System Integration Group

6600 B Royal Street
Pleasant Valley, Mo 64068
Office 816-415-0203
Fax 816-415-2253
www.systemig.com

Summit on Pryor II

Submittals

Fire Alarm System

Submitted To: **LYNN ELECTRIC**

Submitted On **March 21, 2022**

Honeywell
THE POWER OF CONNECTED

Farenhyt™ Series

IFP-300 / IFP-300B

Intelligent Fire Alarm Control Panel

The IFP-300 (red) and IFP-300B (black) are intelligent analog/addressable fire alarm control panels (FACP). The basic IFP-300 panel contains one built in signaling line circuit (SLC), which can support 159 (IDP/SK) System Sensor® sensors and 159 IDP/SK modules or 127 (SD) Hochiki® devices per loop. Additional SLC loops can be added using the model 6815 SLC expander for SK/IDP devices to increase the overall point capacity to a maximum of 300 points per panel, or model 5815XL for SD devices to increase the overall point capacity to a maximum of 254 points per panel.

IFP-300 has the interconnection capability for up to 32 panels. The system has two modes of operation, multiple panels covering one larger building, or multiple independent buildings. To network panels together use the SK-NIC network interface card. Copper wire or fiber optic cable panel connectivity can be used within the same networked system.

IFP-300 has a built-in dual phone line, digital alarm communicator/ transmitter (DACT), IP or optional cellular technologies, Form C trouble relay, and two programmable Form C relays. IFP-300 has powerful features such as detector sensitivity, day/night thresholds, drift compensation, pre-trouble maintenance alert, and calibration trouble alert.

The IFP-300 supports a variety of devices, including RA-2000, RA-1000 or RA-100 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), RPS-1000 power module, and IDP, SK or SD devices.

IFP-300B

FEATURES & BENEFITS

- Network support for up to 32 Sites
- Built-in support for up to 159 IDP/SK detectors and 159 IDP/SK modules or 127 SD SLC devices
- Four line LCD display with 40 characters per line
- Available in a red or black cabinet
- IFP-300 can be surface or flush mounted
- Built-in USB interface for convenient and quick programming
- Firmware can be upgraded in the field
- Network card allows copper network connection with a multi-mode or single-mode fiber connection option
- Built-in dual phone line, digital alarm communicator/ transmitter (DACT), IP or optional cellular technologies
- JumpStart AutoProgramming® feature for easy programming
- Supports up to four SWIFT wireless gateways. Each gateway can have up to 49 wireless devices
- Supports Class B (Style 4) and Class A (Style 6 or Style 7 configuration for SLC, and SBUS.
- Built in synchronization for appliances from AMSECO, Gentex®, System Sensor®, and Wheelock

IFP-300 Technical Specifications

PHYSICAL:

Overall Dimensions: 26.4"H x 16.4"W x 4.11"D
Weight: 45 lbs.
Color: Red or Black

ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)
Humidity: 0 to 93% relative humidity (non-condensing)

ELECTRICAL:

IFP-300 Primary AC: 120VAC @ 60 Hz, 3.3A Total Accessory Load: 6A @ 24VDC power-limited
Standby Current: 190mA
Alarm Current: 250mA
Battery Charging Capacity: 17 to 55AH
Battery Size: 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

AGENCY LISTINGS AND APPROVALS

NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service
UL Listed
CSFM: 7165-0559:0504
FDNY: COA#6245
Seismic (CA) (pending)
FM approved

APPROVED RELEASING SOLENOIDS

Asco	**T8210A107**	**24 VDC**	**3 A max**	**0 Hz**
Asco	**8210G207**	**24 VDC**	**3 A max**	**0 Hz**

COMPATIBLE DEVICES

See the data sheets listed below for a complete listing of the IDP, SK, SWIFT or SD devices.
350361: IDP Device Protocol data sheet
53623: SK Device Protocol data sheet
350360: SD Device Protocol data sheet
350615 & 350617: SWIFT devices data sheet

ORDERING INFORMATION

IFP-300: Intelligent Fire Alarm Control Panel. Red Cabniet.
IFP-300B: Intelligent Fire Alarm Control Panel Black Cabinet.

SBUS ACCESSORIES

RA-2000, RA-1000, RA-1000R, RA-100, RA-2000GRAY: Remote annunciators
6815: Signal Line Circuit (SLC) Expander for IDP or SK devices
5815XL: Signal Line Circuit (SLC) Expander for SD devices
RPS-1000: Power Supply
5496: NAC Expander
5824: Serial/Parallel Module
5880: LED I/O Module
5865-3 or 5865-4: LED Annunciator
5883: Relay Interface

MISCELLANEOUS ACCESSORIES

HFSS: Software Suite. Provides programming, upload/download and event reporting
RBB: Remote Battery Box Cabinet. Use for backup batteries up to 35 AH. Dimensions: 16" W x 10" H x 6" D
SK-SCK: Seismic Compliance Kit
SK-NIC: Network Interface Card
SK-NIC-KIT: Installation Accessory Kit
SK-FML: Fiber-Optic Multi Mode, transmitter and receiver
SK-FSL: Fiber-Optic Single Mode
CELL-MOD: Cellular Communicator in Plastic Enclosure
CELL-CAB-SK: Cellular Communicator in Metal Enclosure with lock and key

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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 Technical Support, Please call 800-446-6444.

For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

Honeywell Farenhyt
12 Clintonville Road
Northford, CT 06472
800-328-0103

351603 | A | 11/17

Honeywell

Honeywell
THE POWER OF CONNECTED

Farenhyt™ Series

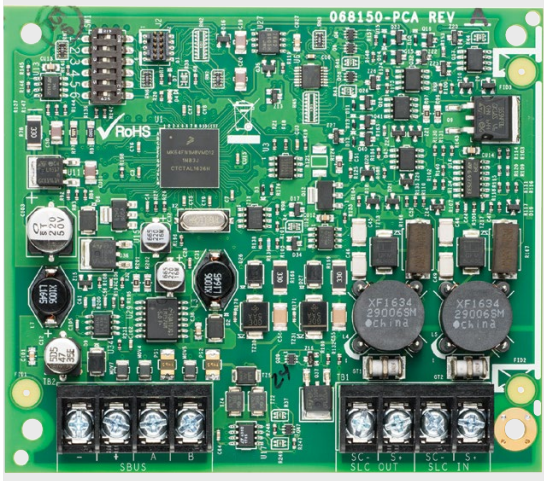
6815

Signaling Line Circuit Expander

The 6815 is a signaling line circuit (SLC) expander for use with the Farenhyt Series IFP-300/ECS or IFP-2100/ECS analog/addressable fire alarm control panel (FACP). Use the 6815 to add more SLC devices of the same protocol to the IFP-2100/ECS or IFP-300/ECS control panel.

Additional 6815;s support 159 IDP or SK devices, and 159 IDP or SK modules for a maximum of 2100 points per IFP-2100/ECS or 300 points per IFP-300/ECS. The number of 6815's used is limited by the number of SBUS devices. 6815 will support IDP, SK or SWIFT devices.

The 6815 communicates with the FACP via an RS 485 system bus. A green LED on the 6815 board blinks to indicate good communication. If an addressable device on a 6815 fails, the loop communicates the failure to the FACP and continues to operate normally



6815

Compatibility

The 6815 is compatible with the following Farenhyt Series FACP's:

- IFP-2100/ECS
- IFP-2100/ECSB
- RFP-2100
- RFP-2100B
- IFP-300/ECS
- FP-300/ECSB

FEATURES & BENEFITS

- Adds support for up to 159 IDP/SK sensors and 159 IDP/SK modules per IFP-300/ECS or IFP-2100/ECS panel
- Communicates with the FACP via RS 485 system bus
- LED indicates good communication
- House up to two 6815s in the IFP-2100/ECS , RFP-2100, IFP-300/ECS, RPS-1000 cabinets, or in the 5815RMK remote mounting kit
- SLC wiring used standard wire. Twisted pair or shield cable are not required
- UL 864 listed, complies with NFPA 72 and 101
- Support for IDP, SK or SWIFT devices

6815 Technical Specifications

SPECIFICATIONS

6815 Physical: 4.2"H x 4.8"" W (10.7 x 12.2 cm)
Shipping Weight: 5.6oz (159 g).

ELECTRICAL

Standby & Alarm Current: 78mA max

ENVIRONMENTAL

Operating Temperature: 32°F to 120°F (0°C to 49°C)
Humidity: 0 to 93% non-condensing

SYSTEM CAPACITY

IFP-2100/ECS FACP supports 63 6815s (but a maximum of 2100 SLC devices per system)
IFP-300/ECS FACP supports 63 5815XLs (but a maximum of 300 SLC devices per system)
6815 Capacity: 159 IDP or SK sensors and 159 IDP or SK modules per loop

ORDERING INFORMATION

6815: Signaling Line Circuit Expander.

ACCESSORIES

RPS-1000: Intelligent Power Module. Cabinet holds two 6815s.
5815RMK: Remote Mounting Kit Cabinet holds two 6815s. Red cabinet
5815RMKB: Remote Mounting Kit Cabinet holds two 6815s. Black cabinet.
SK-NIC-KIT: Remote Mounting Kit Cabinet. holds one 6815. 10-3.8" W x 10-3/16" H x 3" D

AGENCY LISTIINGS AND APPROVALS

NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signalling services.
UL listed
CSFM listed
FDNY COA 6245
FM approved

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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 Technical Support, Please call 800-446-6444.

For more information
Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com>

Honeywell Farenhyt
12 Clintonville Road
Northford, CT 06472
800-328-0103

351620 | A | 11/17

Honeywell

Farenhyt

SILENT KNIGHT
by Honeywell

Intelligent Power Module

6 Amp Intelligent Distributed Power Module

RPS-1000

RPS-1000 intelligent distributed power module adds 6.0 amps of power, six Flexput™ I/O circuits, and two Form C relay circuits to a compatible Farenhyt addressable system. RPS-1000 connects to the FACP via the RS-485 system bus allowing up to an additional 6,000 feet of wiring. Each RPS-1000 is optically isolated providing ground loop isolation and transient protection. RPS-1000 supports its own backup battery and monitors the AC power. The Flexput circuits can be programmed as notification appliance circuits, continuous, resettable, or door holder power, or as conventional initiation circuits for 2 or 4-wire smoke detectors and contact devices (e.g. pull stations).

Features

- Six onboard Flexput circuits programmable for:
  - Notification appliance circuits (Class B/Style Y & Class A/Style Z)
  - Conventional initiation circuits (Class B/Style B & Class A/Style D) both 2- and 4-wire
  - Auxiliary power (for door holders, continuous power, or resettable power)
- 6.0 amps output power
- Supports Class A (Style 6) and Class B (Style 4) configuration of the SBUS
- Two Form C programmable relays rated at 2.5A @ 24 VDC
- Ground loop isolation and transient protection
- Provides SBUS optical isolation and re-conditions the RS-485 signal
- Built-in synchronization for appliances from System Sensor®, AMSECO, Gentex®, Faraday, and Wheelock®
- Up to 6,000 foot wiring distance from the RPS-1000
- Battery charging capacity is 35 Ah
- Large cabinet size can house two 18 Ah backup batteries or RBB accessory cabinet can house battery sizes larger that 18 Ah
- Room to mount two 5815XL SLC expander modules

Agency Listings

MEA approved 429-92-E Vol IX

RPS-1000

Compatibility

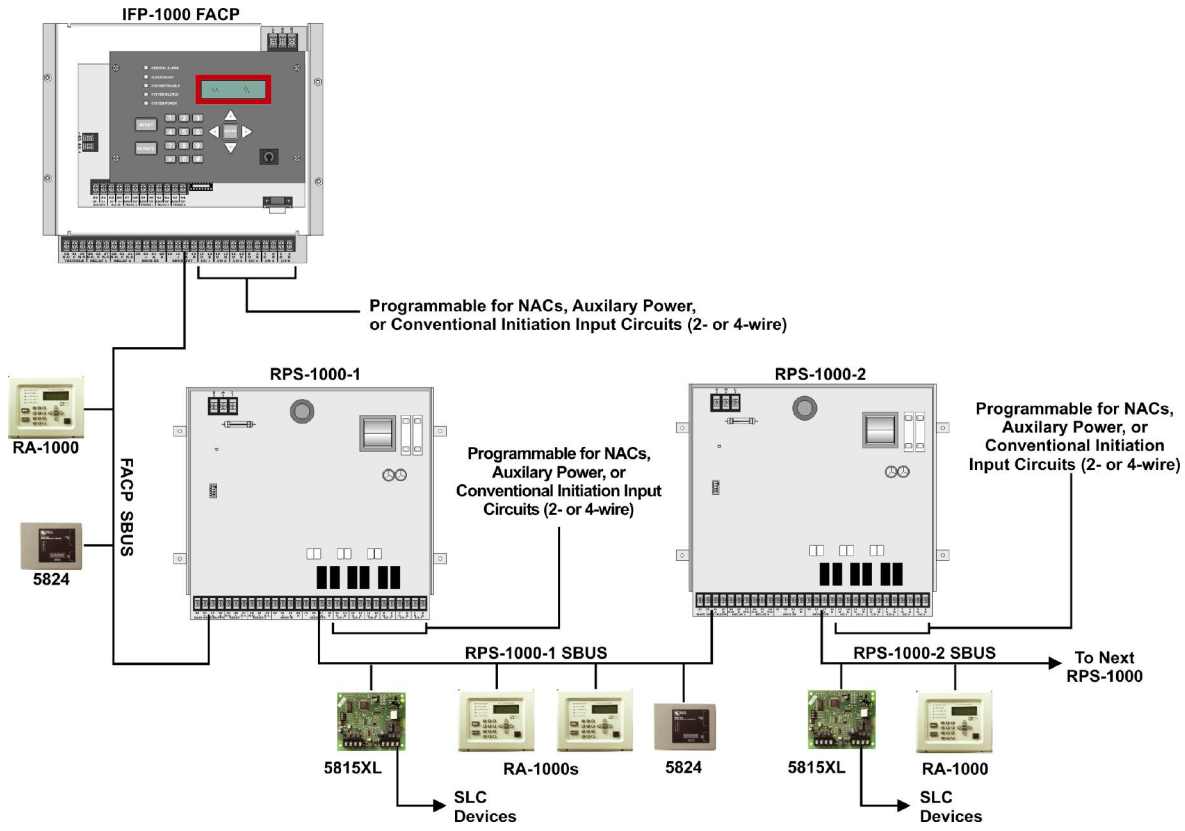
RPS-1000 is compatible with the following FACPs:

- IFP-2000/RPS-2000 (63 max per panel)
- IFP-2000ECS (63 max per panel)
- IFP-1000 (8 max per panel)
- IFP-1000ECS (8 max per panel)
- IFP-100 (8 max per panel)
- IFP-100ECS (8 max per panel)
- IFP-50 (8 max per panel)

Installation

RPS-1000 can be surface or flush mounted.

P/N 350070 Rev J



Specifications

Electrical

Primary AC:
120 VRMS, 50 or 60 Hz, 2.7A, or
240 VRMS 50 or 60 Hz, 1.4A

Total Accessory Load: 6A @ 24 VDC

Standby & Alarm Current: 10 mA

Flexput Circuits:
Notification: 3 amps per circuit (6A system total)
Initiation: 100 mA power limited @ 24 VDC

Physical

Mounting Dimensions:
14.5"W x 24.75"H x 3.9"D
(36.8 cm W x 62.9 cm H x 9.8 cm D)

Overall Dimensions:
16.1"W x 26.4"H x 4.1"D
(40.6 cm W x 67 cm H x 11.8 cm D)

Color: Red

Environmental

Operating Temperature: 32ºF – 120ºF (0ºC – 49ºC)

Humidity: 10% – 93% non-condensing

Approvals

- UL 864
- NFPA 13, NFPA 15, NFPA 16, NFPA 70, NFPA 72, & NFPA 101
- CSFM
- MEA 429-92-E Vol. IX
- FM
- OSHPD (CA) OSP-0065-10

LOCATED IN BUILDINGS A AND B

Ordering Information

RPS-1000	Intelligent Distributed Power Module. Specify 120 VAC or 240 VAC operation when ordering.

Accessories

RBB	Remote Battery Box Accessory Cabinet. 16" W x 10" H x 6" D (406 mm W x 254 mm H x 152 mm D)
AB-55	Remote Battery Box Accessory Cabinet. 20"W x 12" H x 7.5" D
5815XL	SLC Expander Module
SK-SCK	Seismic Compliance Kit

SILENT KNIGHT
by Honeywell

Assembled in the U.S.A

Farenhyt

SILENT KNIGHT
by Honeywell

Intelligent Power Module

5496

The 5496 intelligent power module by Silent Knight is the most cost-effective power supply available today. It delivers 6 amps of notification appliance circuit power and built-in synchronization for appliances from System Sensor®,Gentex®, Faraday, AMSECO, System Sensor®, and Wheelock®. The 5496's advanced microprocessor design is years ahead of the competition. Its switch mode power supply design is up to 50% more efficient than competitive linear mode power supplies.

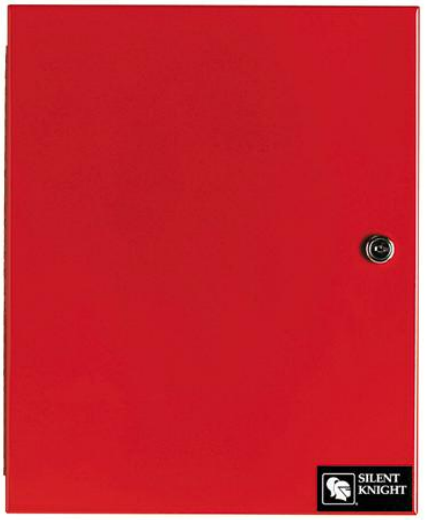
The 5496 is a 6 amp notification power expander that provides its own AC power connection, battery charging circuit, and backup battery for use with Silent Knight IFP-Series fire alarm control panels (FACPs). The 5496 is the cost-effective solution for powering notification appliances required by the Americans with Disabilities Act (ADA). The 5496 has built-in ANSI cadence pattern. The output circuits can be programmed as notification appliance circuits, or as auxiliary power (configurable for constant, resettable, or door holder power).

Features

- UL Listed for 6 amps of notification power
- Power supply's advanced switch mode design reduces damaging heat and manages power up to 50% more efficiently than other systems
- Built-in synchronization for appliances from Gentex, Faraday, AMSECO, System Sensor, and Wheelock
- 24 VDC filtered output voltage
- Four power-limited notification outputs; 2 Class A or 4 Class B, or 1 Class A and 2 Class B
- NACs are programmable as notification appliance circuits, or as auxiliary power to be used as constant, resettable, or door holder power
- 3 amps per output circuit
- Ground fault detector
- Communicates to the FACP via 4-wire SBUS (wire runs up to 6000 ft)
- AC loss delay option shuts off power to non-essential high-current accessories like magnetic door holders
- Lightweight design adds to ease of installation and reduces shipping costs
- ANSI Cadence pattern output capability built-in
- UL 864 & 1481 listed
- CSFM approved
- MEA approved
- OSHPD (CA) OSP-0065-10 (see accessories)

Agency Listings

MEA
429-92-E Vol. XIV



5496 Intelligent Power Module

Installation

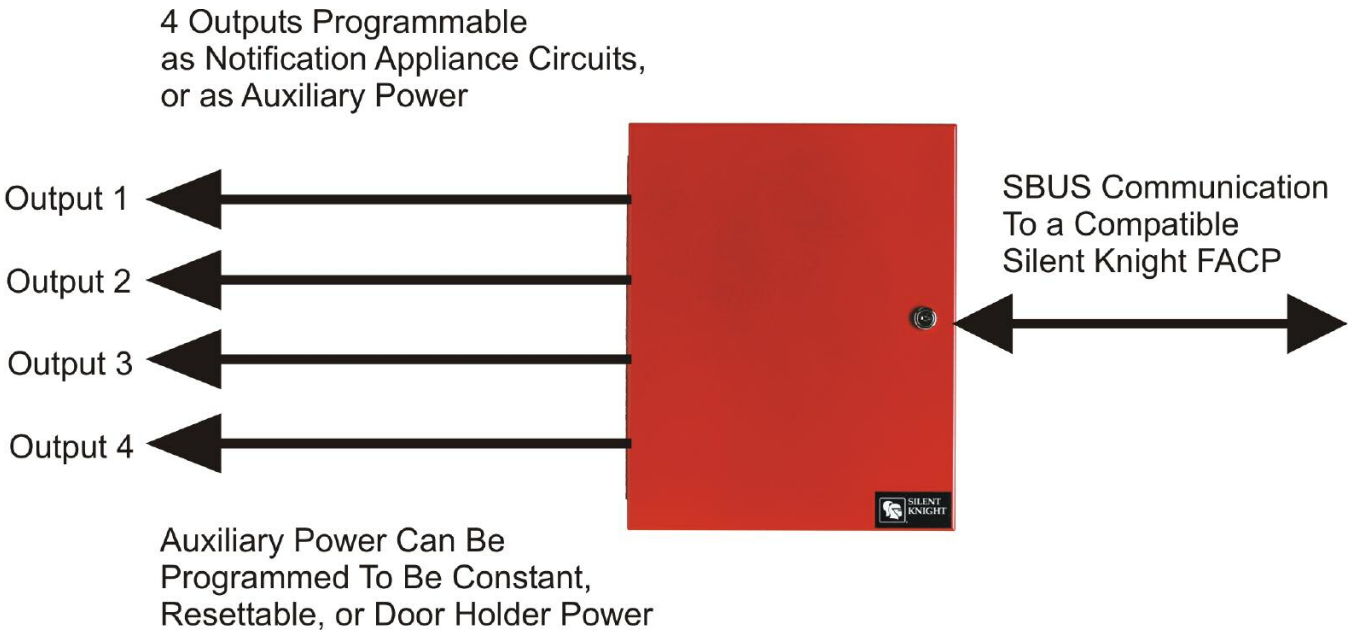
The 5496 cabinet is surface mounted.

Compatibility

The 5496 is compatible with the following FACPs:

- IFP-2000 / RPS-2000 Intelligent Fire Panel
- IFP-2000ECS Emergency Communication System with Fire Panel
- IFP-1000 / ECS Intelligent Fire Panel
- IFP-100 / ECS Intelligent Fire Panel
- IFP-50 Intelligent Fire Panel

P/N 350302 Rev F



Specifications

Physical

Height: 16” (40.6 cm)

Width: 12.25” (30.9 cm)

Depth: 3” (7.6 kg)

Shipping Weight: 8.7 lbs. (3.9 kg)

Electrical

AC Input: 120 VAC at 2.7A

Output: 24 VDC at 6A

Standby & Alarm Current: 10 mA

Notification/Aux. Power Circuits: 4

Output Configuration:
- 2 Class A (Style Z)
- 4 Class B (Style Y)
- 1 Class A & 2 Class B

Amps Per Output Circuit: 3.0 (6.0 amps total)

Notification Circuit Output: 20.4 – 27.3 VDC @ 3.0A each

End-of-Line Resistance: 4.7k Ω EOL resistor required on each Class B circuit

Battery Charging Capacity: 7.0 – 35.0 AH

Environmental

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

Humidity: 10% – 93% non-condensing

Ordering Information

5496 Intelligent Power Module
RBB Remote Battery Box

Accessories:

SK-SCK Seismic Compliance Kit

SILENT KNIGHT by Honeywell

For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610. Phone: (800) 328-0103, Fax: (203) 484-7118. For Technical Support, please call 800-446-6444. **www.farenhyt.com**

Assembled in America

Farenhyt

SILENT KNIGHT
by Honeywell

Addressable Single Action and Dual Action Pull Stations

IDP-Pull-SA & IDP-Pull-DA

The IDP-Pull-SA is a single action pull station requiring only one motion to activate the station. The IDP-Pull-DA is a dual action pull station requiring two motions to active the station. Both pull stations are designed to work with Silent Knight IFP-series fire alarm control panels (FACPs).

Features

- Installer can open station without causing an alarm condition
- Dual-color LED is visible through handle of station blinks green to indicate normal operation and remains steady red in an alarm condition
- Key operated test and reset lock using lock plate actuator
- Key matches compatible FACP locks
- Meets the Americans with Disabilities Act Accessibility Guidelines (ADAAG) controls and operating mechanisms guidelines (Section 4.1.3[13])
- Meets ADA requirement for 5 lbs maximum pull force to active
- Shell, door, and handle molded from durable LEXAN®
- Reliable analog communications for trouble-free operation
- Braille text on station handle
- Handle latches in down position and the word *Activated* appears, clearly indicating the station has been pulled
- Rotary address switches for fast installation
- UL Listed, including UL 38, Standard of Manually Actuated Signaling System

Installation

The IDP-Pull-SA and IDP-Pull-DA can be surface mounted to an SB-I/O surface back box or semi-flush mounted on a standard single-gang with a minimum depth of 2.13”(5.40 cm) or double-gang or 4” (10.61 cm) square electrical box. You can also use the optional (System Sensor® PN BG-TR) trim ring if the station is being semi-flush mounted.

Compatibility

The IDP-Pull-SA and IDP-Pull-DA are compatible with the following FACPs:

- IFP-2000 / RPS-2000 Intelligent Fire Panel
- IFP-2000ECS Emergency Communication System with Fire Panel
- IFP-1000 / ECS Intelligent Fire Panel

Agency Listings

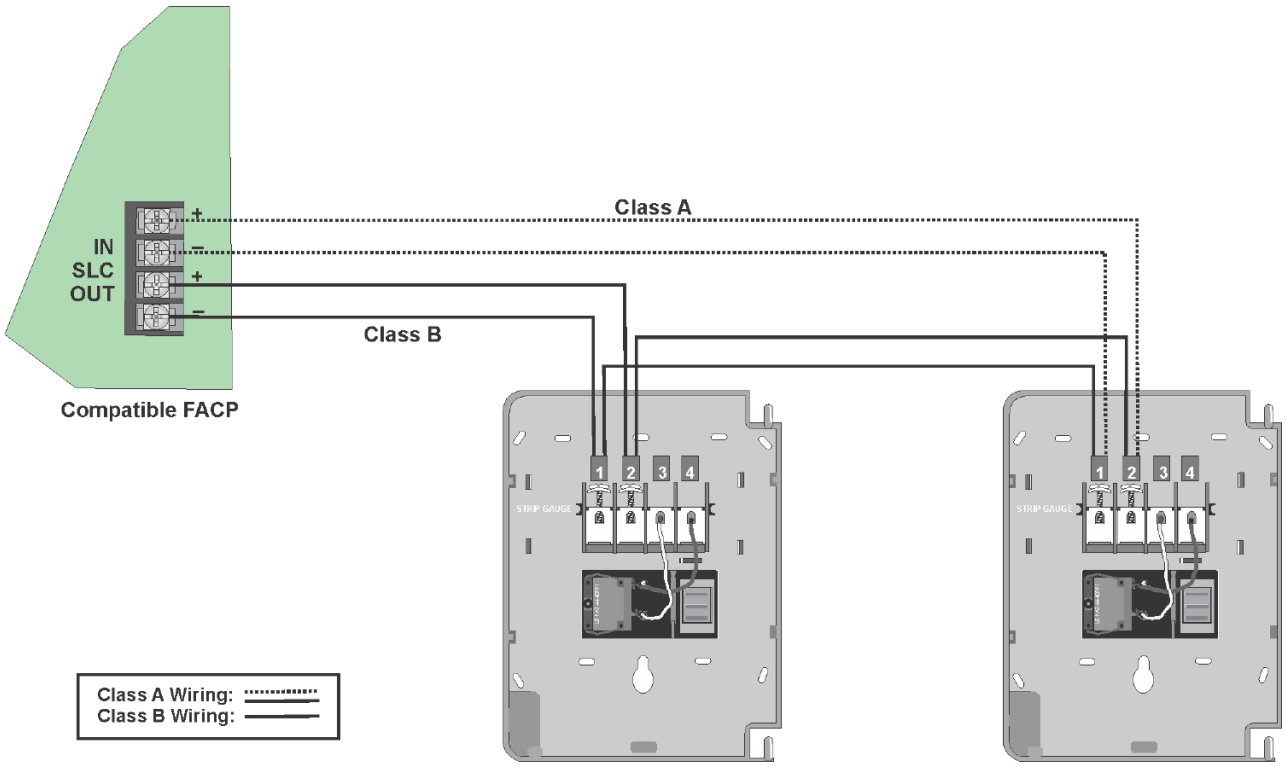
MEA
67-02-E Vol. IX
For IDP-Pull-DA

IDP-Pull-SA

IDP-Pull-DA

- IFP-100 / ECS Intelligent Fire Panel
- IFP-50 Intelligent Fire Panel

P/N 350286 Rev G



Wiring IDP-Pull-SA & IDP-Pull-DA Pull Stations

Specifications*

Physical

Height: 5.5” (14 cm)

Width: 4” (10.2 cm)

Depth: 5.4 oz. (3.7 cm)

Housing Material: LEXAN polycarbonate resin

Bi-Colored LED:
Blinking Green: Normal

Steady Red: Alarm

Switch: Single pole, single throw (SPST) normally open (N/O) switch which closes upon activation of the pull station

Electrical

Operating Voltage: 15–32 VDC

SLC Standby and Alarm Current: 350 µA

Wire Gauge: Up to 12 AWG (3.1 mm^2)

Environmental

Operating Temperature 32º – 120ºF (0ºC – 49ºC)

Humidity: 10% – 93% non-condensing

Ordering Information

IDP-Pull-SA	Single Action Pull Station
IDP-Pull-DA	Dual Action Pull Station

Accessories

BG-TR	Optional trim ring.
SB-I/O	Surface backbox, indoor/outdoor.

* Unless otherwise noted, specifications apply to IDP-Pull-SA and IDP-Pull-DA.

SILENT KNIGHT
by Honeywell

Farenhyt

SILENT KNIGHT
by Honeywell

Addressable Monitor Module

IDP-Monitor-2

The IDP-Monitor-2 is an addressable monitor module with two initiating circuits for use with Silent Knight IFP-series fire alarm control panels (FACPs). The IDP-Monitor-2 acts as an interface to contact devices, such as waterflow switches and pull stations.

The IDP-Monitor-2 supports Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

Because the IDP-Monitor-2 is capable of monitoring two separate Class B circuits, it is ideal for waterflow tamper switch and flow switch monitoring.

Features

- Monitor two circuits, with unique addresses, simultaneously
- Support for Class B wiring
- Fully supervised
- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- Attractive ivory cover plate
- Rotary address switches for fast installation
- SEMS screws for easy wiring
- UL Listed

Installation

The IDP-Monitor-2 mounts directly into a 4” square electrical box. The box must have a minimum depth of 2-1/8”. A surface mount electrical box (System Sensor® PN SMB500) is available from Silent Knight.

Agency Listings

MEA
457-99-E Vol. V

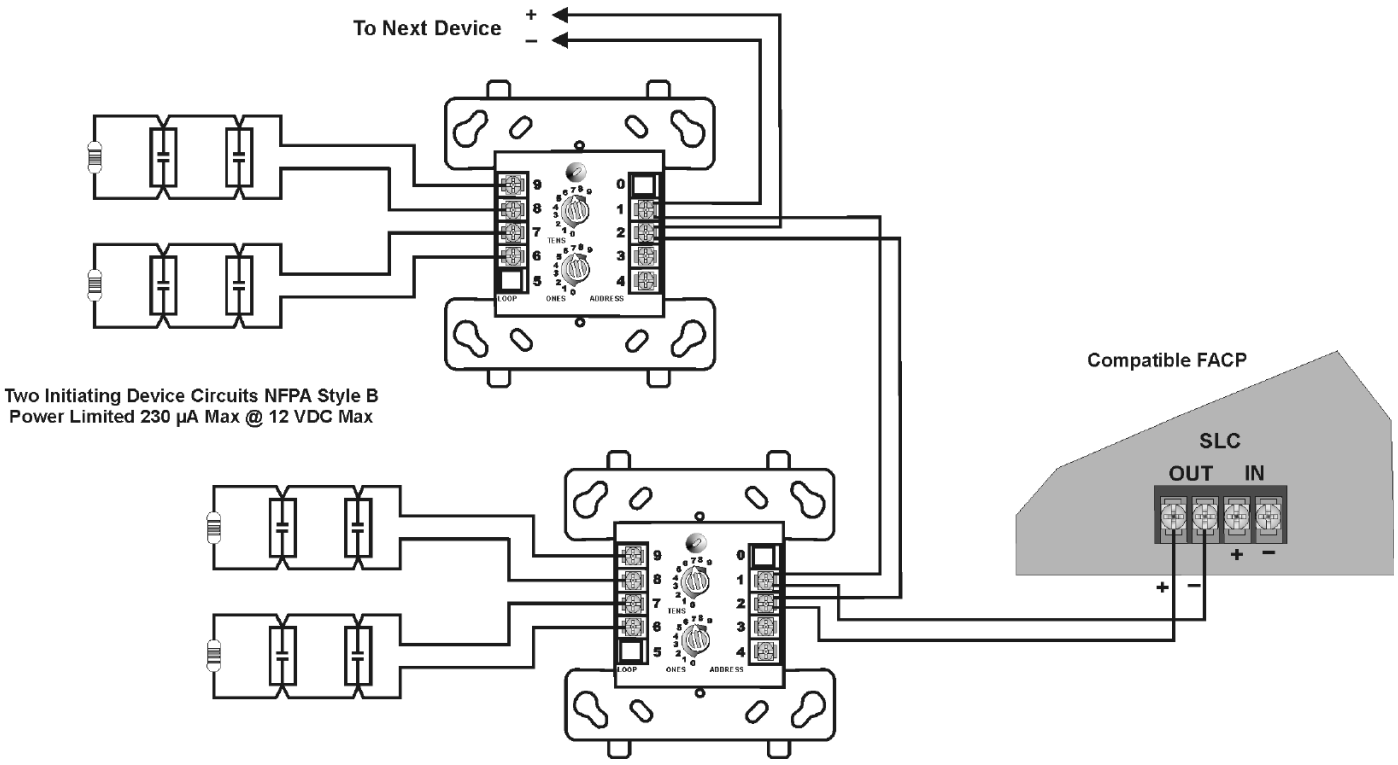
IDP-Monitor-2

Compatibility

The IDP-Monitor-2 is compatible with the following FACPs:

- IFP-2000 / RPS-2000 Intelligent Fire Panel
- IFP-2000ECS Emergency Communication System with Fire Panel
- IFP-1000 / ECS Intelligent Fire Panel
- IFP-100 / ECS Intelligent Fire Panel
- IFP-50 Intelligent Fire Panel

P/N 350289 Rev F



Wiring IDP-Monitor-2 Modules

Specifications

Physical

Height: 4.5” (11.4 cm)

Width: 4” (10.2 cm)

Depth: 1.3” (3.2 cm)

Shipping Weight: 6.3 oz (196 g)

Electrical

Operating Voltage: 15 – 32 VDC

Standby and Alarm Current:

750 µA max @ 24 VDC (one communication every 5 sec with 47K EOL)

End-of-Line Resistance: 47K Ω

Environmental

Operating Temperature: 32ºF – 120ºF (0ºC – 49ºC)

Humidity: 10% – 93% non-condensing

Ordering Information

IDP-Monitor-2	Dual Monitoring Module

Accessories

SMB500	4” Square Surface Mount Electrical Box

SILENT KNIGHT
by Honeywell

SILENT KNIGHT by Honeywell

IDP-Photo, IDP-Photo-T and IDP-Acclimate Intelligent Photoelectric Smoke Sensors

12 Clintonville Road, Northford, CT 06472
203.484.7161; Fax: 203.484.7118
www.silentknight.com

SPECIFICATIONS

Operating Voltage Range:	15 to 32 VDC
Standby Current:	300µA @ 24 VDC Maximum
Alarm Current (LED on):	6.5 mA @ 24 VDC
Operating Humidity Range:	10% to 93% Relative Humidity, Non-condensing
Operating Temperature Range:	32°F to 120°F (0°C to 49°C), IDP-Photo; 32°F to 100°F (0°C to 38°C), IDP-Photo-T and IDP-Acclimate
Height:	2.0″ (51mm) installed in SS-B6 Base
Diameter:	6.1″ (155 mm) installed in SS-B6 Base; 4.1″ (104 mm) installed in B501 Base
Weight:	5.2 oz. (147 g)

This sensor must be installed in compliance with the control panel system installation manual. The installation must meet the requirements of the Authority Having Jurisdiction (AHJ). Sensors offer maximum performance when installed in compliance with the National Fire Protection Association (NFPA); see NFPA 72.

GENERAL DESCRIPTION

Models IDP-Photo, IDP-Photo-T and IDP-Acclimate are plug-in type smoke sensors that combine a photoelectronic sensing chamber with addressable-analog communications. The sensors transmit an analog representation of smoke density over a communication line to a control panel. Rotary decade switches are provided for setting the sensor's address.

Two LEDs on the sensor are controlled by the panel to indicate sensor status. An output is provided for connection to an optional remote LED annunciator (P/N RA400Z/RA100Z). Models IDP-Acclimate and IDP-Photo-T combines a photoelectronic sensing chamber and 135°F (57.2°C) fixed temperature heat detector.

Please refer to the operation manual for the UL listed control unit for specific operation of the IDP-Photo, IDP-Photo-T and IDP-Acclimate.

The IDP-Photo, IDP-Photo-T and IDP-Acclimate require compatible addressable communications to function properly. Connect these sensors to listed-compatible control panels only.

SPACING

Silent Knight recommends spacing sensors in compliance with NFPA 72. In low air flow applications with smooth ceilings, space sensors 30 feet apart. For specific information regarding sensor spacing, placement, and special applications, refer to NFPA 72.

Duct Applications: IDP-Photo and IDP-Photo-T are listed for use in ducts.

NOTE: These products are not listed for use inside duct smoke detectors.

WIRING GUIDE

All wiring must be installed in compliance with the National Electrical Code, applicable local codes, and any special requirements of the Authority Having Jurisdiction. Proper wire gauges should be used. The installation wires should be color-coded to limit wiring mistakes and ease system troubleshooting. Improper connections will prevent a system from responding properly in the event of a fire.

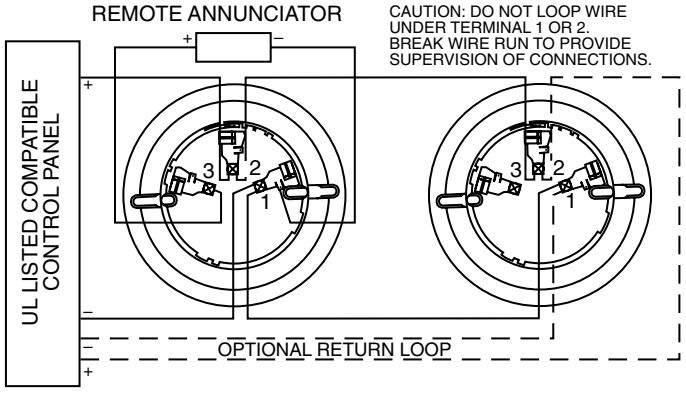
Remove power from the communication line before installing sensors.

1. Wire the sensor base (supplied separately) per the wiring diagram, Figure 1.
2. Set the desired address on the sensor address switches, see Figure 2.
3. Install the sensor into the sensor base. Push the sensor into the base while turning it clockwise to secure it in place.
4. After all sensors have been installed, apply power to the control unit and activate the communication line.
5. Test the sensor(s) as described in the TESTING section of this manual.

⚠CAUTION

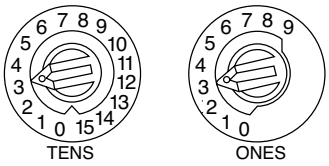
Dust covers provide limited protection against airborne dust particles during shipping. Dust covers must be removed before the sensors can sense smoke. Remove sensors prior to heavy remodeling or construction.

FIGURE 1. WIRING DIAGRAM:



C0100-01

FIGURE 2. ROTARY ADDRESS SWITCHES:



C0162-00

TAMPER-RESISTANCE

Models IDP-Photo, IDP-Photo-T and IDP-Acclimate include a tamper-resistant capability that prevents their removal from the bracket without the use of a tool. Refer to the base manual for details on making use of this capability.

TESTING

Before testing, notify the proper authorities that the system is undergoing maintenance, and will temporarily be out of service. Disable the system to prevent unwanted alarms.

All sensors must be tested after installation and periodically thereafter. Testing methods must satisfy the Authority Having Jurisdiction (AHJ). Sensors offer maximum performance when tested and maintained in compliance with NFPA 72.

The sensor can be tested in the following ways:

A. Functional: Magnet Test (P/N M02-04-01 or M02-09-00)

This sensor can be functionally tested with a test magnet. The test magnet electronically simulates smoke in the sensing chamber, testing the sensor electronics and connections to the control panel.

1. Hold the test magnet in the magnet test area as shown in Figure 3.
2. The sensor should alarm the panel.

Two LEDs on the sensor are controlled by the panel to indicate sensor status. Coded signals, transmitted from the panel, can cause the LEDs to blink, latch on, or latch off. Refer to the control panel technical documentation for sensor LED status operation and expected delay to alarm.

B. Smoke Entry: Aerosol Generator (Gemini 501 or other UL lised devices)

The GEMINI model 501 aerosol generator can be used for smoke entry testing. Other UL listed smoke generating devices may be used as well. Set the generator to represent 4%/ft to 5%/ft obscuration as described in the GEMINI 501 manual. Using the bowl shaped applicator, apply aerosol until the panel alarms.Additionally, canned aerosol simulated smoke (canned smoke agent) may be used for smoke entry testing of the smoke detector. Tested and approved aerosol smoke products are the Smoke Detector Tester model 25S available from Home Safeguard Industries and Chekkit Smoke Detector Tester models CHEK02 and CHEK06 available from SDi. When used properly, the canned smoke agent will cause the smoke detector to go into alarm. Refer to the manufacturer's published instructions for proper use of the canned smoke agent.

⚠CAUTION

Canned aerosol simulated smoke (canned smoke agent) formulas will vary by manufacturer. Misuse or overuse of these products may have long term adverse effects on the smoke detector. Consult the canned smoke agent manufacturer's published instructions for any further warnings or caution statements.

For IDP-Acclimate, smoke entry testing should be performed immediately following the magnet test. Magnet test initiates an approximately 10 minute period when the detector's signal processing software routines are not active. Failure to first perform the magnet test will introduce a time delay before the detector alarms.

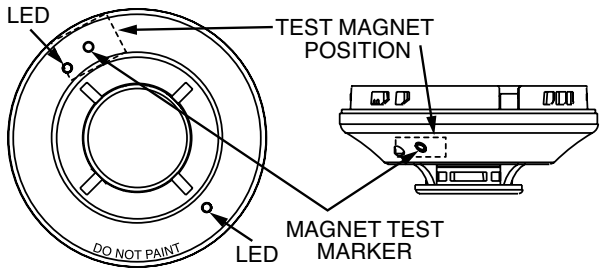
C. Direct Heat Method (Hair dryer of 1000-1500 watts). IDP-Photo-T and IDP-Acclimate only.

A hair dryer of 1000-1500 watts should be used to test the thermistors. Direct the heat toward either of the two thermistors, holding the heat source approximately 12 inches from the detector in order to avoid damaging the plastic housing. The detector will reset only after it has had sufficient time to cool. Make sure both thermistors are tested individually.

A sensor that fails any of these tests should be cleaned as described under CLEANING, and retested. If the sensor fails after cleaning, it must be replaced and returned for repair.

When testing is complete, restore the system to normal operation and notify the proper authorities that the system is back in operation.

FIGURE 3:



C0145-02

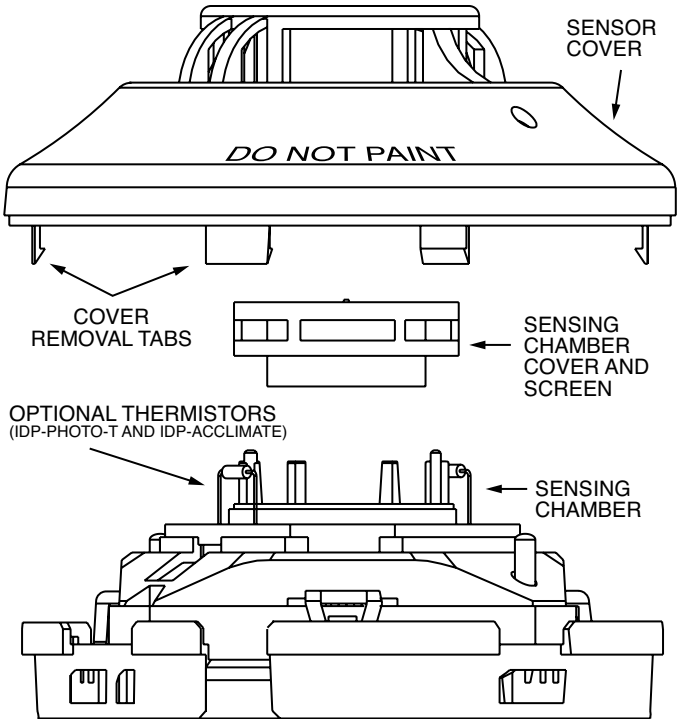
CLEANING

Before removing the detector, notify the proper authorities that the smoke detector system is undergoing maintenance and will be temporarily out of service. Disable the zone or system undergoing maintenance to prevent unwanted alarms.

1. Remove the sensor to be cleaned from the system.
2. Remove the sensor cover by pressing firmly on each of the four removal tabs that hold the cover in place.
3. Vacuum the screen carefully without removing it. If further cleaning is required continue with

   Step 4, otherwise skip to Step 7.
4. Remove the chamber cover/screen assembly by pulling it straight out.
5. Use a vacuum cleaner or compressed air to remove dust and debris from the sensing chamber.
6. Reinstall the chamber cover/screen assembly by sliding the edge over the sensing chamber. Turn until it is firmly in place.
7. Replace the cover using the LEDs to align the cover and then gently pushing it until it locks into place. Make sure that the thermistors do not become bent under the cover on the IDP-Photo-T and IDP-Acclimate models.
8. Reinstall the detector.
9. Test the detector as described in TESTING.
10. Reconnect disabled circuits.
11. Notify the proper authorities that the system is back on line.

FIGURE 4. IDP-PHOTO-T AND IDP-ACCLIMATE:



C0803-00

Please refer to insert for the Limitations of Fire Alarm Systems

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

SYSTEM SENSOR®
3825 Ohio Avenue, St. Charles, Illinois 60174
1-800-SENSOR2, FAX: 630-377-6495
www.systemsensor.com

B210LP Plug-in Detector Base

SPECIFICATIONS

Base Diameter:	6.1 inches (155 mm)
Base Height:	.76 inches (19 mm)
Operating Temperature:	Refer to applicable sensor Operating Temperature Range using the Base/Sensor Cross Reference Chart at systemsensor.com
Electrical Ratings:	
Operating Voltage:	15 to 32 VDC
Standby Current:	170 µA

BEFORE INSTALLING

Please read the *System Smoke Detectors Application Guide*, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications. Copies of this application guide are available from System Sensor. NFPA 72 guidelines should be observed.

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

IMPORTANT: The detector used with this base must be tested and maintained regularly following NFPA 72 requirements. The detector should be cleaned at least once a year.

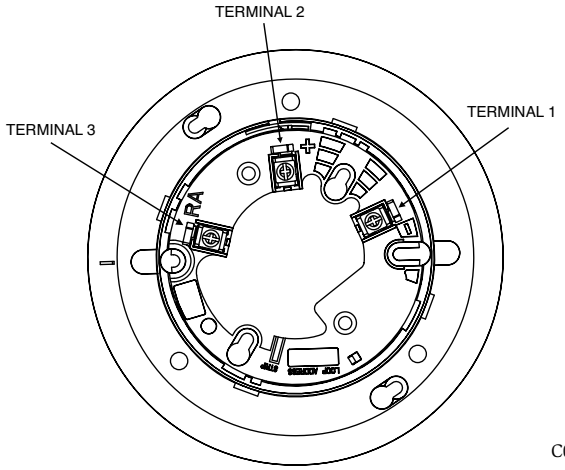
GENERAL DESCRIPTION

The B210LP is a plug-in detector base intended for use in an intelligent system, with screw terminals provided for power (+ and –), and remote annunciator connections. Communication takes place over the power (+ and –) lines.

BASE TERMINALS

NO.	FUNCTION
1	Power (–), Remote Annunciator (–)
2	Power (+)
3	Remote Annunciator (+)

FIGURE 1. TERMINAL LAYOUT:



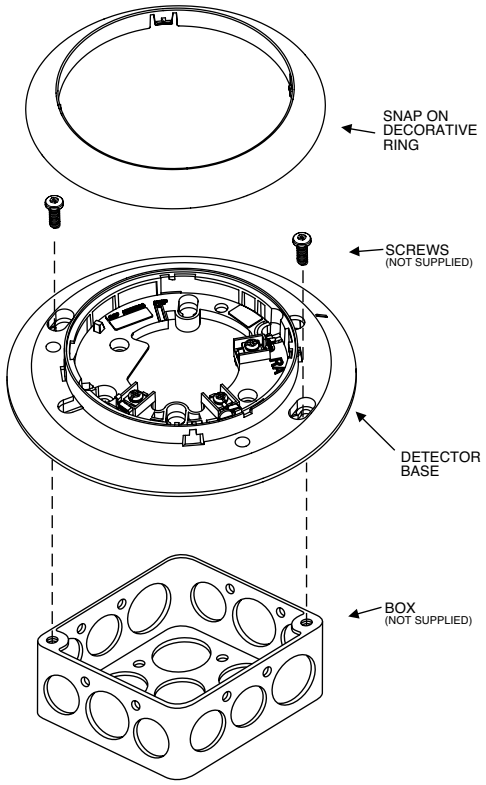
C0127-07

MOUNTING

This detector base mounts directly to 4-inch square (with and without plaster rings), 4-inch octagon, 3 1/2-inch octagon, and single gang junction boxes. To mount, remove the decorative ring by turning it in either direction to unhook the snaps, then separate the ring from the base. Install the base on the box using the screws supplied with the junction box and the appropriate mounting slots in the base.

Place the decorative ring on the base and rotate it in either direction until it snaps into place (see Figure 2).

FIGURE 2. MOUNTING DETECTOR TO BOX:



C0128-06

INSTALLATION AND WIRING GUIDELINES (SEE FIGURE 3)

All wiring must be installed in compliance with all applicable local codes and any special requirements of the authority having jurisdiction. Proper wire gauges should be used. The conductors used to connect smoke detectors to control panels and accessory devices should be color-coded to reduce the likelihood of wiring errors. Improper connections can prevent a system from responding properly in the event of a fire.

For signal wiring (the wiring between interconnected detectors), it is recommended that the wire be no smaller than 18 AWG (0.823 square mm). Wire sizes up to 12 AWG (3.31 square mm) may be used with the base.

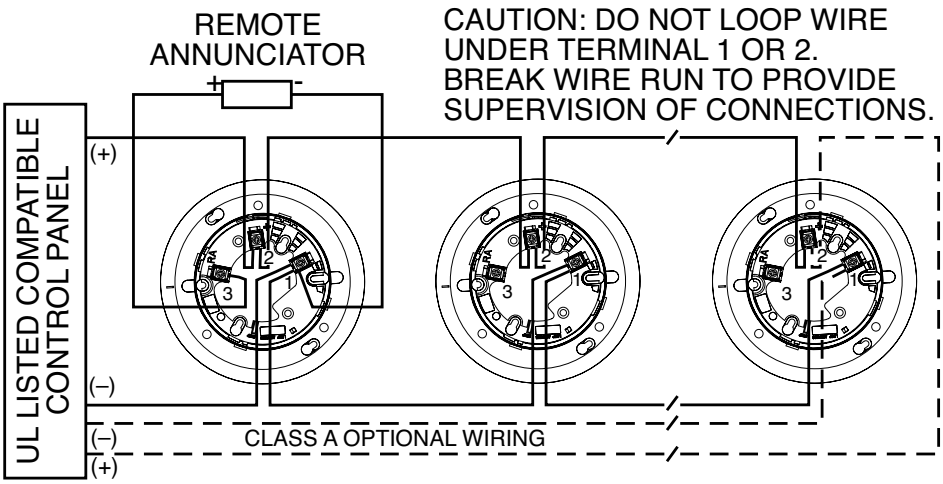
Make electrical connections by stripping about 3/8 inch (10 mm) of insulation from the end of the wire (use strip gauge molded in base). Then slide the wire under the clamping plate and tighten the clamping plate screw. Do not loop the wire under the clamping plate. (See Figure 4)

Check the zone wiring of all bases in the system before installing the detectors. This includes checking the wiring for continuity, correct polarity, ground fault testing and performing a dielectric test.

The base includes an area for recording the zone, address, and type of detector being installed. This information is useful for setting the detector head address and for verification of the detector type required for that location.

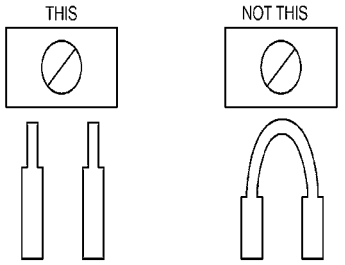
Once all detector bases have been wired and mounted, and the loop wiring has been checked, the detector heads may be installed in the bases.

FIGURE 3. TYPICAL WIRING DIAGRAM FOR 2-WIRE LOOP:



C0129-02

FIGURE 4.:



C0473-00

TAMPER-RESIST FEATURE

NOTE: Do not use the tamper-resist feature if the removal tool will be used.

The detector base includes a tamper-resist feature that prevents removal of the detector without using a small screwdriver or similar tool.

To activate this feature, use needle-nose pliers to break the tab on the detector base as shown in Figure 5A. Then, install the detector.

To remove the detector from the base once the tamper-resist feature has been activated, remove the decorative ring by rotating it in either direction and pulling it away from the base. Then, insert a small screwdriver into the notch, as indicated in Figure 5B, and press the plastic lever toward the mounting surface before rotating the detector counterclockwise for removal.

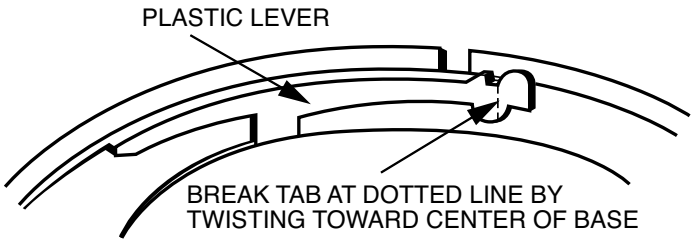
The tamper-resist feature can be defeated by breaking and removing the plastic lever from the base. However, this prevents the feature from being used again.

REMOTE ANNUNCIATOR (RA100Z)

Connect the remote annunciator between terminals 1 and 3 using the spade lug terminal included. The spade lug terminal is connected to the base terminal as shown in Figure 6.

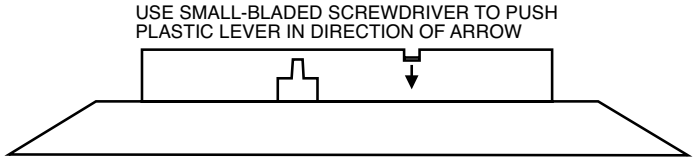
It is not acceptable to have three stripped wires under the same wiring terminal unless they are separated by a washer or equivalent means. The spade lug supplied with the model RA100Z is considered an equivalent means. See Figure 3 for proper installation.

FIGURE 5A. ENABLING THE TAMPER-RESISTANT CAPABILITY:



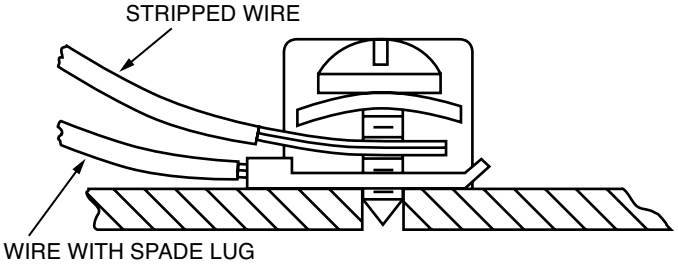
C0130-00

FIGURE 5B. REMOTING THE DETECTOR HEAD FROM THE BASE:



C0130-00

FIGURE 6. CONNECTION TO REMOTE ANNUNCIATOR TERMINAL:



C0116-00

Please refer to insert for the Limitations of Fire Alarm Systems

THREE-YEAR LIMITED WARRANTY

System Sensor warrants its enclosed smoke detector base to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this smoke detector base. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the smoke detector base which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Repair Department, RA #_____, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SILENT KNIGHT
by Honeywell

12 Clintonville Road, Northford, CT 06472
203.484.7161; Fax: 203.484.7118
www.silentknight.com

IDP-Relay

SPECIFICATIONS

Normal Operating Voltage:	15 to 32 VDC
Maximum Current Draw:	6.5 mA (LED on)
Average Operating Current:	230µA direct poll; 255µA group poll
EOL Resistance:	Not used
Temperature Range:	32˚F to 120˚F (0˚C to 49˚C)
Humidity:	10% to 93% Non-condensing
Dimensions:	4.675" H x 4.275" W x 1.4" D (Mounts to a 4˝ square by 2 1/8˝ deep box.)
Accessories:	SMB500 Electrical Box

RELAY CONTACT RATINGS:

CURRENT RATING	MAXIMUM VOLTAGE	LOAD DESCRIPTION	APPLICATION
2 A	25 VAC	PF = 0.35	NON-CODED
3 A	30 VDC	RESISTIVE	NON-CODED
2 A	30 VDC	RESISTIVE	CODED
0.46 A	30 VDC	(L/R = 20MS)	NON-CODED
0.7 A	70.7 VAC	PF = 0.35	NON-CODED
0.9 A	125 VDC	RESISTIVE	NON-CODED
0.5 A	125 VAC	PF = 0.75	NON-CODED
0.3 A	125 VAC	PF = 0.35	NON-CODED

BEFORE INSTALLING

This information is included as a quick reference installation guide. Refer to the appropriate Silent Knight control panel installation manual for detailed system information. If the modules will be installed in an existing operational system, inform the operator and local authority that the system will be temporarily out of service. Disconnect power to the control panel before installing the modules.

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

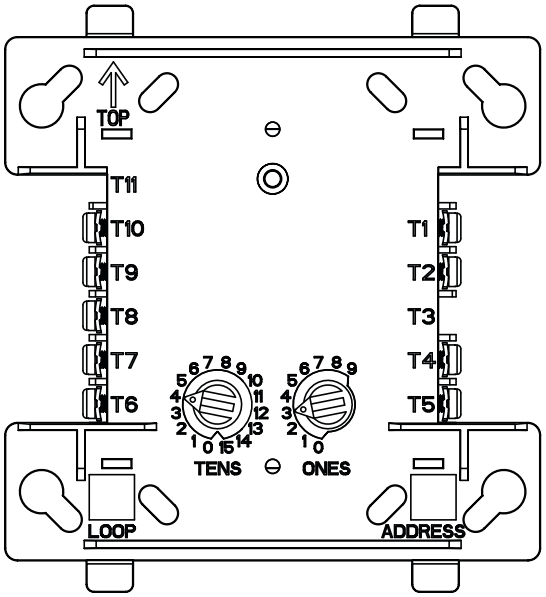
GENERAL DESCRIPTION

The IDP-Relay is intended for use in intelligent, two-wire systems where the individual address of each module is selected using the built-in rotary switches. It allows a compatible control panel to switch discrete contacts by code command. The relay contains two isolated sets of Form-C contacts, which operate as a DPDT switch and are rated in accordance with the table in the manual. Circuit connections to the relay contacts are not supervised by the module. The module also has a panel controlled LED indicator.

COMPATIBILITY REQUIREMENTS

To ensure proper operation, this module shall be connected to a compatible Silent Knight system control panel (list available from Silent Knight).

FIGURE 1. CONTROLS AND INDICATORS:



C1071-00

MOUNTING

The IDP-Relay mounts directly to 4-inch square electrical boxes (see Figure 2A). The box must have a minimum depth of 2 1/8 inches. Surface mounted electrical boxes (SMB500) are available from Silent Knight. The module can also mount to the SK-DUCT or DNR(W) housing.

FIGURE 2A. MODULE MOUNTING WITH BARRIER:

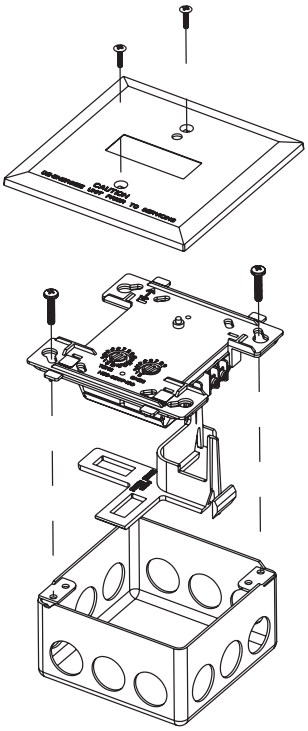
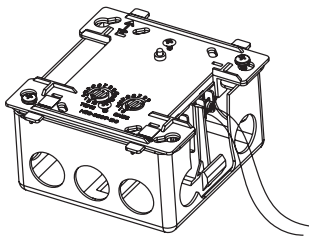


FIGURE 2B:



C1070-00

WIRING

NOTE: All wiring must conform to applicable local codes, ordinances, and regulations. When using control modules in nonpower limited applications, the CB500 Module Barrier must be used to meet UL requirements for the separation of power-limited and nonpower-limited terminals and wiring. The barrier must be inserted into a 4″ × 4″ × 2 1/8″ junction box, and the control module must be placed into the barrier and attached to the junction box (Figure 2A). The power-limited wiring must be placed into the isolated quadrant of the module barrier (Figure 2B).

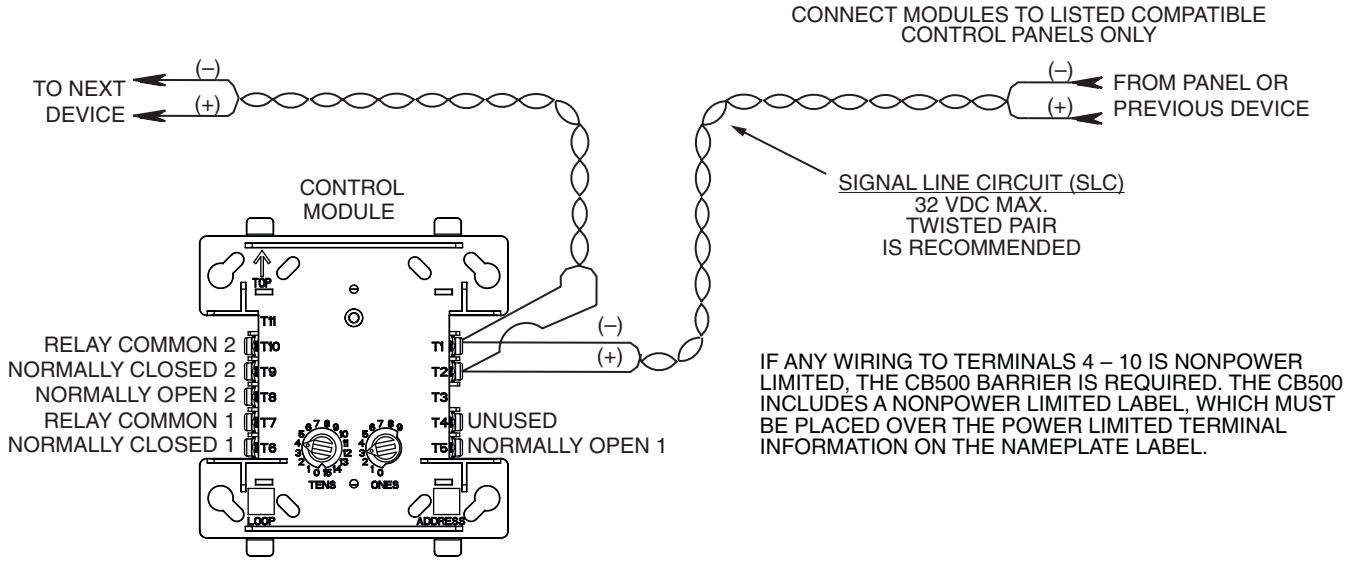
1. Install module wiring in accordance with the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure module to electrical box (supplied by installer), as shown in Figure 2A.

Wire should be stripped to the appropriate length (recommended strip length is 1/4“ to 3/8”). Exposed conductor should be secured under the clamping plate and should not protrude beyond the terminal block area. Caution: Do not loop wire under terminals. Break wire run to provide supervision of connections.

⚠WARNING

All relay switch contacts are shipped in the standby state (open) state, but may have transferred to the activated (closed) state during shipping. To ensure that the switch contacts are in their correct state, modules must be made to communicate with the panel before connecting circuits controlled by the module.

FIGURE 3. RELAY MODULE WIRING DIAGRAM:



*NOTE: ANY FAULT IN THE POWER SUPPLY IS LIMITED TO THAT ZONE AND DOES NOT RESULT IN A FAULT IN A SEPARATE ZONE.

C0946-00

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

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

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
- 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
- Strobes and Horn Strobes listed for wall mounting only
- Horns listed for wall or ceiling use

Agency Listings

SIGNALING UL LISTED
S5512
S4011

FM APPROVED
FM approved except for ALERT models 3057383, 3057072

7125-1653:0504
7135-1653:0503

The System Sensor 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 compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

The L-Series 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, the L-Series utilizes a universal mounting plate for all models 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, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

L-Series Specifications

Architect/Engineer Specifications

General

L-Series standard horns, strobes, and horn strobes shall mount to a standard 2 x 4 x 1 7/8-inch back box, 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 × 1 7/8-inch back box. A universal mounting plate shall be used for mounting ceiling and 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 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 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, 30, 75, 95, 110, 135, and 185.

Strobe

The strobe shall be a System Sensor 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 System Sensor 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 System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize 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 11/16 × 4 11/16 × 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
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	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 × 4.7˝W × 1.91˝D (143 mm L × 119 mm W × 49 mm D)
Compact Wall-Mount Dimensions (including lens)	5.26" L x 3.46" W x 1.91" D (133 mm L x 88 mm W x 49 mm D)
Horn Dimensions	5.6˝L × 4.7˝W × 1.25˝D (143 mm L × 119 mm W × 32 mm D)
Compact Horn Dimensions	5.25" L x 3.45" W x 1.25" D (133 mm L x 88 mm W x 32 mm D)

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. Strobe products will operate at 12 V nominal only for 15 cd and 30 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts	16–33 Volts	
	Candela	DC	DC	FWR
Candela Range	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)

		8–17.5 Volts	16–33 Volts	
Sound Pattern	dB	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), Wall Horn Strobe, Candela Range (15–185 cd)

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

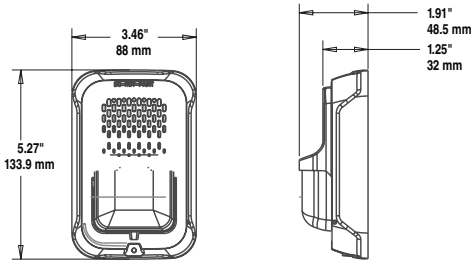
Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

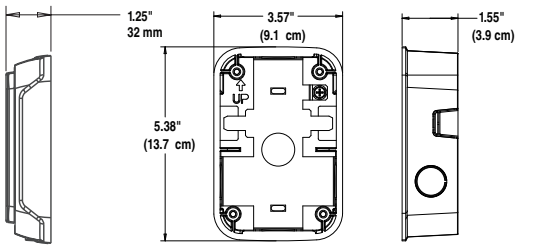
			8–17.5 Volts	16–33 Volts	
Switch Position	Sound Pattern	dB	DC	DC	FWR
1	Temporal	High	84	89	89
2	Temporal	Low	75	83	83
3	Non-Temporal	High	85	90	90
4	Non-Temporal	Low	76	84	84
5	3.1 KHz Temporal	High	83	88	88
6	3.1 KHz Temporal	Low	76	82	82
7	3.1 KHz Non-Temporal	High	84	89	89
8	3.1 KHz Non-Temporal	Low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

* Settings 9 and 10 are not available on 2-wire horn strobes. Temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output remains constantly on.

L-Series Dimensions

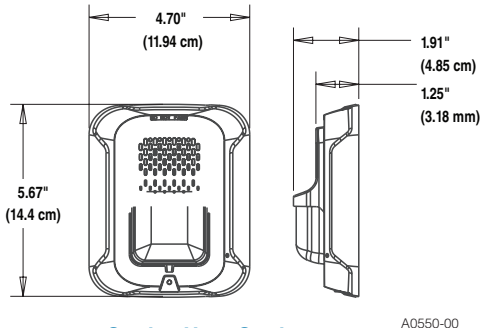


Compact Strobe, Horn Strobe

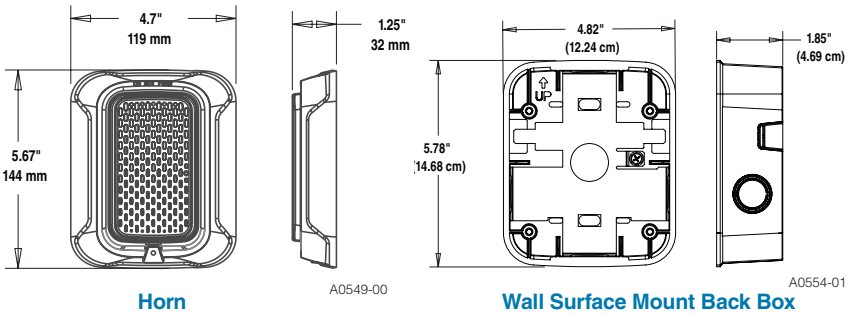


Compact Horn

Compact Wall Surface Mount Back Box
SBBGRL, SBBGWL



Strobe, Horn Strobe



Horn

Wall Surface Mount Back Box
SBBRL/SBBWL

L-Series Ordering Information

Model	Description
Wall Horn Strobes	
P2RL	2-Wire, Horn Strobe, Red
P2WL	2-Wire, Horn Strobe, White
P2GRL	2-Wire, Compact Horn Strobe, Red
P2GWL	2-Wire, Comp 2 fils act Horn Strobe, White
P2RL-P	2-Wire, Horn Strobe, Red, Plain
P2WL-P	2-Wire, Horn Strobe, White, Plain
P2RL-SP	2-Wire, Horn Strobe, Red, FUEGO
P2WL-SP	2-Wire, Horn Strobe, White, FUEGO
P4RL	4-Wire, Horn Strobe, Red
P4WL	4-Wire, Horn Strobe, White
Wall Strobes	
SRL	Strobe, Red
SWL	Strobe, White
SGRL	Compact Strobe, Red
SGWL	Compact Strobe, White
SRL-P	Strobe, Red, Plain
SWL-P	Strobe, White, Plain
SRL-SP	Strobe, Red, FUEGO
SWL-CLR-ALERT	Strobe, White, ALERT

Model	Description
Horns*	
HRL*	Horn, Red
HWL*	Horn, White
HGRL*	Compact Horn, Red
HGWL*	Compact Horn, White
Accessories	
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White

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.
*Horn-only models are listed for wall or ceiling use.

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
www.systemsensor.com

AVDS865-05 • 2/22/2018

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

SPECTRAlert ADVANCE from System Sensor

SpectrAlert® Advance audible visible notification products are rich with features guaranteed to cut installation times and maximize profits.

Features

- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Field-selectable candela settings on wall units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185
- Horn rated at 88+ dBA at 16 volts
- Rotary switch for horn tone and three volume selections
- Universal mounting plate for wall units
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically Compatible with legacy SpectrAlert devices
- Compatible with MDL3 sync module
- Listed for ceiling or wall mounting

The SpectrAlert Advance series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry. With white and red plastic housings, wall and ceiling mounting options, and plain and FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement.

Like the entire SpectrAlert Advance product line, 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, SpectrAlert Advance utilizes 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, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with three volume selections.

Agency Listings

SIGNALING UL LISTED
S4011 (chimes, horn strobes, horns)
S5512 (strobes)

FM APPROVED
3023572

MEA approved
MEA452-05-E

7125-1653:186 (indoor 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 × 17/8-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 8.5 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 16.5 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, and 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 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.

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 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 411/16 × 411/16 × 21/8-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
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	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 × 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 Trim Ring Dimensions (sold as a 5 pack) (TR-HS)	5.7″L × 4.8″W × 0.35″D (145 mm L × 122 mm W × 9 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.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	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)

		8–17.5 Volts		16–33 Volts	
Sound Pattern	dB	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)

	8–17.5 Volts		16–33 Volts						
DC Input	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)

	16–33 Volts					16–33 Volts			
DC Input	135	150	177	185	FWR Input	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

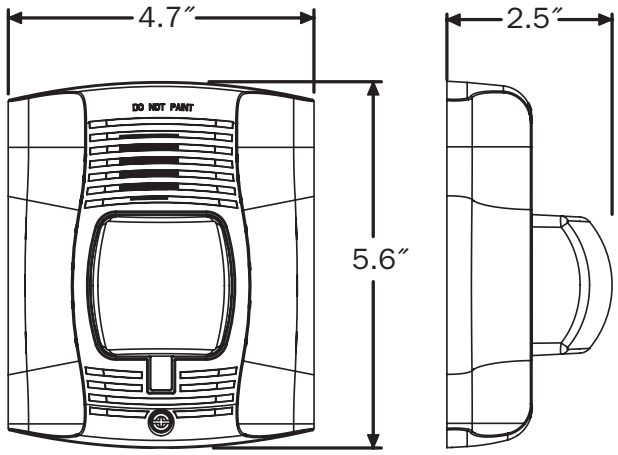
Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

			8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	75	75	80	80	86	86	96	96
3	Temporal	Low	71	71	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	73	74	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	74	75	81	81	88	85	96	92

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

SpectrAlert Advance Dimensions



Wall-mount horn strobes

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn Strobes	
P2R	2-Wire Horn Strobe, Standard cd, Red
P2R-P	2-Wire Horn Strobe, Standard cd, Red, Plain
P2R-SP	2-Wire Horn Strobe, Standard cd, Red, “FUEGO”
P2RH	2-Wire Horn Strobe, High cd, Red
P2RH-P	2-Wire Horn Strobe, High cd, Red, Plain
P2W	2-Wire Horn Strobe, Standard cd, White
P2W-P	2-Wire Horn Strobe, Standard cd, White, Plain
P2WH	2-Wire Horn Strobe, High cd, White
P2WH-P	2-Wire Horn Strobe, High cd, White, Plain
P4R	4-Wire Horn Strobe, Standard cd, Red
P4R-P	4-Wire Horn Strobe, Standard cd, Red, Plain
P4RH	4-Wire Horn Strobe, High cd, Red
P4W	4-Wire Horn Strobe, Standard cd, White
Wall Strobes	
SR	Strobe, Standard cd, Red
SR-P	Strobe, Standard cd, Red, Plain
SR-SP	Strobe, Standard cd, Red, “FUEGO”

Model	Description
Wall Strobes (cont.)	
SRH	Strobe, High cd, Red
SRH-P	Strobe, High cd, Red, Plain
SRH-SP	Strobe, High cd, Red, “FUEGO”
SW	Strobe, Standard cd, White
SW-P	Strobe, Standard cd, White, Plain
SWH	Strobe, High cd, White
SWH-P	Strobe, High cd, White, Plain
Horns	
HR	Horn, Red
HW	Horn, White
Accessories	
TR-HS	Trim Ring, Wall, Red
SBBR	Indoor Surface Mount Back Box, Red
SBBW	Indoor Surface Mount Back Box, White

Notes:
All -P models have a plain housing (no “FIRE” marking on cover)
All -SP models have “FUEGO” marking on cover
“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.

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
www.systemsensor.com

AVDS10201 • 1/14

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

SpectrAlert® Advance outdoor audible visible products are rich with features that cut installation times and maximize profits.

Features

- Weatherproof per NEMA 4X, IP56
- Listed to UL 1638 (strobe) and UL 464 (horn)
- Compatible with System Sensor synchronization protocol and legacy SpectrAlert products
- 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 horn tone and three volume selections
- Horn rated at 88+ dBA at 16 volts
- Rated from –40°F to 151°F
- Universal mounting plate with an onboard shorting spring that tests wiring continuity before devices are installed
- Plug-in design with minimal intrusion into the back box
- Tamper-resistant construction
- Listed for ceiling or wall mounting

Agency Listings

SIGNALING UL LISTED
S4011 (chimes, horn strobes, horns)
S3593 (outdoor and alert strobes)

FM APPROVED
3023572

MEA approved
MEA452-05-E

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

SpectrAlert Advance offers the broadest line of outdoor horns, strobes, and horn strobes in the industry. With white or red plastic housings, wall or ceiling mounting options, and plain or FIRE-printed devices, SpectrAlert Advance can meet virtually any application requirement, including indoor, outdoor, wet, and dry applications in temperatures from –40°F to 151°F.

Like the entire SpectrAlert Advance line, outdoor horns, strobes, and horn strobes for wall applications include a variety of features that increase application flexibility and simplify installation. First, field-selectable settings, including candela, automatic selection of 12- or 24-volt operation, horn tones, and three volume options enable installers to easily adapt devices to meet requirements.

Next, SpectrAlert Advance devices use a universal mounting plate for both wall and ceiling applications. This mounting plate includes 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 ¾-inch top and bottom conduit entries and ¾-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 Horn, Strobe, and Horn Strobe Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance outdoor horns, strobes, and horn 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 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. Outdoor SpectrAlert Advance products shall operate between –40 and 151 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, and 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. The strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The strobe shall be suitable for use in wet environments.

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 three pattern and a non-temporal (continuous) pattern. These options shall be set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn or horn strobe models shall operate on a coded or non-coded power supply. The horn strobe must be installed with its weatherproof back box in order to remain outdoor approved per UL. The horn strobe shall be suitable for use in wet environments.

Physical/Electrical Specifications

Operating Temperature	–40°F to 151°F (–40°C to 66°C)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
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 Weatherproof Back Box Dimensions (SA-WBB)	5.7″L × 5.1″W × 2.0″D (145 mm L × 130 mm W × 51 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.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	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)

		8–17.5 Volts		16–33 Volts	
Sound Pattern	dB	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)

	8–17.5 Volts		16–33 Volts						
DC Input	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)

	16–33 Volts					16–33 Volts			
DC Input	135	150	177	185	FWR Input	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

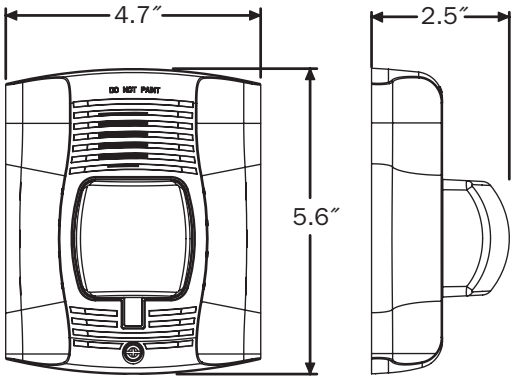
Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

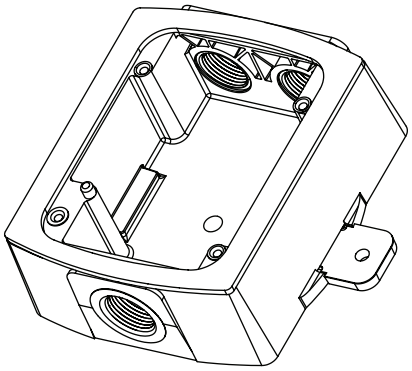
			8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
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.

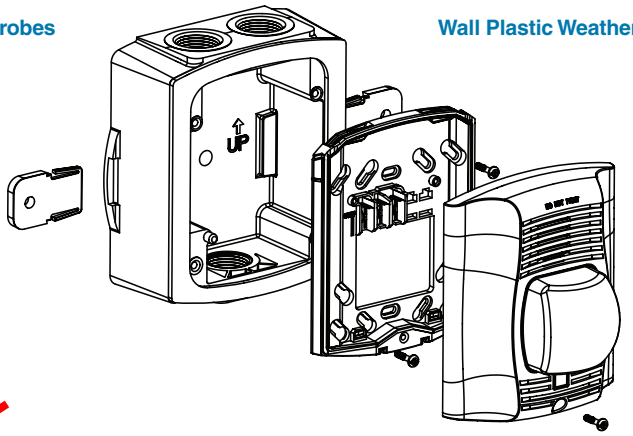
SpectrAlert Advance Diagrams



Wall-Mount Horn Strobes



Wall Plastic Weatherproof Back Box



Wall-Mount Horn Strobe with Plastic Weatherproof Back Box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn Strobes	
P2RK*†	2-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P2RHK*†	2-Wire Horn Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
P2WK*†	2-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2WHK*†	2-Wire Horn Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
P4RK†	4-Wire Horn Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
P4WK	4-Wire Horn Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
P2RHK-120	2-Wire Horn Strobe, High cd, Red, Outdoor, 120 V (includes plastic weatherproof back box)
Wall Strobes	
SRK*†	Strobe, Standard cd, Red, Outdoor (includes plastic weatherproof back box)
SRHK*†	Strobe, High cd, Red, Outdoor (includes plastic weatherproof back box)
SWK*†	Strobe, Standard cd, White, Outdoor (includes plastic weatherproof back box)
SWHK*†	Strobe, High cd, White, Outdoor (includes plastic weatherproof back box)
Horns	
HRK†	Horn, Red, Outdoor (includes plastic weatherproof back box)
Accessories	
SA-WBB	Red, Metal Weatherproof Back Box
SA-WBBW	White, Metal Weatherproof Back Box

Notes:
* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2RK-P.
† Add "-R" to model number for weatherproof replacement device (no back box included), only for use with weatherproof outdoor flush mounting plate, WTP and WTPW.
"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.**

SYSTEM SENSOR®
3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495

AVDS01201 • 3/12

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, 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 (Direct replacement for HW/R-LF and P2R/WH-LF)
- Compatible with MDL3 sync module
- Sounders listed for ceiling and wall
- Round Sounder Strobes listed for ceiling and wall
- Updated modern aesthetics

Agency Listings

SIGNALING UL LISTED S4011

FM APPROVED PR452768

Horns only: 7135-1653:0516
Horn/Strobes: 7125-1653:0517

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 ± 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.

L-Series Specifications

Architect/Engineer 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. 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 products. 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 12 or 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 and have a permanent marking on the housing that reads “520 Hz”.

Low Frequency Sounder

The low frequency sounder shall be a System Sensor L-Series Model _____ listed to UL 464 and shall be approved for fire protective service. The low frequency sounder and the Sync•Circuit™ MDL3 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 MDL3, 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 has an option to switch between temporal three or temporal four pattern, non-temporal (continuous) pattern and coded supply within the frequency range of 520 Hz ± 10% square wave tone. The low frequency sounder shall operate on a coded or non-coded power supply with high and low volume settings.

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 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 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 an option to switch between a temporal three or temporal four pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The low frequency sounder on low frequency sounder strobe models shall operate on a non-coded power supply with 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 MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and low frequency sounder 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 4 11/16 × 4 11/16 × 2⅛-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.

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 MDL3 Sync Module	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)	6.8” diameter x 2.47” high (173mm 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)
Standard Wall Sounder with SBBRL/SBBWL Surface Mount Back Box	5.70” 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 mmL 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)

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

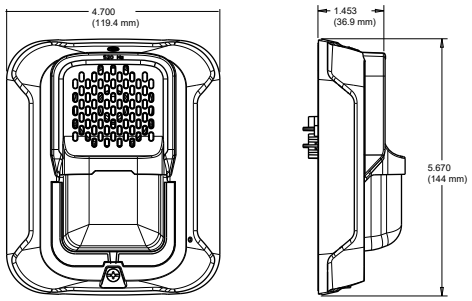
Ceiling Sounder Strobe			Current Draw (mA)														Sound Output (dBA)	
			16-33 VDC							16-33 FWR							16-33 V	
Pos	Tone	Volume Setting	15cd	30cd	75cd	95cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	110cd	135cd	185cd	DC	FWR
1	Temporal 3	High	98	115	158	173	197	236	259	136	153	188	206	238	287	291	80	80
2	Temporal 3	Low	98	102	141	162	181	224	244	150	150	176	194	226	269	269	76	76
3	Temporal 4	High	98	108	145	161	186	224	249	200	198	169	189	222	269	277	80	80
4	Temporal 4	Low	102	104	122	136	170	208	227	176	174	154	173	206	252	263	76	76
5	Continuous	High	141	158	198	216	245	293	295	190	207	249	268	302	357	357	80	80
6	Continuous	Low	120	128	179	196	225	271	273	165	182	226	244	278	330	330	76	76

UL Max. Low Frequency Sounder Current Draw (mA RMS)

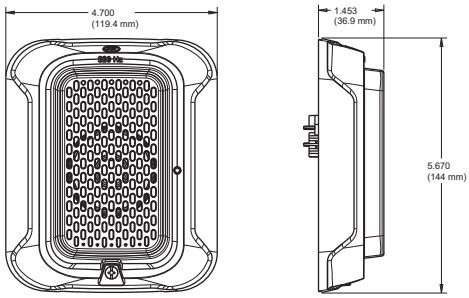
Wall and Ceiling Sounder			Current Draw (mA)		Sound Output (dBA) Reverberant	
			16–33 Volts		16–33 Volts	
Pos	Tone	Volume Setting	DC	FWR	DC	FWR
1	Temporal 3	High	108	150	80	80
2	Temporal 3	Low	78	76	76	76
3	Temporal 4	High	111	151	80	80
4	Temporal 4	Low	80	76	76	76
5	Continuous	High	111	151	80	80
6	Continuous	Low	80	76	76	76
7	Coded	High	111	151	80	80
8	Coded	Low	80	76	76	76

*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.

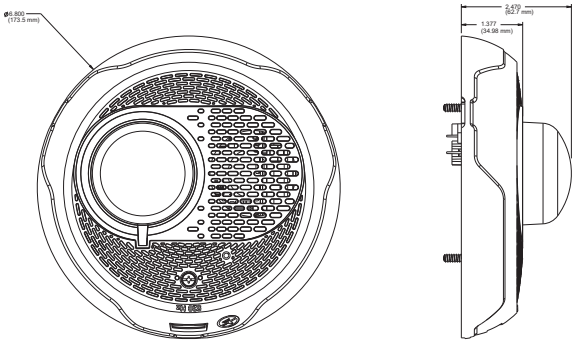
L-Series Dimensions



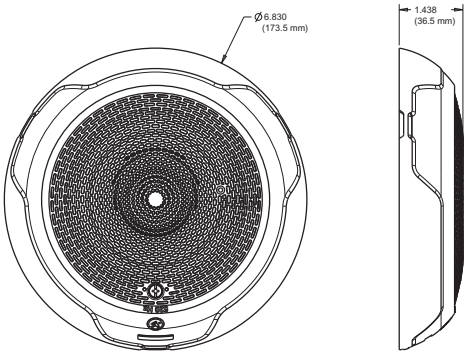
Wall LF Sounder Strobe



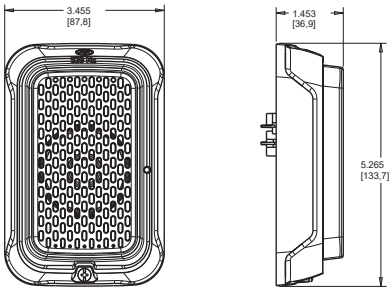
Wall LF Sounder



Ceiling LF Sounder Strobe



Ceiling LF Sounder



Compact Wall LF Sounder

Part No.		Description
Red	White	
Low Frequency Sounder Strobes		
P2RL-LF	P2WL-LF	LF Sounder Strobe, Wall
PC2RL-LF	PC2WL-LF	LF Sounder Strobe, Ceiling
Low Frequency Sounders		
HRL-LF	HWL-LF	LF Sounder, Wall
HGRL-LF	HGWL-LF	Compact LF Sounder, Wall
HCRL-LF	HCWL-LF	LF Sounder, Ceiling
Accessories		
MDL3R	MDL3W	Sync•Circuit™ Module, UL-listed
SBBRL	SBBWL	Surface Mount Back Box, Wall
SBBCRL	SBBCWL	Surface Mount Back Box, Ceiling
SBBGRL	SBBGWL	Surface Mount Back Box, Wall, Compact

SYSTEM SENSOR®

3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495

AVDS910-02 • 11/02/2020