Catalog Number: Date: Project:

SENSORWORX®
MOBILE APP
ACCESS POINT

SENSORWORX®

ADVANCED WIRELESS LOAD CONTROLLER WITH 0-10V DIMMING

LINE VOLTAGE

OVERVIEW

The **SENSOR**WORX advanced wireless load controller has enhanced capabilities that enable a **SENSOR**WORX wireless room to include scenes, time and astronomical based schedules, and device configurability via a mobile device application. These advanced features are in addition to the device's standard switching, dimming, and wireless capabilities. The unit utilzes Bluetooth to communicate directly with the companion **SENSOR**WORX mobile application running on a Android or iOS mobile device to create and modify wireless zones, set-up custom scenes and schedules, and remotely configure device settings.

As with all **SENSOR**WORX products, these devices are easy to install and incorporate features which reduce contractor labor time. An elongated chase nipple with snaps for quick installation and simple programming make for a hassle-free contractor experience. All **SENSOR**WORX products are proudly made in the USA.

BASIC OPERATION

In order for a **SENSOR**WORX wireless room to utilize scenes, define schedules, and be remotely configured; at least one device must be an advanced wireless load controller. Using the free **SENSOR**WORX app on a mobile device (iOS or Android), the wireless advanced load controller can discover **SENSOR**WORX wireless devices previously setup using the push-to-pair process, or it can be used for initial setup. When configuring a room, each load controller is assigned to a control zone. Scenes can then be created to either augment the behavior of the zone (i.e. Occupancy vs Vacancy, High/Low trim, etc.) or simply modify the lighting level. Scenes can be triggered on demand via a scene selector wall station, or set up to execute via time-of-day or astronomical clock schedules. The real-time clock and astronomical settings in the **SENSOR**WORX advanced load controller are conveniently synchronized with the mobile device automatically.

FEATURES

- **Expands Wireless Room Capabilities to Include Scenes run On Demand or via Time/Astronmical Schedules**
- **Enables Android/iOS Mobile App. Configuration of Control Zones, Scenes, Schedules, & Device Settings**
- **Plenum Rated (UL 2043)**
- **Switches Up to 16A Line Voltage Loads**
- **Configurable Delays and Operational Modes (e.g. Occupancy/ Vacancy)**
- **All Pairing & Programming Completed via Push-Button Method can be Transferred into Mobile App**
- **Support Daylight Harvesting, Partial On & Partial Off Operation**

SPECIFICATIONS

ELECTRICAL

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

LOAD RATINGS
(relays use zero-cross switching)

16A @ 120-277 VAC
General Purpose

16A @ 120-277 VAC
Electronic Ballast, LED Driver, Tungsten, Magnetic Ballast

DIMMING LOAD
50mA (0-10 VDC ballasts or drivers compliant with IEC 60929 Annex E.2)

MOTOR LOAD
1HP @ 250VAC

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

RECHARGABLE BATTERY
1-year run time with maintained time clock when unpowered

NON-VOLATILE MEMORY

ENVIRONMENTAL

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

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

CODE COMPLIANCE

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

WIRELESS (SENSORWORX)

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

FREQUENCY
915 MHz ISM Band

WIRELESS (BLUETOOTH)

RANGE
up to 50' w/o obstructions

FREQUENCY/STANDARD
2.4GHz/Bluetooth Low Energy (BLE)

SECURITY
All Wireless Data is Encrypted

PHYSICAL

SIZE
3.00" H x 2.25" W x 1.88" D
(7.62 cm x 5.72 cm x 4.78 cm)

WEIGHT
6.00 oz.

COLOR
Blue

MOUNTING
1/2" Knockout

TEST / PROGRAMING BUTTON

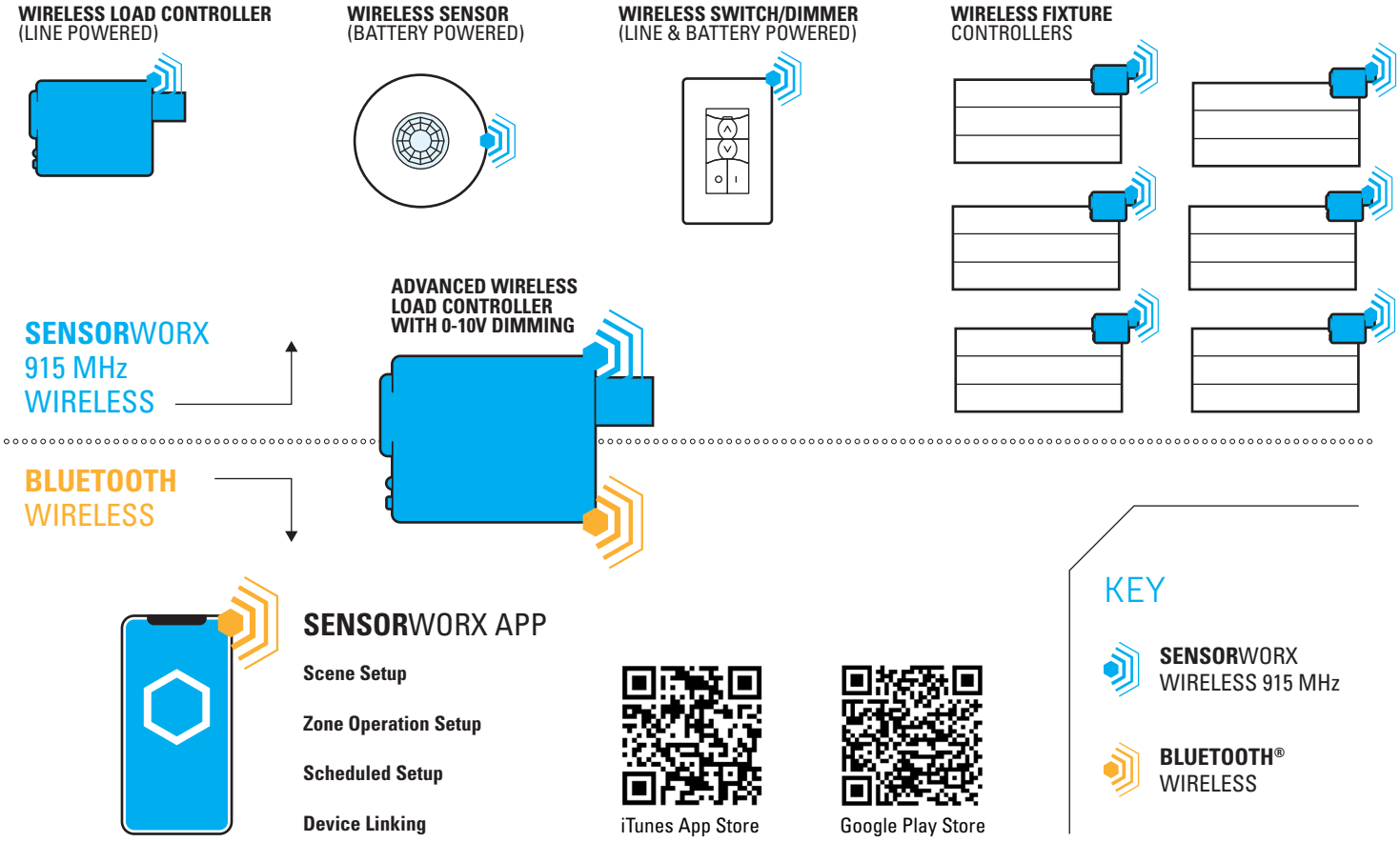
LED STATUS INDICATOR
Bi-color White & Blue

ORDERING INFO

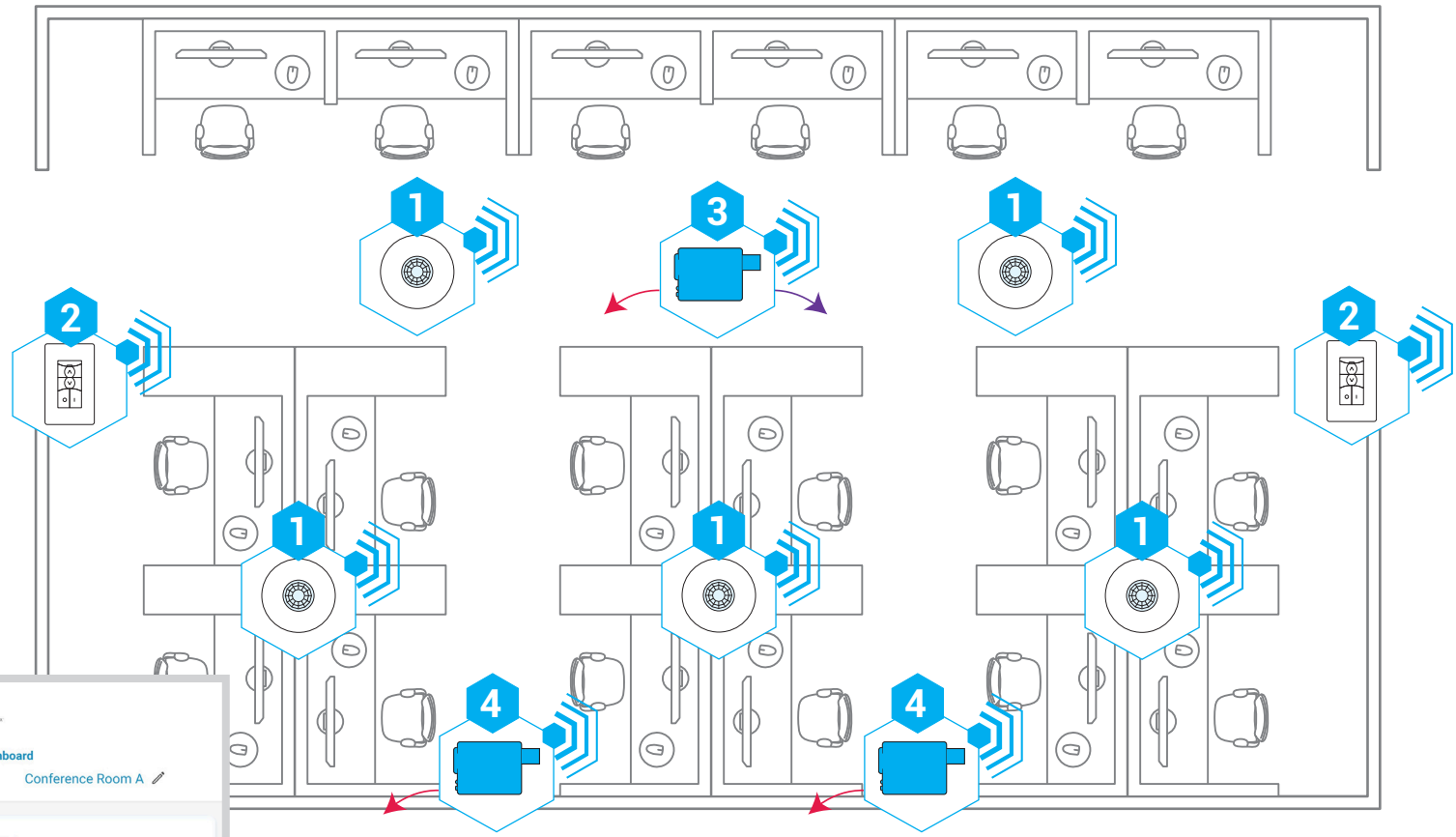
SAMPLE MODEL # SWX-970-D1

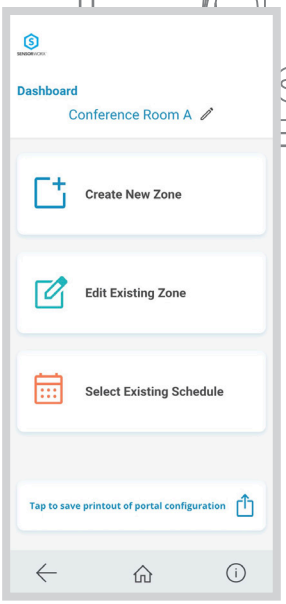
MODEL #	DESCRIPTION
SWX-970-D1	Advanced Wireless Load Controller (120-277, 16A (General use), 0-10V Class 1)
SWX-970-D2	Advanced Wireless Load Controller (120-277, 16A (General use), 0-10V Class 2)

APPLICATION DIAGRAM



APPLICATION DIAGRAM (CON'T)





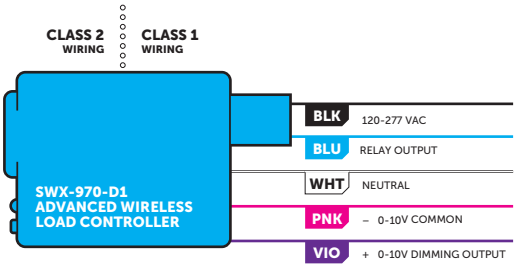
When creating a room layout, only a single the Advanced Wireless Load Controller (**SWX-970-D2**) is required as the "Mobile App Access Point" for the room. Using a mobile device, via bluetooth, the **SWX-970-D2** allows configuration of the entire **SENSOR**WORX 915Mhz wireless room. This includes pairing of Load Controllers, Line Voltage Switches, Battery Powered Switches, and Battery Powered Sensors. Using the app you can also setup the room parameters including, Occupancy Sensors Settings, Trim Levels, Time Schedules, Scenes, and Zones for the area.

KEY

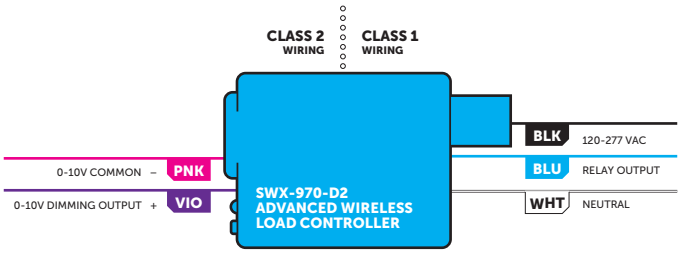
1. **SWX-221-B**
   Wireless PIR & Acoustic Ceiling Sensor, Battery Powered
2. **SWX-854-B**
   Wireless Remote Dimming & On/Off Wall Station, Battery Powered
3. **SWX-970-D2**
   Wireless Advanced Load Controller, Class 2 0-10V Dimming
4. **SWX-950-D2**
   Wireless Load Controller, Class 2 0-10V Dimming

WIRING

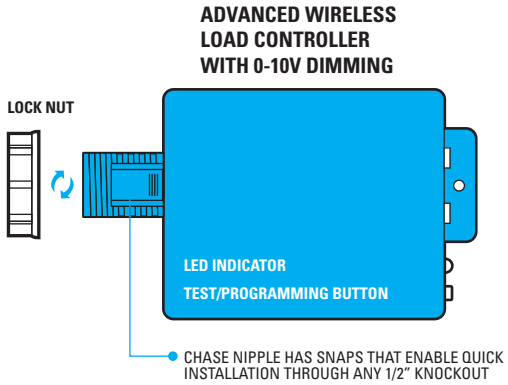
MODEL #: SWX-970-D1



MODEL #: SWX-970-D2



INSTALLATION



APPLICATION & OPERATION NOTES

SENSORWORX APP

Manual

ADVANCED WIRELESS LOAD CONTROLLER OPERATION

- The **SENSOR**WORX App is available for iOS and Android.
- The App works in conjunction with the Push-to-Pair settings allowing for familiar setup procedures
- Scenes can either change the behavior of the zone (occupancy, timers, high/low trims, etc.) or modify the light level
- Scenes can have a duration, allowing them to revert back to the regular Zone Operation settings automatically.
- The real-time clock is automatically synchronized with the mobile devices for time-of-day, month/day/year, and daylight savings.
- Any deviations from the photocell Auto-Setpoint and pairing are configured via the Push-to-Pair.
- The **SENSOR**WORX App can provide a print-out of the configuration for commissioning records

COMPATIBLE WIRELESS DEVICES

The below chart lists the devices that can be used in a **SENSOR**WORX wireless application. Note that sensors, photocells, and remote switch & dimmer devices are transmit only devices and therefore must be paired to a load controller for switching and/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	Wireless 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	Wireless Remote 2-Zone Dimmer Wall Station, <xx = color>	Transmit	Battery
SWX-854-4S-B-xx	Wireless Remote 4/Scene + 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-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

* Units manufactured with date codes 241115 or higher
† Units manufactured with date codes 250601 or higher (will be available in June 2025)

LOCAL WIRELESS PAIRING

Pairing a wireless power pack to a wireless sensor, photocell, or remote wall station is quickly done via the following procedure:

Step 1. Enter pairing mode by holding down the power pack's button for 3 seconds until the LED starts alternating white then blue, then release.

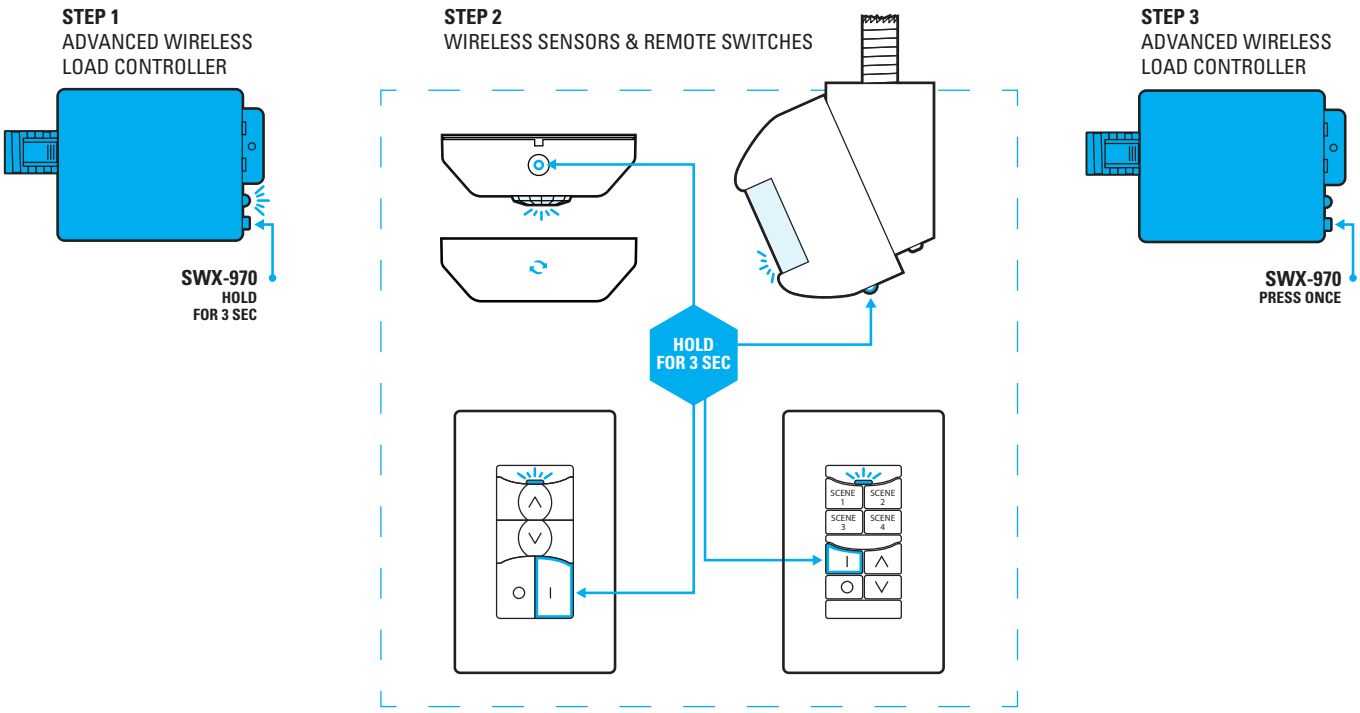
Step 2. At the sensor, photocell, or remote wall station, hold down the programming button for 3 seconds until the LED starts alternating white then blue. Releasing will pair the device with the wireless power pack in learn mode (see note 1 below). The lighting load being controlled will also be toggled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

Step 3. Repeat step 2 to pair additional devices.

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

Note 1: When in learn mode, the alternating LED colors on the power pack 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 paired.

Note 2: All wireless pairing and programming completed using the push-button method can be transferred into the **SENSOR**WORX Mobile App.



FCC INFORMATION (PENDING)

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.

INDUSTRY CANADA INFORMATION (PENDING)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
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.

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Five-Year Limited Warranty.
Complete Warranty Terms Located at: sensorworx.com/warranty
DATA970-Dx | REV 019–250502