



## FUNCTION

The LM1 Lamp Module is a high quality plug-in home automation load controller that is capable of controlling 120VAC incandescent lamps based on digital commands received over the power wiring from a remote UPB (Universal Powerline Bus) controller. The module will turn lamps ON and OFF, and will also act as a light dimmer. UPB controllers and modules can be freely located anywhere throughout the home. No additional wiring is required and no radio frequency signals are used for communication.

## IMPORTANT SAFETY INSTRUCTIONS

When using electrical products, basic safety precautions should always be followed, including the following:

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
2. Keep away from water. If the product comes in contact with water or other liquid, turn off the circuit breaker and unplug the product immediately.
3. Never use products that have been dropped or damaged.
4. Do not use this product outdoors.
5. Do not use this product for other than its intended purpose.
6. Do not connect multiple lamps that, when combined, exceed the maximum load ratings of the product.
7. To avoid any risk of fire, burns, personal injury or electric shock, install this product out of the reach of small children.
8. Do not cover this product with any material when in use.
9. This product uses grounded plugs and sockets to reduce the risk of electric shock. These plugs and sockets fit only one way. If they do not fit, consult an electrician.
10. SAVE THESE INSTRUCTIONS.

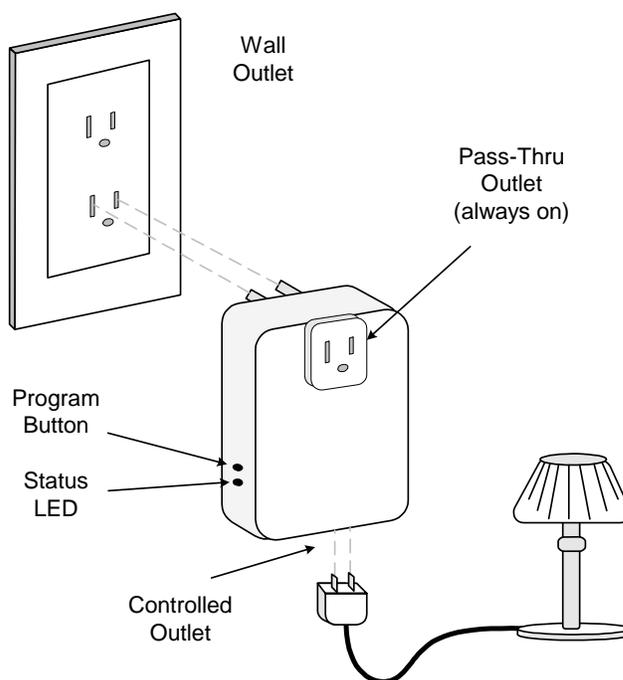
## INSTALLATION

The Lamp Module is designed for indoor use with devices that plug into a grounded power outlet. To install the LM1 module:

1. Locate the lamp to be controlled and unplug it from the wall outlet.
2. Plug the lamp into the socket on the **bottom** of the lamp module. The lamp current rating (or combined rating of multiple connected lamps) must not exceed 400 watts.
3. Plug the LM1 into the wall outlet (see illustration below).
4. Turn the lamp power switch to its ON position.

If desired, another device can be plugged into the pass thru outlet socket on the **front** of the lamp module, which is always powered.

**CAUTION:** Do not insert metal objects into the module while it is connected to power.





# Model: LM1 Lamp Module

# Installation Guide and Owner's Manual

## CONFIGURATION

Once your LM1 is installed it can be configured either manually or with the UPStart Setup Software.

Manual configuration can be used to add your LM1 device into a UPB network, link it to controller buttons and change preset light levels. Refer to the Keypad Controller's Manual Configuration Guide available on the PulseWorx website ([www.PulseWorx.com](http://www.PulseWorx.com)) for more details.

Although the factory default operation of the LM1 is useful in many situations, it is highly recommended that your device be configured with the UPStart Setup Software so that you can take advantage of its many configurable features.

PCS has developed a Powerline Interface Module (PIM) and free software (UPStart) to help you configure all of your PulseWorx Lighting System devices. User's Guides are available on the PulseWorx web site: [www.PulseWorx.com](http://www.PulseWorx.com) to explain how to configure your system.

Note: The LM1 can be configured to disable the dimmer so it can turn ON and OFF non-dimmable loads such as fluorescent lights.

## SETUP Mode

When configuring a UPB system, it will be necessary to place the LM1 in SETUP mode. To do this, press the Program Button (see illustration) **five times** rapidly using a non-metallic toothpick. The Status LED will continuously blink Blue when the device is in SETUP mode. To exit SETUP mode, press the Program Button once or wait five minutes for it to time out.

## OPERATION

The Lamp Module operates according to commands sent by UPB controllers.

The LM1 can accept powerline commands from any UPB-compatible transmitter such as PulseWorx Keypad Controllers, Timed Event Controllers, Wall Switches, Interface Modules, Approved Third-Party Controllers and touch screens. The LM1 can be a member of up to 16 scenes with the capability to store a pre-set light level (0% - 100%, or blink) and fade/blink rate for each scene.

## Lamp Switch Triggers

The LM1 will sense when the local lamp switch has gone from opened to closed and can automatically turn on the lamp when this occurs.

## AUTO-OFF Timer

New for Generation 2 is the ability to set a maximum on time. If you forget to shut the lamp off yourself then the lamp module will do it for you automatically. The LM1 can be configured to inform the rest of the network when it has automatically turned the lamp off. This allows the LM1 to remotely control other devices or update feedback indicators such as LEDs.

## TEST Mode

A manual test feature allows the device to be turned ON and OFF locally. To enable the TEST mode **press and hold the Program Button on the LM1 for three seconds**. The Status LED will blink Magenta to indicate TEST mode. The lamp can now be turned ON and OFF by pressing the Program Button. Press and hold the Program Button again for three seconds to exit from TEST mode.

## Factory Default Settings

To restore the following default settings place the LM1 into SETUP mode and then press the Program Button **ten** times rapidly. The Status LED will blink red to indicate that factory defaults have been restored. Press the Program Button **twice** more to stop the blinking.

<b>Network ID:</b>	255
<b>Unit ID:</b>	09
<b>Network Password:</b>	1234
<b>Receive Components:</b>	Link #1 = 100% @ 1.6 secs Link #2 = 0% @ 1.6 secs Link #8 = Blink @ 0.5 secs

## TYPICAL USES

The LM1 is perfect for controlling 120VAC dimming loads such as:

- Incandescent bulbs,
- Some dimmable compact fluorescent bulbs,
- 120VAC magnetic transformers,
- Fluorescent lights (when dimming is disabled).

## LIMITED WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in materials and workmanship for a period of five years from the date of purchase. Refer to the warranty information on the PulseWorx website ([www.PulseWorx.com](http://www.PulseWorx.com)) for exact details.



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