

FORWARD PHASE DIMMING ROOM CONTROLLERS

LMRC-220 SERIES

Versatile 20A controllers with line voltage relay(s) and triac-based forward phase control dimming

Compatible with most load types; three selectable dimming curves for each load

Plug to other components using Cat 5e cables with RJ45 connectors eliminating wiring errors



Plug n' Go automatic configuration for quick startup

Store load preset level and 16 scene preset levels for each load

Facilitate energy saving dimming control strategies including automatic daylight harvesting



Description

LMRC-220 Series Digital Room Controllers include one or two output(s) to control a total of up to 20 amps. Load ratings include incandescent, magnetic low voltage, forward phase compatible electronic low voltage and LED drivers, neon and cold cathode, and dimmable two-wire and three-wire fluorescent ballasts. They are the foundation of a Wattstopper Digital Lighting Management (DLM) system, and allow integration of occupancy sensors, daylighting controls and switches for energy-efficient lighting control.

Operation

LMRC-220 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 network. Each output can control a different load type and is capable of dimming up to the full 20 amp rating of the device. Once powered up, Plug n' Go automatically configures system components for the most energy-efficient operation based on the installed components. The room controllers then dim or switch lighting in response to input from the communicating devices. They also monitor the current draw of the total connected load. Each room controller stores up to 16 scene preset levels for each dimmed output.

Features

- Plug n' Go™ automatic configuration for quick installation and maximum energy savings
- Push n' Learn™ functionality for personalization without the need for tools or a PC
- Digital Lighting Management components plug together on free-topology Cat 5e DLM local network
- On/Off/Dim local override button for each load
- LED indicates status of each load

Plug n' Go and Push n' Learn Configuration

At system startup, default dimming parameters are automatically established including: levels for scene presets 1-4; fade times; and fade and ramp rates. The default square law dimming curve for each output can be changed to one of two fluorescent/LED curves using a button on the room controller. An On/Off/Dim load override button is available to test each load. Dimming and system parameters may be customized from a wireless handheld configuration tool and using Push n' Learn. Customizable parameters include a low level trim to prevent loads from flickering at low levels, and a high level trim and a load preset level to save energy and increase lamp life.

Applications

LMRC-220 Series Room Controllers are ideal for manual or automatic lighting control, including daylight harvesting. They are appropriate for applications in conference and training rooms, classrooms, lecture halls, executive offices, restaurants and galleries. LMRC-220 Series Room Controllers also help facility managers who want to track building power usage by monitoring current in real time. A network bridge (LMBC-300) is required to expose DLM local network power data readings to a Segment Manager or BAS.

- Integral current monitoring of total connected load
- Optional lamp burn in; 12 or 100 hours
- Square law, 2-wire and 3-wire fluorescent/LED curves
- 4 RJ45 ports with integral strain relief
- Zero-crossing circuitry for each relay for reliability and increased product life
- UL 2043 plenum rated
- The product meets the materials restrictions of RoHS

PROJECT

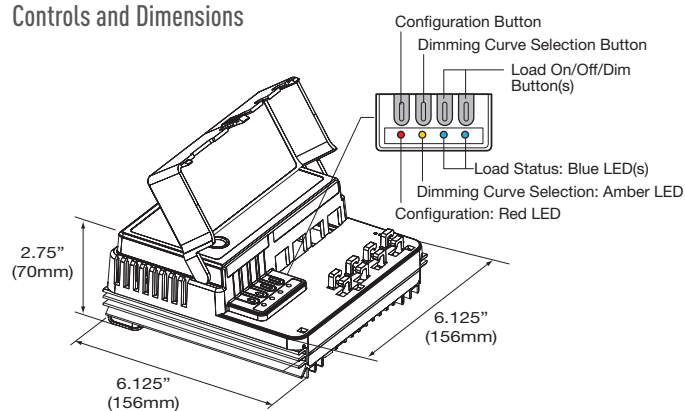
LOCATION/
TYPE

Specifications

- Input/output voltage: 120/277VAC, 50/60Hz
- Maximum 20A combined load per Room Controller; each output individually rated for:
 - 20A: tungsten, MLV, ELV or LED (forward phase compatible transformers or drivers)
 - 16A: 2-wire fluorescent or neon/cold cathode (electronic or magnetic dimming ballast) or 3-wire fluorescent (electronic dimming ballast)
- Minimum load: 10W
- Class 2 output to DLM local network: 24VDC, up to 250mA across 4 RJ45 ports
- DLM local network parameters:
 - Maximum current: 800mA
 - Cat 5e cable: 150' per device up to 1,000' max.
 - Up to 64 loads
 - Up to 48 communicating devices
 - Maximum 4 LMPB-100, LMPL-101 or LMRC-100 Series Room Controllers
- Operating conditions: for indoor use only; 32-131°F (0-55°C); 5-95% RH, non-condensing
- UL and cUL listed
- FCC part 15 compliant
- Five year warranty

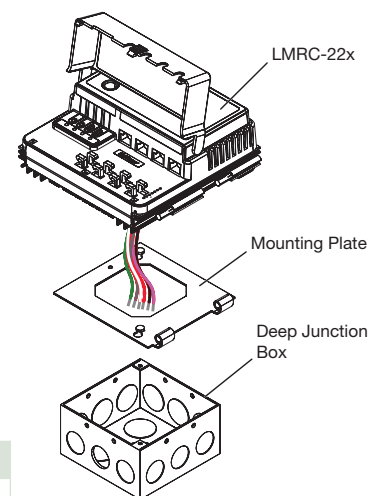
Controls & Mounting

Controls and Dimensions



Mounting and Wiring

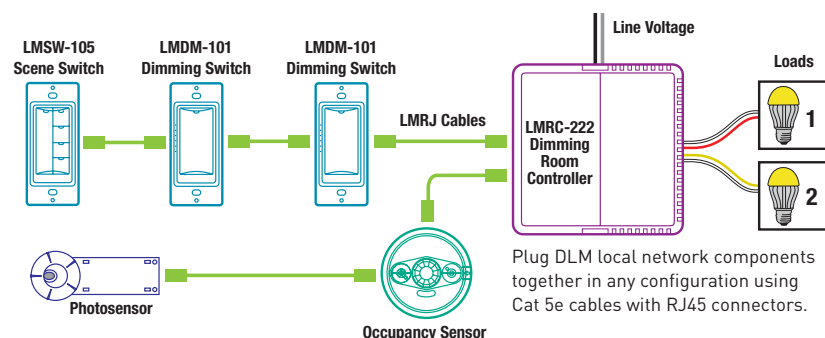
Mount to 4" x 4" x 2 1/8" deep electrical box. Depending on outputs used, a 4-square extension box may be needed. Connect to single 20A circuit.



Load Parameter (for each dimmed output)	Default Setting	Available Options
High trim	100%	1-100%
Low trim	0%	0-99%
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, 12 or 100 hours

Connecting

Sample Connection Diagram with Dimming Switches and Scene Control



Wire Color	Function
Black	Line in
White	Neutral
Green	Ground
Red	Load A dimmed hot
Red/ black	Load A switched hot*
Yellow	Load B dimmed hot
Yellow/black	Load B switched hot*

* for 3-wire dimming applications

Ordering Information

Catalog #	Description	Voltage	Total Load Rating	Class 2 Output
<input type="checkbox"/> LMRC-221	1 Load Forward Phase Dimming Room Controller	120/277 VAC, 50/60Hz	20 A (see details above)	24 VDC, 250mA
<input type="checkbox"/> LMRC-222	2 Load Forward Phase Dimming Room Controller			
<input type="checkbox"/> LMRC-CA2	Hinged Conduit Adapter for Low Voltage Connections			