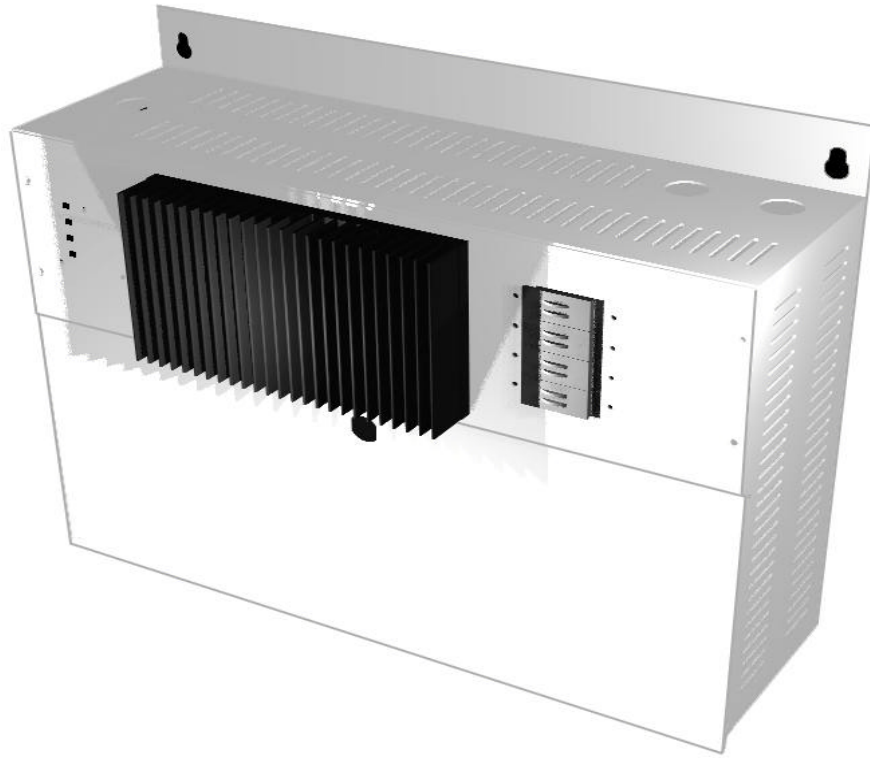


Touch-Plate[®] Lighting Controls

CPD Dimmer Installation Guide



CPD Series Dimmer Installation Guide



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INTRODUCTION

This manual covers the installation and operation of the Touch-Plate CPD-Series dimmers.

SYSTEM OVERVIEW

The CPD dimmer is available in residential and commercial configurations, with wattage ratings from 2400 to 9600 Watts. All models offer four channels of single-phase dimming and can control the intensity of incandescent or low-voltage lighting. Each channel can operate independently, or two or more can be controlled together, using the Master control. If necessary, the loads can be turned on manually, via the switches on the Override Board or a remotely mounted Override Switch.

Each dimmer consists of a Control Board, an Override Board, an Output Board, one or more chokes, one or more Airpax Magnetic Circuit Breakers and up to four output fuses. The outputs of the residential models are driven by triacs, while the commercial units use solid-state relays.

See Table 1 for model numbers and details.

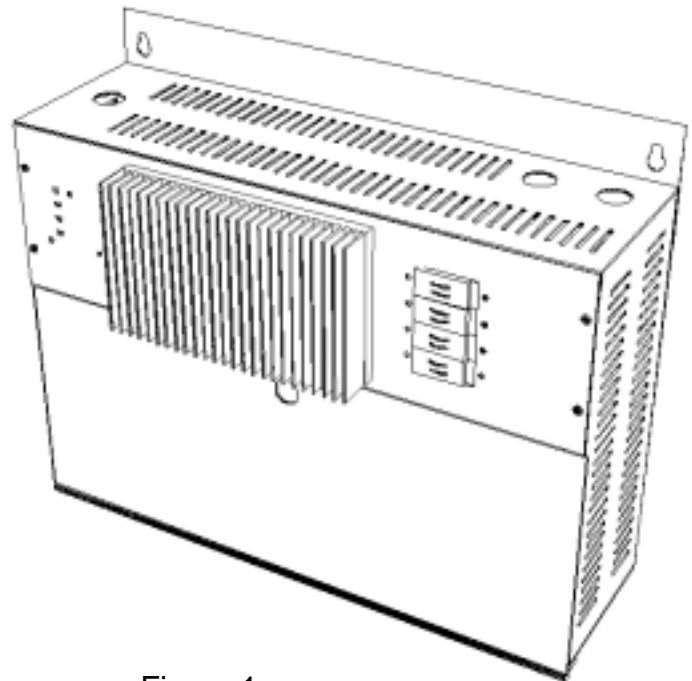


Figure 1

Model Number	Incoming Power	Circuit Breakers	Fuses	Outputs
CPD-4R-2400	120VAC 20A x 1	1 - 20A	4 - 15A	Triac
CPD-4C-2400	120VAC 20A x 1	1 - 20A	N/A	SSR
CPD-4R-4800	120VAC 20A x 2	2 - 20A	4 - 15A	Triac
CPD-4C-4800	120VAC 20A x 2	2 - 20A	N/A	SSR
CPD-4R-7200-2	120VAC 30A x 2	2 - 30A	4 - 15A	Triac
CPD-4R-7200-4	120VAC 15A x 4	4 - 15A	4 - 15A	Triac
CPD-4C-9600-2	120VAC 40A x 2	2 - 40A	N/A	SSR
CPD-4C-9600-4	120VAC 20A x 4	4 - 20A	N/A	SSR

Table 1

OPERATION

Control of each channel of the CPD dimmer is achieved using the four inputs found on the control board. These are: ON, OFF, CYCLE, and MAINTAIN. One set of inputs is provided for each channel. Any or all of the inputs can be used to control a channel.

The ON and OFF inputs should be connected to normally open momentary switches. Pressing and holding the ON button will cause the load to increase in brightness to the maximum level. Pressing the OFF button will cause the load to decrease in brightness until it is fully off.

The CYCLE (CYC) input should also be connected to a normally open momentary switch. A brief tap on the CYCLE button when the load is off will return it to the preset level. When the load is on, a tap will turn it off and set the preset level.

When the CYCLE button is pressed and held, it will cause the load to increase in brightness, just as the ON button did. However, when the maximum level is reached, the load will begin to dim. When the load has dimmed to the off level, it will begin to brighten again. Release the button when the load is at the desired level.

If the CYCLE button is double-tapped while the load is off, the output will jump to 100%. A double-tap while the load is on will turn the load off and set the preset level.

The MAINTAIN (MTN) input can be connected to a maintained contact, such as the output of a motion detector, a photocell, or an ordinary toggle switch. When the contacts are closed, the load will go to 100% and remain there until the switch is opened. Once the contacts are opened, the load will return to its previous level, as set by the ON, OFF, and CYCLE buttons.

An additional set of inputs, labeled MASTER, allows all channels to be controlled in unison. A jumper setting for each channel allows individual channels to be excluded from Master control. Included with each set of inputs terminals is a terminal marked PILOT (PLT). A pilot LED connected here will glow in proportion to the level of the output.

INPUT	PREVIOUS CONDITION	TAP	DOUBLE TAP	HOLD
ON (CHANNEL)	OFF	PRESET	100%	Fade up from OFF.
	PRESET	100%	100%	Fade up from PRESET.
	100%	NO EFFECT	NO EFFECT	No effect.
OFF (CHANNEL)	OFF	NO EFFECT	NO EFFECT	No effect.
	PRESET	OFF	OFF	Fade down from PRESET.
	100%	OFF	OFF	Fade down from 100%.
CYCLE (CHANNEL)	OFF	PRESET	100%	Raises and lowers dimming level while held. Each press/release changes direction.
	PRESET	OFF	OFF	
	100%	OFF	OFF	
ON (MASTER)	OFF (all)	PRESET	100%	All channels fade up from OFF.
	PRESET (any)	100%	100%	All channels fade up from PRESET.
	100% (any)	NO EFFECT	NO EFFECT	No effect.
OFF (MASTER)	OFF (all)	NO EFFECT	NO EFFECT	No effect.
	PRESET (any)	OFF	OFF	All channels fade down from PRESET.
	100% (any)	OFF	OFF	All channels fade down from 100%.
CYCLE (MASTER)	OFF (all)	PRESET	100%	Raises all channels if all are OFF.
	PRESET (any)	OFF	OFF	Lowers all channels if any are 100%.
	100% (any)	OFF	OFF	Stops at 100% or OFF until release and press.

INPUT	PREVIOUS CONDITION	CLOSE	OPEN
MAINTAIN (CHANNEL)	OFF	100%	Return to previous condition if ON, OFF, or CYCLE are not pressed.
	PRESET	100%	
	100%	100%	
MAINTAIN (MASTER)	OFF	100%	Return to previous condition if ON, OFF, or CYCLE are not pressed.
	PRESET	100%	
	100%	100%	

Table 2

WIRING

Refer to Figure 2 when attaching the low-voltage wiring.

ON, OFF, and CYCLE inputs should be connected to momentary (pushbutton) switches. The MAINTAIN inputs can be wired to a standard toggle switch or a contact closure from a photo sensor, motion detector, etc. The return side of all switches and contacts should attach to the SWITCH COMMON terminals.

The PILOT signal should be attached to the anode (+) side of the pilot LED's and the return lines from all LED's connect to the PILOT COMMON terminals.

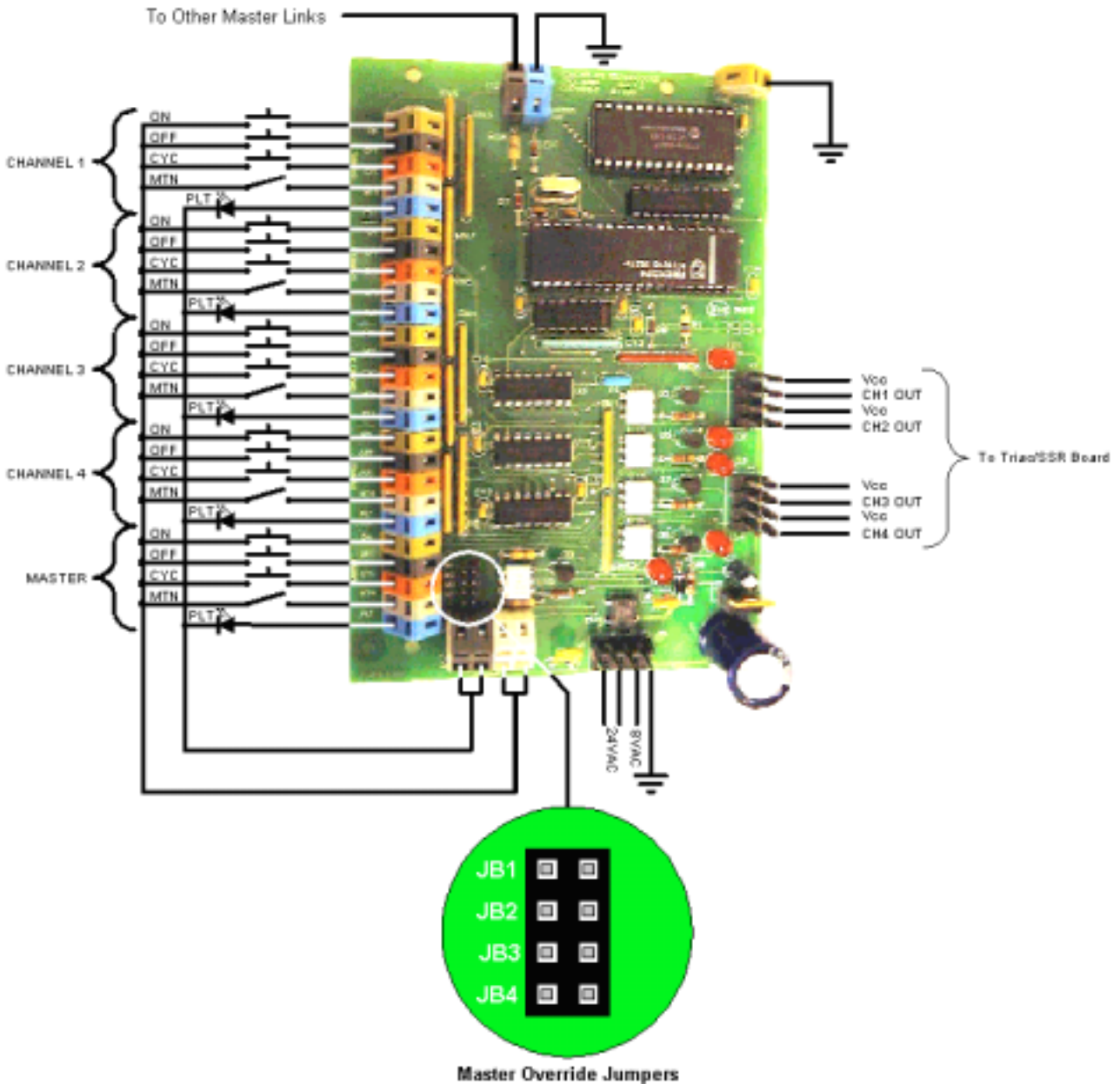


Figure 2

Figure 3 illustrates the high-voltage wiring to the dimmer.

The hot side of the incoming power attaches to the white terminal block inside the dimmer enclosure. The incoming neutral is wired to the neutral bar. Be certain to also make a secure connection between supply ground and the metal grounding lug just below the power connector.

The hot side of the loads are connected to the black four-position terminal block. Connect the return from the loads to the neutral bar. Ground attaches to the metal grounding lug near the black terminal block.

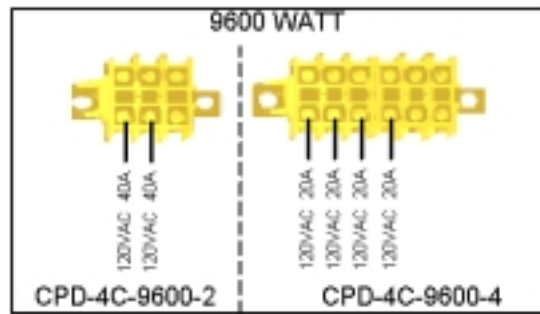
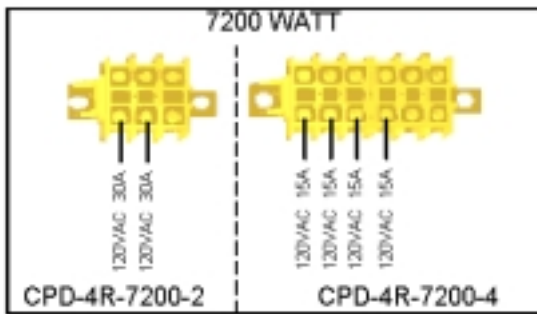
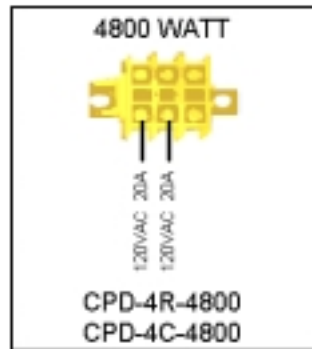
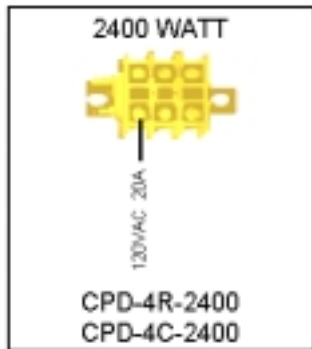
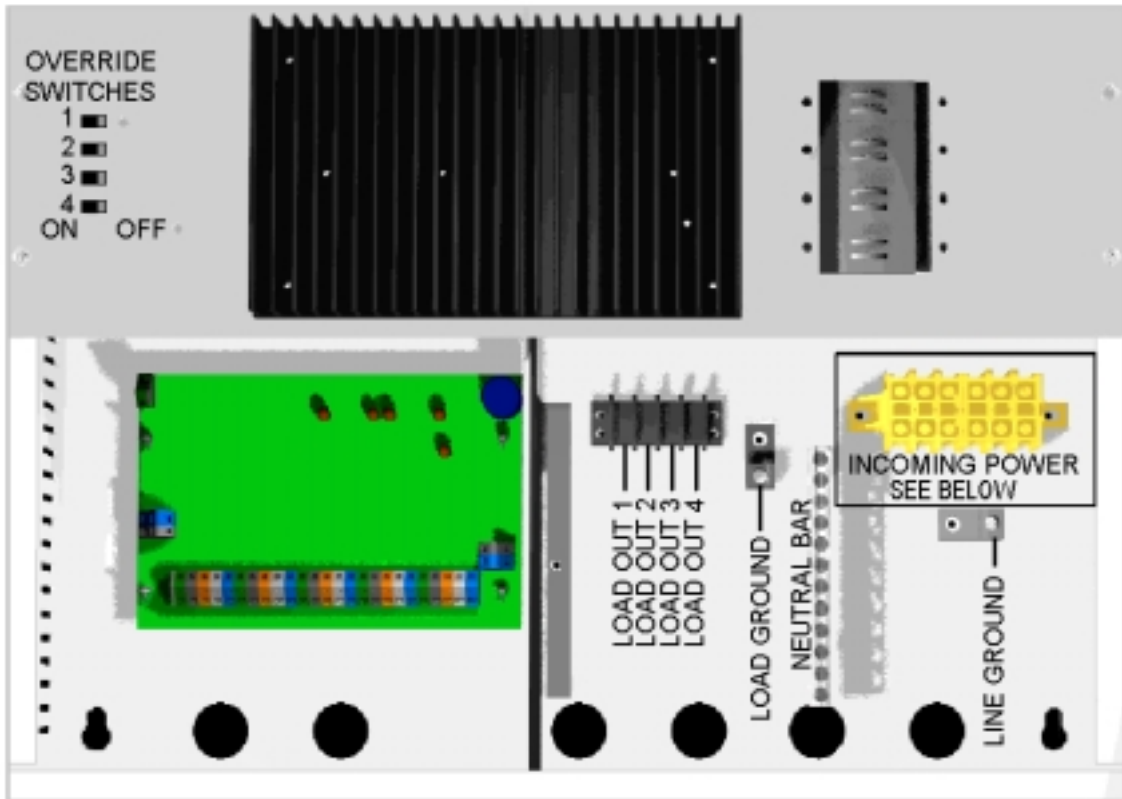


Figure 3

FRONT PANEL LOAD SEPARATION.

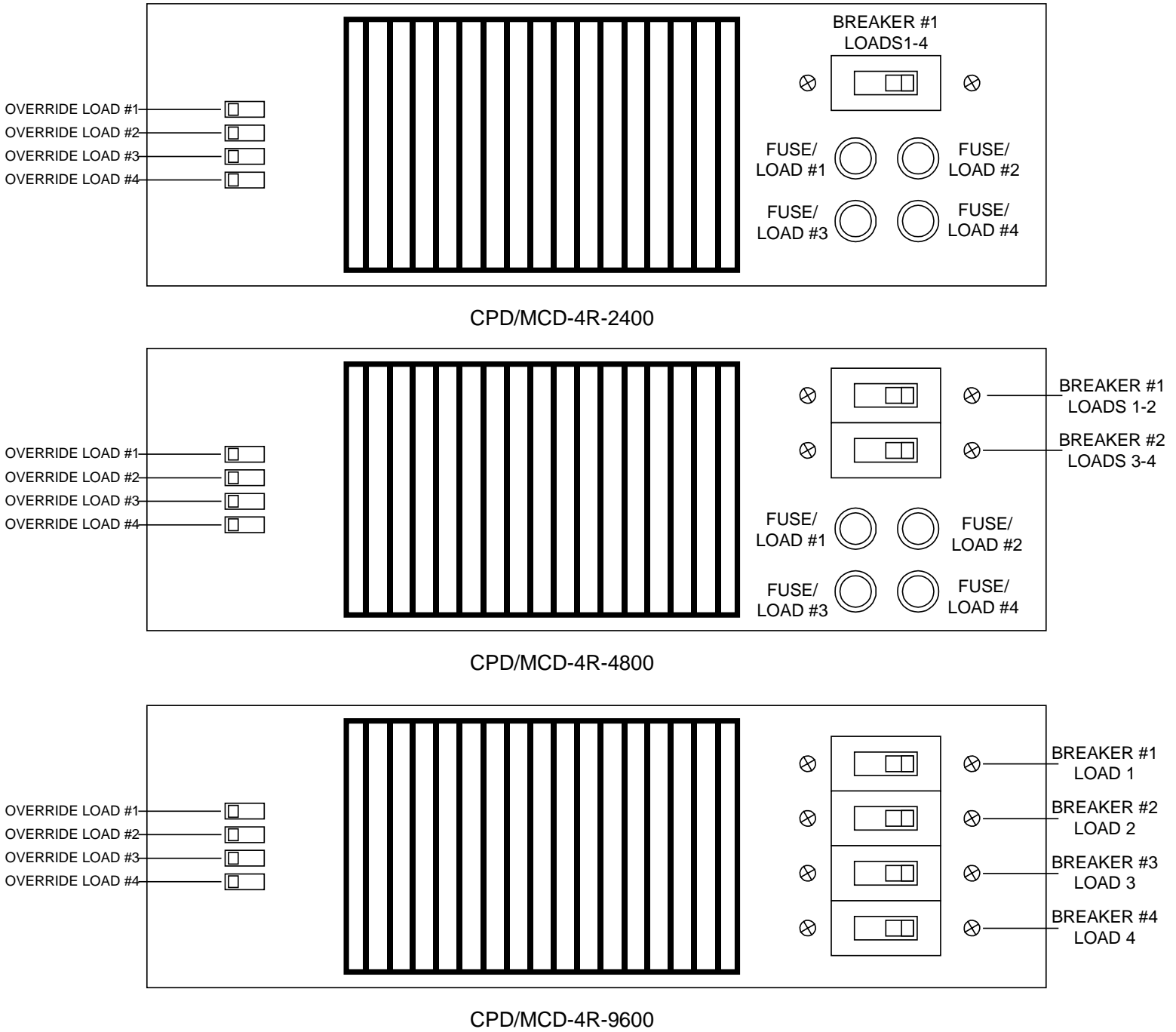


Figure 4