



# Installation & User Manual

## Load Control Relays

LCR20 - (UL924 Bypass Relay 20A, 1P, No Flex Mount)

LCR20A - (UL924 Bypass Relay 20A, 1P, Flex Mount)

220-MAN Rev A

Due to continuous product improvement this document is subject to change without prior notice.

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<b>SERIAL NUMBER:</b>	
<b>KVA/POWER RATING:</b>	
<b>INPUT VOLTAGE:</b>	
<b>OUTPUT VOLTAGE:</b>	
<b>MANUFACTURER DATE:</b>	

# LCR20 / LCR20A

## INSTRUCTION MANUAL



- UL924 Listed 20 Amp Emergency Lighting Control Device
- 0-10 Dimmer Vdc Override for Emergency Full Illumination
- Dimmer Contact Switching 120mA @ 250V
- Ballast Channel Mounting
- Aluminum Case



## IMPORTANT SAFEGAURDS

WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:

### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. **CAUTION** - This fixture provides more than one power supply output source. To reduce the risk of electrical shock, disconnect both normal and emergency sources by turning off the AC branch circuits.
2. **CAUTION** This is a sealed unit. Replace the entire unit when necessary.
3. **DO NOT USE OUTDOORS.** The LCR20 & LCR20A are used with grounded, UL Listed, Indoor fixtures. Not for use in heated air outlet or hazardous locations.
4. Do not mount near gas or electric heaters.
5. The **LCR20A** should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
6. The **LCR20A** is compatible with lighting loads wired on a 20A (max.) circuit.
7. The **LCR20A** are for use in standard switching and 0-10 volt dimming applications, and NOT designed for use with 3-wire dimming or step dimming ballasts. Maximum current of the dimming circuit must not exceed 110mA.
8. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
9. Do not use this equipment for other than intended use.
10. Install in accordance with the National Electrical Code and local regulations.
11. Installation and servicing should be performed by qualified personnel.
12. Lighting fixture manufacturers, electricians, and end-users need to ensure product system compatibility before final installation.

## SAVE THESE INSTRUCTIONS



**CAUTION: Before installing, make certain the AC power is off for both normal and emergency circuits.**

# LCR20/LCR20A INSTALLATION GUIDE



**CAUTION:** Before installing, make certain the AC power is off for both normal and emergency circuits.

## 1A. MOUNTING THE LCR20

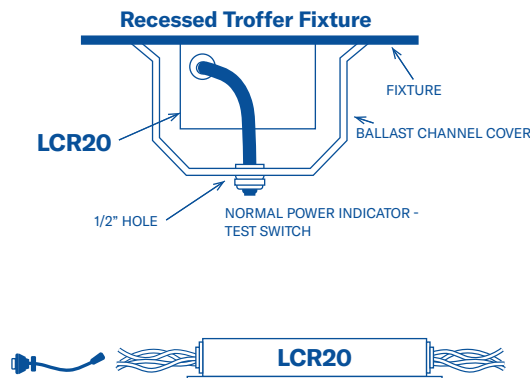
**Integral (No Flex) -** Remove the driver channel cover. Mount in the ballast/driver channel at least 1/2" away from the AC driver(s).

## 1B. MOUNTING THE LCR20A

**Bottom Mounting and Single Flex -** Remove Junction Box lid and drill holes for mounting studs and lead wire feed. Re-attach cover plate after wiring. An additional single gang junction box for the test switch/normal power indicator light will need to be provided by other. See mounting template on Page 5.

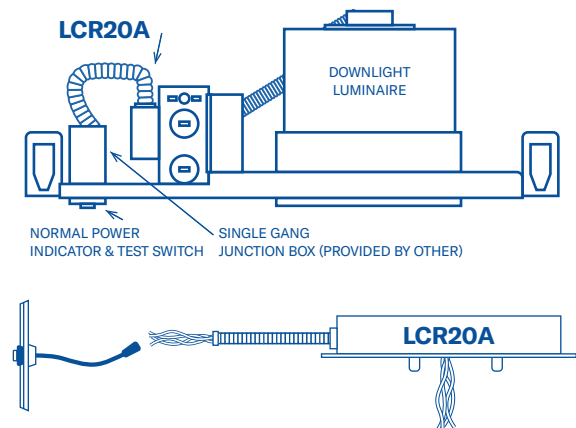
### 1A. LCR20

Integral (No Flex) Mounting



### 1B. LCR20A

Stud Mounting with Single Fixed (Bottom Mount)



## 2. WIRING

Refer to the wiring diagram on the back page. Install in accordance with the National Electrical Code- and local regulations. For additional wiring diagrams consult Customer Service.

## 3. INSTALLING THE AC INDICATOR

Mount the supplied 4-wire illuminated test switch in a location that is visible and accessible by maintenance personnel. The switch mounts through a 1/2" hole which may need to be added to the luminaire or could come pre-punched by the luminaire supplier.

For the single conduit (LCR20A) models, add an additional single junction box for the test switch indicator light wall plate.

Wire the test switch per wiring diagrams provided on these instructions. If wired correctly, the test switch indicator light should be "ON" when normal AC power is supplied to the fixture. Pushing the test switch in normal power condition will turn on the emergency luminaire(s) whether the wall switch is on or off.

# LCR20/LCR20A INSTALLATION GUIDE



**CAUTION:** Before installing, make certain the AC power is off for both normal and emergency circuits.

## 4. WIRING THE AC INPUT

Refer to wiring diagram on Page 7 for the proper wiring configurations. For wiring diagrams not shown, consult Customer Service.

## OPERATION

**NORMAL MODE** - AC power is present. The AC driver or ballast operates the lamp(s) as intended. The closed dimming relay allows operation of the luminaire(s) at the desired setting of the connected 0-10 Vdc dimming signal (if provided).

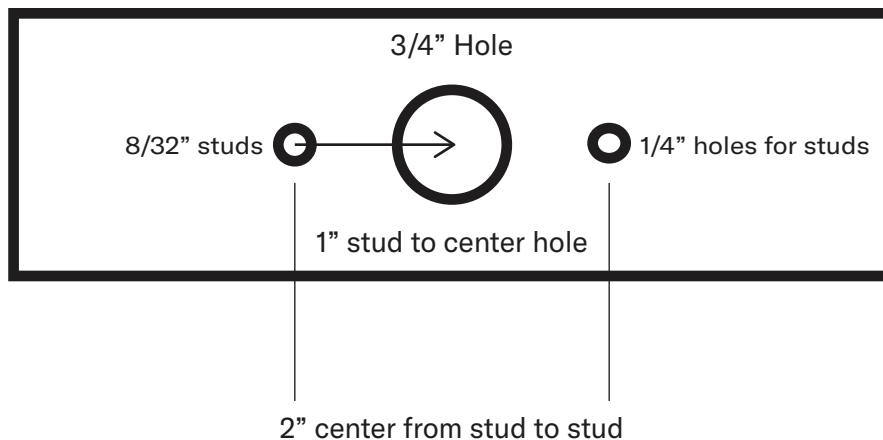
**EMERGENCY MODE** - Failure of normal AC (utility) power. The ALCR device senses the AC power failure and automatically bypasses the wall switch with an internal relay controlling the AC Driver/Ballast, ensuring the flow of emergency power to the controlled emergency lighting load regardless of the wall switch's "on" / "off" state. The ALCR Device dimming relay contacts open and forces the emergency lighting load to operate at full lumen output regardless of the dimmer setting. This light level will continue for the duration of the provided emergency or auxiliary power or until normal power is restored.

## TESTING & MAINTENANCE

The ALCR Device is a maintenance free unit, however, periodic inspection and testing is required. NFPA 101, Life Safety Code, outlines the following schedule: Insure that the AC Indicator light is illuminated monthly. "Written records of testing shall be kept by the owner for inspection by the authority having jurisdiction."

**SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL!**

**LCR20A Bottom Mount with Studs**  
Stud Mounting Detail



# TYPICAL WIRING DIAGRAMS

For wiring diagrams of ballast/drivers not shown, consult our Customer Service.

## 0-10 vdc Dimming Wiring Diagram (Typical)

