

# RS-2P-120/277 – TWO-POLE STEP RELAY MODULE



This is the Two-Pole Step Relay Module.

- Works with step ballasts to provide multi-level lighting control from a single panel slot.
- Utilizes dual 30A relays that are each de-rated to 16A
- Each module incorporates the latest in “zero-cross” switching technology to greatly extend relay switching life.
- Relay Modules communicate with the Master Interface to report:
  - The relay’s current state (on/off)
  - The line source state (available or off)
  - The communication status (active / not available)
  - The relay’s “health.” (if the relay is defective)

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# R-1P-120/277 – SINGLE POLE RELAY MODULE



This is the Single Pole Relay Module.

- Incorporates the latest in “zero-cross” switching technology to greatly extended relay switching life.
- Relay Modules communicate with the Master Interface to report:
  - The relay’s current state (on/off)
  - The line source state (available or off)
  - The line frequency (in Hz)
  - The communication status (active / not available)
  - The relay’s “health.” (if the relay is defective)
- Relay Modules are interchangeable with all other RD style relay and dimming modules.

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## **LRM-2P-120/347 – LOCAL RELAY MODULE W/ OPTIONAL, 2- CHANNEL, 0-10V DIMMING**



This is the Local Relay Module w/ optional, 2-channel, 0-10V

Dimming.

- Provide a distributed control solution which allows the installer to place the module in close proximity to the controlled load.
  - Can be connected directly to a master interface or through multi-function interfaces.
  - Local Relay Modules each encompass (2) latching (mechanically held) single pole relays and each module incorporates the latest in “zero-cross” switching technology for improved equipment life.
  - Include (3) “smart ports.” Each smart port provides a daisy-chained connection for up to (8) smart devices and are connected to the Local Relay Modules via standard Cat5 patch cables.
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## MSTR-DVOLT-S2 – TOUCHE MASTER INTERFACE



This is the Touche Master Interface.

- Master Interfaces provide coordinated control for all of the system’s connected devices and act as a “gateway” to an Ethernet network.
- Up to (100) directly connected devices can be controlled by one Master Interface. If Multi-Function Interfaces are implemented up to (3200) devices can be controlled

by one Master Interface.

- Auto-addressing of all connected devices is coordinated by the Master Interface.
- Both static and dynamic IP addressing is permitted for simple and adaptable setup when Ethernet communication is required.
- The Master Interface monitors the status of all connected devices, displays that information locally, and forwards relevant information to the programming application when appropriate.

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## PP20 2P – SWITCH POWER PACK 2-POLE



Power packs are the heart of the low voltage sensor system. A PP20 Series power pack transforms Class I high voltage (120/277 VAC or 347 VAC) to Class 2 15 VDC for powering remote sensors. The PP20 and the SP20 Series slave pack are also capable of switching lighting loads on and off using their internal relays. Class 2 wire leads connect to 18 to 22 AWG low voltage cable running to the sensors, making installation easy and clean. Power packs also have an elongated chase nipple that allows it to be mounted either directly through a  $\frac{1}{2}$  inch knockout into a junction box, or inside an

adjacent box for meeting specific local code requirements in ceiling plenums.

The most versatile power pack is the PP20, which utilizes a patented relay contact protection and can power up to 14 sensors. Dual-circuit control can be handled by two PP20's, one PP20 2P Series 2-Pole power pack, or a PP20 power pack and a SP20 slave packs.

#### FEATURES

- Powers Low Voltage Sensors (PP20/PP20 2P only)
- Self-Contained Relay(s) Switch Line Voltage Loads
- Relay Contact Protection
- Plenum Rated

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## PP 20 – SWITCH POWER PACK SINGLE POLE



Power packs are the heart of the low voltage sensor system. A PP20 Series power pack transforms Class I high voltage (120/277 VAC or 347 VAC) to Class 2 15 VDC for powering remote sensors. The PP20 and the SP20 Series slave pack are also capable of switching lighting loads on and off using their internal relays. Class 2 wire leads connect to 18 to 22 AWG low voltage cable running to the

sensors, making installation easy and clean. Power packs also have an elongated chase nipple that allows it to be mounted either directly through a  $\frac{1}{2}$  inch knockout into a junction box, or inside an adjacent box for meeting specific local code requirements in ceiling plenums.

The most versatile power pack is the PP20, which utilizes a patented relay contact protection and can power up to 14 sensors. Dual-circuit control can be handled by two PP20's, one PP20 2P Series 2-Pole power pack, or a PP20 power pack and a SP20 slave packs.

#### FEATURES

- Powers Low Voltage Sensors (PP20/PP20 2P only)
- Self-Contained Relay(s) Switch Line Voltage Loads
- Relay Contact Protection
- Plenum Rated

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## MP20 – SENSOR SWITCH POWER PACK / SECONDARY PACK



The MP20 power/relay pack and MSP20 secondary relay pack work with low voltage occupancy sensors to switch lighting loads on and off. The MP20 also transforms 120, 240, and 277 VAC single phase power

to Class 2 15 VDC to power remote sensors. Although plenum rated, the elongated mounting nipple allows for these packs to be mounted either directly through a 1/2 inch knockout in a junction box, or to be located inside an adjacent box for specific local code requirements. Up to 14 sensors may be connected to one MP20. Multi-circuit control can be handled by multiple MP20 or MSP20 packs. MP20s can be wired continuously hot (line side), it's leg (load side) without nuisance delays upon turn on.

## FEATURES

- Powers Low Voltage Sensors (MP20)
- Switches Line Voltage Loads
- Plenum Rated

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## WV BR – CEILING MOUNT BRACKET



### Compatible with:

- nWV 16 Series Sensors
- nWV PDT 16 Series Sensors
- HW13 Series Sensors

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# LMLS MB – PHOTOSENSOR MOUNTING BRACKET



The LMLS-MB1 and LMLS-MB2 mounting brackets provide the flexibility to mount the LMLS-400 and LMLS-500 Photosensors to walls, skylight wells or J-Boxes. They are specifically designed to be used in conjunction with these Photosensors.

## **FEATURES:**

- Material: ABS, UL 94 5V Flame Retardant Material
- Indoor Use Only
- Mounting Options:
  - LMLS-MB1: 4-Square J-Box / 2-Gang J-Box
  - LMLS-MB2: Screw to Wall / Tape to wall with double sided tape

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# LMRC-220 SERIES – DIGITAL FORWARD PHASE DIMMING ROOM



# CONTROLLERS LMRC-222)

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This is the digital forward phase dimming room controllers (LMRC-221, LMRC-222). 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. **Check out Wattstopper DLM products here.**

## 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
- 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
  - RoHS compliant
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# **WattStopper LMRC-110 SERIES 0-10V DIMMING ROOM CONTROLLERS (LMRC-111, LMRC-112)**



WattStopper LMRC-110 SERIES 0-10V DIMMING ROOM CONTROLLERS (LMRC-111, LMRC-112). LMRC-110 series room controllers include one or two relay(s) to switch a total of 10 amps, a high-efficiency switching power supply and dual 0-10 volt outputs per relay for control of dimmable loads including compatible LED drivers or electronic ballasts. They are the foundation of a Digital Lighting Management (DLM) system, and allow integration of occupancy sensors, daylighting controls and switches for energy-efficient control.

LMRC-110 series room controllers operate on one 120 or 277 volt, 10 amp feed and provide Class 2 power to sensors and switches via the DLM local network. Once powered up, Plug n' Go automatically configures system components for the most energy-efficient operation. The room controllers then dim or

switch lighting or motor 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 scene preset levels for each dimmed output.

## Features

- Push n' Learn™ functionality for personalization without the need for tools or a PC
- Digital Lighting Management components plug together on a free-topology Cat 5e DLM local network eliminating wiring errors
- On/Off/Dim local override button for each load
- LED indicates status of each load
- Optional lamp burn in; 12 or 100 hours
- Optional instantaneous current and voltage measurement of total connected load
- 2 RJ45 ports; molded cable tie ring for strain relief
- Zero-crossing circuitry for each relay for reliability and increased product life
- UL 2043 plenum rated
- This product meets the materials restrictions of RoHS
- U.S.-made models available for public works projects

## Specifications

- Voltage: 120/277VAC; 50/60Hz
- Maximum 10A combined load per Room Controller; each relay rated for 10A ballast, E-ballast or incandescent
- Galvanically isolated Class 1 pigtails and Class 2 terminals for 0-10VDC signal; sinks up to 50mA per output (Class 1/Class 2) per channel for control of compatible ballasts (25 if each sources 2mA)

- Intelligently controlled Class 2 output to DLM local network: 24VDC, up to 150mA across 2 RJ45 ports
- DLM local network parameters:
  - Maximum current: 800mA
  - Category 5e cable: 150' per device 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
- Requires LMCS 4.5.1, Segment Manager 2.1.23, or LMCT 5.24 (or later)
- Operating conditions: for indoor use only; @120/277V: 32-131°F (0-55°C); 5-95% RH, non-condensing
- UL and cUL listed (E101196)
- FCC part 15 compliant
- Five year warranty

For other items like the WattStopper LMRC-110 SERIES 0-10V DIMMING ROOM CONTROLLERS [click here](#).

For more information on WattStopper's line of lighting control solutions [click here](#).

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## WattStopper LMPL-201 – PLUG LOAD CONTROLLER



This is the plug load controller. LMPL-201 Plug Load Controllers include a 20-amp relay for on/ off control of connected outlets, and a high-efficiency switching power supply. They are part of a Wattstopper Digital Lighting Management (DLM) system, and enable energy-efficient control of plug loads. **Check out Wattstopper DLM products [here](#).**

### **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 a free-topology Cat 5e DLM local network
- Load On/Off local override button
- LED indicates status of connected load
- Integral current monitoring of connected load
- 4 RJ45 ports with integral strain relief and hinged dust cover
- Zero-crossing circuitry for reliability and increased product life
- UL2043 plenum rated
- Ships with "Sensor Controlled" labels for connected outlets
- The product meets the materials restrictions of RoHS