

Application Note

RRU-X-UNV Emergency Power Control for 0-10V and Line Voltage Applications

Overview

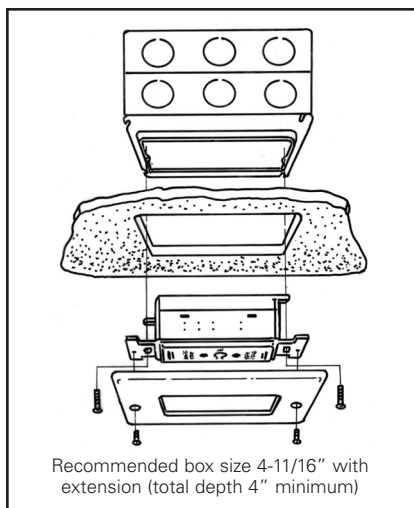
In the past, all emergency lights were left on 24 hours a day to meet safety codes. Now you can specify & install a UL924 Listed Emergency Power Control RRU-X-UNV, which converts up to 20A of normal light fixtures to approved emergency lights. During normal operation, the RRU-X-UNV dims designated emergency lights with the same control as your normal lights. During a utility power interruption, the RRU-X-UNV turns designated emergency lights on, at full brightness, regardless of dimmer position. Intended for use with switching, line voltage dimming and 0-10V and DALI/Wireless dimming controls.

Technical Details

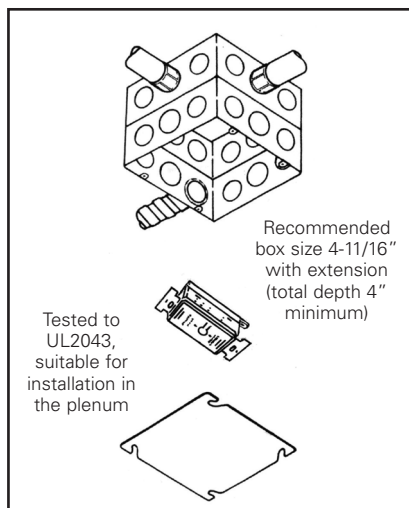
Fire Alarm / Remote Test Switch - some applications demand that emergency lighting be activated upon fire alarm, security alarm, or remote test switch activation. The RRU-X-UNV is equipped with a low voltage override input (red jumper).

Universal mounting - unique enclosure permits flush, fixture, plenum or panel mounting.

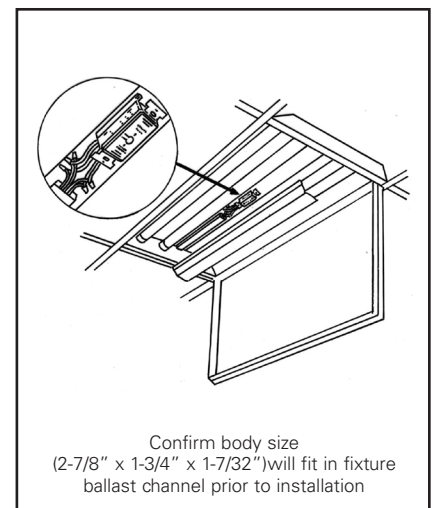
Flush mount installation



Junction box installation



Fixture mount installation



Installation

In order to install the RRU in accordance with national/local code requirements, a qualified electrician should review & understand the installation instructions. Check voltage & current requirements. Verify & lock out circuit breakers on both regular (utility) power & 24 hour emergency generator or inverter circuit. Install a self-adhesive 2" x 3" caution label in each fixture or load controlled by an RRU cautioning that the load is supplied from 2 different power sources, normal & emergency. Review wiring diagram & connect wires, one at a time, in accordance with the numeric identification. In order to provide a safe light level, when regular power is interrupted, it is recommended that a minimum of approximately 5000 lumen are controlled by a 24 hour emergency circuit & are spaced no farther than 24' in any direction from each other in a normal 9' white ceiling environment.

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Initial testing and troubleshooting

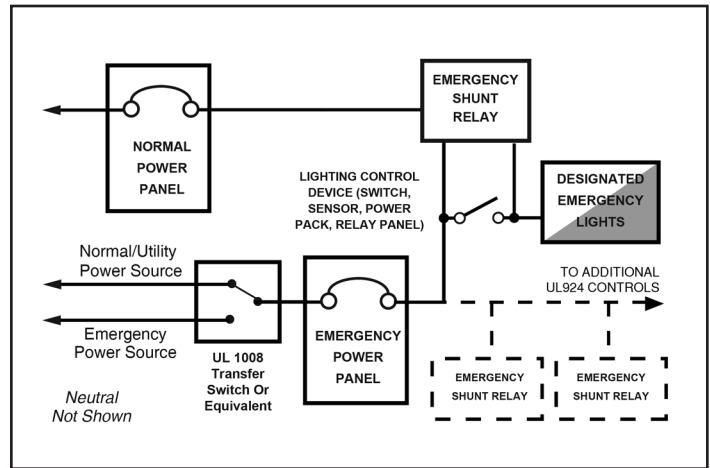
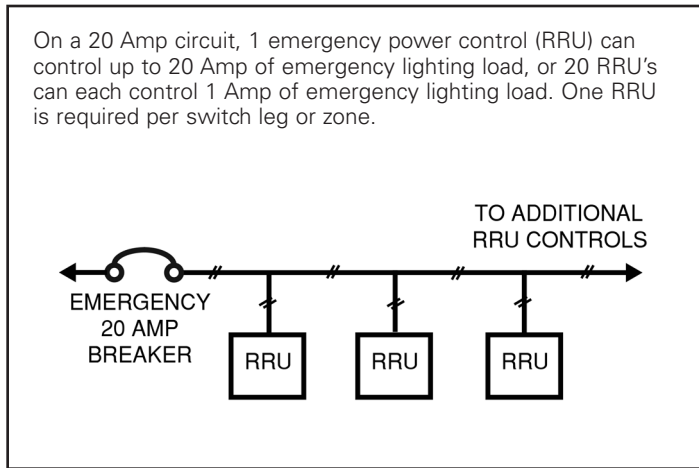
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- 1) Check that regular branch circuit breaker is connected & utility power is available. Green LED should be lit. If green LED is not lit, check connections & continuity to branch circuit breaker.
- 2) Check that emergency branch circuit breaker is connected & emergency power is available.
- 3) Normal Operation Test: Turn dimmer or other control device to the "ON" position. Emergency lights should turn on. Reduce dimmer to ~50%, emergency lights should dim to ~50%. Turn room switch or control to the "OFF" position. Emergency lights should turn off.
- 4) Emergency Operation Test: Press and hold test button, emergency lights should illuminate at full brightness until test button is released.

Maintenance

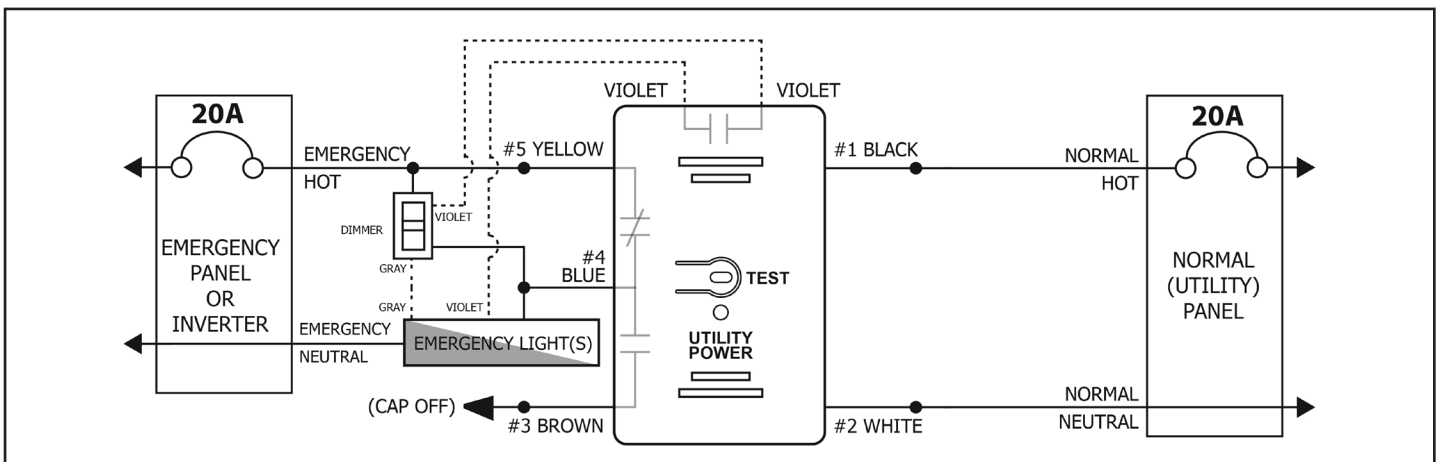
No maintenance is required to keep the RRU functional. However, regular testing should be performed when the lamps or ballasts have been replaced or when remodeling has taken place.

Single line drawings



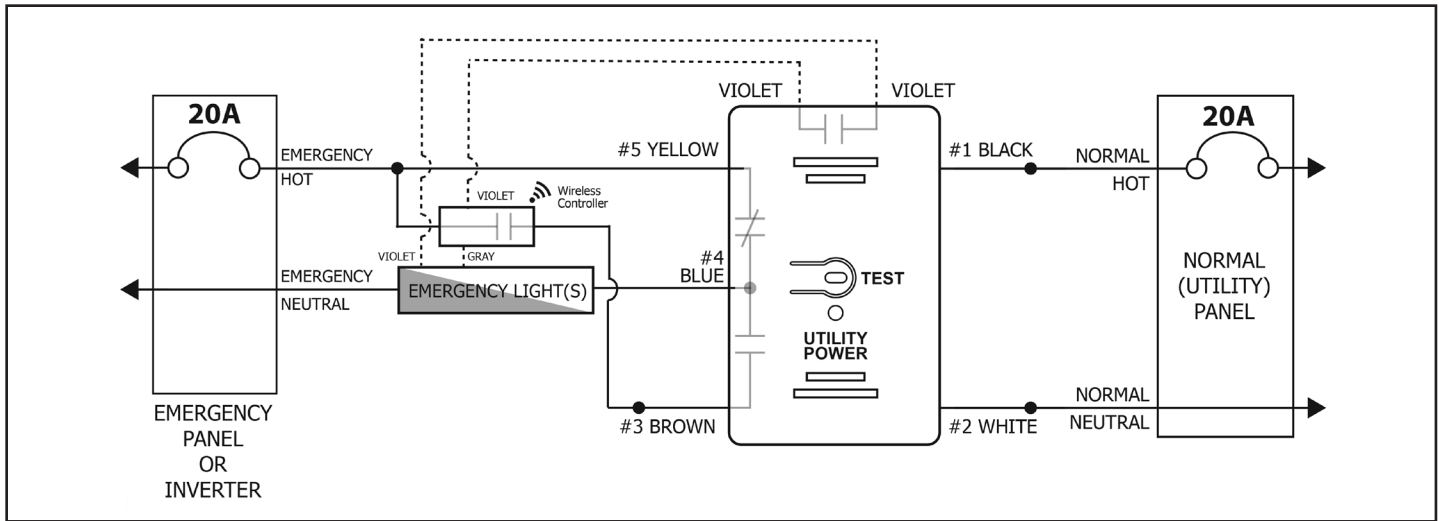
Wiring diagram 1

A dedicated dimmer controls emergency lighting in a space. Upon loss of normal power, the emergency lighting comes on at full brightness regardless of dimmer position.



Wiring diagram 2

Wireless controller such as LumaWatt Pro LWP-CU-3E-IR or WaveLinX Integrated luminaire.



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