

BN-905GR Quick Installation Guide

Thank you for purchasing BN-905GR 51-Channel Bluetooth GPS Receiver. It supports ultra high sensitivity GPS navigation and supports Smart Power control for power saving.

Main features:

- Acquires 51 satellites all in view in parallel and ultra low power consumption
- Personal/Portable Navigation (PDA, Pocket PC, Laptop, etc.)
- Smart power control – Auto detecting On-Off function for power saving
- Fast Acquisition Rate within 1 seconds for hot start and 36 seconds for cold start.
- Superior sensitivity -158dBm for urban canyon and foliage environment
- Navigation time up to 25 hours in continuous mode
- Bluetooth V1.2 SPP profile with operation range 10 Meters
- WAAS/EGNOS Enable.

A. Standard Package

GPS Unit BN-905GR (1) + Lithium-ION Rechargeable Battery (2) + Cigarette Adapter (3) + Travel Charger (4) + Quick Installation Guide.

(* Travel Charger plug type might be adjusted according to corresponding countries.)

(*The Cigarette Adapter can only be used to charge BN-905GR. Please don't make use of it with devices other than BN-905GR.)



B. Appearance

1. Power jack (mini USB type)
2. Power switch
3. Battery status LED (Red/Green)
4. Bluetooth status LED (Blue)
5. GPS status LED (Orange)
6. Internal antenna



C. Battery installation

C-1 Put Battery in place: Press the **PUSH** button on the bottom side of the unit (1) and pull out the battery cover. Insert battery in the unit (2) and put battery cover on to the cabinet (3), then push down and force it forward to fit firmly (4).



C-2 Take Battery out: Press the **PUSH** button on the bottom side of the unit (1) and pull out the battery cover (2). Then take out the battery from the unit (3).



D. Charging your battery

For the first time using the BN-905GR, please charge battery until it is fully charged. Take the power cable and connect it to the power jack (mini USB type) and recharge through travel charger or car cigarette adaptor. This will begin to charge the battery. Charging time is 3 hours typically.

- When the Power LED is Red, battery power is low status. Please recharge.
- When the Power LED is Green, the battery is under charging mode.
- When the Power LED is blinking, the battery is fully charged.



E. Start to use

E-1 Fully charge the battery when using at the first time

A fully charged battery can last up to 30 hours continuously operation.

E-2 Activate the Bluetooth function in your PDA/Smart phone or PC

Before activating the Bluetooth function in your PDA/PC, please switch on BN-905GR Receiver for pairing and check if your device is equipped with Bluetooth function. If not, you may need to acquire an optional CF/SD Bluetooth card or Bluetooth dongle.

NOTE: The pairing procedure is required to execute in the first time only. And the pass code is "0000" if required.

E-3 Automatically create a shortcut in Bluetooth Manager window

After the pairing complete, the system will then find a quick connect device "IBT-GPS" in Bluetooth Manager. In further use, you just need to click it to connect to this Bluetooth GPS Receiver.

E-4 Check the Serial Port in Bluetooth Setting

After complete pairing with the Receiver, please click "Serial Port" to confirm the assigned COM port. If you use PDA/PC to pair the GPS Receiver, please check "Outbound COM port".

E-5 Set correct Serial Port in your map software

Activate your navigation software and make sure to select the correct "Serial Port".

NOTE: In the map software such as TomTom, you might need to change preference and set "Other Bluetooth GPS" according to PDA/phone model. In some case please consult map software company to vary the setting if you have issue on positioning.

E-6 Switch off the Bluetooth function




Switch off GPS function in your PDA/Smart phone/PC, then the Bluetooth connection will be disconnected automatically. Then put BN-905GR power switch to "OFF" position.

F. Function of Smart Power Control (Power saving mode)

BN-905GR supports **Smart Power control** (Power saving mode). It can automatically enter sleeping mode after the Bluetooth connectivity is turned off, so the Blue LED will turn to flash every 5 seconds. Thus you can always power it on with very low power consumption.

Under power saving mode, when detecting Bluetooth is being connected, BN-905GR will wake up itself and the blue LED will turn to flash every 2 second and GPS Orange LED will be also On.

G. OTHERS**G-1 LED Indicators**

	LED Status	Symbol	Flash	ON	OFF
1	Power (Red/Green)		Low Power (Red); Full of charge (Green blinking)	Recharging (Green)	
2	Bluetooth (Blue)		Flash per 2 sec.: Bluetooth connected and transmitting Mode Flash per 5 sec.: Power saving mode	Not connected/Pairing	GPS not powered
3	GPS (Orange)		GPS position is fixed, Navigation	Detecting Satellite, GPS position not fix	GPS not powered

G-2 Manufacturing Setting

Protocol: NMEA 0183 (V3.01) -GGA, GSA, GSV, RMC (default)
Baud Rate: 115,200 bps; Datum: WGS-84

G-3 GPS Features

51-channel Bluetooth GPS Receiver with super high sensitivity at -158dBm
Frequency: L1, 1575.42 MHz; C/A Code: 1.023 MHz chip rate
Acquisition time: Hot start 1 sec. / Warm start 33 sec. / Cold start 36 sec. (averaged)

G-4 Bluetooth Features

Bluetooth Version: V1.2 / SPP profile
Class 2 with 10 meters in open space

G-5 Overall Features

Low power consumption, built-in rechargeable 1000mAh Lithium battery (up to 25 hrs after fully charged)
Size: 46.5W x72.2L x20H mm / Weight: 64.7g (battery included)

H. Trouble Shooting

Problems	Reasons	Methods
No position output but timer is counting	Weak or no GPS signal can be received at the place of BN-905GR	Find an open space for your BN-905GR
Execute fail	Bluetooth function unstable	Re-Start PDA or PC or re-install software
Can not turn on the COM port	Install BN-905GR incompletely or the COM port of the device is being used	Install BN-905GR completely or stop other device that is being used.
Can not find out BN-905GR	Poor connection	Re-Start PDA or PC and re-install software.
No Signal	No action for few minutes may cause the Pocket PC enter power saving mode. It may close the COM port at the same time.	Close the application and execute it again to re-open the COM port.
No Signal	Weak or no GPS signal when using BN-905GR indoor	Go outdoors to improve the poor GPS signal.