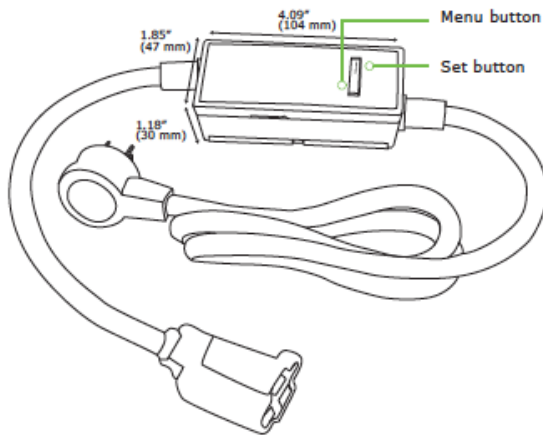


Plug-In Switch Module

[Mx-EPsm]



Package Contents:

- Plug-in Switch Module

Tools Required:

- None

Product Description:

The Magnum Plug-In Switch Module provides an easy way to save energy and control lighting and appliance loads based on room occupancy.

The module simply plugs into any standard wall receptacle and receives wireless signals from Magnum compatible products that tell it when to power on or off.

Features Include:

- Provides switching of plug-in electrical loads
- Communicates with other Magnum devices to enable energy savings
- Plugs into any standard outlet, no wiring required (optional mounting plate provided)
- Easily links with wireless rocker pads or sensors or connects to simple corded accessory rocker pad

SPECIFICATIONS

Part Numbers (Frequency Dependant)	M9-EPsm (902 MHz - North America) M8-EPsm (868 MHz - Europe and China) MJ-EPsm (928 MHz - Japan)
Power Supply	120 VAC 50/60Hz
Maximum Load or Contact	General purpose: 15A@ 120VAC
Ratings	Resistive: 15A 120VAC Motor: ½ HP @ 120VAC Tungsten: 960W @120VAC Ballast: 600W @ 120 VAC
Power Consumption	1.1W full load, 500mW quiescent
Transmission Range	80ft (25m)
Module Dimensions	4.09" L x 1.85" W x 1.26" D
Cord Lengths	Plug cord: 3 ft. Outlet cord: 1 ft.
Weight	12.3 oz. (348 g)
Environment	<ul style="list-style-type: none"> • Indoor use only • 32° to 104°F (0° to 44°C) • 20% to 95% relative humidity (non-condensing)
Agency Compliance	cULus, FCC, and I.C.

Planning

Take a moment to plan and install the module for user convenience and optimal communication with other system components.

- Consider where the device will be plugged in, what it will control, and how power cords can be kept out of the way
- Consider the construction materials in the space and obstacles that may interfere with RF signals

Installing

Warning: ELECTRICAL SHOCK HAZARD. Do not open, cut the cord, or rewire the device. Serious injury or death could result.

1. Turn the electrical load on (for example, a lamp) and unplug the cord from the wall outlet.
2. Plug the cord of the electrical load, for example a lamp, into the outlet cord of the module.
3. Plug the module into a standard wall outlet.
4. Test the connection by actuating the load using the Set button () on the module.

Note: The plug and outlet are polarized, and not intended to be mated with unpolarized devices.

Optional Mounting

The Plug-In Switch Module provides a fixed mounting option to prevent damage and theft. Using the included mounting plate, mount the device high enough off the floor to avoid spills and impact with cleaning equipment.

1. Using a level and a pencil, lightly mark two small dots to align the upper edge of the module on the wall where you want to mount it.

Tip: For easy housekeeping, provide sufficient clearance for vacuum cleaners.

2. Slide the mounting plate off the back of the module.
3. With the tab lock side down, mount the plate securely to the wall.

a. Using the pencil marks to ensure it's level, mark the two mounting screw drill points.

b. Drill two holes for the wall anchors with a 3/16" drill bit and insert the wall anchors.

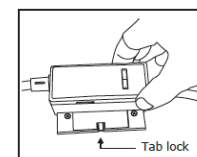
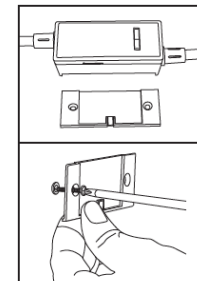
c. Insert the first screw loosely and level the module.

d. Insert the second screw, and then hand tighten the first screw.

4. Slide the module onto the mounting plate until it clicks in place.

Note: Any of the Magnum rocker pads can be linked to the module.

For affordable remote control, consider the Magnum Corded Accessory Rocker Pad (soldseparately).



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Linking

Magnum wireless systems are highly flexible; two or more compatible devices can be linked and configured to provide the desired control.

There are two basic types of devices in the Magnum system; transmitters and transceivers.

- Transmitters are simple energy-harvesting devices that send RF messages to communicate a condition, level, or state. Transmitters can only be linked to transceivers.
- Transceivers are wire-powered controlling devices that send as well as receive RF messages. They also process relevant control logic, and actuate the appropriate outputs (switching a light on or off for example). Transceivers can be linked to transmitters as well as other transceivers. A Magnum transceiver can have up to 30 devices linked to it.

The Plug-In Switch Module is a Transceiver

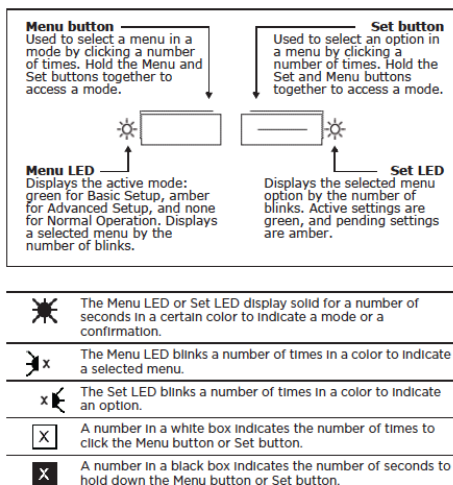
To link devices, the transceiver must first be powered, within the transmission range, and set to accept links using the setup interface on the transceiver. Next, the desired transmitter, or another transceiver, is triggered to send a special link message. The awaiting transceiver receives and stores the link permanently so the devices can interact to provide a variety of intelligent control options.

About the Setup Interface

The setup interface has two buttons, Menu and Set, that each have a corresponding 3-color LED (green, amber, red). This simple interface is used to link and configure devices as a system.

The buttons and LEDs are used to navigate and select linking and setup options through a 3-tier menu system consisting of different Modes > Menus > Options. The LEDs respond by showing solid or blinking lights of different colors to indicate active options and pending changes. To use the interface, hold the module so both thumbs can click the buttons without obscuring the LEDs. The illustration and legend below describe how the buttons are used and the meaning of the LED responses.

Tip: To exit and start over from anywhere in a menu, click both buttons at the same time once.



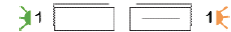
To link a transmitter to a transceiver:

1. Access Basic Setup mode.



Note: By default, the Accept Link option in the Linking menu is selected. Once activated, this option stays active for two minutes to provide time to link multiple devices.

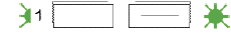
Ready to accept links.



2. On the transmitter to be linked, do one of the following according to the type of device:

- Sensor: click the designated link button.
- Key Card Switch: insert/remove the card 3 times quickly.
- Rocker Pad: click the top button 3 times quickly.

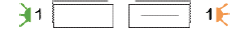
Device linked successfully.



Set LED displays solid

green for 3 seconds.

Ready to accept new links.



3. To exit to normal operation, hold both buttons for 1 second.

To link a transceiver to another transceiver:

When two transceivers are linked to share system activity events, either one of them can be used to send the link signal.

1. Access Basic Setup mode on both devices.



Ready to accept links.



2. On one of the devices, select the Send Link option.



3. Send a link signal from that device.



Devices linked successfully.



Configuring

The default settings on the module support common control and installation scenarios. However, some settings can be adjusted on the module using the setup interface, if required.

Setting	Default	Application
Auto-On	Automatically Determined	If linked to an occupancy sensor, the default is Enabled. If linked to a switch, the default is Disabled for manual control.
Vacancy Check	5 minutes	If linked to a occupancy sensor and a door sensor.
Switched Auto-Off	Disabled	If linked to a rocker pad or key card switch.
Motion Auto-Off	15 minutes	If linked to occupancy sensor.
Door/Window Ajar	2 minutes	If linked to an occupancy sensor.
Egress	30 seconds	If linked to a key card switch.

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Auto-On

The default Auto-On option is automatically determined based on the type of device that is linked. Auto-On is Disabled if the first linked device is a switch, or Enabled if the device is an occupancy sensor.

From the Auto-On menu, the active option is indicated by the number of green blinks on the Set LED; amber blinks indicate an unsaved change. Click the Set button an appropriate number of times to select an option.

Options	Clicks	Blinks
Disabled	1	1
Enabled	2	2
Automatically Determined	3	3

To change the auto-on option:

This example shows changing the option from Automatically Determined to Disabled.

1. Access Basic Setup mode. 2 2
2. Access the Auto-On menu. 2 2 3
3. Select an option. 2 1 1
4. Save the selection. 2 2 1

Vacancy Check

The vacancy check is a time delay that is activated when a door opens and closes. The linked loads will turn off, if the sensor(s) do not confirm occupancy within the time delay.

From the Vacancy Check menu, the active option is indicated by the number of green blinks on the Set LED; amber blinks indicate an unsaved change.

Options	Clicks	Blinks
5 mins. (default)	1	1
15 mins.	2	2
30 mins.	3	3
60 mins.	4	4
120 mins.	5	5

Click the Set button an appropriate number of times to select an option.

To change the vacancy check option:

- This example shows changing the option from 5 to 15 minutes.
1. Access Basic Setup mode. 2 2
 2. Select the Vacancy Check menu. 3 3 1
 3. Select an option. 3 2 2
 4. Save the selection. 3 2 2

Auto-Off

There are two auto-off menus, one for occupancy sensors, and one for switched devices. For linked occupancy sensors, the default is 15 minutes. For linked rocker pads and key card switches, the default is Disabled to allow manual control.

From the auto-off timer menu, the active option is indicated by the number of green blinks on the Set LED; amber blinks indicate an unsaved change. Click the Set button an appropriate number of times to select an option.

Options	Clicks	Blinks
Disabled	1	1
5 mins.	2	2
15 mins.	3	3
30 mins.	4	4
60 mins.	5	5

To change the switched auto-off option:

This example shows changing the option from Disabled to 5 minutes.

1. Access Basic Setup mode. 2 2
2. Select the Switched Auto- Off menu. 4 4 1
3. Select an option. 4 2 2
4. Save the selection. 4 2 2

To change the motion auto-off option:

This example shows changing the option from 15 minutes to 5 minutes.

1. Access Basic Setup mode. 2 2
2. Select the Motion Auto-Off menu. 5 5 3
3. Select an option. 5 2 2
4. Save the selection. 5 2 2

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Trouble Shooting

The device does not power up.	<ul style="list-style-type: none">• Check the wiring for errors.• Check the circuit breaker.• Use a voltage meter to confirm power.• Verify the cord is not plugged into a switched outlet.
The device does not control linked load.	<ul style="list-style-type: none">• Click the Set button to open/close the relay.• Turn off the power and then restore it.
Cannot link other devices.	<ul style="list-style-type: none">• Check if Accept Link option can be accessed.• Move closer to the device; it may be out of range.• Try linking a different device.• Check for environmental conditions that interfere.• Verify the max. number of devices (30) has not been exceeded.
Cannot change settings on the device.	<ul style="list-style-type: none">• Check if menu item can be accessed.• Check if changes can be saved.
The device does not respond to wireless messages or selected settings.	<ul style="list-style-type: none">• Check for environment range issues.• Verify the device is linked.• Check if the appropriate devices are linked accordingly to good system planning.

FCC SZV-STM300C
I.C. 5713A-STM300C



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.