



EVO RADAR Grounding Instructions

EVO RADAR Sensor and EVO RADAR HUB

Date: 7 December 2023

Document Number: TB2129

Purpose of This Document

This document provides information on proper grounding for the EVO RADAR product.

Problem

Communication problems have been observed in the field after applying the grounding technique detailed in the EVO RADAR Grounding Notification Technical Bulletin (TB2117, TB2117A, and TB2117B).

These problems most commonly manifest themselves in:

- Frequent ObjectListTimeout warnings on EVO RADAR logs.
- Frequent PLC resets.
- Complete communication loss to the Sensor, resulting in continual Max Recalls.

Solution

Adhere to these best practices to avoid communication problem issues:

- Ground the EVO RADAR Sensor directly to the pole on which it's mounted, or to the grounding rod at the base of the pole.
- Do **not** connect the Sensor chassis to the J-Box EARTH terminal.
- Do **not** connect the drain wire from the EVO RADAR HUB to the EARTH terminal on the J-Box.

Refer to the Action Required section for detailed instructions.



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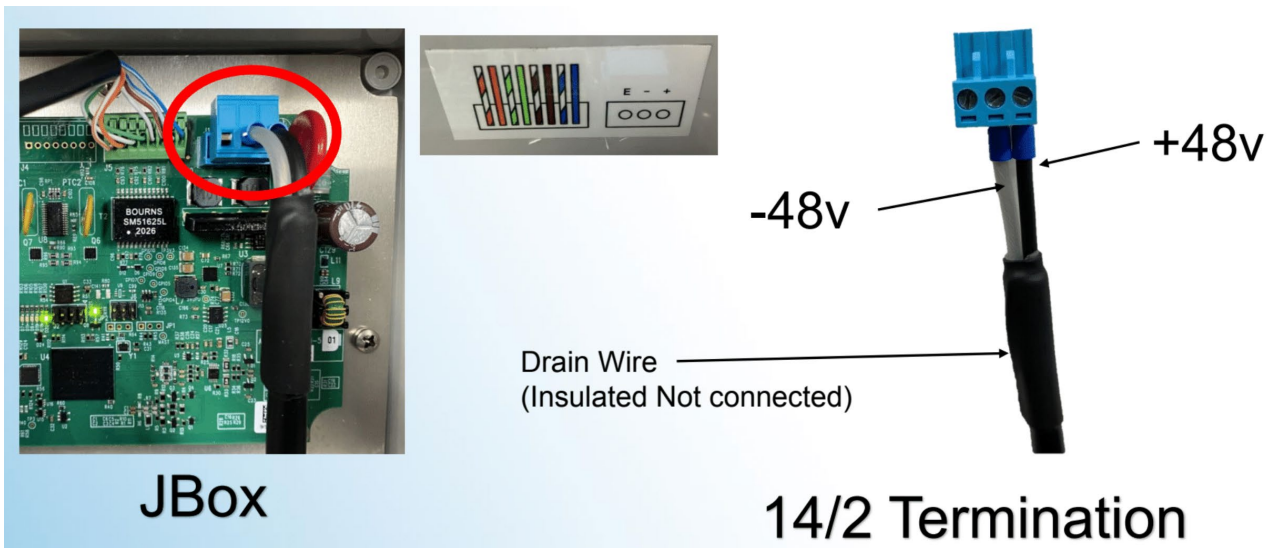
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Action Required

For an EVO RADAR Sensor connected to a J-Box

- 1) Disconnect the drain wire on the J-Box. Note that different J-Box versions have different wiring schemas (e.g., "E - +" vs. "+ - E"). Follow the wiring schema shown on your J-Box label.



- 2) Connect the EVO RADAR Sensor EARTH cable to the pole or to the grounding rod at the base of the pole.





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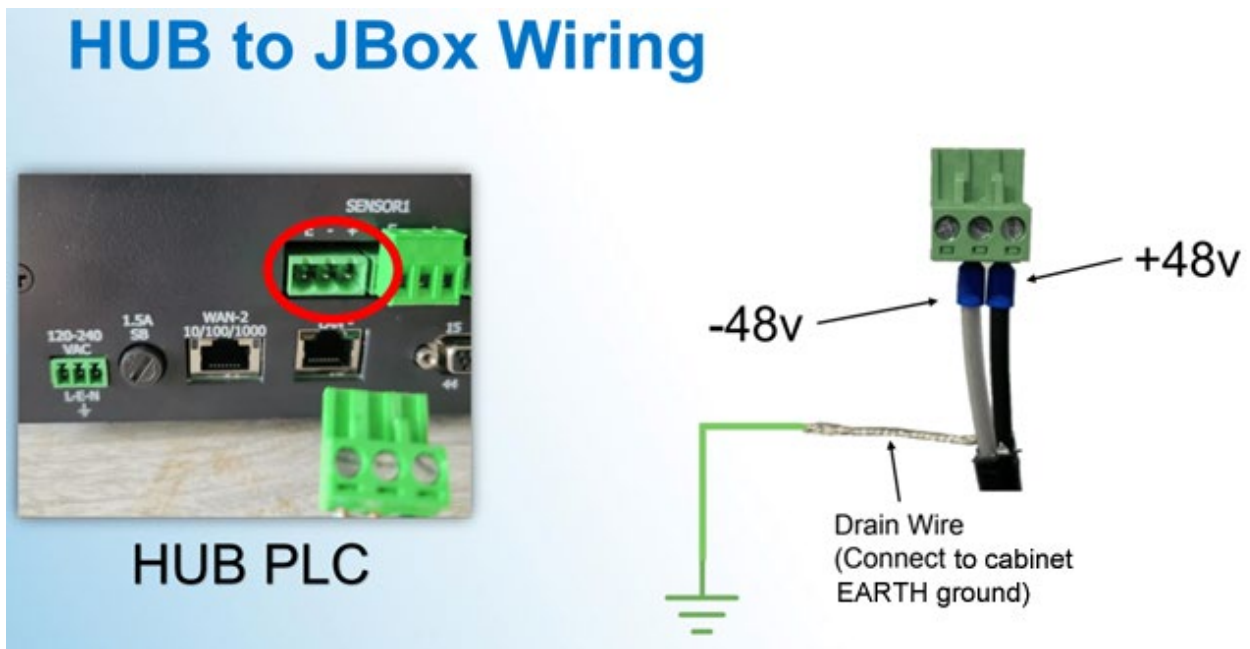
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On an EVO RADAR HUB

The EARTH ground connection for Sensors on the HUB connects to the EARTH ground on the AC power supply line internally. In most cases, the cabinet is not sufficiently grounded on the AC power line. In this scenario, the drain wire should be brought to a grounding connection independently, as described below. If measured resistance from the Sensor EARTH connection to your ground is near zero, then you may safely connect the drain wire directly into the HUB's Phoenix Connector.

- 1) Connect only the power conductions on the HUB.
- 2) Connect the drain wire to the cabinet EARTH ground.



More Information

Direct any questions regarding this issue to the Detection Support team at detectionsupport@econolite.com, or Econolite Technical Support at 1-800-225-6480 or 1-714-630-3700.