L86 EMAP

electronics module

USER MANUAL

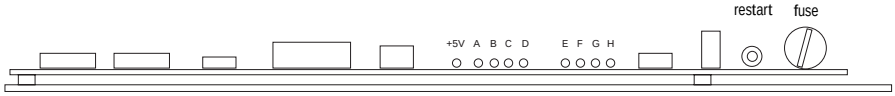
This manual describes the L86 EMAP electronic receiver modules. The EMAP is used for custom architectural lighting control.

EMAP electronics modules are installed in a cabinet at the top of L86 Installation Racks. They receive dimmer output data from a lighting control console and/or architectural control station, then process and distribute the information to the rack's L86 EM64 electronics modules.

Each EMAP is customized to meet the specific needs of the job. Typically, the EMAP will serve one or more of the following functions. The EMAP lets you merge two incoming DMX512 signals into a single output signal. It provides architectural lighting control, including such elements as channels, presets, take-controls, panic lights, work lights, cue lights, and snapshots. It allows you to configure a dimming system containing mixed dimmer sizes. Consult your system drawings or contact ETC for exact information about the functions of your EMAP.

Control Edge

The EMAP control edge is illustrated below. It is accessed by opening the top door in your Architectual Receiver Rack Mount or Wall Mount system. Running down the left edge of the EMAP, the control edge contains eight indicator LEDs, a power LED, a module reset button, and a fuse holder.



When you first turn on power to your system (or press [Reset]) the module's processor runs a series of self tests. The indicator LEDs turn on, then all flash together. Once the tests finish, the LEDs stop flashing and provide you with information about your dimming system. LED information is listed on page 2.

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Indicator LEDs

Each indicator LED on the module's front panel provides specific information about the operating status of the module. The information each LED provides is described below:

H (green)	**Port 1 input status**
LED Off	Data not being received.
LED On	Data is being received.
G (red)	**Port 1 input status**
LED Off	Normal.
LED On	Error detected.
F (green)	**Port 2 input status**
LED Off	Data not being received.
LED On	Data is being received.
E (red)	**Port 2 input status**
LED Off	Normal.
LED On	Error detected.
D (green)	**Port 1 output status**
LED On	Data not being transmitted.
LED Flashing	Data is being transmitted.
C (red)	**Port 1 output status**
LED Off	Normal.
LED Flashing	Error detected.
B (green)	**Data communication between digital address stations**
LED On	Normal.
LED Off	Error in communication.
A (red)	**Data communication between digital address stations**
LED Off	Normal.
LED Flashing/On	Error in communication.
+5V (green)	**Power LED**
LED Off	System is off or disconnected.
LED On	System is receiving power.

Note: If all LEDs are flashing simultaneously, the system has encountered a condition that makes it impossible to function. Please contact ETC technical services at 608/831-4116 if this happens.

Reset switch

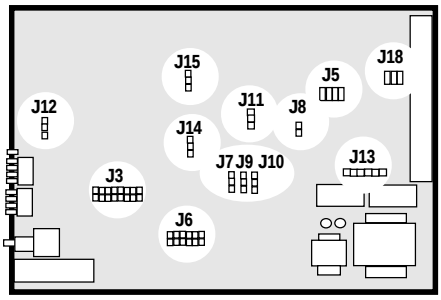
Pressing [Reset] restarts the module. At this point, the system reconfigures itself to match current settings. [Reset] should be pressed any time you install an EMAP into a system that has already been turned on.

Fuse

To remove the fuse, push slightly on the center of the fuse cover with a screwdriver and turn the cover counter-clockwise. Replace the fuse with type 3AG-1 only.

Configuring the EMAP

Jumper locations

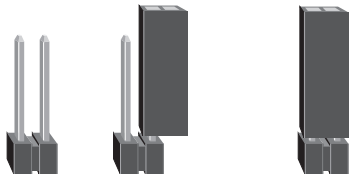


Most L86 Installation Racks used for architectural control are shipped with specially customized settings for their EMAP modules. Your EMAP module is configured at the factory specifically for your dimming system. If the module malfunctions and it is necessary to exchange it for a spare, be certain to adjust the jumper settings at location **J3** on the spare so they match the settings on the original module. The illustrations to the left show the location of **J3**, and illustrate how to set the jumpers.

Jumper settings

Two prong jumper

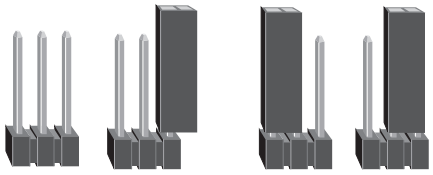
Jumper clip off *Jumper clip on*



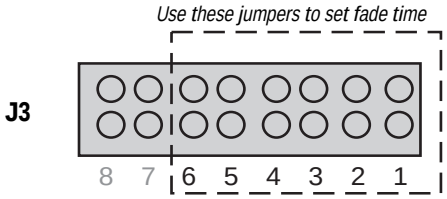
A jumper consists of two or three vertical pins on the circuit board. A two-pin jumper is **On** when a clip (a small, rectangular piece of plastic) is placed over both connectors closing the circuit. It is **Off** when you remove the clip. A three-pin jumper is **On** with the center pin connected to either side pin. It is **Off** when the clip is removed or placed over just one pin.

Three prong jumper

Jumper clip off *Jumper clip on*



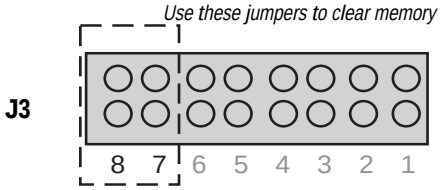
Setting EMAP fade time



On systems that don't include LCD control stations, Jumpers 1 through 6 at location **J3** allow you to set the fade time for the EMAP. ETC sets Jumper 3 **On** for a default five second fade time.

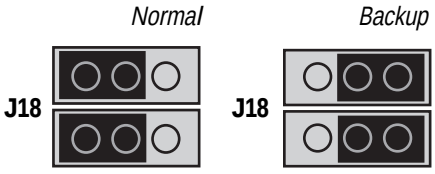
On other systems, Jumpers 1 through 6 at location **J3** are generally left off.

Clear memory



Jumpers 7 and 8 at location **J3** allow you to clear the EMAP's memory (normally saved by a back-up battery). Set both jumpers to on and press the [Reset] button. The EMAP flushes out its memory and resets itself completely. Remove both jumpers and press [Reset] again to return the EMAP to active status.

Backup jumpers

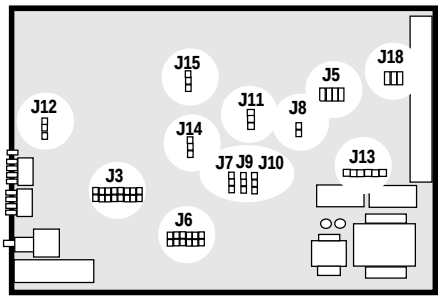


If your module fails, you can temporarily continue to function by setting your module to Backup mode. This is accomplished by changing the jumper setting at location **J18** from **Left** to **Right** (as shown to the left).

Setting the module to Backup mode connects your lighting console's input directly to your dimmers, bypassing all the EMAP's functions. Thus, if the EMAP has special configuration tables for dimmers, the console will not necesarily be able to address all dimmers while the module is in backup mode. In addition, house lighting control stations will not function.

Standard jumper settings

Jumper locations



Correct settings for all jumpers except for those at location **J3** (see illustration).

EMAP

Jumpers at…	Should be…
J5	all on
J6	factory wire wrapped
J7	down
J8	down
J9	down
J10	down
J11	up
J12	down
J14	down or off
J15	up or off
J16	down with 27256 EPROM
	up with 27512 EPROM
J17	up