SYSTEM SENSOR®
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800/736-7672, FAX: 630/377-6495
www.systemsensor.com

Selectable Output Amber Lens Alert Strobe – Wall Mount

For use with the following model:
Standard Wall Mount Alert Strobe: SWL-ALERT

PRODUCT SPECIFICATIONS

Standard Operating Temperature:	32°F to 120°F (0°C to 49°C)
Humidity Range:	10 to 93% Non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage:	Regulated 12VDC or regulated 24DC/FWR
Operating Voltage Range:	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

DIMENSIONS FOR PRODUCTS AND ACCESSORIES

WALL PRODUCTS	Length	Width	Depth
Strobe	5.6" (143mm)	4.7" (119mm)	1.25" (32mm)
Strobe with SBBRL/WL Surface Mount Back Box	5.9" (149 mm)	4.9" (125 mm)	1.85" (47 mm)
NOTE: SBBRL/WL Surface Mount Back Box intended only for standard horn strobes, chime strobes and strobes.			

MOUNTING BOX OPTIONS

2-Wire Indoor Products
4" x 4" x 1½", Single Gang, Double Gang, 4" Octagon, SBBRL/WL (wall)

NOTICE: This manual shall be left with the owner/user of this equipment.

BEFORE INSTALLING

Please read the System Sensor Audible Visible Application Reference Guide, which provides detailed information on notification devices, wiring and special applications. Copies of this manual are available from System Sensor. NFPA 72 and NEMA guidelines should be observed.

Important: The notification appliance used must be tested and maintained following NFPA 72 requirements.

GENERAL DESCRIPTION

System Sensor series of notification appliances offer a wide range of audible and visible devices for life safety notification. Our 2-wire strobes come with 7 field selectable candela settings. Intended for indoor applications and approved for wall mount installations only.

2-wire amber ALERT strobes are private mode notification appliances intended to alert trained personnel to investigate a life safety event. The 2-wire strobe is listed to ANSI/UL 1638 (Private mode).

System Sensor notification appliances are designed to be used in 12 VDC, 24VDC, or 24V FWR (full wave rectified) systems. System Sensor AV devices can be activated by a compatible fire alarm control panel or power supply. Refer to the appropriate fire alarm control panel manufacturer or power supply for more information.

System Sensor wall 2-wire strobes are electrically backward compatible with the previous generation, since 1996, of notification appliances. They come enabled with System Sensor synchronization protocol which requires connections to a power supply capable of generating the System Sensor synchronization pulses, a FACP NAC output configured to System Sensor synchronization protocol, or the use of MDL3 module to generate the synchronization protocol.

FIRE ALARM SYSTEM CONSIDERATIONS

The National Fire Alarm and Signaling Code, NFPA 72, requires that all notification appliances, used for building evacuation installed after July 1, 1996, produce temporal coded signals. Signals other than those used for evacuation purposes do not have to produce the temporal coded signal. System Sensor recommends spacing notification appliances in compliance with NFPA 72.

SYSTEM DESIGN

The system designer must make sure that the total current draw 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 the manual. For convenience and accuracy, use the voltage drop calculator on the System Sensor website (www.systemsensor.com).

When calculating the voltage available to the last device, it is necessary to consider the voltage 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. The total number of strobes on a single NAC must not exceed 69 for 24 volt applications.

AVAILABLE CANDELA SETTINGS

System Sensor offers a wide range of candela settings for your life safety needs. In order to select your candela output, adjust the slide switch on the rear of the product to the desired candela setting on the selector switch. (See Figure 1.)

The candela setting can also be verified by looking into the small window on the front of the unit. See Table 2 for candela settings for wall products. All products meet the light output profiles specified in the appropriate UL Standards. (See Figures 2 and 3.)

For amber lensed strobes used for full profile measurement, listed candela ratings must be reduced in accordance with Table 1.

TABLE 1. CANDELA DE-RATING BY LENS COLOR

Wall Candela Setting	Private Mode	Emergency Warning
15	15	12
30	30	24
75	75	60
95	95	75
110	110	85
135	135	105
185	185	145

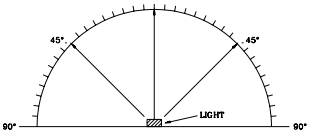
FIGURE 1. CANDELA SELECTOR



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FIGURE 2. LIGHT OUTPUT – HORIZONTAL DISPERSION

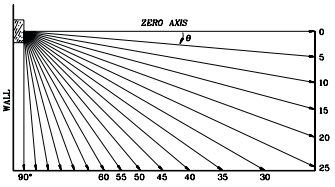
Degrees*	Percent of Rating
0	100
5-25	90
30-45	75
50	55
55	45
60	40
65	35
70	35
75	30
80	30
85	25
90	25
Compound 45 to the left	24
Compound 45 to the right	24



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FIGURE 3. VERTICAL DISPERSION – WALL TO FLOOR

Degrees*	Percent of Rating
0	100
5-30	90
35	65
40	46
45	34
50	27
55	22
60	18
65	16
70	15
75	13
80	12
85	12
90	12



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*Tolerance of ± 1 degree is permitted.

CURRENT DRAWS

For the strobe, the current draw for each setting is listed in Table 2.

TABLE 2. STROBE CURRENT DRAW (mA)

Candela	8-17.5 Volts	16-33 Volts	
	DC	DC	FWR
15	88	43	60
30	143	63	83
75	-	107	136
95	-	121	155
110	-	148	179
135	-	172	209
185	-	222	257

NOTE: Products set at 15 and 30 candela automatically work on either 12V or 24V power supplies. The products are not listed for 12V DC operation when set to any other candela settings.

WIRING AND MOUNTING

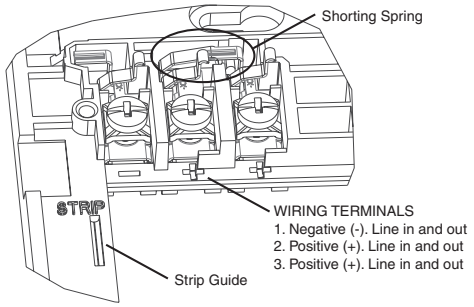
All wiring must be installed in compliance with the National Electric Code and the local codes as well as the authority having jurisdiction. Wiring must not be of such length or wire size which would cause the notification appliance to operate outside of its published specifications. Improper connections can prevent the system from alerting occupants in the event of an emergency.

Wire sizes up to 12 AWG (2.5 mm²) may be used with the mounting plate. The mounting plate ships with the terminals set for 12 AWG wiring.

Make wire connections by stripping about 3/8" of insulation from the end of the wire. Then slide the bare end of the wire under the appropriate clamping plate and tighten the clamping plate screw.

We provide a wire strip guide. See Figure 4 for wiring terminals and strip guide reference.

FIGURE 4. WIRING TERMINALS, SHORTING SPRING, AND STRIP GUIDE

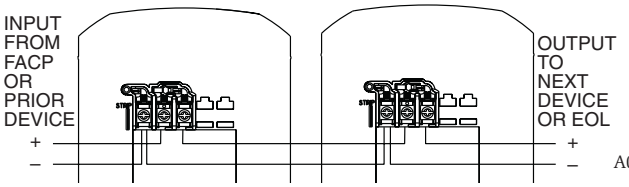


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SYSTEM WIRING

The 2-wire strobe requires two wires for power and supervision. (See Figure 5.) Please consult your FACP manufacturer or power supply manufacturer for specific wiring configurations and special cases.

FIGURE 5. 2-WIRE CIRCUIT



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SHORTING SPRING FEATURE

System Sensor notification appliances come with a shorting spring that is provided between terminals 2 and 3 of the mounting plate to enable system continuity checks after the system has been wired, but prior to installation of the final product. (See Figure 4.) This spring will automatically disengage when the product is installed, to enable supervision of the final system.

MOUNTING

1. Attach mounting plate to junction box. The mounting plate is compatible with 4" square, single gang, double gang, and 4" octagon junction boxes. (See Figure 6.)

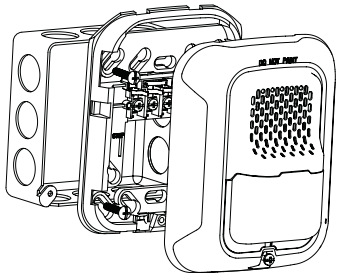
2. Connect field wiring according to terminal designations. (See Figures 4 and 5.)

3. If the product is not to be installed at this point, use the protective dust cover to prevent contamination of the wiring terminals on the mounting plate.

4. To attach product to mounting plate, hook tabs on the top of the product housing into the grooves on mounting plate. Then, hinge the product into position to engage the pins on the product with the terminals on the mounting plate. Make sure that the tabs on the back of the product housing fully engage with the mounting plate.

5. Secure product by tightening the single mounting screw in the front of the product housing.

FIGURE 6. MOUNTING



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⚠CAUTION

Factory finish should not be altered: Do not paint!

⚠CAUTION

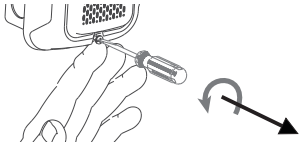
Do not over tighten mounting plate screws; this may cause mounting plate to flex.

TAMPER SCREW

For tamper resistance, the standard captive screw may be replaced with the enclosed Torx screw.

1. To remove the captive screw, back out the screw and apply pressure to the back of the screw until it disengages from the housing. Replace with the supplied Torx screw. (See Figure 7.)

FIGURE 7. TAMPER SCREW



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SURFACE MOUNT BACK BOX MOUNTING

1. The surface mount back box may be secured directly to the wall or ceiling. A grounding bracket with ground screw capability is provided if needed. (See Figure 8.)

2. The wall mount box must be mounted with the up arrow pointing up. (See Figure 9.)

3. Threaded knockout holes are provided for the sides of the box for ½ inch conduit adapter. Knockout holes in the back of the box can be used for ½ inch rear entry.

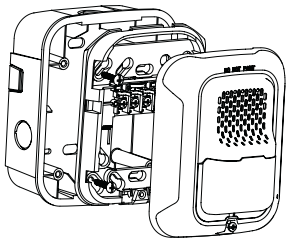
4. To remove the ½ inch knockout, we recommend you use a flat head screwdriver, place the blade of the flat head screwdriver in the inner edge of the knockout. Strike the screwdriver as you work your way around as shown in Figure 10.

NOTE: For ½ in. installation, use caution not to strike the knockout near the top edge of the surface mount back box.

5. V500 and V700 raceway knockouts are also provided. Use V500 for low profile applications and V700 for high profile applications.

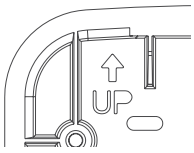
6. To remove the knockout turn pliers up, as shown in Figure 10.

FIGURE 8. SURFACE MOUNT BACK BOX MOUNTING:
SBBRL/SBBWL



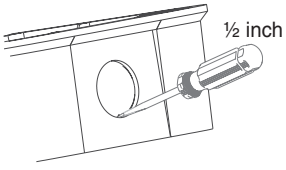
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FIGURE 9. SMBB UP ARROW

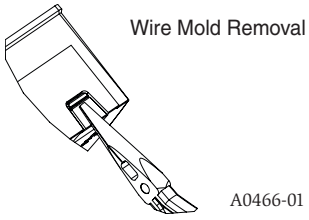


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FFIGURE 10. KNOCKOUT AND V500/V700 REMOVAL FOR SURFACE MOUNT BACK BOX



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NOTE: Use caution not to strike the knockout near the top edge of the wall version of the surface mount back box.

Please refer to insert for the Limitations of Fire Alarm Systems

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. 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

System Sensor Strobes and Horn/Chime 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.

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