

Fleet Tracking Simplicity

# Temperature Sensor

**24/7** <u>Activation Hotline</u> 920.338.0479

**Required Components:** 

- CyntrX HD tracking device
- CyntrX Temperature Probe kit



# Step 1: Locate the CyntrX HD Device

Install CyntrX HD GPS device according to instructions, or if already installed, locate CyntrX HD GPS device inside the dash of the vehicle.

# Record ESN number for activation after installation is complete.



# Step 2: Attach Cable 1 to the device

Plug Cable 1's wide connector into the CyntrX HD Device's I/O port. There should be a click when the cable is securely attached.



### Step 3: Feed Cable 2 through firewall

From the engine bay, feed the unfinished end of Cable 2 through the driver's side firewall grommet. Pull in enough of the cable's length into the cab to ensure it will not fall out during the install. This end will remain unfinished until Step 11.



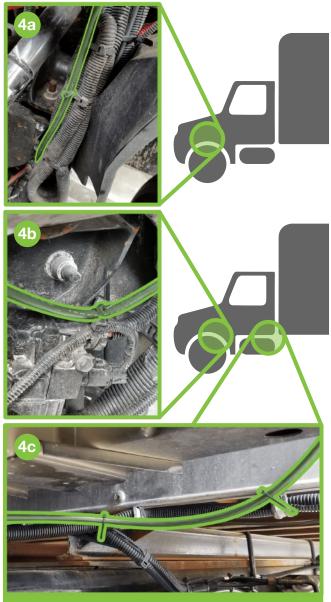
firewall grommet and into

NOTE: Throughout the installation, pull more of Cable 2 out of the grommet from the interior of the vehicle and tighten the slack slightly. The majority of the cable will remain in the cab and you will feed only as much as you need to reach the refrigerated box. The cable should not be excessively loose as this could potentially cause it to be caught on a moving component of the vehicle.

#### Step 4: Run Cable 2 under the cab

Run Cable 2 from the grommet to underneath the cab and then toward the vehicle's rear. Use zip ties to loosely attach the cable to non-moving parts along the way.

NOTE: Ensure that the cable is not resting on or attached to any elements that may heat up or move during the vehicle's operation.



secured along the bottom of the cab. Preexisting tie mounts provide secure many mounting points.

# Step 5: Drill a hole for the sensor

Find a suitable place to drill a hole for the temperature probe cable (Cable 3) to run into the refrigeration trailer. We recommend placing the hole near the top of the box next to the refrigeration unit to ensure the cable will not get caught on any cargo within the trailer.

A 13/32" drill bit is needed, but use a larger drill bit if Step 6 becomes difficult.

**NOTE:** The smaller the hole is, the less likely a leak will occur after sealant is added in the end of the installation.



The above image shows the general location of where the hole should be drilled from inside the cargo box.

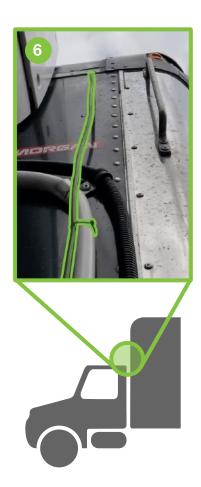
## Step 6: Feed sensor into trailer

Once the hole is drilled, insert Cable 3's sensor-end and push it through from the outside of the box.



Once the end is through and into the cargo area, pull in as much as is needed to allow for the other end to meet with Cable 2's connection along the exterior wall of the refrigerated cargo area.

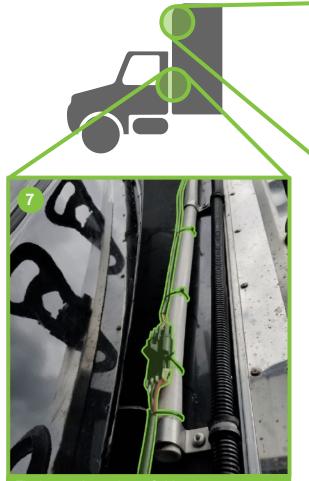
It may be best to meet the two cables (Cable 2 & 3) just above the refrigeration unit's water exhaust tube (as seen in Step 7's photos)



### Step 7: Connect Cables 2 & 3

Feed and pull both Cable 2 and Cable 3's lengths until their connections are appropriately lined up to a secure and safe spot along the vehicle-side wall of the cargo bay. Once the location is specified, connect Cable 2 and Cable 3 together and secure their cables loosely to static and dry mounting points along the wall of the cargo area.

**NOTE:** As mentioned in Step 6, mounting to the refrigeration unit's exhaust tube may prove successful. However, take care to not allow the connections to rest underneath the exhaust tube as it will consistently leak water onto them.



The image above shows Cable 2 & 3 connected and mounted to the refrigeration exhaust tube.

### Step 8: Tidy up Cable 3

Tighten the slack on Cable 3 and pull the extra cable length inside of the refrigerated box. Coil and secure any leftover length of Cable 3 inside of the trailer. Coil it so there is roughly 2-3 feet of length coming from the drilled hole.

Mount Cable 3's probe to the same wall of the trailer that the hole is on, forming a U-shape. Mount the coiled cabling of Cable 3 as well.

**NOTE:** Use cable clips and fasteners to drill into the interior wall of the trailer. These will allow for Cable 3 and its probe to rest flush against the wall, avoiding contact with cargo.



#### Step 9: Tighten and secure cables

Follow Cable 2 back to the cab and tighten it along the way, pulling the extra length toward the unfinished end of Cable 2. Use extra zip ties to secure Cable 2. Tighten any zip ties used in previous steps.

**NOTE:** Find a good in-between tension that allows minor movements from the truck, while not allowing the cable to shift a lot during operation.

#### Step 10: Cut Cable 2 to length

Determine a good length to cut Cable 2 to. The unfinished end of Cable 2 should be able to easily reach Cable 1's empty connection, with enough extra length to allow for flexibility. Once determined, cut Cable 2 to that length.

### Step 11: Assemble Cable 2's unfinished end

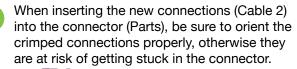
- Strip back 2" from Cable 2's unfinished end.
- Strip back 1/8" from each wire (Cable 2).
- Trim off the shielding and fibers, leaving the bare ground wire intact (Cable 2).
- Slide the rubber seals (Parts) over the three colored wires. Be sure to face the skinniest part of the seals toward the exposed ends (as shown in the photo).
  - Crimp a terminal from supplied kit (Parts) onto each wire (Cable 2) and around the seals.
  - Using the provided solder sleeve and red power wire (Parts), crimp the bare ground wire with the red wire's exposed connection together.



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Use a heat gun to mold the sleeve around the now-crimped wires.







Insert wires (Cable 2) into the connector from supplied kit (Parts) as shown in the table below.

Connector Cavity
A
В
С





Push in connector lock from supplied kit (Parts).





Attach the red wire's ring terminal to the vehicle chassis to provide a grounding point.

#### Step 12: Connect Cables 1 & 2

Attach the new connection on Cable 2 to the open connection on Cable 1.

#### Step 13: Seal drilled hole

Use silicone or a similar sealant to seal the drilled hole from both sides.