SENSORWORX®

WIRELESS WALL SWITCH & LOAD CONTROLLER

INSTALLATION & OPERATION INSTRUCTIONS

(Units w/ Date Code 210501 and later)

MODEL NUMBERS	DESCRIPTIONS
SWX-851-xx	WIRELESS WALL SWITCH LOAD CONTROLLER, 120/277VAC, NO NEUTRAL REQUIRED

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

OVERVIEW

The **SENSOR**WORX wireless wall switch load controller links to remote occupancy sensors, photocells, and switches without low voltage wiring in order to provide automatic lighting control. Designed with contractors in mind, the unit is significantly shallower than typical wall controllers, resulting in less crowded wall boxes. Additionally, versatile wiring enables usage with or without a neutral connection and never requires a minimum load. This switch also matches the **SENSOR**WORX family of wall switch occupancy sensors and 0-10V dimming wall switch sensors. All **SENSOR**WORX products are proudly made in the USA.

BASIC OPERATION

A received wireless message indicating occupancy from one or more wirelessly linked sensors will trigger the unit's integrated relay to close. When configured for Vacancy operation, lights must be initially switched on by pressing the unit's button (or by pressing the ON button on a wirelessly linked wall station). Once closed, line voltage will flow through the relay and turn on the connected lighting load. This wall switch load controller maintains a master time delay that is reset every time a linked sensor reports occupancy. Lights will be switched off once there hasn't been an occupancy message reported for the duration of the time delay. If linked to a photocell, the unit receives light level readings and controls connected lighting according to its photocell operating mode.

FEATURES

ELECTRICAL FEATURES

- **Accommodates Neutral (3-Wire) and No-Neutral (2-Wire) Installations**
- **Electronically Timed Switching Ensures Long Relay Life**
- **No Minimum Load or External Load Capacitor (MLC) Requirements**
- **Meets Regulatory Guidelines for Current Leakage**

PHYSICAL FEATURES

- **Enclosure is 25-40% Shallower than Other Wall Controllers (< 1" Depth into Wallbox)**
- **Self-Grounding Mounting Strap**
- **Modern Look and Intuitive Easy-Tap Button**

OPERATIONAL FEATURES

- **Pairs in Seconds with Wireless Sensors & Remote Wall Stations**
- **Configurable Time Delays and Operational Modes (e.g. Occupancy, Vacancy, Switch Disable)**
- **Configurable Photocell Modes**
- **Blue Locator LED when Lights are Off**
- **Settings are Adjustable Without Removing Cover Plate**
- **Links with up to 30 sensors and/or switches**

SPECIFICATIONS

ELECTRICAL

OPERATING VOLTAGE
120-277 VAC, Single Phase, 50/60 Hz

LOAD RATINGS
MAX: 800W @ 120VAC
1200W @ 277VAC
MIN: None

LOAD TYPES
LED Driver/Lamps
CFL, Electronic/Magnetic Ballasts (Fluorescent)
Tungsten (Incandescent)

ESD IMMUNITY
Tested to withstand electrostatic discharge without damage or memory loss.

SURGE IMMUNITY
Tested to withstand surge voltages without damage or loss of operation.

NON-VOLATILE MEMORY
Saves all settings even if power is disrupted.

ENVIRONMENTAL

OPERATING TEMP
32°F to 122°F (0°C to 50°C) - Standard
-40° F/C (with **-HE** Option)

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

CODE COMPLIANCE

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

WIRELESS

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

OPERATION

OPERATING MODES
Occupancy
Vacancy
Switch Disable
On/Off/Inhibit Photocell

TIME DELAY OPTIONS
1, 5, 10, 15, 20, 30 min.

PHYSICAL

SIZE
2.74"H x 1.68"W x 1.39"D
(6.96 x 4.27 x 3.53 cm)
<1" Wallbox Mounting Depth

WEIGHT
4.5 oz

MOUNTING
Single Gang Switch Box

LED STATUS INDICATOR
Bi-color White & Blue

c UL US LISTED

LEAD FREE RoHS COMPLIANT

MADE IN THE USA

BAA COMPLIANT

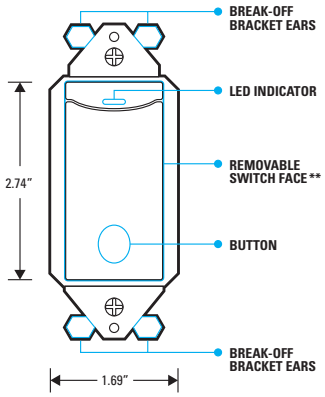
TAA COMPLIANT

BUILD AMERICA BUY AMERICA

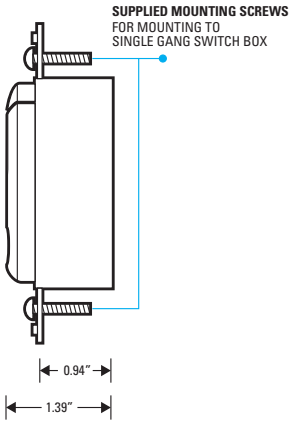
INSTALLATION INSTRUCTIONS

- Designed to mount in 1-gang wall box with 3.28" hole spacing.
- Units can also share multiple gang wall boxes with other devices.
- Unit face is field removable in order to change colors. Contact factory for additional faces.

FRONT



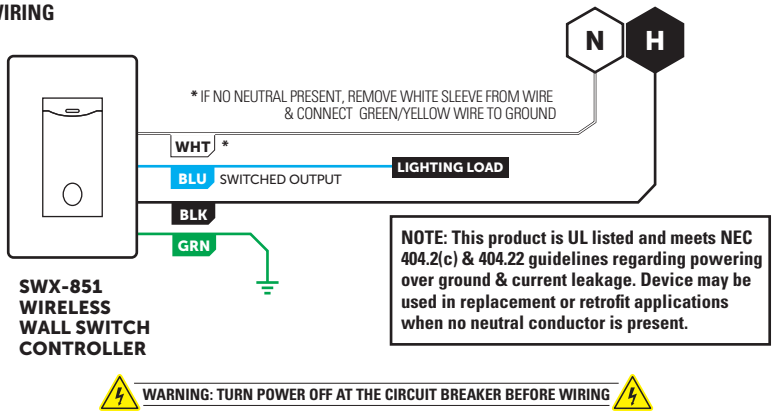
SIDE



WIRING

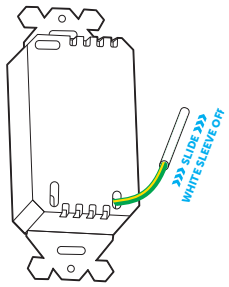
- Unit works both in installations where Neutral connection is available as well as installations where only Ground connection is present.
- If no neutral is present, remove the white sleeve from the wire & connect the now Green/Yellow wire to Ground.
- Note, either the white wire or green/yellow wire must be connected. The all green wire is just for safety.

BASIC WIRING



NEUTRAL TO GROUND CONVERSION DETAIL

- The white wire has a removable sleeve which reveals a green/yellow wire



APPLICATIONS

SMALL SPACES

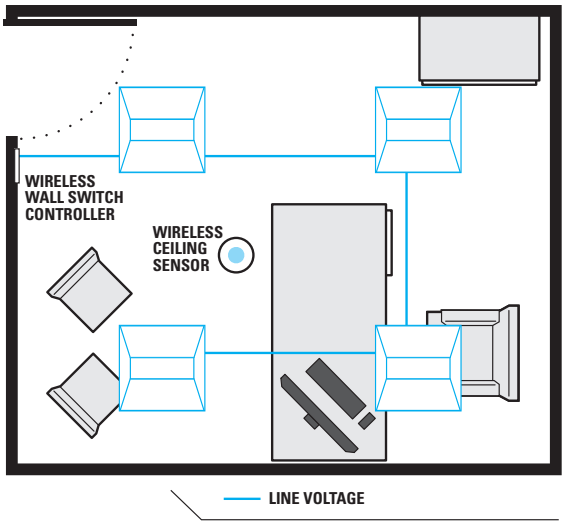
For control of small spaces like a private office, a wireless wall switch controller linked to a single wireless PIR ceiling sensor (**SWX-201-B)** or PIR/Acoustic dual technology ceiling sensor (**SWX-221-B**) is recommended (see diagram on right). Both occupancy (auto-on) and vacancy (manual-on) operation are achievable in order to meet energy code requirements.

- Small Offices
- Copy Rooms
- Private Restrooms

MEDIUM SIZE SPACES

For control of medium size spaces like a conference room or small classroom, a wireless wall switch controller linked to a wireless PIR wide view sensor (**SWX-401-B**) or PIR/ Acoustic dual technology wide view sensor (**SWX-421-B**) provides an excellect solution. Linking additional sensors is also an option if necessary. Switching from a second location (e.g. 3-way) is achieved by linking a remote wireless wall switch (**SWX-852**) to the wireless switch controller.

- Small Classrooms
- Conference Rooms
- Short Hallways
- Break Rooms



COMPATIBLE WIRELESS DEVICES

The below chart lists the devices that can be used in a **SENSOR**WORX wireless application. Note that occupancy sensors, photocells, and remote switch devices are transmit only devices and therefore must be linked to a load controller for switching of lighting.

MODEL #	DESCRIPTION	WIRELESS TYPE	POWER TYPE
SWX-201-B (SWX-221-B)	Small Motion 360° Sensor, PIR (Dual Tech model)	Transmit	Battery
SWX-211-B	Small Motion 360° Sensor, PIR w/ Integrated Daylight Harvesting Photocell	Transmit	Battery
SWX-401-B (SWX-421-B)	Wide View Sensor, PIR (Dual Tech model)	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-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-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-951-D1	Fixture Controller, 1A@, 0-10V Dimming	Transmit & Receive	120-277 VAC
SWX-950-D2 (SWX-950-D1)	Power Pack Load Controller, 20A, 0-10V Class 2 Dimming (Class 1 model)	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	Transmit & Receive	120/277 VAC
SWX-950-AX	Hybrid Wireless/Wired Power Pack Load Controller, 20A	Transmit & Receive	120/277 VAC

WIRELESS LINKING (PAIRING)

Linking a wall switch controller with an occupancy sensor, photocell, power pack, dimmer, or another wall switch controller is quickly done via the following procedure:

Step 1. Enter learn mode by holding down the wall switch's button for 3 seconds until the LED starts alternating blue and white, then release.

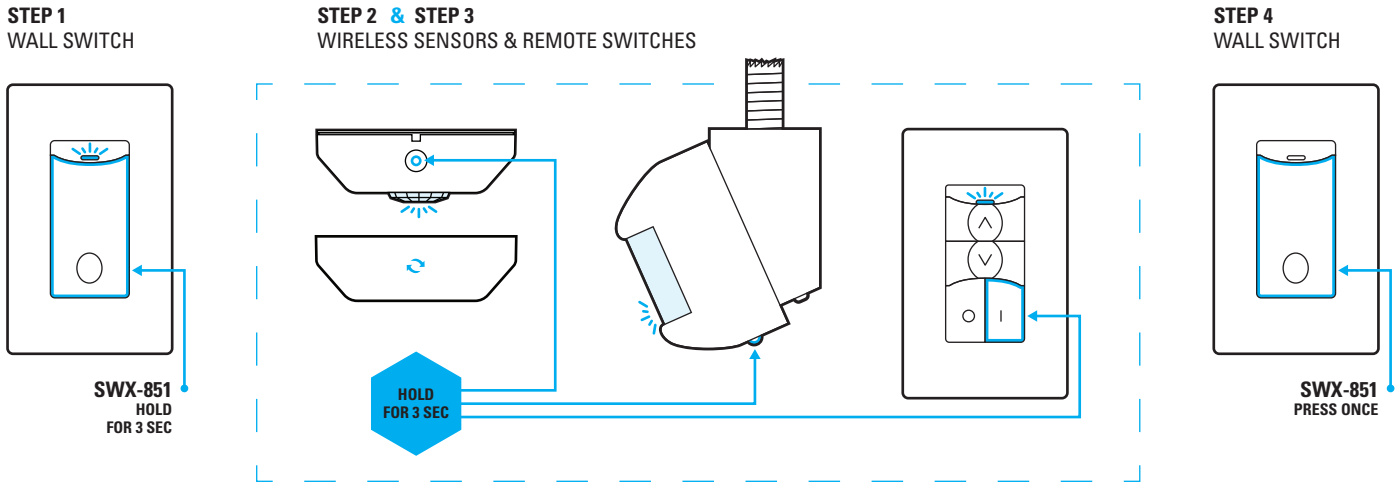
Step 2. At the sensor (or other remote device), hold down the programming button for 3 seconds until the LED starts alternating blue and white. Releasing will link the sensor with the controller in learn mode (see note 1 below). The lighting load being controlled will also be toggled off/on as a visual indication of success.

Step 3. Repeat step 2 to link another sensor or device.

Step 4. When all devices have been linked, exit learn mode on the wall switch controller by pressing the button 1 time. Learn mode will also be automatically closed after 15 minutes of no new devices being linked.

Note 1: Once a device(s) is linked, the alternating LED colors on the wall switch controller will periodically pause and blink out total number of linked devices. There will be no blinks during the pause until after the first device is linked.

Note 2: Linking two wall switch controllers (or one wall switch controller and one wireless power pack) can be done by putting each device in learn mode first (i.e. Step 1 above) before continuing to Step 2 for each device. After Step 2 has been completed for each device, continue to Step 3 for each device.



OPERATION NOTES

GENERAL WIRELESS SENSOR OPERATION

- Wireless sensors periodically transmit their PIR and/or acoustic (if equipped) occupancy status. Referred to as the sensor's "heartbeat", this period is optimized to conserve battery life.
- If a sensor transmitted "unoccupied" at its last heartbeat, any new PIR detection event will be transmitted immediately.
- Using the information received from linked sensors, wirelessly linked wall switch load controllers switch lighting accordingly.
- The wall swiitch load controller has a master time delay that is initially set only when a PIR occupancy transmission is received from a linked sensor. The time delay will then be reset every time a sensor reports any occupancy (either PIR or acoustic). Lights will be switched off once all linked sensors have continuously reported unoccupied for the duration of the time delay.
- To prevent lights from staying on indefinately from just acoustic events, after ~30 minutes the load controller will stop considering acoustic events from all linked sensors until after a PIR event is received again.
- As an added safety measure after lights are switched off, acoustic detection remains enabled for 15 seconds to enable voice reactivation of lights.
- If a wall switch load controller does not receive any heartbeat transmissions from a linked sensor for 10 minutes it will blink out an error code (4 blue blinks, followed by a pause) and consider itself occupied (so as to override the lights on). If more than one sensor is linked, the sensor heartbeats from all sensors must have stopped for the error warning to begin blinking.

OPERATION NOTES (CONT.)

PHOTOCELL OPERATION

- The **Ambient Setpoint** (Function #6) and **Photocell Operating Mode** (Function #5) are settings stored within the wall switch controller. For all photocell applications (e.g. on/off override), the wall switch controller receives the light level readings being transmitted every 15 seconds by wirelessly linked photocells. The controller will then turn off or on connected lighting in order to maximize energy savings while maintaining desired minimum light level.
- The setpoint value initially is established by the running the Auto-Setpoint calibration procedure that is built into the wireless photocell. Once initially determined, the setpoint can be changed at the wall switch controller by selecting from a list of values.
- The wireless wall switch controller will only listen to a single wireless photocell sensor. If more than one is wirelessly linked, the unit that last ran the auto-setpoint calibration procedure will be used.
- The photocell control algorithm compensates for the contribution of the controlled lighting to the overall light level of the space. This prevents lights from cycling back on shortly after they are switched off by the photocell operation.
- When the unit's **Photocell Operating Mode** (Function #5) is set to On/Off Operation or Inhibit Operation, there is a 45 second transition time after the ambient light level falls below the setpoint to when the connected lighting is switched on. During this transition time, the LED on the wall switch controller will be slowly blinking blue.
- When the unit's **Photocell Operating Mode** (Function #5) is set to On/Off Operation, there is a 5 minute transition time after the ambient light level surpasses the setpoint to when the connected lighting is switched off. During this transition time, the LED on the wall switch controller will be slowly blinking blue.
- Whenever lights are being held off due to the photocell, the blue LED will double blink every 15 seconds.

CONFIGURATION SETTINGS

All configuration settings for the wireless wall switch load controller are organized into several functions with values that can be accessed and changed by pressing the unit's push-button and observing the LEDs feedback.

FUNCTION #2 OCCUPANCY TIME DELAY

Unlike wired occupancy sensor systems, the time frame between when occupancy was detected last and connected lights turning off is a setting that is maintained in the load controller and not the sensor itself. This arrangement enables the sensors to conserve battery life. See additional notes below for more information on wireless sensor communications to a load controller.

SETTING #	DESCRIPTION	
2	1 Min	
3	5 Min	
4	10 Min	(default)
5	15 Min	
6	20 Min	
7	30 Min	

NOTE: A 5-10 second time delay sensor test mode can be initiated from a sensor in order to test coverage. Test mode will expire after 10 minutes.

CHANGING THE OCCUPANCY TIME DELAY

1. Read through the above list and note the number of the desired setting (e.g. 4 = 10 minutes).

2. Enter programming mode by pressing and holding the button for **6 seconds** until the LED begins flashing **blue only**, then release.

3. Enter **Function #2: Occupancy Time Delay** by tapping and releasing the unit's pushbutton **2 times**.

4. The LED will blink back white the number of times equal to the current setting (e.g., 4 times for 10 minutes). Following a short pause, this blink back sequence will repeat 5x before exiting. Interrupt blink back by pressing the button the number of times equal to the new desired setting (e.g. 5 = 15 minutes). The LED will blink back white the new setting number as confirmation

5. To **Save** and **Exit** programming mode, press and hold the 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.

CONFIGURATION SETTINGS (CONT.)

FUNCTION #3: OPERATIONAL MODES

Wireless wall switch load controllers have several sequence of operation choices.

SETTING #	MODE	DESCRIPTION
2	Vacancy Mode	Pressing the unit's button (or an ON button push on a linked wireless switch) is required to initially turn lights on. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** (Function #2) expires between received occupied messages from a sensor. Lights can also be switched off manually by pressing the unit's button (or if an OFF button push on a linked wireless switch is received).
3	Occupancy Mode (Override Off)	Lights come on automatically when an occupancy signal is received from a wirelessly linked sensor. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** (Function #2) expires between received occupied messages from a sensor. Lights can also be switched off manually by pressing the unit's button (or an OFF button push on a linked wireless switch is received). After being switched off manually, lights will **not** revert to an Automatic On state (i.e. the must be manually switched back on).
4	Occupancy Mode (Presentation) (default)	Lights come on automatically when an occupancy signal is received from a wirelessly linked sensor. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** (Function #2) expires between received occupied messages from a sensor. Lights can also be switched off manually by pressing the unit's button (or an OFF button push on a linked wireless switch is received). After being switched off manually, lights will revert back to the Automatic On state once the unit's time delay exires.
5	Automatic On (Disabled Off Switch)	Lights come on automatically when an occupancy signal is received from a wirelessly linked sensor. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** (Function #2) expires between received occupied messages from a sensor. Lights cannot be switched off from its own button or any wirelessly linked switch.

CHANGING THE OPERATIONAL MODE

1. Read through the above list and note the number of the desired setting (e.g. 2 = Vacancy Mode).
2. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.
3. Enter **Function #3: Operational Modes** by tapping and releasing the unit's pushbutton **3 times**.
4. The LED will blink back white the number of times equal to the current setting (e.g., 3 times for Automatic On Occupancy Mode). Following a short pause, this blink back sequence will repeat 5x before exiting. Interrupt blink back by pressing the button the number of times equal to the new desired setting (e.g. 2 = Vacancy Mode). The LED will blink back white the new setting number as confirmation
5. To **Save** and **Exit** programming mode, press and hold the 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.

ADDITIONAL NOTES ON OPERATIONAL MODES

- When runnning in the default operating mode **(Setting 3 - Occupancy Mode (Presentation)**, if the lights are manually switched off when there are still occupants in a space (to show a presentation for example), the Automatic On operation will be disabled until the sensor time delay expires.
- In applications with wirelessly linked sensors, if the switch is pressed but no occupancy signal is ever received, the lights will come on for 1 minute and then shut off.
- When in **Vacancy (Manual On) Mode** (Setting #2), there is a 15 second "grace" period after the sensor times out when the sensor will switch lights back on automatically if occupancy is detected. After 15 seconds the sensor will revert to vacancy (manual on) operation.

FUNCTION #4: FORGET LINKED DEVICES

To clear the unit's list of linked wireless devices the following commands can be executed.

SETTING #	DESCRIPTION
3	Enter Forget Mode (opposite of Pairing/Linking Mode
4	Forget All Linked Devices
5	Send a "Forget Me" Message

FORGETTING LINKED DEVICES

1. Read through the above list and note the number of the desired command (e.g. 4 = Forget All Linked Devices).
2. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.
3. Enter **Function #4: Forget Linked Devices** by tapping and releasing the unit's pushbutton **4 times**.
4. Interrupt blink back by pressing the button the number of times equal to the new desired setting (e.g. 4 = Forget All Linked Devices). The LED will blink back white the new setting number as confirmation.
5. To **Execute** the command and **Exit** programming mode, press and hold the 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.

CONFIGURATION SETTINGS (CONT.)

FUNCTION #5 - PHOTOCELL OPERATING MODE

This function defines how the wall switch controls the lights when it receives ambient light values from a linked photocell that are above the **SETPOINT** value.

SETTING #	VALUES	NOTES
2	Disabled (default)	Running auto-setpoint on a linked wireless photocell or sensor with integrated photocell will change mode to setting to #3.
3	On/Off Operation	Automatically enabled once auto-setpoint configuration is run from a linked wireless device. Lights will turn off with high daylight.
4	Inhibit Only Operation	During high daylight, lights will be prevented from coming on automatically when occupancy is detected. However, lights will not never be switched off due to high daylight.

CHANGING THE PHOTOCELL OPERATING MODE

1. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.

2. Enter **Function #5: Photocell Operating Mode** by tapping and releasing the unit's pushbutton **5 times**.

3. The LED will blink back white the number of times equal to the current setting (e.g., 3 times for **On/Off Operation**). Following a short pause, this blink back sequence will repeat 5x before exiting.

4. Interrupt blink back by pressing the button the number of times equal to the new desired setting (e.g. 4 = **Inhibit Only Opertaion**). The LED will blink back white the new setting number as confirmation.

5. To **Save** and **Exit** programming mode, press and hold the 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.

FUNCTION #6 - AMBIENT SETPOINT

The minimum overall light level that is to be maintained in a space is referred to as the "setpoint". Note, the **Auto-Setpoint Calibration** procedure must initially be run from a linked wireless photocell for this function to be enabled.

CHANGING THE AMBIENT SETPOINT ONCE AUTO-SETPOINT HAS BEEN RUN

1. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.

2. Enter **Function #6: Ambient Setpoint** by tapping and releasing the unit's pushbutton **6 times**.

3. The value calculated during the auto-setpoint calibration will be blinked back in two alternating numbers as follows:

BLUE LED BLINKS = x10 number (1-12 blinks or rapid blink for 0) **WHITE LED BLINKS** = x1 number (1-9 blinks or rapid blink for 0)

4. Interrupt blink back by pressing the button the number of times equal to the new desired setting from the table of values below (e.g. 6 = 25 fc). The LED will blink back white the new setting number as confirmation.

5. To Save and Exit programming mode, press and hold the 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.

SETTING #	VALUES
2	2.5 fc
3	5.0 fc
4	10.0 fc
5	15.0 fc
6	25.0 fc
7	35.0 fc
8	50.0 fc

FUNCTION #7: RELAY ENABLE/DISABLE

If the wall switch load controller is being used as a remote switch for another load controller and not controlling a lighting load of its own, the relay can be disabled.

SETTING #	DESCRIPTION
2	Relay enabled (default)
3	Relay disabled (i.e. always closed)

DISABLING THE RELAY

1. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.

2. Press and release the unit's pushbutton **7 times**, wait 2 seconds, then press the button **3 times** to disable the relay (or 2 times to enable).

3. To **Save** the setting and **Exit** programming mode, press and holding the button until the LED changes to **blue**, 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.

CONFIGURATION SETTINGS (CONT.)

FUNCTION #8: RESTORE FACTORY DEFAULTS

To return a wall switch controller to its original factory default settings, follow the below steps:

1. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.

2. Press and release the unit's pushbutton **8 times**, wait 2 seconds, then press the button **3 times**.

3. To **Execute** the command and **Exit** programming mode, press and holding the button until the LED changes to **blue**, 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.

FUNCTION #9: LED BEHAVIOR

When the load controller has switched the lights off, the unit's LED will be solid blue as a locator. To disable this locator LED functionality, follow the below steps.

SETTING #	DESCRIPTION	
2	Locator LED enabled	(default)
3	Locator LED disabled	

CHANGING THE LED BEHAVIOR

1. Enter programming mode by pressing and holding the button for at least **6 seconds** until the LED begins flashing **blue only**, then release.

2. Press and release the unit's pushbutton **9 times**, wait 2 seconds, then press the button **3 times** to disable location functionality (or 2 times to enable).

3. To **Execute** the command and **Exit** programming mode, press and holding the button until the LED changes to **blue**, 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.

FCC INFORMATION (FCC ID: 2AVRY-SWX0001)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:
1. This device many 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 (IC: 26012-SWX0001)

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