Track 1000 Calamp Hardware Installation Guide

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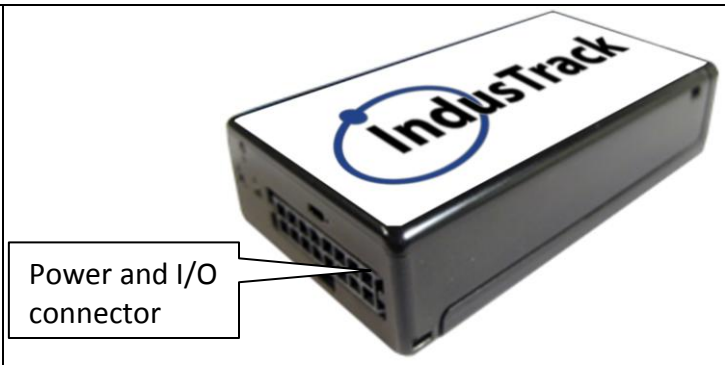
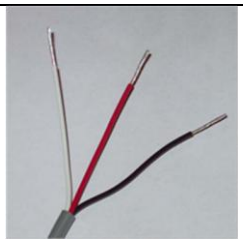
Installation Overview

This document includes detailed instructions for installing the Track 1000. We recommend that the customer inventories the items in the kit, and has the proper tools listed below for installation. The device installation is very simple as outlined in the steps beginning on page 4.

Items included in the install kit	
1. Track 1000	
2. Power cable standard	

Tools Required

1. Wire Cutters
2. Wire Stripper
3. Multimeter (Voltmeter)
4. Electric tape
5. Plastic cable ties
6. Mounting screws, screw drivers
7. Socket Wrenches
8. MISC Supplies (Velcro Strip, Double stick tape, and wire ties)

WARNING: DO NOT POWER THE DEVICE UNTIL ALL CABLES ARE PROPERLY CONNECTED
DO NOT MOUNT DEVICE UNTIL YOU MAKE SURE THAT CABLES ARE THE RIGHT LENGTH.

Please take the following precautions for device mounting.

1. **For covert installation, under the dash board as high and close to the front shield as possible.**

2. ***There should not be any metal around the device to block the radio signals.***

3. ***Device must not touch any metal.***

4. ***Make sure the side with the label is facing the sky. Top side should be facing the sky as shown in picture.***

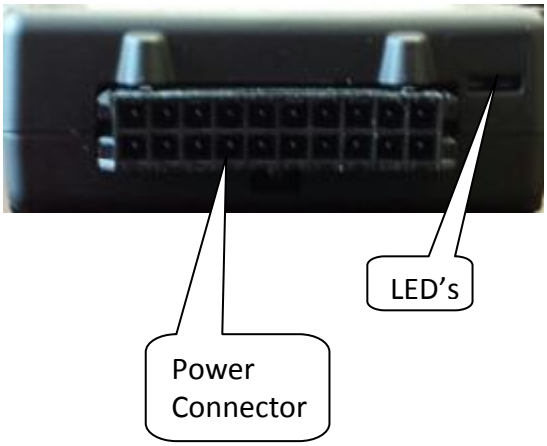
5. ***In order for Quick breaking, hard acceleration, and cornering to work properly the device must be installed at level and should not be allow to be moved.***

Step 1: Device Installation

1. Please write down the ESN number on the device, prior to device install. The ESN number is located on the device on a white sticker.

2. Orient device properly to have visibility for the LED's and connector is facing the installer.

3. Device needs to be level and mounted using industrial strength hook and loop fastener (example: 3M Dual Lock) or at least 2 zip ties.



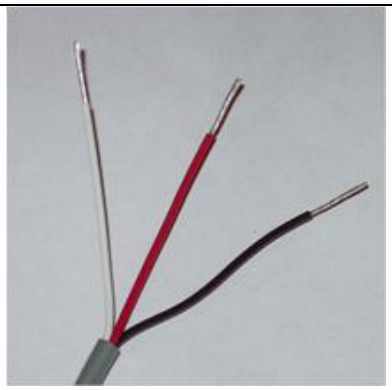
WARNING: Track 1000 must not be installed near the heating vent.

WARNING: In order for accelerometer (Quick acceleration, hard breaking, and cornering to work). Track 1000 must be mounted as shown and leveled.

Step 2: Wiring

We highly recommend this method for installation, so you don't sever any wires in the vehicle:

1. ***Strip about a 1 inch section of insulation off the wire in the vehicle and the same off the end of the wire coming from the device.***
2. ***On the wire from the vehicle, separate the individual wires to make a hole and put the bare end of the wire from the device through the hole. (see picture 1).***
3. ***Now wrap the device wire around the outside of the wire from the vehicle (see picture 2).***
4. ***Solder this connection and wrap it in electrical tape. For the ground, use ring terminal end connector and ground to bare metal on the chassis.***

White: *Ignition sense wire* should be connected to *Vehicle ignition sense,* which connects to the battery, only while the ignition switch is on. *Note: NOT the starter wire, the ignition wire.* *Find a source of 9-15V that is switched on/off with the ignition key. The connection should produce 9-15V when the vehicle is on and 0Vwhen the vehicle is off.* **Red Wire**: Power wire, connected directly to a line coming from the battery. **Black Wire**: Ground wire, **must be secured directly to a ground screw tied to the vehicle chassis.**	

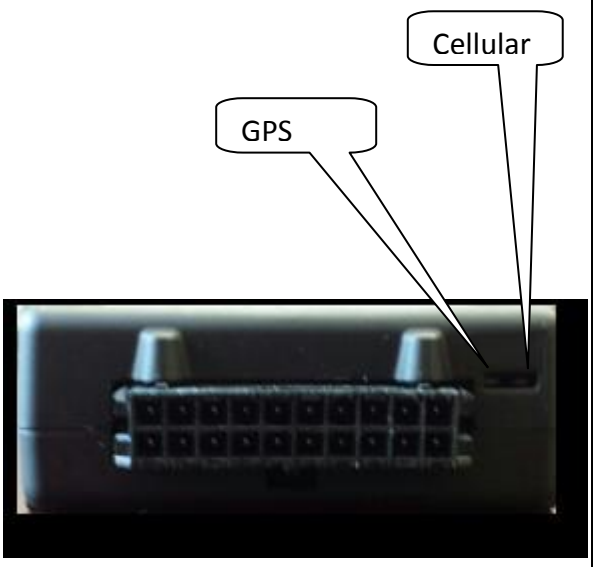
Step 3: Verification

After the installation is complete, turn on the vehicle ignition (it is not necessary to start the vehicle). After 30 seconds–1 minute, please observe the LEDs. They should be illuminated and not blinking. If any of the LEDs are blinking check the connections.

POWER: **Amber LED** indicates power to the module. This LED is on when power is turned on and the GPS module is operational. The LED is off when power is removed and the internal battery is dead or when the Track 1000 enters standby mode.

Cellular: **Amber LED** also indicates Cellular connection status. The LED state of slow blink indicates that the device is not attempting to connect to the cellular network. A rapid blinking amber LED indicates that the device is trying to connect to the network and a solid amber LED indicates that the device is connected to the cellular network.

GPS: **Green LED** indicates GPS fix status. The LED will flash slowly when invalid GPS data is received. A rapid blinking green LED indicates that the device is trying to connect to satellites. The solid green LED means that it has a valid GPS lock.



WARNING: When the device starts, LED is blinking, if it stays blinking than there is problem with cellular connection.

Step 4: Installation Verification Process

Have the vehicle outside so it can get a good GPS and Cellular signal.

1. Install the device and wait for 5 minutes.
2. Turn the vehicle on and let it run for 5 minutes.
3. Turn the vehicle off and wait for 5 minutes.
4. Turn the vehicle on again and let it run for another 5 minutes.
5. Turn the vehicle off and wait 10 minutes.
6. Installer or customer will call IndusTrack support to confirm correct installation of device. Support phone number is 612-746-4017 x2
    a. IndusTrack Support will confirm
    i. Ignition On/Off working as expected
    ii. RSSI number of the cellular signal strength
    iii. Number of satellites and HDOP number
    iv. Check PTO if applicable
7. Installer should also provide pictures of wiring (only for units that has wires) as well as location of devices (non OBD ii devices only) in the vehicle.
8. One week following the installation of the final device, IndusTrack support will have a call with customer to confirm device behavior and sign off on installation.

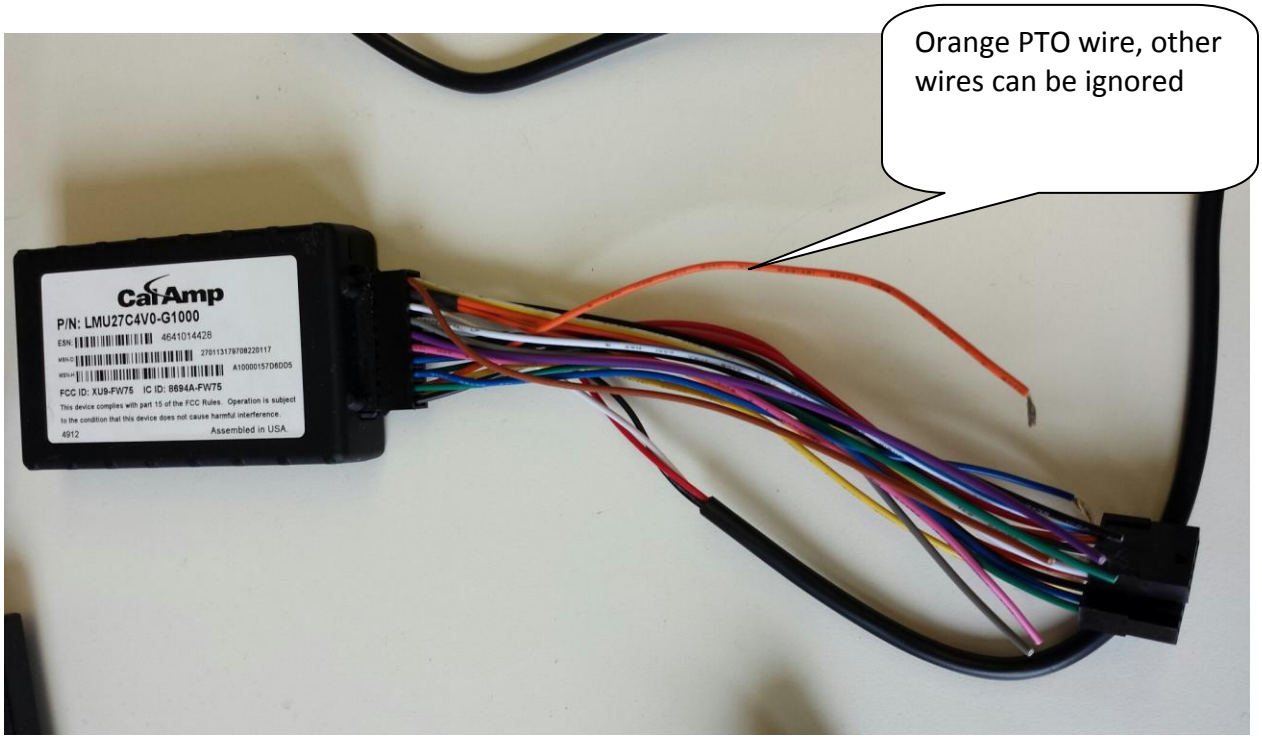
Connector Pin Out

Connection Table

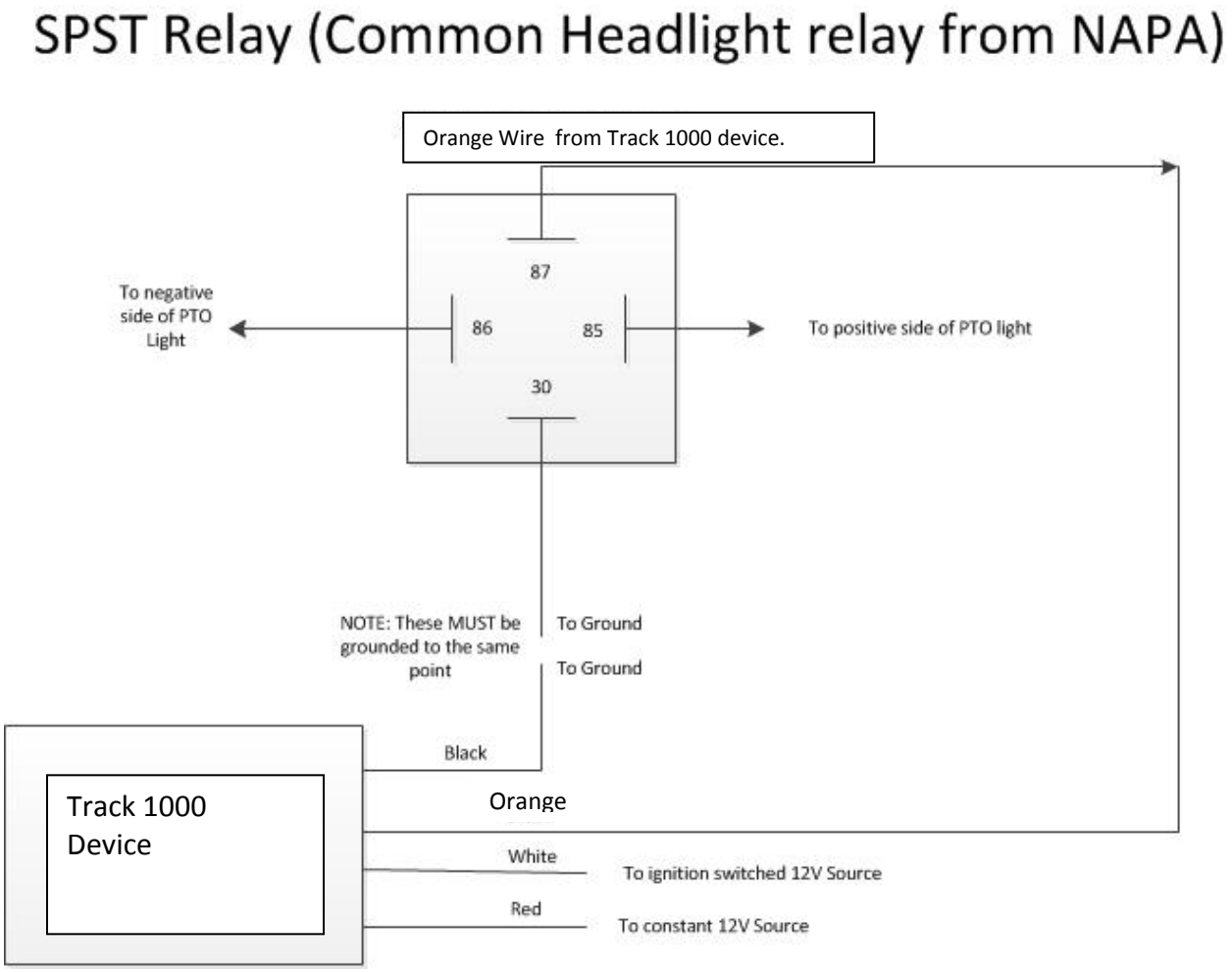
P1	signal description	color	fly	J2	J3
1	GROUND	black	-	3	-
2	OUTPUT 0	green	x	-	-
3	INPUT 1	blue	x	-	-
4	AUX_1 Serial In	blue	-	4	-
5	ADC1 INPUT	pink	x	-	-
6	INPUT 3	violet	x	-	-
7	INPUT 4 (/OUT_3)	gray	x	-	-
8	INPUT 0	white	X	-	-
9	VDD (3V OUT)	orange	-	2	2
10	OUTPUT 1	brown	x	-	-

P1	signal description	color	fly	J2	J3
11	OUTPUT 2	yellow	x	-	-
12	INPUT 2	orange	x	-	-
13	AUX_1 Serial Out	green	-	5	-
14	Primary VCC Input	red	X	1	1
15	Primary GROUND	black	X	-	-
16	GROUND	black	x	-	-
17	1-WIRE DATA	white/blue	x	-	-
18	AUX_2 Serial Out	white/orange	-	-	5
19	GROUND	black	-	-	3
20	AUX_2 Serial In	white/yellow	-	-	4

- Orange wire: PTO
- Red wire: 12v always on
- White wire: 12v on/off with ignition
- Black wire: Chassis ground
- Other wires can be ignored



PTO Installation:



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FAQ

Q) What causes Intermittent failures?
A). The main cause of system failure over time is vibration causing metal fatigue in wires. The key to dealing with this is to secure all the wiring so it doesn't flex with the vibration. Zip-ties, electrical tape and silicone glue are all good choices for securing elements of the system.

Contact Information

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