

## legrand LMSW-101 Low Voltage Switch Instruction Manual

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legrand LMSW-101 Low Voltage Switch



#### **Product Information**

The product is a series of switches with model numbers LMSW-101, LMSW-102, LMSW-103, LMSW-104, and LMSW-108. These switches are designed for Plug n' GoTM operation, which means they can be used without any adjustments. For more detailed operational information, adjustments, and additional features, users can refer to the DLM System Installation Guide provided with Wattstopper room controllers or visit <a href="https://www.legrand.us/wattstopper">www.legrand.us/wattstopper</a>.

Installation of the switches should comply with all applicable regulations, local codes, and NEC codes. Wire connections should be suitable for the wire size used. For Class 2 DLM devices and device wiring, they should only be connected to a Class 2 power source and not be reclassified as Class 1 or Power and Lighting Wiring. Cleaning solvent should not be applied directly onto the unit but onto a cloth for cleaning. The product specifications are as follows:

• Voltage: 24VDC

• Current Consumption: 5mA

• Power Supply: Wattstopper Room Controller

• Connection to the DLM Local Network: 2 RJ-45 ports

DLM Local Network characteristics when using LMRC-11x/2xx room controllers

The product can be mounted using the instructions provided in the user manual. There are buttons and indicators on the switch, including blue load status LED(s), On/Off button(s), configuration button (behind switch plate), and red configuration LED. The product has connectivity to other Digital Lighting Management devices connected to the low-voltage DLM Local Network.

## **Product Usage Instructions**

To use the product, follow these steps:

- 1. Ensure that the installation complies with all applicable regulations and codes.
- 2. Make sure the wire connections are suitable for the wire size used.
- 3. Do not apply cleaning solvent directly onto the unit. Apply it onto a cloth and then clean the unit.
- 4. Mount the switch according to the provided instructions.
- 5. Connect the switch to a Class 2 power source.
- 6. If adjustments are required, follow the instructions in the DLM System Installation Guide provided with Wattstopper room controllers or visit <a href="https://www.legrand.us/wattstopper">www.legrand.us/wattstopper</a> for more details.
- 7. Do not install the switch to cover a junction box having Class 1, 3, or Power and Lighting Circuits.

- 8. For connecting a computer to the DLM Local Network, use the LMCI-100. Never connect the DLM directly.
- 9. Follow the illustrations provided in the user manual for wiring examples and connections to other devices on the DLM Local Network.
- 10. To bind loads to the switch buttons using Push n' LearnTM technology:
  - 1. Press and hold the configuration button on the switch for 3 seconds using a pointed tool until the red LED starts blinking.
  - 2. Release the configuration button, and the red LED on other communicating DLM Local Network devices will start blinking.
  - 3. Follow further instructions in the user manual for load selection procedure and changing the binding relationship between switch buttons and loads.

## **Catalog Numbers**

- LMSW-101
- LMSW-102
- LMSW-103
- LMSW-104
- LMSW-108



Country of Origin: Made in China China Models ending in -U are BAA and TAA compliant (Product produced in the U.S.)

## This unit is pre-set for Plug n' Go™ operation, adjustment is optional.

For full operational details, adjustments and more features of the product, see the DLM System Installation Guide provided with Wattstopper room controllers, and also available at www.legrand.us/wattstopper. Installation shall be in accordance with all applicable regulations, local and NEC codes. Wire connections shall be rated suitable for the wire size (lead and building wiring) employed. For Class 2 DLM devices and device wiring: To be connected to a Class 2 power source only. Do not reclassify and install as Class 1, or Power and Lighting Wiring. Do not apply cleaning solvent directly onto unit. Apply cleaning solvent onto a cloth, then wipe the unit to clean it.

#### **SPECIFICATIONS**

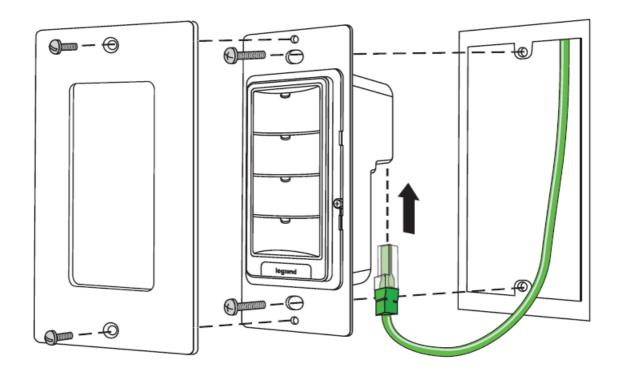
Voltage	24VDC
Current Consumption	5mA
Power Supply	Wattstopper Room Controller

• Connection to the DLM Local Network...... 2 RJ-45 ports

**DLM Local Network characteristics when using LMRC-11x/2xx room controllers:** Low voltage power provided over Cat 5e cable (LMRJ); max current 800mA. Supports up to 64 load addresses, 48 communicating devices including up to 4 LMRC-10x series and/or LMPL-101 controllers. Free topology up to 1,000' max.

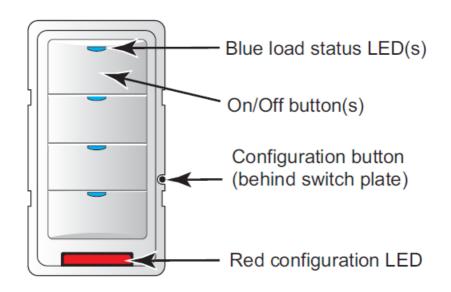
- Environment...... For Indoor Use Only
- Operating Temperature......32° to 131°F (0° to 55°C)
- Storage Temperature......23° to 176°F (-5° to 80°C)
- Relative Humidity......5 to 95% (non condensing) Patent Pending

#### MOUNTING THE SWITCH



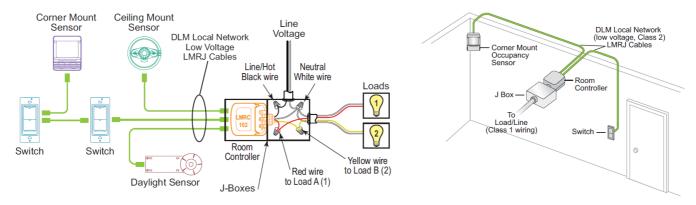
**WARNING:** Do not install to cover a junction box having Class 1, 3 or Power and Lighting Circuits. **CAUTION:** TO CONNECT A COMPUTER TO THE DLM LOCAL NETWORK USE THE LMCI-100. NEVER CONNECT THE DLM LOCAL NETWORK TO AN ETHERNET PORT – IT MAY DAMAGE COMPUTERS AND OTHER CONNECTED EQUIPMENT

## **BUTTONS AND INDICATORS**



#### CONNECTIVITY

The illustrations below show examples of free-topology wiring. The LMSW switches communicate to all other Digital Lighting Management devices connected to the low voltage DLM Local Network, regardless of their position on the DLM Local Network.



## PLUG N' GO OPERATION (PNG)

Each load is automatically assigned to a switch button.

- If there are more buttons on a switch than there are loads, the extra button(s) do nothing and blink when pressed.
- If there are fewer buttons on a switch than there are loads, the last button controls all remaining loads.

The illustration below shows the Plug n' Go load binding for each LMSW switch in a room that has up to 8 loads.

# Plug n' Go Load Binding LMSW-101 Loads LMRC-102 Room Controller Dual Relay Line Voltage LMSW-102 23456 LMRC-102 Room Controller Dual Relay Line Voltage LMSW-103 3 4 5 6 7 Room Controller Dual Relay Line Voltage LMSW-104 5 Room Controller Dual Relay Line Voltage LMSW-108 8

## UNIT ADJUSTMENT – PUSH N' LEARN (PNL)

#### **Load Selection Procedure**

A configuration button allows access to our patented Push n' Learn™ technology to change the binding relationship between switch buttons and loads.

## 1. Step 1: Enter Push n' Learn



- 1. Using a pointed tool, press and hold the configuration button for 3 seconds, until the Red LED on the switch begins to blink.
- 2. When you release the switch's configuration button, the red LED on other communicating DLM Local Network devices begins to blink.

- 3. The DLM Local Network is now in PnL mode. The Red LEDs continue to blink until you exit PnL mode.
- 4. All loads in the room turn OFF after entering PnL. After one second, one load turns ON. This is Load #1, which is bound to switch button #1 as part of the Plug n' Go factory default setting. The Blue LED will be ON for all switch buttons and sensors that are bound to this load.

## 2. Step 2: Load selection



- Press and release the configuration button to step through the loads connected to the DLM Local Network. As each load turns ON note which devices (switch buttons and sensors) are showing the blue LED. These devices are currently bound to the load that is ON.
- 2. To unbind a switch button from a load, press the switch button while its blue LED is ON. The blue LED turns OFF to indicate the button no longer controls the load that is currently ON.
- 3. Pressing the switch button again while the load is ON rebinds the load to the button and the blue LED illuminates.

#### 3. Step 3: Exit Push n' Learn

1. Press and hold the configuration button until the red LED turns off, approximately 3 seconds.

## **TROUBLESHOOTING**

#### Loads do not operate as expected.

Switch button LEDs don't light	<ol> <li>Check to see that the switch is connected to the DLM Local Network.</li> <li>Check for 24VDC input to the switch: Plug in a different DLM device at the switch lo cation. If the device does not power up, 24VDC is not present.</li> <li>Check the high-voltage connections to the room controller.</li> <li>If high voltage connections are good and high voltage is present, recheck DLM Local Network connections between the switch and the room controller.</li> </ol>	
The wrong lights are controlled	Configure the switch buttons to control the desired lights using the Push n' Learn adjustment procedure.	
Button doesn't actu ate	<ol> <li>Make sure the switch frame and button are assembled properly.</li> <li>Make sure that the wall plate is not pinching the frame.</li> </ol>	
LEDs turn ON and O FF but load doesn't switch	<ol> <li>Make sure device is not in PnL.</li> <li>Check load connections to room controller.</li> </ol>	

#### WARRANTY INFORMATION

Wattstopper warrants its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Wattstopper for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

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## **Documents / Resources**



<u>legrand LMSW-101 Low Voltage Switch</u> [pdf] Instruction Manual LMSW-101, LMSW-102, LMSW-103, LMSW-104, LMSW-108, LMSW-101 Low Voltage Switch, LMSW-101, Low Voltage Switch, Voltage Switch, Switch

## References

• Land Wattstopper Lighting Control Systems

Manuals+.