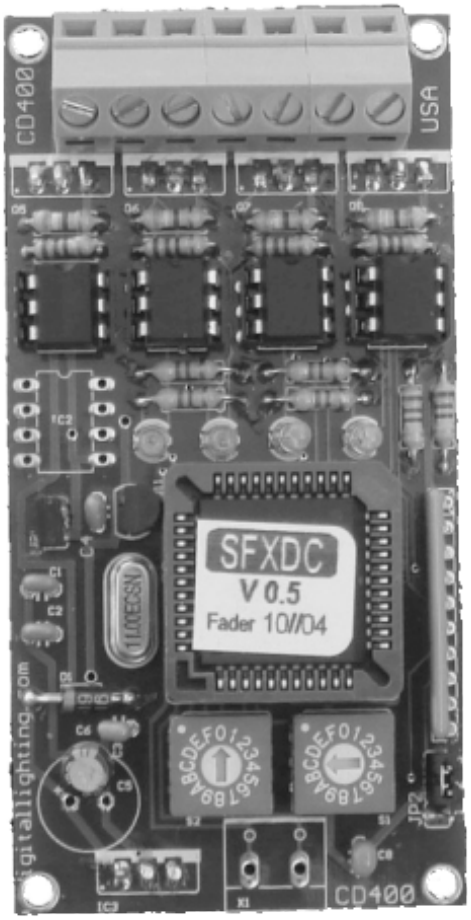
Digital Lighting Systems, Inc.

CF400

Four Channel Dimmer and Switch module

Input: 5 Amps @ 7-24 VDC

Outputs:4 outputs 5 Amps Max. Each , total 4 outputs 5 Amps Maximum.



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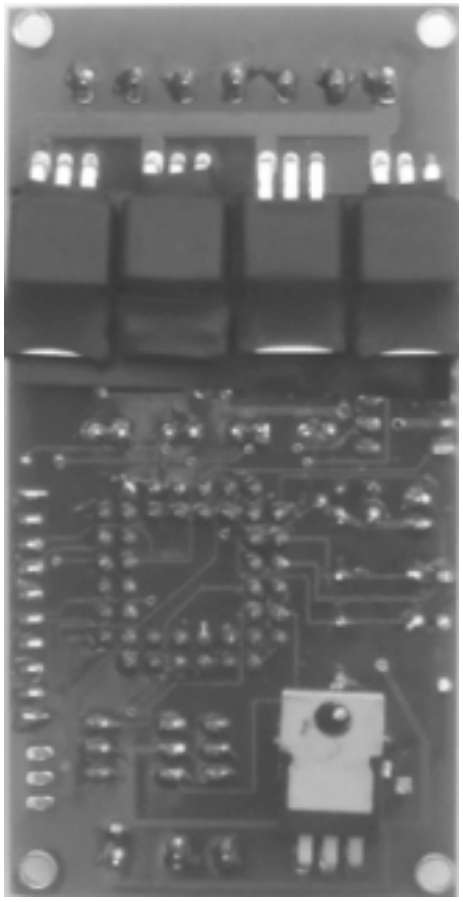

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USER'S MANUAL

CF400-UM
10-2022

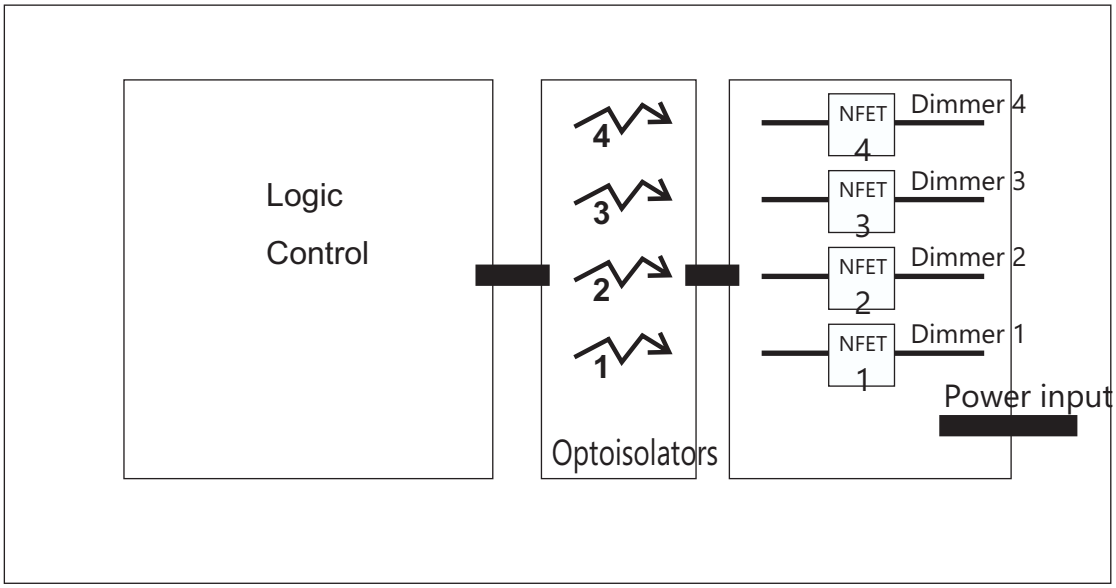
General Description

The **CF400** is a user selectable three or four-channel VDC lighting controller (Cross-Fader /chaser / Lighting animation) capable of producing slow level changes(Color Mixing) as well as Quick ON/ OFF (Animation)

A functional block diagram of the **CF400** is shown in Figure 1. **CF400** 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 5 Amperes.(Total current on all 4 loads not to exceed 8 Amps.). 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 output elements. The **CF400** logic board contains a microprocessor programmed to generate 15 user-selectable light sequences or patterns at an adjustable rate (the **CF400** 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 four LED's that represent the outputs of the **Cf400**.

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

Figure 1 - CF400 block diagram:



CF400 Module Details

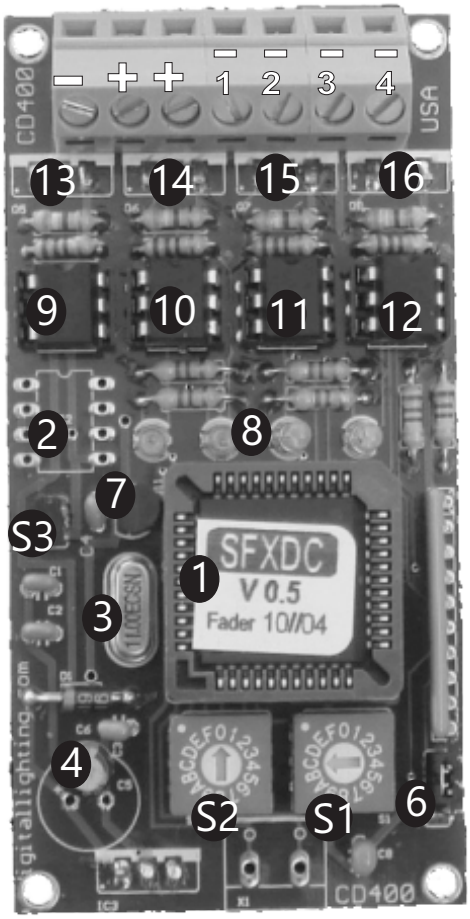


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Figure 2 - CF400 Detail

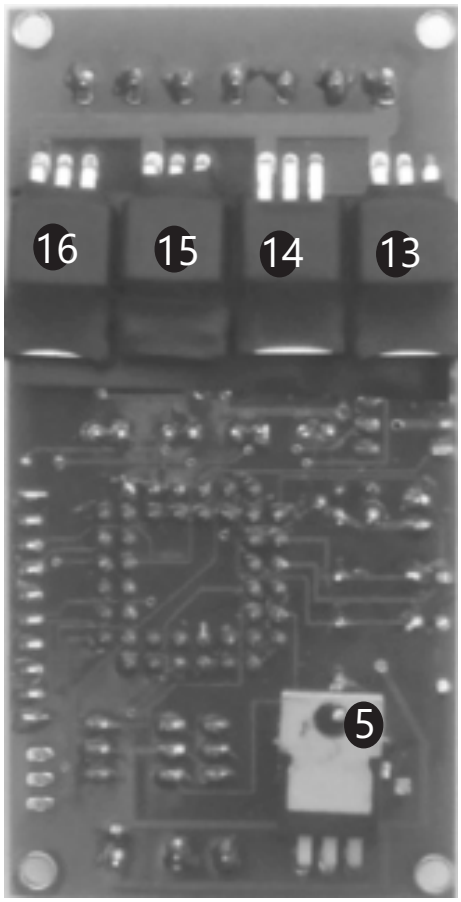

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Table 1 - OUTPUT Terminals Definition

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-
IN -	Negative Feed For Relays 1 , 2 , 3 & 4.
IN +	Positive Feed For Relays 1 , 2 , 3 & 4.
C +	Common positive

Table 2 - Maximum Electrical Ratings

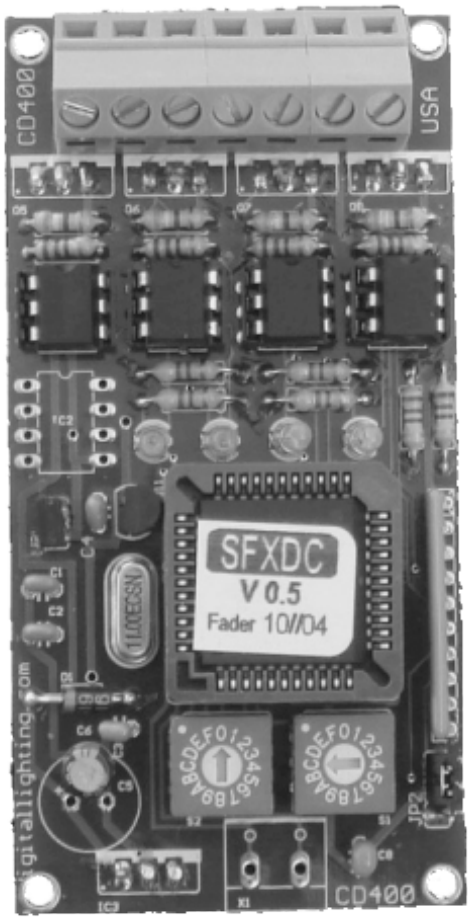
Electrical Characteristic	Termina	Maximum
Load Current	1 to 4	5Amps.Max
Input Current	DC	8 Amps.Max
Input Voltage	H	6-24 VDC

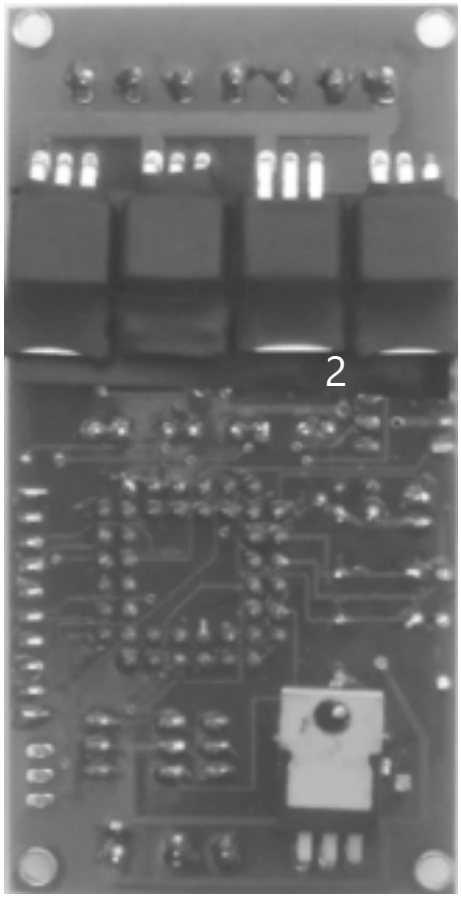
Table 3 - CF400 Circuit Legend

1	Microprocessor.
2	Communications Chip.
3	Quartz Crystal.
4	Power Supply Capacitor.
5	Voltage Regulator.
6	3,4 channel jumper
7	Auto reset +/- 5%
8	Output LED Monitors.
9,10,11,12	Optical Couplers # 1,2,3,4
13,14,15,16	Mosfets # 1,2,3,4
S1	**Rate / speed selector**
S2	**Pattern selector**
S3	**chaser / fader jumper**

Mechanical Installation

The **CF400** modules are designed to be mounted in NEMA enclosures(by others).





FRONT **BACK**

Board dimensions:
3.61″ x 1.90″ x 1″

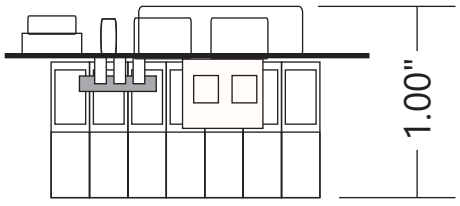
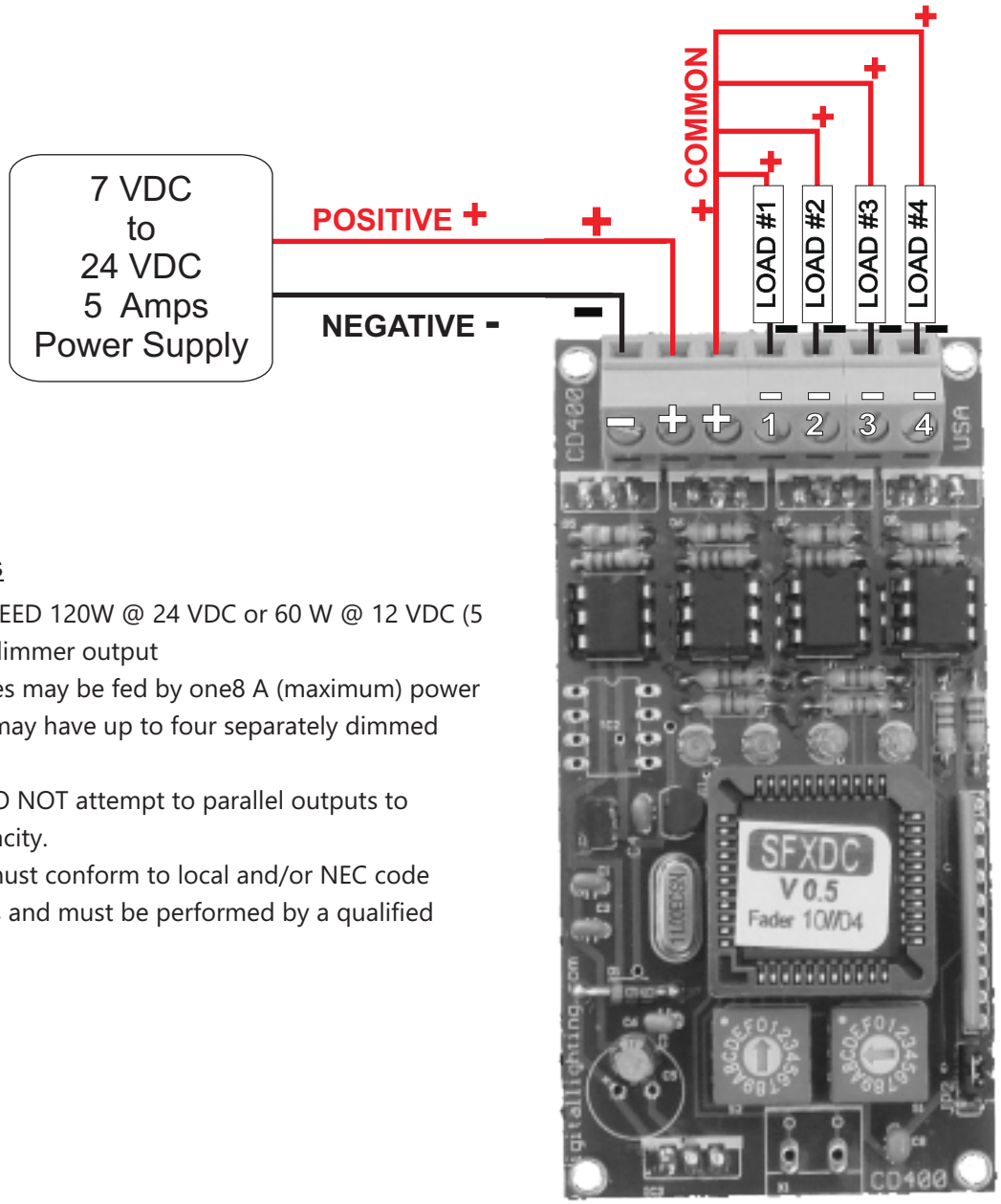


Figure 3 - CF400Dimensional Diagram

Figure 4 - CF400 GENERAL WIRING INSTRUCTIONS:



Wiring Notes

- DO NOT EXCEED 120W @ 24 VDC or 60 W @ 12 VDC (5 Amps.) per dimmer output
- Cf45 Modules may be fed by one8 A (maximum) power supply and may have up to four separately dimmed loads.
- 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 electrician.

Figure 4 - CF400 wiring Diagram

NOTES

1 Follow Power supply installation & wiring instructions from manufacturer.
2 Maximum Load Per Output: 5 Amps.
3 Maximum total loads on four outputs : 8 Amps.

The CF400 is shipped from the factory with jumper S3 installed which is the chaser mode.
Remove jumper S3 for cross fader/ auto dim mode.

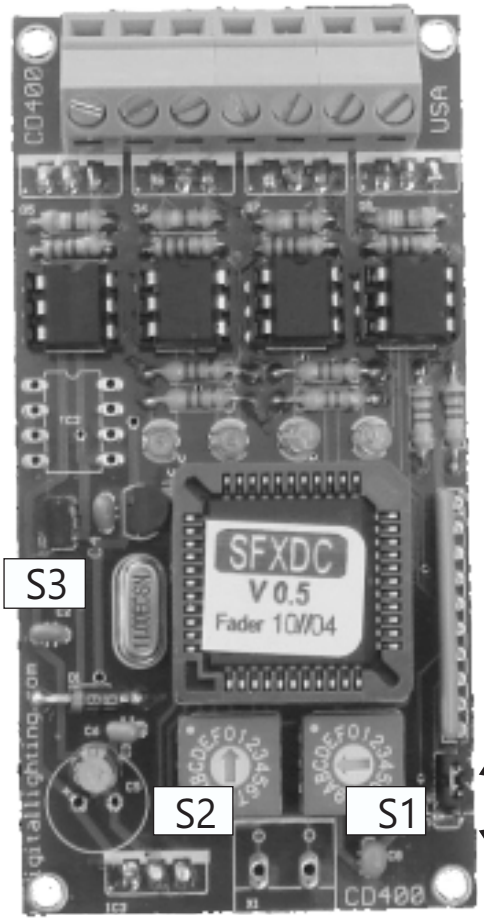
Open cover to access to jumper (S3)

Jumper (S3)

When **S3** Jumper is Installed
The unit is a chaser with instant 0 to 100% steps.

When **S3** Jumper is Removed
The unit is a fader with slow 0 to 100 % level change

Unit is shipped
with **S3** Installed.



Croos fade/ chase jumper

3 or 4 channel selector

4 channel

3 channel

S1: speed seector; 0 = slowest; F = fastest
S2: pattern selctor 0=auto pattern sequencing

BEFORE ENERGIZING THE CF400 MAKE SURE:
Loads are tested before connecting to dimmers.
All line voltage screw terminals are properly tightened to prevent hot spots.

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 two years 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 128 Ct. Bay #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.

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