

# RELAY PANEL INTERIORS

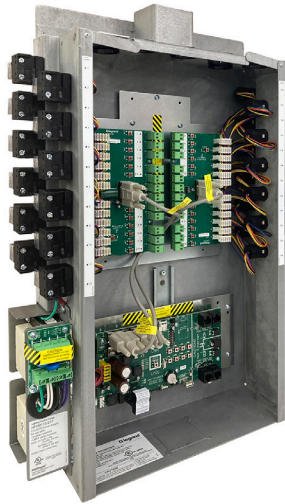
## LMCP SERIES

Dimming panels dim 0-10V lighting loads as well as switch lighting and plug loads

Switching panels switch lighting and plug loads

Runs scheduled and photocell events autonomously

HDR relays include a switch for manual override even when panel is powered off



Compatible with Digital Lighting Management switches, sensors and input devices

Native BACnet communications for network control solutions

Easy setup via LMCT-100-2 handheld configuration tool

99 control groups accessible via handheld configuration tool



### DESCRIPTION

The LMCP panel series is designed to provide 0-10V dimming and switching for the control of building lighting and plug loads. The panels can be networked together to enable automation throughout an entire facility.

Digital lighting management devices such as switches, occupancy sensors, daylight sensors, and other devices connect to the panel to switch loads On or Off via the relay or to dim loads using the 0-10V capability on the dimming panel.

### OPERATION

Relays in each LMCP panel can be assigned to up to 99 automation groups in any combination. Each group can respond to unique scheduled events and light/dark photocell operations set up via an LMCT-100-2 handheld configuration tool. A group can also respond to schedules sent from a Network Controller or a BACnet-enabled building automation system (BAS). Individual loads, or groups of loads, can also be controlled by DLM digital switches, dimmers, occupancy sensors, LMLS series daylight sensors, and LMIN-104 input modules. Controls are assigned to relays using Push n' Learn™ directly from the user input device, or via an LMCT-100-2.

### NETWORKING

Multiple panels may be networked together for global control operation without the use of a Network Controller or BAS. The LMCP panel also provides a native-BACnet integration solution via BACnet MS/TP. Relay, group, and control device status, including occupancy sensor status, are available as BACnet objects. When a Wattstopper Network Controller is used, it will automatically recognize LMCP panels and map them to the browser-based user interface so that they can be configured with minimal additional setup.

### APPLICATIONS

LMCP panels provide effective, code-compliant control of building exterior lighting as well as larger interior areas that are not suited for DLM distributed controls. Recommended applications include office building lobbies, corridors, loading docks, etc., as well as school gymnasiums, commons areas, hallways, any space with a hard cap ceiling, or an open ceiling where view of load controllers is not desired. LMCP panels are also ideal for retrofit scenarios where mounting control equipment near existing branch circuit breakers is beneficial and digital switch and sensor devices and load parameter configurability are required to meet complex operational sequences.

### FEATURES

- Standard single pole heavy duty relays UL and cUL listed for both lighting and plug loads
- Available in Dimming or Switching configurations
- Available in interiors sized for 8, 24, or 48 relays maximum
- Runs event-based schedule routines independently (does not require BAS or Network Controller)
- Supports astronomical, time-based, and photocell-based event types
- Two free-topology DLM Category 5e local networks for DLM sensors, switches, and LMIN-104 interface module
- LMCT-100-2 handheld config tool recommended for setup
- LMCP24/48 can supply accessory power to the NB-ROUTER using the optional NB-CABLES.
- LMCP24/48 includes a DIN-rail mounting feature for NB-ROUTER supporting integrated BACnet IP.
- BAA/BABA-compliant

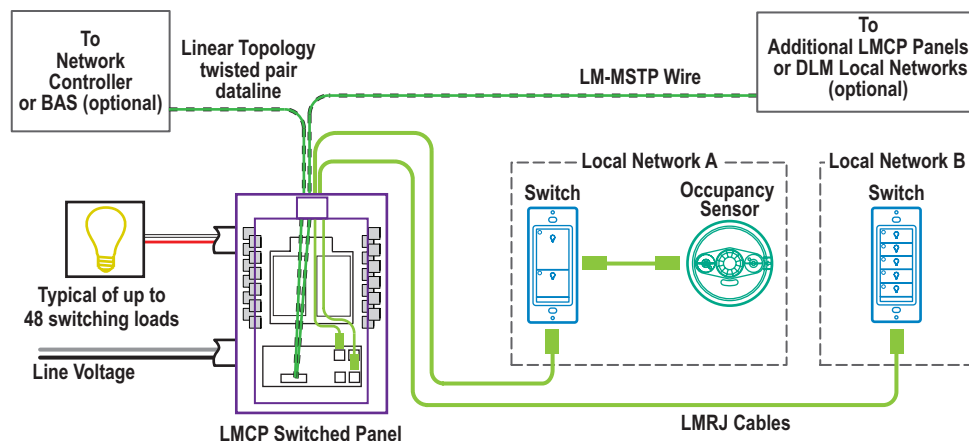
PROJECT	LOCATION/ TYPE
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## SPECIFICATIONS

- Input voltage options, 120/277V, 120/347V, 50/60 Hz
- For 0-10V models:
  - Sinks up to 100 mA per 0-10V input (50 fixtures at 2mA each)
  - 0-10V signal will open on loss of power to panel, or via contact on LMRD-x-10V cards
- Class 2 connection to two independent DLM local networks: 24VDC output, up to 250mA across 2 RJ45 ports per local network
- DLM local network parameters:
  - Maximum current: 800mA
  - Maximum cable (Cat5e): 150' per intelligent device on local DLM network, up to 1,000' max.
  - Up to 64 loads
  - Communicating Device Limitation:
    - When all power supplies are 10X-Series: 24 Devices.
    - When other power supplies are present: 48 Devices.
  - Maximum of (5) 10X-Series power supplies (LMRC-10X, LMPL-101, LMPB-100) per local network.
- Terminals for connection to DLM segment network (BACnet MS/TP)
- Segment network parameters:
  - Wattstopper LM-MSTP wire
  - Linear topology; 4000 ft. maximum per segment
- Accessory power available:
  - LMCP8, N/A
  - LMCP24, 650 mA @ 15VDC, 400 mA @ 24VDC
  - LMCP48, 650 mA @ 15VDC, 400 mA @ 24VDC
- Weight of interior, including transformer(s): LMCP8, 12lbs; LMCP24, 27 lbs; LMCP48, 35 lbs.
- HDR relays:
  - Coil voltage, 24 VDC, pulse ON and pulse OFF
  - Mechanically latched contacts
  - ½" K.O. mounting, LV plug-connection, individually replaceable
  - UL listed for receptacle circuit control
  - Contact ratings:
    - 30 amps ballast @ 277V
    - 20 amps ballast @ 347V
    - 16 amps e-ballast @ 120V
    - 10 amps e-ballast @ 277V
    - 10 amps e-ballast @ 347V
    - 20 amps tungsten @ 120V
    - 30 amps resistive @ 347V
    - 20 amps receptacle load @ 120V
    - 1.5 HP @ 120V
  - SCCR (short circuit current rating) 14,000 amps with HDR Heavy Duty Relay
- Upon loss of power, date and time info is maintained for 14+ days. Programming info (including schedules) is maintained for the life of the product.
- Operating conditions: for indoor use only; 32-140°F (0-60°C); 5-95% RH, non-condensing
- UL and cUL Listed (E207852), Complementary Listed to Emergency Lighting Equipment UL924
- OSHPD (OSP) Approved (Certification No: OSP-0257)
- Five year warranty

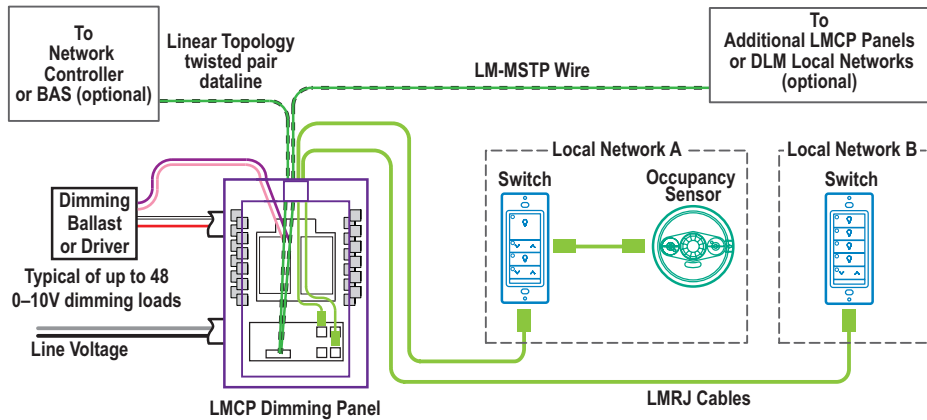
## CONNECTING

## Sample DLM Panel Connection Diagram with Switching Loads

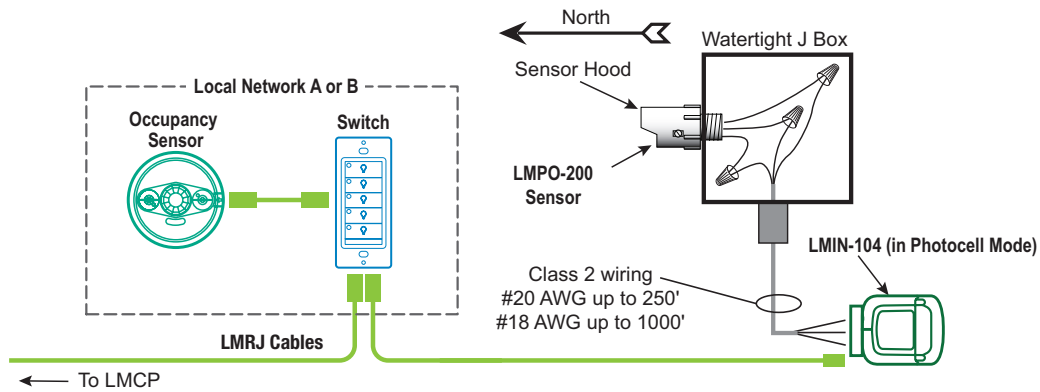


## CONNECTING

### Sample DLM Panel Connection Diagram with 0-10V Dimming Loads

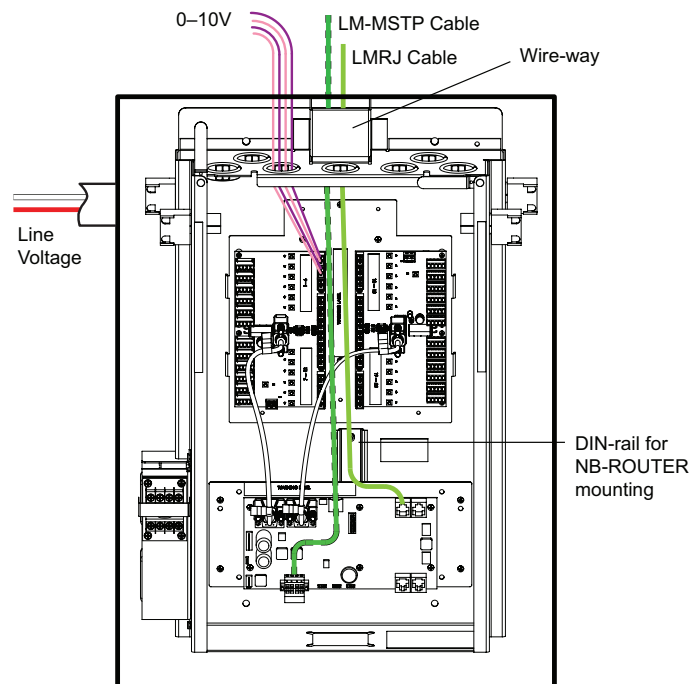


### LMIN-104 Connection and Wiring Diagram



## 0-10V AND NETWORK WIRING

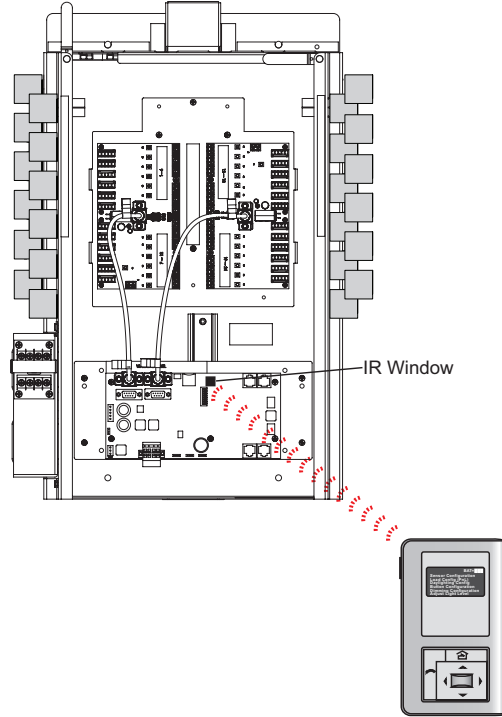
The Class 2 wire-way at the top of the LMCP panel is designed to provide separation between Class 1 wiring and BACnet/IRB network wiring. All 0-10V wires must originate as Class 2, or be reclassified. The 0-10V are routed through grommets in the top of the Class 1/Class 2 barrier. The BACnet/IRB wires are routed through the wire-way.



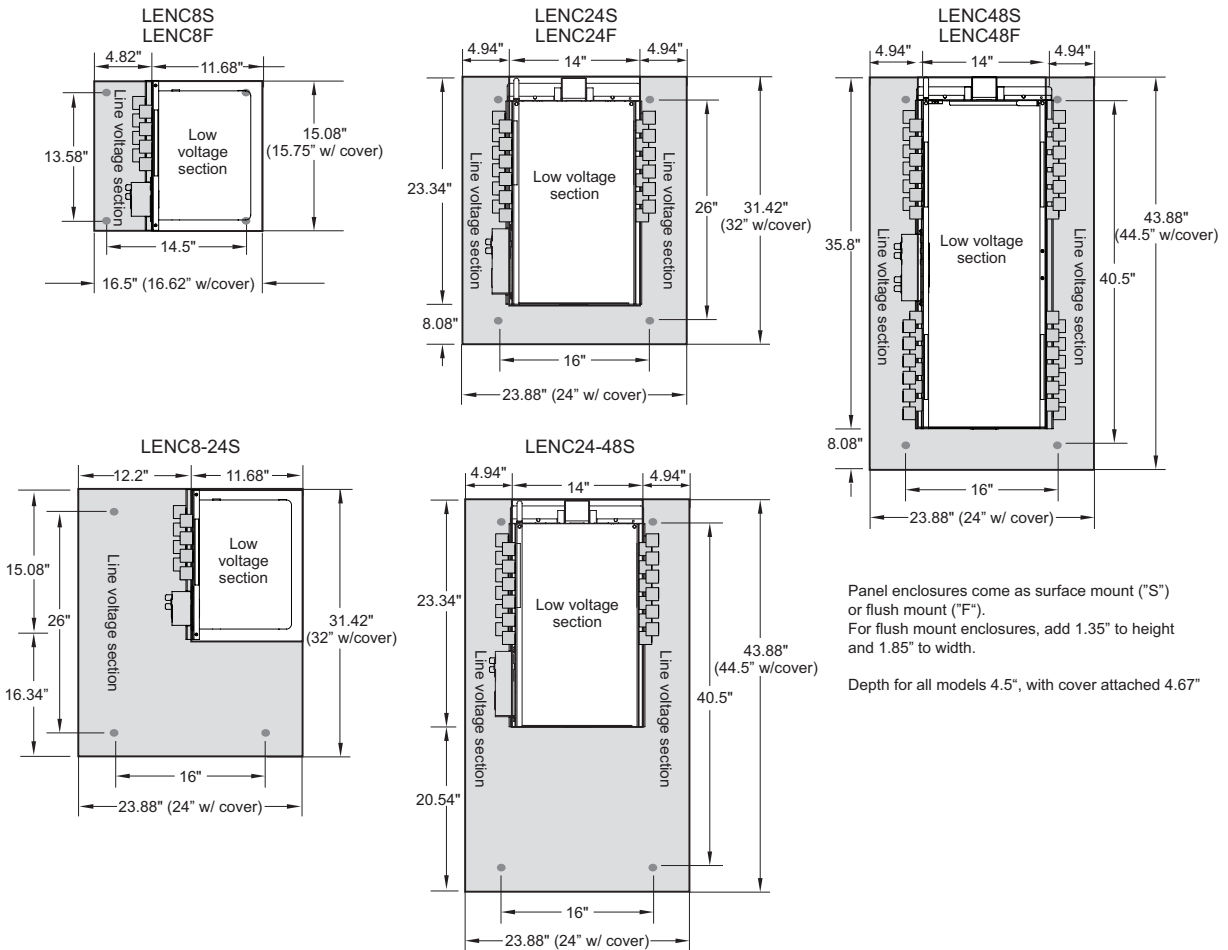
**NOTE:** When mounting the NB-ROUTER inside the panel, add the NB-CABLES power and data cable set to ensure proper connectivity.

## SET UP AND DIAGNOSTICS

### LMCP Set Up using LMCT-100-2 Handheld Configuration Tool



## PANEL ENCLOSURE DIMENSIONS



**ORDERING INFORMATION**

Interior Capacity	Installed Options			
	Voltage Options	Relay Count	Emergency Relays	Coil Voltage
<b>Dimming Panels</b>				
<input type="checkbox"/> LMCP8-10V	<input type="checkbox"/> 115/277	___ HDR relays / 0-10V outputs installed (max of interior capacity)	___ EM relay count (Not available in 8-relay size panels; max. of 24 in 24-relay or 48-relay size interior)	<input type="checkbox"/> 115
<input type="checkbox"/> LMCP24-10V	<input type="checkbox"/> 115/347			<input type="checkbox"/> 240*
<input type="checkbox"/> LMCP48-10V				<input type="checkbox"/> 277
				<input type="checkbox"/> 347
<b>Switching Panels</b>				
<input type="checkbox"/> LMCP8	<input type="checkbox"/> 115/277	___ HDR relays installed (max of interior capacity)	___ EM relay count (Not available in 8-relay size panels; max. of 24 in 24-relay or 48-relay size interior)	<input type="checkbox"/> 115
<input type="checkbox"/> LMCP24	<input type="checkbox"/> 115/347			<input type="checkbox"/> 240*
<input type="checkbox"/> LMCP48				<input type="checkbox"/> 277
				<input type="checkbox"/> 347
<input type="checkbox"/> NB-ROUTER	MSTP to IP Network Router. Mountable in LMCP24 and LMCP48.			
<input type="checkbox"/> NB-CABLES	MSTP and Power Cables for NB-ROUTER in LMCP24 and LMCP48			
<input type="checkbox"/> LMCT-100-2	Wireless Configuration Tool			
<input type="checkbox"/> LMCT-100-2-U	Wireless Configuration Tool, BAA/BABA compliant			

\* 240VAC single phase only

Ordering Notes

All LMCPx and LMCPx-10V panels, NB-ROUTER, LMCT-100-2-U, and MSTP cables are compliant with the Buy American Act and Build America, Buy America Act

LMCP panels are compatible with LENC enclosures (order separately)

See EM-IN cut sheet for emergency relay functionality

See NB-CABLES installation instructions for field mounting NB-ROUTER and NB-CABLES (order separately)