NAVMAN

User Manual

B10

Bluetooth™ GPS Receiver

Published in New Zealand.

Disclaimer

Due to continued product development this information may change without notice. Navman does not warrant that this document is error-free.

The screenshots and other presentations shown in this User Manual may differ from the actual screens and presentations generated by the actual product. All such differences are minor and the actual product will deliver the described functionality as presented in this User Manual in all material respects.

Compliance

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.

Important safety information

PLEASE READ CAREFULLY BEFORE INSTALLING PRODUCT IN VEHICLE

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Removing original equipment, adding accessories or modifying your vehicle could affect the vehicle's safety or make it illegal to operate in some jurisdictions.

Follow all product instructions and all instructions in your vehicle owner's manual regarding accessories or modifications.

Consult your country's and/or state's laws regarding operation of a vehicle with any accessories or modifications.

It is your sole responsibility to place, secure and use the B10 in a manner that will not cause accidents, personal injury or property damage. Always observe safe driving practices.

Mount the B10 in a position that is secure and does not obstruct the driver's view.

Do not mount the B10 in a way that may interfere with the safe operation of the vehicle, the deployment of air bags or other safety equipment.

Do not operate the B10 while driving.

Before you use your B10 for the first time, familiarize yourself with your device and its operation.

Do not handle the B10 while it is hot. Let the product cool, out of direct sunlight.

Do not expose the B10 to direct sunlight in an unattended vehicle for prolonged periods. Overheating may damage the unit.

To discourage theft, do not leave the B10, mounting bracket or any cables in plain view in an unattended vehicle.

Failure to adhere to these warnings and cautions may lead to death, serious injury or property damage. Navman disclaims all liability for installation or use of the B10 that causes or contributes to death, injury or property damage or that violates any law.

Contents

Introduction

Whether you travel in your own country, or overseas, the B10 receiver will provide you with a Global Positioning System (GPS) based location accurate to within 5m (15ft) for 95% of the time.

The B10 receiver is a dual-function GPS receiver, which can transmit satellite information to a PDA or laptop with Bluetooth interfaces.

The B10 receiver contains:

- a GPS antenna to receive signals from the GPS satellites
- an internal microcomputer to calculate the position of the receiver on Earth and update position data every second
- a Bluetooth link to send the GPS position to your PDA within a radius of less than 10m (33ft)
- a built-in rechargeable battery.

The B10 receiver can be used anywhere; for example, in your pocket or your vehicle glovebox, although it is preferred that the receiver has a clear view of the sky and can receive GPS signals easily.

In this section

Box contents

Item		Item	
B10 receiver		12V In-vehicle power adaptor	
USB cable		Global Support Information	
Hardware Warranty Agreement		Registration card	
WEEE Compliance leaflet			

The following documentation is available on our website:

- User Manual
- GPS Frequently Asked Questions guide.

To visit our website, see: http://www.navman.com.

Typographical conventions

It is important to understand the typographical conventions used in this manual.

Formatting

The following kinds of formatting in the text identify special information:

Convention	Type of Information
Bold	Components or items of special importance, including buttons, headings and options.
Italics	Indicates the name of a reference document.

Icons

The following icons are used throughout this manual:

Icon	Description
	Note
	Tip
	Warning

Getting to know your B10

It is recommended that you familiarize yourself with the basic operations of your B10 receiver:

Front Components

	Component	Description
1	GPS	An orange light indicates your current GPS status. ▪ **Off**: The B10 receiver power is off. ▪ **Single flash every 1 second**: The B10 receiver searching for satellites. ▪ **Single flash every 3 seconds**: The B10 receiver has a fixed GPS position.
2		A blue light indicates your Bluetooth status. ▪ **Off:** The B10 receiver power is off. ▪ **Single flash every 1 second**: The B10 receiver searching for a Bluetooth device. ▪ **Single flash every 3 seconds**: Data is being transferred.
3		Indicates your battery status. ▪ **Off:** Either the External Power Adaptor is not plugged in, or the adaptor is plugged in but the internal battery is fully charged. ▪ Green: Battery is charging. ▪ Red: Battery power is low, and needs charging.

Top Components

	Component	Description
1	⏻	▪ **To turn on**: Slide the ⏻ button towards **ON**. ▪ **To turn off**: Slide the ⏻ button away from **ON**.

Side Components

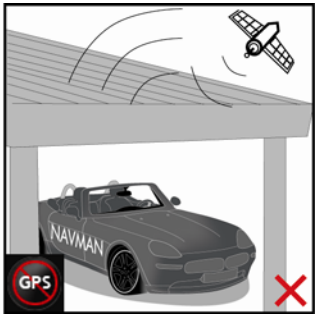
	Component	Description
1	External Power Adaptor/USB socket	If the vehicle power adapter is plugged in, the B10 receiver will use the external power supply instead of the internal batteries.
2	Lanyard connection	A slot in which to connect a lanyard (not supplied).

GPS and GPS Signals

The B10 receiver will send the GPS position information to your PDA or laptop computer which may then be used by your third-party software to plot your position on a map and direct you to your destination.

The Global Positioning System (GPS) is available at any time, free of charge, and is accurate to within 5m (15ft). GPS navigation is made possible by a network of satellites that orbit the Earth at around 20,200km (12,552mi). Each satellite transmits a range of signals which are utilized by GPS receivers, such as your B10, to determine an exact location. Although a GPS receiver can detect signals from up to 12 satellites at any time, only four signals are required to provide a position or "GPS fix" (latitude and longitude), for vehicle navigation systems.

To guarantee the optimum GPS signal strength, ensure your B10 is outdoors, or in a vehicle outdoors and has an unobstructed view of the sky. Your B10 can operate in all weather types except snowfall.



For more GPS information, see the *GPS Navigation - Frequently Asked Questions* guide, which is available on our website. To visit our website, see: http://www.navman.com.

How do I get started?

To get started for the first time, complete the following steps:

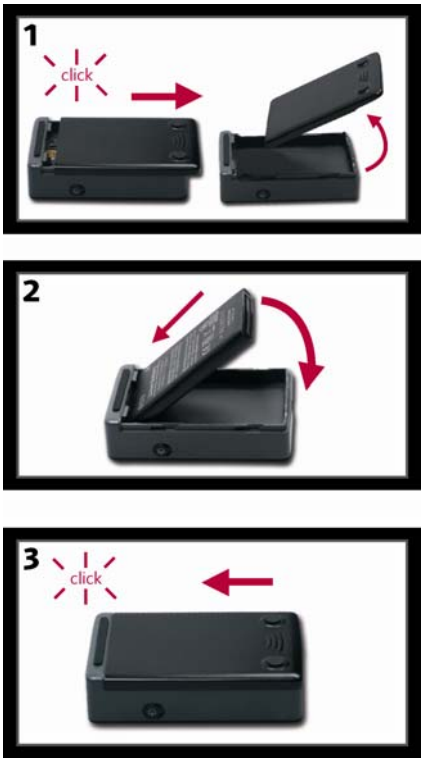
Step	Action
1	Install the battery.
2	Switch on the power.
3	Create a Bluetooth link between the B10 receiver and your PDA or laptop computer.

In this section

Battery

The B10 receiver has an internal, rechargeable battery. For minimum time to obtain a GPS fix, ensure that the battery is always in the B10 receiver.

The life of the battery is approximately 10 hours.



How do I charge the battery?

There are two ways of charging the battery. These are listed below.

By Vehicle Power Adaptor

You can use the vehicle power adapter to power the B10 receiver when in a vehicle. If the vehicle power adapter is plugged in, the receiver will use the external power supply and charge the internal battery.

1. Plug the connecting end of the vehicle power adapter in your 12V In-vehicle power adaptor socket.
2. Plug the USB (larger) end of the USB cable in to the USB socket on the vehicle power adapter.
3. Plug the smaller end of the USB cable in to the external power adapter socket on the B10 receiver.

By USB cable

To charge the battery via the USB cable:

- Plug the large end of the USB cable directly into a USB port on your computer (not a USB hub); plug the small end into the side of the B10 receiver. The battery status light on the front of your B10 receiver turns on.

Where possible, plug the USB cable into a USB port at the *back* of your computer.

When the battery is charging, the battery status light is green. When the battery is fully charged, the light is off. If you don't see the status light even momentarily, try another USB port on your computer.

Rechargeable batteries have a limited number of charge cycles. Battery life and number of charge cycles vary by use and settings.

How do I position the B10 receiver in a vehicle?

The B10 receiver and your PDA or laptop computer are mounted separately in your vehicle. Use the following guides to choose a suitable position for the B10 receiver:

- The receiver should be in a position where it has a good view of the sky and horizon.
- The receiver must not obstruct your view, or interfere with the operation of the vehicle or the vehicle safety equipment.
- The receiver must be accessible so that you can operate the ◎ button.
- Avoid placing the receiver near sources of electrical interference or noise.
- Avoid locations subjected to excessive shock or vibration.
- The receiver must be within the Bluetooth range (approx 10m/33ft) of your PDA or laptop computer.
- The receiver is not waterproof — mount it where it will not get wet (including condensation).

How do I connect the B10 receiver to my PDA or laptop?

To establish a Bluetooth connection between your PDA or laptop computer and the B10 receiver, complete the following steps:

1. Turn on the B10 receiver.
   - Slide the ⏻ button to **ON**.
     The ᛒ light will show as blue, then start flashing to indicate that it is not connected to another Bluetooth device.
2. Turn on your PDA/laptop.
3. Turn on Bluetooth on your PDA/laptop and connect to the B10 receiver:
   - Ensure that the ᛒ light on the B10 receiver is still flashing.
   - Turn on Bluetooth on your PDA/laptop and establish a connection with the B10 receiver by following the documentation supplied with your PDA/laptop or Bluetooth card.
   - If you are prompted for a Passkey or Device PIN, use the following Passkey / Device PIN:

Device Name	Passkey / Device PIN
NAVMAN GPS TWO	0000

   - When a connection has been established between your PDA/laptop and B10 receiver, the light on the B10 receiver will change to flash once every 3 seconds.
4. **Pocket PC Only** — Determine the Bluetooth COM Port.
   - Identify the outbound COM port used to create a serial port connection between your PDA and the B10 receiver by following the documentation supplied with your PDA or Bluetooth card.
   - Specify the outbound COM port in your third-party software to receive GPS data from the B10 receiver.

You are now ready to obtain a GPS fix.

How does my B10 get a GPS Fix?

The term "GPS fix" is used to describe when your B10 receiver has enough information from four or more GPS satellites to calculate your position. You can monitor the strength of the GPS signal using your third-party software. See your third-party software User Manual for more information.

When you turn on your B10 receiver, it may take several minutes to get the first GPS fix. You can minimize the amount of time this takes by:

- Positioning the B10 receiver according to the guidelines. For more information, see "How do I position the B10 receiver in a vehicle?" on page 15.
- Remaining stationary until the B10 receiver has a GPS fix.

Specifications

Specifications

Case

UV stable plastic

Size

63 × 41 × 17 mm

Weight

56 g

Batteries

Main Power: Built-in rechargeable Lithium-ion for system power.

Backup Power: Rechargeable coin-cell battery for memory & RTC backup

Operating Temperature

-10 to +60°C (14 to 140°F) uncharging

0 to +45°C charging

Interface

Bluetooth™ class 2

Version 1.1 SPP (Serial Port Profile)

Within 10 m (33 ft) range with no obstruction

In/Out Port. GPS signal (Out)/Command(In) with CMOS/TTL Level.

Output

Format. NMEA0183 V2.2： GPGGA (1time/1 sec), GPGSA (1 time/5 sec.), GPGSV (1time /5 sec.), GPRMC (1time /1 sec.), GPVTG (1 time/1 sec), (GLL, or SiRF binary format for optional).

Datum: WGS84

GPS Antenna

25 x 25 x 2 mm (1 x 1 x 0.2 in) ceramic patch

GPS Receiver

SiRF Star III low power chipset
20 channel parallel, automatic selection

1575.42MHZ frequency

L1, C/A code receiver

Time to First GPS Fix

Hot Start - 1 second typical

Warm Start - 38 seconds typical

Cold Start - 42 seconds typical

Support information

Support for Australia

Navman Australia Pty Ltd
PO Box 479
Gladesville, NSW 2111
Australia

Support: http://support.navman.com
Website: http://www.navman.com

Support for Europe

Navman Europe Ltd
4G Gatwick House
Peeks Brook Lane, Horley
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United Kingdom

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Support for New Zealand

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PO Box 68-155 Newton
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New Zealand

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Website: http://www.navman.com

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