

User Manual
Bluetooth GPS Receiver
BT-338
ver 1.07

1 BT-338 at a glance

1.1 Appearance and Function



1.2 How to change battery



Figure 1 Open the cover of battery



Figure 2 Take out the battery with pull tag



Figure 3 Put new battery into BT-338



Figure 4 Fit battery into BT-338



Figure 5 Slide the cover of battery to close



Figure 6 Slide the cover of battery to close

1.3 Accessories



2. Introduction

The BT-338 is a GPS receiver with **Bluetooth** interface and built-in active antenna for high sensitivity to tracking signal. Based on the SiRF star III Low power chip set and supports all functions (Single Sat updates in reduced visibility, Superior urban canyon performance, FoliageLock for weak signal tracking, etc.). The BT-338 is well suited to system integrations including PDA, Smart phone, Tablet PC and Notebook PC with Bluetooth devices. It satisfies a wide variety of applications that are purposes in automotive, and outdoor recreation navigation systems.

2.1 Package

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

- ◆ Bluetooth GPS Receiver
- ◆ A CD with the User Manual and the Testing Program.
- ◆ AC Power Charger
- ◆ DC Car Power Charger

2.2 Power Switch



Power on:

Press the power button 1 second until the GPS status LED is on.

Power off:

Press the power button 1 second until the GPS status LED is off.

2.3 Power Jack

The power jack lets you to connect either a DC car power charger (included) or AC power charger (included) to recharge the internal battery. Please note that the adapter rating 5V, 1.2 A, positive pole center.

2.4 LED Function

Bluetooth Status LED (Blue):

Blinking (Slowly) ---- Not connected to any Bluetooth device.

Blinking (Quickly) ---- Connected to other Bluetooth device.

GPS Status LED (Green):

Blinking ---- GPS position is fixed

Steady light ---- GPS position is not fixed

Battery Status LED (Red/Yellow):

Red ---- Battery power is critically low. Charge immediately.

Yellow ---- Battery is charging now.

LED off ---- Battery is partially full or fully charged.

2.5 Power-saving Function

When you start the power of the Bluetooth GPS Receiver BT-338, if the Bluetooth is not connected to any devices within 10 minutes, BT-338 will turn off the power automatically, and all the LED will go off simultaneously.

3. Specification

3.1 System Specification

Electrical Characteristics (Receiver)	
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 all-in-view tracking
Tracking Sensitivity	-159 dBm
Accuracy	
Position Horizontal	10m 2D RMS (SA off)
WAAS enabled	5m 2D RMS (SA off)
Time	1 micro-second synchronized to GPS time
Velocity	0.1m/sec 95% (SA off)
Datum	
Datum	WGS-84
Acquisition Rate	
Hot start	1 sec., average (with ephemeris and almanac valid)
Warm start	38 sec., average (with almanac but not ephemeris)
Cold start	42 sec., average (neither almanac nor ephemeris)
Reacquisition	0.1 sec. average (interruption recovery time)
Protocol	
GPS Output Data	NMEA 0183 protocol, and supports command: GGA(1sec), GSA(1 sec), GSV(5 sec), RMC(1sec) (VTG and GLL are optional)
GPS transfer rate	38400,N,8,1
Dynamic Condition	
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/sec. (1,000 knots) max.
Jerk Limit	20 m/sec**3
Power	
Voltage	Built-in rechargeable battery(1650 mAh) and 5V DC input charging circuit
Operation Time	15 hr. After fully recharged, in continuous mode >20 hr in trickle power mode
Physical Characteristics	
Dimension	72.5mm x 40.4mm x 26mm
Weight	75g
Temperature	
Operating	-20°~ 60°C
Storage	-30°~ 80°C
Humidity	Up to 95% non-condensing

3.2 Bluetooth Specification

- Bluetooth V1.2 Compliant
- Supply Voltage : 2.8V ~ 3.3V
- Frequency Range : 2.402 ~ 2.480 GHz
- Receiver Sensitivity : -80 dBm
- Transmit Power : Class 2
- Transmitting Range : 10 m (Depends on environment)
- Power Consumption : 45 mA (Typical)

4. Usage

4.1. For PDA with built-in Bluetooth

1. Turn on the power switch in BT-338
2. Please refer to the user manual of PDA to enable the Bluetooth of PDA connecting to the BT-338. Some PDAs may need the Bluetooth passkey, the passkey is **“0000”**.
3. Check the number of COM port used by Bluetooth.
4. Run the suitable mapping/navigation software and select the **correct COM port & baud rate : 38400**

4.2. For PDA with Bluetooth Compact Flash card

1. Turn on the power switch in BT-338
2. Please refer to the user manual of Bluetooth Compact Flash card to enable it connects to the BT-338. Some Bluetooth devices may need the Bluetooth passkey, the passkey is **“0000”**.
3. Check the number of COM port used by Bluetooth.(Example **COM 6**).
4. Running the suitable mapping/navigation software and select the **correct COM port & baud rate : 38400**.

4.3. For Notebook with Bluetooth device

1. Turn on the power switch in BT-338
2. Please refer to the user manual of Bluetooth device to enable it connects to the BT-338. Some Bluetooth devices may need the Bluetooth passkey,

the passkey is **“0000”**.

3. Check the number of COM port used by Bluetooth.(Example **COM 6**).
4. Running the suitable mapping/navigation software and select the **correct COM port & baud rate : 38400**.

Note: The Bluetooth device in most of the applications have an “auto-detect” feature that you do not need to select the Baud Rate.

5. How to test your Bluetooth GPS Receiver?

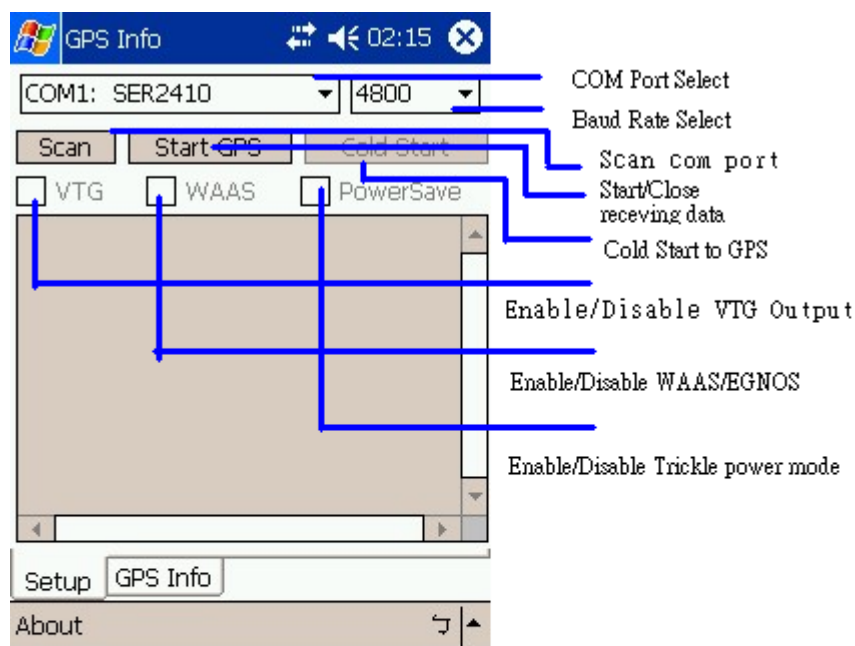
The testing program only supports the Microsoft Windows CE & Pocket PC based PDA platform.

1. Run the “GPSinfo.exe” to execute the installation procedure of testing program (via PC and ActiveSync).
2. Run the “GPS Information” program from “Start → Program files” of PDA.

Here is the description of “GPS Information” testing program :

User must select COM port , Baud Rate (38400) and click the [Star GPS] button to start receiving GPS data.

Note: The Bluetooth device in most of the applications have an “auto-detect” feature that you do not need to select the Baud Rate.



GPS Information 12:39

Date: 2003/03/26
 UTC: 07:40:43
 Direction: 91.63
 Speed: 0 Km/hr
 Status: 3D
 HDOP: 1.0
 PDOP: 2.4

Lat: N 24°59.8868' Lon: E 121°29.2218'

47	43	45	46	43	42	42	41	40			
10	24	04	02	18	07	29	13	01	05	30	08

Setup GPS INFO

About ↵

Trouble shooting

Bluetooth is unable to connect

- A) Check if the GPS Bluetooth indicator is flashing normally. That is, flash one per each three second means the product is under standby mode; flash once per second means Bluetooth has been online already.
- B) Check if energy level is sufficient. If red LED is lid up, then the battery level is insufficient, please recharge it until the red indicator is off (recharge is complete).

GPS cannot be positioned

- A) Check if GPS indicator operates normally or not. If the indicator is constantly lid up, it means that GPS is in operation; if the indicator is flashing, it means GPS is positioned already.
- B) If GPS cannot be positioned for long, apply GPS info software to make a Cold Start first, and then move to an open space performing the positioning task. Check if power level is sufficient. If the red LED lights up, it means the power is insufficient, please recharge it until the red indicator is off (recharge is complete).

FCC Notices

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 RF Exposure requirements:

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

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.