

L-Series Low Frequency Sounders and Sounder Strobes

General

L-Series audible visible notification products have features to maximize profits with lower current draw and modern aesthetics.

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 the NFPA 72 sleeping space requirements that require a low frequency notification appliance that operates within frequency range of 520 Hz \pm 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.

Low-frequency models include:

- Wall-mount sounder strobes: P2RL-LF, P2WL-LF, P2RLA-LF, P2WLA-LF
- Wall-mount sounders: HRL-LF, HWL-LF, HRLA-LF, HWLA-LF
- Ceiling-mount sounder strobes: PC2RL-LF, PC2WL-LF, PC2RLA-LF, PC2WLA-LF
- Ceiling-mount sounders: HCRL-LF, HCWLA-LF, HCRL-LF, HCWLA-LF
- Compact wall-mount sounders with hush function: HGRLZA-LF, HGWLZA-LF

Features

- 520 Hz \pm 10% square wave tone, NFPA compliance
- 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 (directly replaces HW/R-LF, P2R/WH-LF)
- Compatible with Sync•Circuit[™] modules MDL3R(A) and MDL3W(A)
- 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



Product Line Information

Low-Frequency Sounder Strobes

- P2RL-LF:** Low-frequency sounder strobe, wall, red, UL-listed
- P2RLA-LF:** Low-frequency sounder strobe, wall, red, ULC-listed
- P2WL-LF:** Low frequency sounder strobe, wall, white, UL-listed
- P2WLA-LF:** Low frequency sounder strobe, wall, white, ULC-listed
- PC2RL-LF:** Low-frequency sounder strobe, ceiling, red, UL-listed
- PC2RLA-LF:** Low-frequency sounder strobe, ceiling, red, ULC-listed
- PC2WL-LF:** Low frequency sounder strobe, ceiling, white, UL-listed
- PC2WLA-LF:** Low frequency sounder strobe, ceiling, white, ULC-listed

Low-Frequency Sounders

- HRL-LF[†]:** Low frequency sounder, wall, red, UL-listed
- HRLA-LF[†]:** Low frequency sounder, wall, red, ULC-listed
- HWL-LF[†]:** Low frequency sounder, wall, white, UL-listed
- HWLA-LF[†]:** Low frequency sounder, wall, white, ULC-listed
- HGRL-LF[†]:** Compact low frequency sounder, wall, red, UL-listed
- HGRLZA-LF[†]:** Compact low frequency sounder, wall, red, with hush function, ULC-listed
- HGWL-LF[†]:** Compact low frequency sounder, wall, white, UL-listed
- HGWLZA-LF[†]:** Compact low frequency sounder, wall, white, ULC-listed
- HCRL-LF[†]:** Low frequency sounder, ceiling, red, UL-listed
- HCRLA-LF[†]:** Low frequency sounder, ceiling, red, ULC-listed
- HCWL-LF[†]:** Low frequency sounder, ceiling, white, UL-listed
- HCWLA-LF[†]:** Low frequency sounder, ceiling, white, ULC-listed

[†]Add -BP10 to order bulk pack of 10 units

Note: ULC-listed devices include required French labeling. 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-phase operation.

Accessories

- MDL3R:** Sync•Circuit[™] Module, red, UL-listed

MDL3RA: Sync•Circuit™ Module, red, ULC-listed
MDL3W: Sync•Circuit™ Module, white, UL-listed
MDL3WA: Sync•Circuit™ Module, white, ULC-listed
SBBRL: Surface mount back box, wall, red
SBBWL: Surface mount back box, wall, white
SBBCRL: Surface mount back box, ceiling, red
SBBCWL: Surface mount back box, ceiling, white
SBBGRL: Compact surface mount back box, wall, red
SBBGWL: Compact surface mount back box, wall, white

Architects/Engineers Specifications

GENERAL

L-Series low frequency sounder and low frequency sounder strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. L-Series compact products shall mount to a single-gang 2 × 4 × 1⁷/₈-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°C to 49°C) 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 UL 464 (ULC in Canada) 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. If the notification appliances are not UL 9th edition listed with the corresponding panel or power supply being used, then refer to the compatibility listing of the panel to determine maximum devices on a circuit. 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 UL 1971 and UL 464 (ULC in Canada) and shall be approved for fire protective service. The low frequency sounder strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements (or Canadian accessibility laws) 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 low-frequency sounder shall offer a choice of tone patterns: temporal three, temporal four, and non-temporal (continuous) pattern. The low frequency 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 MDL3W/MDL3R listed to UL 464 (MDL3RA/MDL3WA listed to ULC in Canadian applications) 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 low frequency sounder on low frequency sounder strobe models over a single pair of wires. The module shall mount to a 4¹¹/₁₆ × 4¹¹/₁₆ × 2¹/₈-inch 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.

UL/ULC Current Draw and Sound Output Data

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

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

| Low Frequency Wall Sounder Strobe Sound Output (dBA) | | | | | | | |
|--|------------|----------------|-----------------------------------|-----|---------------------------------|-----|--|
| Pos | Tone | Volume Setting | Sound Output (dBA) UL Reverberant | | Sound Output (dBA) ULC Anechoic | | |
| | | | 16-33 V | | 16-33 V | | |
| | | | DC | FWR | DC | FWR | |
| 1 | Temporal 3 | High | 80 | 80 | 82 | 82 | |
| 2 | Temporal 3 | Low | 76 | 76 | 78 | 78 | |
| 3 | Temporal 4 | High | 80 | 80 | 82 | 82 | |
| 4 | Temporal 4 | Low | 76 | 76 | 78 | 78 | |
| 5 | Continuous | High | 80 | 80 | 82 | 82 | |
| 6 | Continuous | Low | 76 | 76 | 78 | 78 | |

| Low Frequency Ceiling Sounder Strobe Sound Output (dBA) | | | | | | | |
|---|------------|----------------|-----------------------------------|-----|---------------------------------|-----|--|
| Pos | Tone | Volume Setting | Sound Output (dBA) UL Reverberant | | Sound Output (dBA) ULC Anechoic | | |
| | | | 16-33 V | | 16-33 V | | |
| | | | DC | FWR | DC | FWR | |
| 1 | Temporal 3 | High | 80 | 80 | 82 | 82 | |
| 2 | Temporal 3 | Low | 76 | 76 | 78 | 78 | |
| 3 | Temporal 4 | High | 80 | 80 | 82 | 82 | |
| 4 | Temporal 4 | Low | 76 | 76 | 78 | 78 | |
| 5 | Continuous | High | 80 | 80 | 82 | 82 | |
| 6 | Continuous | Low | 76 | 76 | 78 | 78 | |

| Wall and Ceiling Sounder : Max. Low Frequency Sounder Current Draw (mA RMS) | | | | | | | | |
|---|------------|----------------|-------------------|-----|-----------------------------------|-----|---------------------------------|-----|
| Pos | Tone | Volume Setting | Current Draw (mA) | | Sound Output (dBA) UL Reverberant | | Sound Output (dBA) ULC Anechoic | |
| | | | 16-33 Volts | | 16-33 Volts | | 16-33 Volts | |
| | | | DC | FWR | DC | FWR | DC | FWR |
| 1 | Temporal 3 | High | 108 | 150 | 80 | 80 | 82 | 82 |
| 2 | Temporal 3 | Low | 78 | 76 | 76 | 76 | 78 | 78 |
| 3 | Temporal 4 | High | 111 | 151 | 80 | 80 | 82 | 82 |
| 4 | Temporal 4 | Low | 80 | 76 | 76 | 76 | 78 | 78 |
| 5 | Continuous | High | 111 | 151 | 80 | 80 | 82 | 82 |
| 6 | Continuous | Low | 80 | 76 | 76 | 76 | 78 | 78 |
| 7 | Coded | High | 111 | 151 | 80 | 80 | 82 | 82 |
| 8 | Coded | 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.

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 \pm 10%
- **Strobe Flash Rate:** 1 flash per second
- **Nominal Voltage Low Frequency Sounder:** Regulated 24 DC/FWR¹
- **Nominal Voltage Range Low Frequency Sounder Strobe:** Regulated 24 VDC/FWR¹
- **Operating Voltage Range:** 16 to 33 V (24 V nominal)
- **Operating Voltage Range MDL3R(A) or MDL3W(A) Sync•Circuit Module:** 16.5 to 33 V (24 V nominal)
- **Input Terminal Wire Gauge:** 12 to 18 AWG

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.

DIMENSIONS

- **Wall Sounder Strobe Dimensions (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 Dimensions (including lens):** 6.8" diameter x 2.47" high (173mm diameter x 62.7 mm D)
- **Standard Wall Sounder Dimensions:** 5.6" L x 4.7" W x 1.5" D (142 mm L x 119 mm W x 38 mm D)
- **Compact Wall Sounder Dimensions:** 5.25" L x 3.46" W x 1.5" D (133mm L x 88mm W x 38mm D)
- **Ceiling Sounder Dimensions:** 6.8" diameter x 1.4" high (173mm diameter x 36mm high)
- **Standard Wall Sounder with SBBRL/SBBWL Surface Mount Back Box:** 5.7" L x 4.8" W x 3.3" D (145 mm L x 120 mm W x 87 mm D)
- **Compact Wall Sounder with SBBGRL/SBBGWL Surface Mount Back Box:** 5.4" L x 3.6" W x 3.0" D (137 mm L x 91mm W x 76 mm D)
- **Low Frequency Ceiling Sounder with SBBCRL/SBBCWL Surface Mount Back Box:** 6.9" diameter x 3.9" high (175mm diameter x 99mm high)

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 the factory for the latest listing status.

- **UL/ULC Listed:** S4011
- **FM Approved:** PR452768
- **CSFM:**
Horns only: 7135-1653:0516
Horn/Strobes: 7125-1653:0517



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.

NOTIFIER

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Country of Origin: Mexico

