



Extron PI 115 Power InjectorPI 115 Power Injector Installation Guide

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Extron

PI 115 Power Injector Installation Guide

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Important Safety Instructions



This symbol, when used on the product, is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.



This symbol, when used on the product, is intended to alert the user of the presence of uninsulated dangerous voltage within the product enclosure that may present a risk of electric shock.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.

- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Use only attachments and accessories specified by the manufacturer.
- Unplug this device apparatus during lightning storms or when unused for long periods of time.

CAUTION: Risk of electric shock. To reduce the risk of fire or electric shock, do not expose this apparatus to rain, moisture, dripping, splashing, or objects filled with liquids.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

ATTENTION:

- This apparatus is a Class I product. This product must be connected to a mains socket outlet with a protective earthing connection.

The mains plug is used as the disconnect device and shall remain readily operable.

To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

ATTENTION:

Power sources

- This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature. Do not attempt to bypass or disable it.

Power disconnection

- To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

The Extron PI 115 Power Injector supplies power to one Extron PoE compatible product. This guide provides instructions for an experienced installer to install and connect the PI 115.



Rear Panel



Front Panel

Installation

Step 1 — Mounting

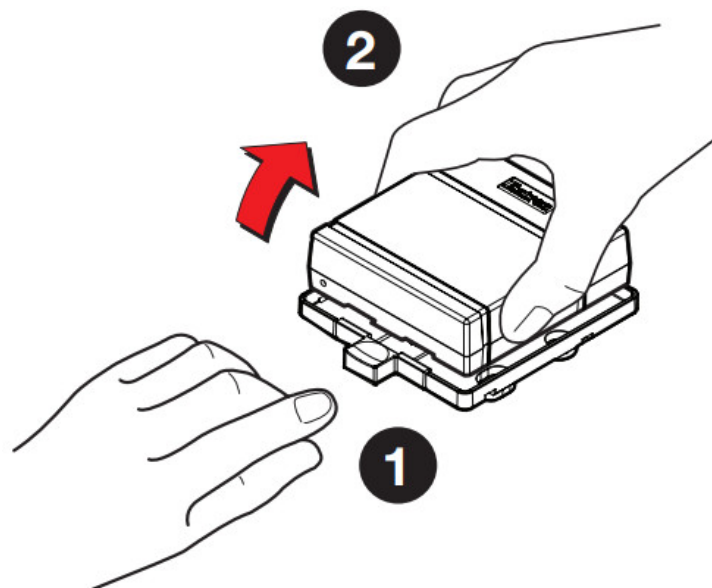
ATTENTION:

- These power supplies are not suitable for use in air handling spaces or in wall cavities. The power supply must be located within the vicinity of the Extron AV equipment in an ordinary location with pollution degree 2, and secured to an equipment rack within a dedicated closet, podium, or desk.
- The installation must be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 725 and Canadian Electrical Code part 1, section 16. The power supply must not be permanently fixed to building or similar structure.
- The PI 115 is intended for indoor use only. It is to be connected only to networks or circuits that are not routed to the outside plant or building.

Using the Zip Clip 200

To attach the power injector to the Zip Clip 200 mounting clip:

1. Insert the bottom of the power injector down into the clip, starting with one end.
2. Pivot the other end down and press until the clip snaps into place.



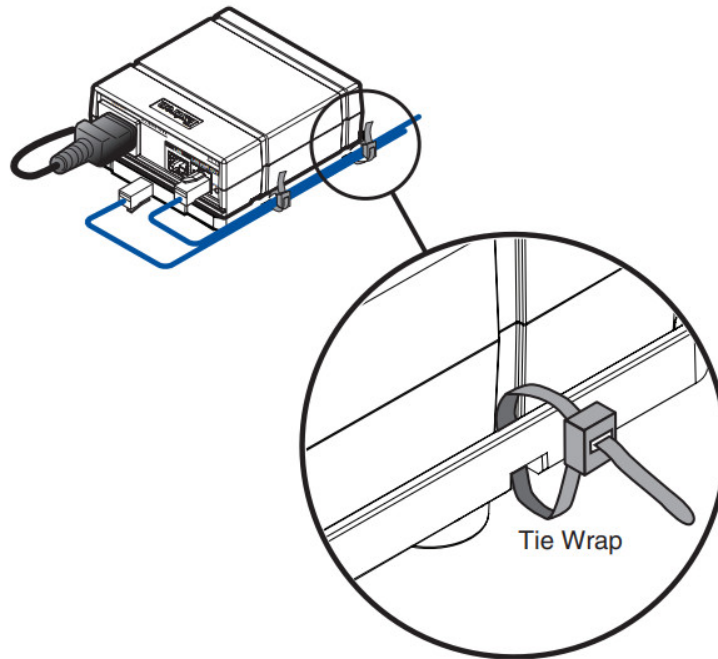
To remove the power injector from the Zip Clip:

1. Press the tab (1) on the Zip Clip.

2. Pivot the power injector and lift it out of the Zip Clip (2).

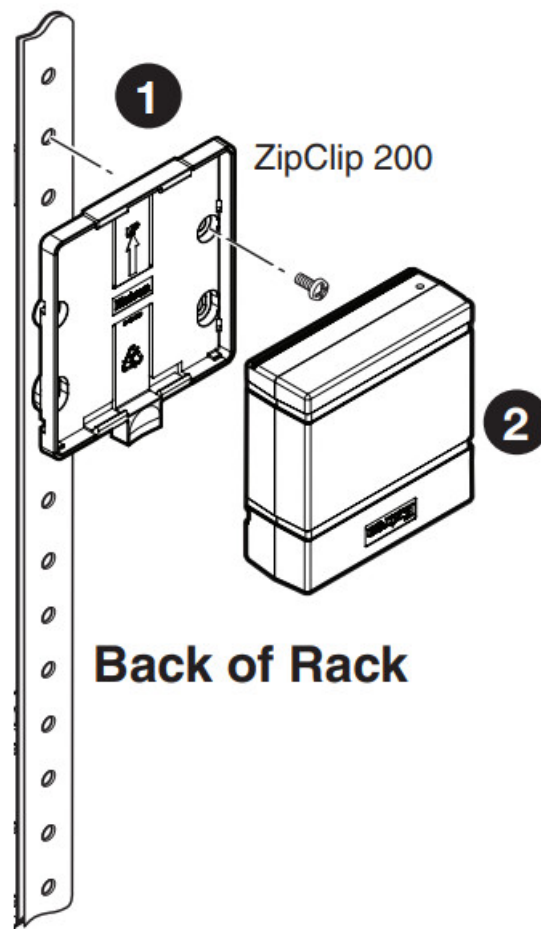
To fasten the tie wraps for cable strain relief:

1. Attach the power injector to the ZipClip 200 mounting clip as described previously.
2. Fasten the power output cords to the Zip Clip base.
 - a. Insert tie wraps along the notches on the side of the power injector and through the tie wrap anchor points on the Zip Clip, then around the cord.
 - b. Connect and pull the tie wraps until they are secure. Do not over tighten.



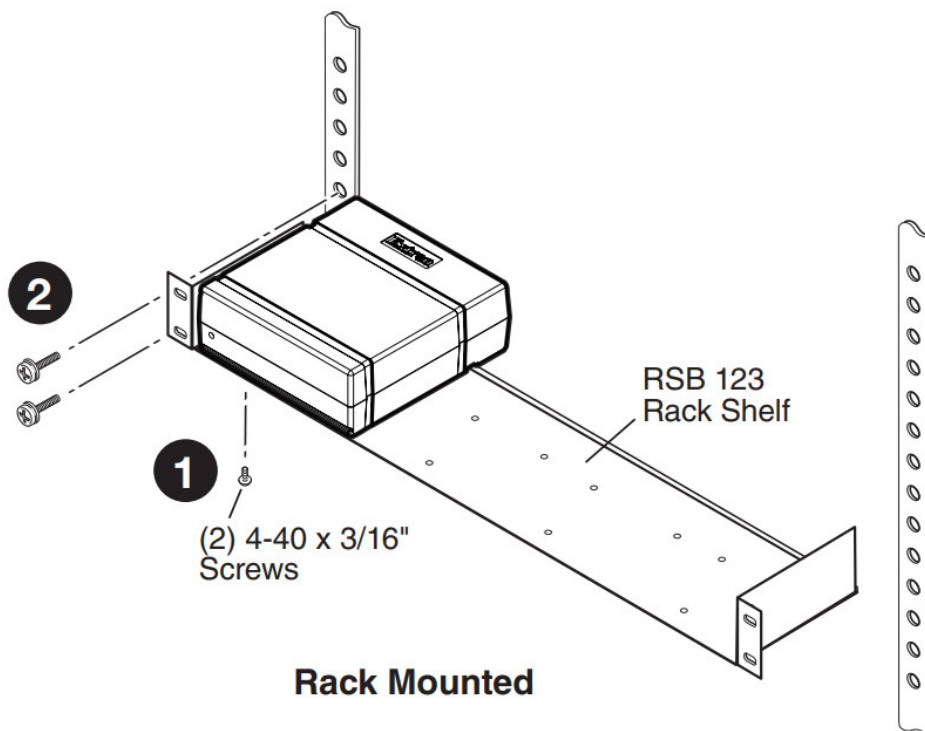
Mounting to Rack Rails Using a Zip Clip

1. Fasten the Zip Clip 200 mounting clip to a rack rail using two rack screws as shown in the diagram on the right
(1). Side of Rack
2. Insert the power injector into the Zip Clip as described previously and press to snap it into place (2).



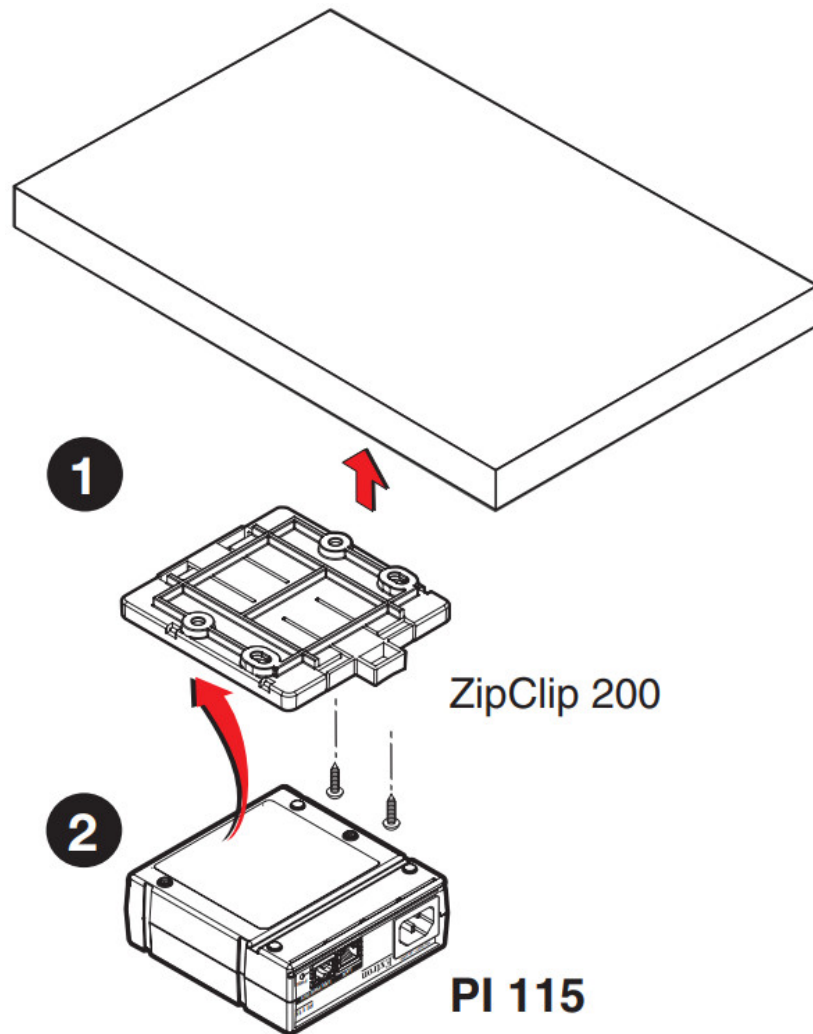
Mounting to a Rack Shelf

These power supplies are one-quarter rack wide. Up to four power supplies can be mounted side by side directly onto a rack shelf.



1. Align the threaded holes in the bottom of the power injector with the holes in an Extron rack shelf. Fasten the supply to the shelf with two 4-40 x 3/16 inch screws (1) as shown on the right.
2. Bolt the rack shelf to the rack (2).

Furniture Mounting

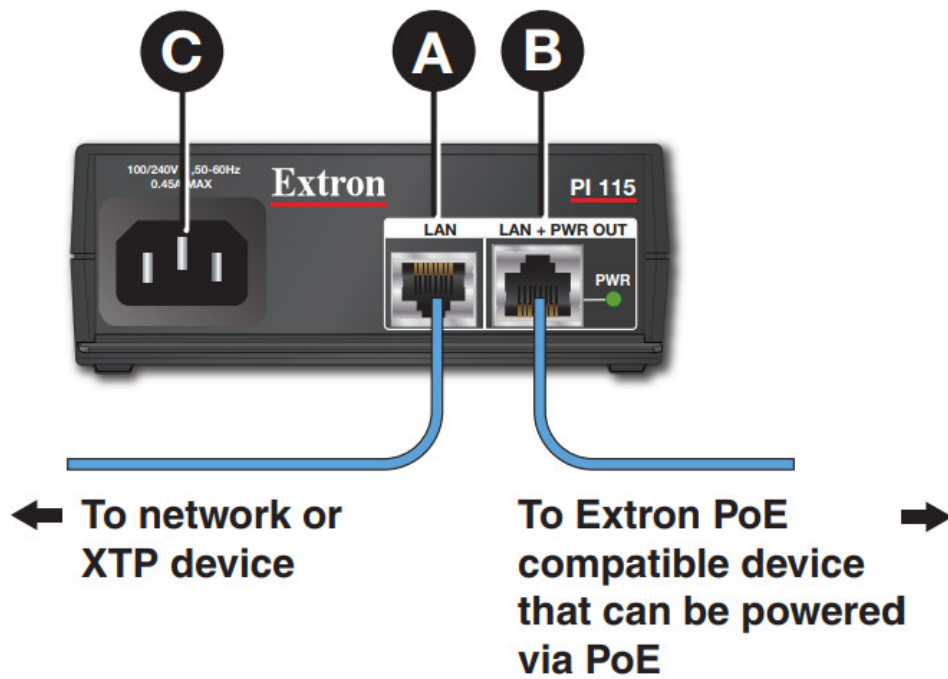


1. Attach the Zip Clip to the furniture using two or more wood screws (included) as shown at right (1). Make sure the clip is oriented with the appropriate side facing the mounting surface and with the tab accessible from the front of the furniture.
2. Insert the power injector into the Zip Clip as described previously and press to snap it into place (2).

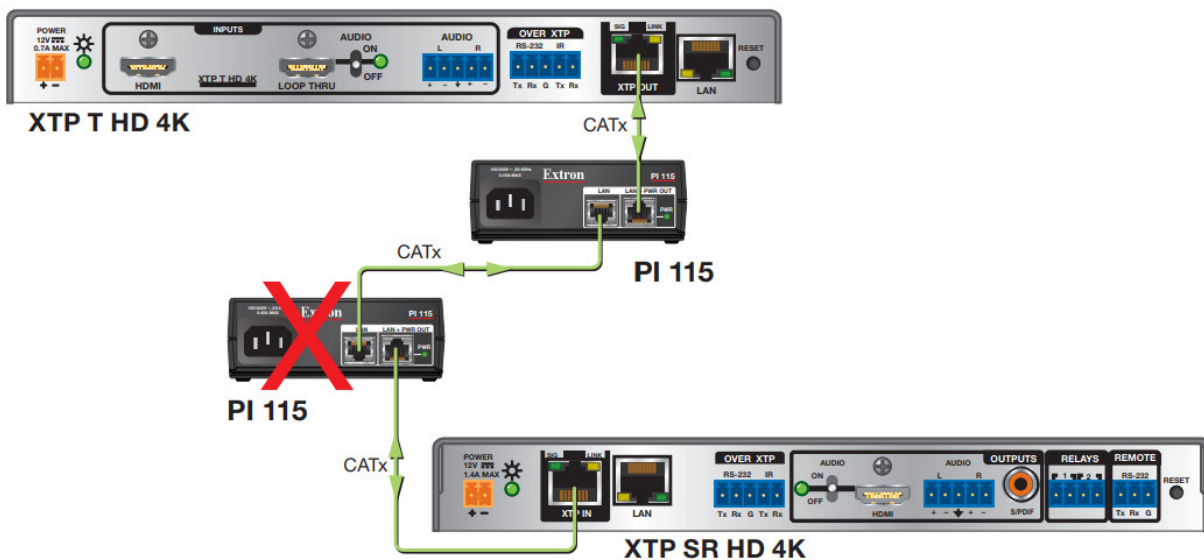
Step 2 — Cabling

For the best performance, see Twisted Pair Recommendations on page 2.

1. Connect a network switch or an Extron twisted pair transmitter product to the LAN port (A) of the power injector using a straight-through cable. The device plugged into this connector needs to be powered by a local power source.
2. Connect an Extron PoE compatible product that requires remote power to the LAN+PWR OUT port (B) using a straight-through cable.
3. Connect AC power to the PI 115 (C).



NOTE: Do not use two power injectors on the same cable run to remotely power the transmitter and receiver. The diagram below shows this type of application, which is not recommended by Extron.



LED Indicators



- A. Front panel power LED indicator** — Lights to indicate the PI 115 is receiving power.
- B. Rear panel PWR LED indicator** — Indicates various power states of the connected endpoints (see the table below).

LED State	Port Status
Unlit	The endpoint is not connected or cannot be powered.
Lit	The endpoint is receiving power from the PI 115.
Blinking	There is a power overload fault, or power allocation is exceeded.

Twisted Pair Recommendations

Supported Cables

The PI 115 is compatible with CAT 5e, 6, 6a, and 7 shielded twisted pair (F/UTP, SF/UTP, and S/FTP) and unshielded twisted pair (U/UTP) cable.

ATTENTION:

- To ensure FCC Class B and CE compliance, STP cables and STP connectors are required.

Cable Recommendations

Extron recommends using the following practices to achieve full transmission distances up to 330 feet (100 meters) and reduce transmission errors.

- Use Extron XTP DTP 24 SF/UTP cable for the best performance.

XTP DTP 24/1000	Non-Plenum 1000 feet (305 m) spool	22-236-03
XTP DTP 24P/1000	Plenum 1000 feet (305 m) spool	22-235-03
XTP DTP 24 Plug	Package of 10	101-005-02

- If you are not using XTP DTP 24 cable, at a minimum, Extron recommends 24 AWG, solid conductor, STP cable with a minimum bandwidth of 400 MHz.

PI 115 Remote Power to the Transmitter

- Terminate cables with shielded connectors to the TIA/EIA T568B standard.
- Limit the use of more than two pass-through points, which may include patch points, punch down connectors, couplers, and power injectors. If these pass-through points are required, use CAT 6 or 6a shielded couplers and punch down connectors.

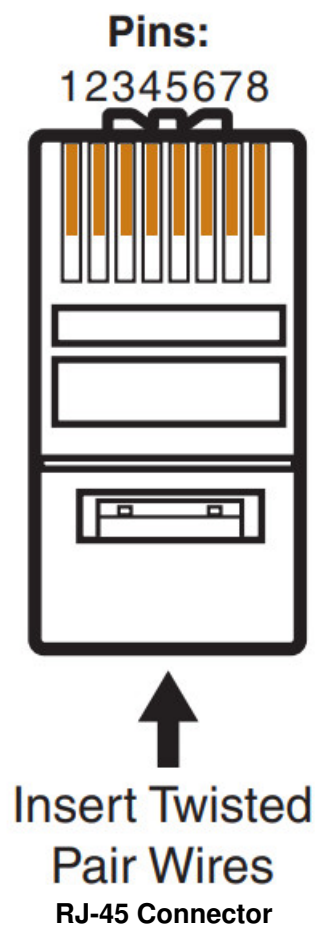
Number of Patches	Maximum Transmission Distance
1 or 2	330 feet (100 meters)
3	280 feet (85 meters)

NOTE: When using CAT 5e or CAT 6 cable in bundles or conduits:

- Do not exceed 40% fill capacity in conduits.

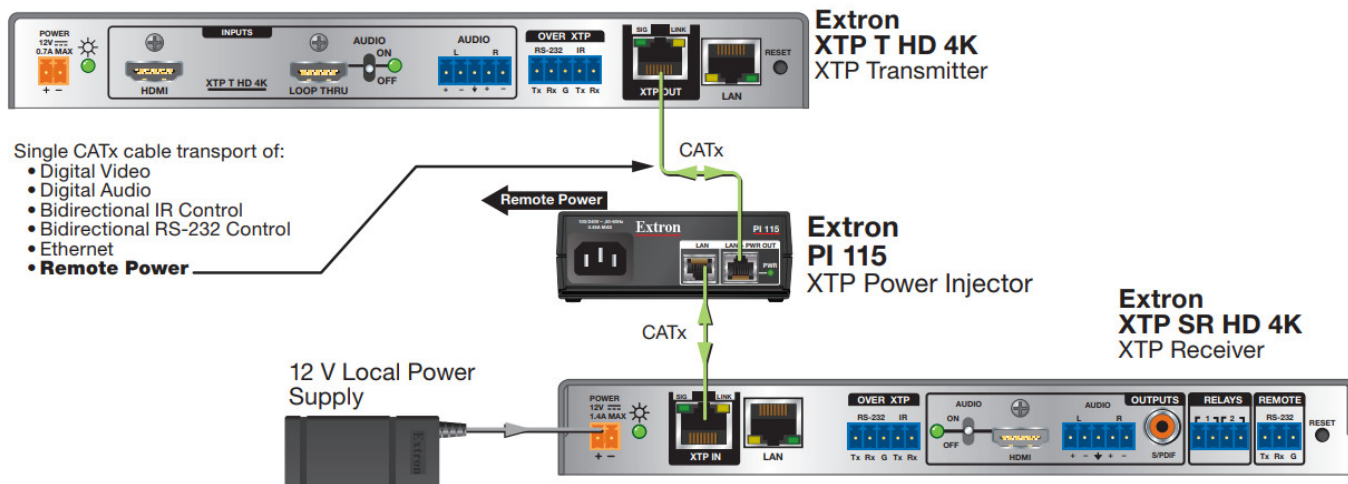
- Do not comb the cable for the first 20 meters where cables are straightened, aligned, and secured in tight bundles.
- Loosely place cables and limit the use of tie wraps or Velcro®.
- Separate twisted pair cables from AC power cables.

TIA/EIA T568B	
Pin	Wire Color
1	White-orange
2	Orange
3	White-green
4	Blue
5	White-green
6	Green
7	White-brown
8	Brown

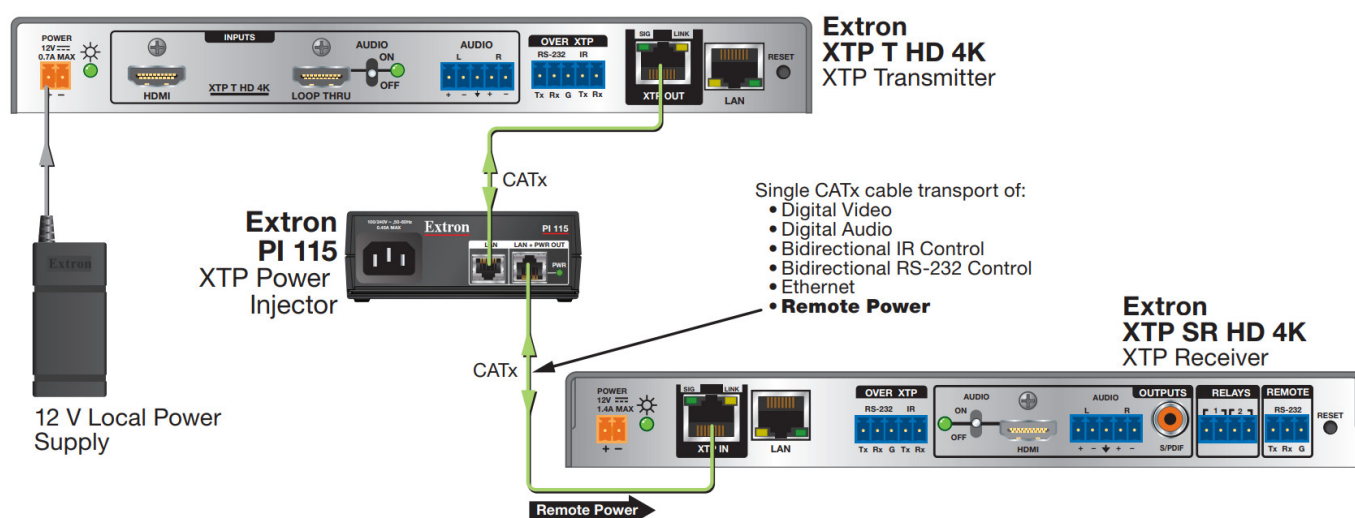


Application Diagrams

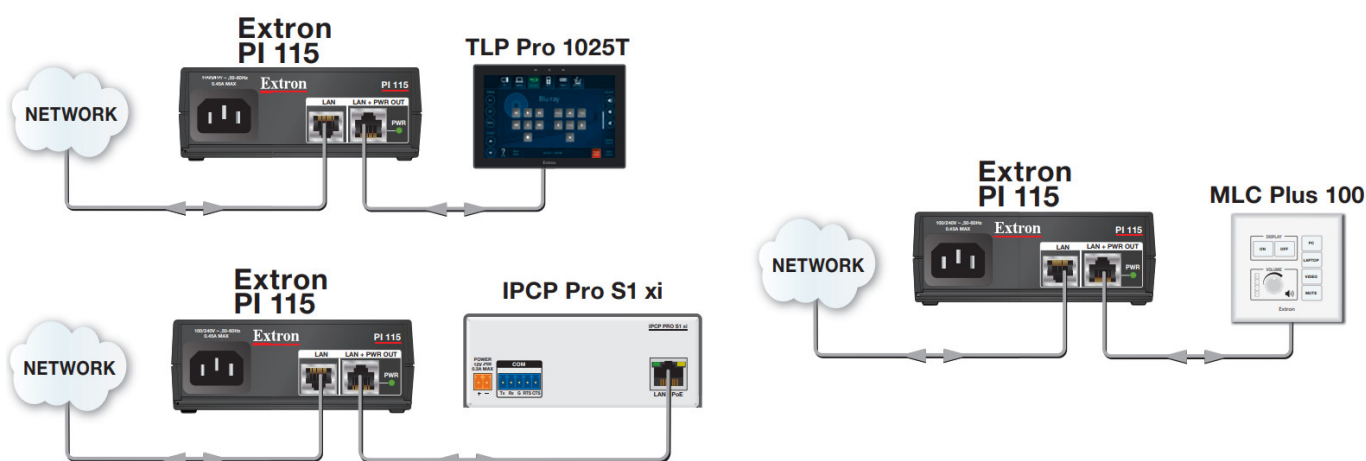
PI 115 Remote Power to the Transmitter



PI 115 Remote Power to the Receiver



PI 115 Remote Power to TLP Pro, MLC Plus, or IPL Pro Device



NOTE: Before using the PI 115, check the user guide for your Extron product to see if the device can be powered through a midspan power injector.

Safety Instructions



This symbol, when used on the product, is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.



This symbol, when used on the product, is intended to alert the user of the presence of uninsulated

dangerous voltage within the product enclosure that may present a risk of electric shock.

Cautions and General Guidelines

Read instructions

- Read and understand all safety and operating instructions before using the equipment.

Retain instructions

- The safety instructions should be kept for future

Follow warnings

- Follow all warnings and instructions marked on the equipment or in the user information.

Avoid attachments

- Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Avoid water

- Do not use this or other electrical equipment near water. Clean the device with a dry cloth only.

Warnings

Power and electrical safety

CAUTION: Electrical shock that may result in injury. To reduce the risk of fire or electric shock, do not expose this apparatus to rain, moisture, dripping, splashing, or objects filled with liquids.

Power sources

- This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

ATTENTION: This apparatus is a Class I product. This product must be connected to a mains socket outlet with a protective earthing connection.

Power disconnection

- To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power plug as a disconnection device

- The mains plug is used as the disconnect device and shall remain readily operable. In other words, it the power

plug must be accessible and easy to unplug from the power source.

When to unplug the unit

- Unplug this device during lightning storms or when it will be unused for long periods. Unplug the device before servicing.

Power cord protection

- Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them. Protect the cord particularly at plugs, convenience receptacles, and the points where they exit the devices.

Polarized and grounding plugs

- Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician to replace the obsolete outlet with a safer one.

Servicing

- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled into or objects have fallen into the device, or when the device has been exposed to rain or moisture, does not operate normally, or has been dropped. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Ventilation, mounting, and temperature

Ventilation slots and openings

- If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. Do not block any ventilation opening, as this may cause the product to malfunction. Install the device in accordance with the manufacturer's instructions.

Temperature

- Do not install electronic devices near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

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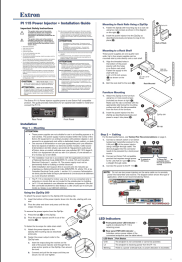
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Documents / Resources

	<p>Extron PI 115 Power InjectorPI 115 Power Injector [pdf] Installation Guide PI 115, Power Injector, PI 115 Power Injector, Injector</p>
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References

- [E Extron - The AV Technology Leader](#)