

LUCITROL® DMX1

Fiber Optic Color/Dimming Control Circuitry

PRODUCT SPECIFICATION

Cat. No.	Product	Signal
FOA-95	Control Slave	Analog or Digital
FOA-90	DMX Master	Digital only

GENERAL DESCRIPTION

The DMX1 is a control system which works off an analog or digital (DMX) signal. The FOA-95 (slave) receiver board is factory installed inside the illuminator housing. The FOA-95 translates the signals it receives into driver command signals for the onboard color/dimming/sparkle wheel motors. Each FOA-95 can control up to two motors.

The FOA-95 is configured to receive a 0-10 volt D.C. analog signal, which may be provided by a variety of sources, including a specially configured Lutron® Grafik Eye® (consult Lucifer Lighting for details).

The FOA-95 can also be configured to receive a digital signal conforming to DMX 512/1990 protocol. It has RS232 input for programming or for throughput. This digital signal can be transmitted by a Lucifer DMX Master (FOA-90) or by other DMX compatible sources. Both analog and digital signals can be used to regulate wheel position and speed. In DMX configuration, wheel position and speed can be synchronized between up to 128 multiple units.

HARDWARE

The DMX1 Slave consists of a single printed circuit board using a minimum of components. One microprocessor handles all inputs and outputs. This microprocessor can control the two stepper motors. The DMX1 Master is a complete stand-alone lighting controller. It can function as a Slave to another controller or store up to 8 separate Master programs, accessed by the push of a button.

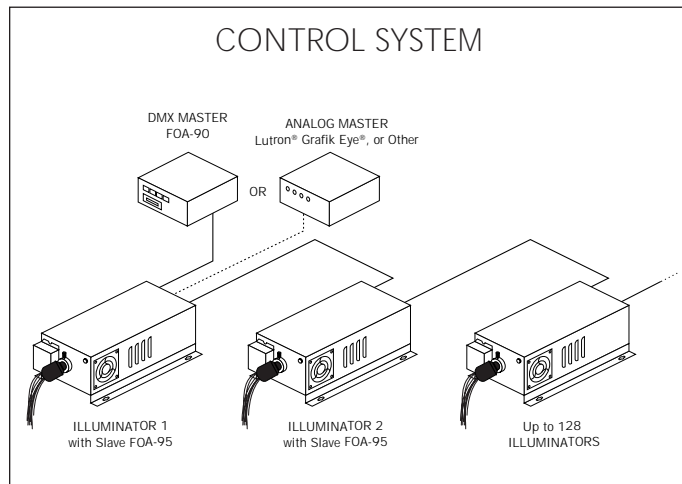
POWER SUPPLY CIRCUIT

The DMX1 circuit board will accept 120VAC or 240VAC (50 or 60 HZ), as determined by hard-wired jumpers on the circuit board. To maintain synchronization between multiple units, the microprocessor develops its clock from the power line frequency. The unit automatically compensates for 50Hz vs. 60 Hz supplies to maintain one consistent clock speed.

INDICATOR LEDs

The FOA-95 includes seven indicator LEDs.

- LED1: Combination power indicator/DMX activity indicator. On solid when no DMX is present, or blinking when DMX is present.
- LED2, 3: Illuminate when the corresponding home sensor is active.
- LED4, 5: Illuminate when the corresponding low-voltage discrete input is active.
- LED6, 7: Illuminate with brightness proportional to the corresponding analog input.



SIZE AND MOUNTING

The FOA-95 Slave assembly measures approximately 4 inches by 5 inches by 2 inches in height. The printed circuit board is mounted on a metal 'L' bracket which also serves as a heat sink. Indicator LEDs, low-voltage I/O, and address switch are located at the edge of the assembly so they are accessible from outside the illuminator enclosure. The DMX Master (FOA-90) measures approximately 17 1/2 inches by 5 inches by 1 3/4 inches in height and is rack mountable.

EXTERNAL CONNECTIONS

The DMX1 unit uses the following connectors to interface to off-board components.

1. five pin XLR connector for DMX in
2. five pin XLR connector for DMX thru
3. two position screw terminal for low-voltage input 1
4. two position screw terminal for low-voltage input 2
5. two position screw terminal for analog input 1
6. two position screw terminal for analog input 2
7. three pin molex-style header for hall effect sensor A
8. three pin molex-style header for hall effect sensor B
9. four or six pin molex-style header for motor A
10. four or six pin molex-style header for motor B
11. three position screw terminal for 120/240 VAC power input

ENVIRONMENT

The DMX1 unit will operate in temperatures between 0 and 120 degrees Fahrenheit (-17 and +40°C) and between 0 and 90 percent humidity, non-condensing.

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