

Specifications

Input Voltage	120/277 VAC
Input Frequency	60 Hz
Relays	Normally open, SPST, zero crossing control
Max Switched Current	5A Ballast/5A Tungsten (LC-2R = 5A x 2 relays)
Radio Frequency	2.4 GHz
RF Transmission Output Power (Average)	+12 dBm
Operating Environment	40 to 120 deg F, dry location
Dimensions	7.25" L x 1.19" W x 1" H
Voltage and Current Measurement	2% accuracy full scale
Sensor Input Channels (2)	0 - 30 VDC
Configuration Programming	Configuration programming stored in non-volatile memory
Mounting	Magnets or screws inside a UL-rated fixture or enclosure rated for the application
Wires	24" 600 VAC rated, 18 AWG solid conductors

Ordering Information

Catalog Number	Description
LC - 1R	Single relay
LC - 2R	Two relay
LC - 1RD	Single relay with 0-10 VDC dimming
XA	Optional external antenna

Class A Digital Devices

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 designed to provide reasonable protection against harmful Interference when the equipment is operated in a commercial environment. The 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 the 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/her own expense.

To comply with RF exposure compliance requirements, for mobile configurations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

WARRANTY INFORMATION

Adura warrants to Buyer that the platform control devices, associated sensors, network components (including Adura Gateway and Gateway hardware) purchased from Adura (collectively, "Hardware") will conform to their written specifications and be free from defects in workmanship and material under normal use and service for 1 year from date of delivery to Buyer or the date of manufacture based on the serial number if the date of delivery cannot be reasonably ascertained ("Hardware Warranty Period"). Adura passes through manufacturers' warranties, if any, as permitted for third party hardware which may be supplied with the system and Buyer agrees to look only to such third party vendors for any warranty claims relating thereto. For Hardware not conforming to this limited Hardware warranty during the Hardware Warranty Period, as its sole responsibility, Adura, at its option, will repair or replace the defective Hardware with new or equivalent to new components and Hardware so long as Buyer provides written notice of a covered, reproducible defect during the Hardware Warranty Period, Buyer complies with Adura's return material authorization process ("RMA Process") and is otherwise in compliance with this warranty. Repaired Hardware will be covered by this limited Hardware warranty for the longer of the remaining term of the Warranty Period or 30 days from shipment of the repaired Hardware to the Buyer. Adura owns all parts removed from the Hardware for which a replacement was provided. Visit www.aduratech.com for list of exclusions and disclaimers.



101 Second Street, Suite 575 • San Francisco, CA 94105
Tel: 1.888.828.8281 • www.aduratech.com

LC 12.09

INSTALLATION INSTRUCTION MANUAL

light controllers

The Light Controller is to be used to control lighting in commercial and industrial buildings. It provides control of lights (on/off or dimming) by means of which commands transmitted and received via radio frequency.

The Light Controller is intended to be used in a network of devices which communicate wirelessly, such as wall switches, occupancy sensors, gateways and software management tools.

The Light Controller is to be mounted inside the enclosure of a light fixture or in a separate UL-rated enclosure. In the case of fluorescent lights, the Light Controller is to be installed inside the ballast cavity of a standard fluorescent luminaire.

The Light Controller is intended to be used to control fluorescent ballasts, incandescent lights, LED drivers and HID ballasts.

There are 3 models of Light Controllers:

- **LC-1R** has one relay and is intended to control one light fixture or group of light fixtures.
- **LC-2R** has two relays and is intended to control two levels of light within one fixture or two fixtures or two groups of light fixtures.
- **LC-1RD** has one relay and a low voltage dimming output (Class 1 rated) intended to control standard 0-10 VDC dimming ballasts. Each LC-1RD can provide dimming control to a maximum of 5 standard 0-10 dimming ballasts.

Installation Materials (Not Supplied)

Wiring connectors. All existing wiring connectors must be replaced with new UL listed wiring connectors, either wire nuts or captive-type connectors. All wiring connectors must be correctly sized for the application, the number and the size of the electrical conductors.

Sheet metal screws. As an option, the Light Controller can be secured with two #8 sheet metal screws.

CAUTION

- Disconnect all power before installation or service.
- All installation and maintenance work must be performed by qualified personnel.
- The Light Controllers must be installed in accordance with state, local and national electrical codes and requirements.
- The Light Controllers must be installed within a UL-rated fixture or enclosure rated for this application.



Installation Instructions

1. Turn off all power to the light fixtures by switching off the circuit breaker.
2. Open the fixture cover and remove the cover for the ballast cavity. The ballast and its wiring should now be visible (See Figure #1).
3. With a volt meter, verify power is off to the ballast. If power is present, stop work and identify and switch off the circuit breaker.
4. Place the Light Controller in the desired location and secure with the magnets on the rear of the Light Controller or screw it down.
5. Disconnect the hot wire to the ballast (black for 120 VAC or brown for 277 VAC).
6. Connect the black wire on the Light Controller wires to the hot wire (black for 120 VAC or brown for 277 VAC) using a wiring connector (see wiring diagram #1 for one relay and wiring diagram #2 for two relays).

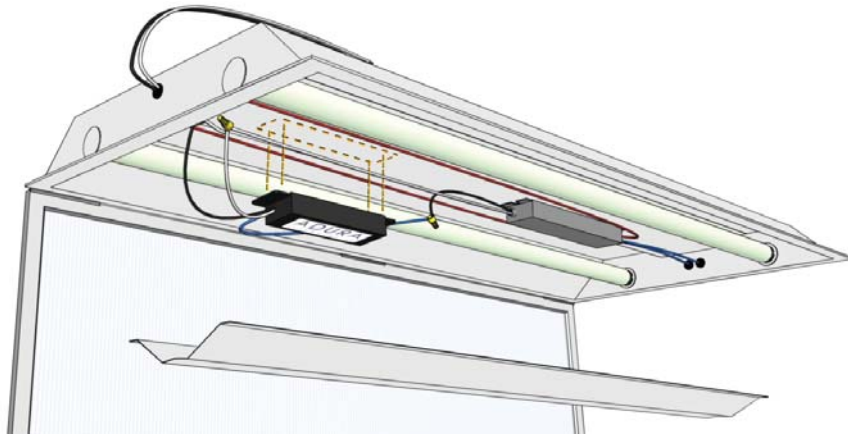


FIGURE #1

11. Switch power on to the fixture. Lights should turn on.
12. Refer to the setup application instructions for information on programming the Light Controller.

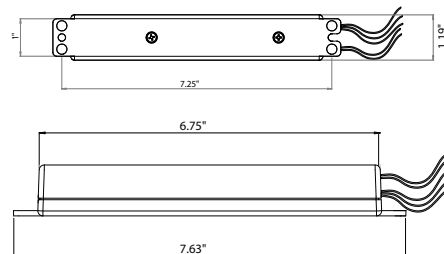
Dimming Control (LC-1RD)

(See wiring diagram #3)

CAUTION: LOW VOLTAGE WIRING MUST BE TREATED AS CLASS 1.

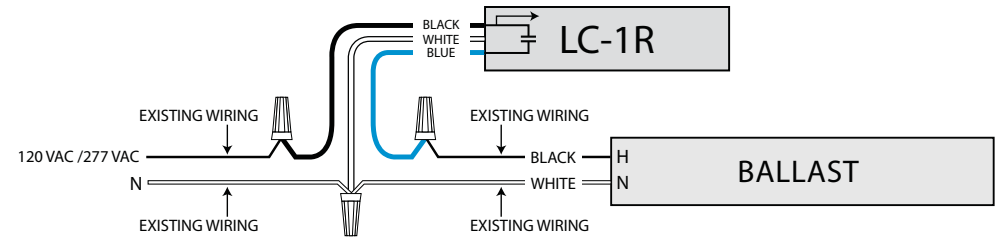
1. Connect the gray wire on the LC-1RD to the gray wire or gray terminal on the dimming ballast.
2. Connect the violet wire on the LC-1RD to the violet wire or violet terminal on the dimming ballast.
3. When switched on, lamps should turn on to full brightness. (Approximately 10 VDC signal on the violet wire to ground).

Dimensions

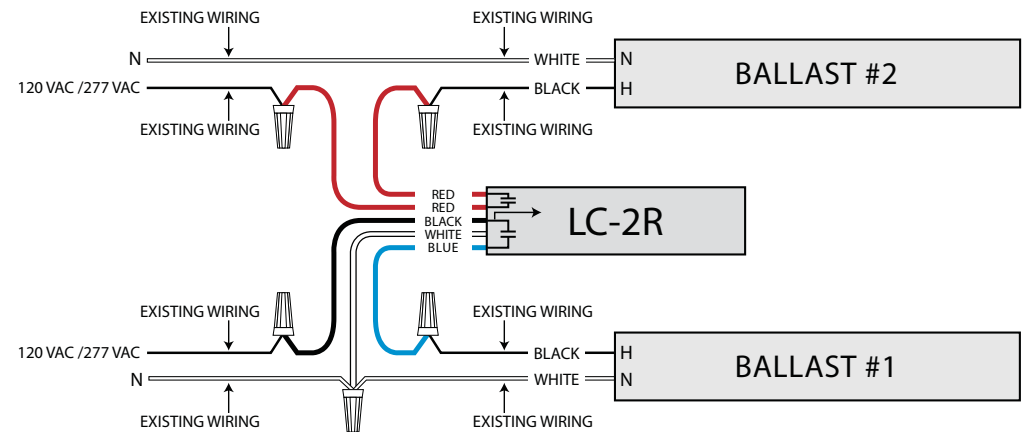


7. Connect the blue wire on the Light Controller to the black wire on the ballast using a wiring connector. For the LC-2R, connect the red wires as shown in wiring diagram #2.
8. Connect the white wire on the Light Controller to the white wire on the ballast and to the white wire on the incoming power wiring using a wiring connector.
9. Bend wires into place such that the ballast cover can easily be reattached.
10. Reattach the ballast cover and close the luminaire cover.

Wiring Diagram #1 LC-1R



Wiring Diagram #2 LC-2R



Wiring Diagram #3 LC-1RD

