

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT



This is to certify that

WITT-T LLC /Protection Professionals

Located at

37 SILVER ST

PERMIT ID: 2012-50482

CBL: 029 B001001

has permission to **install supervised fire alarm system**

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

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closoed-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 procured prior to occupancy.

By Andrew J. [Signature] (58)
Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

**THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
THERE IS A PENALTY FOR REMOVING THIS CARD**

BUILDING PERMIT INSPECTION PROCEDURES
Please call 874-8703 (ONLY)
or email: buildinginspections@portlandmaine.gov

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

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**

- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**

- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

REQUIRED INSPECTIONS:

Final - Fire

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.

City of Portland, Maine - Building or Use Permit

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

Permit No: 201250482	Date Applied For: 11/21/2012	CBL: 029 B001001
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Location of Construction: 37 SILVER ST	Owner Name: WITT-T LLC	Owner Address: 378 LAKESIDE DR	Phone:
Business Name:	Contractor Name: Protection Professionals	Contractor Address: 325 US Rt 1 Falmouth	Phone: (207) 775-5755
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	

Proposed Use: change of use: Beauty Salon to Restaurant/Bar	Proposed Project Description: install supervised fire alarm system
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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 11/27/2012
Note:	Ok to Issue: <input checked="" type="checkbox"/>		

Dept: Fire	Status: Approved w/Conditions	Reviewer: Ben Wallace Jr	Approval Date: 12/24/2012
Note:	Ok to Issue: <input checked="" type="checkbox"/>		

- 1) 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.
- 2) System acceptance and commissioning must be coordinated with the fire alarm technician and the Fire Department. Call 874-8703 to schedule.
- 3) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".
- 4) A 4100 series Knox Box is required.
- 5) The installation shall comply with the following:
City of Portland Chapter 10, Fire Prevention and Protection;
NFPA 1, Fire Code (2009 edition), as amended by City Code;
NFPA 101, Life Safety Code (2009 edition), as amended by City Code;
City of Portland Fire Department Rules and Regulations;
NFPA 72, National Fire Alarm and Signaling Code (2010 edition), as amended by Fire Department Rules and Regulations; and
NFPA 70, National Electrical Code (2011 edition) as amended by the State of Maine.
- 6) A master box connection is not authorized for this building.
- 7) Central Station monitoring for addressable fire alarm systems shall be by point.
- 8) The fire alarm system shall be certified by a master fire alarm company and have a new fire alarm inspection sticker.
- 9) Visible signals are required per NFPA 101:9.6.3.5 in accordance with NFPA 72:18.5.4.4. Audible and visible notification signals are not required in exit stair enclosures by NFPA 101:9.6.3.5.5 and NFPA 101:9.6.3.6.4.
- 10) In field installation shall be installed per code as conditions dictate.
- 11) Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.
- 12) Manual Pull Stations are required at all exits including each floor and stair.
- 13) All smoke detectors and smoke alarms shall be photoelectric.

City of Portland, Maine - Building or Use Permit Application

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

Job No: <i>2012-50482</i> 2012-10-5237-CH OF USE 2012-50482 FAFS	Date Applied: 11/21/2012	CBL: 029- B-001-001	
Location of Construction: 37 SILVER ST / 6 MILK ST	Owner Name: WITT-T LLC	Owner Address: 378 LAKESIDE DR BOOTHBAY HARBOR, 04538 MAINE - ME	Phone:
Business Name:	Contractor Name: LEACH ELECTRIC	Contractor Address: 325 US ROUTE ONE FALMOUTH MAINE 04105	Phone: (207) -775-5755
Lessee/Buyer's Name:	Phone:	Permit Type: Building	Zone: B-3
Past Use: 1 st floor - Restaurant/bar 2 nd floor offices 3 rd floor offices & 1 apt	Proposed Use: Same: 1 st floor - restaurant/bar 2 nd floor offices 3 rd floor offices & 1 apt	Cost of Work: \$11,000.00 Fire Dept: <i>12/24/12</i> <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A Signature: <i>[Signature]</i> (50)	CEO District: Inspection: Use Group: Type: Signature:
Proposed Project Description: install fire alarm		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Brad		Zoning Approval	

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

Special Zone or Reviews <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>[Signature]</i> <i>11/27/12</i>	Zoning Appeal <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:	Historic Preservation <i>w/fin</i> <input 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>Any exterior work requires a separate review & approval</i>
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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



Fire Alarm Permit

Entered 11/21/12 (15)

#201250482

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.

2012 10-5237-COV

Installation address: 6 Milk Street; 35-37 Silver Street CBL: 029 B001

Exact location: (within structure) Basement/BAC

Type of occupancy(s) (NFPA & ICC): Retail space with one apartment

Building owner: Tom Witt Witt + WC

System Designer (point of contact): Rich Brobst, Jr
Must be

Designer phone: 775-5755 E-mail: rich@protectionprofessionals.net

Installing contractor: Leach Electric Certificate of Fitness No: M1001

Contractor phone: 653-3879 E-mail: _____

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

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

11,000

COST OF WORK: ~~\$10,690.00~~

PERMIT FEE: 130.00
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

RECEIVED

NOV 21 2012

Dept. of Building Inspections
City of Portland Maine

The designer shall be the responsible party for this application. Download a new copy of this application at www.portlandmaine.gov/fire for every submittal. Submit all plans in electronic PDF in addition to readable 11 1/2 x 17s to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

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

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

Applicant signature: Doug Halpern Date: 11-21-12



PORTLAND MAINE

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

Receipts Details:

Tender Information: Check , Check Number: 9509\$130.00

Tender Amount: 130.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 11/21/2012

Receipt Number: 50483

Receipt Details:

Referance ID:	8834	Fee Type:	BP-FIRE
Receipt Number:	0	Payment Date:	
Transaction Amount:	130.00	Charge Amount:	130.00
Job ID: Job ID: 2012-10-5237-CH OF USE - change of use: Beauty Salon to Restaurant/Bar			
Additional Comments: 37 Silver			

Thank You for your Payment!

Protection Professionals

325 US Route 1
 Falmouth, ME 04105
 Ph 207-775-5755
 Fax 207-781-2064

Device List

No. 4665

List Date
11/20/2012

Bill To Name / Address
Tom Witt 378 Lakeside Drive Boothbay Harbor, Maine 04538

Job Site
6 Milk Street/35-37 Silver Street Portland, ME 04101

CHANGING THIS DEVICE LIST DOES NOT ALTER THE ORIGINAL ESTIMATE
Attach copy to Purchase Order for accounting

Estimate No.

Item	Description	Qty To Order	Qty Ordered
	Scope of work: Install fire alarm system with adequate audio/visual devices, smoke detection in the stairways and over the fire panel, pull station at each exit, plus a Knox box.		
FC901-U3	Cerberus-Pro fire alarm panel, 50 points, S54433-C105-A1	1	
FH901-R3	S54433-B103-A4; 50 Point system red enclosure	1	
Bat 12-12	Battery 12 VOLTS 12 AMP/HOURS SLA-1105	2	
IM-RJ31XSET	IM-RJ31XSET	2	
OH921	S54320-F6-A2 Smoke detector with single optical and heat detection (over FACP)	1	
OP921	S54320-F4-A2, Optical Smoke Detector (stairways: basement, 1st floor X1, 2nd floor X2, 3rd floor X2, spare)	7	
500-094151	DB-11 Cerberus pro detector base	8	
500-648507FA	MANUAL PULL STATION DUAL ACTION KEY RESET CAST METAL	10	
500-034000	HTRI-M Mini-module; 8701	10	
500-648506FA	(BB) SURFACE BACK BOX, INTERIOR	10	
06-SSU00672	Fire Document box 12 inches wide X 13.1 inches high X 2.25 inches deep, CAT 30 keyed	1	
IK-1007	M101 lock set key, multiple cams	2	
500-636161	ZH-MC-R Horn/strobe, red, wall mount, Hi or Lo volume, 15cd, 30cd, 75cd, or 110cd (3rd floor hall, 3rd floor apartment, 2nd floor stairway X2, 1st floor stairway, Coffee shop, The North Point, basement X2)	9	
500-636169	ZR-MC-R Strobe only, red, wall mount, 15cd, 30cd, 75cd, or 110cd (all public bathrooms)	2	
500-636193	ZBB-R Back box for a Z style device, red	11	
3261	Knox Box 3261 Hinged Door Black State of Maine Sales Tax	1	

Ordered By: _____

Date: _____

Received By: _____

Date: _____

Specifications – (continued)

Model FC901 contains a built-in RS-485 connection on the main board, thus eliminating the need for an additional communication module. The fire-system displays (FSD901-U3 / R3) are remote LED / LCD units that show the existing status of the Model FC901 FACP.

The Model FSD901-U3 / R3 optional display supports the following LEDs for system-status conditions:

- Power
- Alarm
- Trouble
- Supervisory
- Ground-Fault

There are also LEDs to indicate when audible circuits are 'active' or 'silenced.' The main board supports four (4) system-control buttons, including: *Acknowledge; Alarm Silence; Unsilence, and Reset.*

For Model FSD901-U3 / R3, a LED will illuminate for any given *Alarm, Supervisory* and *Trouble* Cerberus PRO-system event. A 3.5-inch (8.9 centimeters) by 1.5" (3.8 centimeters) LCD screen will give details of the event in alphanumeric form. The display screen can be scrolled to reveal additional events. Optional remote-system-control capabilities are also available.

The dimensions (based upon connection to a one-height-unit enclosure) for Model FC901 are as follows:

Approximate size: 16.25" (41.3 cm.) [H];
18" (46 cm.) [W];
5" (41.3 cm.) [D]

The weight (without operating unit or batteries) is approximately 9 Lbs [4082 g].

Temperature and Humidity Range

Model FC901 is UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

Related Documentation

Product	Data Sheet Number
Model FP2011-U1 Power Supply	9806
Leased-Line / City-Tie Module	9810

Details for Ordering

Model Number	Part Number	Description
FCM901-U3	S54433-B101-A1	Cerberus PRO Main Board {for 50-point system}
FP2011-U1	S54400-Z59-A1	170-Watt Power Supply
FH901-U3	S54433-B103-A3	System Enclosure, Black {for 50-point system}
FH901-R3	S54433-B103-A4	System Enclosure, Red {for 50-point system}

Optional Accessories

Model Number	Part Number	Description
FHA901-U1	S54433-B107-A1	Battery Bracket
FHA902-U1	S54433-B103-A3	Flush-Mount Trim Kit, Black
FHA902-R1	S54433-B103-A4	Flush-Mount Trim Kit, Red
FCI2020-U1	S54400-A57-A1	Leased-Line / City-Tie Module
FSD901-U3	S54433-C102-A1	System Display, Black {for 50-point system}
FSD901-R3	S54433-C102-A2	System Display, Red {for 50-point system}

Notice: This marketing data sheet is not intended to be used for system design or installation purposes.
For the most up-to-date information, refer to each product's installation instructions.

SIEMENS Industry, Inc.
Building Technologies Division

Fire Safety
8 Fernwood Road
Florham Park, NJ 07932
Tel: (973) 593-2600
FAX: (908) 547-6877
URL: www.USA.Siemens.com/Cerberus-PRO

(SIH-FS)
Printed in U.S.A.

Fire Safety
2 Kenview Boulevard
Brampton, Ontario
L6T 5E4 / Canada
Tel: (905) 799-9937
FAX: (905) 799-9858

November 2011
New Issue

FC901 Battery Calculations Worksheet

ver. 1.3

7-Feb-2012

Fixed Field	Enter Numbers Here
Calculated Field	Choose a value

Ref. No _____

Submitted By _____

FC901 Panel		Standby (A)	Alarm (A)
Main Board		0.178	0.203
Device Current Draw		0.0164	0.0164
NAC 1		0	3
NAC 2		0	
Aux power (external)			
FCACity Tie			
FSD901 Remote Annun.			

Devices	Qty			
HFP-11 / 8713				
HFPO-11 / 8710				
HFPT-11 / 8712				
OOHC941				
OOH941				
OH921	1	0.0003	0.0003	
OP921	7	0.0021	0.0021	
HI921				
FDCIO422				
HMS / 8700-S/D/M				
HTRI-S / 8702	10	0.014	0.014	
HTRI-D / 8703				
HTRI-R / 8704				
HZM / 8705				
HCP / 8706				
ILED / 8726				
Total	18	0.0164	0.0164	System OK

Total Current	0.1944	3.2194
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Standby Time _____

Alarm Time	5	0.268
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AH required (no reserve)		4.934
---------------------------------	--	--------------

Battery Reserve	120%
------------------------	-------------

AH Required (with reserve)	5.92066	System OK
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Sequence of Operations

	Audio/visual activation	Activate audible/visual signal at FACP & Annunciator	Device Description at FACP & Annunciator	Shutdown of HVAC equipment	Log event in system history	Activate Elevator Fire Hat	Activate Elevator primary or secondary control	Activate Elevator shunt trip	Silence of audible devices Including FACP & annunciator	Release door holders	Release locked doors	Event acknowledgement	Reset of all system functions and all visual devices	Remote transmission to Central Station A=alarm; T=trouble; S=Supervisory; L = log only	Remote indicator
Manual Pull Stations	X	X	X		X					X	X			A	
Smoke detectors common area	X	X	X		X					X	X			A	
Smoke detectors elevator lobbies	X	X	X		X		X			X	X			A	
Smoke Detectors elevator shaft/machine room	X	X	X		X	X	X			X	X			A	
Duct mounted Smoke Detectors		X	X	X	X									S	X
Heat Detectors common area/inside apartments	X	X	X		X					X	X			A	
Heat Detectors Elevator shaft/machine room	X	X	X		X	X		X		X	X			A	
Sprinkler flow or pressure switches	X	X	X		X					X	X			A	
Sprinkler Tamper, low temp, or low air		X	X		X									S	
Secondary fire panel such as kitchen hood	X	X	X		X					X	X			A	
FACP/annunciator silence button		X	X		X			X						L	
FACP/annunciator acknowledge button		X	X		X							X			
FACP/annunciator reset button		X	X		X								X	L	
Removal of any device		X	X		X									T	
Ground fault		X	X		X									T	
System wiring "open"		X	X		X									T	
AC Power loss		X	X		X									T	
Secondary power loss		X	X		X									T	
Telephone line loss		X	X		X									T	

Intelligent Detection Devices

Multi-Criteria Fire Detector Model OH921

ARCHITECT AND ENGINEER SPECIFICATIONS

- Multi-criteria addressable fire detector that incorporates photoelectric and thermal sensors
- Utilizes advanced signal processing with proven detection algorithms
- Differentiates between deceptive phenomena and an actual fire (nuisance-alarm avoidance)
- Compatible with Model DPU (device programmer / loop tester)
- Responds to both flaming and smoldering-fire signatures
- Field selectable application profiles
- Superior EMI immunity
- Remote sensitivity-measurement capability
- Tri-color detector status LED with 360° viewing
- Each detector is self-testing:
 - complete diagnostics performed every 10 seconds
 - self monitored for sensitivity within ©UL Listed limits
- Polarity insensitive utilizing *SureWire™* technology
- Compatible with DB-11 series mounting bases
- Compatible with FireFinder™ XLS control panels (with Siemens Model 'H'-series devices on the same loop)
- Listed and approved as heat detector
 - Rate-of-Rise Detection: 15°F / min. (8.3°C / min), and fixed 135°F (57°C)



- RoHS compliant
- Automatic environment compensation
- ©UL Listed and ©ULC Pending; CSFM and NYC Fire Dept. Approved

Product Overview

The Model OH921 photoelectric detector incorporates both optical and thermal sensors, and uses advanced software algorithms to combine the signals into a neural network to create an intelligent multi-criteria detector. The encompassing result is a detector that provides enhanced detection to a wide range of products of combustion, while offering superior rejection to nuisance-alarm sources.

Model OH921 utilizes advanced multi-criteria detection technology that allows the detector to distinguish non-threatening deceptive phenomena (i.e. – cigarette smoke) while optimizing detection for the area. Model OH921 uses state-of-the-art microprocessor circuitry with error check, detector self-diagnostics and supervision programs.

Model OH921 is compatible with the Siemens Fire Safety field-device programmer / test unit (Model DPU), which is a compact, portable, menu-driven accessory for electronically programming and testing detectors, easily and reliably.

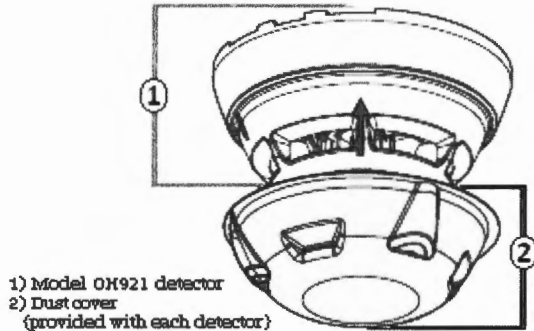
Model DPU eliminates the need for cumbersome, unreliable mechanical programming methods, such as dials or switches, and reduces installation and service costs by electronically programming and testing the detector prior to installation.

Model OH921 is a plug-in, addressable, two-wire and multi-criteria detector (with both photoelectric and thermal inputs) that is compatible with FireFinder XLS control panels.

Multi-Criteria Fire Detector 9600

Product Overview – (continued)

Each detector consists of a dust-resistant photoelectric chamber; a solid state, non-mechanical thermal sensor, and microprocessor-based electronics with a low-profile plastic housing. Every Model OH921 fire detector is shipped with a protective dust cover:



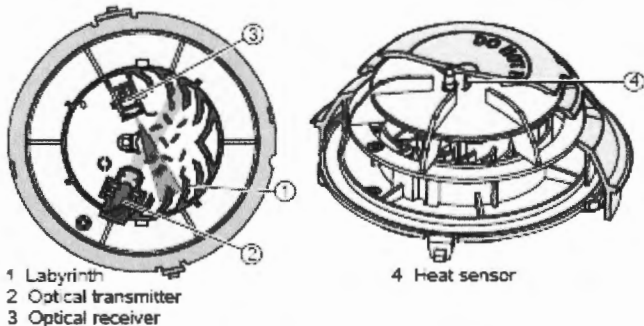
Operation

Model OH921 utilizes an infrared light emitting diode (IRLED), and infrared light-sensing photodiode. Under normal conditions, light transmitted by the LED is directed away from the photodiode and scattered through the smoke chamber in a controlled pattern.

The smoke chamber is designed to manage light dissipation and extraneous reflections from dust particles or other non-smoke, airborne contaminants in such a way as to maintain stable, consistent detector operation. When smoke enters the detector chamber, light emitted from the IRLED is scattered by the smoke particles, and is received by the photodiode.

Model OH921 also utilizes a modern, accurate and shock-resistant thermistor to sense temperature changes.

The signal processing with detection algorithms allows the detector to first gather smoke and thermal data, and then analyze this information in the detector's 'neural network.' By comparing data received with the common characteristics of fires or fire signatures, Model OH921 can compare these signals to those of deceptive phenomena that cause other detectors to false alarm.



Each Model OH921 detector provides three (3) pre-programmed parameter sets that can be selected by the fire alarm control panel.

Profile Overview

Model OH921 provides two (2) different alarm sources that can be selected individually (ON or OFF) by the control panel.

Alarm Source 1 (Neural Network) – Combines smoke – heat with the following selectable profiles:

- Sensitive
- Standard
- Robust

Sensitive: This parameter set is practically suitable for areas where few misleading sources of false alarm are present, and is appropriate where priority is given to detecting open fires as soon as possible (e.g. – typically a clean application with controlled environmental conditions.)

Robust: This parameter set offers improved resistance to false alarms in areas where misleading sources, such as cigarette smoke or exhaust fumes, may cause a nuisance alarm.

Standard: This parameter set is practically apt for normal office, hotel lobby type applications and is the default setting.

Alarm source 2 (Thermistor) – Heat only, provides the following:

- Static / fixed at 135°F (57°C), default setting
- Rate-of-Rise Detection: 15°F / min. (8.3°C / min)

If the detector is not programmed, Model OH921 will default to a 'standard' profile setting, which allows operation for a normal office-type environment.

Model OH921 contains a tri-color LED indicator, capable of flashing any one (1) of three (3) distinct colors: Green, Yellow, or Red. During each flash interval, the microprocessor-based detector monitors the following:

- Smoke in its sensing chamber
- Smoke sensitivity is within the range indicated on the nameplate label
- Internal sensors and electronics

Based on the results of the monitoring, the LED indicator flashes the following:

Flash Color	Condition	Flash Interval (in seconds)
Green*:	Normal supervisory operation. Smoke sensitivity is within rated limits.	10
Yellow:	Detector is in trouble and needs replacement.	4
Red:	Alarm condition.	1
No Flash:	Detector is not powered.	--

* LED can be turned OFF.

Please follow the corresponding description of the panel used.

Installation

All Model OH921 detectors use a surface-mounting base, Model DB-11 or Model DB-11E, which mounts on a 4-inch octagonal, square or single gang electrical box. The base utilizes screw-clamp contacts for electrical connections and self-wiping contacts for increased reliability.

The Model DB-11 base can be used with the optional Model LK-11 detector locking kit, which contains 50 detector locks and an installation tool to prevent unauthorized removal of the detector head. Model DB-11 has decorative plugs to cover the outer mounting screw holes.

Model OH921 may be installed on the same initiating circuit with the Siemens Model 'H'-series detectors (Models HFP-11 and HFPT-11); Model 'HMS'-series manual stations; Model 'HTRI'-series interfaces; Model HCP output-control devices, or Model 'HZM'-series of addressable, conventional zone modules for FireFinder XLS control panels.

All Model OH921 detectors are approved for operation within the UL -specified temperature range of 32 to 100°F (0 to 38°C).

Model DPU

The Device Program / Test Unit accessory is used to program and verify the address of the detector. The technician selects the accessory's program mode, and enters the desired address. Model DPU automatically sets and verifies the address and tests the detector.

Model DPU operates on AC power or rechargeable batteries, providing flexibility and convenience in programmer and testing equipment from practically any location.

When in the test mode, Model DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the detector is operating properly.

Application Data

Installation of the Model OH921 series of fire detectors requires a two-wire circuit. In many retrofit cases, existing wiring may be used. 'T-tapping' is permitted only for Style 4 (Class B) wiring. Model OH921 is polarity insensitive, which can greatly reduce installation and debugging time.

Model OH921 fire detectors can be applied within the maximum 30-foot center spacing (900 sq. ft. areas,) as referenced in NFPA 72. This application guideline is based on ideal conditions, specifically, smooth ceiling surfaces, minimal air movement, and no physical obstructions between potential fire sources and the actual detector. Do not mount detectors in close proximity to ventilation or heating and air conditioning outlets. Exposed joints or beamed ceilings may also affect safe spacing limitations for detectors.

Should questions arise regarding detector placement, observe NFPA 72 guidelines. Good fire-protection system engineering and common sense dictate how and when fire detectors are installed and used. Contact your local Siemens Industry – Fire Safety distributor or sales office whenever you need assistance applying Model OH921 in unusual applications. Be sure to follow NFPA guidelines and UL Listed / ULC Pending installation instructions – included with every Siemens – Fire Safety detector – and local codes as for all fire protection equipment.

Technical Data

Operating

Temperatures: +32°F (0°C) to 100°F (38°C)

Relative Humidity: 0-95%; non-condensing

Air Velocity: 0–4,000 ft. / min (0-20m / sec)

Air Pressure: No effect

Maximum Spacing: 30-foot centers (900 sq. ft.), per NFPA 72 and ULC -S524 pending

Input Voltage Range: 16VDC – 30VDC

Alarm Current: 410uA

Standby Current: 250uA, max.
(average)

Detector Sensitivity Range: UL : 1.10% to 2.62% / ft.
 ULC : 1.44 to 3.06% / ft.
Pending

Thermal Rating:

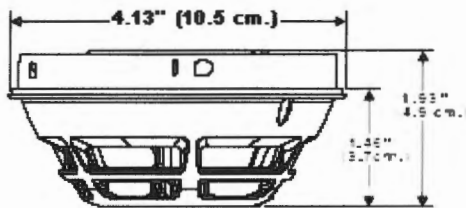
- Fixed-temperature set point: 135°F (57°C)
- Rate-of-Rise Detection: 15°F / min. (8.3°C / min)

Detector Weight: 0.317 lbs. (0.144 kg.)

Mechanical Protection Guard:

UL Listed / ULC Pending
with STI Guard Model STI-9604

Mounting Diagram Dimensions



Details for Ordering

Model Number	Part Number	Description
OH921	S54320-F6-A2	Addressable Multi-Criteria Fire Detector
DB-11	500-094151	Detector Mounting Base for Series 11
DB-11E	500-094151E	Detector Base {small}
RL-HC	500-033230	Remote Alarm Indicator: 4" octagon-box mount, red
RL-HW	500-033310	Remote Alarm Indicator: single-gang box mount, red
LK-11	500-695350	Base Locking Kit for Series 11 Detectors

In Canada, order:

Model Number	Part Number	Description
DB-11C	500-095687	Detector Mounting Base for Series 11 Detectors (cULC pending)

Notice: This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.

SIEMENS Industry, Inc.
Building Technologies Division

Fire Safety
8 Fernwood Road
Florham Park, NJ 07932
Tel: (973) 593-2600
FAX: (908) 547-6877
URL: www.SBT.Siemens.com/FIS

(SI-FS)
Printed in U.S.A.

Fire Safety
2 Kenview Boulevard
Brampton, Ontario
L6T 5E4 / Canada
Tel: (905) 799-9937
FAX: (905) 799-9858

August 2011
Supersedes sheet dated 7/11
(Rev. 2)

Intelligent Detection Devices

Photoelectric Smoke Detector Model OP921

ARCHITECT AND ENGINEER SPECIFICATIONS

- Compatible with Siemens Model 'H'-series devices on the same loop (with Model FC9-series fire-alarm control panels)
- Compatible with Model 8720 / DPU (device programmer / loop tester)
- Utilizes advanced microprocessor-based signal processing
- Extended temperature and humidity operating range
- Each detector is self-testing:
 - self monitored for sensitivity within ©UL Listed limits
 - complete diagnostics performed every 10 seconds
- Polarity insensitive utilizing *SureWire™* technology
- Compatible with Model DB-11-series mounting bases
- Tri-color detector status LED with 360° viewing
- Field-selectable application sensitivity profiles
- Remote sensitivity-measurement capability
- Utilizes advanced signal processing
- Superior EMI / RFI immunity
- RoHS compliant



- Automatic environment compensation
- ©UL268A Listed [for direct air-duct use], ©ULC Pending; CSFM Approved

Product Overview

The Model OP921 Photoelectric Smoke Detector uses state-of-the-art microcontroller circuitry and surface-mount technology for maximum reliability. Model OP921 incorporates an optical sensor using a light-scattering detection principle. The device utilizes advanced software algorithms to analyze the signals, and provides highly stable and accurate smoke detection.

Further, Model OP921 uses state-of-the-art microprocessor circuitry with error check; detector self-diagnostics, and supervision programs.

Field-Device Programmer

Model OP921 is compatible with the Siemens – Fire Safety field-device programmer / test unit (Model 8720 / DPU), which is a compact, portable and menu-driven accessory for electronically programming and testing detectors easily and reliably.

Model 8720 / DPU eliminates the need for cumbersome, unreliable mechanical programming methods – such as dials or switches – and reduces installation and service costs by electronically programming and testing the detector prior to installation.

For proper operation of Model 8720 / DPU, the technician selects the accessory's program mode, and enters the desired address. In turn, Model 8720 / DPU automatically sets and verifies the address, as well as tests the detector. When in the 'test' mode, Model 8720 / DPU will perform a series of diagnostic tests without altering the address or other stored data, allowing technicians to determine if the detector is operating properly.

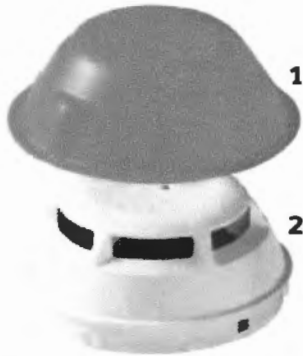
Model 8720 / DPU operates on AC power or rechargeable batteries, providing flexibility and convenience in programming and testing equipment from practically any location.

Photoelectric Smoke Detector **9602**

Product Overview — (continued)

Model OP921 is a plug-in, two-wire and addressable photoelectric smoke detector. Model OP921 is ©Underwriters' Laboratories Listed [©UL268A Listed for direct in-air duct usage].

Each detector consists of a dust-resistant photoelectric chamber; a solid state, non-mechanical thermal sensor, and microprocessor-based electronics with a low-profile plastic housing. Every Model OP921 fire detector is shipped with a protective dust cover:

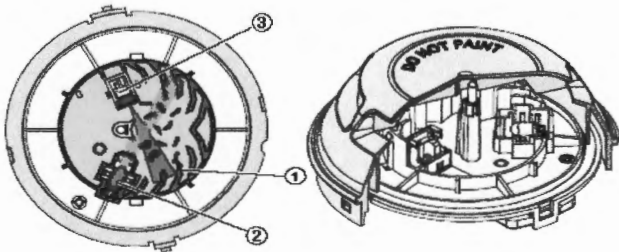


1. Dust cover
2. Thermal detector

Operation

Model OP921 is a wide-spectrum, photoelectric smoke detector incorporating an infrared light-emitting diode (IRLED), and infrared light-sensing photodiode. Under normal conditions, light transmitted by the LED is directed away from the photodiode and scattered through the smoke chamber in a controlled pattern.

The smoke chamber is designed to manage light dissipation and extraneous reflections from dust particles or other non-smoke, airborne contaminants in such a way as to maintain stable, consistent detector operation. When smoke enters the detector chamber, light emitted from the IRLED is scattered by the smoke particles, and is received by the photodiode:



1. Labyrinth
2. Optical transmitter
3. Optical receiver

Sensitivity Settings

Application Parameter Sets

Model OP921 provides four (4) pre-programmed sensitivity parameter sets that can be selected by the FACP to match the expected application or environmental conditions:

- Sensitive
- Standard
- Robust
- Air-duct

Sensitive: This application parameter set is practically suitable for areas where few misleading sources of false alarm are present, and is appropriate where priority is given to detecting open fires as soon as possible (e.g. – typically a clean application with controlled environmental conditions.)

Standard: This application parameter set is practically apt for normal office, hotel-lobby-type applications, and is the default setting.

Robust: This application parameter set offers improved resistance to false alarms in areas where misleading sources, such as cigarette smoke or exhaust fumes, may cause a nuisance alarm.

Air-Duct: This application parameter set is used when the detector is used a ©UL268A (DI) compliant direct in-air duct application without a duct housing.

Model OP921 does not require a field sensitivity test. Model OP921 is ©UL Listed as a self-testing device and complies with NFPA 72 as a self monitoring detector and control panel arrangement. Additionally, this parameter set is also used when Model OP921 is used in air-duct housings (Models FDBZ492 and FDBZ492-HR).

The visible LED flashes green every 10 seconds to indicate communication with the FACP, and to notify Model OP921 has passed its self-test. Should Model OP921 sense a fault or failure within its system, the LED will flash amber, and the detector will transmit the data to the FACP.

A quick visual inspection is sufficient to indicate the condition of Model OP921 at any time. If more detailed information is required, a printed report can be provided from the compatible FACP, indicating the status and settings assigned to each individual detector. When Model OP921 moves to the *alarm* mode, the detector will flash red and continue flashing until the system is reset at the FACP. At that same time, any user-defined, system-alarm functions programmed into the system are activated.

Model OP921 contains a tri-color LED indicator, capable of flashing any one (1) of three (3) distinct colors: green, yellow, or red. During each flash interval, the microprocessor-based detector monitors the following:

- Smoke sensitivity is within the range indicated on the nameplate label
- Smoke in its sensing chamber
- Internal sensors and electronics are functional

Operation — (continued)

Based on the monitoring results, the LED indicator flashes the following colors based on the following conditions:

Flash Color	Condition	Flash Interval (in seconds)
Green*:	Normal supervisory operation. Smoke sensitivity is within rated limits.	10
Yellow:	Detector is in trouble and needs replacement.	4
Red:	Alarm condition.	1
No Flash:	Detector is not powered.	--

* LED can be turned OFF.

Please follow the corresponding description of the panel used.

A quick visual inspection is sufficient to indicate the condition of the detector at any time. If more detailed information is required, a printed report can be provided from the Model FC9-series FACPs indicating the status and settings assigned to each individual detector.

Installation

All Model OP921 detectors use a surface-mounting base, Model DB-11 or Model DB-11E, which mounts on a 4-inch octagonal, square or single-gang electrical box. The base utilizes screw-clamp contacts for electrical connections and self-wiping contacts for increased reliability.

The Model DB-11 base can be used with the optional Model LK-11 detector locking kit, which contains 50 detector locks and an installation tool to prevent unauthorized removal of the detector head. Model DB-11 has decorative plugs to cover the outer mounting screw holes.

Model OP921 may be installed on the same initiating circuit with the following Siemens Model 'H'-series detectors [when used with the Model FC9-series of FACPs] —

- Model HFP-11
- Model 'HMS'-series manual stations
- Model 'HTRI'-series interfaces
- Model HCP output-control devices
- Model 'HZM'-series of addressable, conventional zone modules

Application Data

Installation of Model OP921 detectors requires a (2) two-wire circuit. In many retrofit cases, existing wiring may be used. 'T-tapping' is permitted only for Style 4 (Class B) wiring. Model OP921 is polarity insensitive, which allows a substantial reduction in installation and debugging time.

Model OP921 can be applied within the maximum 30-foot center spacing (900 sq. ft. areas,) as referenced in NFPA 72. This application guideline is based on ideal conditions — specifically, smooth ceiling surfaces, minimal air movement, and no physical obstructions between potential fire sources and the actual detector. Do not mount detectors in close proximity to ventilation or heating and air conditioning outlets. Exposed joints or beamed ceilings may also affect safe spacing limitations for detectors.

SIEMENS Industry, Inc.
Building Technologies Division

Should questions arise regarding detector placement, observe NFPA 72 guidelines. Good fire-protection system engineering and common sense dictate how and when fire detectors are installed and used. Contact your local Siemens Industry — Fire Safety distributor or sales office whenever you need assistance applying Model OP921 in unusual applications. Be sure to follow NFPA guidelines and ©UL Listed / ©ULC Pending installation instructions — included with every Siemens — Fire Safety detector — and local codes as for all fire protection equipment.

Technical Data

Operating Temperature Range: +32°F (0°C) to 120°F (49°C)

Relative Humidity: 0 — 95%; non-condensing

Air Pressure: No effect

Air Velocity: 0 — 4,000 ft. / min (0-20m / sec)

Input Voltage Range: 16VDC — 30VDC

Alarm Current (max.): 410µA

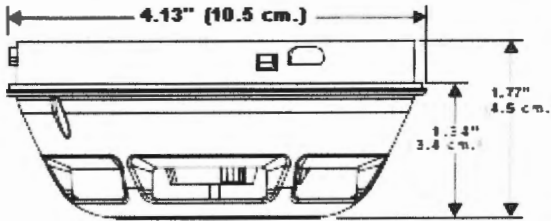
Standby Current (max.): 250µA, max. (average)

Maximum Spacing: 30-foot centers (900 sq. ft.), per NFPA 72

Detector Weight:
0.317 Lbs. (0.144 Kg.)

Mechanical Protection Guard:
©UL Listed / ©ULC Pending
with STI Guard Model STI-9604

Mounting Diagram Dimensions



FACP Compatibility Table

Model Number	Description
FC901	50-point panel
FC922	252-point panel (networkable)
FC924	504-point panel (networkable)

Details for Ordering

Model Number	Part Number	Description
OP921	S54320-F4-A2	Photoelectric Smoke Detector
DB-11	500-094151	Detector Mounting Base
DB-11E	500-094151E	Detector Base (small)
DB2-HR	S54320-F12-A1	Relay Base
RL-HC	500-033230	Remote Alarm Indicator: 4" octagon-box mount, red
RL-HW	500-033310	Remote Alarm Indicator: Single-gang box mount, red
FDBZ492	S54319-B22-A1	Addressable Air-Duct Housing
FDBZ492-HR	S54319-B23-A1	Addressable Air-Duct Detector with Relay
LK-11	500-695350	Base Locking Kit

In Canada, order:

Model Number	Part Number	Description
DB-11C	500-095687	Detector Mounting Base for cULC (pending)

Notice: This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.

SIEMENS Industry, Inc.
Building Technologies Division

Fire Safety
8 Fernwood Road
Florham Park, NJ 07932
Tel: (973) 593-2600
FAX: (908) 547-6877
URL: www.SBT.Siemens.com/FIS

(SIF-S)
Printed in U.S.A.

Fire Safety
2 Kenview Boulevard
Brampton, Ontario
L6T 5E4 / Canada
Tel: (905) 799-9937
FAX: (905) 799-9858

September 2011
New Issue

Series PM6600 & PM6700 Manual Non-Code Keyed Stations**Features**

- MM101 Key Switch Cover
- Sturdy Metal Construction
- Enclosed Switch with Optional Glass Rod
- 10 Amp @ 120 Vac, 5 Amp @ 24 Vdc Switch Contact Rating
- Stations Available are: Single Action, Dual Action, Pre-Signal / General Alarm, Institutional, Weatherproof, and Explosion Proof
- UL, CSFM Listed & MEA approved
- Made in USA

Description

The PM6600/6700 series meets the requirements of the keyed reset station in every way. By using the standard Faraday MM101 series key, the user eliminates the need to search through many different reset keys. All stations are constructed of a solid die cast housing and come painted glossy red. The back switch plate is made of thick 14 Ga. plated steel and comes in a one gang size.

The electrical switch has a hefty 10 Amp @ 120 Vac normally open contact rating. All stations come with terminal block connections with the exception of the single action stations. These may be ordered with terminal blocks or pigtails (See ordering information for a more detailed description).

Explosion proof and weatherproof units come complete with their own back box. Optional PM6767 matching red surface interior back boxes are also available.

Operation**Alarm**

To activate the manual station, a firm downward pull of the recessed pull lever is required. Such action locks the lever in the down position, breaks the glass rod, (if used) and actuates the switch creating an alarm condition.

Reset

To restore an operated manual station to normal standby condition requires the use of a standard Faraday MM101 key. The lock, located at the top of the station, is turned with an inserted MM101 key.

PM6608/
PM6700 (right) &
PM 6696 (below)



This lets the front of the station swing down and allows the recessed pull down lever to be reset in the normal up position. Replacement of the glass rod (if used) is not necessary to reset the station. However, spare glass rods can be stored inside the station. To lock the station swing the front of the station back up to its original position and turn the MM101 key in the previously operated position.

Engineering Specification

Furnish and install where located on the drawings Faraday non-code pull stations. The stations should be pull down operation type with operation instructions provided on the station in raised letters. The station should be of metal construction, finished in fire alarm red/white, and shall be capable of proper operation with or without a break glass rod. Stations using any plastic parts other than the switch body, or requiring the use of a break glass rod to maintain a standby condition shall not be acceptable.

Upon operation the pull down lever shall lock into the alarm position and remain so until manually reset. A common Faraday MM101 key shall be required to gain access for resetting the station, testing the station or replacing the glass rod. Stations with test features that do not test the actual station actuating switch shall not be acceptable.

Stations shall contain one or more normally open alarm contacts. Wiring to the fire alarm system initiating circuit shall be via pressure type screw terminals or pigtail wires with in and out wiring required.

Specifications

Electrical

Contacts – All contacts except General Alarm: 10A @ 120 Vac, General Alarm: 5A @ 30 Vdc

Dimensions

4-3/4" (H) x 3-3/16" (W) x 7/8" (D)

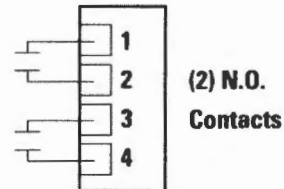
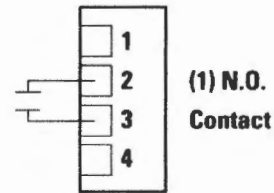
Weight

15-1/2 oz.

Mounting

Single gang box

Wiring



Ordering Information

Model	Description	Part No.
Single Action Stations		
PM6700	(RMS-1P-KL) Station, N.O., Pigtails	500-648504FA
PM6608	(RMS-1T-KL) Station, N.O., Terminals	500-648505FA
Dual Action Stations		
PM6696	(RMS-2T-LP-KL) Station, (2) N.O., Terminals	500-648507FA
Pre-Signal/General Alarm Stations		
PM6695	(RMS-1T-KS-KL) N.O. Pre-sig, N.O. Terminals	500-648265FA
Weatherproof Stations		
PM6699	(RMS-2T-WP-KL) (2) N.O. Terminals	500-648266FA
Accessories		
PM6698	(BB) Surface Back Box, Interior	500-648506FA
PM7601	Glass Rods (pack of 10)	500-648245FA
10531	(ST11130) Cover, surface mount w/horn	500-648563FA
10538	(ST11130) Cover, flush mount, w/ horn	500-648591FA
10539	(ST11200) Cover, flush mount, w/o horn	500-648253FA



Siemens Building Technologies, Inc.
8 Fernwood Road • Florham Park, NJ 07932
Tel: (973) 593-2600 • Fax: (973) 593-6670
Web: www.faradayfirealarms.com

WARNING - The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information, are provided with the product and are available from the Manufacturer. Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.

8701 Intelligent Monitoring Module

Features

Intelligent Interface Modules for use with MPC-6000 & 7000 Control Panels

- Interfaces and Supervises Normally Open Contacts
- Compact Size Allows Mounting in Single Gang Box Behind Equipment
- Polarity Insensitive Technology
- Innovative Technology Supports Comprehensive System and Interface Communication
- Dynamic Supervision
- Two Wire Operation
- 8720 Device Program/Test Unit Electronically Programs and Verifies Device's Address and Tests Device's Functionality
-  Listed, CSFM and NYMEA Approved

Introduction

The FARADAY 8701 Intelligent interface module is designed to provide the means of interfacing direct shorting devices to the MPC-6000 & 7000 initiating circuit.

The 8701 Intelligent interface module provides the market's most advanced method of address programming and supervision, combined with sophisticated control panel communication. Each 8701 interface module incorporates microcomputer chip technology and its sophisticated bi-directional communication capabilities with the control panel.

Description

The 8701 is designed to monitor a normally open dry contact and reports the contact's status to the control panel.

The device's microcomputer chip has the capacity of storing, in memory, identification information as well as important operating status information.

FARADAY innovative technology allows all 8701 intelligent interface modules to be programmed by



using the 8720 Device Program/Test Unit. The 8720 is a compact, portable, menu driven accessory that makes programming and testing an interface device faster, easier and more dependable than previous methods. The 8720 eliminates the need for mechanical addressing mechanisms, such as program jumpers, DIP switches or rotary dials, because it electronically sets the 8701 interface's address into the interface's microcomputer chip non-volatile memory. Vibration, corrosion and other conditions that deteriorate mechanical addressing mechanisms are no longer a cause for concern. This 8701 is connected to the program/tester with the programming cable provided with the tester. This programming cable utilizes two (2) alligator clip connectors to attach to the 8701.

The 8701 Series has five leads, one for grounding, which are wired to the system with user supplied wire nuts.

The 8701 is fully compatible on the same circuit with detectors, addressable manual stations or any addressable intelligent modules.

All 8701 intelligent interface modules have been UL and ULC Listed.

Environmental operating conditions for all 8701 modules are 32°F (°C) to 120°F (49°C) with a relative humidity of not greater than 93% non-condensating.

Ordering Information

Model	Description	Shipping oz.	Weight kg.	Part No.
8701	Single Input	3.5	.1	500-034000FA

Electrical Ratings

Current Draw (Active or Standby): 1mA



Siemens Building Technologies, Inc.
8 Fernwood Road • Florham Park, NJ 07932
Tel: (973) 593-2600 • Fax: (973) 593-6670
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**NO
EXCUSES!**



FDB

Fire Alarm Control Unit (FACU) Records & Document Box

The Space Age FDB has been developed to be a code compliant solution to a mandated item specified by the National Fire Code (NFPA 72).

An internal galvanized sleeve holds the documents safely and securely. Access to the documents is via a high security CAT 30 Lock Set.

The galvanized sleeve also contains 2 hooks for key rings or thumb drives, a place for several business cards, a cutout for a 1.4 Oz. can of test gas and a slot where a standard CD "jewel" case can be stored.

Held in by two "wing nuts" the sleeve is easily removable to allow storage of a 1.5" 3 ring binder.

The door reads "FACU MAINTENANCE RECORDS" in 1" tall white lettering. Custom Logo and Lock Sets are available upon request.

NFPA 72 section 6.2.2.1 states, "A record of installed software and firmware version numbers shall be maintained at the location of the fire alarm control unit." The FDB is large enough to hold Operating Manuals, Permits, Shut-Down Instructions and more.

Standard Features:

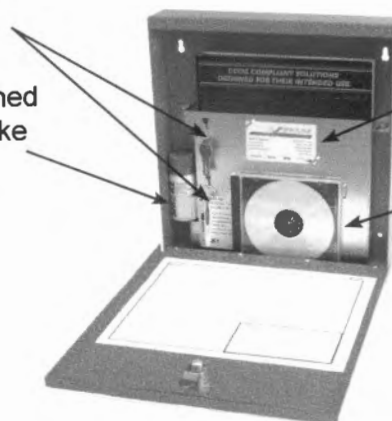
- Overall Dimensions are:
12" Wide x 13.1" High x 2.25" Deep
- CAT 30 Secured Locking Door
- Piano Hinged Door w/Notes Sticker
- Removable document holder can hold 1" of 8.5" x 11" paperwork
- Powder Coat Red Finish
- 16 Gauge CRS construction
- Embossed:
 - Key Ring Hooks
 - Business Card Holder
 - CD Case Slot
- 1.4 Oz. can of detector test gas
- Private labeling available

Key Ring
Hooks

Canned
Smoke

Business
Card Holder

CD Jewel
Case



Made In U.S.A.

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ADA

SAE

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508.485.0966 Local
508.485.4740 Fax

Z Strobes, Horns, Horn/Strobes

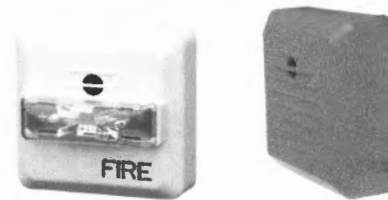
Features

- UL listed. ULC, CSFM, and FM pending.
- ADA/NFPA compliant
- EZ Mount design, with separate base plate, provides ability to pre-wire the base and test the circuit wiring before the walls are covered
- The base plate is protected by a disposable cover and the appliances can quickly snap onto the base after the walls are painted.
- EZ Mount Universal Mounting Plate (ZBB) – uses single plate for ceiling and wall mount installations
- Wall Mount models feature field selectable candela settings of 15/30/75/110cd and 135/185cd
- Ceiling Mount models feature field selectable candela settings of 15/30/75/95cd and 115/177cd
- Strobes can be synchronized using the Siemens 5406B sync modules, MPC-6000 panel, MPC-7000 panel, or RSE-300 power supply with built-in sync protocol
- "Special Applications" listed with Siemens panels
- Strobes produce 1 flash per second
- Selectable Continuous Horn or Temporal (Code-3) Tones with selectable 90 or 95 dBA setting (ZH model)

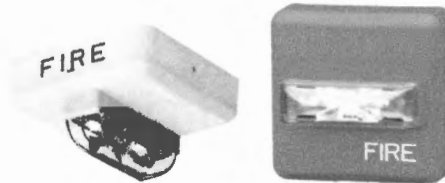
Description

The Siemens Series Z notification appliances feature an easy snap on base that is designed to simplify the installation and testing of horns, strobes, and horn/strobes. The separate Series Z snap on base can be pre-wired so circuit wiring can be fully tested before the appliance is installed and before the walls are covered. Once all surrounding work is complete, the appliance can be simply installed by snapping it on the base. Shorting contacts in the base, which provide continuity for circuit testing, are permanently opened when the appliance is installed so any subsequent removal of the appliance will indicate a trouble condition on that circuit at the control panel when circuit supervision is enabled. The same base is used for all Series Z horns, strobes and horn/strobes to provide consistent installation and easy replacement of appliances if required. A locking screw is also included for the appliance to provide extra secure installation.

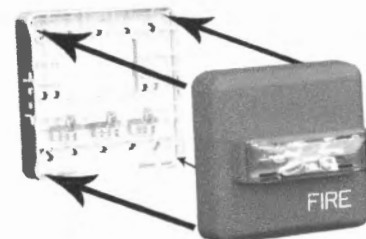
The Siemens Series Z appliances incorporate the same dependable circuitry and high efficiency optics that are used in Siemens ST strobes, NS horn/strobes and NH horns and have the same high performance ratings. The Series Z appliances are "Special Applications" listed with Siemens panels.



Series ZH



Series ZR



ZR AND ZH Mounting

Engineering Specifications

General

Audible/visual notification appliances shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. These appliances shall be listed under UL Standard 1971, (Standard for Safety Signaling Devices for Hearing Impaired) and UL Standard 464 (Fire Protective Signaling). The appliances shall use a universal backplate that shall allow mounting to a single-gang, double-gang, 4-inch square, 4" octal, or a 3-1/2" octal backbox. Two wire appliance wiring shall be capable of directly connecting to the mounting back plate. Continuity checking of the entire NAC circuit prior to attaching any audible/visual notification appliances shall be allowed. A dust cover shall fit and protect the mounting plate. The dust cover shall be easily removed when the appliance is installed over the backplate. Removal of an appliance shall result in a trouble condition by the Fire Alarm Control Panel (FACP).

Strobes

Strobe appliances shall produce a minimum flash rate of 60 flashes per minute (1 flash per second) over the Regulated Input Voltage Range and shall incorporate a

Xenon flashtube enclosed in a rugged Lexan® lens. The strobes shall be available with two or four field selectable settings in one unit and shall be rated, per UL 1971, for up to 185 cd for wall mounting and 177 cd for ceiling mounting. The strobes shall operate over an extended temperature range of 32°F to 120°F (0°C to 49°C) and be listed for maximum humidity of 95% RH. Strobe inputs shall be polarized for compatibility with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP).

Audibles and Audible/Strobe Combinations

Horns and horn/strobes shall be listed for Indoor use under UL Standard 464. The horns shall be able to produce a continuous output or a temporal code-3 output that can be synchronized. The horns shall have at least 2 sound level settings of 90 and 95 dBA.

Synchronization Modules

When synchronization of strobes or temporal Code-3 audibles is required, the appliances shall be synchronized using the Siemens 5406B sync modules, MPC-6000 panels, MPC-7000 panels, or RSE-300 power supplies with built-in sync protocol. The strobes shall not drift out of synchronization at any time during operation. Au-

dibles and strobes shall be able to be synchronized on a 2-wire circuit with the capability to silence the audible if required. If the sync module or power supply fails to operate (i.e., contacts remain closed), the strobes shall revert to a non-synchronized flash rate. All notification appliances shall be listed for "Special Applications".

- Strobes are designed to flash at 1 flash per second minimum over their "Regulated Input Voltage Range".
- All candela ratings represent minimum effective strobe intensity based on UL Standard 1971.
- Series ZH Strobe products are listed under UL Standards 1971 and 464 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%).
- Series ZH horns are listed under UL Standard 464 for audible signal appliances (Indoor use only).

Technical Information

For complete technical information, please consult the relevant installation sheets as well as the Siemens Compatibility Guide.

Ordering Information / Mounting Requirements / Approvals

Model Number	Order Code	Mounting Options#	Agency Approvals			
			UL	ULC	CSFM	FM
ZH-MC-R	500-636161	B, D, E, F	X	#	#	#
ZH-MC-W	500-636162	B, D, E, F	X	#	#	#
ZH-HMC-R	500-636163	B, D, E, F	X	#	#	#
ZH-HMC-W	500-636164	B, D, E, F	X	#	#	#
ZH-R	500-636159	B, D, E, F	X	#	#	#
ZH-W	500-636160	B, D, E, F	X	#	#	#
ZH-MC-CR	500-636165	B, D, E, F	X	#	#	#
ZH-MC-CW	500-636166	B, D, E, F	X	#	#	#
ZH-HMC-CR	500-636167	B, D, E, F	X	#	#	#
ZH-HMC-CW	500-636168	B, D, E, F	X	#	#	#
ZR-MC-R	500-636169	B, D, E, F	X	#	#	#
ZR-MC-W	500-636170	B, D, E, F	X	#	#	#
ZR-HMC-R	500-636171	B, D, E, F	X	#	#	#
ZR-HMC-W	500-636172	B, D, E, F	X	#	#	#
ZR-MC-CW	500-636174	B, D, E, F	X	#	#	#
ZR-MC-CR	500-636173	B, D, E, F	X	#	#	#
ZR-HMC-CR	500-636175	B, D, E, F	X	#	#	#
ZRS-HMC-CW	500-636176	B, D, E, F	X	#	#	#
ZBB-R	500-636193	Accessory - Includes base, dust cover, mounting screws and installation sheet				
ZBB-W	500-636194	Accessory - Includes base, dust cover, mounting screws and installation sheet				

X = listed/approved # = pending * = Refer to Data Sheet #9675 for mounting options.

WARNING: PLEASE READ THESE SPECIFICATIONS AND INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.



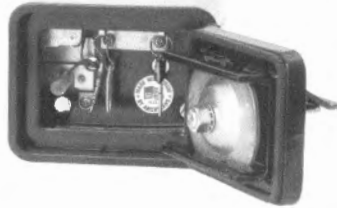
Siemens Building Technologies, Inc.
 8 Fernwood Road • Florham Park, NJ 07932
 Tel: (973) 593-2600 • Fax: (973) 593-6670
 Web: www.faradayfirealarms.com

High Security Industrial/Government Key Box

Recessed Mount
with Face Flange



Surface Mount



The number one high-security KNOX-BOX® is used for most commercial applications including businesses, schools, government and public buildings, community associations and apartment complexes. The 3200 Series KNOX-BOX holds keys, access cards and other small items necessary for emergency access.

The hinged-door 3200 Series KNOX-BOX is more convenient than the lift-off door version because it allows single-handed operation and opened or closed, it's all one unit.

Features and Benefits

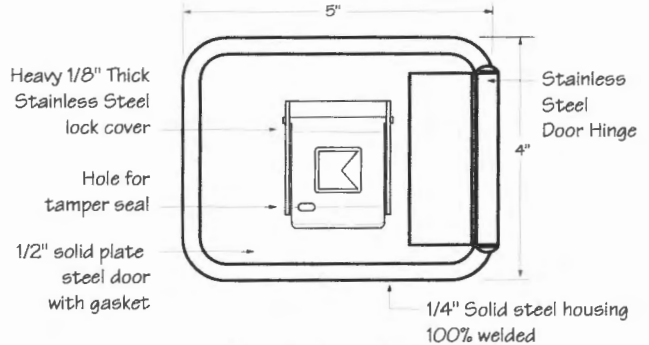
- Holds up to 10 keys and access cards in interior compartment
- Ensures high security. Box and lock are UL® Listed
- Includes a Knox-Coat® proprietary finishing process that protects Knox products up to four times better than standard powder coat
- Resists moist conditions with a weather resistant door gasket
- Hinged door allows single-handed operation
- Colors: Black, Dark Bronze or Aluminum
- Weight: Surface mount - 8 lbs.
Recessed mount - 9 lbs.

Options

- Alarm tamper switches (UL Listed)
- Recessed Mounting Kit (RMK) for recessed models only
- Inside switch for use on electrical doors, gates and other electrical equipment

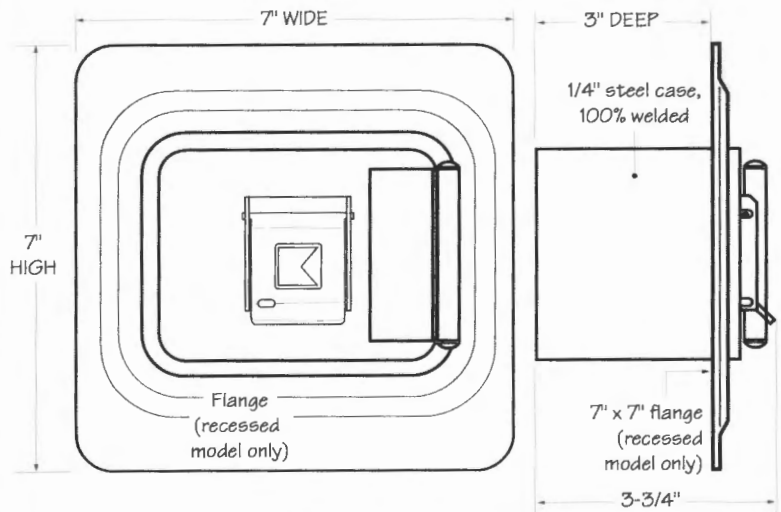


Front View



3200 Surface Mount

Front View



3200 Recessed Mount

Ordering Specifications

To insure procurement and delivery of the 3200 Series KNOX-BOX, it is suggested that the following specification paragraph be used:

KNOX-BOX surface/recessed mount with hinged door, with/without UL Listed tamper switches. 1/4" plate steel housing, 1/2" thick steel door with interior gasket seal and stainless steel door hinge. Box and lock UL Listed. Lock has 1/8" thick stainless steel dust cover with tamper seal mounting capability.

Exterior Dimensions: Surface mount body- 4"H x 5"W x 3-3/4"D
Recessed mount flange- 7"H x 7"W

Lock: UL Listed. Double-action rotating tumblers and hardened steel pins accessed by a biased cut key.

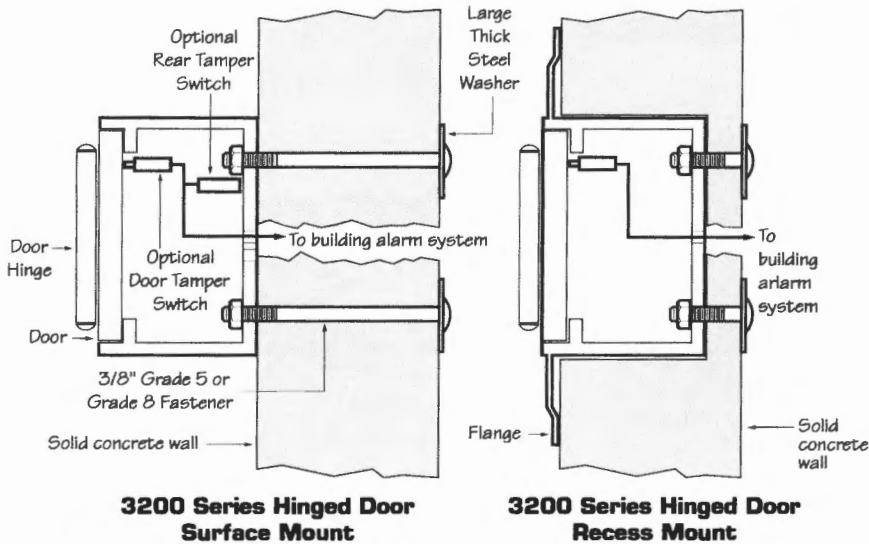
Finish: Knox-Coat® proprietary finishing process

Colors: Black, Dark Bronze or Aluminum

P/N: 3200 Series KNOX-BOX (mfr's cat. ID)

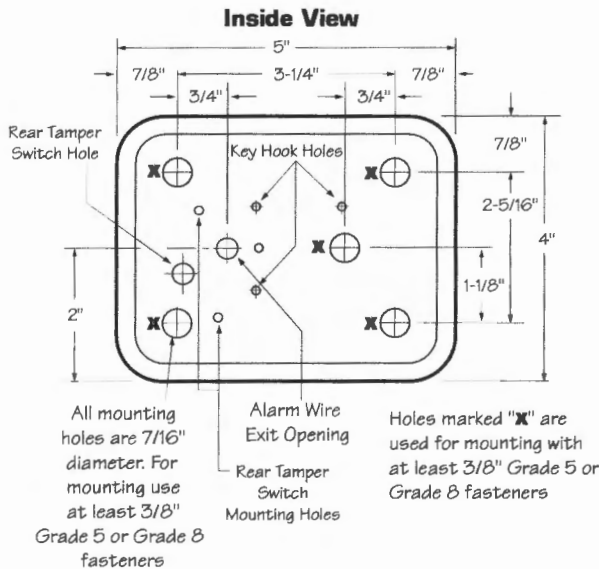
Mfr's Name: **KNOX COMPANY**

**Suggested minimum mounting height
6 feet above ground**



**3200 Series Hinged Door
Surface Mount**

**3200 Series Hinged Door
Recess Mount**



Attention: KNOX-BOX® is a very strong device that MUST be mounted properly to ensure maximum security and resist physical attack.

Knox® Rapid Entry System

The Knox Company manufactures a complete line of high security products including Knox-Box key boxes, key vaults, cabinets, key switches, padlocks, locking FDC caps, plugs and electronic master key security systems. For more information or technical assistance, please call Customer Service at 1-800-552-5669.

Recessed Mounting Kit

The 3200 Recessed Mounting Kit (RMK) is used for recessed models only. It contains a shell housing and mounting hardware to be cast-in-place in new concrete or masonry construction. After construction is completed, the KNOX-BOX mounts inside the RMK. The RMK may only be used in new concrete or masonry construction.

Installation In Cast Concrete

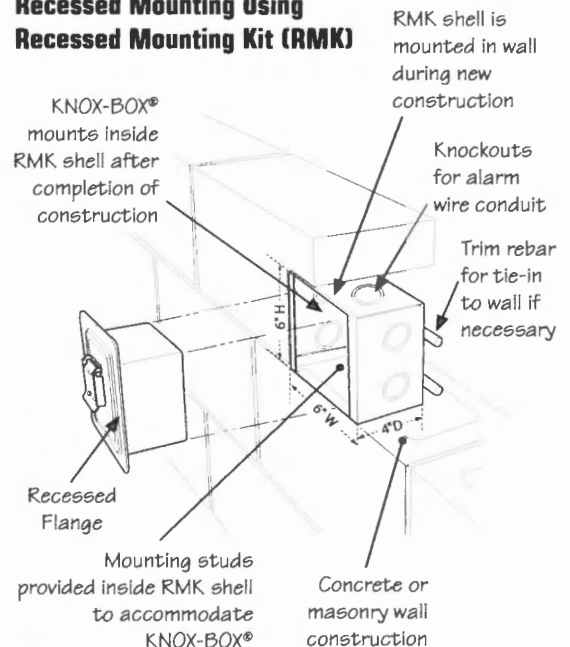
The optional Recessed Mounting Kit is for use in new concrete or masonry construction only. The kit includes a shell housing and mounting hardware to be cast-in-place. The KNOX-BOX is mounted into the shell housing after construction is completed.

Dimensions

Rough-in Dimensions: 6-1/2"H x 6-1/2"W x 5"D

IMPORTANT: Care should be taken to insure that the front of the RMK shell housing, including the cover plate and screw heads, is flush with the finish wall. The RMK must be plumbed to insure vertical alignment of the vault.

Recessed Mounting Using Recessed Mounting Kit (RMK)



LEGEND - SLC CIRCUITS AND NAC CIRCUITS

(1) GENERAL NOTES:

- A. FIRE ALARM SYSTEM WIRING SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, APPLICABLE STATE AND LOCAL CODES, AND SHALL BE COORDINATED WITH THE LOCAL AUTHORITY HAVING JURISDICTION.
- B. CAUTION: DO NOT CONNECT ANY POWER TO THE CONTROL PANEL (BATTERIES OR 120V AC) UNTIL ALL OTHER FIELD WIRING IS TESTED AND CONNECTED.
- C. DO NOT INSTALL FIRE ALARM CONTROL PANEL OR SMOKE DETECTORS IN AN UNHEATED AREA.
- D. DO NOT INSTALL ANY AC CURRENT-CARRYING CONDUCTORS CLOSE TO OR IN THE SAME RACEWAY WITH FIRE ALARM SYSTEM CONDUCTORS.
- E. SOLID LINES REPRESENT CONNECTIONS TO BE MADE BY THE SYSTEM INSTALLER.
- F. ALL RELAYS ARE SHOWN IN NORMAL SUPERVISORY CONDITION. ALL RELAYS ARE FORM "C" TYPE.

INSTALLATION NOTES

- A. SMOKE DETECTORS SHALL NOT BE MOUNTED ANY CLOSER THAN 3' FROM ANY AIR DUCT OPENINGS.
- B. ELEVATOR LOBBY SMOKE DETECTORS SHALL BE MOUNTED WITHIN 10' OF THE ELEVATOR DOOR.
- C. MANUAL PULL STATIONS SHALL BE MOUNTED PER ADA REQUIREMENTS: 48" AFF OR 42" AFF TO COMPLY WITH SIDE/FRONT REACH REQUIREMENTS.
- D. WALL MOUNTED HORN/STROBES & STROBES SHALL BE MOUNTED 6" FROM CEILING, OR 96" TO 80" AFF TO THE CENTER OF STROBE.
- E. HORN/STROBES & STROBES SHALL BE MOUNTED 15' FROM THE CORNER OF THE WALL. IF THIS IS NOT POSSIBLE, DEVICE SHALL BE CENTERED ON THAT WALL.
- F. CEILING MOUNTED HALLWAY DEVICES SHALL BE LOCATED IN A SYMMETRICAL MANNER DOWN CENTER OF HALLWAY WHEN POSSIBLE.

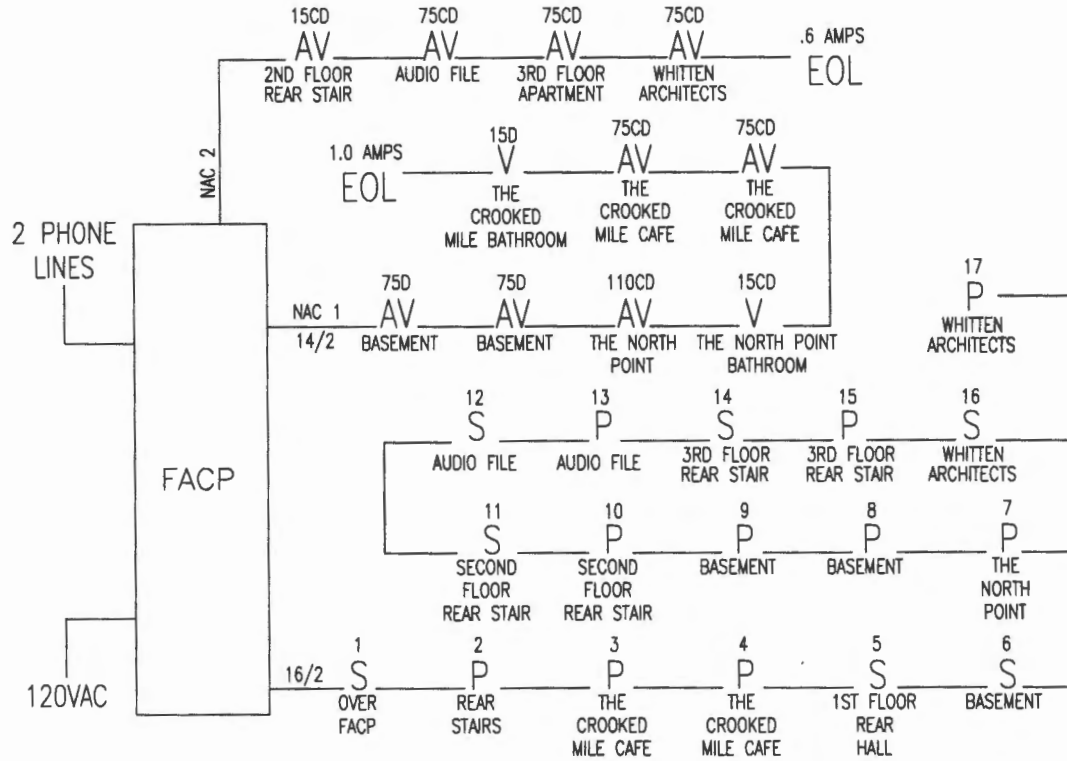
(2) SEE INITIATION CIRCUITS AND NAC CIRCUITS FOR INTEGRATION OF BOTH SLC AND NAC CIRCUITS

- (3) ALL CABLING IS 14/2 FOR THE NAC CIRCUITS UNLESS OTHERWISE SHOWN
- (4) ALL CABLING IS 16/2 FOR THE SLC CIRCUITS UNLESS OTHERWISE SHOWN

(5)

- AC = ALARM CONTROL MODULE
- R = ARM = ADDRESSABLE RELAY MODULE
- AV = AUDIO VISUAL DEVICE
(SET TO 75cd UNLESS NOTED OTHERWISE)
- B = EXTERIOR BEACON
- CO = CO DETECTOR
- D = DUAL MODULE
- DUCT=DUCT DETECTOR MINI MODULE
- F = FLOW
- FACP = MAIN FIRE PANEL
- FS = FRESMART SMOKE DETECTOR
- H = HEAT DETECTOR
- CB = CIRCUIT BREAKER-ISOLATION MODULES
- T.S. = TWISTED SHIELDED
- S/CO = SMOKE/CO DETECTOR (GDHDM1)

- K = KNOX BOX
- LP = LOW AIR
- MIN = MINI MODULE
- P = PULL STATION MINI MODULE
- PS = PRESSURE SWITCH
- RI = REMOTE INDICATOR
- S = SMOKE
- SA = SMOKE WITH AUDIBLE BASE
- T = TAMPER
- TS = TEST SWITCH
- V = VISUAL DEVICE ONLY
(SET TO 75cd UNLESS NOTED OTHERWISE)
- MH = MINI HORN
- RTS = REMOTE TEST MODULE
- PS = PULL STATION
- CL = CORRIDOR LIGHT



6 MILK STREET / 35 SILVER STREET
Portland, Maine

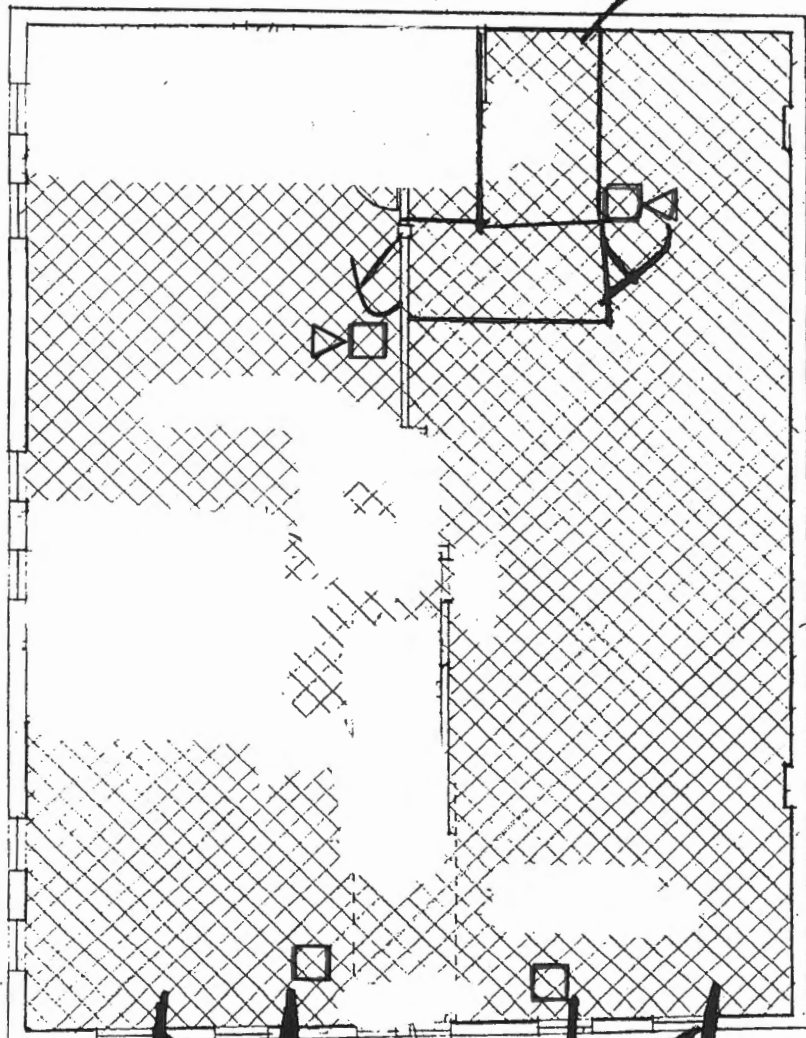
REVISIONS
DATE: 11/14/12
SCALE: NTS
DRAWN BY: SSA
APPROVED BY: -
SHEET: 1

← 44' →

EXHIBIT A

Stairway

MILK STREET



60'



INCLUDES 1st STAIR ENTRY, BELOW SHOWN AS DASHED LINE

0 5' 10' 15' 25'

1ST FLOOR - 50 SQ. FT.

2ND FLOOR - 1880 SQ. FT.

SILVER STREET

Basement

EXHIBIT A

FACP

Basement Stair

Bathroom

Pull Station

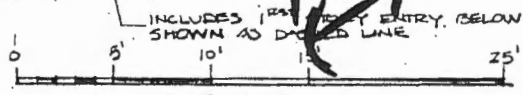
MILK STREET

PREMISES

The North Point

Bathroom

The Crooked Mile Cafe



1ST FLOOR - 50 SQ. FT.
2ND FLOOR - 1880 SQ. FT.

SILVER STREET

1ST FLOOR

Bldg 44' X 60'

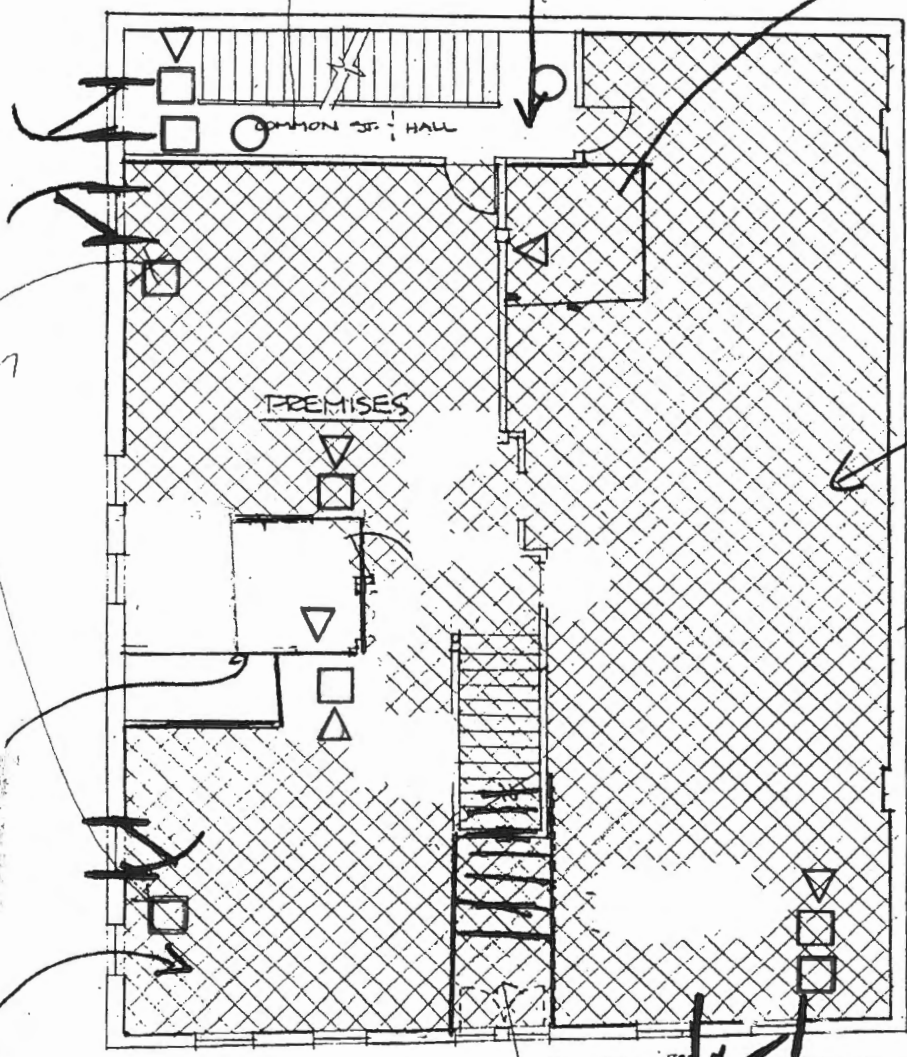
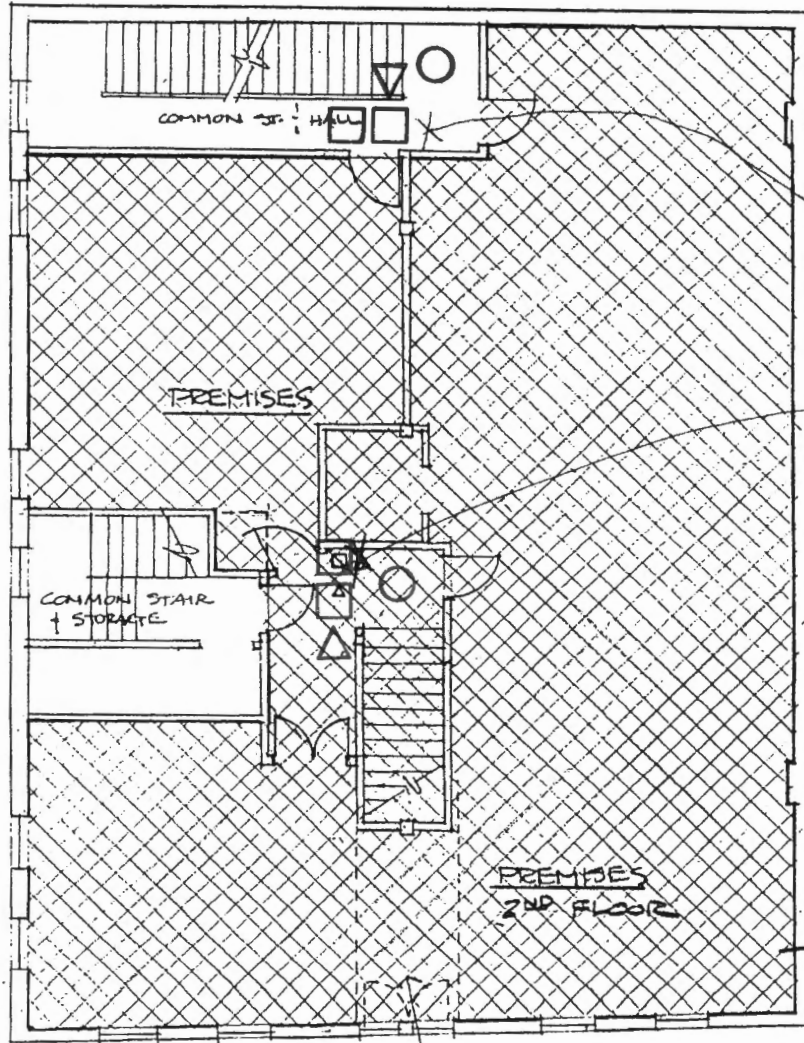


EXHIBIT A

MILK STREET



horn/strobe
 pull station
 smoke detector



INCLUDES 1ST STORY ENTRY, BELOW SHOWN AS DASHED LINE

1ST FLOOR - 50 SQ. FT.
 2ND FLOOR - 1880 SQ. FT.

SILVER STREET

2ND FLOOR

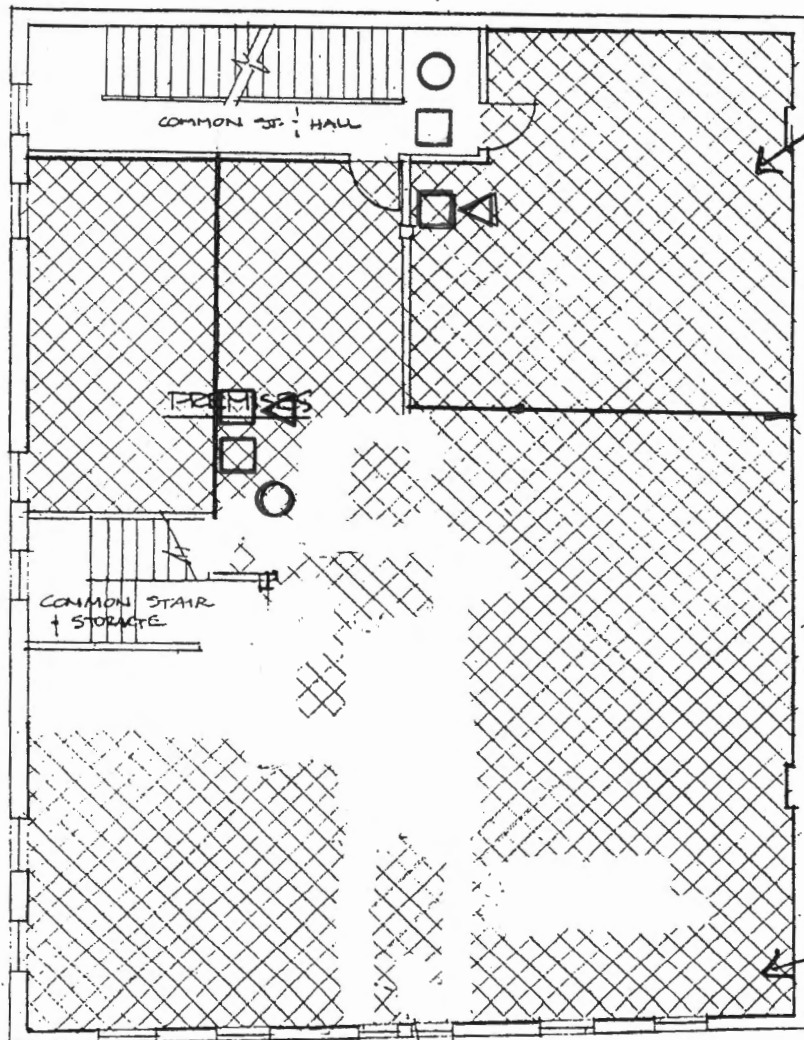
AUDIOFILE

Audiofile

Building 44' x 60'

EXHIBIT A

MILK STREET



Apartment

Whitten Architects

INCLUDES 1ST STORY ENTRY, BELOW SHOWN AS DASHED LINE

1ST FLOOR - 50 SQ. FT.
2ND FLOOR - 1880 SQ. FT.

SILVER STREET

3RD
Floor

Building 44' X 60'

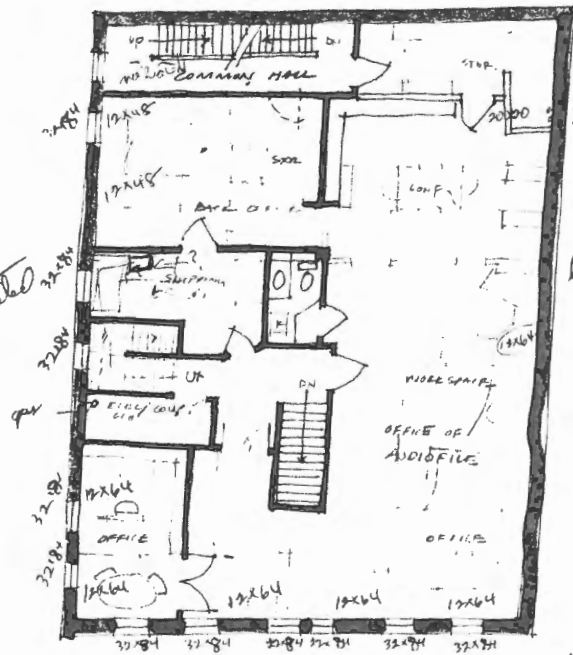
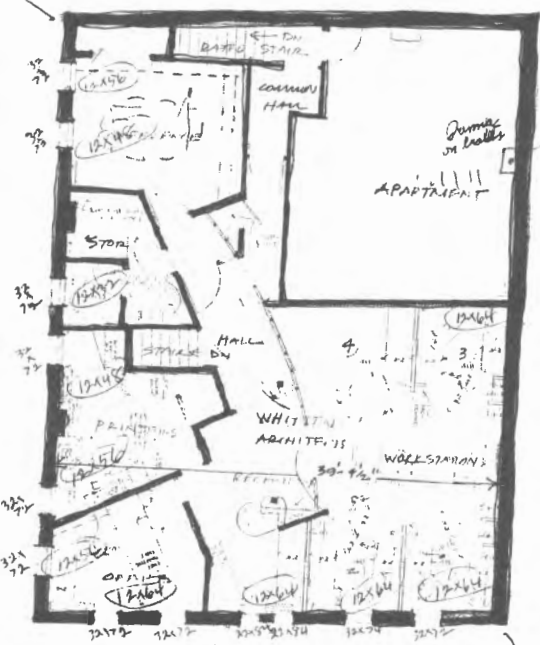
6 mills St. Javis PZH

heated

heated

10'p

ref above



10' Denon
 No wall insulation 3 course brick
 2" celulose insulation - roof

11' ceiling
 double hung - over
 single hung
 - 3 course brick

SCALE: 1/8" = 1'-0"
 DATE: 7-8-08

IMPROVEMENTS @ 37 SILVER ST, PORTLAND MAINE
 WHITELI ARCHITECTS - 37 SILVER ST PH. 774-0111 FAX 774-4668

from 2009 permit