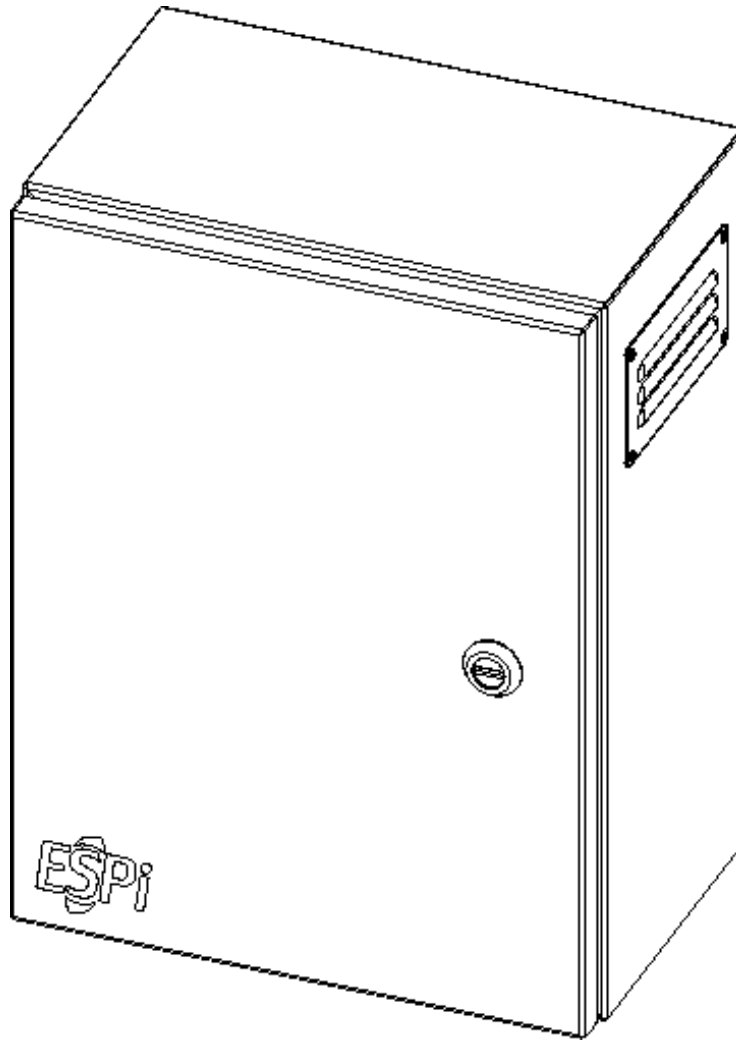


FX PoE UPS Technical Specifications



FX PoE UPS



Publication Issue A

Quick Guide

The FX PoE was designed and intended to be used as a UPS for Fixed Wireless remote nodes.

The FX PoE incorporates an internal POE injector that is capable of providing 48V @ 2.25A

The PoE pinout: Pins 1,2,4,5 are positive (=) Pins 3,6,7,8 are negative (-)

Connections: Always make connections to output terminals and loads first. DO NOT connect the battery or connect to AC power until all other connections have been made.

The FX PoE was designed for very quick and easy installation.

1. Connect the remote node to the POE out plug in.
2. If you intend to use the 12V output terminals to backup the WiFi router make sure that all wiring connections are done before you connect to the 12V output terminals. Any short to this terminal will cause un-repairable damage. (A short can be caused by cutting wire to length.)
3. After all wiring connections are done, carefully install the battery into the enclosure. Take special care not to contact the battery terminals to any metallic surface and create a short.
4. Connect the positive and negative leads to the correct battery terminals.
5. Plug the AC power cord into an AC Outlet.

Congratulations, you now have up to 8 hours of Internet service during a power outage.

Thank you for purchasing the ESPi FX PoE UPS. We at ESPi are very proud of the quality products we innovate and manufacture. We look forward to serving you as our customer. Please review all sections of this document before the usage of the ESPi product in which this manual pertains

Contact information:

For sales related questions: sales@espicorp.com

For technical support & RMA: info@espicorp.com

Telephone: 877-799-3774

PUBLICATION

This publication provides a description of the ESPi's model FX PoE UPS. In this publication, an overview of the product, mechanical descriptions, installation instructions, safety guidelines and grounding instructions are included.

INSPECTING SHIPMENT

On receipt of the equipment:

- Inspect the shipping container(s) and note any signs of damage. Then unpack the container(s) and carefully inspect for damage to the contents. If the equipment has been damaged in transit, immediately report the extent of damage to the transportation company and to ESPi. Order replacement equipment if necessary.
- Check the packing list to assure complete and accurate shipment of all listed items. If the shipment is short or irregular, contact ESPi as described in the Warranty. If the equipment must be stored for a prolonged period, do so in the equipment's original container. If equipment ever needs to be returned, please use the original packaging if available.

PRODUCT OVERVIEW

The FX PoE UPS is designed for powering remote nodes in fixed wireless applications and other equipment rated up to 130W. The cabinet is sized to accommodate (1) UPS and (1) backup battery. The UPS faceplate is internally mounted.

The cabinet is constructed of carbon steel and powder coat painted for superior strength and corrosion resistance. The front door is equipped with (1) quarter-turn latching system.

SAFETY PRECAUTIONS

- USE COMMON SENSE!
- Only qualified personnel should service this equipment
- The battery contains hazardous currents and may present a burn hazard if damaged, shorted, or installed improperly.
- The following precautions should be followed to ensure your safety
 - Remove watches, rings, or other metallic objects.
 - Wear protective clothing and eye protection when working with batteries
 - Always carry a water supply to wash eyes or skin in the event of exposure to battery electrolyte
 - Use of tools with insulated handles is required
 - Do not disassemble the unit. No user serviceable parts are inside except the battery and fuse
 - Keep liquid and foreign objects from getting inside the unit
 - Avoid operating unit in excessive humidity or near water
 - Do not operate near gas or fire
 - Inspect unit for leaking substance. If substance is leaking, do not use product
 - Servicing this equipment may require working with protective covers removed and utility power connected. Use extreme caution during these procedures.
 - Check that power cord, plugs, and output terminals are in good working order
 - BATTERY WARNINGS – Danger of explosion if battery is incorrectly connected. Use only approved replacement batteries
 - Worn out or damaged batteries are considered environmentally unsafe. ALWAYS recycle used batteries in accordance with all federal, state, and local regulations. This is your planet too!
 - Any gel or liquid emissions from a VRLA battery contain sulfuric acid, which is harmful to the skin and eyes.
 - Batteries can produce explosive gases. Avoid all open flames and sparks.
 - Batteries contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Battery post terminals contain lead and lead compounds. Wash hands after handling. (California Proposition 65)
 - Wear protective clothing and eye protection when installing, maintaining, servicing, or replacing batteries.
 - If battery emissions contact the skin or eyes, immediately wash area with water. Report chemical spills and seek medical attention if necessary.
 - Always replace batteries with new batteries of identical type and rating.
 - A battery showing signs of cracking, leaking, or swelling should be replaced immediately with an approved battery.

FEATURES

STANDARD

- Supports 48V PoE up to 130W
- 10/100/1000Mb Data Speeds
- 55Ah GS Battery PYL55TT
- Push and hold reset button
- 14' AC Power cord
- Replaceable battery fuse
- Powder Coated Steel enclosure
- Single point latch
- Cable entry with strain relief

QUARTER TURN LOCKING DOOR LATCHES

The cabinet door is equipped with a single quarter-turn latch. The latch is secured by turning the slot one quarter turn clockwise until the stop is reached.

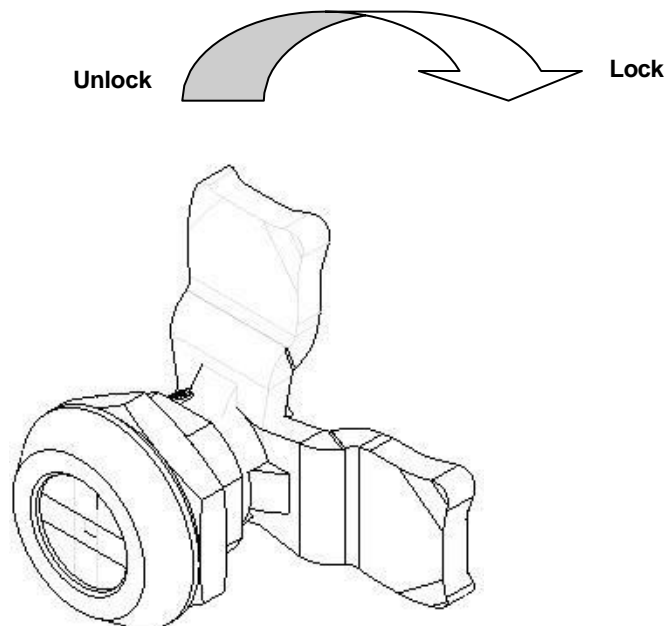


Figure A – Quarter Turn Door Latch

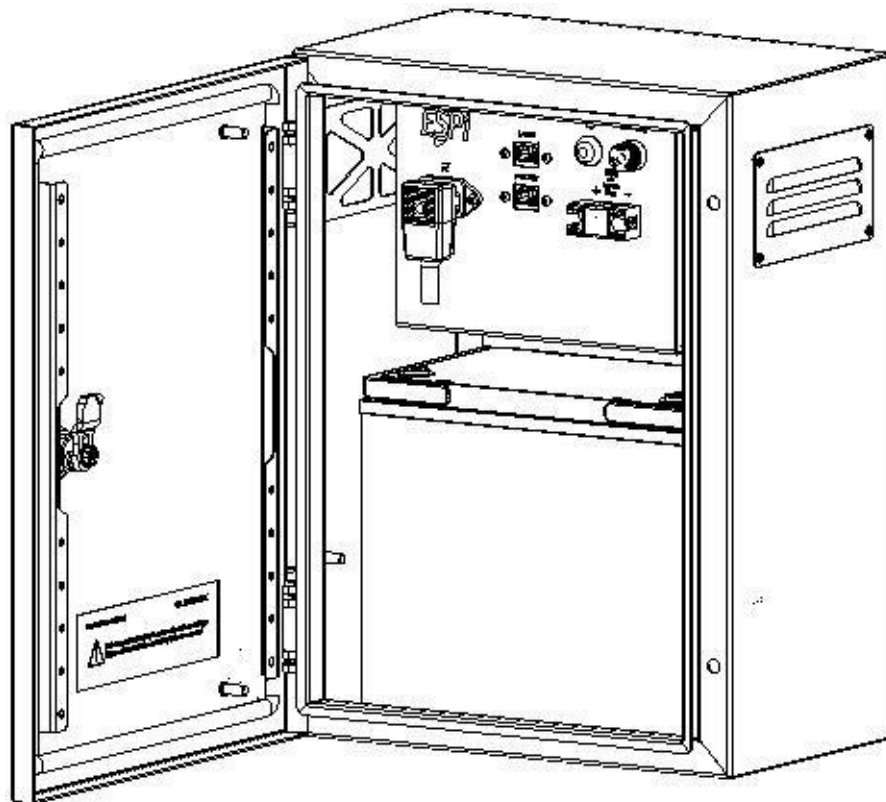


Figure B – Front View of Cabinet w/ Door Open

Image is for reference only

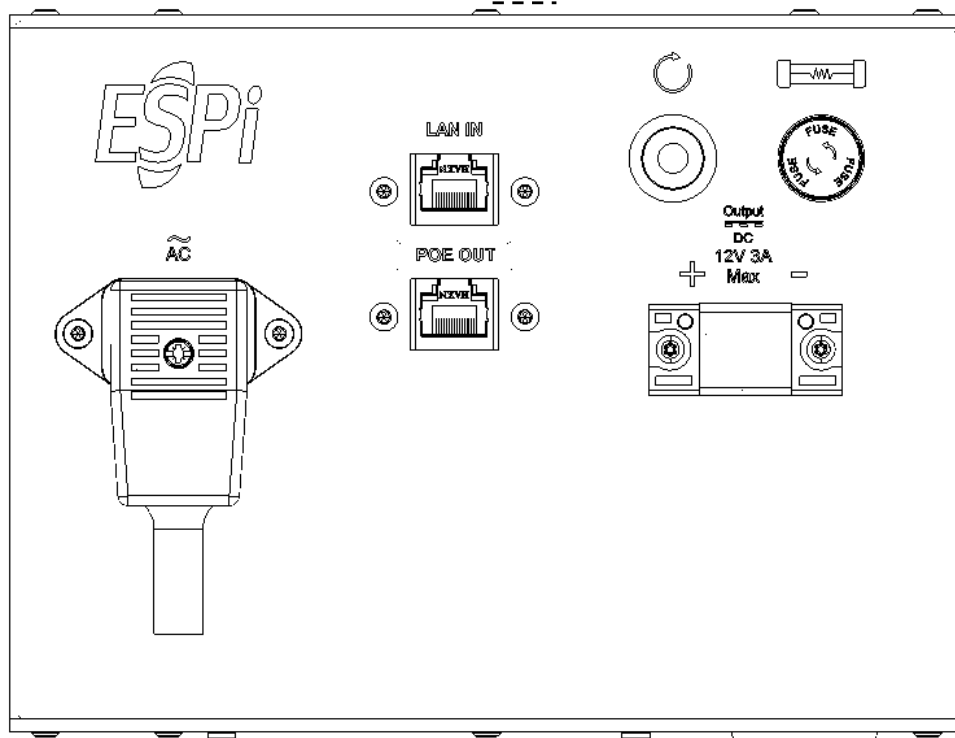


Figure C – UPS Faceplate

Product Operation

Reset Button

The reset button is designed to temporarily remove power to the end device. To activate the reset button, press and hold for 5 seconds to temporarily remove both 48v PoE and 12V power to the output. Power will automatically be restored after release of the button.

DC-Output

The DC output has been designed with your safety in mind. The PoE Out port will provide 48V. There is a secondary output terminal regulated to 12V DC. The 12V output terminal does **not** have short circuit protection. Should a short happen, the UPS will be damaged and become unusable. All output wiring and connections should be done before the FX PoE's battery is installed or it is connected to AC Power. (This type of damage is NOT covered under warranty!)

Battery Fuse replacement

Should the battery develop a short, the battery fuse will provide protection. To remove the fuse twist the fuse holder on the faceplate counter-clockwise $\frac{1}{2}$ of a turn. This will release the fuse allowing inspection or replacement. Should the fuse need replacement, replace it only with Littlefuse part number 0313020 (Slow Blow; 20A; Sz 3AG)

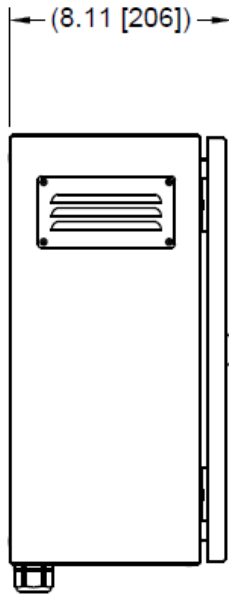
PRODUCT SPECIFICATIONS

Approximate cabinet outer physical dimensions:

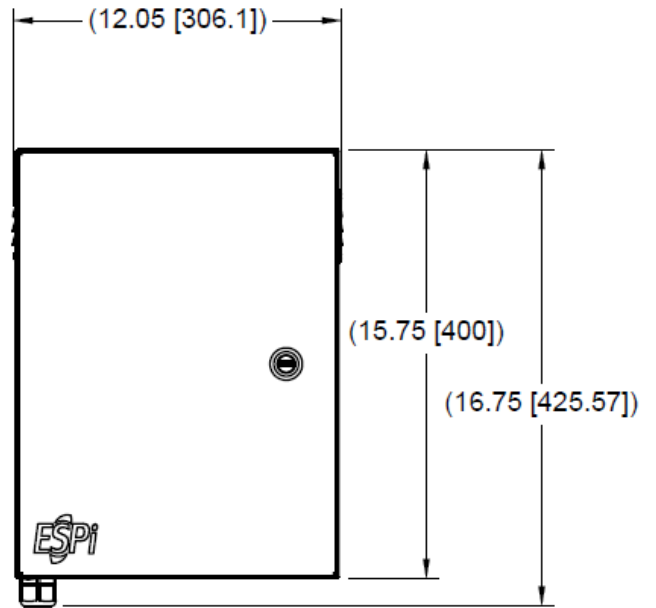
Height – 15.75" (400 mm)

Width – 12.05" (306.1 mm)

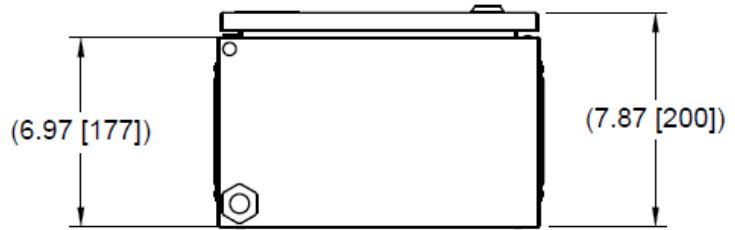
Depth – 7.87" (200 mm)



SIDE VIEW



FRONT VIEW



BOTTOM VIEW

CABINET GROUNDING INFORMATION

Bonding and grounding should be done in accordance with the operating telephone company's standard procedures and comply with local electrical codes.

GROUND WIRE

The ground wire protects the electronics from voltage surges. A ground wire must be properly grounded to provide lightning surge protection for the cabinet. Please follow this practice for attaching the ground unless local policies dictate otherwise.

For safety and performance reasons it is imperative that a cabinet be properly grounded. The following guidelines should be used to ground the cabinet unless local practices, rules, or regulations dictate otherwise.

Each door and equipment rack is grounded to the cabinet frame. The cabinet frame is connected to the internal grounding bus by a stranded wire. A similar ground wire must be used to connect the ground bus to each equipment ground lug. These ground wires may need to be removed temporarily to troubleshoot ground faults. The wire may be removed by unscrewing the screws that secure the green wire to the ground bus. **Be sure to reattach these wires after troubleshooting and resolving any ground conflicts.**

Be sure to ground the cabinet before connecting power to the cabinet. This grounding must be in effect at all times to safeguard personnel.

GROUNDING DIAGRAM AND PROCEDURE

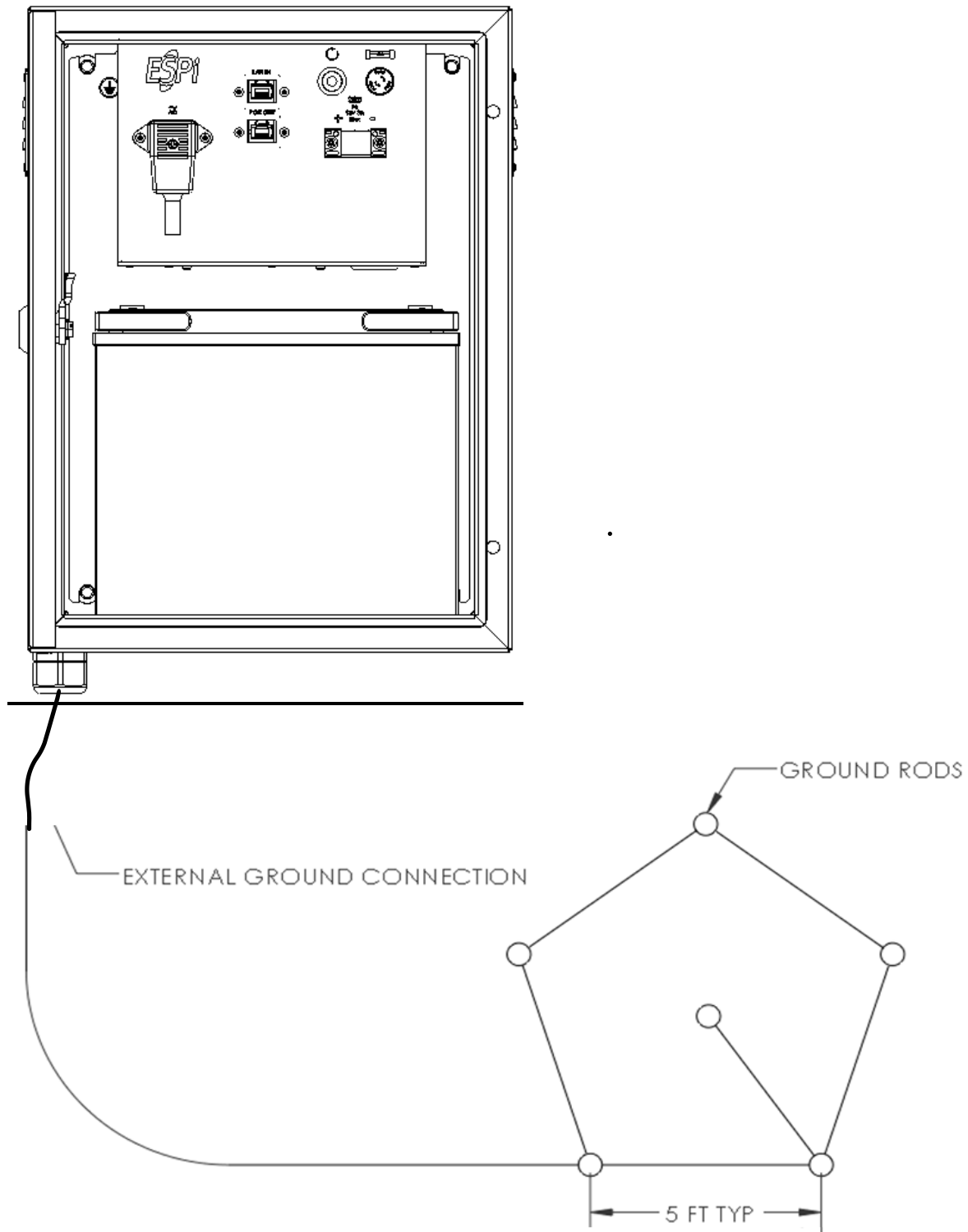
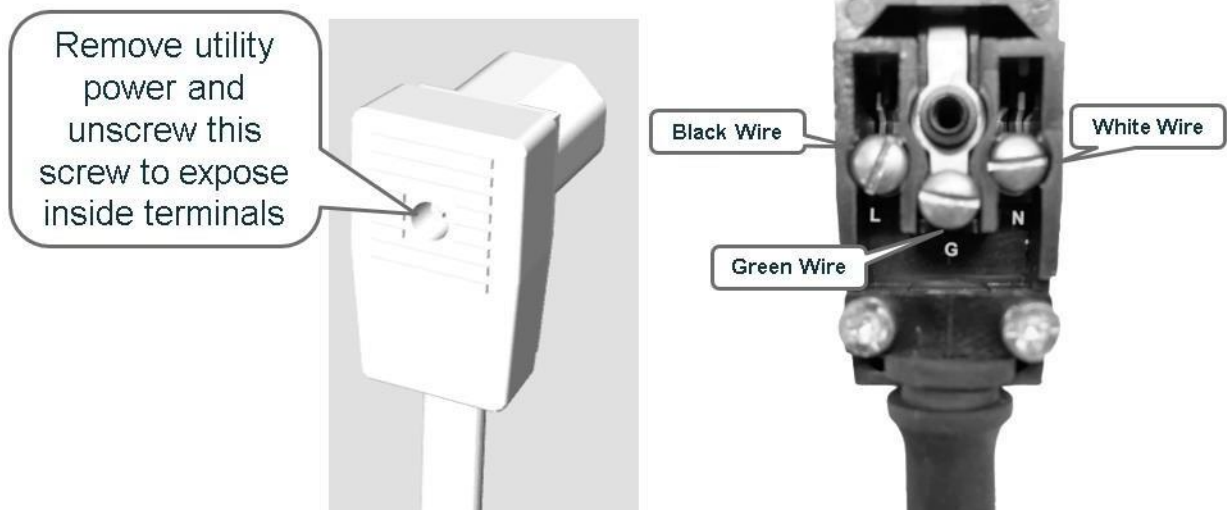


Figure G – Grounding Diagram

1. Drive the ground rods into the ground near the cabinet location.
2. Use a Megger-type ohmmeter to measure the resistance between cabinet ground and the ground rods. The resistance must be 25 ohms or less.
3. If the ohm requirement in step 2 is met proceed to step 4. Otherwise, follow local practices to lower the resistance to ground to comply with step 3 before proceeding to step 4.
4. Connect a #6 ground wire to the ground rods.
5. Install the battery inside the enclosure being careful not to short the terminals to any metal object.
6. Connect the black battery terminal to the negative battery post.
7. Connect the red battery terminal to the positive battery post.

To terminate AC power directly from the utility meter, disassemble the included AC cord and terminate wires as shown below



APPENDIX A

TECHNICAL SUPPORT

Technical assistance is available 8 AM to 5 PM Central Time.
Contact ESPI at:

Telephone 877-799-3774 (toll free)

ORDERING PROCEDURE

You may place orders by telephone or email:

Telephone: 877-799-3774 (Toll Free)
Email: sales@espincorp.com
Mail: ESPI
 630 Lincoln St
 Clay Center, Kansas 67432

When placing an order, please provide the following information:

- Customer purchase order number
- Ship-to and bill-to addresses
- Part numbers and quantities required
- Requested delivery date
- Preferred method of shipment

APPENDIX B

RETURN FOR REPAIR POLICY AND PROCEDURE

CORPORATE POLICY

ESPI warrants this product to be free of defects and to be fully functional for a warranty period beginning from the date of original shipment, given correct customer installation and regular maintenance. ESPI will repair or replace any unit without cost during its warranty period if the unit is found to be defective for any other reason other than abuse or incorrect use or incorrect installation.



Do not try to repair the unit. If it fails, replace it with another unit and return the faulty unit to ESPI for repair. Any modification of the unit by anyone other than an authorized ESPI representative voids the warranty.

RMA PROCEDURE

If a unit needs repair, call ESPI at 877-799-3774 (toll free) for an RMA Number and return the defective unit, freight prepaid to:

ESPI
Shipping & Receiving
630 Lincoln
Clay Center, KS 67432
Attn: Repair Dept.

When preparing the unit for shipment:

- Use the original packaging
- Provide the following information (required):
 - The RMA Number posted on outside of shipping container



(ESPI will not accept return shipments without an RMA)

- A statement inside the shipping container with the following details:
 - The RMA Number
 - Description and quantities of equipment being returned
 - Brief description of the problem
 - Your billing address
 - Your shipping address

You will be notified of the reparability of your returned equipment within 2 weeks of receipt of your shipment at the address above.

ESPI will provide needed equipment repair beyond the warranty period for a nominal charge. Contact your ESPI sales representative for details and pricing.

APPENDIX C

ESPI STANDARD TERMS AND CONDITIONS

ALL QUOTATIONS AND SALES ARE SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS AS WELL AS THOSE CONTAINED ON THE ORIGINAL QUOTATION.

Warranty: ESPI LLC is very proud of the product we have created. Should you need support please call 877-799-3774 or visit our website at espicorp.com.

ESPI LLC warrants to you, the Initial Purchaser, that the Product will be free from defects in material and workmanship for three years from the date of original purchase, subject to the terms of this Limited Warranty. This Limited Warranty gives you specific rights, and you may have other rights, which vary from State to State or Province to Province Any Implied Warranty of Merchantability or for Fitness for a Particular Purpose, if applicable to the Product, is limited in duration to three years. This provision shall NOT create any Implied Warranty or Merchantability or of Fitness for a Particular Purpose that would not otherwise apply to the Product. NOTE: Some States and provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

To be covered you must still be the owner of the Product at the time of the failure that results in the claim made under this Limited Warranty. Your sole and exclusive remedies are those provided by this Limited Warranty. This exclusion of other express warranties applies to written and oral express warranties. ESPI excludes any liability for personal injury. ESPI excludes any liability for direct, indirect, special, incidental, or consequential damages, whether for damage to or loss of property, loss of profits, business interruption, information or data. This exclusion applies even though damage or loss is caused by negligence or other fault. NOTE: Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT OR OTHER HIGH RISK ACTIVITIES.

ESPI does not sell the PRODUCT for use in high-risk activities. The PRODUCT is not designed or intended for use in hazardous environments requiring fail-safe performance, including the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, weapons systems, life support or medical applications or for use in any circumstance in which the failure of the PRODUCT could lead directly to death, personal injury, or severe physical or property damage, or that would affect operation or safety of any medical or life support device (collectively, "High Risk Activities").

ESPI LLC expressly disclaims any express or implied warranty of fitness for High Risk Activities. ESPI LLC does not authorize use of any of our products in any High Risk activities.

ANY SUCH USE IS IMPROPER AND IS A MISUSE OF An ESPI PRODUCT.

The Limited Warranty is governed by the laws of the United States and the State of Kansas, without reference to conflict of law principles. The application of the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded



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