TORINO
Power Solutions Inc

POWER LINE MONITOR INTERROGATOR

USER MANUAL

1 Product overview:

Power Line Monitor system measures the temperature of the overhead line conductor using EM radiation in 2.4GHz band. It consists of Interrogator and Microwave sensors.

Interrogator transmits microwave signal to sensors and receives their response.

This device complies with FCC Rules Part 15 operation is subject to the following two conditions:
1. This device may not cause harmful interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.
Changes or modifications to this device, not expressly approved by XXXX. could void the user's authority to operate the equipment.
Industry Canada Notifications
This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage;

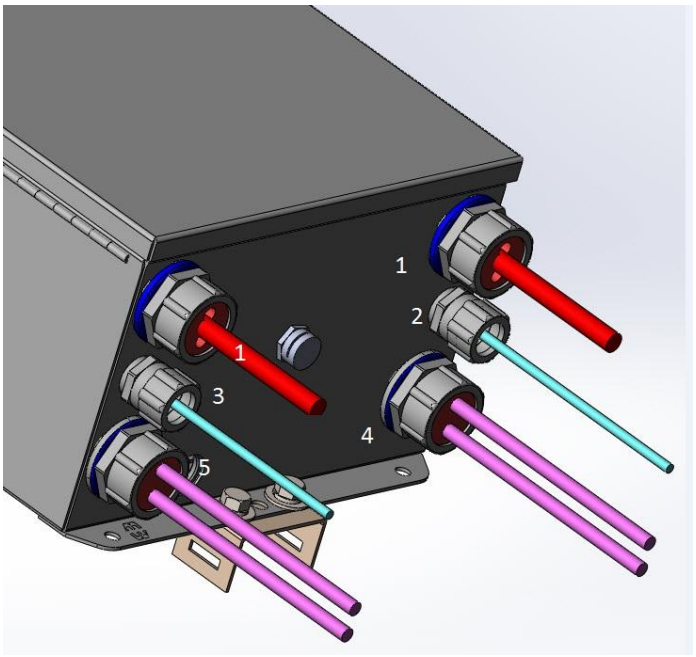
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The measured data is transmitted to the server where the user can access them using any OPC client program.

Power Line Monitor system requires no configuration by the user.

For the installation of the system refer to System Installation Guide (91-0012-A06)

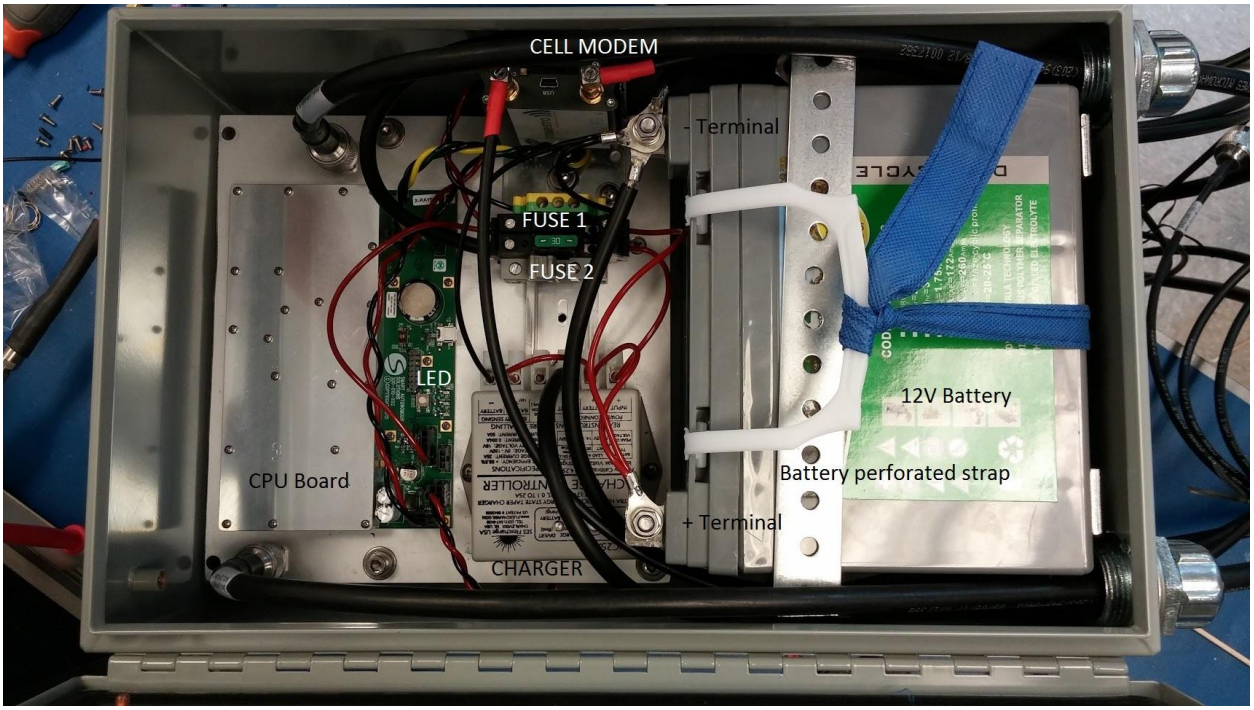
2 Interrogator Cable Identification



#	CABLE DESCRIPTION	CONNECTOR	IMAGE
1	Transmit and receive cables. Connect to interrogator antennas 1 and 2	N male	
2	GPS cable. Connect to GPS antenna	TNC male	

3	Cellular cable. Connect to cellular antenna	N male	 **N Male**
4	DC power load cables. These are for future use. Do not connect. Coil the cables and secure them under the Interrogator	MC4 male, female	
5	DC power source cables. Connect to solar panel	MC4 male, female	

3 Inside the Interrogator.



The Interrogator box contains a baseplate with all electronics and a battery.

The top of the baseplate contains a CPU Board, Battery charger, two Fuse holders with fuses and a Modem.

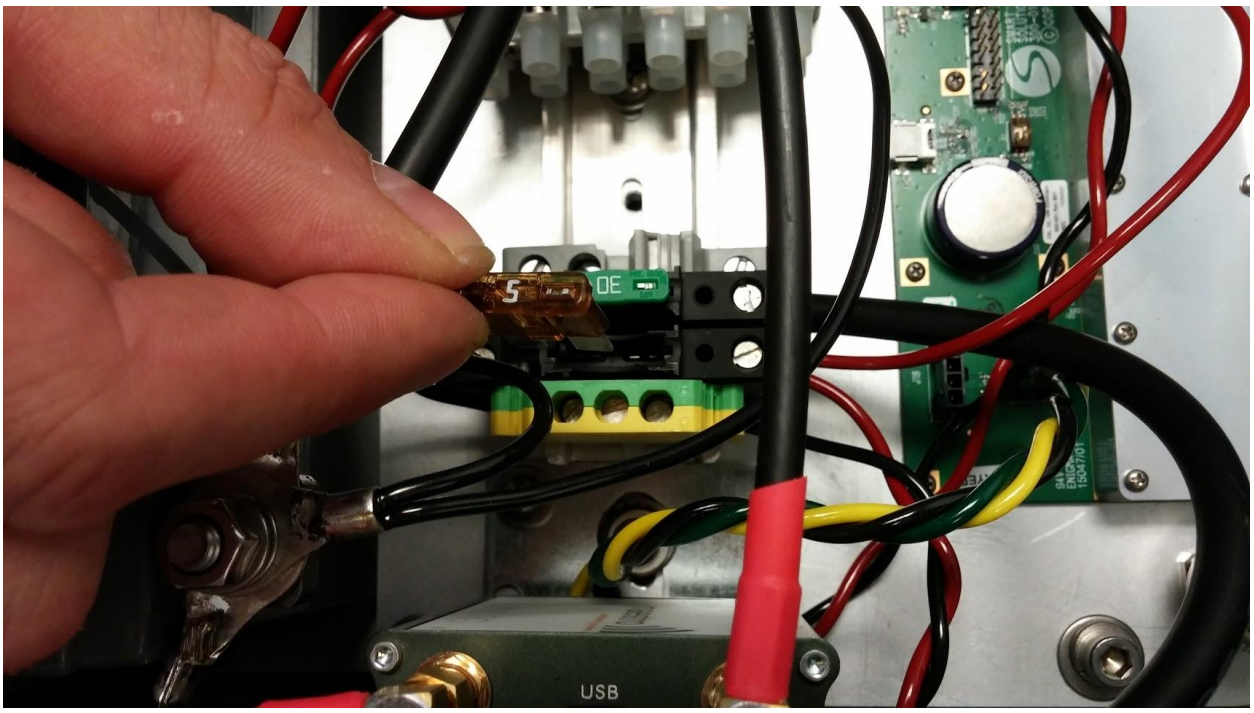
FUSE 1 (5A) is for the interrogator electronics, use this fuse to power up/down the interrogator.

FUSE 2 (30A) protects for input shorts (battery or charger)

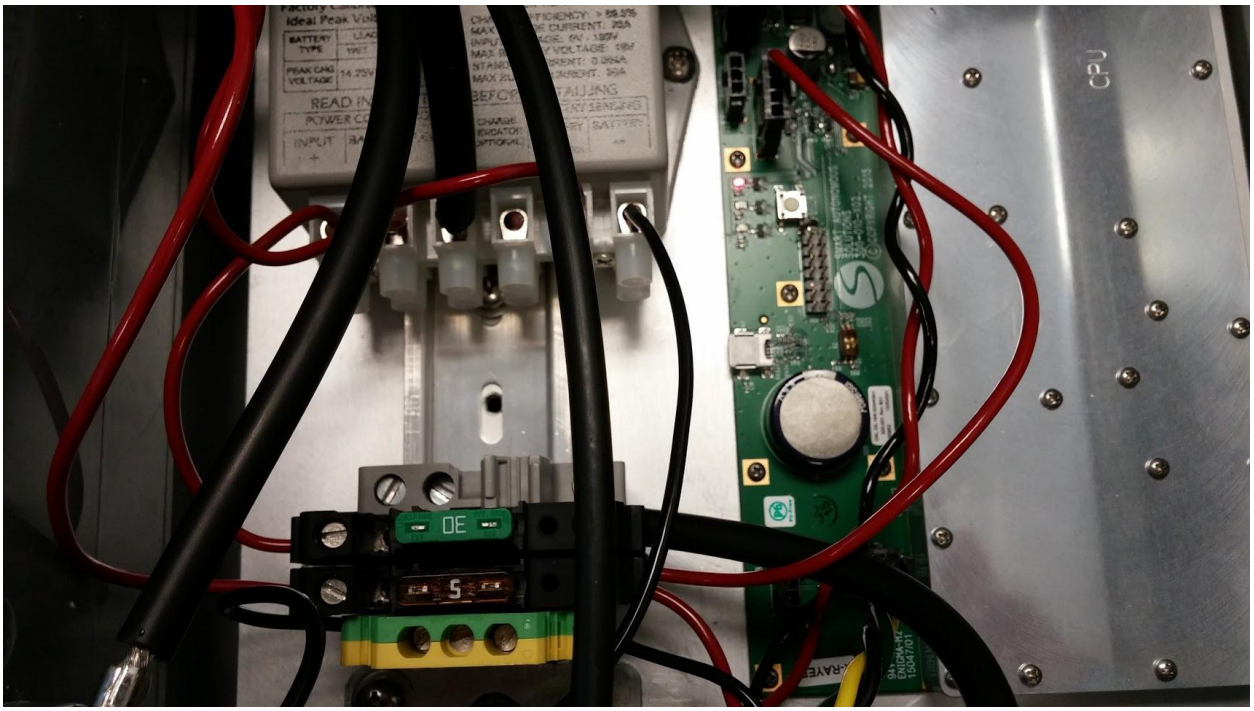
Fuses are ATC/ATO automotive standard.

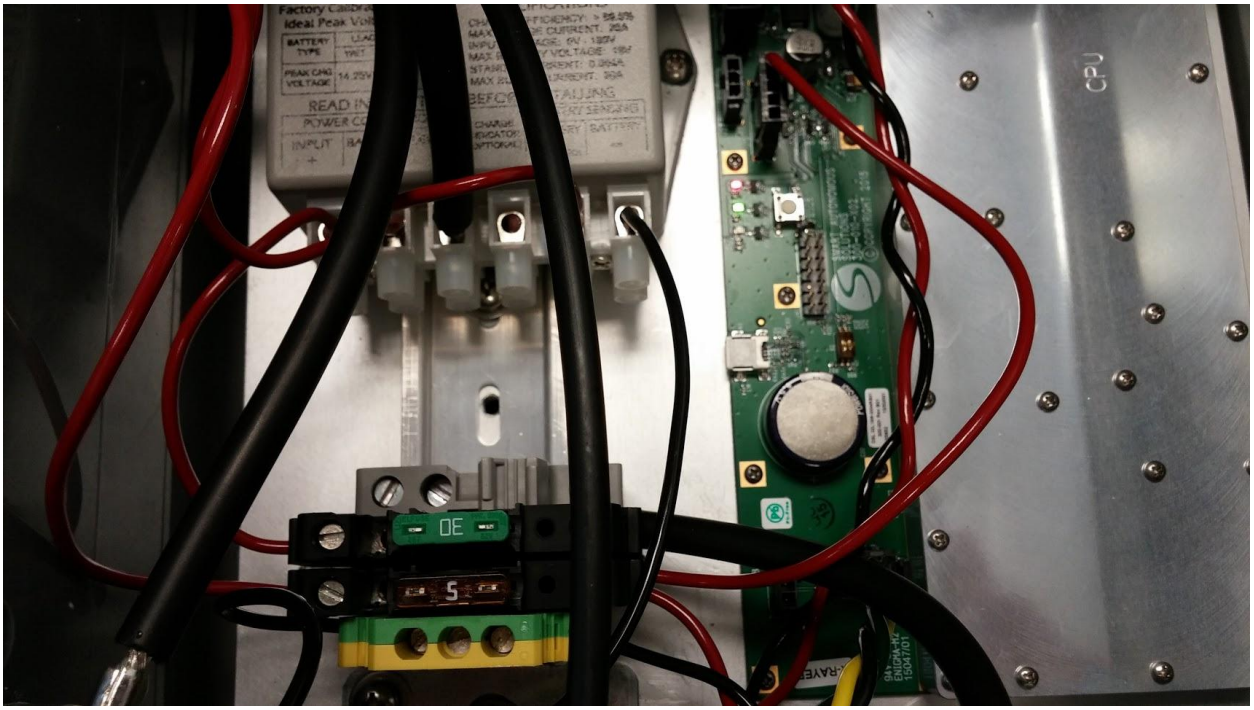
4 Powering up Interrogator.

To power up the Interrogator insert the 5A fuse (FUSE 1) into the vacant fuse holder. The LED on the CPU Board will blink briefly.



After few seconds the RED LED will turn on and GREEN LED will blink. This means the Interrogator is scanning.



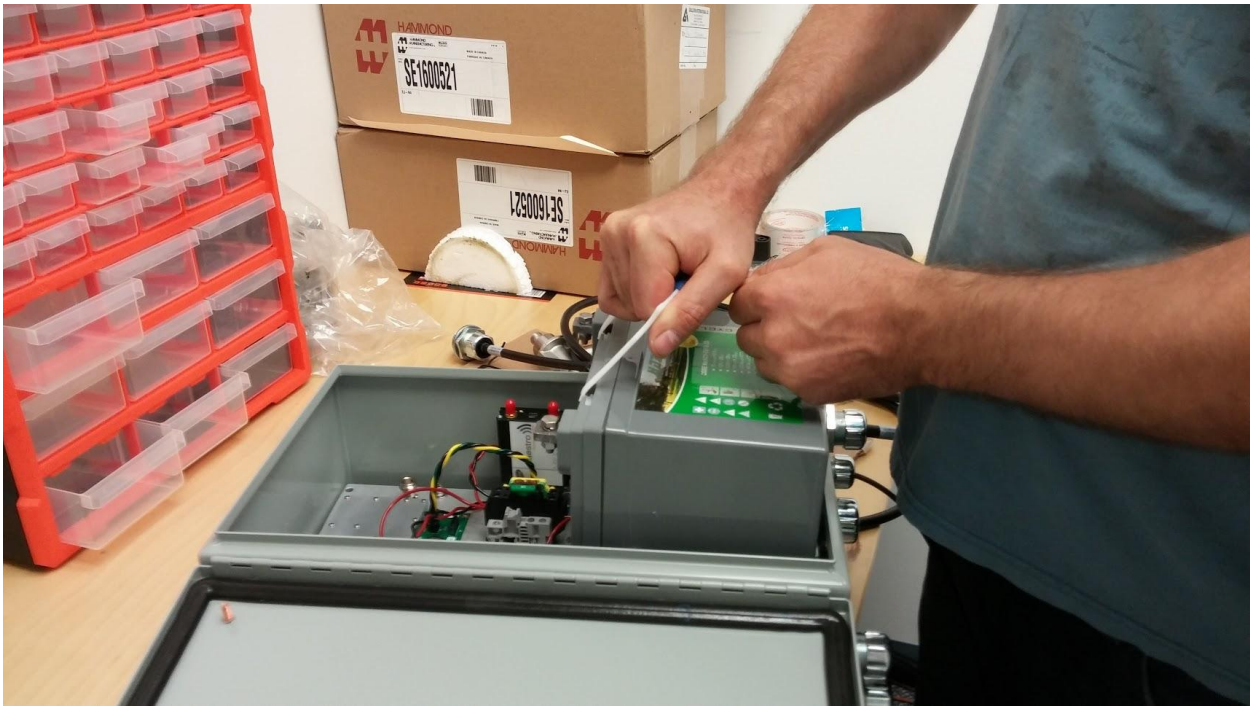


After scanning is finished the Interrogator will enter sleep mode and the LEDs will turn off.

5 Replacing the battery.

Required tools:

1. 5/32 Hex (Allen) key.
2. 10mm wrench (or adjustable).
3. Replacement battery (HAZE gel battery part# HZY-EV12-33).



To replace the battery:

1. Disconnect the wires from the battery terminals using a 10mm wrench (RED wires are positive, and BLACK wires are negative)
2. Remove the perforated metal strap by removing the two bolts holding it with a 5/32 Hex key.

CAUTION: DO NOT SHORT THE BATTERY TERMINALS!

3. Pull the battery out by the straps.

Replace the battery with ONLY a 12V HAZE gel battery HZY-EV12-33.

4. Reconnect the battery terminals and tighten the nuts and bolts with the 10mm wrench (RED wires are positive, and BLACK wires are negative)
5. Install the perforated metal strap and secure with the two bolts using the 5/32 Hex key.