

# LMRC-310 Series Digital On/Off/0-10 Volt Dimming Room Controllers with Network Bridge

Plenum-rated controllers with line voltage relay(s) and 0-10 volt dimming output(s)

Components of Digital Lighting Management integrated control systems

Plug to DLM local network and connect to BACnet-compatible DLM segment network



Plug n' Go automatic configuration for maximum energy efficiency

Integral current monitoring of total connected load; exposes data on segment network

Support energy saving manual-on, bi-level, tri-level and dimming control strategies

PROJECT

LOCATION/TYPE

## Product Overview

### Description

LMRC-310 Series Digital Room Controllers include one, two or three relay(s) to switch a total of 20 amps, a high-efficiency switching power supply and one 0-10 volt output per relay for control of dimmable loads including electronic ballasts (Advance Mark 7, or equivalent). They are the foundation of a Digital Lighting Management (DLM) system, allowing integration of occupancy sensors, daylighting controls and switches on a DLM local network, and providing a segment network connection for remote system management and current monitoring.

### Operation

LMRC-310 Series Room Controllers operate on one 120 or 277 volt, 20 amp, feed and provide Class 2 power to sensors and switches via the DLM local room network. Once powered up, Plug n' Go automatically configures system components for the most energy-efficient operation. The room controllers then dim or switch loads in response to input from the communicating devices. When a dimming input is received, the relay switches on when the dimmed level rises above zero, and off when it reaches zero, to coordinate control of power and the 0-10 volt signal to the load. They also monitor the current draw of the total connected load. Each room controller stores up to 16 preset levels for each dimmed output.

## Features

- Push n' Learn™ functionality for personalization without the need for tools or a PC
- Support third party integration with BAS through BACnet MS/TP
- On/Off/Dim button for each load
- LED indicates status of each connected load
- Store 16 preset lighting levels for each load
- Selectable lamp burn in, from 0-100 hours
- 4 RJ45 ports with integral strain relief
- Zero-crossing circuitry for each relay for reliability and increased product life
- UL 2043 plenum rated
- RoHS compliant
- Qualifies for ARRA-funded public works projects

## Plug n' Go Automatic Configuration

DLM room controllers manage Plug n' Go automatic system configuration, which establishes functionality based on the installed components. When room controllers are connected only to occupancy sensors, the system defaults to automatic on/off operation. If a wall switch is added to a system with one load, the load defaults to manual-on/automatic-off operation. If there is a wall switch and multiple loads, load one turns on automatically, while additional loads default to manual-on control; all loads turn off automatically. At system startup, default dimming parameters are established including: levels for presets 1-4; fade times; and fade and ramp rates. Dimming and system parameters may be customized using Push n' Learn. Device settings made locally are visible and adjustable by a DLM Segment Manager. Additionally, many DLM settings are available to a BAS via BACnet.

## Applications

LMRC-310 Series Room Controllers are ideal for single or multiple zone on/off or dimming lighting control applications requiring centralized control or monitoring. A Room Controller with Network Bridge exposes all devices, settings and calibrations in one DLM local network through the segment network. It also exposes all current monitoring data, and allows the local network to respond to schedules created and broadcast from a DLM Segment Manager.

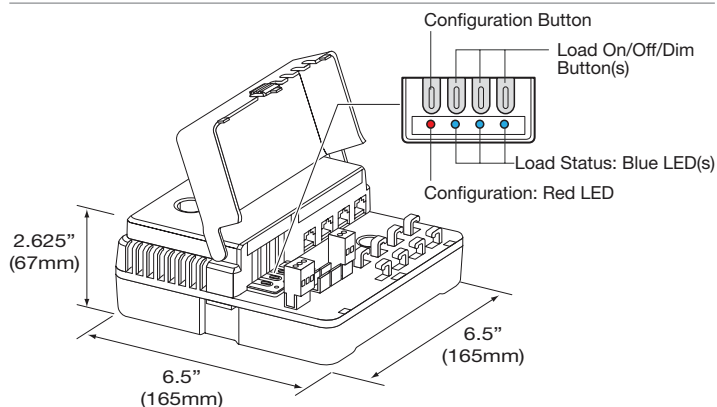


## Specifications

- Input/output voltage: 120/277VAC, 50/60Hz
- Maximum 20A combined load per Room Controller; each relay rated for:
  - Ballast or incandescent: 20A
  - Motor load: 1Hp
- Class 2 dimming control signal: 0-10VDC, sinks up to 100mA per channel for control of compatible ballasts (50 if each sources 2mA)
- Class 2 output to DLM local network: 24VDC, up to 250mA across 4 RJ45 ports
- DLM local network parameters:
  - Maximum current: 800mA
  - Category 5e cable, up to 1,000' total
- Up to 48 communicating devices
- Up to 64 loads
- Maximum 4 LMRC-100 Series Room Controllers
- Segment network parameters:
  - WattStopper LM-MSTP wire, or equivalent rated for BACnet MS/TP (RS485)
  - Linear topology; 4000' maximum per segment
  - Up to 127 local networks or panels per segment
- Operating conditions: for indoor use only; 32-158°F (0-70°C); 5-95% RH, non-condensing
- UL and cUL listed
- FCC part 15 compliant
- Five year warranty

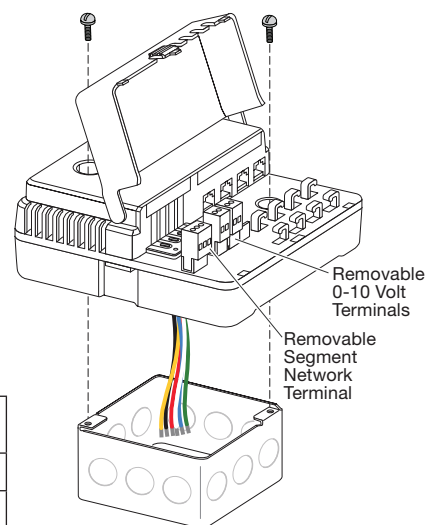
## Controls & Mounting

### Controls and Dimensions



Load Parameter (for each dimmed output)	Default Setting	Available Options
High trim	100%	1-100%
Low trim	0%	0-100%
Preset level: Scenes 1-16	1: 100%, 2: 75%, 3: 50%, 4: 25%, 5-16: 100%	all: 0-100%
Preset fade time	2 seconds	0 seconds - 18 hours
Lamp burn in time	0	0-100 hours

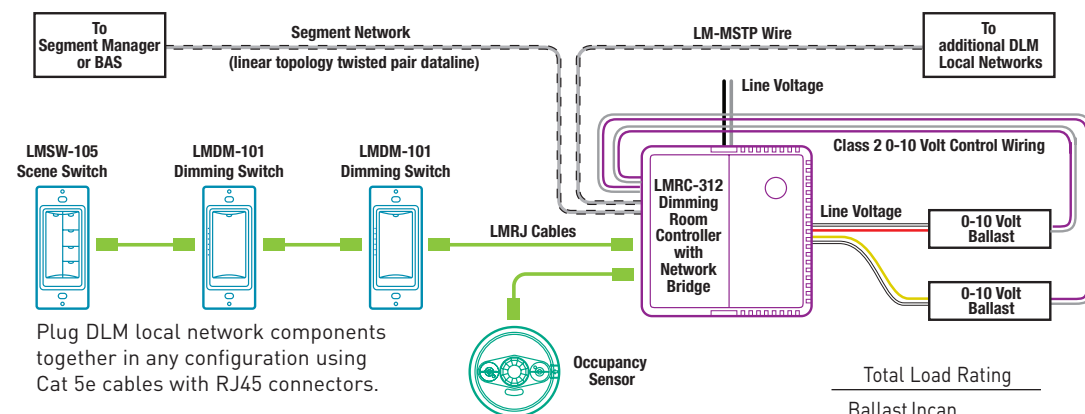
### Mounting and Wiring



Mount to 4" x 4" x 2 1/8" deep electrical box. Depending on outputs used, a 4-square extension box may be needed. Connect to single 20A circuit.

## Connecting

### Sample Connection Diagram with Dimming Controls and Segment Network Dataline



Plug DLM local network components together in any configuration using Cat 5e cables with RJ45 connectors.

## Ordering Information

Catalog. No.	Description	Voltage	Ballast Incan			Motor Class 2 Outputs
			(A)	(A)	(A)	
<input type="checkbox"/> LMRC-311	1 Relay Room Controller with Network Bridge	120/277VAC, 50/60Hz	20	20	1 Hp	24VDC, 250mA and 0-10VDC
<input type="checkbox"/> LMRC-311-U	1 Relay Room Controller with Network Bridge, ARRA compliant					
<input type="checkbox"/> LMRC-312	2 Relay Room Controller with Network Bridge					
<input type="checkbox"/> LMRC-312-U	2 Relay Room Controller with Network Bridge, ARRA compliant					
<input type="checkbox"/> LMRC-313	3 Relay Room Controller with Network Bridge					
<input type="checkbox"/> LMRC-313-U	3 Relay Room Controller with Network Bridge, ARRA compliant					
<input type="checkbox"/> LMRC-CA	Conduit Adapter for Low Voltage Connections					

A Group brand Legrand

www.wattstopper.com | 800.879.8585