

Overview

This guide pertains to the MCP-108 Massio 8-Button ControlPad with Knob (FG2102-08). The purpose of this document is to illustrate how the device is to be installed and set up in its simplest configuration by a trained technician.

Additional Documentation

Additional documentation for this device is available at www.amx.com. Refer to the *Massio ControlPads Instruction Manual* for additional details on installing, upgrading, and wiring the MCP-108.

You can also access this Quick Start Guide online by using your mobile device to scan the QR code located on the rear panel of the ControlPad.

What's in the Box?

The following items are included with the MCP-108:

- (1) metal mounting bracket
- (2) 3-pin female connectors
- (3) 4-pin female connectors
- (1) sheet of 70 pre-printed button labels
- (4) M3.5 x 30MM screws
- (4) #6-32 x 1.25 screws

Power

You can apply power to the MCP-108 via any Power-over-Ethernet (PoE) injector or switch which conforms to the 802.3af standard. Before installing and mounting the ControlPad, test to see that it can receive power.

Applying Power

Applying power to the MCP-108 requires category cable and a PoE injector, such as the PS-POE-AF-TC available from AMX. The network must be connected through the PoE injector to send power to the ControlPad. The category cable should only run through a common building. (A common building is defined as: Where the walls of the structure(s) are physically connected and the structure(s) share a single ground reference.)

1. Connect the PoE injector to an AC outlet (100-240VAC) using a standard power cord.
2. Connect the switch category cable to the Data In port on the PoE injector.
3. Using a separate category cable, connect the Data & Power Out port on the PoE injector to LAN Port on the ControlPad.

Installation

The MCP-108 mounts onto standard 2 gang US, UK, or EU back boxes. Each type of back box must adhere to its own specific safety approvals.

Dimensions

4 11/16" x 6" x 1" (119mm x 152.5mm x 26mm)

Button Labeling

Massio ControlPads come with a set of clear plastic Button Caps, which are designed to fit tightly over the pushbuttons, and allow you to place a label on each button according to the requirements of your particular installation.

Massio ControlPads also come with a pre-printed acetate sheet with a range of 70 (pre-cut) button label inserts. The button labels provided will accommodate most installations, but it is also possible to print your own button labels on acetate for custom button labeling.

NOTE: It is best to install the button labels before mounting the ControlPad. Doing so keeps you from disassembling the ControlPad after mounting it.

Installing Acetate Button Labels

Follow these steps to install acetate button labels:

1. Remove the faceplate from the frame and invert the faceplate to expose its backside.
2. Remove the cone and diffuser from the button. The cone and diffuser are adhered together and should not be separated.
3. Peel off the desired Button Label from the included acetate sheet. If you have printed your own custom button labels on acetate, cut each button label to fit inside the Button Caps.
 - Custom button labels must be cut to a **14mm (0.55") square** to fit securely inside the Button Caps.
 - The thickness of the acetate used must not exceed **.004" (0.10 mm)**.

4. Place the Button Cap face-down, and insert the Button Label into the bottom of the Button Cap (FIG. 1).

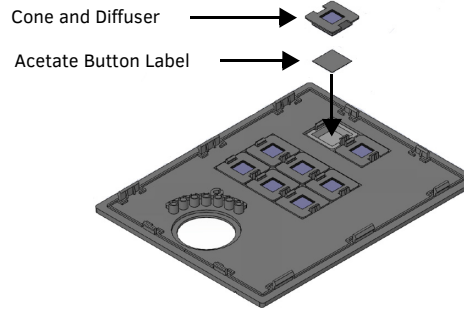


FIG. 1 PLACING A BUTTON LABEL INSIDE A BUTTON CAP

Orient the Button Label inside the Button Cap so that the two clips are located on the left and right sides of the readable text on the Button Label, as indicated in FIG. 1. Be sure to place the Button Label face-down inside the Button Cap, otherwise the label will be seen in reverse once the Button Cap is installed.

5. Place the cone and diffuser back over the button and snap the cone into place on the faceplate. Repeat steps 2-5 for any additional buttons. When finished, mount the ControlPad.

Mounting the ControlPad

Follow these steps to the ControlPad:

1. Install the 2-gang back box into the surface of the desired location for the ControlPad.
2. Once the back box is installed and secured, secure the metal mounting bracket to the back box using the provided screws (FIG. 2).

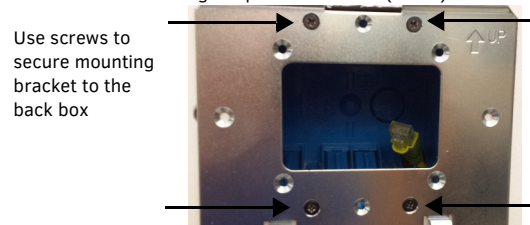


FIG. 2 SECURE THE METAL BRACKET TO BACK BOX

3. Peel the plastic covering off of the insulator on the rear panel of the ControlPad. You can discard the plastic covering after removing it.
4. Make all necessary connections to the ports on the rear panel of the ControlPad. Be sure to connect category cable to the LAN port to supply power to the ControlPad. See the *Applying Power* section for more information.
5. Attach the ControlPad frame to the mounting bracket by hooking the top of the frame onto the extended lips at the top of the bracket (FIG. 3).

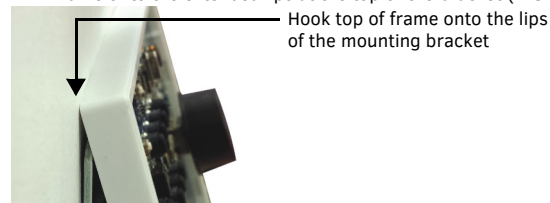


FIG. 3 ATTACHING THE FRAME TO THE METAL BRACKET

6. Press the sides of the frame to snap them into place.
7. Press the bottom corners of the ControlPad frame to snap them into place. The two metal clips on the mounting bracket should align with the open spaces located at the bottom of the frame. The clips should fit inside these spaces and lock the frame into position on the mounting bracket (FIG. 4).



FIG. 4 METAL CLIPS FROM MOUNTING BRACKET LOCKING FRAME ONTO BRACKET

8. Connect the faceplate to the frame by snapping the top corners of the faceplate into place on the frame. If connected properly, the faceplate should hold itself in place against the frame.
9. Press the bottom corners of the faceplate until each corner snaps into place with the frame.

Getting Connected

FIG. 5 displays the rear panel of the MCP-108 featuring all available connectors for the ControlPad.

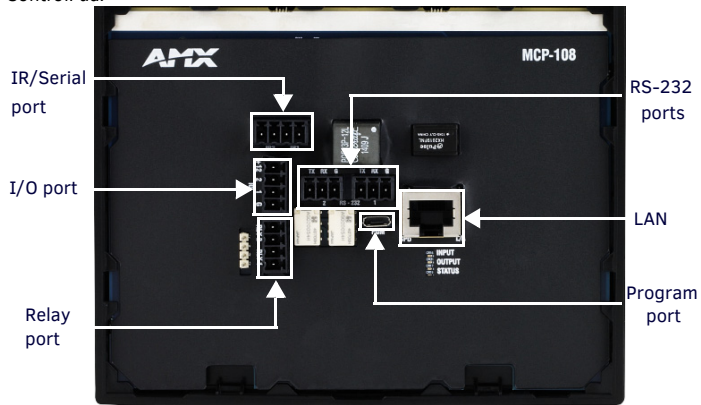


FIG. 5 MCP-108 REAR PANEL

The following sections provide information about each connector on the ControlPad.

RS-232 Port

The MCP-108 features two 3-pin RS-232 300-1 15,200 baud connector ports so you can connect a serial device to the ControlPad.

NOTE: Massio ControlPads do not support RS-422 or RS-485 communications to other devices.

SERIAL PORT WIRING	
ControlPad Port	Connect to Serial Device
GND	GND
RX	TX
TX	RX

IR/Serial Port

The MCP-108 features two IR connectors for connecting two IR-controllable devices to the ControlPad.

RELAY Ports

You can connect up to two independent external relay devices to the Relay connectors on the ControlPad.

I/O Port

The ControlPad features an I/O connector so you can connect one input/output device to the ControlPad. The PWR pin provides +12 VDC @ 200 mA and is designed as a power output for the PCS Power Current Sensors, VSS2 Video Sync Sensors (or equivalent). The GND connector is a common ground and is shared by all I/O ports. A common ground is shared with I/O ports 1 - 2.

I/O PORT WIRING SPECIFICATIONS	
Signal	Function
GND:	Signal GND
1:	Output
2:	Output
+12 V:	PWR

CAUTION: Improper wiring could damage your ControlPad. The CP-3008 ControlPad has the ground and power signals in swapped positions on the I/O port. If you are replacing a CP-3008 ControlPad with the MCP-108, you may need to make a wiring change in your I/O connector to avoid damaging the MCP-108.

Configuration

You can configure the ControlPad by using Rapid Project Maker (RPM). To configure the ControlPad, you must have it powered by PoE and you must know its IP address.

Locating the IP Address of the ControlPad

You can locate the IP address of the ControlPad by using RPMLoader, and performing the following steps to listen for the device:

1. Open RPMLoader and click **Communications Settings** to open the Communications Settings dialog.
2. Under Connection to Master, select **Network Connection**.
3. Click **Search For Masters** to search the network for online Masters in the Search for Masters dialog.
4. Click **Start Searching** to begin listening for "blink" (UDP) messages from NetLinX Masters on the subnet.
5. When you see the IP Address for the MCP-108 in the List of Active NetLinX Master Controllers, click **Stop Listening**. The IP address of the ControlPad is listed in the dialog.

Connecting to the ControlPad via USB

If you do not have a DHCP server or if the ControlPad has an unknown static IP address, you can obtain the IP address of the ControlPad by connecting it to a PC via USB.

NOTE: Ensure the PC you are using to connect to the controller has the latest version of NetLinX Studio 4.0 installed on it.

1. Using a standard Micro-USB cable, connect the Program Port on the rear panel of the ControlPad (see FIG. 5) to your PC.
2. In NetLinX Studio, select **Settings > Workspace Communications Settings** to open the Workspace Communication Settings dialog.
3. Click **System Settings** to open the Communication Settings dialog.
4. Select the USB tab. The USB tab features a list of devices connected to your PC via USB. The IP address of the ControlPad appears in the IPv4 Address column.
5. Highlight your ControlPad and click **Select** to connect to it.

Toggling Between IP Addressing Modes: DHCP and Static IP

The MCP-108 supports both DHCP and static IP addresses. You can use a static IP address which you can set via a Telnet command (SET IP), or you can use the factory default static IP address (192.168.1.3).

The MCP-108 features a pinhole reset pushbutton located on the bottom of the ControlPad. With the MCP-108 powered and booted up, you can toggle between the DHCP and Static IP modes by pressing and holding the ID Pushbutton for 10 seconds.

NOTE: You must wait until the ControlPad is finished booting before toggling the IP address. Pressing the pushbutton while booting will cause the ControlPad to restore its factory default settings.

When you release the Pushbutton, the ControlPad toggles either from static to dynamic (DHCP) IP addressing or vice versa. The ControlPad automatically reboots to complete the process.

In place of using the ID pushbutton, you can press buttons 1 and 2 simultaneously on the ControlPad to simulate the functions of the ID pushbutton. You must keep both buttons pressed for 10 seconds as you would with the ID pushbutton to toggle between IP address modes.

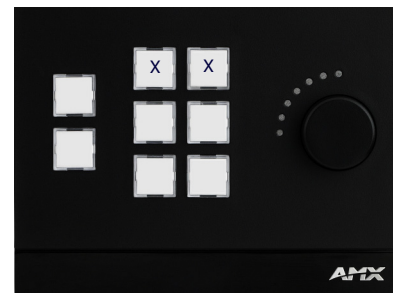


FIG. 6 PRESS BUTTONS MARKED WITH X TO SIMULATE ID PUSHBUTTON FUNCTIONS



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3000 RESEARCH DRIVE, RICHARDSON, TX 75082 AMX.com | 800.222.0193 | 469.624.8000 | +1.469.624.7400 | fax 469.624.7153

AMX (UK) LTD, AMX by HARMAN - Auster Road, Clifton Moor, York, YO30 4GD United Kingdom • +44 1904-343-100 • www.amx.com/eu/

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