



SENSORWORX®

# WIRELESS REMOTE SCENE SELECTOR & DIMMER

INSTALLATION & OPERATION INSTRUCTIONS

| MODEL NUMBERS   | DESCRIPTION  |
|-----------------|--|
| SWX-854-4S-B-xx | WIRELESS REMOTE 4-SCENE DIMMER WALL STATION, BATTERY POWERED |

\* xx = color (WH, IV, AL, GY, BK, RD)

## OVERVIEW

The **SENSORWORX** wireless scene selector and dimmer enables users to run scenes stored on linked wireless load controllers in addition to functioning as a on/off and raise/lower remote wall station. The device is battery powered which eliminates all wires and greatly reduces installation time. Requiring just a few seconds per device, this **SENSORWORX** wireless wall station can be linked to one or more wireless load controllers (such as the **SWX-970** or **SWX-950** series wireless packs).

Scenes are used to change the lighting level and/or operational settings of one or more load controllers in a space. When a scene button is pressed, a wireless message is sent to all the linked load controllers to run the requested scene that is stored locally in each device. Creation of all scenes can be done via the **SENSORWORX** mobile app that interfaces a zone via a **SWX-970** Advanced Load Controller pack. Direct creation and saving of scenes that only involve the lighting level is also possible by pressing and holding one of the four scene buttons.

## FEATURES

- Activates Scenes Stored on Load Controllers
- Saves Light Level Scenes Directly to Load Controllers by Holding Scene Button
- Pairs in Seconds with Wireless Controllers
- 10 Year Battery Life Design
- Decorator Style Fits Common Wall Plates (not included)
- Matches Styling of other SWX Sensors & Wired Wall Stations

## APPLICATIONS

Adding a wireless remote wall switch to a room controlled by a wireless power pack (**SWX-950**) and a wireless sensor (e.g. **SWX-201-B**) enables code compliant vacancy (manual on) operation. When linked with a wireless dimming power pack (**SWX-950-D2**), a remote wireless dimmer is perfect for providing user control of 0-10V dimmable lighting.

Additional remote dimmer switches can be linked enabling user control from multiple locations (3-way & multi-way). Linking a remote wireless switch to a wireless wall switch load controller (**SWX-851**) or phase dimming load controller (**SWX-874**) enables 3-way user control as well.

- Classrooms
- Open Areas
- Conference Rooms
- Hallways
- Small Offices
- Copy Rooms
- Private Restrooms
- Break Rooms

## SPECIFICATIONS

### ELECTRICAL & WIRELESS

**BATTERY TYPE**  
Requires one CR123(A) Lithium Battery (provided in box)

**BATTERY LIFE**  
Designed for 10 Year Life  
Non-Volatile Memory (saves all settings regardless of battery state)  
Blink Warning @10% Life

**RANGE**  
80' line of site w/o obstruction (walls)  
40' with obstruction (walls/floors)

**FREQUENCY**  
915 MHz ISM Band

**WIRELESS LINKING**  
Simple 3 sec. Push Button Process

**SECURITY**  
All Wireless Data is Encrypted

### CODE COMPLIANCE

These switches can be used to meet ASHRAE 90.1, IECC, & Title 24 energy code requirements.



### ENVIRONMENTAL

**OPERATING TEMP**  
32°F to 122°F (0°C to 50°C)

**RELATIVE HUMIDITY**  
0-95% Non-Condensing,  
Indoor Use Only

### PHYSICAL

**SIZE**  
2.74"H x 1.68"W x 1.39"D  
(6.96 x 4.27 x 3.53 cm)  
Fits Decorator Switch Plate Opening

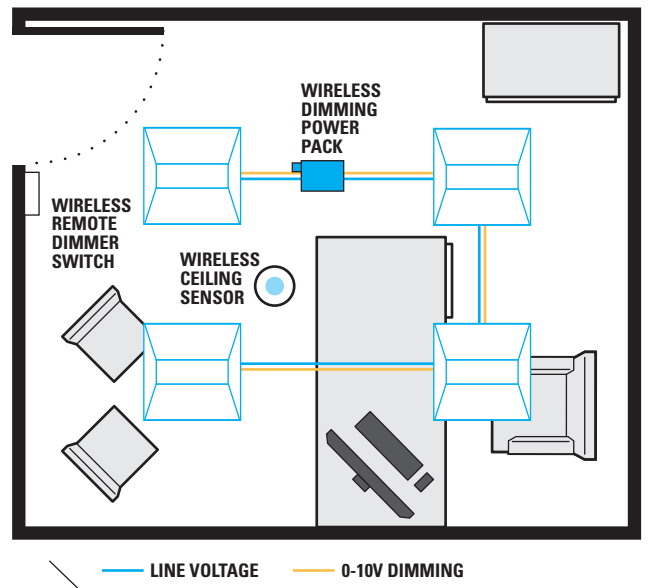
**WEIGHT**  
2.5 oz

**MOUNTING**  
Single Gang Switch Box

### MISC

#### COMPATIBLE LOAD CONTROLLERS

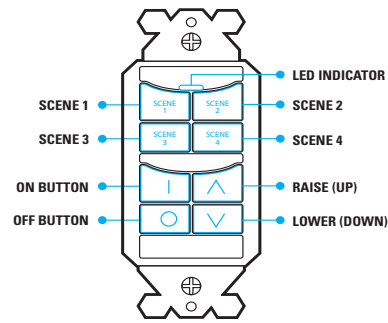
SWX-851 Wall Switch  
SWX-874 Phase Dimmer  
SWX-950 / 951 / 970 Power Packs



# INSTALLATION

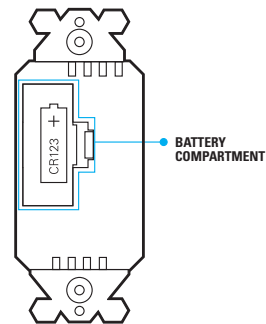
- Designed to mount in 1-gang wall box with 3.28" hole spacing.
- Units can also share multiple gang wall boxes with other devices.

## SWX-854-4S-B



# BATTERY INFORMATION

- The switch/dimmer runs on one CR123(A) Lithium Battery (included).
- Install battery prior to mounting. Polarity is indicated on the battery compartment door.
- If the unit's battery life reaches 10%, the LED will rapidly blink blue after every button press.
- Replacement batteries are available at most retailers or home centers where batteries are sold or from **SENSORWORX**.



# COMPATIBLE WIRELESS DEVICES

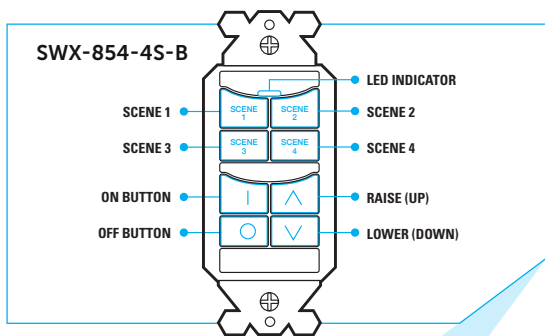
The below chart lists the devices that can be used in a **SENSORWORX** wireless application. Note that sensors and remote switch & dimmer devices are transmit only devices and therefore must be linked to a load controller for switching or dimming of lighting.

| MODEL #         | DESCRIPTION  | WIRELESS TYPE      | POWER TYPE  |
|-----------------|--|--------------------|-------------|
| SWX-201-B       | Small Motion 360° Sensor, PIR  | Transmit           | Battery     |
| SWX-211-B       | Small Motion 360° Sensor, PIR w/ Integrated Daylight Harvesting Photocell        | Transmit           | Battery     |
| SWX-221-B       | Dual Technology Sensor (PIR/Acoustic), Small Motion 360°                         | Transmit           | Battery     |
| SWX-401-B       | Wide View Sensor, PIR  | Transmit           | Battery     |
| SWX-421-B       | Dual Technology (PIR/Acoustic) Wide View Sensor                                  | Transmit           | Battery     |
| SWX-402-B       | Long Range Hallway Sensor, PIR   | Transmit           | Battery     |
| SWX-250-B       | Daylight Harvesting & On/Off Photocell   | Transmit           | Battery     |
| SWX-851-xx      | Wall Switch Load Controller, No Neutral Required, <xx = color>                   | Transmit & Receive | 120-277 VAC |
| SWX-852-B-xx    | Remote Switch (On/Off), <xx = color>   | Transmit           | Battery     |
| SWX-852-2-xx    | Remote Line Powered Switch (On/Off), <xx = color>                                | Transmit           | 120-277 VAC |
| SWX-852-2P-B-xx | Remote 2-Zone On/Off Wall Station, <xx = color>                                  | Transmit           | Battery     |
| SWX-854-B-xx    | Remote Dimming Switch (On/Off, Raise/Lower), <xx = color>                        | Transmit           | Battery     |
| SWX-854-2-xx    | Remote Line Powered Dimming Switch (On/Off, Raise/Lower), <xx = color>           | Transmit           | 120-277 VAC |
| SWX-854-2P-B-xx | Remote 2-Zone Dimmer Wall Station, <xx = color>                                  | Transmit           | Battery     |
| SWX-874-ELV-xx  | Phase Dimming Load Controller - Reverse (default) or Forward Phase, <xx = color> | Transmit & Receive | 120 VAC     |
| SWX-950         | Power Pack Load Controller, 20A  | Transmit & Receive | 120/277 VAC |
| SWX-950-AX      | Hybrid Wireless/Wired Power Pack Load Controller, 20A                            | Transmit & Receive | 120/277 VAC |
| SWX-950-AX-D2   | Hybrid Wireless/Wired Power Pack Load Controller, 20A, 0-10V Dimming (Class 2)   | Transmit & Receive | 120/277 VAC |
| SWX-951-D1      | Fixture Controller, 1A@, 0-10V Dimming   | Transmit & Receive | 120-277 VAC |
| SWX-950-D1 (D2) | Power Pack Load Controller, 20A, 0-10V Class 1 Dimming (Class 2 model)           | Transmit & Receive | 120/277 VAC |
| SWX-970-D1(D2)  | Advanced Load Controller w/ App, 16A, 0-10V Class 2 Dimming (Class 1 model)      | Transmit & Receive | 120-277 VAC |

# OPERATION NOTES

- Wireless remote switches and dimmers only transmit when a button is being pressed.
- The unit's blue LED will light only when a button is pressed.
- The dim up and dim down buttons may be held down to increase dimming rate.
- There are always 20 equal steps of dim level (voltage) adjustment from high trim to low trim (or reverse) when using a **SWX-854-4S-B** wireless remote scene selector & dimmer.
- When using the **SWX-854-4S-B**, the scenes are saved by pushing and holding the activation button for 10 seconds. The **SENSORWORX** Mobile App can also be used to save scenes when an Advanced Load Controller (**SWX-970-D1/D2**) is present in the space.
- Using push-button programming, 'Hold to Save' operation on scene activation buttons can be disabled on the **SWX-854-4S-B**.
- This unit can function to activate either Scenes 1-4 **or** Scenes 5-8, but not both. If all 8 scenes are required, two **SWX-854-4S-B** will be needed. One device will need to be programmed to Scenes 5-8 as the default is set to Scenes 1-4.

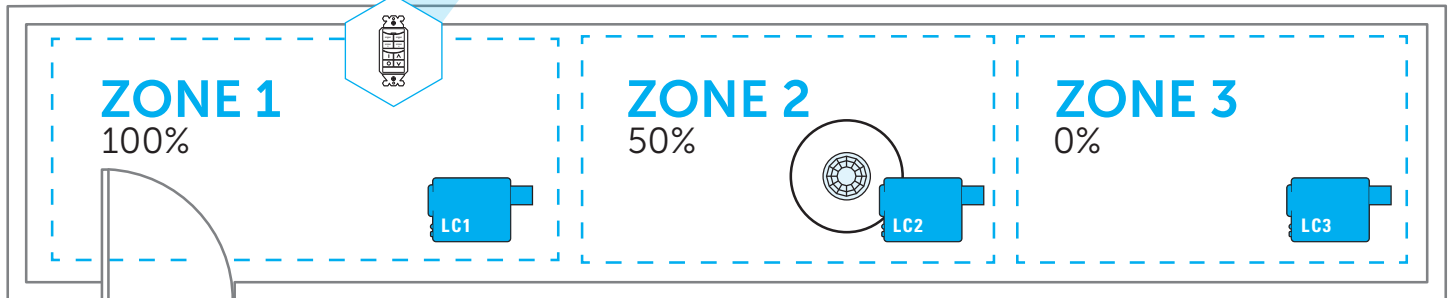
## SCENE SELECTOR OPERATION



When the scene activation button is pressed, the settings programmed to the corresponding scene will be applied to each zone, overriding the devices' prior programmed settings.

|                              | SCENE 1 | SCENE 2 | SCENE 3 | SCENE 4           |
|------------------------------|---------|---------|---------|-------------------|
| <b>ZONE 1</b> (LC1); SWX-970 | 100%    | 100%    | 100%    | Occ. Off for 2hrs |
| <b>ZONE 2</b> (LC2); SWX-950 | 100%    | 66%     | 50%     | Occ. Off for 2hrs |
| <b>ZONE 3</b> (LC3); SWX-950 | 100%    | 33%     | 0%      | Occ. Off for 2hrs |

### EXAMPLE: SCENE 3



**NOTE:** The ceiling sensor and scene selector in this diagram are paired to all load controllers.

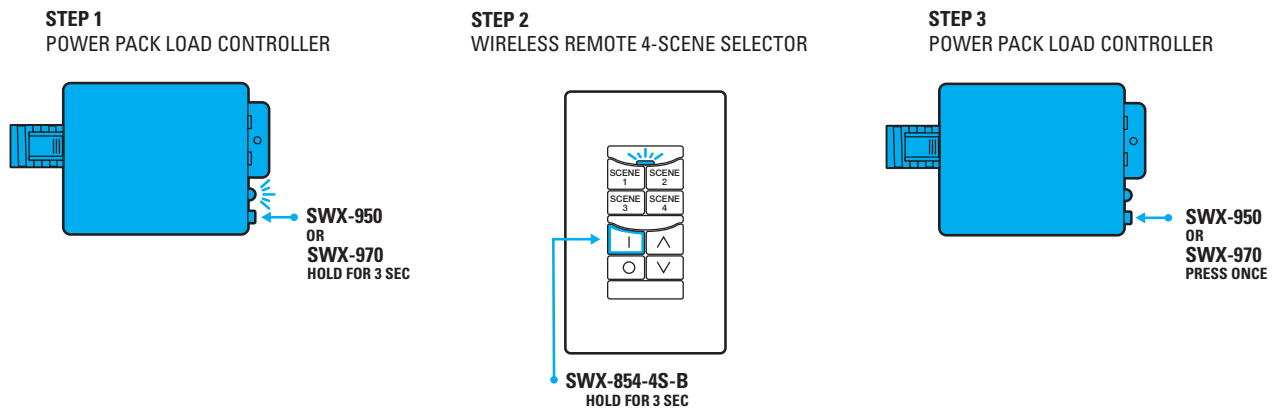
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# WIRELESS PAIRING

Pairing a remote scene selector and dimmer with a wireless wall switch load controller or power pack load controller is quickly done via the following procedure:

1. Enter pairing mode by holding down the wireless load controller's button for 3 seconds until the LED starts alternating white then blue.
2. At the battery powered remote scene selector and dimmer, hold down the ON button for 3 seconds until the LED starts alternating white then blue. Releasing will pair the device with the controller in pairing mode (see note 1 below). The lights will toggle once as confirmation.
3. If additional remote dimmers or switches need to be linked, repeat step 2.
4. When all devices have been paired, close pairing mode on the wireless load controller by pressing the button 1 time. Pairing will also be automatically closed after 15 minutes of no new devices being linked.

**Note 1:** When in pairing mode, the alternating LED colors on the wireless load controller will periodically pause and blink out the total number of paired devices. There will be no blinks during the pause until the first device is linked.



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# CONFIGURATION MISC.

## UNPAIRING FROM LINKED LOAD CONTROLLERS

To unpair a wireless remote scene selector and dimmer from all wirelessly linked load controllers execute the following **"FORGET ME"** procedure.

### ENTERING A "FORGET ME" COMMAND

- 1 Enter programming mode by pressing and holding the **ON** button on the scene selector for at least **6 seconds** until the LED begins flashing **blue only**, then release.
- 2 Press and release the **ON** button **8 times**, then wait 2 seconds. The White LED will blink back 2 times, pause and repeat.
- 3 Interrupt the blink back and press the **ON** button **4 times**. The LED will blink back 4 times as confirmation, pause then repeat.
- 4 Interrupt the confirmation blink back and press and hold the **ON** button until blue LED changes to white, then release. The LED will then blink white twice as confirmation of success.

**Note:** To Exit without saving during any step, release button and wait until the unit double flashes blue.

## RECONFIGURING SCENE ACTIVATION BUTTONS

To change the scenes that are programmed into the scene activation buttons, execute the following (**Default = Scenes 1-4**):

### CHANGING SCENE ACTIVATION BUTTONS TO SCENES 5-8

- 1 Enter programming mode by pressing and holding the **ON** button on the scene selector for at least **6 seconds** until the LED begins flashing **blue only**, then release.
- 2 Press and release the **ON** button **7 times**, then wait 2 seconds. The White LED will blink back 2 times, pause and repeat.
- 3 Interrupt the blink back and press the **ON** button **3 times**. The LED will blink back 4 times as confirmation, pause then repeat.
- 4 Interrupt the confirmation blink back and press and hold the **ON** button until blue LED changes to white, then release. The LED will then blink white twice as confirmation of success.

To disable the 'Hold to Save' operation on scene activation buttons, execute the following (**Default = Hold to Save is Enabled**):

### DISABLING HOLD TO SAVE OPERATION ON SCENE ACTIVATION BUTTONS

- 1 Enter programming mode by pressing and holding the **ON** button on the scene selector for at least **6 seconds** until the LED begins flashing **blue only**, then release.
- 2 Press and release the **ON** button **6 times**, then wait 2 seconds. The White LED will blink back 2 times, pause and repeat.
- 3 Interrupt the blink back and press the **ON** button **3 times**. The LED will blink back 4 times as confirmation, pause then repeat.
- 4 Interrupt the confirmation blink back and press and hold the **ON** button until blue LED changes to white, then release. The LED will then blink white twice as confirmation of success.

## FCC INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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

Changes and Modifications not expressly approved by BLP Technologies can void your authority to operate this equipment under Federal Communications Commission's rules.

In order to comply with FCC/ISED RF Exposure requirements, this device must be installed to provide at least 20 cm separation from the human body at all times.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

## ISED CANADA INFORMATION

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

In order to comply with FCC/ISED RF Exposure requirements, this device must be installed to provide at least 20 cm separation from the human body at all times.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
3. Afin de se conformer aux exigences d'exposition RF FCC / ISED, cet appareil doit être installé pour fournir au moins 20 cm de séparation du corps humain en tout temps

