GPSI-4000HD

Link: https://help.responsiblefleet.com/installation-guide/gpsi-4000hd/ Last Updated: November 18th, 2016

Before You Begin

The installation kit contains a registration card, the 4000HD device, one external antenna, one 4-pin power harness, one 22-pin expansion harness, one 9 Pin 500k Pass-Thru cable, eight 8-in. (20 cm.) zip ties, and two 14-in. (35.5 cm.) zip ties.

Additional tools that you may need include a digital multimeter, cordless drill, razor knife, snips, wire strippers, electrical tape, zip ties, and tamper seal compound.

Installation Steps

The following steps provide an overview of the installation process:

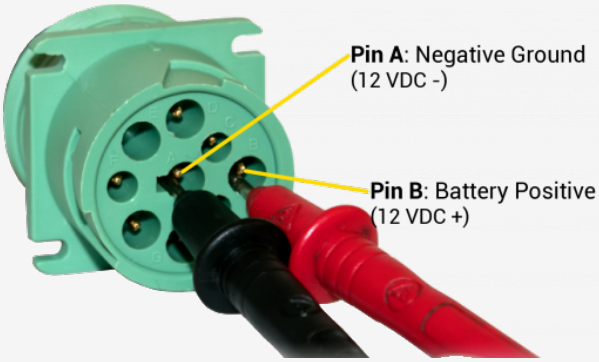
1. Install preparation.
2. Antenna installation.
3. Pass-Thru Cable installation.
4. Reverify constant power.
5. Ignition wire installation.
6. Expansion harness installation.
7. Cable connections.
8. Verify and secure the installation.

1. Install preparation.

1. Complete the registration card by locating the serial number of the GPS device and copying it onto the card.

   4000HD Serial Number location:

2. Remove the a-pillar plastic and dashboard panels to gain access to the area behind the dashboard cluster.
3. Turn the vehicle's master cut-off switch to the ON position (if the vehicle is equipped with one).
4. Locate the vehicle's 9-pin diagnostic port under the dashboard.
5. Using a digital multimeter, test the constant power at the port by placing the positive probe on pin B and the negative probe on pin A. In order to proceed, the port must provide between 12 and 24 VDC (+) when the vehicle is on or off (keys removed).



2. Antenna installation.

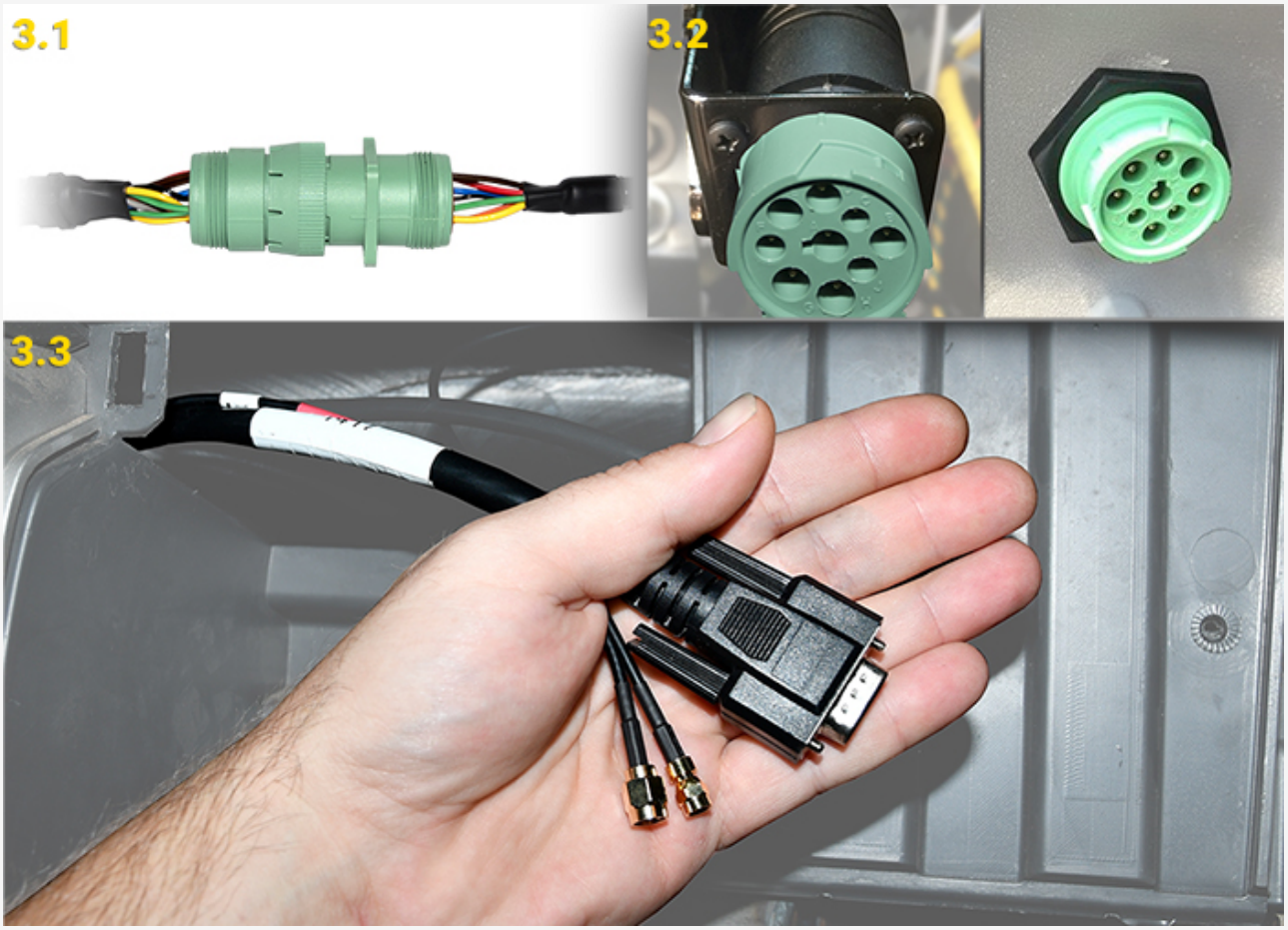
The mounting location for the antenna is inside the vehicle on a clear section of the windshield in the lower-left corner, as close to the dashboard as possible.

1. Prepare the section of the windshield for mounting by wiping it down with a dry cloth.
2. Remove the backing paper under the antenna to expose the antenna's adhesive, and press the antenna firmly against the windshield to eliminate as many air pockets as possible.

3. Route the antenna cables behind the dashboard cluster toward the mounting location of the GPS device. Stay clear of any moving parts, and ensure the cables will not be pinched or cut when the dash is reassembled.

3. Pass-Thru Cable installation.

1. Free up the existing diagnostic port from its current location in the vehicle and plug the Pass-Thru Cable connector into the vehicle's diagnostic port, then turn the threaded coupling to lock the two pieces together.
2. Mount the replacement diagnostic port using the original screws or locking nut.
3. Route the Pass-Thru Cable behind the dashboard cluster toward the mounting location of the GPS device. Stay clear of any moving parts, and ensure the cable will not be pinched or cut when the dashboard is reassembled.

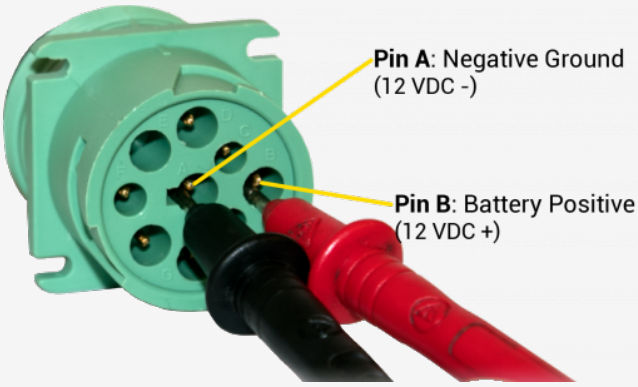


4. Reverify constant power.

Due to the GPS device requiring constant power at all times and some vehicles being

equipped with a timed master cut-off switch, another voltage check is required before you continue.

Using a digital multimeter, test the constant power at the port by placing the positive probe on pin B and the negative probe on pin A. In order to proceed, the port must provide between 12 and 24 VDC (+) when the vehicle is on or off (keys removed).



If the port does not provide 12 to 24 VDC (+), please follow the instructions listed in the HD Pass-Thru Cable Power Reroute Guide, or contact Technical Support for further assistance.

5. Ignition wire installation.

Using a digital multimeter, locate an ignition source that provides at least 12 VDC (+) while the key is in the On position, and 0 VDC (+) when the key is in the Off or Accessory position. Once identified, remove the keys from the ignition and proceed with the steps listed below.

1. Find a loose section of the ignition source wire, remove 1 in. (2.5 in.) of insulation with a razor knife/wire strippers, and gently poke something non-conductive between the exposed wires to create an even loop.
2. Locate the 4-pin power harness included in your kit and strip off about 1.5 in. (4 cm.) of insulation from the end of the fused white wire.
3. Using electrical tape, tape off the red, black, and green wires on the power harness.

4. Secure the 4-pin power harness white wire to the ignition source using the poke-and-wrap

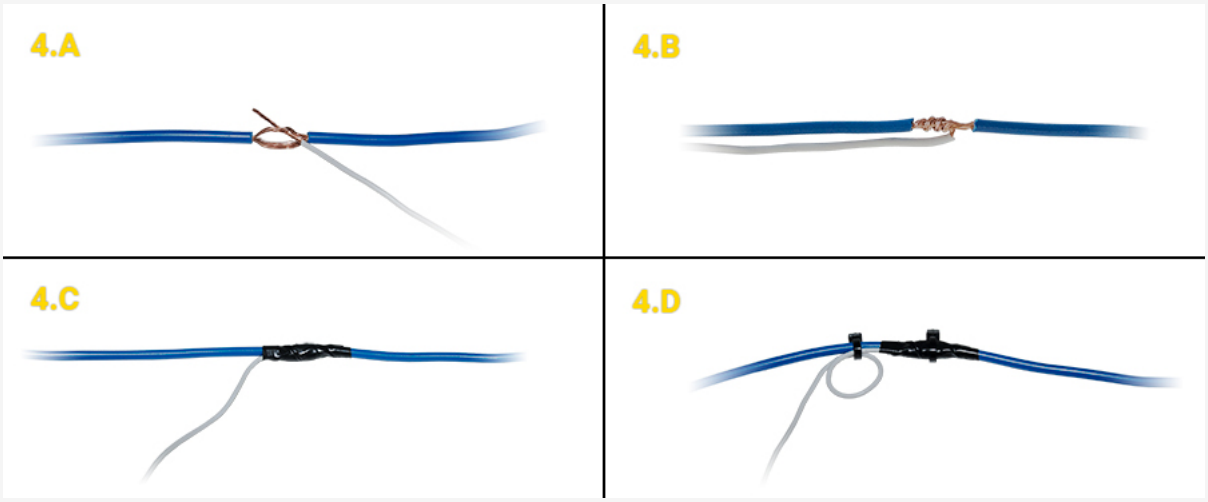
technique:

A. Twist the end of the white wire and poke it through the loop that you created.

B. Squeeze the loop shut, and tightly wrap the bare wire around the exposed wire at least 3 times.

C. Fold the wire back, and generously wrap electrical tape around the connection, crossing over the insulation on both sides.

D. Secure the connection with one zip tie directly over the wire-to-wire connection and another zip tie on a stress loop created about 1 in. (2.5 cm.) away from the connection.



6. Route the 4-pin power harness connector behind the dashboard cluster toward the mounting location of the GPS device. Stay clear of any moving parts, and ensure the cable will not be pinched or cut when the dashboard is reassembled.

6. Expansion harness installation.

If your installation has any accessories, please refer to the applicable guide now. Once connected, route the expansion harness behind the dashboard cluster toward the mounting location of the GPS device.

1. If no accessories are being installed, locate the 22-pin expansion harness, tape the ends of all the wires, and then connect it to the GPS device port labeled I/O.

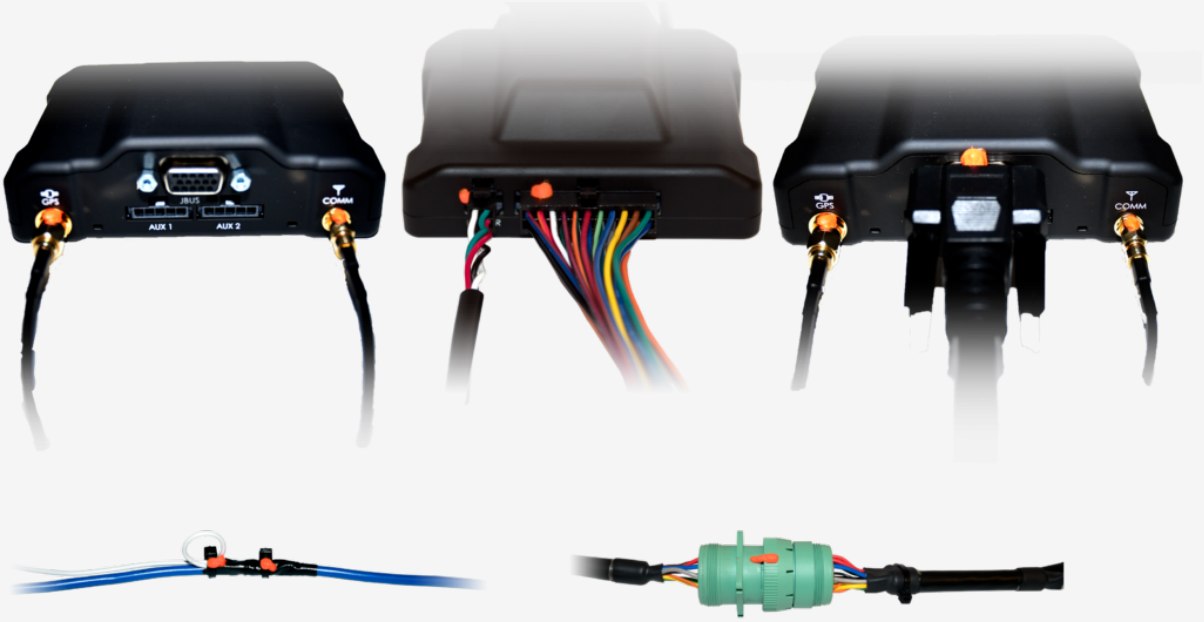
7. Cable connections.

1. Connect both antenna connections to the GPS device. Make sure the connections are finger-tight; do not over-tighten and damage the cables.
2. Connect the 4-pin harness to the GPS device port labeled Power, and the 22-pin expansion harness to the port labeled I/O.
3. Connect the serial connector from the Pass-Thru Cable to the GPS device port labeled JPOD.

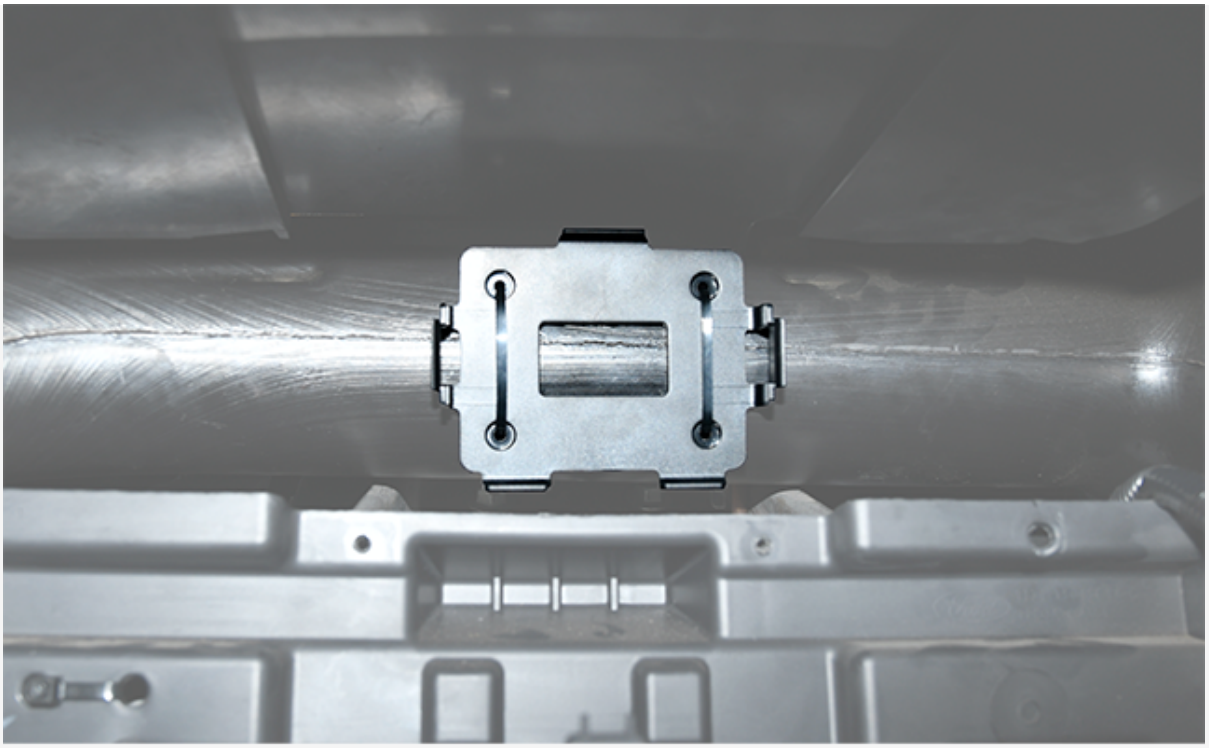
As the GPS device powers up, observe the GPS and Cellular LEDs. Both LEDs will blink slowly and will begin to blink faster as it searches for signal. A solid amber LED indicates a cellular lock, and a solid green LED indicates a GPS lock.

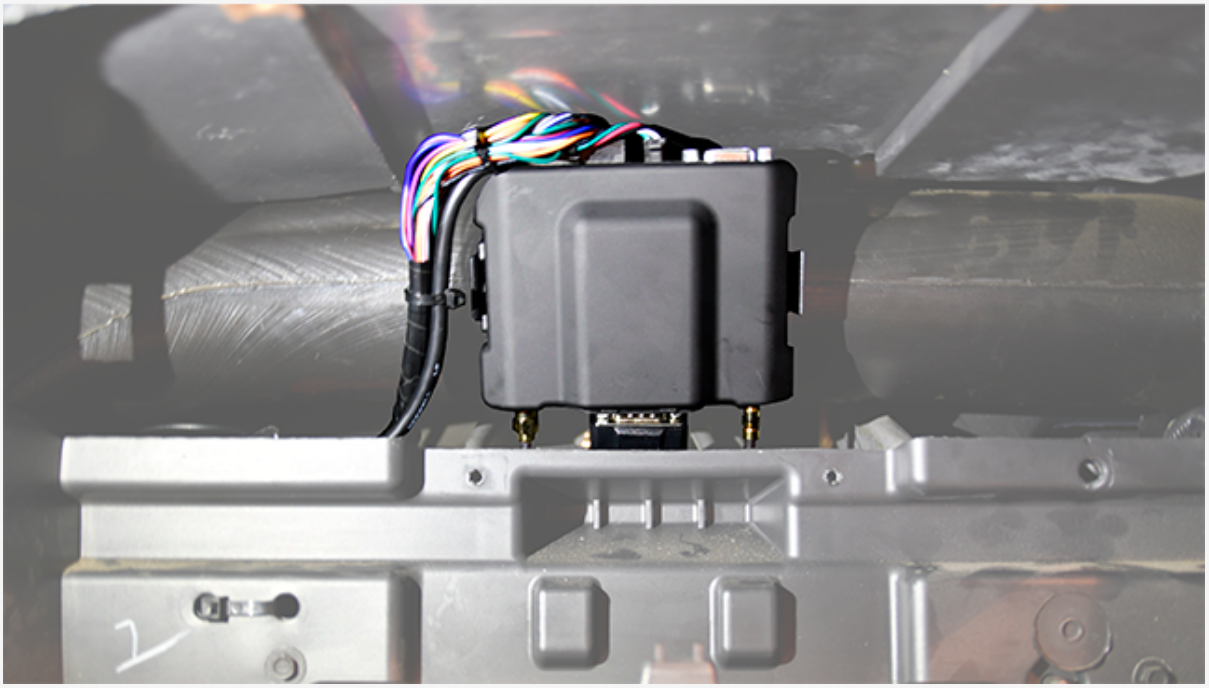
8. Verify and secure the installation.

1. Do not start the vehicle.
2. To activate and register your device, with your vehicle card in hand, call or use the Responsible Fleet Verification App via smart phone (iOS|Android).
3. After the installation has been verified, apply tamper seal compound to all connections.



4. Mount the GPS device behind the dashboard cluster to a vent pipe or chassis support, coil any unused wires, and then secure them within the dashboard.





5. Reassemble the vehicle’s dashboard, and then give the registration card to your GPS administrator.