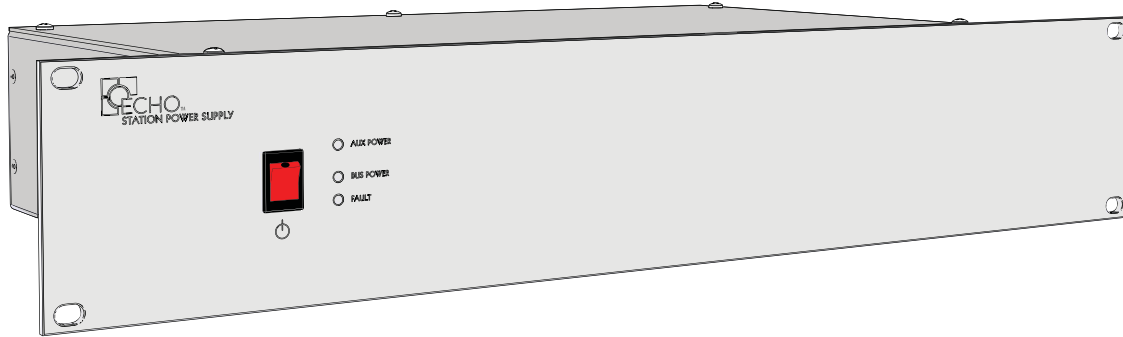


ETC Setup Guide



Unison Echo™ Rack Mount Station Power Supply w/ Aux Power

Overview



The Echo Rack Mount Station Power Supply with Auxiliary Power (E-SPM-RM-A) is designed for use with the Echo control system to supply bus power for up to 16 Echo architectural control stations on the topology-free EchoConnect control network and provides 24 Vdc auxiliary power (maximum 36 watts) for Echo devices. The E-SPM-RM-A also supports connection of up to 16 compatible power panels or distributed power controllers over EchoConnect.



Note:

If you are using Cat5 (or Cat5e) wiring, an external Echo Cat5 Termination Tray is required. Contact ETC for ordering details. Control wiring instructions between the termination tray and this Rack Mount Station Power Supply with Auxiliary will be provided with the Unison EchoConnect Cat5 Termination Tray installation instructions.

For use with ETC Dimming and Relay Products.

Installation

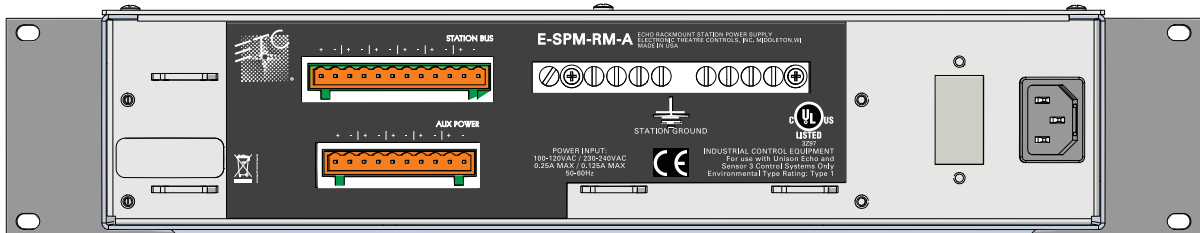
Install Unit in Equipment Rack

The E-SPM-RM-A utilizes 2U of rack space.

- Step 1: Locate the included rack mounting hardware kit including the mounting screws and washers.
- Step 2: Use the hardware provided to mount the unit to the mounting rails in your equipment rack.

Power and Control Wiring

The rack mount enclosure is provided with wiring connections on the rear of the unit.



- AC Power
- EchoConnect (Station Bus) and ESD Ground
- 24 Vdc Auxiliary power



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7186M2202 ■ Rev A ■ Released 2015-06 ■ ETC intends this document to be provided in its entirety.

ETC Setup Guide

Rack Mount Station Power Supply with Auxiliary

Connect Power

Three IEC power cables are provided with this unit from the factory including US, UK, and Shuko. Supply the Echo Station Power Supply with a single phase of 100-120VAC (.25A max) or 230-240 VAC (.125A max), 50-60Hz.

Step 1: Connect the regional specific IEC power cable to the receptacle on the rear of the unit.

Connect EchoConnect (Station Bus) Wiring and ESD Ground

Termination is available for up to six runs of EchoConnect station bus wiring to the removable pluggable connector labeled "Station Bus" on the rear panel of the unit. EchoConnect is a two-wire topology-free system that allows the E-SPM-RM-A to provide power for up to 16 Echo sensors and stations and allows for up to 16 power controllers. EchoConnect is a bidirectional protocol that uses one pair of wires (data+ and data-) for both data and power. ETC recommends using Belden 8471 (or approved equal) Class II wire.



Note: *The total combined length of an EchoConnect wire run (using Belden 8471, or equal) may not exceed 1,640 feet (500m).*

ETC requires that all stations be grounded. Pull an additional 14 AWG (2.5mm²) wire for grounding to the provided ESD Ground terminal bar when control wires are not installed in grounded metal conduit.

- Step 1: Remove the 16 pin screw terminal connector labeled "Station Bus" from the rear panel.
- Step 2: Connect the Belden 8471 wires to the two pin screw terminal connector. This connection is polarity dependent. Refer to the connector label for notation of "data+ and data-".
 - Connect the white wire to the data + terminal.
 - Connect the black wire to the data - terminal.
- Step 3: Replace the connector to the rear panel.
- Step 4: When required, terminate the 14 AWG (2.5mm²) Echo station ESD ground wire to the provided ground terminal bar on the rear of the unit.

Connect 24 Vdc Auxiliary Power Wiring

Termination is provided for up to 5 runs of auxiliary power to the removable pluggable connector labeled "Aux Power" on the rear panel of the unit. Auxiliary power provides 24 Vdc power that is required to power compatible Echo devices.

- Step 1: Remove the 10 pin screw terminal connector labeled "Aux Power" from the rear panel.
- Step 2: Connect the auxiliary power wires, typically 16 AWG (1.5mm²) red/black wire pair into the terminals. This connection is polarity dependent. Refer to the connector label for notation of "+ and -".
 - Connect the red wire to the + terminal.
 - Connect the black wire to the - terminal.
- Step 3: Replace the connector to the rear panel.

ETC Setup Guide

Rack Mount Station Power Supply with Auxiliary

Final Installation

- Step 1: Plug the IEC power cable into the power source.
- Step 2: Secure all cables to the enclosure using cable ties (not provided). Four mounts are provided on the rear panel of the unit.
- Step 3: Supply power to the unit.
- Step 4: Press the power switch, located on the front of the unit, to the On position.
- Step 5: Check status indicators for faults.

Status Indicators

When power is applied to the unit, the “Bus Power” and “Aux Power” LEDs located on the front panel illuminates.

Bus Power LED

If a fault is discovered in the control wiring, the Bus Power LED turns off and the Fault indicator will illuminate. This condition typically means that the station wiring has a fault; however it could mean a connected device is having an issue. A qualified technician should inspect the system wire and terminations first, then proceed to disconnecting devices to pinpoint the fault and correct it.

The power supply will update the fault indicators automatically when the fault condition is cleared.

Aux Power LED

The “Aux Power” LED will be illuminated as long as the power supply is powered and is supplying 24 Vdc auxiliary output power.