

L86

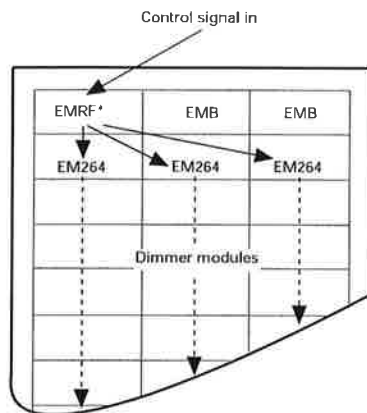
EM264 Electronics Module installation rack

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!

L86

EM64 Electronics Module installation rack

USER MANUAL

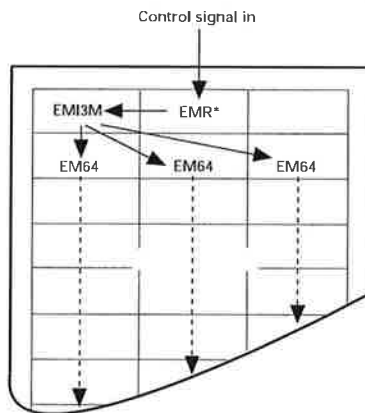
The *L86 Installation Rack* is a modular dimming system that consists of electronics and dimmer modules in a fan-cooled, steel housing. A rack consists of one or more bays, which, in turn, consist of either one or two chassis. Each chassis consists of three columns of modules. The top two slots in each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

Note: The top right slot is used only to store spare modules; control signal is not routed through it.

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.

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 *EMR*, *EMAR* or *EMRF*.

EMRF Typically installed in top center slot, the *EMRF* receives DMX512 and sends it to the *EM64s* without processing. It is used in systems where all dimmers are the same type and are sequentially numbered, and when there is only one source of DMX512 signal.

EMR An alternative to an *EMRF*, the *EMR* is also installed in top center slot. It receives either one or two DMX512 signals. It also maps input data to specified modules. *EMRs* are used in the following situations:

- Multiple size dimmers in the chassis
- First dimmer in the chassis is not a multiple of 48
- Merging two DMX512 signals
- Chassis contains 12kW dimmers
- Dimmers in the rack are not numbered sequentially

EMAR The *EMAR* is functionally equivalent to the *EMR*, but can also be configured to accept D192 control signal on either input or to accept AMX192 control signal on the first input.

EMI3M The *EMI3M* is installed in the top left slot. It provides optical isolation between the *EM64s* and between *EM64s* and the electronics control modules. Optical isolation helps prevent damage to control electronics that can be caused by high voltage potential in the event of a dimmer failure. If it is not needed, an *EMRF* is installed in its place.

EM64 Receives DMX512 control signal from the *EMRF*, *EMR* or *EMAR* and splits the low voltage serial control data into single low voltage signals for individual dimmer modules. An *EM64* must be installed in the second slot from the top in each column of dimmer modules.

EM64T A thumbwheel switch on the *EM64T* makes it easier to enter starting addresses by eliminating the need to set internal jumpers. Because of the flexibility they provide, *EM64Ts* are normally used on *L86 Touring Racks*, whereas *EM64s* are normally used on *L86 Installation Racks*.

Electronic Theatre Controls, Inc.
3030 Laura Lane, Middleton, WI 53562
608/831-4116 FAX 608/836-1736

Copyright 1992-99, Electronic Theatre Controls, Inc.
Specifications subject to change.
Revised 8-99. 1086M1011