

Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

# CITY OF PORTLAND BUILDING INSPECTION PERMIT

Please Read  
Application And  
Notes, If Any,  
Attached

Permit Number: 100810

PERMIT ISSUED

This is to certify that 85 INDIA STREET LLC/Protection One

has permission to install a Fire Alarm @ Wildwood Medicine

AT 85 India St

CBL 020 D010001

JUL 16 2010

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

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. [Signature]

Health Dept. \_\_\_\_\_

Appeal Board \_\_\_\_\_

Other \_\_\_\_\_

Department Name

[Signature]  
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD



# CITY OF PORTLAND, MAINE

Department of Building Inspections

## Original Receipt

7.8 2010

Received from James Coyne Robert

Location of Work 83 Julia St.

Cost of Construction \$ \_\_\_\_\_ Building Fee: \_\_\_\_\_

Permit Fee \$ \_\_\_\_\_ Site Fee: \_\_\_\_\_

Certificate of Occupancy Fee: \_\_\_\_\_

Total: 110

Building (I1) \_\_\_\_\_ Plumbing (I5) \_\_\_\_\_ Electrical (I2) \_\_\_\_\_ Site Plan (U2) \_\_\_\_\_

Other Fire Alarm

CBL: 2856

Check #: CC Total Collected \$ 110

**No work is to be started until permit issued.  
Please keep original receipt for your records.**

Taken by: [Signature]

WHITE - Applicant's Copy  
YELLOW - Office Copy  
PINK - Permit Copy

# City of Portland, Maine - Building or Use Permit Application

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

Permit No: 10-0810	Issue Date:	CBL: 020 D010001
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Location of Construction: 85 India St	Owner Name: 85 INDIA STREET LLC	Owner Address: 85 INDIA ST	Phone:
Business Name:	Contractor Name: Protection One	Contractor Address: 10 Manuel Drive Portland	Phone: 2073475316
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	Zone: B2b

Past Use: Commercial - Office	Proposed Use: Commercial - Office - install a Fire Alarm @ Wildwood Medicine	Permit Fee: \$110.00	Cost of Work: \$8,198.00	CEO District: 1
		FIRE DEPT: 7/12/10 w/conditions <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <input checked="" type="checkbox"/> Type: Alarm NFPA/IBC 03	

Proposed Project Description: install a Fire Alarm @ Wildwood Medicine	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:		Date:

Permit Taken By: Idobson	Date Applied For: 07/08/2010	<b>Zoning Approval</b>	
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Denied</p>	<p>Zoning Appeal</p> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied	<p>Historic Preservation</p> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied
	<p>Date: <i>7/9/10</i></p>	<p>Date: <i>[Signature]</i></p>	<p>Date: <i>[Signature]</i></p>

**PERMIT ISSUED**

JUL 16 2010

City of Portland

### 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 application 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 \_\_\_\_\_ PHONE \_\_\_\_\_



**City of Portland, Maine - Building or Use Permit**

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

Permit No: 10-0810	Date Applied For: 07/08/2010	CBL: 020 D010001
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Location of Construction: 85 India St	Owner Name: 85 INDIA STREET LLC	Owner Address: 85 INDIA ST	Phone:
Business Name:	Contractor Name: Protection One	Contractor Address: 10 Manuel Drive Portland	Phone (207) 347-5316
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	

Proposed Use: Commercial - Office - install a Fire Alarm @ Wildwood Medicine	Proposed Project Description: install a Fire Alarm @ Wildwood Medicine
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 07/09/2010

**Note:** **Ok to Issue:** ✓

- 1) Separate permits shall be required for future decks, sheds, pools, and/or garages.
- 2) This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. Without special approvals.
- 3) This property shall remain an office use on the first floor with 2 dwelling units above. Any change of use shall require a separate permit application for review and approval.
- 4) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Tammy Munson      **Approval Date:** 07/16/2010

**Note:** **Ok to Issue:** ✓

- 1) Fire Alarm systems shall be installed per Sec. 907 of the IBC 2003

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Ben Wallace Jr      **Approval Date:** 07/12/2010

**Note:** **Ok to Issue:** ✓

- 1) This system shall not have an alarm number assignment or master box connection
- 2) Central Station monitoring for addressable fire alarm systems shall be by point.
- 3) As-built documents shall be submitted in pdf to the Building Inspections Office upon completion of job.
- 4) System acceptance and commissioning must be co-ordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
- 5) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS". Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.
- 6) 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.
- 7) Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance
- 8) 2nd pull station to be located where 2nd exit is approved for construction.
- 9) All heat detectors to be ROR with the exception of the attic Heat detectors shall activate building evacuation signals and transmit to central station

PERMIT ISSUED

JUL 16 2010

City of Portland

**Comments:**



<b>Location of Construction:</b> 85 India St	<b>Owner Name:</b> 85 INDIA STREET LLC	<b>Owner Address:</b> 85 INDIA ST	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Protection One	<b>Contractor Address:</b> 10 Manuel Drive Portland	<b>Phone</b> (207) 347-5316
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Alarm System	

7/8/2010-mes: gave back to Lannie to re-do Wrong side of street and wrong CBL - needs to re-do

**PERMIT ISSUED**

JUL 16 2010

City of Portland

## BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY )  
or email: [buildinginspections@portlandmaine.gov](mailto: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 Inspection 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 with construction.

  X   A final inspection is required by the Fire Department.

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

PERMIT ISSUED

JUL 16 2010  
City of Portland



# 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: 83 INDIA STREET CBL: 28-J-6

Exact location: (within structure) ALL

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

Building owner: WILDWOOD MEDICINE, 83 INDIA ST, PORTLAND

System Designer (point of contact): ROBIN RUSSELL *mail*

Designer phone: (207) 347-5327 E-mail: ROBINRUSSELL@PROTECTIONONE.COM

Installing contractor: PROTECTION ONE Certificate of Fitness No: 1003

Contractor phone: (207) 345-5316 E-mail: JOHN.KEMPTON@PROTECTIONONE.COM

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
- Wiring diagram
- Annunciator details
- Equipment data sheets
- Battery & voltage drop calculations
- Input/ Output Matrix
- Designer qualifications
- Electrical Permit Pulled (check alarm/com)

COST OF WORK: \$8198.00

PERMIT FEE: \$110  
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

**RECEIVED**

JUL - 8 2010

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](http://www.portlandmaine.gov/fire) for every submittal. Submit all plans in electronic PDF in addition 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 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](http://www.portlandmaine.gov/fire).

Applicant signature: [Signature] Date: 7/8/10



Protection One Branch 11660

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

System Outputs

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 BSMT floor evacuation signals  
 Actuate 1st floor evacuation signals  
 Actuate 2nd floor evacuation signals  
 Transmit fire alarm signal to supervising station  
 Transmit supervisory signal to supervising station  
 Transmit trouble signal to supervising station

System Inputs

System Inputs	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 BSMT floor evacuation signals	Actuate 1st floor evacuation signals	Actuate 2nd floor evacuation signals	Transmit fire alarm signal to supervising station	Transmit supervisory signal to supervising station	Transmit trouble signal to supervising station	Safety Control	Supplementary
System Pull Stations	X	X					X	X	X	X				
System Smoke Detectors	X	X					X	X	X	X				
System Heat Detectors	X	X					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				



unlimited ideas. advanced solutions.

**Job Name: Wildwood Medicine, PA**

Wildwood Medicine  
 83 India Street  
 Portland, ME 04101  
 AHJ: City of Portland

**Prepared By:**

Robin Russell  
 Protection One  
 10 Manuel Drive  
 Portland, ME 04103  
 (207) 347-5327

NICET # 110826

**Circuit Information**

Panel Name: Silent Knight 5700  
 Circuit Name: NAC #1  
 Starting Voltage: Starting Voltage = 20.4

(1) amp circuit  
 Class B @ 14 AWG  
 DC 24 - volt Supply

Type and Model	Candela	Current (Amps)	Tone and Volume	Dist from last device	Dist from source (ft)	12	14	16	18
Horn/Strobe P2R	75	0.176	Temporal, High	35	35	20.273	20.199	20.079	19.890
Horn/Strobe P2R	75	0.176	Temporal, High	35	70	20.171	20.036	19.821	19.479
Horn/Strobe P2R	75	0.176	Temporal, High	35	105	20.094	19.914	19.626	19.168
Horn/Strobe P2R	75	0.176	Temporal, High	35	140	20.041	19.830	19.493	18.957
Strobe SR	15	0.066		30	170	20.017	19.792	19.432	18.861
Strobe SR	15	0.066		30	200	20.001	19.767	19.392	18.797
Strobe SR	15	0.066		30	230	19.993	19.754	19.372	18.765
Total current/amps 0.902	Total Dist: 230		voltage drop			0.407	0.646	1.028	1.635



innovative ideas. advanced solutions.

**Circuit Information**

Panel Name: Silent Knight 5700  
 Circuit Name: NAC #2  
 Starting Voltage: Starting Voltage = 20.4

(1) amp circuit  
 Class B @ 14 AWG  
 DC 24 - volt Supply

Type and Model	Candela	Current (Amps)	Tone and Volume	Dist from last device	Dist from source (ft)	12	14	16	18
Horn/Strobe P2R	75	0.176	Temporal, High	40	40	20.361	20.338	20.302	20.244
Strobe SR	15	0.066		30	70	20.353	20.326	20.282	20.212
Total current/amps 0.242	Total Dist:70		voltage drop			0.047	0.074	0.118	0.188





**Job Name: Wildwood Medicine, PA**

Wildwood Medicine  
 83 India Street  
 Portland, ME 04101  
 AHJ: City of Portland

**Prepared By:**

Robin Russell                      NICET # 110826  
 Protection One  
 10 Manuel Drive  
 Portland, ME 04103  
 (207) 347-5327

**Circuit Information**

Panel Name: Silent Knight 5700                      (1) amp circuit  
 Circuit Name: NAC #2                                      Class B @ 14 AWG  
 Starting Voltage: Starting Voltage = 20.4              DC 24 - volt Supply

Type and Model	Candela	Current (Amps)	Tone and Volume	Dist from last device	Dist from source (ft)	12	14	16	18
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**Job Name: Wildwood Medicine, PA**

Wildwood Medicine  
 83 India Street  
 Portland, ME 04101  
 AHJ: City of Portland

**Prepared By:**

Robin Russell  
 Protection One  
 10 Manuel Drive  
 Portland, ME 04103  
 (207) 347-5327

NICET # 110826

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Total current/amps 0.242	Total Dist: 70		voltage drop			0.047	0.074	0.118	0.188



**SILENT KNIGHT**

VERSION 02.24.09

Global Project Values:

Project Name: Wildwood Medicine, PA  
Project ID:   
Prepared By: Robin Russell  
Date: 7/7/2010

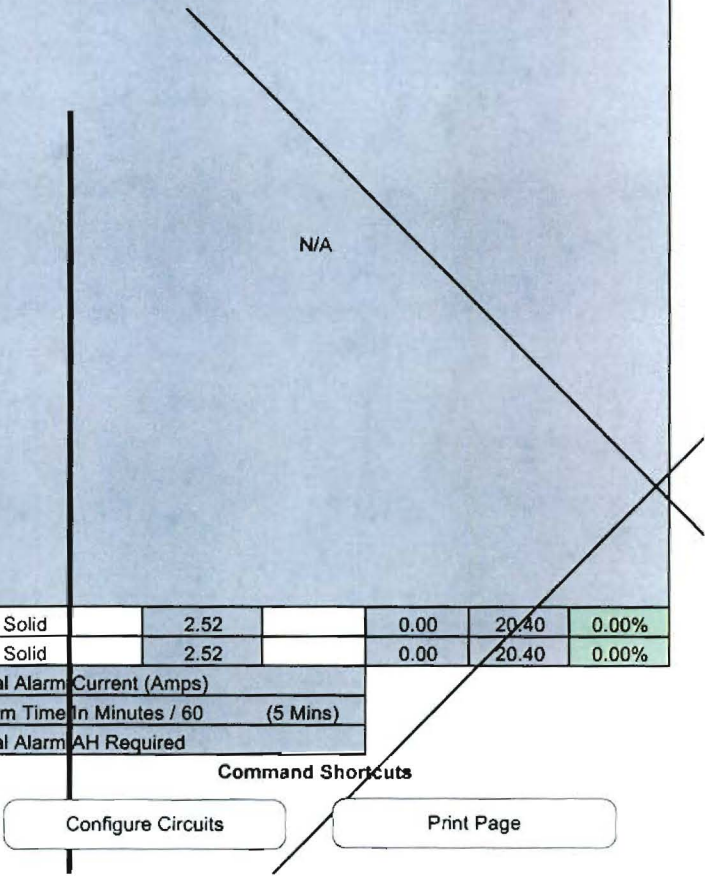
Standby Hours: 24  
Alarm Mins: 5  
Derating Factor: 1.2  
Voltage Drop Warning Threshold %: 10

Panel ID: 5700  
Location: 83 India Street, Portland, Maine 04

Model: 5700 Adv. 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		Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	%Drop
			Standby	Alarm						
5700	5700 CTRL Panel	1	0.200	0.325						
SD500-AIM	Addr. Input Mod		0.000	0.000						
SD500-MIM	Mini-Input Module	1	0.001	0.001						
SD500-ARM	Addr. Relay Module		0.000	0.000						
SD500-PS	Addr. Pull Station	8	0.004	0.004						
SD505-AIS	Addr. Ion Smoke Det		0.000	0.000						
SD505-AHS	Addr. Heat Detector	19	0.010	0.010						
SD505-APS	Addr. Photo Smoke Det	5	0.003	0.003						
SD505-DUCTR	Addr. Duct w/Relay		0.000	0.000						
SD505-DUCT	Addr. Duct		0.000	0.000						
SD500-ANM	Addr. Notification Module		0.000	0.000						
SD500-LED	Addr. LED Module		0.000	0.000						
SD500-SDM	Addr. Smoke Det. Mod.		0.000	0.000						
SD505-6RB	Addr. Det. Relay Base		0.000	0.000						
SD505-6SB	Addr. Det. Sounder Base		0.000	0.000						
SD505-6IB	Addr. Det. Isolator Base		0.000	0.000						
SD500-LIM	Line Isolation Module		0.000	0.000						
5860	LCD Remote Annunc		0.000	0.000						
5824	Serial/Parallel Module		0.000	0.000						
5496	Power Expander		0.000	0.000						
5895XL	Power Expander		0.000	0.000						
5865-4	LED Annunciator (4G)		0.000	0.000						
5865-3	LED Annunciator (3G)		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	0.836	#14 Solid	2.52		0.00	20.40	0.00%
NAC #2	Notification Appl Circuit		0.000	0.242	#14 Solid	2.52		0.00	20.40	0.00%
Total Standby Current (Amps)			0.218	1.421	Total Alarm Current (Amps)					
Standby Time In Hours			24	0.083	Alarm Time In Minutes / 60 (5 Mins)					
Total Standby AH Required			5.236	0.118	Total Alarm AH Required					
Total Combined AH Required			5.35							
Multiply By The Derating Factor			1.20							
Minimum Battery AmpHours Required			6.42							



Command Shortcuts

Configure Circuits

Print Page

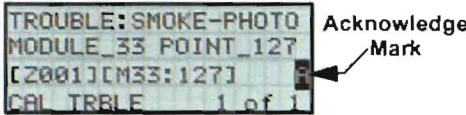




**SILENT KNIGHT**

## Model 5700 Basic Operating Instructions

These Instructions must be framed and displayed next to the 5700 panel in accordance with NFPA 72 fire code for Local Protected Fire Alarm Systems. Test the system in accordance to NFPA 72. Refer to Installation Manual P/N 151295.

Operation	Task to Perform
Silence Alarms and Troubles	Press  then enter a code if prompted. Silence LED will light.
Reset Alarms	Press  then enter a code if prompted.
Acknowledge Alarms and Troubles	Press  then enter a code if prompted. When the Alarm or Trouble is acknowledged an A will appear in the annunciator display as shown Below. 
View Alarms and Troubles	Press the  or  button to view Alarms and Troubles.
Conduct a Fire Drill	<ol style="list-style-type: none"> <li>1. Press  to access Main Menu, then enter a code if prompted.</li> <li>2. Then press  to select System Tests.</li> <li>3. Enter code if prompted, then press  to select Fire Drill.</li> <li>4. Press  to start the fire drill.</li> <li>5. Press  to end the fire drill.</li> </ol>
View a Points Status	<ol style="list-style-type: none"> <li>1. Press  to access Main Menu, then enter a code if prompted.</li> <li>2. Then press  to select Point Functions.</li> <li>3. Enter code if prompted, then press  to select Point Status.</li> <li>4. Select the module the device is located on by using the  or . Then press .</li> <li>5. Enter the point number.</li> </ol>
Check Detector Sensitivity	<ol style="list-style-type: none"> <li>1. Follow steps 1 through 5 for viewing a point status.</li> <li>2. Press  to view detector sensitivity.</li> </ol>
Set Time and Date	<ol style="list-style-type: none"> <li>1. Press  to access Main Menu, then enter a code if prompted.</li> <li>2. Then press  to select Set Time &amp; Date. Enter a code if prompted</li> <li>3. Make changes in the fields on the screen as necessary.</li> <li>4. Press  if you wish to keep the changes.</li> <li>5. Press  to set the entered time and date.</li> </ol>
Enable / Disable a Point	<ol style="list-style-type: none"> <li>1. Press  to access Main Menu, then enter a code if prompted.</li> <li>2. Then press  to select Point Functions.</li> <li>3. Enter code if prompted, then press  to select Disable / Enable Pt.</li> <li>4. Select the module the point is located on by using the  or . Then press .</li> <li>5. Enter the point number.</li> </ol>
View Event History	<ol style="list-style-type: none"> <li>1. Press  to access Main Menu, then enter a code if prompted.</li> <li>2. Press  to select Event History.</li> <li>3. Press the  or  to view events in the history buffer.</li> </ol>
For Service call:	

Cut Along the Dotted Line



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

### Description

5700 performs drift compensation and calibration checks on each of the sensors in the system.

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 also features a powerful built-in dual line fire communicator that allows for reporting of all system activity to a remote monitoring location.

### Features

- Up to 50 addressable points
- 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

### Electrical Specifications

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.

### Mechanical Specifications

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



**Model 5700**

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.



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**SLC Detectors**

**SD505-APS**

Addressable photoelectric smoke detector.

**SD505-AIS**

Addressable ionization smoke detector.

**SD505-AHS**

Absolute temperature heat detector that goes into alarm immediately if the temperature exceeds the programmable trip point. Trip point range from 135°F–150°F (0°C–37°C).

**SD505-6AB**

Six inch base for use with detector heads SD505-APS, SD505-AIS and SD505-AHS.

**SD505-4AB**

Four inch base for use with detector heads SD505-APS, SD505-AIS, and SD505-AHS.

**SD505-6SB**

Six-inch sounder base for use with existing sensor and base. Operates in single and multi-station modes and/or as a system sounder. Requires 2 additional wires for power.

**SD505-6IB**

Short circuit isolator base for SD505-AHS, SD505-APS, and SD505-AIS detectors.

**SD505-6RB**

Six-inch relay base for use with existing sensor and base. Provides one Form C contact.

**SD505-ADH**

Duct housing that detects smoke in HVAC ducts.

**SD505-ADHR**

Duct detector base with relay. Provides Form C alarm contact. For use with SD505-APS and SD505-AIS sensors. Compatible with SD505-DTS remote test switch.

**SD500-PS/SD500-PSDA**

SD500-PS is a single action pull station and SD500-PSDA is a dual action pull station.

**SLC Modules**

**Model SD500-AIM**

Dry contact input module for use with normally open dry contacts. It features an indicator LED to show alarm status.

**SD500-MIM**

Mini dry contact input module is a small version of the SD500-AIM. For use with pull stations and other normally open dry contact inputs.

**SD500-ANM**

Addressable notification module providing a single Class A or Class B notification circuit on the SLC.

**SD500-ARM**

Addressable relay module that features two Form C output relays. Provides indicator LED to show output status.

**SD500-SDM**

Two-wire detector input module. Allows for the connection of conventional 2-wire detectors on the SLC loop. Requires two additional wires for power.

**SD500-LIM**

A short circuit isolator module for SLC devices. When a short occurs on the SLC loop, it is detected as a trouble, but all SLC devices protected by the isolator module continue to operate.

**SD500-LED**

An LED driver capable of driving 80 LEDs through the SLC loop. Up to 40 SD500-LEDs can be used per system.

**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**

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



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## SD500-PS and SD500-PSDA Addressable Pull-Station



**IntelliKnight's addressable pull stations combine fast response with pin-point location ID.**

The SD500-PS and SD500-PSDA are a single action or dual action addressable manual fire alarm pull station for use with Silent Knight's IntelliKnight fire control panel. Extremely easy to operate, the SD500-PS/PSDA 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. The SD500-PS/PSDA mounts to a single gang box and features a rugged metal construction that lasts and lasts.

Combine all this with the features you've come to expect from Silent Knight - easy installation and stable operation - and it adds up to a flexible solution for all your fire protection needs.

### Model SD500-PS & SD500-PSDA Addressable Pull Station

The SD500-PS is a single action addressable fire pull station, and the SD500--PSDA is a dual action addressable fire pull station. The SD500-PS/PSDA feature rugged metal construction. A terminal strip on back of the pull station allows interconnection of the pull station to the SLC of an IntelliKnight control panel. The SD500-PS/PSDA is designed for indoor use in non-explosive environments. The normally open initiating point contacts are gold-plated to avoid risk of corrosion. The SD500-PS/PSDA has been tested by UL for compliance to the requirements of the Americans with Disabilities ACT (ADA).

#### Features

- UL Listed
- CSFM listed
- ADA compliant
- Key reset (Same key as Silent Knight enclosures)
- Surface mount back box available
- Terminals - accept up to 14 gauge wire

- Extremely easy to operate
- Corrosion-resistant gold-plated contacts.
- Reflective label makes it easier to locate in low light

#### Operation

The SD500-PS/PSDA single action pull stations are operated by a pull on the front pull cover of the station. A plunger switch, wired to a self contained addressable module, is released as the pull station opens to initiate the alarm. Once operated, the cover hangs down and can be seen up to 100 feet away. The pull station is reset by returning the front cover to the normal upright position and relocking the station with a reset key. The reset keys are the same keys used on Silent Knight enclosures.

The SD500-PS/PSDA includes a status LED which blinks, indicating that the addressable module is communicating with the loop. The status LED lights continuously during an alarm. A dip switch on the addressable module is used to set the unique address.

#### Specifications

Operating Voltage:	24VDC
Standby Current:	.55mA
Alarm Current:	.55mA



#### SD500-PS

Ambient Temperature:	32°F to 120°F (0°C to 49°C)
Mounting:	Single gang box -
Optional Red Surface Mount Box PS-SMBB	



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# SD500-PS and SD500-PSDA Addressable Pull-Station

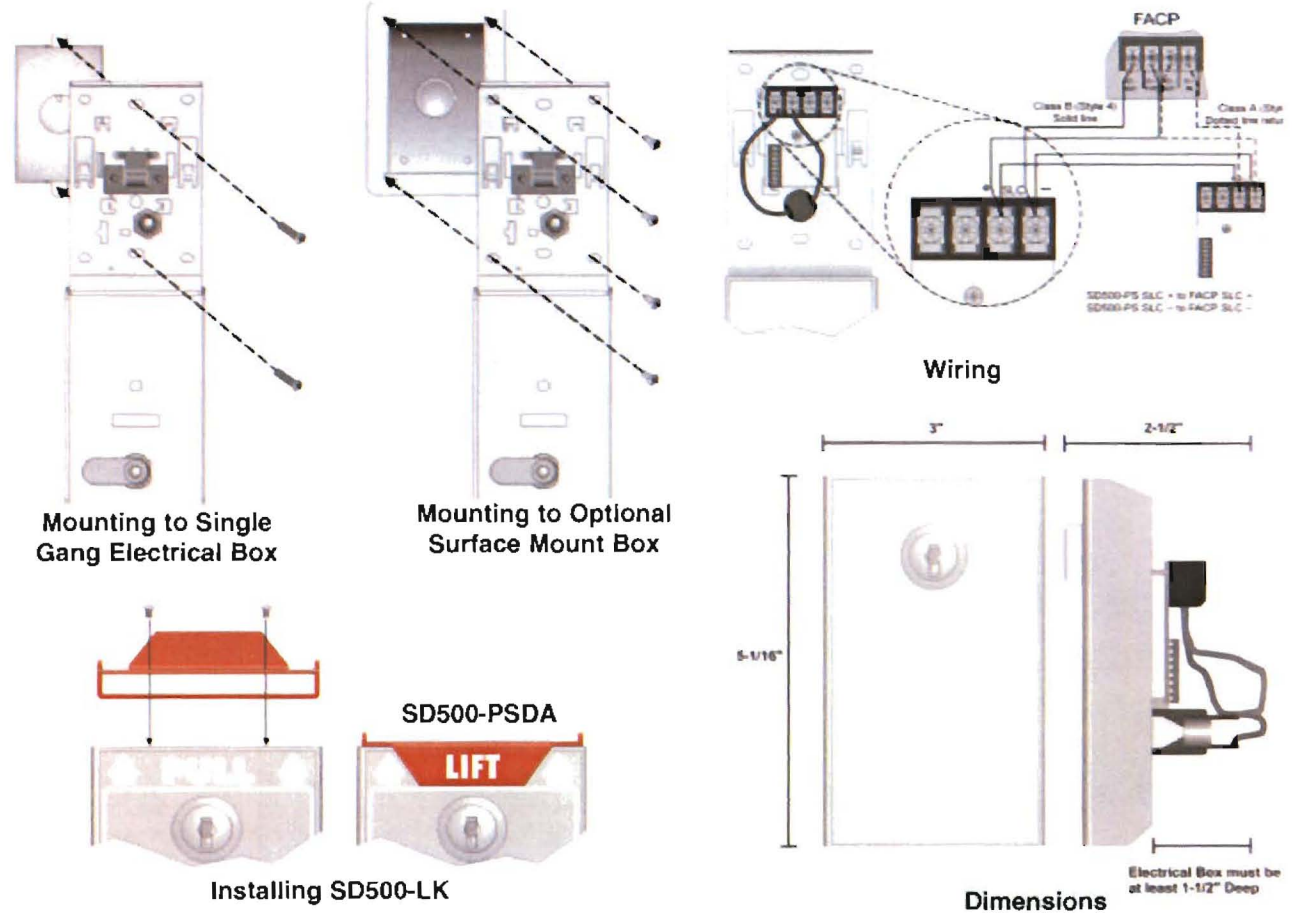


## Engineering Specifications

Manual pull station shall be addressable Module SD500-PS/SD500-PSDA. Equipment shall be made of 14 gauge C.R.S.(Cold Rolled Steel), painted with a red enamel . The label shall contain the words Fire Alarm and be made of a reflective material embossed text 3/8 inches tall. Operating instruction shall be clearly visible on the same label. Manual station Shall contain a key operated test and reset lock using a lock plate actuator, the key shall match the control panel.

Manual station shall contain four terminal blocks with two connected to the addressable module and two connect to the SLC loop. Manual station shall provide data to the control panel with an ID address programmed by dip switch settings .

Manual stations shall be Underwriters Laboratories Inc. listed and installed within the limits defined in the American Disabilities Act.



**SILENT KNIGHT**

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7550 Meridian Circle, Maple Grove, MN 55369-4927  
**800-446-6444** or in Minnesota 763-493-6435  
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 World Wide Web: <http://www.silentknight.com>

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## Addressable Photoelectric Type Smoke Detector



Detect smoldering fires quickly and get help fast with IntelliKnight® photoelectric smoke detectors.

IntelliKnight addressable photoelectric smoke detectors are the clear choice for commercial settings where smoldering fires are a threat. In addition to accurately detecting a smoldering fire, each SD505-APS photoelectric detector has a unique address, which is recognized by the IntelliKnight panel. No precious seconds are wasted in determining location of an alarm.

The SD505-APS compensates automatically for contamination in the environment. And detector testing is simple—even from a remote site. Like other IntelliKnight detector models, the SD505-APS offers a low profile for pleasing aesthetics. The IntelliKnight family of detectors has been designed to use a common base, Model SD505-6AB, allowing complete application and placement flexibility. Combine all this with the features you've come to expect from Silent Knight smoke detectors—easy installation, stable operation, RF/transient protection, and vandal-resistant locking—and it adds up to a flexible solution for all your fire protection needs.

### Model SD505-APS Analog / Addressable Photoelectric Type Smoke Detector

The SD505-APS is particularly suited to detecting dense smoke typical of fires involving materials such as soft furnishings, plastic, foam or other similar materials which tend to smolder and produce large visible particles.

The detector features automatic compensation for contamination and a simple detector calibration test procedure that can be run from the panel or remotely (using the Windows™ based downloading software).

### Operation

The SD505-APS units made up of an LED light source and a silicon photo diode receiving element. In a normal standby condition, the receiving element receives no light from the pulsing light source. In the event or fire, smoke enters the detector and light is reflected from the smoke particles to the receiving element.

The light received is converted into an electronic signal. Under normal conditions, the status LED blinks approximately every 15 seconds, indicating that the head is communicating with the loop. The LED lights continuously during the alarm period.

### Features

- Low profile, 2 inches, including base
- Simple and reliable addressing without mechanical switches
- Automatic compensation for sensor contamination
- Built-in fire test feature
- Simple detector calibration testing through the control panel or remotely through a Windows™ based computer software.
- Vandal-resistance locking features
- Field cleanable
- UL listed, meets NFPA 72 Ch 7 requirements
- CSFM approved
- MEA approved
- FM Approved



### SD505-APS Smoke Detector

#### Specifications

Operating Voltage: 17-41 VDC

Current Consumption:

Standby:	.55 mA
Alarm:	.55 mA

Ambient Temperature: 32°F to 120°F  
(0°C to 49°C)

Mounting: 4" Square, 4" OCT, Single gang mud ring

Relative Humidity: 85% noncondensing

Air Velocity: 0 - 300 FPM

Compatible Bases: SD505-6AB  
(Sold Separately) (6" Base)  
SD505-4AB  
(4" Base)



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# Model SD505-APS Addressable Photoelectric Type Smoke Detector



## Engineering Specifications

The contractor shall furnish and install where indicated on the plans, addressable photoelectric smoke detector Silent Knight SD505-APS. The combination detector head, and twist-lock base, shall be UL® listed compatible with Silent Knight's IntelliKnight fire control panels.

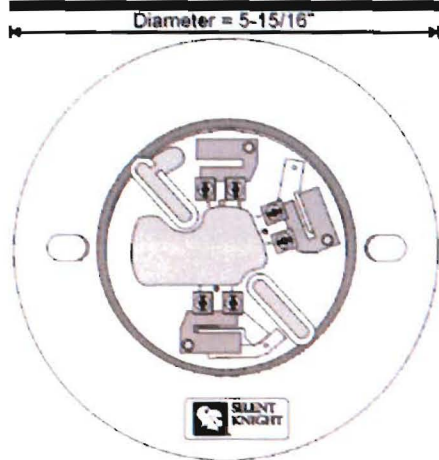
The base shall permit direct interchange with Silent Knight SD505-AIS Ionization Smoke Detector, or SD505-AHS Heat Detector. Base shall be the appropriate twist-lock base SD505-6AB.

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.

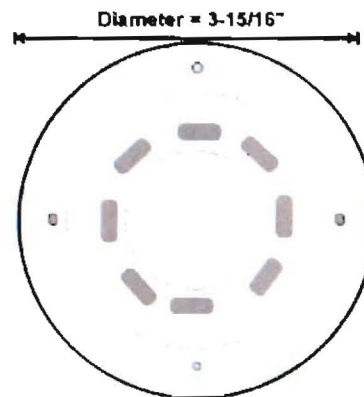
The calibration of the detector shall be capable of being selected and measured by the control panel without the need for external test apparatus.

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 SD505-APS 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.



**Model SD505-6AB Detector Base  
(front view)**



**Model SD505-APS Detector Head  
(front view)**



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FORM# 350225 Rev C., 05/05  
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## SD500-AIM & SD500-MIM Addressable Input Modules



**IntelliKnight's addressable contact monitor modules combine fast response with pinpoint location ID. A combination that saves lives and property.**

The SD500-AIM and SD500-MIM are addressable input modules for use with Silent Knight IntelliKnight fire alarm control panels (FACP). The SD500-AIM and SD500-MIM are designed to be used with pull stations, water flow switches, and other applications requiring dry contact alarm initiation devices.

The SD500-AIM addressable input module mounts to a 4"-square box. The SD500-MIM mini input module fits inside a single gang box. The modules are supervised, single input contact monitors. Using an EOL resistor, they monitor for alarm contact closures and for open circuit wiring fault conditions.

The SD500-AIM and SD500-MIM offer a compact design for adaptability and pleasing aesthetics as well as easy installation and stable operation—a flexible solution for all your fire protection needs.

The SD500-AIM and SD500-MIM offer a compact design for adaptability and pleasing aesthetics as well as easy installation and stable operation—a flexible solution for all your fire protection needs.

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

The SD500-AIM and SD500-MIM are addressable input modules for use with the IntelliKnight fire alarm control panels (FACPs). The SD500-AIM addressable input module mounts to a 4"-square box. The SD500-MIM mini input module fits inside a single gang box. Both input modules are designed to be used with pull stations, water flow switches, and other applications requiring dry contact alarm initiation devices.

These modules are supervised, single input contact monitors. Using an EOL resistor, they monitor for alarm contact closures and for open circuit wiring fault conditions. If a fault occurs in the wiring, the module alerts the FACP. Each addressable input module is programmed with a unique signal line circuit (SLC) loop address.

### Features

- Single contact monitor
- SD500-AIM supports Class A (Style D) or Class B (Style B) contact monitor wiring
- SD500-MIM support for Class B (Style B) contact monitor wiring
- Attractive ivory cover plate with the SD500-AIM
- Small and lightweight size allows for flexible mounting options with the SD500-MIM

- DIP switch programmable for fast installation
- Up to 2500 ft wiring distance from either input module to contact
- Use up to 14 gauge wire
- UL listed

### Electrical Specifications

Standby Current: 0.55 mA

Alarm Current: 23 mA max for one device; 46 mA max for two devices; 0.55 mA for each additional device

Line Resistance: 50Ω max

### Mechanical Specifications

SD500-AIM Physical Description

Dimensions:  
4.9" W x 4.9" H x 1" D  
(12.4 W x 12.4 H x 2.5 D cm)  
Weight: 3.6 oz (120.1 g)  
Color: Ivory cover plate

SD500-MIM Physical Description

Dimensions:  
1.5" W x 2.5" H x 0.7" D  
(3.8 W x 6.4 H x 1.8 D cm)  
Weight: 1.6 oz (45.4 g)

### Environmental

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

Humidity:  
10% – 93% non-condensing



### Approvals

NFPA 71 & NFPA 72  
UL 864  
CSFM 7300-0559: 132  
MEA 429-92-E Vol. IX  
FM Approved for use with the 5820XL





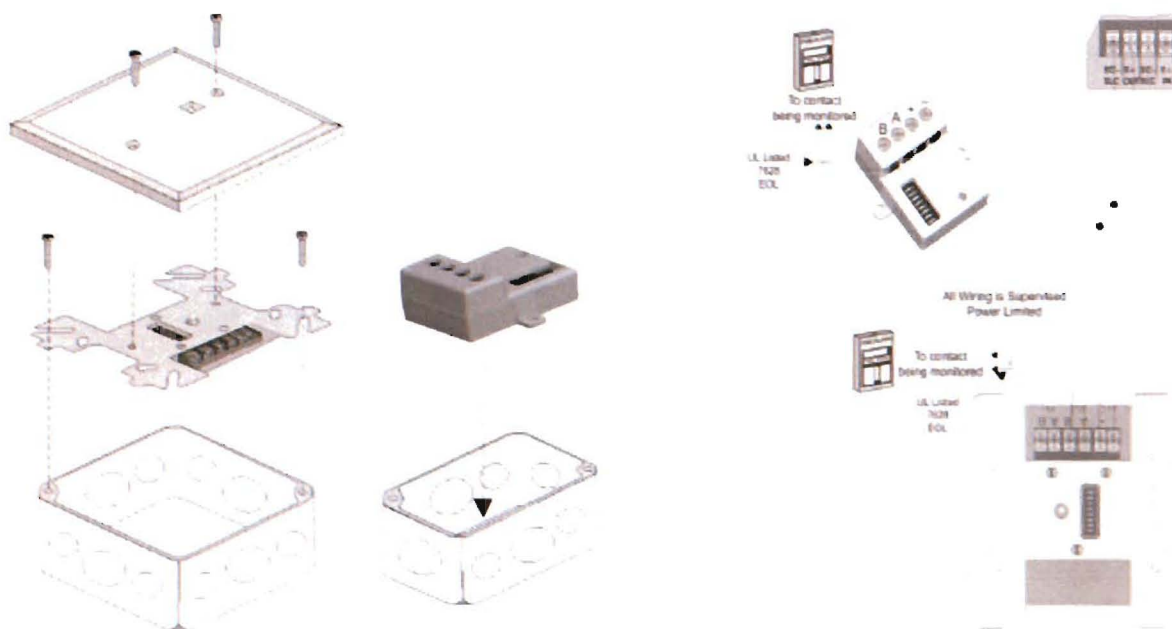
## SD500-AIM & SD500-MIM Addressable Input Modules



### Engineering Specifications

The contractor shall furnish and install where indicated on the plans, addressable input modules Silent Knight SD500-AIM or SD500-MIM. The modules shall be UL listed and compatible with Silent Knight's IntelliKnight FACP's.

The SD500-MIM shall fit inside a single gang electrical box. The SD500-AIM shall be supplied with a plastic cover and shall be suitable for mounting to a 4"-square or double gang electrical box. The SD500-AIM addressable input module must provide a monitor LED that is visible from outside the cover plate.



#### Compatible FACP's

5820XL  
5808  
5700

#### Ordering Information

**SD500-AIM Input Module**  
Addressable input module with ivory cover plate.

**SD500-MIM Input Module**  
Addressable mini input module.



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FORM# 350231 Rev D.

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## 5600 Series Mechanical Heat Detectors

*System Sensor's 5600 series mechanical heat detectors offer a low-cost means for property protection against fire, and for non-life-safety installations where smoke detectors are inappropriate.*



### Features

- Multiple configurations for installations:
  - Single- and dual-circuit models
  - Fixed temp and combination fixed- temp/rate-of-rise 135°F or 194°F ratings.
- Plain housing for residential installations (Model 5601P)
- Easy-to-use terminal screws
- A broad range of back box mounting options:
  - Single gang
  - 3.5" and 4" Octagonal
  - 4" square with square to round plaster ring
- Reversible mounting bracket

**Multiple configurations.** The 5600 series offers a full-line of configurations to accommodate a broad range of applications. Both single- and dual-circuit models are available for low- and high-temperature ratings with either fixed temperature or combination fixed temperature/rate-of-rise (ROR) activation. The ROR element of the fixed/ROR models is restorable to accommodate field-testing.

**Installation flexibility.** To satisfy a variety of installation needs, the 5600 series easily mounts to single-gang and octagonal back boxes. And these models accommodate four-square back boxes, when used with a square to round plaster ring. The reversible mounting bracket permits both flush- and surface-mount back box installations.

**Visual identification.** The 5600 series provides clear markings on the exterior of the unit to ensure that the proper detector is being used. Alphanumeric characters identify the activation method, as well as the temperature rating, in Fahrenheit and Celsius degrees. Fixed temperature models are identified FX, while combination fixed/rate-of-rise units are marked FX/ROR. The 5600 series also provides a post-activation indicator in the form of a collector. When the detector is activated, the collector drops from the unit, making it easy to identify the unit in alarm.

### Agency Listings



## Specifications

### Architectural/Engineering Specifications

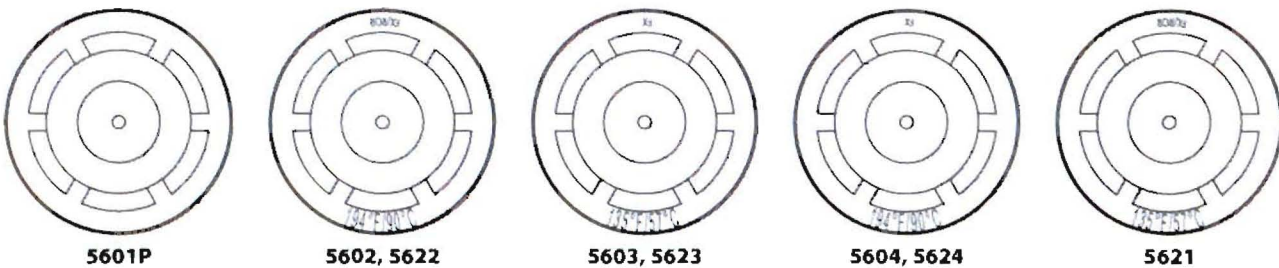
Mechanical heat detector shall be a System Sensor 5600 series model number \_\_\_\_\_, listed to Underwriters Laboratories UL 521 for Heat Detectors for Fire Protective Signaling Systems. The detector shall be either a single-circuit or a dual-circuit type, normally open. The detector shall be rated for activation at either 135°F (57°C) or 194°F (90°C), and shall activate by means of a fixed temperature thermal sensor, or a combination fixed temperature/rate-of-rise thermal sensor. The rate-of-rise element shall be activated by a rapid rise in temperature, approximately 15°F (8.3°C) per minute. The detector shall include a reversible mounting bracket for mounting to 3½-inch and 4-inch octagonal, single gang, and 4-inch square back boxes with a square to round plaster ring. Wiring connections shall be made by means of SEMS screws that shall accommodate 14–22AWG wire. The detector shall contain alphanumeric markings on the exterior of the housing to identify its temperature rating and activation method. The rate-of-rise element of combination fixed temperature/rate-of-rise models shall be restorable, to allow for field-testing. The detectors shall include an external collector that shall drop upon activation to identify the unit in alarm.

### Physical/Operating Specifications

<b>Maximum Installation Temperature</b>	5601P, 5603, 5621, and 5623: 100°F (38°C) 5602, 5604, 5622, and 5624: 150°F (65.6°C)
<b>Operating Humidity Range</b>	5 to 95% RH non-condensing
<b>Dimensions with mounting bracket</b>	Diameter: 4.57 inches (11.6cm) Height: 1.69 inches (4.3cm)
<b>Alarm Temperature</b>	5601P, 5603, 5621, and 5623: 135°F (57°C) 5602, 5604, 5622, and 5624: 194°F (90°C)
<b>Weight</b>	6 oz. (170 grams)
<b>Rate-of-Rise Threshold</b>	15°F (8.3°C) rise per minute (models 5601P, 5602, 5621, and 5622 only)
<b>Mounting</b>	3½-inch octagonal back box 4-inch octagonal back box Single gang back box 4-inch square back box with a square to round plaster ring

### Electrical Specifications

<b>Operating Voltage / Contact Ratings</b>	6–125VAC / 3A 6–28VDC / 1A 125VDC / 0.3A 250VDC / 0.1A
<b>Input Terminals</b>	14–22 AWG



## Ordering Information

Model	Circuit	Identification Method on Exterior	Temperature Rating	Activation	UL Protected Spacing – 10 Foot Ceiling*
5601P	Single	None	135°F (57°C)	Fixed Temperature / Rate-of-Rise	50 feet × 50 feet (15.24m × 15.2m)
5602	Single	Lettering	194°F (90°C)	Fixed Temperature / Rate-of-Rise	50 feet × 50 feet (15.24m × 15.2m)
5603	Single	Lettering	135°F (57°C)	Fixed Temperature	25 feet × 25 feet (7.62m × 7.62m)
5604	Single	Lettering	194°F (90°C)	Fixed Temperature	25 feet × 25 feet (7.62m × 7.62m)
5621	Dual	Lettering	135°F (57°C)	Fixed Temperature / Rate-of-Rise	50 feet × 50 feet (15.24m × 15.2m)
5622	Dual	Lettering	194°F (90°C)	Fixed Temperature / Rate-of-Rise	50 feet × 50 feet (15.24m × 15.2m)
5623	Dual	Lettering	135°F (57°C)	Fixed Temperature	25 feet × 25 feet (7.62m × 7.62m)
5624	Dual	Lettering	194°F (90°C)	Fixed Temperature	25 feet × 25 feet (7.62m × 7.62m)

\*NOTE: Refer to NFPA72 guidelines for spacing reductions when ceiling heights exceed 10 feet.



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

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AQ5-0351-002 - 11/06 - 1676



## Addressable Heat Detector



**IntelliKnight® addressable heat detectors combine accurate heat detection with pin-point location ID.**

**An essential combination for any installation.**

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.

Like other IntelliKnight detector models, the SD505-AHS offers a low profile for pleasing aesthetics.

The IntelliKnight family of detectors has been designed to use a common base, Model SD505-6AB, allowing complete application and placement flexibility. Combine all this with the features you've come to expect from Silent Knight detectors—easy installation, stable operation, RF/transient protection, and vandal-resistant locking—and it adds up to a flexible solution for all your fire protection needs.

### Model SD505-AHS Addressable Heat Detector

The SD505-AHS is a heat detector suited to virtually any commercial setting. The SD505-AHS is an absolute temperature device. This means that it responds in alarm if the temperature goes above the trip point (programmed at the panel).

The SD505-AHS provides accurate temperature measurement data to the fire alarm control panel. This heat detector is particularly suited to environments where smoke detectors cannot be used because of the presence of steam or cooking fumes, such as in a kitchen.

### Operation

The SD505-AHS unit is made up of an externally mounted thermistor with a specially designed cover that protects the thermistor while allowing maximum air flow. The thermistor reads the temperature from the air it takes in. It then transmits a signal representing the temperature to the IntelliKnight panel.

If the temperature exceeds the trip point (programmed at the panel), an alarm occurs. The status LED lights continuously during the alarm period.

Under normal conditions, the status LED blinks approximately every 15 seconds, indicating that the head is communicating with the loop.

### Features

- Low profile, 2 inches, including base
- Absolute temperature device
- Simple and reliable addressing
- Uses digital communication protocol
- The SD505-AHS is UL Listed and meets the requirements outlined in NFPA 72 Inspection Testing and Maintenance, Chapter 7.
- CFSM listed
- MEA listed
- FM approved



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by Honeywell



### SD505-AHS Heat Detector Specifications

Operating Voltage:	17 to 41 VDC
Current Consumption:	
Standby:	.55 mA
Alarm:	.55 mA
Detection Temperature Range:	135°F to 150°F (57°C TO 65°C)
Ambient Temperature:	32°F to 120°F (0°C to 49°C)
Mounting:	4" SQR, 4" OCT Single gang mud ring
Rated Spacing:	70' between sensors on smooth ceilings.
Compatible Bases: (Sold Separately)	SD505-6AB (6" Base) SD505-4AB (4" Base)



# Model SD505-AHS Addressable Heat Detector



## Engineering Specifications

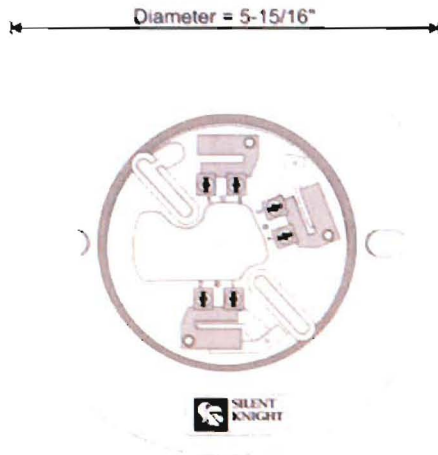
The contractor shall furnish and install where indicated on the plans, addressable heat detector Silent Knight SD505-AHS. The combination detector head, and twist-lock base, shall be UL® listed compatible with Silent Knight's IntelliKnight fire alarm control panels.

The base shall permit direct interchange with Silent SD505-APS Photoelectric Smoke Detector, or SD505-AIS Ionization Smoke Detector. Base shall be the appropriate twist-lock base SD505-6AB.

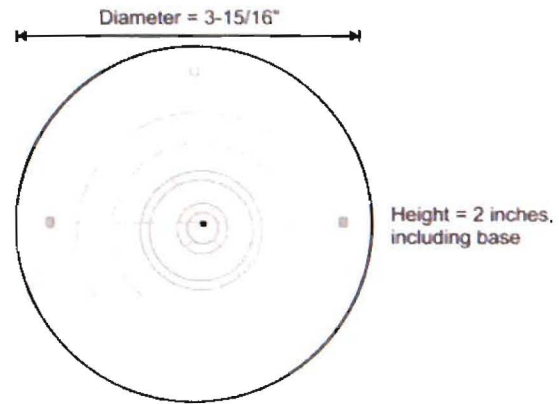
The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady at full brilliance. The detector may be reset by actuating the control panel reset switch.

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.



**Model SD505-6AB Detector Base  
(Front View)**



**Model SD505-AHS Detector Head  
(Front View)**



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 7550 Meridian Circle Suite 100, Maple Grove, Mn 55369-4927. Phone: (800) 328-0103, Fax: (763) 493-6475.

**MADE IN AMERICA**

FORM# 350229 Rev B., 05/05

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## 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.*



**SPECTRAlert**  
**ADVANCE**  
from System Sensor

### Features

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

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

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

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

### Agency Listings



7125-1653.186 (indoor strobes)  
7125-1653.188 (horn strobes,  
chime strobes)  
7135-1653.189 (horns, chimes)



# SpectrAlert Advance Specifications

## Architect/Engineer Specifications

### General

SpectrAlert Advance horns, strobes, and horn strobes shall mount to a standard 4 x 4 x 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 x 4 x 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 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

### Strobe

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

### Horn Strobe Combination

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

### Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4½ x 4½ x 2½-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

## Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR <sup>1</sup>
Operating Voltage Range <sup>2</sup>	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Ceiling-Mount Dimensions (including lens)	6.8" diameter x 2.5" high (173 mm diameter x 64 mm high)
Wall-Mount Dimensions (including lens)	5.6" L x 4.7" W x 2.5" D (142 mm L x 119 mm W x 64 mm D)
Horn Dimensions	5.6" L x 4.7" W x 1.3" D (142 mm L x 119 mm W x 33 mm D)
Wall-Mount Back Box Skirt Dimensions (BBS-2, BBSW-2)	5.9" L x 5.0" W x 2.2" D (151 mm L x 128 mm W x 56 mm D)
Ceiling-Mount Back Box Skirt Dimensions (BBSC-2, BBSCW-2)	7.1" diameter x 2.2" high (180 mm diameter x 57 mm high)
Wall-Mount Trim Ring Dimensions (sold as a 5 pack) (TR-HS, TRW-HS)	5.7" L x 4.8" W x 0.35" D (145 mm L x 122 mm W x 9 mm D)
Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)	6.9" diameter x 0.35" high (175 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 Draw (mA RMS)						UL Max. Horn Current Draw (mA RMS)					
	Candela	8-17.5 Volts		16-33 Volts		Sound Pattern	dB	8-17.5 Volts		16-33 Volts	
		DC	FWR	DC	FWR			DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71	Temporal	High	57	55	69	75
	15/75	142	148	77	81	Temporal	Medium	44	49	58	69
	30	NA	NA	94	96	Temporal	Low	38	44	44	48
	75	NA	NA	158	153	Non-temporal	High	57	56	69	75
	95	NA	NA	181	176	Non-temporal	Medium	42	50	60	69
	110	NA	NA	202	195	Non-temporal	Low	41	44	50	50
High Candela Range	115	NA	NA	210	205	Coded	High	57	55	69	75
	135	NA	NA	228	207	Coded	Medium	44	51	56	69
	150	NA	NA	246	220	Coded	Low	40	46	52	50
	177	NA	NA	281	251						
	185	NA	NA	286	258						

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15-115 cd)										
	8-17.5 Volts				16-33 Volts					
	15	15/75	15	15/75	30	75	95	110	115	
DC Input										
Temporal High	137	147	79	90	107	176	194	212	218	
Temporal Medium	132	144	69	80	97	157	182	201	210	
Temporal Low	132	143	66	77	93	154	179	198	207	
Non-Temporal High	141	152	91	100	116	176	201	221	229	
Non-Temporal Medium	133	145	75	85	102	163	187	207	216	
Non-Temporal Low	131	144	68	79	96	156	182	201	210	
<b>FWR Input</b>										
Temporal High	136	155	88	97	112	168	190	210	218	
Temporal Medium	129	152	78	88	103	160	184	202	206	
Temporal Low	129	151	76	86	101	160	184	194	201	
Non-Temporal High	142	161	103	112	126	181	203	221	229	
Non-Temporal Medium	134	155	85	95	110	166	189	208	216	
Non-Temporal Low	132	154	80	90	105	161	184	202	211	

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135-185 cd)										
	16-33 Volts				16-33 Volts					
	DC Input	135	150	177	185	FWR Input	135	150	177	185
Temporal High		245	259	290	297	Temporal High	215	231	258	265
Temporal Medium		235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low		232	251	282	292	Temporal Low	207	221	248	256
Non-Temporal High		255	270	303	309	Non-Temporal High	233	248	275	281
Non-Temporal Medium		242	259	293	299	Non-Temporal Medium	219	232	262	267
Non-Temporal Low		238	254	291	295	Non-Temporal Low	214	229	256	262

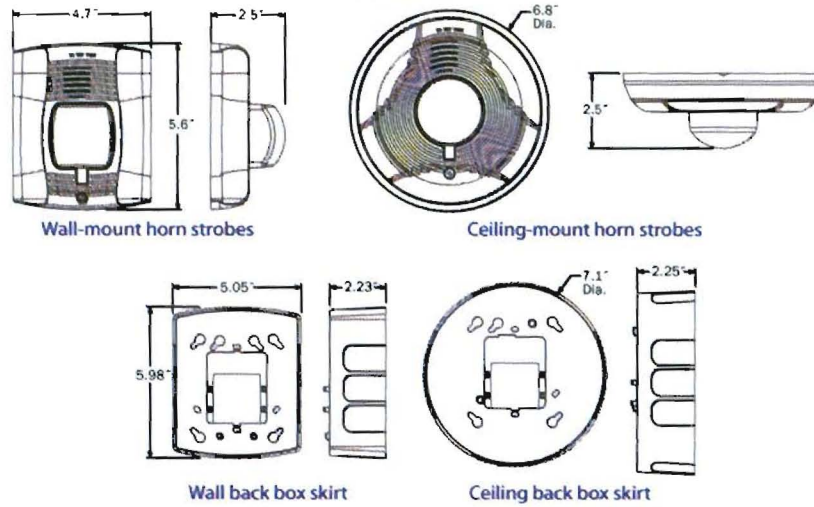
## Horn Tones and Sound Output Data

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

<sup>1</sup>Settings 7, 8, and 9 are not available on 2-wire horn strobe.



## SpectrAlert Advance Dimensions



## SpectrAlert Advance Ordering Information

Model	Description
<b>Wall Horn Strobes</b>	
P2R*	2-Wire Horn Strobe, Standard cd, Red
P2RH*	2-Wire Horn Strobe, High cd, Red
P2W*	2-Wire Horn Strobe, Standard cd, White
P2WH*	2-Wire Horn Strobe, High cd, White
P4R*	4-Wire Horn Strobe, Standard cd, Red
P4RH*	4-Wire Horn Strobe, High cd, Red
P4W*	4-Wire Horn Strobe, Standard cd, White
<b>Wall Strobes</b>	
SR**	Strobe, Standard cd, Red
SRH**	Strobe, High cd, Red
SW*	Strobe, Standard cd, White
SWH*	Strobe, High cd, White
<b>Ceiling Horn Strobes</b>	
PC2R*	2-Wire Horn Strobe, Standard cd, Red
PC2RH*	2-Wire Horn Strobe, High cd, Red
PC2W**	2-Wire Horn Strobe, Standard cd, White
PC2WH**	2-Wire Horn Strobe, High cd, White
PC4R*	4-Wire Horn Strobe, Standard cd, Red
PC4RH*	4-Wire Horn Strobe, High cd, Red
PC4W*	4-Wire Horn Strobe, Standard cd, White

Model	Description
<b>Ceiling Strobes</b>	
SCR	Strobe, Standard cd, Red
SCRH	Strobe, High cd, Red
SCW*	Strobe, Standard cd, White
SCWH	Strobe, High cd, White
<b>Horns</b>	
HR	Horn, Red
HW	Horn, White
<b>Accessories</b>	
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White
TR-HS	Trim Ring, Wall, Red
TRW-HS	Trim Ring, Wall, White
TRC-HS	Trim Ring, Ceiling, Red
TRCW-HS	Trim Ring, Ceiling, White

### Notes:

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

† Add "-SP" to model number for "FUEGO" marking on cover, e.g., P2R-SP.

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



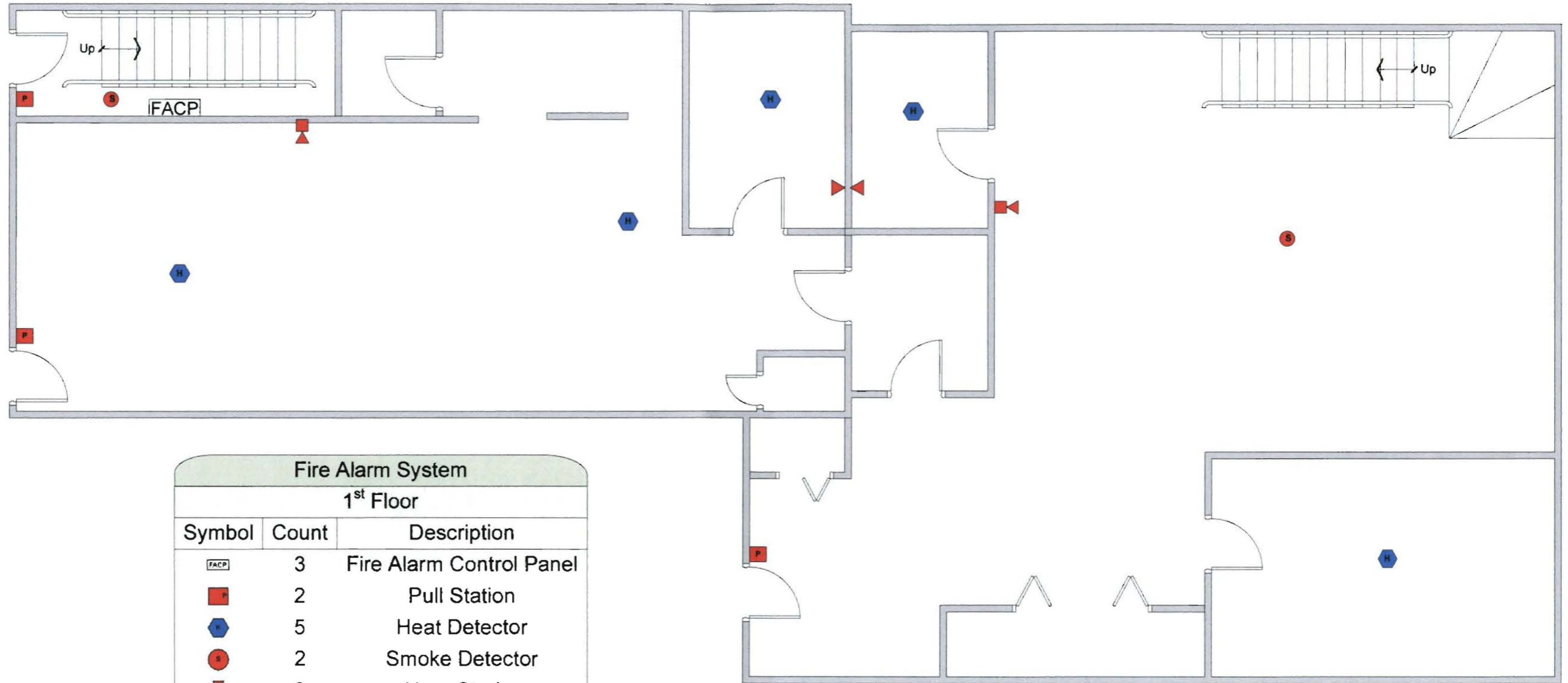
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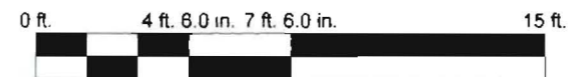


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**83 India Street, Portland, Maine 04101**

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Fire Alarm System		
1 <sup>st</sup> Floor		
Symbol	Count	Description
	3	Fire Alarm Control Panel
	2	Pull Station
	5	Heat Detector
	2	Smoke Detector
	3	Horn Strobe
	2	Strobe



Scale: 3/16 : 1



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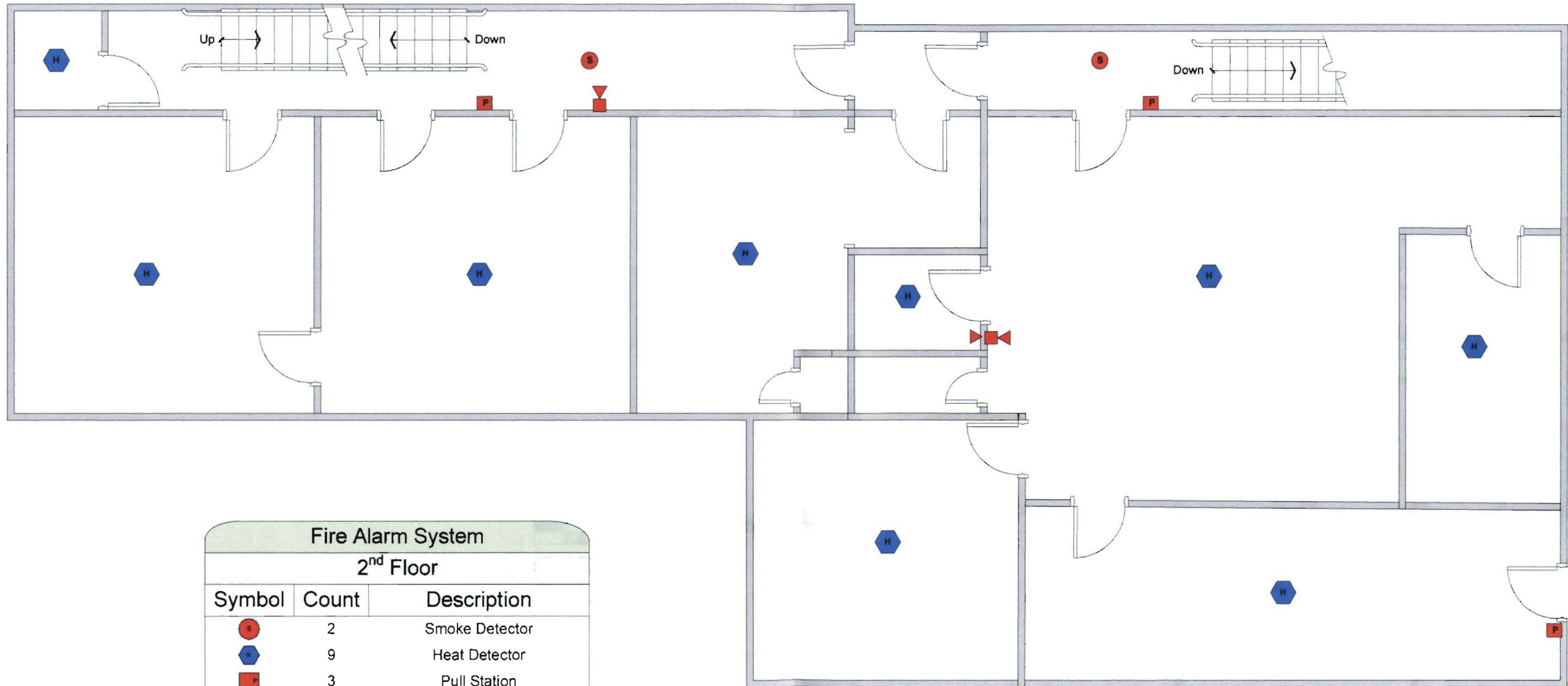
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Fire Alarm System		
2 <sup>nd</sup> Floor		
Symbol	Count	Description
	2	Smoke Detector
	9	Heat Detector
	3	Pull Station
	1	Horn Strobe
	1	Strobe

0 ft. 4 ft. 6.0 in. 7 ft. 6.0 in. 15 ft.



Scale: 3/16 : 1



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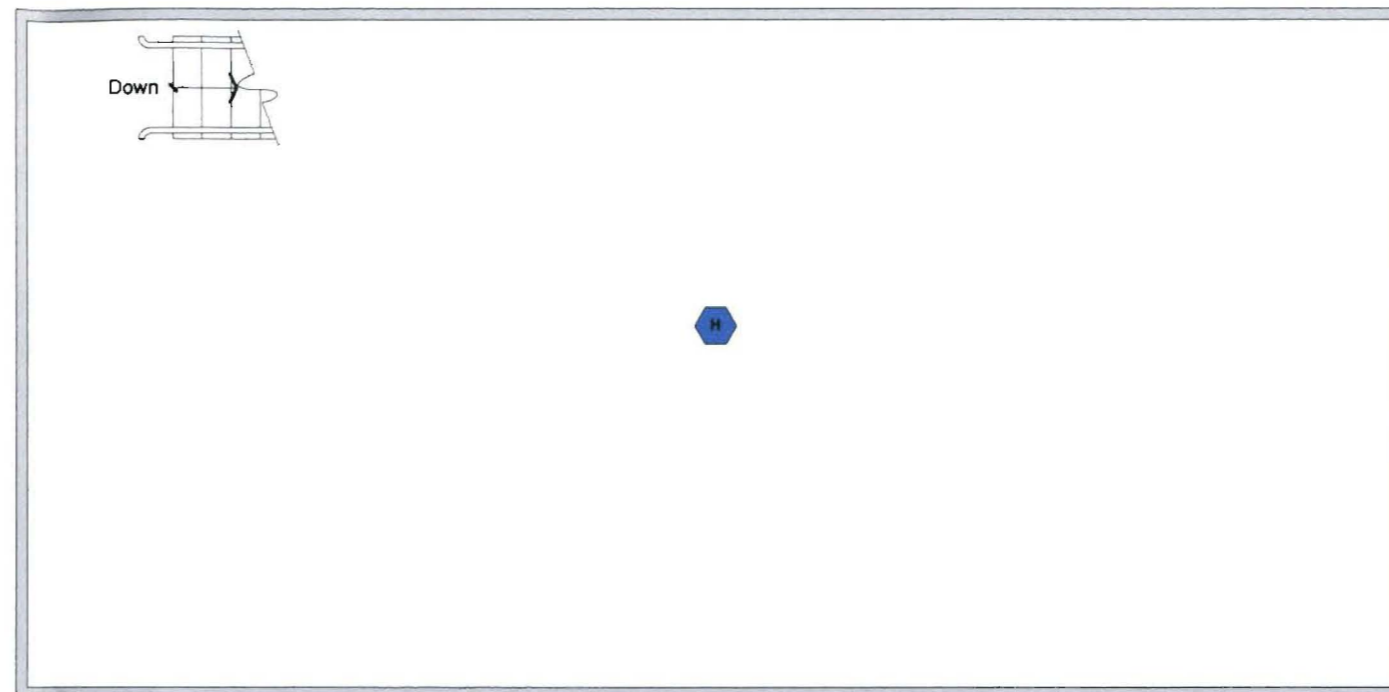
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**Fire Alarm System**

**3<sup>rd</sup> Floor & Attic**

Symbol	Count	Description
	1	Horn Strobe
	2	Pull Station
	6	Heat Detector
	1	Smoke Detector
	1	Strobe

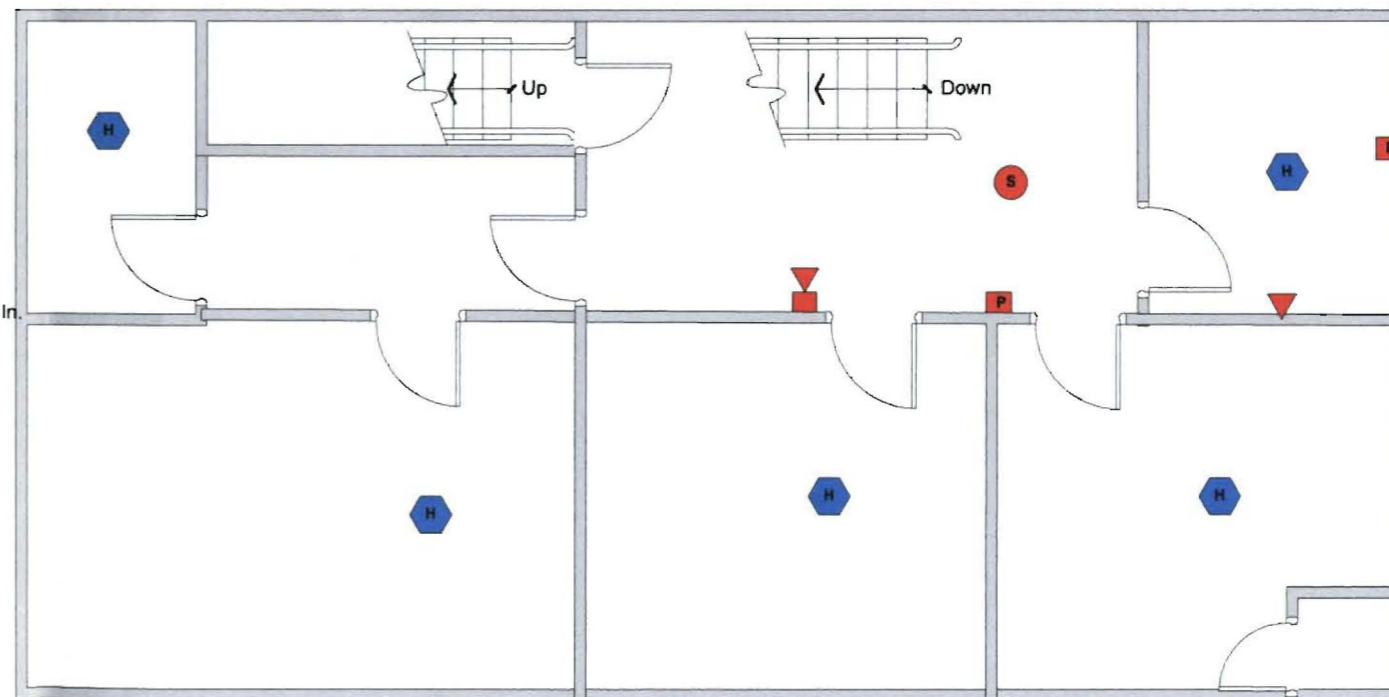


**Attic Fire Alarm System Plan**

0 ft    4 ft. 6.0 in.    7 ft. 6.1 in.    15 ft. 0.1 in.



Scale: 3/16 : 1



**3<sup>rd</sup> Floor Fire Alarm System Plan**



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