The NXA-PDU-1508-8 Power Distribution Unit (FG673-01) provides switching of mains power to each of eight ACRMS 2020 power outlets. The two built-in AxLink bus strips provide connectivity (AxLink data / power) for up to eight AxLink connections.

**Rear Panel Components:**
- **AXLINK POWER connectors (8):** A 13.5VDC, 6.5A power supply is provided for AxLink power. Eight 3.5mm (4-pin) AxLink captive-wire connectors provide power and data for up to eight AxLink connections. AxLink power is switched in two banks of four outputs each. BANK 1 contains AxLink connectors 1-4. BANK 2 contains AxLink connectors 5-8. The PDU provides up to 6.5A total across all AxLink outputs.
- **MASTER connector:** 3.5mm Phoenix (4-pin) AxLink connector provides connectivity to the NetLink Master (always on).
- **TEMP (RTS) input:** 3.5mm Phoenix (2 pin) connector provides connection to a Remote Temperature Sensor (RTS).
- **CONFIG DIP Switch:** Eight-position DIP switch sets the AxLink device address.

**Power Outlets (8):**
- **Connector Type:** IEC C-13, 12A/10A
- **Maximum allowable current on a single high-voltage output:** 10A@110VAC / 8A@220VAC

**Power Inlet (1):**
- **Connector Type:** IEC C-14, 12A/10A
- **110-120VAC:** 12A Max Combined Load @ 110VAC
- **220-240VAC:** 10A Input

**Dimensions (HWD):**
- **13/16” x 17” x 9 11/16” (2.97cm x 43.18cm x 24.54 cm)
- **1 RU**

**Weight:** 9 lbs (4.08 kg)

**Endurance:** Steel, black powder coated finish

**Environmental:**
- **Operating Environment:** 0°C - 40°C (32°F - 104°F)
- **Storage Environment:** -10°C - 60°C (14°F - 140°F)
- **Relative Humidity:** 5% - 85%, non-condensing

**Certifications:**
- **CE**
- **FCC**
- **CSA**
- **UL**
- **C-Tick**

**Other AXN Equipment:**
- **ENV-VST-TS,F, Flush Mount Temperature Sensor (FG2050-21)**
- **CC-C13-C14 to C13 to C14 Power Cable (FG10-673-01)**
- **CC-C14-NEMA: C14 to NEMA Power Cable (FG10-673-02)**

**SAFETY INSTRUCTIONS**

- Since the temperature within a rack assembly may be higher than the ambient room temperature, check that the rack-environment temperature is within the specified operating temperature range.
- The NXA-PDU-1508-8 is intended for indoor use only.
- DO NOT install or operate the NXA-PDU-1508-8 in an area where the ambient temperature exceeds 40ºC (104ºF) or falls below 0ºC (32ºF).
- DO NOT install or operate the NXA-PDU-1508-8 near water or in a location which may be prone to water seepage, dripping or splashing.
- DO NOT place objects containing liquids on the NXA-PDU-1508-8.

**NOTE:** AMX recommends no more than 4 PDUs per master, due to AxLink addressing and bus traffic.
The NXA-PDU-1508-8 can be mounted in a standard 19-inch equipment rack:

1. Attach the brackets to the PDU using the bracket screws provided in the Bracket Mounting Kit (FIG. 4).
2. Mount the PDU in the rack, using 4 rack-mounting screws (not provided, see FIG. 5).

Front Panel Components

The front panel components of the NXA-PDU-1508-8 (see FIG. 1) are described below. See the Specifications table for descriptions of the LEDs on the front panel.

RESET Pushbutton

The RESET pushbutton serves as a momentary reset switch for the MASTER AxLink power connection, as well as a reset switch for the PDU itself:

- Press/hold for 3 seconds: Resets the MASTER AxLink power connection (minimum 0.5 second toggle).  
  Note: A master powered externally from the PDU will not be reset by the RESET pushbutton.
- Press/hold for 17 seconds: Resets the PDU (similar to a full power-cycle of the unit).

Rear Panel Components

The rear panel components of the NXA-PDU-1508-8 (see FIG. 1) are described below:

AXLINK POWER Connectors 1-8

The eight AxLink connectors (labelled "AXLINK POWER") are standard 4-pin AxLink captive-wire connectors that provide data and power for up to 8 AxLink connections.

The AxLink device connectors are separated into two Banks:

- BANK 1 (top) includes AxLink connectors 1-4, numbered from right-to-left (see FIG. 1)
- BANK 2 (bottom) contains AxLink connectors 5-8, numbered from right-to-left (see FIG. 1)

The PDU provides switched power to banks 1 and 2.

Note: The AxLink bus strip does not provide switching on AxLink data lines.

MASTER Connector

The eight AxLink connectors (labelled "MASTER") provide AxLink connectivity between the PDU and the NetLinx Master (see FIG. 1).

Note: This connector is always ON.

TEMP Connector

The 3.5mm 2-pin captive-wire connector labelled "TEMP" (see FIG. 1) provides the option to connect a Remote Temperature Sensor (RTS). The NXA-PDU-1508-8 comes with one ENV-VST-TSO Temperature Sensor (FG2050-22).

Connect either wire from the RTS to either pin on the TEMP connector (FIG. 6).

AxLink Wiring Guidelines

AxLink devices require 12 VDC power to operate properly. The necessary power is supplied via the AxLink cable. The maximum AxLink wiring distance is determined by power consumption, supplied voltage, and the wire gauge used for the cable.

Use the 3-step formula below to calculate the maximum wiring lengths allowable between the PDU and connected AxLink devices.

1. \( \text{Total current consumption of all connected AxLink devices} \times \text{Resistance/Foot} \times 2 \times \frac{\text{voltage drop per foot}}{12} \) (see table below for Resistance/Foot values.)
2. \( \text{Power supply voltage} - 12 \times V = \text{surplus voltage dissipation for cable run} \)
3. \( \text{surplus voltage dissipation for cable run} + \text{voltage drop per foot} \times \text{Max. distance} \)

The following table lists the resistance factors used in the formula.

### Cable Gauge/Resistance Factors

<table>
<thead>
<tr>
<th>Wire gauge</th>
<th>Solid Copper Wiring</th>
<th>Stranded Copper Wiring</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 AWG</td>
<td>0.0039</td>
<td>0.0069</td>
</tr>
<tr>
<td>20 AWG</td>
<td>0.0101</td>
<td>0.0190</td>
</tr>
<tr>
<td>22 AWG</td>
<td>0.0162</td>
<td>0.0190</td>
</tr>
<tr>
<td>24 AWG</td>
<td>0.0257</td>
<td>0.0270</td>
</tr>
</tbody>
</table>

### CONFIG DIP Switch

The NXA-PDU-1508-8 uses an 8-position DIP Switch (labelled "CONFIG") to specify a unique device address for itself in a NetLinx Control System (FIG. 8).

Setting the Device Address of the PDU

The NXA-PDU-1508-8 firmware implements 8 AxLink device IDs, starting from the device ID denoted by the DIP switch. The device IDs used by the NXA-PDU-1508-8 are as follows:

- Dev 1: (Power Outlet 1) + (AxLink-Bank 1 Power)
- Dev 2: (Power Outlet 2) + (AxLink-Bank 2 Power)
- Dev 3-8: (Power Outlets 3-8)

Note: AxLink device IDs are always in the range of 1-255. However, the PDU requires seven open device numbers above the PDU device number setting to accommodate its sub-devices. Therefore, device addresses 249-255 are not valid for the PDU.

To set the Device Address:

1. If connected, disconnect the power supply.
2. Set the CONFIG DIP switch according to the values shown below:

<table>
<thead>
<tr>
<th>Switch</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>16</td>
<td>32</td>
<td>64</td>
<td>128</td>
</tr>
</tbody>
</table>

Note: The device number is set by the total value of DIP switch positions that are in the ON position. Note that the ON position is indicated on the DIP Switch. If you later change the device number, remove and reconnect the power connector to enter the new device number into memory.

Note: Use the "Dip Switch2" software application to calculate dip switch position values (available to download from www.amx.com).

Power Outlets 1-8

The eight 110-220VAC 50/60Hz, IEC C-13, 15A AC Power Outlet Connectors provide AC power to connected devices (see FIG. 1).

Note: Maximum load on a single outlet = 10A @ 110-120 VAC / 8A @ 220-240VAC.

Power Inlet

The IEC C-14, 15A power inlet connector provides 110-220VAC, 50/60Hz mains power to the PDU.

Powering Up The NXA-PDU-1508-8

When power is applied to the PDU for the first time, the outlets are powered in sequence (1-8), with a delay of 0.5 second between outlets.

By default, the state of all outlets upon initial power-up is ON.

Initial Response Time

Allow the PDU approximately ten seconds after it appears online to register internal processes before attempting to turn on a channel.

Persistence of On/Off States for All Outlets

By default, Persistence for all outlets is set to ON. Persistence can be turned off via the PERSIST Send Command (see the NXA-PDU-1508-8 Operation/Reference Guide for programming information).

For subsequent power-ups (from a power off state or on system reset), the PDU will restore the last recorded state of any outlet in a sequential fashion, starting from outlet 1 in numerical order, with a delay of 0.5 second between energizing any two outlets, assuming the default Persistence setting of ON has not been changed.

NetLinx Programming

The NXA-PDU-1508-8 is controlled via Net.Linx Programming, primarily through the use of Channels and Levels. Refer to the NXA-PDU-1508-8 Operation/Reference Guide for programming information.

Additional Documentation

Refer to the NXA-PDU-1508-8 Operation/Reference Guide for programming information and instructions on upgrading Firmware on the PDU.