November 10, 2014

Heartland Retail Construction, Inc.
4956 Memco Lane Suite A
Racine, WI 53404

Re: Harbor Freight – Lake City
JSC Job#: G14-030

Dear Sir / Ma'am

We submit the following information and attached data sheets on the proposed equipment for the **Fire Alarm System** of the above-referenced project

MANUFACTURER	MODEL	DESCRIPTION
SIL	005700	50-Pt Addressable FACP w/ Dialer
SIL	005860R	LCD Remote Annunciator
SIL	5860TR	Trim Ring
SIL	SK-PHOTO	Smoke Detector
SIL	SK-PULL-DA	Addressable IFP-25 Dual-action Pull
SIL	PC2R	Ceiling Horn Strobe
SIL	SR	Strobe
SIL	P2R	Horn Strobe
SIL	SK-MONITOR	Monitor Module
SIL	SK-MONITOR2	Dual Input Monitor
System Sensor	BK-SSM248	Bell
System Sensor	WBB	Back Box
EDC	FAS120AC	120V AC Hardwired Surge Suppressor
EDC	PC642C-036LC	4-wire 30V Surge Prot (req PCB1B base)
EDC	PCB1B	Protector Module Base

If you need any additional information or have any questions, please feel free to contact Tracy Roszak at (352) 378-9777

Sincerely,

Tracy Roszak
Tracy Roszak
Branch Manager

Please return approved submittal to t.roszak@jscsystems.net

□ 5021 Stepp Avenue, Jacksonville, FL 32216, 904-737-3511
□ 605 N W 53rd Avenue, Gainesville, FL 32609, 352-378-9777
□ 3644 Hartsfield Road, #D, Tallahassee, FL 32303, 850-656-1705
□ 2219-B Rowland Ave., Savannah, GA 31404, 912-303-0310
□ 1985 Corporate Square, Longwood, FL 32750, 407-332-1985
□ 3525 Ironhorse Dr , Suite 105, Ladson, SC 29456, 843-416-1042

State Certified Alarm Contractor Florida # EF20000375 / Georgia # LVU405422
South Carolina # FAC13409, BAC13521 / North Carolina # 29986-SP-FA/LV / Alabama Permit # A-0479
www jacksonvillesound com

SILENT KNIGHT®
by Honeywell

IntelliKnight® Model 5700 Single Loop Addressable Fire Alarm Control System

The affordable addressable fire alarm control panel solution.

IntelliKnight Model 5700 is a class leading single loop addressable fire alarm control/communicator system. 5700 provides you with the revolutionary value and performance of addressable sensing technology combined with exclusive, built-in digital communication, distributed intelligent power, that includes an easy to use interface. Powerful features such as drift compensation and maintenance alert are delivered in this powerful FACP from Silent Knight.

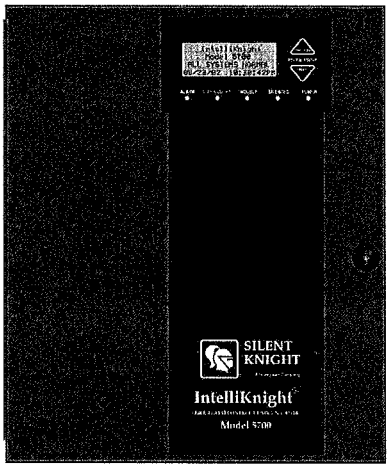
For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description

The basic IntelliKnight 5700 system can be enhanced by adding modules such as 5860 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), and 5496 intelligent power module. 5700 supports Hochiki or SK devices. 5700 also features a powerful built-in dual line fire communicator that allows for reporting of all system activity to a remote monitoring location.

Features

- Built-in support for up to 50 SK detectors *and* 50 SK modules creating a total point capacity of 100 points.
- Built in support for up to 50 Hochiki devices
- Up to 125 zones and 125 output groups
- Uses standard wire—no shielded or twisted pair required
- Built-in digital communicator.
- Central station reporting by point or by zone
- Supports Class B (Style 4) and Class A (Style 6 or 7) configuration for SLC
- Drift compensation
- 13 pre-programmed output cadences (including ANSI-3.41) and 4 programmable outputs
- Notification circuits configurable as 1 Class A (Style Z) or 2 Class B (Style Y), or auxiliary power for resettable, constant, or door holder power
- Built-in synchronization for AMSECO, Gentex®, Faraday, System Sensor® and Wheelock® appliances
- Built-in annunciator with 80-character LCD display
- RS-485 bus provides communication to system accessories
- Upload or download programming, event history, or detector status onsite or from a remote location using a PC and 5660 Silent Knight Software Suite (SKSS)
- Two built-in Form C programmable relays rated at 2.5A at 27.4 VDC



Model 5700

- Improvements in SKSS deliver five times faster upload/downloads
- Built-in RS-232 interface for programming via PC
- Built-in Form C trouble relay rated at 2.5A at 27.4 VDC
- Programmable date setting for Daylight Saving Time

Installation

The 5700 is a surface mount FACP.

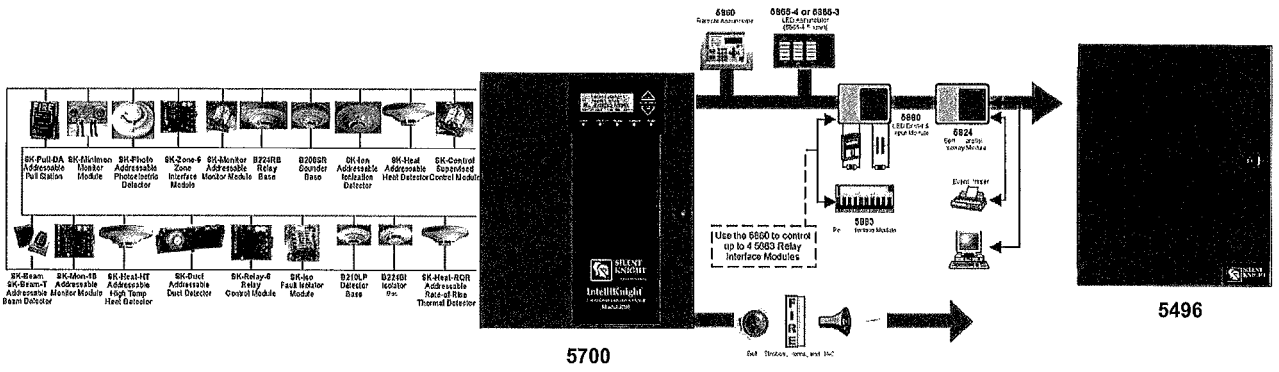
Compatibility

The 5700 SLC supports multiple device types of the *same* protocol:

- SK (System Sensor)
- Hochiki

You cannot mix Hochiki and SK devices on a FACP.

Model 5700
Fire Alarm Control Panel



Specifications

Electrical

Primary AC 120 VAC, 60 Hz, 1 5A
Total Accessory Load 2 5A @ 27 4 VDC
Notification Power 2 5A @ 27 4 VDC, power-limited
Standby Current: 200 mA
Alarm Current 325 mA
Notification/Aux Power Circuits 2 5A @ 27 4 VDC per circuit, power-limited
Battery Charging Capacity 7 0-35 0 AH
Battery Size 7 AH max allowed in FACP cabinet Larger capacity batteries can be housed in an RBB accessory cabinet

Physical

Dimensions
12 75" W x 15 2" H x 3 4" D
(32 39 W x 38 42 H x 8 57 D cm)
Weight 11 5 lbs (5.2 kg)

Color· Red

Telephone Requirements

FCC Part 15 and Part 68 approved

Type of Jack RJ31X (two required)

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

Other Approvals UL Listed, CSFM 7170-0559 144, MEA 429-92-E Vol XVI

S-BUS Accessories

5860/R Remote Fire Annunciator

Features the same 80 character backlit LCD display keypad and firefighter's key switch as the 5700 The system can be fully programmed and operated from any 5860 5860 is gray and 5860R is red

5496 Intelligent Power Module

A 6 amp notification power expander that provides four additional power-limited notification appliance circuit outputs

5880 LED/IO Module

Features 40 LED outputs, 8 normally open dry contact inputs and one piezo output

5865-3 and 5865-4 Remote LED Annunciator

Features 30 Programmable LED (15 red and 15 yellow) outputs and a piezo sounder The 5865-4 adds a silence and reset switch to the package

5883 Relay Board

Features 10 general purpose Form C relays Used with 5880 module

5824 Serial/Parallel Printer Interface Module

Provides one parallel and one RS-232 serial port for connecting a printer to 5808 Use to print a real-time log of system events, detector status reports, and event history Interfaces with building control system

Miscellaneous Accessories

5660 Silent Knight Software Suite

User-friendly Windows software for remote programming of 5700s using a PC Upload and view panel account information, event history, and detector status

5670 Silent Knight Software Suite

End-user facility management software allows viewing of detector status and event history via modem or direct connection

RBB

Remote Battery Box Accessory Cabinet Use if backup batteries are too large to fit into FACP cabinet Dimensions
16" W x 10" H x 6" D
(406 mm W x 254 mm H x 152 mm D)

SD505-DTS-K

Remote test switch that provides remote key operated test function and annunciation of detector alarm with SD505-DUCTR

Hochiki and SK Devices

See the specification sheets listed below for a complete listing of the Hochiki and SK devices

53624 Hochiki Devices Specification Sheet

53623 SK Protocol Devices Specification Sheet

SILENT KNIGHT®
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103 or (203) 484-7161, Fax (203) 484-7118 www silentknight.com

IntelliKnight & JumpStart are Registered Trademarks of Silent Knight
Flexput is a Trademark of Silent Knight

MADE IN AMERICA

P/N 350392 Rev G1
© 2010 Honeywell International Inc.

SILENT KNIGHT
by Honeywell

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 eight 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 eight 5860s per FACP
- 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)

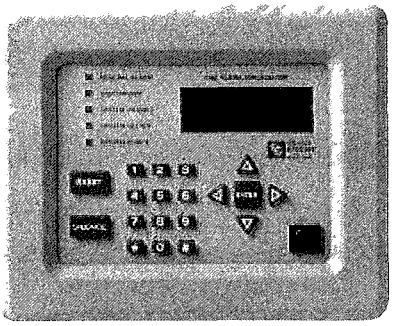
Max Per System: 8

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 is the following FACP's:

- IntelliKnight 5820XL FACP
- IntelliKnight 5808 FACP
- IntelliKnight 5700 FACP

Approvals/Listings

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

5860 Remote Annunciator

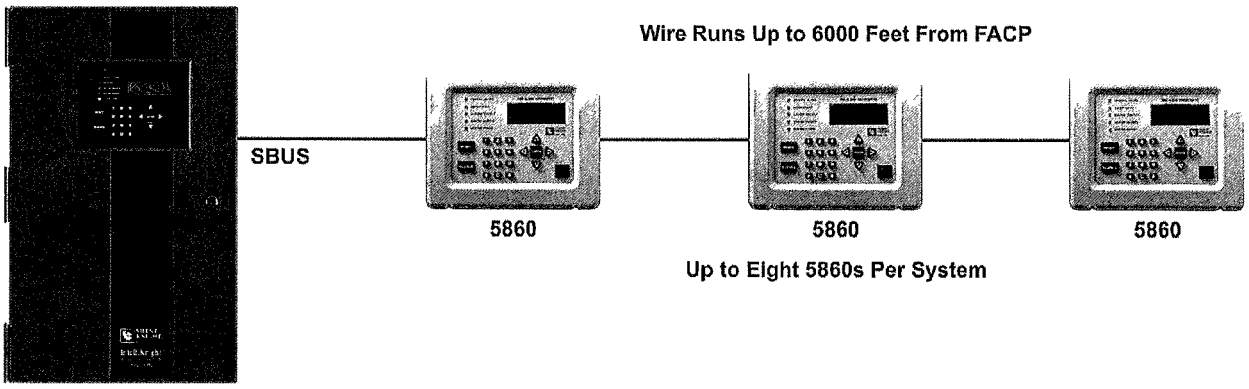
Engineering Specifications

The main control must have a built-in annunciator and must support up to eight 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.



Compatible IntelliKnight FACP

Ordering Information

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

Accessories

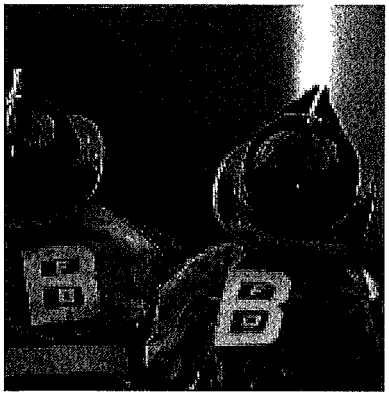
5860TR	Red Trim Ring for surface mounting
5860TG	Gray Trim Ring for surface mounting.

SILENT KNIGHT by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103, Fax (203) 484-7118 www.silentknight.com

MADE IN AMERICA

FORM# 350224 Rev E
© 2010 Honeywell International Inc



SK-Photo and SK-Photo-T

Intelligent Photoelectric Smoke Sensors

The SK-Photo is a photoelectric smoke detector and the SK-Photo-T is a photoelectric smoke detector with thermal. These plug in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with Silent Knight IntelliKnight Fire Alarm Control Panels (FACPs).

For more information about the IntelliKnight system, or to locate your nearest source, please call 800-328-0103 or in Connecticut, call (203) 484-7161.

Description

SK-Photo and SK-Photo-T are plug-in type smoke sensors that combine a photoelectric sensing chamber with addressable analog communications. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

SK-Photo and SK-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. In the SK-Photo-T, dual electronic thermistors add 135°F (57°C) thermal technology to maximize detection

Features

- Sleek, low-profile design
- Base included
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Dual electronic thermistor design on the SK-Photo-T
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Variety of mounting options to meet any application
- Dual LED indicators for 360° visibility
- Detector transmits signal to indicate maintenance is required
- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Plug-in mounting provides ease of installation
- Tamper-proof feature available on mounting bases
- Listed for use in duct applications
- Rotary address switches for fast installation
- UL Listed
- FM Approved

Specifications

Physical

Height 2 0" (5 0 cm)

Diameter. 4.1" (10 4 cm)

Shipping Weight· 5 2 oz (147 g)

Electrical

Operating Voltage. 15–32 VDC

Standby Current.

300 µA @ 24 VDC Maximum

Alarm Current 6.5 mA @ 24 VDC max (with LED on)

Environmental

Operating Temperature

SK-Photo· 32° – 120°F (0°C – 49°C)

SK-Photo-T: 32° – 100°F (0°C – 38°C)

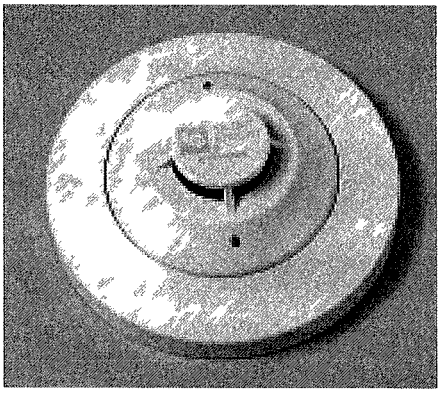
Humidity 10% – 93% non-condensing

Other Ratings

SK-Photo-T Thermal: Fixed temperature set point 135°F (57°C)

Velocity· 0 – 4000 fpm (0 – 20 m/sec)

SK-Photo Insect Screen Hole Size 0.016" (0 41 mm) nominal



SK-Photo (Base included)

Compatibility

The SK-Photo and SK-Photo-T are compatible with the following IntelliKnight FACPs

5700
5808
5820XL

SK-Photo and SK-Photo-T are compatible with the following detector bases

B210LP	(included) 6" base
B501	2 wire base
B501BHT-2	Temporal base
B224RB	Relay base
B224BI	Isolator base
B501BH-2	Sounder base

SILENT KNIGHT by Honeywell

Model SK-Photo and SK-Photo-T Intelligent Photoelectric Smoke Sensors

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Intelligent photoelectric smoke sensors Silent Knight SK-Photo or SK-Photo-T with thermal. The combination detector head, and twist-lock base, shall be UL listed and compatible with Silent Knight's IntelliKnight fire control panels.

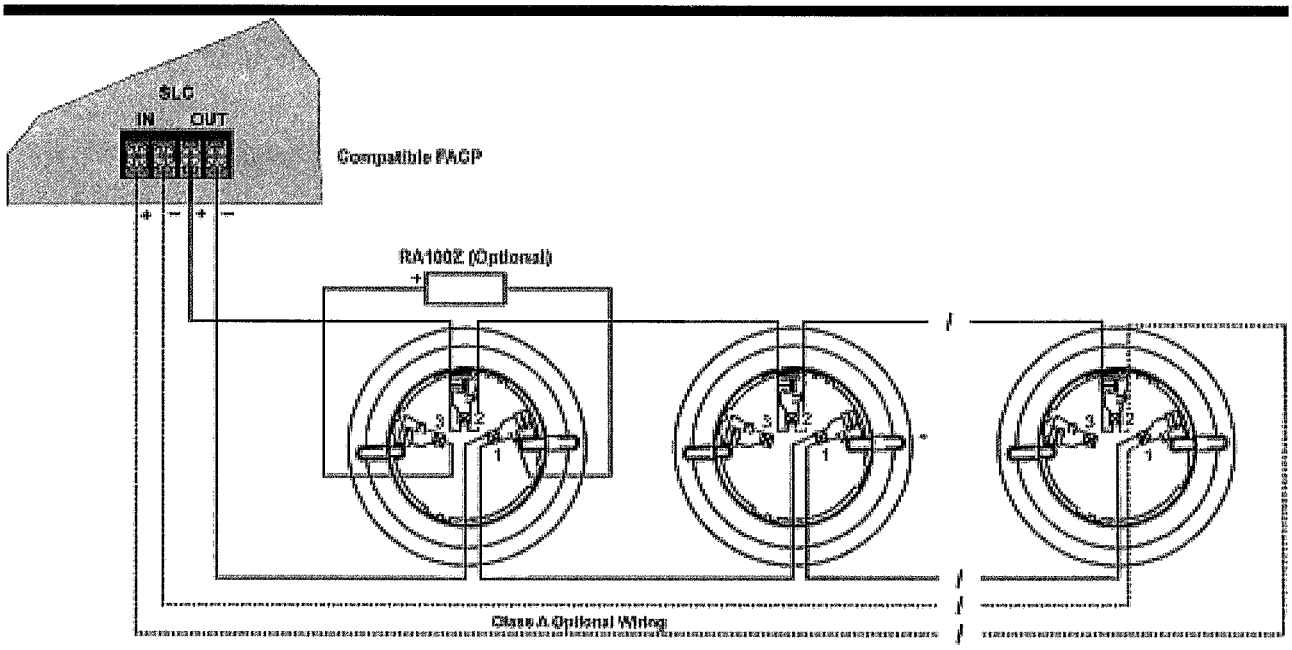
The base shall permit direct interchange with SK-Photo or SK-Photo-T. Base shall be the appropriate twist-lock base part number B210LP (included).

The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady. The detector may be reset by actuating the control panel reset switch.

The calibration of the detector shall be capable of being selected and measured by the control panel without the need for external test apparatus.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable as required.

The SK-Photo shall automatically perform a functional test of the detector. The test method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.



Wiring SK-Series Detector Mounting Bases

SILENT KNIGHT by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone (800) 328-0103, Fax (203) 484-7118 www.silentknight.com

MADE IN AMERICA

FORM# 350118 Rev A,
© 2009 Honeywell International Inc

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

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

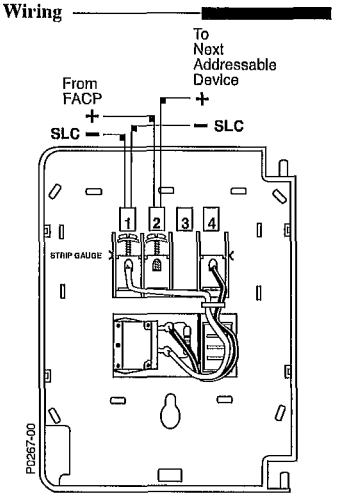
To activate the dual-action pull station, push in and pull down on the handle The word 'ACTIVATED' appears after the handle is pulled down This will remain until the pull station is reset

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

Wiring



SK-Pull-DA Addressable Pull Station

Document 52149 I56-3447-002

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

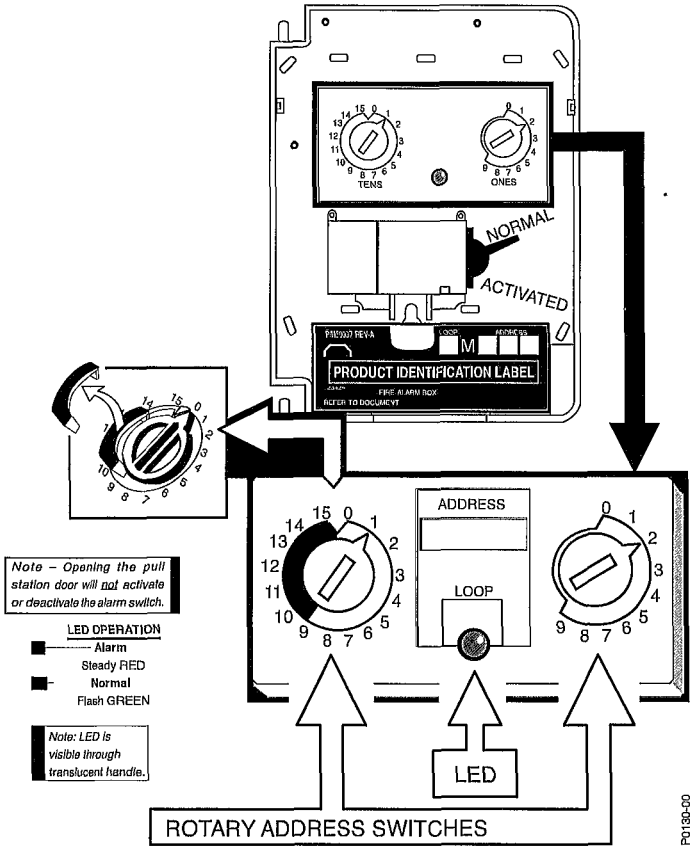
ADA Compliance

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



Farenhyt

SILENT KNIGHT
by Honeywell

Audio/Visual Devices

The SpectrAlert® Advance

Selectable Output Notification Appliances

General

System Sensor® SpectrAlert® Advance selectable-output horns, strobes and horn/strobes are rich with features guaranteed to cut installation times and maximize profits. The SpectrAlert Advance series of notification appliances is designed to simplify your installations, with features such as: plug-in designs, instant feedback messages to ensure correct installation of individual devices, and eleven field-selectable candela settings for wall and ceiling strobes and horn/strobes.

More specifically, when installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon, or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Then, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe, or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

Features

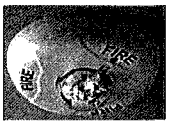
- Plug-in design.
- Universal mounting plate for wall and ceiling units.
- Shorting spring on mounting plate for continuity check before installation.
- Rotary switch for horn tone and three volume settings.
- Tamper-resistance construction.
- Field-selectable candela settings on wall and ceiling units: 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.
- Outdoor wall and ceiling products.

Agency Listings

SIGNALING UL LISTED

FM APPROVED

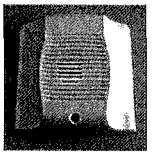
MEA approved 452-05-E



Indoor Ceiling Strobe

Indoor Ceiling Horn/Strobe

Indoor Wall Horn/Strobe



Indoor Wall Horn

Outdoor Ceiling Strobe

Outdoor Wall Strobe

- Outdoor products rated from –40°F and 151°F (–40°C and 66°C).
- Three volume selections and rotary switch for horn tone.
- Horn rated at 88+ dbA at 16 volts.
- Electrically compatible with existing SpectrAlert products.

Models available:

- Indoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Indoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.

P/N 350377 Rev A

Copyright © 2010 Honeywell International Inc.

Engineering Specifications

SpectrAlert Advance horns, strobes, and horn/strobes shall mount to a standard 4.0" x 4 0" x 1 5" (10.16 x 10 16 x 3.81 cm) backbox, 4.0" (10.16 cm) octagonal backbox, or a double-gang backbox. Two-wire products shall also mount to a single-gang 2 0" x 4.0" x 1.875" (5.08 x 10.16 x 4.763 cm) backbox. 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. Indoor SpectrAlert Advance products shall operate between 32°F and 120°F (0°C and 49°C) 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, 177,185.

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 3 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

OUTDOOR PRODUCTS

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between –40°F and 151°F (–40°C and 66°C). The products shall be listed for use with a System Sensor outdoor/weatherproof backbox with half-inch and three-fourths-inch conduit entries.

SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit MDL3RA or MDL3WA 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 3. 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 4.688" x 4.688" x 2.125" (11 906 x 11.906 x 5.398 cm) backbox. 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.

Specifications

- Standard operating temperature: 32°F to 120°F (0°C to 49°C).
- K Series operating temperature: –40°F to 151°F (–40°C to 66°C).
- Humidity range: 10% to 93% non-condensing (indoor products).
- Strobe flash rate: 1 flash per second.
- Nominal voltage: regulated 12 VDC/FWR or regulated 24 VDC/FWR. NOTE. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
- Operating voltage range: 8 V to 17.5 V (12 V nominal); or 16 V to 33 V (24 V nominal). NOTE: P, S, PC, and SC products will operate at 12 V nominal only for 15 cd and 15/75 cd.
- Input terminal wire gauge: 12 to 18 AWG (3.31 to 0.821 mm²).
- Ceiling-mount dimensions (including lens): 6.8" diameter x 2.5" deep (17 3 cm diameter x 6.4 cm deep).
- Wall-mount dimensions (including lens): 5.6" H x 4.7" W x 2.5" D (14 2 cm H x 11.9 cm W x 6.4 cm D).
- Horn dimensions: 5.6" H x 4.7" W x 1.3" D (14.2 cm H x 11.9 cm W x 3.3 cm D).

Strobe Current Draw
UL Maximum (mA RMS)

Candela		8-17.5 V		16-33 V	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	123	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

Horn Current Draw,
UL Maximum (mA RMS)

Sound Pattern	dB	8 - 17.5 V		16 - 33 V	
		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

Horn and Horn/Strobe Rotary Switch Setting

Setting	Repetition Rate	dB Level
1	Temporal horn	High
2	Temporal horn	Medium
3	Temporal horn	Low
4	Normal horn	High
5	Normal horn	Medium
6	Normal horn	Low
7*	Externally coded	High
8*	Externally coded	Medium
9*	Externally coded	Low

***NOTE:** Settings 7, 8, and 9 are not available on 2-wire horn/strobe

Horn and Horn/Strobe Output (dBA)

Switch Position	Sound Pattern	dB	8 - 17.5 V		16 - 33 V	
			DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84
2	Temporal	Medium	74	74	80	80
3	Temporal	Low	71	73	76	76
4	Non-temporal	High	82	82	88	88
5	Non-temporal	Medium	78	78	85	85
6	Non-temporal	Low	75	75	81	81
7	Coded	High	82	82	88	88
8	Coded	Medium	78	78	85	85
9	Coded	Low	75	75	81	81

***Note:** Settings 7, 8, and 9 are not available on 2-wire horn/strobe

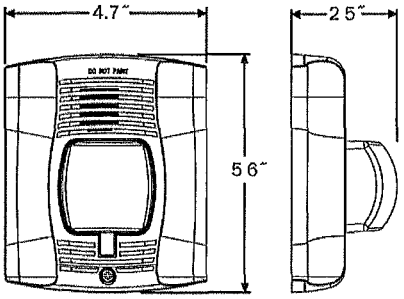
Two-Wire Horn/Strobe, Standard Candela Range (15-115 cd), UL Maximum Current Draw (mA RMS)

Input, Sound Pattern, dB Level	8 - 17.5 V		16 - 33 V						
	15	15/75	15	15/75	30	75	95	110	115
DC Input, Temporal, High	137	147	79	90	107	176	194	212	218
DC Input, Temporal, Medium	132	144	69	80	97	157	182	201	210
DC Input, Temporal, Low	132	143	66	77	93	154	179	198	207
DC Input,	141	152	91	100	116	176	201	221	229
DC Input,	133	145	75	85	102	163	187	207	216
DC Input,	131	144	68	79	96	156	182	201	210
FWR Input, Temporal, High	136	155	88	97	112	168	190	210	218
FWR Input,	129	152	78	88	103	160	184	202	206
FWR Input,	129	151	76	86	101	160	184	194	201
FWR Input, Non-Temporal, High	142	161	103	112	126	181	203	221	229
FWR Input,	134	155	85	95	110	166	189	208	216
FWR Input,	132	154	80	90	105	161	184	202	211

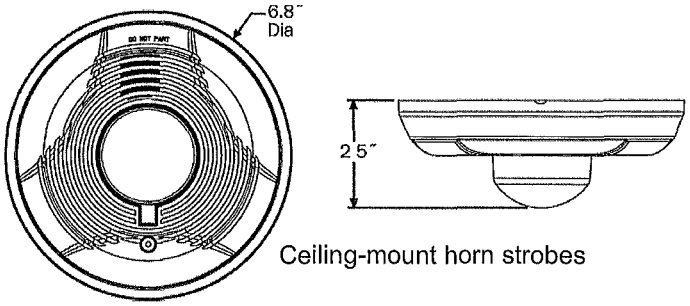
Two-Wire Horn/Strobe HIGH Candela Range (135-185 cd), UL Maximum Current Draw (mA RMS)

DC Input	16 - 33 V				FWR Input	16 - 33 V			
	135	150	177	185		135	150	177	185
DC, Temporal, High	245	259	290	297	FWR, Temporal, High	215	231	258	265
DC, Temporal, Medium	235	253	288	297	FWR, Temporal, Medium	209	224	250	258
DC, Temporal, Low	232	251	282	292	FWR, Temporal, Low	207	221	248	256
DC, Non-Temporal, High	255	270	303	309	FWR, Non-temporal, High	233	248	275	281
DC, Non-Temporal, Medium	242	259	293	299	FWR, Non-temporal, Medium	219	232	262	267
DC, Non-Temporal, Low	238	254	291	295	FWR, Non-temporal, Low	214	229	256	262

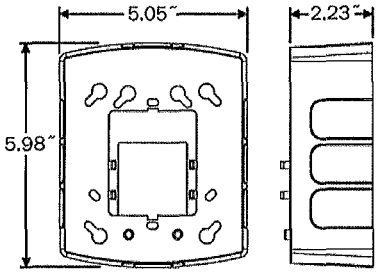
SpectrAlert Advance Dimensions



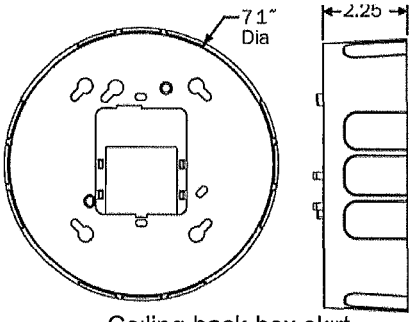
Wall-mount horn strobes



Ceiling-mount horn strobes



Wall back box skirt



Ceiling back box skirt

SpectrAlert Advance Ordering Information

Wall Horn Strobes

P2R	2-Wire horn/strobe, Standard cd, Red
P2RH	2-Wire horn/strobe, High cd, Red
P2RK	2-Wire horn/strobe, Standard cd,red outdoor
P2RHK	2-wire horn/strobe, High cd, red, outdoor
P2W	2-Wire horn/strobe, Standard cd, White
P2WH	2-Wire horn/strobe, High cd, White
P4R	4-Wire horn/strobe, Standard cd, Red
P4RH	4-Wire horn/strobe, High cd, Red
P4RK	4-Wire horn/strobe, standard cd, red, outdoor
P4RHK	4-Wire horn/strobe, High cd, red, outdoor
P4W	4-Wire horn/strobe, Standard cd, White
P4WH	4-Wire horn/strobe, high cd, white

Wall Strobes

SR	Strobe, Standard cd, Red
SRH	Strobe, High cd, Red
SRK	Strobe, standard cd, red
SRHK	Strobe, High cd, red, outdood
SW	Strobe, Standard cd, White
SWH	Strobe, High cd, White

Ceiling Horn Strobes

PC2R	2-Wire horn/strobe, Standard cd, Red
PC2RH	2-Wire horn/strobe, High cd, Red
PC2W	2-Wire horn/strobe, Standard cd, White
PC2WH	2-Wire horn/strobe, High cd, White
PC2RK	2-Wire horn/strobe, Standard cd, red, outdoor
PC2RHK	2-Wire horn/strobe High cd, red, outdoor
PC4R	4-Wire horn/strobe, Standard cd, Red
PC4RH	4-Wire horn/strobe, High cd, Red
PC4W	4-Wire horn/strobe, Standard cd, White

Ceiling Strobes

SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCRK	Strobe, Standard cd, red, outdoor
SCRHK	Strobe, High cd, red, outdoor
SCW	Strobe, Standard cd, White
SCWH	Strobe, High cd, White

Horns

HR	Horn, Red
HW	Horn, White
HRK	Horn, Red, outdoor

Accessories

BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White
SA-WBB	Weatherproof backbox, wall
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

NOTE: "High cd" refers to strobes that include 135, 150, 177 and 185 candela settings. "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings

SpectrAlert® and System Sensor® are registered trademarks of Honeywell International Inc

SILENT KNIGHT
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone (800) 328-0103, Fax (203) 484-7118 www farenhyt com

SILENT KNIGHT
by Honeywell

SK-Monitor

Intelligent Monitor Module

The SK-Monitor module provides an interface to contact devices, such as security contacts, waterflow switches, or pull stations.

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

Description

The SK-Monitor is an addressable monitor module for use with Silent Knight IntelliKnight 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.

Features

- 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
- Attractive ivory cover plate
- Rotary address switches for fast installation
- SEMS screws for easy wiring
- UL Listed

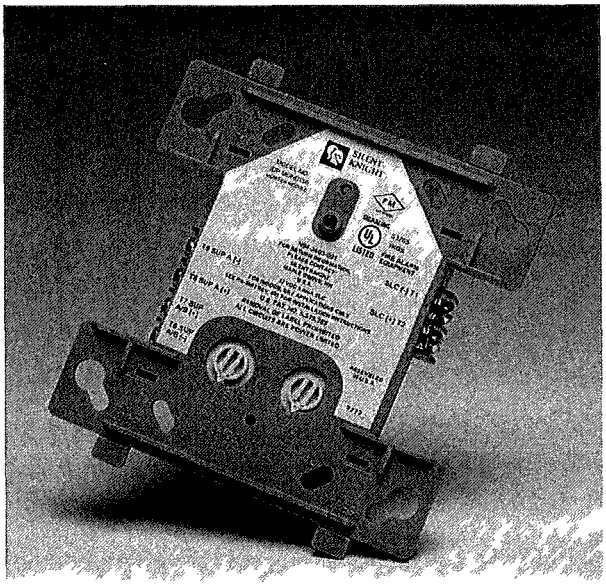
Installation

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.

Compatibility

The SK-Monitor is compatible with the following IntelliKnight FACP's:

5700
5808
5820XL



SK-Monitor

Specifications

Physical

Height: 4.5" (11.4 cm)

Width: 4" (10.2 cm)

Depth: 1.25" (3 cm)

Shipping Weight: 6.3 oz (196 g)

Electrical

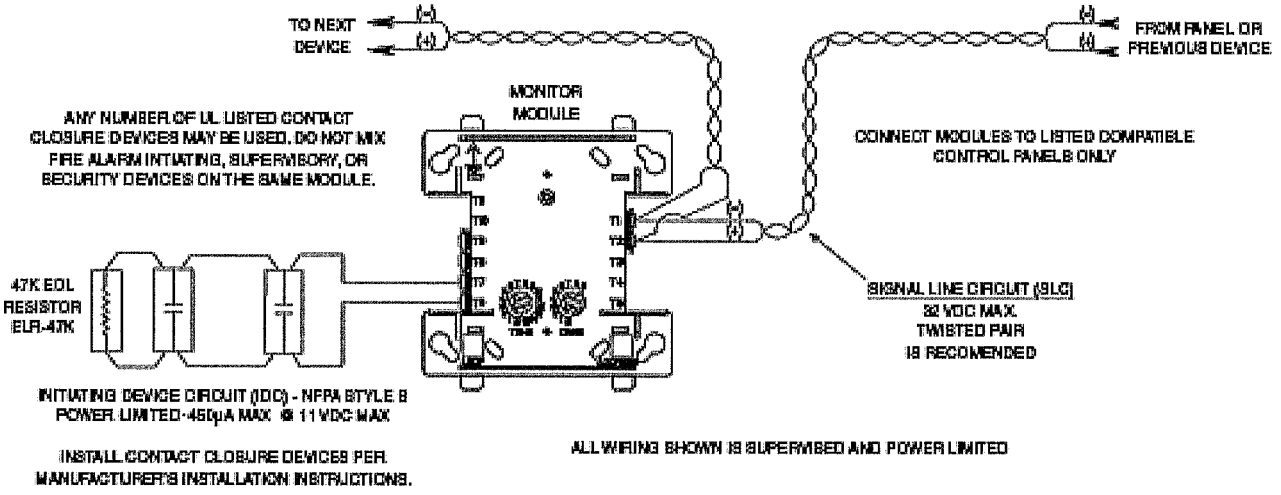
Operating Voltage: 15 – 32 VDC

Current Draw (LED on): 5.0 mA max

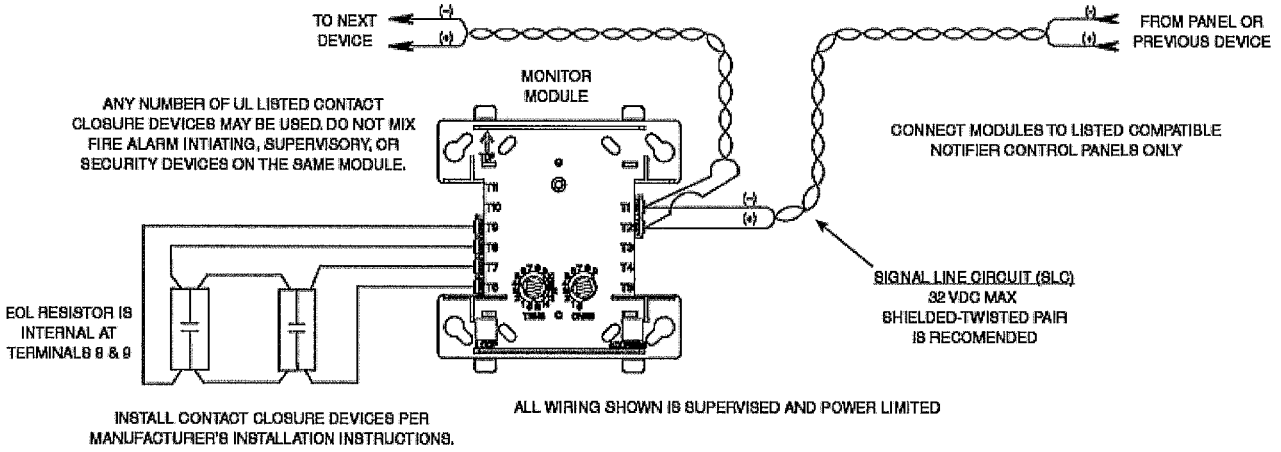
Operating Current (LED flashing): 375 µA

Model SK-Monitor

Intelligent Monitor Module



2-Wire Initiating Circuit Configuration, NFPA Style B



4-Wire Initiating Circuit Configuration, NFPA Style D

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	Monitoring Module

Accessories

SMB500	4" Square Surface Mount Electrical Box

SILENT KNIGHT by Honeywell

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

12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103, Fax (203) 484-7118 **www.silentknight.com**

MADE IN AMERICA

FORM# 350131 Rev C

© 2012 Honeywell International Inc

SILENT KNIGHT®
by Honeywell

SK-Monitor-2

Intelligent Dual Monitor Module

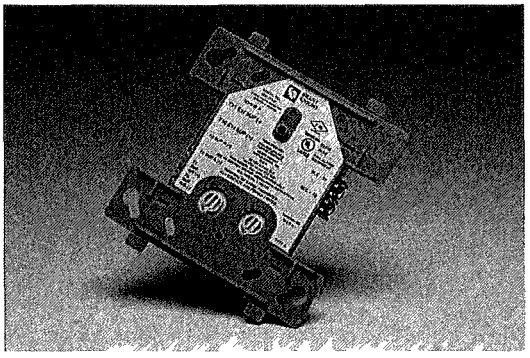
The SK-Monitor-2 module is capable of monitoring two separate Class B circuits simultaneously, making it ideal for waterflow tamper switch and flow switch monitoring.

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

Description

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

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



SK-Monitor-2

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

SK-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® part number SMB500) is available from Silent Knight.

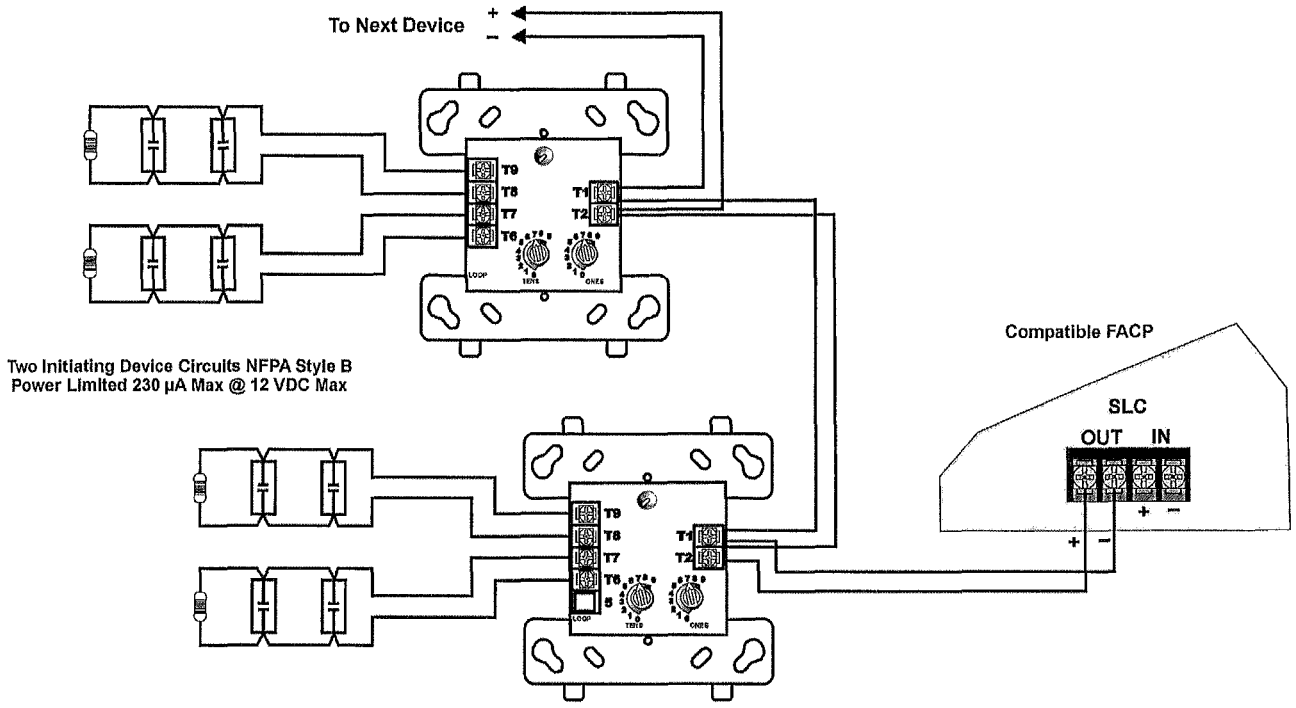
Compatibility

The SK-Monitor-2 is compatible with the following IntelliKnight FACP's:

5700
5808
5820XL

Model SK-Monitor-2

Intelligent Dual Monitor Module



Wiring SK-Monitor-2 Modules

Specifications

Physical

Height. 4 5" H x 4" W x 1.25" D

Shipping Weight. 6.3 oz (196 g)

Electrical

Operating Voltage. 15 – 32 VDC

Current Draw (LED on) 6.4 mA max

Operating Current (LED flashing)· 750 µA

End-of-Line Resistance 47K Ω

Max IDC wiring resistance· 1,500Ω

SLC Line Loop Resistance 40Ω max

Environmental

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

Humidity. 10% – 93% non-condensing

Accessories

SMB500 4" Square Surface Mount Electrical Box

SILENT KNIGHT®
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103, Fax (203)484-7118 www silentknight com

MADE IN AMERICA

FORM# 350124 Rev B
© 2009 Honeywell International Inc

SSM/SSV Series Alarm Bells

System Sensor's SSM and SSV series alarm bells are low current, high decibel notification appliances for use in fire and burglary systems or other signaling applications.

Features

- Approved for indoor and outdoor use
- Low current draw
- High dB output
- Available in six-inch, eight-inch, and ten-inch sizes
- AC and DC models
- DC models polarized for use with supervision circuitry
- Mount directly to standard four-inch square electrical box indoors
- SSM and SSV series come pre-wired

Reliable Performance. The SSM and SSV series provide loud resonant tones The SSM series operates on 24VDC and are motor driven, while the SSV series operates on 120VAC utilizing a vibrating mechanism

Simplified Installation. For indoor use, the SSM and SSV series mount to a standard four-inch square electrical box. For outdoor applications, weatherproof back box, model number WBB, is used

The SSM and SSV series come pre-wired, to reduce installation time The SSM series incorporates a polarized electrical design for use with supervision circuitry

Agency Listings

UL LISTED S4011 | ULC CS549 | FM APPROVED 3005255 | 7135-1653:0217 | MEA approved 331-01-E

SSM/SSV Specifications

Architectural/Engineering Specifications

Model shall be a SSM or SSV Series alarm bell Bells shall have underdome strikers and operating mechanisms. Gongs on said bells shall be no smaller than nominal 6 /8 /10" (specify size) with an operating voltage of 24VDC or 120VAC (specify by part number) Bells shall be suitable for surface or semi-flush mounting Outdoor surface mounted installations shall be weatherproof (using optional WBB weatherproof electrical box) Otherwise bells shall mount to a standard 4 square electrical box having a maximum projection of 2½" Bells shall be located as shown on the drawings or as determined by the Authority Having Jurisdiction Bells shall be listed for indoor/outdoor use by Underwriters Laboratories and the California State Fire Marshal and approved by Factory Mutual and MEA.

Physical/Operating Specifications

Operating Temperature Range	-31°F to 140°F
Operating Voltage	SSM series 24 VDC SSV series. 120 VAC
Termination	Provided with 2 sets of leads for in/out wiring
Service Use	Fire Alarm General Signaling, Burglar Alarm
Warranty	3 years

Electrical Specifications

Model	Gong Diameter (inches)	Nominal Voltage	Operating Voltage Limit	Maximum Current	Sound Output (dBA)
SSM24-6	6	Regulated 24VDC	16 to 33VDC	DC 31 1mA/ FWR-53.5mA	82
SSM24-8	8	Regulated 24VDC	16 to 33VDC	DC 31 1mA/ FWR-53.5mA	80
SSM24-10	10	Regulated 24VDC	16 to 33VDC	DC-31 1mA/ FWR-53.5mA	81
SSV120-6	6	Regulated 120VAC	96 to 132VAC	53mA	85
SSV120-8	8	Regulated 120VAC	96 to 132VAC	53mA	82
SSV120-10	10	Regulated 120VAC	96 to 132VAC	53mA	82

* Sound output measured at Underwriter Laboratories, as specified in UL464

Ordering Information

UL/FM Model No.	ULC/Canadian Model No.	Description
SSM24-6	SSM24-6A	Bell 6" 24VDC, Polarized, 82dBA
SSM24-8	SSM24-8A	Bell 8 24VDC, Polarized, 80dBA
SSM24-10	SSM24-10A	Bell 10 24VDC, Polarized, 81dBA
SSV120-6	SSV120-6A	Bell 6 , 120VAC, 85dBA
SSV120-8	SSV120-8A	Bell 8 , 120VAC 82dBA
SSV120-10	SSV120-10A	Bell 10 , 120VAC, 82dBA
WBB		Weatherproof back box for SSM and SSV series, when installed outdoors

SYSTEM SENSOR®

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

©2011 System Sensor
Product specifications subject to change without notice. Visit systemsensor.com for current product information, including the latest version of this data sheet.
A05-0260-010 08/11 #2870

INSTALLATION AND MAINTENANCE INSTRUCTIONS

WBB
Weatherproof Back Box
Accessory

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

Specifications

Dimensions·

Box:	4.33"L x 1 55"W x 4 33"H
Foam gasket:	0 125" thick, adheres to box top
Conduit opening:	(2) ½" NPT, fully threaded with (2) ½" NPT plug, (1) ⅞" knockout plug

Rear mounting tabs with 0.25" diameter eyelets
Top mounting holes, #8-32 x 0.50" DP

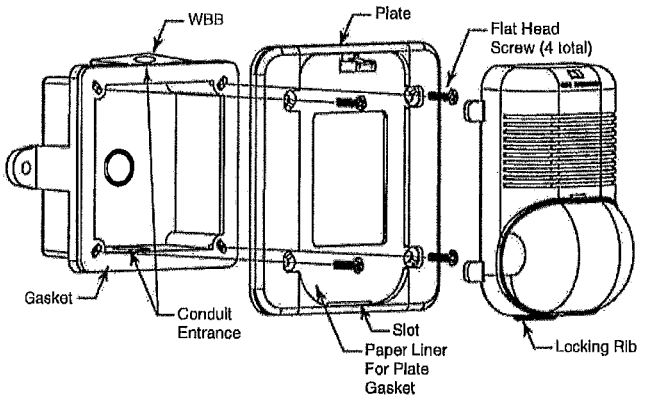
This accessory is UL listed for use with.

- H12/24K, S1224MCK, P1224MCK, and P12015K series SpectrAlert® wall horn, strobe and horn/strobe models
- SSM24 and SSV120 series alarm bells

Refer to specific model installation instructions for weatherproof rating, temperature operating range, indoor and outdoor application information

Mounting Instructions

Figure 1: SpectrAlert horn, strobe, and horn/strobe ('K' suffix models) mounting with universal plate



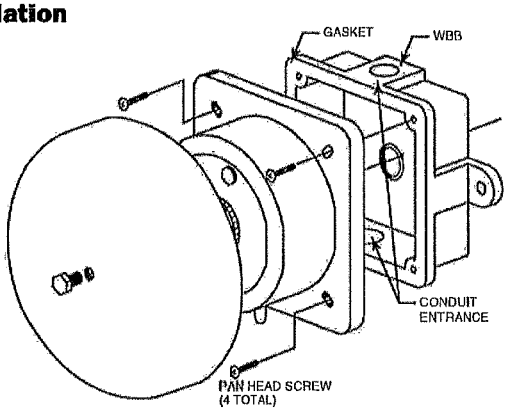
A0135-01

1. Mount back box in desired location (See Figure 1).
2. Install ½" NPT plug into unused conduit opening
3. For SpectrAlert models, mount plate to back box using 4 #8-32 x ½" screws (Figure 1)supplied with product.
4. Complete field wiring
5. Remove paper liner on plate gasket – **NOTE: Perform electrical tests first, then remove liner. Paper liner must be removed from gasket before final installation.**
6. Insert locking rib into slot on plate
7. Press into plate; the SpectrAlert model will make a "click" when it has locked into place.

NOTE: The weatherproof or outdoor notification appliance must be used with the System Sensor WBB back box when installed in applications requiring the appliance to be weatherproof or outdoor-listed. In such applications, using a back box other than the System Sensor WBB will void the UL designation.

NOTE: All System Sensor weatherproof wall-mount horns and horn/strobes can be surface mounted or flush mounted when used with the System Sensor WBB.

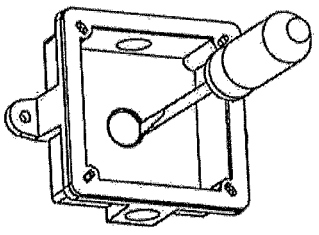
Figure 2: Typical SSM and SSV bell weatherproof installation



W0169-01

1. Mount back box in desired location (See Figure 2).
2. Install ½" NPT plug into unused conduit opening.
3. For SSM24 and SSV120 alarm bells, remove gong (refer to SSM and SSV bell series installation manual) and complete field wiring.
4. Mount bell to WBB with 4 #8-32 x ¾" screws (Figure 2) supplied with product.

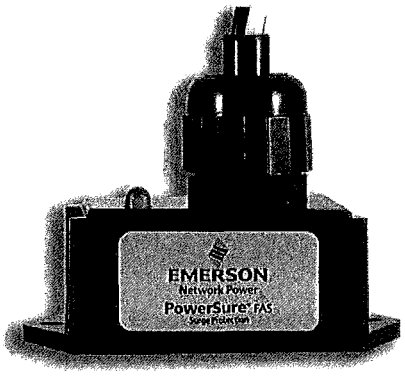
Figure 3: Knockout plug removal



A0134-00

1. If a rear conduit entry is required, remove the knockout plug using a flat blade screwdriver as shown in Figure 3. Strike sharply with a hammer to pierce the wall of the knockout plug. Move to an adjacent wall section and repeat until the plug falls out. Make sure that the back box is supported adequately during this operation to avoid injury
2. To meet weatherproof or outdoor listing, the conduit entrance must be gasketed.
3. Install ½" NPT plugs (2) into unused conduit openings.

©2004 System Sensor



PowerSure™ FAS-120AC ←

Medium Duty 120 VAC—Single Phase

The PowerSure FAS-120AC surge suppressor is designed to protect AC distribution panel circuits or 120V power supplies feeding sensitive electronic equipment.

Electrically the unit incorporates MOV and thermal fusing technology. This device is designed to be installed in parallel on standard single phase 120 VAC (L, N, G) circuits.

Installation can be close-nipple up to a distribution panel/circuit or hardwired in parallel up to power supply input terminal screws. Be sure to dress leads as short as possible.

Features

- LED indicator
- Fast response time
- Thermal fuse
- L-G, L-N & N-G protection
- Compact size
- Liquid tight conduit fitting
- ANSI/UL 1449 Third Edition Type 2
- 5 year warranty

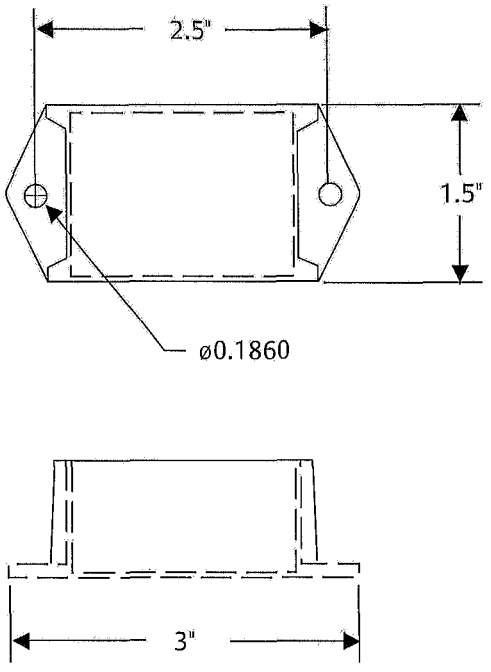
General Technical Specifications

Part Number	PowerSure FAS-120AC
Maximum Operating Voltage	120 VAC
SPD Location Type	Type 2
I Nominal (In)	3 kA
Operating Current	NA
Peak Surge Current	6.5 kA/Mode, 13 kA/Phase, 15.5 kA/Total
Operating Frequency	47–63 Hz
EMI Attenuation	NA
SPD Technology	MOVs
Modes of Protection	L N, L-G, N-G
Status Indication	Power On & MOVs Functional
Connection Type	Wire Leads
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2.5H x 1 5W x 3 0L
Weight	4 oz
Certification	ANSI/UL 1449 Third Edition, Type 2

Caution:
This product should be installed and serviced by qualified service technicians or personnel only

Remove power before installation or service

Mounting



Edco PC642 Series

Zone/Loop/Data

■ Surge Protection
For *Business-Critical Continuity™*

The Edco PC642 Series surge suppressor is a two-pair (four wire) module implementing three-stage hybrid technology. This module addresses over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak and fault currents are mitigated with resettable fuses (PTCs). The PTCs increase resistance several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Edco PC642 card edge module is gold-plated, double sided and is designed to mate with the the Edco PCB1B-WKEY gold-plated female terminal connector (sold separately). When snapped together, the data circuits "pass thru" the protector in a serial fashion from the four "Field Side" terminals to the four "Electronics Side" terminals. Terminals 1 or 10 of the PCB1B must be attached to Building-Approved Ground.

General Technical Specifications

Maximum Operating Voltage	5-250 VDC
Clamping Voltage	8-300 VDC
Operating Current	0.15 A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/Series PTC
Connection Type	Terminal block w/compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 1W x 2.5L (PC642 + Base)
Weight	1 oz
Certifications	UL 497B

Features

- Three-stage hybrid protection
- Sneak/fault current protection
- Resettable fuses – PTCs
- Low capacitance option
- Plug-in module
- Requires Edco PCB1B-WKEY base
- Fast response time
- UL listed 497B
- 5 year warranty

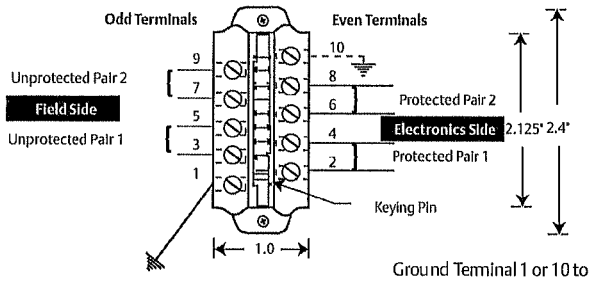
Caution: *The hybrid design of this product includes series resistance. Do not place this product in service on any signal line capable of supplying more than 150 milliamperes continuously.*

EMERSON
Network Power

Installation Instructions

Terminal Assignments

PCB1B:

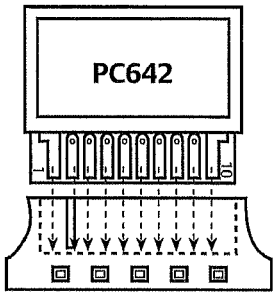


Drawing 1

Ground Terminal 1 or 10 to Building Approved Ground

DO NOT daisy chain grounds. NOT intended for shield termination. Install ground in accordance with all applicable codes.

Drawing 2



PCB1B-WKEY

Read and Understand These Instructions

Caution:

- These protectors are intended for indoor use on communication loop circuits which have been isolated from the Public Switch Telephone Network.
- The communication loop circuits shall not be exposed to accidental contact with the electric light or power conductors.
- The protectors shall be installed per the applicable requirements of the National Electric Code, ANSI/NFPA 70.
- Measure DC operating voltage of system to insure it does not exceed the rating of the selected surge device (5-250 VDC depending on the device).

Installation:

1. Turn off power to circuit to be protected prior to installation.
2. Screw mounting base #PCB1B-WKEY (ordered separately) in desired location preferably as close to protected equipment as possible and in close proximity to a building approved grounding point using (2) #4 screws. PCB1B may also be DIN rail mounted using optional DIN clip assembly #11602KIT-PC (ordered separately)
3. Attach field side pairs (26-10AWG) to positions 3/5 and 7/9, attach electronics side pairs (26-10AWG) to positions 2/4 and 6/8. Attach ground wire (10AWG) to positions 1 or 10 on base. **See Drawing 1.** Torque wires to 44 lbf/in [8kgf/cm].
4. Insert PC642C module into keyed PCB1B-WKEY base. **See Drawing 2.**
5. Apply power to protected circuit.

Ordering Information

APPLICATIONS:

RS485, RS422	PC642C-008LC & PCB1B-WKEY
RS232:	PC642C-036LC & PCB1B-WKEY
E-NET, 10 BASE-T:	PC642C-036LC & PCB1B-WKEY
4–20ma:	PC642C-036LC & PCB1B-WKEY

OPTION:
DIN Rail Kit Available
Order Part # 11604KIT-PC

How to Specify the Appropriate Model

PC642C- ☐☐☐☐

Max. Operating Voltage	Clamping Voltage (1000V@1mA)	
5 VDC	8 VDC	008
30 VDC	43 VDC	036
36 VDC	43 VDC	043
43-250 VDC	300 VDC	200

LC	Low Capacitance, Line-to-Line, Line to Ground	008, 036, 043 models only
D	Line-to-Line protection only	008, 036, 043 models only
	Line-to-Ground	200 models only

Emerson Network Power.
The global leader in enabling *Business-Critical Continuity™.*

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Infrastructure Management & Monitoring
- Outside Plant
- Power Switching & Control
- Precision Cooling
- Racks and Integrated Cabinets
- Services
- **Surge Protection**

Emerson Network Power Contact information

www.emersonnetworkpower.com/surge

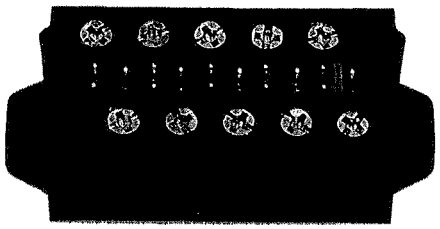
Headquarters
Surge Protection
100 Emerson Parkway
Binghamton, NY 13905
T (607) 721-8840
T (800) 288-6169
F (607) 722-8713
E contactsurge@emerson.com

EMERSON
Network Power

IO-50105 10/11 Rev. 5 Printed in USA

Business-Critical Continuity, Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2011 Emerson Electric Co.

Card Edge Terminal Connector — PCB1B



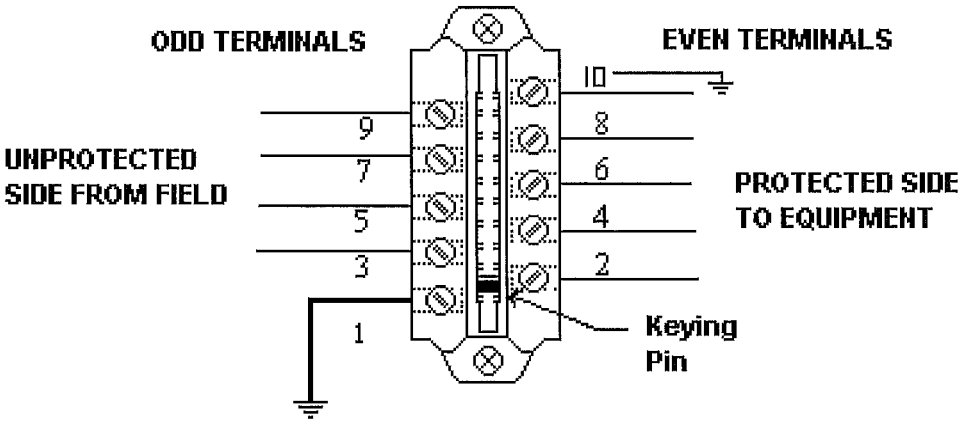
Dimensions: (inches) 0.775H x 1.0W x 2.4L

Accommodates 26 to 10 AWG Wires

EDCO'S PCB1B base was designed to accommodate up to 10 AWG wire. In addition, it offers flat / phillips terminal screws. The PCB1B can be mounted using two #6 size screws.

The PCB1B is the standard socket for all of EDCO's plug-in style surge suppressor modules including the PC642, PHC, SLCP, PC2TEL, 5W8-30 and others.

PCB1B



Ground Terminal 1 OR 10 to Building Approved Ground.
DO NOT daisy chain grounds. NOT intended for shield termination.
Install ground in accordance with all applicable codes. PCB1B base sold separately.

EMERSON™ Network Power

NEED HELP? Call 1-800-648-4076

1805 N E. 19th Avenue • P O Box 1778 • Ocala, Florida 34478

(352) 732-3029 • FAX (352) 867-1237 • Sales. 1-800-648-4076

E-mail us at: edco@edcosurge.com • Internet: http //www edcosurge com

81138_Rev1

© 2007

Jacksonville Sound & Communications

Contact Info

Sound, Audio - Video, Fire Alarm,
Nurse Call, Security and CCTV

Mark Engstrom
Project Manager

605 N W 53rd Avenue
Suite A-10
Gainesville, FL 32609

(352) 378-9777
Fax (352) 377-8225

email m engstrom@jacksonvillesound com
FL # EF20000375, GA # LVU405422
SC# BFS17272FAQ

November 10, 2014

Heartland Retail Construction, Inc.
4956 Memco Lane Suite A
Racine, WI 53404

Re: Harbor Freight – Lake City
JSC Job#: G14-030

Dear Sir / Ma'am·

We submit the following information and attached data sheets on the proposed equipment for the **Fire Alarm System** of the above-referenced project

MANUFACTURER	MODEL	DESCRIPTION
SIL	005700	50-Pt Addressable FACP w/ Dialer
SIL	005860R	LCD Remote Annunciator
SIL	5860TR	Trim Ring
SIL	SK-PHOTO	Smoke Detector
SIL	SK-PULL-DA	Addressable IFP-25 Dual-action Pull
SIL	PC2R	Ceiling Horn Strobe
SIL	SR	Strobe
SIL	P2R	Horn Strobe
SIL	SK-MONITOR	Monitor Module
SIL	SK-MONITOR2	Dual Input Monitor
System Sensor	BK-SSM248	Bell
System Sensor	WBB	Back Box
EDC	FAS120AC	120V AC Hardwired Surge Suppressor
EDC	PC642C-036LC	4-wire 30V Surge Prot (req PCB1B base)
EDC	PCB1B	Protector Module Base

If you need any additional information or have any questions, please feel free to contact Tracy Roszak at (352) 378-9777

Sincerely,

32293

Tracy Roszak
Tracy Roszak
Branch Manager

Please return approved submittal to t.roszak@jscsystems.net

SILENT KNIGHT®
by Honeywell

IntelliKnight® Model 5700 Single Loop Addressable Fire Alarm Control System

The affordable addressable fire alarm control panel solution.

IntelliKnight Model 5700 is a class leading single loop addressable fire alarm control/communicator system. 5700 provides you with the revolutionary value and performance of addressable sensing technology combined with exclusive, built-in digital communication, distributed intelligent power, that includes an easy to use interface. Powerful features such as drift compensation and maintenance alert are delivered in this powerful FACP from Silent Knight.

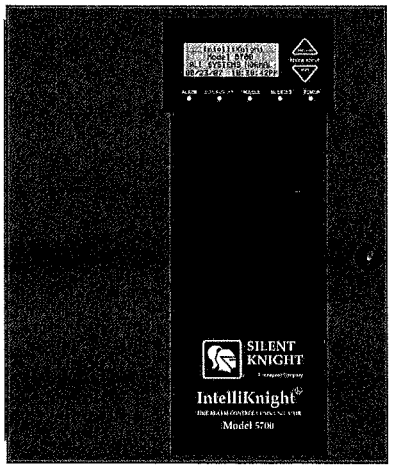
For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description

The basic IntelliKnight 5700 system can be enhanced by adding modules such as 5860 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), and 5496 intelligent power module. 5700 supports Hochiki or SK devices. 5700 also features a powerful built-in dual line fire communicator that allows for reporting of all system activity to a remote monitoring location.

Features

- Built-in support for up to 50 SK detectors *and* 50 SK modules creating a total point capacity of 100 points.
- Built in support for up to 50 Hochiki devices
- Up to 125 zones and 125 output groups
- Uses standard wire—no shielded or twisted pair required
- Built-in digital communicator.
- Central station reporting by point or by zone
- Supports Class B (Style 4) and Class A (Style 6 or 7) configuration for SLC
- Drift compensation
- 13 pre-programmed output cadences (including ANSI-3.41) and 4 programmable outputs
- Notification circuits configurable as 1 Class A (Style Z) or 2 Class B (Style Y), or auxiliary power for resettable, constant, or door holder power
- Built-in synchronization for AMSECO, Gentex®, Faraday, System Sensor® and Wheelock® appliances
- Built-in annunciator with 80-character LCD display
- RS-485 bus provides communication to system accessories
- Upload or download programming, event history, or detector status onsite or from a remote location using a PC and 5660 Silent Knight Software Suite (SKSS)
- Two built-in Form C programmable relays rated at 2.5A at 27.4 VDC



Model 5700

- Improvements in SKSS deliver five times faster upload/downloads
- Built-in RS-232 interface for programming via PC
- Built-in Form C trouble relay rated at 2.5A at 27 4 VDC
- Programmable date setting for Daylight Saving Time

Installation

The 5700 is a surface mount FACP.

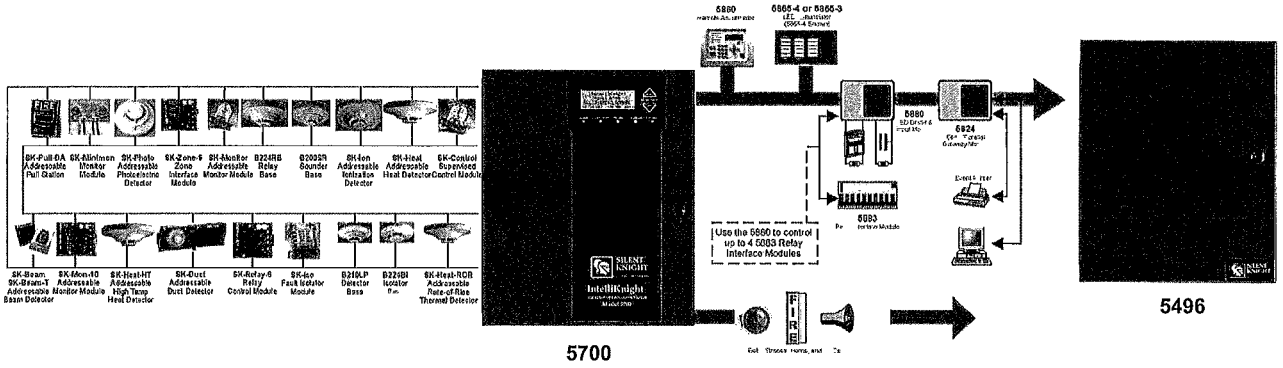
Compatibility

The 5700 SLC supports multiple device types of the *same* protocol:

- SK (System Sensor)
- Hochiki

You cannot mix Hochiki and SK devices on a FACP.

Model 5700
Fire Alarm Control Panel



Specifications

Electrical

Primary AC 120 VAC, 60 Hz, 1 5A
Total Accessory Load 2 5A @ 27 4 VDC
Notification Power 2 5A @ 27 4 VDC, power-limited
Standby Current. 200 mA
Alarm Current 325 mA
Notification/Aux Power Circuits
2 5A @ 27 4 VDC per circuit, power-limited
Battery Charging Capacity 7 0-35 0 AH
Battery Size 7 AH max allowed in FACP cabinet Larger capacity batteries can be housed in an RBB accessory cabinet

Physical

Dimensions
12 75" W x 15 2" H x 3 4" D
(32 39 W x 38 42 H x 8 57 D cm)
Weight 11.5 lbs (5.2 kg)

Color· Red

Telephone Requirements

FCC Part 15 and Part 68 approved

Type of Jack RJ31X (two required)

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

Other Approvals UL Listed,
CSFM 7170-0559: 144, MEA 429-92-E Vol XVI

S-BUS Accessories

5860/R Remote Fire Annunciator

Features the same 80 character backlit LCD display keypad and firefighter's key switch as the 5700 The system can be fully programmed and operated from any 5860 5860 is gray and 5860R is red

5496 Intelligent Power Module

A 6 amp notification power expander that provides four additional power-limited notification appliance circuit outputs

5880 LED/IO Module

Features 40 LED outputs, 8 normally open dry contact inputs and one piezo output

5865-3 and 5865-4 Remote LED Annunciator

Features 30 Programmable LED (15 red and 15 yellow) outputs and a piezo sounder The 5865-4 adds a silence and reset switch to the package

5883 Relay Board

Features 10 general purpose Form C relays Used with 5880 module

5824 Serial/Parallel Printer Interface Module

Provides one parallel and one RS-232 serial port for connecting a printer to 5808 Use to print a real-time log of system events, detector status reports, and event history Interfaces with building control system

Miscellaneous Accessories

5660 Silent Knight Software Suite

User-friendly Windows software for remote programming of 5700s using a PC Upload and view panel account information, event history, and detector status

5670 Silent Knight Software Suite

End-user facility management software allows viewing of detector status and event history via modem or direct connection

RBB

Remote Battery Box Accessory Cabinet. Use if backup batteries are too large to fit into FACP cabinet Dimensions
16" W x 10" H x 6" D
(406 mm W x 254 mm H x 152 mm D)

SD505-DTS-K

Remote test switch that provides remote key operated test function and annunciation of detector alarm with SD505-DUCTR

Hochiki and SK Devices

See the specification sheets listed below for a complete listing of the Hochiki and SK devices

53624	Hochiki Devices Specification Sheet
53623	SK Protocol Devices Specification Sheet

SILENT KNIGHT
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103 or (203) 484-7161, Fax. (203) 484-7118 www.silentknight.com

IntelliKnight & JumpStart are Registered Trademarks of Silent Knight
Flexput is a Trademark of Silent Knight

MADE IN AMERICA

P/N 350392 Rev G1
© 2010 Honeywell International Inc

SILENT KNIGHT
by Honeywell

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 eight 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 eight 5860s per FACP
- 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)

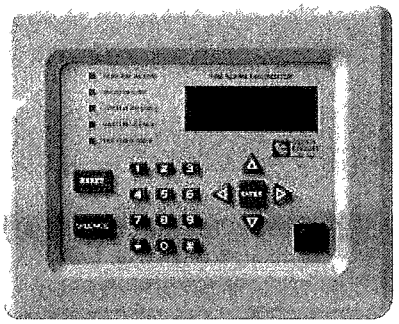
Max Per System: 8

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 is the following FACP's:

- IntelliKnight 5820XL FACP
- IntelliKnight 5808 FACP
- IntelliKnight 5700 FACP

Approvals/Listings

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

5860 Remote Annunciator

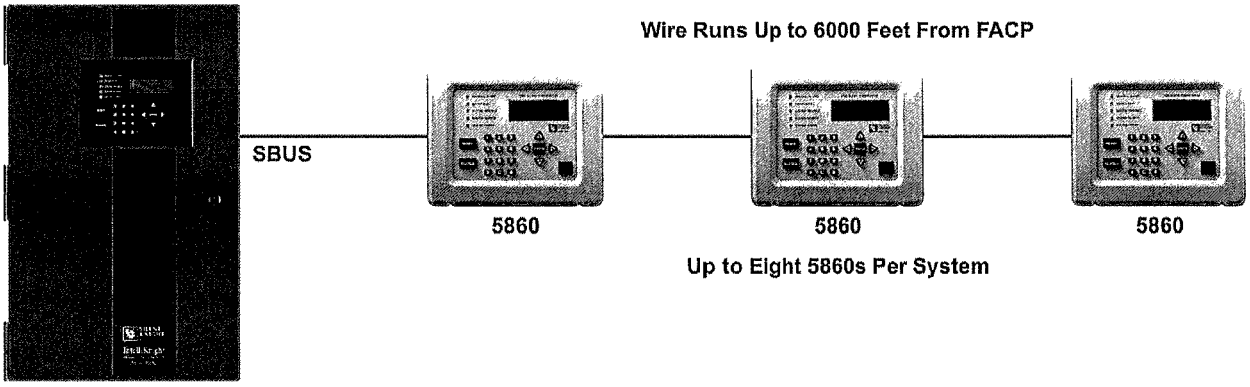
Engineering Specifications

The main control must have a built-in annunciator and must support up to eight 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.



Compatible IntelliKnight FACP

Ordering Information

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

Accessories

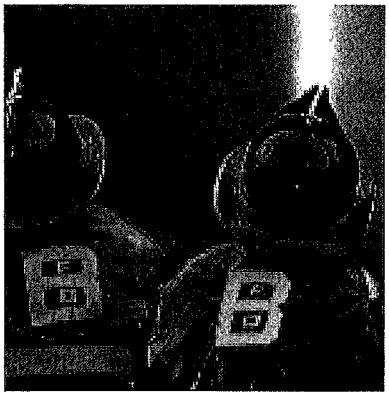
5860TR	Red Trim Ring for surface mounting.
5860TG	Gray Trim Ring for surface mounting.

SILENT KNIGHT® by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103, Fax (203) 484-7118 www.silentknight.com

MADE IN AMERICA

FORM# 350224 Rev E
© 2010 Honeywell International Inc.



SK-Photo and SK-Photo-T

Intelligent Photoelectric Smoke Sensors

The SK-Photo is a photoelectric smoke detector and the SK-Photo-T is a photoelectric smoke detector with thermal. These plug in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with Silent Knight IntelliKnight Fire Alarm Control Panels (FACPs).

For more information about the IntelliKnight system, or to locate your nearest source, please call 800-328-0103 or in Connecticut, call (203) 484-7161.

Description

SK-Photo and SK-Photo-T are plug-in type smoke sensors that combine a photoelectric sensing chamber with addressable analog communications. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

SK-Photo and SK-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. In the SK-Photo-T, dual electronic thermistors add 135°F (57°C) thermal technology to maximize detection.

Features

- Sleek, low-profile design
- Base included
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Dual electronic thermistor design on the SK-Photo-T
- Superior EMI resistance for reliability
- Simple field cleaning for code compliance
- Variety of mounting options to meet any application
- Dual LED indicators for 360° visibility
- Detector transmits signal to indicate maintenance is required
- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Plug-in mounting provides ease of installation
- Tamper-proof feature available on mounting bases
- Listed for use in duct applications
- Rotary address switches for fast installation
- UL Listed
- FM Approved

Specifications

Physical

Height 2 0" (5.0 cm)

Diameter· 4 1" (10 4 cm)

Shipping Weight 5 2 oz (147 g)

Electrical

Operating Voltage 15–32 VDC

Standby Current

300 µA @ 24 VDC Maximum

Alarm Current 6.5 mA @ 24 VDC max (with LED on)

Environmental

Operating Temperature

SK-Photo 32° – 120°F (0°C – 49°C)

SK-Photo-T 32° – 100°F (0°C – 38°C)

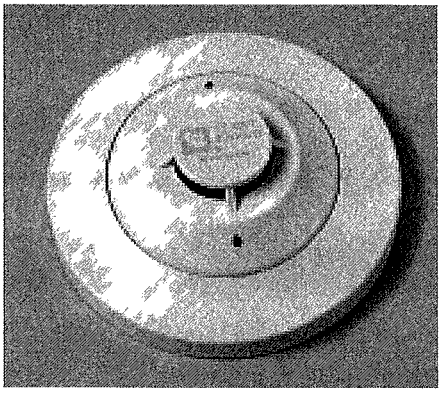
Humidity 10% – 93% non-condensing

Other Ratings

SK-Photo-T Thermal Fixed temperature set point 135°F (57°C)

Velocity 0 – 4000 fpm (0 – 20 m/sec)

SK-Photo Insect Screen Hole Size. 0.016" (0 41 mm) nominal



SK-Photo (Base included)

Compatibility

The SK-Photo and SK-Photo-T are compatible with the following IntelliKnight FACPs

5700
5808
5820XL

SK-Photo and SK-Photo-T are compatible with the following detector bases

B210LP	(included) 6" base
B501	2 wire base
B501BHT-2	Temporal base
B224RB	Relay base
B224BI	Isolator base
B501BH-2	Sounder base

SILENT KNIGHT
by Honeywell

Model SK-Photo and SK-Photo-T Intelligent Photoelectric Smoke Sensors

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Intelligent photoelectric smoke sensors Silent Knight SK-Photo or SK-Photo-T with thermal. The combination detector head, and twist-lock base, shall be UL listed and compatible with Silent Knight's IntelliKnight fire control panels.

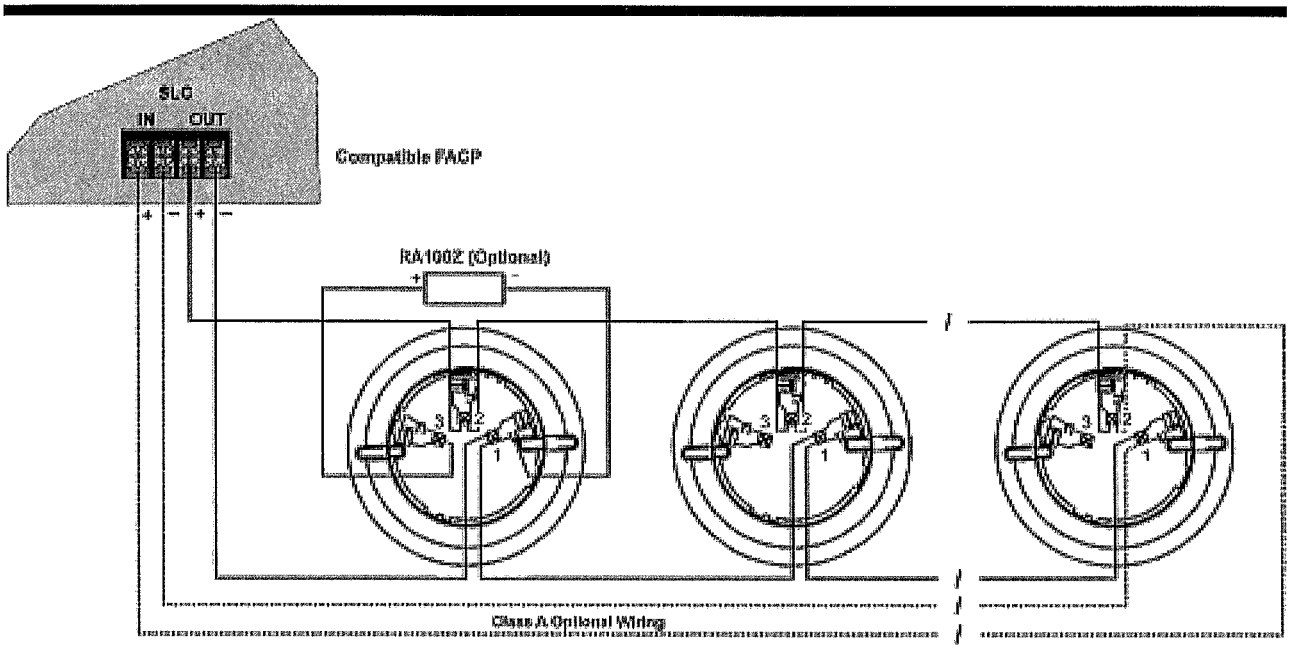
The base shall permit direct interchange with SK-Photo or SK-Photo-T. Base shall be the appropriate twist-lock base part number B210LP (included).

The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady. The detector may be reset by actuating the control panel reset switch.

The calibration of the detector shall be capable of being selected and measured by the control panel without the need for external test apparatus.

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable as required.

The SK-Photo shall automatically perform a functional test of the detector. The test method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.



Wiring SK-Series Detector Mounting Bases

SILENT KNIGHT by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone (800) 328-0103, Fax (203) 484-7118 www silentknight com

MADE IN AMERICA

FORM# 350118 Rev A,
© 2009 Honeywell International Inc

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

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

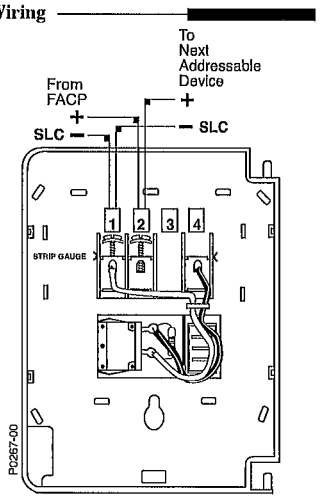
To activate the dual-action pull station, push in and pull down on the handle The word 'ACTIVATED' appears after the handle is pulled down This will remain until the pull station is reset

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

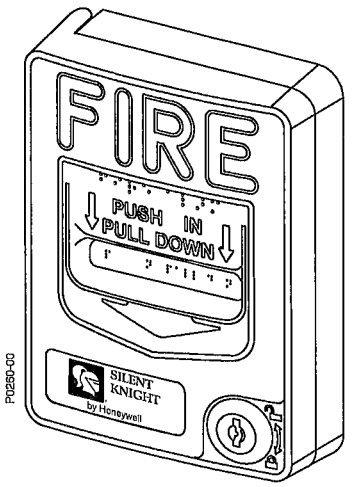
1 Insert the key into the lock and rotate 1/4 turn counterclockwise
2 Open the door until the handle returns to normal
3 Close and lock the door

Wiring



SK-Pull-DA Addressable Pull Station

Document 52149 I56-3447-002



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

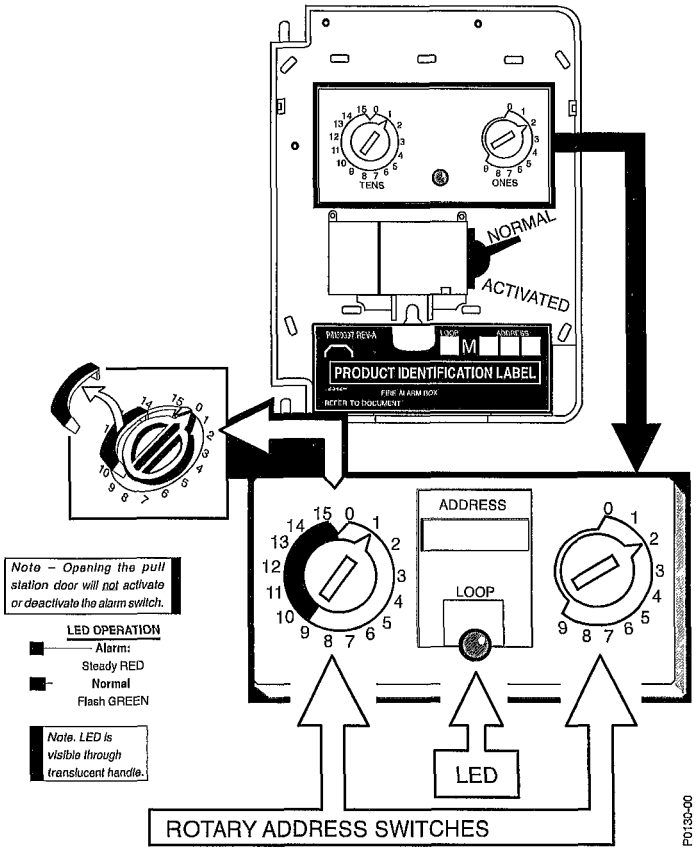
ADA Compliance

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



Farenhyt

SILENT KNIGHT
by Honeywell

Audio/Visual Devices

The SpectrAlert® Advance

Selectable Output Notification Appliances

General

System Sensor® SpectrAlert® Advance selectable-output horns, strobes and horn/strobes are rich with features guaranteed to cut installation times and maximize profits. The SpectrAlert Advance series of notification appliances is designed to simplify your installations, with features such as: plug-in designs, instant feedback messages to ensure correct installation of individual devices, and eleven field-selectable candela settings for wall and ceiling strobes and horn/strobes.

More specifically, when installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon, or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Then, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe, or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

Features

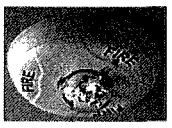
- Plug-in design.
- Universal mounting plate for wall and ceiling units.
- Shorting spring on mounting plate for continuity check before installation.
- Rotary switch for horn tone and three volume settings.
- Tamper-resistance construction.
- Field-selectable candela settings on wall and ceiling units: 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.
- Outdoor wall and ceiling products.

Agency Listings

SIGNALING UL LISTED

FM APPROVED

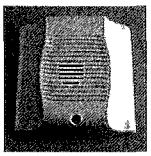
MEA approved 452-05-E



Indoor Ceiling Strobe

Indoor Ceiling Horn/Strobe

Indoor Wall Horn/Strobe



Indoor Wall Horn

Outdoor Ceiling Strobe

Outdoor Wall Strobe

- Outdoor products rated from –40°F and 151°F (–40°C and 66°C).
- Three volume selections and rotary switch for horn tone.
- Horn rated at 88+ dbA at 16 volts.
- Electrically compatible with existing SpectrAlert products.

Models available:

- Indoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Indoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor wall-mount: horn, strobe, 2-wire horn/strobe, 4-wire horn/strobe.
- Outdoor ceiling-mount: strobe, 2-wire horn/strobe, 4-wire horn/strobe.

P/N 350377 Rev A

Copyright © 2010 Honeywell International Inc.

Engineering Specifications

SpectrAlert Advance horns, strobes, and horn/strobes shall mount to a standard 4.0" x 4.0" x 1.5" (10.16 x 10.16 x 3.81 cm) backbox, 4 0" (10.16 cm) octagonal backbox, or a double-gang backbox. Two-wire products shall also mount to a single-gang 2.0" x 4.0" x 1.875" (5.08 x 10 16 x 4 763 cm) backbox. 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. Indoor SpectrAlert Advance products shall operate between 32°F and 120°F (0°C and 49°C) 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, 177,185.

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 3 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

OUTDOOR PRODUCTS

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between –40°F and 151°F (–40°C and 66°C). The products shall be listed for use with a System Sensor outdoor/weatherproof backbox with half-inch and three-fourths-inch conduit entries

SYNCHRONIZATION MODULE

The module shall be a System Sensor Sync•Circuit MDL3RA or MDL3WA 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 3. 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 4.688" x 4.688" x 2 125" (11 906 x 11.906 x 5.398 cm) backbox. 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.

Specifications

- Standard operating temperature: 32°F to 120°F (0°C to 49°C).
- K Series operating temperature: –40°F to 151°F (–40°C to 66°C).
- Humidity range: 10% to 93% non-condensing (indoor products).
- Strobe flash rate: 1 flash per second.
- Nominal voltage: regulated 12 VDC/FWR or regulated 24 VDC/FWR. NOTE: Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
- Operating voltage range: 8 V to 17.5 V (12 V nominal); or 16 V to 33 V (24 V nominal). NOTE: P, S, PC, and SC products will operate at 12 V nominal only for 15 cd and 15/75 cd.
- Input terminal wire gauge: 12 to 18 AWG (3.31 to 0.821 mm²).
- Ceiling-mount dimensions (including lens): 6.8" diameter x 2.5" deep (17.3 cm diameter x 6.4 cm deep).
- Wall-mount dimensions (including lens): 5.6" H x 4.7" W x 2.5" D (14.2 cm H x 11.9 cm W x 6.4 cm D).
- Horn dimensions: 5.6" H x 4.7" W x 1.3" D (14.2 cm H x 11.9 cm W x 3.3 cm D).

Strobe Current Draw
UL Maximum (mA RMS)

Candela		8-17.5 V		16-33 V	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	123	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

Horn Current Draw,
UL Maximum (mA RMS)

Sound Pattern	dB	8 - 17.5 V		16 - 33 V	
		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

Horn and Horn/Strobe Rotary Switch Setting

Setting	Repetition Rate	dB Level
1	Temporal horn	High
2	Temporal horn	Medium
3	Temporal horn	Low
4	Normal horn	High
5	Normal horn	Medium
6	Normal horn	Low
7*	Externally coded	High
8*	Externally coded	Medium
9*	Externally coded	Low

***NOTE:** Settings 7, 8, and 9 are not available on 2-wire horn/strobe.

Horn and Horn/Strobe Output (dBA)

Switch Position	Sound Pattern	dB	8 - 17.5 V		16 - 33 V	
			DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84
2	Temporal	Medium	74	74	80	80
3	Temporal	Low	71	73	76	76
4	Non-temporal	High	82	82	88	88
5	Non-temporal	Medium	78	78	85	85
6	Non-temporal	Low	75	75	81	81
7	Coded	High	82	82	88	88
8	Coded	Medium	78	78	85	85
9	Coded	Low	75	75	81	81

***Note:** Settings 7, 8, and 9 are not available on 2-wire horn/strobe.

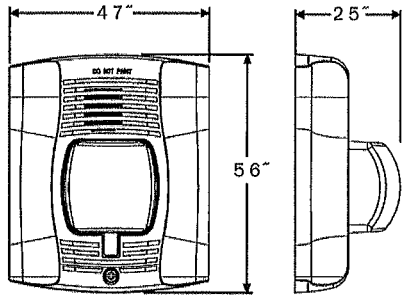
Two-Wire Horn/Strobe, Standard Candela Range (15-115 cd), UL Maximum Current Draw (mA RMS)

Input, Sound Pattern, dB Level	8 - 17.5 V		16 - 33 V						
	15	15/75	15	15/75	30	75	95	110	115
DC Input, Temporal, High	137	147	79	90	107	176	194	212	218
DC Input, Temporal, Medium	132	144	69	80	97	157	182	201	210
DC Input, Temporal, Low	132	143	66	77	93	154	179	198	207
DC Input,	141	152	91	100	116	176	201	221	229
DC Input,	133	145	75	85	102	163	187	207	216
DC Input,	131	144	68	79	96	156	182	201	210
FWR Input, Temporal, High	136	155	88	97	112	168	190	210	218
FWR Input,	129	152	78	88	103	160	184	202	206
FWR Input,	129	151	76	86	101	160	184	194	201
FWR Input, Non-Temporal, High	142	161	103	112	126	181	203	221	229
FWR Input,	134	155	85	95	110	166	189	208	216
FWR Input,	132	154	80	90	105	161	184	202	211

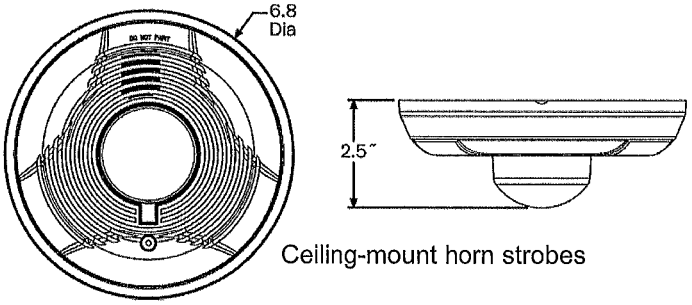
Two-Wire Horn/Strobe HIGH Candela Range (135-185 cd), UL Maximum Current Draw (mA RMS)

DC Input	16 - 33 V				FWR Input	16 - 33 V			
	135	150	177	185		135	150	177	185
DC, Temporal, High	245	259	290	297	FWR, Temporal, High	215	231	258	265
DC, Temporal, Medium	235	253	288	297	FWR, Temporal, Medium	209	224	250	258
DC, Temporal, Low	232	251	282	292	FWR, Temporal, Low	207	221	248	256
DC, Non-Temporal, High	255	270	303	309	FWR, Non-temporal, High	233	248	275	281
DC, Non-Temporal, Medium	242	259	293	299	FWR, Non-temporal, Medium	219	232	262	267
DC, Non-Temporal, Low	238	254	291	295	FWR, Non-temporal, Low	214	229	256	262

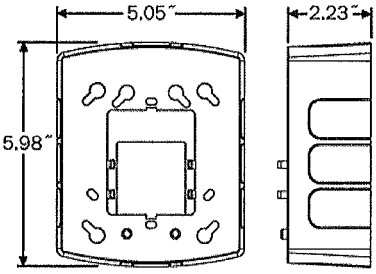
SpectrAlert Advance Dimensions



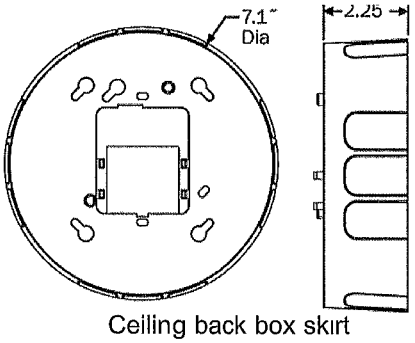
Wall-mount horn strobes



Ceiling-mount horn strobes



Wall back box skirt



Ceiling back box skirt

SpectrAlert Advance Ordering Information

Wall Horn Strobes

P2R	2-Wire horn/strobe, Standard cd, Red
P2RH	2-Wire horn/strobe, High cd, Red
P2RK	2-Wire horn/strobe, Standard cd,red outdoor
P2RHK	2-wire horn/strobe, High cd, red, outdoor
P2W	2-Wire horn/strobe, Standard cd, White
P2WH	2-Wire horn/strobe, High cd, White
P4R	4-Wire horn/strobe, Standard cd, Red
P4RH	4-Wire horn/strobe, High cd, Red
P4RK	4-Wire horn/strobe, standard cd, red, outdoor
P4RHK	4-Wire horn/strobe, High cd, red, outdoor
P4W	4-Wire horn/strobe, Standard cd, White
P4WH	4-Wire horn/strobe, high cd, white

Wall Strobes

SR	Strobe, Standard cd, Red
SRH	Strobe, High cd, Red
SRK	Strobe, standard cd, red
SRHK	Strobe, High cd, red, outdood
SW	Strobe, Standard cd, White
SWH	Strobe, High cd, White

Ceiling Horn Strobes

PC2R	2-Wire horn/strobe, Standard cd, Red
PC2RH	2-Wire horn/strobe, High cd, Red
PC2W	2-Wire horn/strobe, Standard cd, White
PC2WH	2-Wire horn/strobe, High cd, White
PC2RK	2-Wire horn/strobe, Standard cd, red, outdoor
PC2RHK	2-Wire horn/strobe High cd, red, outdoor
PC4R	4-Wire horn/strobe, Standard cd, Red
PC4RH	4-Wire horn/strobe, High cd, Red
PC4W	4-Wire horn/strobe, Standard cd, White

Ceiling Strobes

SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCRK	Strobe, Standard cd, red, outdoor
SCRHK	Strobe, High cd, red, outdoor
SCW	Strobe, Standard cd, White
SCWH	Strobe, High cd, White

Horns

HR	Horn, Red
HW	Horn, White
HRK	Horn, Red, outdoor

Accessories

BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White
SA-WBB	Weatherproof backbox, wall
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

NOTE: "High cd" refers to strobes that include 135, 150, 177 and 185 candela settings. "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings.

SpectrAlert® and System Sensor® are registered trademarks of Honeywell International Inc

SILENT KNIGHT
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone (800) 328-0103, Fax (203) 484-7118 www.farenhyt.com

SILENT KNIGHT
by Honeywell

SK-Monitor

Intelligent Monitor Module

The SK-Monitor module provides an interface to contact devices, such as security contacts, waterflow switches, or pull stations.

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

Description

The SK-Monitor is an addressable monitor module for use with Silent Knight IntelliKnight 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.

Features

- 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
- Attractive ivory cover plate
- Rotary address switches for fast installation
- SEMS screws for easy wiring
- UL Listed

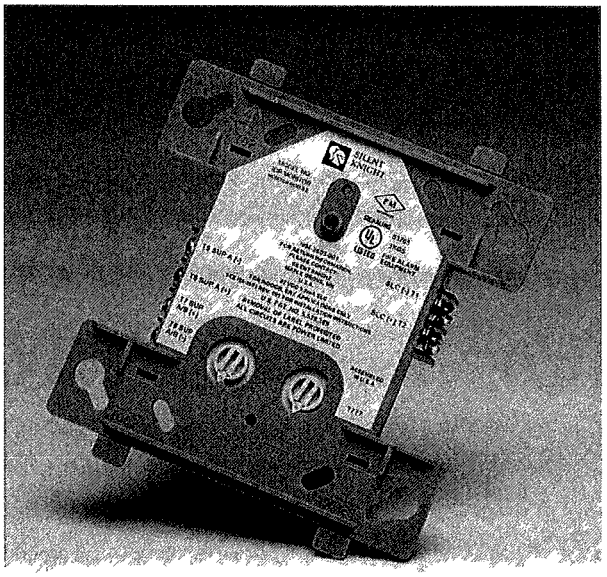
Installation

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.

Compatibility

The SK-Monitor is compatible with the following IntelliKnight FACP's:

5700
5808
5820XL



SK-Monitor

Specifications

Physical

Height: 4.5" (11.4 cm)

Width: 4" (10.2 cm)

Depth: 1.25" (3 cm)

Shipping Weight: 6.3 oz (196 g)

Electrical

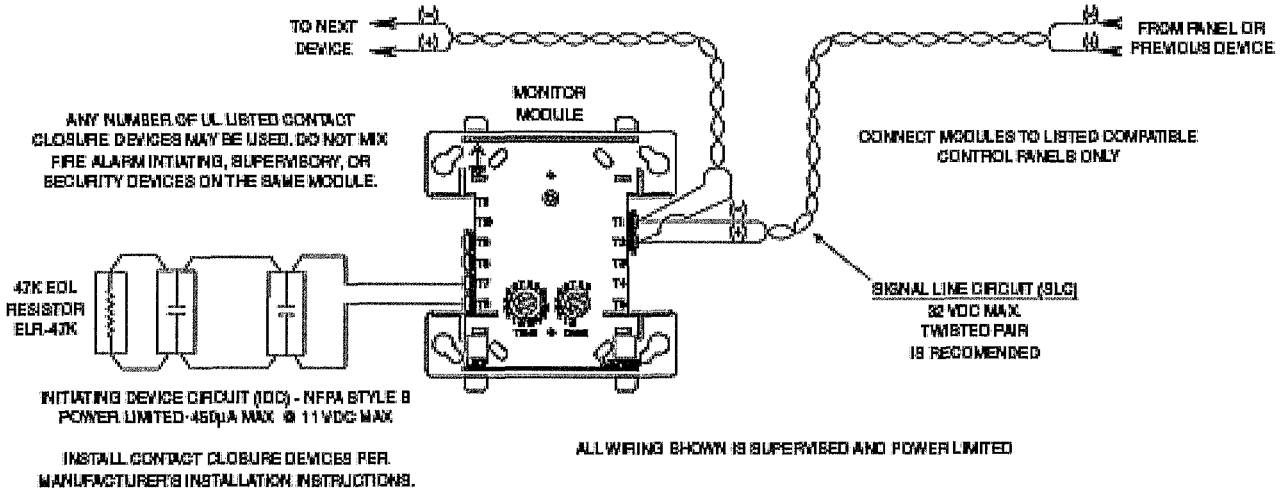
Operating Voltage: 15 – 32 VDC

Current Draw (LED on): 5.0 mA max

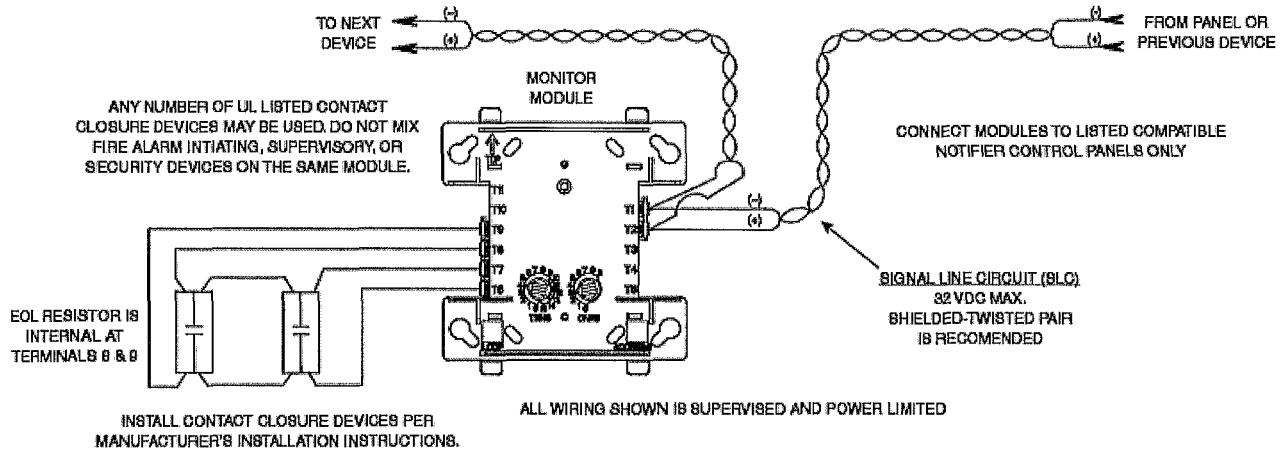
Operating Current (LED flashing): 375 µA

Model SK-Monitor

Intelligent Monitor Module



2-Wire Initiating Circuit Configuration, NFPA Style B



4-Wire Initiating Circuit Configuration, NFPA Style D

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	Monitoring Module

Accessories

SMB500	4" Square Surface Mount Electrical Box

SILENT KNIGHT
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103, Fax (203) 484-7118 **www.silentknight.com**

MADE IN AMERICA

FORM# 350131 Rev C
© 2012 Honeywell International Inc

SILENT KNIGHT
by Honeywell

SK-Monitor-2

Intelligent Dual Monitor Module

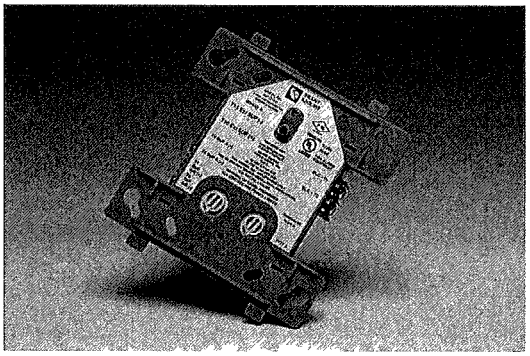
The SK-Monitor-2 module is capable of monitoring two separate Class B circuits simultaneously, making it ideal for waterflow tamper switch and flow switch monitoring.

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

Description

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

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



SK-Monitor-2

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

SK-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® part number SMB500) is available from Silent Knight.

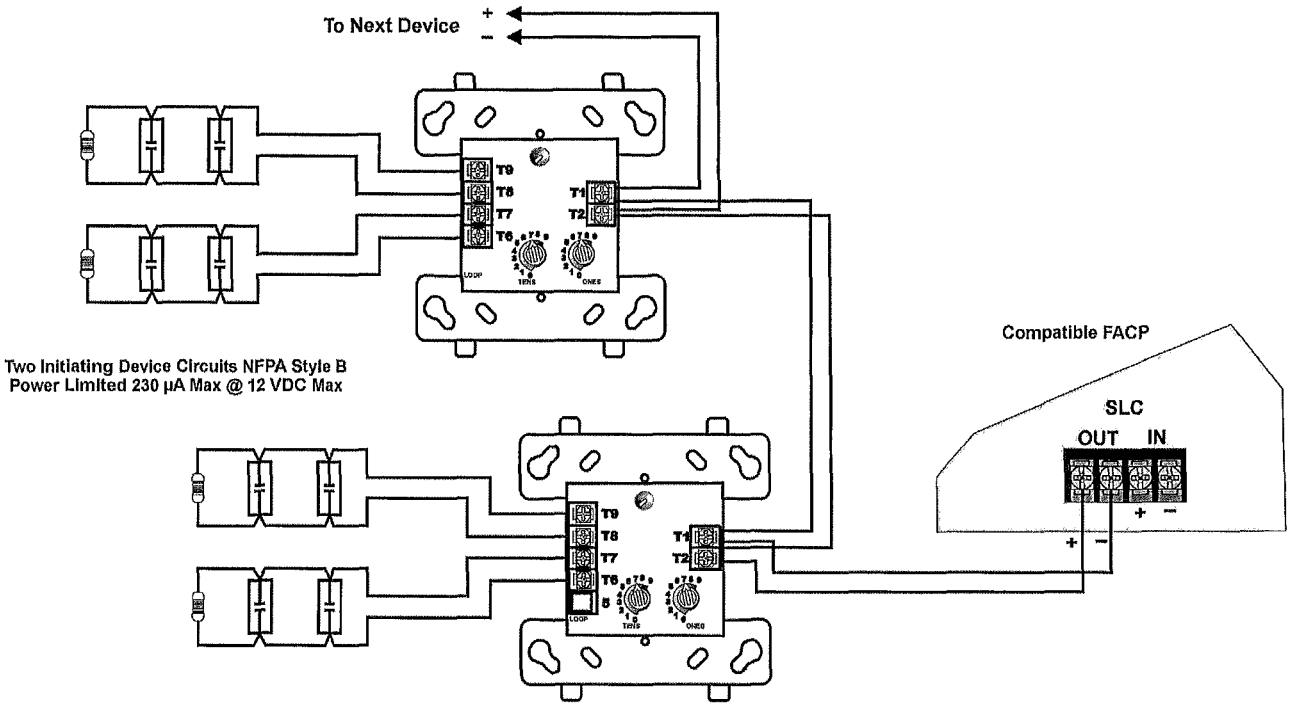
Compatibility

The SK-Monitor-2 is compatible with the following IntelliKnight FACP's:

5700
5808
5820XL

Model SK-Monitor-2

Intelligent Dual Monitor Module



Wiring SK-Monitor-2 Modules

Specifications

Physical

Height. 4.5" H x 4" W x 1.25" D

Shipping Weight 6 3 oz (196 g)

Electrical

Operating Voltage. 15 – 32 VDC

Current Draw (LED on)· 6.4 mA max

Operating Current (LED flashing) 750 µA

End-of-Line Resistance 47K Ω

Max IDC wiring resistance 1,500Ω

SLC Line Loop Resistance 40Ω max.

Environmental

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

Humidity 10% – 93% non-condensing

Accessories

SMB500 4" Square Surface Mount Electrical Box

SILENT KNIGHT®
by Honeywell

This document is not intended to be used for installation purposes We try to keep our product information up-to-date and accurate We cannot cover all specific applications or anticipate all requirements All specifications are subject to change without notice For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610
Phone (800) 328-0103, Fax (203)484-7118 www silentknight com

MADE IN AMERICA

FORM# 350124 Rev B
© 2009 Honeywell International Inc

SSM/SSV Series Alarm Bells

System Sensor's SSM and SSV series alarm bells are low current, high decibel notification appliances for use in fire and burglary systems or other signaling applications.

Features

- Approved for indoor and outdoor use
- Low current draw
- High dB output
- Available in six-inch, eight inch, and ten inch sizes
- AC and DC models
- DC models polarized for use with supervision circuitry
- Mount directly to standard four-inch square electrical box indoors
- SSM and SSV series come pre-wired

Reliable Performance. The SSM and SSV series provide loud resonant tones The SSM series operates on 24VDC and are motor driven, while the SSV series operates on 120VAC utilizing a vibrating mechanism

Simplified Installation. For indoor use, the SSM and SSV series mount to a standard four-inch square electrical box. For outdoor applications weatherproof back box, model number WBB, is used

The SSM and SSV series come pre-wired, to reduce installation time The SSM series incorporates a polarized electrical design for use with supervision circuitry

Agency Listings

UL LISTED S4011 | ULC CS549 | FM APPROVED 3005255 | 7135-1653:0217 | MEA approved 331-01-E

SSM/SSV Specifications

Architectural/Engineering Specifications

Model shall be a SSM or SSV Series alarm bell Bells shall have underdome strikers and operating mechanisms. Gongs on said bells shall be no smaller than nominal 6 /8 /10 (specify size) with an operating voltage of 24VDC or 120VAC (specify by part number) Bells shall be suitable for surface or semi-flush mounting Outdoor surface mounted installations shall be weatherproof (using optional WBB weatherproof electrical box) Otherwise bells shall mount to a standard 4 square electrical box having a maximum projection of 2½" Bells shall be located as shown on the drawings or as determined by the Authority Having Jurisdiction Bells shall be listed for indoor/outdoor use by Underwriters Laboratories and the California State Fire Marshal and approved by Factory Mutual and MEA.

Physical/Operating Specifications

Operating Temperature Range	–31°F to 140°F
Operating Voltage	SSM series. 24 VDC SSV series 120 VAC
Termination	Provided with 2 sets of leads for in/out wiring
Service Use	Fire Alarm General Signaling Burglar Alarm
Warranty	3 years

Electrical Specifications

Model	Gong Diameter (inches)	Nominal Voltage	Operating Voltage Limit	Maximum Current	Sound Output (dBA)
SSM24-6	6	Regulated 24VDC	16 to 33VDC	DC 31 1mA/ FWR-53.5mA	82
SSM24-8	8	Regulated 24VDC	16 to 33VDC	DC 31 1mA/ FWR-53.5mA	80
SSM24-10	10	Regulated 24VDC	16 to 33VDC	DC-31 1mA/ FWR-53.5mA	81
SSV120-6	6	Regulated 120VAC	96 to 132VAC	53mA	85
SSV120-8	8	Regulated 120VAC	96 to 132VAC	53mA	82
SSV120-10	10	Regulated 120VAC	96 to 132VAC	53mA	82

* Sound output measured at Underwriter Laboratories, as specified in UL464

Ordering Information

UL/FM Model No.	ULC/Canadian Model No.	Description
SSM24-6	SSM24-6A	Bell 6 , 24VDC Polarized, 82dBA
SSM24-8	SSM24-8A	Bell, 8 , 24VDC, Polarized, 80dBA
SSM24-10	SSM24-10A	Bell, 10 24VDC, Polarized, 81dBA
SSV120-6	SSV120-6A	Bell, 6" 120VAC, 85dBA
SSV120-8	SSV120-8A	Bell 8 120VAC, 82dBA
SSV120-10	SSV120-10A	Bell, 10 120VAC, 82dBA
WBB		Weatherproof back box for SSM and SSV series, when installed outdoors

SYSTEM SENSOR®

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

©2011 System Sensor
Product specifications subject to change without notice. Visit systemsensor.com for current product information, including the latest version of this data sheet.
A05-0260-010 08/11 #2870

INSTALLATION AND MAINTENANCE INSTRUCTIONS

WBB
Weatherproof Back Box Accessory

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

Specifications

Dimensions·

Box:	4 33″L x 1 55″W x 4 33″H
Foam gasket:	0.125″ thick, adheres to box top
Conduit opening:	(2) ½″ NPT, fully threaded with (2) ½″ NPT plug, (1) ⅞″ knockout plug

Rear mounting tabs with 0.25″ diameter eyelets
Top mounting holes, #8-32 x 0.50″ DP

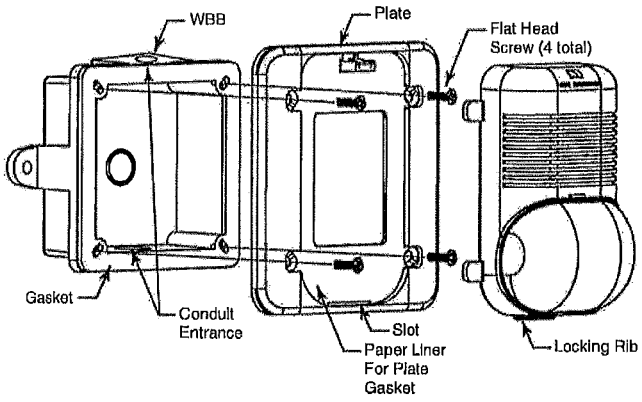
This accessory is UL listed for use with

- H12/24K, S1224MCK, P1224MCK, and P12015K series SpectrAlert® wall horn, strobe and horn/strobe models
- SSM24 and SSV120 series alarm bells

Refer to specific model installation instructions for weatherproof rating, temperature operating range, indoor and outdoor application information.

Mounting Instructions

Figure 1: SpectrAlert horn, strobe, and horn/strobe ('K' suffix models) mounting with universal plate



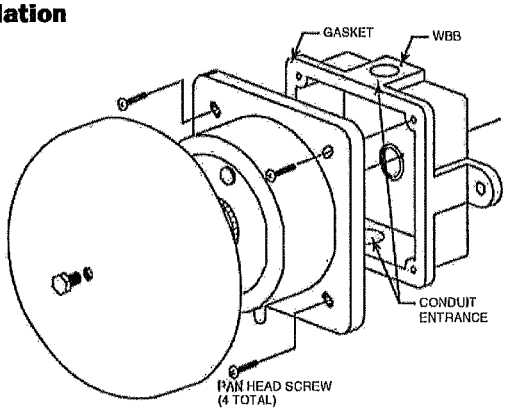
A0135-01

1. Mount back box in desired location (See Figure 1).
2. Install ½″ NPT plug into unused conduit opening.
3 For SpectrAlert models, mount plate to back box using 4 #8-32 x ½″ screws (Figure 1)supplied with product.
4 Complete field wiring
5 Remove paper liner on plate gasket – **NOTE: Perform electrical tests first, then remove liner. Paper liner must be removed from gasket before final installation.**
6 Insert locking rib into slot on plate
7 Press into plate; the SpectrAlert model will make a "click" when it has locked into place.

NOTE: The weatherproof or outdoor notification appliance must be used with the System Sensor WBB back box when installed in applications requiring the appliance to be weatherproof or outdoor-listed. In such applications, using a back box other than the System Sensor WBB will void the UL designation.

NOTE: All System Sensor weatherproof wall-mount horns and horn/strobes can be surface mounted or flush mounted when used with the System Sensor WBB.

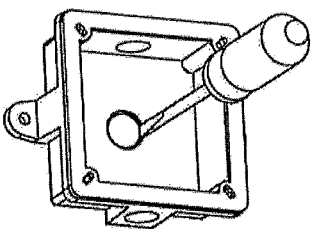
Figure 2: Typical SSM and SSV bell weatherproof installation



W0169-01

1 Mount back box in desired location (See Figure 2).
2. Install ½″ NPT plug into unused conduit opening.
3. For SSM24 and SSV120 alarm bells, remove gong (refer to SSM and SSV bell series installation manual) and complete field wiring.
4. Mount bell to WBB with 4 #8-32 x ¾″ screws (Figure 2) supplied with product.

Figure 3: Knockout plug removal



A0134-00

1 If a rear conduit entry is required, remove the knockout plug using a flat blade screwdriver as shown in Figure 3. Strike sharply with a hammer to pierce the wall of the knockout plug. Move to an adjacent wall section and repeat until the plug falls out Make sure that the back box is supported adequately during this operation to avoid injury
2. To meet weatherproof or outdoor listing, the conduit entrance must be gasketed.
3 Install ½″ NPT plugs (2) into unused conduit openings.

©2004 System Sensor

PowerSure™ FAS-120AC ←

Medium Duty 120 VAC — Single Phase

The PowerSure FAS-120AC surge suppressor is designed to protect AC distribution panel circuits or 120V power supplies feeding sensitive electronic equipment.

Electrically the unit incorporates MOV and thermal fusing technology. This device is designed to be installed in parallel on standard single phase 120 VAC (L, N, G) circuits.

Installation can be close-nipple up to a distribution panel/circuit or hardwired in parallel up to power supply input terminal screws. Be sure to dress leads as short as possible.

Features

- LED Indicator
- Fast response time
- Thermal fuse
- L-G, L-N, & N-G protection
- Compact size
- Liquid tight conduit fitting
- ANSI/UL 1449 Third Edition Type 2
- 5 year warranty

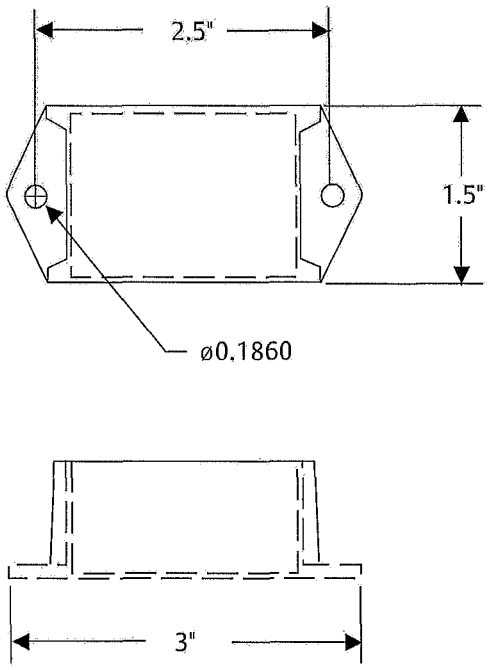
General Technical Specifications

Part Number	PowerSure FAS-120AC
Maximum Operating Voltage	120 VAC
SPD Location Type	Type 2
I Nominal (In)	3 kA
Operating Current	NA
Peak Surge Current	6.5 kA/Mode, 13 kA/Phase, 15 5 kA/Total
Operating Frequency	47–63 Hz
EMI Attenuation	NA
SPD Technology	MOVs
Modes of Protection	L-N, L-G, N-G
Status Indication	Power On & MOVs Functional
Connection Type	Wire Leads
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2 5H x 1.5W x 3 0L
Weight	4 oz
Certification	ANSI/UL 1449 Third Edition, Type 2

Caution:
This product should be installed and serviced by qualified service technicians or personnel only

Remove power before installation or service

Mounting



Edco PC642 Series

Zone/Loop/Data

■ Surge Protection
For *Business-Critical Continuity™*

The Edco PC642 Series surge suppressor is a two-pair (four wire) module implementing three-stage hybrid technology. This module addresses over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak and fault currents are mitigated with resettable fuses (PTCs). The PTCs increase resistance several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Edco PC642 card edge module is gold-plated, double sided and is designed to mate with the the Edco PCB1B-WKEY gold-plated female terminal connector (sold separately). When snapped together, the data circuits "pass thru" the protector in a serial fashion from the four "Field Side" terminals to the four "Electronics Side" terminals. Terminals 1 or 10 of the PCB1B must be attached to Building-Approved Ground.

General Technical Specifications

Maximum Operating Voltage	5-250 VDC
Clamping Voltage	8-300 VDC
Operating Current	0.15 A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/Series PTC
Connection Type	Terminal block w/compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 1W x 2.5L (PC642 + Base)
Weight	1 oz
Certifications	UL 497B

Features

- Three-stage hybrid protection
- Sneak/fault current protection
- Resettable fuses – PTCs
- Low capacitance option
- Plug-in module
- Requires Edco PCB1B-WKEY base
- Fast response time
- UL listed 497B
- 5 year warranty

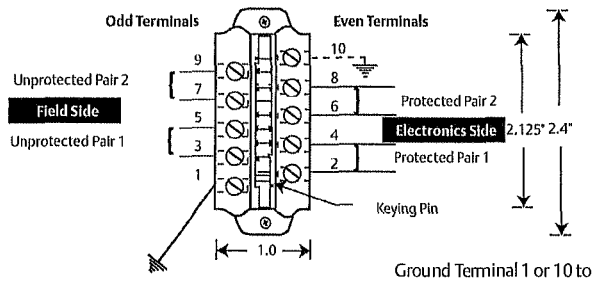
Caution: *The hybrid design of this product includes series resistance. Do not place this product in service on any signal line capable of supplying more than 150 milliamperes continuously.*

EMERSON
Network Power

Installation Instructions

Terminal Assignments

PCB1B:

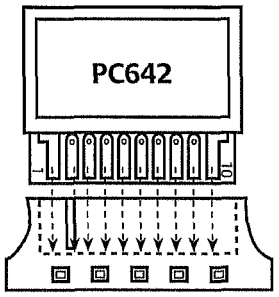


Drawing 1

Ground Terminal 1 or 10 to Building Approved Ground

DO NOT daisy chain grounds. NOT intended for shield termination. Install ground in accordance with all applicable codes.

Drawing 2



PCB1B-WKEY

Read and Understand These Instructions

Caution:

- These protectors are intended for indoor use on communication loop circuits which have been isolated from the Public Switch Telephone Network.
- The communication loop circuits shall not be exposed to accidental contact with the electric light or power conductors.
- The protectors shall be installed per the applicable requirements of the National Electric Code, ANSI/NFPA 70.
- Measure DC operating voltage of system to insure it does not exceed the rating of the selected surge device (5-250 VDC depending on the device).

Installation:

1. Turn off power to circuit to be protected prior to installation.
2. Screw mounting base #PCB1B-WKEY (ordered separately) in desired location preferably as close to protected equipment as possible and in close proximity to a building approved grounding point using (2) #4 screws. PCB1B may also be DIN rail mounted using optional DIN clip assembly #11602KIT-PC (ordered separately).
3. Attach field side pairs (26-10AWG) to positions 3/5 and 7/9, attach electronics side pairs (26-10AWG) to positions 2/4 and 6/8. Attach ground wire (10AWG) to positions 1 or 10 on base. **See Drawing 1**. Torque wires to 44 lbf/in [8kgf/cm].
4. Insert PC642C module into keyed PCB1B-WKEY base. **See Drawing 2.**
5. Apply power to protected circuit.

Ordering Information

APPLICATIONS:

RS485, RS422	PC642C-008LC & PCB1B-WKEY
RS232	PC642C-036LC & PCB1B-WKEY
E-NET, 10 BASE-T	PC642C-036LC & PCB1B-WKEY
4–20ma.	PC642C-036LC & PCB1B-WKEY

OPTION:
DIN Rail Kit Available
Order Part# 11604KIT-PC

How to Specify the Appropriate Model

PC642C- [ ][ ][ ][ ]

Max. Operating Voltage	Clamping Voltage (1000V@1mA)	
5 VDC	8 VDC	008
30 VDC	43 VDC	036
36 VDC	43 VDC	043
43-250 VDC	300 VDC	200

LC	Low Capacitance, Line-to-Line, Line to Ground	008, 036, 043 models only
D	Line-to-Line protection only	008, 036, 043 models only
	Line-to-Ground	200 models only

Emerson Network Power.
The global leader in enabling *Business-Critical Continuity™.*

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Infrastructure Management & Monitoring
- Outside Plant
- Power Switching & Control
- Precision Cooling
- Racks and Integrated Cabinets
- Services
- **Surge Protection**

Emerson Network Power Contact information

www.emersonnetworkpower.com/surge

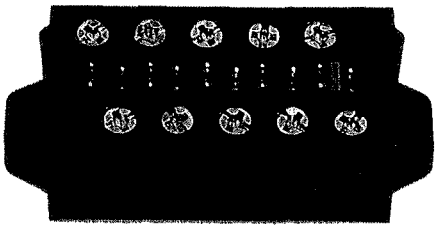
Headquarters
Surge Protection
100 Emerson Parkway
Binghamton, NY 13905
T. (607) 721-8840
T. (800) 288-6169
F (607) 722-8713
E: contactsurge@emerson.com

EMERSON.
Network Power

IO-50105 10/11 Rev. 5 Printed in USA

Business-Critical Continuity, Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2011 Emerson Electric Co.

Card Edge Terminal Connector — PCB1B



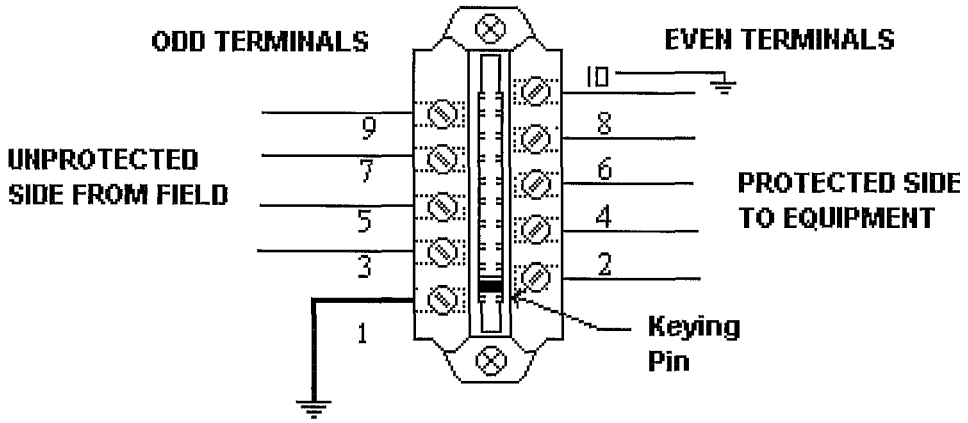
Dimensions: (inches) 0.775H x 1.0W x 2.4L

Accommodates 26 to 10 AWG Wires

EDCO'S PCB1B base was designed to accommodate up to 10 AWG wire. In addition, it offers flat / phillips terminal screws. The PCB1B can be mounted using two #6 size screws.

The PCB1B is the standard socket for all of EDCO's plug-in style surge suppressor modules including the PC642, PHC, SLCP, PC2TEL, 5W8-30 and others.

PCB1B



Ground Terminal 1 OR 10 to Building Approved Ground.
DO NOT daisy chain grounds. NOT intended for shield termination.
Install ground in accordance with all applicable codes. PCB1B base sold separately.

EMERSON™ Network Power

NEED HELP? Call 1-800-648-4076

1805 N E. 19th Avenue • P O Box 1778 • Ocala, Florida 34478

(352) 732-3029 • FAX (352) 867-1237 • Sales 1-800-648-4076

E-mail us at edco@edcosurge.com • Internet. http //www edcosurge com

81138_Rev1

© 2007