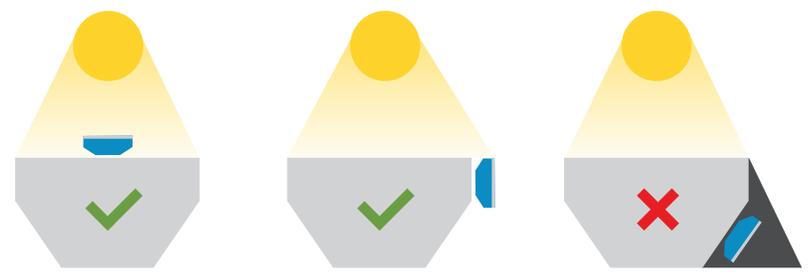




STEP 1 Determine Mounting Location/Orientation

- Install the solar panel so it's facing directly toward the noon sun. At a bare minimum, have the solar panel no greater than 90 degrees away from the noon sun.
- Avoid mounting the device where shadows may cast upon the solar panel.
- Avoid mounting the device where tires can kick up dirt, grease, or other staining particles. These particles will reduce the amount of charge the device can receive.
- Avoid mounting the device in low locations where dirt, grease, or any other staining particles can be introduced by rotating wheels. Excess dirt, grease, or staining materials on the solar panel will reduce the amount of charge the device can receive.
- Avoid mounting the TTSPSOLARv2 in locations where it can be physically harmed.



STEP 2 Physically Mount the Device

The device can be screw-mounted using the two flanges at each end of the housing or mounted with double-sided tape. An optional mounting bracket is also available.

STEP 3 Determine Installation Type

The **TT1SPSOLARv2** device has two installation types depending on whether your application requires an input cable (optional).

TYPE 1 Without input cable (device is charged solely by the sun)

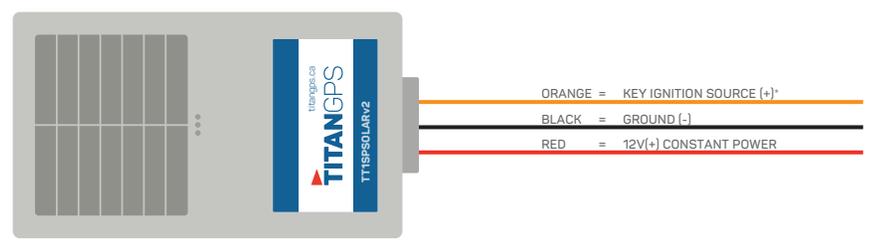
- Step 1** Mount the device as previously described.
- Step 2** Wake Up the Device – The **TT1SPSOLARv2** device is delivered in “shipment mode”. **Take the device out of shipment mode: find the black button near the circular connector on the side panel, and hold it for 3 seconds.**
- Step 3** Proceed to Testing the Device.



TYPE 2 With input cable (device is charged via a wired connection and/or the sun. Inputs and outputs can also be used.)

- Step 1** Install input cable using the wiring diagram below. Connect the cable to **TT1SPSOLARv2**.

installation diagram



*Optional: Device can be programmed to see either wired or “virtual ignition” status depending upon availability in the asset

- Step 2** Mount the device as previously described.
- Step 3** Wake Up the Device – The **TT1SPSOLARv2** device is delivered in “shipment mode”. **Take the device out of shipment mode: find the black button near the circular connector on the side panel, and hold it for 3 seconds.**
- Step 4** Proceed to Testing the Device.



STEP 4 Confirm LED Status

OPTIMAL	BLUE	Slow Blinking	Connected to Cellular /Online
	GREEN	Slow Blinking	Valid GPS
NOT OPTIMAL	BLUE	Fast Flashing <i>(several times per second)</i>	Searching for Cellular
	GREEN	Solid	Searching for GPS

If either of the not optimal LED states exist, we recommend moving the device outside with a clear view of the sky.

STEP 5 Testing the Device

Always be sure to test the device before sending the asset into service. There are two options;

OPTION A Call Certified Tracking Solutions

Call us at the **numbers below**. We will run through our test process to ensure everything is connected and mounted properly

OPTION B Self Test

Step 1 Check to see that the device can be seen at its currently installed location in your Titan GPS dashboard

Step 2 Trigger any input/output that is connected, and ensure you can see the desired outcome.

IMPORTANT

MUST BE TESTED

CALL TO TEST GPS TRACKING DEVICE

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY DAMAGE EQUIPMENT AND VOID ITS WARRANTY

CALL NOW

CERTIFIED TRACKING SOLUTIONS

1.780.391.3800

TOLL-FREE 1.855.287.4477 (CTS4GPS)

F.A.Q.

How long does the battery take to charge? How long will it last?

The device takes about 71 hours to charge from a completely discharged state. The length of operation of the device depends on its configuration. The longer the device is able to sleep, the more power it saves. You can see the current battery voltage on the website. Go to **Backup Battery Voltage > Asset Info Box**. The voltage on the battery can span from 3.3V to 4.1V, which are the low and high level limits respectively.

Why does my battery take forever to charge?

If you are not seeing a backup battery voltage of 3.9V or 4.0V after 71 hours of charging, you may need to check that the battery is charging correctly.

There are two ways to charge the device. The solar panel charging is highly dependent on its quality of sun exposure. If an external power source is available you can charge the device via the optional cable harness. If the device is turned on and operating normally it can take longer to reach a full charge or may never fully charge if always being used.

Does this device require any physical maintenance?

You should routinely spray wash the solar panel to remove any grease, grime, or dirt. These contaminants may degrade the solar panel performance over time. In most situations, if the device is mounted with the solar panel directly facing the sky, rain may be enough to keep the panel clean.

Why isn't this device showing its current location?

If you can't see the current location, it's likely one of two things is happening. First, check to see if the blue and green LED lights are flashing when the device is awake. If they aren't, the device needs to be charged. Second, confirm the device is in an area where a strong cellular or GPS signal is available. You may need to move it outside.

NOTES
