

## Overview

The MXA-MPL Modero X Series® Multi Preview Live (FG5968-10) is a touch panel accessory that displays an HD video stream on Modero X Series Touch Panels when used in conjunction with a high-definition (HD) Enova DVX All-In-One Presentation Switcher or Enova DGX Digital Media Switcher.

*Note: For full functionality, the MXA-MPL may be used with the Enova series media switchers and Modero X Series touch panels. The MXA-MPL may not be used with previously released AMX touch panels or switchers.*

For more information on installation and configuration, refer to the MXA-MP/MXA-MPL Instruction Manual, available at [www.amx.com](http://www.amx.com).

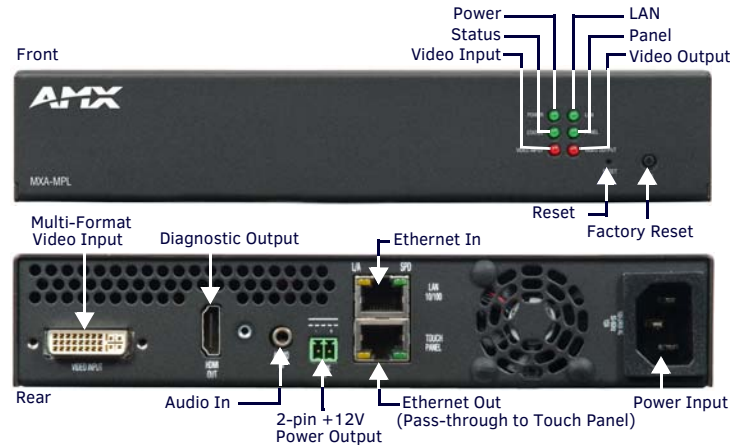


FIG. 1 MXA-MPL

## Product Specifications

MXA-MPL SPECIFICATIONS	
Power Requirements:	<ul style="list-style-type: none"> <li>MXA-MPL only: 120VAC at 170ma (20W)</li> <li>MXA-MPL with touch panel: 120VAC at 410ma (50W)</li> </ul>
Start-Up Inrush Current:	17.2A at 116.8VAC
Power Input:	<ul style="list-style-type: none"> <li>IEC power cord connector</li> <li>47-63Hz</li> <li>100-240V AC</li> </ul>
Environmental:	<ul style="list-style-type: none"> <li>Temperature (Operating): 32° F to 104° F (0° C to 40° C)</li> <li>Temperature (Storage): 4° F to 140° F (-20° C to 60° C)</li> <li>Humidity (Operating): 20% to 85% RH</li> <li>Humidity (Storage): 5% to 85% RH</li> <li>Power ("Heat") Dissipation: 232 BTU/hr</li> </ul>
Dimensions:	1 9/16" x 8 1/4" x 7 3/16" (4 cm x 21 cm x 18.2 cm)
Weight:	2.80 lbs (1.27 kg)
Certifications:	<ul style="list-style-type: none"> <li>UL</li> <li>FCC Part 15 Class A</li> <li>CE EN 55022 Class A</li> <li>EN 55024</li> <li>CB Scheme IEC 60950-1</li> <li>IC</li> <li>IEC/EN-60950</li> <li>UL</li> <li>RoHS</li> </ul>
Included Accessories:	<ul style="list-style-type: none"> <li>MXA-MPL Installation Guide (93-5968-10)</li> <li>MIC AC Universal Power Cord (CA1090-131)</li> </ul>

## Installation

Temperature and/or cooling approaches that must be taken into consideration to maintain the product within the specified operating temperature. FIG. 2 represents an MXA-MPL in a typical rack mount installation, with full air circulation around the front and back. In this case, the main concern is with heat building up between components, possibly to levels that may affect device operation.

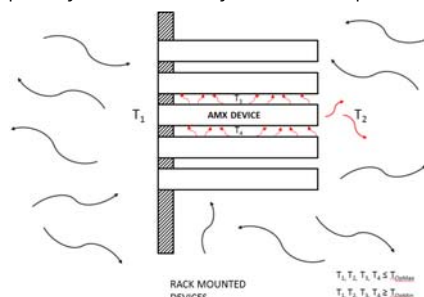


FIG. 2 HEAT CONVECTION IN RACK-MOUNTED DEVICES

The MXA-MPL may also be put on a freestanding location or mounted either vertically or horizontally under a table using two surface mounting brackets (FG525) (FIG. 3).

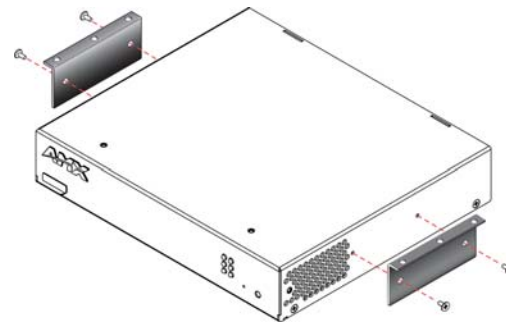


FIG. 3 INSTALLING TWO AC-SMB SURFACE MOUNT BRACKETS (FG525)

Installation in a rack requires an (optional) MPA-VRK Rack Mounting Tray (FG5968-30):

1. Select a position on the Rack Mounting Tray for the installation. The Rack Mounting Tray contains screw holes to allow single or double MXA-MPL installations.
2. Using the screws included with the MPA-VRK, install the screws to the bottom of the MXA-MPL through the Rack Mounting Tray (FIG. 4). Use four screws for each device, one at each corner.

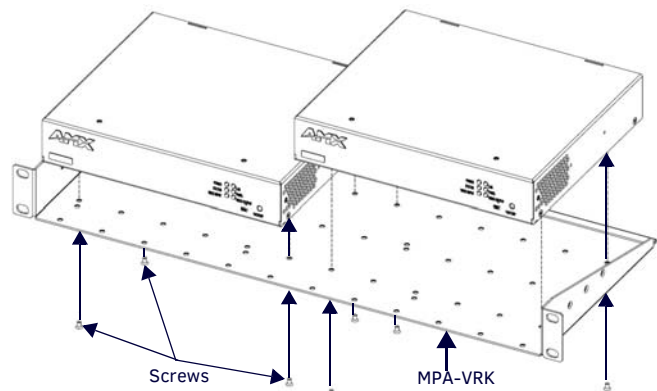


FIG. 4 INSTALLING TWO MXA-MPL DEVICES IN A RACK MOUNTING TRAY

3. Connect the Rack Mounting Tray to the rack with the provided rack mount screws.

## Connecting Video Input to the MXA-MPL

The MXA-MPL has a single DVI (12+5) female Multi-Format Video input connection on the rear panel that supports the following video input types:

- HDMI
- DVI
- RGBHV
- S-Video
- Composite
- Component

Each of these video inputs support specific video resolutions as follows:

INPUT TYPE	RESOLUTION	INPUT TYPE	RESOLUTION
<b>Component</b>	<ul style="list-style-type: none"> <li>720x480i@60Hz</li> <li>720x480p@60Hz</li> <li>720x576i@50Hz</li> <li>720x576p@50Hz</li> </ul>	<b>HDMI</b>	<ul style="list-style-type: none"> <li>640x480p@60Hz</li> <li>800x600p@60Hz</li> <li>1024x768p@60Hz</li> <li>1280x720p@60Hz</li> </ul>
<b>Composite</b>	<ul style="list-style-type: none"> <li>ntsc</li> <li>pal-bghid</li> <li>pal-m</li> </ul>	<b>SVideo</b>	<ul style="list-style-type: none"> <li>ntsc</li> <li>pal-bghid</li> <li>pal-m</li> </ul>
<b>DVI</b>	<ul style="list-style-type: none"> <li>640x480p@60Hz</li> <li>800x600p@60Hz</li> <li>1024x768p@60Hz</li> <li>1280x720p@60Hz</li> </ul>	<b>RGB/Graphics</b>	<ul style="list-style-type: none"> <li>640x480p@60Hz</li> <li>800x600p@60Hz</li> <li>1024x768p@60Hz</li> <li>1280x768p@60Hz</li> </ul>

AMX has a series of optional cables to make the connection between the Multi-Format Video Input to specific video types easier.

- DVI to 5 BNC Male Cable 6 (FG10-2170-08)
- DVI to 3 RCA Male Cable 6 (FG10-2170-09)
- DVI to HD-15 Female Adapter (FG10-2170-13)
- DVI to S-Video Cable (FG10-2170-10) (FIG. 5).

**Note:** When connecting an Enova DVX to an MXA-MPL, an HDMI cable adapter may be needed to connect from the DVX's HDMI cable to the MXA-MPL Video Input port.

## Connecting the MXA-MPL to a Network

Since the MXA-MPL works to transmit HD video and images from an Enova switcher to a Modero X touch panel, it needs to be connected between the switcher and the touch panel. To connect the touch panel to the MXA-MPL:

1. Insert the incoming network connection cable from the Enova switcher to the upper *Ethernet In* RJ-45 connector (FIG. 1).
2. If the touch panel is MXD/T-1000/1001, MXD/T-700/701, MXD-430/431), connect an outgoing Ethernet cable from the MXA-MPL's *Ethernet Out* RJ-45 connector to an AMX-certified high-power Power over Ethernet injector. Do not apply power until the installation is complete.
  - For PoE-powered Modero X touch panels, the AMX-certified PoE injector must be connected between the MXA-MPL and the touch panel. Use of a PoE switch in place of an AMX-certified PoE injector is NOT recommended.
3. If the touch panel is a MXD/T-1900/1901L-PAN or MXD/T-2000/2001XL-PAN, outgoing power to the touch panel may be supplied via the MXA-MPL's 2-pin +12V Power output (FIG. 1) or through another source. Do not apply power until the installation is complete.

**Note:** If using the MXA-MPL's 2-pin connector for power for a touch panel, please refer to *Maximum Power Cable Gauges and Distances* section below for maximum cable lengths between the MXA-MPL and the touch panel, based on cable gauge. Using a separate power source for 19/20" panel installations that require long cable runs is highly recommended.

4. When the installation is complete, apply power to the MXA-MPL and to the touch panel. Verify via the LEDs on the front of the device that it is receiving power and is connected to the network.
5. If the touch panel has not been configured to receive video signals from the MXA-MPL, do so now.

FIG. 5 provides a basic installation diagram for the MXA-MPL:

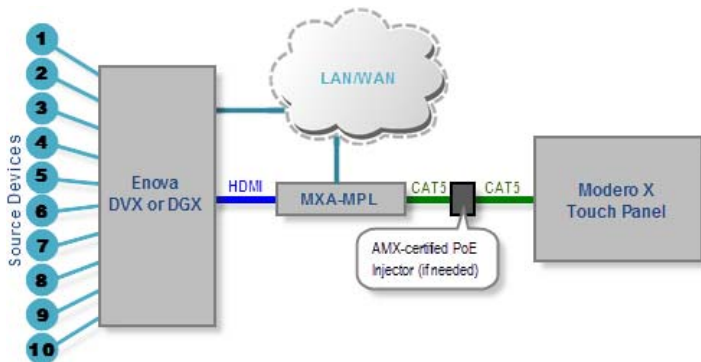


FIG. 5 INSTALLATION DIAGRAM - MXA-MP AND MXA-MPL

## Maximum Power Cable Gauges and Distances

While most Modero X Series touch panels use Power Over Ethernet (PoE) for their power needs, the 19/20" Modero X Series touch panels use external power from an AMX-certified power source.

The MXA-MPL may be used as a power source for the panoramic touch panels, but only to certain lengths determined by the cable gauge and the max distance between the device and the touch panel.

MAXIMUM POWER CABLE GAUGES AND DISTANCES	
Cable Gauge (AWG)	Maximum Distance (feet/meters)
<16	Not recommended
16	24 feet (7.32 meters)
17	20 feet (6.10 meters)
18	15 feet (4.57 meters)
19	12 feet (3.66 meters)
20	10 feet (3.05 meters)
21	8 feet (2.44 meters)
22	6 feet (1.83 meters)
23	5 feet (1.52 meters)
24	4 feet (1.22 meters)
>24	Not recommended

**Note:** All power cable gauges are in AWG (American Wire Gauge).

When installing panoramic Modero X Series touch panels that exceed these cable lengths between the MXA-MP/MPL and the touch panel, a separate AMX-certified power source should be used instead.

## Configuring the MXA-MPL

After the MXA-MPL is connected to the network, the touch panel to which it is connected needs to be configured to receive its signals. Configuring the MXA-MPL into a network requires modification of the device's corresponding NetLinx files via NetLinx Studio and the associated touch panel pages via TPDesign 4. Documentation of the available commands may be found in the *Modero X Series Programming Guide*, available at [www.amx.com](http://www.amx.com).

To configure the touch panel:

1. From the *Settings* page, select *Connections & Networks*.
2. From the *Connections & Networks* page, select **Breakout Box** to open the *Breakout Box* page (FIG. 6).

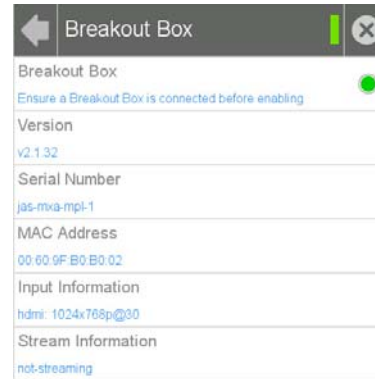


FIG. 6 BREAKOUT BOX SETTINGS PAGE

3. Press the **Breakout Box** button to enable the panel to receive information from the MXA-MPL.
4. If the MXA-MPL is connected, the remaining information on the Breakout Box page will self-populate.

**Note:** If the MXA-MPL is not connected to the touch panel, any attempts at enabling the panel will fail, and the Breakout Box page will be blank other than the Breakout Box button.

## Rebooting the MXA-MPL

To reboot the MXA-MPL, press and hold the **Reset** button (FIG. 1) for one second.

## Resetting the MXA-MPL to Factory Defaults

To reset the MXA-MPL's configuration settings to its factory defaults:

1. Press and hold the **Factory Reset** button (on the front panel) for about 5 seconds.
2. The *Power* LED will blink three times. At this time, release the **Factory Reset** button.

To reset the MXA-MPL's firmware from its current version to its factory default version:

1. Press and hold the **Factory Reset** button (on the front panel) for about 10 seconds.
2. At about the 5-second mark, the *Power* LED will blink 3 times. Keep holding the **Factory Reset** button. At the 10-second mark, the *Power* LED will blink 7 times at a faster rate. At this time, release the **Factory Reset** button.



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