

INSTRUCTION MANUAL

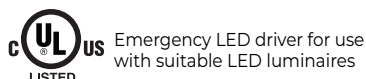
IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS:

1. To reduce the risk of electrical shock, disconnect both normal and emergency power sources before servicing.
2. This is a sealed unit. Replace the entire unit when necessary.
3. Installation and service should be performed by qualified personnel only.
4. This unit must be grounded. See the wiring diagrams for details.
5. This unit must be connected to the unswitched emergency source of power circuit and to the unswitched normal source of power circuit (120 – 277 Vac, 50/60 Hz).
6. This unit should be mounted in locations and heights where it will not readily be subjected to tampering by unauthorized personnel.
7. This product is suitable for use in damp locations where the ambient temperature is in the range of -20 °C minimum to 65 °C maximum. This product is also suitable for use in sealed and gasketed fixtures.
8. This product is not suitable for heated air outlets, wet, or hazardous locations.
9. This Emergency Lighting Control Device is intended for use with designated luminaires powered in emergency-mode from a remote emergency source of power.
10. Use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void the warranty, or result in non-compliance with regulations.
11. Do not mount near gas or electric heaters.
12. Do not use this equipment for other than intended use.
13. Install in accordance with the National Electrical Code and local regulations.
14. Installation and service should be performed by qualified personnel.
15. Lighting fixture manufacturers, electricians, and end-users need to ensure product system compatibility before final installation.

SAVE THESE INSTRUCTIONS

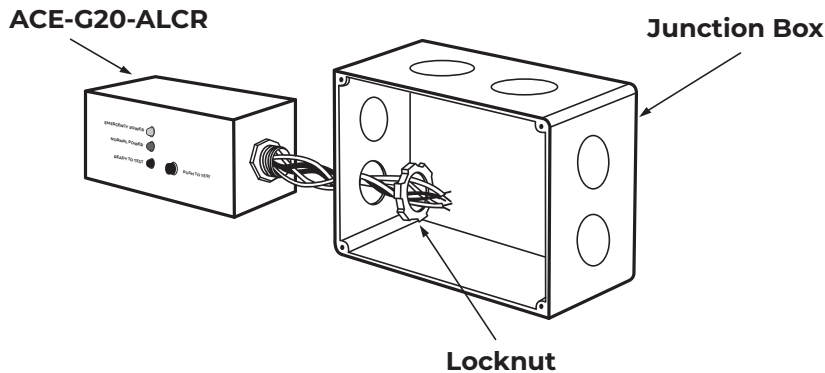


CAUTION:

BEFORE INSTALLING, VERIFY THAT BOTH THE NORMAL AND EMERGENCY SUPPLY CIRCUITS ARE OFF.

MOUNTING THE ACE-G20-ALCR

The **ACE-G20-ALCR** is designed for connection to a junction box or electrical enclosure with a 1/2-inch knockout. Remove the locknut and insert the threaded nipple through the junction box knockout. Tighten the locknut so that the unit is secured to the junction box.



WIRING

Refer to the wiring diagram. Install in accordance with the National Electrical Code and local regulations.

REMOTE TRIGGER DEVICE INSTALLATION (OPTIONAL)

The **ACE-G20-ALCR** features a provided jumper loop which allows for an optional connection to an optional remote switch, which can be used as a remote test switch or remote trigger, such as an alarm or fire panel. The jumper loop must be cut for connection to a normally-closed (N.C.) switch (remote device). **Do not** cut the jumper loop unless remote activation is desired.

NOTE: It is recommended to perform Initial Testing before proceeding with Remote Trigger Device installation.

- 1) Cut the jumper loop wire.
- 2) Connect the two ends to a single pole N.C. switch. The switch must provide a normally closed, maintained, dry contact closure. The remote switch must open the circuit in order to activate the **ACE-G20-ALCR** into the Emergency Mode. If the remote device is intended as a test switch, it must be installed in an accessible location.

INITIAL TESTING

After completing installation, verify that the **ACE-G20-ALCR** is functioning properly in both normal-model and emergency-mode operation. Follow all national, state, and local codes concerning occupancy while testing.

- 1) With the **ACE-G20-ALCR** wired per the wiring diagram, make sure that normal power is on, and emergency power is not on. With the normal panel circuit breakers on and the emergency panel circuit breakers on, the normal panel should be energized directly, while the emergency panel should be energized via the Transfer Switch in normal-mode.
- 2) Verify that all three LEDs on the **ACE-G20-ALCR** are on. Verify that the "normal lighting luminaires" and the "emergency + normal lighting luminaires" can both be turned on and off via the normal lighting wall on/off switch.
- 3) If dimming functions are used, verify that the dimming control functions are working correctly for the "normal lighting luminaires" and the "emergency + normal lighting luminaires."

- 4) Turn off the circuit breaker from the normal panel that feeds the normal circuit connected to this individual **ACE-G20-ALCR** and verify that the connected designated “emergency luminaires” are operating at full light output, while the “normal lighting luminaires” are off. Under these conditions, the **ACE-G20-ALCR** senses that normal power has failed, therefore the unit switches to emergency-mode. The YELLOW LED (ready to test LED) and the GREEN LED (Normal-Mode LED) should both be off. The RED LED (Emergency power LED) should be on because the emergency panel is still being fed by the normal source of power via the Transfer Switch being in normal-mode since there is not a complete system level loss of the normal source of power. In this way, this individual **ACE-G20-ALCR** can be tested without initiating a complete system level loss of the normal source of power and forcing a system level emergency.
- 5) Turn on the circuit breaker from the normal panel that feeds the normal circuit connected to this individual **ACE-G20-ALCR** and verify that the connected luminaires are operating correctly.
- 6) Test the test switch: With AC power applied, while the unit is in Normal-Mode, and with the READY TO TEST (YELLOW) LED ON, manual testing can be performed as follows:
 - a. Push and hold the momentary Integral Test Switch. This transfers the unit into emergency-mode, and the Emergency Luminaire(s) should be ON. The unit will remain in emergency-mode while the test switch is pushed.
 - b. Release the test switch to transfer the unit back to normal-mode and verify that the connected luminaires are operating correctly.
- 7) Test the remote test switch (if this option is used): With AC power applied, while the unit is in Normal-Mode, and with the READY TO TEST (YELLOW) LED ON, testing can be performed as follows:
 - a. Activate the N.C. remote test switch to cause the circuit to open. This transfers the unit into emergency-mode, and the Emergency Luminaire(s) should be ON. The unit will remain in emergency-mode while the test switch is activated.
 - b. Return the switch to its normal state to transfer the unit back to normal-mode and verify that the connected luminaires are operating correctly.

OPERATION

Normal Mode – Normal A.C. power is on. Fixtures are operating normally and all LED indicators on the **ACE-G20-ALCR** will be on: Normal Power (Green), Emergency Power (Red), and Ready to Test (Yellow).

Note: The **ACE-G20-ALCR** includes a dual zone dimming relay which can accommodate two separate

0-10 V dimming circuits, which allows the normal lighting dimming controller to dim the connected luminaires as normal while in normal-mode. When the normal power fails, the dimming relay bypasses the dimming controller(s), the designated switched emergency luminaires are then powered to full light output in both zones during emergency-mode regardless of dimmer setting. **Emergency Mode** – When normal A.C. power fails, the **ACE-G20-ALCR** senses power failure and automatically switches to emergency-mode. All connected designated “emergency luminaires” are operated at full light output, while the “normal lighting luminaires” are off. The Emergency Power Indicator LED (Red) on the **ACE-G20-ALCR** is on, while the Normal Power (Green) and Ready to Test (Yellow) LED indicators are off. When normal power returns, the **ACE-G20-ALCR** returns to the normal operating state.

TESTING & MAINTENANCE

The ACE-G20-ALCR is a maintenance free unit, however, periodic inspection and testing is required. Refer to the NFPA 101, Life Safety Code and local codes for required emergency testing schedules. Testing should be conducted following maintenance or re-working of any of the fixtures connected to the emergency circuit.

TYPICAL WIRING DIAGRAM

