

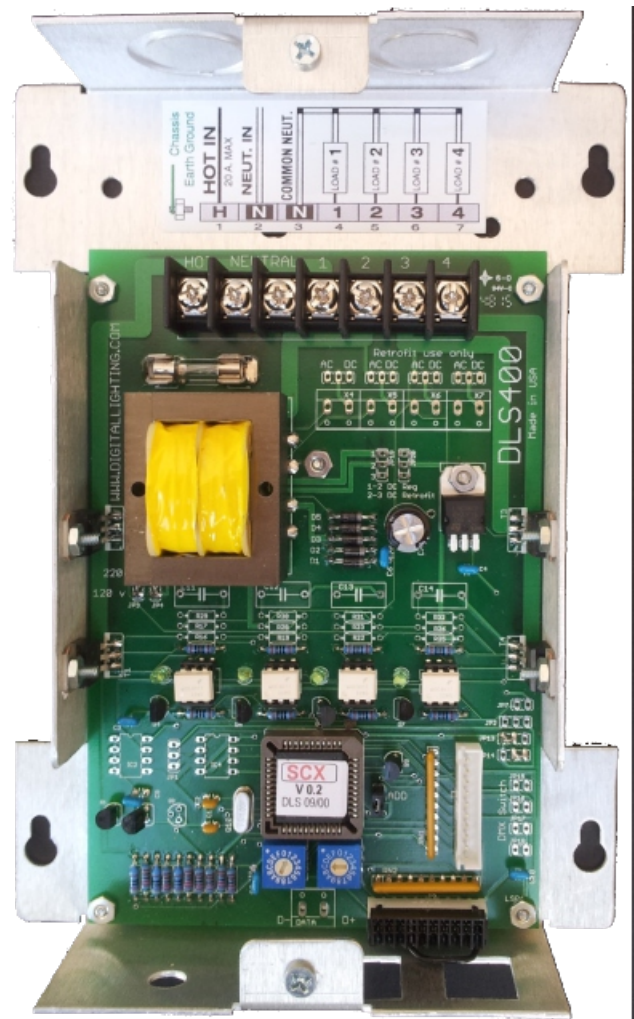


Digital Lighting Systems, Inc.

MCF120

2 , 3 or 4 channels
4 x 400 Watts ; 120 VAC

Fader/ Chaser, multi patterns
Lighting Animation sequencer



USER'S MANUAL

MCF120-UM
02/16



General Description

The **MCF120** is a 4,3,or2 channel VAC lighting controller (Cross-Fader/Lighting animation) capable of producing slow level changes(Color Mixing) as well as Quick ON/OFF (Animation)

A functional block diagram of the **MCF120** is shown in Figure 1. **MCF120** contains the equivalent of four solid-state relays (**SSR**) 4 dimmers, with one power line feed. Each dimmer is rated at a maximum output current of 2.5 Amperes. The **SSR** dimmers are controlled by low-voltage DC signals from the logic circuit on the board. These signals are electrically-isolated by Optical couplers from all line voltage elements. The **MCF120** logic board contains a powerful microprocessor programmed to generate 16 user-selectable light sequences or patterns at an adjustable rate (the **MCF120** is also available with a "SPELLER" pattern or custom patterns upon request). A rotary selector on is used to select the pattern and a second one is used to set the rate or speed. Patterns and speed can be monitored by four LED's that represent the outputs of the **MCF120**. The **MCF120** acquires Logic power from built in **9 VAC/ 500 mA.** transformer.

Please contact the factory for additional information 305-969-8442 or email info@digitallighting.com

Figure 1 - MCF120 Functional Block Diagram

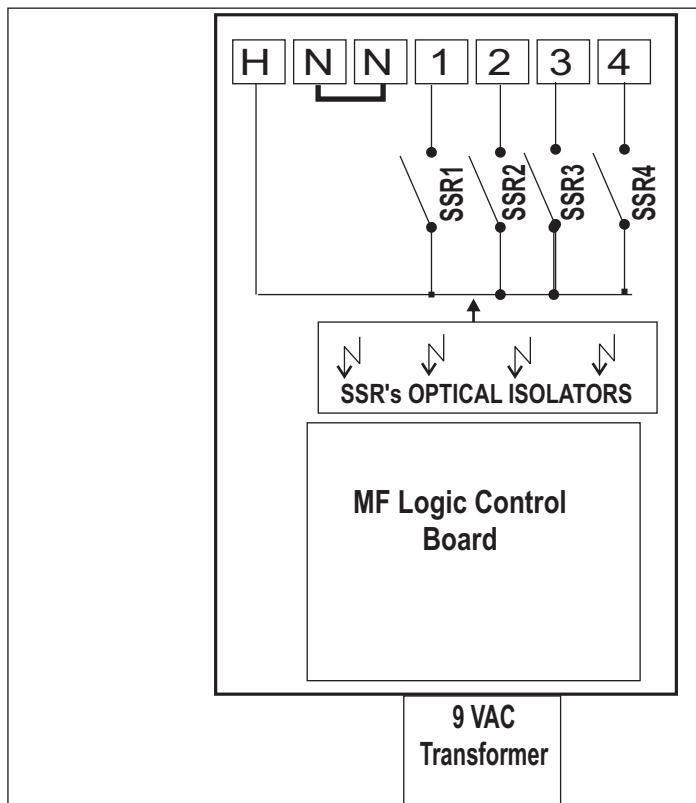


Table 1 - Terminals Definition

NAME	DESCRIPTION
1	Output Of Solid-State Relay #1
2	Output Of Solid-State Relay #2
3	Output Of Solid-State Relay #3
4	Output Of Solid-State Relay #4
H	Hot Line Feed For Relays 1 , 2 , 3 & 4.
N	Neutral Bus Connections.

Table 2 - Absolute Maximum Electrical Ratings

Electrical Characteristic	Terminal	Maximum
Relay Load Current	1 to 4	3.5 Amps.
Input Current	H	15 Amps.
Input Voltage	H	120 VAC

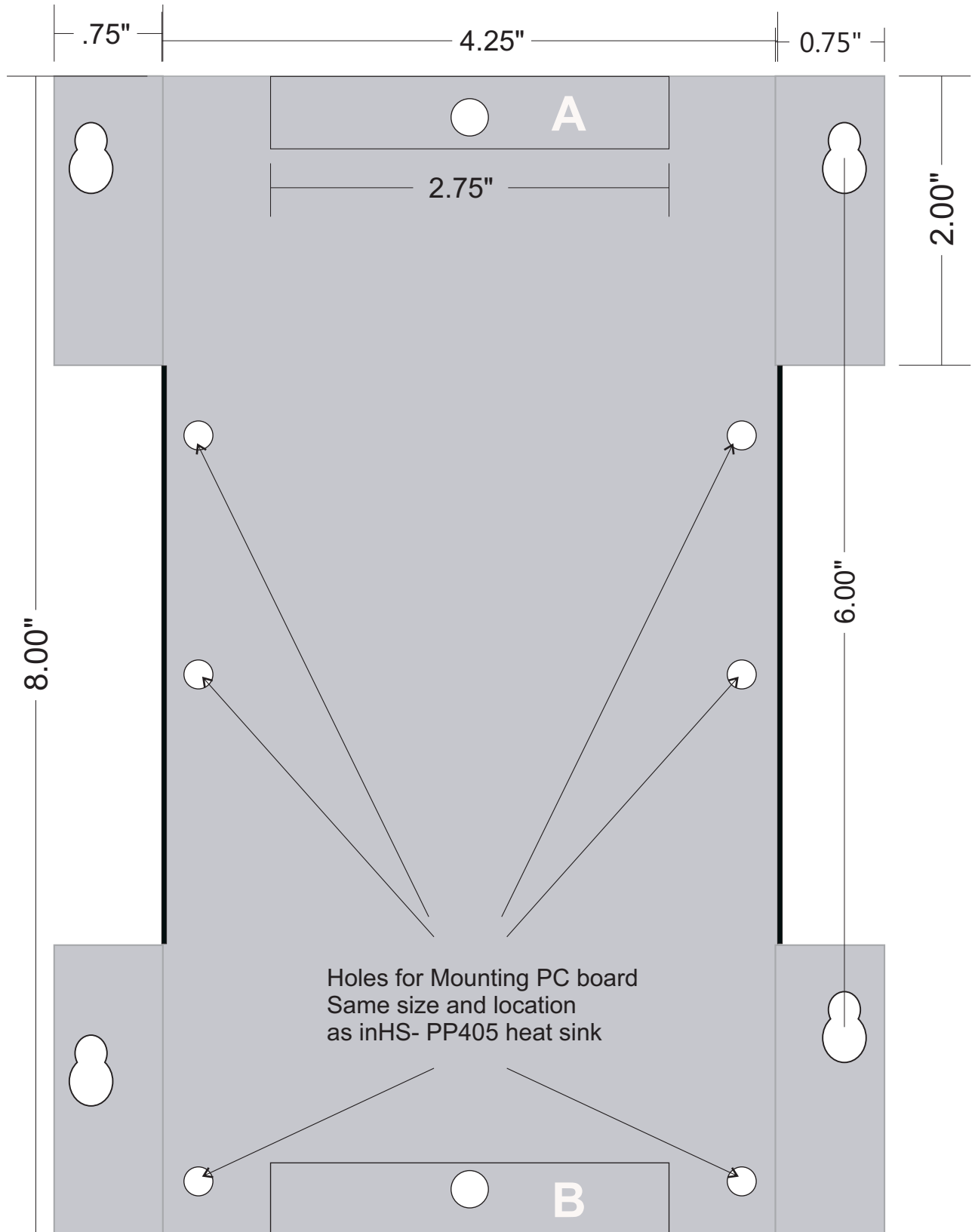


Figure 3 - MCF120 Dimensions

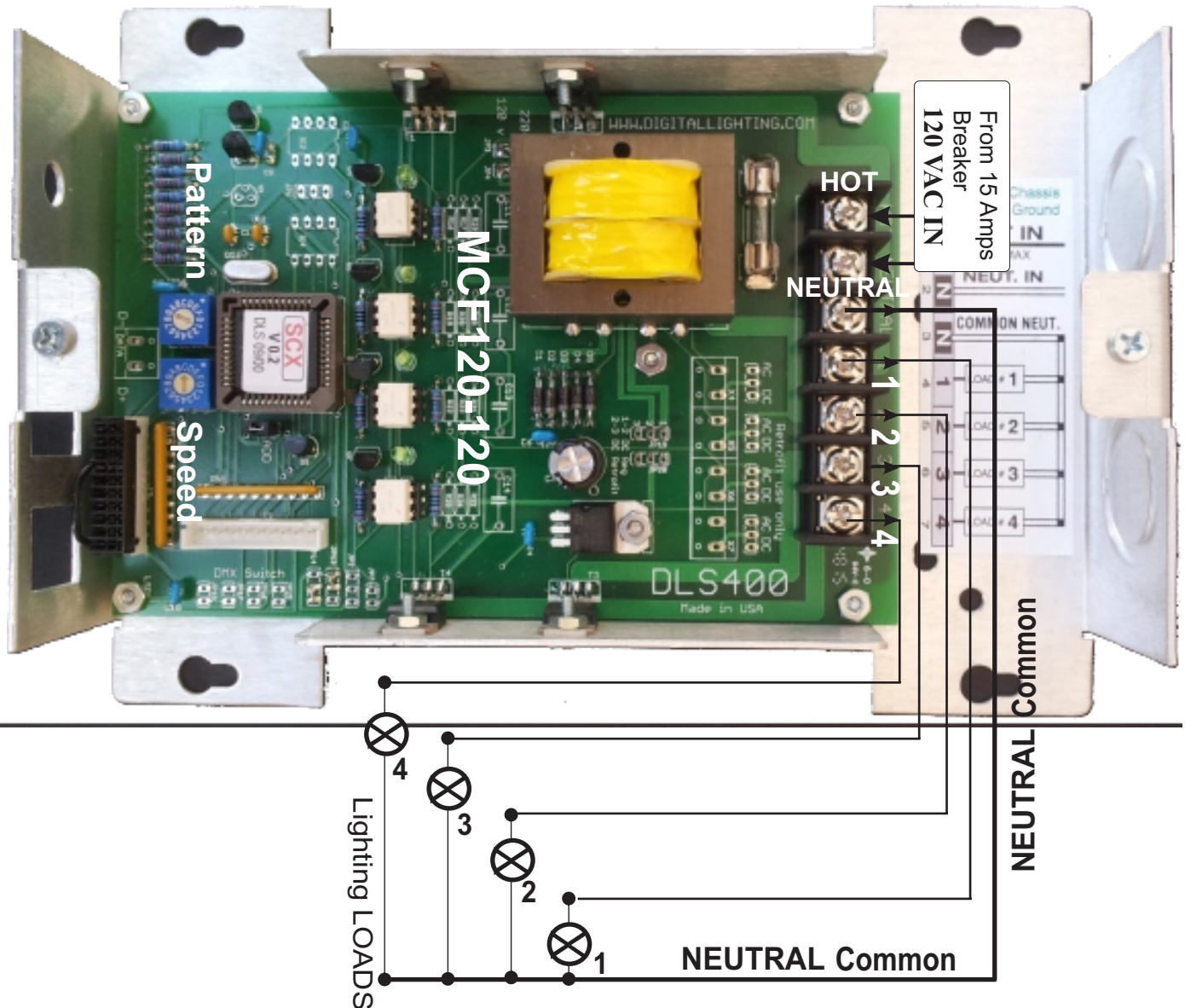
Enclosure OD height : 1.82 "



MCF120 General Wiring Instructions

Wiring Notes

- ▣ **DO NOT EXCEED** 400 W (3.5 Amps.) per circuit output @ 120VAC.
- ▣ MCF120 Fader packs may be fed by one 20 A (maximum) branch circuit and may have up to four separately dimmed loads.
- ▣ Loads connected to outputs must be dimmable.
- ▣ **CAUTION: DO NOT** attempt to parallel outputs to increase capacity.
- ▣ Installations must conform to local and/or NEC code requirements.
- ▣ Each load must have its own Neutral wire for full load operation.
- ▣ All line voltage wires must have copper conductors of adequate Gauge with 90° C wire insulation.
- ▣ **POWER EACH LOAD DIRECTLY BEFORE CONNECTING TO THE MCF120, TO ENSURE PROPER WIRING.**





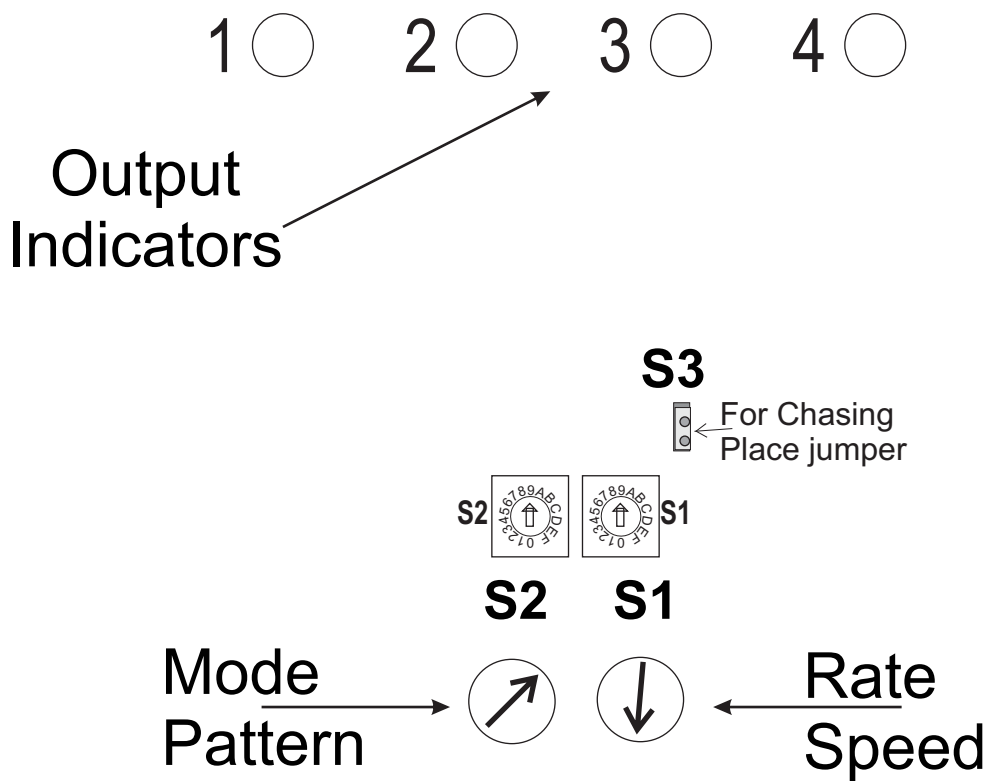
Controls

The controls consist of two rotary 16-position (**0-9** and **A-F**) selectors. **S2 (PATTERN)** is used for selecting the desired Fade pattern. Positions **0** will scroll threw the patterns automatically to provide an ever changing light show. The **MCF120** outputs can be turned to static **ON** by selecting **F**. When **0** is selected, the **MCF120** goes into an automatic pattern change mode. All other positions cause the **MCF120** to play a single pattern indefinitely. **S1** is used to select one of 16 individual Fade rates (**Rate**). Minimum speed is achieved by selecting position 0. Speed doubles with each subsequent selector position.

Indicators


LED indicators 1 to 4 indicate the status (On-Dimmed-Off) of their corresponding outputs.


Figure 9 - MCF120 Indicators and Control Selectors



CAUTION
Use a small Screw driver for adjusting selector positions in order to avoid damaging the Selectors slots.

S3 Jumper
Select between fast ON/OFF Chasing or gradual ON/OFF cross fading

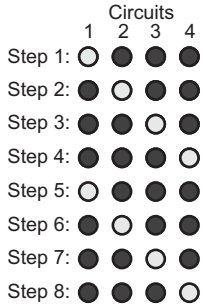
 S3 Jumper IN = Chase

 S3 Jumper Out = Cross Fade

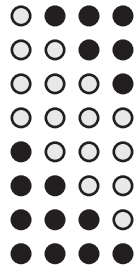


Patterns for MCF120

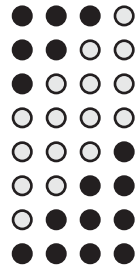
1
Light Fade



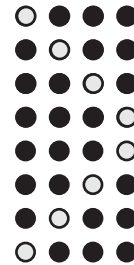
2
Fill & Swipe Forward



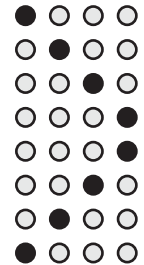
3
Fill & Swipe Back



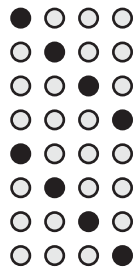
4
Light Bounce



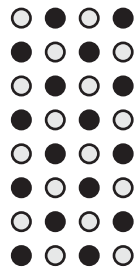
5
Dark Bounce



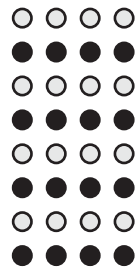
6
Dark Fade



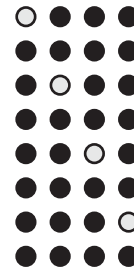
7
Flip-Flop



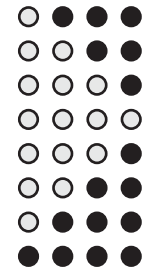
8
Flash All



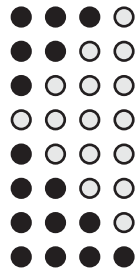
9
Flash Light Fade



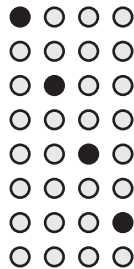
A
Spring Forward



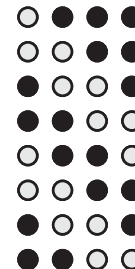
B
Spring Back



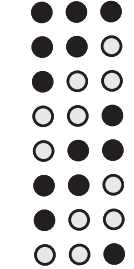
C
Flash Dark Fade



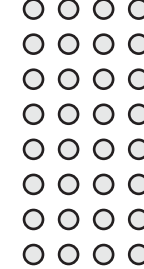
D
Crawl Forward



E
Crawl Back



F
All On



0

Auto Cycle
Patterns 1-F
4 x each
then repeat

○	ON
●	OFF



LIMITED WARRANTY

Digital Lighting Systems, warrants to the user that its products have been carefully manufactured and inspected and are warranted to be free from defects of workmanship and materials when used as intended. Any abuse or misuse contrary to normal operation shall void this warranty.

Digital Lighting Systems' obligation under this warranty shall be limited to replacement or repair of any units that within **two years** from date of invoice from **Digital Lighting Systems**, prove defective; and **Digital Lighting Systems** shall not be liable for any other damages, whether direct or consequential. **The implied warranties of merchantability and fitness for a particular purpose are limited to the duration of the expressed warranty.** Some states do not allow the exclusion of the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, you may also have other legal rights which vary from state to state.

Defective merchandise may be returned to **Digital Lighting Systems**, shipping prepaid, after prior notification has been given and approval obtained for the return. To obtain prior approval for the return of the defective items, contact your local Digital Lighting Systems distributor, representative, or:

Digital Lighting Systems, Inc.

Attn: Customer Service Department
12302 SW 128th ct, # 105
Miami, FL 33186
(305) 969-8442



Upon request, replacement unit(s) will be shipped as soon as available. Unless immediate shipment of replacement merchandise is requested, **Digital Lighting Systems** will not ship replacement merchandise until defective merchandise is received, inspected, and determined to be defective.

No labor charges in connection with warranty problems will be reimbursed by Digital Lighting Systems without prior written approval from the factory.

Digital Lighting Systems distributors and representatives have no authority to change this warranty without written permission.

Digital Lighting Systems reserves the right to determine the best method of correcting warranty problems.