DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that PROTECTION ONE
of 10 Manuel Dr, Portland, ME 04103

For installation at 66 NOYES ST
Shaarey Tphiloh Synagogue

Job ID: 2011-07-1751-FAFS

CBL: 118 - - E - 003 - 001 - - - - -

has permission to install a replacement supervised fire alarm system
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

BJ Arnold Jr. (58)

Fire Prevention Officer **Code Enforcement Officer / Plan Reviewer**

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCU0PIED.

PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • www.portlandmaine.gov

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-07-1751-FAFS
Install a replacement supervised fire alarm system

For installation at:
66 NOYES ST
Shaarey Tphiloh Synagogue

CBL: 118 - - E - 003 - 001 - - - - -

Conditions of Approval:

Fire

The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

In field installation shall be installed per code as conditions dictate.

Placement of horn strobes shall be per NFPA 72-2010 edition.

Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.

Central Station monitoring for addressable fire alarm systems shall be by point.

All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".

Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance.

The fire alarm system shall be certified by a master fire alarm company and have a new fire alarm inspection sticker.

System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.

Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.

This fire alarm system is required for a day-care occupancy. It shall have an alarm number assigned. Central Station Alarm number will be accepted.

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No:	Date Applied:	CBL:	
2011-07-1751-FAFS	7/20/2011	118 - - E - 003 - 001 - - - - -	
Location of Construction: 76 NOYES ST	Owner Name: SHAAREY TPHILOH CONGREGATION	Owner Address: 76 NOYES ST PORTLAND, ME - MAINE 04103	Phone:
Business Name:	Contractor Name: Lawrence Foley @ Protection One	Contractor Address: 10 Manuel Dr., Portland, ME 04103	Phone (207) 347-5316
Lessee/Buyer's Name:	Phone:	Permit Type: FIRE ALARM - Fire Alarm	Zone: R-5
Past Use: Place of Worship, Synagogue	Proposed Use: Same: Synagogue – to install a fire alarm	Cost of Work: $15,000.00	CEO District:
		Fire Dept: ✓ Approved w/ conditions ___ Denied ___ N/A Signature:	Inspection: Use Group: Type: Signature:
Proposed Project Description: Install Fire Alarm		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Lannie			

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building Permits do not include plumbing, septic or electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	___ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan	___ Approved	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Denied	___ Denied
Date: OK 7/27/11	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHON

Benjamin Wallace - 66 (76) Noyes St Synagogue permit

From: Benjamin Wallace
To: Jason Gervais
Date: 8/2/2011 4:36 PM
Subject: 66 (76) Noyes St Synagogue permit
CC: Kevin Inman
Attachments: Benjamin Wallace.vcf

Jason,
I have a couple question regarding the permit you wanted:

1. What is the occupant load of the building? > 300?
2. Is the building used as a K - 12 school or preschool during the week?

If the answer to #1 is yes they need voice evac and an alarm number. If the answer to #2 is yes they need an alarm number. I called our dispatch and it does not appear that there is an alarm number for the building. Is this a building you have been monitoring for a while or just have the contract to fix the old system?
Additionally the corridor strobes don't appear to meet the corridor spacing requirements: within 15' of the each end and starting over at each obstruction like a door.
Thanks,
Ben

Lt. Benjamin Wallace Jr.
Fire Prevention Officer
Portland Fire Department
380 Congress Street
Portland, Maine 04101
(207)756-8096
wallaceb@portlandmaine.gov

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: 76 Noyes St CBL: 118-E-3

Exact location: (within structure) Behind front desk - annunciator front door

Type of occupancy(s) (NFPA & ICC): assembly

Building owner: Shaarey Tphiloh Synagogue

System Designer (Must be point of contact): Kevin Inman

Designer phone: 207-332-1204 E-mail: kevininman@protection1.com

Installing contractor: Protection One Certificate of Fitness No: 1003

Contractor phone: 207-408-4849 E-mail: jasongervais@protection1.com

This is a new application: YES (●) NO ( ) New AES Master Box: YES ( ) NO ( )
(Include Master Box approval form)

Amendment to an existing permit: YES ( ) NO ( ) Permit no: _____

The following documents shall be provided with this application:

- [✓] Floor plans
- [✓] Wiring diagram
- [✓] Annunciator details
- [✓] Input/ Output Matrix
- [✓] Equipment data sheets
- [✓] Electrical Permit Pulled (check alarm/com)
- [✓] Scope of Work
- [✓] 11 ½ x 17s
- [✓] pdf copy (may be e-mailed)
- [✓] Designer qualifications
- [✓] Battery/ voltage drop calcs

Master box approval only: YES ( ) NO ( )
(If yes check *New AES Master Box* above)

COST OF WORK: $15,000

PERMIT FEE: 170
($10 PER $1,000 + $30 FOR THE FIRST $1,000)

RECEIVED
JUL 5 2017
Dept. of Building Inspections
City of Portland Maine

The designer shall be the responsible party for this application. Download a new copy of this application at www.portlandmaine.gov/fire **for every submittal. Submit all plans in electronic PDF in addition to readable 11 ½ x 17s to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.**

Prior to acceptance of any fire alarm system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

All installation(s) must comply with the *City of Portland Technical Standard for Signaling Systems for the Protection of Life and Property*, available at www.portlandmaine.gov/fire .

Applicant signature: _____ Date: 7-12-17

Form # P 01

ELECTRICAL PERMIT
City of Portland, Me.

To the Chief Electrical Inspector, Portland Maine:
The undersigned hereby applies for a permit to make electrical installations in accordance with the laws of Maine, the City of Portland Electrical Ordinance, National Electrical Code and the following specifications:

Date 07/19/11
Permit #
CBL# 118-E-8

LOCATION: 76 NOYES STREET **METER MAKE & #**
CMP ACCOUNT # **OWNER**
TENANT SHAAREY TPHILOH SYNAGOGUE **PHONE #**

						TOTAL	EACH	FEE
OUTLETS		Receptacles		Switches		Smoke Detector	.20	
FIXTURES		Incandescent		Fluorescent		Strips	.20	
SERVICES		Overhead		Underground		TTL AMPS <800	15.00	
		Overhead		Underground		>800	25.00	
Temporary Service		Overhead		Underground		TTL AMPS	25.00	
							25.00	
METERS		(number of)					1.00	
MOTORS		(number of)					2.00	
RESID/COM		Electric units					1.00	
HEATING		oil/gas units		Interior		Exterior	5.00	
APPLIANCES		Ranges		Cook Tops		Wall Ovens	2.00	
		Insta-Hot		Water heaters		Fans	2.00	
		Dryers		Disposals		Dishwasher	2.00	
		Compactors		Spa		Washing Machine	2.00	
		Others (denote)					2.00	
MISC. (number of)		Air Cond/win					3.00	
		Air Cond/cent				Pools	10.00	
		HVAC		EMS		Thermostat	5.00	
		Signs					10.00	
		Alarms/res					5.00	
	1	Alarms/com					15.00	
		Heavy Duty(CRKT)					2.00	
		Circus/Carnv					25.00	
		Alterations					5.00	
		Fire Repairs					15.00	
		E Lights					1.00	
		E Generators					20.00	
PANELS		Service		Remote		Main	4.00	
TRANSFORMER		0-25 Kva					5.00	
		25-200 Kva					8.00	
		Over 200 Kva					10.00	
						TOTAL AMOUNT DUE		
		MINIMUM FEE/COMMERCIAL 55.00				**MINIMUM FEE** 45.00		

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JUL 20 2011
Dept. of Building Inspections
City of Portland Maine

LAWRENCE FOLEY
CONTRACTORS NAME PROTECTION ONE **MASTER LIC. #** MC 6001 8702
ADDRESS 10 MANUEL DR PORTLAND ME 04103 **LIMITED LIC. #**
TELEPHONE (207) 347-5316

SIGNATURE OF CONTRACTOR

White Copy - Office • **Yellow Copy - Applicant**

SILENT KNIGHT

5700 Calculations
Version 12.30.10

Global Project Values:

Project Name: Shaarey Tphiloh synagogue
Project ID:
Prepared By: Kevin Inman
Date: 7/12/2011

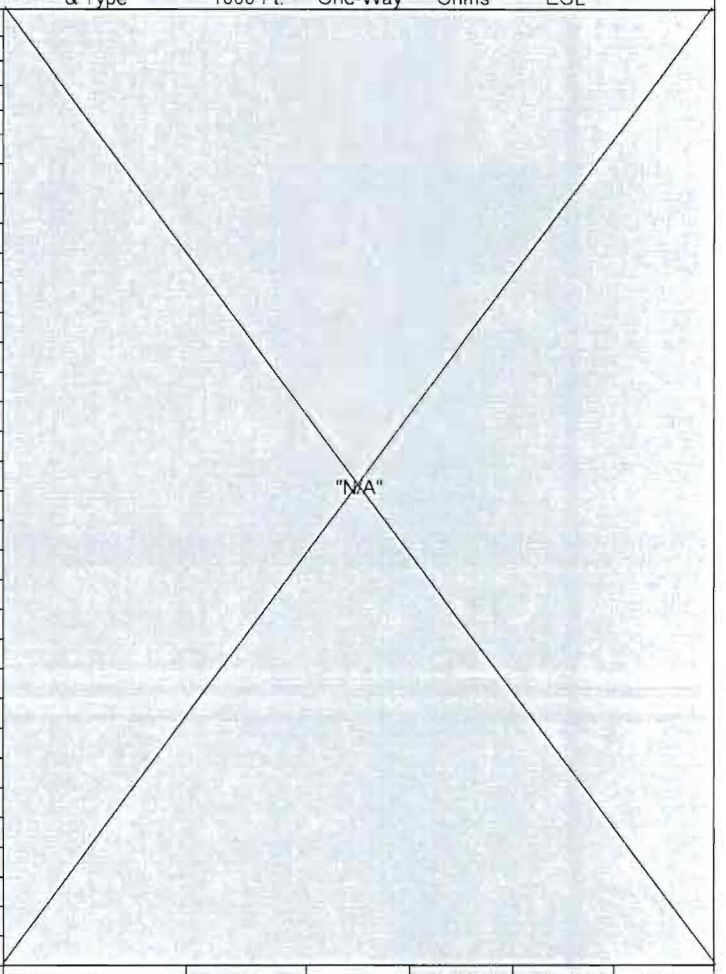
Standby Hours: 24
Alarm Mins: 5
Derating Factor: 1.2
Voltage Drop Warning Threshold % : 10

Panel ID: 5700
Location:

Model: 5700 Add. Fire Alarm Control Panel
Volts: 24 VDC

Max NAC Current: 2.5 Amps
Max Panel Current: 2.5 Amps

Ckt.#	Circuit Name	Qty	Current Draw Standby	Current Draw Alarm	Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	%Drop
5700	5700 CTRL Panel	1	0.200	0.325						
SK	Photo, Photo-T	30	0.008	0.008						
SK	Ion		0.000	0.000						
SK	Heat, Heat-HT		0.000	0.000						
SK	Heat ROR	2	0.001	0.001						
SK	Beam, Beam-T	1	0.002	0.002						
SK	Duct		0.000	0.000						
SK	Acclimate		0.000	0.000						
SK	Control		0.000	0.000						
SK	Control-6		0.000	0.000						
SK	Monitor, Minimon	1	0.000	0.000						
SK	Monitor-2		0.000	0.000						
SK	Monitor-10		0.000	0.000						
SK	Pull-SA, Pull-DA	8	0.003	0.003						
SK	Relay		0.000	0.000						
SK	Relay-6		0.000	0.000						
SK	Zone		0.000	0.000						
SK	Zone-6		0.000	0.000						
SK	Isolator Module		0.000	0.000						
SSB224BI	Isolator Base		0.000	0.000						
B200SR	Sounder Base		0.000	0.000						
SSB224RB	Relay Base		0.000	0.000						
SSRTS151	Magnetic Remote Test		0.000	0.000						
SSRTS151KEY	Key Activated Test		0.000	0.000						
SSRA100Z	Remote LED		0.000	0.000						
5860	LCD Remote Annunc		0.000	0.000						
5824	LCD Remote Annunc		0.000	0.000						
5496	Power Expander		0.000	0.000						
5895XL	Power Expander		0.000	0.000						
5865-3	LED Annunciator (3G)		0.000	0.000						
5865-4	LED Annunciator (4G)		0.000	0.000						
5880	LED Driver Module		0.000	0.000						
5883	Relay Module		0.000	0.000						
NAC #1	Notification Appl Circuit		0.000	1.017	#12 Solid	1.59	200	0.64	19.75	3.17%
NAC #2	Notification Appl Circuit		0.000	0.718	#12 Solid	1.59	200	0.64	19.94	2.24%
	Total Standby Current (Amps)		0.214	2.074	Total Alarm Current (Amps)					
	Standby Time In Hours		24	0.083	Alarm Time In Minutes / 60		(5 Mins)			
	Total Standby AH Required		5.138	0.173	Total Alarm AH Required					
	Total Combined AH Required		5.31							
	Multiply By The Derating Factor		1.20							
	Minimum Battery AmpHours Required		**6.37**							



Command Shortcuts

Configure Circuits

Print Page

Protection One Branch 11660

10 Manual Drive, Portland, ME 04103 PH# 1-800-310-5011

System Outputs

System Inputs	Control Unit Annunciation										Notification			Safety Control	Supplementary
	Actuate common alarm signal indicator	Actuate audible alarm system	Actuate common supervisory signal indicator	Actuate audible supervisory signal	Actuate common trouble signal indicator	Actuate audible common alarm signal indicator	Actuate 1st floor evacuation signals	Transmit fire alarm signal to supervising station	Transmit supervisory signal to supervising station	Transmit trouble signal to supervising station					
Pull Stations 1st flr	X	X					X	X							
FACP Smoke Detector	X	X					X	X							
FACP AC Loss			X	X							X				
FACP Low Battery			X	X							X				
FACP Ground Fault			X	X							X				
Phone Line #1 Fail			X	X							X				
Phone Line #2 Fail			X	X							X				
Smoke Detectors 1st flr	X	X					X	X							
Shaarey Tphiloh synagogue 76 Noyes St Portland, Me															

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.

SILENT KNIGHT
by Honeywell

Model 5700
Fire Alarm Control Panel

5700 5496

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

MADE IN AMERICA

P/N 350392 Rev. F

ECN 09-520 09/09

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

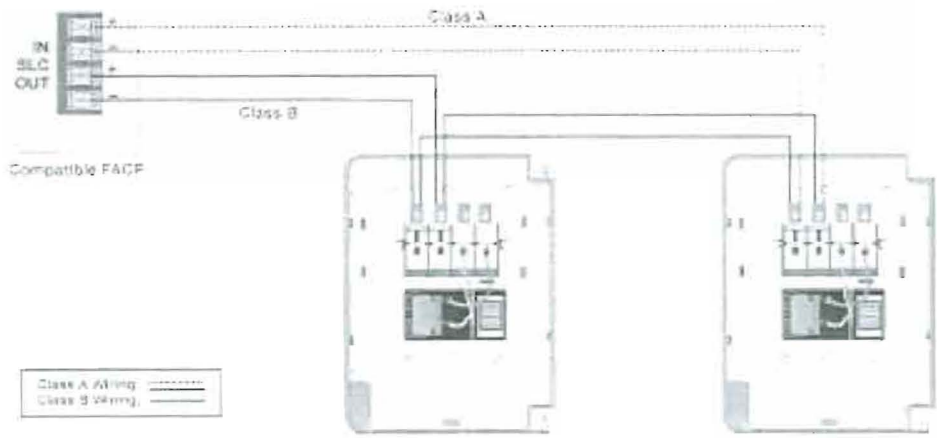
SILENT KNIGHT
by Honeywell

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

SILENT KNIGHT
by Honeywell

MADE IN AMERICA

FORM# 350135 Rev A

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.

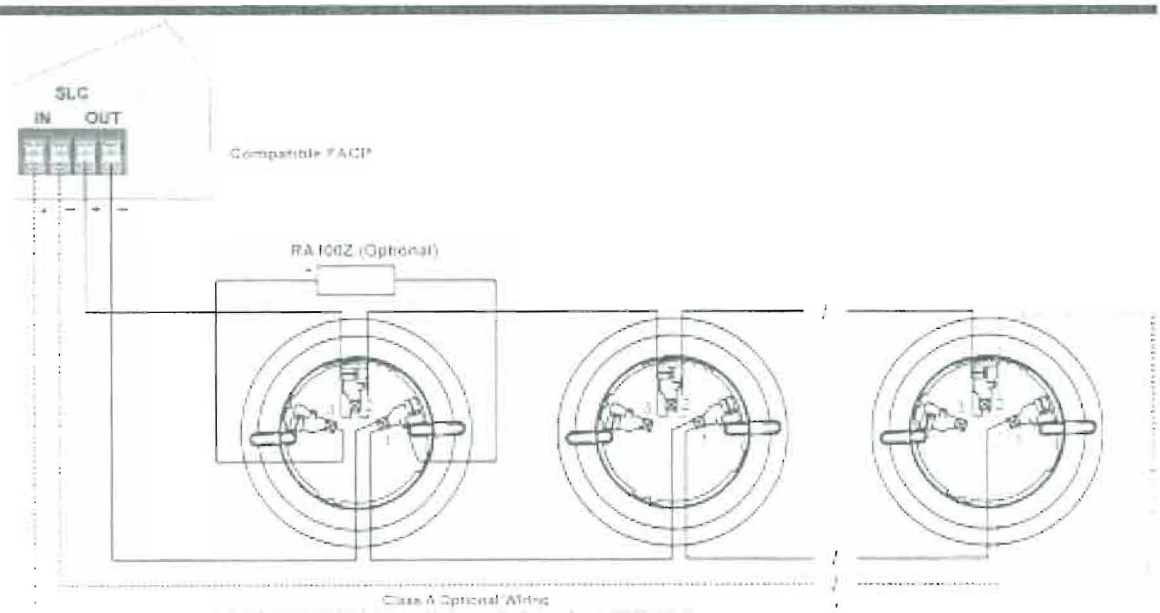
The base shall permit direct interchange with SK-Photo or SK-Photo-T. Base shall be the appropriate twist-lock base part number B210LP (included).

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

MADE IN AMERICA

FORM# 350118 Rev A

SK-Heat, SK-Heat-HT and SK-Heat-ROR

Addressable thermal heat and rate-of-rise detectors

The SK-Heat, SK-Heat-HT, and SK-Heat-ROR are plug in thermal detectors, with integral communication, that provide features that surpass conventional detectors. These thermal detectors are for use with Silent Knight IntelliKnight series Fire Alarm Control Panels (FACPs).

IntelliKnight heat detectors are an essential component in virtually any IntelliKnight installation. The IntelliKnight panel recognizes each detector by its specific address, so precious seconds are not wasted in determining location of an alarm.

Description

SK-Heat, SK-Heat-HT and SK-Heat-ROR are intelligent sensors that utilize a state-of-the art thermistor sensing circuit for fast response. Sensitivity is continuously monitored and reported to the FACP. 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-Heat is a fixed temperature thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) fixed thermal detection.

SK-Heat-HT is a high temperature detector that provides fixed temperature alarm at 190°F. SK-Heat-ROR is a fixed temperature and rate-of-rise thermal detector that uses a thermistor sensing circuit to produce 135°F (57°C) thermal protection.

Features

- Sleek, low-profile design
- Reliable analog communications for trouble-free operation
- Age resistant polymer housing
- Innovative thermistor sensing circuit
- Superior EMI resistance for reliability
- Variety of mounting options to meet any application
- Dual LED indicators for 360° visibility
- Detector transmits signal to indicate maintenance is required
- Plug-in mounting provides ease of installation
- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Tamper-proof feature available on mounting bases
- Rotary address switches for fast installation
- UL Listed

Specifications

Physical

Height: 2.0" (51 mm)
Diameter: 6.1" (155 mm)installed in B210LP base
Shipping Weight: 4.8 oz (137 g)

Electrical

Operating Voltage: 15 to 32 Volts DC Peak

Standby Current: 300µA @ 24 VDC

LED Current: 6.5 mA@ 24 VDC

Environmental

Operating Temperature

SK-Heat & SK-Heat-ROR: -4° – 100°F (20°C– 38°C)

SK-Heat-HT: -4° – 150°F (20°C – 66°C)

Humidity: 10% – 93% noncondensing

Thermal Ratings

SK-Heat: Fixed temperature setpoint 135°F (57°C)

SK-Heat (base included)

SK-Heat-HT: High temperature heat 190°F(88°C)

SK-Heat-ROR: Rate-of-rise detection 15°F/min (8.3°C/min)

Compatibility

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

5700
5808
5820XL

The SK-Heat, SK-Heat-HT and SK-Heat-ROR are compatible with the following detector bases:

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

SILENT KNIGHT
by Honeywell

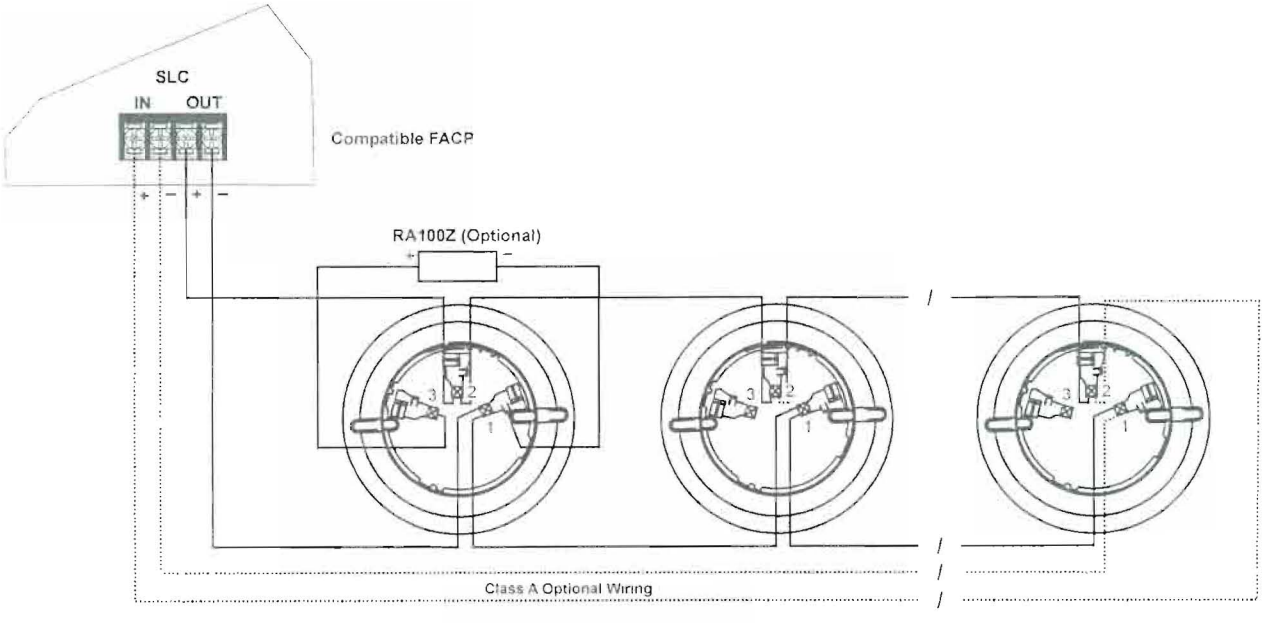
Model SK-Heat, SK-Heat-HT, SK-Heat ROR Addressable Thermal and Rate-of-Rise Thermal Detectors

Engineering Specifications

The contractor shall furnish and install where indicated on the plans, Intelligent Thermal Sensor Silent Knight Model SK-Heat, SK-Heat-HT or SK-Heat-ROR. The base included shall be B210LP.

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

The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field removable when not required.Voltage and RF/transient suppression techniques shall be employed to minimize false alarm potential.



Wiring SK-Series Detector Mounting Bases

Accessories

RA100Z - Remote LED Annunciator.

RMK400 - Recessed Mounting Kit. Provides low profile for use with B501.

XR2B - Detector Removal Tool. A removal and re- placement tool for SK plug-in detectors. Includes the T55-127-000.

M02-04-01 - Replacement 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.

* Unless otherwise noted, specifications apply to all SK thermal detectors.

SILENT KNIGHT by Honeywell

MADE IN AMERICA

FORM# 350120 Rev. A

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

SILENT KNIGHT
by Honeywell

5860 Remote Annunciator

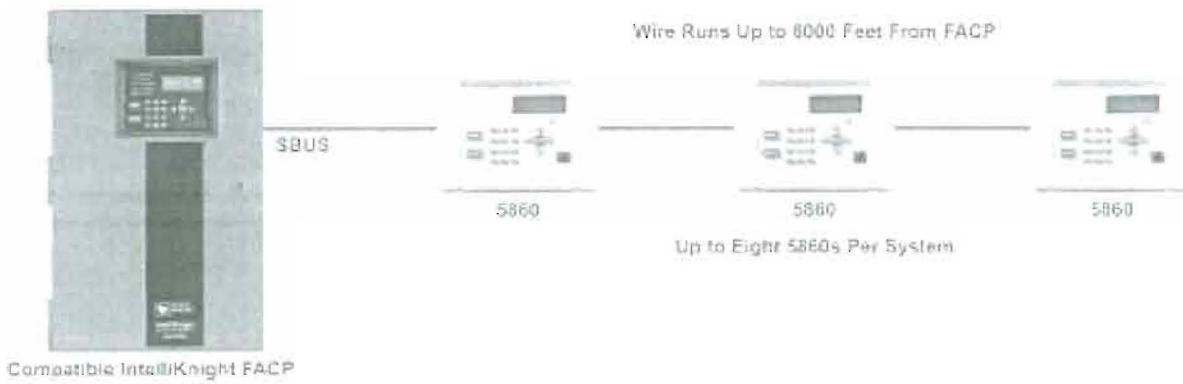
Engineering Specifications

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.

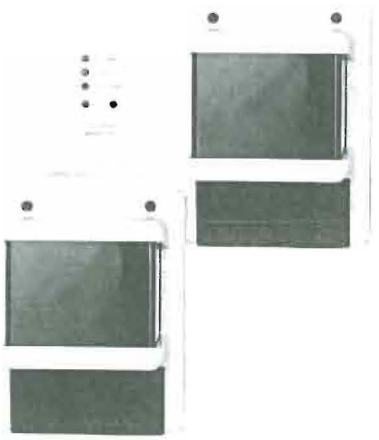
SILENT KNIGHT
by Honeywell

MADE IN AMERICA

FORM# 350224 Rev C, 05/06

BOSCH
Invented for life

D296 Series Projected Beam Smoke Detectors



- Operates over distances between 30 ft (9 m) and 350 ft (107 m)
- Six levels of switch-selectable sensitivity
- Built-in alignment sights and tamper protection
- Automatic range adjustment, signal synchronization, and contamination adjustment
- Remote indicator plate annunciates voltage, trouble, and alarm conditions
- Switch-selectable alarm signal delay
- Auxiliary Form C alarm relay

The D296 Projected Beam Smoke Detector is used in clear open structures such as arenas, atriums, auditoriums, ballrooms, churches, factories, museums, and warehouses. Each D296 detector consists of a transmitter, a receiver, and a remote annunciation plate. Because the transmitter and receiver typically mount on the ceiling or high on walls or columns, they provide an effective and unobtrusive means of supervising public areas for fire protection.

The D306 Remote Indicator Plate, included with the D296, provides a convenient means of verifying detector status. Install it anywhere within 100 ft (30 m) of the beam receiver. The D306 has LEDs to indicate normal, trouble, and alarm conditions, and test points to monitor the detector circuit.

Functions

Alarm Operation

The transmitter emits a pulsed infrared beam. The receiver measures the intensity of the beam over a period of time and compares this data with an alarm threshold. Select one of six levels of sensitivity for the alarm threshold through a switch on the receiver.

If the receiver senses a signal strength below the preset alarm threshold in excess of the alarm period it signals an alarm.

Signal Loss Compensation

The receiver automatically compensates for the gradual loss of signal due to dust and dirt build-up on the cover. The receiver measures the intensity of the pulsed infrared beam emitted by the transmitter over a period of time and compares this data with a preset trouble threshold. When 50% of the signal is lost or the signal gains 20%, the receiver sends a trouble signal to the control panel.

When the dust and dirt build-up is cleaned or the blockage is removed, the detector automatically resets.

Tamper Detection

If the covers to the transmitter or receiver are removed, the detector sends a trouble signal to the control panel.

Trouble Detection

The receiver measures the intensity of the pulsed infrared beam emitted by the transmitter over a period of time and compares this data with a preset trouble threshold. When 90% or more of the signal is lost for more than 20 seconds, as might happen if an object blocked the beam, the receiver sends a trouble signal to the control panel.

Certifications and Approvals

Region	Certification	
USA	FM	D296-CAN

D296

Listings and Approvals:	UL UROX: Smoke – Automatic Fire Detectors (UL268) CSFM 7260-1615: 132 Factory Mutual Research Hong Kong Fire Services Department (HKFSD)

D296-CAN

Listings and Approvals:	ULC Factory Mutual Research

Installation/Configuration Notes

Mounting Considerations

The transmitter and receiver mount on standard 3.5-inch square or octagonal back boxes. The D306 Remote Indicator mounts on a standard single-gang back box or European Beza box.

The distance between the transmitter and receiver can range from 30 ft (9 m) to 350 ft (107 m).

Mount the detectors directly to the ceiling or to side walls. Do not mount the units so that the beam runs closer than 4 in. (10.2 cm) to the intersection of the wall and the ceiling. For a sloped or peaked ceiling, the beam path should be located within 3 ft (0.9 m) of the ceiling's peak (NFPA 72).

Note The beam path should be clear of moving objects. Avoid areas subject to normal smoke concentrations such a kitchens and garages. Do not install units where normal ambient temperatures are below -22°F (-30°C) or above +130°F (+54°C).

Lateral Spacing Between Systems

For adequate coverage, the lateral spacing between adjacent detector systems must not exceed 60 ft (18 m).

Wiring

System wire terminals accept 12 AWG (2.0 mm) to 18 AWG (1.0 mm) solid wires.

Parts Included

Quant.	Component
1	D296 or D296-CAN Transmitter
1	D296 or D296-CAN Receiver
1	D306 Remote Indicator Plate
1	Hardware Pack
1	Literature Pack

Technical Specifications

Environmental Considerations

Temperature (ambient):	-22°F to +130°F (-30°C to +54°C) *For UL Listed installations, +32°F to +100°F (0°C to +38°C)*

Mechanical Properties

Dimensions (H x W x D):	7 in. x 5.5 in. x 5.5 in. (17.8 cm x 14 cm x 14 cm)
Transmission Range:	30 ft (9 m) to 350 ft (107 m)

Power Requirements

Current (alarm):	Receiver: 60 mA, Transmitter: 20 mA
Current (standby):	Receiver: 45 mA, Transmitter: 20 mA
Voltage (operating):	18 VDC to 32 VDC

Ordering Information

Accessories

D308 Field Test Kit Allows testing the calibration of the D296 and D297 Beam Smoke Detectors	**D308**
D309 Alignment Strobe A flashing strobe light intended for use with the D296 and D297 Beam Smoke Detectors	**D309**

Americas:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450 USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
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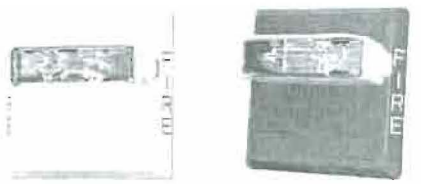
Fax: +65 6571 2698
apr.securitysystems@bosch.com
www.boschsecurity.com

Represented by

COOPER Notification

Series HS Horn and Horn Strobe Appliances



SERIES HS4

SERIES HS

Description

The Series HS4 Horn Strobe and HS Horn Appliances are an ideal choice for retrofit applications as well as new installations. They satisfy virtually all requirements for indoor, wall and ceiling mount applications.

The Series HS Horn and the horn portion of the Series HS4 include a selectable continuous horn tone or temporal pattern (Code 3) with three selectable dBA settings for each tone.

Strobe options include 1575cd or the Wheelock patented MCW Multi-Candela strobe with field selectable candela settings of 15/30/75/110cd or 135/185cd for wall mount and 15/30/75/95cd or 115/177cd for ceiling mount.

The Series HS4 horn and strobe inputs are electrically isolated to allow for independent operation of the strobe circuit and the horn circuit. The horn and strobe may also be wired in parallel to operate on a single circuit.

These versatile Horn and Horn Strobe Appliances may be synchronized using Wheelock DSM Sync Modules, Wheelock Power Supplies or other manufacturers panels incorporating the Wheelock Patented Sync Protocol.

All models are designed for maximum performance, reliability and cost-effectiveness while meeting or exceeding the latest requirements of NFPA 72/ANSI 117.1/UFC and UL Standards 1971 and 464 as well as meeting ADA requirements concerning photosensitive epilepsy.

Features

- Approvals include UL Standard 1971, UL Standard 464, New York City (MEA), California State Fire Marshal (CSFM) and Factory Mutual (FM) and Chicago (BFP). See approvals by model in Specifications and Ordering Information
- ADA/NFPA/UFC/ANSI compliant
- Complies with OSHA 29, Part 1910.165
- Field Selectable Candela Settings: Wall Mount 15/30/75/110cd or 135/185cd (Multi-Candela models) or 1575cd (single candela model) and Ceiling Mount 15/30/75/95cd or 115/177cd
- Selectable Continuous Horn or Temporal (Code 3)
- 3 Selectable dBA settings of 90/95/99 dBA in both tones
- 4-Wire Horn Strobe Appliance allows for separate operation of the horn and strobe circuits
- 24 VDC models with 16 to 33 VDC UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage
- Wall mount flush to standard 4-inch square or double-gang boxes or surface mount to IOB backbox
- Synchronize using the Wheelock Sync Modules or panels with built-in sync protocol Wheelock Patented Sync Protocol
- Fast installation with IN/OUT screw terminals using #12 to #18 AWG wires

NOTE: All CAUTIONS and WARNINGS are identified by the symbol ⚠. All warnings are printed in bold capital letters.

⚠ WARNING: PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. VISIT WWW.COOPERNOTIFICATION.COM OR CONTACT COOPER WHEELOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS OR WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

General Notes:

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range". Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL Standard 1971.
- **"Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change UL used the terminology "Listed Voltage Range".**

Table 1: Ratings Per UL Standard 1971

Model Number	Input Voltage VDC	Regulated Voltage Range VDC/FWR	Strobe Candela (CD)
HS4-24MCW	24	16.0 - 33.0	15/30/75/110
HS4-241575W	24	16.0 - 33.0	15 (75 on Axis)
HS4-24MCWH	24	16.0 - 33.0	135/185
HS-24	24	16.0 - 33.0	-
HS4-24MCC	24	16.0-33.0	15/30/75/95
HS4-24MCCH	24	16.0-33.0	115/177

Table 2: dBA Ratings for Horn

Description	Volume	Reverberant dBA @ 10ft per UL 464	Anechoic dBA @ 10 ft
		24VDC	24VDC
Continuous Horn	High	91	99
	Med	88	95
	Low	83	90
Code 3 Horn	High	87	99
	Med	84	95
	Low	79	90

HS/HS4 Series	Audible Current		
	HS and HS4		
	High (99) dBA	Med (95) dBA	Low (90) dBA
24 vdc	**0.098**	**0.052**	**0.024**
UL max*	0.110	0.068	0.027

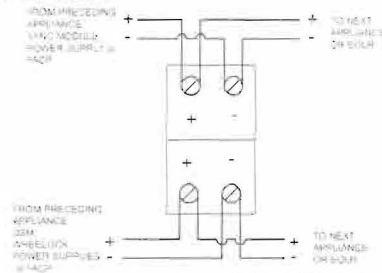
Table 3: Average RMS Strobe Current

Ceiling Mount						Wall Mount						
24MCC				24MCCH		HS4-241575W	HS4-24MCW				HS4-24MCWH	
15cd	30cd	75cd	95cd	115cd	177cd	1575cd	15cd	30cd	75cd	110cd	135cd	185cd
0.065	0.105	0.189	0.249	0.300	0.420	0.090	0.060	0.092	0.165	0.220	0.300	0.420

* RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33v for 24v units). For strobes the UL max current is usually at the minimum listed voltage (16v for 24v units). For audibles the max current is usually at the maximum listed voltage (33v for 24v units). For unfiltered FWR ratings, see installation instructions.

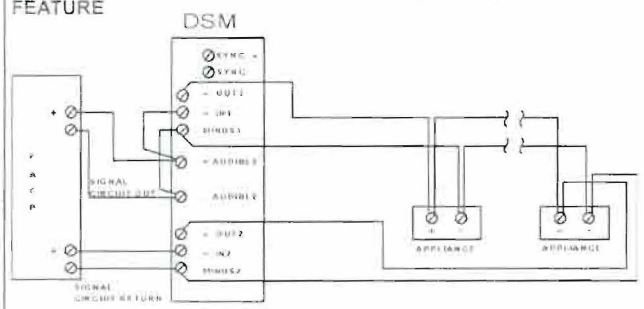
*Wiring Diagrams**

HS4 (4WIRE) APPLIANCE INDEPENDENT OPERATION OF AUDIBLE SIGNAL AND STROBE



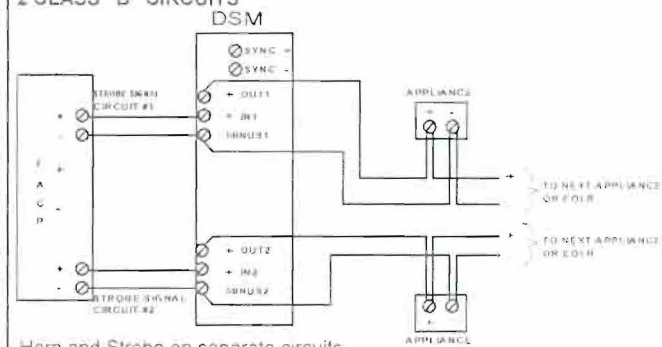
Horn and Strobe on separate circuits

HS4 AND HS APPLIANCES SYNCHRONIZED WITH DSM MODULE DUAL CLASS "A" NAC CIRCUIT WITH NO AUDIBLE SILENCE FEATURE



Horn and Strobe wired in parallel

HS4 OR HS APPLIANCES SYNCHRONIZED WITH DSM MODULE 2 CLASS "B" CIRCUITS



Horn and Strobe on separate circuits

Note: HS4 or HS must be set on Code 3 horn tone to achieve synchronized temporal (Code 3) tone. Refer to installation instruction

Specifications and Ordering Information

Model Number	Order Code	Strobe Candela	Non-Sync	Sync w/ DSM or Wheelock Power Supplies	24 VDC	2 WIRE	4 WIRE	Mounting Options**	Agency Approvals				
									UL	MEA	CSFM	FM	BFP
HS4-24MCW-FR	3150	15/30/75/110	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-24MCW-FW	3151	15/30/75/110	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-241575W-FR	3176	15 (75 on Axis)	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-121575W-FR	3177	15 (75 on Axis)	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-24MCWH-FR	3132	135/185	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	*	*
HS4-24MCWH-FW	3148	135/185	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	*	*
HS-24-R	3152	-	X	X	X	X		D,E,F,L,M,O,P,R	X	X	X	X	*
HS-24-W	3153	-	X	X	X	X		D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-24MCC-FR**	6264	-	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-24MCC-FW**	6250	-	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-24MCCH-FR**	6228	-	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*
HS4-24MCCH-FW**	6225	-	X	X	X	X	X	D,E,F,L,M,O,P,R	X	X	X	X	*

*PENDING
** BUILD TO ORDER

Models are available in either Red or White. Call Customer Service for Order Code & Delivery.
**Refer to Data Sheet S7000 for Mounting Options.

NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Wheelock Inc. standard terms and conditions.

Architects and Engineers Specifications

The audible/visual notification appliance shall be Wheelock Series HS4 Horn Strobe and HS Horn Appliances or approved equals. The Series HS4 and HS appliance shall meet ad be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired for Indoor Fire Protection Service) and Standard 464 (Fire Protective Signaling). The horn strobe shall be listed for indoor use and shall meet the requirement of FCC Part 15 Class B. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by the Fire Alarm Control Panel (FACP).

The HS Horn and the audible portion of the HS4 appliance shall have a minimum of three (3) field selectable setting for dBA levels and shall have a choice of continuous or temporal (Code 3) audible outputs.

The strobe portion of the appliance shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan ® lens. The Series HS4 shall be of low current design. Where wall mount, Multi-Candela appliances are specified, the strobe intensity shall have field selectable settings and shall be rated per UL Standard 1971 for: 15/30/75/110cd or 135/185cd. The selector switch for selecting the candela setting shall be tamper resistant. The 1575 candela strobe shall be specified when 15 candela UL Standard 1971 Listing with 75 candela on-axis is required. Where ceiling mount, multi-candela appliances are specified, the strobe intensity shall have field selectable settings and shall be rated per UL standard 1971 for 15/30/75/95cd or 115/177cd.

When synchronization is required, the appliance shall be compatible with Wheelock DSM Sync Modules. Wheelock Power Supplies or other manufacturers panels incorporating the Wheelock Patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync module or Power Supply fails to operate, (i.e., contacts remain closed), the strobes shall revert to a non-synchronized flash-rate.

All notification appliances shall be backward compatible.

NEMA Member

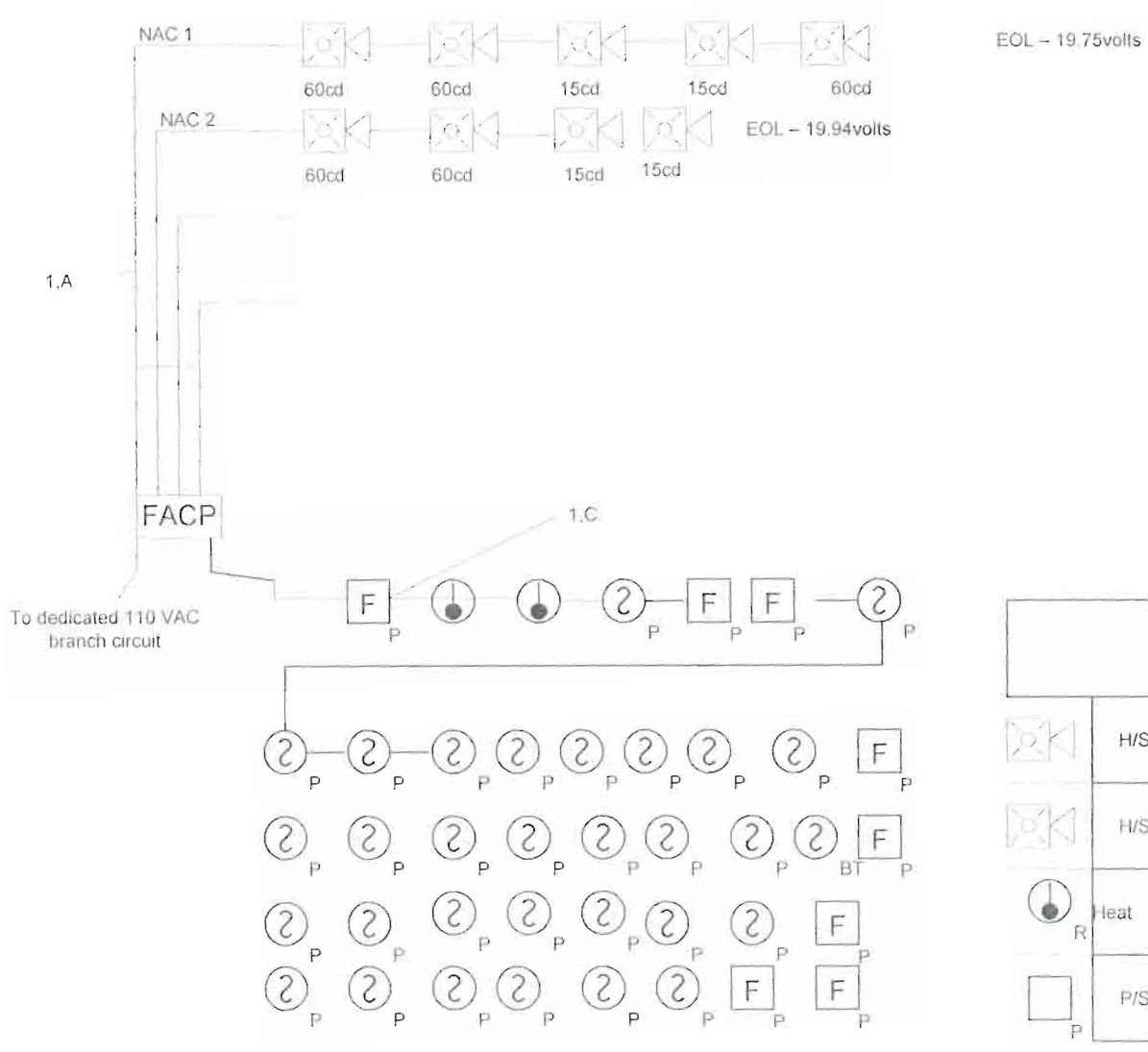
WE ENCOURAGE AND SUPPORT NICET CERTIFICATION
3 YEAR WARRANTY

S2400 HS 06/11

NJ Location
273 Branchport Ave.
Long Branch, NJ 07740
P: 800-631-2148
F: 732-222-8707
www.coopernotification.com

Protection One		
Shaarey Tphiloh	7/12/11	Device Riser

Wire Legend		
Description		
Letter	Gauge	Type
A	12/2	FPLR
B	14/2	FPLR
C	16/2	FPLR
D	18/2	FPLR
E	12/4	FPLR
F	14/4	FPLR
G	16/4	FPLR
H	18/4	FPLR
I	18/6	FPLR



Parts List

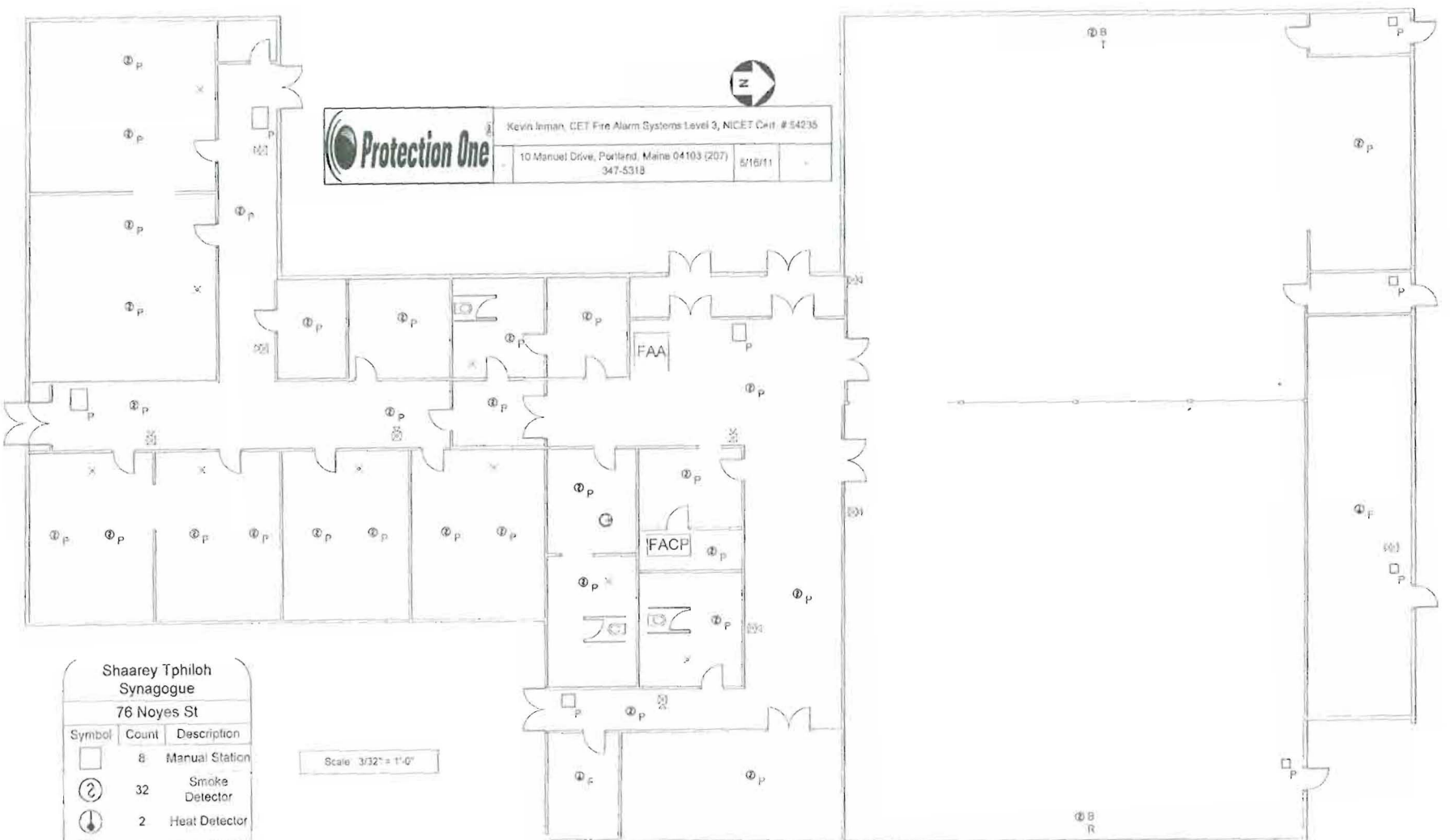
	H/S	5		Gentex Horn/Strobe
	H/S	4		Gentex Wall Strobe
R	Heat	2		Addressable Heat Detector
P	P/S	8		Addressable Pull Station

Scope of Work.

Shaarey Tphiloh Synagogue
76 Noyes St
Portland, ME

FIRE ALARM UPGRADE

Replace existing fire alarm panel with new Silent Knight Addressable panel.
Replace existing wire not to code with new wire and conduit.
Replace all existing pull station to addressable keyed alike.
Replace all existing smoke detectors to addressable.
Add Smoke detectors to meet code.
Beam Smoke to cover synagogue.
Replace existing A/V devices for evacuation and sync capabilities.
Add to A/V for evacuation.

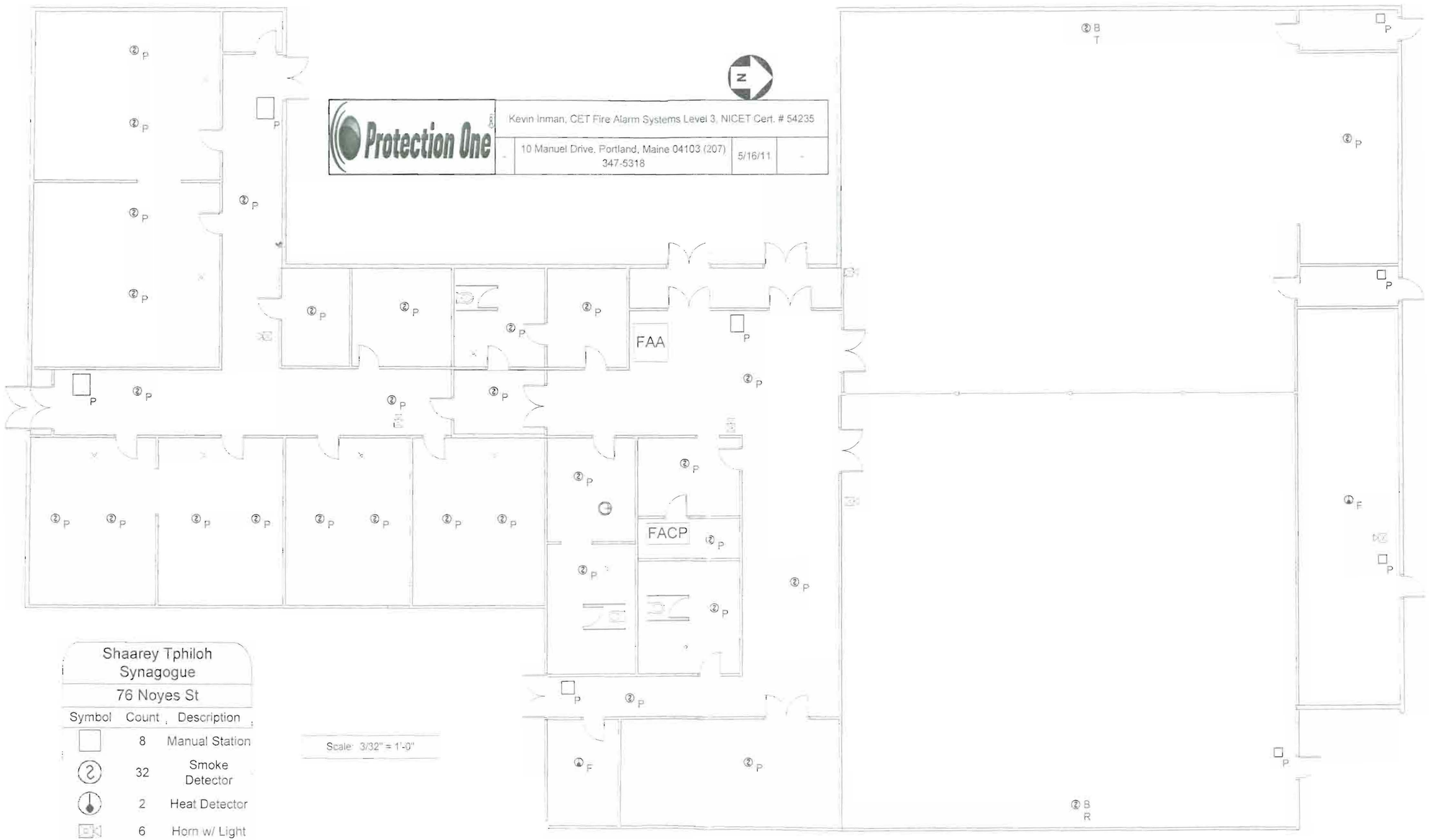


Shaarey Tphiloh Synagogue

76 Noyes St

Symbol	Count	Description
	8	Manual Station
	32	Smoke Detector
	2	Heat Detector
	6	Horn w/ Light
	9	Light

Scale: 3/32" = 1'-0"



Protection One

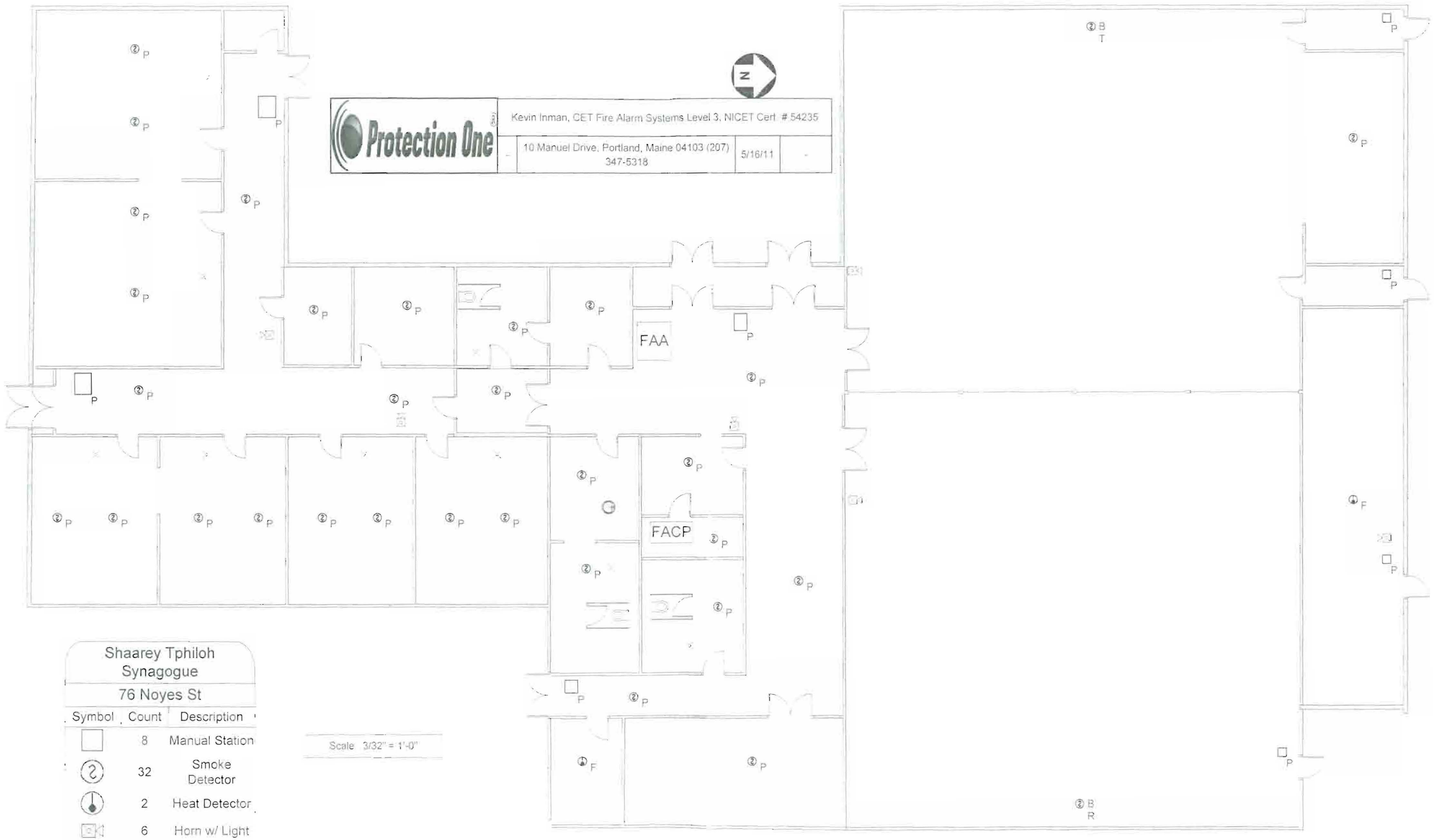
Kevin Inman, CET Fire Alarm Systems Level 3, NICET Cert. # 54235			
-	10 Manuel Drive, Portland, Maine 04103 (207) 347-5318	5/16/11	-

Shaarey Tphiloh Synagogue

76 Noyes St

Symbol	Count	Description
	8	Manual Station
(2)	32	Smoke Detector
	2	Heat Detector
	6	Horn w/ Light
	9	Light

Scale: 3/32" = 1'-0"



Shaarey Tphiloh Synagogue

76 Noyes St

Symbol	Count	Description
	8	Manual Station
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