



Intelligent Lighting Controls

POWER PACK

LINE VOLTAGE

OVERVIEW

Intelligent Lighting Controls power packs transform incoming line voltage power to Class 2 low voltage as needed by sensor(s) or other control device(s). Additionally, they switch on/off power to the connected lighting load as directed by the sensors and controls. **ILC** power packs utilize a powerful microprocessor to optimize its switching timing in order to ensure long relay life even when controlling high-inrush LEDs and ballast loads. As with all **ILC** 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 **ILC** products are proudly made in the USA.

BASIC OPERATION

An input signal indicating occupancy from one or more connected sensors will signal the pack's integrated relay to close. Once closed, line voltage will flow through the relay and turn on the connected lighting load. When the input signal indicates the occupied period has ended, the relay will open and lighting will switch off. This pack is also available with an auxiliary switch input to enable manual on, hold on, and hold off configurations.

FEATURES

- Powers Low Voltage Sensors
- Switches Line Voltage Loads
- Electronically Timed Switching Ensures Long Relay Life
- Integrated Test/Programming Button
- Optional Snap-On Attachment Provides Chamber for Low Voltage Wire Connections
- Optional Switch Input for Manual On, Hold On, or Hold Off Operation
- Plenum Rated (UL 2043)

SPECIFICATIONS

ELECTRICAL

OPERATING VOLTAGE
120/277 VAC

CLASS 2 OUTPUT RATINGS
18 VDC, 150 mA

RELAY CURRENT REQS
40 mA

LOAD RATINGS
20A @ 120 V -
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)

MOTOR LOAD
1 HP

ENVIRONMENTAL

OPERATING TEMP
-10°F to 122°F (14°C to 50°C)

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

ROHS COMPLIANT

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

OTHER

LISTINGS
UL/CUL



ORDERING INFO

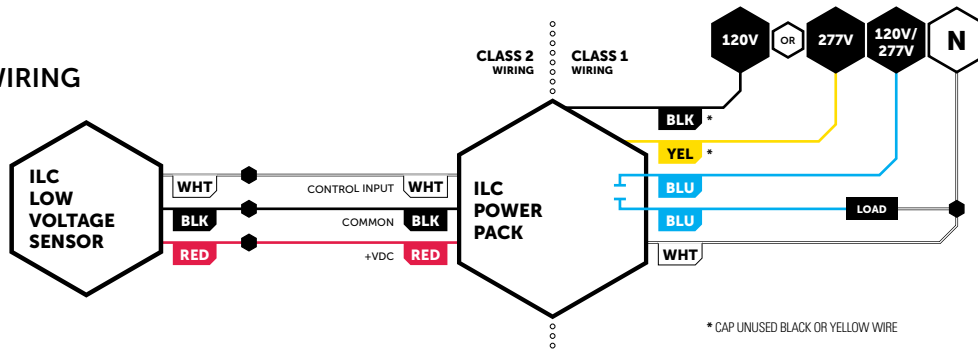
SAMPLE MODEL # ILC-SWX-900-AX

PRODUCT	FUNCTIONALITY	VOLTAGE	AUX SWITCH INPUT
ILC-SWX	Power Pack	9	0
	Single Relay + 150 mA Supply	0	None
	Secondary Relay	1	Auxiliary Switch Input
	150 mA Supply	2	Blank AX

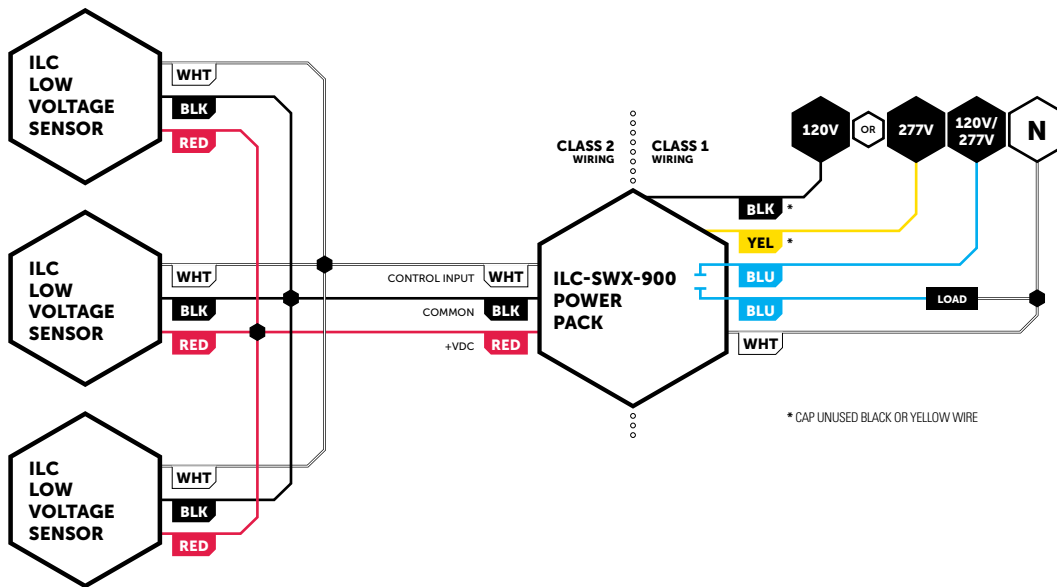
ACCESSORY	DESCRIPTION
ILC-SWX-999	Snap-On Low Voltage Wiring Chamber

WIRING

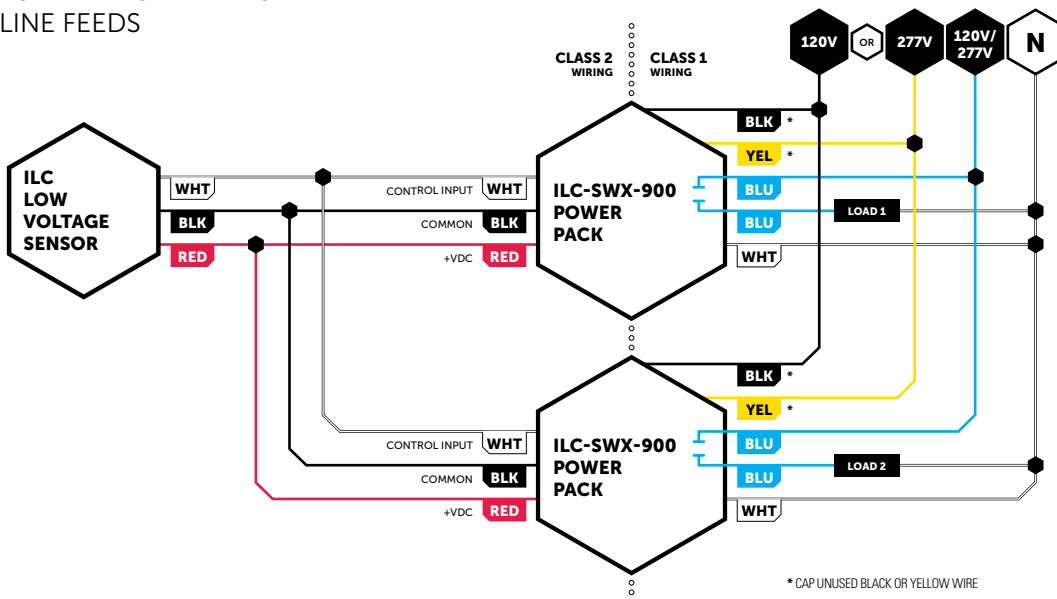
STANDARD WIRING



MULTIPLE SENSOR WIRING

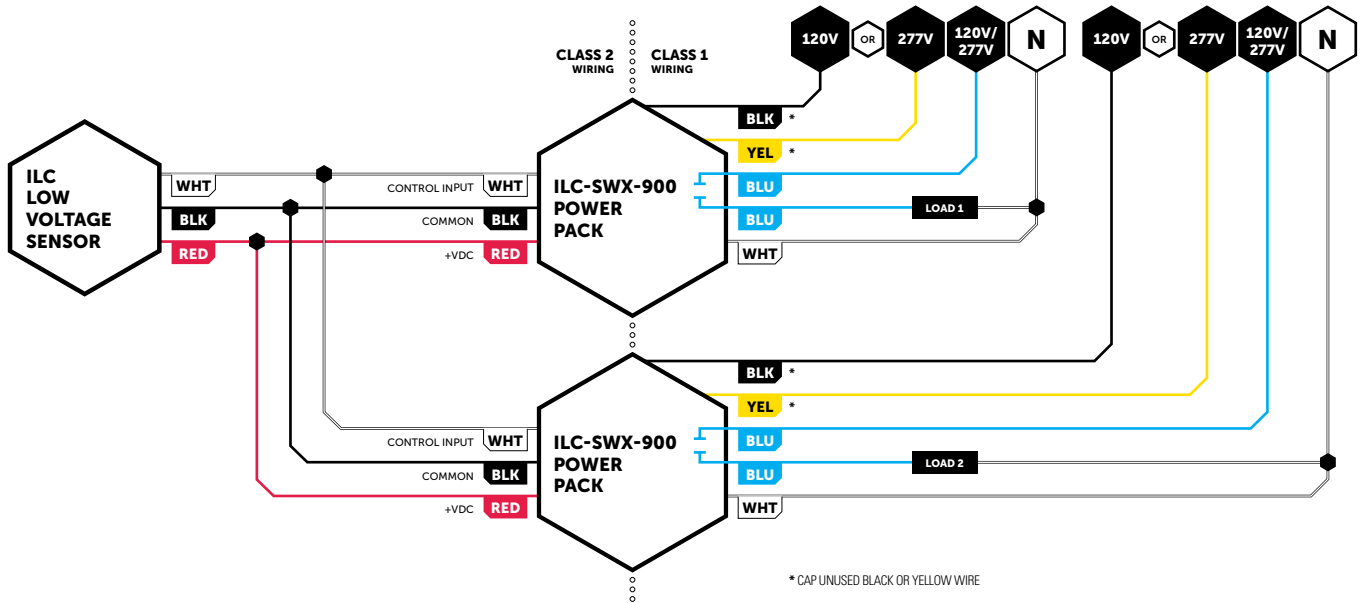


MULTIPLE POWER PACK WIRING COMMON LINE FEEDS

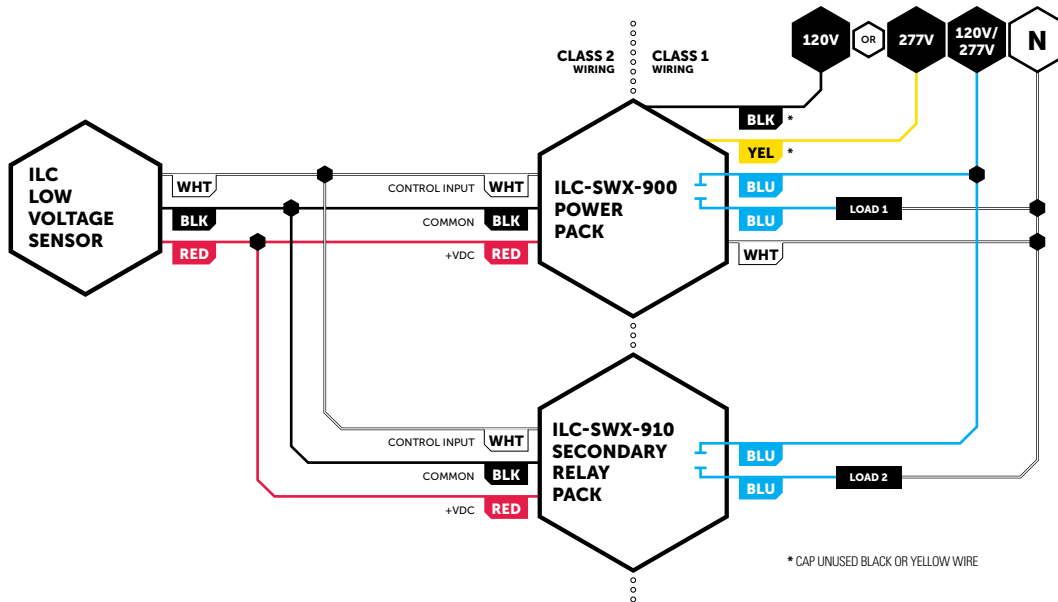


WIRING CONT.

MULTIPLE POWER PACK WIRING SEPARATE LINE FEEDS



POWER PACK w/ SECONDARY RELAY PACK WIRING

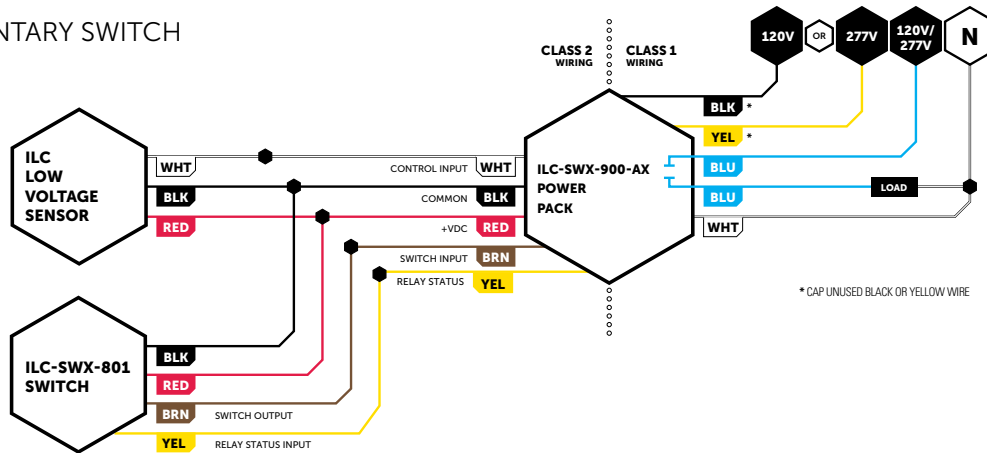


WIRING CONT.

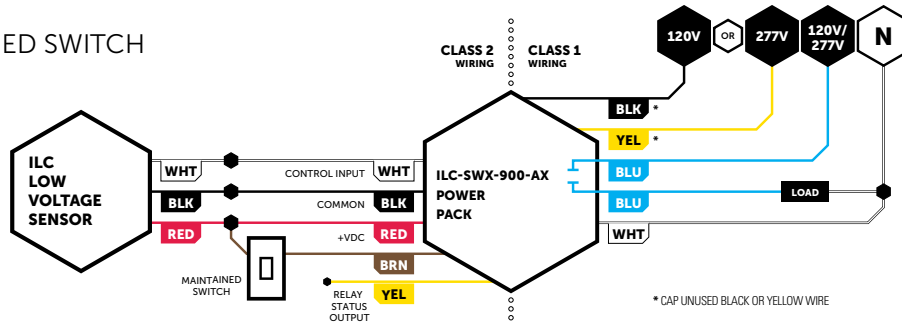
POWER PACK CONNECTED TO SWITCH (requires -AX option)

- Some energy codes require Manual On (also called Vacancy) operation where an occupant is required to initially switch on lighting. The sensor then ensures lights are turned off once the space is unoccupied
- Interfacing momentary switches such as the ILC-SWX-801-xx or ILC-SWX-803-xx are recommended, however maintained switches can also be utilized
- For momentary switches, the power pack will react 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 0.5 seconds will be read by the power pack as one action

MOMENTARY SWITCH

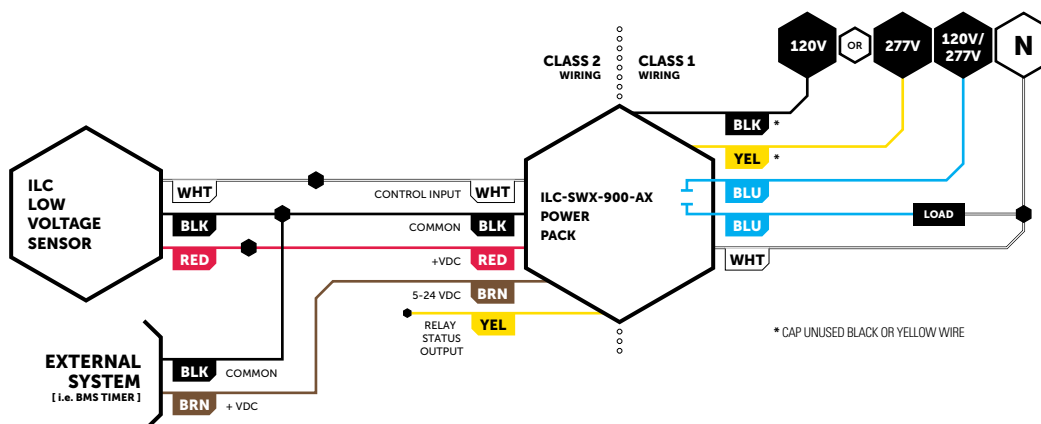


MAINTAINED SWITCH



POWER PACK w/ SWITCH SIGNAL FROM EXTERNAL SYSTEM

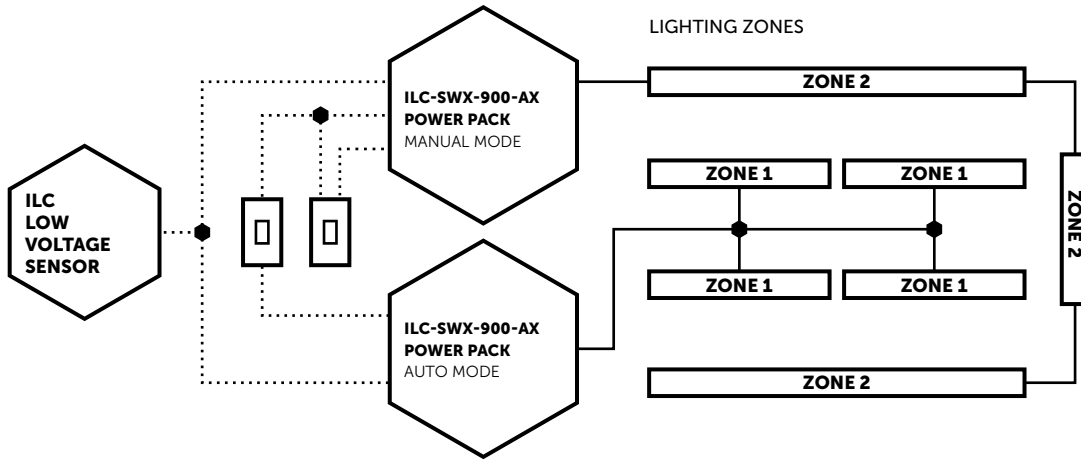
- Typical for Hold On and Hold Off applications
- BROWN switch input can be activated by external signals +5VDC or higher (i.e. logic high)
- For hold on and hold off applications, switch input can also be configured to activate on logic low



APPLICATION NOTES

MULTI-ZONE AND BI-LEVEL SWITCHING

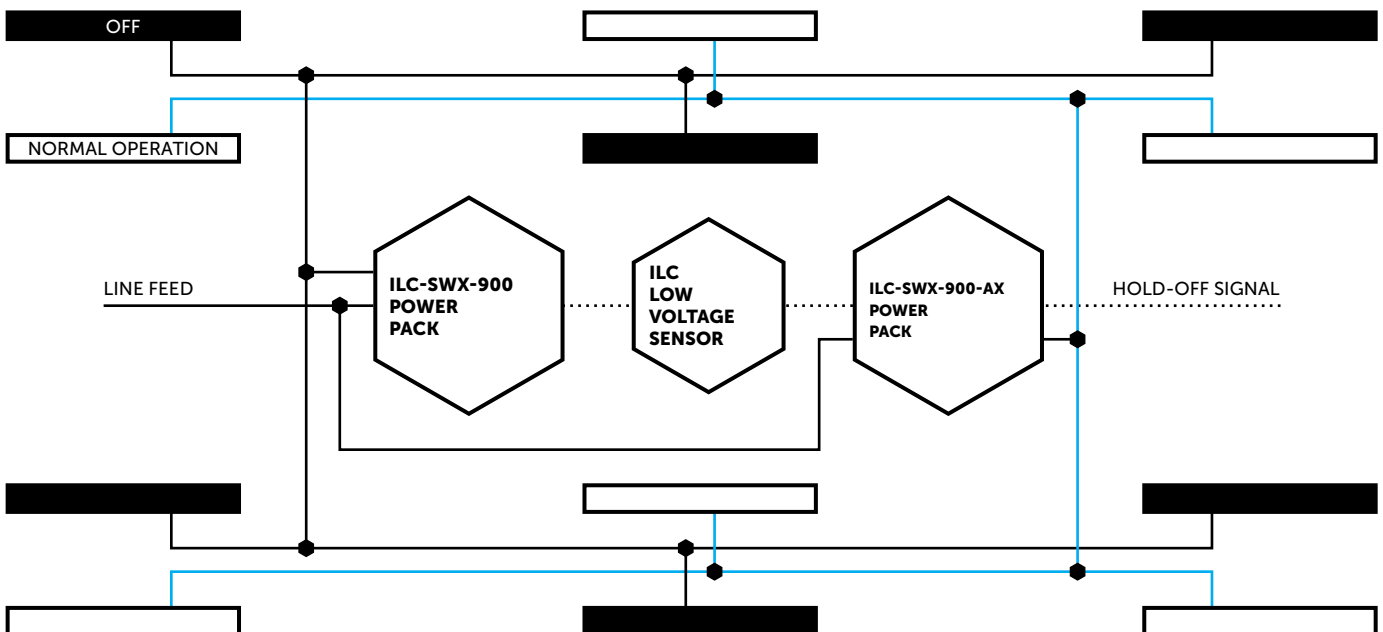
Rooms with multiple lighting zones or bi-level lighting often want one zone/level to switch on automatically, with the occupant able to manually switch on the additional zone/level if desired. Both zones/levels are then switched off automatically by the sensor once unoccupied. Two **ILC-SWX-900-AX** power packs are wired to switches, however one unit is set to Automatic On mode while the other is set to Manual On mode. In this configuration, lighting can be switched off manually or automatically via the occupancy sensor.



LOAD SHED / HOLD OFF APPLICATION (e.g. OPEN OFFICES)

The occupancy sensor connected to both power packs normally keeps all lights on when the space is occupied. When a load shed (override off) command is given (by BMS, utility meter, etc.), lights connected to **ILC-SWX-900-AX** are held off. Remaining lights connected to **ILC-SWX-900** are still controlled by the sensor.

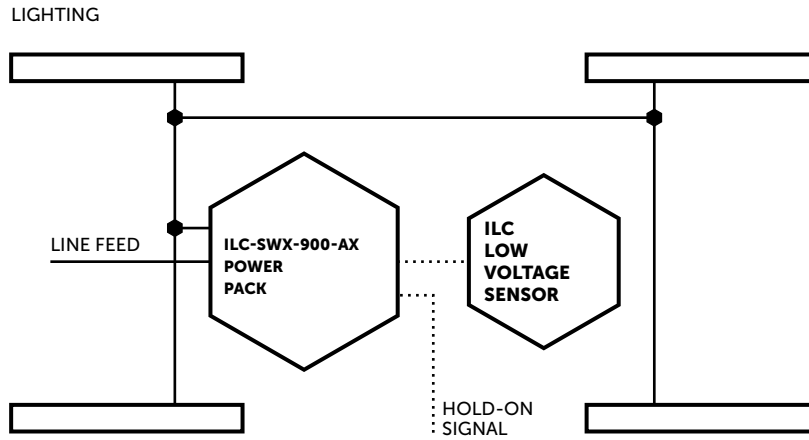
LIGHTING



APPLICATION NOTES CONT.

SENSOR OVERRIDE / HOLD ON APPLICATION (e.g. RETAIL)

During open hours, a signal from a time clock (connected to the BROWN switch input on the **ILC-SWX-900-AX**) holds lights on, regardless of occupancy. After hours, the clock's schedule releases the hold on signal enabling the occupancy sensor to take over.



POWER PACK CAPACITY

ILC-SWX-900 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 **ILC-SWX-900's** relay has already been factored into the formula.

$$[(\# \text{ of PIR SENSORS}) \times 2] + [(\# \text{ of DUAL TECH SENSORS}) \times 10] + [(\# \text{ of ILC-SWX-910}) \times 55] < [(\# \text{ of ILC-SWX-900}) \times 95]$$

PIR SENSORS		+	DUAL TECH SENSORS		+	SECONDARY PACKS SWX-910		=	TOTAL POWER REQUIRED	<	POWER SUPPLIED BY ONE SWX-900
#	POWER REQUIRED		#	POWER REQUIRED		#	POWER REQUIRED				
15	30mA	+	0	0	+	0	0	=	30mA	<	95mA
15	30mA	+	0	0	+	1	55mA	=	85mA	<	95mA
0	0	+	9	90mA	+	0	0	=	90mA	<	95mA
7	14mA	+	8	80mA	+	0	0	=	94mA	<	95mA

INSTALLATION OPTIONS

