# LNL-200XAU-PSU Ultra PoE Powered 13.8 VDC PSU Module Quick Reference

## The LNL-200XAU-PSU Ultra PoE Powered 13.8 VDC PSU Module

The LNL-200XAU-PSU is a Power-Over-Ethernet (PoE) powered Power Supply Unit (PSU) that acts as PoE splitter whilst also providing charge locally to a 12 VDC 17/18 Ah battery. If power from the PoE input fails the battery seamlessly continues to provide 12 VDC to the load at up to 3 A (when used with 802.3bt PoE). This offers the installer a cost-effective solution to provide high power with standby battery functionality to an OnGuard® device over a single PoE Cat5 cable.

To further enhance the device, the LNL-200XAU-PSU offers battery deep discharge protection and also remote fault monitoring with the provision of volt-free fault contacts for low battery and input PoE power failure.

- Provides 13.8 VDC at 3 A max when used with PoE 802.3bt (PoE++ 60W)
- Additional 0.5 A available for battery charging
- RJ45 Data pass through
- Unboxed module (DIN rail or lug mountable)
- No mains required - powered solely from PoE
- Cost effective solution to providing power with battery backup to OnGuard® devices
- Support for 12 VDC 17/18 Ah battery
- Battery Deep Discharge Protection
- Volt-free Fault Outputs

## Installation

This unit must be fed from a compliant PoE power source (PoE 802.3bt for the max 3 A power output).
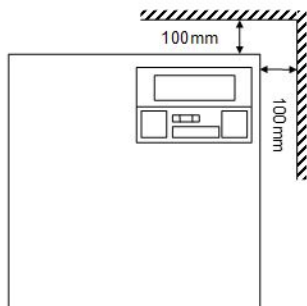
### DIN Mounting

Mount securely utilizing the DIN rail mount or the provided mounting lugs.

### Boxed Mounting

1. Mount securely utilizing the enclosure mounting points in the correct orientation, allowing 100 mm clearance around the enclosure.
2. Route cables via knockouts and/or rear cable enclosure entry holes.

*Enclosure Mounting*



### Power-up

1. Attach correctly rated load cable to load equipment and fasten using cable ties. Observe polarity.
2. Attach suitable Ethernet cable from PoE++ source to **PoE IN** RJ45 connector (100 m max from PSE).

3. Attach suitable Ethernet cable between IP device and **DATA** RJ45 connector (if required).
4. Loop battery cable through supplied ferrite (one turn) and attach to **BATT** terminal block, fasten with cable ties.

**Note:** Ensure correct polarity of batter connections: + use **red** lead, - use **black** lead.

*Position of Ferrite*
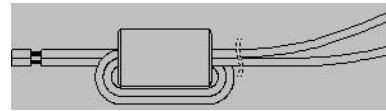


5. Connect charged 12 VDC battery to the other end of battery cable.
6. Observe Green LED is ON when PoE is present.
7. Observe Load equipment indicates power is present.
8. Remove **PoE IN** cable and observe load equipment continues to indicate power is present.
9. Reconnect PoE INPUT cable.

### Signaling

1. Connect fault outputs to appropriate input of Control and Indicating Equipment (CIE), if required.
2. Close the cover and secure it using the key (provided).
3. In the event of loss of PoE input power to the LNL-200XAU-PSU, the PoE Fault signal contact opens and the Green LED turns off, the LNL-200XAU-PSU continues to deliver up to 13.8 VDC, 3 A of power to the load until the standby battery has reached its deep discharge limit.
4. If the load output of the LNL-200XAU-PSU fails, investigate the cause of the failure (e.g. short circuit load, connection of a deeply discharged battery). Rectify the fault before restoring power to the LNL-200XAU-PSU. If any of the fuses require replacing, ensure the correct fuse rating and type is used.

**Note:** Battery charging only starts after a compliant PoE power source is connected to the LNL-200XAU-PSU. It will NOT start up on battery. Ensure only a 12 VDC battery is fitted to the system.

## Maintenance

This unit is intended for use by Service Personnel only. There are NO USER SERVICEABLE parts inside.

There is no regular maintenance required of the LNL-200XAU-PSU other than periodic testing and replacement of the standby battery. Reference should be made to the battery manufacturer's documentation to determine typical/expected battery life with a view to periodic replacement of the battery.

## Disposal of Product at End of Life

This product falls within the scope of EU Directives 2012/19/EU Waste Electrical and Electronic Equipment (WEEE) and 2013/56/EU (Battery). At the end of life, the product must be separated from the domestic waste stream and disposed via an appropriate approved WEEE disposal route in accordance with all national and local regulations.

Before disposal of the product, any batteries must be removed, and disposed separately via an appropriate approved battery disposal route in accordance with all national and local regulations. Package used batteries safely for onward transport to your supplier, collection point or disposal facility.

See Specifications for battery type information. The battery is marked with the crossed out wheelie bin symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For more information, see www.recyclethis.info.

**Note:** Risk of fire or explosion if bare battery wires are allowed to touch.

## Compliance

This power supply unit meets the essential requirements of the following European Directives:

- Low Voltage 2014/35/EU
- EMC 2014/30/EU
- WEEE 2012/19/EU
- RoHs2 2011/65/EU

## Specifications

### Input Specifications

| | |
|---|---|
| PoE++ | PoE 802.3bt |
| PoE+ | PoE 802.3at |
| PoE | PoE 802.3af |
| Ethernet data rate | 10/100 Mbps |

### Output Specifications

| | |
|---|---|
| PoE++ | 13.8 VDC at 3 A |
| PoE+ | 13.8 VDC at 1 A |
| PoE | 13.8 VDC at 0.3 A **Note:** An additional 0.5 A is available for battery charging. |
| Load output fuse protection | F3.15A (20 mm glass fuse) |

### Standby Battery

| | |
|---|---|
| Battery type (not supplied) | 12 VDC 17/18 Ah valve regulated lead acid |
| Battery charge | 0.5 A |
| Battery charging fuse protection | PTC - self-resetting |

### Mechanical

| | |
|---|---|
| Dimensions | 134 L x 84 H x 35 D (mm) |
| Battery capacity | 12 VDC at 17/18 Ah |
| Weight (excluding battery) | 180 g |
| Compatible Enclosures | LNL-200XA-ENC LNL-400XA-ENC |

### Environmental

| | |
|---|---|
| Temperature | -10 to +40° C (operating) 75% RH non-condensing |

### LED Indication

| | |
|---|---|
| Green LED | PoE present LED |
| Red LED | Fault LED (ON when output fuse fails) |

## Connections

| | |
|---|---|
| PoE IN | PoE 802.3bt (60 W) from PoE++ source<br>**Note:** PoE and PoE+ can be used. See output specifications. |
| DATA | Data connection to IP device |
| OP +/- | Load output: 13.8 VDC (+/- 5%) at 3 A max (PoE++ input) |
| BATT +/- | 12 VDC battery connection - observe polarity |
| PoE | Relay output for PoE power failure. Open on loss of PoE. |
| GEN | Relay output for output fuse failed or/and low battery level (less than 10.7 V) when PoE is off. Open in fault condition. |

## Explanation of Symbols

Not all may apply.

| | |
|---|---|
|  | Fault indication |
|  | Mains present |
|  | Protective earth |
|  | Shock risk - Isolate before attempting access |
|  | Certification level |
|  | Do not dispose of in unsorted waste |

## Product Warnings and Disclaimers

THESE PRODUCTS ARE INTENDED FOR SALE TO AND INSTALLATION BY QUALIFIED PROFESSIONALS. UTC FIRE & SECURITY CANNOT PROVIDE ANY ASSURANCE THAT ANY PERSON OR ENTITY BUYING ITS PRODUCTS, INCLUDING ANY "AUTHORIZED DEALER" OR "AUTHORIZED RESELLER", IS PROPERLY TRAINED OR EXPERIENCED TO CORRECTLY INSTALL FIRE AND SECURITY RELATED PRODUCTS.

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