Indoor Selectable-Output Low Frequency Sounders and Low Frequency Sounder Strobes

System Sensor L-Series audible visible notification products are rich with features guaranteed to maximize profits with lower current draw and modern aesthetics.

Features

- 520 Hz ± 10% square wave tone
- Full candela range plus High/Low tone options to optimize current draw for a wide variety of applications
- Compact, standard, and round ceiling options
- Field-selectable candela settings. Wall units: 15, 30, 75, 95, 110, 135, and 185. Ceiling units: 15, 30, 75, 95, 115, 150, and 177.
- Rotary switch for High/Low, Temp3, Temp4, and Continuous settings. Sounder-only models also offer a Coded setting.
- Plug-in design with minimal intrusion into the back box
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert® and SpectrAlert Advance devices
- Compatible with MDL3RA and MDL3WA sync modules
- HGRLZA-LF and HGWLZA-LF include an LED alarm indicator and silence button.
- Sounders listed for ceiling and wall
- Round Sounder Strobes listed for ceiling and wall
- Updated modern aesthetics

Agency Listings

ULC LISTED S4011

FM APPROVED PR452768

The L-Series offers the most versatile and easy-to-use line of low frequency sounder and low frequency sounder strobes in the industry. With white and red plastic housings, listed for wall and ceiling mounting, L-Series Low Frequency can meet virtually any application requirement.

The low frequency sounder and low frequency sounder strobes were designed to address sleeping space requirements that require a low frequency notification appliance that operates within frequency range of 520 Hz ± 10% and is of a square wave tone. Like the entire L-Series product line they 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 uses a universal mounting plate with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, 24-volt operation, and a rotary switch for 520 Hz low frequency sounder tones.

Two-Stage operation is required to provide a fast pulsing pre-tone ahead of a Temporal 3 tone. Low frequency sounder-only units support two-stage operation when configured for “coded” mode. Low frequency sounder strobe units do not support two-stage operation.

L-Series Specifications

Architect/Engineer Specifications

General

L-Series low-frequency sounders and low-frequency sounder strobes shall mount to a standard 4 × 4 × 1½-inch back box (10.16 cm x 10.16 cm x 3.8 cm), 4-inch (10.16 cm) octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 × 4 × 1⅞-inch (10.16 cm x 10.16 cm x 4.76 cm) back box. A universal mounting plate shall be used for mounting wall products for all standard models and a separate universal mounting plate shall be used for mounting wall compact 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 24 volts. When used with the Sync•Circuit Module, 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit (0 to 49 degrees Celsius) from a regulated DC or full-wave rectified unfiltered power supply. Low-frequency sounder strobes shall have field-selectable candela settings. Wall units: 15, 30, 75, 95, 110, 135, and 185. Ceiling units: 15, 30, 75, 95, 115, 150, and 177. The field selectable tones will sound within the frequency range of 520 Hz ±10% square wave tone. The housing will be permanently marked “520 Hz”.

Low Frequency Sounder

The low frequency sounder shall be a System Sensor L-Series Model _____ listed to ULC and shall be approved for fire protective service. The low frequency sounder and the Sync•Circuit™ Module accessory, if used, shall be powered from a notification appliance circuit output and shall operate on a nominal 24 volts (includes fire alarm panels with built-in sync). When used with the Sync•Circuit Module, 24-volt rated notification appliance circuit outputs shall operate between 16.5 to 33 volts. The low-frequency sounder shall offer a choice of tone patterns: temporal three, temporal four, non-temporal (continuous) pattern, and coded supply. The low frequency sounder shall operate on a coded or non-coded power supply. It shall have high and low volume settings. The field selectable tones will sound within the frequency range of 520 Hz ±10% square wave tone.

Low Frequency Sounder Strobe Combination

The low-frequency sounder strobe shall be a System Sensor L-Series Model _____ listed to ULC and shall be approved for fire protective service. The sounder strobe shall be wired as a primary-signaling notification appliance and comply with the 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 sounder shall have three audibility options and an option to switch between a temporal three pattern, temporal four pattern, and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The sounder on low frequency sounder strobe models shall operate on a non-coded power supply. It shall have high and low volume settings. The field selectable tones will sound within the frequency range of 520 Hz ±10% square wave tone.

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3WA/MDL3RA listed to ULC and shall be approved for fire protective service. The module shall synchronize strobes at 1 Hz and low-frequency sounders at temporal three. Also, while operating the strobes, the module shall silence the sounders on low-frequency sounder strobe models over a single pair of wires. The module shall mount to a $4^{11}/_{16} \times 4^{11}/_{16} \times 2^{1}/_{8}$-inch (11.91 cm x 11.91 cm x 5.40 cm) back box. The module shall also control two Class B circuits or one 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
Frequency Range	520 Hz ± 10%
Strobe Flash Rate	1 flash per second
Nominal Voltage Low Frequency Sounder	Regulated 24 DC/FWR[1]
Nominal Voltage Range Low Frequency Sounder Strobe	Regulated 24 VDC/FWR[1]
Operating Voltage Range	16 to 33 V (24 V nominal)
Operating Voltage Range with Sync Module MDL3RA/ MDL3WA	16.5 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Dimensions	
Wall Sounder Strobe (including lens)	5.6" L x 4.7" W x 1.9" D (142 mm L x 119 mm W x 49 mm D)
Ceiling Sounder Strobe (including lens)	6.80” diameter x 2.47” high (173.5 mm diameter x 62.7 mm D)
Standard Wall Sounder	5.6" L × 4.7" W × 1.5" D (142 mm L × 119 mm W × 38 mm D)
Compact Wall Sounder	5.25" L x 3.46" W x 1.5" D (133mm L x 88mm W x 38mm D)
Ceiling Sounder	6.8" diameter x 1.4" high (173mm diameter x 36mm high)
Low Frequency Sounder/Strobe with Surface Mount Back Box (SBBR, SBBW)	6.4" L x 4.7" W x 4.3" D (162 mm L x 120 mm W x 108 mm D)
Low Frequency Ceiling Sounder with Surface Mount Back Box (SBBCRL, SBBCWL)	6.9" diameter x 3.9" high (175mm diameter x 99mm high)
Low Frequency Standard Sounder with Surface Mount Back Box (SBBR, SBBW)	5.7" L x 4.8" W x 3.3" D (145 mm L x 120 mm W x 87 mm 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.

UL/ULC Current Draw and Sound Output Data

Low Frequency Sounder Strobe Current Draw (mA) and Sound Output (dBA)

Wall Sounder Strobe			Current Draw (mA)														Sound Output (dBA) UL Reverberant		Sound Output (dBA) ULC Anechoic	
			16-33 VDC							16-33 FWR							16-33 V		16-33 V	
Pos	Tone	Volume Setting	15cd	30cd	75cd	95cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	110cd	135cd	185cd	DC	FWR	DC	FWR
1	Temp 3	High	98	115	158	173	182	212	266	136	153	188	206	228	258	304	80	80	82	82
2		Low	98	102	141	162	173	202	255	150	150	176	194	216	242	280	76	76	78	78
3	Temp 4	High	98	108	137	151	178	202	252	200	198	169	188	212	242	290	80	80	82	82
4		Low	102	104	122	136	163	187	237	176	174	154	173	197	227	275	76	76	78	78
5	Continu-	High	141	158	198	216	234	264	305	190	207	249	268	289	321	368	80	80	82	82
6	ous	Low	120	128	179	196	215	244	285	165	182	226	244	266	297	342	76	76	78	78

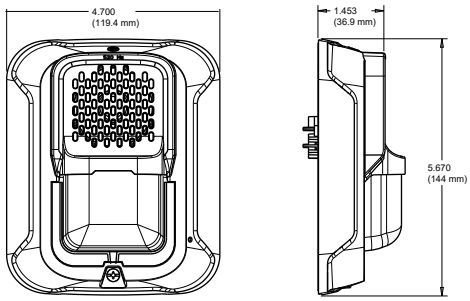
Ceiling Sounder Strobe			Current Draw (mA)														Sound Output (dBA) UL Reverberant		Sound Output (dBA) ULC Anechoic	
			16-33 VDC							16-33 FWR							16-33 V		16-33 V	
Pos	Tone	Volume Setting	15cd	30cd	75cd	95cd	115cd	150cd	177cd	15cd	30cd	75cd	95cd	115cd	150cd	177cd	DC	FWR	DC	FWR
1	Temp 3	High	98	115	158	173	182	212	266	136	153	188	206	228	258	304	80	80	82	82
2		Low	98	102	141	162	173	202	255	150	150	176	194	216	242	280	76	76	78	78
3	Temp 4	High	98	108	137	151	178	202	252	200	198	169	188	212	242	290	80	80	82	82
4		Low	102	104	122	136	163	187	237	176	174	154	173	197	227	275	76	76	78	78
5	Continu-	High	141	158	198	216	234	264	305	190	207	249	268	289	321	368	80	80	82	82
6	ous	Low	120	128	179	196	215	244	285	165	182	226	244	266	297	342	76	76	78	78

Max. Low Frequency Sounder Current Draw (mA RMS)

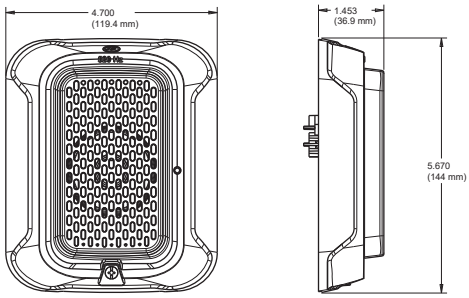
Wall and Ceiling Sounder			Current Draw (mA)		Sound Output (dBA) UL Reverberant		Sound Output (dBA) ULC Anechoic	
			16-33 V		16-33 V		16-33 V	
Pos	Tone	Volume Setting	DC	FWR	DC	FWR	DC	FWR
1	Temp 3	High	108	150	80	80	82	82
2		Low	78	76	76	76	78	78
3	Temp 4	High	111	151	80	80	82	82
4		Low	80	76	76	76	78	78
5	Continu-	High	111	151	80	80	82	82
6	ous	Low	80	76	76	76	78	78
7	Coded	High	111	151	80	80	82	82
8		Low	80	76	76	76	78	78

*NOTE: For coded tones, temporal coding must be provided by the NAC. If the NAC voltage is held constant, the sounder output will remain constantly on. Coded ratings provided are for continuous voltage.

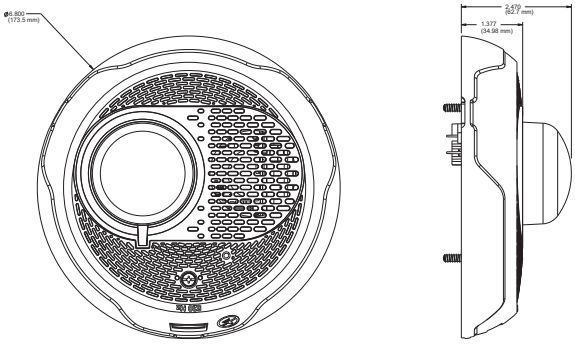
L-Series Dimensions



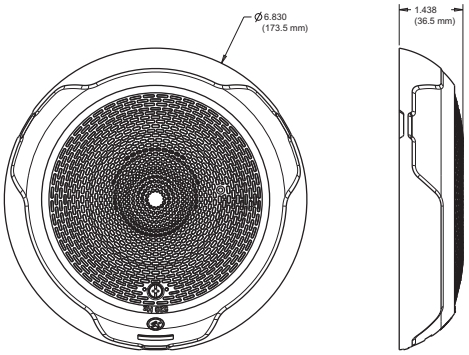
Wall LF Sounder Strobe



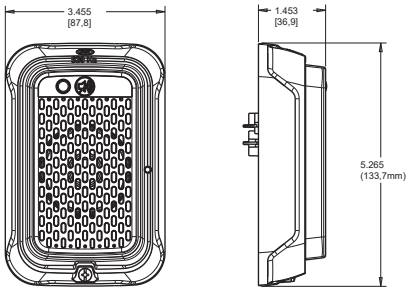
Wall LF Sounder



Ceiling LF Sounder Strobe



Ceiling LF Sounder



Compact Wall LF Sounder with Hush

Part No.		Description
Red	White	
Low Frequency Sounder Strobes		
P2RLA-LF	P2WLA-LF	LF Sounder Strobe, Wall, English/French marking
PC2RLA-LF	PC2WLA-LF	LF Sounder Strobe, Ceiling, English/French marking
Low Frequency Sounders		
HRLA-LF	HWLA-LF	LF Sounder, Wall
HGRLZA-LF	HGWLZA-LF	Compact LF Sounder, Wall, Silenceable
HCRLA-LF	HCWLA-LF	LF Sounder, Ceiling
Accessories		
MDL3RA	MDL3WA	Sync•Circuit™ Module, ULC-listed
SBBRL	SBBWL	Surface Mount Back Box, Wall
SBBCRL	SBBCWL	Surface Mount Back Box, Ceiling
SBBGRL	SBBGWL	Surface Mount Back Box, Wall, Compact

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