CL Series Relay Panel 08

Mounting and Line Voltage Wiring Instructions

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.

Table of Contents

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Document Overview

This document provides instructions for mounting and line voltage connection of the following Blue Ridge Technologies products :

CL Series 08 Relay Panels (RP)

RP enclosures are NEMA 1 rated and must be mounted in a dry / indoor environment.

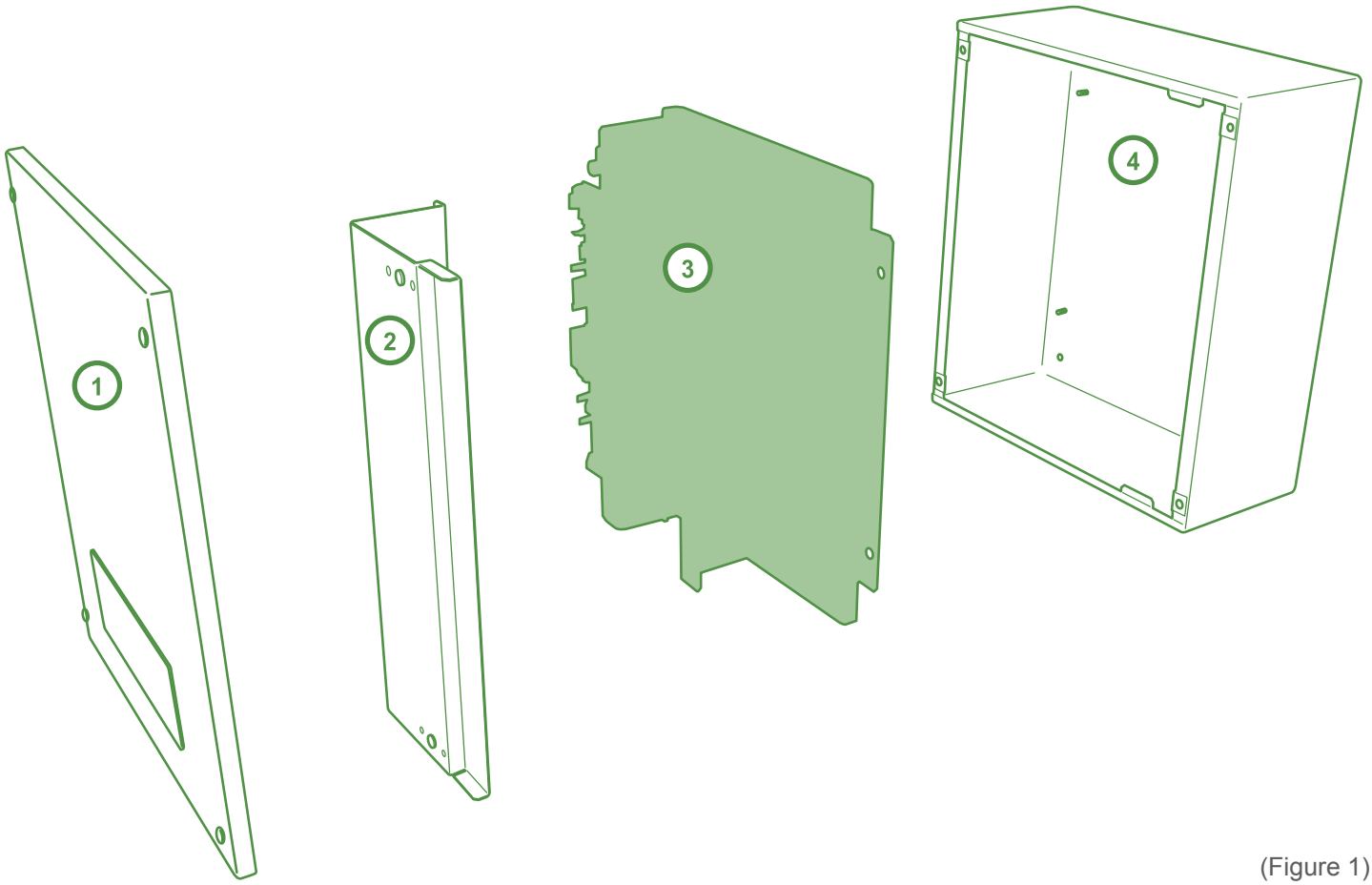
For Lx5 hardware configurations and low voltage wiring refer to the Lx5 Hardware User Guide.

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.

Assembly Overview

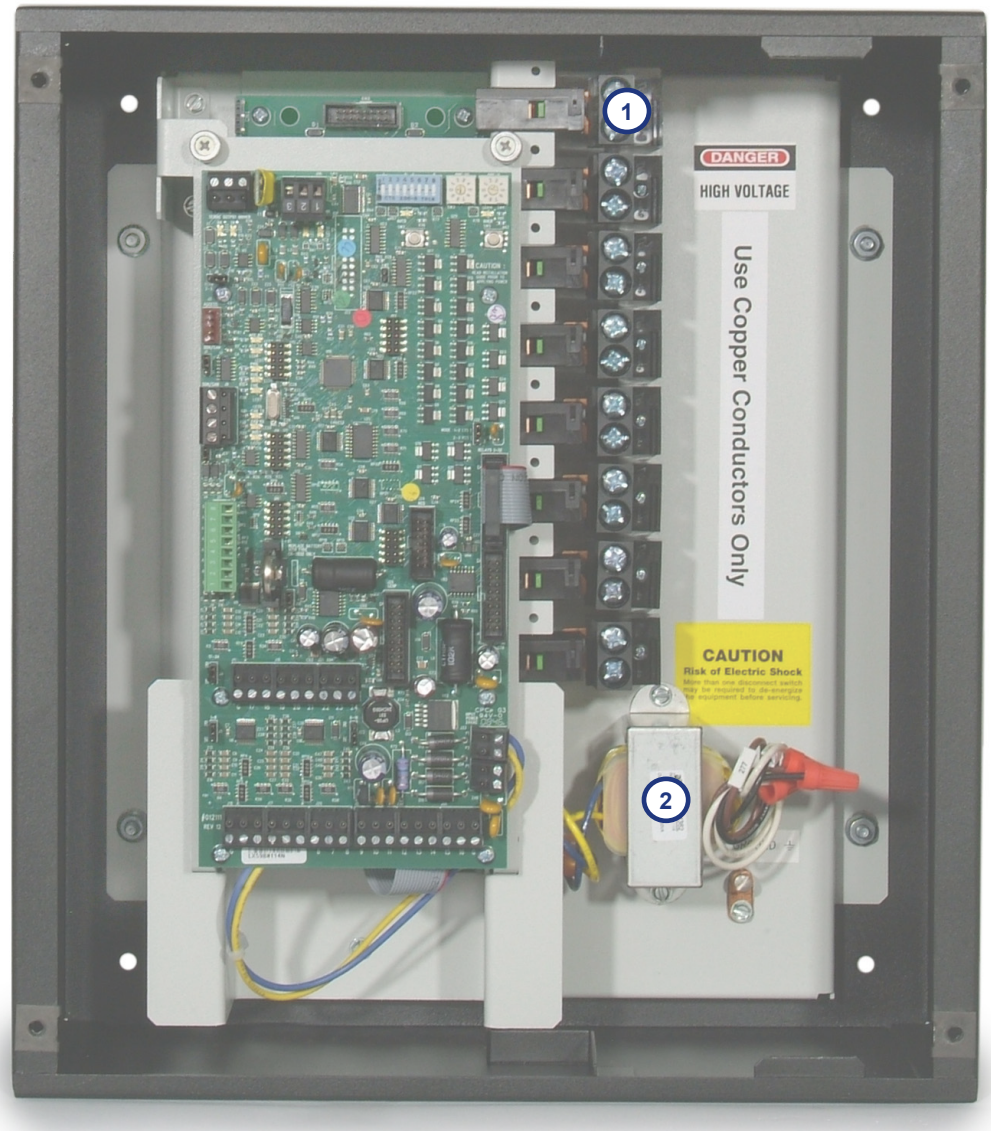
1. Panel Door
2. Relay Cover
3. Panel Interior
4. Panel Enclosure



(Figure 1)

Component Overview

1. Lighting Tough Relay (LTR)
2. Standard Dual Tap Transformer 120 or 277 VAC + 10%, 30 VA, 50 / 60 Hz

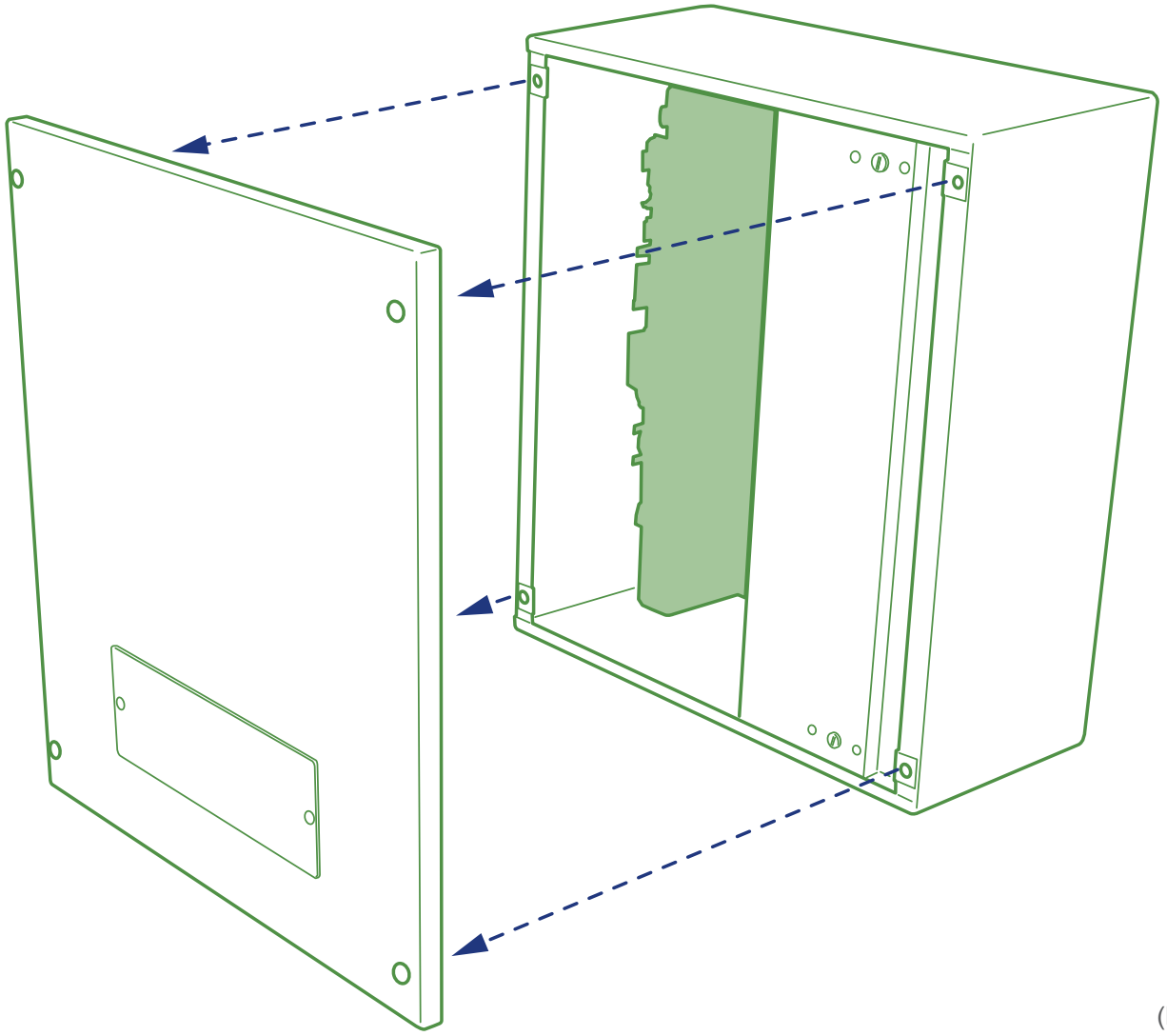


(Figure 2)

Panel Door Removal

Remove the Panel Door from the Panel Enclosure. (Figure 3)

1. Release fasteners at the corners of the Panel Door. [1]
2. Pull Panel Door free of Panel Enclosure.



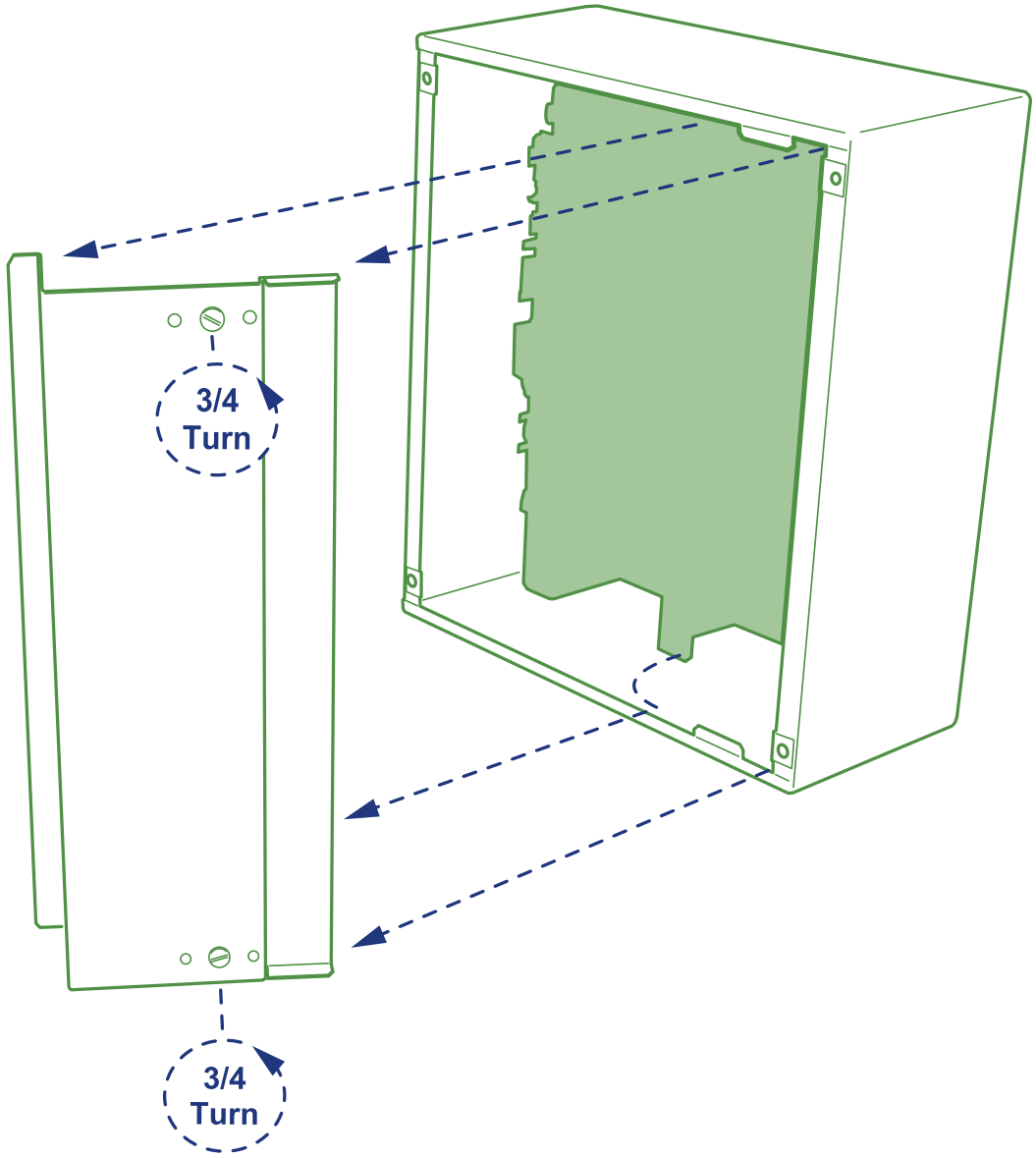
(Figure 3)

[1] Panel Door fasteners are captured. Proceed with care while releasing Panel Door.

Relay Cover Removal

Remove the Relay Covers from the Panel Enclosure. (Figure 4)

1. Unlock 3/4 turn fasteners located near top and bottom of Relay Cover.
2. Remove Relay Cover by rotating inside edge outward and pulling Relay Cover free.

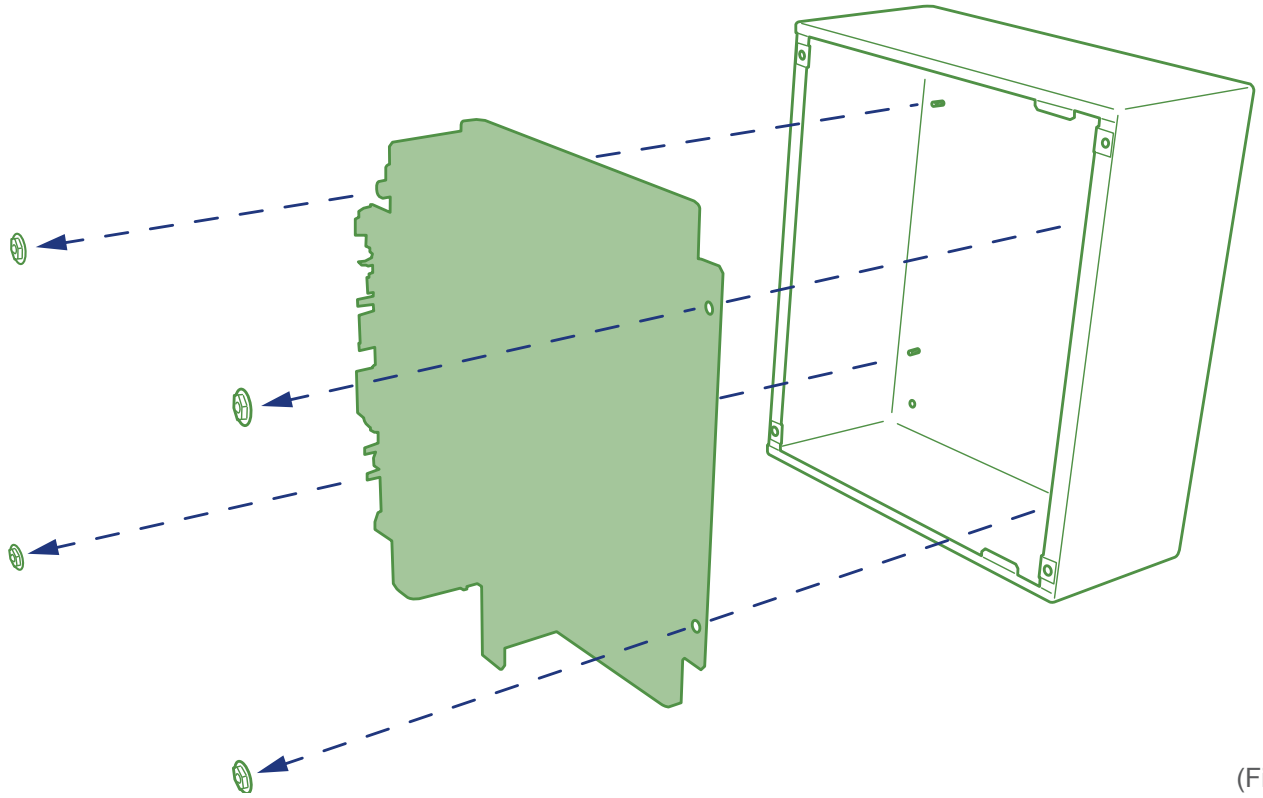


(Figure 4)

Panel Interior Removal

Remove the Panel Interior from the Panel Enclosure. (Figure 5)[1]

1. Unfasten the nuts retaining the Panel Interior.
2. Pull the Panel Interior outward to free it from the Panel Enclosure.
3. Store the Panel Interior in a secure location free of dust and debris.



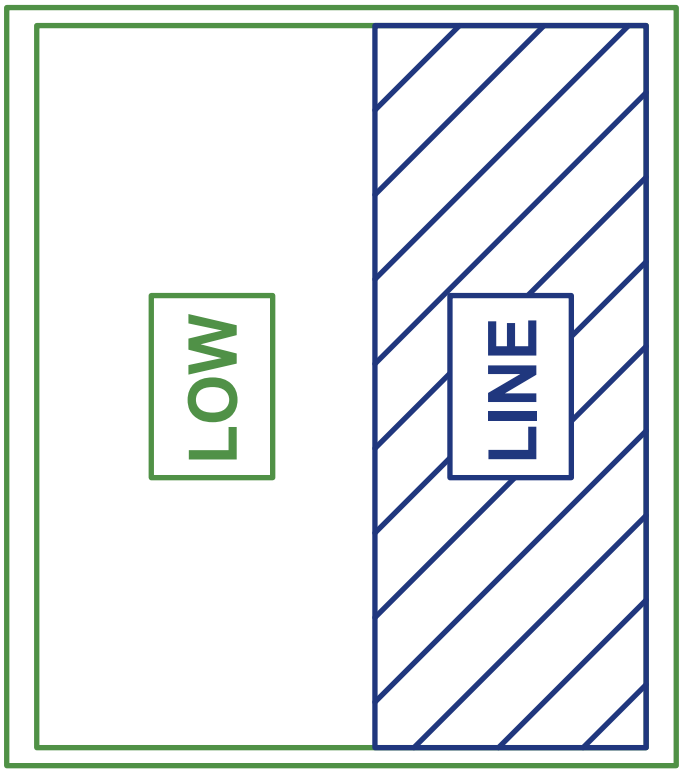
(Figure 5)

[1] It is beneficial to mark position of conduit penetrations in the Panel Enclosure prior to removing the Panel Interior. (See page 10)

Enclosure Preparation

Prior to mounting the Panel Enclosure prepare the enclosure with penetrations for all line and low voltage conduit. (Figure 6)

1. Ensure the Panel Enclosure is oriented correctly.
2. Drill or punch the appropriate hole(s) in the Panel Enclosure for the low voltage wiring to enter.
3. Drill or punch the appropriate hole(s) in the Panel Enclosure for the line voltage wiring to enter.

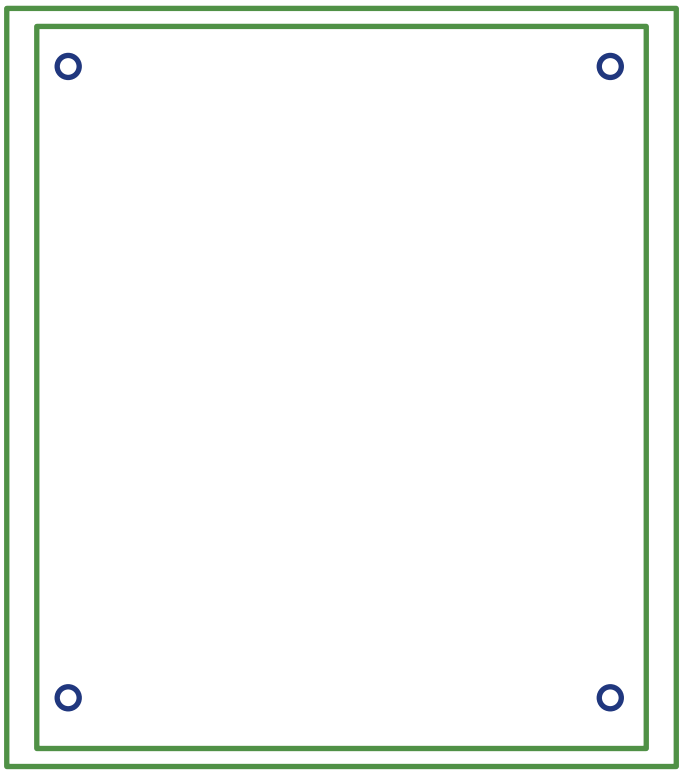


(Figure 6)

Enclosure Mounting

The Panel Enclosure may now be mounted.

1. Ensure the Panel Enclosure is oriented correctly.
2. Mark the location of all Panel Enclosure mounting holes to the mounting surface. (Figure 7)
3. Prepare the mounting surface with hardware appropriate to support the panel's weight 20.5 lbs (9.3 kg).
4. Hang Panel Enclosure.
5. Remove dust and debris from Panel Enclosure.
6. Reinstall Panel Interior. [1]
7. Install appropriate conduit and wire.



O = 0.25" (6mm) Mounting Hole

(Figure 7)

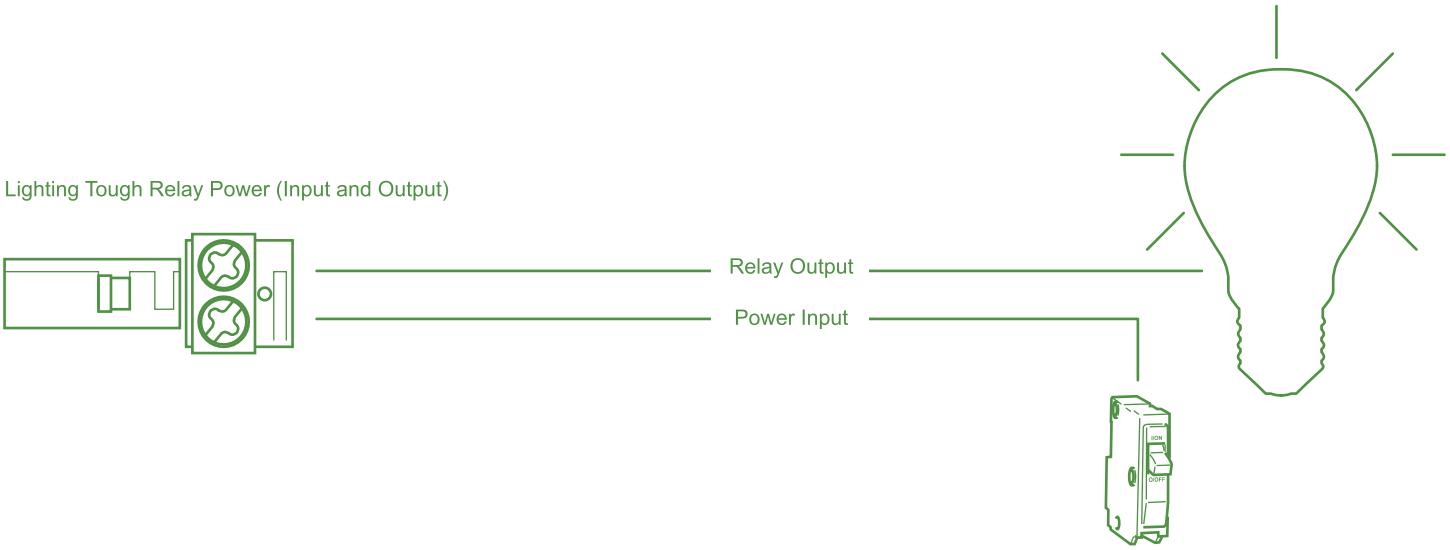
[1] DO NOT exceed 40 in-lbs when tightening Panel Interior retention nuts.

Connections : Relays

The lighting circuits may now be terminated to the Lighting Tough Relays (LTR). [1] (Figure 8)

Short Circuit Current Rating (SCCR) : 20,000 Amps @ 277 VAC
Wire Requirement : Accepts double 14-10 AWG or single 8 AWG (Solid or stranded copper wire only)

1. Confirm power is disconnected from the panel.
2. Route wires to the appropriate LTR.
3. Cut wires to length and strip as appropriate. [2]
4. Insert wires into LTR terminal block.
5. Torque each screw terminal to 36 in-lbs.
6. Repeat for each circuit.



(Figure 8)

[1] A stripped length indicator is featured on each LTR terminal block.

Disconnect line voltage power from the panel before performing these steps.

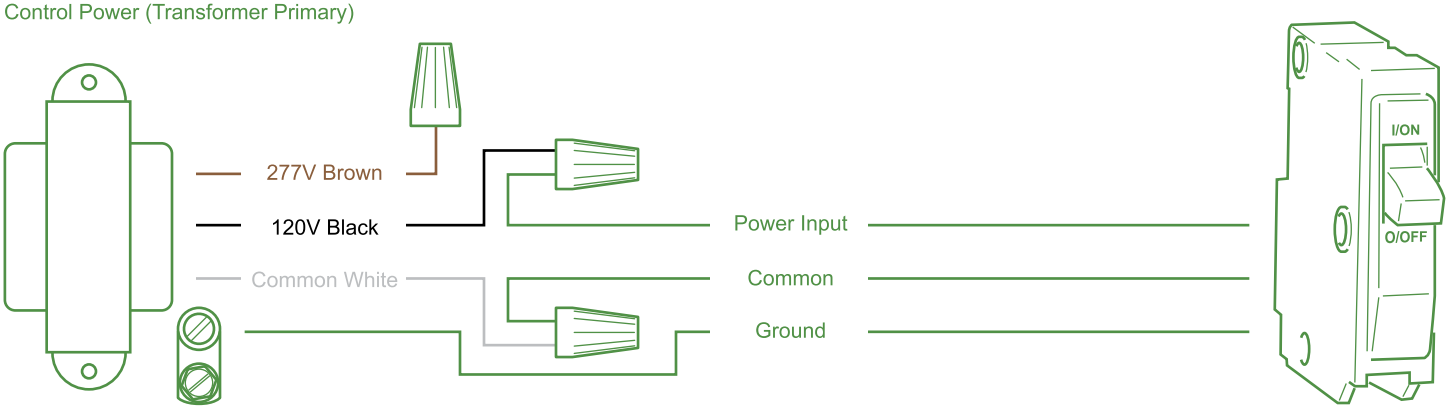
Connections : Transformer Primary

The control power line voltage wires may now be terminated to the Transformer Primary. (Figure 9)

Transformer Primary : 120 or 277 VAC +/- 10%, 30 VA, 50 / 60 Hz
Transformer Secondary : 24 VAC +/- 10% Inherently Limited
Wire Requirement : 18 AWG Minimum (Solid or Stranded)

1. Confirm power is disconnected from the panel.
2. Select primary power wire according to system voltage.
3. Connect selected power wire and common to the corresponding leads from the circuit breaker.
4. Cap unused primary lead.
5. Land the ground from the breaker panel in the RP ground lug.

Control Power (Transformer Primary)



(Figure 9)

Disconnect line voltage power from the panel before performing these steps.