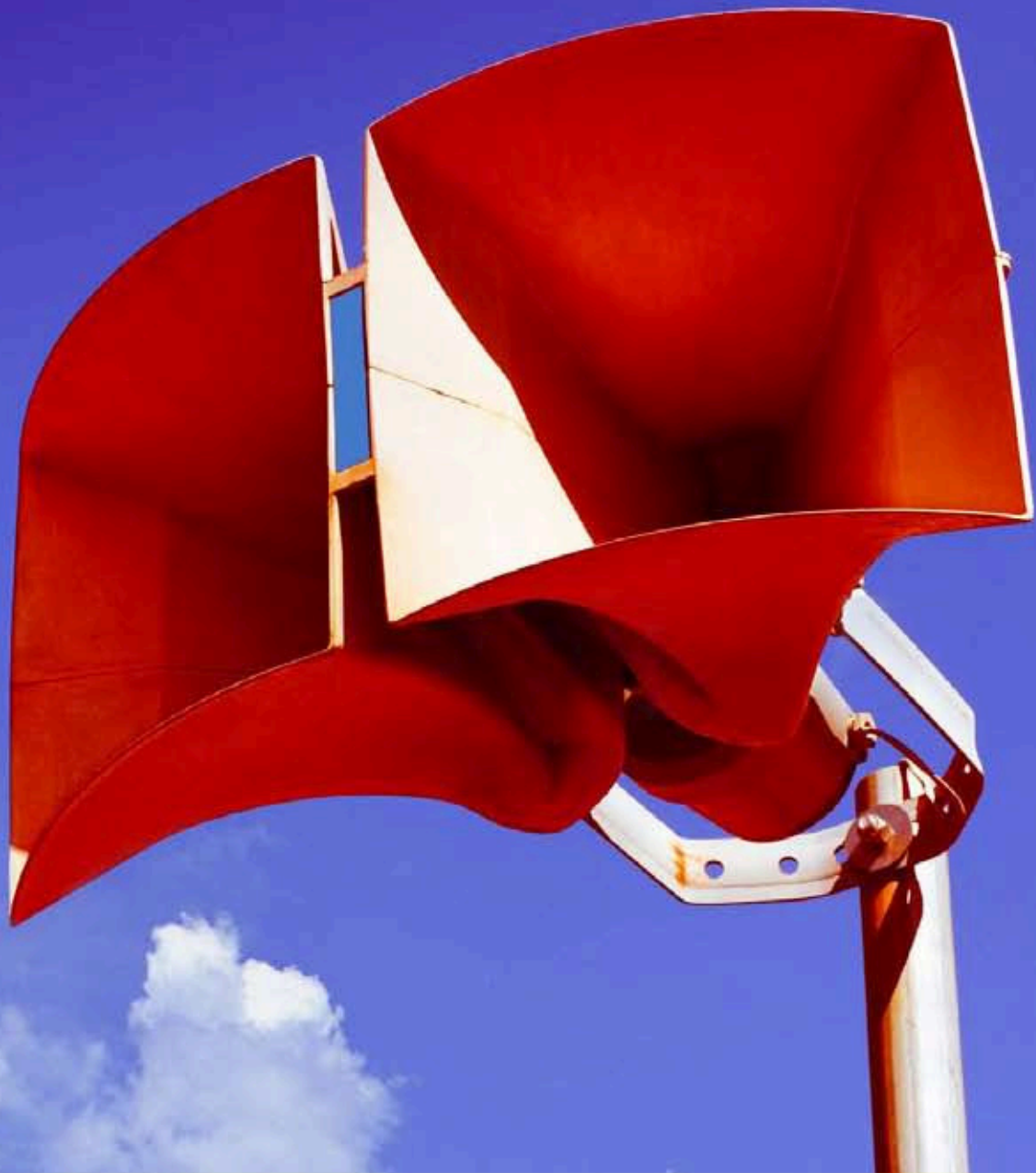


AUDIBLE ALARM DEVICES

For internal and external applications,
Ceiling Loudspeakers, Column Loudspeakers, Cabinet Loudspeakers
and Horn Loudspeakers to get your message across.

 **fire·LITE Alarms**
by Honeywell





SSM/SSV Series Alarm Bells

System Sensor's SSM and SSV series bells are low current, high decibel notification appliances for use in fire and burglary systems or other signaling applications.



Features

- Approved for indoor and outdoor use
- Low current draw
- High dB output
- Available in six-inch, eight-inch, and ten-inch sizes
- AC and DC models
- DC models polarized for use with supervision circuitry
- Mount directly to standard four-inch square electrical box indoors
- SSM and SSV series pre-wired

Reliable Performance. The SSM and SSV series provide loud resonant tones. The SSM series operates on 24VDC and are motor driven, while the SSV series operates on 120VAC utilizing a vibrating mechanism.

Simplified Installation. For indoor use, the SSM and SSV series mount to a standard four-inch square electrical box. For outdoor applications, weatherproof back box, model number WBB, is used.

The SSM and SSV series come pre-wired, to reduce installation time. The SSM series incorporates a polarized electrical design for use with supervision circuitry.

Agency Listings



SSM/SSV Specifications

Architectural/Engineering Specifications

Model shall be a SSM or SSV Series alarm bell. Bells shall have underdome strikers and operating mechanisms. Gongs on said bells shall be no smaller than nominal 6”/8”/10” (specify size) with an operating voltage of 24VDC or 120VAC (specify by part number). Bells shall be suitable for surface or semi-flush mounting. Outdoor surface mounted installations shall be weatherproof (using optional WBB weatherproof electrical box). Otherwise bells shall mount to a standard 4” square electrical box having a maximum projection of 2½”. Bells shall be located as shown on the drawings or as determined by the Authority Having Jurisdiction. Bells shall be listed for indoor/outdoor use by Underwriters Laboratories and the California State Fire Marshal, and approved by Factory Mutual and MEA.

Physical/Operating Specifications

Operating Temperature Range	-31°F to 140°F
Operating Voltage	SSM series: 24 VDC SSV series: 120 VAC
Termination	Provided with 2 sets of leads for in/out wiring
Service Use	Fire Alarm, General Signaling, Burglar Alarm
Warranty	3 years

Electrical Specifications

Model	Gong Diameter (inches)	Nominal Voltage	Operating Voltage Limit	Maximum Current	Sound Output (dBA)
SSM24-6	6	Regulated 24VDC	16 to 33VDC	DC-31.1mA/ FWR-53.5mA	82
SSM24-8	8	Regulated 24VDC	16 to 33VDC	DC-31.1mA/ FWR-53.5mA	80
SSM24-10	10	Regulated 24VDC	16 to 33VDC	DC-31.1mA/ FWR-53.5mA	81
SSV120-6	6	Regulated 120VAC	96 to 132VAC	53mA	85
SSV120-8	8	Regulated 120VAC	96 to 132VAC	53mA	82
SSV120-10	10	Regulated 120VAC	96 to 132VAC	53mA	82

* Sound output measured at Underwriter Laboratories, as specified in UL464

Ordering Information

UL/FM Model No.	ULC/Canadian Model No.	Description
SSM24-6	SSM24-6A	Bell, 6”, 24VDC, Polarized, 82dBA
SSM24-8	SSM24-8A	Bell, 8”, 24VDC, Polarized, 80dBA
SSM24-10	SSM24-10A	Bell, 10”, 24VDC, Polarized, 81dBA
SSV120-6	SSV120-6A	Bell, 6”, 120VAC, 85dBA
SSV120-8	SSV120-8A	Bell, 8”, 120VAC, 82dBA
SSV120-10	SSV120-10A	Bell, 10”, 120VAC, 82dBA
WBB		Weatherproof back box for SSM and SSV series, when installed outdoors



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Phone: 800-SENSOR2 • Fax: 630-377-6495

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Product specifications subject to change without notice. Visit systemsensorm.com for current product information, including the latest version of this data sheet.
A05-0260-008 • 4/07 • #1676

General

System Sensor® SP2 and SP3 Series speakers combine performance, functionality, and flexibility in the latest line of dual-voltage evacuation speakers.

Performance. With its low total harmonic distortion, the SpectrAlert SP2 Series offers fidelity-quality sound output. This performance provides greater assurances that the SP2's output more closely matches the source signal. This fidelity sound quality is achieved at any of the SP2's four field-selectable power taps: 1/4, 1/2, 1, and 2 watts. The SpectrAlert SP3 Series offers greater sound output at every tap setting for applications with high ambient noise levels.

Functionality. Installation ease and functionality are achieved via the speaker's compact design, which allows flush mounting to a 4.0" x 4.0" x 2.125" (10.16 x 10.16 x 5.398 cm) backbox, without the need for an extension ring.

Flexibility. The SP2 and SP3 Series speakers are designed for a variety of application requirements. Offered with round and square grilles, they can be ceiling or wall mounted. White and red grille color options are also available to meet specific aesthetic requirements.

Features

- Fidelity sound quality (SP2).
- Enhanced SPL (SP3).
- 25.0 and 70.7 VRMS dual-voltage settings.
- Four field-selectable power taps.
- No extension ring required.
- Low-profile design.
- Ceiling- and wall-mount applications.
- Grilles available in white and red.
- Color-matched mounting screws.

Engineering Specifications

Speaker shall be a System Sensor Model _____ dual-voltage transformer speaker capable of operating at 25.0 or 70.7 nominal VRMS. Speaker shall be listed to Underwriters Laboratories' Standard 1480 for fire protective signaling systems. Speaker shall have a frequency range of 400 to 4000 Hz and shall have an operating temperature between 32°F and 120°F (0°C and 49°C). Speaker shall have power taps that are selected by shunts.

Operating Specifications

MECHANICAL

Input terminals: 12 to 18 AWG (3.31 to 0.821 mm²).

Speaker size: 4 inches (101 mm).

Grille size: *round* 6.875 inches (107 mm); *square* 5 inches (127 mm).

ELECTRICAL

Voltage Input: 25.0 volts or 70.7 volts nominal.

Ceiling/Wall-Mount Application



6710cov.jpg

Wall-Mount Application

Frequency range: 400 to 4000 Hz. **NOTE:** The SP200 and SP300 Series are UL Listed from 400 to 4000 Hz. The SP200 Series will provide a flat (± 10 dB) output from 100 to 15,000 Hz. The SP300 Series will provide a flat (± 10 dB) output from 500 to 13,000 Hz.

Operating temperature range: 32°F to 120°F (0°C to 49°C).

Power: 1/4, 1/2, 1 and 2 watts.

Sound Output

UL Reverberant (dBA @ 10 ft./3.048 m)				
	2 W	1 W	1/2 W	1/4 W
SP2	84	81	78	75
SP3	89	86	84	80

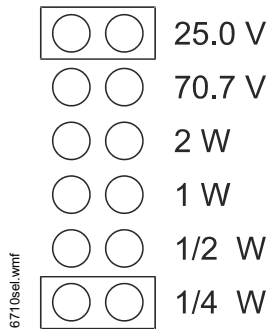
Agency Listings and Approvals

The listings and approvals below apply to SpectrAlert Dual-Voltage Evacuation Speakers. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

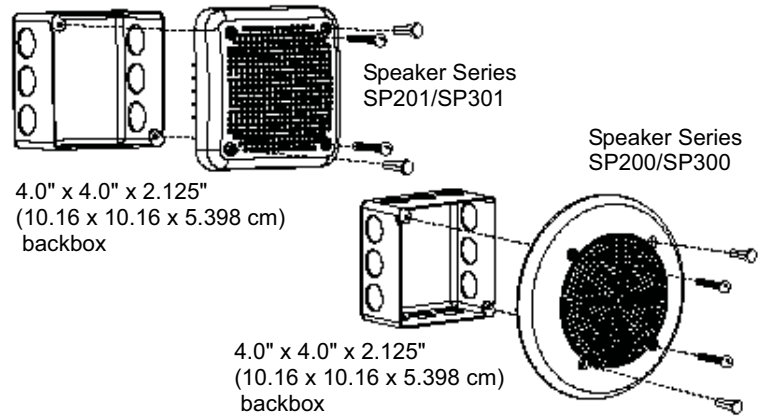
- UL Listed: file S4048.
- ULC Listed: file CS548 (SP200W/R[A], SP200W/R[A]).
- MEA approved:
 - file 461-05-E (SP300W, SP301R, SP301W).
 - file 353-98-E (SP200W/R[A], SP201W/R[A]).
 - file 139-05-E (SP201K, SP2R1224MCK).
- CSFM approved: 7320-1653:183

Voltage and Power Selection

Example shown: selecting a 1/4 watt input when a 25.0 volt (nominal) amplifier is being used.



Mounting Diagrams



6710mt06.tif

Ordering Information

White	Red	Description	Speaker Voltage
SpectrAlert Dual-Voltage Evacuation Speakers			
SP200W	—	Round, standard SPL, 1/4 – 2 watt power tap.	25.0/70.7 VRMS
SP201W	SP201R	Square, standard SPL, 1/4 – 2 watt power tap.	25.0/70.7 VRMS
SP300W	—	Round, high SPL, 1/4 – 2 watt power tap.	25.0/70.7 VRMS
SP301W	SP301R	Square, high SPL, 1/4 – 2 watt power tap.	25.0/70.7 VRMS
Accessories			
BBSCW	—	Surface-mount backbox skirt for SP200W, SP300W.	NA
BBS-SP201W	BBS-SP201R	Surface-mount backbox skirt for SP201W, SP301W.	NA

General

The Wheelock Series CH Chimes and Chime Strobes minimize alarm system power supply requirements and wiring costs with a low current draw and a patented chime mounting plate for fast, easy installation. Each model has a built-in level adjustment feature and an aesthetic two-screw grille cover.

These unique solid-state chime appliances provide field selectable single-stroke or vibrating operation with Anechoic sound levels adjustable up to 83 dB and tone adjustable from 800 to 1200 Hz.

Strobe options for wall mount models include 15/75 candela or Wheelock patented MCW multi-candela strobe with field-selectable candela settings of 15/30/75/110 cd or the high-intensity MCWH strobe with field-selectable 135/185 cd.

Ceiling-mount models are available in Wheelock patented MCC multi-candela ceiling strobe with field-selectable intensities of 15/30/75/95cd, or the high-intensity MCCH strobe with field selectable 115/177cd.

The strobe portion of all Series CH Chime Strobes may be synchronized when used in conjunction with the Wheelock SM, DSM Sync Modules or the Wheelock PS-24-8MC Power Supply with patented Sync Protocol. Wheelock's synchronized strobes offer an easy way to comply with ADA recommendations concerning photosensitive epilepsy as well as meeting the requirements of NFPA 72 and UFC.

The Series CH Chime Strobes are UL Listed for indoor, wall or ceiling mount applications under Standard 1971 for Signaling Devices for the Hearing-Impaired and under Standard 464 for Private Mode Audible Signal Appliances. They are available in two attractive package styles for flush mounting to standard electrical boxes or convenient surface mounting. All models include IN/OUT wiring terminations that accept two 12 AWG to 18 AWG wires at each terminal. Inputs are polarized for compatibility with industry standard reverse-polarity supervision.

Features

- Various models comply with UL Standards 1971 and 464. Check listings and approvals information.
- ADA/NFPA/UFC/ANSI compliant.
- Complies with OSHA 29 Part 1910.165.
- Wall-mount models are available with field-selectable candela settings of 15/30/75/110 cd or 135/185 cd (multi-candela models) or 1575 cd (single-candela model).
- Ceiling-mount models are available with field-selectable candela settings of 15/30/75/95 cd or 115/177 cd (multi-candela models).
- Low current draw with temperature compensation to reduce power consumption and wiring costs.
- Strobes produce 1 flash per second over the regulated voltage range.
- 24 VDC with wide UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage.
- Synchronize with Wheelock SM, DSM or the Wheelock PS-24-8MC Power Supply with built-in sync protocol.

3468ch70.jpg



**Series CH70
Chime**

3468ch90.jpg



**Series CH90
Chime**

3468ch70.jpg



**Series CH70
Chime Strobe**

3468ch90.jpg



**Series CH90
Chime Strobe**

- Adjustable volume and tone control.
- Single-stroke or vibrating operation.
- Fast installation with IN/OUT screw terminals using 12 AWG to 18 AWG wires.

Note that all CAUTIONS and WARNINGS are identified with a triangular exclamation point (!) symbol. All warnings are printed in BOLD CAPITAL LETTERS.

⚠️ WARNING! ⚠️

PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING SPECIFYING OR APPLYING THIS PRODUCT. VISIT WWW.COOPERWHELOCK.COM OR CONTACT COOPER WHELOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS OR WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

General Notes

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range". Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL Standard 1971.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **Fire-Lite Alarms**, One Fire-Lite Place, Northford, Connecticut 06472. Phone: (800) 627-3473, Toll Free FAX: (877) 699-4105, FAX Back: (888) 388-3299
WEB: www.firelite.com

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CERTIFIED
ENGINEERING & MANUFACTURING

- Series NS Strobe products are listed under UL Standard 1971 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%).
- Series NH horns are listed under UL Standard 464 for audible signal appliances (indoor use only).
- "Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change, UL used the terminology "Listed Voltage Range."

Application Notes for Current Table

1. The chimes are factory set in single-stroke (SS) mode. They can be changed to vibrating (VIB) mode with jumper on PC Board. **SINGLE-STROKE OPERATION:** The minimum input pulse duration must be at least 160 ms "on" time and 160 ms "off" time. The chime will only operate once each time it is pulsed. This mode is recommended for coded systems. **VIBRATING OPERATION:** Continuous input voltage

applied to the chime will activate the chime at one-second intervals.

2. The volume and tone controls have been adjusted at the factory to insure maximum dBA output. However, once the mode is selected, the installer may want to fine-tune the signal to better suit the application.

3. Anechoic dBA is measured in an anechoic chamber with peak meter response. Reverberant dBA is rated per UL Standard 464.

4. Chime inrush current is 0.100 A maximum with filtered DC input (0.140 A with VRMS input voltage) with a time duration of 100 milliseconds.

CHIME dBA RATINGS

Sound level for CH70/CH90 is 83 dBA @ 10 ft (3.048 m) anechoic room; dBA in a 10 ft (3.048 m) reverberant room is 52 dBA minimum to 58 dBA maximum.

Average RMS Current

CH70, CH90 Chimes	Chime Current	CH70 Strobe Current: Wall Mount							CH90 Strobe Current: Ceiling Mount					
		241575W	24MCW				24MCWH		24MCC				24MCCH	
cd:		1575	15	30	75	110	135	185	15	30	75	95	115	177
24 VDC	0.022	0.060	0.041	0.063	0.109	0.140	0.195	0.270	0.045	0.070	0.119	0.159	0.195	0.270
UL max.*	0.022	0.090	0.060	0.092	0.165	0.220	0.300	0.420	0.065	0.105	0.189	0.249	0.300	0.420

NOTE: *RMS current ratings are per UL average RMS method. UL maximum current rating is the maximum RMS current within the Listed voltage range (16-33V for 24V units). For strobes, the UL maximum current is usually at the minimum Listed voltage (16V for 24V units). For audibles, the maximum current is usually at the maximum Listed voltage (33V for 24V units). For unfiltered FWR ratings, see installation instructions.

Specifications and Ordering Information

Model Number	Nom.V	Strobe Candela	Mount: Wall or Ceiling	Sync Strobe w/ SM, DSM, or PS-24-8MC	Mounting Options
CH70-24MCW-FR	24 VDC	15/30/75/110	W	yes	L, O, P, Q, R, U, Y
CH70-24MCW-FW	24 VDC	15/30/75/110	W	yes	L, O, P, Q, R, U, Y
CH70-241575W-FR	24 VDC	15 (75 on axis)	W	yes	L, O, P, Q, R, U, Y
CH90-24MCC-FW	24 VDC	15/30/75/95	C	yes	Q, U, V
CH70-24-R	24 VDC	N/A	W or C	no	L, O, P, Q, R, U, Y
CH90-24-W	24 VDC	N/A	W or C	no	Q, U, V

NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Wheelock Inc. standard terms and conditions.

Architects' and Engineers' Specifications

The chime appliances shall be Wheelock Series CH Chimes and the chime strobe appliances shall be Wheelock Series CH Chime Strobes or approved equals. The chime shall be UL Listed under Standard 464 for Audible Signal Appliances and chimes equipped with strobes shall be listed under UL Standard 1971 for Emergency Devices for the Hearing-Impaired. In addition, the strobes shall be certified to meet the requirements of FCC Part 15, Class B and shall incorporate low temperature compensation to ensure the lowest possible current consumption.

All chimes shall use solid state components and shall provide field selectable single stroke or vibrating operation with volume control and tone control. All models shall have a peak Anechoic sound output of 83 dB at 10 feet and an adjustable frequency range of 800 to 1200 Hz. All inputs shall employ terminals that accept 12 AWG to 18 AWG wire sizes.

The strobe portion of the appliance shall produce a flash rate of one flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged LEXAN® lens. The strobe shall be of low current design. Where Multi-Candela Chime Strobes are specified, the strobe intensity shall have a minimum of four field-selectable settings and shall be rated per UL Standard 1971 at: 15/30/75/110 cd or 135/185 cd for wall-mount models and 15/30/75/95 cd or 115/177 cd for ceiling-mount models. The selector switch for selecting the candela shall be tamper-resistant and not accessible from the front of the appliance. The 1575 candela strobe shall be specified when 15 candela UL Stan-

dard 1971 listing with 75 candela on-axis is required (e.g., ADA compliance).

When synchronization is required, the strobe portion of the appliance shall be compatible with Wheelock SM, DSM sync modules or the Wheelock PS-24-8MC Power Supply with built-in Patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync module or Power Supply fails to operate, (i.e., contacts remain closed), the strobe shall revert to a non-synchronized flash rate.

The chime and the chime strobe appliances shall be designed for indoor surface or flush mounting. The chime and chime strobe shall incorporate a chime mounting plate with a grille cover which is secured with two screws for a level, aesthetic finish and shall mount to standard electrical hardware requiring no additional trimplate or adapter.

All chime and chime strobe appliances shall be backward compatible.

Agency Listings and Approvals

The listings and approvals below apply to the Wheelock Series CH Chimes and Chime Strobes. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL Listed: file S5391.
- CSFM approved: file 7125-10785:185.
- FM approved.
- MEA approved: file 151-92-E.
- BFP approved (*except CH90-24MCC-FW*).

General

System Sensor® SpectrAlert® Selectable Output Horns, Strobes, and Horn/Strobes offer enhanced features that include the widest range of candela options available and the capability to recognize and self-adjust for either 12- or 24-volt operation. With an overall feature set that combines performance, installation ease, flexibility, and a consistent, aesthetically pleasing appearance, the SpectrAlert Selectable Output devices provide both the innovation and efficiency synonymous with the SpectrAlert name.

Performance. SpectrAlert selectable output wall-mount horns, strobes, and horn/strobes offer key performance features long associated with the SpectrAlert name. The selectable-candela strobes and horn/strobes offer average current draws that are not only lower than conventional fixed-candela SpectrAlert products, but also lower than similar selectable-candela products. By consuming less current, the ability to connect even more devices per loop is possible, resulting in a lower installed cost.

Installation. SpectrAlert selectable output horns, strobes, and horn/strobes offer the same installation-friendly features synonymous with the SpectrAlert name, such as the option of two- and four-wire operation; the ability to use standard-sized backboxes with no encroachment into the box; and universal mounting incorporating the labor-saving QuickClick™ feature. Such labor-saving features make wire connections simple and fast, further reducing installed cost.

Flexibility. SpectrAlert selectable output strobes and horn/strobes offer the broadest range of candela options. In addition, the selectable output strobes and horn/strobes can operate on either 12 V or 24 V, with no setting required; the device recognizes and self-adjusts to the correct current automatically. Temporal 3 or Continuous tone options continue to be available, in either an Electromechanical or 3 kHz pattern.

Aesthetics. SpectrAlert selectable output horns, strobes, and horn/strobes incorporate the same stylish, low-profile design of the conventional SpectrAlert products, for a consistent and aesthetically pleasing appearance across the entire product line.

Features

- Operate on either 12 V or 24 V.
- Widest range of candela options:
- **12 V:** 15 and 15/75 candela.
- **24 V:** 15, 15/75, 30, 75, 110 candela.
- Easy candela selection.
- Lower current draw.
- Easy DIP switch selection for horn options.
- Easy mounting with QuickClick.
- Synchronizable with MDL Sync•Circuit™ module.
- Meets UL 1971, NFPA 72, and ADA signaling requirements.

NOTE: All strobe and horn/strobe models incorporate a new patented voltage booster design that has a more consistent flash bulb voltage over the range of candela selections. The benefit to the customer is a high quality strobe device.

P1224MC Horn/Strobe



S1224MC Strobe

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Engineering Specifications

SpectrAlert horns, strobes and horn/strobes shall be capable of mounting to a standard 4.0" x 4.0" x 1.5" (10.16 x 10.16 x 3.81 cm) backbox or a single-gang 2.0" x 4.0" x 1.875" (5.08 x 10.16 x 4.763 cm) backbox using the universal mounting plate included with each SpectrAlert product. Also, SpectrAlert products, when used in conjunction with the accessory Sync•Circuit Module, shall be powered from a non-coded power supply and shall operate on 12 or 24 volts. 12-volt rated devices shall have an operating voltage range of 9 – 17.5 volts. 24-volt rated devices shall have an operating voltage range of 17 – 33 volts. SpectrAlert products shall have an operating temperature of 32° to 120°F (0°C to 49°C) and operate from a regulated DC or full-wave-rectified, unfiltered power supply.

STROBE

Strobe shall be a System Sensor SpectrAlert Model _____ listed to UL 1971 and be approved for fire protective service. The strobe shall be wired as a primary signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

HORN/STROBE COMBINATION

Horn/Strobe shall be a System Sensor SpectrAlert Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. Horn/strobe shall be wired as a primary signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have two tone options, two audibility options (at 24 volts) and the option to switch between a Temporal 3 pattern and a Non-Temporal Continuous pattern.

Strobes shall be powered independently of the sounder with the removal of factory-installed jumper wires. The horn on horn/strobe models shall operate on a coded or non-coded power supply (the strobe must be powered continuously).

SYNCHRONIZATION MODULE

Module shall be a System Sensor Sync•Circuit _____ listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at Temporal 3. Also, the module shall silence the horns on horn/strobe models, while operating the strobes, over a single pair of wires. The module shall be capable of mounting to a 4.688" x 4.688" x 2.125" (11.906 x 11.906 x 5.398 cm) back-box and shall control two Style Y (Class B) or one Style Z (Class A) circuit. Module shall be capable of multiple zone synchronization by daisy-chaining multiple modules together and re-synchronizing each other along the chain. The module shall not operate on a coded power supply.

Operating Specifications

Walk test: SpectrAlert horn/strobe and horn-only work on "walk tests" with time durations of 4 seconds or greater.

Input terminals: 12 to 18 AWG (3.31 to 0.821 mm²).

Dimensions: strobe and horn/strobe with universal plate: 5.0" x 5.625" x 2.938" (12.7 x 14.288 x 7.461 cm); **strobe and horn/strobe with small-footprint plate:** 3.375" x 5.625" x 2.313" (8.573 x 14.288 x 5.874 cm); **horn with universal mounting plate:** 5.0" x 5.625" x 1.313" (12.7 x 14.288 x 3.334 cm); **horn without mounting plate:** 2.938" x 5.313" x 1.313" (7.461 x 13.494 x 3.334 cm).

Weight, horn only: 7.2 oz. (204.117 g).

Weight, strobe and horn/strobe: 8.8 oz. (249.476 g).

Mounting: standard boxes 4.0" x 4.0" x 1.5" (10.16 x 10.16 x 3.81 cm) or 2.0" x 4.0" x 1.875" (5.08 x 10.16 x 4.763 cm).

Operating temperature (indoor): 32°F to 120°F (0°C to 49°C).

Maximum humidity (indoor): 95% as tested per UL 464.

Operating temperature (K Series, outdoor): -40°F to 151°F (-40°C to 66°C).

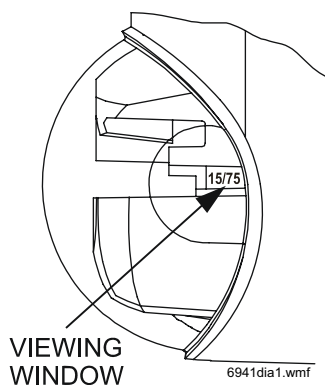
SpectrAlert Strobe Candela Selections

For strobe candela selection, adjust slide switch located on the rear of the product while watching the viewing window on the side of the reflector.

Permissible candela settings:

For 12 V operating voltage: 15 or 15/75.

For 24 V operating voltage: 15, 15/75, 30, 75, 110.



Outdoor rating: NEMA 3R (per UL 50).

Voltages: 12 or 24 VDC and FWR unfiltered. **NOTE:** Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

Operating voltage range: 12 V: 8 – 17.5 V; 24 V: 16 – 33 V.

Operating voltage range with Sync•Circuit module MDL: 12 V: 9 – 17.5 V; 24 V: 17 – 33 V. **NOTE:** The MDL causes a one-volt voltage drop in the notification appliance circuit.

Explanation of published voltage, current, and SPL specifications: In May 2004, Underwriters Laboratories changed standard UL 1971 to require that operating current measurements are made using RMS (root mean square) instead of peak or average values. RMS measurements more accurately predict the power consumption of a device since they take into account the entire current draw profile including surge, repetitive surge, and peak values. The published RMS current is the maximum operating current of that device within its operating voltage range. This current maximum may or may not occur at the endpoints of the voltage range. Similarly, UL tests the audibility of devices in accordance with UL 464 by measuring them across the operating voltage range to determine the minimum sound pressure level produced at any particular setting.

During May 2004, UL also changed the way they list the voltage range of a device. All 12 V products will be listed between 8 – 17.5 V and all 24 V products will be listed between 16 – 33 V. Those devices are considered "regulated." Any product that does not operate within these ranges will be listed as a "special application" with its operating voltage specified on the device.

U.S. Patent numbers: 5,593,569. 5,914, 665. 6,049,446.

Current Draw Tables

NOTE: 1) Current draw for **strobe-only** products is shown in Table 1-A. 2) Current draw for **horn-only** products is shown in Table 1-B. 3) **12 VDC two-wire horn/strobe** current is shown in Table 1-C. 4) **24 VDC two-wire horn/strobe** current draw is shown in Table 1-D. 5) Current draw for **other horn/strobe power supplies** can be calculated by adding the strobe current in Table 1-A to the horn current in Table 1-B from the chosen settings.

Current Draw Table 1-A: STROBE, UL Maximum (mA RMS)

Candela Setting	FWR Operating Current, STROBE (mA RMS)		DC Operating Current, STROBE (mA RMS)	
	8 – 17.5 V	16 – 33 V	8 – 17.5 V	16 – 33 V
15	112	64	127	59
15/75	135	74	127	69
30		93		90
75		158		160
110		208		209

Current draw tables continued on next page.

**Current Draw Table 1-B:
HORN, UL Maximum (mA RMS)**

Selectable Horn Tones		DC 8–17.5V	DC 16–33V	FWR 8–17.5V	FWR 16–33V
Temporal, LOW Volume	Electromechanical	15	23	13	23
	3000 Hz Interrupted	15	33	13	23
Temporal, HIGH Volume	Electromechanical	36	53	20	44
	3000 Hz Interrupted	43	57	21	40
Non-Temporal, LOW Volume	Electromechanical	16	37	19	29
	3000 Hz Interrupted	16	32	18	33
Non-Temporal, HIGH Volume	Electromechanical	38	49	46	49
	3000 Hz Interrupted	44	56	42	58

**Current Draw Table 1-C:
12 VDC HORN/STROBE,
UL Maximum (mA RMS)**

Candela Setting	LOW Volume		HIGH Volume	
	Electro-mech.	3000 Hz	Electro-mech.	3000 Hz
TEMPORAL				
15	111	111	112	112
15/75	127	127	126	129
NON-TEMPORAL				
15	113	112	114	115
15/75	128	128	130	134

**Current Draw Table 1-D:
24 VDC HORN/STROBE,
UL Maximum (mA RMS)**

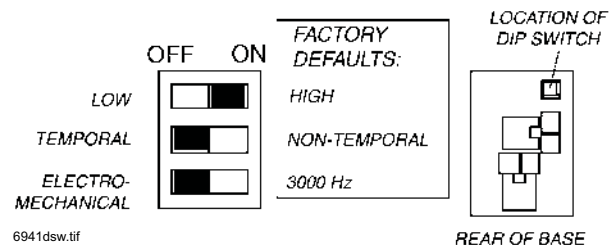
Candela Setting	LOW Volume		HIGH Volume	
	Electro-mech.	3000 Hz	Electro-mech.	3000 Hz
TEMPORAL				
15	71	70	73	75
15/75	86	85	87	88
30	99	98	100	100
75	166	166	167	170
110	209	209	210	213
NON-TEMPORAL				
15	74	74	79	82
15/75	86	88	93	96
30	101	101	107	110
75	167	167	173	176
110	213	213	218	222

Agency Listings and Approvals

The listings and approvals below apply to SpectrAlert Selectable Output Strobe, Horn, and Horn/Strobes. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL** Listed: files S5512, S4011.
- **ULC** Listed: file C5549, C5548.
- **MEA** approved: files 122-02-E, 126-02-E.
- **CSFM** approved: files 7125-1209:222, 7135-1209:223.
- **FM** approved.

DIP Switch Operation on P1224MC



Typical Weatherproof Mounting with Universal Plate

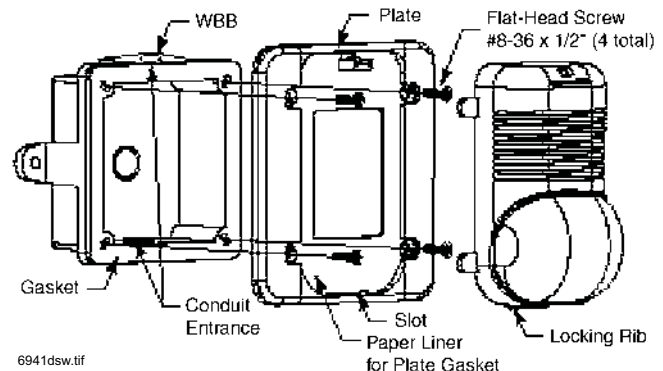


Table 2: HORN Sound Measurements (dBA)

Selectable Horn Tones		8 – 17.5 V	16 – 33 V
Temporal, LOW Volume	Electromechanical	67	75
	3000 Hz Interrupted	68	75
Temporal, HIGH Volume	Electromechanical	71	80
	3000 Hz Interrupted	72	81
Non-Temporal, LOW Volume	Electromechanical	71	79
	3000 Hz Interrupted	72	79
Non-Temporal, HIGH Volume	Electromechanical	76	84
	3000 Hz Interrupted	77	86

Ordering Information

Model	Description	Model	Description
HORN/STROBES		STROBES	
P1224MC	Selectable output horn/strobe, 12/24 volt, red.	S1224MC	Selectable output strobe, 12/24 volt, red.
P1224MCW	Selectable output horn/strobe, 12/24 volt, white.	S1224MCW	Selectable output strobe, 12/24 volt, white.
P1224MCP	Selectable output horn/strobe, 12/24 volt, red, plain housing.	S1224MCP	Selectable output strobe, 12/24 volt, red, plain housing.
P1224MCPW	Selectable output horn/strobe, 12/24 volt, white, plain housing.	S1224MCPW	Selectable output strobe, 12/24 volt, white, plain housing.
P1224MCK	Selectable output horn/strobe, 12/24 volt, red, outdoor.	S1224MCK	Selectable output strobe, 12/24 volt, red, outdoor.
P1224MCSP	Selectable output horn/strobe, 12/24 volt, red, "FUEGO" housing.	S1224MCSP	Selectable output strobe, 12/24 volt, red, "FUEGO" housing.
HORNS		MOUNTING ACCESSORIES	
H12/24	Horn, 12/24 volt, red.	S-MP	Small-footprint mounting plate, red, for single-gang backbox.
H12/24W	Horn, 12/24 volt, white.	S-MPW	Small-footprint mounting plate, white, for single-gang backbox.
H12/24K	Horn, 12/24 volt, red, outdoor.	BBS	Surface-mount backbox skirt, red.
SYNC MODULES		BBSW	Surface-mount backbox skirt, white.
MDL	Sync•Circuit module, red.	D-MP	Universal mounting plate (replacement), red.
MDLW	Sync•Circuit module, white.	D-MPW	Universal mounting plate (replacement), white.
MDLWA	Sync•Circuit module, white, Canadian model.	WBB	Weatherproof backbox.

NOTE: 1) All of these SpectraAlert products are designed for wall-mounting only. 2) All outdoor models MUST use weatherproof backbox model WBB. 3) Installation of less than 75 candela strobes may be permissible under the equivalent facilitation clause of the ADAAG (Sec. 2.2). However, it is the responsibility of the person or entity designing the fire alarm system to determine the acceptability of less than 75 candela strobes. 4) All 15/75 candela strobes or horn/strobes are recommended for 20' x 20' (6.096 m x 6.096 m) rooms or less.

General

System Sensor® SpectrAlert® Selectable Output Speaker/Strobes offer enhanced features that include the widest range of candela options available and the capability to recognize and self-adjust for either 12 or 24 volt operation, along with the fidelity sound quality expected from SpectrAlert speaker technology.

Performance. SpectrAlert Selectable Output Speaker/Strobes offer average current draws that are not only lower than conventional fixed-candela SpectrAlert products, but also lower than similar selectable candela products. In addition, the broad frequency response range and low harmonic distortion provided by SpectrAlert speaker technology provides an accurate and intelligible broadcast of evacuation messages.

Installation. SpectrAlert Selectable Output Speaker/Strobes offer a variety of installation-friendly features, such as the ability to mount to a 4.0" x 4.0" x 2.125" (10.16 x 10.16 x 5.398 cm) backbox without the need for an extension ring. Also, with the field-reversible strobe, the speaker/strobe may be either left- or right-mounted to avoid potential obstructions.

Flexibility. SpectrAlert Selectable Output Speaker/Strobes offer the broadest range of candela options. In addition, the 15 cd and 15/75 cd options can operate on either 12V or 24V, with no setting required; the device recognizes the applied voltage and self-adjusts to the correct setting automatically. The speaker voltage, either 25.0 or 70.7, and power tap settings, 1/4, 1/2, 1, or 2 watt, are field-selectable.

Aesthetics. SpectrAlert Selectable Output Speaker/Strobes incorporate the same stylish, low-profile design as the conventional SpectrAlert products, for a consistent and aesthetically pleasing appearance across the entire product line.

Features

- Fidelity sound quality (SP2).
- Enhanced SPL (SP3).
- Operates on either 12 V or 24 V.
- Widest range of candela options:
- 12 V: 15 and 15/75 candela options.
- 24 V: 15, 15/75, 30, 75, and 110 candela options.
- Easy candela selection.
- 25.0 and 70.7 volt speaker with four field-selectable power taps.
- Field-reversible strobe for left- or right-mounting.
- Synchronizable with MDL Sync-Circuit™ Module.
- Optional surface-mount backbox skirt available.

Engineering Specifications

Speaker/Strobe shall be a System Sensor Model _____ listed to UL 1480 and UL 1971 and be approved for fire protective signaling systems. Speaker shall be capable of operating at 25.0 or 70.7 nominal VRMS, and shall have a frequency range of 400 – 4000 Hz. Speaker shall have power taps that are selected by shunts. The strobe shall consist of a xenon flash tube with associated lens/reflector system and operate on either 12 V or 24 V. The strobe shall also feature selectable candela output, providing options for 15 or 15/75 candela when operating on 12 V; and 15, 15/75, 30, 75, or 110 when operating on 24 V. The strobe shall comply with the Amer-



SP2R1224MC



SP2R1224MC mounted with BBS-SP2R

icans with Disabilities Act requirement for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range.

Operating Specifications

Dimensions: 4.875" x 8.25" x 2.25" (12.383 x 20.955 x 5.715 cm).

Mounting: 4.0" x 4.0" x 2.125" (10.16 x 10.16 x 5.398 cm) backbox.

Indoor operating temperature: 32°F to 120°F (0°C to 49°C).

STROBE

Strobe operating voltage: 12 or 24 VDC and FWR unfiltered.

Operating voltage range: 12 V: 8 – 17.5 V; **24 V:** 16 – 33 V.

Operating voltage range with Sync-Circuit module: 12 V: 9 – 17.5 V; **24 V:** 17 – 33 V.

Explanation of published strobe specifications (see also current draws in Ordering Information below): In May 2004, Underwriters Laboratories changed standard UL 1971 to require that operating current measurements are made using RMS (root mean square) instead of peak or average values. RMS measurements more accurately predict the power consumption of a device since they take into account the entire current draw profile including surge, repetitive surge, and peak values. The published RMS current is the maximum operating current of that device within its operating voltage range. This current maximum may or may not occur at the endpoints of the voltage range.

In May 2004, UL also changed the way they list the voltage range of a device. All 12 V products will be listed between 8 – 17.5 V and all 24 V products will be listed between 16 – 33 V. These devices are considered "regulated." Any product that does not operate within these ranges will be listed as a "special application" with its operating voltage specified on the device.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Fire-Lite Alarms, One Fire-Lite Place, Northford, Connecticut 06472. Phone: (800) 627-3473, Toll Free FAX: (877) 699-4105, FAX Back: (888) 388-3299
WEB: www.firelite.com

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SPEAKER

Input voltage: 25.0 or 70.7 VRMS (nominal).

Input terminals: 12 to 18 AWG (3.31 to 0.821 mm²).

Frequency range: 400 – 4000 Hz. **NOTE:** The SP2 and SP3 Series are UL listed from 400 to 4000 Hz. The SP2 Series will provide a flat (± 10 dB) output from 100 to 15,000 Hz. The SP3 Series will provide a flat (± 10 dB) output from 500 to 13,000 Hz.

Power taps: 1/4, 1/2, 1, and 2 watts.

U.S. Patent numbers: 6,049,446. 6,127,935.

Sound output:

UL Reverberant (dBA @ 10 ft./3.048 m)				
	2 W	1 W	1/2 W	1/4 W
SP2	84	81	78	75
SP3	89	87	84	81

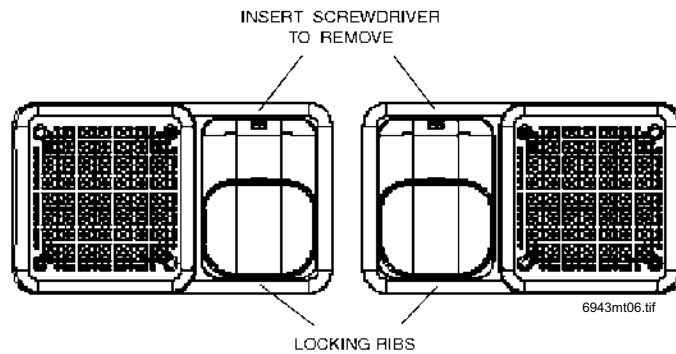
Agency Listings and Approvals

The listings and approvals below apply to SpectrAlert Selectable Output Wall Speaker/Strobes. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL** Listed: file S4048.
- **ULC** Listed: file CS549 (SP2_1224MC[A]).
- **CSFM** approved: file 7320-1653:133.
- **MEA** approved:
 - 127-02-E (SP2_1224MC[A])
 - 461-05-E (SP3_1224MC).

Reversible Strobe Feature

Removing the strobe screw and lifting the strobe assembly out of the rib slot allows the strobe to be rotated 180° and remounted to the base, resulting in a left-mounted strobe configuration.



Ordering Information and Current Draw

Description	Red Models	White Models	Candela Setting	UL Maximum FWR Operating Current, STROBE (mA RMS)		UL Maximum DC Operating Current, STROBE (mA RMS)	
				8 – 17.5 V	16 – 33 V	8 – 17.5 V	16 – 33 V
Wall Speaker/Strobes: Standard SPL (SP2) High SPL (SP3)	SP2R1224MC SP3R1224MC	SP2W1224MC SP3W1224MC	15	112	64	127	59
			15/75	135	74	127	69
			30		93		90
			75		158		160
			110		208		209
Surface-Mount Backbox Skirt	BBS-SP2R	BBS-SP2W					

General

System Sensor® SpectrAlert® wall-mount electronic chime and chime/strobe offer sixteen different field-selectable chime tones, each with three volume settings. Intended for private mode applications, the SpectrAlert chime meets UL 464 and the chime/strobe meets UL1971.

Flexibility. SpectrAlert products offer the flexibility to meet a broad range of requirements. SpectrAlert chimes and chime/strobes feature sixteen field-selectable electronic tones, with three different volume levels for each. Chime/strobe models are available in 15, 15/75, 30, 75, and 110 candela configurations.

Installation. SpectrAlert chime and chime/strobe offer DIP switch tone selections to simplify field configuration. In addition, each device mounts to standard-depth backboxes for greater installation flexibility. Small-footprint or surface-mount accessory mounting plates are available for the chime.

Aesthetics. The SpectrAlert chime and chime/strobe incorporate the stylish, low-profile design consistent with all SpectrAlert wall-mount products, and are available in red and white to meet specific installation requirements.

Features

- Chime meets UL 464 requirements for private mode.
- Strobe meets UL 1971 requirements.
- Field-selectable tones:
 - Repeating 1-second chime.
 - Repeating 1/4-second chime.
 - Temporal 3 chime.
 - Single-stroke chime.
 - Continuous / 3 kHz.
 - Continuous / 500 Hz.
 - Temporal 3 / 3 kHz.
 - Temporal 3 / 500 Hz.
- Three volume options.
- Mount to standard backboxes.
- Available in red or white.

Engineering Specifications

Electronic chime and chime/strobe shall be a System Sensor SpectrAlert model _____. The chime shall be listed to UL 464 for fire protective signaling systems and shall perform in accordance with private mode emergency and general utility signaling. The strobe shall be listed to UL 1971 and shall be approved for fire protective signaling. The strobe shall comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The chime shall have sixteen field-selectable tone options, each with three volume settings. These options shall be activated through the appropriate settings on a DIP switch located on the rear of the unit. The chime shall be capable of mounting to a standard 4.0" x 4.0" or 1.5" (10.16 x 10.16 x 3.81 cm) backbox or a single-gang 2.0" x 4.0" x 1.875" (5.08 x 10.16 x 3.81 cm) backbox. The chime/strobe shall be capable of mounting



to a standard 4.0" x 4.0" or 1.5" (10.16 x 10.16 x 3.81 cm) backbox. The chime shall operate at 12 or 24 volts and the chime/strobe shall operate at 24 volts. Both chime and chime/strobe shall be powered from a non-coded power supply and shall be capable of operating from either a regulated DC or full-wave-rectified, unfiltered power supply. Chime and chime/strobe shall have an operating temperature range of 32°F to 120°F (0°C to 49°C).

Operating Specifications

Input terminals: 12 to 18 AWG (3.31 to 0.821 mm²).

Dimensions: chime with mounting plate: 5.0" x 5.625" x 2.25" (12.7 x 14.288 x 5.715 cm); **chime/strobe:** 6.938" x 5.0" x 2.438" (17.621 x 12.7 x 6.191 cm).

Operating temperature: 32°F to 120°F (0°C to 49°C).

Weight: chime: 0.5 lb. (0.2 kg); **chime/strobe:** 1.5 lbs. (0.6 kg).

Mounting: chime: single-gang or 4.0" (10.16 cm) square backbox; **chime/strobe:** 4.0" (10.16 cm) square backbox.

Voltage: chime: 12 or 24 VDC and FWR unfiltered; **chime/strobe:** 24 VDC and FWR unfiltered.

Operating voltage range: chime: 8 – 33 V; **chime/strobe:** 16 – 33 V.

NOTE: Must be powered with a non-coded power supply.

Sound output (UL reverberant): **12 VDC:** 54 dBA; **24 VDC:** 60 dBA.

NOTE: Factory default settings (1.0 K repeating, 1-second chime @ high volume) shown. Refer to installation manuals (I56-0003-004R for CH1224; I56-2477-002R for CH24MC) for sound output levels at each tone selection.

Electronic Chime Current Draw

8 – 33 VDC: 10 – 61 mA. Average current draw varies with tones selected; see table below. Current ratings per System Sensor testing at 12 VDC and 24 VDC. Add current values when connecting in parallel.

Electronic Chime Current Draw	8 V			12 V			24 V			33 V		
	Low	Med.	High	Low	Med.	High	Low	Med.	High	Low	Med.	High
1.2 K Repeating 1-Second Chime	51	52	55	53	54	56	57	61	52	59	61	64
1.0 K Repeating 1-Second Chime	48	50	54	51	52	54	54	57	60	57	60	62
0.8 K Repeating 1-Second Chime	47	47	53	49	51	52	53	55	58	55	58	60
1.2 K Repeating 1/4-Second Chime	53	54	58	55	57	59	59	61	64	61	63	66
1.0 K Repeating 1/4-Second Chime	49	50	54	51	53	54	55	57	60	57	59	62
0.8 K Repeating 1/4-Second Chime	48	50	53	50	52	53	54	56	59	56	58	61
1.2 K Temporal 3 Chime	51	52	56	52	54	55	55	57	61	58	60	63
1.0 K Temporal 3 Chime	48	49	54	49	51	51	53	55	58	55	57	60
0.8 K Temporal 3 Chime	46	47	51	48	50	51	52	54	57	54	56	59
1.2 K Single-Stroke Chime	52	53	58	52	54	56	56	58	62	58	60	64
1.0 K Single-Stroke Chime	47	48	53	50	51	59	53	55	58	56	58	62
0.8 K Single-Stroke Chime	47	48	53	49	50	52	54	56	60	56	59	61
3.0 K Continuous Electromechanical	56	57	61	59	60	67	65	68	70	68	70	74
3.0 K Temporal Electromechanical	51	52	56	53	54	61	56	59	62	58	60	64
0.5 K Continuous Electromechanical	48	49	53	51	52	56	54	57	60	56	55	61
0.5 K Temporal Electromechanical	45	47	51	47	49	53	51	52	58	52	54	60

Strobe Current Draw for CH24MC Chime/Strobe

Candela Setting	FWR Operating Current, STROBE	DC Operating Current, STROBE
15	64 mA RMS	59 mA RMS
15/75	74 mA RMS	69 mA RMS
30	93 mA RMS	90 mA RMS
75	158 mA RMS	160 mA RMS
110	208 mA RMS	209 mA RMS

Ordering Information

Description	Red	White	Candela	Voltage
Chime/Strobe	CH24MC	CH24MCW	15, 15/75, 30, 75, 110	24
Surface-Mount Backbox Skirt	BBS-CHSR	BBS-CHSW	N/A	N/A
Chime	CH1224	CH1224W	N/A	12/24
Small-Footprint Mounting Plate	S-MP	S-MPW	N/A	N/A
Surface-Mount Backbox Skirt	BBS	BBSW	N/A	N/A
Universal Mounting Plate (replacement)	D-MP	D-MPW	N/A	N/A

Agency Listings and Approvals

The listings and approvals below apply to CH1224 Chimes and CH24MC Chime/Strobes. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL** Listed: file S4011.
- **CSFM** approved: files 7135-1209:216, 7135-1209-206 (CH1224[W]).
- **MEA** approved: files 291-01-E, 397-00-E (CH1224[W]).

General

System Sensor® SpectrAlert® Advance selectable-output horns, strobes and horn/strobes are rich with features guaranteed to cut installation times and maximize profits. The SpectrAlert Advance series of notification appliances is designed to simplify your installations, with features such as: plug-in designs, instant feedback messages to ensure correct installation of individual devices, and eleven field-selectable candela settings for wall and ceiling strobes and horn/strobes.

More specifically, when installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon, or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Then, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe, or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

SpectrAlert Advance products allow you to choose:

- 12 or 24 volts.
- At 24 volts, 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, or 185 candela by way of a rear-mounted slide switch and front viewing window.
- Horn tones and volume by way of a rotary switch.
- The SpectrAlert Advance series includes outdoor notification appliances. Outdoor strobes and horn/strobes (two-wire and four-wire) are available for wall or ceiling. Outdoor horns are available for wall only. All System Sensor outdoor products are rated between -40°F and 151°F (-40°C and 66°C) in wet or dry applications.

Models available:

- Indoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Indoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.

Features

- Plug-in design.
- Same mounting plate for wall- and ceiling-mount units.
- Shorting spring on mounting plate for continuity check before installation.
- Captive mounting screw.
- Tamper-resistance capability.
- Field-selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.
- Automatic selection of 12 or 24 volt operation at 15 and 15/75 candela.
- Outdoor wall and ceiling products.
- Outdoor products rated from -40°F and 151°F (-40°C and 66°C).

7087pho1.jpg



Indoor Ceiling Horn/Strobe

7087pho2.jpg



Outdoor Ceiling Strobe

7087pho3.jpg



Indoor Wall Horn/Strobe

7087pho4.jpg



Indoor Ceiling Strobe

7087pho5.jpg



Indoor Wall Horn

7087pho6.jpg



Outdoor Wall Strobe

- Minimal intrusion into the backbox.
- Horn rated at 88+ dbA at 16 volts.
- Rotary switch for tone selection.
- Three horn volume settings.
- Electrically compatible with existing SpectrAlert products.

Engineering Specifications

SpectrAlert Advance horns, strobes, and horn/strobes shall mount to a standard 4.0" x 4.0" x 1.5" (10.16 x 10.16 x 3.81 cm) backbox, 4.0" (10.16 cm) octagonal backbox, or a double-gang backbox. Two-wire products shall also mount to a single-gang 2.0" x 4.0" x 1.875" (5.08 x 10.16 x 4.763 cm) backbox. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32°F and 120°F (0°C and 49°C) from a regulated DC, or full-wave-rectified, unfiltered power supply. Strobes and horn/strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

STROBE

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

HORN/STROBE COMBINATION

The horn/strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn/strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a Temporal 3 pattern and a Non-Temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn/strobe models shall operate on a coded or non-coded power supply.

OUTDOOR PRODUCTS

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between -40°F and 151°F (-40°C and 66°C). The products shall be listed for use with a System Sensor outdoor/weatherproof backbox with half-inch and three-fourths-inch conduit entries.

SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit _____ listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at Temporal 3. Also, while operating the strobes, the module shall silence the horns on horn/strobe models over a single pair of wires. The module shall mount to a 4.688" x 4.688" x 2.125" (11.906 x 11.906 x 5.398 cm) backbox. The module shall also control two Style Y (class B) circuits or one Style Z (Class A) circuit. The module shall synchronize multiple zones. Daisy-chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Strobe Current Draw, UL Maximum (mA RMS)

Candela		8 – 17.5 V		16 – 33 V	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	N/A	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
High Candela Range	115	NA	NA	210	205
	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

Operating Specifications

- **Standard operating temperature:** 32°F to 120°F (0°C to 49°C).
- **K Series operating temperature:** -40°F to 151°F (-40°C to 66°C).
- **Humidity range:** 10% to 93% non-condensing (indoor products).
- **Strobe flash rate:** 1 flash per second.
- **Nominal voltage:** regulated 12 VDC/FWR or regulated 24 VDC/FWR. **NOTE:** Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
- **Operating voltage range:** 8 V to 17.5 V (12 V nominal); or 16 V to 33 V (24 V nominal). **NOTE:** P, S, PC, and SC products will operate at 12 V nominal only for 15 cd and 15/75 cd.
- **Input terminal wire gauge:** 12 to 18 AWG (3.31 to 0.821 mm²).
- **Ceiling-mount dimensions (including lens):** 6.8" diameter x 2.5" deep (17.3 cm diameter x 6.4 cm deep).
- **Wall-mount dimensions (including lens):** 5.6" H x 4.7" W x 2.5" D (14.2 cm H x 11.9 cm W x 6.4 cm D).
- **Horn dimensions:** 5.6" H x 4.7" W x 1.3" D (14.2 cm H x 11.9 cm W x 3.3 cm D).

Agency Listings and Approvals

The listings and approvals below apply to SpectrAlert Advance Selectable Output Notification Devices. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** file **S4011** (HR_, HW_, P2_, P4_, PC2_, PC4_ models); file **S5512** (models SCR, SCRH, SCW, SCWH, SR, SRH, SW, SWH); file **S3593** (SCRHK, SCRK, SRHK, SRK).
- **ULC Listed:** file **CS1099** (HRA, HRKA); file **CS1089** (typically "A" models, with exception of outdoor strobes). See *Canadian data sheet for listings and specifications*.
- **FM approved.**
- **MEA approved:** file **452-05-E**.
- **CSFM approved:** file **7125-1653:186** (SCR, SCRH, SCW, SCWH, SR, SRH, SW, SWH); file **7125-1653:188** (P2_, P4_, PC2_, PC4_ models); file **7135-1653:189** (HR, HRK, HW); file **7300-1653:187** (SCRHK, SCRK, SRHK, SRK).

Horn Current Draw, UL Maximum (mA RMS)

Sound Pattern	dB	8 – 17.5 V		16 – 33 V	
		DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	44	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

Horn and Horn/Strobe Rotary Switch Setting

Setting	Repetition Rate	dB Level
1	Temporal horn	High
2	Temporal horn	Medium
3	Temporal horn	Low
4	Normal horn	High
5	Normal horn	Medium
6	Normal horn	Low
7*	Externally coded	High
8*	Externally coded	Medium
9*	Externally coded	Low

**NOTE: Settings 7, 8, and 9 are not available on 2-wire horn/strobe.*

Horn and Horn/Strobe Output (dBA)

Switch Position	Sound Pattern	dB	8 – 17.5 V		16 – 33 V	
			DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84
2	Temporal	Medium	74	74	80	80
3	Temporal	Low	71	73	76	76
4	Non-temporal	High	82	82	88	88
5	Non-temporal	Medium	78	78	85	85
6	Non-temporal	Low	75	75	81	81
7*	Coded	High	82	82	88	88
8*	Coded	Medium	78	78	85	85
9*	Coded	Low	75	75	81	81

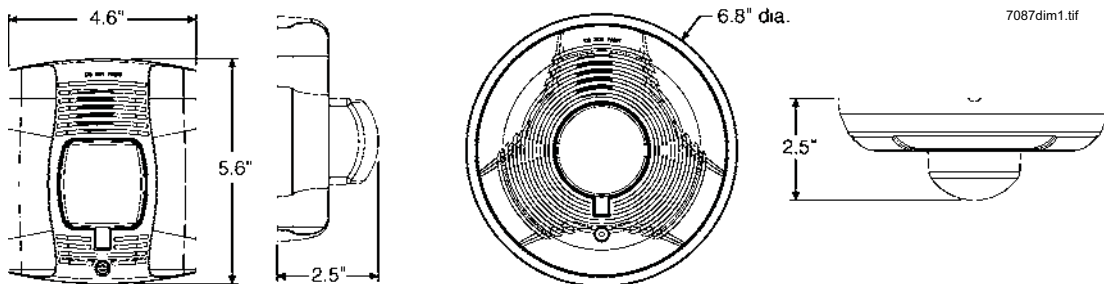
**NOTE: Settings 7, 8, and 9 are not available on 2-wire horn/strobe.*

Two-Wire Horn/Strobe, **STANDARD** Candela Range (15 – 115 cd), UL Maximum Current Draw (mA RMS)

Input, Sound Pattern, dB Level	8 – 17.5 V		16 – 33 V						
	15	15/75	15	15/75	30	75	95	110	115
DC Input, Temporal, High	137	147	79	90	107	176	194	212	218
DC Input, Temporal, Medium	132	144	69	80	97	157	182	201	210
DC Input, Temporal, Low	132	143	66	77	93	154	179	198	207
DC Input, Non-temporal, High	141	152	91	100	116	176	201	221	229
DC Input, Non-temporal, Medium	133	145	75	85	102	163	187	207	216
DC Input, Non-temporal, Low	131	144	68	79	96	156	182	201	210
FWR Input, Temporal, High	136	155	88	97	112	168	190	210	218
FWR Input, Temporal, Medium	129	152	78	88	103	160	184	202	206
FWR Input, Temporal, Low	129	151	76	86	101	160	184	194	201
FWR Input, Non-temporal, High	142	161	103	112	126	181	203	221	229
FWR Input, Non-temporal, Medium	134	155	85	95	110	166	189	208	216
FWR Input, Non-temporal, Low	132	154	80	90	105	161	184	202	211

Two-Wire Horn/Strobe, **HIGH** Candela Range (135 – 185 cd), UL Maximum Current Draw (mA RMS)

DC Input	16 – 33 V				FWR Input	16 – 33 V			
	135	150	177	185		135	150	177	185
DC, Temporal, High	245	259	290	297	FWR, Temporal, High	215	231	258	265
DC, Temporal, Medium	235	253	288	297	FWR, Temporal, Medium	209	224	250	258
DC, Temporal, Low	232	251	282	292	FWR, Temporal, Low	207	221	248	256
DC, Non-temporal, High	255	270	303	309	FWR, Non-temporal, High	233	248	275	281
DC, Non-temporal, Medium	242	259	293	299	FWR, Non-temporal, Medium	219	232	262	267
DC, Non-temporal, Low	238	254	291	295	FWR, Non-temporal, Low	214	229	256	262



Ordering Information

Model	Description*	Model	Description
WALL HORN/STROBES		CEILING HORN/STROBES	
P2R	2-wire horn/strobe, standard cd, red.	PC2R	2-wire horn/strobe, standard cd, red.
P2RH	2-wire horn/strobe, high cd, red.	PC2RH	2-wire horn/strobe, high cd, red.
P2RK	2-wire horn/strobe, standard cd, red, outdoor.**	PC2RK	2-wire horn/strobe, standard cd, red, outdoor.
P2RHK	2-wire horn/strobe, high cd, red, outdoor.	PC2RHK	2-wire horn/strobe, high cd, red, outdoor.
P2W	2-wire horn/strobe, standard cd, white.	PC2W	2-wire horn/strobe, standard cd, white.
P2WH	2-wire horn/strobe, high cd, white.	PC2WH	2-wire horn/strobe, high cd, white.
P4R	4-wire horn/strobe, standard cd, red.	PC4R	4-wire horn/strobe, standard cd, red.
P4RH	4-wire horn/strobe, high cd, red.	PC4RH	4-wire horn/strobe, high cd, red.
P4RK	4-wire horn/strobe, standard cd, red, outdoor.	PC4RK	4-wire horn/strobe, standard cd, red, outdoor.
P4RHK	4-wire horn/strobe, high cd, red, outdoor.	PC4RHK	4-wire horn/strobe, high cd, red, outdoor.
P4W	4-wire horn/strobe, standard cd, white.	PC4W	4-wire horn/strobe, standard cd, white.
P4WH	4-wire horn/strobe, high cd, white.	PC4WH	4-wire horn/strobe, high cd, white.
WALL STROBES		CEILING STROBES	
SR	Strobe, standard cd, red.	SCR	Strobe, standard cd, red.
SRH	Strobe, high cd, red.	SCRH	Strobe, high cd, red.
SRK	Strobe, standard cd, red, outdoor.	SCRK	Strobe, standard cd, red, outdoor.
SRHK	Strobe, high cd, red, outdoor.	SCRHK	Strobe, high cd, red, outdoor.
SW	Strobe, standard cd, white.	SCW	Strobe, standard cd, white.
SWH	Strobe, high cd, white.	SCWH	Strobe, high cd, white.
ACCESSORIES		HORNS	
BBS-2	Backbox skirt, wall, red.	HR	Horn, red.
BBSW-2	Backbox skirt, wall, white.	HRK	Horn, red, outdoor.
BBSC-2	Backbox skirt, ceiling, red.	HW	Horn, white.
BBSCW-2	Backbox skirt, ceiling, white.	ACCESSORIES, continued	
SA-WBB	Weatherproof backbox, wall.	MP-2W-20BP	2-wire indoor mounting plates, pkg of 20.
SA-WBBC	Weatherproof backbox, ceiling. <i>cont'd at right</i>	MPK-2W-20BP	2-wire outdoor mounting plates, pkg of 20.
<p>NOTE: **High cd" refers to strobes that include 135, 150, 177, and 185 candela settings. "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. **All outdoor models ("K" suffix) include weatherproof backbox.</p>			

General

System Sensor® SpectrAlert® Advance selectable-output chimes and chime/strobes are private-mode notification appliances used to alert trained personnel to investigate possible emergency situations and to take appropriate action. Security guard and nurse workstations are ideal locations for chime products.

SpectrAlert Advance chimes and chime/strobes are rich with features guaranteed to cut installation times and maximize profits. The SpectrAlert Advance series of notification appliances is designed to simplify your installations, with features such as: plug-in designs, instant feedback messages to ensure correct installation of individual devices, and seven field-selectable candela settings for chime/strobes.

More specifically, when installing Advance products, first attach a universal mounting plate to a four-inch (10.16 cm) square, four-inch octagonal, single-gang, or double-gang junction box.

Then, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the chime or chime/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captive mounting screw.

SpectrAlert Advance products allow you to choose:

- 12 or 24 volts.
- At 24 volts, 15, 15/75, 30, 75, 95, 110, or 115 candela by way of rear-mounted slide-switch and front-view window.
- Chime tones and volume by way of rotary switch.

Features

- Plug-in design.
- Shorting spring on mounting plate for pre-installation continuity check.
- Captive mounting screw.
- Torx screw for tamper resistance.
- Field-selectable candela settings: 15, 15/75, 30, 75, 95, 110, 115.
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela.
- Minimal intrusion into the backbox.
- Rotary switch for tone selection.
- Two volume settings.
- Electrically compatible with existing SpectrAlert products.

Engineering Specifications

SpectrAlert Advance chimes and chime/strobes shall mount to a standard 4.0" x 4.0" x 1.5" (10.16 x 10.16 x 3.81 cm) backbox, 4.0" (10.16 cm) octagonal backbox, single-gang 2.0" x 4.0" x 1.875" (5.08 x 10.16 x 4.763 cm) backbox, or double-gang backbox. A universal mounting plate shall be used for mounting products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also,

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Chime (CHW)

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Chime/Strobe (CHSR)

SpectrAlert Advance products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32°F and 120°F (0°C and 49°C) from a regulated DC, or full-wave-rectified, unfiltered power supply. Chime/strobes shall have field-selectable candela settings of 15, 15/75, 30, 75, 95, 110, and 115.

CHIME/STROBE COMBINATION

The chime/strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1638 and UL 464. The chime/strobe shall comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The chime shall have two audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch.

SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit _____ listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and chimes at Temporal 3. Also, while operating the strobes, the module shall silence the chimes on chime/strobe models over a single pair of wires. The module shall mount to a 4.688" x 4.688" x 2.125" (11.906 x 11.906 x 5.398 cm) backbox. The module shall also control two Style Y (Class B) circuits or one Style Z (Class A) circuit. The module shall synchronize multiple zones. Daisy-chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Operating Specifications

- **Standard operating temperature:** 32°F to 120°F (0°C to 49°C).
- **Humidity range:** 10% to 93% non-condensing (indoor products).
- **Strobe flash rate:** 1 flash per second.
- **Nominal voltage:** regulated 12 VDC/FWR or regulated 24 VDC/FWR. **NOTE:** Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
- **Operating voltage range:** 8 V to 17.5 V (12 V nominal); or 16 V to 33 V (24 V nominal). **NOTE:** CHS products will operate at 12 V nominal only for 15 cd and 15/75 cd.
- **Input terminal wire gauge:** 12 to 18 AWG (3.31 to 0.821 mm²).
- **Chime/strobe dimensions (including lens):** 5.6" H x 4.7" W x 2.5" D (14.2 cm H x 11.9 cm W x 6.4 cm D).
- **Chime dimensions:** 5.6" H x 4.7" W x 1.3" D (14.2 cm H x 11.9 cm W x 3.3 cm D).

Agency Listings and Approvals

The listings and approvals below apply to SpectrAlert Advance Selectable Output Chimes and Chime/Strobes. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL** Listed: file S4011.
- **ULC** Listed: file CS1089 (CHSRA, CHSWA), file 1099 (CHRA, CHWA), see *Canadian data sheet for listings and specifications*.
- **FM** approved.
- **MEA** approved: file 452-05-E.
- **CSFM** approved: file 7125-1653:188 (CHSR, CHSW); file 7135-1653:189 (CHR, CHW).

Ordering Information

CHR: Chime, red.

CHW: Chime, white.

CHSR: Chime/strobe, red.

CHSW: Chime/strobe, white.

BBS-2: Backbox skirt, wall, red.

BBSW-2: Backbox skirt, wall white.

Current Draw, UL Maximum (mA RMS)

Input, Pattern, dB Out	8 – 17.5 Volts		16 – 33 Volts						
	15 cd	15/75 cd	15 cd	15/75 cd	30 cd	75 cd	95 cd	110 cd	115 cd
DC, 1-Second Chime, HIGH	131	142	65	76	94	160	185	207	213
DC, 1-Second Chime, LOW	131	142	64	75	92	157	183	203	212
DC, 1/4-Second Chime, HIGH	129	142	66	75	95	159	184	205	212
DC, 1/4-Second Chime, LOW	129	142	64	74	91	155	181	204	211
DC, Temporal Chime, HIGH	125	142	64	74	91	156	181	205	211
DC, Temporal Chime, LOW	129	141	65	75	92	155	180	200	209
DC, 5-Second Whoop, HIGH	133	145	70	81	99	165	189	210	217
DC, 5-Second Whoop, LOW	130	143	66	77	95	160	186	206	214
DC, One-Time Chime	127	141	64	76	93	156	182	203	210
FWR, 1-Second Chime, HIGH	128	150	72	82	98	158	183	202	210
FWR, 1-Second Chime, LOW	127	150	71	81	97	157	182	202	210
FWR, 1/4-Second Chime, HIGH	129	149	72	82	99	160	183	203	211
FWR, 1/4-Second Chime, LOW	128	149	71	81	97	154	179	196	205
FWR, Temporal Chime, HIGH	128	148	71	81	97	157	179	199	206
FWR, Temporal Chime, LOW	125	147	71	81	97	156	180	200	206
FWR, 5-Second Whoop, HIGH	136	152	84	93	110	170	193	212	220
FWR, 5-Second Whoop, LOW	132	150	77	86	102	161	184	203	214
FWR, One-Time Chime	127	147	72	82	97	157	181	200	210

Tone Selection

Chime tone selection is accomplished by using the rotary switch on the back of the product. The current draw and sound measurements for various chime tones are listed below.

Chime Current Draw, UL Maximum (mA RMS)

Sound Pattern	dB	8 – 17.5 Volts		16 – 33 Volts	
		DC	FWR	DC	FWR
1-Second Chime	HIGH	34 mA	50 mA	58 mA	51 mA
1-Second Chime	LOW	30 mA	51 mA	51 mA	54 mA
1/4-Second Chime	HIGH	34 mA	51 mA	50 mA	50 mA
1/4-Second Chime	LOW	31 mA	51 mA	50 mA	52 mA
Temporal Chime	HIGH	30 mA	50 mA	48 mA	54 mA
Temporal Chime	LOW	30 mA	47 mA	50 mA	51 mA
5-Second Whoop	HIGH	32 mA	52 mA	34 mA	54 mA
5-Second Whoop	LOW	30 mA	40 mA	34 mA	52 mA
One Test Chime	HIGH	48 mA	49 mA	50 mA	50 mA

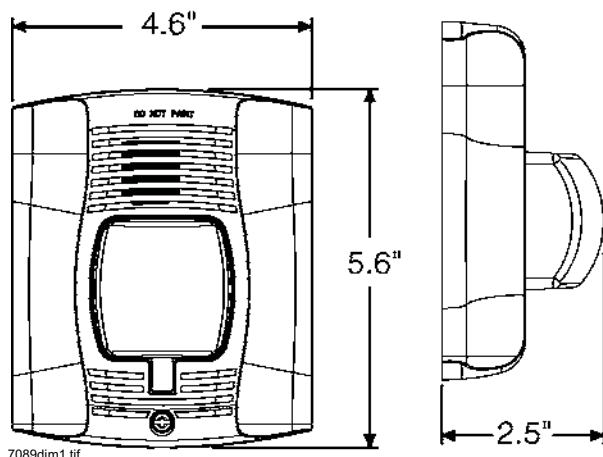
Chime Patterns

Setting	Repetition Rate	dB Out
1	1-Second Chime	HIGH
2	1-Second Chime	LOW
3	1/4-Second Chime	HIGH
4	1/4-Second Chime	LOW
5	Temporal Chime	HIGH
6	Temporal Chime	LOW
7	5-Second Whoop	HIGH
8	5-Second Whoop	LOW
9	One Test Chime	HIGH

Sound Output (dBA), Chime and Chime/Strobe

Switch Setting	Sound Pattern	dB	8 – 17.5 Volts		16 – 33 Volts	
			DC	FWR	DC	FWR
1	1-Second Chime	HIGH	58 dBA	59 dBA	61 dBA	61 dBA
2	1-Second Chime	LOW	53 dBA	54 dBA	55 dBA	55 dBA
3	1/4-Second Chime	HIGH	63 dBA	64 dBA	66 dBA	66 dBA
4	1/4-Second Chime	LOW	58 dBA	59 dBA	60 dBA	60 dBA
5	Temporal Chime	HIGH	62 dBA	64 dBA	68 dBA	69 dBA
6	Temporal Chime	LOW	55 dBA	57 dBA	60 dBA	60 dBA
7	5-Second Whoop	HIGH	68 dBA	71 dBA	75 dBA	77 dBA
8	5-Second Whoop	LOW	62 dBA	64 dBA	67 dBA	68 dBA
9	One Test Chime	HIGH	57 dBA	55 dBA	61 dBA	57 dBA

SpectrAlert Advance Chime/Strobe Dimensions





Selectable Output Horns, Strobes, and Horn/Strobes

SpectrAlert® Advance selectable-output horns, strobes, and horn/strobes are rich with features guaranteed to cut installation times and maximize profits.



SPECTRAlert®
ADVANCE
from System Sensor

The SpectrAlert Advance series of notification appliances is designed to simplify installations, with features such as plug in designs, instant feedback messages to ensure correct installation of individual devices, and 11 field-selectable candela settings for wall and ceiling strobes and horn/strobes.

When installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Next, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

The SpectrAlert Advance series includes outdoor notification appliances. Outdoor strobes and horn/strobes (two wire and four wire) are available for wall or ceiling. Outdoor horns are available for wall only. All System Sensor outdoor products are rated between minus 40 degrees Fahrenheit and 151 degrees Fahrenheit in wet or dry applications.

Features

- Electrically compatible with existing SpectrAlert products
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Plug-in design
- Field selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185
- Same mounting plate for wall- and ceiling-mount units
- Shorting spring on mounting plate for continuity check before installation
- Tamper resistant construction
- Outdoor wall and ceiling products rated from -40°F to 151°F
- Design allows minimal intrusion into the back box
- Horn rated at 88+ dbA at 16 volts
- Rotary switch for horn tone and three volume selections
- Outdoor products UL listed to UL 1638 (strobe) and UL 464 (horn) outdoor requirements
- Outdoor products rainproof per UL 50 (NEMA 3R)
- Compatible with MDL sync module

Agency Listings

SIGNALING



S4011
S5512
S3593



3023572

MEA
approved

MEA452-05-E



7125-1653:186 (indoor strobes)
7300-1653:187 (outdoor strobes)
7125-1653:188 (horn/strobes,
chime/strobes)
7135-1653:189 (horns, chimes)

SpectrAlert Advance Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance horns, strobes and horn/strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 1⅞-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between nine and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC, or full-wave rectified, unfiltered power supply. Strobes and horn/strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn/Strobe Combination

The horn/strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn/strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn/strobe models shall operate on a coded or non-coded power supply.

Outdoor Products

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between minus 40 degrees and 151 degrees Fahrenheit. The products shall be listed for use with a System Sensor outdoor/weatherproof back box with half inch and three-fourths inch conduit entries.

Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn/strobe models over a single pair of wires. The module shall mount to a 4⅞ × 4⅞ × 2⅞-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
K Series Operating Temperature	-40°F to 151°F (-40°C to 66°C)
Humidity Range	10 to 93% non-condensing (indoor products)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12DC/FWR or regulated 24DC/FWR ¹
Operating Voltage Range²	8 to 17.5V (12V nominal) or 16 to 33V (24 nominal)
Input terminal wire gauge	12 to 18 AWG
Ceiling mount dimensions (including lens)	6.8" diameter × 2.5" high (173 mm diameter × 64 mm high)
Wall mount dimensions (including lens)	5.6"L × 4.7"W × 2.5"D (142 mm L × 119 mm W × 64 mm D)
Horn dimensions	5.6"L × 4.7"W × 1.3"D (142 mm L × 119 mm W × 33 mm D)
Wall-mount back box skirt dimensions (BBS-2, BBSW-2)	5.9"L × 5.0"W × 2.2"D (151 mm L × 128 mm W × 56 mm D)
Ceiling-mount back box skirt dimensions (BBSC-2, BBSCW-2)	7.1" diameter × 2.25" high (180 mm diameter × 57 mm high)
Wall-mount weatherproof back box dimensions (SA-WBB)	5.7"L × 5.1"W × 2.0"D (145 mm L × 130 mm W × 51 mm D)
Ceiling-mount weatherproof back box dimensions (SA-WBBC)	7.1" diameter × 2.0" high (180 mm diameter × 51 mm high)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)					
	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
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL Max. Horn Current Draw (mA RMS)					
Sound Pattern	dB	8–17.5 Volts		16–33 Volts	
		DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

UL Max. Current Draw (mA RMS), 2-wire Horn/Strobe, Standard Candela Range (15–115 cd)									
DC Input	8–17.5 Volts			16–33 Volts					
	15	15/75	15	15/75	30	75	95	110	115
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-temporal High	141	152	91	100	116	176	201	221	229
Non-temporal Medium	133	145	75	85	102	163	187	207	216
Non-temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-temporal High	142	161	103	112	126	181	203	221	229
Non-temporal Medium	134	155	85	95	110	166	189	208	216
Non-temporal Low	132	154	80	90	105	161	184	202	211

UL Max. Current Draw (mA RMS), 2-wire Horn/Strobe, High Candela Range (135–185 cd)									
DC Input	16–33 Volts				FWR Input	16–33 Volts			
	135	150	177	185		135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-temporal High	255	270	303	309	Non-temporal High	233	248	275	281
Non-temporal Medium	242	259	293	299	Non-temporal Medium	219	232	262	267
Non-temporal Low	238	254	291	295	Non-temporal Low	214	229	256	262

Candela Derating

For K series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

Strobe Output (cd)	
Listed Candela	Candela rating at –40°F
15	Do not use below 32°F
15/75	
30	
75	44
95	70
110	110
115	115
135	135
150	150
177	177
185	185

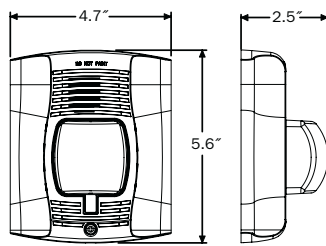
Horn Tones and Sound Output Data

Horn and Horn/Strobe Output (dBA)											
Switch Position	Sound Pattern	dB	8–17.5 Volts		16–33 Volts		24 Volt Nominal				
			DC	FWR	DC	FWR	Reverberant		Anechoic		
			DC	FWR	DC	FWR	DC	FWR	DC	FWR	
1	Temporal	High	78	78	84	84	88	88	99	98	
2	Temporal	Medium	74	74	80	80	86	86	96	96	
3	Temporal	Low	71	73	76	76	83	80	94	89	
4	Non-temporal	High	82	82	88	88	93	92	100	100	
5	Non-temporal	Medium	78	78	85	85	90	90	98	98	
6	Non-temporal	Low	75	75	81	81	88	84	96	92	
7†	Coded	High	82	82	88	88	93	92	101	101	
8†	Coded	Medium	78	78	85	85	90	90	97	98	
9†	Coded	Low	75	75	81	81	88	85	96	92	

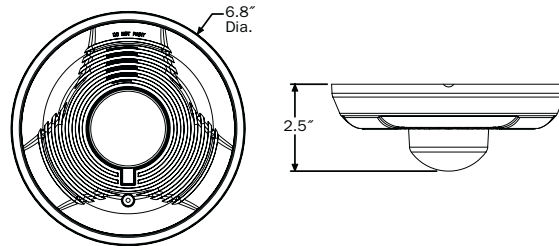
†Settings 7, 8, and 9 are not available on 2-wire horn/strobe.

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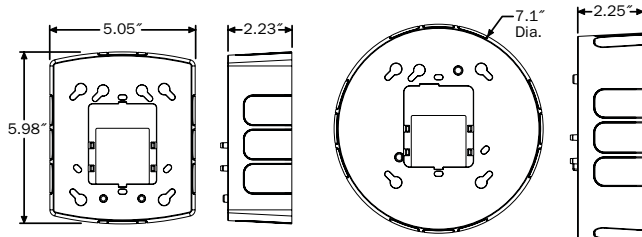
SpectrAlert Advance Dimensions



Wall-mount horn/strobes

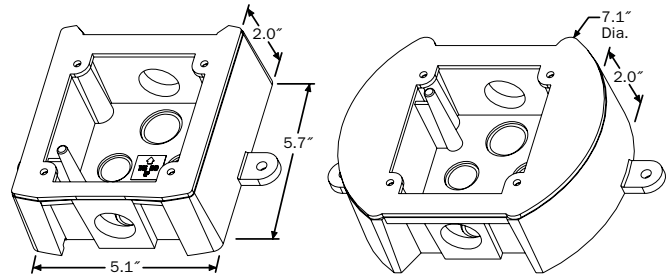


Ceiling-mount horn/strobes



Wall back box skirt

Ceiling back box skirt



Wall weatherproof back box

Ceiling weatherproof back box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn/Strobes	
P2R*†	2-wire Horn/Strobe, Standard cd‡, Red
P2RH*	2-wire Horn/Strobe, High cd, Red
P2RK*	2-wire Horn/Strobe, Standard cd, Red, Outdoor
P2RHK*	2-wire Horn/Strobe, High cd, Red, Outdoor
P2W*	2-wire Horn/Strobe, Standard cd, White
P2WH*	2-wire Horn/Strobe, High cd, White
P4R*	4-wire Horn/Strobe, Standard cd, Red
P4RH*	4-wire Horn/Strobe, High cd, Red
P4RK	4-wire Horn/Strobe, Standard cd, Red, Outdoor
P4RHK	4-wire Horn/Strobe, High cd, Red, Outdoor
P4W*	4-wire Horn/Strobe, Standard cd, White
P4WH*	4-wire Horn/Strobe, High cd, White
Wall Strobes	
SR*†	Strobe, Standard cd, Red
SRH*†	Strobe, High cd, Red
SRK	Strobe, Standard cd, Red, Outdoor
SRHK	Strobe, High cd, Red, Outdoor
SW*	Strobe, Standard cd, White
SWH*	Strobe, High cd, White
Ceiling Horn/Strobes	
PC2R*	2-wire Horn/Strobe, Standard cd, Red
PC2RH*	2-wire Horn/Strobe, High cd, Red
PC2RK	2-wire Horn/Strobe, Standard cd, Red, Outdoor
PC2RHK	2-wire Horn/Strobe, High cd, Red, Outdoor

Model	Description
Ceiling Horn/Strobes (cont'd.)	
PC2W*†	2-wire Horn/Strobe, Standard cd, White
PC2WH*†	2-wire Horn/Strobe, High cd, White
PC4R	4-wire Horn/Strobe, Standard cd, Red
PC4RH	4-wire Horn/Strobe, High cd, Red
PC4RK	4-wire Horn/Strobe, Standard cd, Red, Outdoor
PC4RHK	4-wire Horn/Strobe, High cd, Red, Outdoor
PC4W	4-wire Horn/Strobe, Standard cd, White
PC4WH	4-wire Horn/Strobe, High cd, White
Ceiling Strobes	
SCR*	Strobe, Standard cd, Red
SCRH*	Strobe, High cd, Red
SCRK	Strobe, Standard cd, Red, Outdoor
SCRHK	Strobe, High cd, Red, Outdoor
SCW*†	Strobe, Standard cd, White
SCWH*†	Strobe, High cd, White
Horns	
HR	Horn, Red
HRK	Horn, Red, Outdoor
HW	Horn, White
Accessories	
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White

Notes:

* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2R-P

† Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP

‡ "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.

All outdoor units ending in "K" include a weatherproof back box.



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A05-0395-003 • 12/06 • #1676

GENERAL

The *ExitPoint™ Directional Sounder* has an integral audio amplifier that produces a pulsating sound consisting of broadband low, mid, and high range sounds. The broadband noise makes it possible to determine the location of the sound. There are four pulse patterns that can be used to create an egress pathway out of a building and to mark perimeter exits. In addition to the broadband noise, the sounder is capable of playing an alert message in the form of a recorded voice message or other audible signals. These messages will instruct the occupants of what action to take as they approach the directional sounder, and will allow them to react quickly and confidently when the sounder is activated. Fifteen different language combinations are available to instruct occupants that they are nearing an exit, a stairway up, a stairway down, or an area of refuge. The directional sounder also incorporates an optional disable feature for use in conjunction with a control module or heat sensor.

The directional sounder features a number of field selectable power settings including high, medium-high, medium-low, and low. Installation ease and pleasing aesthetics are achieved by a low profile compact design, and by the ability to flush mount in a 4" x 4" x 2 1/4" back-box.

ExitPoint directional sounders, fitted in addition to normal building evacuation sounders, draw people to evacuation routes in both good and poor visibility. The directional sounder can be used in a wide range of building applications. Trials consistently have shown an improvement of up to 75 percent in evacuation times in smoke and up to 35 percent without smoke. The 2007 Edition of NFPA 72 now provides installation and maintenance guidelines on directional sounders.

FEATURES

- Listed to UL 464 (indoor applications only)
- Five field-selectable power settings
- Four field-selectable routing evacuation patterns
- Constructed to be effective in unfamiliar surroundings or poor visibility
- Designed to work in open areas, corridors, or stairs
- Fifteen different language selections available
- Reduces evacuation times by as much as 75 percent
- Optional disable feature for use in conjunction with a control module or heat sensor
- Low profile, compact design

SPECIFICATIONS

ELECTRICAL SPECIFICATIONS

Voltage Input: Regulated 24 Volts

Operating Voltage Range: 16 to 33 Volts

Operating Temperature: 32°F to 120°F (0°C to 49°C)

Power Setting: High, medium-high, medium, medium-low, low

MECHANICAL SPECIFICATIONS

Input Terminals: 12-24 AWG

Speaker Size: 4" (101 mm)

Grille Size: 4 7/8" (127 mm)



7044pho1.jpg

ADDITIONAL TONE SELECTION

Switch Position 5 Setting	Switch Position 6 Setting	Sound Output
On	On	Area of Refuge
On	Off	Up Stairs
Off	On	Down Stairs
Off	Off	Exit Here

ENABLE/DISABLE SELECTION

Switch Position 4 Setting	Terminals 3 & 4	Sound Output
On	Open	Disabled
On	Closed	Enabled
Off	Open	Enabled
Off	Closed	Disabled

POWER SETTING GUIDE

DIP Switch Position 1 Setting	DIP Switch Position 2 Setting	DIP Switch Position 3 Setting	Power Setting
Off	Off	Off	High
On	Off	Off	Med-High
Off	On	Off	Med
Off	Off	On	Med-Low
On	On	On	Low

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **Fire-Lite Alarms**, One Fire-Lite Place, Northford, Connecticut 06472. Phone: (800) 627-3473, Toll Free FAX: (877) 699-4105, FAX Back: (888) 388-3299
 WEB: www.firelite.com

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 ENGINEERING & MANUFACTURING

CURRENT DRAW MEASUREMENTS AND SOUND OUTPUT GUIDE

Speed	DIP Switch Selection	Power Setting	Max DC Operating Current (mA RMS)	Audibility (dBA) Note 1	Audibility (dBA) Note 2
Fast (Exit)	10	High	185	84	75
Fast (Exit)	10	Med-High	131	81	72
Fast (Exit)	10	Med	78	78	69
Fast (Exit)	10	Med-Low	76	75	66
Fast (Exit)	10	Low	64	72	63
Med-Fast	9	High	170	83	74
Med-Fast	9	Med-High	124	80	71
Med-Fast	9	Med	75	77	68
Med-Fast	9	Med-Low	73	74	65
Med-Fast	9	Low	62	71	62
Med-Slow	8	High	135	82	73
Med-Slow	8	Med-High	104	79	70
Med-Slow	8	Med	67	76	67
Med-Slow	8	Med-Low	65	73	64
Med-Slow	8	Low	57	70	61
Slow	7	High	120	82	72
Slow	7	Med-High	92	79	69
Slow	7	Med	62	76	66
Slow	7	Med-Low	61	73	63
Slow	7	Low	54	70	60

Note 1: Sound output measured in anechoic room at 10 feet.
 Note 2: Sound output measured in a reverberant room at 10 feet.

LANGUAGE/AUDIBLE TONE SELECTION GUIDE

Rotary Switch Selection	Tone/Language	Rotary Switch Selection	Tone/Language
0	Audible tone/sweep	8	Mandarin
1	English	9	English/Cantonese
2	Spanish	10	English/Mandarin
3	French	11	Cantonese/Mandarin
4	English/Spanish	12	English/Korean
5	English/French	13	English/Portuguese
6	Korean	14	English/Russian
7	Cantonese	15	English/Polish

AGENCY LISTINGS AND APPROVALS

Listing information not currently available. Consult product manual for lists of compatible UL-Listed devices. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

ORDERING INFORMATION

PF24V ExitPoint Directional Sounder with Voice Messaging
 BBS-SP201W Surface mount backbox skirt for PF24V

SPECTRAlert®

SP2C Series Ceiling Mount Speaker/Strobes



Models Available

Speaker/Strobe Models

- SP2C2415
- SP2C241575
- SP2C2430
- SP2C2475
- SP2C2495
- SP2C24115
- SP2C24177

Accessory Back Box Skirt

BBSCW



Product Overview

Combines SpectrAlert ceiling mount strobe and speaker technology

- Low current draw
- Fidelity sound quality

24 volt models available with 15, 15/75, 30, 75, 95, 115, and 177 candela strobes

25.0 and 70.7 volt speaker with four field-selectable power taps

Ceiling-specific shape, profile, and aesthetics

Strobe is synchronizable with MDL Sync-Circuit™ module

Mounts to 4" x 4" x 2 1/8" back box without an extension ring

Round shape offers greater placement flexibility

System Sensor's SpectrAlert® SP2C series ceiling speaker/strobes represent the combination of leading-edge strobe and speaker technology with a design specifically intended for ceiling mount applications.

Technology. SpectrAlert SP2C ceiling speaker/strobes combine the low current draw of the ceiling mount SpectrAlert strobes, with the intelligible, fidelity sound quality of the SpectrAlert SP200 series evacuation speaker.

Flexibility. Like all SpectrAlert products, the SP2C series ceiling speaker/strobes feature the flexibility to meet a wide variety of applications. The 24 volt strobe is available in seven different candelas, including 177 candela for sleeping areas. The speaker offers field-selectable 25.0/70.7 voltage and 1/4, 1/2, 1, and 2 watt power taps.

Aesthetics. The SP2C ceiling speaker/strobes offer a design that is sensitive to the aesthetic demands of ceiling mount applications. The round shape maintains a low profile appearance, similar to that of a smoke detector. Its stylish curves and design further refine the aesthetics over other generic wall/ceiling mount designs. Yet SpectrAlert's round shape provides clearly visible "FIRE" identification from all angles.

Installation. The SP2C ceiling speaker/strobes include several features to simplify installation. By incorporating the SP200 series speaker, the entire unit may be mounted to a 4" x 4" x 2 1/8" back box, without the need for an extension ring. An optional back box skirt is also available for surface-mount applications. And with SpectrAlert's round shape, it is not necessary to align the back box with the room's walls. SpectrAlert always lines up.

Engineering Specifications

Ceiling speaker/strobe shall be a System Sensor Model _____ listed to UL1480 and UL 1971 and be approved for fire protective signaling systems. Speaker shall be capable of operating at 25.0 or 70.7 nominal Vrms, and shall have a frequency range of 400 to 4000 Hz. Speaker shall have power taps which are selected by shunts. The strobe shall comply with the NFPA72 requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.



General Specifications

Dimensions

6.8" diameter

Mounting

4"x4"x2 1/8" back box

Indoor Operating Temperature

32°F to 120° F (0°C to 49°C)

U.S. Patent Nos.

6,049,446 6,057,778 D424,465

Strobe Specifications

Strobe Operating Voltage

24 VDC and FWR unfiltered

Operating Voltage Range

24 V, 16-33 V

Note: 177cd model tested at 20-33 V FWR and 16-33 VDC

Operating Voltage Range w/Sync-Circuit™ Module

24 V, 17-33 V

Note: 177cd model tested at 21-33 V FWR and 17-33 VDC

Input Terminals

12 to 18 AWG

Speaker Specifications

Input Voltage

25.0 or 70.7 Vrms (nominal)

Input Terminals

12 to 18 AWG

Sound Output (UL Reverberant dBA @ 10 ft.)*

2 watts	1 watt	1/2 watt	1/4 watt
84	81	78	75

Frequency Range

400-4000 Hz

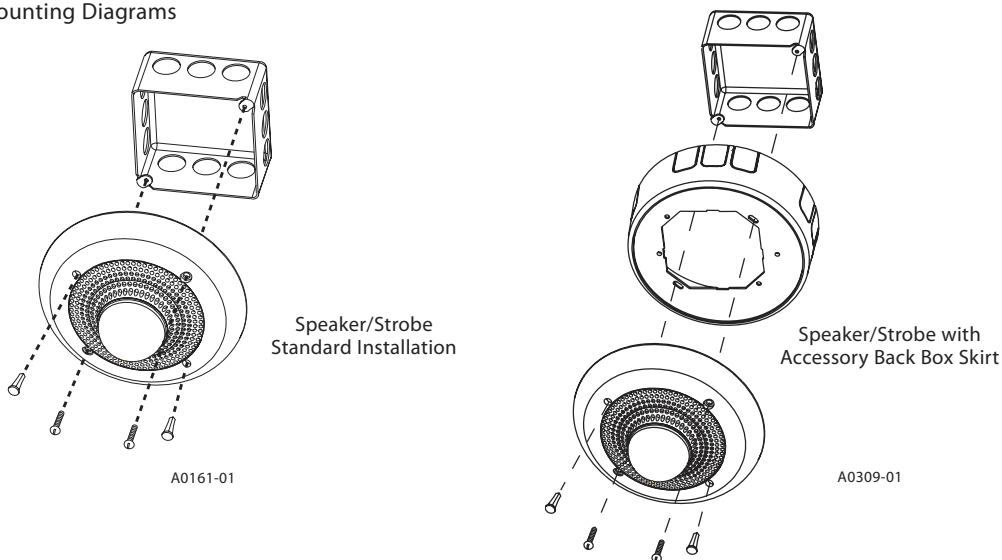
The SP2C Series is UL listed from 400 to 4000Hz but will provide an output from 100 to 10,000Hz.

Power Taps

1/4, 1/2, 1 and 2 watts

*Assumes flush mount installation

SpectrAlert Mounting Diagrams



Ordering Information/Current Draw

Description	Model No. (White)	Candela	FWR Max. Operating Current – Strobe (mA RMS)		DC Max. Operating Current – Strobe (mA RMS)				
			DC	FWR	DC	FWR			
Ceiling Speaker/Strobes	SP2C2415	15		68		64			
	SP2C241575	15/75		77		78			
	SP2C2430	30		107		113			
	SP2C2475	75		197		205			
	SP2C2495	95		239		274			
	SP2C24115	115		298		325			
	SP2C24177	177		399		489			
Surface-mount back box skirt	BBSCW								
Sync-Circuit™ Module	MDLW	Voltage	Average Current (mA)		Peak Current (mA)		In-rush Current (mA)		
			DC	FWR	DC	FWR	DC	FWR	
			12	10	12	30	31	87	122
			24	12	15	35	37	198	262

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Selectable Output Wall Speaker/Strobes

SP2 and SP3 Series Speaker/Strobes offer enhanced features that include the widest range of candela options available, the capability to self-adjust for 12 or 24 volt operation, and the fidelity sound quality expected from SpectrAlert speaker technology.



SPECTRAlert

Performance. SpectrAlert® Selectable Output Speaker/Strobes offer average current draws that are not only lower than conventional fixed-candela SpectrAlert products, but also lower than similar selectable candela products. In addition, the broad frequency response range and low harmonic distortion provided by SpectrAlert speaker technology provides an accurate and intelligible broadcast of evacuation messages.

Installation. SpectrAlert Selectable Output Speaker/Strobes offer a variety of installation-friendly features, such as the ability to mount to a 4" x 4" x 2 1/8" back box without the need for an extension ring. Also, with the field-reversible strobe, the speaker/strobe may be either left- or right-mounted to avoid potential obstructions.

Flexibility. SpectrAlert Selectable Output Speaker/Strobes offer the broadest range of candela options. In addition, the 15 cd and 15/75 cd options can operate on either 12V or 24V, with no setting required; the device recognizes the applied voltage and self-adjusts to the correct setting automatically. The speaker voltage, either 25.0 or 70.7, and power tap settings, 1/4, 1/2, 1, or 2 watt, are field-selectable.

Aesthetics. SpectrAlert Selectable Output Speaker/Strobes incorporate the same stylish, low profile design as the conventional SpectrAlert products, for a consistent and aesthetically pleasing appearance across the entire product line.

Features

- Fidelity sound quality (SP2)
- Enhanced SPL (SP3)
- Operates on either 12V or 24V
- Widest range of candela options:
 - 12V: 15 and 15/75 candela options
 - 24V: 15, 15/75, 30, 75, and 110 candela options
- Easy candela selection
- 25.0 and 70.7 volt speaker with four field-selectable power taps
- Field-reversible strobe for left- or right-mounting
- Synchronizable with MDL Sync•Circuit™ Module
- Optional surface-mount back box skirt available

Agency Listings



SPECTRA Alert Selectable Output Speaker/Strobe Specifications

Architectural/Engineering Specifications

Speaker/Strobe shall be a System Sensor Model _____ listed to UL 1480 and UL 1971 and be approved for fire protective signaling systems. Speaker shall be capable of operating at 25.0 or 70.7 nominal Vrms, and shall have a frequency range of 400 – 4000 Hz. Speaker shall have power taps that are selected by shunts. The strobe shall consist of a xenon flash tube with associated lens/reflector system and operate on either 12V or 24V. The strobe shall also feature selectable candela output, providing options for 15 or 15/75 candela when operating on 12V and 15, 15/75, 30, 75, or 110 when operating on 24V. The strobe shall comply with the Americans with Disabilities Act requirement for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range.

Physical Specifications

Dimensions	4 $\frac{1}{8}$ " x 8 $\frac{1}{4}$ " x 2 $\frac{1}{4}$ "
Mounting	4" x 4" x 2 $\frac{1}{8}$ " back box
Indoor Operating Temperature	32°F to 120°F (0°C to 49°C)

Strobe Specifications

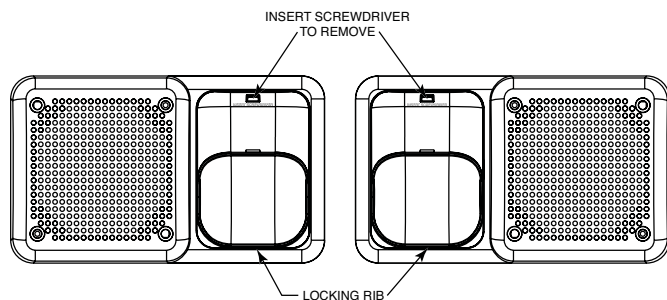
Strobe Operating Voltage	12 or 24 VDC and FWR unfiltered
Input Terminals	12 to 18 AWG
Operating Voltage Range	12V: 8–17.5V; 24V: 16–33V
Operating Voltage Range w/Sync-Circuit™ Module	12V: 9–17.5V; 24V: 17–33V

Speaker Specifications

Input Voltage	25.0 or 70.7 Vrms (nominal)			
Input Terminals	12 to 18 AWG			
Frequency Range	400–4000 Hz The SP2 and SP3 Series are UL listed from 400 to 4000Hz. The SP2 Series will provide a flat (± 10 dB) output from 100 to 15,000Hz. The SP3 Series will provide a flat (± 10 dB) output from 500 to 13,000 Hz.			
Power Taps	$\frac{1}{4}$, $\frac{1}{2}$, 1 and 2 watts			
U.S. Patent No.	6,049,446; 6,127,935			
Sound Output (UL Reverberant @ 10ft.)	2 Watts	1 Watt	$\frac{1}{2}$ Watt	$\frac{1}{4}$ Watt
SP2	84	81	78	75
SP3	89	87	84	81

Reversible Strobe Feature

Removing the strobe screw and lifting the strobe assembly out of the rib slot allows the strobe to be rotated 180° and remounted to the base resulting in a left-mounted strobe configuration.



Explanation of Published Strobe Specifications

In May 2004, Underwriters Laboratories changed standard UL 1971 to require that operating current measurements are made using RMS (root mean square) instead of peak or average values. RMS measurements more accurately predict the power consumption of a device since they take into account the entire current draw profile including surge, repetitive surge, and peak values. The published RMS current is the maximum operating current of that device within its operating voltage range. This current maximum may or may not occur at the endpoints of the voltage range.

In May 2004, UL also changed the way they list the voltage range of a device. All 12V products will be listed between 8–17.5V and all 24V products will be listed between 16–33V. These devices are considered “regulated.” Any product that does not operate within these ranges will be listed as a “special application” with its operating voltage specified on the device.

Ordering Information/Current Draw

Description	Model No.		Candela Setting	UL Max. FWR Operating Current–Strobe (mA RMS)		UL Max. DC Operating Current–Strobe (mA RMS)	
	Red	White		8–17.5V	16–33V	8–17.5V	16–33V
Wall Speaker/Strobe	SP2R1224MC	SP2W1224MC	15	112	64	127	59
			15/75	135	74	127	69
	SP3R1224MC	SP3W1224MC	30	n/a	93	n/a	90
			75	n/a	158	n/a	160
			110	n/a	208	n/a	209

Accessories

BBS-SP2R	Surface-mount back box skirt, red
BBS-SP2W	Surface-mount back box skirt, white



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