

### Overview

The Precis Series Distribution Matrix is available in various sizes and board configurations; therefore, the illustrations in this guide may differ from the model(s) you purchased. The Precis is available in the following models: Precis (300 MHz), Precis 500 MHz (both in 8x4, 8x8, and 12x8), and PrecisHT (8x4 and 12x8). All models can have either a front control panel or a blank front panel. The PrecisHT comes with volume control. The Precis (300 MHz) and Precis 500 MHz have optional stereo audio with or without volume control. For complete documentation for this product (including individual board specifications), see the *AMX AutoPatch Software & Documentation CD* or visit [www.amx.com](http://www.amx.com).

### General Specifications

Specifications	
Approvals	CE, ETL, cETL
AC Power	100 - 240 VAC single phase, 50 - 60 Hz
Power Consumption max. typical	75 Watts per enclosure 40 Watts per enclosure
Operational Temperature	32° - 110° F (0° - 43° C)
Humidity	0 to 90% non-condensing
Dimensions	10.4 in. (26.4 cm) depth 17.4 in. (44.2 cm) width without rack ears 18.8 in. (47.7 cm) width with rack ears 5.2 in. (13.2 cm) height 3 RU
Weight	Approximately 12 lbs (5.4 kg) per enclosure

### Installation

**ESD Warning:** Avoid ESD (Electrostatic Discharge) damage to sensitive components; be sure you and the enclosure(s) are properly grounded before touching any internal materials.

#### Rack Mounting

To rack mount a Precis enclosure:

1. Attach rack ears as shown in FIG. 1 (screws provided).
2. Install in a rack (we recommend leaving a minimum of one empty rack unit above and below).
3. Secure enclosure to rack with screws.

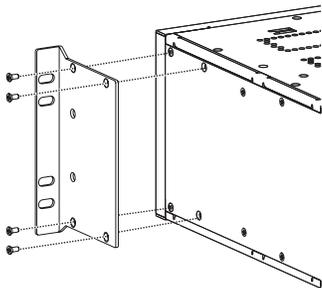


FIG. 1 Attach rack ears to sides of enclosure

#### Linking Multiple Enclosures (if applicable)

If the system has multiple enclosures (500 MHz models only), an "AutoPatch Distribution Matrix Linking Quick Start Guide" has been provided. Using the Ethernet port, link the enclosures according to the guide.

#### Attaching Input & Output Cables/Wires

For testing purposes, attach just the first two sources and destinations according to the labels on the rear of the enclosure.

#### Video – RCA Connectors

RCA connectors for video are available in the PrecisHT only (see FIG. 5).

#### Video – BNC Connectors

BNC connectors are used for standard video, Y/c, and component video. Y/c and Component signals (e.g., Y/Pb/Pr) require more than one BNC connection. The example in FIG. 2 (top of next column) shows five BNC cable connectors attached for routing an RGBHV signal through Output 8.

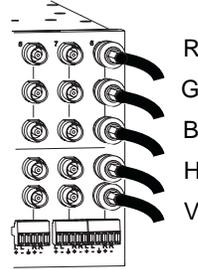


FIG. 2 Five BNC connectors are required for an RGBHV signal

#### Stereo Audio – 5-Term Connectors

Models having audio boards with 5-position terminal block connectors can be wired for balanced (differential) or unbalanced (single-ended) audio; see FIG. 3.

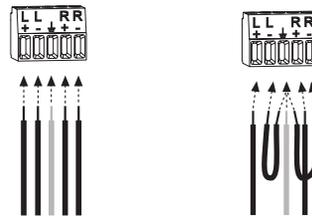


FIG. 3 Balanced audio Unbalanced audio

**Note:** When using shielded twisted-pair wire, connect the shield (ground) at one end only (recommend receiving end) to minimize low frequency noise (see FIG. 4).

Source and destination devices require either balanced or unbalanced connections. More than one of the options shown in FIG. 4 can be used in the same system.

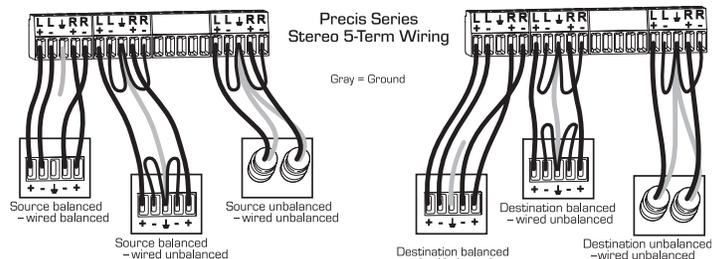


FIG. 4 Options for source-to-Precis-to-destination 5-Term wiring

#### Digital Audio – S/PDIF & TosLink Connectors (PrecisHT only)

S/PDIF connectors are coaxial, and TosLink connectors are optical (remove the protective caps from the TosLink jacks).

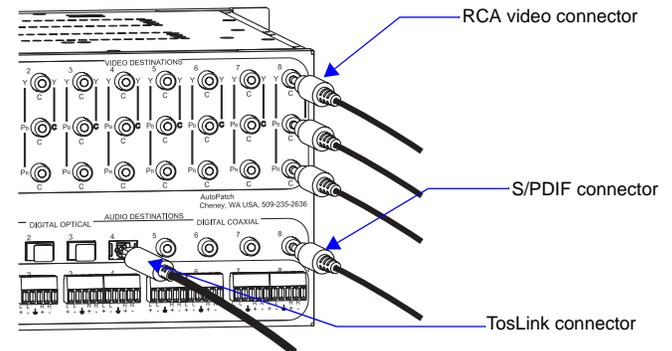


FIG. 5 Attach Video S/PDIF & TosLink connectors

**Note:** PrecisHT models can be ordered with either RCA or BNC connectors for video.

## Establishing External Control (if applicable)

The Precis can be controlled by attaching an external control device/system to the serial port or to the XNNet (Link) Connector, which uses AutoPatch XNNet protocol for AMX AutoPatch devices.

### Serial Control (PCs & third-party controllers)

Use the pinout in FIG. 6 when connecting an external serial controller to the Precis serial port.

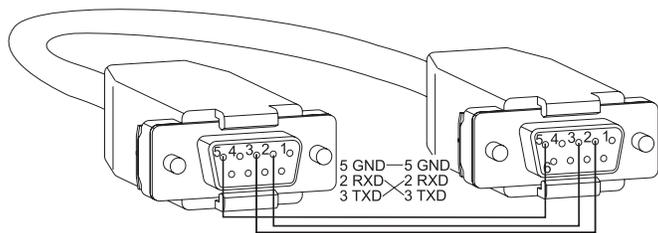


FIG. 6 RS-232 null modem cable pin diagram

### To establish external serial control:

1. Plug the null modem cable into the serial port on the enclosure (see FIG. 7).

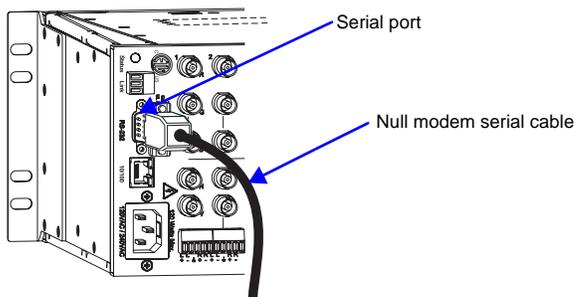


FIG. 7 Attach null modem serial cable

2. Plug the other end of the cable into the serial port on the serial controller/device.
3. Open serial communication software and set port settings to match the Precis default settings (baud = 9600, data bits = 8, stop bit = 1, parity and flow control = none).

## XNNet Control (AMX AutoPatch remote control panels, SBCs, etc.)

### Communication Cable Requirements:

- Two-conductor, 20 AWG, 7/28 strand cable with a drain wire or shield, such as Alpha 2412C (customer supplied)
- Maximum cable length: 1,000 ft. (304.8 m) total, including linked devices

On large control networks, termination may be required on the last linked device; for termination information, see device documentation.

### To establish external XNNet control:

1. Attach XNNet link cable to XNNet device according to the device instructions.
2. Unplug the XNNet (Link) connector on the Precis and loosen the screws.
3. Insert XNNet link cable wires according to Fig. 8 (either wire can be inserted in either outside slot).
4. Tighten screws and plug in the connector.

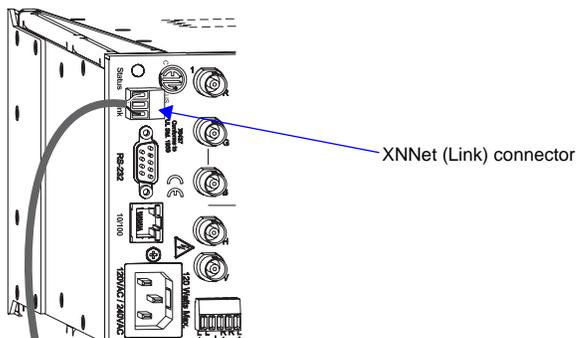


FIG. 8 Insert wires into XNNet (Link) connector

## Applying Power & Control Startup

**Important:** We recommend attaching all power cords to a surge protector and/or an AC line conditioner.

### To apply power:

1. Attach power cord(s) and plug into power source (turn on power source if necessary). The Power Indicator on the front of the enclosure illuminates.
2. Apply power to any external devices (remote control panels, etc.) and then to the source and destination devices.

## Completing the Installation

We recommend completing the installation by executing a test switch routing Input 1 to Output 2. The method of performing the switch will depend on the control option used. Control options and switching information are provided below.

- **NetLinX® or Duet Compatible Devices** – see the specific controller device documentation for instructions on installation and executing switches.
- **Control Panel** – press Cancel Key to ensure panel is in Switch mode. To execute a test switch: press the All Level Key, which illuminates. Press Source Key 1, which blinks. Press Destination Key 2. When Destination Key 2 illuminates, the switch is successful.
- **APControl 3.0 (PC based)** – install and open the program.  
**Precis 500 MHz:** Follow the setup wizard, which will discover the system's configuration information and open the APControl Launchbar.  
From the Launchbar menu, select Views/CrossBar and click on the crosspoint for Input 1 / Output 2.  
**Precis (300 MHz) & PrecisHT:** From the APControl Launchbar menu, select System/New; select Heritage System/Next; select Manual Configuration Entry/Next; enter and Add VM information/Next; finish Wizard instructions.  
From the Launchbar menu, select Views/CrossBar and click on the crosspoint for Input 1 / Output 2.
- **APWeb** – connect the APWeb Module (see the APWeb Module Quick Start Guide). For instructions on executing switches, see the APWeb (Interface) documentation on the *AMX AutoPatch CD*.
- **BCS Commands (HyperTerminal)** – when power is applied, a short splash screen appears. To execute a test switch: enter CL01102T into the terminal emulation program. When CL01102T appears, the switch is successful.

After executing a successful test switch, attach remaining source and destination devices according to the labels on the enclosure.

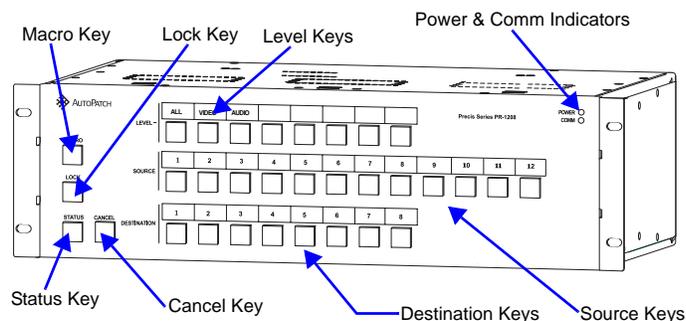


FIG. 9 Typical Precis Series front control panel

## Audio Adjustment

If the Volume Control option is available, "Adjust Audio" will be to the left of the Status Key and arrows to the left of the Macro and Lock Keys. If the system has Volume Control, it also supports Input Gain Control. To access audio adjustments, press and hold the Status Key down until it blinks. Select the output or input needing adjustment. Increase audio by pressing and releasing the Up Arrow Key (Macro Key). Decrease audio by pressing and releasing the Down Arrow Key (Lock Key). Press the Cancel Key when done with audio adjustments (does not cancel audio adjustments).

## Additional Information Covered in Precis Instruction Manual

See the instruction manual on the CD or at [www.amx.com](http://www.amx.com) for the following:

- Control panel operations (including locking/unlocking)
- Executing macros (must be pre-defined)
- BCS commands for system operation
- Volume and input gain adjustments (optional features)