



ALCR-D5

Installation & Safety Instructions

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

ALL SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL

- This product is intended for use with lighting fixtures controlled by an Emergency panel. Any switching between Backup Power and Utility Power must be done upstream of this device.
- All wiring connections and mounting styles must be in accordance with the National Electrical Code (NEC), National Fire Protection Association (NFPA), National Electrical Safety Code, state and local codes, and any other regulations set forth by the local Authority Having Jurisdiction (AHJ).
- Per NFPA 70E, the use of Personal Protective Equipment (PPE) may be required. Check state and local codes.
- The load's operating voltage must be the same as the Emergency Power Input voltage.
- To reduce the risk of electrical shock, fire, and injury to persons:
 1. Disconnect all sources of power before servicing,
 2. Mount this device in locations and at heights where it will not be readily accessible to tampering by unauthorized personnel,
 3. Do not mount near gas or electric heaters,
 4. Do not let any wires touch hot surfaces, and
 5. Do not use outdoors
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this device for other than intended use.

SAVE THESE INSTRUCTIONS

Specifications

Electrical Specifications

Normal Power Supply Voltage	120- 277Vac
Normal Power Current Draw	38mA max
Normal Power Operating Frequency	50/60Hz
Emergency Power Supply Voltage	120- 277Vac
Emergency Power Current Draw	88mA max
Emergency Power Operating Frequency	50/60Hz
Remote Test Input (Class 2, Dry Contact)	TB-D1020 or other switching method ^{1,2}
Feedback/Dimmer Contact Switching Capability (Dry Contact Output 1, N/O - N/C)	1A Resistive @ 30Vdc
Relay Contact SPST	5A Electronic/LED Ballast @ 120- 277Vac 5A Ballast @ 120- 277Vac

¹: If not using the TB-D1020 Remote Test Button (sold separately), switching methods should be rated for at least 24Vdc. External voltage should not be supplied to this input. No specific current rating is required.

²: To maintain Class 2, a maximum of 45 total test inputs can be wired in parallel per TB-D1020.

Mechanical Specifications

Wire: 16" 600V Rated

Operating Temperature: -30° to 140° F (-35° to 60° C)

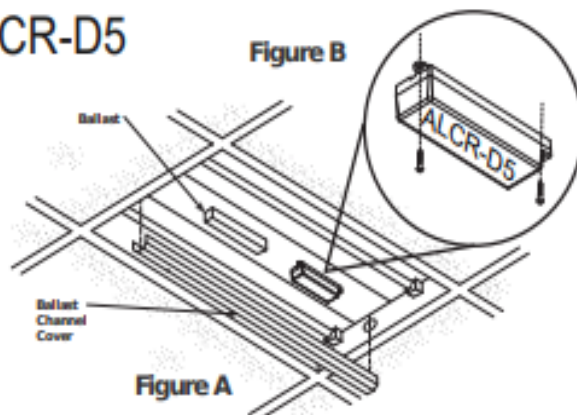
Humidity Range: 5 to 95% (noncondensing)
Rated for dry and damp locations only

Approvals: UL listed, UL924, C-UL

Installation

ALL INSTALLATIONS AND WIRING SHOULD BE DONE BY QUALIFIED PERSONNEL

ALCR-D5



Steps

1. Remove all sources of power.
2. Remove ballast channel cover.
3. Mount ALCR-D5 as shown in Figures A and B
4. Wire the ALCR-D5 using an illustration from the "Typical Applications" section on page 3 or similar setups for different application.
5. Before applying power, review the Important Safeguards at the beginning of this document.
6. Finish installation as required by the NEC, NFPA, state, local, and other codes. Test the ALCR-D5 using the "Test Procedure" on page 4

Operation

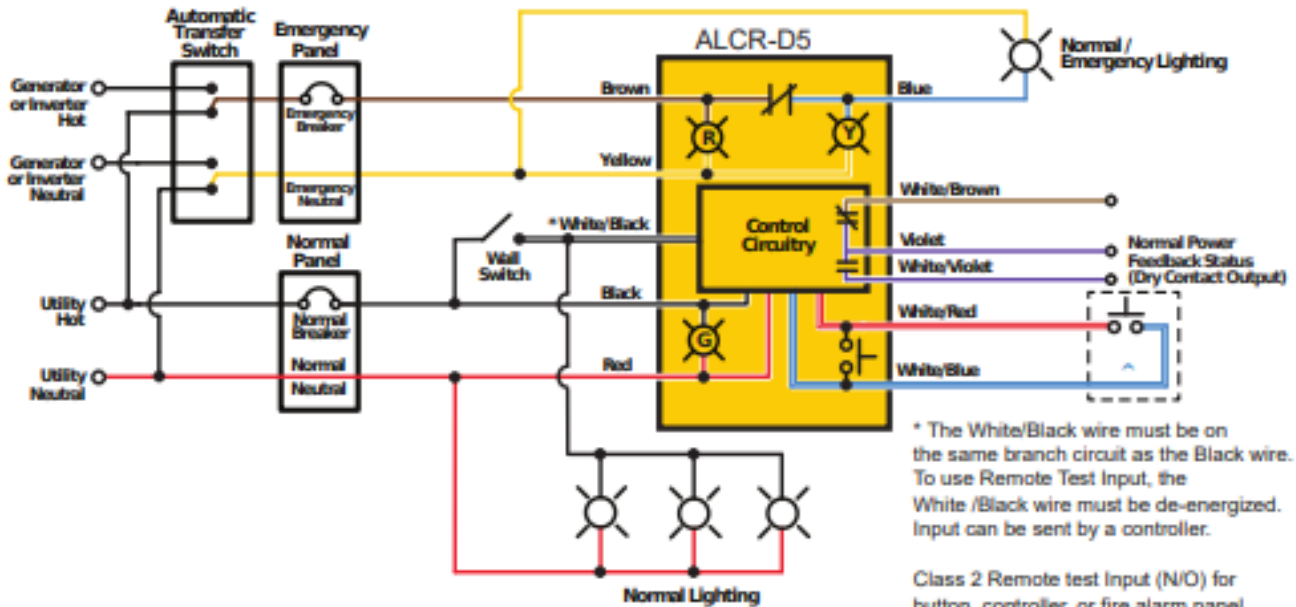
The ALCR-D5 will activate an Emergency lighting load automatically upon the loss of Normal Power. If Normal Power is absent, the status of the load cannot be overridden. However, if the Normal Power is present, the Emergency lighting load can be controlled by other means in order to use it as a Normal Lighting load, depending on the wiring setup. When Normal Power is present, the N/O status contact will automatically close. Therefore, when Normal Power is absent, the N/O status contact will open (**perfect for 0-10V dimming controls**). The N/C contact will operate opposite of N/O. A red LED indicates the Emergency Power is available. A Green LED indicates that Normal Power is present. A Yellow LED copies the status of the load; if the LED is on, the load is on.

Maintenance

No routine maintenance is required for the ALCR-D5. Occasionally, this device should be tested to ensure that it works correctly in accordance with national and local codes.

Typical Applications

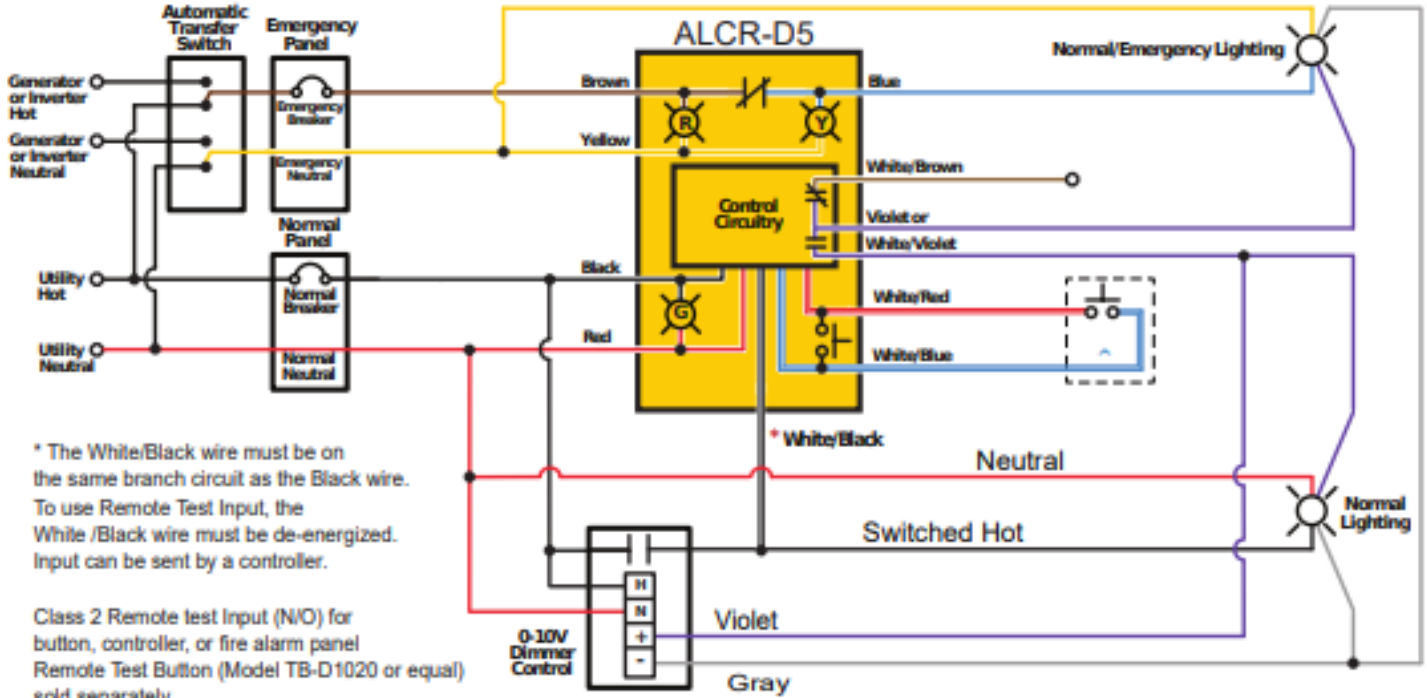
Using Emergency Lighting as Normal Lighting - non-dimming



Class 2 Remote test Input (N/O) for button, controller, or fire alarm panel Remote Test Button (Model TB-D1020 or equal) sold separately

When not using the Remote Test input, cap off the White/Red and White/Blue wires individually (if present) .

Overriding a 0-10Vdc Dimmer



When not using the Remote Test input, cap off the White/Red and White/Blue wires individually (if present) .

Wiring Descriptions

Wire Color	Description	Notes
BLACK	Normal Hot	N/A
WHITE/BLACK	Wall Switch Input	Must be from same branch circuit as Black and Red.
RED	Normal Neutral or other Phase	N/A
BROWN	Emergency Hot	N/A
BLUE	Emergency Hot Switched to load	Switches out the voltage put in on Brown
YELLOW	Emergency Neutral or other Phase	N/A
WHITE/BLUE	Remote Test Input (Class 2, Dry Contact Input)	When wiring multiple units together, White/Blue must be a shared common. Test is performed when Input is CLOSED.
WHITE/RED		
WHITE/VIOLET (N/O) VIOLET (C) WHT/BROWN (N/C)	Feedback/Dimmer Contact (Dry Contact Output)	N/O is OPEN when Normal Power is Absent or Remote Test Input is CLOSED. N/C opposite. N/O is CLOSED when Normal Power is Present or Remote Test Input is OPEN. N/C opposite.

To test the ALCR-D5 periodically, repeat the appropriate Test Procedure above in accordance with national and local codes.

Troubleshooting

Condition	Action
Red LED is OFF	<ul style="list-style-type: none"> Check Emergency Power Input wiring (Brown and Yellow wires) and voltage.
Green LED is OFF	<ul style="list-style-type: none"> Check Normal Power Input wiring (Black and Red wires) and voltage.
Yellow LED is ON but Load is OFF	<ul style="list-style-type: none"> Check bulbs and ballast. Check Load wiring (Blue wire and Load's neutral). Verify Load's operating voltage is the same as the Emergency Power Input Voltage. Replace unit.
Load is ON but Yellow LED is OFF	<ul style="list-style-type: none"> Replace unit.
Yellow LED and Load do not turn on when being tested.	<ul style="list-style-type: none"> Check bulbs and ballast. Check wiring connections if using a remote test option. Press local test button on the unit. Replace unit.
Yellow LED and Load will not turn OFF	<ul style="list-style-type: none"> Verify status of Normal Power Input. Open Wall Switch Input. Verify that no test inputs are stuck closed. (i.e. Remote Test Input is not closed).

Testing and Troubleshooting

Test Procedure: Three options to test the ALCR-D5 after installation:

Initial Test for Correct Wiring

Apply Emergency Power to the Emergency Power Input and Normal Power to the Normal Power Input. (If using the Wall Switch Input, apply Normal Power to the switch also, but keep the switch OFF/OPEN.)

- The Red LED (Emergency Power available) should be ON.
- The Green LED (Normal Power available) should be ON.
- The Yellow LED (Load Status) should be OFF.
- The Load should be OFF.
- The Feedback/Dimmer Contact (N/O) should be CLOSED.

Local Test Button

- Turn switched circuit OFF. Emergency light should be OFF.
- Press and hold "Local Test Button"
- Emergency light should turn ON.
- Release "Local Test Button" and emergency light should turn off.

Remote Test Button

(Model TB-D1020 or approved equal - sold separately)

- Turn switched circuit OFF. Emergency light should be OFF.
- Press and hold "Remote Test Button"
- Emergency light should turn ON.
- Release "Remote Test Button" and emergency light should turn OFF.