

FM Series

Electromagnetic Door Holders



Miscellaneous

General

FM Series electromagnetic door holders are designed for virtually any remote door release application. They are primarily used to hold fire and smoke barrier doors open until released by a remote smoke detector or other switching device. The complete assembly consists of: an armature contact plate with adjustable pivot mounting for installation in the door, and a heavy-duty electromagnet, in a durable plastic enclosure, mounted on the wall or floor behind the door. A separate closing device is required.

Features

- All models support 12 VDC, 24 VAC/VDC, or 120 VAC.
- Improperly applied voltage does not damage the unit.
- Spacing kit for odd angles.
- 25 to 40 pounds (11.3 kg) holding power.
- Magnet protected against transients and surges up to 600 volts (AC models).
- Fail-safe operation; power failure releases door to close.
- Positive release button initiates closing motion.
- Two-year warranty.
- Floor- and wall-mount models.

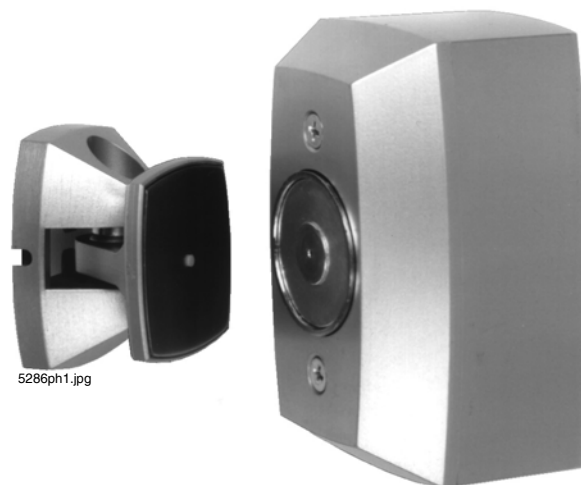
Installation

- Used in hospitals, schools, offices, nursing homes, and public buildings.
- Install where required by code, where doors may be used to confine smoke or fire, or wherever remote control or automatic closing doors are required.
- Ensure that door hardware and trim projections are compatible with total projection of door release.
- Anchor the electromagnet firmly, as the wall portion will function as a doorstop.
- Locate magnet approximately 6" (15.24 cm) in from the lock stile at the door. Wall magnets should be mounted approximately two to four feet (0.61 to 1.22 meters) above the floor for optimum performance.
- Door-mounted contact plate includes hardware for thru-bolting or concealed mounting.
- Spotting template included with unit assures correct alignment.
- 14 AWG (2.0 mm²) maximum wire size.

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** R11746 (listed for Canadian and non Canadian applications)
- **MEA Listed:** 447-00-E
- **CSFM:** 3550-0028:210



FM996

Ordering Information

FM980: Surface floor-mount model for single door; 12 VDC, 24 VAC/VDC, 120 VAC.

FM996: Surface wall-mount model; 12 VDC, 24 VAC/VDC, 120 VAC.

FM998: Flush wall-mount model; 12 VDC, 24 VAC/VDC, 120 VAC.

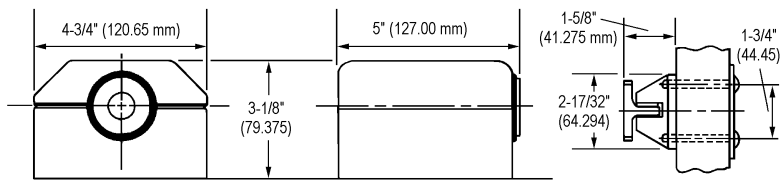
FM900: Extension kit.

FM900-Z: Extension kit, 90°.

FM900-50: Spacer, 1/2" (1.27 cm).

FM900-75: Spacer, 3/4" (1.905 cm).

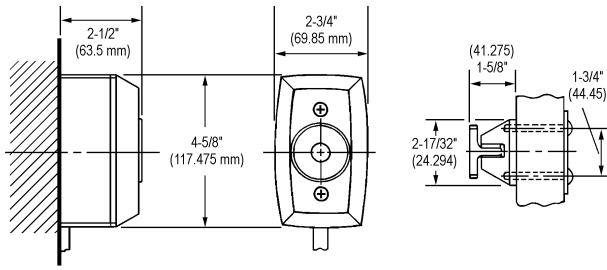
FM-900-100: Spacer, 1" (2.54 cm).



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**Model 980
Floor-Mount
Single Door**

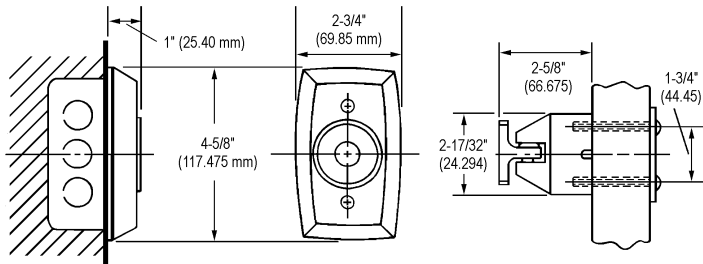
- Concealed wiring.
- Total floor space required: 6-5/8" (168 mm).
- Mounting requirements: Conduit connects directly to floor plate.
- UL-Listed door holder.
- Voltage/current:
 - 120 VAC, 60 Hz, 0.020 amp.
 - 24 VAC/VDC, 60 Hz, 0.020 amp.
 - 12 VDC, 0.040 amp.
- Shipping weight: 4 lbs. (1.8 kg).



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**Model 980
Floor-Mount
Single Door**

- Total projection: 4-1/8" (105 mm).
- Mounting requirements: 1-1/2" (38 mm) deep adapter housing.
- UL-Listed door holder.
- Shipping weight: 3 lbs. (1.4 kg).
- Voltage/Current:
 - M120 VAC, 60 Hz, 0.020 amp.
 - 24 VAC/VDC, 60 Hz, 0.020 amp.
 - 12 VDC, 0.040 amp.



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**Model 998
Wall-Mount
Standard Doors
Concealed Wiring**

- Total projection: 3-5/8" (92 mm).
- Mounting requirements: 2" x 4" x 1-3/4" (51 x 102 x 45 mm) outlet box.
- Wall must be properly reinforced and outlet box adequately fastened.
- UL-Listed door holder.
- Voltage/current:
 - 120 VAC, 60 Hz, 0.020 amp.
 - 24 VAC/VDC, 60 Hz, 0.020 amp.
 - 12 VDC, 0.040 amp.
- Shipping weight: 2-1/2 lbs. (1.1 kg).

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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 Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
www.notifier.com

Indoor Selectable-Output Speaker Strobes and Dual Voltage Evacuation Speakers for Wall Applications



Audio/Visual Devices

General

System Sensor L-Series selectable output speaker strobes and dual-voltage evacuation speakers can reduce ground faults and enable faster installation with lower current draw and modern aesthetics.

The System Sensor L-Series of speakers and speaker strobes reduce costly ground faults using a plug-in design and universal mounting plate that allow the installer to pre-wire mounting plates, dress the wires, and confirm wiring continuity before plugging in the speakers. In addition, a protective plastic cover prevents nicked wires by covering exposed speaker components.

These devices also enable faster installations by providing instant feedback to ensure that wiring is properly connected, rotary switches to select voltage and power settings, and 7 field-selectable candela settings for wall speaker strobes.

The low total harmonic distortion of the speaker offers high fidelity sound output while still offering high volume sound output for use in high ambient noise applications.

System Sensor L-Series makes installation easy.

- Attach a universal mounting plate to a 4 × 4 × 2¹/₈ inch back box. Flush-mount applications do not require an extension ring.
- Connect the notification appliance circuit or speaker wiring to the terminals on the mounting plate.
- Attach the speaker or speaker strobe to the mounting plate by inserting the product tabs into the mounting plate grooves. Hinge the device into position to lock the product pins into the mounting plate terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

Features

- Plug-in design and protective cover reduce ground faults
- Universal mounting plate with an onboard shorting spring tests wiring continuity before installation
- No extension ring required
- Field selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, 185
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela
- Rotary switch simplifies field selection of speaker voltage (25 and 70.7 Vrms) and power settings (¼, ½, 1 and 2 watts)
- Speakers offer high fidelity and high volume sound output
- Compatible with System Sensor synchronization protocol
- Electrical compatibility with existing SpectrAlert and SpectrAlert Advance products
- Tamper-resistant construction
- Updated modern aesthetics



Architectural/Engineering Specifications

GENERAL

L-Series speaker and speaker strobes shall mount to a 4 × 4 × 2¹/₈ inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit and amplifier wiring shall terminate at the universal mounting plate. Also, L-Series speaker strobes, 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 8.5 and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32°F and 120°F from a regulated DC, or full-wave rectified, unfiltered power supply. Wall-mount speaker strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, 185.

SPEAKER

The speaker shall be a System Sensor L-Series model _____ dual-voltage transformer speaker capable of operating at 25.0 or 70.7 nominal Vrms. It should be listed to UL 1480 and shall be approved for fire protective service. The speaker shall have a frequency range of 400 to 4,000 Hz and shall have an operating temperature between 32°F and 120°F. The speaker shall have power taps and voltage that are selected by rotary switches.

SPEAKER STROBE COMBINATION

The speaker strobe shall be a System Sensor L-Series model _____ listed to UL1480 and UL 1971 and be approved for fire protective signaling systems. The speaker shall be capable of operating at 25.0 or 70.7 nominal Vrms selected via rotary switch, and shall have a frequency range of 400 to 4,000 Hz. The speaker shall have power taps that are selected by rotary switch. The strobe shall comply with the NFPA 72 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.

SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1

Hz. The module shall mount to a $4^{11/16} \times 4^{11/16} \times 2^{1/8}$ 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)
- **Humidity Range:** 10 to 93% non-condensing

DIMENSIONS, WALL-MOUNT

- SP Speaker: 6.5 in x 5 in x 2.3 in. (165 mm x 127 mm x 58 mm)
- SP Speaker with Surface Mount Back Box: 6.6 in x 5.1 in x 3.2 in (168 mm x 130 mm x 82 mm)
- SPS Speaker/Strobe (including lens and speaker): 6.5 in x 5.0 in x 2.3 in (165 mm x 127 mm x 58 mm)
- SPS Speaker/Strobe (including lens and speaker) with Surface Mount Back Box: 6.6 in x 5.1 in x 4.55 in. (168 mm x 130 mm x 116 mm)

ELECTRICAL/OPERATING SPECIFICATIONS:

- **Nominal Voltage (speakers):** 25 or 70.7 (nominal)
- **Maximum Supervisory Voltage (speakers):** 50 VDC
- **Strobe Flash Rate:** 1 flash per second
- **Nominal Voltage (strobes):** Regulated 12 VDC or regulated 24 DC/FWR
- **Operating Voltage Range (includes fire alarm panels with built in sync):** 8 to 17.5 V (12 V nominal) or 16 to 33V (24 V nominal)
- **Operating Voltage with MDL3 Sync Module:** 8.5 to 17.5 V (12 V nominal) or 16.5 to 33V (24 V nominal)
- **Frequency Range:** 400 to 4000 Hz
- **Power:** ¼, ½, 1, 2 watts

UL Current Draw Data

UL MAX. STROBE CURRENT DRAW (MA RMS)

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

SOUND OUTPUT SPEAKER STROBE

	¼ W	½ W	1 W	2 W
UL Reverberant (dBA @10 ft)	77	80	83	86
UL Anechoic (dBA @10 ft)	77	80	83	86

SOUND OUTPUT SPEAKER

	¼ W	½ W	1 W	2 W
UL Reverberant (dBA @10 ft)	79	82	85	88
UL Anechoic (dBA @10 ft)	79	82	85	88

Agency Listings and Approvals

The listings and approvals below apply to L-series devices. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL-Listed:**
 - S4048 Plain Speaker Strobes (Wall)
 - S4048 Spanish-labeled Speaker Strobes (Wall)
 - S4048 ALERT speaker strobes
- **UL/ULC-Listed:**
 - S4048 Speakers (Wall)
 - S4048 Speaker Strobes (Wall)
- **FM Approved**

Product Line Information

Note: ULC-listed devices include required French labeling. See Agency Listings for listing details.

WALL MOUNT

SPWL(A), SPRL(A). Speaker only (White, Red).

SPSWL(A), SPSRL(A). Speaker Strobe (White, Red).

SPSWL-P(A), SPSRL-P(A). Plain Speaker Strobe (White, Red).

SPSWL-ALERT. Speaker Strobe, Amber Lens (White).

SPSWL-CLR-ALERT. Speaker Strobe Clear Lens (White).

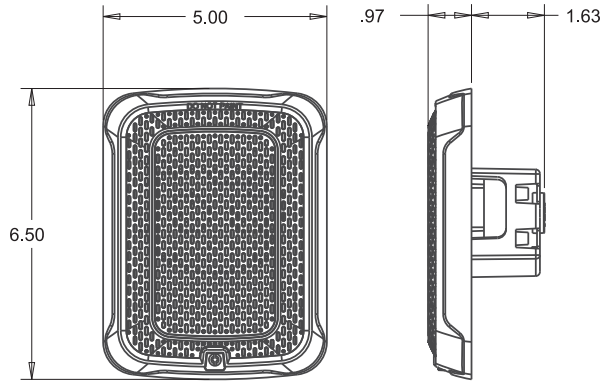
SPSRL-SP. Speaker Strobe, Fuego (White).

ACCESSORIES

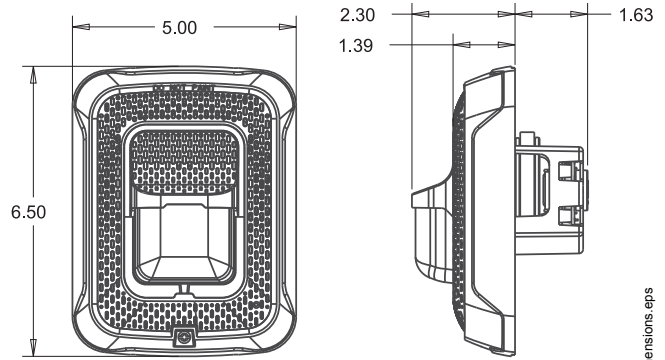
RFPW, RFP. 7 in x 9.5 in Retrofit Plate (White, Red).

SBBSPW, SBBSPR. Surface Mount Back Box for Speakers and Speaker Strobes (White, Red). **TRW, TR.** Wall Mount Trim Ring (White, Red).

Product Drawings: Dimensions and Surface Mounting

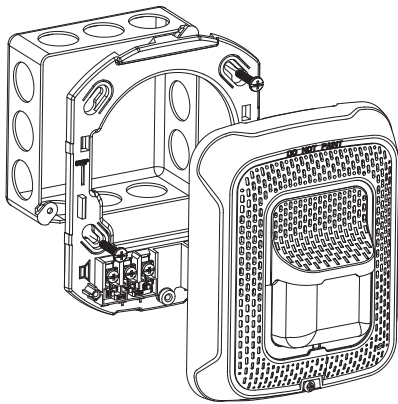


Wall-Mount Speaker



Wall-Mount Speaker Strobe

60942dimensions.eps



Wall-Mount Speaker Strobe with SBBSPRL Surface Mount Back

A0522-00.eps

Indoor Selectable-Output Speaker Strobes and Dual Voltage Evacuation Speakers for Ceiling Applications



Audio/Visual Devices

General

The L-Series of speakers and speaker strobes reduce costly ground faults using a plug-in design and universal mounting plate. The installer can pre-wire mounting plates, dress the wires, and confirm wiring continuity before plugging in the speakers. In addition, a protective plastic cover prevents nicked wires by covering exposed speaker components.

These devices also enable faster installations by providing instant feedback to ensure that wiring is properly connected, rotary switches to select voltage and power settings, and 7 field-selectable candela settings for both wall and ceiling speaker strobes.

The low total harmonic distortion of the SP speaker offers high fidelity sound output while still offering high volume sound output for use in high ambient noise applications.

L-SERIES MAKES INSTALLATION EASY

- Attach a universal mounting plate to a 4" x 4" x 2¹/₈" back box. Flush-mount applications do not require an extension ring.
- Connect the notification appliance circuit or speaker wiring to the terminals on the mounting plate.
- Attach the speaker or speaker strobe to the mounting plate by inserting the product tabs into the mounting plate grooves. Hinge the device into position to lock the product pins into the mounting plate terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

Features

- Plug-in design and protective cover reduce ground faults.
- Universal mounting plate with an onboard shorting spring tests wiring continuity before installation.
- No extension ring required.
- Field selectable candela settings on ceiling units: 15, 30, 75, 95, 115, 150, and 177.
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela.
- Rotary switch simplifies field selection of speaker voltage (25 and 70.7 Vrms) and power settings (¼, ½, 1 and 2 watts).
- Speakers offer high fidelity and high volume sound output.
- Compatible with System Sensor synchronization protocol.
- Electrical compatibility with existing SpectrAlert and SpectrAlert Advance products.
- Tamper-resistant construction.
- Updated modern aesthetics.



SPSCRL, SPSCWL

Architectural/Engineering Specifications

General. L-Series speaker and speaker strobes shall mount to a 4" x 4" x 2¹/₈" back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit and amplifier wiring shall terminate at the universal mounting plate. Also, L-Series speaker strobes, 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 8.5 and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32°F and 120°F from a regulated DC, or full-wave rectified, unfiltered power supply. Speaker strobes shall have field-selectable candela settings including 15, 30, 75, 95, 115, 150, 177.

Speaker. The speaker shall be a System Sensor L-Series model dual-voltage transformer speaker capable of operating at 25.0 or 70.7 nominal Vrms. It should be listed to UL 1480 and shall be approved for fire protective service. The speaker shall have a frequency range of 400 to 4,000 Hz and shall have an operating temperature between 32°F and 120°F. The speaker shall have power taps and voltage that are selected by rotary switches.

Speaker Strobe Combination. The speaker strobe shall be a System Sensor L-Series model listed to UL1480 and UL 1971 and be approved for fire protective signaling systems. The speaker shall be capable of operating at 25.0 or 70.7 nominal Vrms selected via rotary switch, and shall have a frequency range of 400 to 4,000 Hz. The speaker shall have power taps that are selected by rotary switch. The strobe shall comply with the NFPA 72 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.

Synchronization Module. The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz. The module shall mount to a 4¹¹/₁₆" x 4¹¹/₁₆" x 2¹/₈" 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 Specifications

- **Standard Operating Temperature:** 32°F to 120°F (0°C to 49°C).
- **Humidity Range:** 10 to 93% non-condensing.
- **Dimensions, Ceiling-Mount:**
 - **SPC Speaker:** Diameter 6.8 in, 173 mm. Depth: 1.0 in, 25 mm.
 - **SPC Speaker with Surface Mount Back Box:** Diameter: 6.9 in, 176 mm. Depth: 3.5 in, 89 mm.
 - **SPSC Speaker Strobe:** Diameter: 6.8 in, 173 mm. Depth: 2.8 in, 73 mm.
 - **SPSC Speaker Strobe with Surface Mount Back Box:** Diameter 6.9 in, 176 mm. Depth: 5.37 in, 136 mm.

Electrical/Operating Specifications

- **Nominal Voltage (speakers):** 25 Volts or 70.7 Volts (nominal).
- **Maximum Supervisory Voltage (speakers):** 50 VDC.
- **Strobe Flash Rate:** 1 flash per second.
- **Nominal Voltage (strobes):** Regulated 12 DC or regulated 24 DC/FWR (full wave rectified).
- **Operating Voltage Range (includes fire alarm panels with built in sync):** 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal).
- **Operating Voltage with MDL3 Sync Module:** 8.5 V to 17.5 V (12 V nominal) or 16.5 V to 33 V (24 V nominal).
- **Frequency Range:** 400 to 4,000 Hz.
- **Power:** ¼, ½, 1, 2 watts.

UL Current Draw Data

UL MAX. STROBE CURRENT DRAW (MA RMS)

Candela	8-17.5 Volts	16-33 Volts	
	DC	DC	FWR
15	87	41	60
30	153	63	86
75	NA	111	142
95	NA	134	164
115	NA	158	191
150	NA	189	228
177	NA	226	264

CEILING-MOUNT SPEAKER SOUND OUTPUT

Setting	UL Reverberant (dBA @10 ft)	UL Anechoic (dBA @10 ft)
¼ W	79	79
½ W	82	82
1 W	85	85
2 W	88	88

CEILING-MOUNT SPEAKER STROBE SOUND OUTPUT

Setting	UL Reverberant (dBA @10 ft)	UL Anechoic (dBA @10 ft)
¼ W	77	77
½ W	80	80
1 W	83	83
2 W	86	86

Agency Listings and Approvals

The listings and approvals below apply to L-series devices. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL-Listed:**
 - S4048 Plain Speaker Strobes (Ceiling)
 - S4048 Spanish-labeled Speaker Strobes (Ceiling)
 - S4048 ALERT speaker strobes
- **UL/ULC-Listed:**
 - S4048 Speakers (Ceiling)
 - S4048 Speaker Strobes (Ceiling)
- **FM Approved**

Product Line Information

Note: ULC-listed devices include required French labeling. See Agency Listings for listing details.

CEILING MOUNT SPEAKER STROBES

SPCWL(A), SPCRL(A). Speaker only (White, Red).

SPSCWL(A), SPSCRL(A). Speaker strobe (White, Red).

SPSCWL(A)-P. Plain speaker strobe (White).

SPSCWL-SP. Spanish-labeled “Fuego” speaker strobe (White).

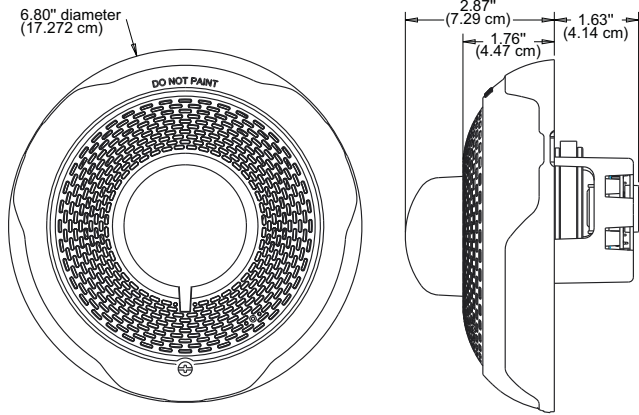
SPSCWL-CLR-ALERT. “Alert” model speaker strobe with clear lens (White).

ACCESSORIES

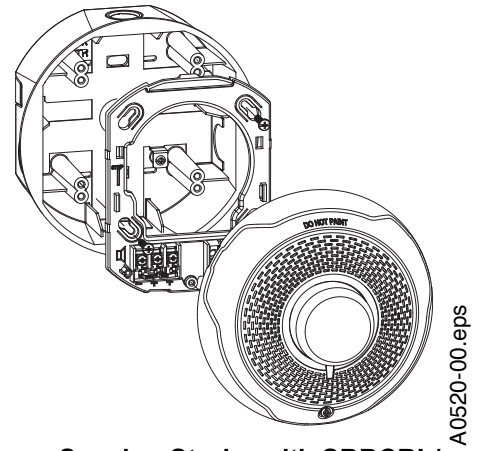
SBBCWL, SBBCRL. Universal Ceiling Surface Mount Back Box (White, Red).

TRC-2W, TRC-2. Universal Ceiling Trim Ring (White, Red).

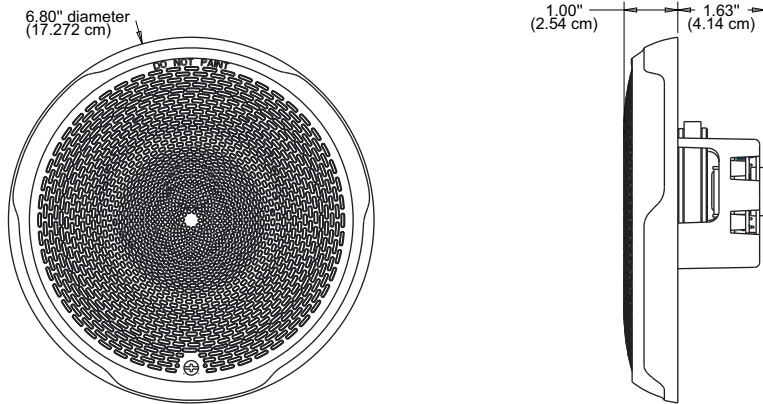
Product Drawings



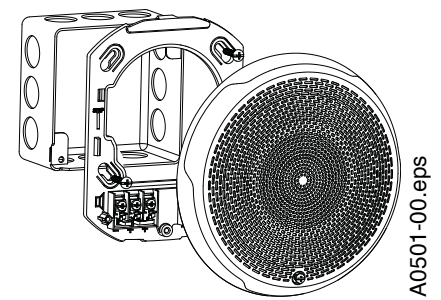
Speaker Strobe Dimensions



**Speaker Strobe with SBBCRL/
SBBCWL Surface Mount Back Box**



Speaker Dimensions



**Speaker with SBBCRL/SBBCWL
Surface Mount Back Box**



Outdoor, Selectable-Output Speaker Strobes and Dual-Voltage Evacuation Speakers for Wall Applications

SpectrAlert® Advance outdoor, selectable-output speaker strobes and dual-voltage evacuation speakers meet virtually any outdoor application requirement.

Features

- Weatherproof per NEMA 4X, IP56
- Rated from -40°F to 151°F
- Plug-in design reduces ground faults
- Universal mounting plate with onboard shorting spring that tests wiring continuity before devices are installed
- Field-selectable candela settings: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Rotary switch for speaker voltage (25 and 70.7 Vrms) and power settings (1/4, 1/2, 1 and 2 watts)
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products
- Tamper-resistant construction
- Listed for ceiling or wall mounting

Agency Listings



SPECTRAlert
ADVANCE
From System Sensor

SpectrAlert Advance offers the broadest line of outdoor speakers and speaker strobes in the industry. From metal and plastic outdoor back boxes, to white and red plastic housings, to wall and ceiling mounting options, SpectrAlert Advance can meet virtually any application requirement.

Wall-mount outdoor speakers and speaker strobes can be used indoors or outdoors in wet or dry applications, and can provide reliable operation from -40°F to 151°F. These speakers provide a broad frequency response range, low harmonic distortion and maintain a high sound pressure level at all tap settings to provide accurate and intelligible broadcast of evacuation messages.

Like the entire SpectrAlert Advance line, wall-mount outdoor speakers and speaker strobes include a variety of features that increase application flexibility and simplify installation. First, field-selectable settings, including candela, speaker voltage and power settings, and automatic selection of 12- or 24-volt operation enable installers to easily adapt devices to meet requirements.

Next, these devices use a universal mounting plate with an onboard shorting spring that ensures wiring continuity before devices are installed, so installers can verify proper wiring without mounting the devices and exposing them to potential construction damage. Once the plates are mounted, all SpectrAlert Advance devices utilize a plug-in design with a single captured screw to speed installation and virtually eliminate costly ground faults.

Outdoor devices ship with weatherproof plastic back boxes (metal back boxes are available separately) that accommodate in-and-out wiring for daisy chaining devices. Plastic back boxes feature removable side flanges and improved resistance to saltwater corrosion. Knock-outs located on the back eliminate the need to drill holes for screw-in mounting. Plastic and metal weatherproof back boxes come with 3/4-inch top and bottom conduit entries and 3/4-inch knock-outs at the back. A screw-in NPT plug with an O-ring gasket for a watertight seal is included with each back box.

SpectrAlert® Advance Outdoor Speaker and Speaker Strobe Specifications

Architectural/Engineering Specifications

General

SpectrAlert Advance outdoor speakers and speaker strobes shall mount to a weatherproof back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit and amplifier wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance speaker strobes, 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. Outdoor SpectrAlert Advance products shall operate between -40°F and 151°F from a regulated DC, or full-wave rectified, unfiltered power supply.

Speaker

Speaker shall be a System Sensor SpectrAlert Advance Model _____ dual-voltage transformer speaker capable of operating at 25.0 or 70.7 nominal Vrms. Speaker shall be listed to Underwriters Laboratories Standard S4048 for outdoor fire protective signaling systems. Speaker shall have a frequency range of 400 to 4,000 Hz and shall have an operating temperature from -40°F to 150.8°F. Speaker shall have power taps and wattage settings that are selected by rotary switches. The speaker must be installed with its weatherproof back box in order to remain outdoor approved per UL listing S4048. The speaker shall be suitable for use in air handling spaces and wet environments.

Speaker Strobe Combination

The speaker strobe shall be a System Sensor Model _____ listed to UL 1638 and UL 1480 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 4,000 Hz. Speaker shall have power taps that are selected by rotary switch. The strobe shall consist of a xenon flash tube with associated lens/reflector system and operate on either 12 or 24 volts. The strobe shall also feature selectable candela output, providing options for 15 or 15/75 candela when operating on 12 volts and 15, 15/75, 30, 75, 110, 115, 135, 150, 177 or 185 candela when operating on 24 volts. 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. The speaker strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The speaker strobe shall be suitable for use in wet environments.

Physical Specifications

Operating Temperature	-40°F to 151°F (-40°C to 66°C)
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Dimensions, Wall-Mount

SPS Speaker Strobe	6.0" L x 5.0" W x 4.7" D (including lens and speaker)
SP Speaker	6.0" L x 5.0" W x 2.9" D

Dimensions, Wall-Mount Weatherproof Back Box	6.5" L x 5.5" H x 2.9" D
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Electrical/Operating Specifications

Nominal Voltage (speakers)	25 V or 70.7 V (nominal)
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Maximum Supervisory Voltage (speakers)	50 VDC
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Strobe Flash Rate	1 flash per second
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Nominal Voltage (strobes)	Regulated 12 VDC/FWR or regulated 24 DC/FWR
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Operating Voltage Range (includes fire alarm panels with built in sync)	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
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Operating Voltage with MDL Sync Module	9 to 17.5 V (12 V nominal) or 17 to 33 V (24 V nominal)
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Frequency Range	400 to 4,000 Hz
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Power	¼, ½, 1, 2 watts
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UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)					
	Candela	8 to 17.5 Volts		16 to 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

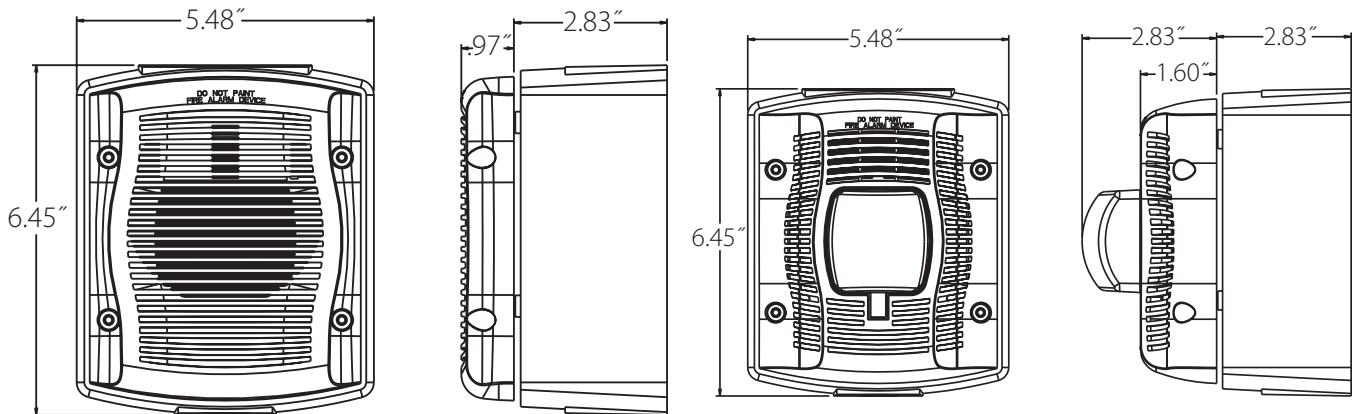
Sound Output				
UL Reverberant (dBA @ 10 ft.)	2W	1W	½ W	¼ W
Outdoor Speaker	90	87	84	81
Outdoor Speaker/Strobe	89	86	83	80

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

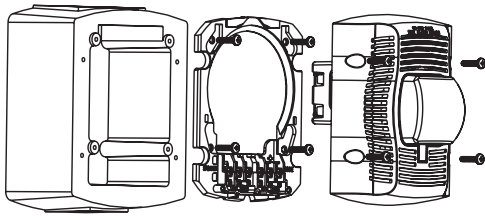
Dimensions



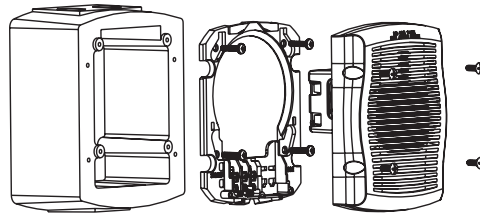
Wall-Mount Outdoor Speaker

Wall-Mount Outdoor Speaker Strobe

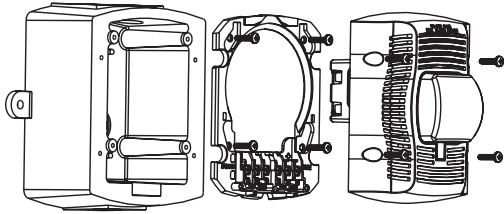
Surface Mounting



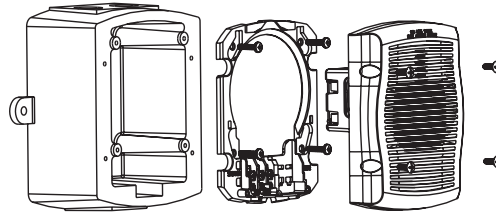
Wall-Mount Speaker Strobe with Plastic Weatherproof Back Box



Wall-Mount Speaker with Plastic Weatherproof Back Box



Wall-Mount Speaker Strobe with Metal Weatherproof Back Box



Wall-Mount Speaker with Metal Weatherproof Back Box

Ordering Information for SpectrAlert® Advance Outdoor Speakers and Speaker Strobes

Wall Mount		
White	Red	Description
SPWK*	SPRK*	Outdoor Speaker (includes plastic weatherproof back box)
SPSWK*†	SPSRK*†	Outdoor Speaker Strobe, Standard cd (includes plastic weatherproof back box)
SPSWK-CLR-ALERT	—	Outdoor Speaker Strobe, Standard cd, Clear Lens, ALERT Printed (includes plastic weatherproof back box)
—	SPSRHK	Outdoor Speaker Strobe, High cd (135,150,177,185) (includes plastic weatherproof back box)
Accessories		
White	Red	Description
MWBBW	MWBB	Wall, Metal Weatherproof Back Box

Notes:

*Add “-R” to model number for weatherproof replacement device (no back box included), e.g., SPWK-R.

†Add “-P” to model number for plain housing (no “FIRE” marking on cover), e.g., SPSWK-P.

“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. **When replacing standard outdoor units, both the device and back box must be replaced.**



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AVDS01001 • 03/12

Indoor Selectable-Output Horns, Strobes, and Horn Strobes for Wall Applications



Audio/Visual Devices

General

The L-Series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and small footprint devices, and plain, FIRE-printed devices, L-Series can meet virtually any application requirement.

The L-Series product line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, L-Series utilizes a universal mounting plate for all standard and compact models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

Features

- Updated modern aesthetics.
- Small profile devices for Horns and Horn Strobes.
- Plug-in design with minimal intrusion into the back box.
- Tamper-resistant construction.
- Automatic selection of 12- or 24-volt operation at 15 and 30 candela.
- Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185.
- Horn rated at 88+ dBA at 16 volts.
- Rotary switch for horn tone and two volume selections.
- Universal mounting plate for all standard and all compact wall units.
- Mounting plate shorting spring checks wiring continuity before device installation.
- Electrically Compatible with legacy SpectrAlert® and SpectrAlert Advance devices.
- Compatible with MDL3 sync module.
- Listed for wall mounting only.

Architectural/Engineering Specifications

General: L-Series standard horns, strobes, and horn strobes shall mount to a standard 2" x 4" x 1⁷/₈" back box, 4" x 4" x 1¹/₂" back box, 4" octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2" x 4" x 1⁷/₈" back box. A universal mounting plate shall be used for mounting ceiling and wall products for all standard-size models and a separate universal mounting plate shall be used for mounting compact wall models. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series 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



P2RL



P2GWL



SGWL



HWL

12 or 24 volts. When used with the Sync•Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 8.5 and 17.5 volts; 24-volt-rated c appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unaltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 30, 75, 95, 110, 135, and 185.

Strobe. The strobe shall be a L-Series 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 L-Series 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 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. The horn on horn strobe models shall operate on a coded or non-coded power supply.

Synchronization Module. The module shall be a Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectraAlert strobes at 1 Hz 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 $4\frac{11}{16}'' \times 4\frac{11}{16}'' \times 2\frac{1}{8}''$ 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

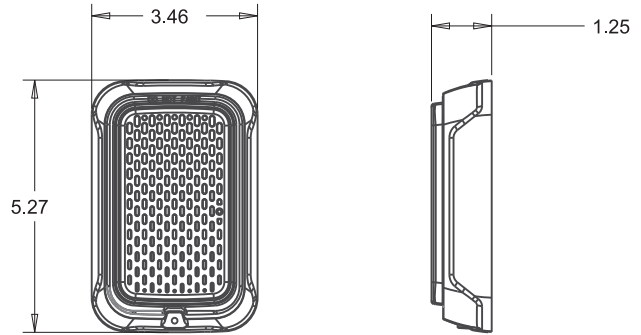
- **Standard Operating Temperature:** 32°F to 120°F (0°C to 49°C).
- **Humidity Range:** 10 to 93% non-condensing.
- **Strobe Flash Rate:** 1 flash per second.
- **Nominal Voltage:** Regulated 12 DC or regulated 24 DC/FWR¹ (full wave rectified).
- **Operating Voltage Range²:** 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal).
- **Operating Voltage Range:** MDL3 Sync Module 8.5 to 17.5 V (12 V nominal) or 16.5 to 33 V (24 V nominal).
- **Input Terminal Wire Gauge:** 12 to 18 AWG.
- **Wall-Mount Dimensions (including lens):** 5.6" L x 4.7" W x 1.25" D (143 mm L x 119 mm W x 32 mm D).
- **Compact Wall-Mount Dimensions (including lens):** 5.26" L x 3.46" W x 1.93" D (133 mm L x 88 mm W x 49 mm D).
- **Horn Dimensions:** 5.6" L x 4.7" W x 1.25" D (143 mm L x 119 mm W x 32 mm D).
- **Compact Horn Dimensions:** 5.25" L x 3.45" W x 1.25" D (133mm L x 88mm W x 32mm D).

Notes:

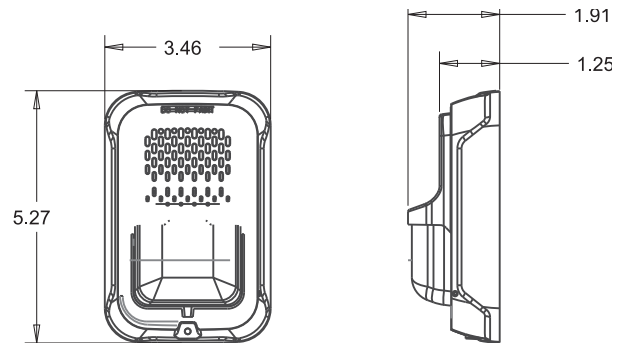
1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 cd and 30 cd.

L-Series Drawings

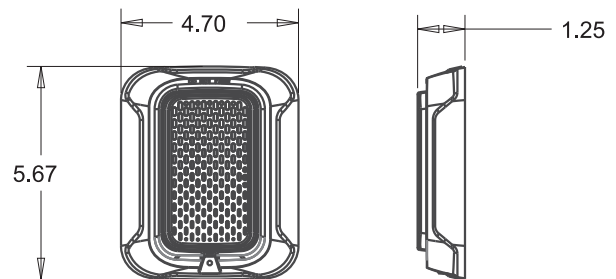
Compact Horn



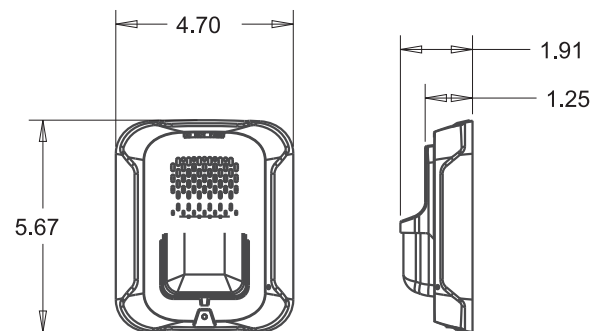
Compact Combo



Horn



Combo



UL Current Draw Data

UL MAX. STROBE CURRENT DRAW (MA RMS)

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

UL MAX. HORN CURRENT DRAW (MA RMS)

Sound Pattern	dB	8-17.5 Volts	16-33 Volts	
		DC	DC	FWR
Temporal	High	39	44	54
Temporal	Low	28	32	54
Non-Temporal	High	43	47	54
Non-Temporal	Low	29	32	54
3.1 KHz Temporal	High	39	41	54
3.1 KHz Temporal	Low	29	32	54
3.1 KHz Non-Temporal	High	42	43	54
3.1 KHz Non-Temporal	Low	28	29	54
Coded	High	43	47	54
3.1 KHz Coded	High	42	43	54

UL MAX. CURRENT DRAW (MA RMS), 2-WIRE HORN STROBE, CANDELA RANGE (15-115 CD)

	DC Input: 8-17.5 Volts		DC Input: 16-33 Volts						FWR Input: 16 FWR							
	15 cd	30 cd	15 cd	30 cd	75 cd	95 cd	110 cd	135 cd	185 cd	15 cd	30 cd	75 cd	95 cd	110 cd	135 cd	185 cd
EM Temp Hi	98	158	54	74	121	142	162	196	245	83	107	156	177	198	234	287
EM Temp Low	93	154	44	65	111	133	157	184	235	68	91	145	165	185	223	271
EM Cont Hi	106	166	73	94	139	160	182	211	262	111	135	185	207	230	264	316
EM Cont Low	93	156	51	71	119	139	162	190	239	79	104	157	175	197	235	283
3.1K Temp Hi	93	156	53	73	119	140	164	190	242	81	105	155	177	196	234	284
3.1K Temp Low	91	154	45	66	112	133	160	185	235	68	90	145	166	186	222	276
3.1K Cont Hi	99	162	69	90	135	157	175	208	261	104	131	177	204	230	264	326
3.1k Cont Low	93	156	52	72	119	138	162	192	242	77	102	156	177	199	234	291

HORN TONES AND SOUND OUTPUT DATA: HORN AND HORN STROBE OUTPUT (DBA)

Pos.	Sound Pattern	dB	8-17.5 Volts	16-33 Volts	
			DC	DC	FWR
1	Temporal	High	84	89	89
2	Temporal	Low	75	83	83
3	Non-Temporal	High	85	90	90
4	Non-Temporal	Low	76	84	84
5	3.1 KHz Temporal	High	83	88	88
6	3.1 KHz Temporal	Low	76	82	82
7†	3.1 KHz Non-Temporal	High	84	89	89
8†	3.1 KHz Non-Temporal	Low	77	83	83
9†	Coded	High	85	90	90
10	3.1 KHz Coded	High	84	89	89

Agency Listings and Approvals

The listings and approvals below apply to L-series devices. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL/ULC-Listed**
 - S4011 Wall Horn Strobes
 - S5512 Wall Strobes
 - S5512 Wall Horns
- **FM Approved**

Product Line Information

Note: ULC-listed devices include required French labeling. See Agency Listings for listing details.

WALL HORN STROBES

P2WL(A), P2RL(A). 2-Wire, Horn Strobe (White, Red).

P2GWL(A), P2GRL(A). 2-Wire, Compact Horn Strobe (White, Red).

P2WL(A)-P, P2RL(A)-P. 2-Wire, Horn Strobe, Plain (White, Red).

P2WL-SP, P2RL-SP. 2-Wire, Horn Strobe, FUEGO (White, Red).

WALL STROBES

SWL(A), SRL(A). Strobe, Red (White, Red).

SGWL(A), SGRL(A). Compact Strobe (White, Red).

SWL(A)-P, SRL(A)-P. Strobe, Plain (White, Red).

SRL-SP. Strobe, FUEGO (Red).

SWL-CLR-ALERT. Strobe, ALERT (White).

SWL-ALERT. Strobe, Wall, Amber Lens, Alert (White).

HORNS

HWL(A), HRL(A). Horn (White, Red).

HGWL(A), HGRL(A). Compact Horn (White, Red).

ACCESSORIES

TR-2W, TR-2. Universal Wall Trim Ring (White, Red).

SBBWL, SBBRL. Wall Surface Mount Back Box (White, Red).

SBBGWL, SBBGRL. Compact Wall Surface Mount Back Box (White, Red).

Notes:

- All -P models have a plain housing (no "FIRE" marking on cover).
- All -SP models have "FUEGO" marking on cover.
- All -ALERT models have "ALERT" marking on cover.
- ULC-listed "A" models have FIRE/FEU marking on cover.

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