LLDRK -
LightLEEDer Douglas Retrofit Kit

intelligent lighting controls

IMPORTANT: Read carefully before installing product. Retain for future reference.
Failure to comply with these instructions may result in death, serious bodily injury and property damage.

WARNING

Risk of Fire, Electrical Shock, Cuts or other Casualty Hazards- Installation and maintenance of this product must be performed by a qualified electrician. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved.

Before installing or performing any service, the power MUST be turned OFF at the branch circuit breaker. According to NEC 240-83(d), if the branch is used as the main switch for a fluorescent lighting circuit, the circuit breaker should be marked with "SWD". All installations should be in compliance with the National Electric Code and all state and local codes.

Risk of Fire and Electric Shock- Make certain power is OFF before starting installation or attempting any maintenance. Disconnect power at fuse or circuit breaker.

Risk of Burn- Disconnect power and allow product to cool before handling or servicing.

Risk of Personal Injury- Due to sharp edges, handle with care.

DISCLAIMER OF LIABILITY: Cooper Lighting Solutions assumes no liability for damages or losses of any kind that may arise from the improper, careless, or negligent installation, handling or use of this product.

NOTICE: Product may become damaged and/or unstable if not installed properly.

Note: Specifications and dimensions subject to change without notice.

ATTENTION Receiving Department: Note actual product description of any shortage or noticeable damage on delivery receipt. File claim for common carrier (LTL) directly with carrier. Claims for concealed damage must be filed within 15 days of delivery. All damaged material, complete with original packing must be retained.

NOTICE: All new wiring must be fully verified before applying power.

NOTICE: Designed for indoor installation and use only.

NOTICE: Do not install near electric or gas heaters.

NOTICE: The unit must be installed in locations and at heights where it cannot be easily tampered with by unauthorized personnel.

NOTICE: The use of accessories not recommended by the manufacturer may cause hazardous conditions.

NOTICE: Do not use this equipment for purposes other than its intended use.

NOTICE: If emergency circuits are powered or controlled from this panel, they must be electrically located where they are supplied by a UPS, generator, or other reliable power source during emergencies or power outages.

COOPER Lighting Solutions

SAVE THESE INSTRUCTIONS

This installation instruction is for the Douglas -24, -40, -48, -64 Retrofit Insert

The purpose of this document is to provide sufficient detailed instructions for installation and basic troubleshooting.

This document covers installation of the following products.

- LightLEEDer Douglas Retrofit Kit (LLDRK, all sizes)

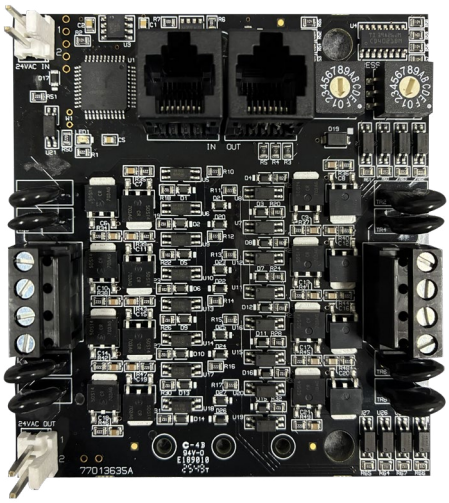
When using electrical equipment, basic safety precautions should always be followed, including those listed below:

⚠ Read and follow safety instructions

CAUTION – The existing Douglas panel is fed from multiple circuit breakers or power sources. To reduce the risk of electrical shock, disconnect all power sources by turning off the A.C. branch circuit breaker before working on the ILC Douglas Retrofit Kit upgrade.

Pre-Installation Inspection

- Check the existing Douglas panels wiring to verify that no Line or Load wires are damaged.
  If damaged arrange for replacement wiring before installing the ILC panel up-grade hardware.
- Check the included B.O.M. list and verify that all material has arrive in good condition and that no items are missing.



ILC Douglas Retrofit BOM (Use existing Panasonic Relays)					
Part	Description	Qty			
		24 Size	36 Size	48 Size	64 Size
35400205	Label, FCC Part 15	1	1	1	1
35400388	Label, Caution Disconnect	1	1	1	1
35400435	Label, Caution Shock	1	1	1	1
35400541	Label, Transformer Termination 120/277VAC	1	1	1	1
35400649	Label, LightSync Addressing	1	1	1	1
35400660	Label, CAT-5 Wiring Diagram	1	1	1	1
35400663	Label, SCCR Warning	1	1	1	1
35400719	Label, LightLEEDer Door	1	1	1	1
35400726	Label, Transformer Terminal	1	1	1	1
52201126	Transformer, 24VAC CT - 120/277VAC - 40VA - Reversed Bell	1	1	1	1
56104291	Terminal, 3 Position	1	1	1	1
56802018	Wire Nut, Orange Ideal # 30-073	3	3	3	3
56808114	Din Rail Mount Adapter, Phoenix #1201578	6	10	12	16
71701001	Bushing, 1/2" - Plastic	1	1	1	1
71701002	Conduit Locknut, 1/2" - Steel - 0.156 Thickness	1	1	1	1
72155001	Screw, #3 x 3/8" - Round Head - Philips - Tri-Lob - Thread-Forming - Zinc	12	20	24	32
72159228		4	4	4	4
72159226	Screw, 6-32 x 5/16" - Pan Head - Phillips - Zinc	4	4	4	4
72159407	Screw, #8 x 3/4" - Tek Hex Head - Zinc	8	8	8	8
72716028	Standoff, 6-32 Thread - 2" Length - 1/4" Hex - Male-Female - Aluminum	4	4	4	4
78001620	Adapter Plate, LL Retro Controller	1	1	1	1
78001813	BP, Terminal Block	1	1	1	1
92020310	CAT5 Cable, 6" Pan Pacific # DC-5E8Q-0.5BL	2	4	5	7
92020343	CAT5e Patch Cable, 2'	1	1	1	1
92020370	Douglas Connector - Driver Cable	2	4	5	7
92020371	Douglas Connector - Driver Power Cable	1	1	1	1
92020372	Douglas Connector - CPU Power Cable	1	1	1	1
92020373	Douglas Connector - Driver to Relay Cable	4	9	12	16
97013490	PC Board Assembly, LightLEEDer CPU	1	1	1	1
97013496	PC Board Assembly, LL-KP - LightLEEDer Keypad - With Overlay	1	1	1	1
97013635	PCB Assembly, Douglas Output Board	3	5	6	8

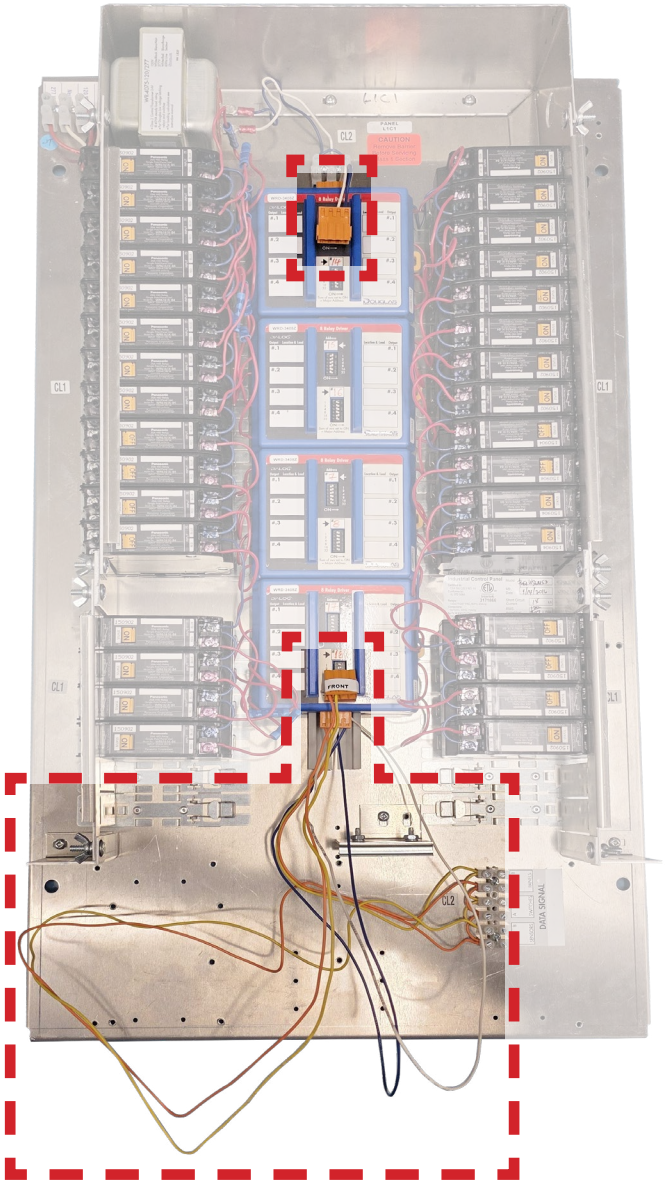
Installation

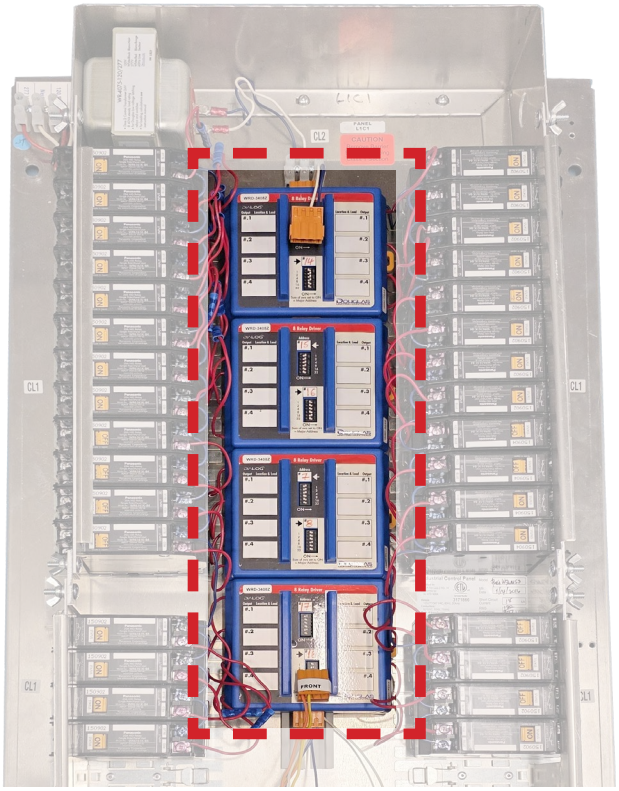
Power

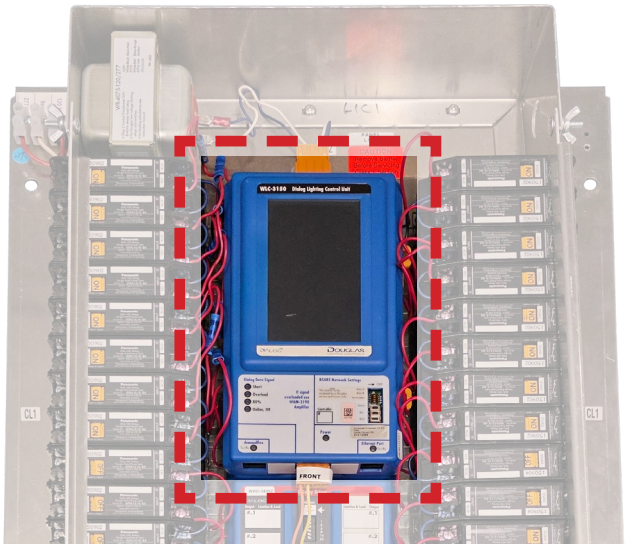
Turn OFF all breaker panel circuits that are associated with the existing Douglas panel, test the panel wires with voltage meter to ensure all circuits are off.

Remove existing hardware

a) Remove existing Douglas low voltage control wiring (orange, yellow and white wires).







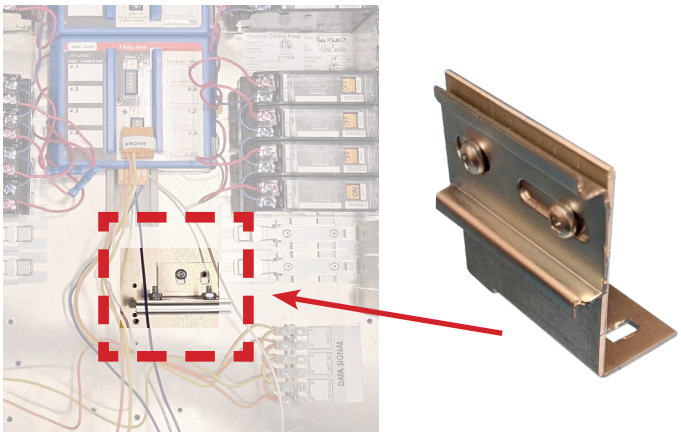
b) Remove Douglas controller, relay drivers, and 0-10V dimmer modules from panel

   i. Do not remove blue wire connections from relays

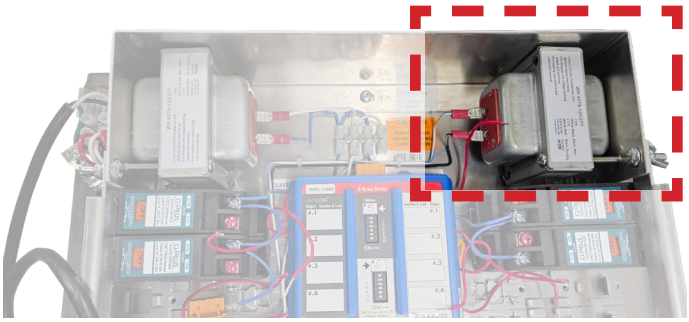
   ii. Cut wires directly at relay driver module to re-use existing wiring.

   iii. Cut / remove from the relay to use provided pre terminated screw down connectors.

c) Remove Douglas wire guide with Philips head screwdriver

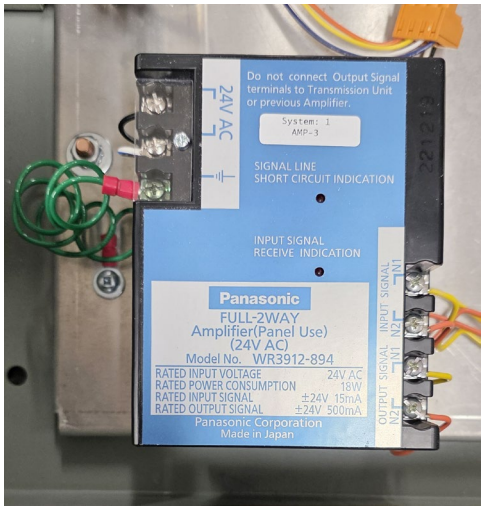


If applicable, remove Douglas second transformer by unscrewing ½" locknut and remove wires from terminals along with the transformer

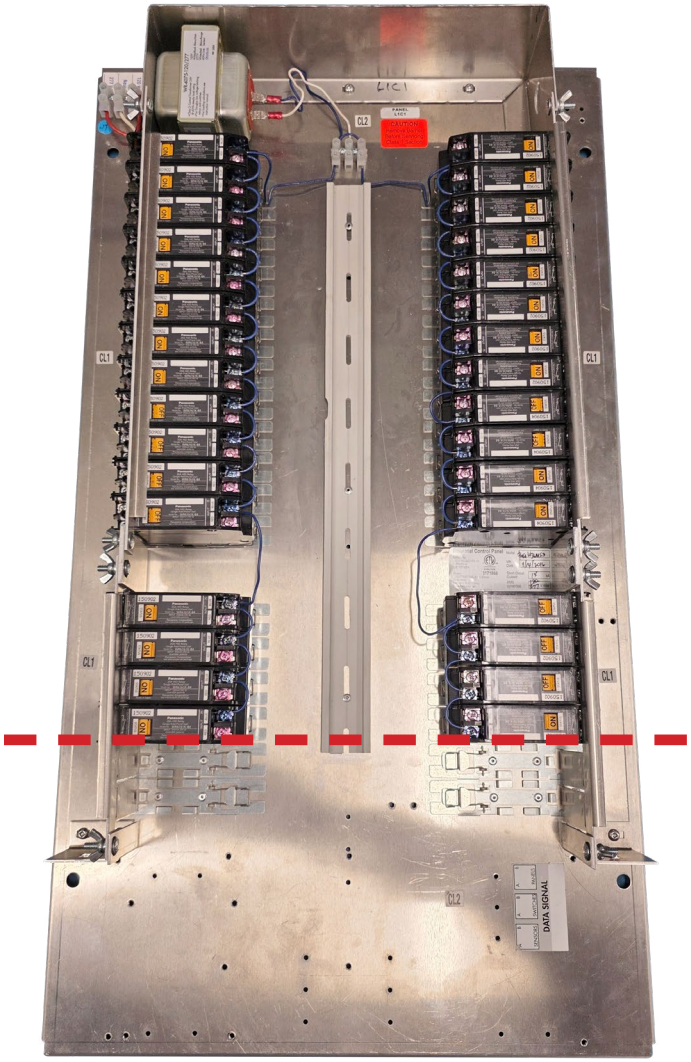


If applicable, remove Panasonic DC power supply by removing ground connection and disconnecting it off the relay holders.

a) Remove any wiring along with the power supply



If din rail extends below the last populated relay, trim din rail to make room for LLCPU mounting.



Install New LightLEEDer Hardware

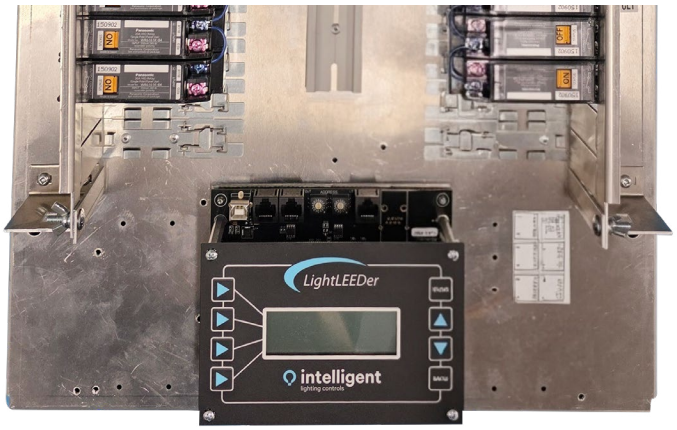
a) Mount LLCPU and backplate

i. Mount backplate with 4x Tek screws #72159407

ii. Install LLCPU #97013490

iii. Install 2" standoffs in 4 screw pems

iv. Install LL Keypad #97013496 and terminate ribbon cable

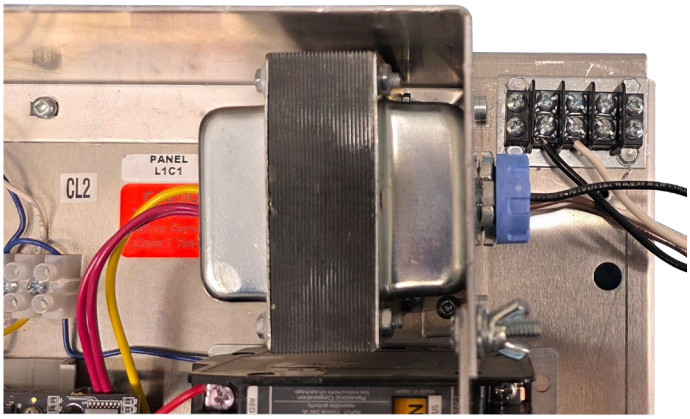


b) Install transformer and terminal block

i. Install backplate with 4x Tek screws #72159407, install terminal block with 4x #6-32 #72159228 screws.

ii. Existing transformer stays connected to relays.

iii. Install cable #92020372 from Transformer #52201125 by cutting to length and crimping with butt connectors.



c) Install Relay driver boards, driver wires, driver power connectors and CAT-5 cable. Change address on drivers from top to bottom

i. Install relay driver boards by mounting universal din rail adapters #56808114 on to driver with #72155001 screw and fitting them on the din rail securely.

ii. Configure each relay driver's address in odd ascending order. (ex. 01,03,05...)

iii. Connect driver boards to relays, wiring each relay, in order, to their corresponding sequence number on board (ex. Relay 1 goes to pin 1 on driver board).

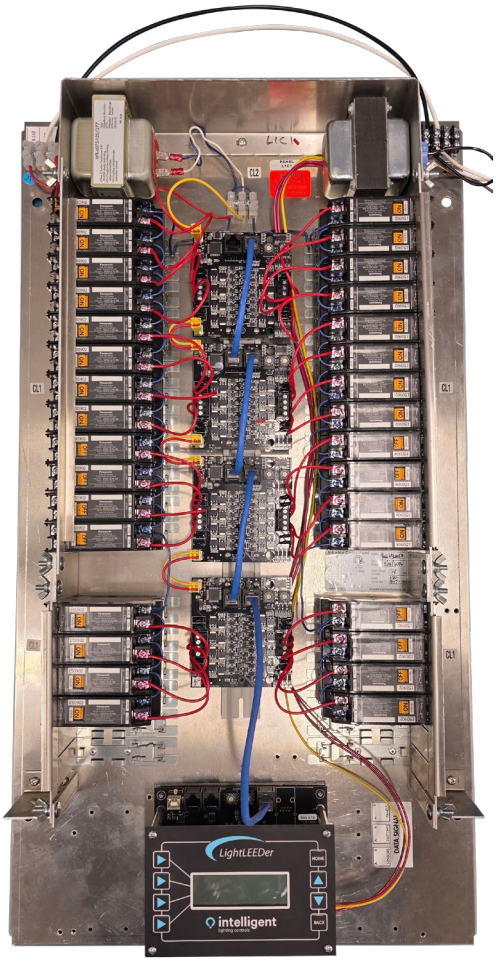
- Each board has 8 possible replay connections, 4 on each side

iv. Install driver power cable #92020371 by terminating the yellow wire to the common (white wire) terminal and the red wire to the 12VAC (blue wire).

v. Daisy chain the rest of the boards together using interconnect cable #92020370 ensuring polarity is consistent.

vi. Connect RJ45 connectors to drivers from "out" to "in" on each board.

- 1st board "in" is unoccupied
- Last driver goes from "out" of final drive to "in" on CPU



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Garanties et limitation de responsabilité

Veuillez consulter le site **www.cooperlighting.com/global/resources/legal** pour obtenir les conditions générales.

Garantías y Limitación de Responsabilidad

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