

## Overview

UL924 Emergency Bypass is an option for Retrofit Interior (RI) and Relay Panel (RP) which provides energy management control of emergency lighting circuits during normal operation while maintaining emergency function during power loss. UL924 monitors normal power for drop-out. When drop-out occurs UL924 forces its relays On. Once the emergency transfer switch and generator supply backup power, the emergency lighting comes to life immediately. The UL924 option includes Relay Voltage Dividers (RVD) for separated normal and emergency circuits as well as provisions for user installed indicator lamp.

## Features

Provides energy management control and emergency function

Availability

RI08, 16, 32, and 48

RP08, 16, 32, and 48

8 and 16 Relay capacity

Normal and emergency voltage separation

## Sequence of Operations

1. Emergency circuits are controlled from the optional UL924 Emergency Bypass. The UL924 configuration jumper is set for "Emergency action Close all relays".
2. Power loss is detected by the UL924.
3. All relays connected to the UL924 are forced ON. UL924 capacitors power emergency relay function. No external power source or input is required for UL924 operation.
4. Relays not connected to the UL924 remain in their present state (On/Off). Lighting Tough Relays (LTR) are mechanical latching type.
5. Generator transfer switch (not located in the RI/RP) reacts and allows generator to feed dedicated emergency circuits previously fed by normal (utility) power. The relays connected to the UL924 are already ON, so the only possible source of delay in emergency lighting is the generator or emergency transfer switch.
6. Dedicated emergency lighting circuits will remain On while emergency power source is applied.
7. Normal power is restored and the emergency transfer switch returns all circuits to normal power.
8. Relays connected to the UL924 will remain On during and after normal power restoration.
9. Relays not connected to the UL924 remain in their present state (On/Off).
10. RI/RP resumes normal control of Relays and returns lighting to the correct level.

## General Specifications

Construction: Printed Circuit Board

Dimensions: 8.31"(211mm)H x 3.69"(94mm)W x 0.75"(19mm)D

Weight: 6oz (177g)

Mounting: Factory mounted in place of standard relay interface board

Operating Environment: 32-125°F (0-50°C), 20-95%RH, non-condensing

## Certifications

Maintains RI/RP UL Listing and all certifications

## Warranty

Maintains RI/RP warranty

## UL924 Specifications

Power In: 24VAC +/-10%, 30VA, 50-60 Hz (factory wired for normal power)

Auxiliary Out: 24VDC for normal power indicator lamp (user installed option)

Please note 200mA total is available from the Controller Board for Universal Inputs (UI), the Satellite / Station Network, and the UL924 Auxiliary Out.

Relay Capacity: 8 and 16 LTR1

Configuration Jumper: 3 Pin Jumper Terminal

No Jumper = Emergency action Disabled

1-2 Jumped = Emergency action Close all relays

2-3 Jumped = Emergency action Open all relays

Test Jumper: 2 Position Jumper Terminal

No Jumper = Simulated power loss

## Applicable Platform Specifications

RI/RP08: UL924 Controls LTR 1-8

RI/RP16: UL924 Controls LTR 1-16

RI/RP32: UL924 Controls LTR 17-32

RI/RP48: UL924 Controls LTR 33-48

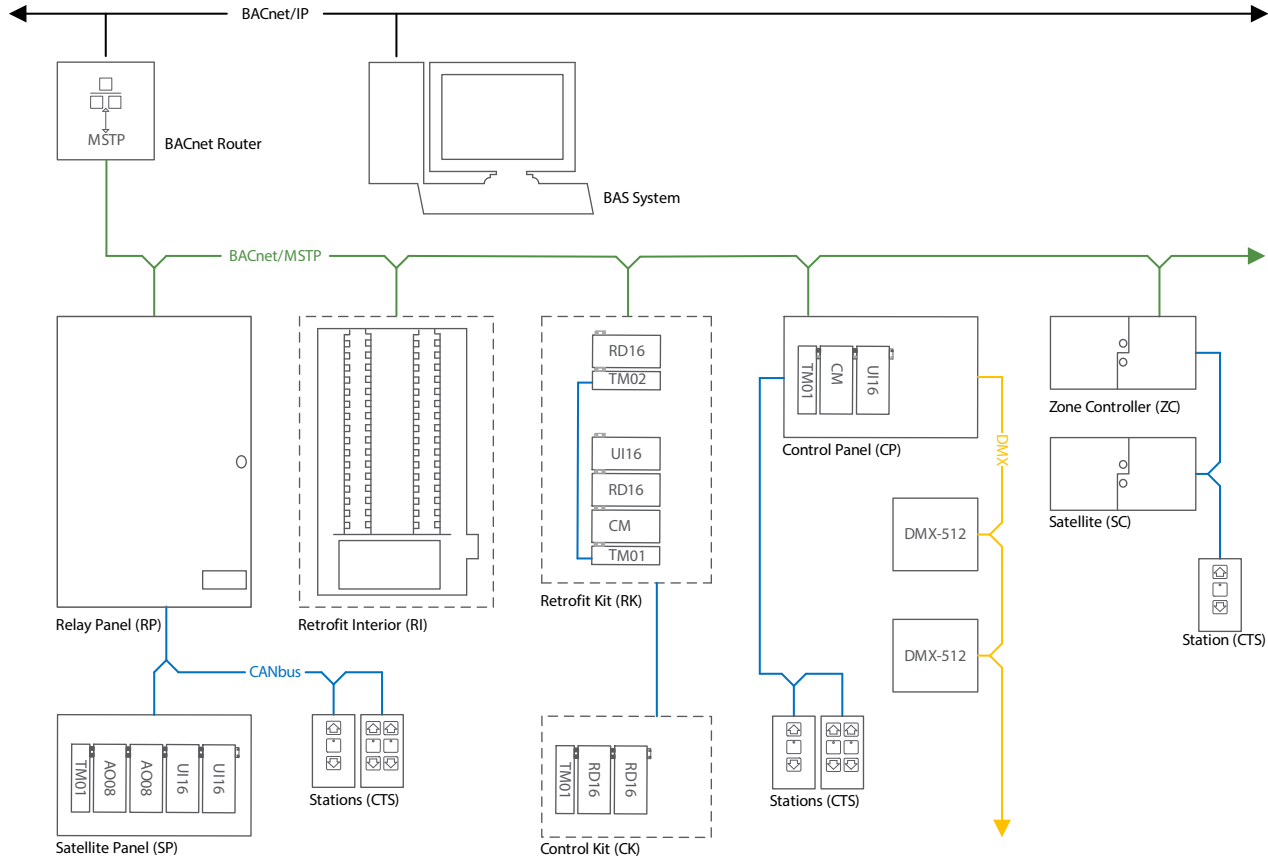
LTR connected to UL924 are dedicated to emergency circuits. However, the remaining RI/RP components require normal (utility) power to function. DO NOT supply the RI/RP transformer with emergency power.

# UL924 Emergency Bypass

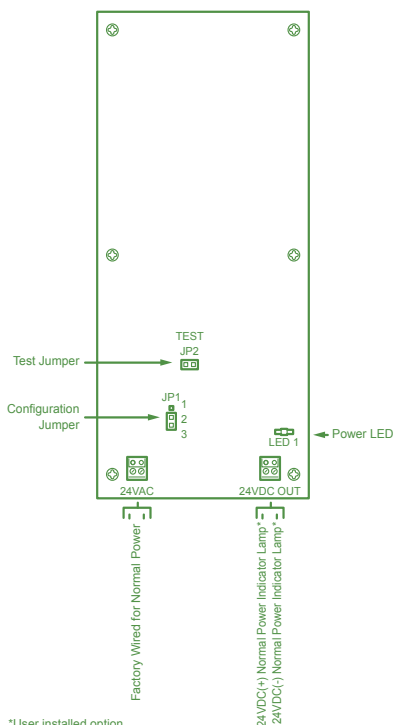
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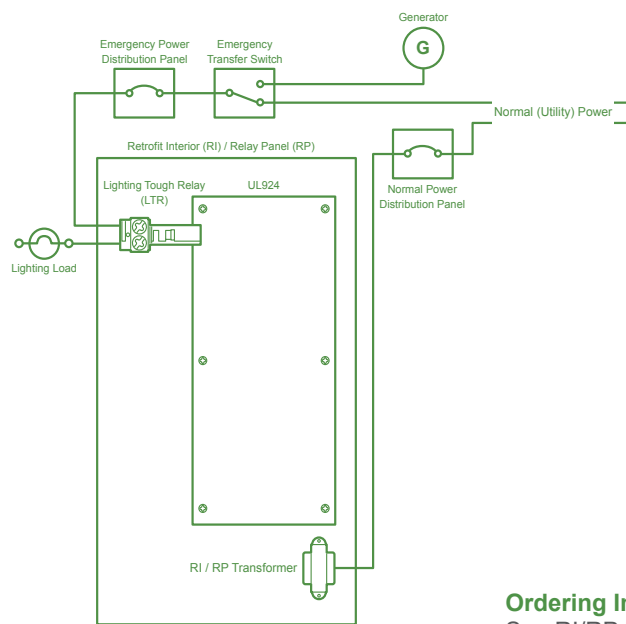
## System Architecture



## UL924 Terminations



## Emergency Bypass Structure



## Ordering Information

See RI/RP Data Sheet for ordering information.

\*User installed option.