Portland, Maine   Yes. Life's good here.

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with Conditions
10/17/2019

Permitting and Inspections Department

Fire Alarm Permit Application

Construction Address: 55 William Street

Total Square Footage of Proposed Structure: 11568

Tax Assessor's Chart, Block & Lot			Applicant Name: Cunningham Security System
Chart#	Block#	Lot#	Address: 10 Princes Point Rd Yarmouth ME 04096
116	A	25	Phone: 207-846-3350
Cost of Work: $ 14000.00			Email: michelle@cunninghamsecurity.com

Lessee/Owner Name (if different):	Contractor Name (if different):
West Company	
Address: 104 Grant Street Portland, ME 04101	Address:
Phone:	Phone:
Email:	Email:

Current use (i.e. single family): Eleven to Twenty Family

If vacant, what was the previous use?

Proposed specific use: Eleven to Twenty Family

Is property part of a subdivision? If yes, name: No

Project description: Replacement of existing fire alarm system

Life Safety Code Occupancy Classification:

Is this new work or a renovation to an existing system? Renovation

Is the top occupiable floor of the building greater than 75 feet above the lowest level of Fire Department access (high-rise)? No

Name of company providing programming and certification of system*: Cunningham Security Systems

Electrical permit #: ELEC2019-01965

Will a master box be installed?   ○ Yes   ⊙ No   If yes, complete all items for approval):

AES approved installing contractor:

Documentation of AES approval:

Property Owner:

Property Owner Billing Address:

Property common name:

E-911 address for protected premises:

Emergency contact phone: Additional emergency contact phone:

Number of stories protected:

Is the building protected by a supervised, automatic sprinkler system?   ⊙ Yes   ○ No

Name of person to contact when the permit is ready: Michelle OBrien

Address: 10 Princes Point Rd

City, State & Zip: Yarmouth, ME 04096

Email Address: michelle@cunninghamsecurity.com   **Phone:** 207-846-3350

*For a list of approved fire alarm companies, see www.portlandmaine.gov/1486/Approved-Fire-Alarm-Companies

389 Congress Street, Room 315/Portland Maine 04101/www.portlandmaine.gov/tel: 207-874-8703/fax: 207-874-8716
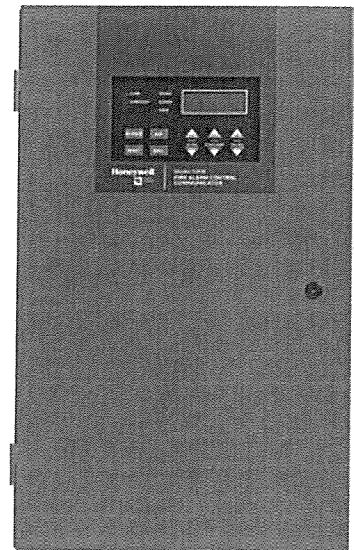
6808

Addressable Fire Alarm Control Panel

The 6808 is an addressable fire alarm control panel (FACP) that is a direct replacement for the 5808 FACP. The 6808 can be configured to achieve a point capacity of 198 points. It has one built-in signaling line circuit (SLC), which can support 99 System Sensor® (SK) sensors and 99 SK modules or 127 Hochiki® (SD) devices per loop.

A common communications and annunciation link allows up to 17 panels to be connected via copper or fiber optic cable. A designated panel is configured as the communicator for all panels in the link for convenient single-point communications. It also has a built-in, dual-line POTS and IP communicator with additional cellular options available.

The 6808 system can be enhanced by adding modules such as the 6860 remote annunciator which also has four programmable function buttons to help automate tasks and reduce time spent at the panel.

SWIFT® wireless compatibility provides options for wireless detection through a Class A mesh network. It is ideal for hard-to-wire locations, buildings where new wiring is not allowed, or to provide an easy install fire system for new construction projects. SWIFT devices can be combined with other hard-wired 6808 compatible devices.

The 6808 also has a form-C trouble relay, two programmable form-C relays, along with powerful features such as drift compensation, pre-trouble maintenance alert, a built-in sensor test to comply with NFPA 72 calibration testing requirements, and calibration trouble alert.

6808

The supports a variety of devices, including the 6860, 5860, and 6855 remote annunciators, 5824 serial parallel printer interface module (for printing system reports), the 5496 NAC expander, 5895XL power module, and SK or SD devices.

FEATURES & BENEFITS

- Capable of providing up to 198 points to satisfy smaller installation needs

- Connect up to 17 panels on one site with convenient single-point access using the SK-NIC Network Interface Card. Connected panels can have mixed compatible FACP models

- Convenient field-upgradeable firmware

- Built-in dual path POTS and IP communications with optional cellular models available for reliable backup reporting

- 6860 annunciator with a 4 x 40 large display

- Four user-programmable buttons minimize time spent executing complex or routine tasks

- Built-in USB interface for convenient and quick programming

- Programmable date setting for automatic and convenient Daylight Saving Time changes

- JumpStart® auto programming reduces installation time

- 125 software zones and 125 output groups for flexible design options

SIGNAL LINE CIRCUIT (SLC)

The 6808 SLC loop supports multiple device types, maintenance alerts, and a built-in sensor test to comply with NFPA 72 calibration testing requirements.

INDICATOR LIGHTS

- **General Alarm (Red):** Flashes if in alarm; solid when alarm is silenced
- **Supervisory (Yellow):** Flashes if a supervisory condition exists; solid when supervisory is silenced
- **System Troubles (Yellow):** Flashes if a trouble condition exists; solid when trouble is silenced
- **System Silenced (Yellow):** On when an alarm, trouble or supervisory condition has been silenced but not yet cleared
- **System Power (Green):** Flashes for AC failure; solid when power systems are normal

USER INTERFACE

The 6808 built-in 4 x 20 annunciator with 80 character LCD display and large easy-to-use tactile touchpad can be used for system operation, programming and maintenance. It has five LEDs for alarm, supervisory, system trouble, system silenced and system power.

System operations include silencing alarms and troubles, resetting alarms and the display of alarm troubles and memory. The system's non-volatile event history buffer stores 1,000 events for viewing from the built-in or remote annunciator. System operations can be initiated with a mechanical firefighter's key or a valid 4- to 7-digit operator's code.

PROGRAMMING

The 6808 system offers several options to simplify and speed-up programming. JumpStart° auto programming minimizes programming required to start a new system. The built-in keypad, or the 6860, 5860 or 6855 remote annunciators give you on-site access to current system programming. Programming can also be accomplished using the Windows° -based Honeywell Fire Software Suite (HFSS) program.

SOFTWARE TOOLS

SKST: Silent Knight Selection Tool provides the installer or design architect with a Windows° software system configuration tool to create a detailed Bill of Material (BOM) and battery calculations.

HFSS: Honeywell Fire Software Suite provides communication and panel programming, detector status, event history and additional data. Requires a PC running Microsoft° Windows°.

ADDITIONAL INFORMATION

Twisted-unshielded pair wire is recommended.

The 6808 also has 13 preset notification cadence patterns (including ANSI 3.41).

AGENCY LISTINGS AND APPROVALS

NPFA 13, NFPA 15, NFPA 16, NFPA 70, NFPA 72: Central station; remote Signaling; Local Protective Signaling Systems; Auxiliary Protected Premises Unit; Water Deluge releasing service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signaling services

- **UL Listed:** S2766
- **CSFM:** 7165-0559:0502
- **FDNY:** COA# 6246
- **FM** approved

ORDERING INFORMATION

6808: Addressable Fire Alarm Control Panel. (Red cabinet).

COMPATIBLE ANNUNCIATORS

6860: 4x40 LCD remote fire annunciator (4 lines and up to 160 characters) per system; four programmable buttons

5860: 4x20 LCD remote fire annunciator. 5860 is gray; 5860R is red

6855: 4x20 LCD remote fire annunciator

5865-3 or 5865-4: LED annunciators can display up to 30 LEDs (15 red and 15 yellow). The 5865-4 has key switches for silence and reset, and a system trouble LED.

5880: LED / IO module has 40 programmable LED outputs and eight supervised dry contact inputs which are useful for custom applications. You can use up to eight 5880 modules on one control panel for maximum flexibility. Its compact size allows mounting inside the annunciator, or in an accessory cabinet.

6808 COMPATIBLE DEVICES AND ACCESSORIES

See the data sheets listed below for a complete listing of the SK, SD or SWIFT devices.
53623: SK Devices Data Sheet
53624: SD Devices Data Sheet
350614, 350616 & 350618: SWIFT wireless devices
For a complete and current listing of compatible devices and accessories, visit www.silentknight.com.
Important: You cannot mix SK and SD devices in the same fire alarm system.

SK COMPATIBLE ADDRESSABLE DEVICES

SK-ACCLIMATE: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature

SK-BEAM: Reflected beam smoke detector without test feature

SK-BEAM-T: Reflected beam smoke detector with test feature

SK-CONTROL: Supervised control module

SK-CONTROL-6: Six circuit supervised control module

SK-DUCT: Photoelectric duct smoke detector with extended air speed range

SK-FIRE-CO: Four criteria fire and carbon monoxide detector

SK-HEAT: Fixed thermal detector (135°F)

SK-HEAT-W: Fixed thermal detector (135°F), white

SK-HEAT-ROR: Fixed rate of rise detector (135°F)

SK-HEAT-ROR-W: Fixed rate of rise detector (135°F), white

SK-HEAT-HT: Fixed high temperature thermal detector (190°F)

SK-HEAT-HT-W: Fixed high temperature thermal detector (190°F), white

SK-ISO: Fault isolator module

SK-MINIMON: Mini monitor module

SK-MONITOR: Monitor module

SK-MONITOR-2: Dual input monitor module

SK-MON-10: 10 input monitor module

SK-PHOTO: Photoelectric smoke detector

SK-PHOTO-W: Photoelectric smoke detector, white

SK-PHOTO-T: Photoelectric smoke detector with thermal (135°F fixed temperature)

SK-PHOTO-T-W: Photoelectric smoke detector with thermal (135°F fixed temperature), white

SK-PHOTOR: Photoelectric detector with remote test capability

SK-PHOTO-R-W: Photoelectric detector with remote test capability, white

SK-PULL-SA: Addressable single action pull station

SK-PULL-DA: Addressable dual action pull station

SK-RELAY: Addressable relay module

SK-RELAY-6: Addressable Six relay control module

SK-RELAYMON-2: Addressable Dual relay/monitor module

SK-ZONE: Addressable zone interface module

SK-ZONE-6: Six zone interface module

B300-6(-IV): 6" base for SK-W Series

B210LP: 6" mounting base

B501(-BL,-IV,-WHITE): 4"flangeless base

B501: 4" Flangeless mounting base

B200S(-IV,-WH): Intelligent sounder base

B200S: Intelligent sounder base

B200S-LF(-IV,-WH): Low-Frequency intelligent sounder base

B200S-LF: Low-frequency intelligent sounder base

B224RB(-IV,-WH): Relay base

B224RB: Relay base

B224BI(-IV,-WH): Isolator base

B224BI: Isolator base

SD COMPATIBLE ADDRESSABLE DEVICES

SD505-6AB: Addressable 6" base

SD505-6IB: Addressable 6" short circuit isolator base

SD505-6RB: Addressable 6" relay base

SD505-6SB: Addressable 6" sounder base

SD500-AIM: Addressable input module (switch input)

SD500-ANM: Addressable notification module

SD500-ARM: Addressable relay module

SD505-DTS-K: Remote test switch and LED indicator for the SD505-DUCTR

SD505-DUCT: Addressable Duct Smoke Detector.

SD505-DUCTR: Addressable Duct Detector housing with relay base.

SD505-HEAT: Absolute temperature heat detector. Trip point range from 135°F–150°F (0°C–37°C).

SD500-LIM: Addressable Line isolator module

SD500-MIM: Addressable Mini input monitor module (switch input)

SD505-PHOTO: Photoelectric smoke detector

SD500-PS/-PSDA: Addressable Single or dual action pull station

SD500-SDM: Addressable smoke detector module

AUDIBLE/VISIBLE DEVICES

These AV devices are all 2-wire. Color: "R" indicates red; "W" denotes white. For a complete listing of Silent Knight AV devices go to www.silentknight.com.

CHSRL/CHSWL: Wall chime/strobe

CHSCRL/CHSCWL: Ceiling chime/strobe

CHRL/CHWL: Wall chime

HRL/HWL: Wall horn

P2RL/P2WL: Wall horn/strobe

PC2RL/PC2WL: Ceiling horn/strobe

SRL/SWL: Wall strobe

SCRL/SCWL: Ceiling strobe

SPSCRL/SPSCWL: Ceiling speaker/strobe

SPSRL/SPSWL: Wall speaker/strobe

SPRL/SPWL: Wall speaker

SPCRL/SPCWL: Ceiling speaker

SWIFT WIRELESS DEVICES

SWIFT is only compatible with System Sensor (SK) devices. It is not compatible with Hochiki (SD) devices.

WSK-WGI: Wireless Gateway

WSK-PHOTO: Wireless Photoelectric smoke detector

WSK-PHOTO-T: Wireless Multi-criteria photoelectric smoke detector with thermal detection (135°F fixed temperature) and B510W 4" base

WSK-HEAT: Wireless Heat, (135°F fixed temperature) and B510W 4" base

WSK-HEAT-ROR: Wireless heat, ROR (135°F fixed temperature) and B510W 4" base

WSK-MONITOR: Wireless monitor module

WSK-RELAY: Wireless relay module

W-USB: SWIFT Tools USB transceiver used for communication with SWIFT devices

SBUS ACCESSORIES

5496: A 6 amp notification power expander with four power-limited notification appliance circuit outputs.

5883: Relay Interface. Provides 10 Form C relays.

5824: Serial/Parallel Printer Interface Module for printer connection.

5895XL: Power Supply with six Flexput™ circuits, and two Form C relays. Max. 16 per system.

5815RMK: Remote mounting kit. Dimensions: 10 3/8"W x 10-3/16"H x 3"D

COMMUNICATION OPTIONS

CELL-CAB-SK: Cellular communicator, metal enclosure with lock/key*

CELL-MOD: Cellular communicator, plastic enclosure*

*Sole path, powered by panel.

IPGSM-4G: Dual path fire alarm communicator, cellular and/or IP (primary or backup, selectable)

SK-IP-2: Remote reporting via the Internet. Requires a VisorAlarm® receiver at the central station

MISC. ACCESSORIES

SK-NIC: Network Interface Card. Provides a common communications link for the 6808.

SK-NIC-KIT: Installation Accessory Kit

SK-FML: Fiber-Optic Multi Mode, transmitter and receiver

SK-FSL: Fiber-Optic Single Mode

RBB: Remote battery box accessory cabinet for batteries that are too large to fit in the FACP cabinet. Dimensions: 16" W x 10" H x 6" D (406mm W x 254mm H x 152mm D).

SK-SCK: Seismic Compliance Kit used to securely fasten batteries to the fire panel.

6808 Technical Specifications

PHYSICAL

Overall Dimensions: 16.36"W × 26.37"H × 3.91"D
Shipping Weight: 32 lbs.
Color: Red

ENVIRONMENTAL

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

ELECTRICAL

6808 Primary AC: 120 VAC @ 60Hz, 3.3A Total
Accessory Load: 6A @ 27.4VDC power-limited
Standby Current: 190mA
Alarm Current: 250mA
Battery Charging Capacity: 7 to 35AH
Battery Size: 7AH to 18AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

NOTIFICATION APPLIANCE CIRCUITS (NACs)

Four programmable circuits which can be programmed individually as:

NACs: 3A @ 27.4VDC per circuit, power-limited (with a maximum current of 6A)
Auxiliary Power Circuits: 3A @ 27.4VDC per circuit, power-limited

Supports Class B (Style 4) and Class A (Style 6 or 7) configuration for the SLC

WIRING: See the product manual for wiring details

Flexput®, Honeywell®, JumpStart®, Silent Knight®, SWIFT®, and System Sensor® are registered trademarks of Honeywell International Inc.

Hochiki® is a registered trademark of Hochiki Corporation. Microsoft® and Windows® are registered trademarks of Microsoft Corporation.

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, call 800-446-6444.

Honeywell

SILENT KNIGHT

SILENT KNIGHT
by Honeywell

Reviewed for Code Compliance
Permitting and Inspections
Department
Approved with Conditions
10/24/2018

5860 Remote Annunciator

Bring the power to control an IntelliKnight fire alarm control panel to every area within your facility

Now you can operate and program your IntelliKnight system from up to twelve locations throughout your facility. The 5860 remote annunciator provides the same advanced, easy-to-use interface found on the IntelliKnight panel's built-in annunciator. The 80-character display and ergonomically designed keypad allow for simple and error-free system operation. All operations—including reset, silence, detector status checking, fire drill, and programming—are identical.

Access to the system is through a firefighter's key or an access code. For security, a special installation code is needed for programming functions. The 5860 connects to the IntelliKnight panel via the RS-485 system bus. Wire runs can be up to 6000 feet from the panel.

For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description
Features include an 80-character backlit LCD providing easy-to-understand system messages. The annunciator is ergonomically designed with over-sized buttons for the most frequently used features, like Reset and Silence.

In addition to status messages displayed on the LCD, there are five LEDs for alarm, supervisory, trouble, silence, and AC power status.

The annunciator is available in gray to match virtually any decor and red for applications where the annunciator must stand out. The annunciator enclosure can be surface or flush mounted. A trim ring kit is available for surface mounting.

Features
- 80-character backlit LCD display (4 lines with 20 characters on each line)
- Tactile and audible feedback
- Accepts user codes or fire fighter's key
- Larger keypad buttons for system reset and silence
- Install up to twelve 5860s per 5820XL/EVS or 5808 system
- Install up to eight 5860s per 5700 system

- Available in red or light gray
- Support for simultaneous use of multiple 5860s
- RS-485 interface to panel
- Operation and appearance is identical to 5860 built-in annunciator
- On-board piezo sounder audibly indicates alarms, troubles, and supervisories
- Five status LEDs for alarm, supervisory, trouble, silence and AC power conditions
- Wiring lengths up to 6000 ft. from the FACP (depending on wire gauge and number of devices on SBUS)
- UL listed, complies with NFPA 72
- CSFM approved

Electrical Specifications
Operating Voltage: 24 VDC

Standby Current: 20 mA max

Alarm Current: 25 mA

Wiring Distance: 6,000 max. from FACP (depending on wire gauge and number of devices on the SBUS)

Mechanical Specifications
Physical 9.1" W x 7.4" H x 1.5" D (23.1 W x 18.8 H x 3.8 D cm)

Shipping Weight: 2.8 lbs (1.3 kg)

Color
5860R: Red
5860: Gray

5860
Environmental
Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

Compatibility
The 5860 is compatible with the following FACP's:
- 5820XL Addressable Fire Control Panel
- 5820XL-EVS Fire Control Panel with Emergency Voice System
- 5808 Addressable Fire Control Panel
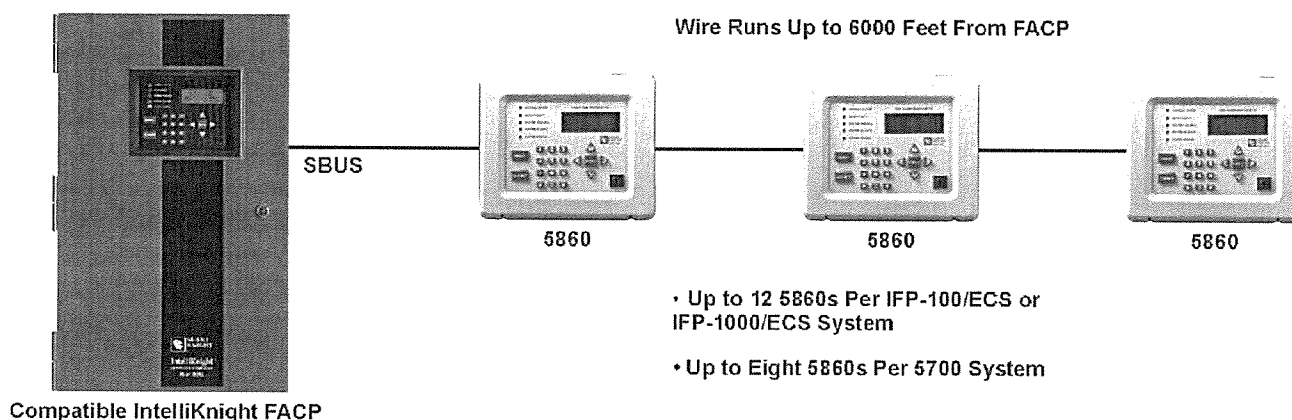- 5700 Addressable Fire Control Panel

5860 Remote Annunciator

Engineering Specifications

The main control must have a built-in annunciator and must support up to 12 remote annunciators. Remote annunciators shall have the same control and display layout so as to match the appearance of the built-in annunciator. Remote annunciators shall be available in two colors, red or light gray.

Remote annunciators shall have identical functionality and operation as the built-in annunciator. All annunciators must have an 80-character LCD display and must feature five LEDs for: General Alarm, Supervisory, System Trouble, System Silence, and System Power.

All controls and programming keys are silicone mechanical type with tactile and audible feedback. Keys have a travel of .040 inches. No membrane style buttons will be permissible.

The annunciator must be able to silence and reset alarms through the use of a code entered on the annunciator keypad or by using a firefighter's key. The annunciator must have two levels of user codes that will limit the operating system programming to authorized individuals. The control panel must allow all annunciators to accommodate multiple user input simultaneously.

Wire Runs Up to 6000 Feet From FACP

SBUS

5860   5860   5860

Compatible IntelliKnight FACP

• Up to 12 5860s Per IFP-100/ECS or IFP-1000/ECS System

• Up to Eight 5860s Per 5700 System

Listings
NFPA 72; UL Listed;
CSFM 7170-0559: 135;
MEA 429-92-E Vol. IX;
FM Approved

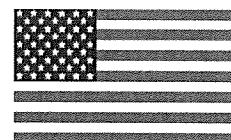## Ordering Information

5860R	Remote Annunciator four line LCD annunciator with 20 characters per line. Red
5860	Remote Annunciator four line LCD annunciator with 20 characters per line. Gray

Accessories
5860TR	Red Trim Ring for surface mounting
5860TG	Gray Trim Ring for surface mounting

SILENT KNIGHT
by Honeywell

SK-Pull-DA Addressable Pull Station

Patented, U.S. Patent No. Des. 428,351; 6,380,846; Other Patents Pending

Document 52149   I56-3447-002

P0260-00

Wiring

To Next Addressable Device

SLC

From FACP

SLC

STRIP GAUGE

P0267-00

Description

The SK-Pull-DA Addressable pull station is a non-coded, dual-action manual pull station with a key-lock reset feature. It provides Silent Knight intelligent fire alarm control panels (FACP) with one addressable alarm initiating input. The addressable module is housed inside the pull station. The SK-Pull-DA is compatible with all Silent Knight intelligent panels that use the Intelligent Device Protocol (IDP). Refer to the FACP Installation Manual to determine if Intelligent Device Protocol is supported. The SK-Pull-DA meets the ADAAG controls and operating mechanisms guidelines (section 4.1.3[13]), and the ADA requirement for a 5 lb. maximum pull force to activate the pull station. Operating instructions are molded into the pull station handle along with Braille text. Molded Terminal numbers are also present. Conforms to ANSI/UL Standard 38.

Ratings

Normal Operating Voltage: 24VDC.

Average Operating Current (LED Flash): 300 μA.

Temperature Range: 32°F – 120°F (0°C –49°C).

Relative Humidity Range: 10% - 93% non-condensing.

Installation

The SK-Pull-DA Addressable pull station can be surface mounted to a SB-I/O surface backbox or semi-flush mounted on a standard single-gang, double-gang or 4" (10.16 cm) square electrical box. The optional BG-TR trim ring can be used if the SK-Pull-DA is to be semi-flush mounted.

Operation

To activate the dual-action pull station, push in and pull down on the handle. The word 'ACTIVATED' appears after the handle is pulled down. This will remain until the pull station is reset.

The pull station includes one Single Pole, Single Throw (SPST) Normally Open (N/O) switch which closes upon activation of the pull station.

Resetting the Pull Station

1. Insert the key into the lock and rotate 1/4 turn counterclockwise.
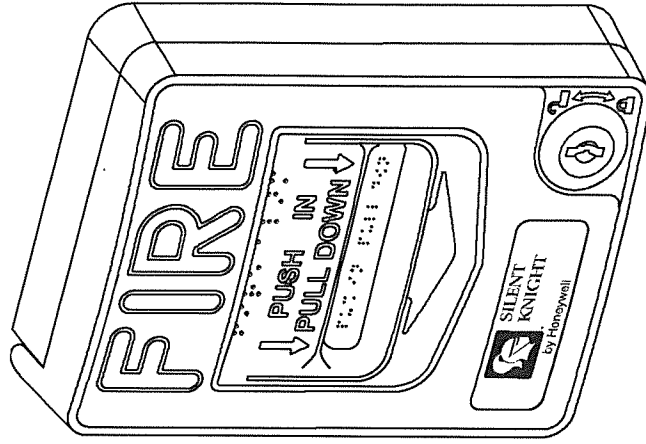2. Open the door until the handle returns to normal.
3. Close and lock the door.
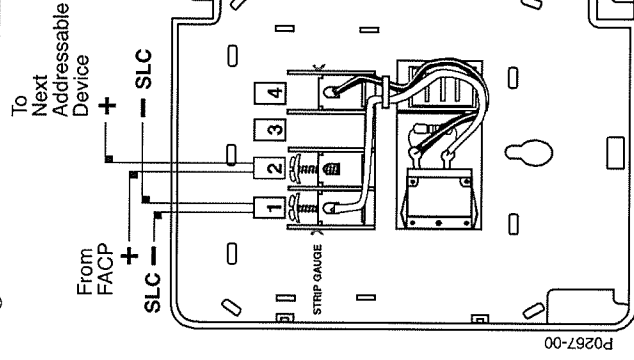
NOTE: Closing the door automatically resets the switch to the 'Normal' position. Opening the door will not activate or deactivate the alarm switch.

CAUTION! Do not detach the door of the pull station during installation. The door of the pull station cannot be reattached to the backplate after the backplate has already been installed onto an electrical box.

CAUTION!
Install the Silent Knight SK-Pull-DA addressable pull station in accordance with these instructions, applicable NFPA standards, national and local Fire and Electrical codes and the requirements of the AHJ (Authority Having Jurisdiction). Regular testing of the devices should be conducted in accordance with the appropriate NFPA standards. Failure to follow these directions may result in failure of the device to report an alarm condition. Silent Knight is not responsible for devices that have been improperly installed, tested or maintained.

ADA Compliance
For ADA compliance, if the clear floor space only allows forward approach to an object, the maximum forward reach height allowed is 48 inches (121.92 cm). If the clear floor space allows parallel approach by a person in a wheelchair, the maximum side reach allowed is 54 inches (137.16 cm).
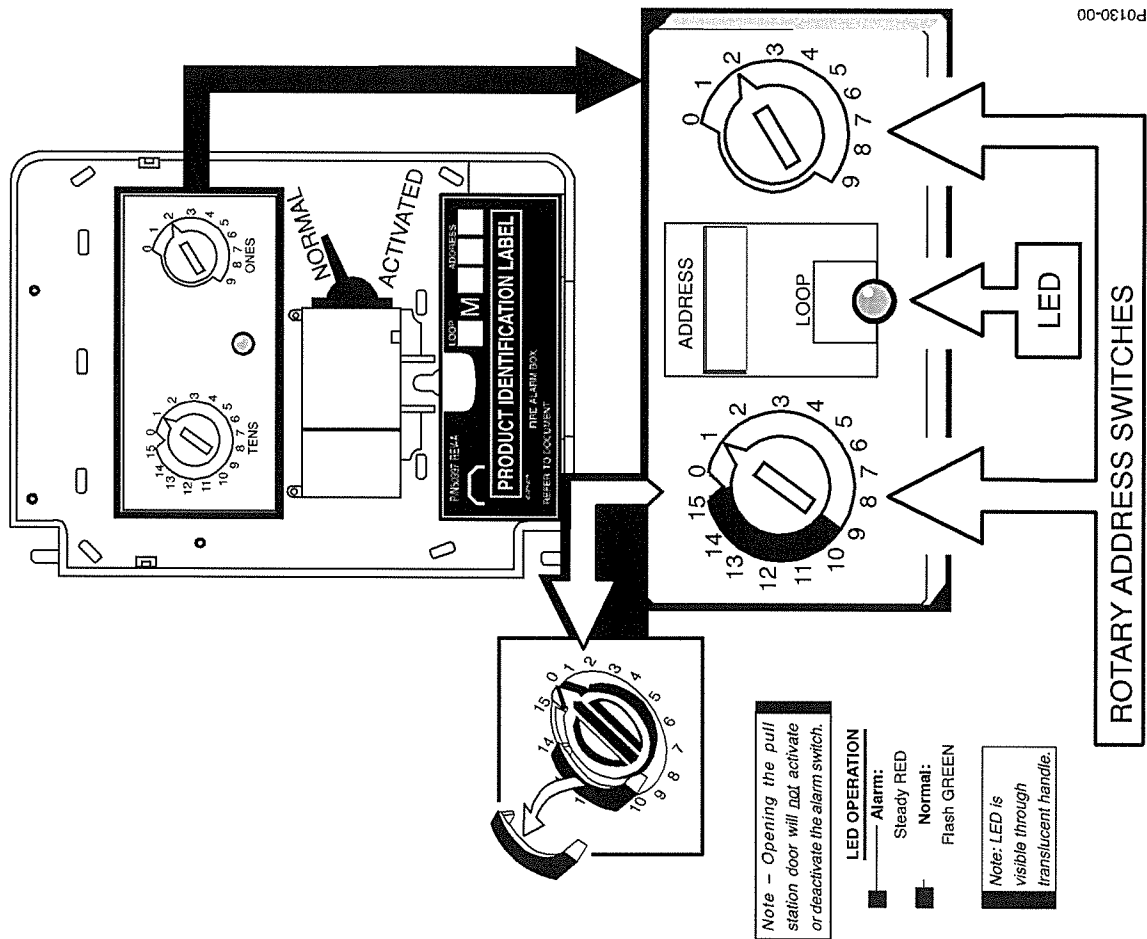
(over for Programming information)

Setting the SK-Pull-DA Address

The SK-Pull-DA Addressable pull station is factory preset with address '00.' Set the address for the pull station by turning the rotary address switches on the addressable module mounted inside the pull station. Only one device per address is allowed. Multiple modules may not be set to the same address on the Signaling Line Circuit. Once the address is set, record it in the space provided on the product ID label located inside the pull station.

NORMAL

ACTIVATED

ONES

TENS

LOOP

M

ADDRESS

PRODUCT IDENTIFICATION LABEL

P/N 53907 REV4

FIRE ALARM BOX
REFER TO DOCUMENT

ADDRESS

LOOP

LED

ROTARY ADDRESS SWITCHES

P0130-00

Note – Opening the pull station door will not activate or deactivate the alarm switch.

LED OPERATION

Alarm:
Steady RED

Normal:
Flash GREEN

Note: LED is visible through translucent handle.
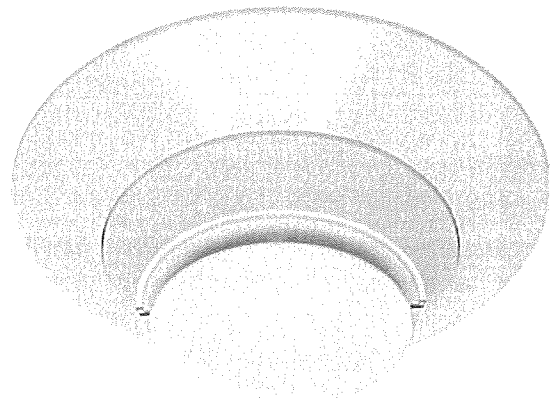
Honeywell
SILENT KNIGHT

SK-PHOTO-W Series

Intelligent Plug-In Photoelectric Smoke Detector

Honeywell Silent Knight SK-PHOTO-W Series plug-in smoke detectors are designed for both performance and aesthetics. A new modern, sleek, contemporary design and enhanced optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources in accordance with more stringent code standards.

The SK-PHOTO-W Series detector sensitivity can be programmed in the control panel software. Sensitivity is continuously monitored and reported to the panel. Point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for selective maintenance when chamber contamination reaches an unacceptable level.

Dual electronic thermistors add 135°F (57°C) fixed temperature thermal sensing on the SK-PHOTO-T-W. The SK-PHOTO-R-W is a remote test capable detector for use with DNR Series duct detector housings.

SK-PHOTO-W

FEATURES & BENEFITS

- New modern profile for improved aesthetics
- Stable communication technique with noise immunity
- Low standby current
- Two-wire SLC connection
- Optional remote, single-gang LED accessory

- Dual LED design provides 360° viewing angle
- Remote test feature from the panel
- Built-in functional test switch activated by external magnet
- Built-in tamper-resistant feature
- Sealed against back pressure

- Expanded color options
- SEMS screws for wiring of the separate base

- Optional relay, isolator, and sounder bases
- Plugs into separate base for ease of installation and maintenance

DETECTOR SPACING AND APPLICATIONS

Honeywell recommends spacing detectors in compliance with NFPA 72. In low airflow applications with smooth ceiling, space detectors 30 feet (9m). For specific information regarding detector spacing, placement, and special applications refer to NFPA 72, System Smoke Detector Application Guide, document A05-1003, is available at systemsensor.com

INSTALLATION

The SK-PHOTO-W Series plug-in detectors use a separate base to simplify installation, service, and maintenance. Installation instructions are shipped with each detector.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep.

NOTE:

• Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.

• When using relay or sounder bases, consult the installation sheet for device limitations between isolator modules and isolator bases.

ORDERING INFORMATION

SK-PHOTO-W: Photoelectric smoke detector, white.

SK-PHOTO-R-W: Photoelectric smoke detector, remote test capable, for use with DNR(W) duct smoke detectors, white.

SK-PHOTO-T-W: Photoelectric smoke detector with thermal sensing, white.

INTELLIGENT BASES

B300-6: White, standard flanged low-profile mounting base.

B300-6-BP: Bulk pack of B300-6, package contains 10.

B300-6-IV: Ivory, standard flanged low-profile mounting base.

B501-WHITE: White, standard European flangeless mounting base. UL listed.

B501-BL: Black, standard European flangeless mounting base. UL listed.

B501-IV: Ivory, standard European flangeless mounting base. UL listed.

B200S-WH: White, Intelligent, programmable sounder base.

B200S-IV: Ivory, Intelligent, programmable sounder base.

B200SR-WH: White, Intelligent sounder base for retrofit applications.

B200SR-IV: Ivory, Intelligent sounder base for retrofit applications.

B200S-LF-WH: White, Low Frequency Intelligent, programmable sounder base.

B200S-LF-IV: Ivory, Low Frequency Intelligent, programmable sounder base.

B200SR-LF-WH: White, Low Frequency Intelligent sounder base for retrofit applications.

B200SR-LF-IV: Ivory, Low Frequency Intelligent sounder base for retrofit applications.

B224RB-WH: White, plug-in System Sensor relay base.

B224RB-IV: Ivory, plug-in System Sensor relay base.

B224BI-WH: White, plug-in System Sensor isolator detector base.

B224BI-IV: Ivory, plug-in System Sensor isolator detector base.

ACCESSORIES

CK300: Color Kit (includes cover and trim ring), white, 10-Pack.

CK300-IV: Color Kit (includes cover and trim ring), ivory, 10-Pack.

CK300-BL: Color Kit (includes cover and trim ring), black, 10-Pack.

M02-04-01: Detector test magnet.

M02-09-00: Telescoping test magnet.

RA100Z: Remote LED annunciator

SMB600: Surface Mounting Kit (flanged).

TR300: Replacement trim ring for B300-6, white.

TR300-IV: Replacement trimring for B300-6-IV, ivory.

SK-PHOTO-W Series Detector Technical Specifications

PHYSICAL

Height: 2.0" (51mm) installed in B300-6 base

Diameter: 6.2" (156mm) installed in B300-6 base 4.1" (104 mm) installed in B501 base

Weight: 3.4 oz (95 g)

ENVIRONMENTAL

Operating Temperature range:

Photo: 32°F to 122°F (0°C to 50°C)

Photo with Thermal: 32°F to 100°F (0°C to 38°C)

UL listed Velocity range: Photo/Photo with Thermal: 0 to 4,000 fpm (0 to 20 m/sec) (suitable for installation in ducts)

Humidity: 10% to 93% non-condensing

Thermal Ratings: Fixed Temperature Set point: 135°F (57°C)

ELECTRICAL RATINGS

Voltage Range: 15 to 32VDC peak

Operating Current @ 24VDC: 200µA (one communication every 5 seconds with green LED blink on communication)

Maximum Current: 4.5mA @ 24VDC (one communication every 5 seconds with amber LED solid on).

COMPATIBILITY

The SK-PHOTO-W series detectors are compatible with the following Honeywell Silent Knight fire alarm control panels:

6820: Addressable fire alarm control panel

6820EVS: Addressable fire alarm control panel with an emergency voice system.

6808: Addressable fire alarm control panel

6700: Addressable fire alarm control panel

5700: Addressable fire alarm control panel

5808: Addressable fire alarm control panel

5820XL: Addressable fire alarm control panel

5820XL-EVS: Addressable fire alarm control panel with an emergency voice system

AGENCY LISTINGS AND APPROVALS

For exact certification listings for each model, please reference the respective agency Web site.
UL listed: S6173
FM approved
CSFM: 7272-0559:0523

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

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This document is not intended to be used for installation purposes. We try to keep our product information up-to date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

For Technical Support, call 800-446-6444.

For more information

Learn more about Honeywell Silent Knight and other products by visiting www.silentknight.com

Honeywell Silent Knight

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

Honeywell

SILENT KNIGHT

Honeywell

SILENT KNIGHT

SK-MONITOR

Intelligent Monitor Module

The SK-MONITOR is an addressable monitor module for use with Honeywell Silent Knight Series fire alarm control panels (FACPs). The SK-MONITOR is intended for use in intelligent, two-wire systems. where individual address of each module is selected using the built-in rotary switches.

The SK-MONITOR supports Class A supervised or Class B supervised wiring to the load device. Conventional 4-wire smoke detectors can be monitored for alarm and trouble conditions.

INSTALLATION

The SK-MONITOR 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.
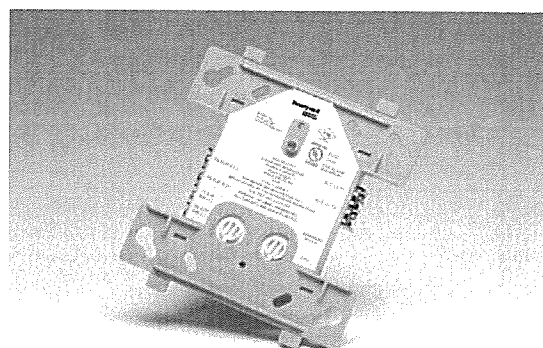
SK-MONITOR

FEATURES & BENEFITS

- Single contact monitor
- Support for Class A and Class B wiring
- Fully supervised

- Panel controlled status LED that flashes green in normal state and is solid red in alarm
- SEMS screws for easy wiring

- UL Listed
- Rotary address switches for fast installation

SK-MONITOR Technical Specifications

PHYSICAL
Height: 4.5"H x 4" W x 1.25"D (11.4 X 10.2 X 3cm)
Shipping Weight: 6.3 oz (196 g)

ELECTRICAL
Operating Voltage: 15 – 32VDC
Current Draw (LED on): 5.0mA max
Operating Current (LED flashing): 375μA
Standby Current: 400 μA max @ 24 VDC (one communication every 5 sec with 47K EOL): 550 μA max @ 24 VDC (one communication every 5 sec with EOL <1K)
5.5 mA (with LED latched on)
LED Current: 5.5 mA (with LED latched on)
End-of-Line Resistance: 47K Ω
Initiating Device Circuit Wiring Resistance: 1,500 Ω max
SLC Loop Resistance: 40 Ω max.

ENVIRONMENTAL
Operating Temperature: 32°F – 120°F (0°C – 49°C)
Humidity: 10% – 93% non-condensing

ORDERING INFORMATION
SK-MONITOR: Monitor Module

ACCESSORIES.
SMB500: 4" Square surface mount electrical box

COMPATIBILITY
The SK-MONITOR is compatible with the following Honeywell Silent Knight fire alarm control panels:
6820: Addressable fire alarm control panel
6820EVS: Addressable fire alarm control panel with an emergency mass notification system.
6808: Addressable fire alarm control panel
6700: Addressable fire alarm control panel
5700: Addressable fire alarm control panel
5808: Addressable fire alarm control panel
5820XL: Addressable fire alarm control panel
5820XL-EVS: Addressable fire alarm control panel with an emergency mass notification system

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

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Honeywell

SILENT KNIGHT

SYSTEM SENSOR

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
S5612
S4011

FM APPROVED
FM approved except for ALERT models: 3057353, 3057072

7125-1653:0504
7125-1653:050X

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 × 4 × 1⅞-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 × 1⅞-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 4¹¹/₁₆ × 4¹¹/₁₆ × 2⅛-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 × 3.46" W × 1.91" D (133 mm L × 88 mm W × 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 × 3.45" W x 1.25" D (133 mm L × 88 mm W × 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)

	Candela	8–17.5 Volts DC	16–33 Volts 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)

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

DC Input	8–17.5 Volts 15cd	30cd	16–33 Volts 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

| FWR Input	16–33 Volts 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)

| Switch Position	Sound Pattern	dB	8–17.5 Volts DC	16–33 Volts 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.
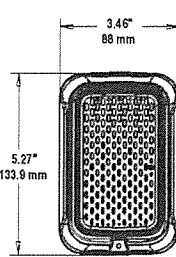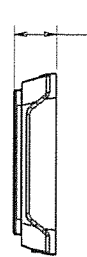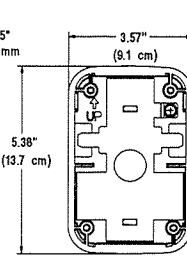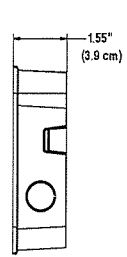
L-Series Dimensions
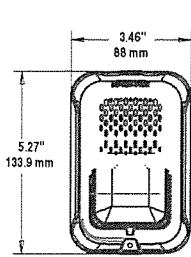
Compact Strobe, Horn Strobe
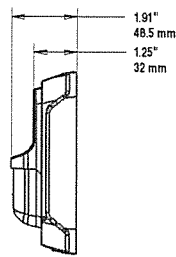
Compact Horn

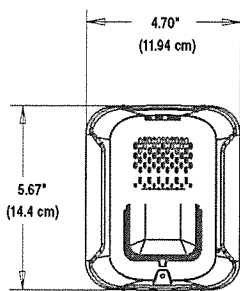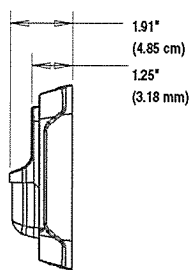Compact Wall Surface Mount Back Box
SBBGRL, SBBGWL
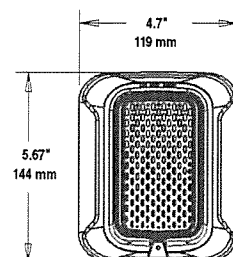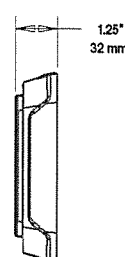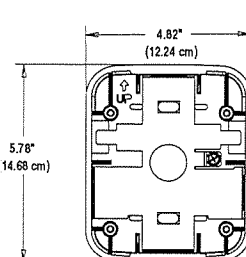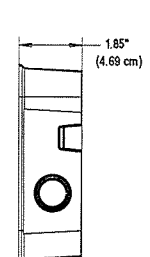

Strobe, Horn Strobe

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.