

Dimming Automatic Load Control Relays

SLSEDC120 and SLSEDC277

Retain for future use

INTRODUCTION

This bulletin provides instructions for installing the 120V (SLSEDC120) and the 277V (SLSEDC277) Dimming Automatic Load Control Relay (DALCR). The DALCR is a UL 924 Listed emergency lighting control device. It provides a means of turning on/off and dimming control of emergency. The DALCR is designed to detect power outage events and switch on the connected emergency lighting load to maximum light level. The DALCR sends phase angle, 0-10V, and three-wire ballast loads to full bright in a emergency egress lighting event. When utility power is restored, the units will revert back to their previous controlled state.

INSTALLATION

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

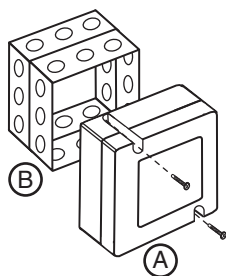
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- This equipment must be installed and serviced by qualified electrical personnel.
- Turn off all electrical power supplying this equipment before working on or inside the equipment. This includes the 24-hour emergency power.
- Always use a properly rated voltage sensing device to confirm that power is off.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

KEY:

A. DALCR

B. Backbox (4.7 in. x 4.7 in. x 3 in. [119.38 mm x 119.38 mm x 76.2 mm]) (not provided)



The DALCR is surface mounted on a backbox (not provided).

1. Turn OFF all electrical power supplying this equipment before working on or inside the equipment, including the 24-hour emergency power. Always use a properly rated voltage sensing device to confirm that power is off.
2. Attach the backbox to the wall studs according to the backbox instructions.
3. Feed the wiring through the preferred mounting box knockouts.
4. Wire the DALCR according to the wiring diagrams in the wiring section; follow all applicable national and local electrical codes.
5. Secure the DALCR to the backbox using the screws provided with the DALCR.
6. Install all DANGER labels provided with the DALCR into the light fixtures controlled by the DALCR.

WIRING

Figure 1: Wiring for 2-wire and Phase Angle Dimming

NOTES:

- * Use standard fixtures for both regular and emergency egress lighting.
- DALCR only uses regular power for monitoring
- Under regular power, relay 5 is closed and relay 3 is open, allowing phase angle dimming between input 5 and output 8.
- Under emergency power, relay 5 is open and relay 3 is closed, providing constant emergency power between input 3 and output 8..

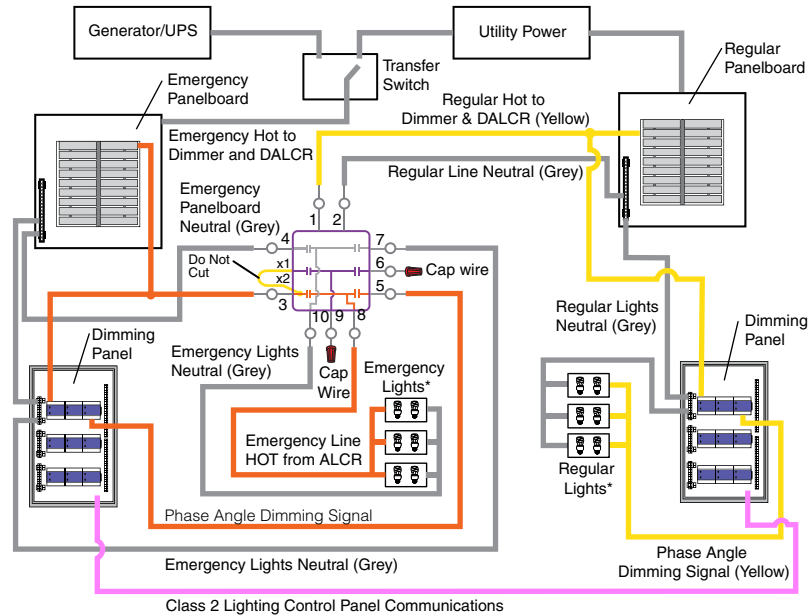
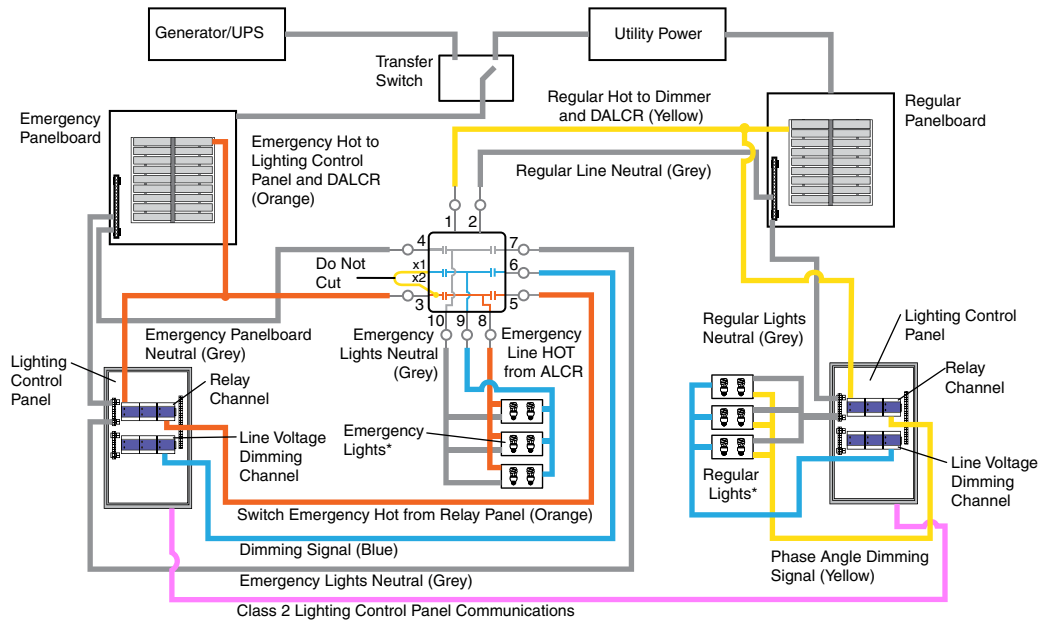


Figure 2: Wiring for 3-wire and Phase Angle Dimming

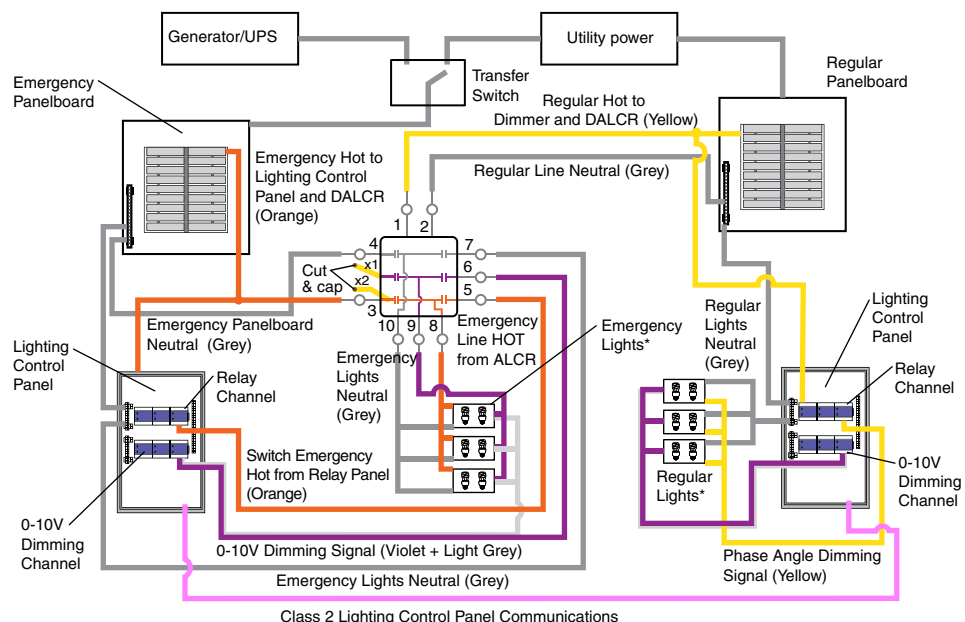
NOTES:

- * Use standard fixtures for both regular and emergency egress lighting.
- DALCR only uses regular power for monitoring.
- Under regular power, relay 5 is closed and relay 3 is open, allowing phase angle dimming between input 5 and output 8.
- Under regular power, relay 6 is closed, allowing the sending of dimming signals between input 6 and output 9.
- Under emergency power, relay 5 is open and relay 3 is closed, allowing constant power between input 3 and output 8.
- Under emergency power, relay 6 is open turning off the dimming signal.
- Under emergency power, relay x2, x1 provides full power to output 9 and sends lighting to maximum light level..

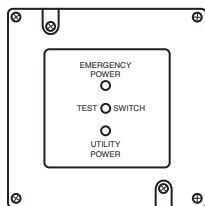


NOTES:

- * Use standard fixtures for both regular and emergency egress lighting.
- DALCR only uses regular power for monitoring.
- Verify that X1 and X2 are cut and capped when using 0-10V or digital electronic dimming ballasts.



INITIAL TESTING OF THE DALCR



1. Turn ON the circuit breaker supplying regular electrical power to the regular lighting circuits. The Utility Power green LED illuminates (the bottom LED in the figure on the left).
2. Turn on the circuit breaker for the emergency power. At this time, regular power is still ON. The Emergency Power red LED illuminates (the top LED in the figure on the left).
3. Do not turn ON the dimmer system. Press the white Test Switch on the unit. The designated emergency light fixtures should turn ON full bright.
NOTE: The fixtures should also turn ON full bright if the circuit breaker supplying utility power is turned OFF.
4. When the circuit breaker supplying electrical utility power is ON, operate dimmer control and verify all fixtures light up, including the designated emergency fixtures.
5. Verify that the dimmer system lights respond when adjusted from low to high levels.

FINAL TESTING

1. Turn OFF the main circuit breaker supplying regular electrical power to the lights. The transfer switch will automatically change positions and emergency circuits are powered from either a generator, inverter, or UPS emergency source system.
2. All designated emergency light fixtures are powered to full bright regardless of whether the dimming system is turned ON or OFF. This functionality conforms to NEC Article 700 and UL 924.

SPECIFICATIONS

Electrical		
Part Number	SLSEDC120	SLSEDC277
Ballast	120VAC, 20A	277VAC, 20A
Tungsten	120VAC, 1800W	277VAC, 1500W
General Use	20A	20A
Relay Contact	Normally Closed	
Current Consumption	Active: 50mA; Inactive:15mA	

Standards
UL 924, UL 94V-0 Flame Rating

Mechanical	
Weight	16 oz. (453.6 g)
Ambient Temperature	32°F to 140°F (0°C to 60°C)
Dimensions (L x W x H)	5.125 in. x 5.125 in. x 2.25 in. (130.175 mm x 130.175 mm x 57.15 mm)

Contact the Customer Information Center for technical support by phone at 1-888-778-2733 or e-mail at lightingcontrol.support@us.schneider-electric.com.

Contact your local Schneider Electric service representative for repairs or service to your network.

You may also find helpful information on our web site at www.Schneider-Electric.us.

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