

# Flexible Conduit Adapter Kit Installation Guide

The Flexible Conduit Adapter Kit provides a convenient means to replace the IEC power cord of the Extron PS 124 12 VDC, 4 A power supply (part #60-1022-01), the XPA 1002 (part #60-899-01), or the XPA 2001 (part #60-850-01 and -11) power amplifier with conduit, where required by local codes.

The Flexible Conduit Adapter Kit includes the following parts:

- One EMT adaptor plate
- One 6' long electrical conduit
- Three 7.5' 14-gauge power wires with spade connectors
- One UL rated zip tie wrap
- Three auxiliary crimp style spade connectors designed for 14- to 16-gauge wires

**WARNINGS:** The circuit breaker used for this connection should be rated no less than 15 amps when 14 gauge power wire is used, or 20 amps when 12 gauge wire is used.

This unit must be installed in accordance with the National Electrical Code and with all local codes.

An ALL-POLE MAINS SWITCH with a contact separation of at least 3 mm in each pole must be incorporated in the electrical installation of the building. The installation must be carried out in accordance with all applicable installation rules.

Installation and service must be performed by a qualified electrician only.

**CAUTIONS:** Make sure that the XPA amplifier or the PS 124 power supply and its attached source device, as well as all output devices, are turned off and disconnected from the power source before you begin.

A UL listed electrical distribution box is recommended for the termination of the conduit opposite the PS 124 power supply or the XPA amplifier. See "UL Requirements," below.

**NOTE:** Extron recommends using a UL-rated crimp tool to terminate the spade connectors, if this is needed. One recommended choice is the Molex crimp tool (Molex part #19285-0008).

## UL Requirements

The Underwriters Laboratories (UL) requirements listed below pertain to the installation of the flexible conduit onto a PS 124 power supply, an XPA 1002, or an XPA 2001.

- This unit must not be used beyond its rated voltage range.
- This unit must be wired to a UL listed distribution box.

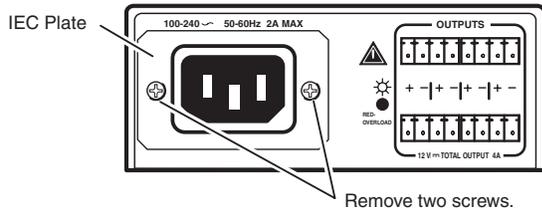
**NOTE:** The UL approved electrical distribution box is not included with the XPA amplifier, the PS 124 power supply, or the Flexible Conduit Adapter Kit; the installer is responsible for obtaining and installing the distribution box.

# Flexible Conduit Adapter Kit Installation Guide (Continued)

## Installing the Flexible Conduit Cable on a PS 124

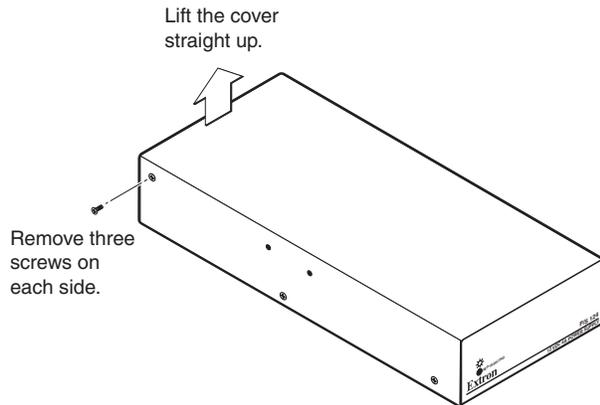
Install the flexible conduit cable assembly to the PS 124 as follows:

1. Unplug the IEC power cord from the PS 124.
2. Remove and retain the two Phillips head screws that secure the IEC plate to the PS 124 rear panel.



**Figure 1. Removing the IEC Plate**

3. Remove and retain the six screws that connect the top cover of the PS 124 to its bottom board.

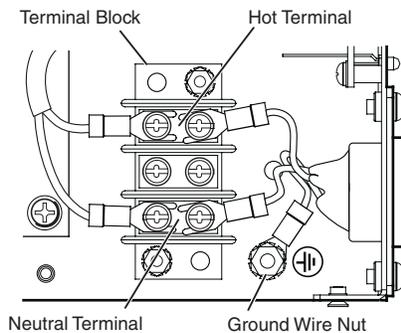


**Figure 2. Removing the PS 124 Top Cover**

4. Carefully lift the top cover up, taking care not to remove it completely.

**CAUTION:** Rough handling of the top cover can disconnect or damage the wiring that connects the front panel LED.

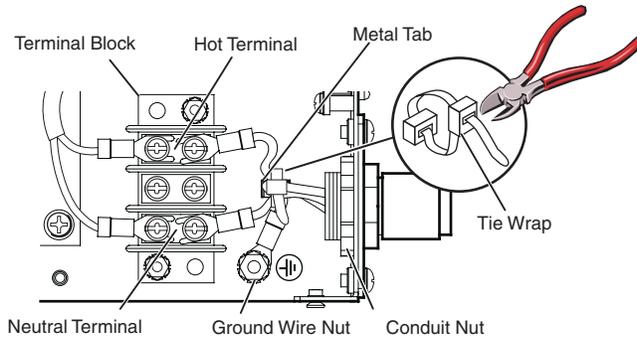
5. Use a standard screwdriver to loosen the screws holding the hot and neutral wires on the side of the terminal block nearest the IEC plate (see figure 3, below).
6. Unscrew the IEC connector ground wire from the ground wire nut on the bare metal bottom of the PS 124 enclosure.
7. From the rear panel end, pull the IEC connector out of the enclosure.
8. Thread the 12- or 14-gauge power wires through the length of the electrical conduit tube.



**Figure 3. Terminal Block and IEC Wiring**

9. Install the EMT adapter plate (with the conduit attached) into the opening from which you removed the IEC connector in step 7 (see figure 4, on the next page). Use the Phillips head screws that you removed in step 2 to attach the EMT adapter plate.

- Slide the conduit nut over the bundle of wires exiting the conduit and onto the conduit itself *inside* the PS 124. Hand-tighten the nut. (See figure 4, below.)



**Figure 4. Terminal Block and Conduit Wiring**

- Attach and screw down the hot (line) wire and the neutral wire (indicated by a tag marked "N") exiting from the conduit to their corresponding screws on the terminal block.

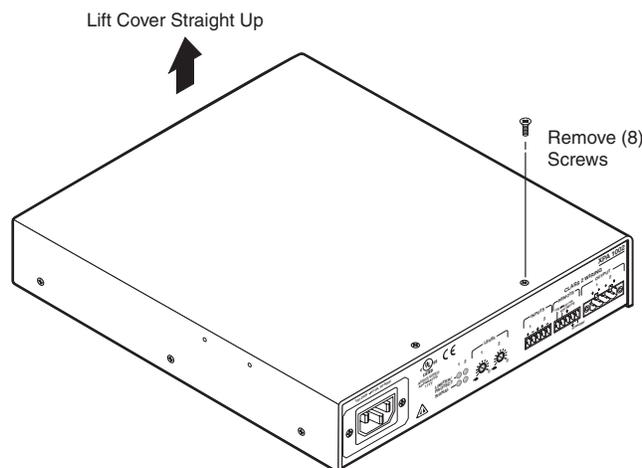
**CAUTION:** Ensure that you observe wire polarity. Figure 4, above, shows the location of the neutral and hot poles on the mother board connector. The neutral wire of the conduit wiring harness is identified with a tag marked "N" (neutral).

- Attach the ground wire from the conduit to the bare metal plate bottom of the PS 124, securing it by reattaching the ground wire nut.
- Thread a tie wrap through the metal tab on the bare metal bottom of the PS 124, place all the wires within its cradle, and zip the tie wrap over the bundle of wires.
- Ensure that the conduit nut used in step 10 (see figure 4, above) firmly secures the conduit EMT adapter plate to the power supply.
- Use the six screws that you removed in step 3 to secure the top cover of the PS 124 back onto its bottom board (see figure 2, on the previous page).

## Installing the Flexible Conduit Adapter Kit on an XPA 1002/XPA 2001

Install the flexible conduit to the XPA amplifier as follows:

- Unplug the IEC power cord from the XPA.
- Remove the eight screws from the top and sides of the XPA and lift off the cover.

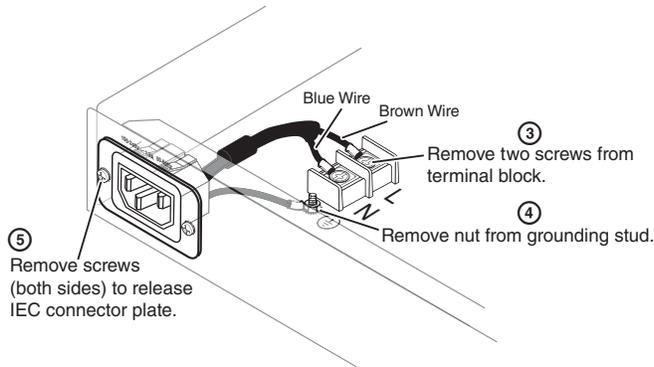


**Figure 5. Removing the XPA Top Cover**

**CAUTION:** Electrostatic discharge (ESD) can damage IC chips even though you cannot feel it. You must be electrically grounded before touching anything inside the XPA. A grounding wrist strap is recommended.

# Flexible Conduit Adapter Kit Installation Guide (Continued)

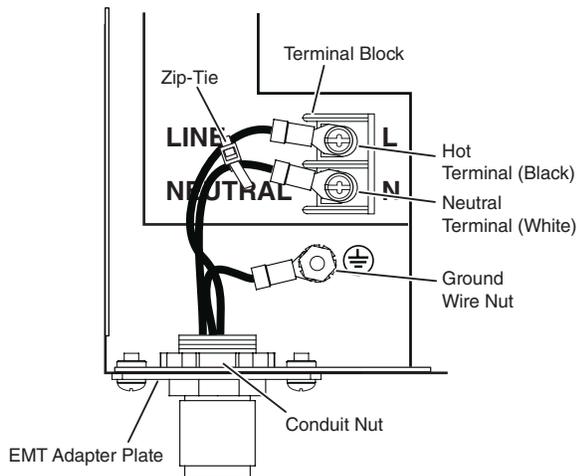
- Remove the two screws holding the hot (brown) wire and the neutral (blue) wire from the terminal block on the PCB.



**Figure 6. Removing the Wires and the IEC Connector Plate**

- Remove the ground wire nut from the grounding stud on the bottom of the enclosure, as shown in figure 6, above.
- Remove the two screws from the IEC plate and remove the IEC connector plate and the attached wires through the rear panel of the XPA.
- Thread the 12- or 14-gauge power wires through the length of the electrical conduit tube.
- Install the EMT adapter plate with conduit attached into the opening from which the IEC connector was removed in step 5.
- Slide the conduit nut over the bundle of wires that are exiting the conduit, and onto the conduit itself (see figure 7). Hand tighten the conduit nut to the conduit.

**WARNING:** Ensure that you observe correct wire polarity. The illustration above shows the location of the hot (L) and neutral (N) terminals.



**Figure 7. Attaching the EMT Adapter Plate Assembly**

- Attach the EMT adapter plate assembly to the XPA, using the two screws removed in step 5.
- Connect the black hot (line) and white neutral wires to the terminal block on the PCB using the two screws that were removed in step 3. Use the included zip tie wrap to secure the two wires together close to the terminals (see figure 7).
- Connect the ground wire to the grounding stud on the bottom of the enclosure using the nut that was removed in step 4 (see figure 7, above).
- Replace the cover of the XPA by attaching the eight screws that were removed in step 2.

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