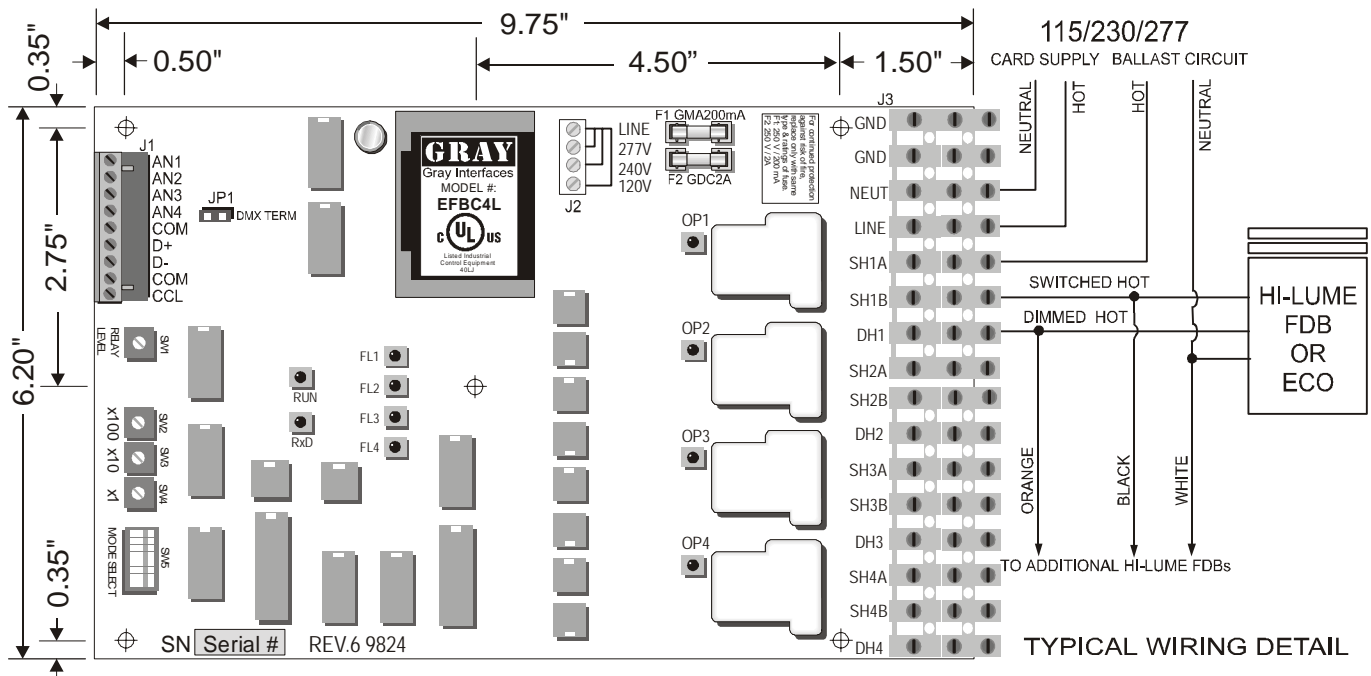


# EFBC-4L FLUORESCENT DIMMING BALLAST CONTROLLER



## CAUTION:

- 1) Before applying power, ensure that J2 is set for the correct supply voltage or damage will result
- 2) Use Stranded Conductors only, Rated Min 75° C / 167° F

## WARNING:

- 1) Use only with Lutron Hi-Lume® FDB or ECO 10™ Electronic Ballasts

## CONNECTOR LEGEND

CONNECTOR J1	
AN1-4	0-10VDC analog inputs
COM	Analog input common
D+	DMX Data+ input signal
D-	DMX Data- input signal
COM	Data common
CCL	Contact closure input (switch to COM)
<b>Use Class 2 or Limited Voltage/Limited Current Source only</b>	
CONNECTOR J2	
JUMPER TO SELECT CORRECT CARD POWER SUPPLY VOLTAGE	
JP1	
DMX Termination (shorted = terminated)	
JP2	
FACTORY USE ONLY	

CONNECTOR J3	
GND	AC Ground
GND	AC Ground
NEUT	Card power supply NEUTRAL input
LINE	Card power supply LINE input
SH1A	Circuit 1 AC hot circuit
SH1B	Circuit 1 switched hot
DH1	Circuit 1 dimmed hot
SH2A	Circuit 2 AC hot circuit
SH2B	Circuit 2 switched hot
DH2	Circuit 2 dimmed hot
SH3A	Circuit 3 AC hot circuit
SH3B	Circuit 3 dimmed hot
DH3	Circuit 3 dimmed hot
SH4A	Circuit 4 AC hot circuit
SH4B	Circuit 4 switched hot
DH4	Circuit 4 dimmed hot

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## NOTES

### GENERAL

The interface is designed to directly control Lutron Hi-Lume FDB & ECO series electronic fluorescent dimming ballasts from industry standard low voltage lighting control signals. Four separate channels of control are provided on each interface card. **NOTE: When using ECO series ballasts, all circuits controlled by the same interface card must be connected to the same phase as the card power supply.**

### OUTPUTS

Each output consists of a ballast control (dimmed hot) lead and a ballast power (switched hot) lead. Dimmed hot outputs are internally fused to protect the interface card against fault currents and miswiring. Each hot output incorporates a relay contact which opens when the control signal level falls below the level preselected by "SW1", shutting off power to the ballast(s).

### INPUTS

Each channel of dimming is capable of individual control from 0-10VDC (analog) and DMX512 (digital) control sources. Where both sources of control are connected and enabled, they will function in a highest level takes precedence (pile on) mode.

### CAPACITY

Each output is capable of controlling up to an average of 25 120V or 50 277V ballasts per channel, depending on the ballast type.

### MOUNTING

The interface should be mounted on minimum 0.5 inch high #6-32 standoffs.

### J3 SCREW TIGHTENING TORQUE

Maximum Torque: 0.5 Nm / 4.5 lb-in

## ELECTRICAL RATINGS

Control Input : 120/240/277 V, 60 Hz, 0.15A  
Fuse: GMA 200mA

Switched Outputs: 120/240/277 V, 60Hz, 20A  
Fuse: Protected by external circuit breaker

Dimmed Outputs: 120/240/277 V, 60Hz, .15A  
Fuse: GDC2A

## RELAY LEVEL SELECT

SW1

This rotary switch sets the low-end cutoff point for all 4 switched hot relays in steps of 1 to 10 percent. Position "0" selects 10%.

## DMX ADDRESS SELECTION

SW2-4

Three rotary switches select the DMX start address for the card's four channels. The switches are set as hundreds, tens and units. Address 000 and 001 both select DMX address 1.

## MODE SELECT DIP SWITCH

SW5

### S1-S4 CONTROL BYPASS

Each switch turns the associated output on full when in the "ON" position.

### S5 ANALOG INPUT ENABLE

When in "ON" position, all 4 analog inputs are enabled.

### S6 SCALED HOLD ENABLE

"ON" selects fluorescent dimming curve. "OFF" selects linear (standard) curve.

### S7 STATUS OUTPUT ENABLE

When "ON" will maintain the last active levels for 5 min. after loss of DMX control signal

### S8 CONTACT CLOSURE POLARITY

Sets the polarity of the contact closure input. "ON" selects normally open, "OFF" selects normally closed.

## LED INDICATORS

Two LEDs are used to indicate processor/power supply status and data receive detection.

**RUN** Glowing steadily indicates power supply and processor OK; off indicates no power, and flashing indicates defective processor hardware.

**RxD** Glowing steadily indicates data signal received; off indicates no signal present. Note that an address selection out of the DMX signal range will turn off the LED.

**FL1 - FL4** when illuminated indicate a wiring fault on the "dimmed hot" line(s). The indicated output(s) should be disconnected, the fault cleared, and then reconnected.

**OP1-OP4** indicate ballast control (drive) level. The LEDs increase in brightness in proportion to the signal level.



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