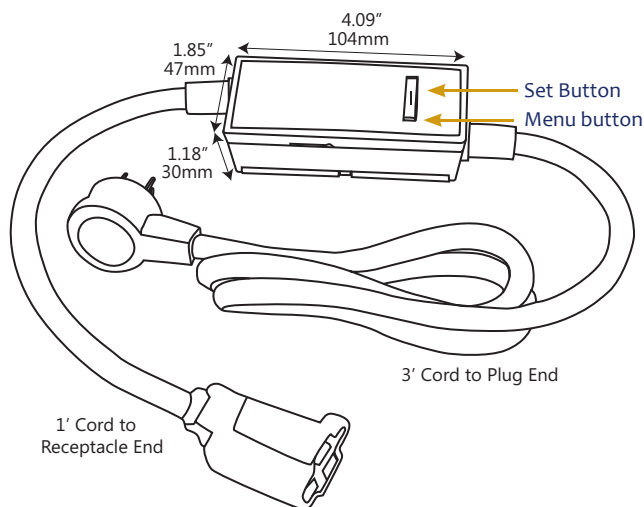




Plug-in Switch Module



EnOcean Equipment Profile	A5-11-01
Interoperable Products / EEPs (EnOcean Equipment Profiles)	Rocker Pad Switch (F6-02-02) Key Card Switch (F6-04-01) 1BS Single Input Contact (D5-00-01) Occupancy Sensor (A5-07-01) Occupancy Sensor (A5-07-02) Occupancy Sensor (A5-07-03) Contact, single input (A5-30-02)
Dimensions	4.09" L x 1.85" W x 1.26" D (104 mm x 47 mm x 32 mm)
Cord Lengths	Plug cord: 3 ft. (91.4 cm) Outlet cord: 1 ft. (30.5 cm)
Weight	12.3 oz. (348 g)
Agency Compliance	ETL, FCC, IC

Package Contents

- Plug-in Switch Module

Tools Required

- None

Product Description

The 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 EnOcean-based products that tell it when to power on or off.

Features Include:

- Provides switching of plug-in electrical loads
- Communicates with other 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

Specifications

Power Supply	120 VAC, 50/60 Hz
Maximum Load or Contact Ratings	General purpose: 15 A @ 120 VAC Resistive: 15 A 120 VAC Motor: ½ HP @ 120 VAC Tungsten: 960 W @ 120 VAC Ballast: 600 W @ 120 VAC
Power Consumption	1.1 W full load, 500 mW quiescent
Transmission Range	80 ft. (25 m)
RF Communications	EnOcean 902 MHz (EPSMU) EnOcean 315 MHz (EPSMC)

1. Planning

Take a moment to plan for the module's successful operation 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

2. Installing

estimated time: 20 minutes



Read and understand instructions completely before starting.

	<p>ELECTRICAL SHOCK HAZARD</p> <p>High Voltage. This device must be installed by a qualified installer or electrician. Follow all applicable electrical codes for installation.</p>
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- Turn the electrical load on (for example, a lamp) and unplug the cord from the wall outlet.
- Plug the cord of the electrical load, for example a lamp, into the outlet cord of the module.
- Plug the module into a standard wall outlet.
- 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 non-polarized devices.

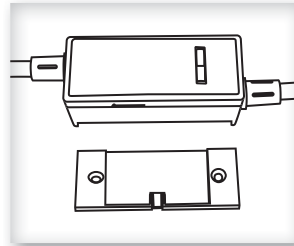
Optional Mounting

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.

- 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.

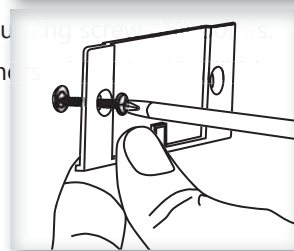
TIP: For easy housekeeping, provide sufficient clearance for vacuum cleaners.

- Slide the mounting plate off the back of the module.

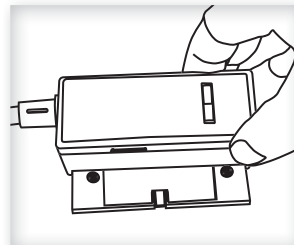


- With the tab lock side down, mount the plate securely to the wall.

- Using the pencil marks to ensure it's level, mark the two mounting holes.
- Drill two holes for the wall anchors and insert the wall anchors.
- Insert the first screw loosely and level the module.
- Insert the second screw, and then hand tighten the first screw.



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



NOTE: Any EnOcean-based switch can be linked to the module.

3. Linking

Two or more compatible devices can be linked and configured to provide the desired control. There are two basic types of devices in the system; transmitters and transceivers.

- Transmit-only:** Transmitters are simple energy-harvesting devices that send RF messages to communicate a condition, level, or state. Transmitters can only be linked to transceivers. Examples > Self-powered Light Switches, Occupancy Sensors
- Transmit & Receive:** Transceivers are 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 with transmitters as well as other transceivers. Examples > Relays, Gateways

The Plug-in Switch Module is a Transceiver (transmits & receives)

To link the occupancy sensor to a transceiver; the transceiver must first be powered, within wireless range of the controls it is to be linked to, and set to accept links.

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.

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.

To exit from anywhere in a menu, hold both buttons at the same time for 2 seconds.

<p>Menu button</p> <p>Used to select a menu in a mode by clicking a number of times. Hold the Menu and Set buttons together to access a mode.</p>	<p>Set button</p> <p>Used to select an option in a menu by clicking a number of times. Hold the Set and Menu buttons together to access a mode.</p>
<p>Menu LED</p> <p>Displays the active mode: green for Basic Setup, amber for Advanced Setup, and none for Normal Operation. Displays a selected menu by the number of blinks.</p>	<p>Set LED</p> <p>Displays the selected menu option by the number of blinks. Active settings are green, and pending settings are amber.</p>

- The Menu LED or Set LED display solid for a number of seconds in a certain color to indicate a mode or a confirmation.
- The Menu LED blinks a number of times in a color to indicate a selected menu.
- The Set LED blinks a number of times in a color to indicate an option.
- A number in a white box indicates the number of times to click the Menu button or Set button.
- A number in a black box indicates the number of seconds to hold down the Menu button or Set button.

To link a transmitter to a transceiver

- 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.

- For 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.

- To exit mode and return to normal operation, press and hold both buttons for 2 seconds.

To unlink a device

Follow the same steps as described in the "To link..." section above with the following deviations:

- After step 1 in the "To link..." section above, click the "Set" (right) button 3 times to enable the "Remove Link" option.

Ready to remove links. 

- Follow the same instructions as shown in Step 2 of the "To link..." section. The Set (right) LED will turn red briefly to indicate the link was successfully removed.

To restore factory defaults

Follow these steps to clear all linked devices and restore the Plug-in Switch Module to its factory default settings.

- Press and hold both buttons for 15 seconds
>> Hold buttons until the Menu (left) LED is solid RED and the Set (right) LED is solid Amber (Both LEDs will turn various colors as the module cycles through the resetting process).
- Press and hold the Set (right) button for 3 seconds to confirm factory reset.
- Device will reboot and initiate start up LED sequence.

4. Configuring




The default settings on the module support common control scenarios. However, some occupancy 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 occupancy sensor.
Egress	30 seconds	If linked to a key card switch.

Auto-On

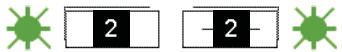
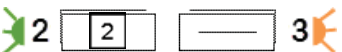
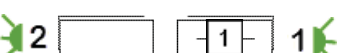
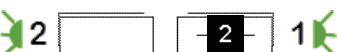
The default Auto-On option is automatically determined based on the type of device that is linked. Auto-On is Disabled if the first linked device is a switch, or Enabled if the device is an occupancy sensor.

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.

Option	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.

- Access Basic Setup mode. 
- Select the Switched Auto-On menu. 
- Select an option. 
- Save the selection. 

Auto-Off

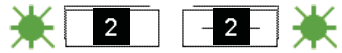


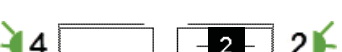
There are two auto-off menus, one for occupancy sensors, and one for rocker switches. For linked occupancy sensors, the default is 15 minutes. For linked rocker pads and key card switches, the default is Disabled to allow manual control.

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

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.

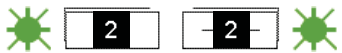


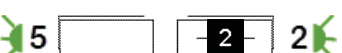
To change the switched auto-off option:

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

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

To change the motion auto-off option:

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

- Access Basic Setup mode. 
- Select the Motion Auto-Off menu. 
- Select an option. 
- Save the selection. 

Vacancy Check

















The vacancy check is a time delay that is activated when a door sensor opens and closes. The linked loads will turn off, if motion 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. Click the Set button an appropriate number of times to select an option.

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

To change the vacancy check option:

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

1. Access Basic Setup mode.    
2. Select the Vacancy Check menu.    
3. Select an option.    
4. Save the selection.    

To enable the device as a repeater

In some situations, enabling the transceiver device as a repeater can help optimize the wireless range between devices.

1. Access Advanced Setup by holding both buttons down for 5 seconds and releasing them when both LEDs turn amber.
2. Click the Set button an appropriate number of times to select an option.
>> By default, the first menu option in advanced setup is to Enable Repeater.

Option	Clicks	Blinks
Disabled (default)	1	1
1 Hop	2	2
2 Hops	3	3

Example: Setting a device to operate as a repeater.

1. Access the Advanced setup (hold down both buttons for 5 seconds - until both LEDs turn amber).
2. Select "option 2" by clicking the Set (right) button two times. (Set button LED will blink 2x (amber) to confirm)
3. Save selection by holding Set button for 2 seconds.
4. Exit Menu (hold both buttons for 2 seconds.)
5. Re-boot module by either power cycling or pressing and holding both buttons for 10 seconds (release when Left LED=Red, Right LED=Green).

Troubleshooting

Problem	Solution Checklist
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
The device does not control linked load	<ul style="list-style-type: none"> Click the Set button to open/close the relay manually 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 with RF signals Verify the maximum number of devices (10) 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 or range issues Verify the device is linked Check if appropriate devices are linked according to good system planning Extend the antenna to amplify the range: remove it from the groove in the module, straighten it and slide it into the white antenna sleeve provided



Contains:

FCC: SZV-STM300U (902 MHz)
IC: 5713A-STM300U (902 MHz)

FCC: SZV-STM300C (315 MHz)
IC: 5713A-STM300C (315 MHz)

This device complies with part 15 of the FCC rules and Industry Canada ICES-003. 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.

IMPORTANT! Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IMPORTANT! Tous les changements ou modifications pas expressément approuvés par la partie responsable de la conformité ont pu vider l'autorité de l'utilisateur pour actionner cet équipement.