User Manual

Bluetooth GPS Receiver

BT-332

Ver 1.0

1. BT-332 at a glance

1.1 Appearance and Function

1.	Power LED
2.	GPS Status LED
3.	Bluetooth Status LED
4.	Power Button
5.	Power Jack

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-332

Figure 4, Fit battery into BT-332

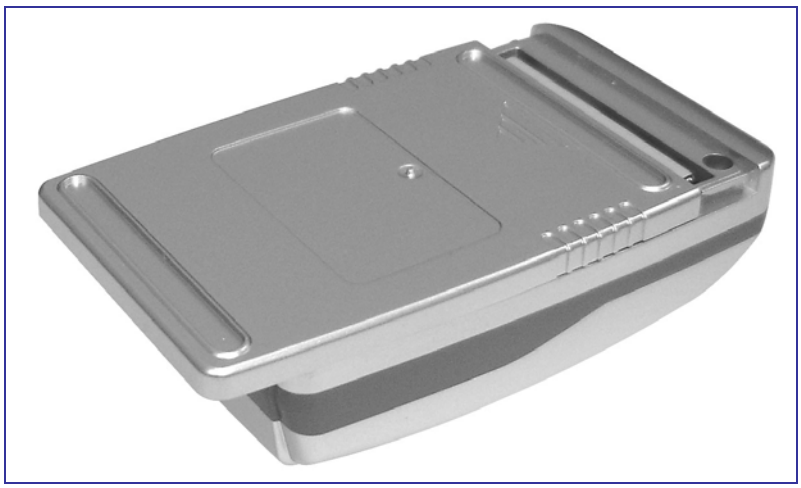


Figure 5, Slide the cover of battery to close

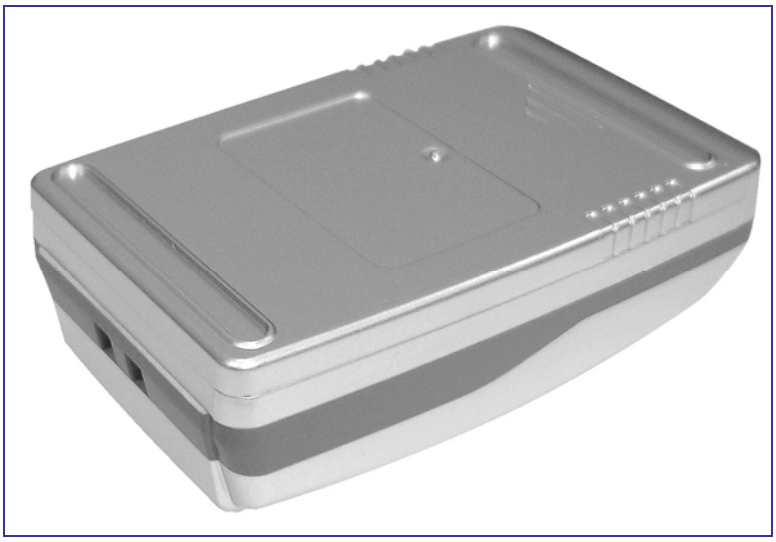


Figure 6, Slide the cover of battery to close

1.3 Accessories

BT-332

Car charge adapter

2. Introduction

The BT-332 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-332 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.
- 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 it 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-332, if the Bluetooth is not connected to any devices within 10 minutes, BT-332 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	80 g
Temperature	
Operating	-20°~ 60°C
Storage	-30°~ 80°C
Humidity	Up to 95% non-condensing

3.2 Bluetooth Specification

- Bluetooth V2.0 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-332.

(2) Please refer to the user manual of PDA to enable the Bluetooth of PDA connecting to the BT-332. 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-332.

(2) Please refer to the user manual of Bluetooth Compact Flash card to enable it connects to the BT-332. 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-332.

(2) Please refer to the user manual of Bluetooth device to enable it connects to the BT-332. 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?

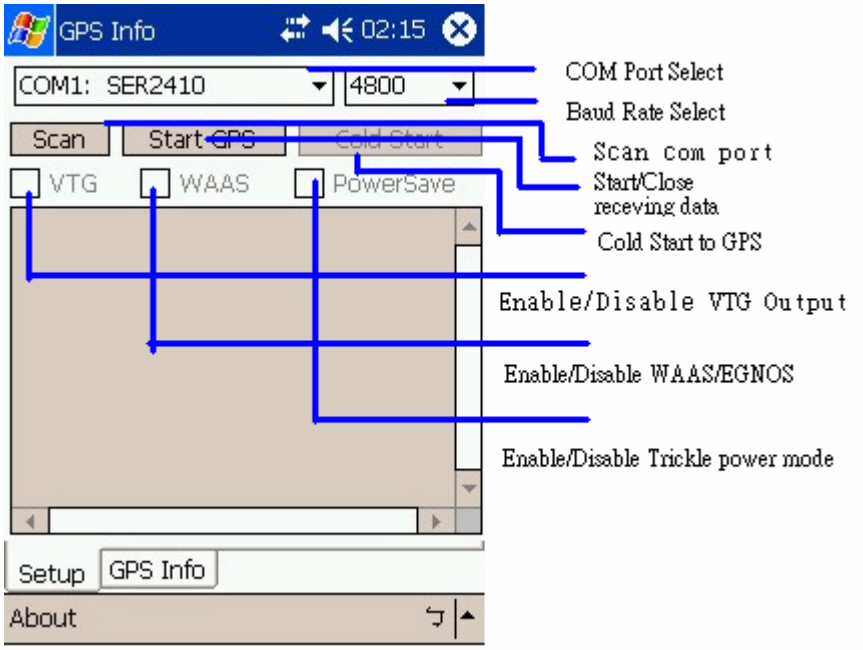
The testing program only supports the Microsoft Windows CE & Pocket PC based PDA platform.

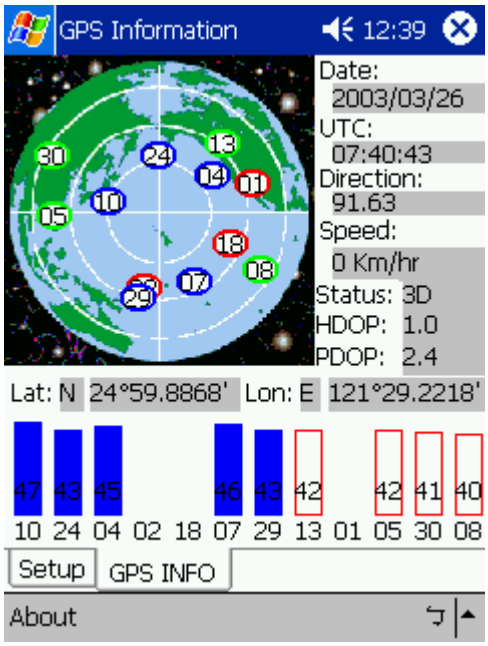
1. Run the "GPSinfo.exe" to execute the installation procedure of testing program (via PC and ActiveSync).
2. Run the "GPS Information" program from "Start → Program files" of PDA.

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.





6. 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

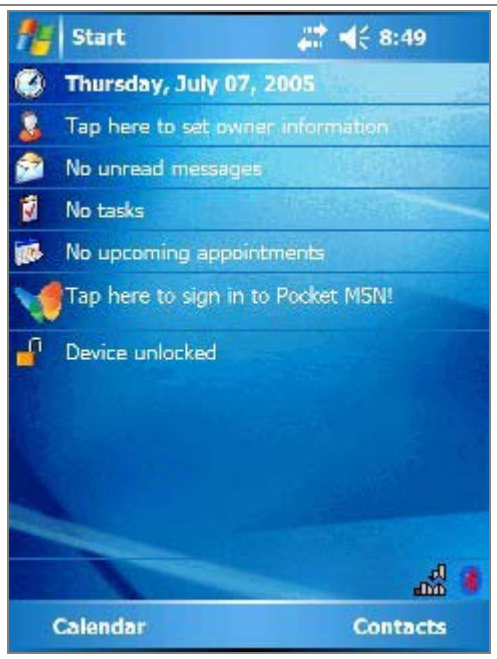
A) Check if GPS indicator operates normally or not. If the indicator is constantly lid up, it means that GPS is in operation; if the indicator is flashing, it means GPS is positioned already.

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.

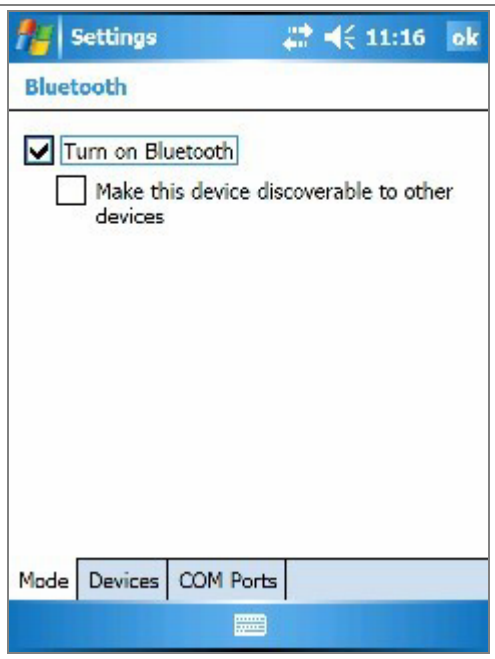
Check if power level is sufficient. If the red LED lights up, it means the power is insufficient, please recharge it until the red indicator is off (recharge is complete).

Appendix A:

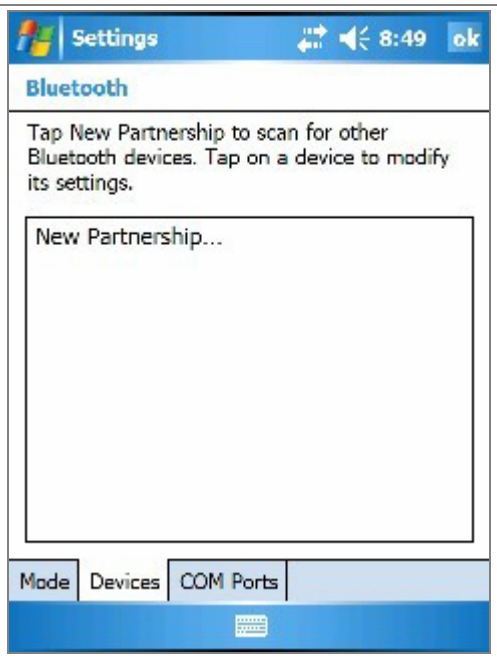
Connect bluetooth GPS receiver with Windows Mobile Version 5 Pocket PC



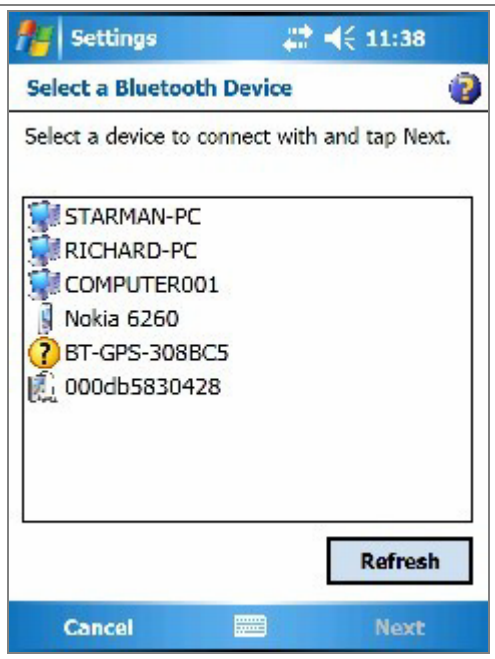
1. Tap on the bluetooth button on right lower corner.
2. Turn on your Bluetooth GPS receiver.



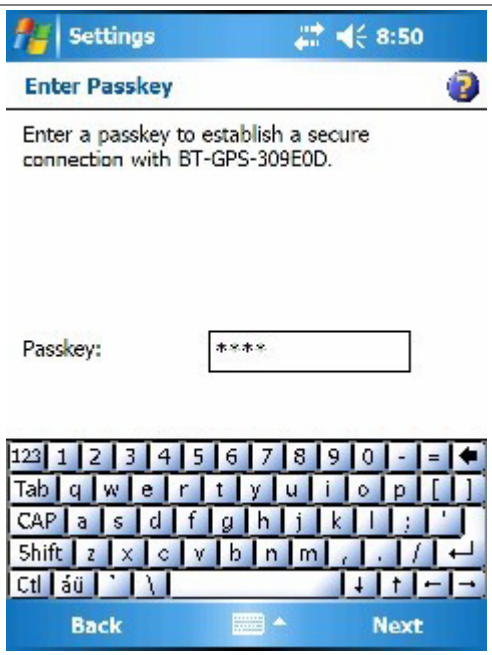
3. Check “Turn on Bluetooth”.



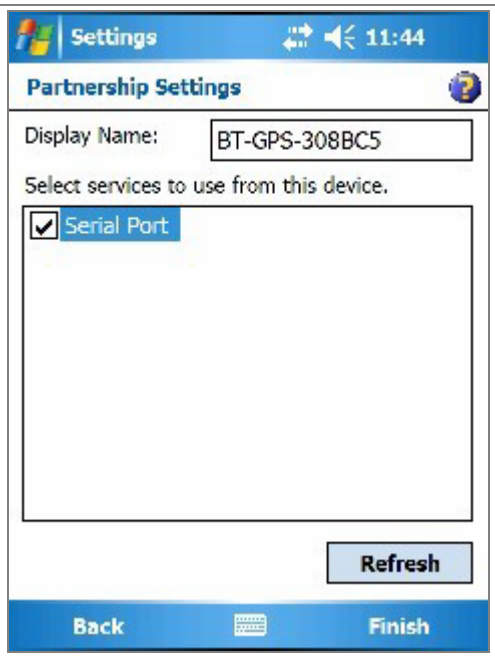
4. Tap the “Devices” tab, and tap “New Partnership…”.



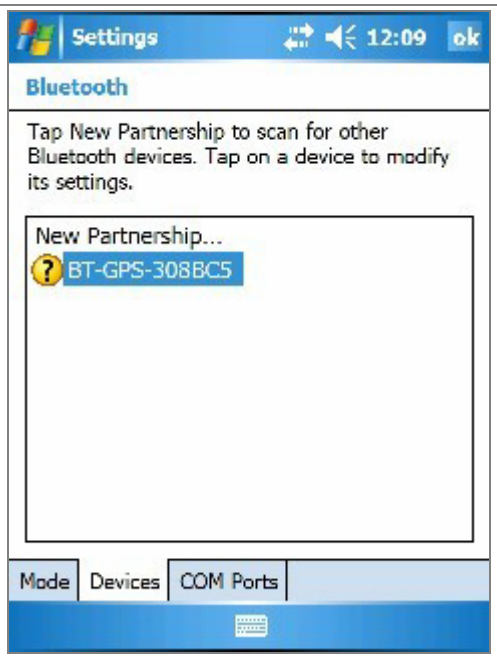
5. It will search for all the bluetooth devices.
6. Select a device (for example “BT-GPS-308BC5”) and tap Next.



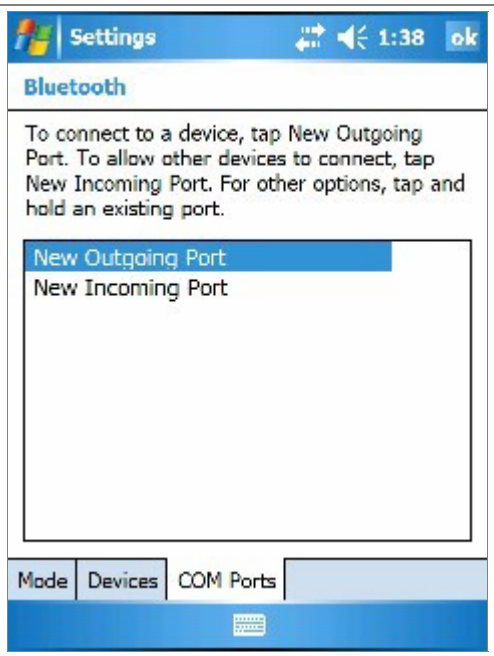
7. Enter Passkey “0000” and tap Next.



8. Check “Serial Port” and tap Finish.

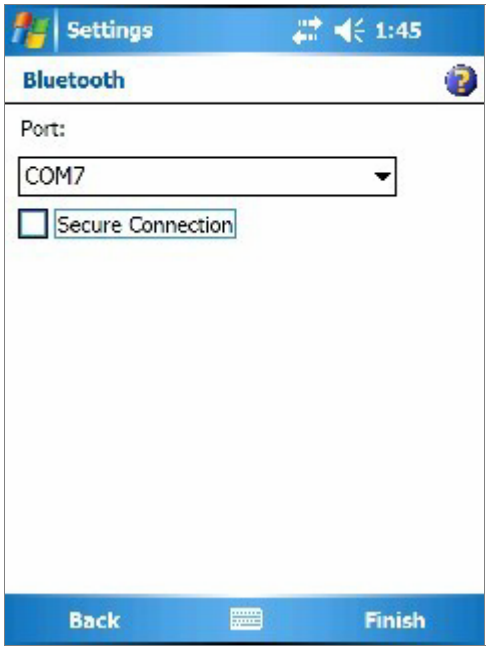


9. The device will be shown on the list.

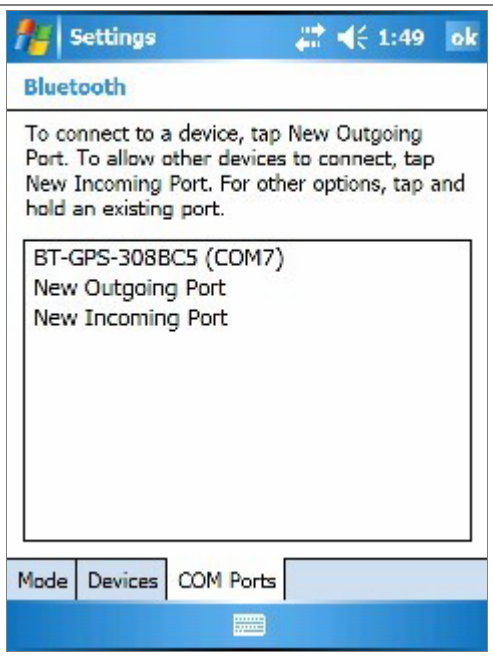


10. Tap the “COM Ports” tab, and select “New Outgoing Port”.

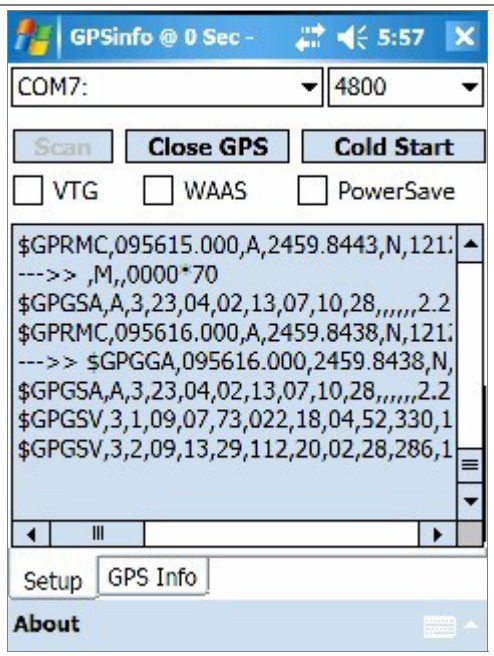
11. Select the device and tap Next.



12. Uncheck “Secure Connection” and from the drop down box select a COM port nubmer (for example, COM7), and then tap Finish.



13. The device with it’s COM port number will be shown on the list.



14. Now you can go to GPSinfo program, set the correct COM port and test the GPS receiver.

FCC Notices

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.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.