

OBC9000™

by On-Board Communications, Inc.



Installation Guide

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Thank you for selecting the AutoTraks OBC9000™ Wireless Tracking, Monitoring and Remote Control, Vehicle Management Solution. The OBC9000™ is designed to provide efficient, affordable, nationwide fleet tracking.

This guide describes how to install, activate and use your OBC9000™ unit. Following the instructions in this guide will enable you to get your unit operating quickly and easily. In the event that you require additional assistance, please contact customer support via e-mail at support@obccom.com or contact us at the address or contact number below:

On-Board Communications, Inc.
Attn: Customer Support
12720 Hillcrest Road
Dallas, TX 75230
214-346-0300 ext. 264

CAUTION: On-Board Communications, Inc. is not responsible for damages to any vehicle due to OBC9000™ unit installation.

Notes:

- **Failure to install the OBC9000™ unit in accordance with these instructions may void the unit's warranty.**
- **Read all instructions before attempting installation.**

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AutoTraks OBC9000™ Installation Kit Contents



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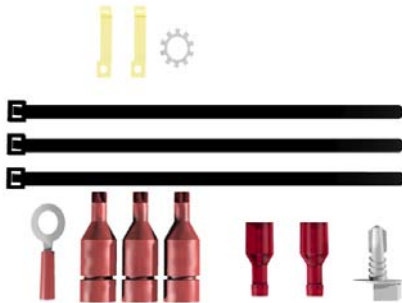
Smart GPS Antenna with Magnetic Base & 9ft. Cable

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Electrical Connections Kit Contains:



- 3 Small Cable Ties
- 1 #10 Ring Terminal
- 3 Posi-Tap™ Connectors
- 2 128" Female Quick-disconnect
- 2 Mini Fuse-Tap Connectors
- 1 Star Washer
- 1 #10 Self-Tapping Hex Head Screw
- 1 6 ft. 3 wire, Power Cable w/Connector



Mounting Kit Contains:

- 1 2" x 4" Velcro™ Self-Adhesive Strip
- 1 2" x 1 ½" Velcro™ Self-Adhesive Strip
- 2 Isopropyl Alcohol Swabs
- 4 #10 x ½" Self Tapping Phillips Screws



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Introduction to GPS

Satellites are in a 12-hour orbit at 12,000 miles above the earth. There are 24 satellites in the system and generally there are at least 5 satellites orbiting overhead at any one time. This antenna must be positioned to receive signals from these satellites. The antenna location must be selected carefully so that the antenna can receive the satellite signals. The standard GPS antenna is designed to be located inside the vehicle. The ideal location is in a place that allows line of sight reception from the GPS satellites in orbit above. The satellite signals will pass through glass. Both the radio transceiver antenna and GPS antenna are designed to be mounted inside the vehicle (not exposed to the outside weather).

Safety Statement

This installation manual covers the installation of the OBC9000™. This manual is for the professional and novice installer and should be used to ensure a safe and functional install of the OBC9000.

***Always a suggested practice to disconnect the vehicle battery while installing this or any other automotive electronic product.

This product is connected directly to the vehicle's 12-volt system. There is no on-off switch on the unit. The installed unit operates 24 hours a day and must be energized to log vehicle events or send data as required by anyone using the service.

Use care when routing the power cable and fuse. Route the cables where they will be protected and use commonly accepted install practices for after market automotive electronic devices. Here are three acceptable methods of making a wire connection:

- Soldering your connections (recommended)
- Crimp connectors (with the use of the proper crimping tool)
- Posi-Tap™ Connectors (No Tools Required)

Regardless of the method you choose, ensure that connection is mechanically sound and properly insulated. Use high quality electrical tape or shrink tubing when necessary, cheap tape will unravel in hot weather making it a poor insulator.

- **Before attempting to add anything electrical to your vehicle check the Owner's Manual**

Additional Support

- Over the phone training is available.

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Tool List

- Power drill AC/DC (Cordless recommended)
- Magnetic bit holder that houses Phillips and flat-head bits
- Wire stripper and cutters
- Crimpers for insulated connectors
- Electronic voltage meter (Digital display recommended)
- Tools to disconnect and reconnect vehicle battery (Crescent wrench, open end wrenches, etc.)
- Tools to remove internal vehicle trim (Panel poppers, sockets, ratchet, screwdrivers, torx bits, hex bits, etc.)
- Butt connectors (Various sizes)
- Ring terminal connectors (For grounding wire)
- Self tapping screws (Various sizes)
- Star washers for grounding (Strongly recommended)
- Electrical tape (Black)
- Wire 20 gauge
- Velcro and/or double sided tape
- Wire ties (Various sizes)
- Soldering iron & solder

Using Your Digital Multi Meter

On-Board Technical Support hears more and more often about damaged computers and airbag systems as a result of probing with a test light. Not all air bag wires are in yellow tubing, and not all transistorized outputs can light a test light bulb without shorting out! The best solution, as it has always been, is a good digital multi meter.

How to find (+) 12V Ignition with Your Multi Meter

1. Set your meter to DCV or DC voltage (12V or 20V is fine)
2. Attach the (-) probe of the meter to chassis ground.
3. Probe the wire you suspect of being the ignition wire. The steering column is an excellent place to find this wire. Your meter should read (+) 0V.
4. Turn the ignition key to the "ON" position. If your meter reads (+) 12V go to the next step. If it doesn't probe another wire.
5. Now turn the key to the start position. The meter display should stay steady (+) 12V, not dropping by more than a few tenths of a volt. If it drops close to or all the way to zero, go back to step 3. If it stays steady at (+) 12V you have the ignition wire.

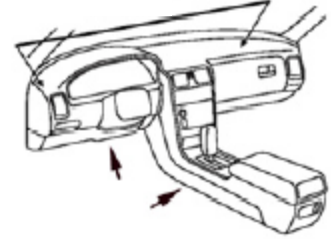
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Selecting the Mounting Location for the OBC9000

The OBC9000 is supplied with a 6 ft. power cable. The unit should be mounted so it will not be exposed to damage from people or objects. The cables that connect to the unit should also be routed to protect them from possible damage. The unit must be mounted where it will not be exposed to direct sunlight or excessive heat generated by the vehicle operation. Some examples of mounting locations include under the dash above the knee bolster, under center console, behind glove compartment, and in the trunk.



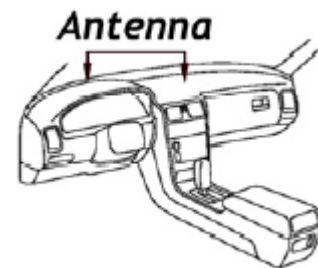
Selecting the Smart GPS Antenna Locations

The OBC9000 requires two antennas elements. One antenna is for receiving GPS signals from The Navistar GPS satellites. The second antenna is a radio transceiver antenna that communicates with the ReFLEX network. The antenna does not require a ground plane to function properly. There is one antenna cable in addition to the main power harness that must be connected to the OBC9000, so be sure there is room to access the connectors for installation and service.

The GPS antenna must be mounted flat with the GPS Receiver faced up. The ideal location is under the dashboard. It can be placed under the dash pad as long as the pad or covering is not metallic or a barrier to the GPS satellite signals.

If the vehicle window has a solid dark coating around the edge, do not place the GPS antenna behind the coating. The GPS signals will travel through the clear glass but will be reduced if the window has any metallic coating or tint applied.

The GPS antenna will work best if it has a clear view to the sky and as much of the horizon as possible. Any metallic objects between the antenna and the satellites will degrade the signal and reduce the overall performance.



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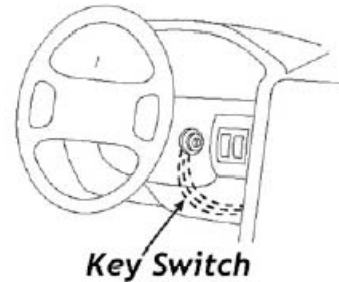


Locating Vehicle Power

The OBC9000 has an internal power management program that monitors the vehicle power at all times. The internal power management program is continuously looking at the condition of the vehicle battery in order to detect the state of the vehicle operation. Possible sources besides the direct connection to the battery are the main fuse block panel or the point where the vehicle charging circuits are connected to the 12-volt system.

Connect the red lead to the +12VDCt vehicle power. The power cable can be shortened if needed. Connect the black lead to the vehicle chassis (ground).

***Improper connection could result in numerous “Reboot” notifications, and increased usage on monthly billing.**



Powering the Unit for the First Time

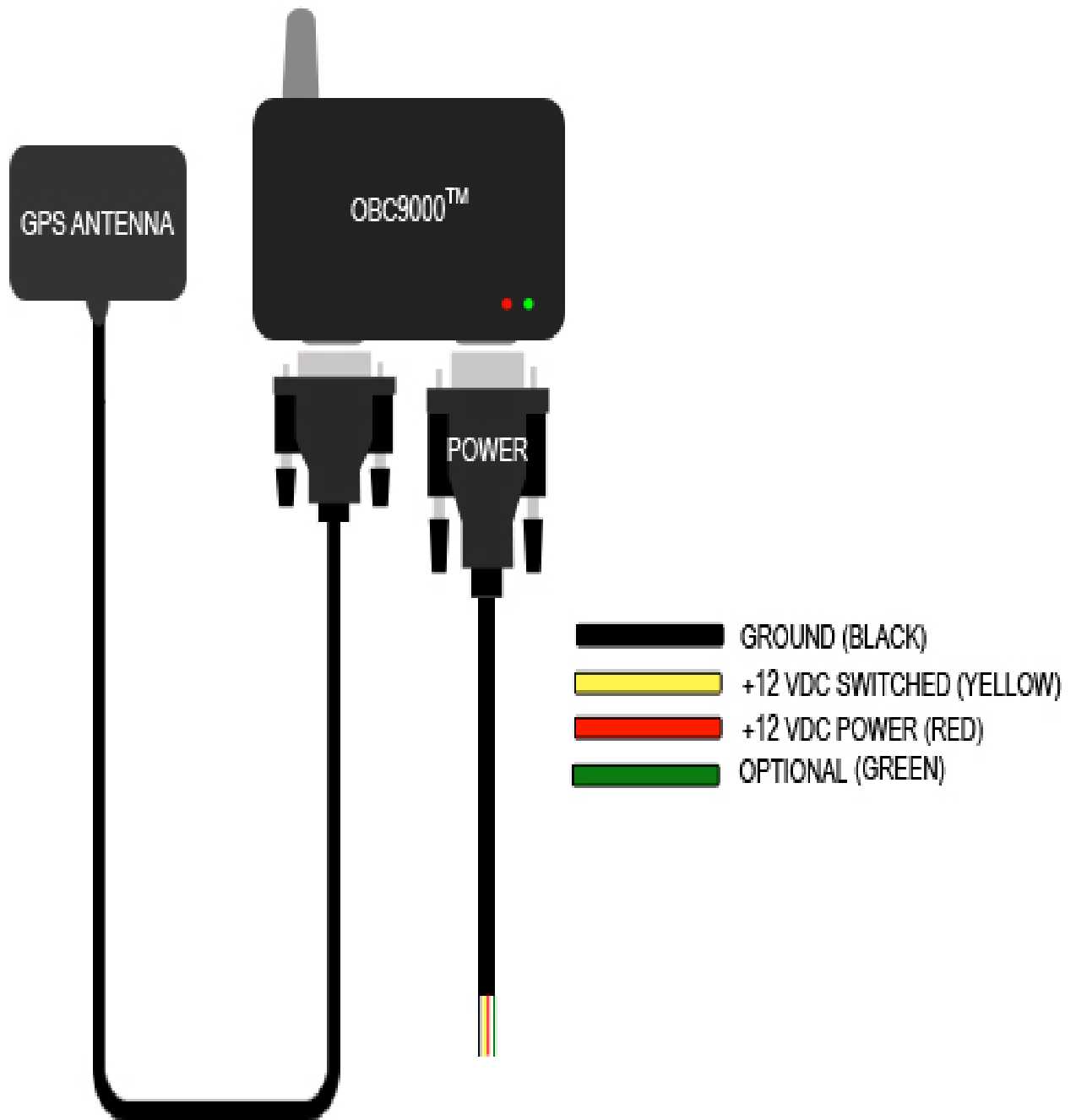
Connect the GPS antenna cable (securely) and connect the vehicle's 12VDC power and observe the LEDs on the OBC9000. During the initial 15 minutes after +12VDC is connected to the OBC9000, the Red LED should flash at the rate of 1 second “on”, 1 second “off” as the unit immediately scans for ReFLEX signal. Within five minutes the flash rate will change to approximately one second “on” and three seconds “off” to indicate that the unit is in normal operating mode. Also, within 10 minutes the green Smart GPS Receiver light will turn to solid green indicating it has established a location “lock”.

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OBC9000™ WIRING DIAGRAM



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Access Information

Congratulations, you have just installed the Internet based vehicle location system. Now that it's installed, here's how to use your system. Turn on your computer and log on to the Internet using your standard Internet browser.

- Go to the AutoTraks™ login page at www.autotraks.com
- Enter customer login and password. Then click login.

You will now be on the Fleet Information Summary Page. From the Selected Unit dropdown menu, select the vehicle which will be tested. Click on the Find Unit and select "Get Current Location" radial button to obtain a location, speed and direction. Click "Find" then "Send" for confirmation – you will be re-directed to the Fleet Information Summary page and the vehicle should appear with new information at the top of the list within 2 minutes. This step is to ensure proper functionality of the OBC9000.