

# Safety Track



## Product Installation Guide ST-1500

### **DIMENSIONS:**

2.15 x 4.33 x 1.59" Weight: 12 oz

### **ENVIRONMENTAL SPECIFICATIONS:**

Temperature -30° to +75° C (operating); -40° to +85° C (storage)

Humidity 95%RH @ 50° C non-condensing

Shock and Vibration U.S. Military Standards 202G and 810F, SAE J1455

EMC/EMI SAE J1113; FCC–Part 15B; Industry Canada  
RoHS Compliant

### **Getting Started**

#### **Kit Contents:**

Tracking device with Temperature Probe

#### **Tools Required for Installation:**

Screwdriver/power drill

Voltmeter

Wire stripper / cutter / crimper

Mounting hardware (Self tapping screws, Nut and bolt,  
3M Double sided sticky tape.)

You choose the best way to mount the device.

## Wire Schematic

**From Probe: A.**

Red (Not Applicable) 1

White (1 Bit BUS data line) 2

Black (Chassis Ground) 3

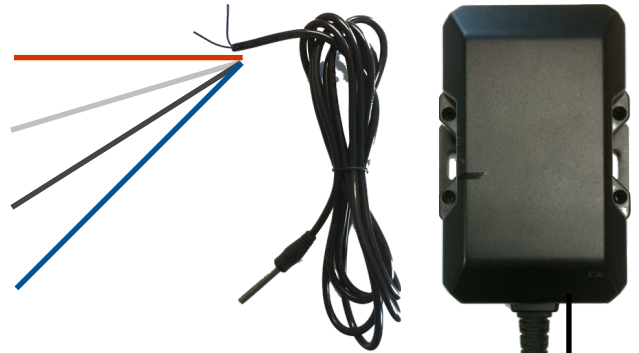
Dark Blue (Chassis Ground) 4

1

2

3

4



**From Device: B.**

Red (+12V Constant Power) 1

White (Ignition) 2

Black (Chassis Ground) 3

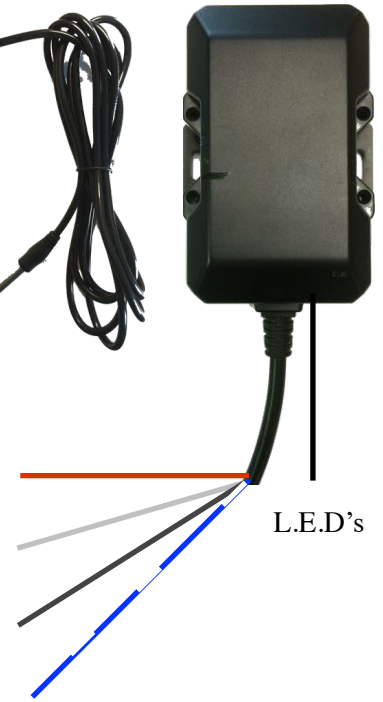
Blue/White (1 Bit BUS data line) 4

1

2

3

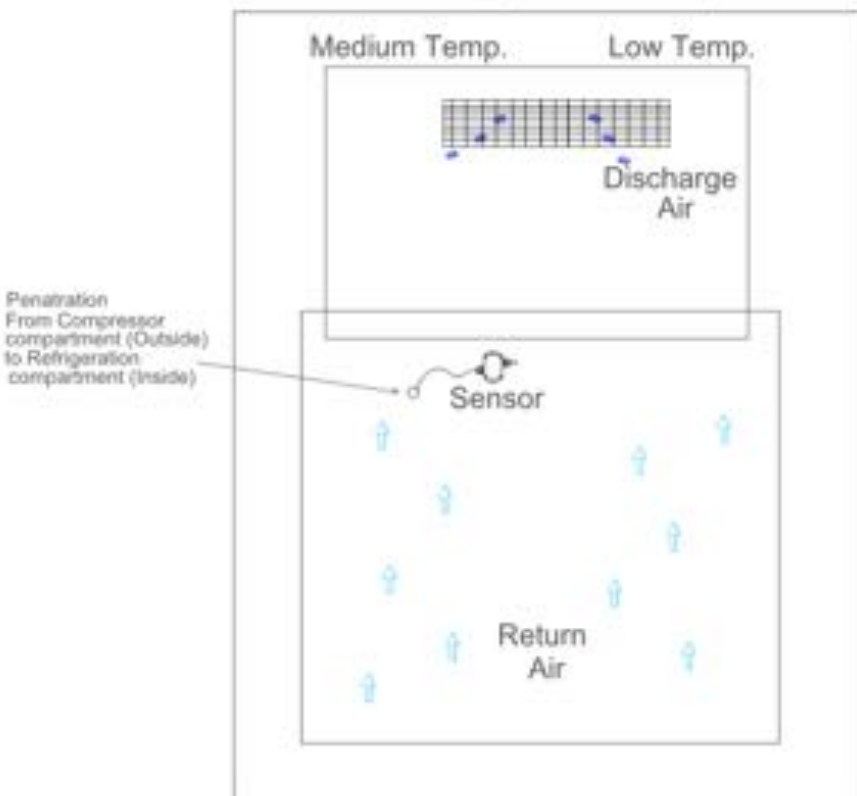
4



## Probe Placement

Front Wall (Inside of Trailer)

Medium Temp.      Low Temp.



## **Attach Probe to Best Location Inside Trailer. (See above)**

- Place Probe in recommended location to get accurate temperatures

## **Combine WHITE Wire from Probe to BLUE/WHITE Wire on device.**

- This will allow the device to capture temperature data from the probe.

## **Combine BLACK and DARK BLUE Wires and connect to a GROUND.**

- This will ensure proper grounding of the probe.

## **RED WIRE IS NOT USED**

## **Secure Excess Wire and double check placement.**

## **Basic Installation**

1. Ensure the refrigeration unit is OFF
2. Ensure all standards parts and relevant optional parts (listed above) are available
3. Write down the serial number from the back of main unit. The serial number is what is needed to activate the device after power is supplied to the unit,

To ensure a clean and proper install it is necessary to:

Mount all components in a safe and secure manner.

All wires must have tight connections and secured preventing chaffing and pulling

Keep all wires and components away from daily access areas

Use grommets to prevent chaffing when penetrating electrical enclosure

Mount sensor in proper airflow and secure from daily load/unload activities

Ensure all doors, panels, harnesses are fastened properly when complete

## **WARNING**

**IT IS VERY IMPORTANT TO OBSERVE LOCATION OF ALL ELECTRICAL WIRES AND REFRIGERATION PIPES.**

Any accidental penetration into the sealed refrigeration system will disable the trailer and create an expensive repair. Shorting any wires could damage electrical and/or electronic components that may disable the entire system. Be aware, refrigeration pipes may be hot to the touch and could burn.

1. Even though the unit is weatherproof, it is a good practice to mount the device in a dry and secure location.
2. The electrical box is the most practical location because you can localize all electrical connections and the main unit is in a secure and weather resistant location.
3. The unit should be mounted to the interior surface using the tabs on body. Orientation is not specified, but there are indicator LED's on the side that should be visible for start up and troubleshooting. The wire harness will have all connections internal to the electrical box. The 2 conductor 18ga cable must penetrate into the electrical box and attach to harness as shown in drawing. Protect cable at penetration with grommet and seal opening from weather.
4. Within the compressor and engine area make the penetration into the refrigerated area. It is required to protect this cable by installing grommets on both inside and outside walls and to seal both. Strain relief of cable is necessary to prevent damage. All cables inside the refrigerated area should be located in a secure location (behind return air louver).

Inside the refrigerated area, the sensor must be mounted securely using the tabs provided on the enclosure. The 2 conductor 18GA cable must be inserted into the sensor housing through the connector. Tighten the connector to secure the cable and to keep the enclosure whether tight. All connection must be made inside the enclosure and the lid secured with the 4 screws .The sensor must be mounted in the location established by the trailer owner, but the most common location is the return airflow .The refrigeration unit most likely will have a return air sensor that controls the refrigerated area temperature. For best results it is best to mount the Voyager sensor in close proximity to this sensor.

Avoid cutting wires to splice into system unless necessary. Tighten all screws to prevent lost connection over time.

Do not apply the 12V DC Power until all connections are complete.

Once installation is complete, apply power to the unit and observe LED lights on the right side of the unit. Both LED lights will flash and then go steady. After the LED lights are steady, perform a communication check with the unit.

To verify a successful installation, access the Tracking web site. [www.track.safetytrack.net](http://www.track.safetytrack.net)  
The device check will report the sensor be detected and report the time and date of the detection. Ensure that the timestamp matches the time you powered the device up

Contact Technical Support or your sales rep for any questions.

BELOW ARE PICTURE EXAMPLES OF WHERE TO LOCATE POWER AND GROUND



To the Left is an example of locating 12V power in the control box of a refrigerated unit.



To the Left is an example of locating Ground in the control box of a refrigerated unit.