

Application Note

Room Controller with integral UL 924 automatic control relay

Overview

Many of today's lighting control applications require support for emergency lighting. Emergency lighting circuits typically provide minimum illumination levels for egress and safety as required by NFPA 101 Life Safety Code or other local building codes and standards.

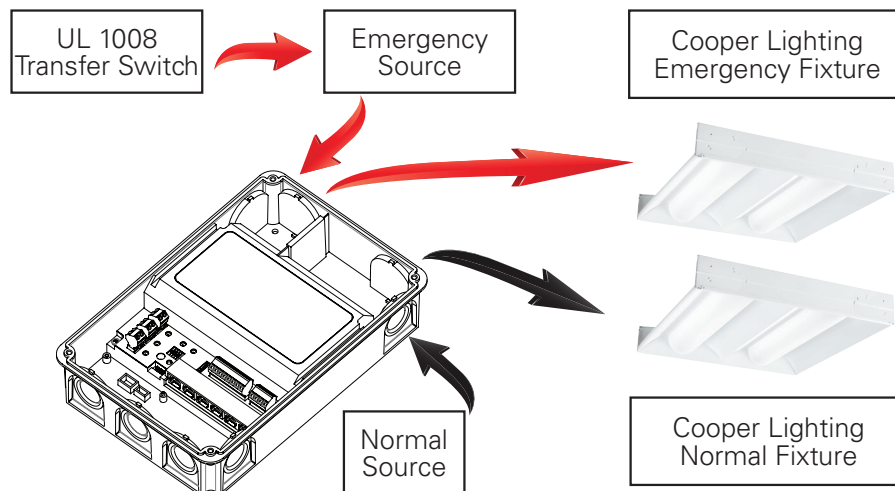
Historically, emergency lighting was not fully controlled or dimmed, resulting in additional expense for dedicated emergency fixtures or for operating lighting that was continuously ON. Now with the Room Controller's integral UL 924 automatic control relay, designers can fully control lighting that meets both normal and emergency lighting needs, reducing product and operation costs, while ensuring code compliance.

Technical Details

The Greengate Room Controller (RC3DE) integral UL 924 automatic control relay allows complete control of the emergency load under normal power operation while guaranteeing proper emergency lighting functionality during emergency power conditions.

Wiring for emergency lighting must be kept separate from normal wiring to prevent faults from affecting either normal or emergency lighting. Only the Room Controller (RC3DE) provides a total room switching and dimming solution with built in isolated normal and emergency spaces.

Units that control dimmed 0-10V lighting must ensure that during a normal power loss sufficient power is provided for emergency lighting purposes. Many systems today utilize accessory devices to provide this capability to separate the 0-10V control wires and ensure emergency lighting. The Room Controller (RC3DE) is the only room control system that provides emergency controlled 0-10V loads upon loss of normal power without requiring additional devices.



Cooper Lighting

by **EAT•N**

Emergency lighting must be tested monthly. Traditional automatic relay controls and battery packs often require ladders or remote inputs to test the emergency functionality. The Room Controller (RC3DE) includes an integral test feature which allows the facility to test emergency lighting without special equipment or leaving the space. Emergency lighting functionality can be tested by pressing the OFF button of any Room Controller wallstation five times within four seconds. Press 1 turns OFF all lighting, Presses 2-4 ("E-mer-gen-cy") will test the emergency lighting by closing the UL 924 automatic control relay and disconnecting the 0-10V dimming wires.

Conclusion

With a properly designed and configured lighting control system it is possible to utilize the same lighting fixtures for both normal and emergency applications. The Room Controller is designed to simplify installation and control of UL 924 emergency lighting and normal lighting controlled from the same unit.

This approach will encourage increased energy savings by controlling and dimming emergency lighting, as well as provide enhanced security by ensuring emergency egress lighting is forced to the full bright state.

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