
LightLEEDer PCI Retrofit Field Installation Guide

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

CAUTION – The Existing PCI 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 PCI panel upgrade.

SAVE THESE INSTRUCTIONS

1. Pre-Installation Inspection

- a. Check the B.O.M. list and verify that all material has arrive in good condition and that no items are missing.
- b. Check the existing PCI 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.
- c. If networking multiple panel consult ILC for additional hardware, you will need to change any existing network wire to a CAT-5e data cable.

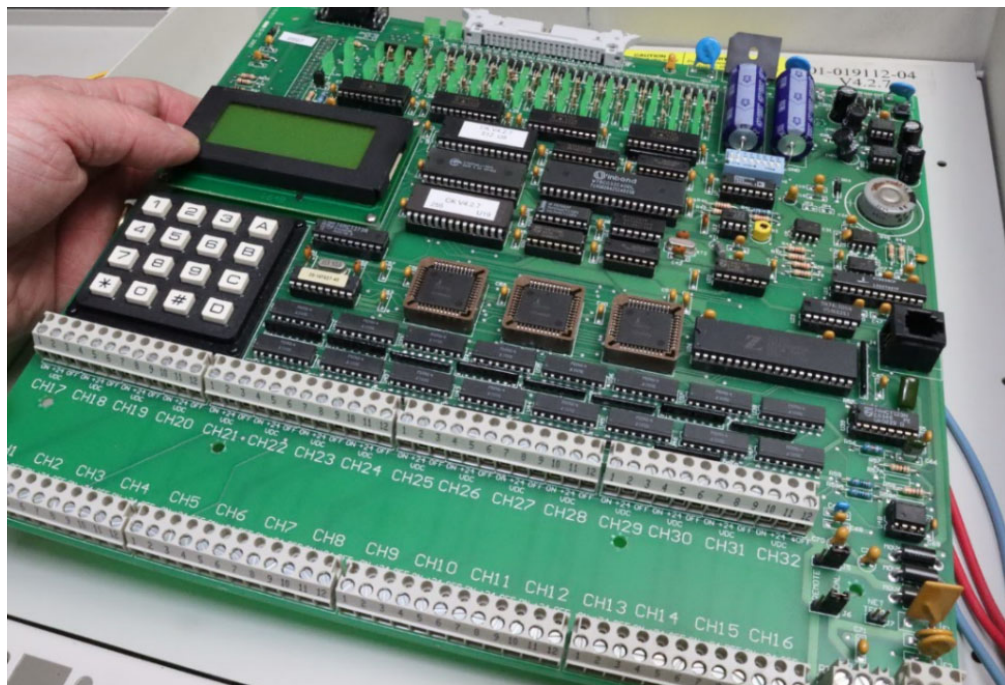
INSTALLATION INSTRUCTIONS

2. Power

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

3. Remove existing

- a. Disconnect any Low voltage control wiring from controller and mark for future use
- b. Remove the PCI controller plate and electronics, set the mounting plate aside for re-use. (See Detail 1)
- c. Disconnect electrical power wire from existing relays and mark the wire leads for re-installation onto new ILC R40 Relay.
- d. Remove the PCI relay assembly and nylon stand off from the mounting screws. (See Detail 2)
- e. Remove the PCI Transformer from the panel.



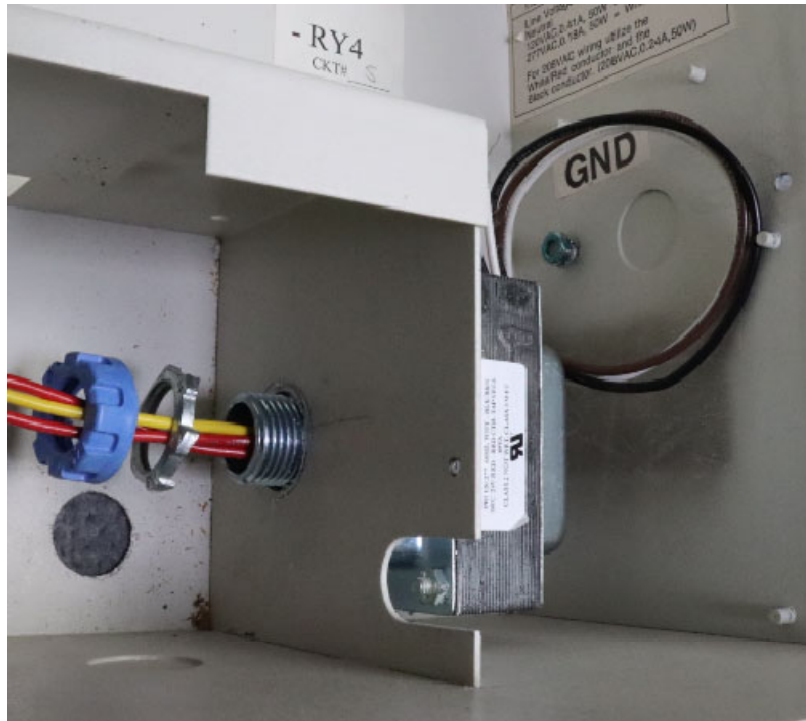
Detail 1



Detail 2

4. Install New ILC Transformer

- a. Drill a .875" hole (7/8" for a standard 1/2" K.O.) for the transformer mounting nipple into the sidewall of the voltage divider, in the same space as the original transformer.
- b. Install the ILC transformer with the lock washer and blue conduit bushing. (See Detail 3)
- c. The 3 power wire leads (Red-Yellow-Red) will be cut later and terminated at the power distribution module next to the panel controller.



Detail 3

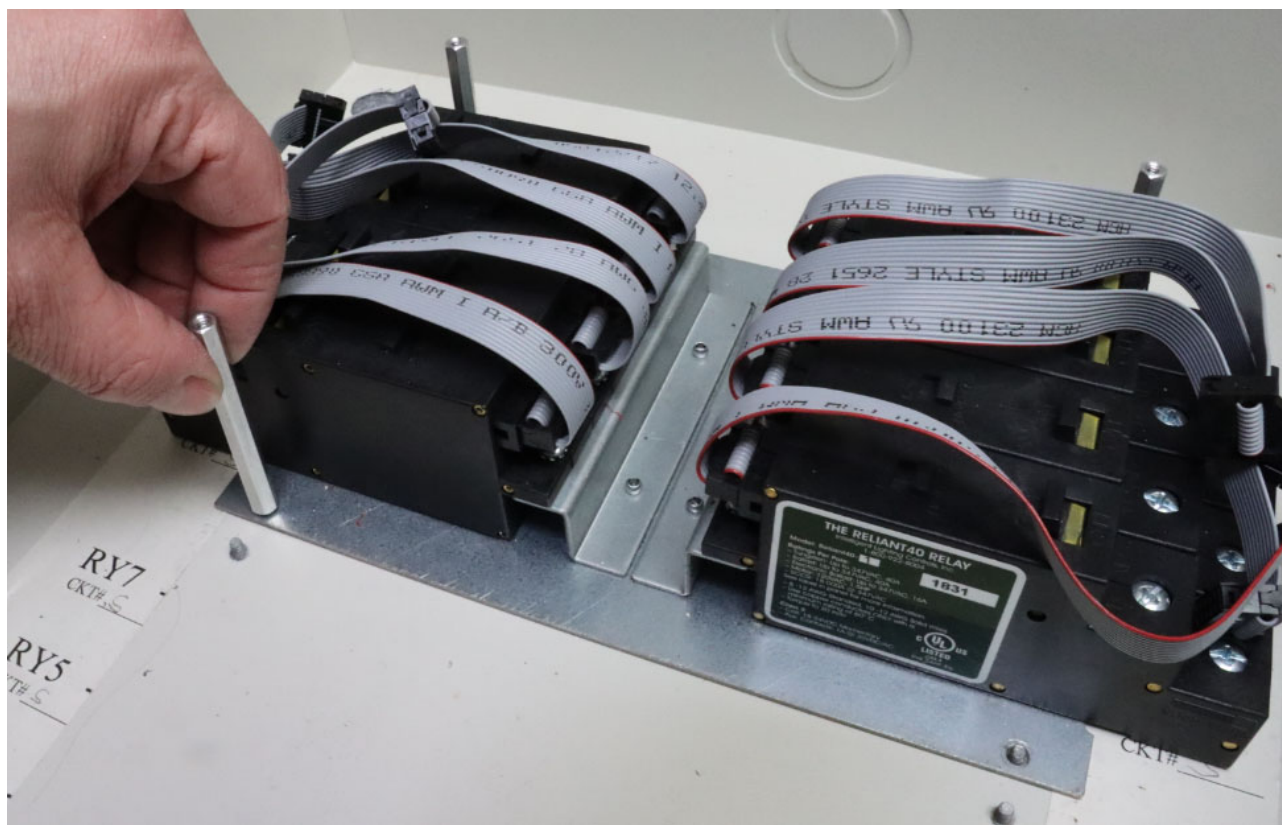
5. Install New Relays

Note: the relay assembly and relay controller will arrive assembled and tested. Each relay assembly is provided with 8 R40-1 relays. You will need to unplug the relay ribbon cables and dis-assemble the two parts, discarding the four 6-32 screws on the bottom (See Detail 4)

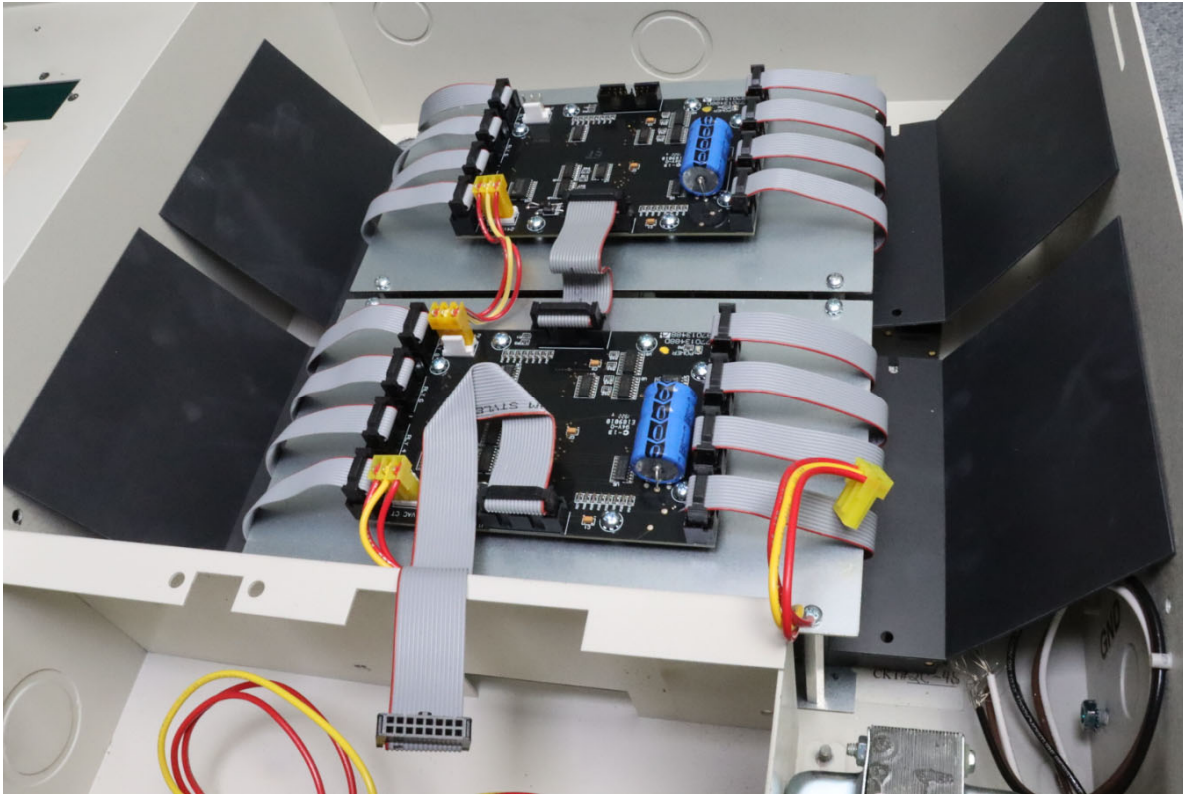


Detail 4

- a. Install the ILC relay assembly onto the existing 6-32 screw points that the original relay cards mounted on using the 2.5" stand-off provided. (See Detail 5)
- b. Reconnect the Line and Load wiring to the new R40 relays.
- c. Install the fish paper dividers over the relays and load wire.
- d. Install the ILC relay control module and plate on the relay assembly using the screws provided and connect the relay control ribbon cables to the relay control boards. (See Detail 6 and 4)
- e. Repeat this process for panels with multiple sets of 8 relays.
- f. Install the short ribbon cable between relay controllers, and the long ribbon cable with the fold from the first relay controller that will run up to the panel controller. (See Detail 6 and 7)
- g. Install one end of a 3-wire power jumper (12") for running to the power block on the controller plate above, and the short jumper (4") between each relay controllers.

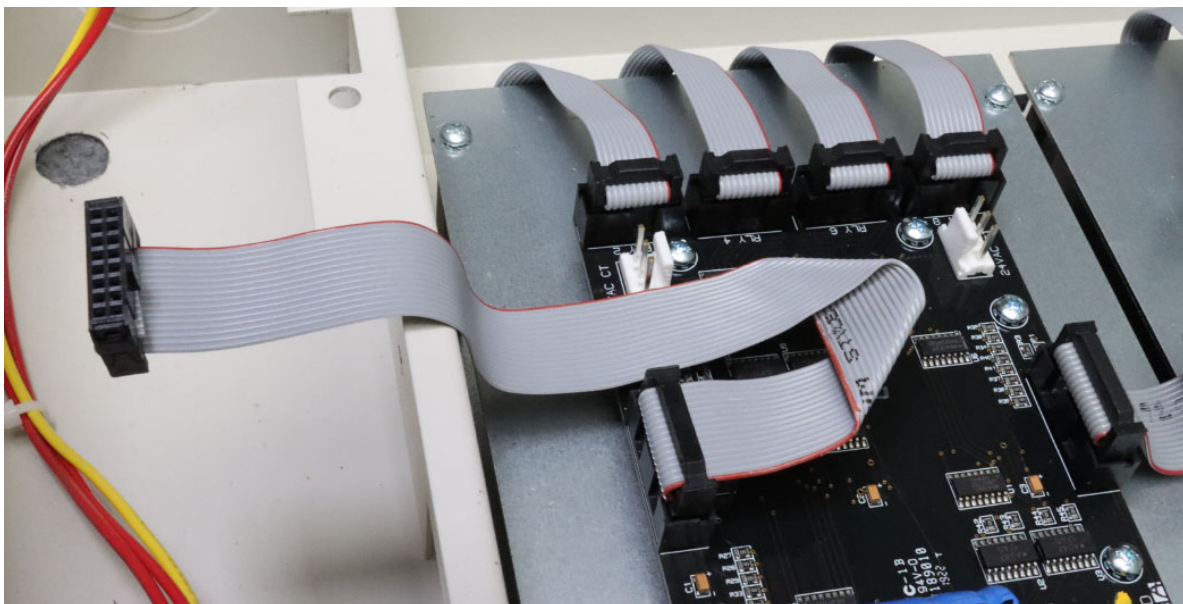


Detail 5



Detail 6

Note: Any panels with more than one 8 relay set will end up with one spare Power and one short ribbon cable. Discard or leave in panel for spare.



Detail 7

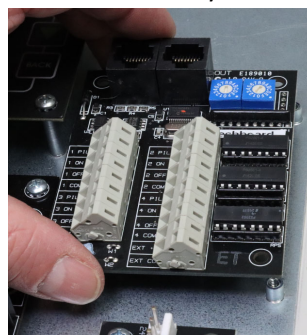
6. Install New ILC Controller

- a. Place the ILC controller backplate on the PCI hinging top panel. Mark and drill 4 mounting holes for the 6-32 screws and nuts provided. (See Detail 8)
- b. The LightLEEDer Controller, Keypad and Power Distribution module should come pre-installed on the ILC mounting back-plate as shown in Detail 8.
- c. Install the PCI backplate into the enclosure using the original spring hinges.
- d. Connect the long relay control ribbon cable to the J3 header on the bottom center of the LightLEEDer panel controller (See Detail 12)
- e. Connect the 3-wire power cable from the relay drivers to the power distribution module. (See Detail 11)



Detail 8

Note: Optional mounting locations are provided for a Serial Interface module on the left and an optional LightSync Input module on the right. (See Detail 9 and 10) If more input modules are required, they should come with additional mounting plates installed on the ILC backplate, you can install them on the PCI controller mounting plate as room allows. They can also be remotely mounted outside the panel.

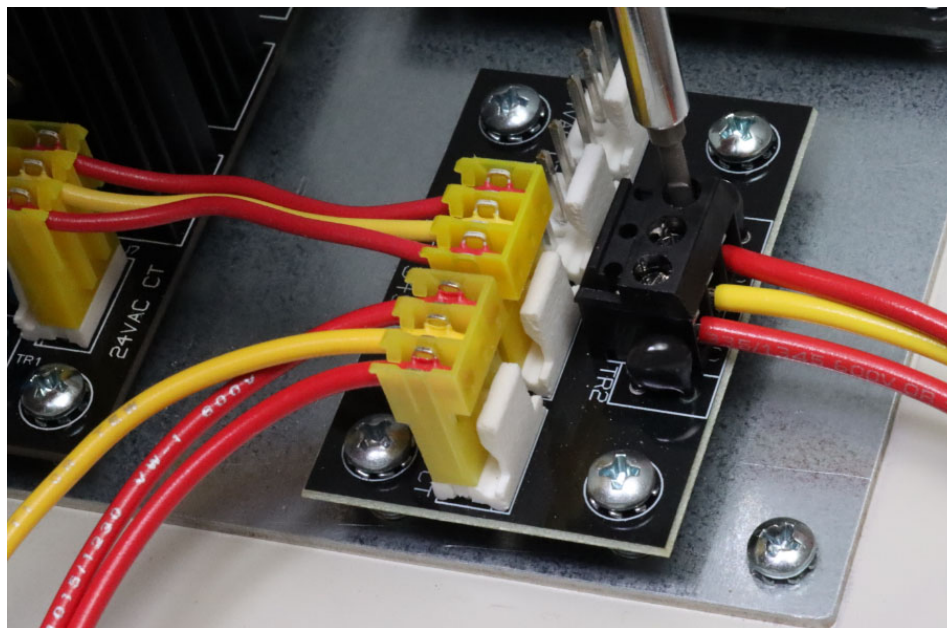


Detail 9

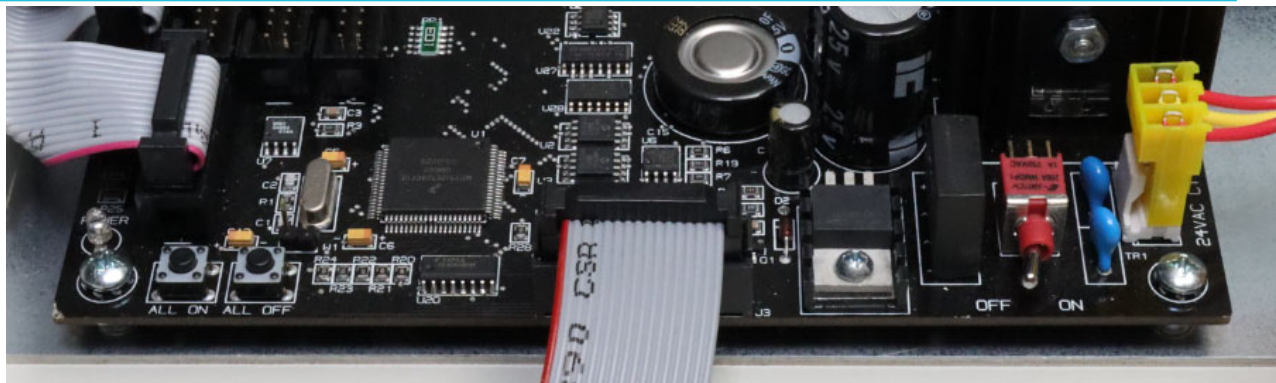
Detail 10

7. Final Inspection And Power-Up

- a. Inspect all line voltage connections to the relays and ensure that the fish paper voltage dividers and installed.
- b. Terminate the 3 power leads from the ILC transformer to the power distribution module on the controller plate. (See Detail 11)
- c. Connect Line voltage to the ILC transformer, turn on transformer circuit breaker and test voltage to the power distribution module, you should read 24VAC between the two red terminals and 12VAC between each red and the yellow center tap terminal.
- d. Turn on the LightLEEDer controller power on/off switch on the lower right corner and wait for the keypad to display the LightLEEDer panel home screen. (See Detail 12)
- e. Test the relay On/Off operation using the ALL ON and ALL OFF control buttons on the lower left corner of the LightLEEDer controller.



Detail 11



Detail 12

8. OPERATION

Consult the LightLEEDer programming manual for configuration instructions of the LightLEEDer panel using the Keypad or LL-Pro Windows based software.

Download the LightLEEDer manual and LL-Pro stand alone or Network programming software from the ILC website www.ilc-usa.com

Contact ILC at **952-842-2588** and request technical support if needed.

LABELING

Label all wire connection and record the circuit number for both the panel transformer and all controlled lighting circuits for future maintenance. Label any Low voltage wiring connections from existing switches and record any New LightSync device addresses and control for future maintenance. Verify and send as-built information to ILC technical support at www.technicalsupport@ilc-usa.com

**SERVICING SHOULD BE PREFORMED BY QUALIFIED PERSONEL.
SAVE THESE INSTRUCTIONS**