

# INSTRUCTIONS

## for INSTALLATION OPERATION and MAINTENANCE

### D2000 SERIES MANUAL AND MOTOR-DRIVEN LUXTROL® LIGHT CONTROL EQUIPMENT

#### INSPECTION

A LUXTROL Light Control is a precision product packed with care. When unpacking, examine carefully for any damage due to rough handling during shipment. Check particularly the brush contacts which are visible through the protective screen. The "Damage and Shortage Instructions" packed with the unit outline the proper procedure to follow if any parts are damaged or missing.

#### INSTALLATION

All LUXTROL Light Controls of the D2000 Series can be general utility mounted. However, 3-gang and 4-gang assemblies should only be mounted with the shaft vertical. If necessary, these units can be mounted with the shaft horizontal, but additional bracing must be provided for the center and the end of the assembly. Manual single units and 2-gang assemblies can also be mounted in the back-of-panel position. Follow the appropriate set of instructions to mount the unit.

#### BACK-OF-PANEL TYPES D2000 AND D2000-2E

- Using the Mounting Template provided, locate and drill the mounting bolt holes (three holes marked "A"), the three dial screw holes and the center shaft hole. The dial screw holes must be tapped to accommodate the 6-32 screws supplied. Maximum panel thickness is  $\frac{1}{2}$ " with the bolts provided.
- Remove the knob by loosening the set-screws which hold it in place. Remove the dial screws and the dial. The dial standoffs may be discarded. Remove the three  $\frac{3}{8}$ "-24 mounting bolts located in the top frame standoffs.
- Place the unit in position behind the panel, insert and tighten the  $\frac{3}{8}$ "-24 mounting bolts. Mount the dial with the 6-32 screws supplied.
- Place the knob on the shaft and position the pointer correctly in relation to the dial markings and the brush position. Tighten the setscrews.

#### GENERAL UTILITY

- Using the Mounting Template provided,

locate and drill the mounting holes (three holes marked "B").

- Place the unit in position. Insert and tighten  $\frac{3}{8}$ " mounting bolts or lag screws. If a 3- or 4-gang assembly is mounted horizontally, as in the wall position, provide extra support for the end and the center of the assembly.

#### CONNECTIONS AND RATINGS

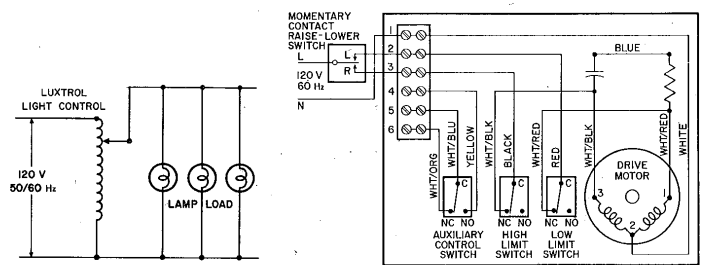
LUXTROL Light Controls of the D2000 Series can control any incandescent lighting circuit up to the full rating of the unit. The load should be connected to the output terminals as shown in Figure 1.

INPUT-OUTPUT CONNECTIONS are given in wiring diagrams 1 through 6. Be absolutely certain that the line voltage, phase and frequency are correct for the assembly before connecting. Four  $\frac{1}{2}$ " x  $\frac{3}{4}$ " knockouts are provided on each terminal box for wire feed-through.

MOTOR DRIVE CONNECTIONS are given in Figure 2.

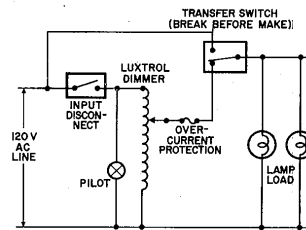
OVERCURRENT PROTECTION in the input lines only will not fully protect the dimmer because, at lower lighting intensities, fault conditions in the lighting circuit can cause higher than rated current in the dimmer output while input current remains at or below the rated level. Therefore, be sure to incorporate fuses in the brush output leads as recommended in the wiring diagrams.

INPUT DISCONNECT AND TRANSFER SWITCHES can be incorporated as shown in Figure 3. An input disconnect switch makes it possible to de-energize the dimmer when it is not in use or when changing lamps or investigating faults. Transfer or "panic" switches permit the lighting load to be quickly transferred from the dimmer to the line. A break-before make switch must be used so that the lamp load is removed from the dimmer before being connected to the line. Snap switches rated for a-c/d-c use and some silent switches can be used. Mercury switches are not suitable.



INCANDESCENT LAMP CONTROL  
FIGURE 1

MOTOR DRIVE WIRING  
FIGURE 2



TYPICAL CIRCUIT  
FIGURE 3

RATINGS						
TYPE	INPUT		NO. OF CIRCUITS	MAXIMUM WATTS PER OUTPUT CIRCUIT	MAXIMUM TOTAL WATTS*	WIRING DIAGRAM NO.
	VOLTS	HERTZ				
2-WIRE, 1 PHASE						
D2000 MD2000	120	50/60	1	2000	2000	1
D2000-2E MD2000-2E	120	50/60	2	2000	4000	2
D2000-3E MD2000-3E	120	50/60	3	2000	6000	6
3-WIRE, 1 PHASE						
D2000-2E MD2000-2E	240/120	50/60	2	2000	4000	3
D2000-4E MD2000-4E	240/120	50/60	4	2000	8000	4
4-WIRE, 3 PHASE						
D2000-3E MD2000-3E	208/120	50/60	3	2000	6000	5

\*Outputs from two or three units can be connected in parallel to control a single larger load, but only if they are on the same line phase and a paralleling transformer is used in the output leads. Ordinarily it is preferable to use a single D5000-B unit instead of connecting D2000 units in parallel. Paralleling transformers available are T5000-B for two units in parallel or T5579B for three units.

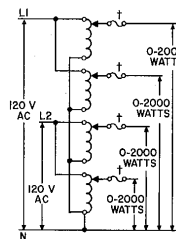


DIAGRAM 1

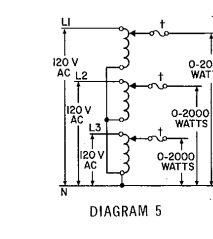


DIAGRAM 2

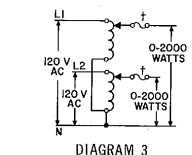


DIAGRAM 3

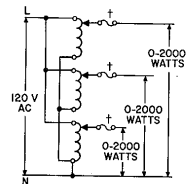


DIAGRAM 4

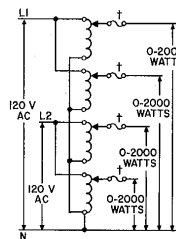


DIAGRAM 5

†20 ampere fuse recommended, not supplied.

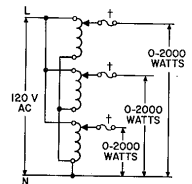


DIAGRAM 6

#### MAINTENANCE

##### PRECAUTIONS

- DO NOT STRIKE THE RADIATOR SHARPLY AGAINST ITS STOPS BECAUSE THIS TENDS TO WEAKEN THE ENTIRE STRUCTURE.
- PROTECT THE DIMMER FROM PLASTER, PAINT AND OTHER CONSTRUCTION DEBRIS.
- KEEP THE COMMUTATOR SURFACE FREE OF DUST AND DIRT.

If properly installed and not overloaded, a LUXTROL Light Control will provide years of trouble-free service with little maintenance except possible maintenance of the brush contacts. These should be inspected periodically and replaced if they are badly worn. Replace only with a Superior Electric replacement brush assembly RB2000. Ordinary carbon brushes will not function properly.

If any difficulty is encountered in the installation or operation of the LUXTROL Light Control, contact the factory or the nearest Superior Electric field office.

The right to make engineering refinements on all products is reserved. Dimensions and other details are subject to change.



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