

Catalog Numbers • Les Numéros de Catalogue • Los Números de Catálogo: EN-SW-11-GB2, EN-SW-20-GB2, EN-SW-22-GB2, EN-SW-41-GB2, EN-SW-50-GB2

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China

SPECIFICATIONS

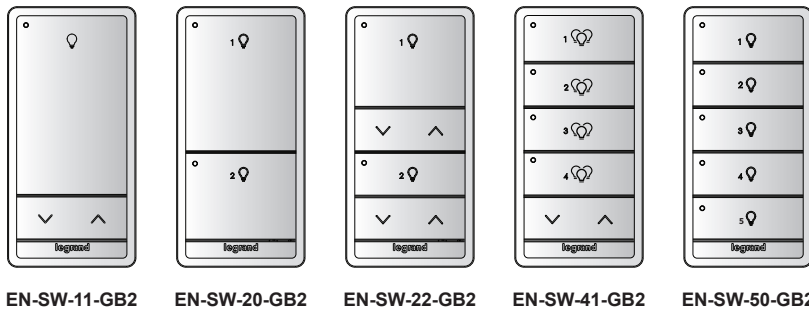
Voltage22.5 VDC (supplied by GreenBus)
 Connection to PLUS network(2) GreenBus ports
 Environment For Indoor Use Only
 Operating Temperature 32° to 131°F (0° to 55°C)
 Storage Temperature..... 23° to 176°F (-5° to 80°C)
 Relative Humidity5% to 95% (non-condensing)
 Weight 67 g (2.4 oz)
 Certifications

- UL and cUL listed (UL916)
- FCC Part 15 Class B compliant
- RoHS Compliant
- Product Environmental Profile (PEP)
- Complies with Electromagnetic Compatibility (EMC)
- Standards: EN 55032:2015+A11:2020+A1:2020;
EN 55035:2017+A11:2020

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 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.

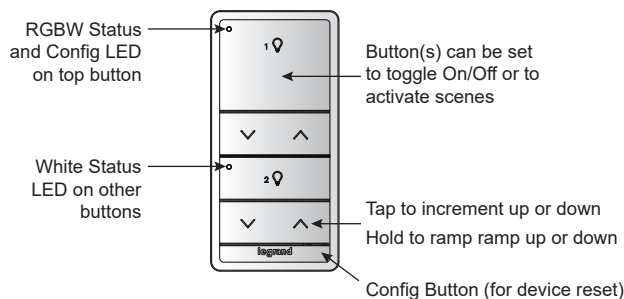
Do not apply cleaning solvent directly onto unit. Apply cleaning solvent onto a cloth, then wipe the unit clean. Dry device after cleaning.



DESCRIPTION

The SW Series Standard Switches are programmable, low voltage control devices for manual on/off, dimming, and scene control of one or more loads from one or more locations. SW Series switches are available in multiple colors and may have custom text or icons factory printed onto buttons via our custom engraving offering.

BUTTONS AND INDICATORS



Pre-programmed LED Operation

Once powered, the device LEDs will illuminate (white). The Status LED will blink green occasionally as it searches for a Greenbus Manager. Once detected by a Greenbus manager, the status LED will illuminate solid green until programmed.

Prior to programming, the connected Greenbus manager may be placed in "Installation Mode" to test system and lighting wiring. When in installation mode, a tap of any button will cycle connected lighting through 100%, 25%, and OFF. Device LEDs will flash after each tap indicating a successful message.

Normal LED Operation (After Programming)

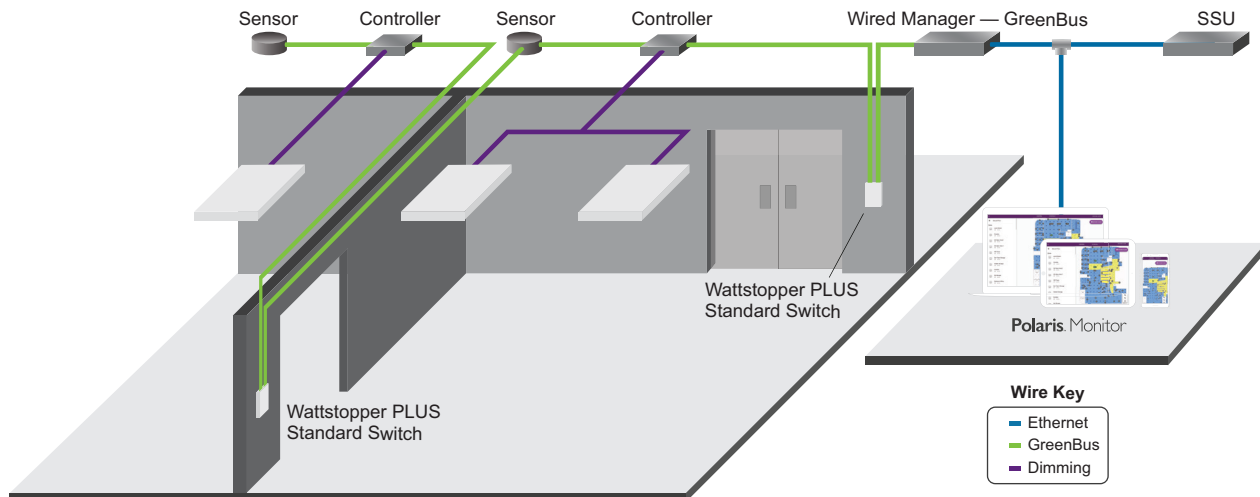
Once programmed, buttons illuminate white when the scene or load controlled by the button is active. When inactive, the button's LED will be off. If all buttons are inactive, the top button illuminates blue to assist in locating the switch in low-light conditions.

Resetting the Switch

To reset a switch to factory state, the Config button must first be unlocked. Press and hold the Config button for 5 seconds and the Status LED will flash to indicate it is unlocked (two quick green flashes). Once unlocked, tap the Config Button 10 times to initiate a reset.

WIRED SYSTEM OVERVIEW

GreenBus technology makes wiring fast and error-free, since it's intuitive to install.



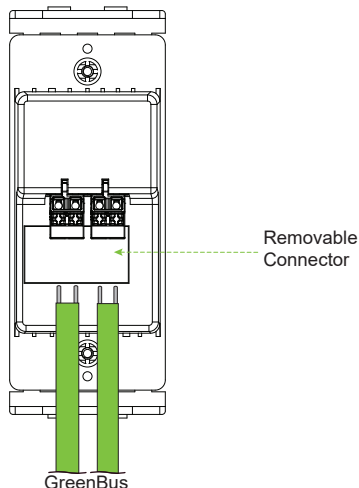
WIRING

GreenBus (GB2) is a low-cost, high reliability communication standard used to report occupancy status signals, daylight readings and user inputs received via Wired Wallstations to the Wattstopper PLUS System.

The GreenBus wiring originates at the Wired Manager and propagates in a daisy-chain from module to module (or other compatible equipment).

GreenBus wires should not be crossed and are polarity independent. A short GreenBus jumper can be used to interconnect ganged wallstations. GreenBus wires can be inserted into either of the 2 connectors.

GreenBus must be laid out as per supplied system layout drawing. If the devices are connected with a method other than daisy-chain, this must be indicated to a Wattstopper Representative for approval before wiring. If changes are required, determine an optimum wiring path utilizing the supplied prefabricated cables, based on the position of luminaires, sensors and Wired Wallstations. The number of modules on each chain is limited since the modules obtain power via the GreenBus cable.

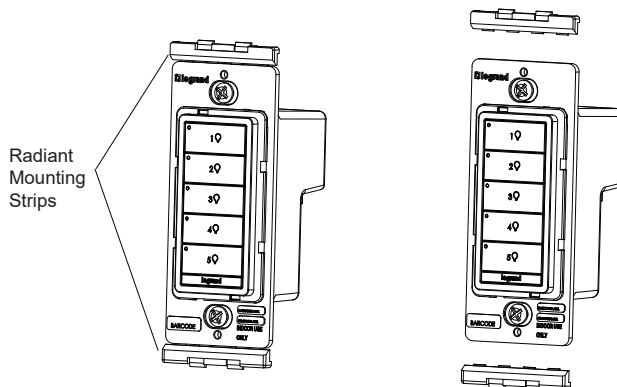


INSTALLATION AND MOUNTING

Step 1 Prepare Switch for Installation

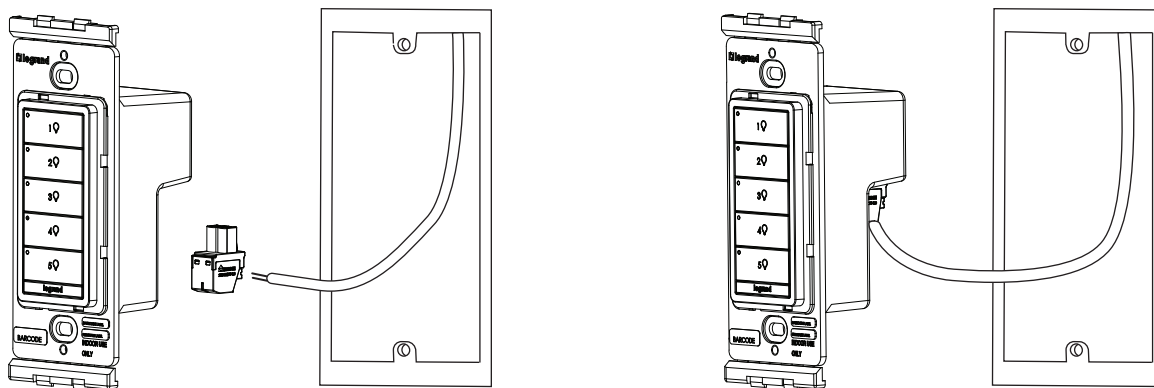
EN-SW Series Switches are designed for ease of installation with Legrand Radiant wall plates. If switches are to be installed with Radiant wall plates (single or multi-gang), they may be installed as packaged. If using any other decorator-sized wall plate, the snap-off Radiant mount must be removed before mounting.

NOTE: If using 3rd party decorator-sized wallplates, use pliers to remove the snap-off Radiant mounting strips.



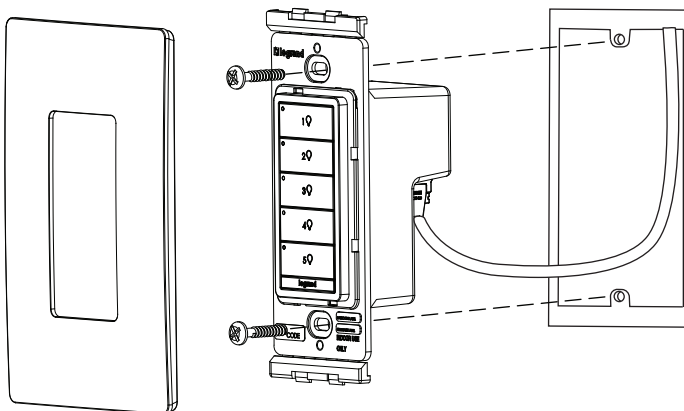
Step 2 Wiring Connections

Remove the GB2 connector(s) from the rear of the switch. Insert the GB2 wires into the connector and re-attach to switch.



Step 3 Mounting

Use the included mounting screws to secure the switch to the wall box. If using a Legrand Radiant wall plate, an arrow on the rear of the plate indicates the upward direction. Hook the top of the plate to the switch, and press the bottom of the plate into the switch until it snaps into place.



WIRING TESTING VIA INSTALLATION MODE

Installation Mode is a feature that allows for testing of Greenbus and luminaire wiring ahead of system programming. Installation mode is available from any unprogrammed EN-SW Standard Switch connected to a Greenbus Manager in installation mode (default state prior to programming).

Installation Mode Behavior

Once EN-SW switches have been connected to and identified by a Greenbus Manager in installation mode, the device config LED will illuminate solid green and any other LEDs will be OFF. While in this state, a tap of any button will command connected loads on the same Greenbus channel to cycle output level between 100%, 25%, and 0%. The switch LED's will also flash green for 6 seconds to indicate that an installation mode command has been sent. Subsequent button taps will continue to cycle through the 3 available levels.

Troubleshooting with Installation Mode

If the EN-SW switch does not perform a green/off LED flash upon button tap, the following actions are recommended:

1. The switch may not be powered or detected by Greenbus manager: Validate Greenbus system wiring connections between the switch and the Greenbus Manager.
2. The Greenbus Manager may not be in installation mode: Locate the Installation Mode button and LED on manager to toggle (tap installation mode button, then confirm button).
3. The device may be programmed or paired via Manual Pairing: Review Manual Pairing section below or consider a device reset.

If the EN-SW switch performs a green/off LED flash but luminaires do not illuminate, the following actions are recommended:

1. Relay may not be providing power: Validate line voltage wiring for control device and luminaires.
2. Control device may not be receiving commands: Validate Greenbus system wiring connections between control device and the Greenbus Manager.
3. Control device and switch may be on different Greenbus channels: Use a switch on the same channel for testing.
4. 0-10V control wiring may be shorted together, forcing 0% output: Validate 0-10V wiring between control and luminaire.

If luminaires illuminate but do not dim between 100% and 25% output levels, the following action is recommended:

1. Validate control/0–10V wiring between control device and luminaires.

MANUAL PAIRING

Manual Pairing is a feature that allows an installer to create simple bindings between the EN-SW switches and any loads or sensors on the same Greenbus channel. By performing manual pairing with an EN-SW switch, the device will no longer send Installation Mode commands for all connected loads (detailed above) and will instead provide toggle, scene, and/or dimming control to specific loads selected during the Manual Pairing process.

NOTE: When manually paired, all buttons on a switch will be bound to the same load. To assign different loads to different buttons on the same switch, the devices must be configured using Polaris Config software..

Once the EN-SW switches have been connected to and identified by a Greenbus Manager in installation mode, the device Config LED will illuminate solid Green and any other LEDs will be OFF.

Manual Pairing Process

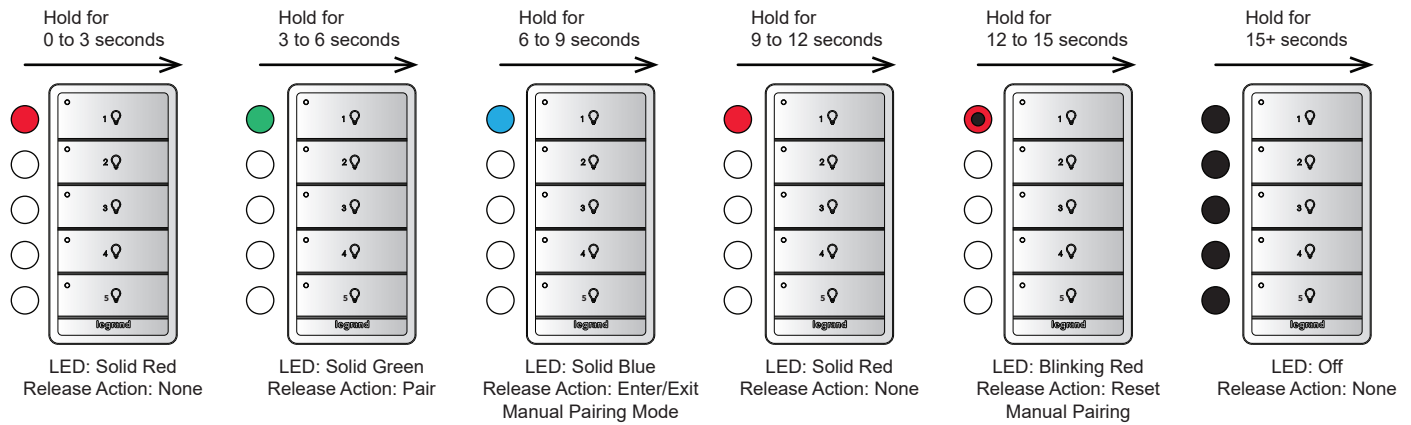
1. Press and hold any button until the top LED is Blue to place all devices on the Greenbus channel into manual pairing mode. Note that this will include multiple areas if they are all on the same Greenbus channel. Once in manual pairing mode, the top LED will blink Green on every switch that can be paired. All other LEDs will be solid White.

NOTE: No matter which button is pressed, the top LED will be the one to change (the other LEDs are white only).

2. Tap any button. The nearest unpaired load will flash. Each time you tap, the "next" unpaired load in the channel will flash. Keep tapping until desired load flashes.
3. Press and hold any button until the LED is Green to pair that switch to the currently selected load.
NOTE: Once paired, the load will turn off, and the "next" unpaired load in the channel will begin to flash (indicating it is available for additional pairing if desired). Press and hold until Green again to pair additional loads to the switch.
4. Press and hold any button until LED is blue to exit manual pairing mode. Switches will now use manual pairings instead of installation mode behavior, and device LEDs will use "normal LED operation" behaviors described above instead of solid Green.
NOTE: If no button is pressed, after a minute the switches will automatically exit manual pairing mode.

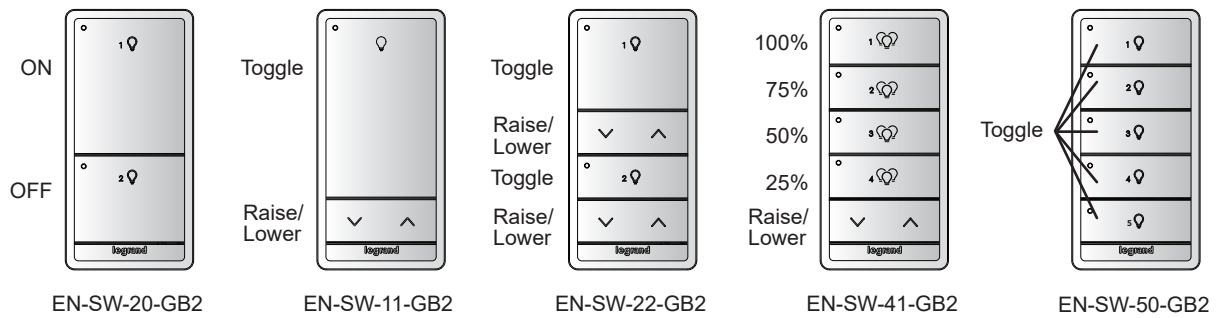
5. Repeat steps 1 through 4 for any additional switches. This flow is recommended as Greenbus topology detection technology will automatically identify the nearest loads on the bus to each switch, simplifying identification of desired loads for pairing.

Once you enter manual pairing mode, while pressing and holding a button, the top LED will change color based on how long you hold the button, as shown on the following page. When you release the button, the action associated with that color will occur. If you hold the button for longer than 15 seconds, nothing happens and you can press and hold a button to cycle through the functions again.



NOTE: If you choose the Reset Manual Pairing action any pairing for switches, lights, and sensors associated with the specific zone will be removed.

Switch behaviors available after manual pairing is completed are shown below. Only “tap” behaviors are available from manually paired switches. “Press and hold” actions will recall the Manual Pairing configuration functions which may be used to modify or reset pairing.



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