INSTALLATION AND MAINTENANCE INSTRUCTIONS

SPECTRAlert®
ADVANCE
from System Sensor

SYSTEM SENSOR®

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Dual Strobe and Dual Strobe with Speaker Expander Plates for Emergency Communications

SEP-SW, SEP-SW-P – Strobe Expander Plate model and SEP-BBSW Back Box Skirt model is compatible with: SW, SWH, SW-P, SWH-P, SWA, SWHA, SWA-P, SWHA-P
SEP-SPSW, SEP-SPSW-P – Speaker Strobe Expander Plate and SPSEP-BBSW Back Box Skirt model is compatible with: SPSW, SPSWH, SPSW-P, SPSWV, SPSWV-P, SPSWH-P
ULC only applies to SEP-SW and SEP-SPSW

SIGNALING
(UL) LISTED   (UL) LISTED

PRODUCT SPECIFICATIONS

Operating Temperature:	Standard Products	32°F to 120°F (0°C to 49°C)
Humidity Range:	Standard Products	10 to 93% Non-condensing
Strobe Flash Rate:		1 flash per second
Nominal Voltage:		Regulated 12VDC/FWR or regulated 24DC/FWR
Operating Voltage Range (includes fire alarm panels with built in sync):		8 to 17.5V (12V nominal) or 16 to 33V (24V nominal)
Operating Voltage with MDL3 Sync Module:		8.5 to 17.5V (12V nominal) or 16.5 to 33V (24V nominal)
Input terminal wire gauge:		12 to 18 AWG

NOTE : Strobes will operate at 12 V nominal for 15 & 15/75 candela settings only. Switching between ranges is automatic.

SEP-SPSW:	Speaker Strobe Expander Plate, Amber Lens, Standard Candela, White, ALERT
SEP-SPSW-P:	Speaker Strobe Expander Plate, Standard Candela, White, Plain
SEP-SW:	Strobe Expander Plate, Amber Lens, Standard Candela, White, ALERT
SEP-SW-P	Strobe Expander Plate, Standard Candela, White, Plain
SPSEP-BBSW:	Speaker Strobe Expander Plate Back Box Skirt, White
SEP-BBSW:	Strobe Expander Plate Back Box Skirt, White

DIMENSIONS FOR PRODUCTS AND ACCESSORIES

SEP-SW (-P) & SEP-SPSW (-P)			SPSEP-BBSW & SEP-BBSW		
Length	Width	Depth	Length	Width	Depth
9.6″ 245mm	5.1″ 130 mm	3.7″ 94mm	10.1″ 257mm	5.6″ 142mm	2.5″ 64mm

MOUNTING BOX OPTIONS

SEP-SW (-P)	SEP-SPSW (-P)	SPSEP-BBSW & SEP-BBSW
4″ x 4″ x 1½″ Single Gang, Double Gang, 4″ Octagon	4″ x 4″ x 2⅛″ or deeper	4″ x 4″ x 2⅛″

WARNING: Amber lens versions not to be used as a visual public mode alarm notification appliance.
NOTICE: This manual shall be left with the owner/user of this equipment.

GENERAL DESCRIPTION

The SpectrAlert Advance Dual Strobe and Dual Strobe with Speaker Expander Plates for emergency communications use a single device plate to perform the functions of two to three devices on a back box. This combination of multiple devices on a single plate and back box lowers the overall cost of the installation and improves aesthetics by requiring fewer devices on the wall.

The expander plate provides fast and easy installation – first, mount the plate to a junction box and connect the field wiring to the terminals. Then, hinge and attach the strobe or speaker strobe device with a captured mounting screw to complete the installation. This product is comparable to existing SpectrAlert Advance mounting plate installations.

Dual Strobe and Dual Strobe with Speaker Expander Plates are designed to be used in 12 or 24 volt, DC or FWR (full wave rectified) systems. Clear lens version is listed to UL 1971 Listed and CAN/ULC S526-07 (Signaling Device for Hearing Impaired) for Public Mode Evacuation Signaling. Amber lens strobes are UL1638 Listed (Visual Signaling Appliances) for Private Mode General Utility Signaling. All SpectrAlert Advance products are suitable for use in synchronized systems. The System Sensor MDL3 module may be used to provide synchronization.

The Dual Strobe and Dual Strobe with Speaker Expander Plates are designed for use on wall and ceiling applications.

NOTE: For ceiling mount applications the clear and colored lens strobe meets UL 1638 light requirements, however the device will not meet all of UL1971 polar plot light requirements.

LOOP DESIGN AND WIRING

The system designer must make sure that the total current drawn by the devices on the loop does not exceed the current capability of the panel supply, and that the last device on the circuit is operated within its rated voltage. The current draw information for making these calculations can be found in the tables within this manual. For convenience and accuracy, use the voltage drop calculator on the System Sensor website (www.systemsensor.com). See Figures 1-4 for wiring diagrams and shorting spring information.
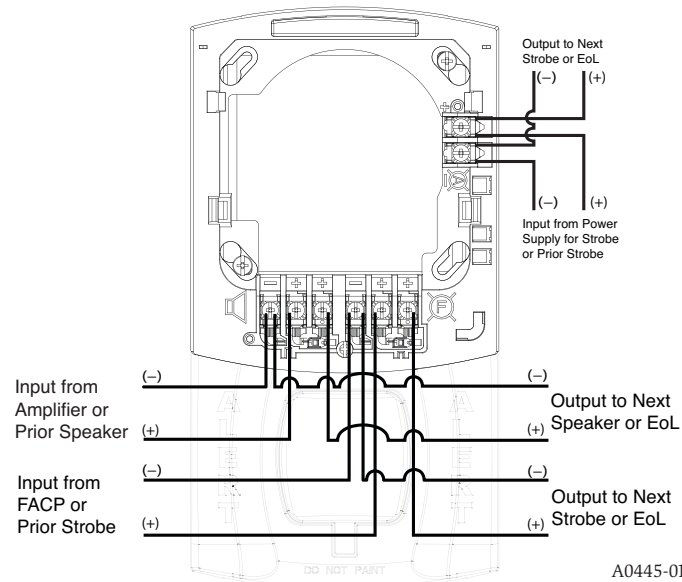
When calculating the voltage available to the last device, it is necessary to consider the voltage drop due to the resistance of the wire. The thicker the wire, the smaller the voltage drop. Wire resistance tables can be obtained from electrical handbooks. Note that if Class A wiring is installed, the wire length may be up to twice as long as it would be for circuits that are not fault tolerant.

CANDELA SELECTION

Adjust the slide switch on the rear of the product to position the desired candela setting in the small window on the front of the unit. All products meet the light output profiles specified in the appropriate UL Standards. For amber lensed strobes used for full profile measurement, listed candela ratings must be reduced in accordance with Table 2. Use **Table 1** to determine the current draw for each candela setting.

NOTE: SpectrAlert Advance products set at 15 and 15/75 candela work on either 12V or 24V power supplies. The products are not listed for 12V operating voltages when set to any other candela settings.

FIGURE 1. WIRING SEP-SPSW (-P) SPEAKER STROBE EXPANDER PLATE, STANDARD CANDELA, WHITE:

Output to Next Strobe or EoL (−) (+)

Input from Power Supply for Strobe or Prior Strobe (−) (+)

Input from Amplifier or Prior Speaker (−) (+)

Output to Next Speaker or EoL (−) (+)

Input from FACP or Prior Strobe (−) (+)

Output to Next Strobe or EoL (−) (+)

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NOTE: The total number of strobes on a single NAC must not exceed 40 for 24 volt applications or 12 for 12 volt applications. Loop resistance on a single NAC should not exceed 120 ohms for 24 volt and 30 ohms for 12 volt systems.

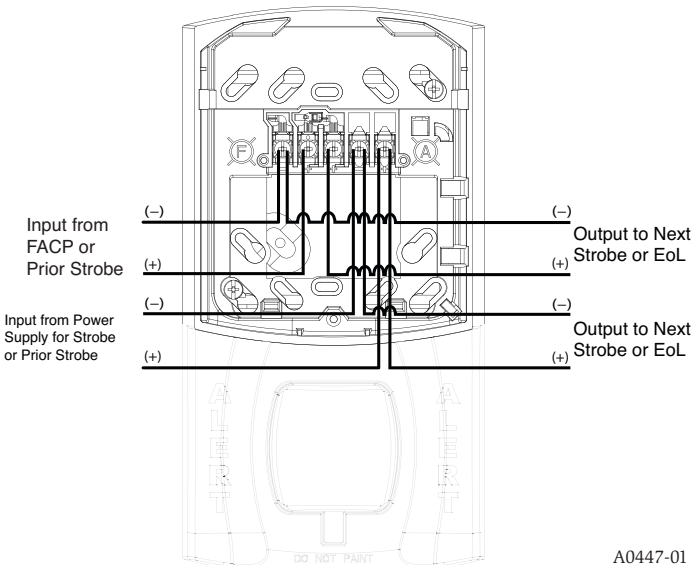**FIGURE 2. SHORTING SPRING ON SEP-SPSW (-P) SPEAKER STROBE EXPANDER PLATE, STANDARD CANDELA, WHITE:**
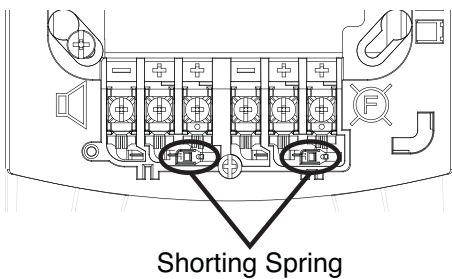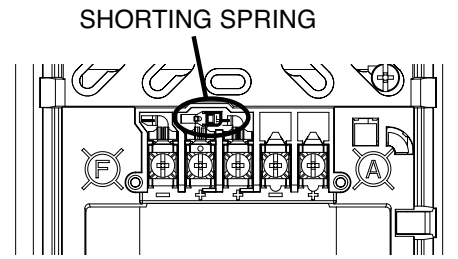

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Shorting Spring

NOTE: Shorting springs are provided between terminals 2 and 3 and terminals 5 and 6 of the mounting plate to enable wiring checks after the system has been wired, but prior to installation of the final product. These springs will automatically disengage when the product is installed, to enable supervision of the final system.

FIGURE 3. WIRING THE SEP-SW (-P): STROBE EXPANDER PLATE, STANDARD CANDELA, WHITE:

Input from FACP or Prior Strobe (−) (+)

Output to Next Strobe or EoL (−) (+)

Input from Power Supply for Strobe or Prior Strobe (−) (+)

Output to Next Strobe or EoL (−) (+)

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FIGURE 4. SHORTING SPRING ON SEP-SW (-P) STROBE EXPANDER PLATE, STANDARD CANDELA, WHITE:

SHORTING SPRING

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NOTE: A shorting spring is provided between terminals 2 and 3 of the mounting plate to enable wiring checks after the system has been wired, but prior to installation of the final product. This spring will automatically disengage when the product is installed, to enable supervision of the final system.

TABLE 1.
STROBE CURRENT DRAW (mA) FOR SEP-SW (-P), SEP-SPSW (-P):

	Candela	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205

TABLE 2: CANDELA DERATING FOR SEP-SW AND SEP-SPSW AMBER LENS STROBE

Cd Switch Setting	On-Axis Rating (UL 1638 CAN/ULC S526)	Equivalent Cd Rating for Wall profile (UL 1971)
15	15	12
15/75	15/75	15/75
30	30	24
75	75	60
95	95	75
110	110	85
115	115	90

NOTE: UL1971 is not applicable to mass notification devices, but these readings were obtained using the measurement procedure specified under UL1971.

IMPORTANT: For more information on current draw, light output and sound output data, reference Speaker Strobe installation manual I56-3935 (I56-5250 for Canada) and Strobe only installation manual I56-2769 (I56-2909 for Canada).
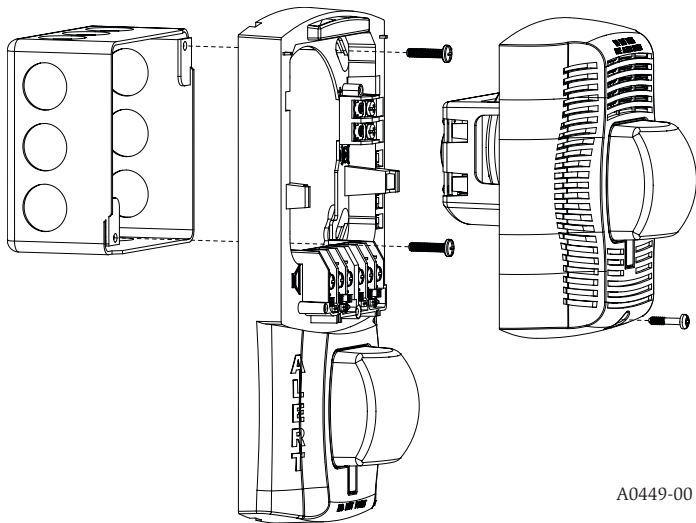
MOUNTING THE SEP-SPSW (-P) SPEAKER STROBE EXPANDER PLATE

1. Attach the speaker strobe expander plate to the junction box as shown in Figure 5. The speaker strobe expander plate is compatible with a 4″ x 4″ x 2$\frac{1}{8}$″ junction box. If using a back box skirt, attach the speaker strobe expander plate to the back box skirt and then attach the entire assembly to the junction box (see figure 6).

2. Connect the field wiring to the terminals, as shown in Figure 1.

3. If the speaker strobe device is not to be installed at this point, use the paint cover to prevent contamination of the speaker strobe expander plate.

4. To attach the speaker strobe device to the speaker strobe expander plate, remove the paint cover, then hook the tabs on the product housing into the grooves on the strobe plate.

5. Swing the speaker strobe device into position to engage the pins on the device with the terminals on the speaker strobe expander plate. Make sure that the tabs on the back of the device housing fully engage with the expander plate.

6. Secure the speaker strobe device by tightening the single mounting screw in the front of the speaker strobe housing. For tamper resistance, the standard captive mounting screw may be replaced with the enclosed Torx screw.

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MOUNTING THE SEP-SW (-P) STROBE EXPANDER PLATE

1. Attach strobe expander plate to junction box as shown in Figure 7. The strobe expander plate is compatible with 4-inch square, double gang, single gang and 4-inch octagonal junction boxes. If using a back box skirt, attach the strobe expander plate to the skirt and then attach the entire assembly to the junction box (see Figure 8). The back box skirt is only compatible with a 4″x4″x2$\frac{1}{8}$″ junction box.

2. Connect field wiring to terminals, as shown in Figure 3.

3. If the strobe device is not to be installed at this point, use position the paint cover onto the mounting plate to prevent contamination of the field wiring terminals.

4. To attach strobe device to the strobe expander plate, remove the paint cover, then hook tabs on the product housing into the grooves on strobe expander plate.

5. Swing the strobe device into position to engage the pins on the device with the terminals on the strobe expander plate. Make sure that the tabs on the back of the product housing fully engage with the strobe expander plate.

6. Secure the device by tightening the single mounting screw in the front of the device housing. For tamper resistance, the standard captive mounting screw may be replaced with the enclosed Torx screw.
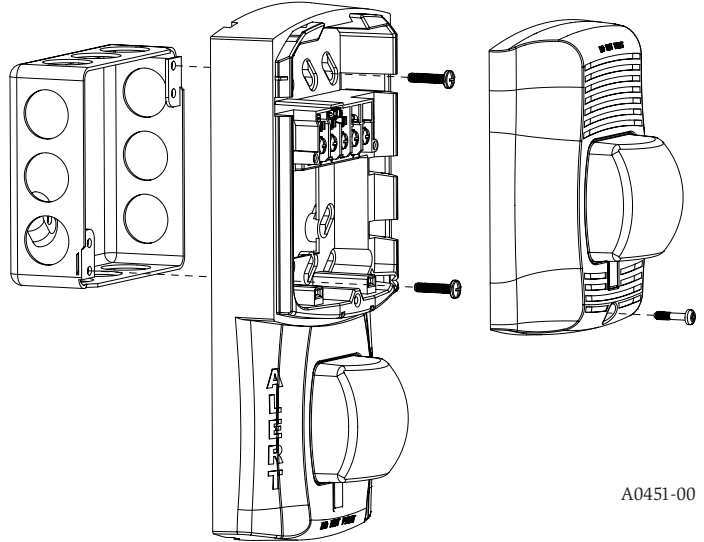
FIGURE 5. SEP-SPSW (-P) SPEAKER STROBE EXPANDER PLATE FOR FLUSH MOUNT APPLICATIONS:
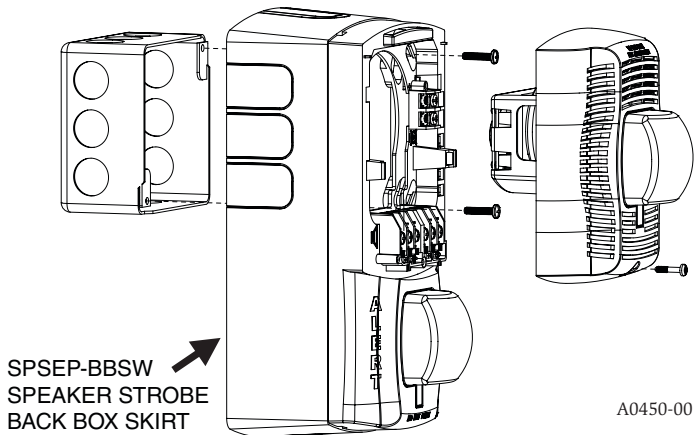

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Note: SEP-SPSW shown

FIGURE 6. SEP-SPSW (-P) SPEAKER STROBE EXPANDER PLATE FOR SURFACE MOUNT APPLICATIONS:

SPSEP-BBSW SPEAKER STROBE BACK BOX SKIRT

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Note: SEP-SPSW shown

FIGURE 7: SEP-SW (-P) STROBE EXPANDER PLATE FOR FLUSH MOUNT APPLICATIONS:

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Note: SEP-SW shown

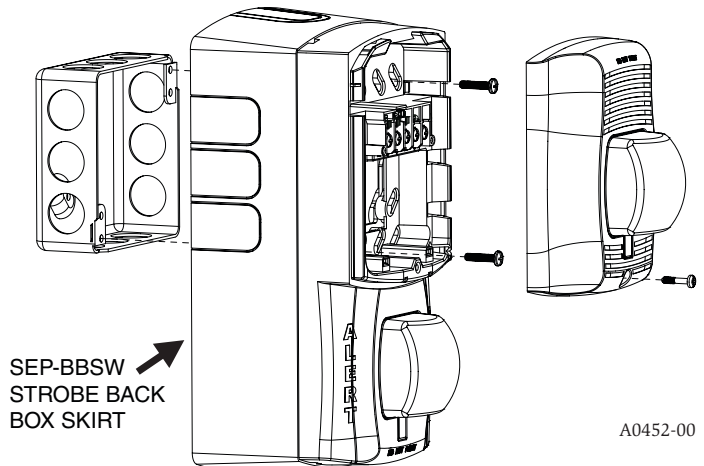**FIGURE 8. SEP-SW (-P) STROBE EXPANDER PLATE FOR SURFACE MOUNT APPLICATIONS:**

SEP-BBSW STROBE BACK BOX SKIRT

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Note: SEP-SW shown

Please refer to insert for the Limitations of Fire Alarm Systems

⚠WARNING

THE LIMITATIONS OF STROBE AND SPEAKER STROBE EXPANDER PLATE

The horn and/or strobe will not work without power. The horn/strobe gets its power from the fire/security panel monitoring the alarm system. If power is cut off for any reason, the horn/strobe will not provide the desired audio or visual warning.

The horn may not be heard. The loudness of the horn meets (or exceeds) current Underwriters Laboratories' standards. However, the horn may not alert a sound sleeper or one who has recently used drugs or has been drinking alcoholic beverages. The horn may not be heard if it is placed on a different floor from the person in hazard or if placed too far away to be heard over the ambient noise such as traffic, air conditioners, machinery or music appliances that may prevent alert persons from hearing the alarm. The horn may not be heard by persons who are hearing impaired.

NOTE: Strobes must be powered continuously for horn operation.

The signal strobe may not be seen. The electronic visual warning signal uses an extremely reliable xenon flash tube. It flashes at least once every second. The strobe must not be installed in direct sunlight or areas of high light intensity (over 60 foot candles) where the visual flash might be disregarded or not seen. The strobe may not be seen by the visually impaired.

The signal strobe may cause seizures. Individuals who have positive photoic response to visual stimuli with seizures, such as persons with epilepsy, should avoid prolonged exposure to environments in which strobe signals, including this strobe, are activated.

The signal strobe cannot operate from coded power supplies. Coded power supplies produce interrupted power. The strobe must have an uninterrupted source of power in order to operate correctly. System Sensor recommends that the horn and signal strobe always be used in combination so that the risks from any of the above limitations are minimized.

THREE-YEAR LIMITED WARRANTY

System Sensor warrants its enclosed product to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this product. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the replacement of any part of the product which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: Honeywell, 12220 Rojas Drive, Suite 700, El Paso TX 79936, USA for US returns and 6581 Kitimat Road, Unit 6 Mississauga, ON L5N 3T5 for Canadian returns. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FCC STATEMENT

SpectrAlert Strobes and Horn/Strobes have 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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. This Class B digital apparatus complies with Canadian ICES-003.

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