

Quick Start Guide AutoPatch 1Y Series Distribution Matrix

Overview

Because the 1YDM and 1Y-16 Distribution Matrices are available in various sizes and board configurations, the illustrations in this guide may differ from the model(s) you purchased. The 1Y Series Instruction Manual contains complete documentation for this product; see the *AMX AutoPatch Software & Documentation CD* or visit **www.amx.com**.

General Specifications

Specifications	
Approvals	CE, ETL
AC Power	100 - 240 VAC single phase (50 - 60 Hz)
Power Consumption	30 Watts per enclosure (max.)
Operational Temperature	32° - 110° F (0° - 43° C)
Humidity	0 to 90% non-condensing
Dimensions	Approximately 17.0 in. (43.18 cm) depth 19.0 in. (48.26 cm) width with mounting ears 17.0 in. (43.18 cm) width without mounting ears
Height 2 RU 3 RU 4 RU	3.50 in. (8.89 cm) 5.25 in. (13.33 cm) 7.00 in. (17.78 cm)
Weight	Approximately 17 lbs. (7.73 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

The 1Y Distribution Matrix is designed to fit in a standard EIA 19 in. (48.26 cm) rack. To rack mount a 1Y enclosure:

- 1. If rack ears are not already installed attach the rack ears as shown in FIG. 1 (screws provided).
- 2. Install in a rack leaving a minimum of one empty rack unit above and below (required); three empty rack units above and below are recommended.







Linking Multiple Enclosures (if applicable)

If the system has multiple enclosures, see the 1Y Series Instruction Manual on the *AMX AutoPatch Software & Documentation CD* or visit **www.amx.com**.

Attaching Input & Output Cables/Wires

For testing purposes, attach just the first two sources and destinations according to the **AutoPatch Connector Guide.** Follow the guide exactly; each system is custom-built and programmed to operate based on the guide.

Important: Although signals on different boards are switched simultaneously when part of a component signal, an input signal can only be switched to an output on the same I/O board.

Video Boards – BNC

BNC connectors are used for standard, wideband, ultra-wideband video, Y/c, and HV sync. Component signals (e.g., Y/Pb/Pr) require more than one BNC connection. The example in FIG. 2 shows three BNC cable connectors attached for routing a three-component signal through Input 3.





Note: Video BNC connectors are color coded: white are inputs and black are outputs.

Mono Audio Boards – 3-Term

Mono audio boards with 3-position terminal block connectors can be wired for balanced (differential) audio (see FIG. 3) or unbalanced (single-ended) audio (see FIG. 4).





Note: When using a shielded twisted-pair cable, connect the shield (ground) at one end only (recommend receiving end) to minimize low frequency noise (see FIG. 5).

Source and destination devices will require either balanced or unbalanced connections. More than one of the options shown in FIG. 5 can be used in the same system.



FIG. 5 Options for source-to-1Y-to-destination 3-Term wiring

Establishing External Control (if applicable)

The 1Y can be controlled by attaching an external control device/system to the enclosure's serial port.

Serial Control (PCs & third-party controllers)

To establish external serial control:

Use the pinout in FIG. 6 when connecting an external serial controller to the 1Y serial port.



FIG. 6 RS-232 cable pin diagram

Plug the null modem cable into serial port 1 (labeled Port In or IN) on the 1 (master) enclosure (see FIG. 7). (Serial port 1 is recommended because serial port 2 does not echo commands and is usually used for linking enclosures).



FIG. 7 Attach null modem cable to serial port

Plug the other end of cable into the serial port on the serial controller/device. 3. Open serial communication software and set port settings to match the 1Y Series default settings (see table below).

Serial Port Settings		
Baud	9600	
Data Bits	8	
Stop Bit	1	
Parity	None	
Flow Control	None	

Applying Power & Control Startup

Caution: To avoid system damage, make sure the voltage selector is on the proper setting for your system (either 110 V or 220 V).

Voltage Selector Setting (110 or 220)



FIG. 8 Voltage selector is inside fuse drawer on rear of enclosure

If the voltage selector setting requires changing, see the 1Y Series Instruction Manual on the AMX AutoPatch Software & Documentation CD or visit www.amx.com.

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

To apply power:

- Attach power cord and plug into power source (turn on power source if 1. necessary). Press the "I" side of the enclosure's power switch. The Power Indicator on the front of the enclosure illuminates. If applicable, the control panel's LEDs illuminate showing available inputs and outputs (output LEDs illuminate; input LEDs flash four times).
- Apply power to the source and destination devices. 2

Completing the Installation

We recommend completing the installation by executing a test switch routing Input 1 to Output 2. The 1Y Series ships with a default switch routing Input 1 to all outputs. This default switch must be disconnected before performing a test switch. The method of performing the switch will depend on the control option used. Control options and switching information are provided below.

- Control Panel -
 - To disconnect the default switch: Press and hold the Take Key. While holding the Take Key, press the Cancel Key. When all output key LEDs are out, the default switch is disconnected.

To execute a test switch: Press the Change Key. Press Input Key 1 (Input Key 1 LED illuminates). Press Output Key 2 (Output Key 2 LED illuminates). Press Take Key. When both LEDs go out, the test switch is successful.

- NetLinx® Compatible Devices see the specific controller device documentation for instructions on installation and executing switches.
- APControl 3.0 (PC based) install and open the program. From the APControl Launchbar menu, select System/New; select Heritage System/Next; select Manual Configuration Entry/Next; enter Add VM information/Next; finish Wizard instructions

From the Launchbar menu, to disconnect default switch: deselect all active crosspoints.

From the Launchbar menu, to execute a test switch: 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. Remember to disconnect the default switch before executing a test switch.
- BCS Commands (HyperTerminal) when power is applied, a short splash screen appears.

To disconnect default switch: enter DI1T into the terminal emulation program. To execute a test switch, enter CL# I1O2T (# = a level on the Connector Guide) into the terminal emulation program (routes Input 1 to Output 2). When CL# I1O2T appears, the switch is successful.

After executing a successful test switch, attach remaining source and destination devices according to the AutoPatch Connector Guide.

Control Panel Keys



FIG. 9 Typical 1Y control panel

- Preset Key defines and recalls presets
- Change Key initiates switches
- Matrix Keys selects an I/O board level or chooses a specific bank of preset numbers
- Input Keys selects an input to execute a switch, also specifies or recalls preset numbers
- Output Keys selects an output to execute a switch, also specifies or recalls preset numbers
- Cancel Key terminates unfinished operations and disconnects inputs and outputs
- Take Key executes valid operations (if pressed before an operation is completely specified, will have the same effect as pressing Cancel Key)

Additional Information Covered in 1Y Series Instruction Manual

See the instruction manual on the CD or at www.amx.com for the following:

- Complete control panel operation and remote panel installation
- Defining and executing presets
- Defining levels with jumpers
- Setting master enclosures Adjusting gain
- Vertical interval sync board information

For full warranty information, refer to the AMX AutoPatch Instruction Manual(s) associated with your Product(s).

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