

## Overview

This guide pertains to the MET-13E Metreau 13-Button Ethernet Keypad (FG5793-02). 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.

## Environmental Requirements

The environmental requirements for the MET-13E are as follows:

- **Operating Temperature:** 32° F (0° C) to 104° F (40° C)
- **Storage Temperature:** 4° F (-15° C) to 140° F (60° C)
- **Operating Humidity:** 5% to 85% RH

*NOTE: Intended for indoor use only.*

## Dimensions

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

## Weight

Approximately 0.35 lbs. (0.16 kg)

## Power

You can apply power to the MET-13E via any Power-over-Ethernet (PoE) injector or switch which conforms to the 802.3af standard. Before installing and mounting the Keypad, test to see that it can receive power.

### Applying Power

Applying power to the MET-13E requires category cable and a PoE injector, such as the PS-POE-AF-TC (FG423-83) available from AMX. The network must be connected through the PoE injector to send power to the Keypad. 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 (~100-240V) 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 Keypad.

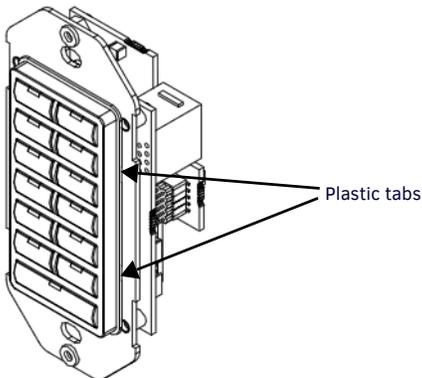
## Changing Buttons

The easiest way to remove and replace buttons on the keypad is to place the keypad assembly face-down on a flat level surface, so that the buttons stay in position until you are ready to remove them.

*NOTE: Disconnect the power supply and all wiring connections before removing/replacing buttons on the keypad.*

*NOTE: Before touching the device, discharge the static electricity from your body by touching a grounded metal object.*

4. The faceplate is attached to the mounting plate via four plastic tabs (two on each side of the faceplate). To remove the faceplate, gently pry it from either side.



**FIG. 1** LOCATION OF THE PLASTIC TABS ON THE MET-13E

5. Gently lift each button off of their mounting posts on the circuit board.
6. Select the location of the custom buttons and gently snap them into place on the circuit board. Be sure to note the orientation of the LED window on each button, to avoid accidentally mounting them upside down.
7. Reattach the plastic faceplate.

## Mounting Options

Mounts onto standard single gang US or EU back boxes.

- Each type of back box must adhere to its own specific safety approvals.
- Minimum internal clearance of (HWD) 2 5/8" x 1 3/4" x 1 5/8" (66.68mm x 44.45mm x 41.28mm)

*NOTE: Before touching the device, discharge the static electricity from your body by touching a grounded metal object.*

## Wallbox Mounting

1. Use the cutout dimension for the wallbox to cutout the install surface.
2. Connect category cable to the LAN port on the rear of the keypad.
3. Place the Mounting Plate on the wallbox; align the screw holes with the mounting holes and fasten the Mounting Plate to the wallbox using the supplied screws.

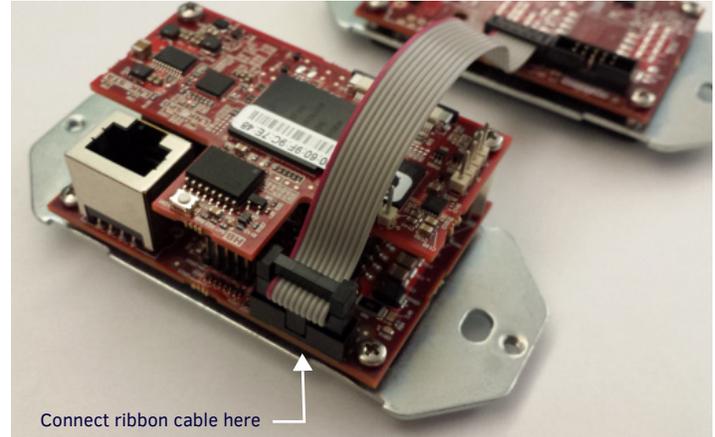
*NOTE: Do not overtighten the screws when mounting the Mounting Plate. The device should be flush with mounting surface.*

## Daisy-Chaining Keypads

You can use the MET-13E as an individual keypad or in conjunction with the MET-7X or MET-13X Metreau Ethernet Expansion Keypads. The Expansion Keypads connect to the MET-13E via the 16-conductor ribbon cable included with the expansion keypad.

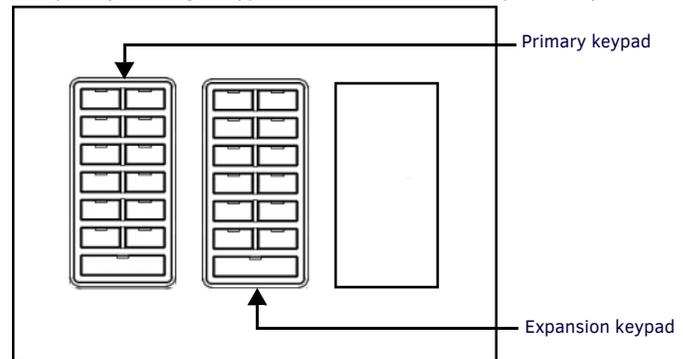
Metreau keypads support daisy-chaining up to 3 keypads together. Daisy-chained keypads receive power from a single Ethernet connection and appear as a single NetLinx device.

Use the 16-conductor ribbon included with the expansion keypad to connect to the MET-13E (see FIG. 2).



**FIG. 2** DAISY-CHAIN CONNECTION BETWEEN THE MET-13E AND AN ETHERNET EXPANSION KEYPAD

*NOTE: If you are installing a single expansion keypad into a 3-gang back box, install the expansion keypad in the space immediately adjacent to the primary Ethernet keypad (see FIG. 3). Daisy-chaining is supported across a distance of 4" (101.6 mm).*



**FIG. 3** INSTALL THE KEYPADS IMMEDIATELY ADJACENT TO EACH OTHER IN A 3-GANG BACK BOX

*NOTE: When the ribbon cable is connected, touching or moving the ribbon cable can cause a temporary disruption in communication causing the keypads to temporarily go offline and return to service within 25-45 seconds of the initial break. Once the keypads are mounted and the ribbon cable is stable, no disruptions should occur.*

## Configuration

The following sections provide instructions on accessing and configuring the keypad.

### Locating the IP Address of the Keypad

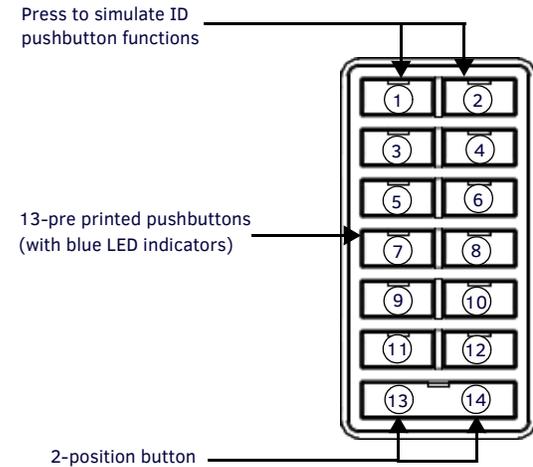
The MET-13E is configured for DHCP addressing by default. The keypad uses link local addressing as a backup in case the DHCP server is inaccessible. See the *Toggle Between IP Address Modes: DHCP and Static IP* section for information on setting a static IP address. Verify there is an active LAN connection on the controller's LAN port before beginning this procedure.

1. Using category cable, connect the LAN port on the keypad to your external network.
2. In NetLinx Studio, select the OnLine Tree tab. You should see the MET-13E listed among the Unbound Devices.
3. Right-click the MET-13E and select **Network Bind/Unbind Device** from the menu that appears. The Bind/Unbind Device dialog opens.
4. By default, the selected keypad appears in the Device to Bind/Unbind menu at the top of the dialog. If there is more than one Unbound device in the system, click the down arrow to select which device you want to bind.

- Select the check box next to the Master to which you want to bind the keypad. If there is more than one Master in the system, check the specific Master to which you want to bind the keypad.
- Click **OK** to save changes and close this dialog.
- Select **Refresh System** (in the Online Tree context menu). The device should now appear in the Bound Devices folder.

### Keypad Layout

FIG. 4 displays the layout of the MET-13E.



**FIG. 4** MET-13E 13-BUTTON KEYPAD

### Simulating the ID Pushbutton

You can press buttons 1 and 2 simultaneously on the keypad to simulate the functions of a NetLinX device's ID pushbutton (see FIG. 4).

### Toggle Between IP Addressing Modes: DHCP and Static IP

The MET-13E 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 (192.168.1.2).

With the keypad powered and booted up (or in ID Mode), you can toggle between the DHCP and Static IP modes by pressing and holding buttons 1 and 2. The LEDs on buttons 1 and 2 blink while you keep them pressed. Hold them until the LEDs begin blinking at double the rate (approximately 10 seconds), then release the buttons.

When you release the buttons, the keypad toggles either from static to dynamic (DHCP) IP addressing or vice versa and remains in that mode until you use the buttons to toggle the IP mode again or you perform a factory reset. The keypad automatically reboots to complete the process.

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

### Resetting the Keypad

To perform a factory reset of the Keypad, press and hold buttons 1 and 2 for approximately 10 seconds **during the boot process**. The LEDs on buttons 1 and 2 blink while you keep them pressed. Hold them until the LEDs begin blinking at double the rate (approximately 10 seconds.) Release the buttons and the keypad will reset. During factory reset, the backlight turns off for all buttons, but all buttons should be back online after 1-2 minutes. If you do not hold in the reset button until the LEDs begin blinking faster, the reset does not occur. (There is no soft reboot with the Reset button, but you can perform a soft reboot from the web pages.)

*NOTE: When you reset a keypad, the keypad is restored to the factory default, so you will lose all configuration data as the defaults are restored.*

### Resetting the Factory Image on the Keypad

To restore the factory image on the keypad, press and hold buttons 1 and 2 for approximately 20 seconds **during the boot process**. The LEDs on buttons 1 and 2 blink while you keep them pressed. Hold them until the LEDs begin blinking at double the rate (approximately 20 seconds.) While pressing the buttons, disconnect and reconnect the cable from the LAN port on the rear panel of the keypad to restore the factory image firmware.

### Channels

Channels on Metreau keypads correspond to the button numbers on each keypad as indicated in FIG. 4.

### Port Numbers

The MET-13E supports the following port numbers:

PORT NUMBERS	
Port Number	Description
1	MET-13E
2	First daisy-chained keypad (optional)
3	Second daisy-chained keypad (optional)

### Additional Documentation

Additional documentation for this device is available at [www.amx.com](http://www.amx.com). Refer to the *Metreau Keypads Instruction Manual* for additional details on installing, connecting, and configuring the MET-13E.

