

# Installation and Operation Manual

RLC-101

Un-Alarmed Universal  
LED & Incandescent  
A-1 Controller



Toll Free: +1 (866) 624-8309 • [www.itl-llc.com](http://www.itl-llc.com)

**itl** International  
Tower Lighting, LLC™

## Front Matter

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Please send any comments regarding the manual to [support\\_doc@itl-llc.com](mailto:support_doc@itl-llc.com).

## Safety Warning



This equipment uses lethal voltages which can cause serious injury and/or death. Do not attempt to service this equipment with line power applied.

Do not rely on interlock switches to remove lethal voltages from the system. Measure for voltages using a voltmeter to ensure that power is off and has been completely removed.

Do not wear any jewelry. Gold and silver are excellent conductors of electricity.

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## Introduction

Congratulations! You have purchased one of the most advanced control solutions for red LED and incandescent obstruction lighting systems available today. This product is the result of many years of engineering with extensive input from field service personnel.

Please take the time to read and familiarize yourself with this manual. It contains the information necessary to install, test and troubleshoot the RLC-101.

## Product Description

The RLC-101 is capable of controlling one FAA type L-864 red LED or FAA type L-864 incandescent beacon and up to five FAA type L-810(L) red LED or FAA type L-810 incandescent markers. Virtually all information necessary for installation and operation of the RLC-101 is available on the “quick info” card located in the door of the enclosure.



**RLC-101**

## Specifications

### Environment

Temperature	-40°C to +55°C
Humidity	less than 95% relative humidity (non-condensing)

### Obstruction Lights

Beacon	One Incandescent Beacon two 620W/120 Vac lamps or two 500W/230 Vac lamps One Dialight D164 Series or D264 Series or D464 Series LED Beacon
Side Lights	Up to Five Incandescent 116W or 100W, 120 or 230 Vac Up to Five LED ITL MKR-ILED-1DH or Other 7W LED markers lights

### Mechanical

Dimension	Height: 10.00" (255mm) Width: 6.81" (173mm) Depth: 7.00" (177mm)
Weight	5 lbs (2.3Kg)

### Electrical

Input Power	120/230 VAC at 50/60Hz, 6VA
PEC:	120/230 Vac, 50/60 Hz, 1 VA
Suppression	45 Joule, 275V, Input Power, Beacon, Side Lights & PEC

## Installation

The following section describes how to install the RLC-101 controller. The Incandescent Beacon or LED Beacon, and Obstruction Lights (markers) should be installed according to the manufacturer's instructions.

### Unpacking your RLC-101 Controller

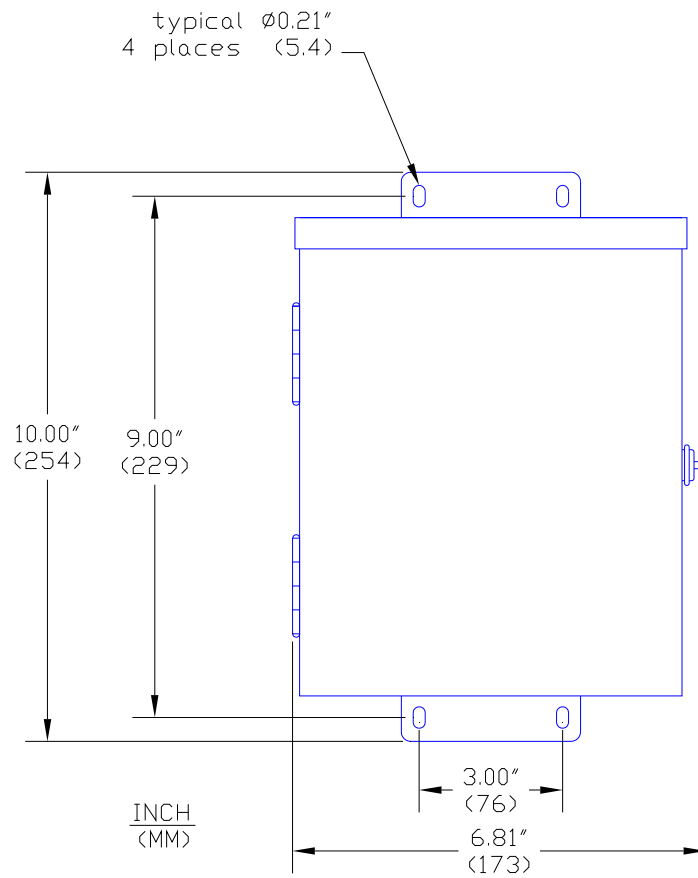
Please examine the shipping containers and their content thoroughly upon receipt and report any potential shipping damage to the carrier.

### Quick Installation Guide

The quick start guide shows how to install the RLC-101 controller.

- Remove RLC-101 controller from packaging material.
- Mount the RLC-101 enclosure.
- Install FAA type L-864 Incandescent Beacon or FAA type L-864(L) LED Beacon per manufacturer's instructions and FAA requirements.
- Install electrical cable from RLC-101 to Incandescent Beacon or LED Beacon per manufacturer's instructions.
- Install FAA type L-810 incandescent or FAA type L-810(L) LED obstruction lights per manufacturer's instruction and FAA requirements.
- Install cable from RLC-101 to L-810 obstruction lights (markers) per manufacturer's instructions.
- Install Photoelectric Cell and socket (ITL P/N: PEC-1800-120, PEC-SOCK-000).
- Install 120Vac line power to the RLC-101 Controller.

## RLC-101 Controller Mounting

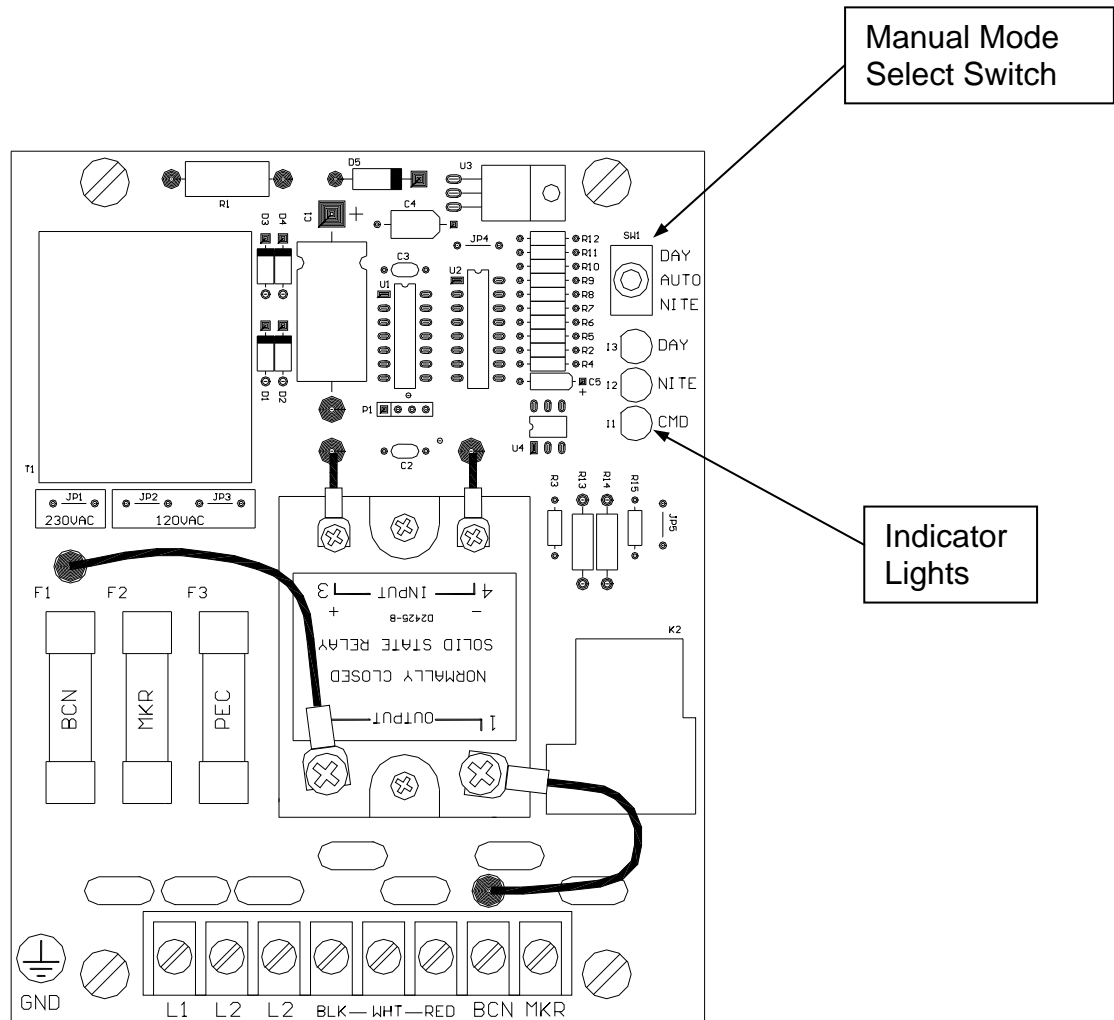


**It is the responsibility of the installer to comply with all applicable local, state, and federal regulations for installation and operation of this device.**



## Setup and Operation

The RLC-101 contains a manual mode control switch and three indicator lights that are used for control and indication of the controller operating mode.



### Manual Mode Select Switch

The Manual Mode Select Switch overrides the photoelectric cell (PEC) to allow selection of Day mode or Night Mode for test or troubleshooting purposes. The Day or Night Mode lights flash when in manual mode. This switch should be left in the AUTO position for normal operation. In the AUTO position the operating mode is determined by the photoelectric cell.

### Indicator Lights

Indicator Lights	
Description	Function
DAY MODE	Steady – Day mode operation via photoelectric cell. Flashing – Day mode operation via manual mode select switch.
NITE MODE	Steady – Night mode operation via photoelectric cell. Flashing – Night mode operation via manual mode select switch.
CMD	On when the RLC-101 commands the beacon to flash.

## Spare Parts & Replacement Parts

ITL Part Number	Description
RLY-2440-B00	Solid State Relay
BCN-0300-000	L-864 Beacon, (Incandescent)
IFH-1700-000	L-864(L) Beacon, (LED)
MKR-S750-0DH	L-810 Obstruction Light, (Incandescent)
MKR-ILED-1DH	L-810(L) Obstruction Light, (LED)
LMP-620W-120	620W, 120VAC Beacon Lamp
LMP-116W-120	116W, 120VAC Marker Lamp
LMP-116W-230	116W, 230VAC Marker Lamp
LMP-100W-120	100W, 120VAC Marker Lamp
LMP-100W-230	100W, 230VAC Marker Lamp
LMP-ILED-350	LED Lamp Assembly
PEC-1800-120	Photoelectric Cell (PEC)
PEC-SOCK-000	Socket For Photoelectric Cell

## Technical Support and Contact Info

### Contact Info

For information on the RLC-101 controller's basic functions, refer to this manual. For additional help with the installation or operation of any ITL products, please contact ITL, LLC at one of the following below.

#### Web and Internet Sites

Corporate home page: <http://www.itl-llc.com>



#### Customer Support Technicians

8:00 AM - 5:00 PM Central Time

US and Canada call: +1-615-256-6030

Toll Free: +1-866-624-8309

Email: [support@itl-llc.com](mailto:support@itl-llc.com)

### RMA

Please contact ITL, LLC before returning equipment for repair and obtain a Return Material Authorization (RMA) number.

Revision	Description of Change	Date	Preparer / Approval
6	Updated cover sheet, Changed Operational Temperature from -55° to -40°, Changed FAA type for LED beacon to L-864(L) Changed FAA type for LED marker to L-810(L)	7/05/2012	Prepared By: Elke Hinson Approved By: Andy Rudolph