



## INSTALLATION INSTRUCTIONS

- 1 - Ensure that relay panel power is off (no indicator LEDs glowing on the system motherboard). Remove the metal cardframe cover.
- 2 - Connect the DMX data line at the panel motherboard, with D- to the black terminal and D+ to the red terminal. Attach the shield drain wire to the SHIELD terminal.
- 3 - If the DMX line is to be passed through to another panel, attach the outgoing wires to the second set of data terminals.
- 4 - If the relay panel is the last panel on the DMX wire run, it is recommended that a 100 or 120 ohm 1/4W termination resistor be installed between one pair of black and red data line terminals.
- 5 - Configure the controller card according to the following DIP switch settings.
- 6 - Plug the LCRC-48 controller card and one to four LCRD-12 driver cards firmly into the cardframe. Restore power.
- 7 - Check that the power LED (between the DIP switch and the three rotary switches) is glowing steadily. This indicates +5 volts present and correct microprocessor operation. A flashing LED indicates a defective controller card.
- 8 - Set the 3 rotary address switches to the dimmer number corresponding to the first relay in the panel. Note that "000" (the factory default address) and "001" are equivalent.
- 9 - Apply the DMX control signal and observe that the receive data LED (at left) is glowing. The LED will not glow if the address set on the rotary switches exceeds either 512 or the number of dimmer signals present on the data line, if the data format does not conform to USITT-DMX512, or if the data wires are reversed at the mother board.
- 10- Verify relay operation with the DMX control system or using the card's test function. Ensure that everything is set correctly before re-installing the cardframe cover.

## DIP Switch Settings

THRESHOLD SELECT	DS-1	DS-2
20% THRESHOLD (Trigger on at 25%, off at 15%)	ON	ON
40% THRESHOLD (Trigger on at 45%, off at 35%)	OFF	ON
60% THRESHOLD (Trigger on at 65%, off at 55%)	ON	OFF
80% THRESHOLD (Trigger on at 85%, off at 75%)	OFF	OFF
RELAY SELECTION	DS-3	DS-4
1-12 RELAYS INSTALLED	ON	ON
13-24 RELAYS INSTALLED	OFF	ON
25-36 RELAYS INSTALLED	ON	OFF
37-48 RELAYS INSTALLED	OFF	OFF
RESERVED FOR FUTURE USE		DS-5
RESERVED FOR FUTURE USE		DS-6
SCAN RATE		DS-7
FAST SCAN (50 msec., 20 relays per second)		ON
NORMAL SCAN (100 msec., 10 relays per second)		OFF
TEST MODE		DS-8
Test Mode enabled		ON
Normal (RUN) Mode		OFF
When test mode enabled, relays are turned on one at a time as selected by the rotary address switches		

## NOTE RE: GROUNDING

Pay particular attention to the grounding of the data line shield. If the DMX controller grounds the shield, that is sufficient. If not, a jumper wire must be installed between the data line SHIELD terminal and the relay panel COM terminal. Only one such ground connection should be made in any one data cable run.