SENSORWORX®

WIRELESS POWER PACK LOAD CONTROLLER

INSTALLATION & OPERATION INSTRUCTIONS

CATALOG NUMBERS	DESCRIPTIONS
SWX-950	POWER PACK LOAD CONTROLLER
SWX-950-D2	POWER PACK LOAD CONTROLLER W/ 0-10V DIMMING
SWX-950-AX	POWER PACK LOAD CONTROLLER W/ AUXILIARY LOW VOLTAGE CONTROL
SWX-950-AX-D2	POWER PACK LOAD CONTROLLER W/ 0-10V DIMMING & AUXILIARY LOW VOLTAGE CONTROL
SWX-999	LOW VOLTAGE WIRING CHAMBER

OVERVIEW

SENSORWORX wireless power pack controllers switch on/off power to a connected lighting load as directed by wirelessly linked sensors and wall controls. Additionally, the unit's 0-10V dimming option enables dimming control. This wireless power pack also has optional auxiliary low voltage connections for achieving hybrid wired/wireless architectures.

The **SENSOR**WORX wireless power pack is rated to switch fully loaded circuits and utilizes a powerful microprocessor to optimize its switching timing, ensuring long relay life even when controlling high-inrush LED lighting. As with all **SENSOR**WORX products, these power packs are easy to install and incorporate features which reduce contractor labor time. An elongated chase nipple with snaps for quick installation and an optional snap-on low voltage wire chamber make for a hassle free contractor experience. 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 pack's integrated relay to close. When configured for Vacancy operation, an ON switch message is required from a wirelessly linked wall station to initially trigger lights. Once closed, line voltage will flow through the relay and turn on the connected lighting load. The wireless power pack 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.

FEATURES

- **Wirelessly Links to Sensors & Wall Stations**
- **Pairs in Seconds up to 50 Remote Devices**
- **Switches Up to 20A Line Voltage Loads**
- **Electronically Timed Switching Ensures Long Relay Life**
- **Integrated Test/Programming Button**
- **Configurable Time Delays and Operational Modes (e.g. Occupancy/ Vacancy)**
- **Optional 0-10V Dimming Output for Partial On & Partial Off Operation**
- **Optional Low Voltage Sensor & Wall Station Wired Connectivity**
- **Plenum Rated (UL 2043)**

SPECIFICATIONS

ELECTRICAL

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

CLASS 2 OUTPUT RATINGS
18 VDC, 150 mA (-AX version)

RELAY CURRENT REQS
55 mA

LOAD RATINGS
20A @ 120 VAC -
General Purpose Plug Load

20A @ 120/277 VAC -
General Purpose, Tungsten, Magnetic Ballast

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

DC LOAD RATINGS
20A @ 28 VDC (MAX)
1A @ 5 VDC (MIN)

DIMMING LOAD
(Models with -**D2** option only)
50mA, (0-10 VDC ballasts or drivers compliant with IEC 60929 Annex E.2)

MOTOR LOAD
1 HP

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

ENVIRONMENTAL

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

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

WIRELESS

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

FREQUENCY
915 MHz ISM Band

WIRELESS LINKING
Simple 3 sec. Push Button Process

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

RELAY TEST BUTTON

LED STATUS INDICATOR
Bi-color White & Blue

OPERATION

OPERATING MODES
Occupancy & Vacancy
Partial On/Off (-D option)

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

CODE COMPLIANCE

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

c UL US LISTED

MADE IN THE USA

BAA COMPLIANT

TAA COMPLIANT

LEAD FREE RoHS COMPLIANT

INSTALLATION INSTRUCTIONS

MOUNTING INSTRUCTIONS

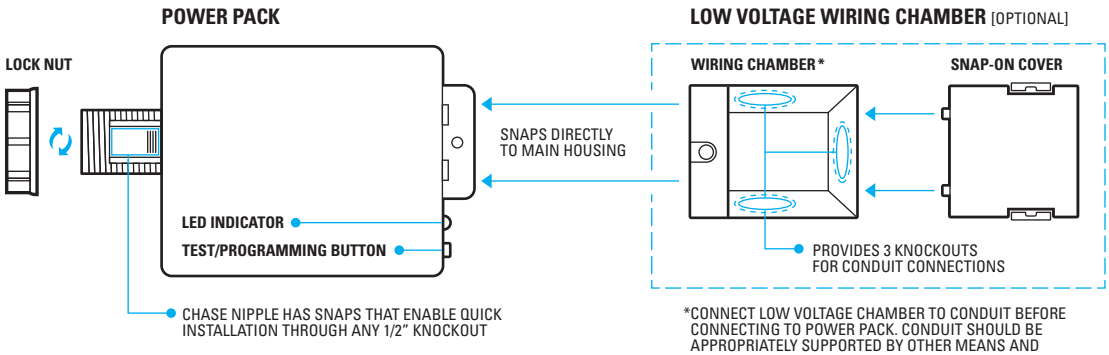
Power Packs are designed to attach to electrical enclosures with 1/2" knockouts. Do not mount unit inside a metal junction box.

INSTALLATION NOTES

1 For supply connections, use 14 AWG (90°C) or larger wires. Wire all circuits exiting chase nipple as Class 1 circuits.

2 Suitable for plenum use.

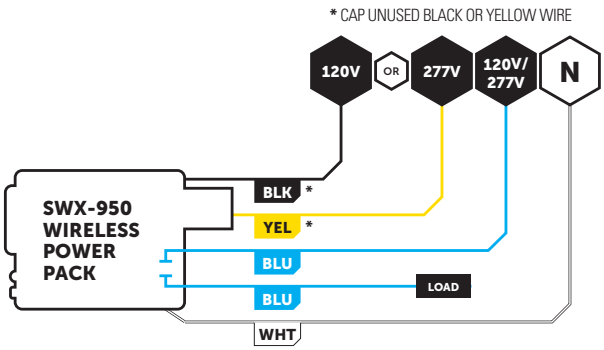
3 Risk of Electric Shock - More than one disconnect switch may be required to de-engergize the equipment before servicing.



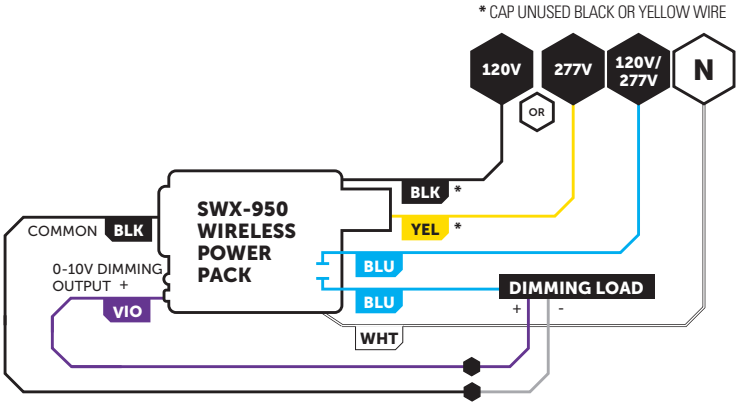
WARNING: TURN POWER OFF AT THE CIRCUIT BREAKER BEFORE WIRING

WIRING

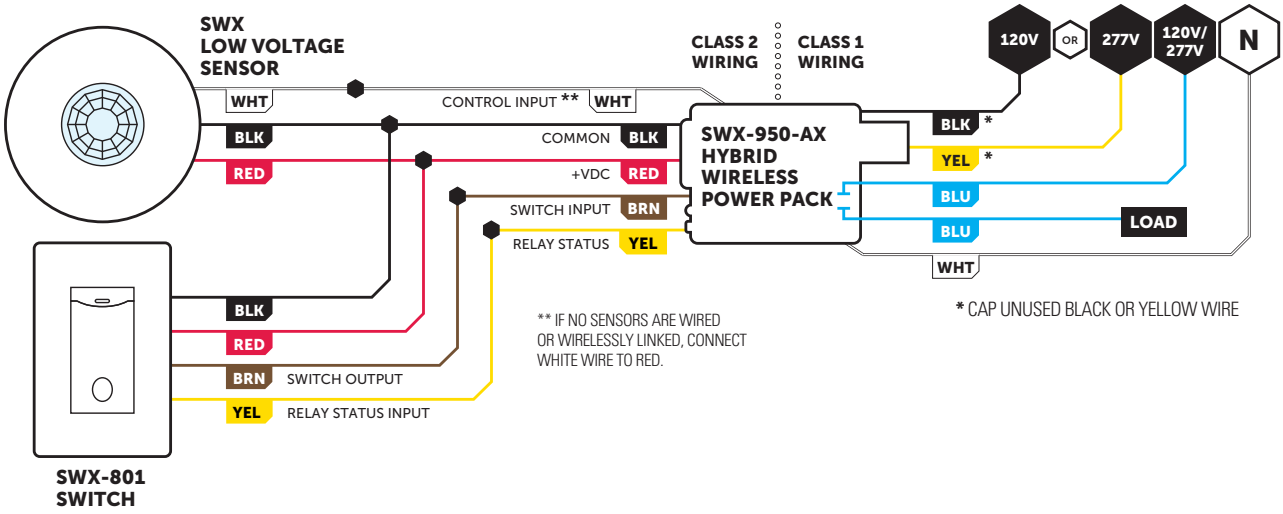
MODEL #: SWX-950



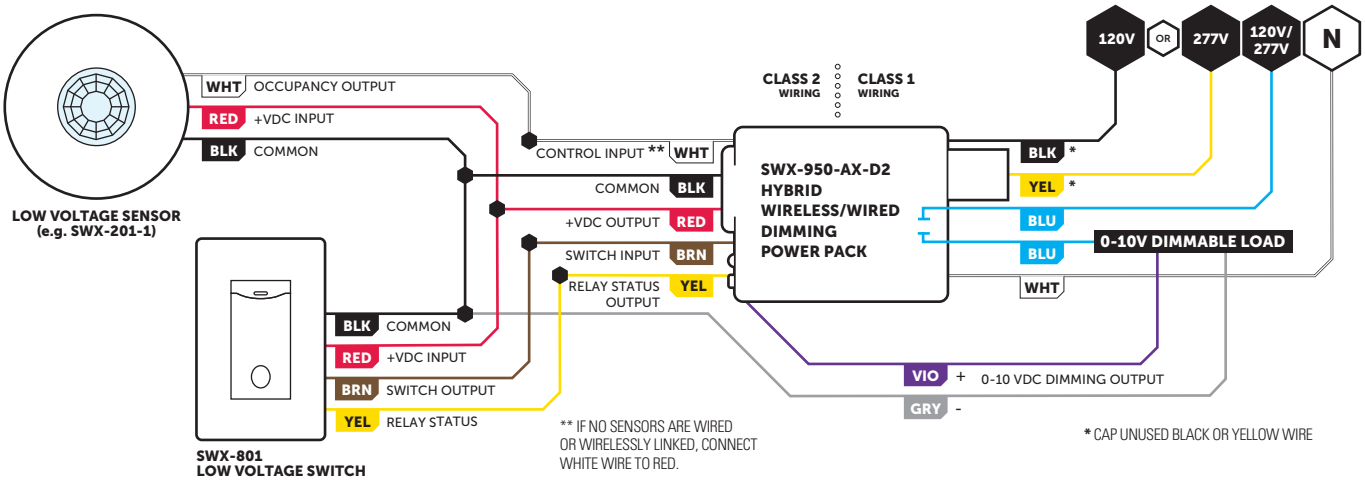
MODEL #: SWX-950-D2



MODEL #: SWX-950-AX



MODEL #: SWX-950-AX-D2



POWER PACK CAPACITY

SWX-950-AX series power packs can supply power to several occupancy sensors and additional secondary relay packs. Following the below formula ensures adequate power will be available. Note the **SWX-950-AX's** relay has already been factored into the formula.

[(# of PIR SENSORS*) **x2mA] + [(#** of DUAL TECH SENSORS**) x10mA] + [(#** of **SWX-910) x55mA] < [(#** of **SWX-950-AX) x90 mA]**

EXAMPLE COMBINATIONS

PIR SENSORS OR LOW VOLT. WALL SWITCHES		+	DUAL TECH SENSORS		+	SECONDARY PACKS SWX-910		=	TOTAL POWER REQUIRED	<	POWER SUPPLIED BY ONE SWX-950-AX
#	POWER REQUIRED		#	POWER REQUIRED		#	POWER REQUIRED				
15	30mA	+	0	0	+	0	0	=	30mA	<	90mA
15	30mA	+	0	0	+	1	55mA	=	85mA	<	90mA
0	0	+	9	90mA	+	0	0	=	90mA	<	90mA
7	14mA	+	8	80mA	+	0	0	=	94mA	<	90mA

*or low voltage wall switches

APPLICATIONS

COMPATIBLE WIRELESS DEVICES

The below chart lists the devices that can be used in a **SENSOR**WORX 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-401-B	Wide View Sensor, PIR	Transmit	Battery
SWX-402-B	Long Range Hallway Sensor, PIR	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-854-B-xx	Remote Dimming Switch (On/Off, Raise/Lower), <xx = color>	Transmit	Battery
SWX-950	Power Pack Load Controller, 20A	Receive	120/277 VAC
SWX-950-D2	Power Pack Load Controller, 20A, 0-10V Dimming	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

APPLICATIONS (CONT.)

ADDITIONAL APPLICATION INFORMATION

- For areas such as stairwells, the **SWX-950-D2** unit can be used to achieve **Partial Off** operation where lighting is at the full bright level when occupied and dropped to the 50% (level is configurable) during unoccupied periods.
- **Partial On** operation can be achieved by the **SWX-950-D2** unit. In this configuration 0-10V lighting is turned on to a configurable **Partial On Level** when triggered from an occupancy sensor or switch. Lighting can then be adjusted to any level via a wirelessly linked **SWX-854-B** remote dimmer. Alternatively, if the ON button is pushed on a wirelessly linked **SWX-852-B** or **SWX-854-B** remote switch, lighting will be stepped up to 100% (level is user configurable). Lighting can be turned off manually via an OFF switch press on either the **SWX-852-B**, **SWX-854-B** wireless remote switch (or single button push on a **SWX-851** switch controller).
- Configurable dimming parameters include **Turn On / Partial On Level**, **Turn Off Scheme**, **Fade On/Fade Off Rates**, and **High/Low Dimming Trim Levels**.
- A model **SWX-801-xx** wired momentary switch can be wired to a **SWX-950-AX-D2** model power pack to trigger the 3 step sequence of operation (i.e. Partial On, Full On, Off). Other manufacturer's switches may also be utilized.
- A **SWX-950-AX** or **SWX-950-AX-D2** power pack wirelessly retransmit any switch signals received on its brown input wire (typically from a **SWX-801** or **SWX-803** momentary switch or a low voltage wall switch sensor). To receive the retransmitted switch signals, a remote load controller (i.e. another **SWX-950** power pack or **SWX-851** wall switch controller) will need to be linked to the transmitting power pack.

WIRELESS LINKING (PAIRING)

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

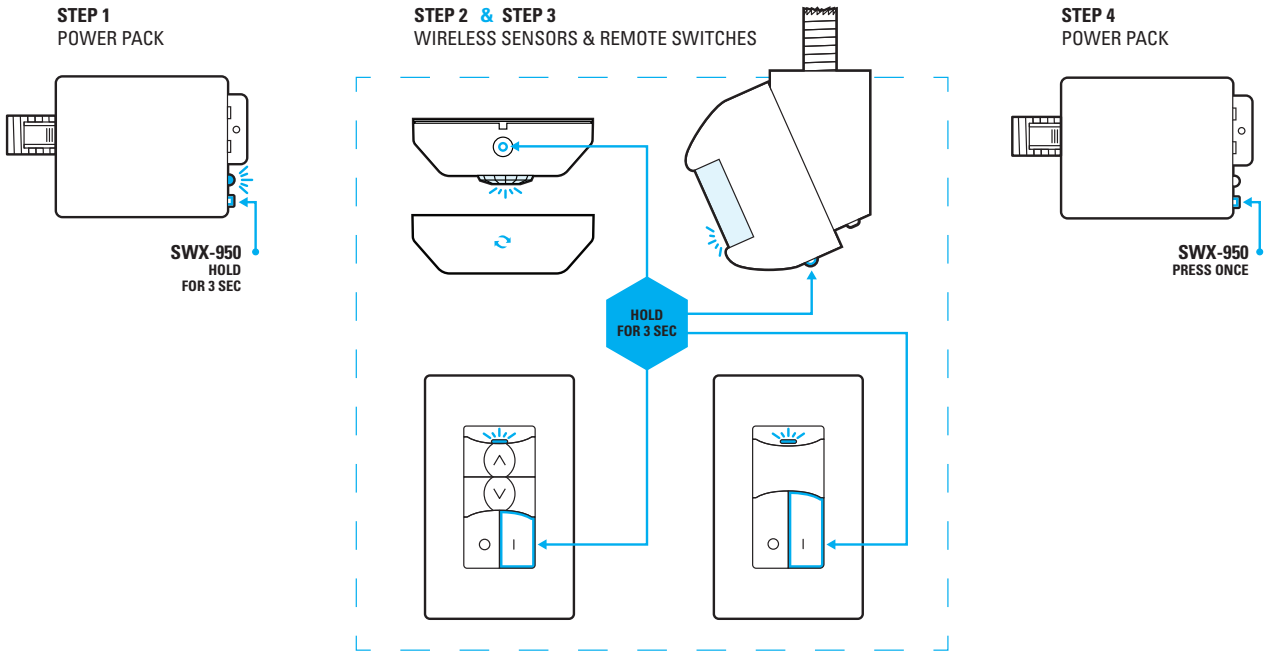
Step 1. Enter pairing mode by holding down the power pack's button for 3 seconds until the LED starts alternating white then blue, then release.

Step 2. At the sensor or remote wall station, hold down the programming button for 3 seconds until the LED starts alternating white then blue. Releasing will link the sensor with any wireless power packs in pairing mode (see note 1 below).

Step 3. Repeat step 2 to link additional sensors or switches.

Step 4. When all devices have been linked, exit pairing mode on the power pack 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 power pack will periodically pause and blink out the total number of linked devices. There will be no blinks during the pause until the first device is linked.



TESTING & TROUBLESHOOTING

TESTING CONNECTED LIGHTING

To test the unit's control of connected lighting, press and release the push button (located next to LED) one time. Lights should toggle if the unit is operating and wired to lighting properly.

LED BLINKOUT BEHAVIOURS

LED BEHAVIOR	DESCRIPTION	NOTES/REMEDY
Continuous WHITE blinking "heartbeat"	Normal operation	
Repeating double BLUE flashing	Power supply is overloaded.	1. Check for miswiring causing a short on the red low voltage wire. 2. Remove low voltage load from the red wire (i.e. connected sensors, secondary relay packs, or switches) until the BLUE double flash stops.
Continuous BLUE flahsing	Power present on both relay wires	Check wiring going to the blue relay wires on the power pack. Specifically, ensure there is not line power present on both wires when power pack is disconnected.
Continuous WHITE, BLUE flashing	Wireless Pairing Mode	To exit pairing mode, press the button one time and release. The LED should return to continous WHITE "heartbeat"
Continuous WHITE, BLUE flashing with periodic WHITE blinking	Wireless Pairing Mode w' Linked Device Count	The number of periodic WHITE blinks reflects the number of linked devices. To exit pairing mode, press the button one time and release. The LED should return to continous WHITE "heartbeat"

CONFIGURATION SETTINGS

SWX-950 series power packs have many configurable functions depending on the specific model. All functions setting values can be accessed and changed by pressing the unit's push-button and observing the LEDs feedback. The functions common to all SWX-950 series power packs are listed first below. Functions present in models with the dimming option (e.g. **SWX-950-D2)** are listed next and the function(s) that are present with the hybrid wireless/wired option (e.g. **SWX-950-AX**) are listed last.

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 power pack 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 power pack.

SETTING #	DESCRIPTION	FUNCTION #
2	1 Min	
3	5 Min	
4	10 Min	Default for all models
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 Press and release the unit's pushbutton **2 times**, then wait 2 seconds. The White LED will blink back the number of the current setting (repeats 3x before exiting).

3 Interrupt blink back by pressing the button the number times equal to the new desired setting (e.g. 5 = 15 minutes).

4 The LED will blink back the new setting number as confirmation and will be saved after three confirmations. After the third confirmation sequence, a successful save will be indicated by two sets of rapid White flashes. If the Blue LED rapid flashes twice, save was unsuccessful and process should be started over.

ADDITIONAL NOTES ON OCCUPANCY TIME DELAY

- By default, every ~60 seconds a sensor transmits whether or not occupancy was detected during the previous period.
- Referred to as the sensor's "heartbeat", this period can be reduced to ~30 seconds although this will decrease expected battery life.
- If a sensor transmitted "unoccupied" at its last heartbeat, any new occupancy detection event will be transmitted immediately.
- If a sensor transmitted "occupied" at its last heartbeat, new occupancy events will only be transmitted at the heartbeat interval, thus conserving battery life.
- The wirelessly linked wall switch load controller and/or power pack maintains a master time delay that is reset every time a linked sensor reports occupancy. Lights will be switched off once all linked sensors have continously reported unoccupied for the duration of the time delay.
- If a power pack does not receive a heartbeat transmission from a linked sensor for 2 minutes it will consider itself occupied.

CONFIGURATION SETTINGS (CONT.)

FUNCTION #3: OPERATIONAL MODES

Wireless power packs have several sequence of operation choices.

SETTING #	MODE	DESCRIPTION
2*	Automatic On Occupancy Mode **DEFAULT SETTING**	Lights come on automatically when an occupancy signal is received from wirelessly linked sensors (and/or wired sensors on -AX models). On dimming models the lights will turn on to the **TURN ON / PARTIAL ON LEVEL** as specified in Function #4. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** expires prior to receiving another occupied signal from a sensor. Lights can also be switched off manually if signaled from a wirelessly linked switch (and/or wired switch on -AX models).
3	Vacancy Mode	A switch signal from a linked wireless switch (and/or a wired switch on -AX models) is required to initially turn lights on. On dimming models the lights will turn on to the **TURN ON / PARTIAL ON LEVEL** as specified in Function #4. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** (Function #2) expires prior to receiving another occupied signal from a sensor. Lights can also be switched off manually if signaled from a wirelessly linked switch (and/or wired switch on -AX models).
4	Partial Off Occupancy Mode (Auto-On to 100% when Occupied / 50% Dim when Unoccupied)	Valid on dimming models only. Lights are on at full bright (**HIGH TRIM LEVEL**) when wirelessly linked sensors (and/or wired sensors on -AX models) are signaling occupancy. When unoccupied, lights are dimmed to **TURN ON / PARTIAL ON LEVEL**) as specified in Function #4. Note the default value is changed to 50% when the **OPERATIONAL MODE** is switched to Partial Off. If a wireless switch is linked (and/or a wired switch on -AX models), lights can be manually dropped to **TURN ON / PARTIAL ON LEVEL.**
5	Automatic On (Disabled Off Switch)	Lights come on automatically when an occupancy signal is received from wirelessly linked sensors (and/or wired sensors on -AX models). On dimming models the lights will turn on to the **TURN ON / PARTIAL ON LEVEL** as specified in Function #4. Lights will turn off automatically if the **OCCUPANCY TIME DELAY** expires prior to receiving another occupied signal from a sensor. Lights cannot be switched off manually.

CHANGING THE OPERATIONAL MODE

1 Read through the above list and note the number of the desired setting (e.g. 2 = Automatic On Occupancy Mode).

2 Press and release the unit's pushbutton **3 times**, then wait 2 seconds. The White LED will blink back the number of the current setting (repeats 3x before exiting).

3 Interrupt blink back by pressing the button the number times equal to the new desired setting (e.g. 3 = Vacancy Mode).

4 The LED will blink back the new setting number as confirmation and will be saved after three confirmations. After the third confirmation sequence, a successful save will be indicated by two sets of rapid White flashes. If the Blue LED rapid flashes twice, save was unsuccessful and process should be started over.

ADDITIONAL NOTES ON OPERATIONAL MODES

- When in **Automatic On Occupancy Mode** (Setting #2) or **Partial Off Occupancy Mode** (Setting #4), if 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 all modes, if the switch is pressed but no occupancy is ever sensed, the lights will come on for 1 minute and then shut off. For hybrid wired/wireless power packs, if there are no sensors wirelessly linked or wired to the unit, tie the power pack's white input wire to red (+VDC) .
- When in **Vacancy (Manual On) Mode** (Setting #3), there is a 15 second "grace" period after the sensor times out when the sensor will switch lights back on automatically. For dimming models, the lights will return to the previous level. After 15 seconds the sensor will revert to vacancy (manual on) operation.

FUNCTION #8: RESTORE FACTORY DEFAULTS / FORGET LINKED DEVICES

To return a wireless power pack to its original factory default settings or to clear the unit's list of linked wireless devices the following commands can be executed.

SETTING #	DESCRIPTION
3	Restore Factory Defaults
4	Restore Factory Defaults and Forget all Linked Devices
5	Enter Forget Mode (opposite of Pairing/Linking Mode
6	Forget All Linked Devices
7	Send a "Forget Me" Message

ENTERING A RESTORE FACTORY DEFAULTS OR FORGET LINKED DEVICES COMMAND

1 Read through the above list and note the number of the desired command

2 Press and release the unit's pushbutton 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 pushbutton the number times equal to the desired command (e.g. 6 times to Forget all Linked Devices).

4 The LED will flash back the command number as confirmation and will be executed after three confirmations. Two sets of rapid White flashes indicates success. If the Blue LED rapid flashes twice, the command was unsuccessful and process should be started over.

CONFIGURATION SETTINGS (CONT.)

DETAILED DIMMING CONFIGURATION

Several dimming parameters (listed in the tables below) can be adjusted. A step-by-step programming procedure is listed below the tables.

FUNCTION #4 TURN ON / PARTIAL ON LEVEL)

The level the dimming output is set to upon initially turning on (requires unit be in a Partial On operating mode).

SETTING #	VALUES	NOTES
2	100%	
3	Last User Level (default)	Invalid if Operational Mode set to Partial Off.
4	~30%	Actual voltage value is calculated as the % of voltage range between high and low trim levels. Light output at each voltage level depends on driver/ballast and luminaire.
5	~40%*	
6	~50%	
7	~60%	
8	~70%	
9	~80%	

FUNCTION #5 TURN OFF SCHEME

The actions of the power pack's dimming output and relay when an unoccupied signal or an off switch press is received.

SETTING #	VALUES	NOTES
2	Drop to Off*	Dimming output drops to low trim and relay opens (*default)
3	Fade to Off	Dimming output fades to low trim and relay opens
4	Fade to 0V	Dimming output fades to 0 volts (e.g. below a connected driver's electronic off level). Relay remains closed.
5	Fade to Low Trim	Dimming output fades down to low trim level. Relay remains closed.
6	Drop to Low Trim	Dimming output drops down to low trim level. Relay remains closed.
7	Drop to 0V	Dimming output drops to 0 volts (e.g. below a connected driver's electronic off level). Relay remains closed.

FUNCTION #6 HIGH TRIM

The voltage of the dimming output at the full bright level (step).

SETTING #	VALUES		NOTES
2	10 VDC (100%) *	*default	Exact light output % at each voltage level depends on driver/ballast and luminaire.
3	9 VDC (90%)		
4	8 VDC (80%)		
5	7 VDC (70%)		
6	6 VDC (60%)		
7	5 VDC (50%)		

FUNCTION #7 LOW TRIM

The voltage to which the dimming output will drop when the unit is in the off state. This setting is only active when the unit's **Turn Off Scheme** is set to Dim to Low Trim.

SETTING #	VALUES		NOTES
2	0 VDC		Exact light output % at each voltage level depends on driver/ballast and luminaire.
3	1 VDC (10%)		
4	2 VDC (20%)		
5	3 VDC (30%)*	*default	
6	4 VDC (40%)		
7	5 VDC (50%)		

FUNCTION #9 FADE OFF TIME

SETTING #	VALUES	NOTES
2	0.75 Sec	
3	1.5 Sec*	*default
4	3 Sec	
5	5 Sec	
6	15 Sec	

FUNCTION #10 FADE ON TIME

SETTING #	VALUES	NOTES
2	0.75 Sec	
3	1.5 Sec*	*default
4	3 Sec	
5	5 Sec	
6	15 Sec	

CHANGING A DETAILED DIMMING CONFIGURATION SETTING

1. From the below tables of detailed dimming functions, note the number (#) of the function to be modified. For example, the **TURN ON /PARTIAL ON LEVEL** function is #4.
2. To enter programming mode, press and release the unit's button the number of times of the chosen function. For example, press the button 4 times to access the **TURN ON /PARTIAL ON LEVEL**.
3. The LED will flash back the setting number of the current value as it appears in each function's detailed table below. For example, the default **TURN ON /PARTIAL ON LEVEL** is setting #3, Last User Level). Continue to the next step before the current setting is blinked back 3x).
4. To change the setting number, interrupt the blink back and press and release the button the number of times equal to the new setting #. For example, 3 times (for 3V, ~30%).
5. The LED will flash back the new setting number as confirmation and will be saved after three confirmations. After the third confirmation sequence, a successful save is indicated by a two sets of rapid White flashes. If the Blue LED rapid flashes twice, save was unsuccessful and process should be started over.

CONFIGURATION SETTINGS (CONT.)

DETAILED FUNCTION TABLES FOR HYBRID (-AX) MODELS

FUNCTION #11: AUXILIARY INPUT WIRE MODE

On hybrid power packs (i.e. **-AX** option models) the functionality of the brown low voltage input wire is configurable between the below functionality.

SETTING #	MODE	DESCRIPTION
3	Switch Input (0.5 second maximum pulse)	For momentary switches, the power pack will toggle on the leading edge of a pulse on the brown input wire. For maintained switches, any change of state on the brown wire that lasts longer than the respective setting's maximum pulse length will be read as one toggle action.
4	Switch Input (1.0 second maximum pulse)	
5	Switch Input (2.0 second maximum pulse)	
6	Override On / Logic High	Lights are held on at Function 6, **HIGH TRIM LEVEL** and occupancy is ignored when auxiliary switch input wire is logic high (5-24VDC).
7	Override On / Logic Low	Lights are held on at Function 6, **HIGH TRIM LEVEL** and occupancy is ignored when auxiliary switch input wire is logic low (< 5VDC).
8	Override Off / Logic High	Lights are switched off (according to Function #5, **TURN OFF SCHEME**) and occupancy is ignored when auxiliary switch input wire is logic high (5-24VDC).
9	Override Off / Logic Low	Lights are switched off (according to Function #5, **TURN OFF SCHEME**) and occupancy is ignored when auxiliary switch input wire is logic low (< 5VDC).

FCC INFORMATION (FCC ID: 2AVRY-SWX0003)

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-SWX0003)

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

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Five-Year Limited Warranty.
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