Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

Please Read Application And Notes. If Any, Attached

BUILDING INSPECTION

PERMIT

Permit Number: 100112

This is to certify that E L C INC /Protection (One/Kevin Bridgham	
has permission toInstall Fire Alarm		
AT _30 MARKET ST	CBL 032	F003001
provided that the person or perso		
of the provisions of the Statutes		
the construction, maintenance an	d use of buildings and structures,	and of the application on file ir
this department.		
Apply to Public Works of sire time E and grade if nature of work requires such information. FEB 2 2 2010	Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOUR NOTICE IS REQUIRED.	A certificate of occupancy must be procured by owner before this building or part thereof is occupied.
OTHER REQUIRED APPROVALS Fire Dept		
Appeal Board		Variant E Saladia
Other		Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine	- Building or Use	Permit Application	on Per	rmit No:	Issue Date:		CBL:		
389 Congress Street, 04101	Tel: (207) 874-8703	8, Fax: (207) 874-87	16	10-0112			032 F	003001	
Location of Construction:	Owner Name:		Owne	r Address:	<u> </u>		Phone:		
30 MARKET ST	E L C INC		42 M	IARKET ST					
Business Name:	Contractor Name	::	Contr	actor Address:		·	Phone		
	Protection On	e/Kevin Bridgham	10 M	10 Manuel Drive Portland				309	
Lessee/Buyer's Name	Phone:		Permi	t Type:			•	Zone:	
			Fire	Alarm Syster	m			B-3	
Past Use:	Proposed Use:		Perm	it Fee:	Cost of Work	: CE	O District:		
Commercial - "Pat's Pizza"	Commercial -	Commercial - "Pat's Pizza" - Install			\$6,500	0.00	1		
connected w/ permit# 100102	Fire Alarm			DEPT:	Approved	INSPECTI	ON:	00	
			1J/W	inditions	Denied	Use Group:	A.2	Type BB Fre Alan	
			2/16/	110		tra.	-20n3	21	
Proposed Project Description:			┤ ′	5	α	DUC	200)	01 1.	
Install Fire Alarm			Signat	ture. Bland	egy	Signature	MB	2/22/10	
			PEDE	STRIAN ACTI	VITIES DISTI	RICT (P.A.			
			Action	n: Approv	ed 🗌 Appr	oved w/Con	ditions	Denied	
			Signa	ture.		Da	te		
Permit Taken By:	Date Applied For:			Zoning	Approval				
ldobson	02/08/2010								
1. This permit application d		Special Zone or Rev	riews	Zonin	g Appeal		Historic Pre		
Applicant(s) from meetin Federal Rules.	Applicant(s) from meeting applicable State and Federal Rules.		Shoreland		:		Not in District or Land		
 Building permits do not is septic or electrical work. 	nclude plumbing,	Wetland		Miscellaneous			Does Not Require Review		
3. Building permits are void within six (6) months of t		Flood Zone Conditional Use				Requires Review			
False information may in permit and stop all work.	validate a building	Subdivision		Interpretation			Approved		
	7/10 may-1/	Site Plan		Approve	d		Approved w	v/Conditions	
PERMIT IS	SSUED	Maj Minor M	М	☐ Denicd			Denied	7	
		Or wil conditions	25.4				Any like	entr world	
FEB 2 2	2010	Date 2 8 10	W.	Date:		Date:	ryving A	Sycota	
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City of Po	ortland						, Hoby	- II con strice	
.707.									
	4 59	CERTIFICAT		0 00 0s		. u	_		
I hereby certify that I am the o I have been authorized by the									
jurisdiction. In addition, if a p									
shall have the authority to ente such permit.	r all areas covered by si	uch permit at any reas	onable h	nour to enforc	e the provis	ion of the	code(s) a	pplicable to	
SIGNATURE OF APPLICANT		ADDRE	ESS		DATE		PH	ONE	

Ci	ty of Portland, Maine - Buil	ding or Use Permi	Permit No:	Date Applied For:	CBL:			
389	Congress Street, 04101 Tel: (207) 874-8703, Fax: ((207) 874	-8716	10-0112	02/08/2010	032 F003001	
Loc	ation of Construction:	Owner Name:		()wner Address:	Phone:		
30	MARKET ST	ELCINC 42			42 MARKET ST			
Bus	iness Name:	Contractor Name:		(Contractor Address:		Phone	
		Protection One/Kevin	Bridgham		10 Manuel Drive P	ortland	(207) 347-5309	
Less	.essee/Buyer's Name Phone: Permit Type:							
					Fire Alarm System	l		
Pro	posed Use:		P	roposco	Project Description:			
Co	mmercial - "Pat's Pizza" - Install F	ire Alarm		Install	Fire Alarm			
N	ept: Zoning Status: A ote: Tenant fit up for restaurant us ANY exterior work requires a sep District.				Ann Machado	Approval D	Ok to Issue: 🗹	
2)	This permit is being approved on work.	the basis of plans submi	itted. Any	deviat	ions shall require a	separate approval b	efore starting that	
	ept: Building Status: A	pproved with Condition	ns Re vi	iewer:	Jeanine Bourke	Approval D	ate: 02/22/2010 Ok to Issue: ✓	
l)	Fire Alarm systems shall be instal	led per Sec. 907 of the I	BC 2003					
2)	Separate permits are required for need to be submitted for approval			, fire a	larm or HVAC or e	xhaust systems. Sep	arate plans may	
	ept: Fire Status: A	pproved with Condition	ns Revi	iewer:	Ben Wallace Jr.	Approval D	ate: 02/16/2010 Ok to Issue: ✓	
1)	All fire alarm records required by RECORDS". Records cabinate, F						"FIRE ALARM	
2)	Central Station monitoring for add	dressable fire alarm syst	ems shall t	be by p	oint.			
3)	The fire alarm system shall compl Property. All fire alarm installation							
4)	Installation of a Fire Alarm system	n requires a Knox Box t	o be instal	led per	city crdinance			
5)	As-built fire alarm documents sha	ll be submitted in pdf to	the Buildi	ing Ins	pections Office upo	on eompletion of job).	
6)	System acceptance and commission	•		_		-		

PERMIT ISSUED

Department. Call 874-8703 to schedule.

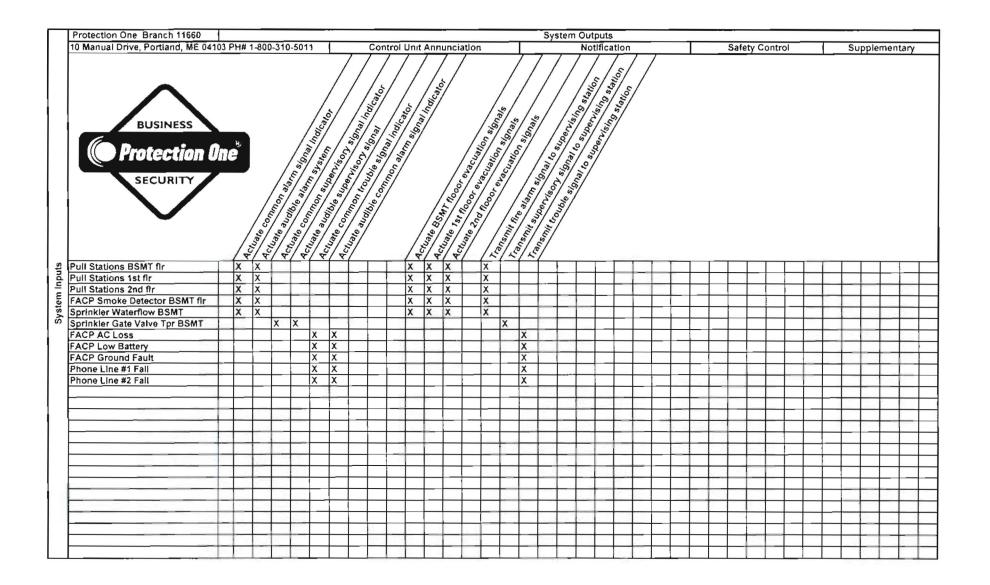
FEB 2 2 7010

URG TAN

Fire Alarm Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 30 Market St.	CBL: 32-F-3
Installation address: 30 Market St. Exact location: (within structure) basement, first and second	floors
Type of occupancy(s) (NFPA & ICC): Mercantile	
Building owner: E.L.C. 42 Market St., Portland, Me Must he Kevin Inman	
Must he System Designer (point of contact): Kevin Inman	
Designer phone: 207-347-5318	E-mail: kevininman@protectionone.cog
Installing contractor: Protection One	Certificate of Fitness No: 1003
Contractor phone: 207-347-5316	E-mail: johnkempton@protectionone.co
This is a new application: YES NO)
This is an amendment to an existing permit: YES NO	Permit no:
The following documents shall be provided with this application:	
Floor plans	COST OF WORK: \$6500
Wiring diagram	PERMIT FEE: \$65 90
Annunciator details	(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)
Equipment data sheets	RECEIVED
Battery & voltage drop calculations	FEB - 8 2010
Input/ Output Matrix	n to at Building Inspections
✓ Designer qualifications	Dept. of Building Inspections City of Portland Maine
Electrical Permit Pulled (check alarm/com)	
The $\underline{designer}$ shall be the responsible party for this application. Ω	Download a new copy of this application at
www.portlandmaine.gov/fire for every submittal. Submit all plans in e	lectronic PDF in <u>addition</u> to full sized plans to the
Building Inspections Department, 389 Congress Street, Room 315	, Portland, Maine 04101.
Prior to acceptance of any fire alarm system, a complete commissioni	ng and acceptance test must be coordinated with all
fire system contractors and the Fire Department, and proper documen	tation of such test(s) provided.
All installation(s) must comply with the City of Portland Technical St	tandard for Signaling Systems for the Protection of
Life and Property, available at www.portlandmaine.gov/fire.	
Applicant signature:	Date: 2-5-10





IntelliKnight® Model 5700 Single Loop Addressable Fire Alarm Control System



The affordable addressable fire alarm control panel solution.

IntelliKnight Model 5700 is a 50 point 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 800-328-0103 or in Connecticut, call 203-484-7161.

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 Hochiki devices or 50 SK detectors and 50 SK modules.
- · 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 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)
- 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
- Two built-in Form C programmable relays rated at 2.5A at 27.4 VDC
- · Programmable date setting for Daylight Saving Time



Model 5700

Installation

The 5700 is a surface mount FACP.

Compatibility

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

- Hochiki
- · SK

You cannot mix Hochiki and SK devices on a FACP. However, any combination of addressable devices of the same protocol can be used on the 5700.



Model 5700 Fire Alarm Control Panel





5496 5700

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-

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 Sllent 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

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MADE IN AMERICA

P/N 350392 Rev. F

D 2009 Honeywell International Inc.

ECN 09-520 09/09

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 1-800-446-6444, or in Minnesota, call 763-493-6435.

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)



5860



Color 5860R: Red 5860: Gray

Environmental

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

Humidity: 10% - 93% non-

condensing

Approvals

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



5860 Remote Annunciator



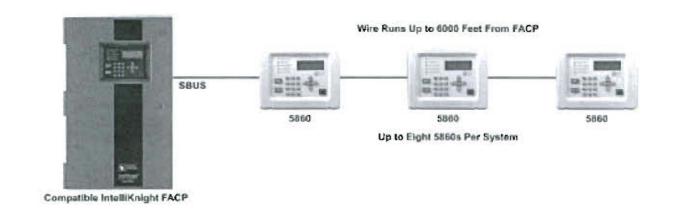
Engineering Specifications

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.



Compatibility IntelliKnight 5820XL FACP IntelliKnight 5808 FACP IntelliKnight 5700 FACP Ordering Information
5680R Remote Annunciator
Four line LCD annunciator with 20 characters per line. Red.

5680 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



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MADE IN AMERICA

FORM# 350224 Rev C, 05/06 © 2007 Honeywell International Inc.



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/SA provides 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 or in Connecticut, call (203) 484-7161.

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-Beam and SK-Beam-T are compatible with the following IntelliKnight FACP's:

5700 5808 5820XL



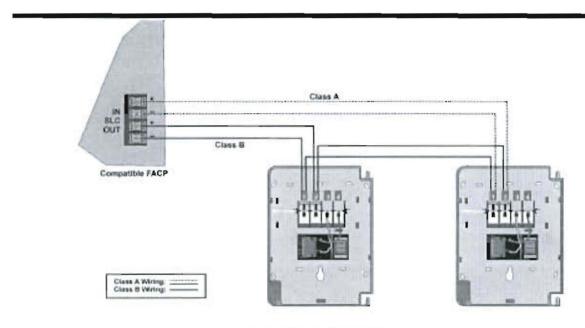
Model SK-Pull-Da and SK-Pull-SA



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.



Wising SK-Pull-SA & SK-Pull-OA 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 mm²)

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 © 2009 Honeywell International Inc.



Selectable Output Horns, Strobes, and Horn/Strobes

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











Features

- · Electrically compatible with existing SpectrAlert products:
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- · Plug-in design
- Field selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185
- · Same mounting plate for wall- and ceiling-mount units
- Shorting spring on mounting plate for continuity check before installation
- · Tamper resistant construction
- Outdoor wall and ceiling products rated from -40°F to 151°F
- · Design allows minimal intrusion into the back box
- · Horn rated at 88+ dbA at 16 volts
- · Rotary switch for horn tone and three volume selections
- Outdoor products UL listed to UL 1638 (strobe) and UL 464 (horn) outdoor requirements
- · Outdoor products NEMA 4X rated
- · Compatible with MDL sync module

The SpectrAlert Advance series of notification appliances is designed to simplify installations, with features such as plug in designs, instant feedback messages to ensure correct installation of individual devices, and 11 field-selectable candela settings for wall and ceiling strobes and horn/strobes.

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.

Next, 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.

The SpectrAlert Advance series includes outdoor notification appliances. Outdoor strobes and horn/strobes (two wire and four wire) are available for wall or ceiling. Outdoor horns are available for wall only. All System Sensor outdoor products are rated between minus 40 degrees Fahrenheit and 151 degrees Fahrenheit in wet or dry applications.

Agency Listings









SpectrAlert Advance Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance horrs, strobes and horr/strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagori back box or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 1½-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 12 and 120 degrees fahrenheit from a regulated DC, or full-wave rectified, unfiltered power supply. Strobes and horr/strobes shall have field-selectable candela settings including 19, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

Strobe

The strobe shall be a System Sensor SpectrAlert Advance Model _______ Insted to UI. 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 THZ 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 _________listerCto LR. 1971 and LR. 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 1Hz over the strobe's entire operating voltage range. The strobe light shall consist of a zerion 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.

Outdoor Products

SpectrAlert Advance outdoor horns, strobes and horn/strobes shall be listed for outdoor use by UL and shall operate between minus 40 degrees and 151 degrees Fahrenheit. The products shall be listed for use with a System Sensor outdoor/weatherproof back box with half inch and three-fourths inch conduit entries.

Synchronization Module

The module shall be a System Sensor Sync-Circuit model MOL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize. SpectrAlert strobes at 1Hz 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 45% × 2%-inch back box. The module shall also control two Style Y (class 8) circuits of one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy channing 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" to 120" (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 12DC/EWR or regulated 24DC/EWR ¹
Operating Voltage Range ²	8 to 17.5 V (12V nominal) or 16 to 33 V (24 nominal)
Input terminal wire gauge	12 to 18 AWG
Ceiling mount dimensions (including lens)	68' diameter x 25' high (173 mm diameter x 64 mm high)
Wall mount dimensions (including lens)	561.×4/W×2512(142 mm L x 119 mm W × 64 mm (2)
Horn dimensions	561.×4.7W×1.3TD (142 mm L×119 mm W×33 mm D)
Wall-mount back box skirt dimensions (BBS-2, BBSW-2)	5 91 × 50 W × 22 D (151 mm L × 128 mm W × 56 mm D)
Ceiling-mount back box skirt dimensions (BBSC-2, BBSCW-2)	7.1" diameter × 2.25" high (180 mm diameter × 57 mm high)
Wall-mount weatherproof back box dimensions (SA-WBB)	5.71 × 5.1 W × 2.0 D (145 mm.L × 130 mm.W × 51 mm.D)
Ceiling-mount weatherproof back box dimensions (SA-WBBC)	7.1" diameter × 2.0" high (180 mm diameter × 51 mm high).
Wall-mount trim ring dimensions (TR-HS, TRW-HS)	571 × 4.812 W × 0.35 TO (146 mm L × 122 W mm × 9 D mm)
Ceiling-mount trim ring dimensions (TRC-HS, TRCW-HS)	6.9" diameter x 0.35 high (176 mm diameter x 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 Dra	w (mA RI	NS)	N. Sant	1543 h	UL Max. Horn Cu	rrent Draw
**		8-17.5	Volts	16-33	Volts		
	Candela	DC	FWR	DC	FWR	Sound Pattern	dB
Standard	15.	123	128	56	71	Temporal	High
Candela Range	15/75*	142	148	77	81	Temporal	Medium
	30*	NA	NA	94	96	Temporal	LOW
	75*	NA	NA	158	151	Non-temporal	High
	95*	NA	NA	187	176	Non-temporal	Medium
	110	NA	NA	202	195	Non-temporal	Low
	115	NA	NA	210	205	Coded	High
High	135	NA	NA	228	207	Coded	Medium
Candela Range	150	NA	NA	246	220	Coded	Low
	177	NA	NA	281	-251		
	185	NA	NA	286	258	-	

		8-17.5	Volts	16-33 Volts		
Sound Pattern	dB	DC	FWR	DC	FWR	
Temporal	High	57	35	69	75	
Temporal	Medium	44	49	58	69	
Temporal	LOW	38	41	41	48	
Non-temporal	High	57	56	-69	25	
Non-temporal	Medium	42	50	60	69	
Non-temporal	Low	41	44	50	50	
Coded	High	97	44	69	25	
Coded	Medium	44	51	56	69	
Coded	Low	40	46	5.2	50 .	

	8-17.5 V	olts .	16-33 V	olts					
DC Input	15	15/75	15	15/75	30	75	95	110	115
Temporal High	137	147	19	90	107	1./6	194	212	218
Temporal Medium	132	144	59	80	97	157	182	201	210
TemporalLow	132	143	66	11	93	154	179	198	207
Non-temporal High	141	152	91	100	116	176	2D1	221	229
Non-temporal Medium	133	145	75	R5	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
lemporal Medium	129	152	78	BB	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

	16-33 V	/olts	N			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	765	
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	.258	
Temporal Low	232	251	282	292	Temporal Low	207	221	248	756	
Non-temporal High	255	270	303	309	Non-temporal High	233	248	275	281	
Non-temporal Medium	242	259	293	299	Non-temporal Medium	219	232	262	267	
Non-temporal Low	238	254	291	295	Non-temporal Low	214	229	256	262	

Candela Derating

For X series products used at low temperatures, listed candela ratings must be reduced in accordance with this table.

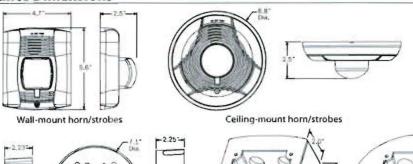
Listed Candela	Candela rating at -40°F
15	
15/75	Do not use below 32°F.
30	
75	44
95	79
110	110
115	115
135	135
150	150
177	177
185	185

Horn Tones and Sound Output Data

			8-17	7.5	16-33		24 Volt Nominal			
Switch			Volts		Volts		Reverberant		Anechoic	
Position	Sound Pattern	dB	DC	FWR	DC	FWR	DC	FWR	DC	FWR
1	Temporal	High	78	78	B4	84	88	88	99	98
ž –	Temporal	.Medium	7/4	74	80	80	86	86	96	96.
3	Temporal	Low	7.1	/3	76	76	83	80	94	89
4	Non-temporal	High -	87	B2	88	RR	93	97	100	1(%)
5	Non-temporal	Medium	78	78	85	85	90	90	98	98
6	Non-temporal	Low	25	75	81	18	88	84	96	92
71	Coded	High	82	82	88	88	93	19.2	101	101
81	Coded	Medium	78	78	85	85	90	90	97	98
91	Coded	Low	75	75	81	81	88	85	96	92

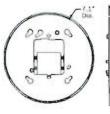
Settings 7, 8, and 9 are not available on 2-wire horrystrope.

SpectrAlert Advance Dimensions

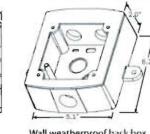


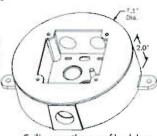












Wall back box skirt

Ceiling back box skirt

Wall weatherproof back box

Ceiling weatherproof back box

SpectrAlert Advance Ordering Information

Model	Description
Wall Horn/	Strobes
P28*1	2-wire Horry/Strobe, Standard cd ⁴ , Red
P2RH*	2-wire Horr/Strobe, High cd, Red
P2RK**	2-wire Horry/Strobe, Standard cd, Red, Outdoor
PZRHK [®]	2-wire Horn/Strobe, High cd, Red, Outdoor
P2W*	2-wire Horry/Strobe, Standard cd, White
P2WH*	2-wire Horr/Strobe, High cd. White
P4R*	4-wire Horn/Strobe, Standard cd. Red
P4RH*	4-wire Horn/Strobe, High cd, Red
PARK"	4-wire Horr/Strobe, Standard cd, Red, Outdoor
P4RHK*	4-wire Horry/Strobe, High cd, Red, Outdoor
P4W*	4-wire HorryStrobe, Standard cd, White
P4WH*	4-wire Horry/Strobe, High cd, White.
Wall Strobe	es
SR**	Strobe, Standard cd. Red
SRH**	Strobe, High cd, Red
SRKI	Strobe, Standard cd, Red, Outdoor
SRHK	Strobe, High cd, Red, Outdoor
SW*	Strobe, Standard cd, White
SWH	Strobe, High cd, White
Ceiling Ho	rn/Strobes
PC2R*	2-wire Horn/Strobe, Standard cd, fled
PC2RH*	2-wire Horr/Strobe, High cd, Red
PC2RK*	2-wire Horn/Strobe, Standard cd, Red, Dutdoor
PCZRHK"	Z-wire Horn/Strabe, High cd, Red, Outdoor
PCZW*1	Z-wire HorryStrobe, Standard cd. White
PC2WH*	Zwire Horn/Strobe, High cd, White
PC48	4-wire HorrVStrobe, Standard cd. Red
PC4BH	4-wire Horry/Strobe, High cd, Red
PC4RK	4-wire Horry/Strobe, Standard cd. Red, Outdoor
PC4RHX*	4-wire Harry/Strobe, High cd, Red, Outdoor

Model	Description
Ceiling Hor	n/Strobes (cont'd.)
PC4W	4-wire Horry/Strobe, Standard cd, White
PC4WH	4-wite Horry/Strobe, High cd, White
Ceiling Stro	bes
SCR*	Strobe, Standard cd, Red
SCRH*	Strobe: High cd, Red
SCRK*	Strobe, Standard cd. Red, Outdoor
SCHHK"	Strobe, High cd, Red. Outdoor
SCW ^H	Strobe, Standard cd, White
SCWIP*	Strobe, High cd, White
Horns	W. T.
HR	Horn, Red
HRK*	Horn, Red, Outdoor
HW	Horn, White
Accessories	
8BS-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 Riog, Wall White
TRC-HS	Tom Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

- * Add *-P* to model number for plain housing (no *FIRE* marking on cover), e.g.,
- t Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP.
- a "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

All outdoor units ending in "K" include a weatherproof back box.

Ackl "It' to model number for weatherproof replacement device (no back box





Photoelectric Smoke Detectors

System Sensor's i^{3™} series smoke detectors represent significant advancement in conventional detection.

The i³ family is founded on three principles: Installation ease, intelligence, and instant inspection.



Features

- · Plug-in detector line, mounting base included
- · Large wire entry port
- · In-line terminals with SEMS screws
- Mounts to octagonal and single-gang backboxes, 4-square backboxes, or direct to ceiling
- · Stop-Drop 'N Lock attachment to base
- · Removable detector cover and chamber
- · Built-in remote maintenance signaling
- · Drift compensation and smoothing algorithms
- Simplified sensitivity measurement
- · Wide angle, dual color LED indication
- · Loop testing via EZ Walk feature
- · Built-in test switch

Installation ease. The P line redefines installation ease with its plug-in design. This allows an installer to pre-wire the bases included with the heads. The large wire entry port and in-line terminals provide ample room for neatly routing the wiring inside the base. The base accommodates a variety of back box mounting methods, as well as direct mounting with drywall anchors. To complete the installation, it heads plug in to the base with a simple Stop-Drop 'N Lock' action.

Intelligence. It detectors offer a number of intelligent features to simplify testing and maintenance. Drift compensation and smoothing algorithms are standard with the It line to minimize nuisance alarms. Two-wire It detectors needing cleaning can generate a remote maintenance signal, when connected to the 2W-MOO2 loop test/maintenance module, or to a panel equipped with the It protocol. This signal is indicated by LEDs located at the module and the panel. The SENS-RDR, a wireless device, displays the sensitivity of It detectors in terms of percent per-foot-obscuration.

Instant inspection. The iP series provides wide-angle red and green LEO indicators for instant inspection of the detector's condition; normal standby, out-of-sensitivity, alarm, or freeze trouble. When connected to the 2W-MOD2 loop test/maintenance module or a panel with the iP protocol, the EZ Walk loop test feature is available on two-wire iP detectors. This feature verifies the initiating loop wiring by providing LED status indication at each detector

Agency Listings













Architectural/Engineering Specifications

Electrical Specifications	
Operating Voltage	Nominal: 12/24V non-polarized Minimum: 85V Maximum: 35V
Maximum Ripple Voltage	30% peak to peak of applied voltage
Standby Current	2-wire: 50 μA maximum average, 4-wire: 50 μA maximum average
Maximum Alarm Current	2-wite: 130 mA limited by control panel, 4-wire: 20 mA @12V, 23mA @ 24V
Peak Standby Current	Z-wire: 100 µA; 4-wire: ri/a
Alarm Contact Ratings	2-wire: n/a; 4-wire: 0.5 A @ 30V AC/DC
Physical Specifications	
Dimensions (including base)	5.1 inches (127 mm) diameter, 2.0 inches (51 mm) height
Weight	6.3 oz. (178 grams)
Operating Temperature Range	ZW-B and 4W-B: 32°F-120°F (0°C-49°C); ZWT-B and 4WT-B: 32°F-100°F (0°C-37.8°C)
Operating Humidity Range	0 to 95% RH non-condensing
Thermal Sensor	135T (572°C) fixed
Freeze Trouble	2WT-B and 4WT-B only 41°F (5°C)
Sensitivity	2.5%/h. nominal
Input Terminals	14-22 AWG
Mounting	3V-inch octagonal back box 4-inch octagonal back box Single gang back box 4-inch square back box with a plaster ring Direct mount to ceiling

LED Modes	decimal to the same		Power Up Sequence for LED India	cation
LED Mode	Green LED	Red LED	Condition	Duration
Power up	Blink every 10 seconds	Blink every 10 seconds	Initial LED status indication	B0 seconds
Normal (standby)	Blink every 5 seconds	off		
Out of sensitivity		Blink every 5 seconds		
Freeze mouble	flo	Blink every 10 seconds		
Alarm	off	Solid		

Ordering Information

Model	Thermal	Wiring	Alarr	m Current		
2W-8	No	2-wire 130 r		A max, limited by control panel		
2WI-B	Yes	2-wire	130 n	mA max. limited by control panel		
4W-B	No	4-wire	20 m	20 mA @ 12V, 23mA @ 24V		
4WT-B	Yes	4-wire	20 m	A @ 12V, 23mA @ 24V		
Accessories						
2W-MOD2	2-wire loop test / maintenance module		RT	Removal / replacement tool		
SENS-RDR	Sensitivity reader	Sensitivity reader		Retrofit adapter bracket, 6.6 in. (16.76cm) diameter		
2W-MOD2		ntenance module	RT AZZ-AB2			





SK-Minimon



Intelligent Mini Monitor Module

The SK-Minimon addressable mini monitor modules for use with Silent Knight IntelliKnight fire alarm control panels (FACP). The SK-Minimon is designed to be used with pull stations, water flow switches, and other applications requiring dry contact alarm initiation devices.

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

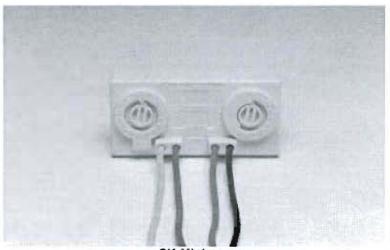
The SK-Minimon is an addressable monitor modules for use with the IntelliKnight fire alarm control panels (FACPs). The SK-Minimon acts as an interface to contact devices, such as waterflow switches and pull stations.

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

The SK-Minimon can be mounted in a single gang junction box directly behind the monitored device. Its small size and light weight allow it to be installed without rigid mounting requirements.

Features

- · Single contact monitor
- SK-Minimon support for Class B (Style B) contact monitor wiring
- Small and lightweight size allows for flexible mounting options
- Rotary address switches for fast installation
- · UL listed



SK-Minimon

Specifications:

Electrical

Standby Current: 400 uA max @ 24 VDC with comm.

Vollage Range: 15 - 32 VDC End of Line Resistance: 47 k Ohms

Physical

Dimensions:

2.75" W x 1.3" H x 0.5" D Weight: 1.2 oz (37 g)

Environmental

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

Humidity

10% - 93% non-condensing

Compatibility

The SK-Minimon is compatible with the following IntelliKnight FACP's.

5700 5808 5820XL

Approvals UL approved CSFM

FM Approved



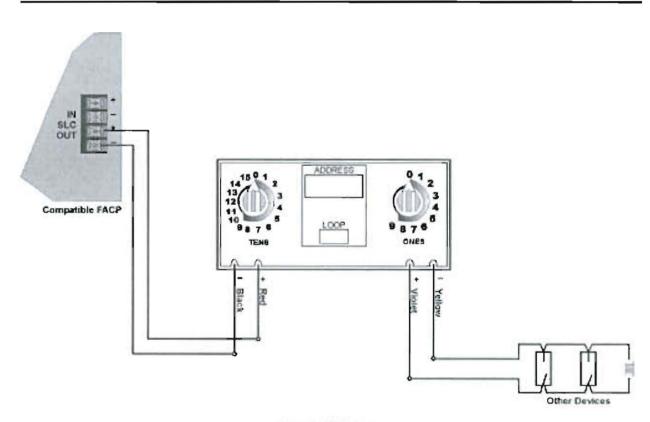
SK-Minimon Intelligent Monitor Module

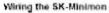


Engineering Specifications

The contractor shall furnish and install where indicated on the plans, addressable monitor modules Silent Knight SK-Minimon. The modules shall be UL listed and compatible with Silent Knight's IntelliKnight FACPs. The device shall be capable of Styles A and B supervised wiring to the load device.

The SK-Minimon shall be installed inside a single gang junction box directly behind the monitored unit.







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# 350133 Rev A

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			r Global	Project Val	ues:					
SILENT		Project Name: Pat's Pizza				Standby Hours: 24				
		Project ID:								
.7.				WIND INCOME.			Alarm Mins: 5			
Dia Puni	Annual description of		Prep		Kevin Inman			ing Factor:		
	5700 Calculations		19 10 30	Date:	1/29/2010			rop Warning hreshold %:		
	Version 08 19.09						A SHARE THE	meshold 70 .	10	
		1150								THE ST
Panel ID.	5700		Model:	5700 Ad	d. Fire Alarm Control	Panel	Max NA	Current:	2.5 Amps	
Location:	30 Market St, Portland, me		Volts:	24 VDC			Max Pane	el Current:	2.5 Amps	Miles.
			Curren	t Draw	Wire AWG	Ohms Per	Length(ft)	Actual	Volts @	
Ckt.#	Circuit Name	Qty	Standby		& Type	1000 Ft.	One-Way	Ohms	EOL	%Drop
5700	5700 CTRL Panel	1	0.200	0.325						
SK	Photo, Photo-T	1	0.000	0 000						
SK	lon		0 000	0.000						
SK	Heat, Heat-HT Heat ROR		0.000	0.000						/
SK			0.000	0.000						
SK	Beam, Beam-T		0.000	0.000					/	City III
SK	Duct		0.000	0.000						
SK	Acclimate		0.000	0.000						
SK	Control	7	0.000	0.000						
SK	Control-6		0.000	0.000						
SK	Monitor, Minimon	3	0.001	0.001				/		
SK	Monitor-2		0.000	0.000				/		
SK	Monitor-10	4	0.000	0.000				/		
SK	Pull-SA, Pull-DA	6	0.002	0.002	The state of the s	1		/		
SK	Relay	1000	0.000	0.000			\ /			max.
SK	Relay-6		0.000	0.000			\ /			
SK	Zone		0.000	0.000	Bildsup Too					1000
SK	Zone-6		0.000	0.000			"MA"			NAME OF
SK	Isolator Module		0.000	0.000						
SSB224BI	Isolator Base	-	0.000	0.000		-				3000
			0.000	0.000		/				
SSB501BHT	Sounder Base	1371	0.000	0.000		/		1		
SSB224RB	Relay Base					/		1		TTT
SSRTS151	Magnetic Remote Test		0.000	0.000	Elisto Fire	/		1		
SSRTS151KEY	Key Activated Test		0.000	0.000		/			1	1913
SSRA100Z	Remote LED		0.000	0.000	/				1	1 5
5860	LCD Remote Annunc	1	0.020	0.025	/				1	
5824	LCD Remote Annunc		0.000	0.000					1	
5496	Power Expander		0.000	0.000					1	111 15 1
5895XL	Power Expander	5	0.000	0.000						
5865-3	LED Annunciator (3G)		0.000	0.000						1
5865-4	LED Annunciator (4G)	v	0.000	0.000	/					1
5880	LED Driver Module		0.000	0.000						
5883	Relay Module	į.	0.000	0.000	/					
NAC #1	Notification Appl Circuit		0 000	0.660	#14 Solid	2.52	250	1.26	19.57	4.08%
NAC #2	Notification Appl Circuit		0.000		#14 Solid	2.52	250	1.26	19.71	3.40%
Total Standby Current (Amns)				Total Alarm Current		250	1,20	19.71	0.1070	

0.083 Alarm Time In Minutes / 60

Configure Circuits

5.367 0.130 Total Alarm AH Required

5.50

1,20

6.60

(5 Mins)

Command Shortcuts

Print Page

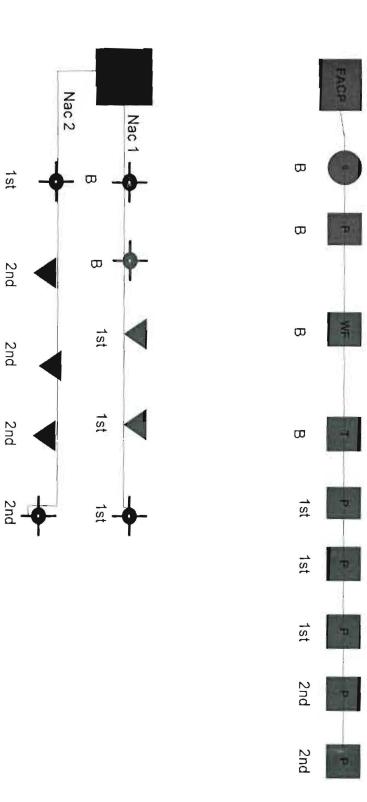
Standby Time In Hours

Total Standby AH Required
Total Combined AH Required

Multiply By The Derating Factor

Minimum Battery AmpHours Required

SLC 18/4 awg NAC 14/2 awg



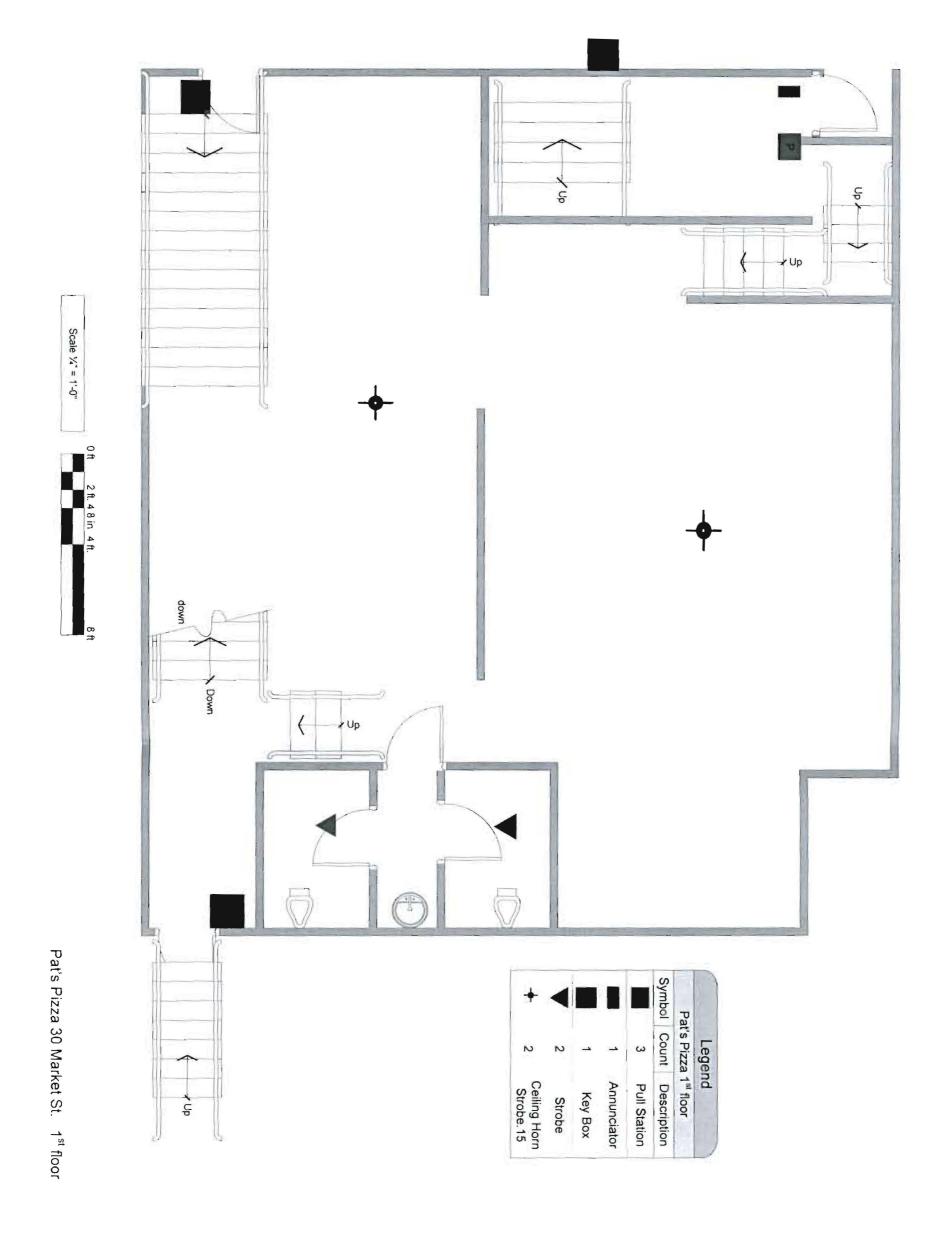
Pat's Pizza Basement

Symbol Count Description

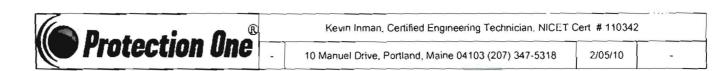
1 Pull Station

FACP Smoke Detector Ceiling Horn Strobe:15

-	2/05/10	10 Manuel Drive, Portland, Maine 04103 (207) 347-5318	-	Protection Une
	ZÞE011# H	Kevin Inman, Cerliffed Engineering Technician, MICET Cer		9



-	5/05/10	10 Manuel Drive, Porlland, Maine 04103 (207) 347-5318	-	aun	Protection
	S45011 # .h	Kevin Inman, Certiffed Engineering Technician, NICET Ce		(A)	noite of ord



Legend

Pat's Pizza 2" Floor
Symbol Count Description

3 Strobe

Ceiling Horn
Strobe 15

2 Pull Station

Pat's Pizza 30 Market St 2nd Floor

