

# A Series<sup>®</sup> Lighting Control Panelboards

#### Introduction

These instructions describe the installation of a AE Series lighting control panel interior with internally mounted as well as externally mounted controller.

### Installation



WARNING: Danger of electrical shock or injury. Turn OFF power service to the line side of the panel board or switchboard before working inside the equipment or removing any component. Equipment is to be installed and maintained by properly trained and qualified personnel only.

1. Confirm the contents and circuit layout of the panel Interior and mounting hardware. Figure 1 illustrates the parts included in this panel Interior, which are listed in Figure 1.



2. Locate the interior end flange keyhole mounting holes to the corresponding mounting bolts already in place on the inside surface of the panel enclosure as shown in Fig 1. Tighten all 4 screws



Figure 1

3. Remove dead front shield in preparation of wiring the line and branch breakers of the interior. Keep mounting screws handy for re-assembly. Secure line side wires and load wires to branch breakers neutral lugs if service requires and ground connections using the tightening torque specifications in table 2 below.

TABLE 2 TORQUE VALUES FOR PANELBOARD HARDWARE		
SCREW SIZE	TORQUE (IN-LBS)	
#4 STEEL	16	
#10 PLASTIC	16	
#8 CU/ AL/STEEL	24	
#10-32 CU/ AL/STEEL	32	
1/4-20 AL/<.150 THICK CU	44	
1/4-20 .150 THICK CU	60	
5/16-18 CU/ AL/STEEL	110	
3/8-16 CU/AL/STEEL	220	
1/2-13 CU/AL/STEEL	220	

4. Refer to address chart provided with rating booklet DEH40007 and record load locations in preparation for setting load-scheduling times into the programmable controller. Refer to instruction DEH41080 for proper controller installation and wiring diagrams.



1) Shrink tubing sleeve rated for 600V

2) Flexible metal or non-metallic conduit

3) GE kit catalog No. ASRGLCCWT

Controller is powered internally. No control power is required.

Power in control box is class II low voltage. Electro static discharge sensitive. The installer should be grounded when handling controller.

### **Breaker Installation Procedure:**

- 1. Make sure that all power supplying this equipment is disconnected before working.
- 2. Remove panel front and dead front. Use voltmeter for verification of power off before proceeding.
- 3. Remove backplane connector Plug Cap if necessary.
- 4. Remove Center Barrier(R) before installing breaker by unscrewing the screws (S) at top and bottom end
- 5. Turn the handle to off (O) position before installing circuit breaker
- 6. Align Bolt-On screw (A) with the tapped hole in the Panel Busbar straps(B) and the Breaker Connector(C) to the Backplane connector (D) respectively.
- 7. Push circuit breaker Straight down, Don't rotate Breaker, so that the Clip (E) plugs into rail(F) provided on panel 3x-base.
- 8. Tighten Bolt-On Screw into tapped hole in the Busbar(B) in Panel Board. Tighten screw(s) to 35 lb-in(3.95 Nm)
- 9. Assemble the Center barrier in to the panel after installing the breaker
- 10. Reinstall Dead front and Panel front.

Note: Do not unsnap circuit breaker from panel board after line terminal screw(s) are tightened.



![](_page_3_Picture_13.jpeg)

## Accessories

Description	Catalog No
Handheld Programmer w. Connection Wire	ASRGLCHPK
Remote Switch Module	ASRGLCDSK
Daylight Optimization Module	ASRGLCDOK
Control Wire Insulating Tubing	ASRGLCCWT
Handle Lock Single Pole Kit	TEYLD1
Handle Lock Multi Pole Kit	TEYRCLD1
Pad Lock Kit	TEYPLD1
TEY Breaker Mounting Kit	TEYKIT

## **Replacement Parts**

Description	Catalog No.
Basic Controller Replacement Kit (w/o Ethernet)	ASRGLCTDP
Premium Controller Replacement Kit (w/ Ethernet)	ASRGLCTDPE
DB25 Connector cable connection LH	ASRCWIREL
DB25 Connector cable connection RH	ASRCWIRER
DB25 External Controller Connection Cable – 5 Feet	ASRCWIRE05
DB25 External Controller Connection Cable – 10 Feet	ASRCWIRE10
DB25 External Controller Connection Cable – 15 Feet	ASRCWIRE15
DB25 External Controller Connection Cable – 20 Feet	ASRCWIRE20
DB25 External Controller Connection Cable – 25 Feet	ASRCWIRE25
12 Circuit Backplane Replacement Kit	ASRGLCPCB12
18 Circuit Backplane Replacement Kit	ASRGLCPCB18
24 Circuit Backplane Replacement Kit	ASRGLCPCB24
30 Circuit Backplane Replacement Kit	ASRGLCPCB30
36 Circuit Backplane Replacement Kit	ASRGLCPCB36
42 Circuit Backplane Replacement Kit	ASRGLCPCB42
120 V Transformer Replacement Kit	ASRGLTFC120
130 V Transformer Replacement Kit	ASRGLTFC130
220 V Transformer Replacement Kit	ASRGLTFC220
230 V Transformer Replacement Kit	ASRGLTFC230
240 V Transformer Replacement Kit	ASRGLTFC240
277 V Transformer Replacement Kit	ASRGLTFC277

### **External Controller Installation Instructions:**

- 1. Connect one end on the control cable to DB25 connector on back plane first and other end of the control cable to controller box DB25 connector. Procedure typical to other side.
- 2. Press the ends of the cables firmly and tighten four knurled screws of each cable ends to torque of 5-10 lb-inch.
- 3. Connect the quick connects of Power wire (Black to Black) & Neutral wire (White to White) as shown in schematic 1 & 2. When (No neutral) connect quick connects of power wires (black to black) as shown in schematic 3.
- 4. Route the control cables, power wire & neutral wire together and fastened them with tie traps to structure members or rails where needed for proper securement.
- 5. Connect the transformer secondary wires to Power in terminal at controller and torque it to 5 lb-inch.
- 6. Connect all the communications ports Ethernet etc to the controller.
- 7. Install the dead front & front cover of the Integrated Switch board

### **Externally mounted Controller box wire & cable schematics:**

![](_page_5_Figure_9.jpeg)

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to the GE Company.

![](_page_6_Picture_1.jpeg)

GE Consumer & Industrial

General Electric Company 41 Woodford Ave., Plainville, CT 06062

DEH41081 R04 0405

© 2004 General Electric Company

- 8 -