 Templeview Apts

3.6.1.1 Current Draw Worksheet for SK SLC Devices

Use Table 3-2 to determine current requirements during alarm/battery standby operation when SK SLC devices are installed. You can install up to 99 SK detectors *and* 99 SK modules. (Copy the page if additional space is required.)

Table 3-2: Current Draw Worksheet for SK Devices

Device	Number of Devices	Current per Device			Standby Current	Alarm Current
For each device use this formula:	This column X	This column =		Current per number of devices.		
Fire Panel (Current draw from battery)	1	Standby:		170 mA	170 mA	
		Alarm:		325 mA		325 mA
Addressable SLC Detectors						
SK-Photo	1 (99 max.)[1]	Standby/Alarm:		0.30 mA	0.3 mA	0.3 mA
SK-Photo-T					mA	mA
IDP-PhotoR						
SK-Ion					mA	mA
SK-Heat					mA	mA
SK-Heat-HT					mA	mA
SK-Beam (without integral test)		SLC	Standby/Alarm:	2 mA		
		Aux. Pwr	Standby:	2 mA	mA	
			Alarm:	8.5 mA		mA
SK-Beam-T (with integral test)[4]		SLC	Standby/Alarm:	2 mA		
		Aux. Pwr	Standby:	2 mA	mA	
			Alarm:	8.5 mA		mA
SK-Duct (includes PhotoR)[5]		SLC	Standby/Alarm:	0.27mA		
SK-Acclimate		Standby/Alarm:		0.3 mA	mA	mA
SK-Heat-ROR					mA	mA

11 00197 & 11 00200
Temple View Apts, 12 &18 Plex
Fire Alarm Plans

JOB SITE COPY

*These plans are to remain on the job and be available upon request during inspections.

Table 3-2: Current Draw Worksheet for SK Devices

Device	Number of Devices	Current per Device			Standby Current	Alarm Current
Addressable SLC Devices						
SK-Monitor	6	Standby/Alarm:		0.375 mA	2.25 mA	2.25 mA
SK-Minimon					4.88 mA	4.88 mA
SK-Pull-SA/SK-Pull-DA	13				mA	mA
SK-Monitor-2		Standby/Alarm:		0.75 mA	mA	mA
SK-Mon-10		Standby/Alarm:		3.5 mA	mA	mA
SK-Relay-6		Standby/Alarm:		1.45 mA	mA	mA
SK-Control	(99 max.)[1]	SLC	Standby:	0.375 mA	mA	
			Alarm:	0.37 5mA		mA
		Aux. Power	Standby:	1.7 mA	mA	
			Alarm:	7 mA		mA
SK-Control-6		SLC	Standby:	2.25 mA	mA	
			Alarm:	2.2 5 mA		mA
		Aux. Pwr	Standby:	8 mA	mA	
			Alarm:	20 mA		mA
SK-Relay		Standby/Alarm:		0.255 mA	mA	mA
SK-Relay-6		Standby/Alarm:		1.45 mA	mA	mA
SK-Zone		Aux Pwr	Standby:	12 mA	mA	
			Alarm:	90 mA		mA
		SLC	Standby/Alarm:	0.27 mA	mA	mA
SK-Zone-6		Aux Pwr	Standby:	50 mA	mA	
			Alarm:	270 mA		mA
		SLC	Standby/Alarm:	2 mA	mA	mA
B200SR Sounder Base	(99 max.)	Aux Pwr	Standby:	1 mA	mA	
			Alarm:	15 mA		mA
		SLC	Alarm:	0.7 mA		mA
B224RB Relay Base		Standby/Alarm:		0.5 mA	mA	mA
RTS151/151 KEY		Alarm:		7.5 mA		mA
RA100Z		Alarm:		10 mA		mA
SK-Iso (Isolator Module)	(100 max.)	Standby/Alarm:		0.45 mA	mA	mA
B224BI Isolator Base		Standby/Alarm:		0.5 mA		
Accessories Modules						
5860 Remote Fire Alarm Annunciator	(8 max)	Standby:		20 mA	mA	
		Alarm:		25 mA		mA
5824 Serial / Parallel Module	(2 max.)	Standby/Alarm:		45 mA	mA	mA
5496 Notification Power Expander	(8 max.)	Standby/Alarm:		10 mA	mA	mA
5895XL Intelligent Power expander		Standby/Alarm:		10 mA	mA	mA
5865-4 LED Annunciator (with reset and silence switches)	(8 max.)	Standby:		35 mA	mA	
		Alarm:		145 mA		mA
5865-3 LED Annunciator		Standby:		35 mA	mA	
		Alarm:		145 mA		mA
5880 LED I/O Module		Standby:		35 mA	mA	
		Alarm:		200 mA		mA

Table 3-2: Current Draw Worksheet for SK Devices

	Device	Number of Devices	Current per Device	Standby Current	Alarm Current
	5883 Relay Interface	(32 max.)	Standby: 0 mA	mA	
			Alarm: 220 mA (22 mA per relay)		mA
A			**Total System Current**	178	333
	Auxiliary Devices[2]	Refer to devices manual for current rating.			
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
B			**Auxiliary Devices Current**	—	—
	Notification Appliance Circuits	Refer to devices manual for current rating.			
	PZRK	24	Alarm: 200 mA		4800 mA
			Alarm: mA		mA
			Alarm: mA		mA
			Alarm: mA		mA
C			**Notification Appliances Current**		4800 mA
D	Total current ratings of all devices in system (line A + line B + C)			178 mA	5133 mA
E	Total current ratings converted to amperes (line D x .001):			0.178 A	5.13 A
F	Number of standby hours (24 or 60 for NFPA 72, chapter 1, 1-5.2.5):			24 H	
G	Multiply lines E and F.		**Total standby AH**	4.27 AH	
H	Alarm sounding period in hours. (For example, 5 minutes = .0833 hours)				0.0833 H
I	Multiply lines E and H.		**Total alarm AH**		0.43 AH
J	Add lines G and I.[3]		**Total ampere hours required**	4.7 AH	

1. Total does not include isolator devices or accessory bases.
2. If using door holders, you do not need to consider door holder current for alarm/battery standby, because power is removed during that time. However, during normal operation, door holders draw current and must be included in the 6.0A total current that can be drawn from the panel.
3. Use next size battery with capacity greater than required.
4. SK-Beam-T draws a maximum of 500mA from Auxiliary power only when the test feature is used. This should be considered when determining auxiliary power capacity but not calculated into current requirements for day to day operation.
5. The SK-Duct housing contains a vacant mount for a SK-Relay (sold separately). Current draw for the SK-Relay is calculated by increasing the SK-Relay row of the calculation sheet by one for each SK-Relay used with a SK-Duct.

SILENT KNIGHT

by Honeywell

IntelliKnight® 5808 Single Loop Addressable Fire Alarm Control System

The convenience of an addressable fire alarm control panel in a cost-effective easy to use package.

IntelliKnight Model 5808 is a 127 point class leading single loop addressable fire alarm control/communicator system. 5808 provides you with the revolutionary value and performance of addressable sensing technology combined with exclusive, built-in digital communication, distributed intelligent power, easy to use interface. Powerful features such as drift compensation and maintenance alert are delivered in this powerful FACP from Silent Knight.

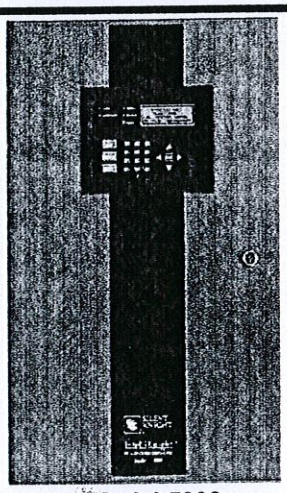
For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-328-0103.

Description

The basic 5808 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. 5808 supports Hochiki or SK protocol devices. 5808 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 99 SK detectors *and* 99 SK modules.
- Built in support for 127 Hochiki SD 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.
- Distributed, intelligent power.
- Drift compensation.
- 13 pre-programmed output cadences, (including ANSI-3.41), and 4 programmable outputs.
- Notification circuits can be configured as 2 Class A (Style Z) or 4 Class B (Style Y), or auxiliary power for resettable, constant, or door holder power.
- Built-in annunciator with 80-character LCD display.
- RS-485 bus provides communication to system accessories.
- Built-in RS-232 and USB interface for programming via a PC.
- Upload or download programming, event history, or detector status via remote or direct connection.
- Improvements in SKSS deliver five times faster upload/downloads.
- Built-in synchronization for appliances from AMSECO, Gentex®, Faraday, System Sensor®, and Wheelock®.
- One Form C trouble relay rated at 2.5A at 27.4 VDC and two Form C programmable relays rated at 2.5A at 27.4 VDC.



Model 5808

- Programmable date setting for Daylight Saving Time
- Plex-2 door option combines a dead front cabinet door with a clear window, limiting access to the panel while providing single button operation of the reset and silence functions.

  Integrated dead front panel protects operator from exposure to electrical components.
- The FACP enclosure features a Plexiglass® viewing window to protect annunciator.
- Acknowledge function allows operator to keep track of event status.

Installation

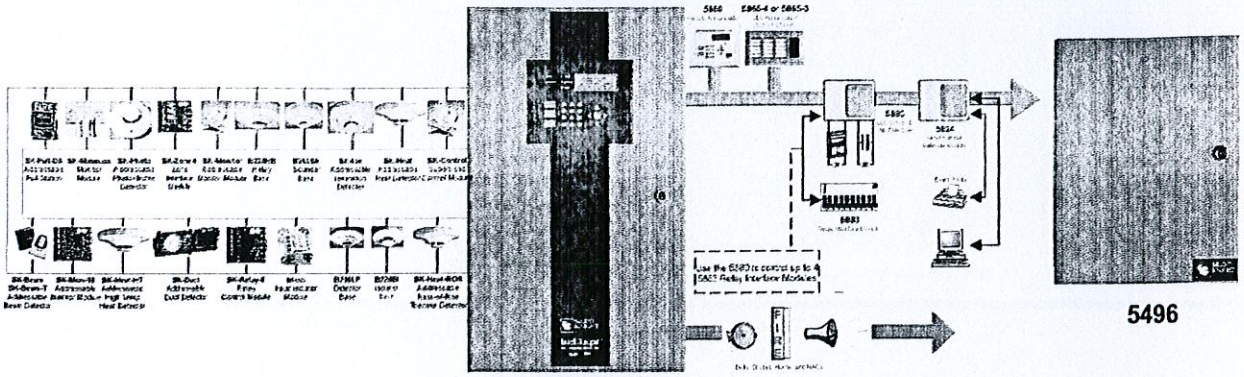
The 5800 can be surface or flush mounted.

Compatibility

The 5808 SLC supports multiple device types of the *same* protocol:

- SK (System Sensor)
- Hochiki SD

You cannot mix SD and SK devices on a FACP.



5808

5496

Specifications

Electrical

Primary AC: 120 VRMS at 50/60 Hz, 2.75A

Total Accessory Load: 6A @ 27.4 VDC

Notification Power: 6A @ 27.4 VDC, power-limited

Standby Current: 170 mA

Alarm Current: 325 mA

Notification & Auxiliary Circuits: 3A @ 27.4 VDC per circuit,power-limited

Battery Charging Capacity: 7.0-35 AH

Battery Size: 18 AH max. allowed in FACP. Larger capacity batteries can be housed in an RBB accessory cabinet

Physical

Flush Mount Dimensions:
14.5" W x 24.75" H x 3.5" D
(36.8 W x 62.9 H x 8.73 D cm)

Overall Dimensions:
16" W x 26.4" H x 4.65" D
(40.6 W x 67 H x 11.8 D cm)

Weight: 28 lbs. (12.8 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.
UL Listed
CSFM 7165-0559:0142;
MEA 429-92-E Vol. XIV

S-BUS Accessories

5860/R Remote Fire Annunciator
Features the same 80 character backlit LCD display keypad and firefighter's key switch as the 5808. 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.

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.

5883 Relay Board
Features 10 general purpose Form C relays. Used with 5880 module.

Miscellaneous Accessories

5660 Silent Knight Software Suite
PC-base software for FACP programming. 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.

Plex-2 Door
Dead front cabinet door with clear window to limit access to the FACP.

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)

Hochiki and SK Devices

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

53624 Hochiki SD Devices data sheet

53623 SK Device Protocol Devices data sheet

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350386 Rev. H

SILENT KNIGHT

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SK-Pull-SA and SK-Pull-DA

Intelligent Pull Stations

The SK-Pull-SA and SK-Pull-DA are a single action or dual action addressable fire alarm pull station for use with Silent Knight's IntelliKnight fire control panel. Extremely easy to operate, the SK-Pull-DA and SK-Pull-SA provide a fast and practical means of manually initiating a fire alarm signal. The IntelliKnight panel recognizes each manual pull station by its specific address saving precious seconds in determining the location of an alarm.

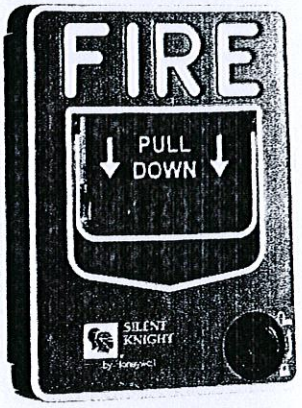
For more information about the IntelliKnight system, or to locate you nearest source, please call 1-800-328-0103.

Description

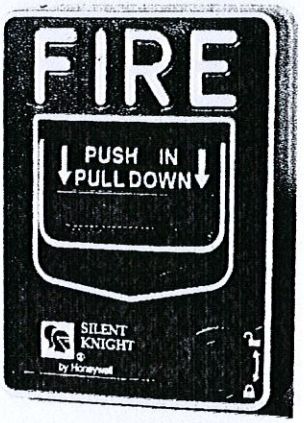
The SK-Pull-SA is a single action pull station requiring only one motion to activate the station. The SK-Pull-DA is a dual action pull station requiring two motions to active the station. Both pull stations are designed to work with Silent Knight Intelliknight series fire alarm control panels (FACPs).

Features

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



SK-Pull-SA



SK-Pull-DA

Compatibility

The SK-Pull-SA and SK-Pull-DA are compatible with the following IntelliKnight FACP's:

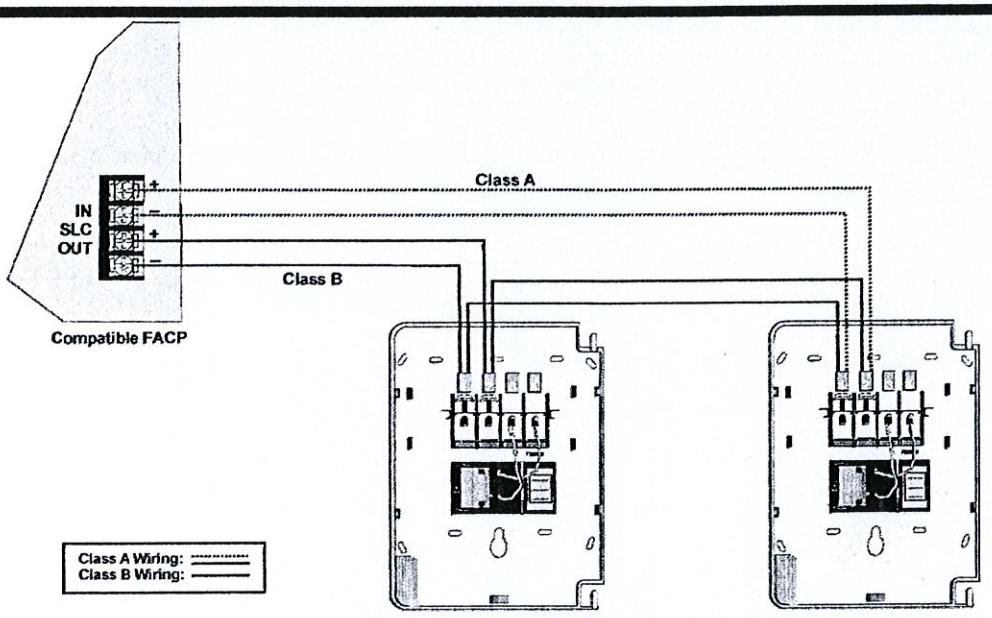
5600
5700
5808
5820XL

Model SK-Pull-DA and SK-Pull-SA

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Addressable Pull Stations, Silent Knight model SK-Pull-SA single action pull station or SK-Pull-DA, dual action pull station.

SK-Pull-DA or SK-Pull-SA meet the ADAAG controls and operating mechanisms guidelines, and the ADA requirements for a 5 lb. maximum pull force to activate the pull station.



Wiring SK-Pull-SA & SK-Pull-DA Pull Stations

Specifications

Physical

Height: 5.5" (14 cm)

Width: 4" (10.2 cm)

Depth: 5.4 oz. (3.7 cm)

Housing Material: LEXAN polycarbonate resin

Bi-Colored LED:
Blinking Green: Normal

Steady Red: Alarm

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

Electrical

Operating Voltage: 15–32 VDC

Average Operating Current (LED flashing): 300 µA

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

Environmental

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

Humidity: 10% – 93% non-condensing

Accessories

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

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MADE IN AMERICA

FORM# 350135 Rev A

SILENT KNIGHT

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SK-Monitor

Intelligent Monitor Module

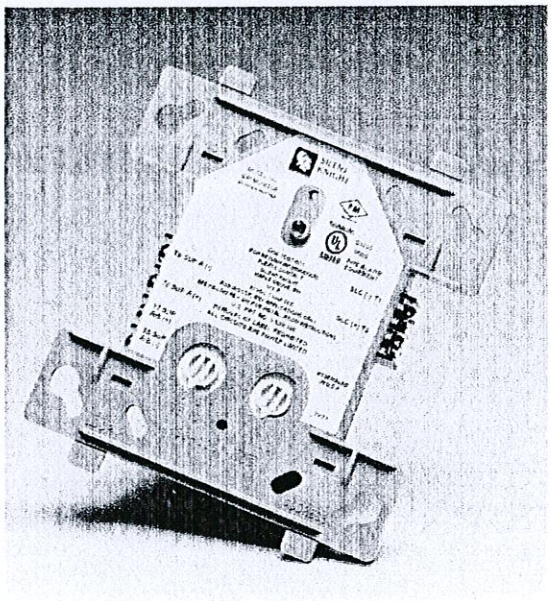
The SK-Monitor module provides an interface to contact devices, such as security contacts, waterflow switches, or pull stations.

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.



SK-Monitor

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

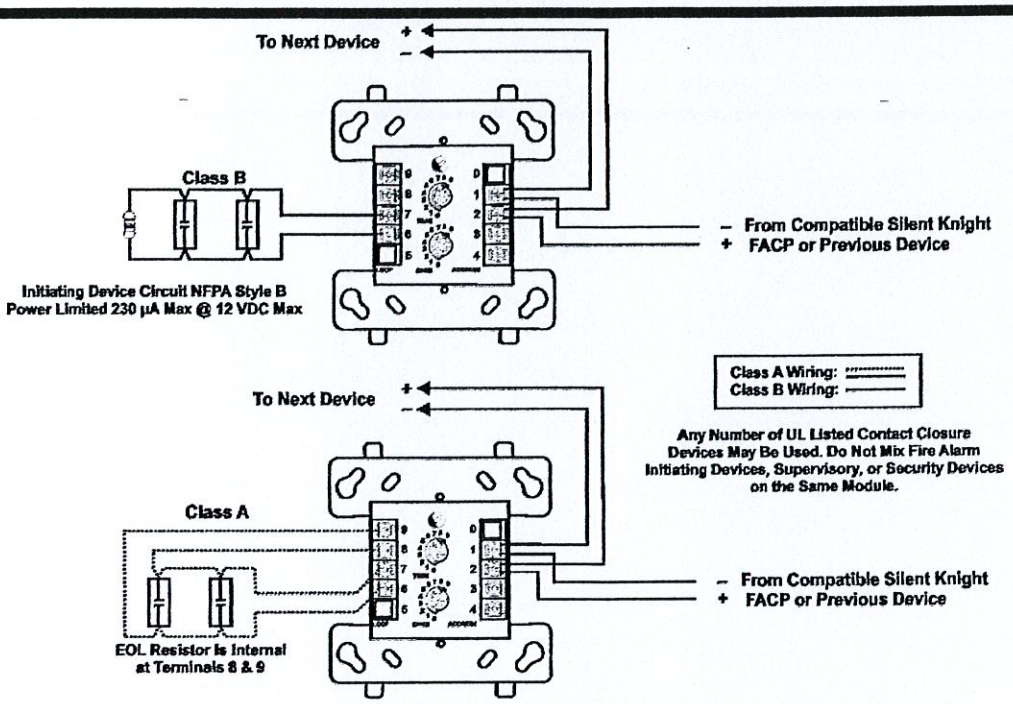
The SK-Monitor mounts directly into a 4" square electrical box. The box must have a minimum depth of 2-1/8". A surface mount electrical box (System Sensor® PN SMB500) is available from Silent Knight.

Compatibility

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

5700
5808
5820XL

Model SK-Monitor
Intelligent Monitor Module



Wiring SK-Monitor Modules

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

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

MADE IN AMERICA

FORM# 350131 Rev B2

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)

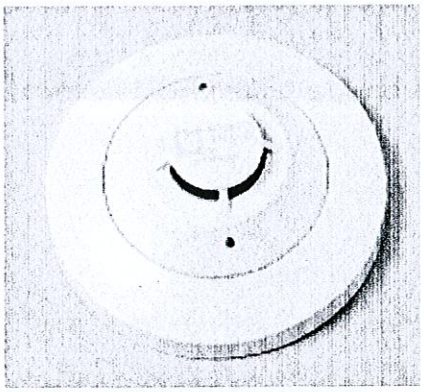
Humidity: 10% – 93% non-condensing

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

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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.

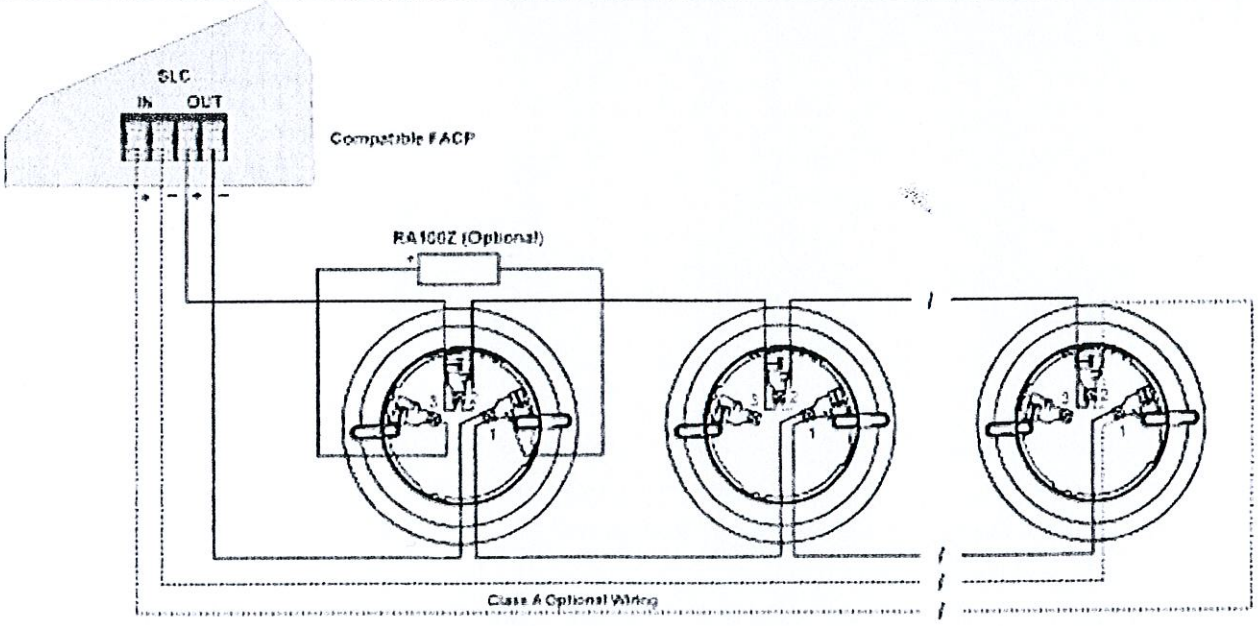
The base shall permit direct interchange with SK-Photo or SK-Photo-T. Base shall be the appropriate twist-lock base part number B210LP (included).

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

MADE IN AMERICA

FORM# 350118 Rev A,

B501 and B210LP

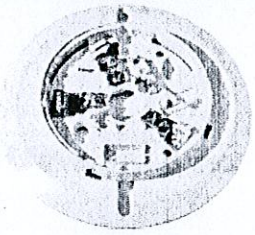
Intelligent Detector Bases

B501 and B210LP plug in detector mounting bases, are just two of the variety of ways to intall detectors in any application.

For more information about the IntelliKnight system, or to locate you nearest source, please call 1-800-328-0103 or in Connecticut, call (203) 484-7161.

Description

The B210LP 6" Mounting Base and the B501 4" Mounting Base are plug in detector bases for SK style detectors intended for use with Silent Knight IntelliKnight series fire alarm control panels (FACPs). The B210LP and B501 have screw terminals for power (+) and (-) and remote annunciator connections. Communication takes place over the power (+) and (-) lines.



B210LP Base

B501 Base

Features

- Plug-in mounting provides ease of installation
- Tamper-proof feature prevents removal of the detector without the use of a tool
- Range of mounting options to meet any application
- B501 allows for aesthetically pleasing installation with Recessed Mounting Kit (PN RMK400)
- Rotary address switches for fast installation
- Optional remote LED annunciator (PN RA100Z)
- SEMS screws, 12–22 AWG
- UL Listed

Installation

The B210LP and B501 can be mounted on a variety of junction boxes as shown in the tables below.

U.S. Junction box Selection Guide*

Model	Single Gang	3.5" Oct	4" Oct	4" Sq
B210LP	Yes	Yes	Yes	Yes
B501	No	Yes	No	No

Metric Junction box Selection Guide*

Model	50 mm	60 mm	70 mm	75 mm
B210LP	No	No	No	No
B501	Yes	Yes	Yes	No

Compatibility

The B210LP and B501 are compatible with the following SK-series detectors:

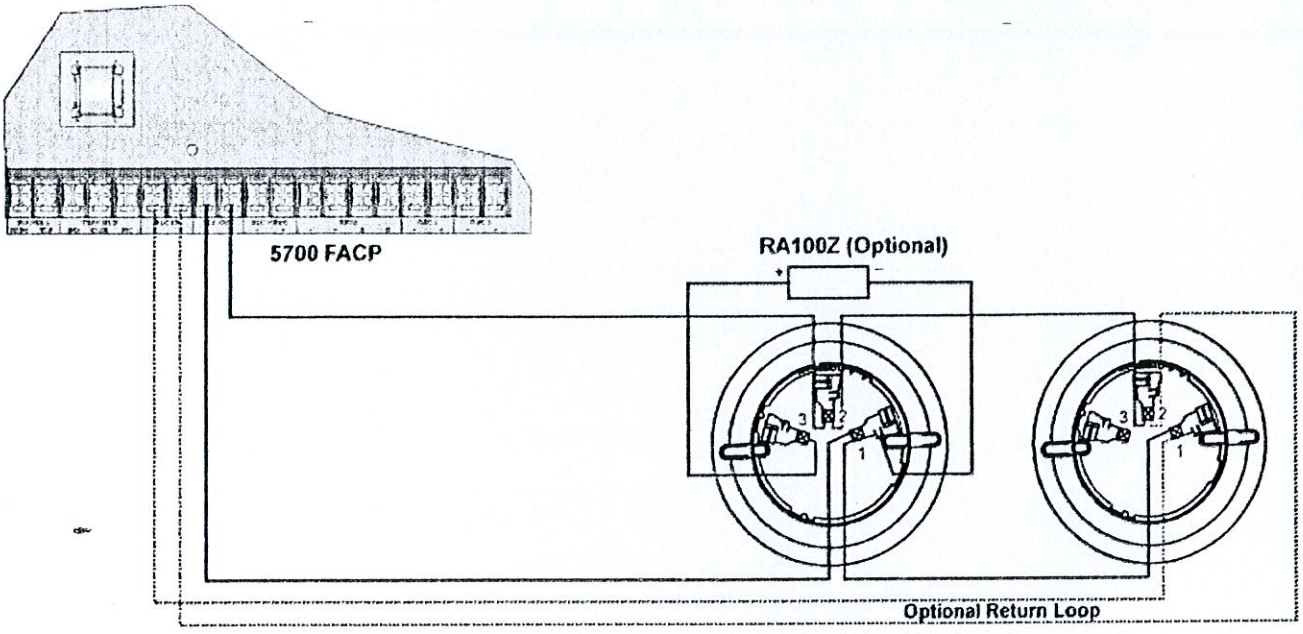
- SK-Photo Photoelectric Smoke Detector and SK--Photo-T Photoelectric Smoke Detector with Thermal
- SK-Acclimate Multicriteria Photoelectric Smoke Detector
- SK-Ion Ionization Smoke Detector
- SK-Heat Fixed Temperature Thermal Detector, SK -Heat-ROR Rate-of-Rise Detector with Thermal, and SK-Heat-HT Fixed High Temperature Thermal Detector

The B210LP and B501 are compatible with the following IntelliKnight FACP's:

5700
5808
5820XL

SILENT KNIGHT
by Honeywell

Model B501 and B210LP



B501 and B210LP Mounting Bases

Specifications

Physical

B210LP Diameter: 6.1" (155 mm)

B501 Diameter: 4.1" (104 mm)

Electrical

Wire Gauge: 18–12

Terminals:
- Terminal 1: Power (–) and Optional RA100Z
- Terminal 2: Power (+)
- Terminal 3: Optional RA100Z Remote Annunciator

Environmental

Operating Temperature: 32°F – 150°F (0°C – 66°C)

Humidity: 10% – 93% non-condensing

Ordering Information

B210LP	6" Mounting Base
B501	4" Mounting Base

Accessories

RA100Z	Remote LED Annunciator.
RMK400	Recessed Mounting Kit. Provides low profile for use with B501.
XR2B	Detector Removal Tool. A removal and replacement tool for SK plug-in detectors. Includes the T55-127-000.
M02-04-01	Detector Test Magnet.
M02-09-00	Test Magnet with Telescoping Handle.
XP-4	Extension Pole for XR2B. Extends from 5 – 15 ft.
T55-127-000	Detector Removal Head.
BCK-200B	Black Detector Kit. For SK series detectors.

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# 350995 Rev A
ECN 09-520

SYSTEM SENSOR

Selectable-Output Horns, Strobes, and Horn Strobes

SPECTRAlert ADVANCE
from System Sensor

SpectrAlert® Advance selectable-output horns, strobes, and horn strobes are rich with features guaranteed to cut installation times and maximize profits.

Features

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

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

Like the entire SpectrAlert Advance product line, horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, which make installations fast and foolproof while virtually eliminating costly and time-consuming ground faults. Furthermore, a universal mounting plate with an onboard shorting spring tests wiring continuity before the device is installed, protecting devices from damage.

In addition, field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with three volume selections enables installers to easily adapt devices to suit a wide range of application requirements.

Agency Listings

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

FM APPROVED
3023572

MEA approved
MEA452-05-E

7125-1653 186 (indoor strobes)
7125-1653 188 (horn strobes, chime strobes)
7135-1653 189 (horns, chimes)

SpectrAlert Advance Specifications

Mounting Requirements for Fire Alarm

General

SpectrAlert Advance horns, strobes, and horn strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 1⅞-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 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 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and shall be approved for fire protective service. The strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system.

Horn Strobe Combination

The horn strobe shall be a System Sensor SpectrAlert Advance Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The horn strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a temporal three-pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn strobe models shall operate on a coded or non-coded power supply.

Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4 11/16 × 4 11/16 × 2⅛-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications	
Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR[1]
Operating Voltage Range[2]	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Ceiling-Mount Dimensions (including lens)	6.8˝ diameter × 2.5˝ high (173 mm diameter × 64 mm high)
Wall-Mount Dimensions (including lens)	5.6˝ L × 4.7˝ W × 2.5˝ D (142 mm L × 119 mm W × 64 mm D)
Horn Dimensions	5.6˝ L × 4.7˝ W × 1.3˝ D (142 mm L × 119 mm W × 33 mm D)
Wall-Mount Back Box Skirt Dimensions (BBS-2, BBSW-2)	5.9˝ L × 5.0˝ W × 2.2˝ D (151 mm L × 128 mm W × 56 mm D)
Ceiling-Mount Back Box Skirt Dimensions (BBSC-2, BBSCW-2)	7.1˝ diameter × 2.2˝ high (180 mm diameter × 57 mm high)
Wall-Mount Trim Ring Dimensions (sold as a 5 pack) (TR-HS, TRW-HS)	5.7˝ L × 4.8˝ W × 0.35˝ D (145 mm L × 122 mm W × 9 mm D)
Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)	6.9˝ diameter × 0.35˝ high (175 mm diameter × 9 mm high)

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.

UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
	Candela	DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
	115	NA	NA	210	205
High Candela Range	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

UL MPS Temporal Current Draw (mA RMS)

		8–17.5 Volts		16–33 Volts	
Sound Pattern	dB	DC	FWR	DC	FWR
Temporal	High	57	55	69	75
Temporal	Medium	44	49	58	69
Temporal	Low	38	44	44	48
Non-temporal	High	57	56	69	75
Non-temporal	Medium	42	50	60	69
Non-temporal	Low	41	44	50	50
Coded	High	57	55	69	75
Coded	Medium	44	51	56	69
Coded	Low	40	46	52	50

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15–115 cd)

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

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135–185 cd)

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

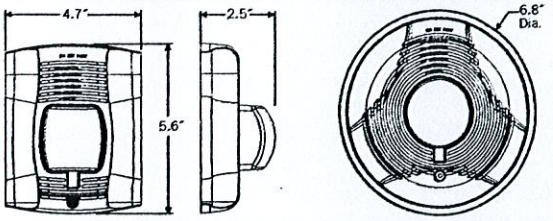
Horn Tones and Sound Output Data

Horn and Horn Strobe Output (dBA)

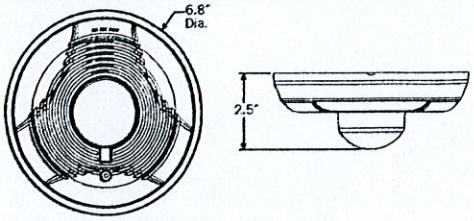
			8–17.5 Volts		16–33 Volts		24-Volt Nominal			
							Reverberant		Anechoic	
Switch Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-Temporal	High	82	82	88	88	93	92	100	100
5	Non-Temporal	Medium	78	78	85	85	90	90	98	98
6	Non-Temporal	Low	75	75	81	81	88	84	96	92
7†	Coded	High	82	82	88	88	93	92	101	101
8†	Coded	Medium	78	78	85	85	90	90	97	98
9†	Coded	Low	75	75	81	81	88	85	96	92

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

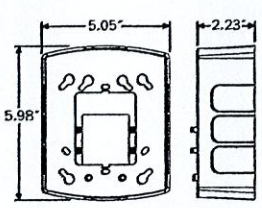
SpectrAlert Advance Dimensions



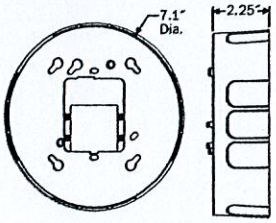
Wall-mount horn strobes



Ceiling-mount horn strobes



Wall back box skirt



Ceiling back box skirt

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn Strobes	
P2R*†	2-Wire Horn Strobe, Standard cd‡, Red
P2RH*	2-Wire Horn Strobe, High cd, Red
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
P4W	4-Wire Horn Strobe, Standard cd, White
Wall Strobes	
SR*†	Strobe, Standard cd, Red
SRH*†	Strobe, High cd, Red
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
PC4R	4-Wire Horn Strobe, Standard cd, Red
PC4RH	4-Wire Horn Strobe, High cd, Red
PC4W	4-Wire Horn Strobe, Standard cd, White

Model	Description
Ceiling Strobes	
SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCW*	Strobe, Standard cd, White
SCWH	Strobe, High cd, White
Horns	
HR	Horn, Red
HW	Horn, White
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
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

Notes:
* Add "-P" to model number for plain housing (no "FIRE" marking on cover), e.g., P2R-P.
† Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP.
‡ "Standard cd" refers to strobes that include 15, 15/75, 30, 75, 95, 110, and 115 candela settings. "High cd" refers to strobes that include 135, 150, 177, and 185 candela settings.

SYSTEM SENSOR

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A05-0395-007 • 4/09 • #2132