

QUICK START GUIDE + BATTERY SERVICING INSTRUCTIONS

Uninterruptible Power Supply Cabinet for Wind Tower Lighting
podis® UPS 48 V/ 17 Ah
34.233.0100.0



IMPORTANT

The component may only be installed, commissioned and maintained by qualified electricians.
The personnel must have read and understood these instructions.
Necessary protective measures and protective equipment must meet all applicable regulations.
Damaged products may neither be installed nor operated.
In case of a defect, please return the component to Wieland Electric.
The component may not be opened or operated when open.

WARNING



The UPS contains live components, even when the UPS is separated from the mains.
Only use an isolated tool according to DIN 60900 when maintaining the UPS.

Maintenance and access to the interior of the control cabinet should only be done by qualified personnel familiar with conventional electrical cabinets and battery backup systems.

Please use this quick start guide for quick installation reference.

Addition information can be found in the **podis®** UPS Manual. Use the QR code to access.



QUICK START



1. INSTALL BATTERIES

This product uses Yuasa NP18-12B or similar rechargeable lead acid battery. Batteries are not included with the product. Please install batteries according to directions (next page) before using the product.

2. INSTALL DC FUSES FROM HARDWARE KIT

The DC fuses for F5 and F6 are not installed when delivered from the factory. They are included in the **hardware kit** (photo) and should be installed at start-up.

3. TURN BREAKER TO THE “ON” POSITION

4. PLUG MATING CONNECTORS

For any lost or damaged pieces please order a new hardware kit from Wieland.
 Tel: +1 905 829 8414 Email: technical.support@wieland-electric.com

BATTERY INSTALLATION, CHANGE & MAINTENANCE

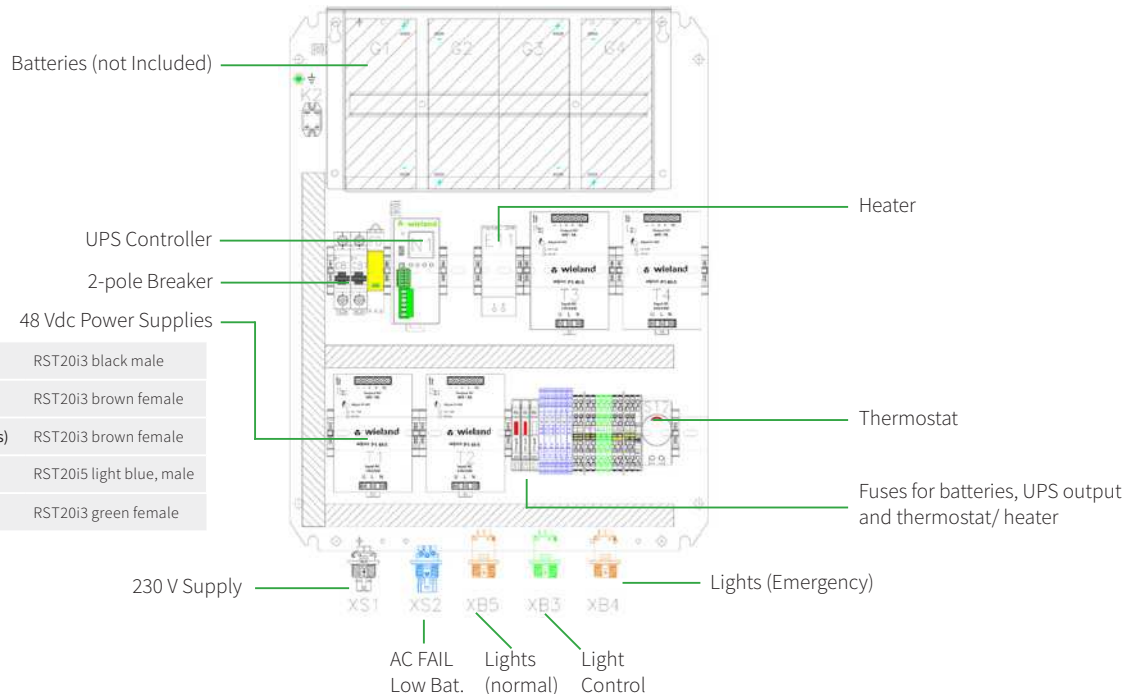
The battery (Yuasa NP18-12B or similar) is a rechargeable lead-acid battery. The manufacturer’s data sheet provides additional information and maintenance notes.

The batteries require periodic maintenance and service. The capacity of the batteries decreases over time, charging cycles and under high and low temperatures. In order to maintain a sufficient battery charge to operate the emergency light and other emergency functions reliably when needed. To determine the replacement intervals, consult the battery manufacturer’s data sheet.

CAUTION



- Disconnect the battery before performing maintenance on or replacing the battery.
- **Disconnect light control (green connector), AC power black connector, open fuses F5 and F6 and disconnect both pluggable connectors from the UPS 24-960 UPS controller** before servicing the batteries and UPS side of the cabinet.
- Exercise caution with wires, tools and the battery shelf to avoid inadvertent contact and short circuits between battery terminals of different potentials.



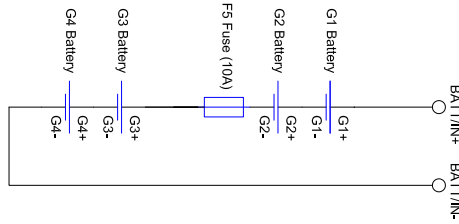
Connector, supply voltage	RST20i3 black male
Connector, output voltage (Comfort Lights)	RST20i3 brown female
Connector, output voltage (Emergency Lights)	RST20i3 brown female
Connector, signal	RST20i5 light blue, male
Connector, switch	RST20i3 green female

BATTERY INSTALLATION STEPS



Required Tools:

- 11/32" wrench or socket.
- Slotted screwdriver or 1/4" driver with torque measurement set to 18 lb-in (2.0Nm).



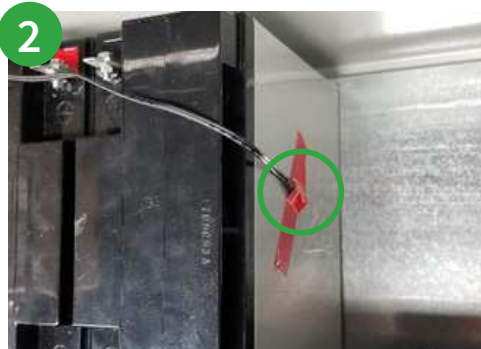
Battery Connection Diagram



1 Install quick connect tabs to battery terminals. Note the order of the screw, lock washers, quick connect tab and battery terminal, as shown in the picture.

Tighten the screw to 2.0Nm (18 lb-in) using a 1/4" socket or slotted screwdriver. Use an 11/32" to hold the nut if required.

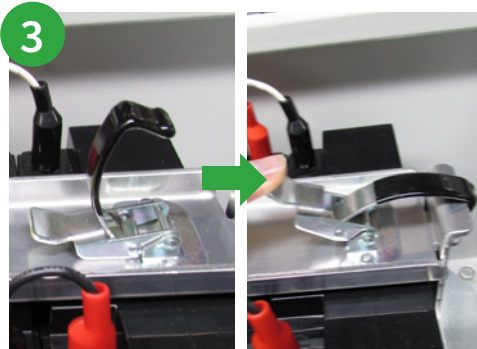
Ensure that the tab is vertical in order to connect easily to the plugs.



2 After quick connect tabs are installed, place batteries in the battery shelf.

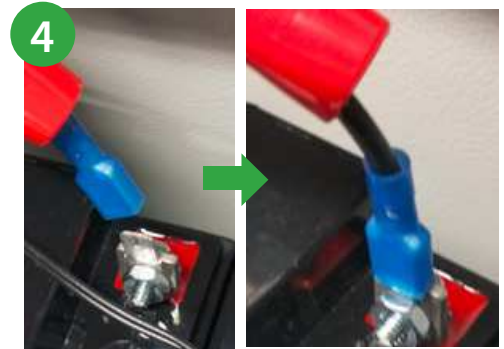
Mind the orientation of the battery terminals. The label on the battery retaining bar can be used as a reminder of the required orientation.

Place the battery temperature sensor between the two center batteries. The sensor should be in the middle of the batteries to get an accurate reading. Use electrical tape or the adhesive strip in the hardware kit to secure the sensor in place.



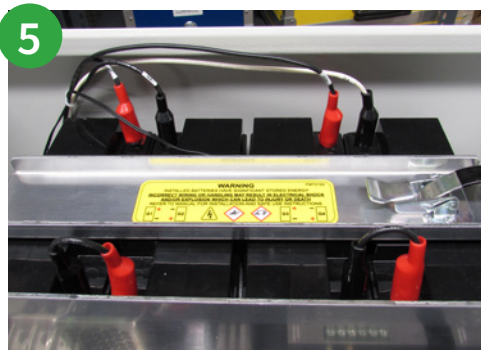
3 Reinstall battery retaining bar and secure in place.

CAUTION: Exercise care with battery wires to avoid inadvertent contact and short circuits between battery terminals of different potentials.

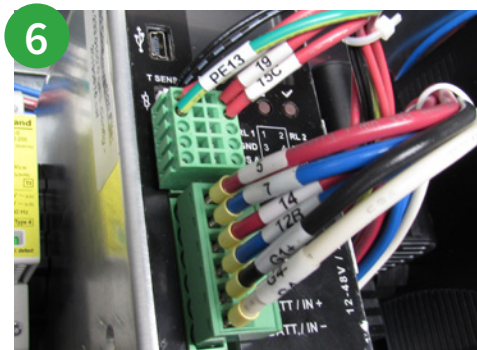


4 Reinstall the battery lead wires to G1+, G2-, G3+ and G4-. Use the wire labels and battery retaining bar label as a guide.

Reinstall the wire jumpers between batteries G1 and G2, and between G3 and G4.



5 Ensure all battery connector tabs are covered properly with their rubber covers.



6 Replug BOTH green connectors to the UPS 24-960 controller.
Close fuse terminals F5 and F6
Reconnect AC power using the black connector (XS1)
Reconnect the lights by plugging in the green connector (XB3).

BATTERY REMOVAL

When replacing batteries, follow these steps in reverse to remove the old batteries.

Remove the **quick connect tabs** from the old batteries and install on the new ones.

FUNCTIONAL DESCRIPTION

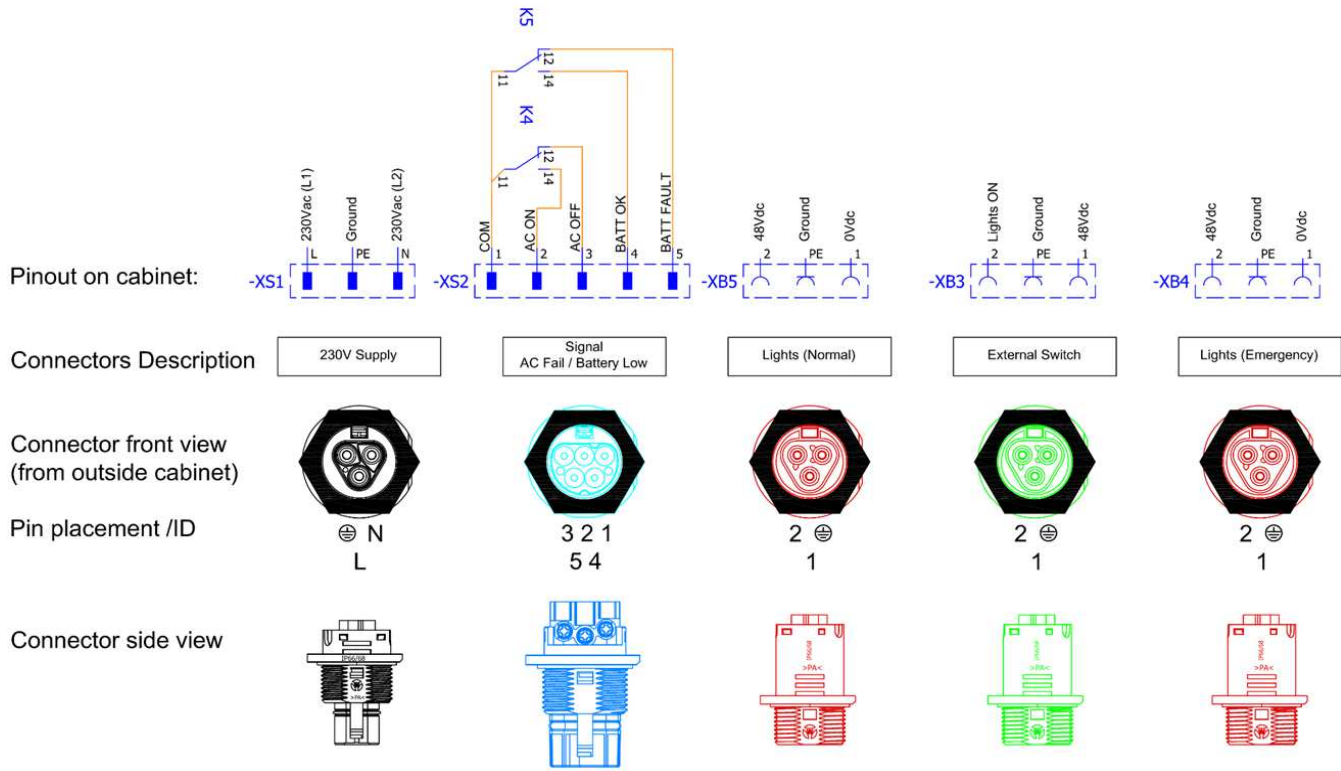
Under normal circumstances, 230Vac power is supplied to the black connector (XS1), and 48Vdc is supplied on the brown connectors XB4 and XB5 to power LED lights.

If the 230Vac power is removed, a battery backup will continue to provide power to connector XB4 for emergency lighting purposes. During this time, the lights will blink 10 seconds on, 1 second off to indicate battery operation.

For the lights to be on (normal or emergency mode), there must be an external connection between pins 1 and 2 of the green connector (XB3).

The blue connector (XS2) is used to indicate the status of the AC power supply and the battery voltage.

- Conductivity between pins 1 and 4 means battery is connected and has a voltage above 43.2Vdc.
- Conductivity between pins 1 and 2 means that AC power is on.



TECHNICAL DATA

Dimensions (WxHxD in mm)	500 x 600 x 260
Weight	59 lbs (Excluding batteries) 114 lbs (Including batteries, approximate)
Cabinet material	Steel, powder coated
Cable type of internal wiring (Power wires)	TEW, 600V, 105°C, 14 AWG (18AWG for signals (XS2 & XB3))
Mounting system	Wall mount brackets
Degree of protection	IP43 (total) Cabinet is IP66, Connectors are IP69, Breathers are IP43
Operating Temperature range	-20 to +45 °C
Supply voltage	230Vac
Frequency	47 - 63 Hz
Output voltage	48 V DC (Nominal)
Output current (Derating may apply at higher temperatures)	10A for Comfort Lights Channel 10A for Emergency Lights Channel
Batteries (not included)	4 x 12Vdc, 17.2Ah, series connected (Yuasa NP18-12 or similar)
Battery type	lead acid (AGM, VRLA)
Blinking mode during battery operation	Blinking mode with 10 seconds on, 1 second off