

# L86

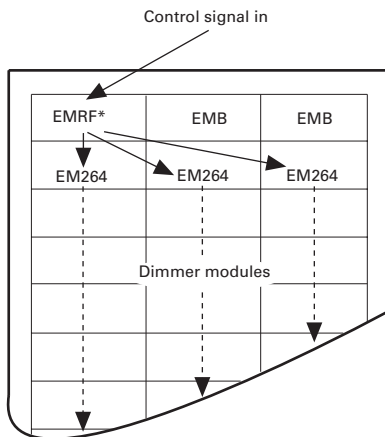
installation rack

## USER MANUAL

The *L86 Installation Rack* is a modular dimming system that consists of electronics and dimmer modules in a fan-cooled, steel housing. A rack consists of one or more bays, which, in turn, consist of either one or two chassis. Each chassis consists of three columns of modules. The top left slot usually holds the electronics receiver module. The second slot in each column is for electronics modules. The slots below the electronics modules contain dimmer modules.

*Note: The top center and right slots are used to store spare modules; control signal is not routed through them.*

The arrows in the diagram below illustrate the flow of control signal in a typically configured *L86 Installation Rack*.



\*Electronics module in this location may be an *EMRF* or *EMAR*.

### Electronics modules

Depending on the configuration of your system, each chassis contains some of the module types described below. Refer to your System Manual for more specific configuration information.

**EMRF** Typically installed in the top left slot, the *EMRF* receives DMX512 control signal and sends it to the *EM264s* without processing. It is used in systems not configured to accept AMX192 control signal.

**EMAR** Also installed in the top left slot, the *EMAR* can be configured to accept D192 control signal on either input or to accept AMX192 control signal on the first input.

**EM264** Receives DMX512 control signal from the *EMRF* or *EMAR* and splits the low voltage serial control data into single low voltage signals for individual dimmer modules. An *EM264* must be installed in the second slot from the top in each column of dimmer modules.

**EMB** Fills unused electronics module slots to maintain proper ventilation.

### Architectural electronics modules

In a system that incorporates architectural lighting, the *EMAP* is the component of the dimming system that processes level-setting data from architectural lighting control stations. The *EMAP* is mounted either in an *ARR* (Architectural Receiver Rack-mount) unit or in an *ARW* (Architectural Receiver Wall-mount).

On smaller systems, DMX512 signal from the control console is routed to the *EMAP*, the dimmer levels for the architectural lights are added, and then data is sent to the dimmer chassis.

On larger systems, the DMX512 signal from the control console is routed directly to the dimmer chassis. The *EM264s* then merge control signal from the console with DMX512 signal from the *EMAP*.

### Removing electronics modules (except *EMAPs*)

In certain situations, you may need to remove electronics modules. You do not need to disconnect power to the rack prior to removing modules.

To remove a module, unscrew the brass retaining screw in the center of the module face panel until you are able to slide out the module. To reinsert the module, press gently and steadily on the face panel of the module while you tighten the retaining screw. Tighten the screw with a screwdriver, but be careful not to strip the threads on the screw!

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## ***Dimmer modules***

Each chassis consists of three columns. Each column contains two electronics modules and either 16 standard-height dimmer modules (eight on a C24 chassis), or eight double-height modules (four on a C24 chassis). Each column in a chassis corresponds to a phase... the left column corresponds to phase A, the middle to phase B and the right to phase C.

## ***Removing dimmer modules***

In certain situations, you may need to remove a dimmer module(s). Before removing dimmer modules, be sure to turn off the circuit breakers on the module face panel. To remove the dimmer module, place your left and right index fingers in the two holes in the metal ridge that extends from the face panel. Press together to release the latch mechanism. Then slide the dimmer module out. (You may have to press in gently first.) To replace the module, insert the dimmer firmly until you feel it seat and latch in the connector block. Be sure to turn off the circuit breakers on the front of the module before replacing it.

## ***Cooling fans***

Each column of dimmer modules is individually cooled by a squirrel-cage fan located at the bottom of the column. All fans in a column run when any of the *EM264s* in the chassis are receiving non-zero DMX512 data. They continue to run for two minutes after the DMX512 data is interrupted or reverts to zero levels.

Each fan is protected by a two amp, panel-mount fuse (type ABC-2) located behind the fan. Always disconnect power to the rack before you change a fuse.

Each fan set has its own intake which is covered with a filter. All fan filters should be replaced or cleaned once a year. (Clean filters in clean water.) To remove fan filters remove the four screws that secure the fan bezel, then gently remove the filter. To order replacement filter elements, call ETC at 608/831-4116.