

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, Maine 04103

For installation at 201 CONGRESS ST  
3-Family

Job ID: 2011-07-1806-FAFS

CBL: 013 - - M - 019 - 001 - - - -

has permission to install a sprinkler supervisory 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

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](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 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 OCCUPIED.



# PORTLAND MAINE

*Strengthening a Remarkable City, Building a Community for Life* • [www.portlandmaine.gov](http://www.portlandmaine.gov)

Director of Planning and Urban Development  
Penny St. Louis

Job ID: 2011-07-1806-FAFS  
Installation of a sprinkler supervisory  
system

For installation at:  
201 CONGRESS ST  
3-Family

CBL: 013 - - M - 019 - 001 - - - -

## **Conditions of Approval:**

### **Fire**

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.

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.

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.

A sprinkler supervisory system shall be provided in accordance with NFPA 101, *Life Safety Code*, and NFPA 72, *National Fire Alarm and Signaling Code*. Sprinkler supervisory systems shall monitor for water flow and sprinkler supervisory signals via an approved fire alarm panel to central station. One smoke detector shall be located over the panel, a manual pull station located at the front door, and an audible water flow alarm provided.

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

Installation of a sprinkler or fire alarm system requires a Knox Box to be installed per city ordinance.

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

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

Job No: 2011-07-1806-FAFS	Date Applied: 7/28/2011	CBL: 013 - - M - 019 - 001 - - - - -	
Location of Construction: 201 CONGRESS ST	Owner Name: LACEY ROBACK & TIMOTHY FLANNIGAN	Owner Address: 201 CONGRESS ST PORTLAND, ME 04103	Phone:
Business Name:	Contractor Name: Protection One - Robin Russell	Contractor Address: 10 MANUEL DR PORTLAND MAINE 04103	Phone: (207) 347-5327
Lessee/Buyer's Name:	Phone:	Permit Type: FIRE ALARM - Fire Alarm	Zone: B-1
Past Use: Three family	Proposed Use: Same - Three family - install a fire alarm	Cost of Work: 4000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group Type:
		Signature: <i>[Signature]</i> (58)	Signature:
Proposed Project Description: Install Fire Alarm		Pedestrian Activities District (P.A.D.)	

Permit Taken By:	<b>Zoning Approval</b>		
	<b>Special Zone or Reviews</b> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetlands <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan <input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM Date: <i>OK w/conditions</i> <i>7/28/11 ABM</i>	<b>Zoning Appeal</b> <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 Date:	<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in Dist 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 Date: <i>ABM</i>

**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



# 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 07/28/11

Permit # \_\_\_\_\_

CBL# 13.M.19

LOCATION: 201 CONGRESS ST METER MAKE & # \_\_\_\_\_  
 CMP ACCOUNT # \_\_\_\_\_ OWNER LACY FLANAGAN  
 TENANT ATLANTIC HOUSES PHONE # (781) 854-6688

				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
	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

RECEIVED

JUL 28 2011

Dept. of Building Inspections  
City of Portland Maine

CONTRACTORS NAME LAWRENCE J. FOLEY JR PROTECTION ONE MASTER LIC. # MC 600/8702  
 ADDRESS 10 MANUEL DR. PORTLAND, ME 04103 LIMITED LIC. # \_\_\_\_\_  
 TELEPHONE (207) 347-5316

SIGNATURE OF CONTRACTOR [Signature]

201-07-1506 FAFS - Fire Alarm R-1(2b) 3mit.



# 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: 201 Congress Street CBL: 13.M.19

Exact location: (within structure) Middle Basement

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

Building owner: Lacy Flanagan

System Designer (point of contact): Must be Robin Russell

Designer phone: (207) 347-5327 E-mail: rrussell@protectionone.com

Installing contractor: Protection One Certificate of Fitness No: M1003

Contractor phone: (207) 347-5327 E-mail: rrussell@protectionone.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 1/2 x 17s
- pdf copy (may be e-mailed)
- Designer qualifications
- Battery/ voltage drop calcs

COST OF WORK: 3,900.00

PERMIT FEE: 60  
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

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

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 readable 11 1/2 x 17** to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

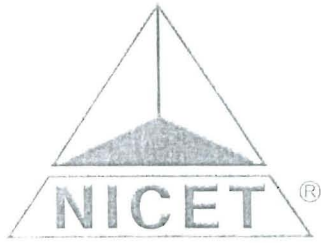
Prior to acceptance of any fire alarm system, a complete commissioning and acceptance test must be coordinated with all fire system contractors and the Fire Department, and proper documentation of such test(s) provided.

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: Robin Russell Date: 7/28/11

11.82.11  
7.28.11

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JUL 28 2011  
Dept. of Building Inspections  
City of Portland, Maine



**NATIONAL INSTITUTE FOR CERTIFICATION  
IN ENGINEERING TECHNOLOGIES®**

*Providing Certification Programs Since 1961*

BE IT KNOWN THAT

**Robin L. Russell**

IS HEREBY AWARDED CERTIFICATION AT

**LEVEL II**

**IN FIRE PROTECTION ENGINEERING TECHNOLOGY  
FIRE ALARM SYSTEMS**

BASED UPON SUCCESSFUL DEMONSTRATION OF REQUISITE KNOWLEDGE,  
EXPERIENCE AND WORK PERFORMANCE AS SET FORTH BY THIS INSTITUTE.

Certification Valid through April 1, 2013

CERTIFICATION NUMBER 110826

CHAIRMAN OF THE NICET BOARD OF GOVERNORS

A DIVISION OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS



**Job Name: Atlantic House**

Atlantic House Residential  
 201 Congress Street  
 Portland, ME 04101  
 AHJ: City of Portland Fire Department

**Prepared By:**

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

**Circuit Information**

Panel Name: Untitled Panel 1  
 Circuit Name: Untitled Circuit 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
Total current/amps 0.000	Total Dist:0		voltage drop						





**SILENT KNIGHT**

5700 Calculations  
Version 02.24.09

Global Project Values:

Project Name:   
Project ID:   
Prepared By:   
Date:

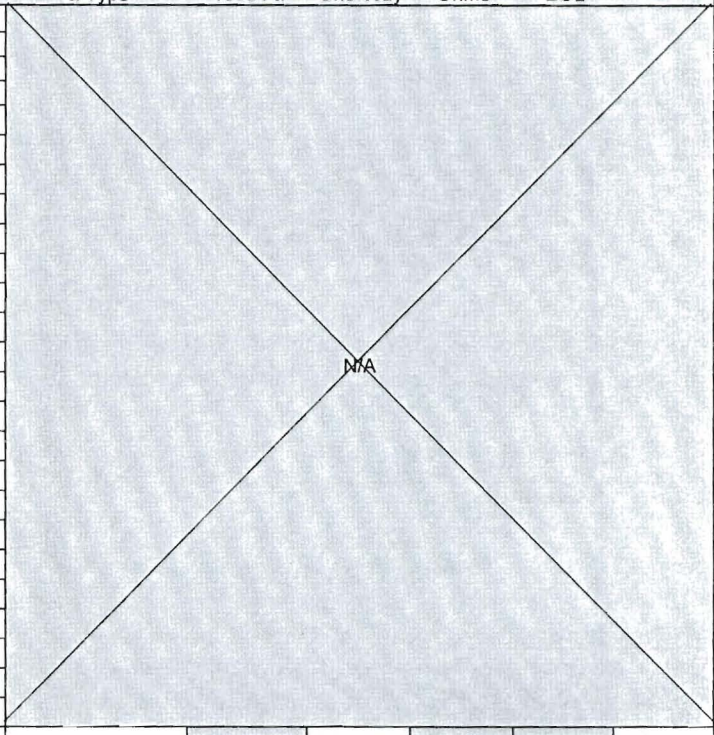
Standby Hours:   
Alarm Mins:   
Derating Factor:   
Voltage Drop Warning  
Threshold %:

Panel ID:   
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		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	5	0.003	0.003						
SD500-ARM	Addr. Relay Module		0.000	0.000						
SD500-PS	Addr. Pull Station	1	0.001	0.001						
SD505-AIS	Addr. Ion Smoke Det		0.000	0.000						
SD505-AHS	Addr. Heat Detector		0.000	0.000						
SD505-APS	Addr. Photo Smoke Det	1	0.001	0.001						
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	0.000	#14 Solid	2.52		0.00	20.40	0.00%
NAC #2	Notification Appl Circuit		0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
Total Standby Current (Amps)			0.204	0.329	Total Alarm Current (Amps)					
Standby Time In Hours			24	0.083	Alarm Time In Minutes / 60 (5 Mins)					
Total Standby AH Required			4.892	0.027	Total Alarm AH Required					
Total Combined AH Required			4.92							
Multiply By The Derating Factor			1.20							
Minimum Battery AmpHours Required			5.90							



Command Shortcuts

Configure Circuits

Print Page







## 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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A Honeywell Company

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

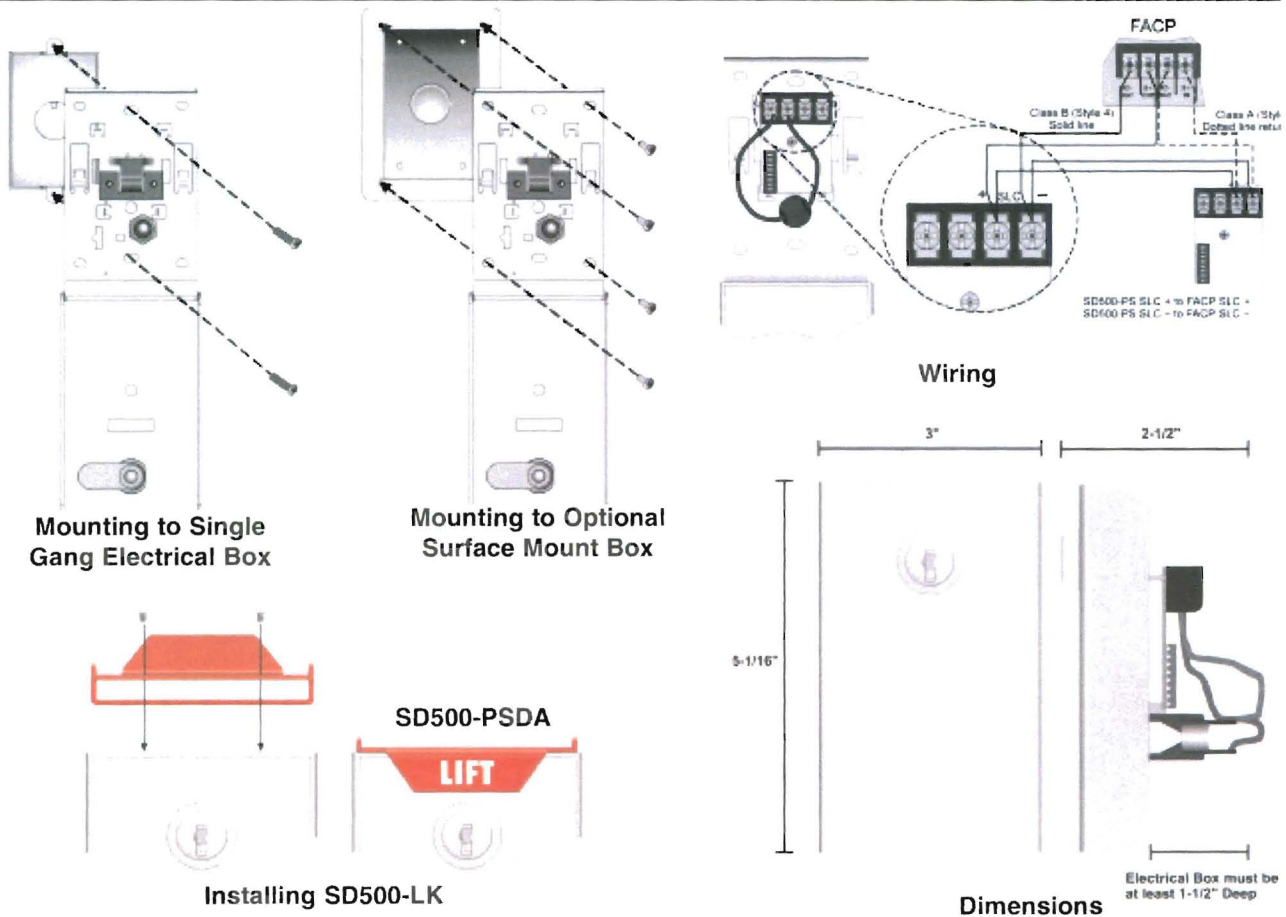


## Engineering Specifications

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.



7550 Meridian Circle, Maple Grove, MN 55369-4927  
**800-446-6444** or in Minnesota 763-493-6435  
 FAX: 763-493-6475  
 World Wide Web: <http://www.silentknight.com>

**MADE IN AMERICA**  
 FORM# 350342, Rev. 09/03  
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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

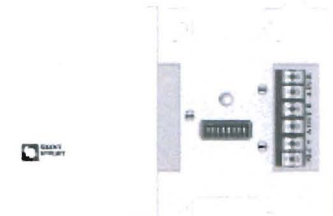
SD500-MIM Physical Description

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



SD500-AIM



SD500-MIM

### Approvals

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



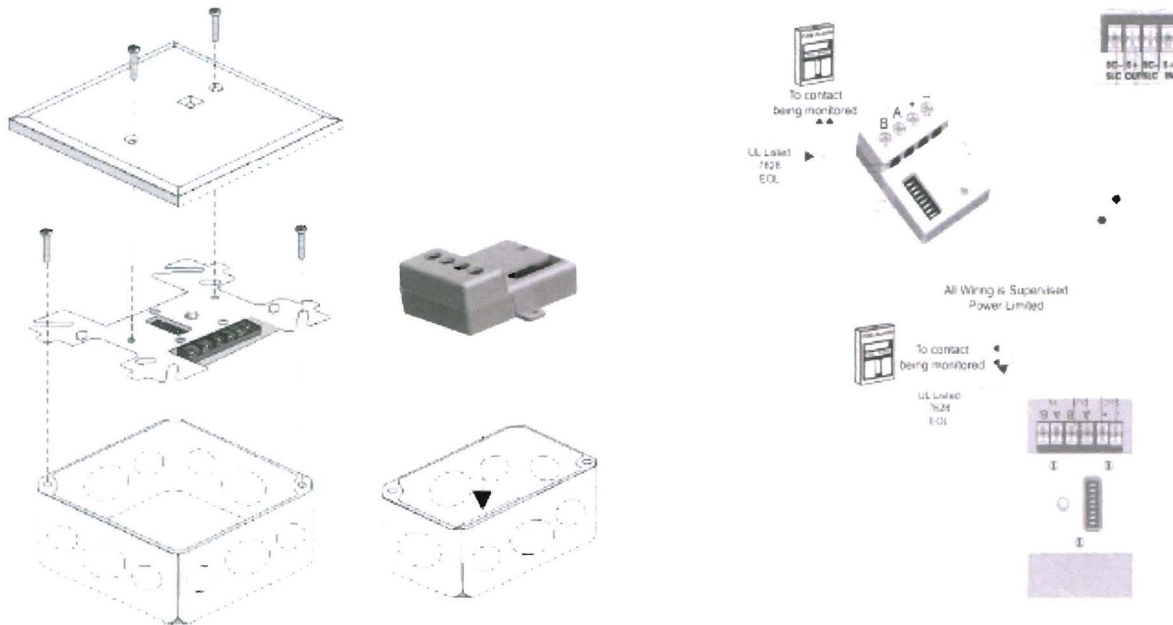
## SD500-AIM & SD500-MIM Addressable Input Modules



### 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.



**SILENT  
KNIGHT**

by Honeywell

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Silent Knight 7550 Meridian Circle Suite 100, Maple Grove, Mn 55369-4927  
Phone: (800) 328-0103 or 763-493-6400 Fax: (763) 493-6475.  
[www.silentknight.com](http://www.silentknight.com)

**MADE IN AMERICA**

FORM# 350231 Rev D,

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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 of 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  
(6" Base)  
SD505-4AB  
(4" Base)



**SILENT  
KNIGHT**

by Honeywell

# 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.

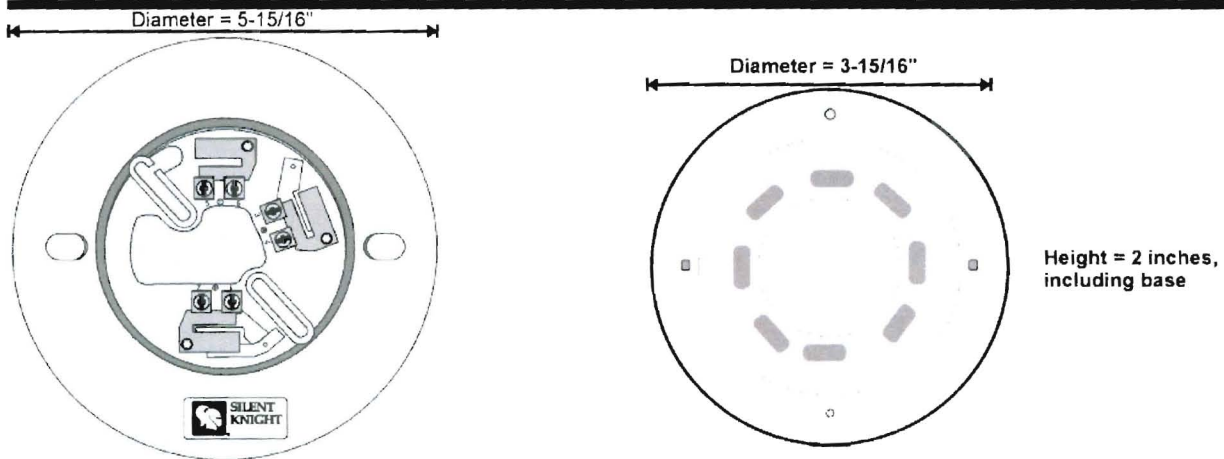
The base shall permit direct interchange with Silent Knight SD505-AIS Ionization Smoke Detector, or SD505-AHS Heat Detector. Base shall be the appropriate twist-lock base SD505-6AB.

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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KNIGHT**

by Honeywell

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Phone: (800) 328-0103, Fax: (763) 493-6475.

**MADE IN AMERICA**

FORM# 350225 Rev C., 05/05

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## 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.

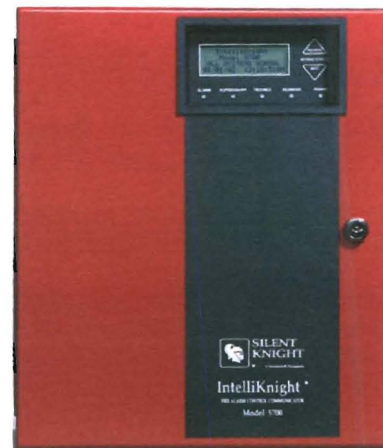
### Mechanical Specifications

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.



**SILENT  
KNIGHT**

by Honeywell

**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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# CITY OF PORTLAND, MAINE

Department of Building Inspections

## Original Receipt

\_\_\_\_\_ 7.18 20 11 \_\_\_\_\_

Received from \_\_\_\_\_

Location of Work 201 Congress

Cost of Construction \$ \_\_\_\_\_ Building Fee: 60

Permit Fee \$ \_\_\_\_\_ Site Fee: 55

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

Total: 115

Building (IL) \_\_\_\_\_ Plumbing (IS) \_\_\_\_\_ Electrical (I2) \_\_\_\_\_ Site Plan (U2) \_\_\_\_\_

Other Fire Alarm 55 60

CBL: 13-M-79 + 55

Check #: \_\_\_\_\_ Total Collected \$ 115

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

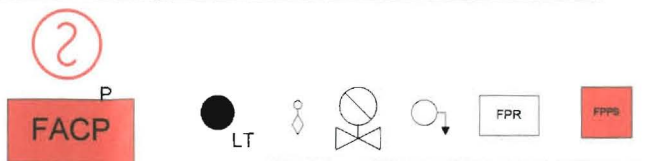
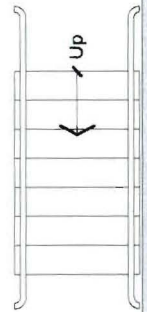
Taken by: [Signature]

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

Atlantic House  
201 Congress Street, Portland, Maine 04101

Basement Fire Alarm

Symbol	Count	Description
②	1	Smoke Detector
●	1	Temperature Switch
□	1	Fire Pump Run
■	1	Fire Pump Power Supply
◇	1	Flow Detector
⊗	1	Valve w/ Tamper Detector
⊕	1	Level Detector

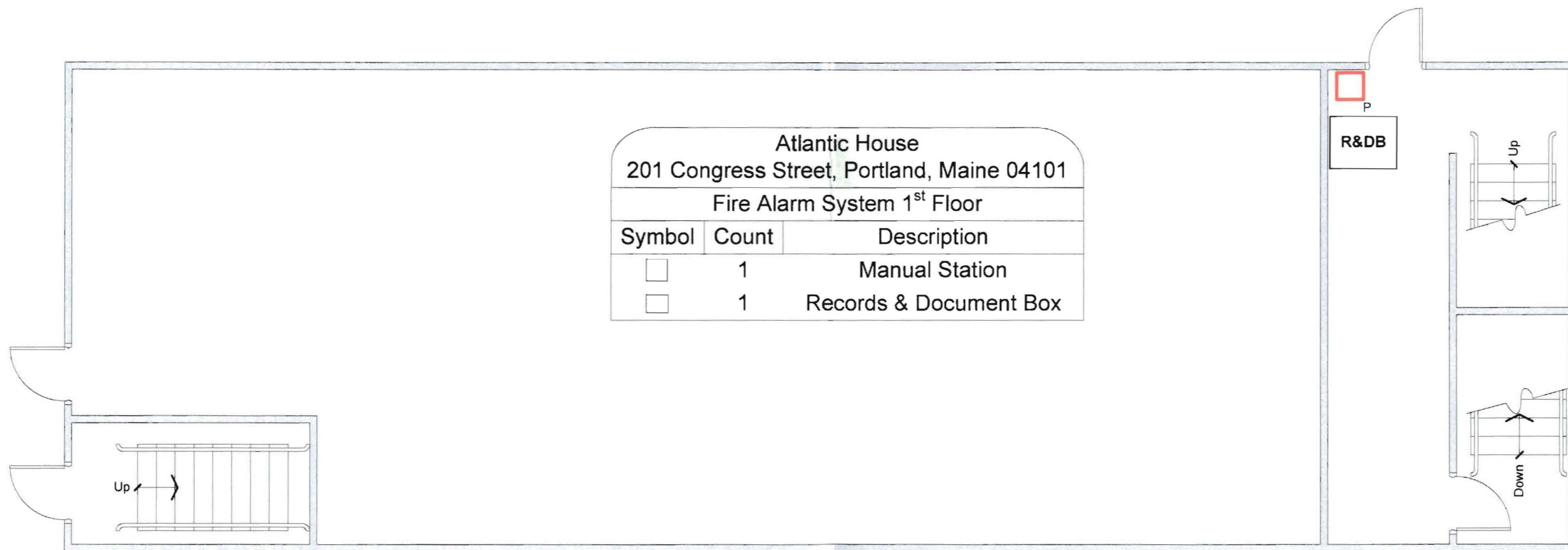


Robin Russell, Certified Engineering Technician, NICET Cert. # 110826

10 Manuel Drive, Portland, Maine 04103 (207) 347-5327

7/27/11





Atlantic House		
201 Congress Street, Portland, Maine 04101		
Fire Alarm System 1 <sup>st</sup> Floor		
Symbol	Count	Description
□	1	Manual Station
□	1	Records & Document Box