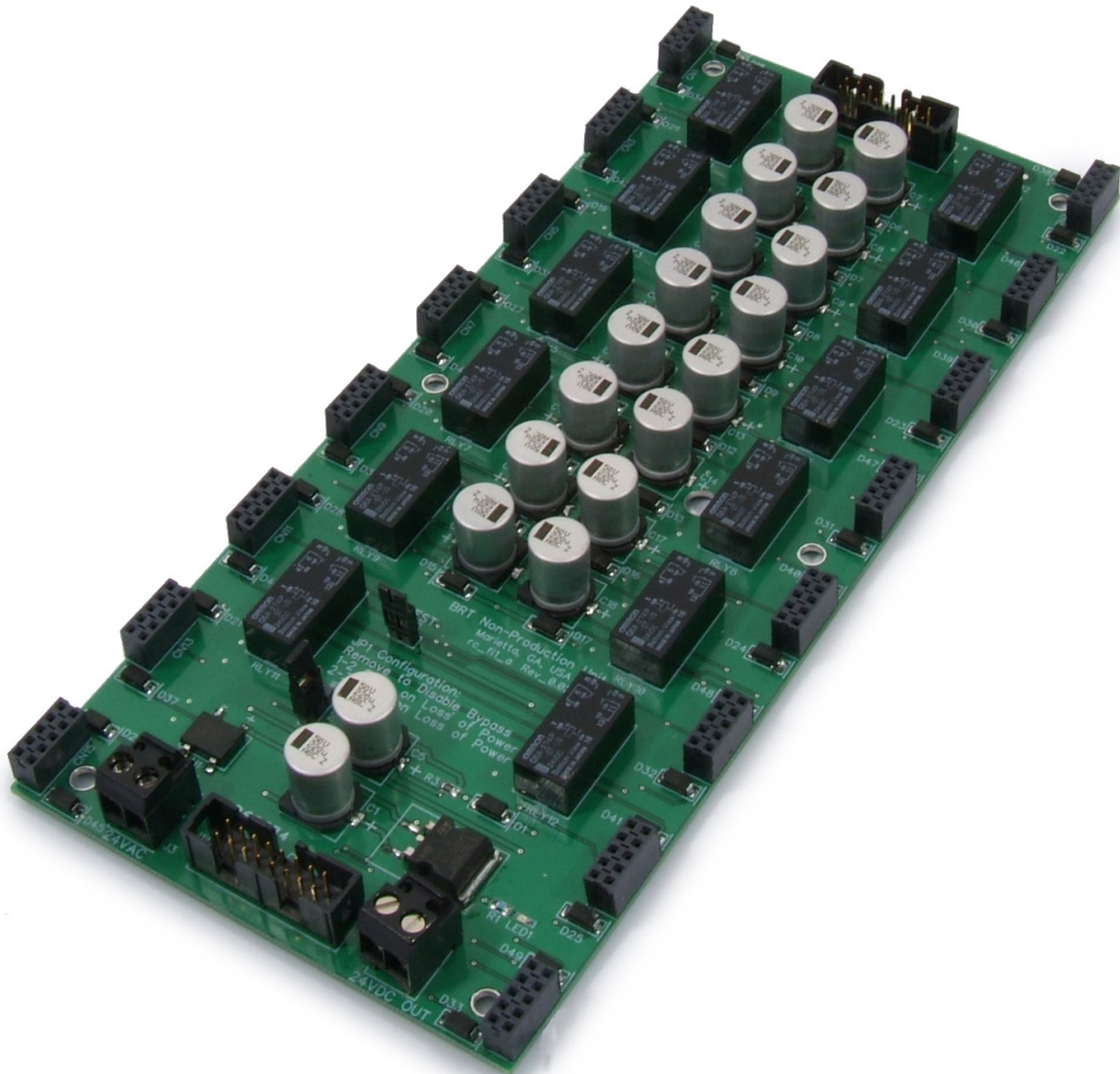


Connection and Configuration



Attention

This section serves as a notice of the immediate or potential dangers involved when working with the equipment described throughout this manual. Any person involved in installation, maintenance, or service of the equipment should first carefully examine the equipment and read the instructions contained in this manual to ensure that personal and/or equipment injury is avoided.

The following safety messages appear throughout this manual to alert of immediate or potential danger to life as well as property.



Note : Indicates an important note.



Tip : Indicates a helpful tip or trick.



Safety Reminder : Applicable safety instructions will be included with this symbol.



DANGER : Indicates an immediately hazardous situation which ,if not avoided, will result in serious injury or death.



WARNING : Indicates a potentially hazardous situation which ,if not avoided, may result in serious injury or death.



CAUTION : Indicates a potentially hazardous situation which ,if not avoided, may result in minor or moderate injury.

Disclaimer

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designated to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Instructions contained in this user's guide should be performed only by qualified persons in accordance with local and national codes. Blue Ridge Technologies International, LLC and its affiliates assume no responsibility for any consequences related to the improper use of this manual.



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Document Overview

This document provides instructions for connection and configuration of emergency lighting circuits in the following Blue Ridge Technologies products:

UL924 Relay Interface Board equipped Relay Panels (RP)

The steps in this Install Guide should be performed in conjunction with standard RP installation procedures.

Each UL924 equipped RP controls up to 16 Lighting Tough Relays (LTR) for emergency circuits. However, the remaining RP components require normal (utility) power to function. DO NOT supply the RP transformer with emergency power.

For RP installation guidelines and line voltage wiring refer to the RP Mounting Instructions.

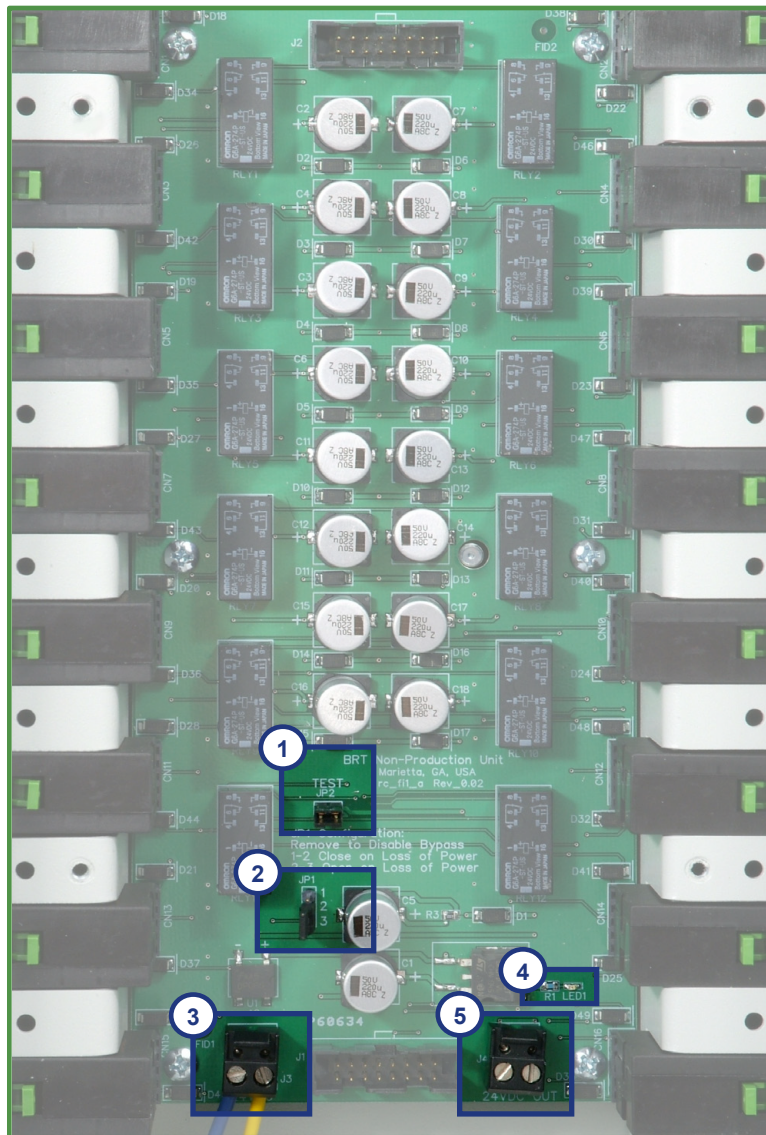
For Lx5 hardware configurations and low voltage wiring refer to the Lx5 Hardware User Guide.

For advanced Lx5 programming, including LPPK and AppLoader software instructions, refer to USB Tech Kit User Guide.

For Lx5 integration with a Building Automation System (BAS) refer to the Lx5 Integration Guide.

Identification and Features

1. Test Jumper
2. Configuration Jumper
3. 24VAC Power Input - Normal (Utility) Power
4. Power LED - Normal (Utility) Power
5. 24VDC Auxiliary Output - Normal (Utility) Power Indicator Lamp



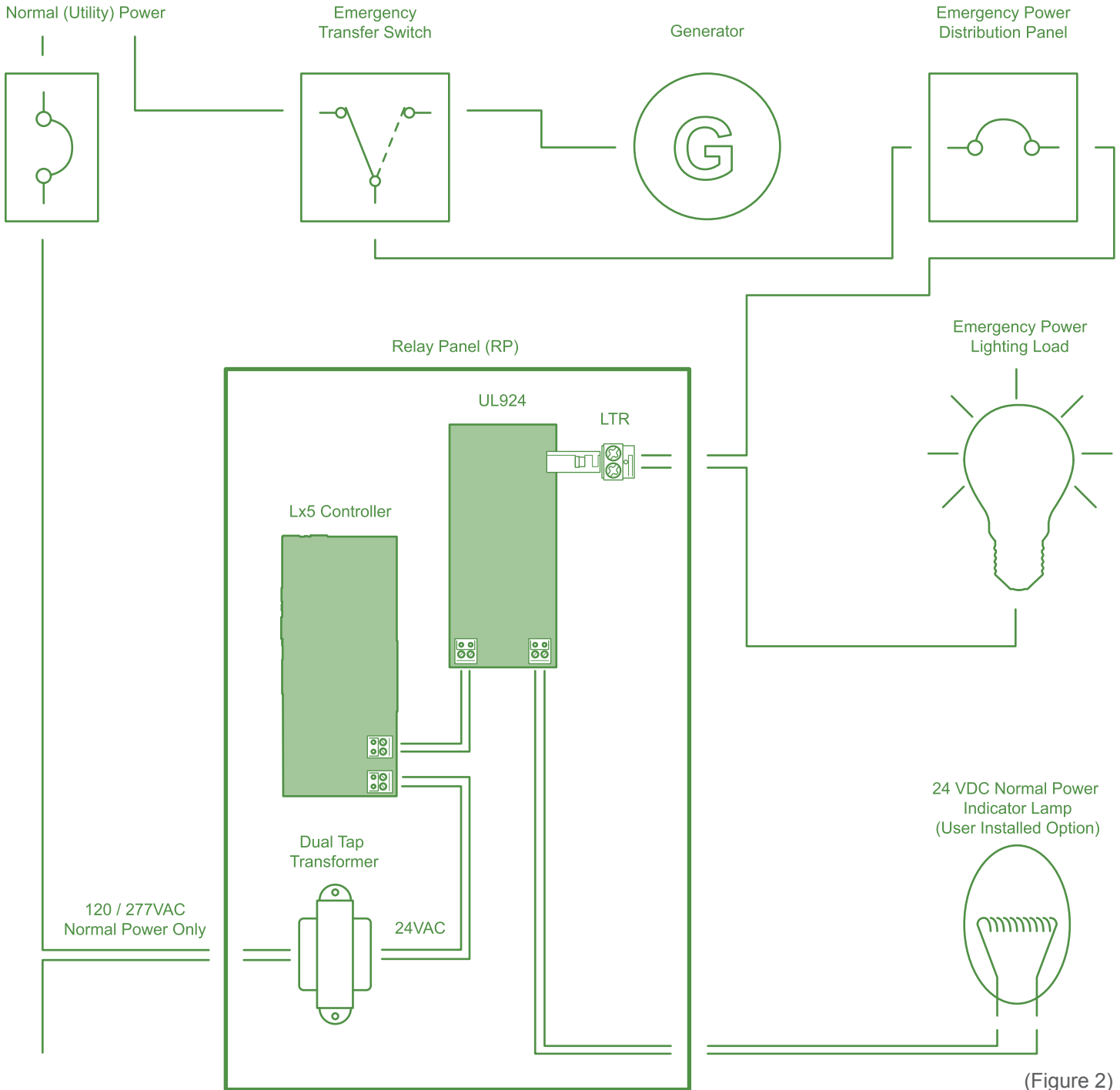
(Figure 1)



The UL924 mounts behind the Lx5. (See page 10 for UL924 access instructions)

Overall Wiring

Each UL924 equipped RP controls up to 16 Lighting Tough Relays (LTR) for emergency circuits. However, the remaining RP components require normal (utility) power to function. DO NOT supply the RP transformer with emergency power.

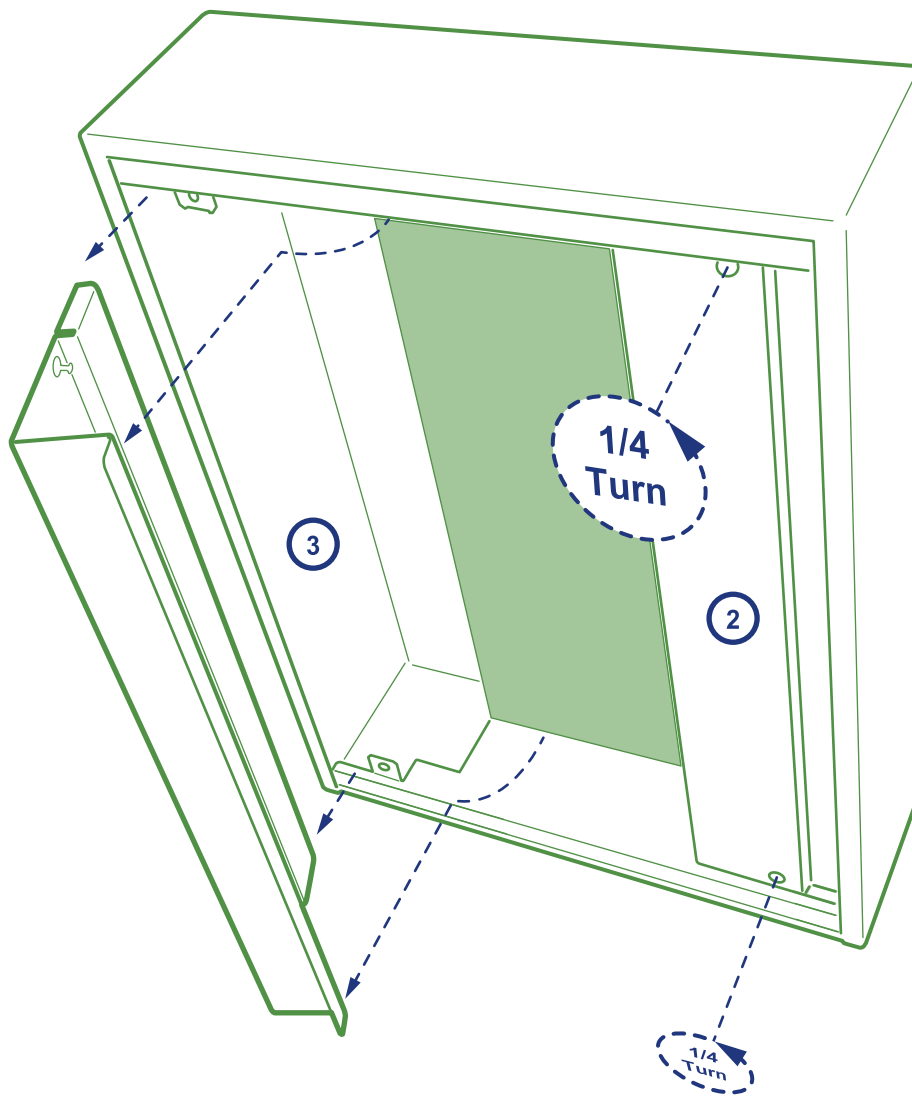


(Figure 2)

Relay Cover Removal

The Relay Covers must be removed in order to complete emergency circuit relay connections. (Figure 3) ¹

1. Confirm power is disconnected from the panel.
2. Unlock 1/4 turn fasteners located near top and bottom of Relay Covers.
3. Remove Relay Covers by rotating inside edge outward and pulling Relay Cover free.
4. Complete relay connections. (See page 8-9)
5. Replace Relay Covers.



(Figure 3)



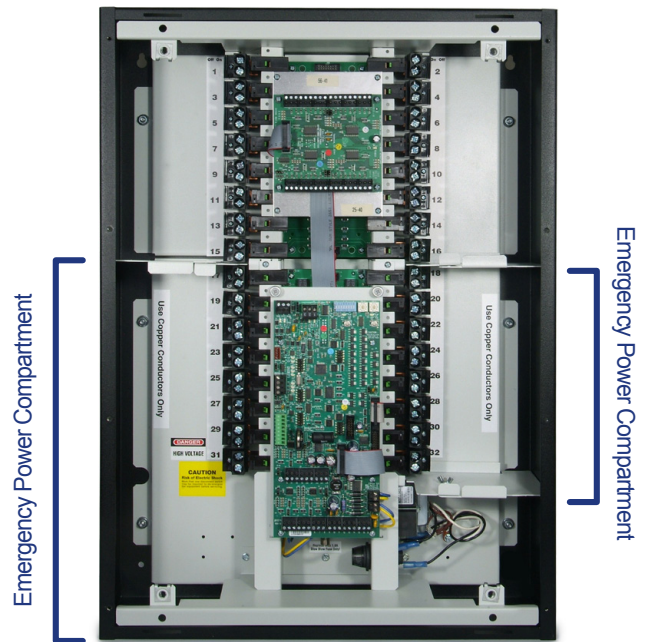
¹ Disconnect high voltage power from the panel before performing these steps.

Relay Connections

Each UL924 equipped RP controls up to 16 Lighting Tough Relays (LTR) for emergency circuits. However, the remaining RP components require normal (utility) power to function. DO NOT supply the RP transformer with emergency power.

The emergency circuits may now be terminated to the LTRs associated with the UL924. (See Emergency Power Compartment chart) (Figure 4-5) ¹

1. Confirm power is disconnected from the panel.
2. Prepare penetrations, conduit, and wire for the emergency power compartments of the panel.
3. Route wires to the appropriate LTR.
4. Cut wires to length and strip as appropriate.
5. Insert wires into LTR terminal block.
6. Torque each screw terminal to 36 in-lbs.
7. Repeat for each emergency circuit.



(Figure 4)

Emergency Power Compartments

Relay Panel Capacity	UL924 last 16 Relays only
CL16	Relays 1-16 are controlled by the UL924 Relay Interface Board
CL32	Relays 17-32 are controlled by the UL924 Relay Interface Board
CL48	Relays 33-48 are controlled by the UL924 Relay Interface Board

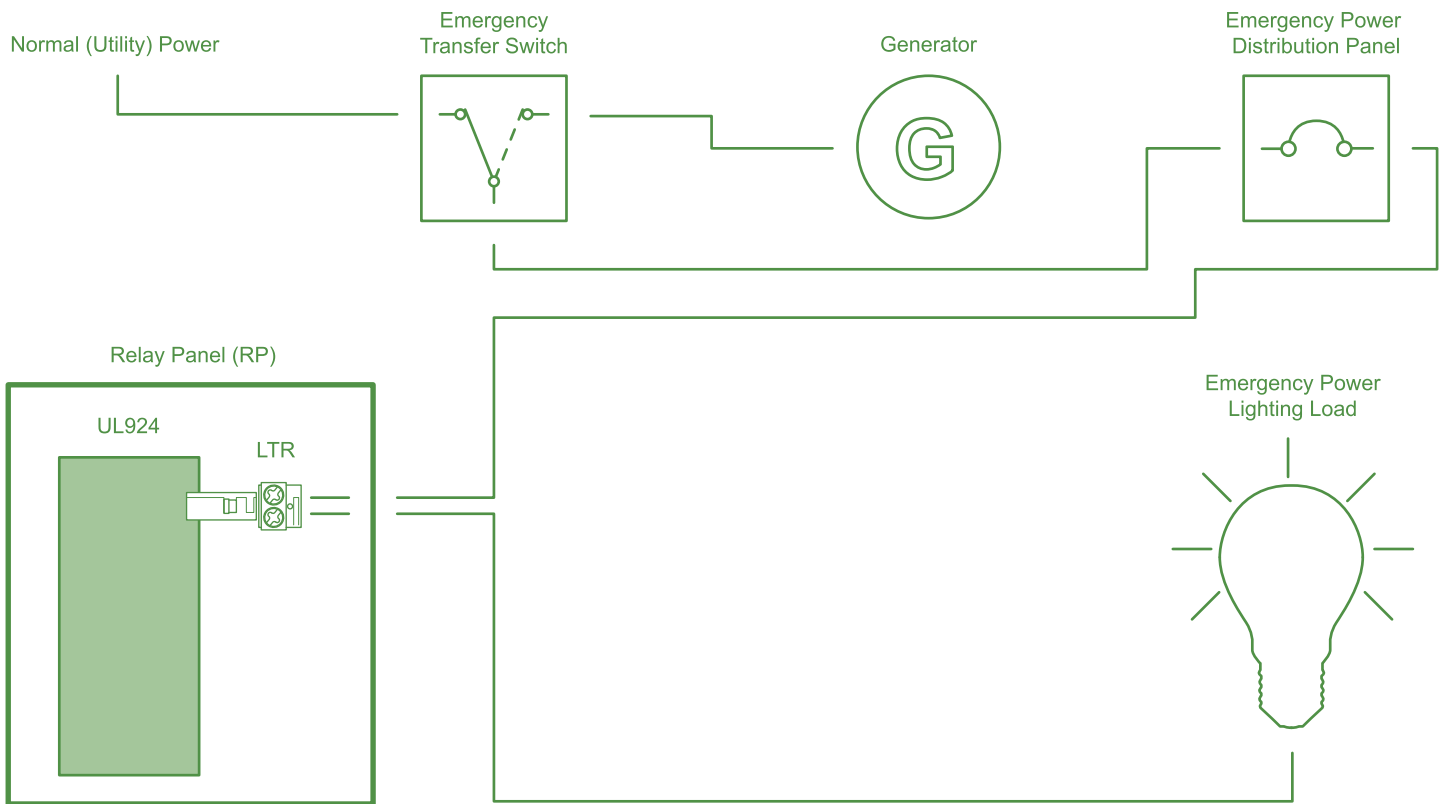


¹ Disconnect high voltage power from the panel before performing these steps.



DO NOT supply the RP transformer with emergency power.

Relay Connections



(Figure 5)

UL924 Access

In order to configure the UL924 the Lx5 Controller and Controller Mounting Plate (CMP) must be relocated.

1. Confirm power is disconnected from the panel.
2. Release the fasteners from the top of the CMP.
3. Pivot the assembly downward until it comes to rest perpendicular to the panel. (Figure 6) ¹
4. Perform necessary connection and configuration. (See page 11-13)
5. Carefully rotate the CMP to its original position.
6. Engage the fasteners securing the CMP.



(Figure 6)



Before handling any components on the circuit board, the technician should be grounded to prevent damaging the board.

¹ In this position the Lx5 and CMP are susceptible to damage. Proceed with care.

UL924 Configuration

The UL924 emergency action (response to power loss) may now be configured utilizing the Configuration Jumper. (Figure 7)

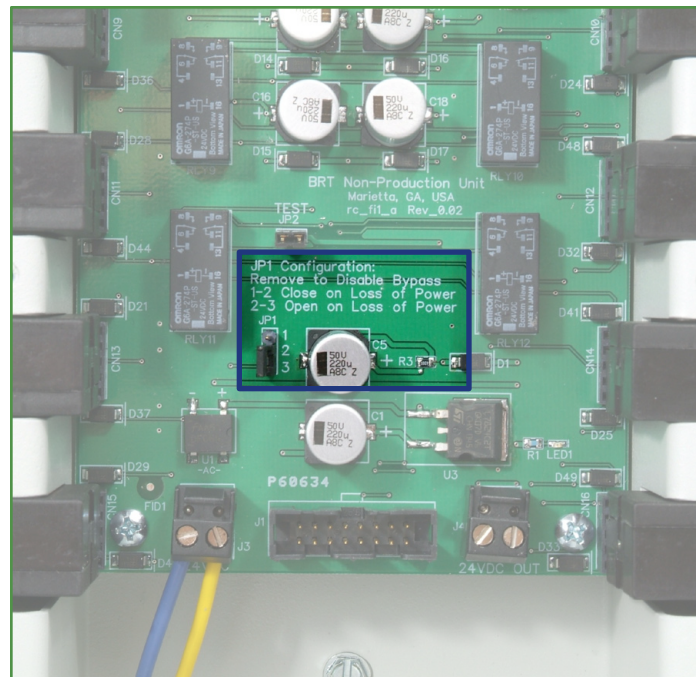
1. Confirm power is disconnected from the panel.
2. Set Configuration Jumper.

Configuration Options

No Jumper = Emergency action Disabled

1-2 Jumped = Emergency action Close all relays upon loss of Normal (Utility) Power

2-3 Jumped = Emergency action Open all relays upon loss of Normal (Utility) Power



(Figure 7)

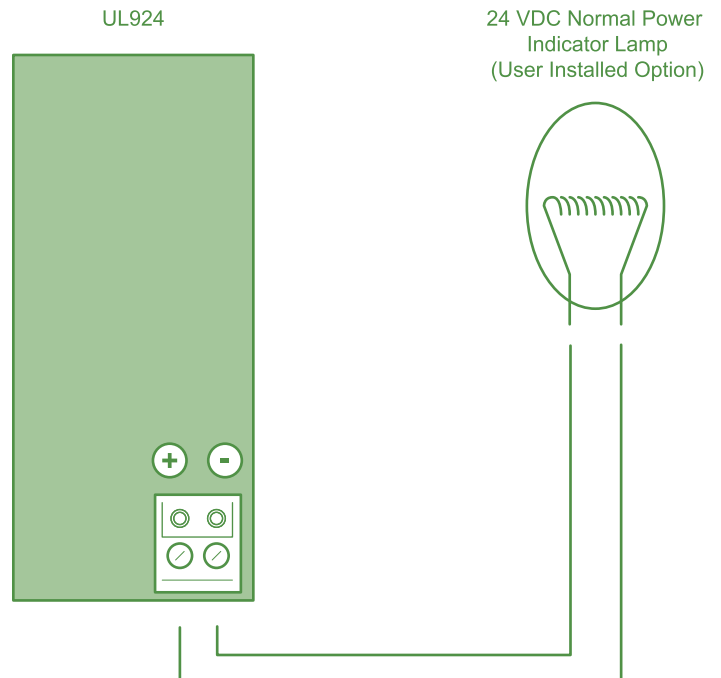
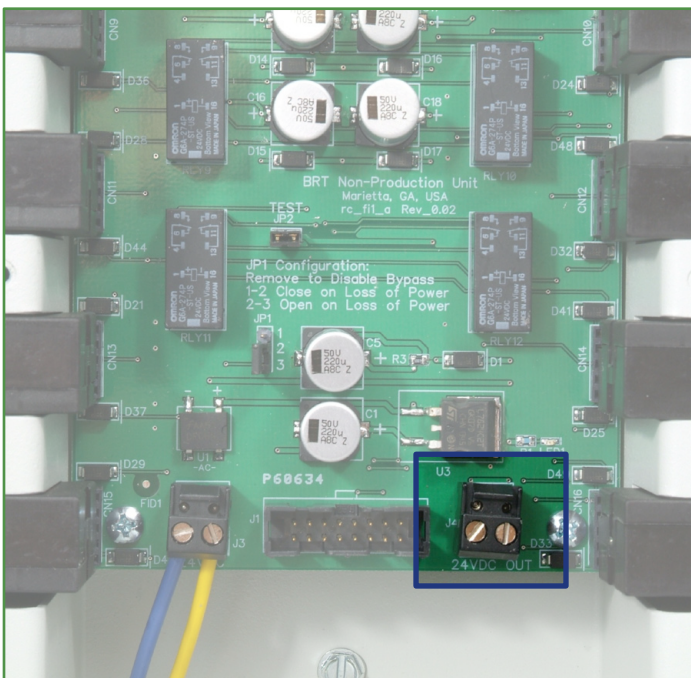


Before handling any components on the circuit board, the technician should be grounded to prevent damaging the board.

UL924 Normal Power Indicator

Installations requiring a normal power indicator lamp may utilize the 24VDC Auxiliary Output terminal (Figure 8).

1. Confirm power is disconnected from the panel.
2. Remove Auxiliary Output terminal block for ease of wiring.
3. Terminate the power (+) lead in the left terminal.
4. Terminate the ground (-) lead in the right terminal.
5. Route wires as necessary.
6. Reinstall terminal block.



(Figure 8)

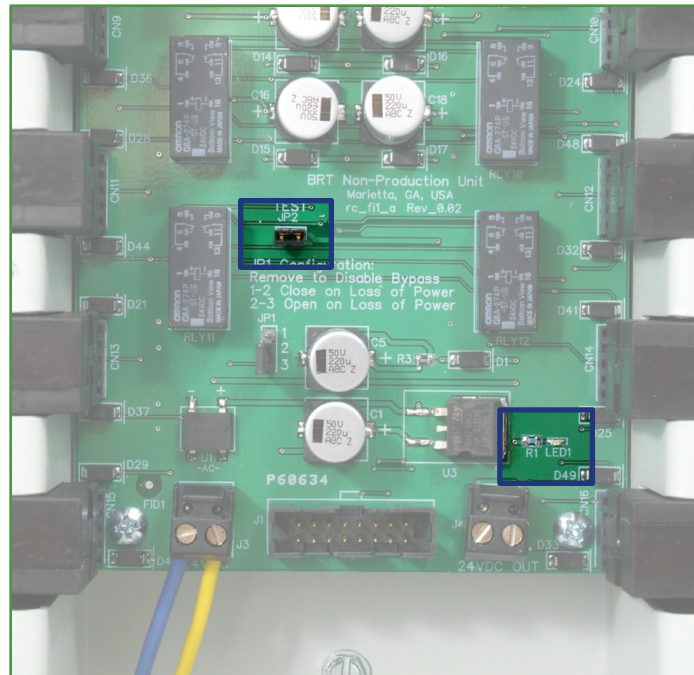


Before handling any components on the circuit board, the technician should be grounded to prevent damaging the board.

UL924 Testing

The UL924 may now be tested for proper function. (Figure 9) ¹

1. Reconnect power to the panel.
2. Verify the UL924 Power LED is illuminated solid. ²
3. Remove the Test Jumper to simulate power loss.
4. Confirm the relays associated with UL924 perform as configured (all Open/all Closed).
5. Reinstall Test Jumper.



(Figure 9)



¹ Ensure Relay Covers are installed and remain clear of high voltage wires while performing these steps.



² If the UL924 is not operating normally, check all power wires to verify proper connection and voltage. If the condition continues contact Blue Ridge Technical Support.