

Commercial Vehicle Security and Productivity

The 6200 is a high-performance beacon designed for commercial vehicle applications that require location based services including productivity and security. It is ideally suited to installations in delivery and service fleets as well as public safety, mass transportation, utility, and off-road or construction vehicles.

Security features include vehicle theft detection and recovery as well as a means of connecting panic buttons anywhere within the vehicle.



Kit Contents

- GPS Beacon device
- Combined GPS/GPRS antenna
- Wiring harness
- Mounting bracket and hardware

Tools Required

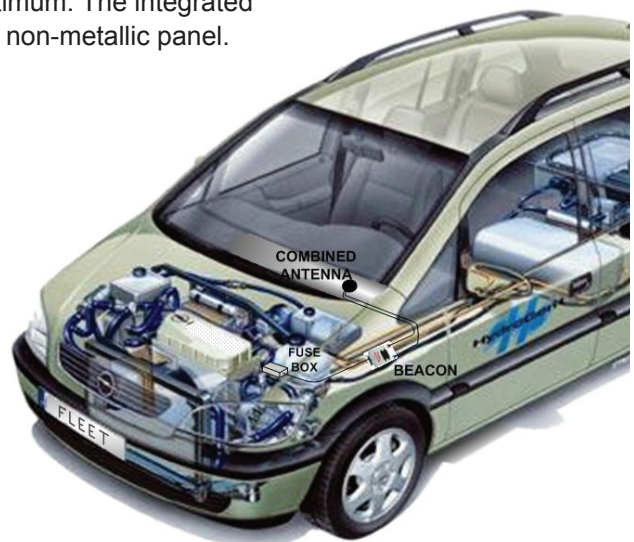
- Wire cutters / wire strippers
- Voltmeter (multimeter)
- Soldering Iron / Solder
- Electrical tape
- Plastic cable ties
- Screw drivers
- Wrenches/sockets

1 Install Antennas

The 6200 comes with a combined GPS/GPRS antenna module. It is to be installed in a spot where the GPS performance will be optimum. The integrated adhesive patch will allow easy attachment to a window or non-metallic panel.

Determine the best location for the GPS Antenna

- The antenna is to be installed inside the vehicle – it is not waterproof or weatherproof
 - The top side of the antenna module (identified by the peel-and-stick adhesive patch) must have a clear signal path to as much of the sky as possible
- Signals will penetrate upholstery, carpet, plastic dashboard, etc., but not metal panels or brackets
 - Signals will penetrate window glass but not metallic tinted windows or painted edges of windows
 - Radio antenna or defrost wires embedded in glass may degrade signals



- If the installation is not required to be covert, an ideal location is on the front windshield glass.
- For covert installations, an ideal location is under the dashboard, as high and close to the front windshield as possible (see diagrams)
- If installing in a car, the antenna can usually be mounted on the rear window or in the trunk, under the rear deck, as close to the rear window as possible
- If there is not a suitable flat mounting surface on which to stick the integrated adhesive patch, affix the antenna module in place with a calking type adhesive or plastic tie wraps
- Coil and secure any loose or extra lengths of antenna cables - do not allow antenna cables to kink.

2 Beacon Installation Position

- Determine beacon installation point but don't fasten it in place till all wiring is complete.
- Determine the best location for the beacon
 - a strong flat surface that can be drilled to accommodate the mounting screws is ideal
 - any spot where the beacon can be fastened in place with plastic cable ties is suitable.
- Under a seat is often a suitable location for beacon installation. Be sure it is not close to any heat sources or areas that experience moisture or vibration
- Visibility of the indicator LED will be useful for testing and troubleshooting. Adequate space for wiring must be available at both ends of the beacon

3 Connect Power & Ignition Sense

- Connect the wiring harness to all the vehicle's connection points before attaching the harness to the beacon
- If wiring harness wires need to be extended, use the same grade wire and solder the extension wire on, then insulate with heat shrink tubing or electrical tape.
- Ensure that no wires are routed near heat sources.

Power Connections

- Connect the brown (ground) wire to battery negative or the vehicle chassis – this wire **MUST** be connected first, before the power or ignition sense wires.
- With the vehicle's ignition turned off, use a voltmeter to assist in finding a suitable, uninterrupted 12V power connection point.

Directly to the vehicle's battery may be best. Connect the white (power) wire to this point.

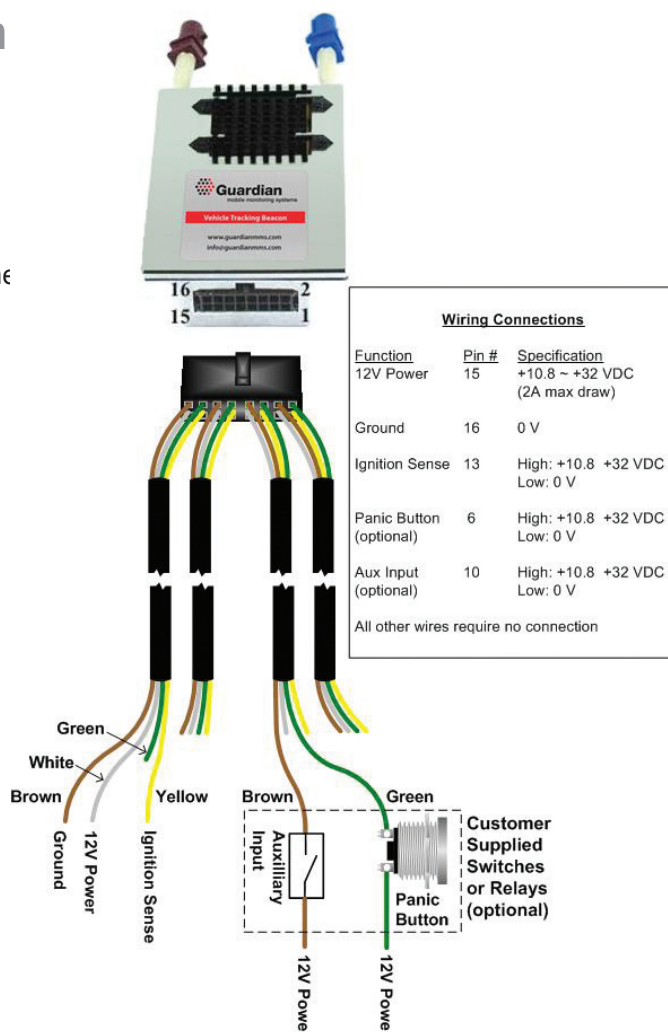
- Many vehicles have extra power connections available in the fuse box, these are also an ideal source of 12 Volts, as long as they are never switched off by any other vehicle function. Many vehicles have more than one fuse box or fuse block - check vehicle owners manual

Ignition Sense

- Also find a source of 12 Volts that IS switched on and off with the ignition key, this connection should produce 12V when the vehicle is ON and 0 volts when the vehicle is OFF. Connect the yellow ignition sense wire to this point.
- Ensure that any wires in the wiring harness that are not to be connected to not come in contact with power, ground, or any other voltage. Insulate them with electrical tape.

4 Connect and Mount Beacon

- Connect the two antenna cables to the beacon using the corresponding coaxial connectors
- Attach the wiring harness to the beacon and ensure that the retaining clip snaps in place
- Affix the beacon securely to the vehicle using the mounting plate and screws provided. Drill mounting holes as required.
- If a suitable panel for affixing the supplied mounting plate is not available, fastening the beacon to a bracket or wire bundle with plastic cable ties is also adequate
- Coil and secure any loose or extra length wire



5 Optional Panic Button and Auxiliary Input

A panic button and/or auxiliary input may be connected to the beacon.

- Following the wiring diagram, connect a panic button to pin 6 of the wiring harness connector. The Panic button must be a momentary contact switch that connects 12V power to pin 6 when it is pressed.

- The Auxiliary input can be used to detect and report a change of voltage – both low to high and high to low. Connect a switch or relay from your alarm system or any other switched device to be monitored. When closed, the switch must connect 12V power to pin 10 of the wiring harness connector. When open, the switch must connect pin 10 of the wiring harness to ground (0V) or to nothing at all.

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Test

- For the first test, the vehicle should be outdoors in an open area where GPS signals can be readily received
- Watch the indicator LED on the beacon for the first few minutes after all power and antennas have been connected. It indicates the following status:

Color/Action	Function
Green/Steady	GSM Connection established
Green/Flashing	GPRS Data being transferred
Orange/Steady	Searching for satellites – no fix
Orange/Flashing	GPS fix acquired

- Ensure that the indicator LED is showing flashing orange. (note that it may take up to an hour for the wireless network and the GPS receiver to synchronize the first time the beacon is powered up).
- Refer to the Getting Started Guide and perform an end-to-end system test by locating the beacon via the user portal.