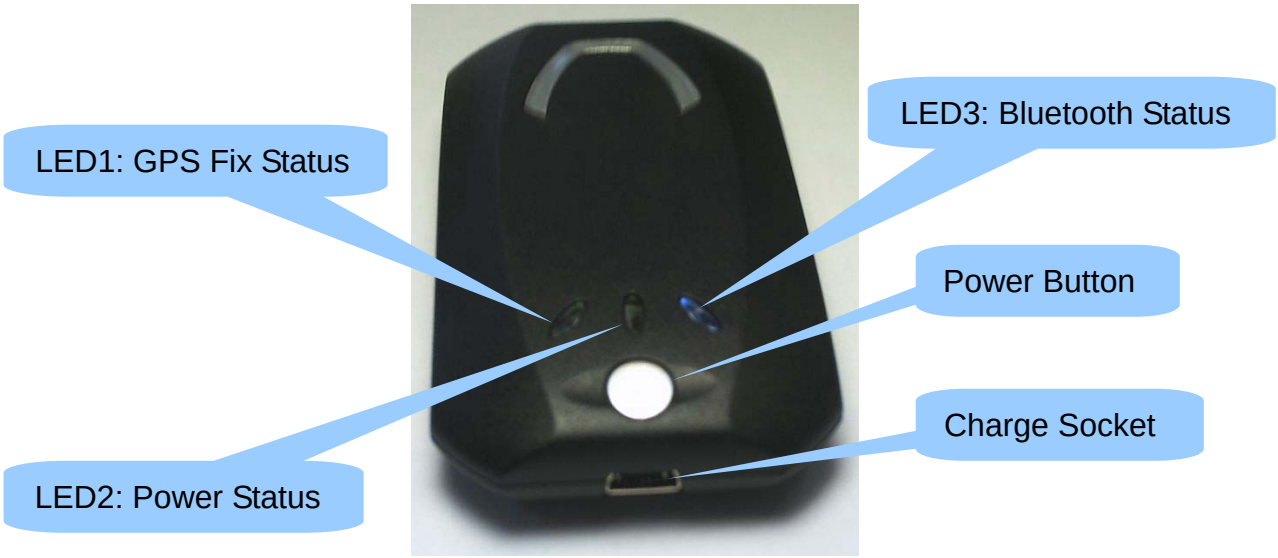
The connection between GPS Bluetooth receiver and PDA has been successfully established

5. Turn off the GPS Bluetooth receiver

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

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

4. Hardware Description



5. LED Indicator

Power on:

LED1: GPS Fix Status	LED2: Power Status	LED3: Bluetooth Status
Green (ON) GPS not fixed yet!	**N/A**	**Blue (ON)** Bluetooth in paring mode

GPS get fixed/Bluetooth connected:

LED1: GPS Fix Status	LED2: Power Status	LED3: Bluetooth Status
Green Blinking for every 2 seconds	**N/A**	**Blue** Blinking for every 1 seconds

Low battery: LED2 (RED) blinking for every 1 second
Charging: LED2 (RED) ON
Battery is fully charged: LED2 (RED) turns off

NOTE: The device will automatically shut down if no Bluetooth connection after 10 minutes.

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

6. Specification

GPS Features	
Chipset	RFMD
Frequency	L1, 1575.42MHz
C/A Code	1.023MHz chip rate
Channels	Adaptive, 8 – 32 SVs (best 8 used in solution)
Antenna (Internal)	Built-in low noise antenna
	External Active MMCX Antenna
Sensitivity	
To – 157dBm Tracking, Superior Urban Canyon Performance	
Time to First Fix (TTFF)	
Cold Start	43 sec, average
Warm Start	25 sec, average
Hot Start	4 sec, average
Reacquisition	< 3sec
Update rate	1 sec
Accuracy	
Position	Open sky: <5m (RMS)
	In door: <20m (RMS)
Velocity	0.1m/sec, without SA
Time	±100ns synchronized to GPS time
Power	
Built-in rechargeable 1100mAh Li-ion battery and 5V DC input	
Operation Current	<80mA (Typical)
Operation Time	13hrs, fully charged, in continuous mode
Charging time	3.0hrs. (Typical)
Environmental Characteristics	
Operating Temperature	- 20°C to + 60°C
Storage Temperature	- 50°C to + 100°C

Datum	
WGS-84 (or by demanded)	
Dynamic Conditions	
Altitude	<18,000m
Velocity	<515m/s
Acceleration	<1G
Motional Jerk	4 m/sec
Interface	
Communication Protocol: Communicate with host platform via Bluetooth (class 2) serial port profile	
Bluetooth communication distance 10meters (Typical)	
GPS Protocol: Default: NMEA-0183 V2.2 - GGA, GSA, GSV, GLL, RMC, VTG, Baud rate 9600/38400 bps,	
Data bit: 8, stop bit: 1(Default)	
Device Size and Weight	
81.0 (L) X 43.0 (W) X 17.6 (H) mm	
3.19 (L) X 1.69 (W) X 0.69 (H) inch	
70g (battery included)	
Accessories	
Car charger (12V in, 5V output)	
AC adaptor (5.3V output, 500mA)	

FEDERAL COMMUNICATIONS 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the euipment into an outlet on a circuir different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the euipment.