

Standard Vehicle Tracker Installation Guide

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Step 1: Prepare for the Installation

Be sure you have received all the components you need. This must include:

1. The Geoforce Standard Vehicle Tracker (SVT) unit.
2. A power harness.
3. Any optional components:
 - Input/Output cables (Inputs can accept 6-30VDC and Outputs can sink up to 150mA).
 - Mounting trays.
 - Peripherals (i.e. Garmin nüvi, vPod, relays).

Step 2: Record the Asset and SVT Serial Numbers

1. Record the SVT's electronic serial number (ESN).
2. Record the asset serial number (on which the SVT was installed).
3. Send this information to your Geoforce account administrator.



Step 3: Plan the Installation

Before drilling any holes or running any wires, decide where each hardware component will be located. Ensure the SVT will not be directly exposed to the elements or installed in a location that will exceed its environmental specifications as this will void the warranty. Make sure the SVT is accessible post-installation as it may be necessary to view the LEDs for troubleshooting.

3a. Power, Ground and Ignition Verification

Use a multi-meter to check each power source (power, ground and ignition) to ensure that proper signaling exists. Acceptable connection methods include solder and heat-shrink tubing, crimped connectors and ScotchLoks. Wire nuts are **not** approved.

Red Wire

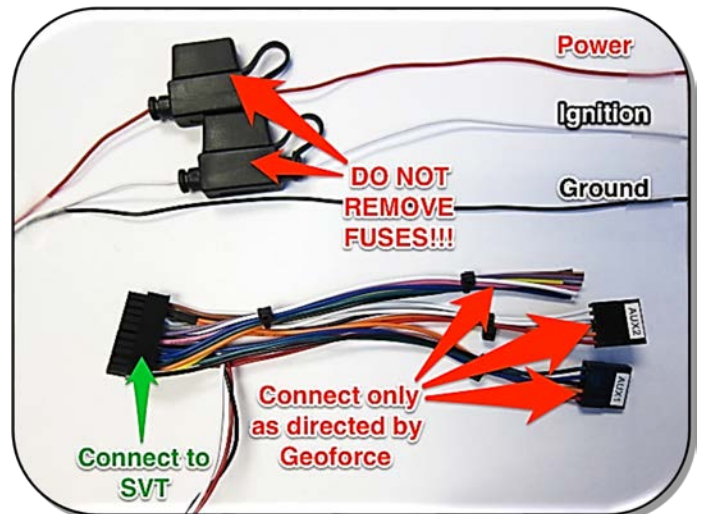
This power input wire must be connected to a constant (un-switched) +6 to +30 VDC supply. This wire **MUST** be fuse protected to not more than 5 amps.

Black Wire

This ground wire must be connected to battery negative or chassis ground.

White Wire

This fused ignition input wire **MUST** be connected to the vehicle ignition or another appropriate key-operated line, such as ACC or ON/RUN, such that power to the white wire is only available when the vehicle ignition is on.



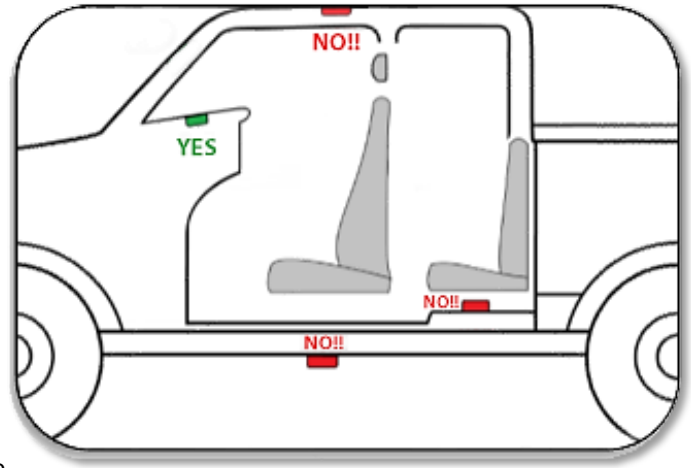
3b. Optimal SVT Placement

The Geoforce SVT uses an all-in-one design with the GPS, cellular antennas and control circuitry housed in one module. With this design it is more important to consider GPS performance than cellular performance since GPS signal strengths are much lower than those seen by cellular networks supported by the SVT. To maximize the quality of the location computed by the GPS, the module should have as clear a view of the sky as possible. Ideally, nothing should block the module beyond 5 degrees above the horizon. Beneath the dashboard directly under the front or rear windshields or the outward-facing edge of the A-pillar are ideal locations. **IT IS CRITICAL THAT THE LABEL SIDE OF THE DEVICE FACE THE SKY AND THAT NO METAL PANELING BE IN BETWEEN THE TRACKING MODULE AND THE SKY TO ENSURE GPS QUALITY.**



3c. Attachment and Mounting

The SVT **MUST BE RIGIDLY AFFIXED** to the solid body of the vehicle. Avoid attaching the SVT to wiring bundles or plastic panels. If the SVT will be used to provide harsh driving data, the unit's performance is best if it is rigidly mounted. Attach the unit to the solid body of the vehicle using zip-ties, a mounting tray, or 3M VHB adhesive tape. If you anticipate that personnel may interfere with the SVT after installation, apply a tamper-proof sealant (such as 3M EC1252) to the power connections.



Step 4: Connect Components

1. Make sure the vehicle is outside with a **clear view of the sky**.
2. Connect any optional components from step 1 to the power harness.
3. Connect the 20-pin power harness to the SVT.
4. Ensure the green and amber LEDs are active and illuminated.
5. **Wait 5 minutes** as the SVT connects to the wireless network, provisions itself and obtains its configuration script.
6. Cycle the ignition from OFF/LOCK to ON/RUN for **at least 10 seconds**.

With power applied, the status LEDs will show activity. Ideally, both the GPS (green) and Comm (amber) LEDs should be steady.

Step 5: Verify Installation via SMS to 972-325-5402.

1. Start a new SMS message on your phone to 972-325-5402.
2. Enter the ESN into the message body. Add only one ESN per line.
3. Wait for a response.
4. Use the table below to determine whether your installation has gone according to plan.

Interpreting the results:

Value	Meaning
No Tags Identified	Geoforce could not identify the ESNs you specified
Last Read	Timestamp of the most recent message received by Geoforce
No Ignition Events	Geoforce has never seen an ignition event from this ESN
Ign On	Timestamp of the most recent 'Ignition On' event
Ign Off	Timestamp of the most recent 'Ignition Off' event
No Input 1 Msgs	Normal, unless the Input 1 is connected to an accessory
No Input 2 Msgs	Normal, unless the Input 2 is connected to an accessory
Input 1 On	Latest timestamp when Input 1 saw voltage
Input 1 Off	Latest timestamp when Input 1 saw no voltage
Input 2 On	Latest timestamp when Input 2 saw voltage
Input 2 Off	Latest timestamp when Input 2 saw no voltage
AUX 1	Latest timestamp of a message received via the SVT's AUX 1 port
AUX 2	Latest timestamp of a message received via the SVT's AUX 2 port