
Fleet GPS Telematics Device Installation and Verification

1.0 Objective & Scope

The objective of this procedure is to ensure the safe, standardized installation and verification of GPS telematics devices on fleet vehicles. This SOP applies to all field technicians and fleet drivers responsible for installing, testing, and documenting telematics hardware to maintain accurate vehicle tracking, driver behavior monitoring, and compliance with Transport Canada regulations.

Scope includes pre-installation inspection, device mounting, wiring, power connection, antenna placement, initial activation, and verification of GPS signal and data transmission. This procedure does not cover removal or decommissioning of devices.

2.0 Required Equipment & Tools

- GPS telematics device kit (including main unit, wiring harness, antennas, mounting bracket, and SIM card if applicable)
- Mobile tablet or smartphone with SiteQueue application installed for documentation and verification
- Multimeter for testing power and continuity
- Wire strippers, crimpers, and electrical tape
- Zip ties and adhesive cable clips for cable management
- Torx or hex key set for mounting bracket installation
- Personal protective equipment (PPE): safety glasses, high-visibility vest, steel-toed boots, and work gloves
- Vehicle-specific wiring diagram (if available)
- Digital camera or smartphone for installation photos

3.0 Site Safety & Hazard Assessment

- High-visibility vest and steel-toed boots required when working in or near active vehicle traffic or fleet yards.
- Safety glasses must be worn during any cutting, stripping, or crimping of wires.
- Ensure vehicle is parked on level ground, engine off, keys removed, and parking brake engaged before beginning installation.
- Disconnect the vehicle's negative battery terminal to prevent short circuits or accidental airbag deployment during wiring.
- Be aware of sharp edges, hot surfaces, and moving parts (e.g., cooling fans) inside the vehicle cabin and engine bay.
- Use caution when routing wires near airbags, steering columns, or pedals to avoid interference with vehicle controls.
- Do not install devices in locations that obstruct the driver's view or interfere with vehicle operation.

4.0 Step-by-Step Execution Procedure

1. Log into SiteQueue and select the work order for the GPS telematics installation. Review the vehicle details, device type, and any special instructions from the fleet manager.
2. Perform a pre-installation inspection of the vehicle: note the VIN, odometer reading, and any existing damage to the interior or exterior. Take baseline photos of the dashboard, OBD-II port area, and installation zone.

3. Disconnect the vehicle's negative battery terminal using a wrench. Wait at least 2 minutes for any residual power to dissipate before proceeding.
4. Select a mounting location for the GPS device that is hidden from plain sight (e.g., under the dashboard, behind the glove box, or above the headliner) but allows for proper antenna placement. Use the provided bracket and hardware to secure the device firmly.
5. Route the GPS antenna to a location with a clear view of the sky (e.g., on top of the dashboard near the windshield or on the roof). Ensure the antenna is not covered by metal or tinted glass. Secure the antenna cable with zip ties or adhesive clips, avoiding pinch points and heat sources.
6. Connect the device wiring harness to the vehicle's power source: tap into a constant 12V line (e.g., battery or fuse box) and a switched ignition line (e.g., accessory wire). Use a multimeter to verify voltage before connecting. Connect the ground wire to a clean, unpainted metal surface.
7. If the device includes an OBD-II passthrough, plug the connector into the vehicle's OBD-II port. Secure the cable to prevent it from dangling or interfering with the driver's pedals.
8. Reconnect the vehicle's negative battery terminal. Turn the ignition to the 'ON' position (do not start the engine) and verify that the device powers on (check for LED indicators or audible beeps per manufacturer instructions).
9. Use the SiteQueue app or the device's mobile app to confirm GPS signal acquisition and data transmission. Verify that the vehicle's location, speed, and ignition status appear correctly on the fleet management dashboard.
10. Perform a road test: drive the vehicle for at least 5 minutes on a mix of streets and highways. After the test, check the dashboard to ensure continuous tracking and no error codes. Return to the shop and park the vehicle.
11. Tidy all wiring with zip ties and adhesive clips. Ensure no wires are exposed, loose, or near moving parts. Replace any removed panels or trim pieces. Clean the work area and dispose of any waste materials.
12. Complete the SiteQueue work order: upload installation photos (device location, antenna placement, wiring, and final vehicle interior), enter the device serial number, and note any observations or issues encountered.

5.0 Verification, Sign-off & Reporting

1. Verify the device is transmitting data by checking the fleet management system (e.g., SiteQueue or third-party telematics portal) for real-time location, speed, and ignition status. Confirm the data matches the vehicle's actual state.
2. Obtain a digital signature from the fleet supervisor or designated client representative in SiteQueue, confirming the installation is complete and the vehicle is operational.
3. Provide the client with a brief walkthrough of the device's basic functions (e.g., LED indicators, what to do if the device loses power) and any relevant documentation (e.g., warranty card, support contact).
4. Close the work order in SiteQueue, ensuring all required fields are filled (device serial number, installation date, technician name, and client sign-off). Attach the completed checklist and any additional notes.
5. If any issues were encountered (e.g., poor GPS signal, wiring difficulties), log a detailed note in the work order and escalate to the fleet manager or technical support for follow-up.

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