



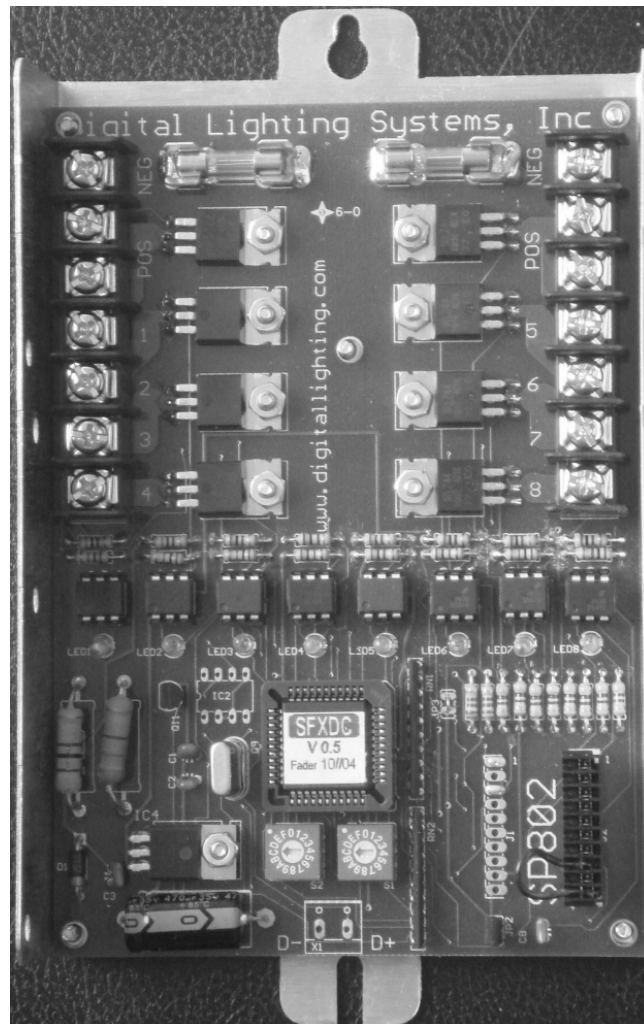
Digital Lighting Systems, Inc.

SC802

8 Channel “Mini-Fader/ Chaser ”

Cross Fader/ color mixing/ Animation chaser

SC802-12DC / SC802-24DC



Animation

USER'S MANUAL



General Description

The **SC802** is an Eight channel DC voltage only 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 **SC802** is shown in Figure 1. **SC802** contains the equivalent of 2 sets of four solid-state relays (**SSR**) 8 dimmers, with two 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 **SC802** logic board contains a microprocessor programmed to generate 16 user-selectable light sequences or patterns at an adjustable rate (the **SC802** is also available with a "SPELLER" pattern or custom patterns upon request). A rotary selector 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 Eight LED's that represent the outputs of the **SC802**. The **SC802-12DC** accepts two inputs from two 12 VDC power supplies 10Amps each. The **SC802-24DC** accepts two inputs from two 24 VDC power supplies 10Amps each. *Please contact the factory for additional information by telephone 1-305-969-8442 or email info@digitallighting.com*

Figure 1 - SC802 Functional Block Diagram

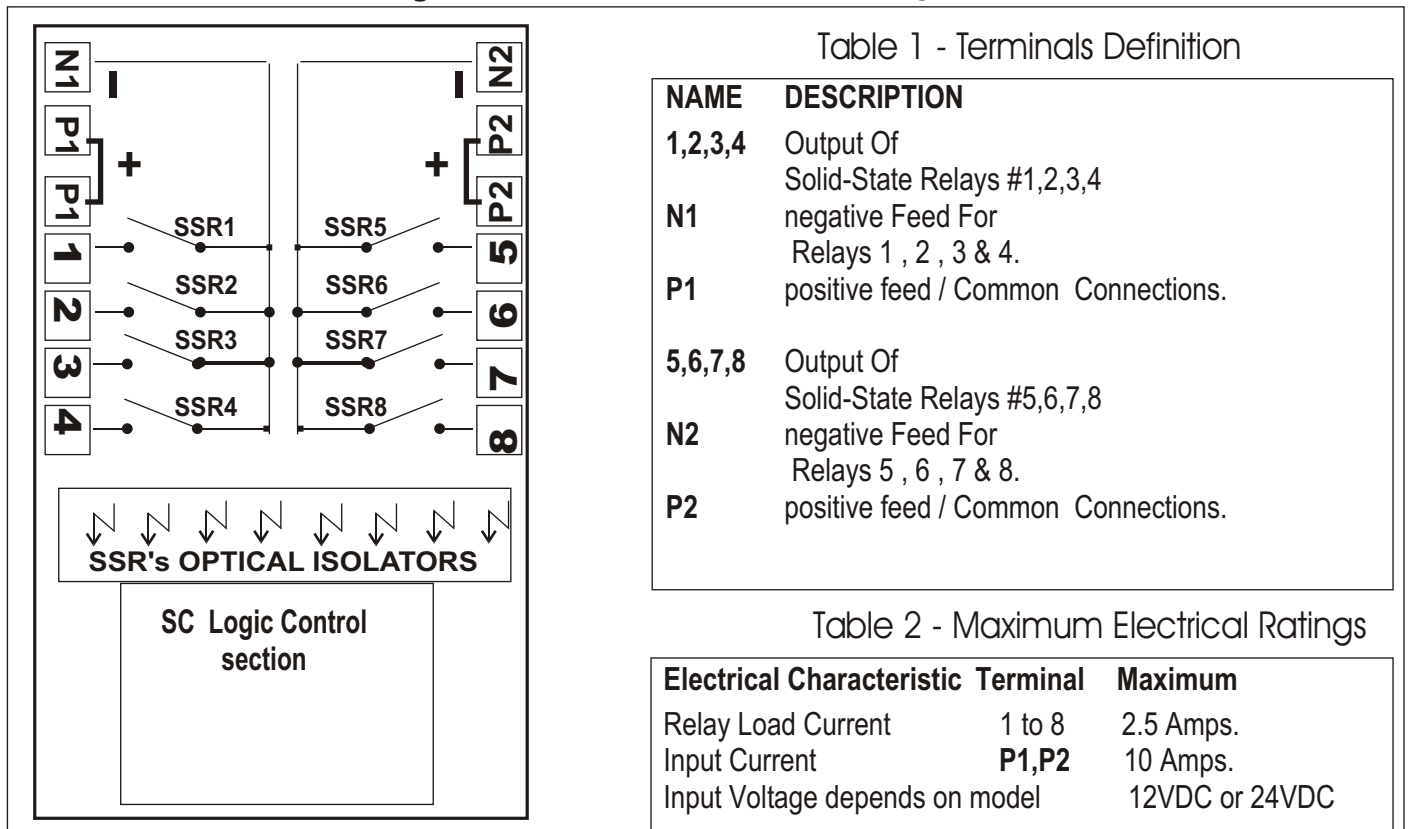


Table 1 - Terminals Definition

NAME	DESCRIPTION
1,2,3,4	Output Of Solid-State Relays #1,2,3,4
N1	negative Feed For Relays 1 , 2 , 3 & 4.
P1	positive feed / Common Connections.
5,6,7,8	Output Of Solid-State Relays #5,6,7,8
N2	negative Feed For Relays 5 , 6 , 7 & 8.
P2	positive feed / Common Connections.

Table 2 - Maximum Electrical Ratings

Electrical Characteristic	Terminal	Maximum
Relay Load Current	1 to 8	2.5 Amps.
Input Current	P1,P2	10 Amps.
Input Voltage depends on model		12VDC or 24VDC



SC802-120 Detail

Figure 2 - SC802-xxDC

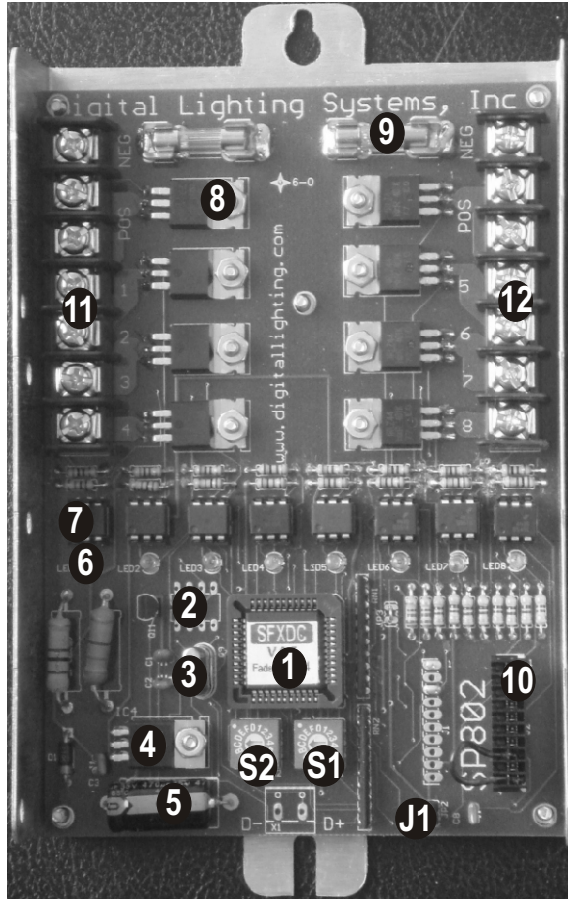
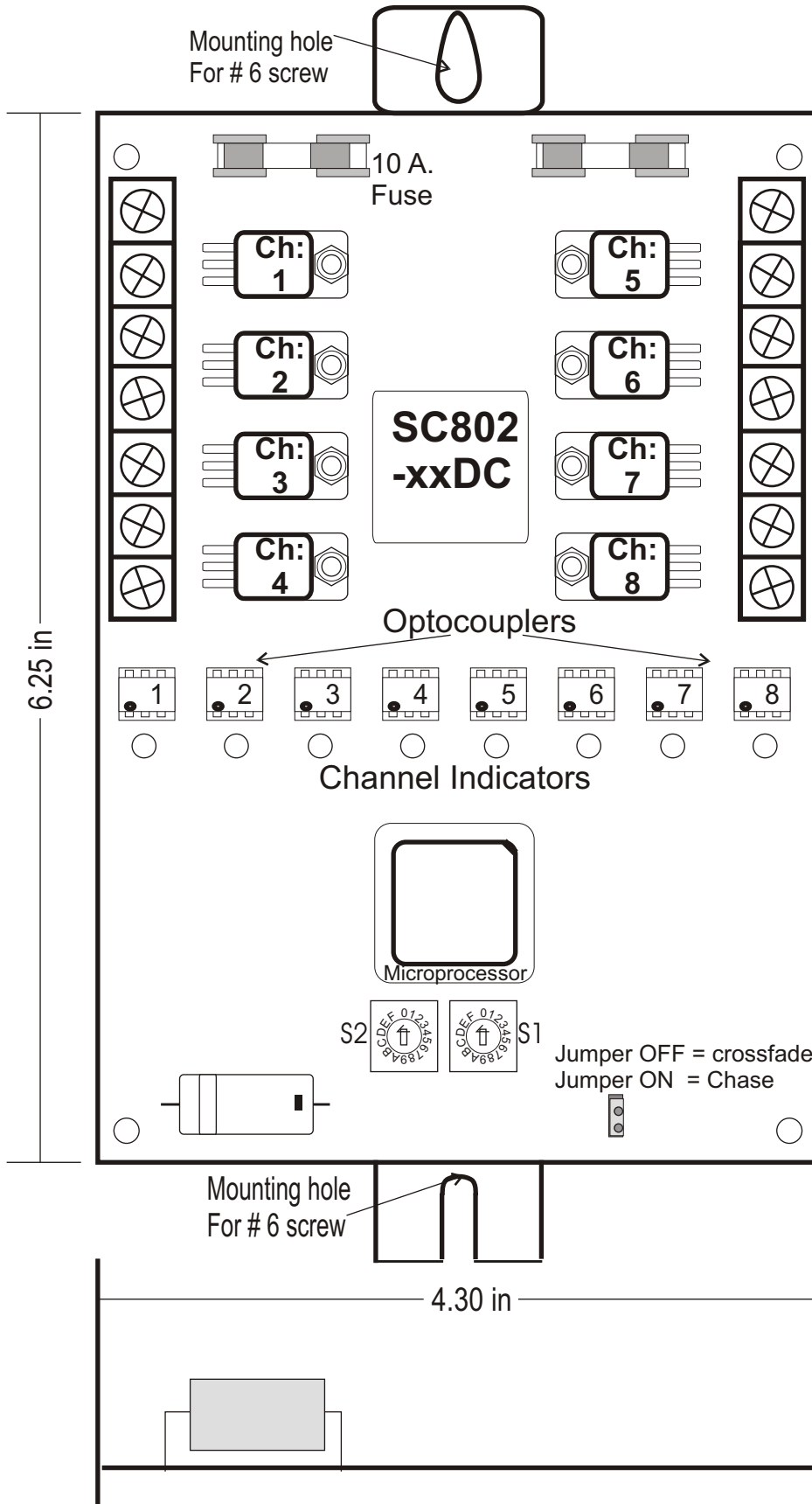


Table 3 - SC802-XXDC Circuit Legend

1	Microprocessor.
2	Not Used
3	Quartz Crystal.
4	Voltage Regulator.
5	Power Supply Capacitor.
6	Output LED Monitors.
7	Optical Couplers # 1,2,3,4,5,6,7,8
8	output MOSFETs # 1,2,3,4,5,6,7,8
9	Fuses 5mm, 10Amps
10	3 to 8 channel jumper selection
11	Input/ Outputs connection block for ch:1,2,3,4
12	Input/ Outputs connection block for ch:5,6,7,8
J1	Jumper for cross fade and chase
S1	Speed selector 0 = Slowest ; F = fast est
S2	Pattern Selector



Figure 3 -
SC802-xxDC
Dimensional Diagram



Mechanical Installation

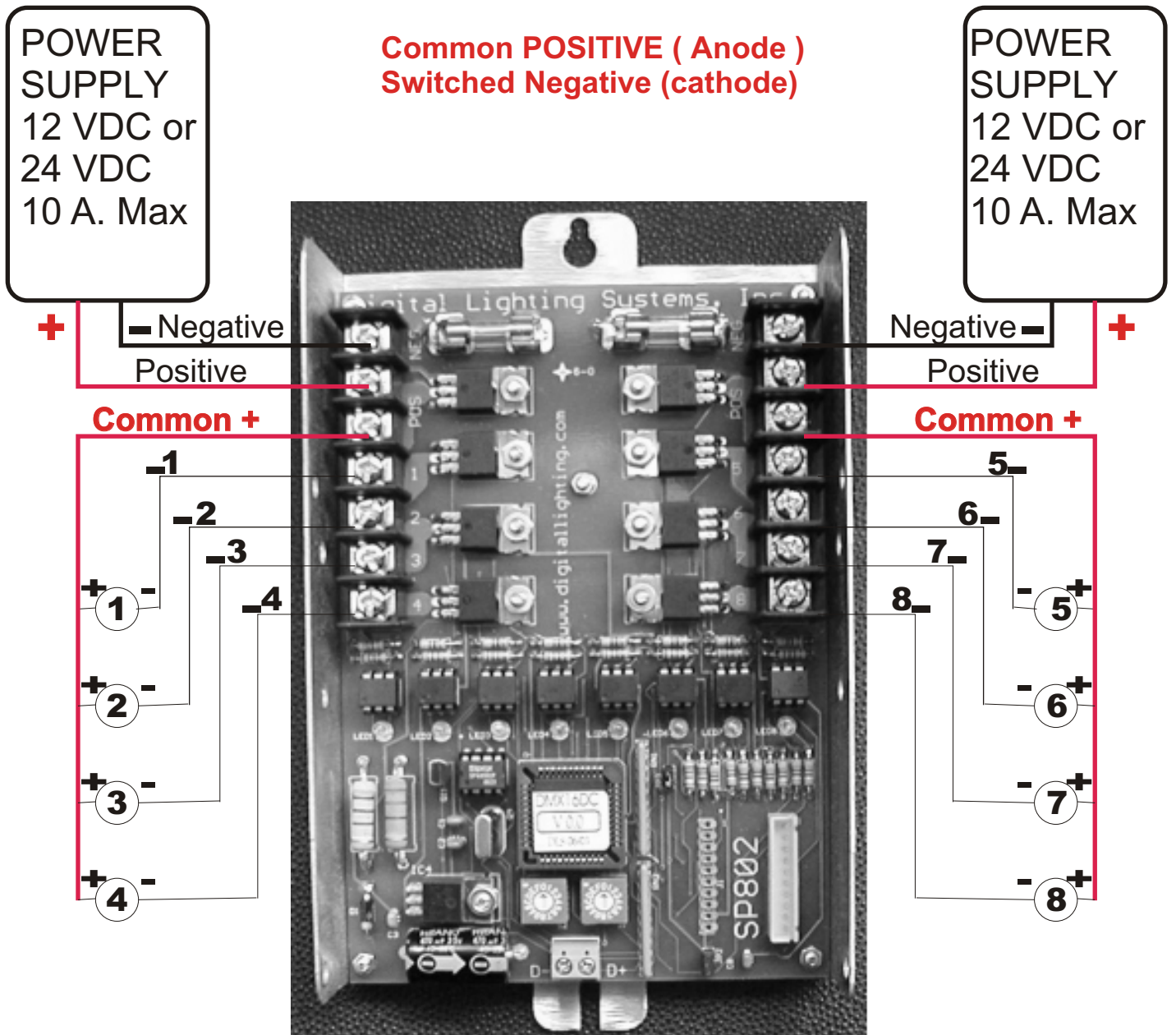
The **SC802** modules are designed to be mounted in NEMA enclosures
Mounting Holes : 7" O.C.
(by others).



Figure 4 - SC802-12DC & SC802-24DC Typical 12 VDC or 24 VDC Wiring.

Wiring Notes

- **DO NOT EXCEED** 120W @ 24 VDC or 60 W @ 12 VDC (5 Amps.Max) per switch output ;
total per each set of 4 outputs 240 W @24 VDC / 120 W @ 12 VDC (10 Amps)
- All wiring between the controller and other switches (DATA bus) is low voltage (NEMA Class 2) and may be run with One, twisted pair, shielded #22AWG wire.
- **SC802** switch Modules may be fed by 2 Class 2 Power supplies
- **CAUTION: DO NOT** attempt to parallel outputs to increase capacity.
- **Installation must conform to local and/or NEC code requirements and must be performed by a qualified**





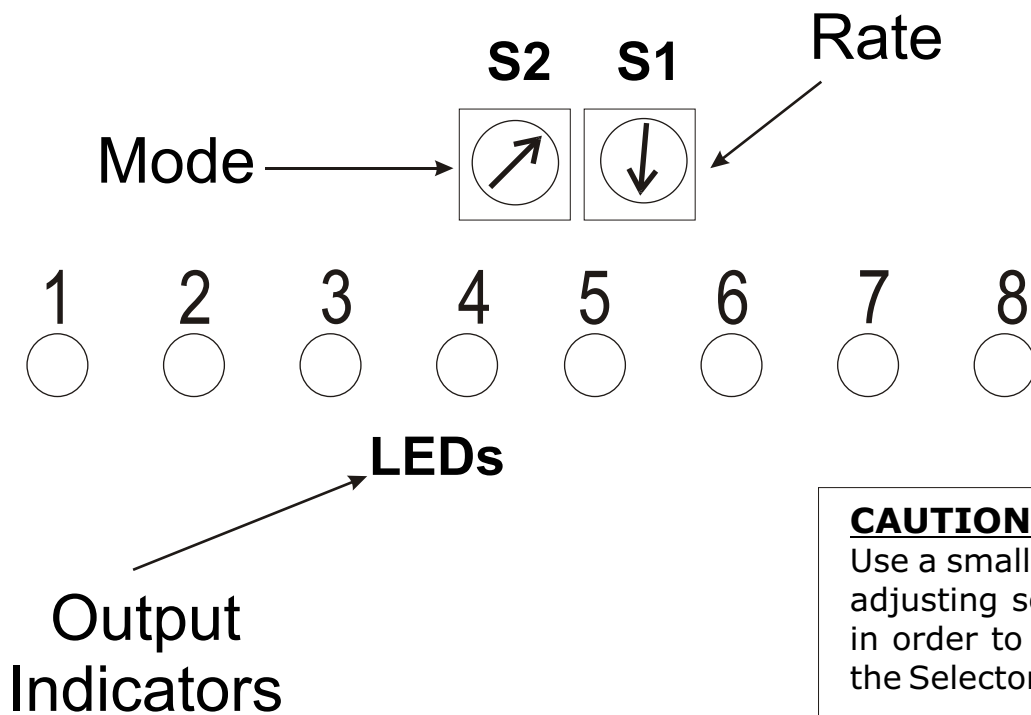
Controls

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 threv the patterns automatically to provide an ever changing light show. The **SC802** outputs can be turned to static **ON** by selecting **F**. When **0** is selected, the **SC802** goes into an automatic pattern change mode. All other positions cause the **SC802** 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

Figure 5- SC802 Indicators and Control Selectors



CAUTION

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

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LIMITED WARRANTY

Digital Lighting Systems, warrants to the purchaser 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 as shall within one year of 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**, 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, Unit # 105
Miami, FL 33186
(305) 264-8391

Digital Lighting Systems, Inc.
12302 SW 128th ct, Unit# 105
Miami, FL 33186
www.digitallighting.com

Tel 305-969-8442
Fax 305-969-8675

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.

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