

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read  
Application And  
Notes, If Any,  
Attached

## BUILDING INSPECTION PERMIT

Permit Number: 091241

This is to certify that COMMUNITY ALCOHOLISM ORIENTATION HOUSE INC/Prot  
has permission to Install a Fire Alarm

AT 30 MELLEEN ST CBL 047 A026001

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

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

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

### OTHER REQUIRED APPROVALS

Fire Dept. [Signature]  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_

Department Name

[Signature] 11/16/09  
Director - Building & Inspection Services

### PENALTY FOR REMOVING THIS CARD

PERMIT ISSUED

NOV 6 2009

City of Portland

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

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

Permit No: 09-1241	Issue Date:	CBL: 047 A026001
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Location of Construction: 30 MELLEEN ST	Owner Name: COMMUNITY ALCOHOLISM OR	Owner Address: 30 MELLEEN ST	Phone:
Business Name:	Contractor Name: Protection One	Contractor Address: 10 Manuel Drive Portland	Phone: 2073475309
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	Zone: R-6

Past Use: Commercial - Serenity House	Proposed Use: Commercial - Serenity House - Install a Fire Alarm	Permit Fee: \$50.00	Cost of Work: \$2,885.00	CEO District: 2	Zone: Principal B-2b Second
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Proposed Project Description: Install a Fire Alarm	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <i>w/conditions</i> 11/16/09 Signature: <i>[Signature]</i>	INSPECTION: Use Group: <i>R2/B</i> Type: <i>IBC-2003</i> Signature: <i>[Signature]</i>
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Permit Taken By: Ldobson	Date Applied For: 11/03/2009	<b>Zoning Approval</b>
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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 information may invalidate a building permit and stop all work..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> <input type="checkbox"/> Denied Date: <i>11/4/09</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 <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>Requires A</i>
	Any exterior work requires separate review & approval		

**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.

PERMIT ISSUED

SIGNATURE OF APPLICANT	ADDRESS	DATE NOV 26 2009	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE City of Portland	PHONE



# City of Portland, Maine - Building or Use Permit

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

<b>Permit No:</b> 09-1241	<b>Date Applied For:</b> 11/03/2009	<b>CBL:</b> 047 A026001
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<b>Location of Construction:</b> 30 MELLEN ST	<b>Owner Name:</b> COMMUNITY ALCOHOLISM OR	<b>Owner Address:</b> 30 MELLEN ST	<b>Phone:</b>
<b>Business Name:</b>	<b>Contractor Name:</b> Protection One	<b>Contractor Address:</b> 10 Manuel Drive Portland	<b>Phone:</b> (207) 347-5309
<b>Lessee/Buyer's Name</b>	<b>Phone:</b>	<b>Permit Type:</b> Fire Alarm System	

<b>Proposed Use:</b> Commercial - Serenity House - Install a Fire Alarm	<b>Proposed Project Description:</b> Install a Fire Alarm
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**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 11/04/2009  
**Note:**      **Ok to Issue:**

1) This permit does not establish use. The legal use has been designated on previous permits

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Jeanine Bourke      **Approval Date:** 11/16/2009  
**Note:**      **Ok to Issue:**

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

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Ben Wallace Jr.      **Approval Date:** 11/16/2009  
**Note:**      **Ok to Issue:**

- 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) The fire alarm system shall comply with NFPA 72 and Fire Department Technical Standard. A compliance letter is required.
- 3) Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance
- 4) All smoke detectors and smoke alarms shall be photoelectric. Carbon Monoxide detectors are required in the dwelling units by State law.
- 5) System acceptance and commissioning must be co-ordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
- 6) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP and keyed alike, labeled "FIRE ALARM RECORDS".

**PERMIT ISSUED**

NOV 26 2009

City of Portland







AUXILIARY POWERED DEVICES	Enter Quantity	How many powered externally?	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling Loop	Total Standby Current	Total Alarm Current	Total External Current Required
PS24 24 volt Power Supply Module	0	0	50	100			0	0	0
4100SM (no more than one per system)	0	0	25	0			0	0	0
4204: Enter no. of relays used	0	0	40	0			0	0	0
4204CF: Enter no. of relays used	0	0	80				0	0	0
4285 Voice Module	0	0	160				0	0	0
4286 with warning speakers	0	0	220	300			0	0	0
5140DLM Backup Dialer Module	1	0	5	15			0	0	0
5800RP wireless repeater module	0	0	100				0	0	0
5800TM wireless xmtr module	0	0	20				0	0	0
5881EN receiver	0	0	60				0	0	0
5883 hi-security receiver	0	0	80				0	0	0
UVS-QM	0	0	75	110			0	0	0
VA8200 Panel Linking Module	0	0	88	0			0	0	0
VA8201 Alpha Pager Module	0	0	165	0			0	0	0
Add'l Device (enter quant. & currents)	0	0	0	0			0	0	0
Add'l Device (enter quant. & currents)	0	0	0	0			0	0	0
<b>Communicators</b>									
7845GSM/7845i-GSM	0	0	10				0	0	0
7845i/7845i-ENT	0	0	110				0	0	0
GSMCF/iGSMCF Fire Communicator	0	0	10				0	0	0
7847i/7847i-E Internet Communicator	0	0	75				0	0	0
Add'l Device (enter quant. & currents)	0	0	0	0			0	0	0
Add'l Device (enter quant. & currents)	0	0	0	0			0	0	0
<b>PIR Motion Detectors</b>									
IS215T <input type="checkbox"/> LED Active?	0	0	7				0	0	0
IS215TCE	0	0	18				0	0	0
IS2260/IS2260T <input type="checkbox"/> LED Active?	0	0	4				0	0	0
IS2460	0	0	9				0	0	0
IS2500LT	0	0	25				0	0	0
IS2535/IS2535T	0	0	20				0	0	0
IS2560/IS2560T	0	0	20				0	0	0
IS2560TC	0	0	25				0	0	0
IS310/IS320 Request to Exit (RTE)	0	0	35				0	0	0
997 Ceiling Mount PIR <input type="checkbox"/> LED Active?	0	0	12				0	0	0
998 Wall Mount PIR <input type="checkbox"/> LED Active?	0	0	13				0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
<b>Dual Tech Motion Detectors</b>									
DT-515	0	0	20	0			0	0	0
DT-6100STC	0	0	35	0			0	0	0
DT-7235T	0	0	20	0			0	0	0
DT-7435/DT-7435C	0	0	30	0			0	0	0
DT-7450/DT-7450MIC	0	0	35	0			0	0	0
DT-7550	0	0	40	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0
Motion Detctrs (enter quant. & currents)	0	0	0	0			0	0	0



POLLING LOOP DEVICES	Enter Quantity	How many powered by 4297?	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling Loop	Total Standby Current	Total Alarm Current	Total External Current Required
4101SN Single Output Relay Module	0	0			7	0			
4190SN Two Zone SIM	0	0			2	0			
4190WH	0	0			2	0			
4191SN-WH	0	0			0.5	0			
4192CP	0	0			0.4	0			
4192SD Photoelectric Smoke Det.	0	0			0.4	0			
4192SDT	0	0			0.4	0			
4193SN Two Zone SIM	0	0			1.5	0			
4194 Contact	0	0			1	0			
4196	0	0			1	0			
4209U	0	0			15.5	0			
4275EX Dual PIR <input type="checkbox"/> LED Active?	0	0			1	0			
4275EX-SN Dual PIR <input type="checkbox"/> LED Active?	0	0			1	0			
4278EX-SN <input type="checkbox"/> LED Active?	0	0			1	0			
4293SN	0	0			1	0			
4939SN WH/BR/GY Surf Mt. Cntct.	0	0			1	0			
4944SN Recessed Contact	0	0			1	0			
4945SN-WH	0	0			0.5	0			
4959SN Overhead Door Contact	0	0			0.5	0			
5192SD Smoke Detector	2	0			2.8	5.6			
5192SDT Smoke Detector with Heat	0	0			2.8	0			
998MX PIR <input type="checkbox"/> LED Active?	0	0			1	0			
IS2500SN PIR <input type="checkbox"/> LED Active?	0	0			1.6	0			
FG-1625SN Glass Break Detector	0	0			1	0			
Quest2260SN <input type="checkbox"/> LED Active?	0	0			6	0			
Vplex-VSI Short Isolator	0	0			5	0			
Vistakey	0	0			2	0			
Add'l V Plex (enter qnt'y & current)	0	0			0	0			
Add'l Vplex (enter qnt'y & current)	0	0			0	0			

12V NOTIFICATION DEVICES ON BELL OUTPUT #1	Enter Quantity	How many powered externally?	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling Loop	Total Standby Current	Total Sounder Current from Panel Bell #1	Total Sounder Current (external)
System Sensor P2R 12V Horn Strobe	3	0		158				474	0
System Sensor SR 12V Strobe	1	0		128				128	0
Enter device name, quant., & current	0	0		0				0	0
Enter device name, quant., & current	0	0		0				0	0
Enter device name, quant., & current	0	0		0				0	0

12V NOTIFICATION DEVICES ON BELL OUTPUT #2 (IF USED)	Enter Quantity	How many powered externally?	Standby (aux pwr)	Alarm Current (Aux)	Polling Loop	Total Polling Loop	Total Standby Current	Total Sounder Current from Panel Bell #2	Total Sounder Current (external)
Enter device name, quant., & current	0	0		0				0	0
Enter device name, quant., & current	0	0		0				0	0
Enter device name, quant., & current	0	0		0				0	0
Enter device name, quant., & current	0	0		0				0	0
Enter device name, quant., & current	0	0		0				0	0

12V AUX POWER AND BELL CIRCUIT WIRE RUN DATA	Units	Wire Gauge(AWG)	Ohms per 1000 ft	Alarm Current Draw (mA)	Run Length	Actual Resistance (twin leads)	Voltage At EOL	Voltage Drop (Percent)
Panel Aux Power Wire Run (twin lead)	Feet	<Select Wire Gauge>	0.00	150.00	0	0.00	12.00	0.00
Panel Bell 1 Wire Run (twin lead)	Feet	#14 AWG Solid	3.19	802.00	100	0.64	11.62	3.20
Panel Bell 2 Wire Run (twin lead)	Feet	<Select Wire Gauge>	0.00	0	0	0.00	12.00	0.00



# PS24 Power Supply

Battery & Power Budget Calculator  
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### Standby/Alarm Durations (from top)

Battery Standby (hours):	24
Alarm Duration (minutes):	5
Required Capacity (AH)	1.059
Use TWO identical batteries w/ this AH capacity	7.0

Use TWO identical batteries w/ this AH capacity

### PS24 POWER SUPPLY MODULE, MAXIMUM CAPACITIES

Panel 12V Standby (mA)	Panel 12V Alarm (mA)	Output A Standby (mA)	Output A Alarm (mA)	Output B Standby (mA)	Output B Alarm (mA)	PS24 PC Board (mA)	Maximum Total Standby Output	Maximum Total Alarm Output	Max. Battery Capacity
351	1228	570	1700	570	1700	40	610	4180	34.4
0.0	0.0	0	0	0	0	40	Total Standby	Total Alarm	
350.6	1227.6	570.0	1700.0	570.0	1700.0		Standby Budget	Alarm Budget	34.4

Using PS24 to back up Control Panel

Equivalent panel load @ 24V  
(converted to 12VDC from 24V full-wave)  
Power Budget

24V NOTIFICATION APPLIANCES Enter Device Names & Specifications	Enter Quantity	Which PS24 Output?	Device Standby Load (MA)	Device Alarm Load (MA)		Subtotal A Standby	Subtotal A Alarm	Subtotal B Standby	Subtotal B Alarm
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0
24V Notification Appliance	0	Output A	0	0		0	0	0	0

24V BELL CIRCUIT WIRE RUN DATA	Units	Wire Gauge(AWG)	Ohms per 1000 ft	Total Alarm Current Draw (mA)	Run Length	Actual Resistance (twin leads)	Voltage At EOL	Voltage Drop (Percent)
PS24 Output A Wire Run (twin lead)	Feet	<Select Wire Gauge>	0.00	0.00	0	0.00	24.00	0.00
PS24 Output B Wire Run (twin lead)	Feet	<Select Wire Gauge>	0.00	0.00	0	0.00	24.00	0.00



## VISTA-128FBP/V128FBP-24

COMMERCIAL FIRE AND PARTITIONED  
BURGLARY ALARM PLATFORM



To meet UL approval for  
ANSI/SIA CP-01-2000 order  
part number VISTA-128SIA



Designed to integrate seamlessly with CCTV, access control and Honeywell's full range of fire and burglary components, the new VISTA-128FBP provides the ultimate protection of life and property. The UL listed Commercial Fire and Burglary Control Platform controls up to eight partitions and supports up to 128 zones/points using hardwired, wireless and V-Plex addressable technologies. A diverse line of Honeywell initiating devices, notification circuits, digital dialers, keypads,

RF receivers and relays are supported by this extremely powerful control platform. The VISTA-128FBP has been designed to mount quickly and easily in an attack resistant cabinet, and is available in 12V and 24V models. A revolutionary new feature called Panel Linking allows multiple partitions, panels—even buildings—to be armed, disarmed and have status checked all from one location.

## FEATURES

- Eight hardwired zones standard, expandable to 120 V-Plex addressable points/zones or 128 wireless points/zones
- Can control eight separate areas independently (8 partitions)
- Supports Panel-Linking allows up to 8 systems or building to be controlled from one central location (using VA8200)
- Supports Commercial UL Wireless Fire and Burg
- Stores up to 512 events and can accommodate 150 user codes
- Supports V-Plex addressable VistaKey access control (1 to 8 doors)
- Supports up to 16 doors of access control using VISTA Gateway Module (VGM)\*
- Supports CCTV applications with the new VistaView-100 CCTV Switcher Module
- Identifies the point or zone of a fire or alarm using the new FSA-8/FSA-24 Fire System Annunciator
- Programmable to meet SIA false alarm prevention specifications and UL approval for ANSI/SIA CP-01-2000 order part number VISTA-128SIA
- Two on-board notification (bell) circuits delivering 2.3 amp @ 12V or 3.4 amp @ 24V
- Automatic smoke detector sensitivity maintenance testing
- 4-wire smoke reset using onboard J2 output trigger
- Supports Dynamic Signaling for LRR backup
- Supports Remote Control via the Internet\*\*
- Supports Internet Alarm Reporting\*\*
- Supports Graphical User Interface Consoles
- Supports up to 250 access card holders using VistaKey
- Supports AlphaNumeric Pager up to eight different numbers using the VA8201

\* Connects to Northern Computers PassPoint Access Control Systems. Maximum 32 doors.

\*\* When used with AlarmNet-i.

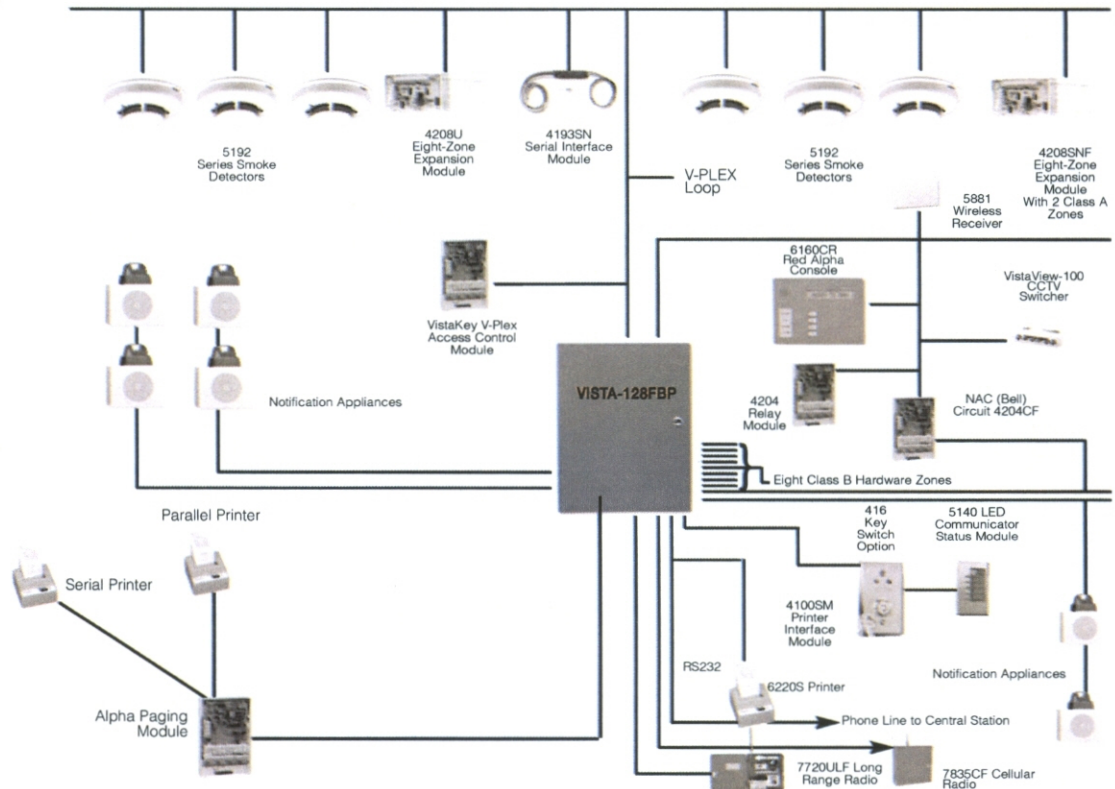


# VISTA-128FBP/ V128FBP-24

## COMMERCIAL FIRE AND PARTITIONED BURGLARY ALARM PLATFORM

### ADDITIONAL FEATURES

- Notification Appliance Circuits (two):
  - Programmable
  - Temporal code compliant
  - Individually silenceable
- Programmable on-board auxiliary relay
- SIA false alarm reduction features:
  - Exit error logic
  - Exit delay reset
  - Cross zoning
  - Call waiting defeat
  - Recent close report
- Supports commercial hardwired, addressable V-Plex polling loop and wireless zones
- Hardwired zones
  - Provides eight style B hardwired zones
  - EOLR supervised for Fire and UL burglary installations
  - Supports N.O. or N.C. sensors
  - Individually assignable to any eight partitions
  - Up to 32 two-wire smoke detectors each on zone one and two (64 total)
  - Up to 50 two-wire glass break detectors on zone eight
- Patented addressable V-Plex polling loop technology
  - Supports 120 two-wire zones points
  - Global polling technology for faster processing
- Increased current draw capacity (128mA)
- Supervised by panel
- Individually assignable to partitions, notification circuit (bell) output or aux relay
- 4,000 ft. capability without the use of shielded cable
- Extender/Isolation bus module
- Two-wire smoke detector zone/group expansion module adds two or four zones
- Eight zone - Class A and B extender module
- Eight zone - Class B extender module
- One zone supervised contact monitor module
- UL Listed wireless expansion
  - Supports up to 128 wireless zones/points using 5881ENHC receiver
  - Supervised by control for check-in signals
  - Tamper protection for transmitters
  - Individually assignable up to eight partitions
  - Supports UL864/NFPA approved wireless smoke detectors
- Access Control integration
  - Full integration with PassPoint Access Control System
  - Complete Gateway interface of VISTA and access functions
- Up to 8 doors using VistaKey V-Plex Access Control
- Event reporting
- Local printer of access or VISTA related event
- Scheduled uploading of events to central station
- Stored events for one call retrieval
- Communication
  - Phone mapping by zone response type
  - Supports VIP interactive phone voice module
  - Panel operation during download
  - Uploading equipment list to central station
  - Communication to PassPoint via VISTA Gateway Module
- CCTV integration
  - Supports VistaView-100 ECP based CCTV switchers



# SPECIFICATIONS

## Applications

The VISTA-128FBP control is well suited for a variety of applications as an integrated fire and burglary control. A diverse line of ADEMCO initiating devices supports this extremely powerful control. Some of the applications supported are: medical and professional buildings, churches or synagogues, office buildings, schools, strip malls, larger residences and factory or warehouse environments.

## Installation

The VISTA-128FBP alarm system has been designed to mount both quickly and easily. It meets all applicable requirements for UL commercial fire and burglary installations.

## Specifications Electrical

- Primary power: 18VAC @ 72VA Honeywell No. 1451
- Control panel quiescent current draw: 350mA
- Backup battery:
  - 12VDC, 12AH min to 34.4AH max
  - Lead acid battery (gel type)
- Alarm power: 12VDC, 1.7A max for each notification (bell) circuit output  
Total 2.3amps @ 12V

- Aux. standby pwr: 12VDC, 1Amax
- Total power: 2.3A at 12VDC, 3.4A at 24VDC from all sources
- Standby time: 24 hours with 1A standby load using 34.4AH battery
- Fusing: Battery input, aux. and notification (bell) circuit outputs are protected using PTC circuit protectors. All outputs are power limited.
- Optional 24-volt power supply, PS 24 Supplies two 24 VFW, 1.7A full wave rectified, unfiltered outputs Main Dialer:
- Line seize: Double Pole
- Ringer equiv.: 0.7B
- Formats: ADEMCO Low Speed, ADEMCO 4+2 Express, ADEMCO High Speed, ADEMCO Contact ID, Sescoa and Radionics

- Dual phone line capability (using 5140DLM module)

## Cabinet dimensions

- 18"H X 14.5"W X 4.3"D

## Environmental

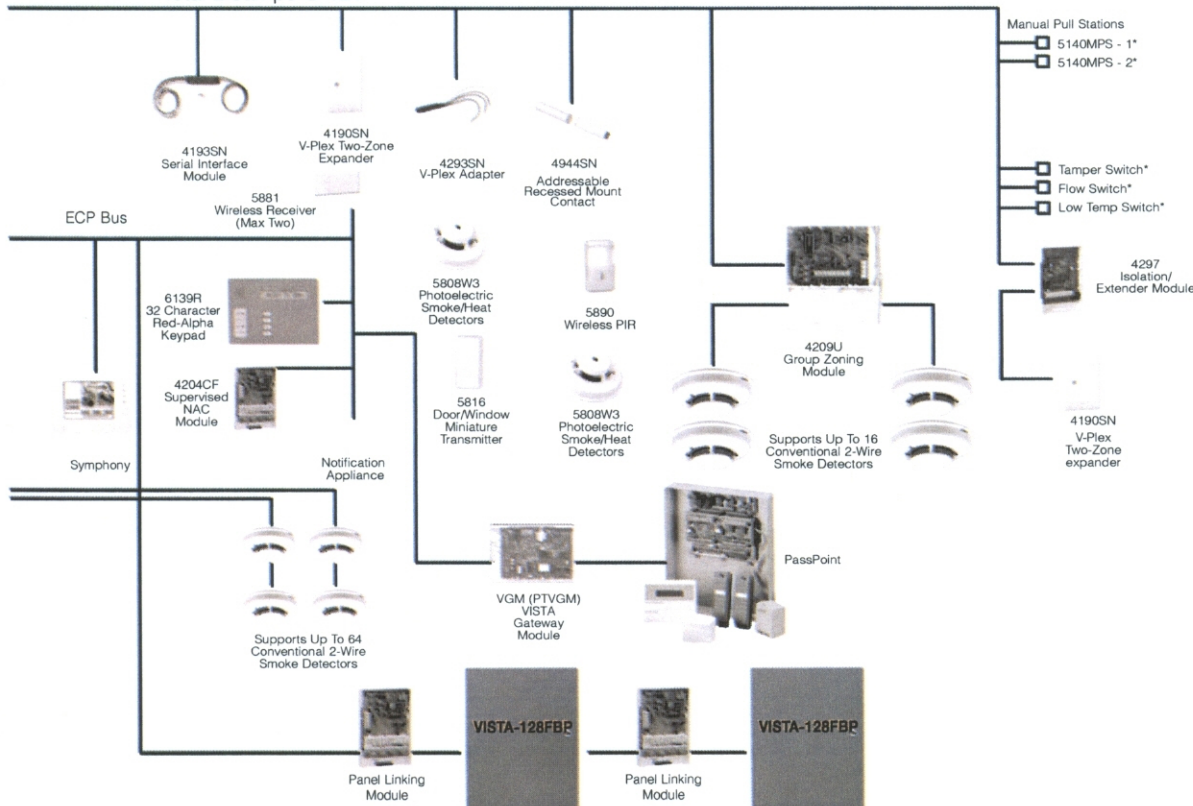
- Storage temp: 14°F to 158°F (-10°C to 70°C)
- Operating temp: 32°F to 122°F (0°C to 50°C)
- Humidity: 85% RH
- EMI: Meets or exceeds the following requirements:
  - FCC Part 15, Class B Device
  - FCC Part 68
  - IEC EMC Directive

## Agency Listings Burglary

- UL609 Grade A Local Mercantile Premises and Mercantile Safe and Vault
- UL611/1610 Grades A, AA, Central Station
- UL365 Grades A, AA Police Connect

## Fire

- UL864/NFPA72 Local, Central Station and Remote Station
- Factory Mutual
- California State Fire Marshal
- MEA
- UL985





# VISTA-128FBP/V128FBP-24

## COMMERCIAL FIRE AND PARTITIONED BURGLARY ALARM PLATFORM

### SPECIFICATIONS

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#### Auxiliary Devices

- 6160CR – Red Alpha Keypad
- 6139R – Red Alpha Keypad/Annunciator
- FSA-8 & FSA-24 annunciator modules
- 4204 – Relay Module, four form C contacts
- 4204CF – Two supervised output circuits
- 5881 Series – RF receiver supporting 5800 wireless detectors
- 6220S – System printer used with 4100SM serial module

#### Two-wire smoke detectors conventional

- 2100 Series Photoelectric
- 2400 Series Photoelectric
- 1100 Series Ionization

#### Four-wire smoke detectors conventional

- 2112/24 Series Photoelectric
- 1412 Series Ionization

#### Horn/Strobes

- System Sensor Notification Appliances

#### Manual Pull Stations

- 5140MPS-1
- 5140MPS-2

#### V-Plex (addressable) Devices

- 4208U Loop Expansion Module – eight zones
- 4101SN Single Relay/Zone Module
- 4208SNF Class A/B Expander Module
- 4209U Group Zoning Module – two/four zones
- 4190SN Remote Point Module – two zones
- 4193SN Two Zone Serial Interface Module
- 4293SN One Zone Serial Interface Module

- 4297 Isolation/Extender Module

#### V-Plex (addressable) Smoke Detectors:

- 5192SD • 4192SD • 4192CP
- 5192SDT • 4192SDT • 4192CPM
- 4192SDTM

#### V-Plex Passive Infrared Detectors

- 998MX
- 4275EX-SN
- 4278EX-SN

#### V-Plex (addressable) Contacts

- 4939SN-WH
- 4944SN-WH
- 4959SN

#### V-Plex Glassbreak Detectors:

- 9500SN

#### VISTA interactive phone module

- 4286 Voice Module

#### Optional 24V Power Supply

- PS24 – 24V power supply – 3.4A Long Range Radio:
- Long Range Radio 7720ULF-XX, 7835C, 7835CF, 7845C

#### Upgraded software

- Upgraded Compass Downloader Windows compatible

#### Wireless Devices

- 5804BDV – Bi-directional with voice
- 5804BD – Bi-directional Key
- 5804Watch – Wireless Key & sports watch combined
- 5816 – Door/Window Transmitter
- 5804 – Wireless key
- 5827BD – Bi-directional Keypad
- 5890 – PIR
- 5849 – Glassbreak Detector
- 5819 – Shock Sensor

#### Commercial Wireless Devices

- 5808W3 – Photoelectric Smoke/Heat Detector
- 5809 – Wireless Heat Detector
- 5817CB – Wireless Commercial Transmitter
- 5869 – Hold-Up Transmitter
- 5881ENHC – Commercial Fire/Burg Receiver

#### Access Control

- VistaKey V-Plex (addressable) Access Control
- VistaKey-SK Starter Kit
- VistaKey-EX Expansion Kit
- VGM Vista Gateway Module to PassPoint Access Control (Northern Computers)

#### CCTV

- VistaView-100 CCTV Switcher or Module

#### Alarm Communications

- Graphical user interface with Internet capability
- Internet Remote Control-Networking Module
- Internet Alarm Communicator (7845i)

- 7845GSM – Digital Cellular Communicator
- 7845i-GSM – Internet and Digital Cellular Communicator

#### Paging

- VA8201 AlphaNumeric Pager

### ORDERING

#### VISTA-128FBP

Commercial Fire and Partitioned Burglary Alarm Platform 12V Model

#### V128FBP-24

Commercial Fire and Partitioned Burglary Alarm Platform 24V Model

#### Honeywell Security & Custom Electronics

Honeywell  
2 Corporate Drive  
Melville, NY 11747  
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www.honeywell.com

LV128FBP/D  
March 2007  
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# Honeywell

# 6160CR

The 6160CR is an addressable remote keypad intended for use in commercial fire applications with ADEMCO's control platforms. The keys are continuously backlit for convenience and easy visibility. The LCD display is backlit only when a key is depressed\*, or when the system is in alarm or trouble condition.

*\*Note: On some platforms, the LCD may be programmed to remain on at all times (see panel instructions for details).*

## FEATURES:

- Four programmable function keys
- Built-in sounder
- Four LED's
  - ARMED
  - READY
  - TROUBLE
  - SUPERVISORY
- Large easy-to-read display
- Red removable door

## SPECIFICATIONS:

**Physical:** 5.250" W x 7.437" H x 1.312" D

**Display:** Alphanumeric, 32-character (2 lines x 16 characters) LCD back light

**LEDs:** ARMED (red), READY (green), \*TROUBLE (yellow) and \*SUPERVISORY (yellow)

- See control panel's instructions for specific applications regarding Trouble and Supervisory LEDs.

**Sounder:** High-quality speaker

**Electrical:** 45mA standby

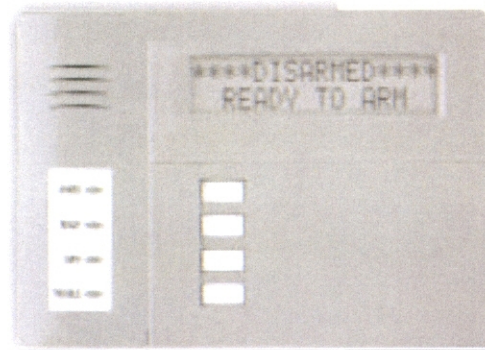
150mA in alarm (sounder, back light and LED on)

**Wiring table** (all keypads)

<b>DI</b>	"Data IN" to control panel from keypad
<b>-</b>	Ground (-aux. Power)
<b>+</b>	+12VDC (+aux. Power)
<b>DO</b>	"Data OUT" from control panel to keypad

## ORDERING:

Part No.	Description
6160CR	Commercial Fire Alpha Keypad



**Commercial  
Fire  
Alpha  
Keypad**

### Compatibility

#### Supports Control Platforms:

- VISTA-32FB Rev. 3 and higher
- VISTA-128FB Rev. 4 and higher
- VISTA-128FBP
- VISTA-250FBP
- V128FBP-24
- V250FBP-24

165 Eileen Way, Syosset, NY 11791

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**ADEMCO  
GROUP**



## 5192SD/5192SDT

V-PLEX® SMOKE DETECTOR



The Honeywell 5192 Series low profile, addressable V-Plex smoke detectors deliver state-of-the-art features and benefits in a cost-effective package. These detectors are designed to provide open area coverage and are compatible with Honeywell's VISTA controls supporting V-Plex technology.

An LED on the detector will blink periodically during normal conditions, remain on steady during alarm and cease to pulse if the chamber is out of acceptable sensitivity range.

An extremely powerful feature available within the 5192 Series is the Automatic Maintenance Alert/Reporting capability – a feature normally found in today's high end analog addressable systems. The detectors continually monitor their own sensitivity levels in addition to the basic normal and alarm conditions. These HIGH and LOW SENSITIVITY signals are communicated back to the

control, via the V-Plex addressable loop, to indicate locally and at the central station that the detector may not be able to detect smoke or may false alarm. This feature works with VISTA-32FB, 128BP, 128FBP, 250BP, 250FBP, 40, 50P, 100-24 and FAP FA1600C, FA1660C and FA1700C. More important is the cost saving associated with Automatic Maintenance Reporting. The feature is an approved alternate to NFPA 72 field sensitivity calibration testing that require external test meters. This eliminates the need to schedule inspections to determine detector sensitivity/viability. Another important benefit of these V-Plex (addressable) smoke detectors is their ability to operate on existing wiring.

There is no need to run special twisted pair, data grade or shielded wires, providing you with the right choice for all your retrofit applications. That equates to cost savings in time and materials!

## FEATURES

- Low profile design
- V-Plex addressable loop device
- Automatic maintenance reporting
- Available with integral heat sensor
- Simple 2 wire installation
- DIP switch or serial number programmable
- Lines on existing or conventional wiring

## APPLICATIONS

The 5192 Series smoke detectors are designed to provide open area coverage and are well suited for most fire detection applications. These smoke detectors are compatible with all Honeywell VISTA Fire and Burglary controls that support V-Plex addressable loop technology. These agency listed alarm initiating devices support most commercial and residential applications. They are suited for use in museums, hospitals, day care centers, retail stores, strip malls, schools, libraries, fast food chains, medical or professional office suites and in factory and warehouse environments.



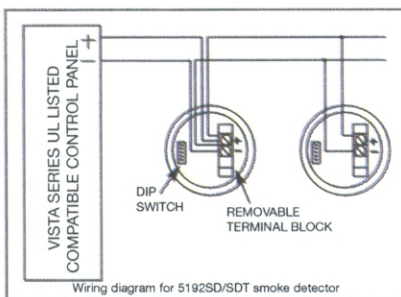
# 5192SD/5192SDT

V-PLEX™ SMOKE DETECTOR

## SPECIFICATIONS

### Installation

The 5192 Series smoke detectors are supplied with a convenient mounting bracket that allows the detector to be mounted to a variety of electrical junction boxes. A removable terminal block, that accepts 14 to 22 gauge wire to provide easy wiring connections. The detectors are designed to meet all applicable requirements for UL Commercial and Residential Fire installations as well as NFPA 72 requirements when installed in compliance with the National Electric Code and approved/listed control panels.



### Compatibility

These smoke detectors are compatible with all VISTA control panels that support V-Plex (addressable) polling loop technology. The detectors support DIP switch or serial number addressing. DIP switch configuration are compatible with 5140XM, VISTA-40, and VISTA-50P controls.

Serial number addressing is supported on VISTA-32FB, 128BP, 128FBP, 250BP, 250FBP, 100-24 and FAP FA1600C, FA1660C and FA1700C controls. (Refer to control panel and smoke detector installation instructions for details.)

### Automatic Maintenance Reporting Compatibility

The automatic maintenance feature is compatible with the following control panels:

- VISTA-32FB
- VISTA-128BP
- VISTA-128FBP
- VISTA-250BP
- VISTA-250FBP
- FA1600C
- FA1660C
- FA1700C

The automatic maintenance may be disabled for all other controls that do not support this feature. Refer to control panel and smoke detector Installation Instructions for details.

### Electrical:

- System voltage range: 7-14 V
- Standby current (maximum @ 12V):
  - LED off: 1.2mA
  - LED on: 2.8mA

### Mechanical:

- Diameter: 5.5 inches (140mm) (including mounting bracket)
- Height: 1.7 inches (43mm) (including mounting bracket)
- Weight: 5.3 ounces (150 grams)

### Environmental:

- Installation temperature range: 32° to 100°F (0° to 38°C)
- Installation humidity range: 10% to 93% RH, non-condensing
- Heat sensor (5192SDT only): 135°F fixed temperature electronic thermistor
- EMI: Meets or exceeds the following requirements:
  - FCC Part 15, Class B Device
  - IEC EMC Directive

### Agency Listings

- UL268 Commercial System Smoke Detector
- Meets UL 217 Requirements for Residential

## ORDERING

- 5192SD** Addressable Photoelectric Smoke Detector
- 5192SDT** Addressable Photoelectric Smoke Detector with Integral Heat Sensor

For more information: [www.honeywell.com/security/hsc](http://www.honeywell.com/security/hsc)

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L/5192/D  
May 2009  
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# Honeywell





# 5140MPS-1/5140MPS-2 Manual Pull Stations

## PRIMARY FEATURES

- ADA COMPLIANT
- KEY TEST OR ALLEN RESET
- KEYED TO ADEMCO CONTROLS
- STYLIZED HIGH TECH DESIGN
- ALUMINUM DIE CAST HOUSING
- TERMINAL BLOCK OR WIRE LEADS
- GOLD CONTACTS
- UL LISTED

## ■ GENERAL DESCRIPTION

Ademco's manual fire alarm stations are designed to be non-code single action devices for use in UL listed fire alarm applications. The attractive die-cast aluminum-alloy housing meets ADA pull requirements and has been tested at Underwriter's Laboratory.

For ADA compliance, manual stations must be mounted less than 48" above the floor for front wheelchair access and less than 54" above the floor for side wheelchair access.

A key reset feature on the 5140MPS-1 is designed for positive authorized resetting action. The key is designed to operate and match Ademco controls. The 5140MPS-1 utilizes a terminal block for secure terminations. The 5140MPS-2 is furnished with an Allen hex fitting and is equipped with wire leads.

Two alarm deterrent break tubes are supplied with each manual station; one tube is visible from the front, and the spare is stored in a compartment within the unit.

## ■ OPERATION

Pulling the handle down causes the manual stations to latch in the down position and to close the normally open switch. The handle is restored manually by using the key to unlock the station and pivot the station forward for resetting the pull handle to its normal position. The crush tube is then inserted in the cavity and the station assembly is then locked in the normal upright position.

## ■ CONSTRUCTION

The 5140MPS-1 and 5140MPS-2 manual stations are constructed of a durable die-cast aluminum-alloy and



provide a neat and distinctive appearance. The housing is finished in red with white raised lettering and the "T-bar" handle is white with raised red lettering for enhanced visibility. The units are adaptable to both surface and semi-flush mounting configurations.

## ■ MOUNTING

### SEMI-FLUSH MOUNT

Most semi-flush mount installations can be attached to a standard single-gang switch box using two 6-32 screws inserted through the slots that are centered on the unit's metal mounting plate.

### SURFACE MOUNT

Use Ademco Backbox model number 5140MPS-BB for surface mount installations. The Backbox has four pre-drilled mounting holes of 0.187 inch diameter and conduit knockouts. Secure the Backbox to a wall with screws of size 8 or smaller. After the Backbox is in place, attach the conduit.

The housing is locked by using a key or Allen wrench lock. Unlock the housing by turning the key clockwise and swinging down the front of the housing to make the sheet metal mounting plate accessible. Mount the metal plate to the Backbox using the four 1/4" long, 8-32 screws (supplied).

## ■ DIMENSIONS

4.75" H x 3.12" W x 2" D

**ADEMCO**

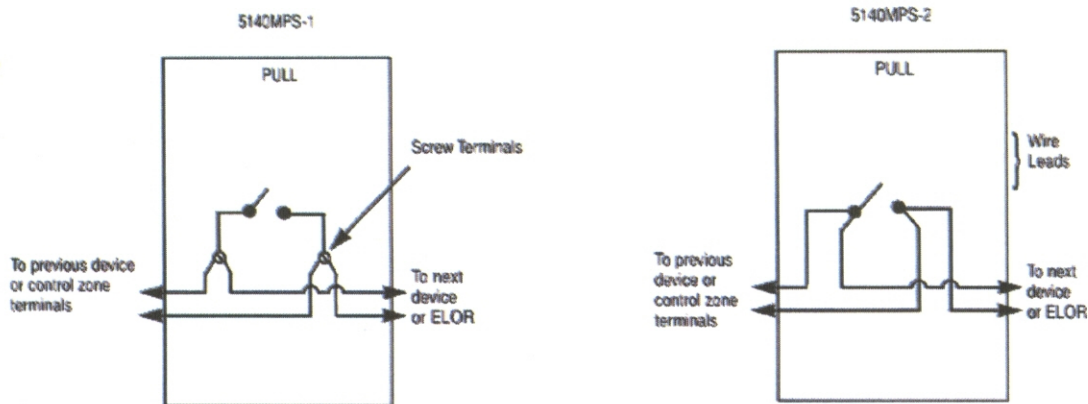
The Technology Leader



## ■ ORDERING INFORMATION

- 5140MPS-1: Manual Station  
Key Reset Test  
and Terminal Block
- 5140MPS-2: Manual Station  
Hex Allen Reset  
Test and Wire Leads
- 5140MPS-BB: Surface Backbox

## ■ WIRING DIAGRAM



## ARCHITECTURAL/ENGINEERING SPECIFICATIONS

Manual Fire Alarm Station Model 5140MPS-1 [5140MPS-2] shall be non-coded and include a break-type tube operated test-reset lock allowing testing with a key (Allen wrench). They shall be designed so that normal operation cannot be restored after an actual Fire Emergency Operation except by use of a key (Allen wrench). The key shall fit all standard Ademco controls.

An operated station shall automatically condition itself so as to be visually detected, as operated, at a mini-

imum distance of one hundred feet, front or side. Manual Stations shall be constructed of die cast aluminum alloy with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in raised letters. Stations shall be suitable for surface mounting on matching Backbox, or semi-flush mounting on a standard single-gang box. Manual Stations shall be Underwriter's Laboratories Listed.





## Selectable Output Horns, Strobes, and Horn/Strobes

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



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

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

When installing Advance products, first attach a universal mounting plate to a four-inch square, four-inch octagon or double-gang junction box. The two-wire mounting plate attaches to a single-gang junction box.

Next, connect the notification appliance circuit wiring to the SEMS terminals on the mounting plate.

Finally, attach the horn, strobe or horn/strobe to the mounting plate by inserting the product's tabs in the mounting plate's grooves. The device will rotate into position, locking the product's pins into the mounting plate's terminals. The device will temporarily hold in place with a catch until it is secured with a captured mounting screw.

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

### Features

- Electrically compatible with existing SpectrAlert products
- Automatic selection of 12- or 24-volt operation at 15 and 15/75 candela
- Plug-in design
- Field selectable candela settings on wall and ceiling units: 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185
- Same mounting plate for wall- and ceiling-mount units
- Shorting spring on mounting plate for continuity check before installation
- Tamper resistant construction
- Outdoor wall and ceiling products rated from -40°F to 151°F
- Design allows minimal intrusion into the back box
- Horn rated at 88+ dbA at 16 volts
- Rotary switch for horn tone and three volume selections
- Outdoor products UL listed to UL 1638 (strobe) and UL 464 (horn) outdoor requirements
- Outdoor products rainproof per UL 50 (NEMA 3R)
- Compatible with MDL sync module

### Agency Listings

SIGNALING



S4011  
S5512  
S3593



3023572

**MEA**  
approved

MEA452-05-E



7125-1653:186 (indoor strobes)  
7300-1653:187 (outdoor strobes)  
7125-1653:188 (horn/strobes,  
chime/strobes)  
7135-1653:189 (horns, chimes)



# SpectrAlert Advance Specifications

## Architect/Engineer Specifications

### General

SpectrAlert Advance horns, strobes and horn/strobes shall mount to a standard 4 × 4 × 1½-inch back box, 4-inch octagon back box or double-gang back box. Two-wire products shall also mount to a single-gang 2 × 4 × 1½-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt rated notification appliance circuit outputs shall operate between nine and 17.5 volts; 24-volt rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC, or full-wave rectified, unfiltered power supply. Strobes and horn/strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, 185.

### Strobe

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

### Horn/Strobe Combination

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

### Outdoor Products

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

### Synchronization Module

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

## Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
K Series Operating Temperature	-40°F to 151°F (-40°C to 66°C)
Humidity Range	10 to 93% non-condensing (indoor products)
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12DC/FWR or regulated 24DC/FWR <sup>1</sup>
Operating Voltage Range <sup>2</sup>	8 to 17.5 V (12V nominal) or 16 to 33 V (24 nominal)
Input terminal wire gauge	12 to 18 AWG
Ceiling mount dimensions (including lens)	6.8" diameter × 2.5" high (173 mm diameter × 64 mm high)
Wall mount dimensions (including lens)	5.6"L × 4.7"W × 2.5"D (142 mm L × 119 mm W × 64 mm D)
Horn dimensions	5.6"L × 4.7"W × 1.3"D (142 mm L × 119 mm W × 33 mm D)
Wall-mount back box skirt dimensions (BBS-2, BBSW-2)	5.9"L × 5.0"W × 2.2"D (151 mm L × 128 mm W × 56 mm D)
Ceiling-mount back box skirt dimensions (BBSC-2, BBSCW-2)	7.1" diameter × 2.25" high (180 mm diameter × 57 mm high)
Wall-mount weatherproof back box dimensions (SA-WBB)	5.7"L × 5.1"W × 2.0"D (145 mm L × 130 mm W × 51 mm D)
Ceiling-mount weatherproof back box dimensions (SA-WBBC)	7.1" diameter × 2.0" high (180 mm diameter × 51 mm high)

### Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time varying power source that is used on some power supply and panel outputs.
2. P, S, PC, and SC products will operate at 12 V nominal only for 15 and 15/75 cd.



## UL Current Draw Data

UL Max. Strobe Current Draw (mA RMS)						UL Max. Horn Current Draw (mA RMS)					
	Candela	8-17.5 Volts		16-33 Volts		Sound Pattern	dB	8-17.5 Volts		16-33 Volts	
		DC	FWR	DC	FWR			DC	FWR	DC	FWR
Standard Candela Range	15*	123	128	66	71	Temporal	High	57	55	69	75
	15/75*	142	148	77	81	Temporal	Medium	44	49	58	69
	30*	NA	NA	94	96	Temporal	Low	38	44	44	48
	75*	NA	NA	158	153	Non-temporal	High	57	56	69	75
	95*	NA	NA	181	176	Non-temporal	Medium	42	50	60	69
	110	NA	NA	202	195	Non-temporal	Low	41	44	50	50
High Candela Range	115	NA	NA	210	205	Coded	High	57	55	69	75
	135	NA	NA	228	207	Coded	Medium	44	51	56	69
	150	NA	NA	246	220	Coded	Low	40	46	52	50
	177	NA	NA	281	251						
	185	NA	NA	286	258						

### UL Max. Current Draw (mA RMS), 2-wire Horn/Strobe, Standard Candela Range (15-115 cd)

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

### UL Max. Current Draw (mA RMS), 2-wire Horn/Strobe, High Candela Range (135-185 cd)

DC Input	16-33 Volts				FWR Input	16-33 Volts			
	135	150	177	185		135	150	177	185
Temporal High	245	259	290	297	Temporal High	215	231	258	265
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258
Temporal Low	232	251	282	292	Temporal Low	207	221	248	256
Non-temporal High	255	270	303	309	Non-temporal High	233	248	275	281
Non-temporal Medium	242	259	293	299	Non-temporal Medium	219	232	262	267
Non-temporal Low	238	254	291	295	Non-temporal Low	214	229	256	262

## Candela Derating

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

Strobe Output (cd)	
Listed Candela	Candela rating at -40°F
15	Do not use below 32°F
15/75	
30	
75	
95	44
110	70
115	110
135	115
150	150
177	177
185	185

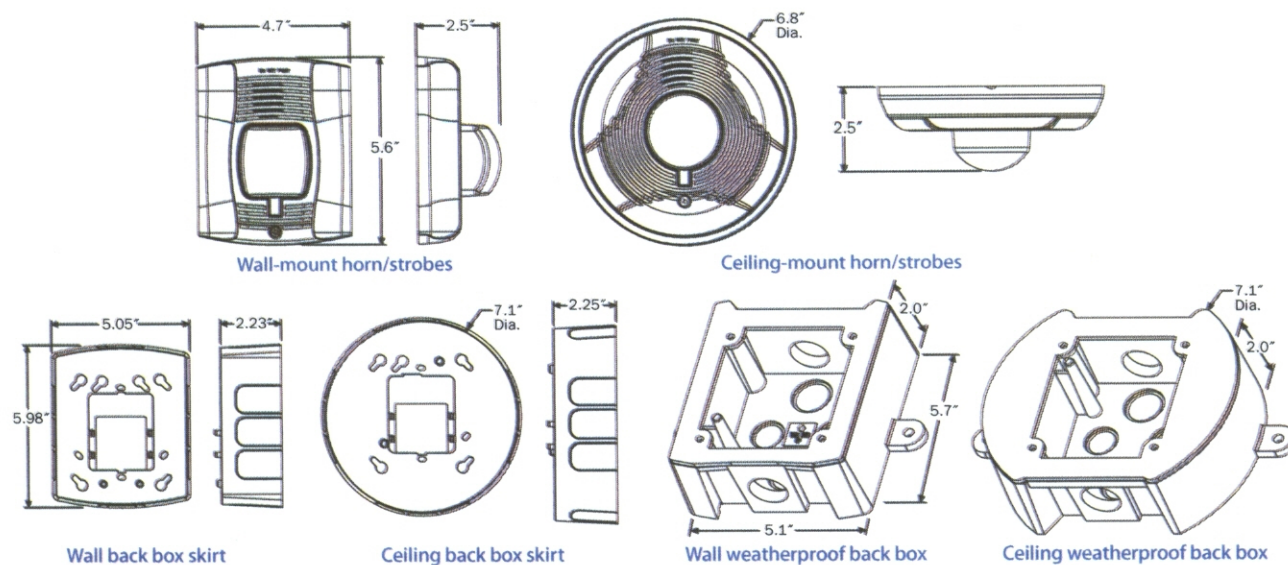
## Horn Tones and Sound Output Data

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

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



## SpectrAlert Advance Dimensions



## SpectrAlert Advance Ordering Information

Model	Description
<b>Wall Horn/Strobes</b>	
P2R*†	2-wire Horn/Strobe, Standard cd‡, Red
P2RH*†	2-wire Horn/Strobe, High cd, Red
P2RK*†	2-wire Horn/Strobe, Standard cd, Red, Outdoor
P2RHK*†	2-wire Horn/Strobe, High cd, Red, Outdoor
P2W*†	2-wire Horn/Strobe, Standard cd, White
P2WH*†	2-wire Horn/Strobe, High cd, White
P4R*†	4-wire Horn/Strobe, Standard cd, Red
P4RH*†	4-wire Horn/Strobe, High cd, Red
P4RK*†	4-wire Horn/Strobe, Standard cd, Red, Outdoor
P4RHK*†	4-wire Horn/Strobe, High cd, Red, Outdoor
P4W*†	4-wire Horn/Strobe, Standard cd, White
P4WH*†	4-wire Horn/Strobe, High cd, White
<b>Wall Strobes</b>	
SR*†	Strobe, Standard cd, Red
SRH*†	Strobe, High cd, Red
SRK*†	Strobe, Standard cd, Red, Outdoor
SRHK*†	Strobe, High cd, Red, Outdoor
SW*†	Strobe, Standard cd, White
SWH*†	Strobe, High cd, White
<b>Ceiling Horn/Strobes</b>	
PC2R*†	2-wire Horn/Strobe, Standard cd, Red
PC2RH*†	2-wire Horn/Strobe, High cd, Red
PC2RK*†	2-wire Horn/Strobe, Standard cd, Red, Outdoor
PC2RHK*†	2-wire Horn/Strobe, High cd, Red, Outdoor

### Notes:

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

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

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

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

Model	Description
<b>Ceiling Horn/Strobes (cont'd.)</b>	
PC2W*†	2-wire Horn/Strobe, Standard cd, White
PC2WH*†	2-wire Horn/Strobe, High cd, White
PC4R	4-wire Horn/Strobe, Standard cd, Red
PC4RH	4-wire Horn/Strobe, High cd, Red
PC4RK	4-wire Horn/Strobe, Standard cd, Red, Outdoor
PC4RHK	4-wire Horn/Strobe, High cd, Red, Outdoor
PC4W	4-wire Horn/Strobe, Standard cd, White
PC4WH	4-wire Horn/Strobe, High cd, White
<b>Ceiling Strobes</b>	
SCR*†	Strobe, Standard cd, Red
SCRH*†	Strobe, High cd, Red
SCRK*†	Strobe, Standard cd, Red, Outdoor
SCRHK*†	Strobe, High cd, Red, Outdoor
SCW*†	Strobe, Standard cd, White
SCWH*†	Strobe, High cd, White
<b>Horns</b>	
HR	Horn, Red
HRK	Horn, Red, Outdoor
HW	Horn, White
<b>Accessories</b>	
BBS-2	Back Box Skirt, Wall, Red
BBSW-2	Back Box Skirt, Wall, White
BBSC-2	Back Box Skirt, Ceiling, Red
BBSCW-2	Back Box Skirt, Ceiling, White



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

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Product specifications subject to change without notice. Visit [systemsensor.com](http://systemsensor.com) for current product information, including the latest version of this data sheet.  
A05-0395-003 - 12/06 • #1676



# POWER SONIC®

## PS-12120 12 Volt 12.0 AH

Rechargeable Sealed Lead Acid Battery



We've Got The Power.™



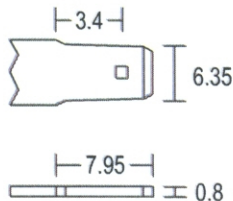
### Features

- Absorbent Glass Mat (AGM) technology for superior performance
- Valve regulated, spill proof construction allows safe operation in any position
- Power/volume ratio yielding unrivaled energy density
- Rugged impact resistant ABS case and cover (UL94-HB)
- Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified
- U.L. recognized under file number MH 20845

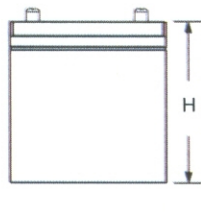
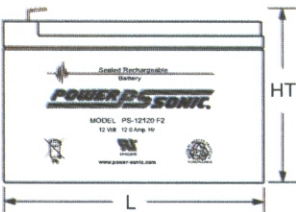
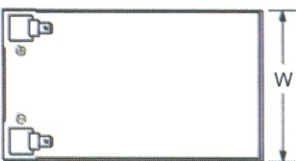
### Terminals

(mm)

- F2 - Quick disconnect tabs, 0.250" x 0.032"
- Mate with AMP. INC FASTON "250" series



### Physical Dimensions: in (mm)



L: 5.95 (151) W: 3.86 (98) H: 3.70 (94) HT: 3.94 (100)

Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

### Performance Specifications

**Nominal Voltage** ..... 12 volts (6 cells)

#### Nominal Capacity

20-hr. (600mA to 10.50 volts) .....	12.0 AH
10-hr. (1.1A to 10.50 volts) .....	11.0 AH
5-hr. (2.1A to 10.20 volts) .....	10.5 AH
1-hr. (7.25A to 9.00 volts) .....	7.25 AH
15-min. (21.5A to 9.00 volts) .....	5.38 AH

**Approximate Weight** ..... 7.92 lbs. (3.59 kg)

**Energy Density (20-hr. rate)** ..... 1.69 W-h/in<sup>3</sup> (103.41 W-h/l)

**Specific Energy (20-hr. rate)** ..... 18.18 W-h/lb (40.08 W-h/kg)

**Internal Resistance (approx.)** ..... 20 milliohms

**Max Discharge Current (7 Min.)** ..... 36.0 amperes

**Max Short-Duration Discharge Current (10 Sec.)** ..... 120.0 amperes

#### Shelf Life (% of nominal capacity at 68 °F (20 °C))

1 Month .....	97%
3 Months.....	91%
6 Months .....	83%

#### Operating Temperature Range

Charge.. ..... -4 °F (-20 °C) to 122 °F (50 °C)

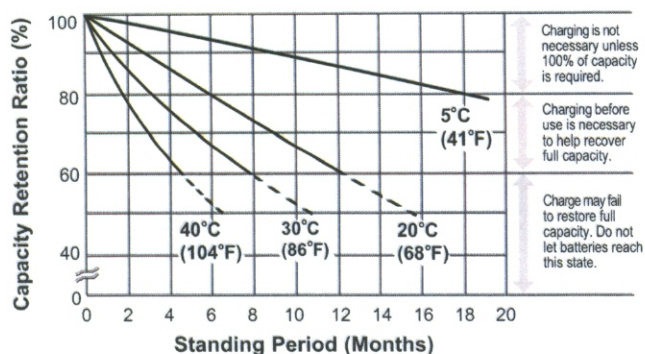
Discharge..... -40 °F (-40 °C) to 140 °F (60 °C)

**Case** ..... ABS Plastic

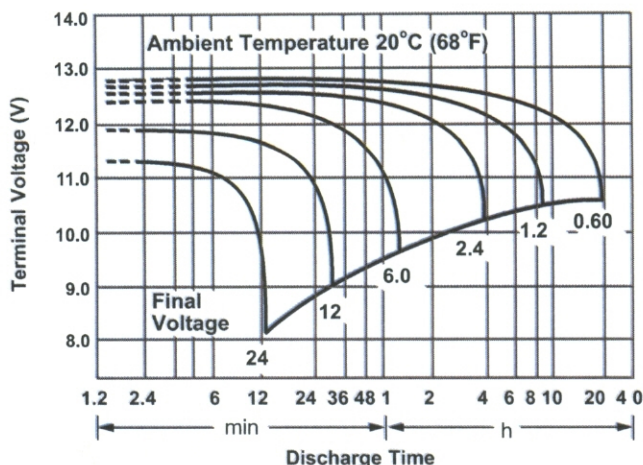
**Power-Sonic Chargers** ..... PSC-122000A, 122000A-C



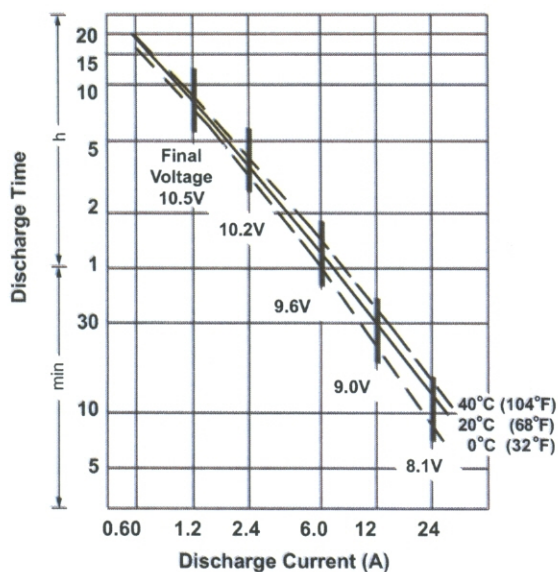
**Shelf Life & Storage**



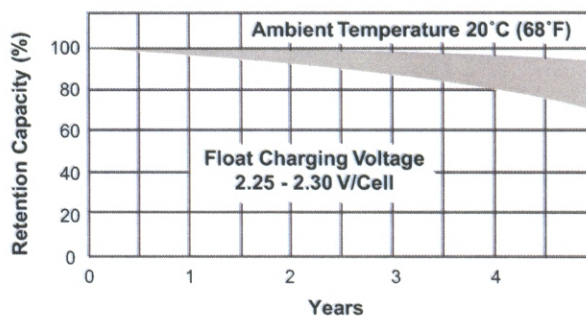
**Discharge Characteristics**



**Discharge Time vs. Discharge Current**



**Life Characteristics in Stand-By Use**



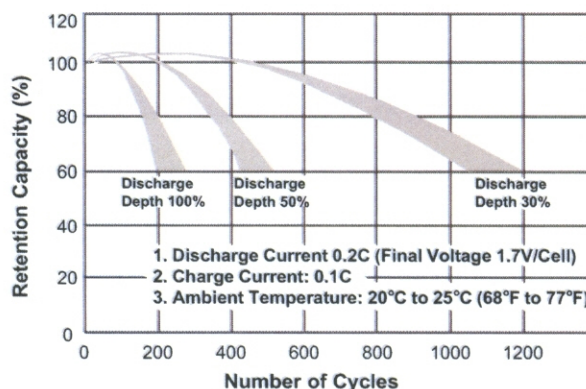
**Charging**

**Cycle Applications:** Limit initial current to 3.6A. Charge until battery voltage (under charge) reaches 14.4 to 14.7 volts at 68°F (20°C). Hold at 14.4 to 14.7 volts until current drops to under 120mA. Battery is fully charged under these conditions, and charger should be disconnected or switched to "float" voltage.

**"Float" or "Stand-By" Service:** Hold battery across constant voltage source of 13.5 to 13.8 volts continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition.

**Note:** Due to the self-discharge characteristics of this type of battery, it is imperative that they be charged within 6 months of storage, otherwise permanent loss of capacity might occur as a result of sulfation.

**Life Characteristics in Cyclic Use**



**Chargers**

Power-Sonic offers a wide range of chargers suitable for batteries up to 100AH. Please refer to the Charger Selection Guide in our specification sheets for "C-Series Switch Mode Chargers" and "Transformer Type A and F Series". Please contact our Technical department for advice if you have difficulty in locating suitable models.

**Further Information**

Please refer to our website [www.power-sonic.com](http://www.power-sonic.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc..

**Contact Information**

[www.power-sonic.com](http://www.power-sonic.com)

**DOMESTIC SALES**

Tel: +1-619-661-2020  
Fax: +1-619-661-3650  
national-sales@power-sonic.com

**CUSTOMER SERVICE**

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Fax: +1-619-661-3648  
customer-service@power-sonic.com

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Fax: +1-650-366-3662  
battery@power-sonic.com



**ADEMCO****6160CR  
Commercial Alpha Keypad****INSTALLATION GUIDE****Keypad Features**

- Programmable function keys (\* see note 1)
- Built-in sounder
- Ready, Armed, Supervisory and Trouble LEDs (\* see note 2)
- RED keypad for Commercial Fire applications

**Supported Control Panels**

- VISTA-32FB (\* see note 3)
- VISTA-128FB (\* see note 3)

**Notes:**

1. *Function key applications are control-dependent and may differ from one control to another (see control's instructions for details).*
2. *Trouble and Supervisory LED operation is an option on some controls (see control's instructions for details).*
3. *Keypad address **may** be set to address 00 through 30 to operate with these controls (see control's instructions for details).*

**GENERAL INFORMATION**

The 6160CR is an addressable remote keypad that is intended for use in commercial applications with ADEMCO Group control panels, as listed above. The 6160CR's address is set locally, via the keypad's keys, depending on the control being used (see note 3, above). The keys are continuously backlit for convenience. The LCD display is backlit only when a key is depressed, or when the system is in alarm or trouble condition.

**Note:** On some controls, the LCD may be programmed to remain on at all times (see control's instructions for details).

**KEYPAD LED INDICATIONS**

The keypad's LEDs will light under the following conditions:

<b>READY</b>	Lights when the system is "READY" to arm; all zones are intact
<b>ARMED</b>	Lights when the system is armed in any mode (AWAY, STAY, etc.)
<b>SUPERVISORY*</b>	Lights when a supervisory condition exists (see control's instructions for details)
<b>TROUBLE*</b>	Lights when a trouble condition exists (see control's instructions for details)

\* The LEDs will temporarily extinguish while the display shows other status conditions. For example, if a trouble condition is displayed, the LED is ON. When the display indicates a different condition (FAULT of a burglary zone for instance), the LED will extinguish, but will turn back ON when the display again indicates the trouble condition.

**SPECIAL FUNCTION KEYS**

The keypad also features programmable function keys labeled A, B, C, and D. These keys may be programmed to initiate panic, fire, or emergency alarms as well as other special functions such as macros, paging, and single-button operation. (Not all controls support these special functions. Refer to the individual control panel's instructions for details.)

These keys **must** be held down for at least 2 seconds to initiate the assigned function.

**WIRING AND INSTALLATION**

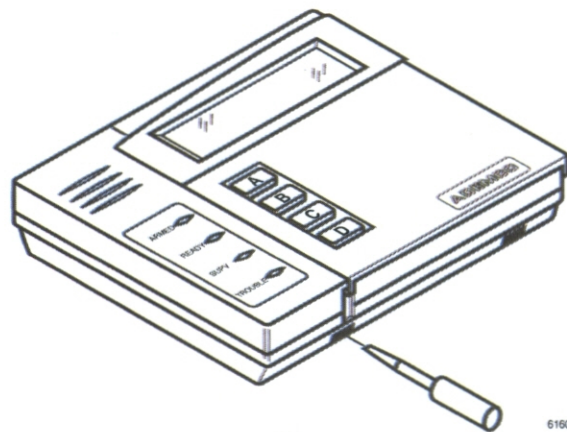
The keypad may be surface-mounted directly to a dry wall or to a single- or double-gang electrical box.

1. **Remove the case back** by inserting a thin-bladed screwdriver, in turn, against each of the two snap-open tabs (see Figure 1 below). Pry apart the case back as each tab is depressed.
2. **Route wiring going to the keypad** through the large rectangular opening in the case back.
3. **Mount the case back** to the wall or electrical box.
4. **Wire directly** from the keypad's terminal block (see Figure 2) to the terminal block on the control panel (see control's Summary of Connections label for correct terminal connections).

**Wiring Table (All Keypads)**

Keypad	Control Panel	Wire Color
DO	Data Out	Yellow
+	+ Aux. Pwr	Red
-	- Aux Pwr (GND)	Black
DI	Data In	Green

5. **Reattach the keypad to its case back.**  
Hint: Insert top end first and then snap shut the lower end.

**Figure 1**

6160CR-005-V0



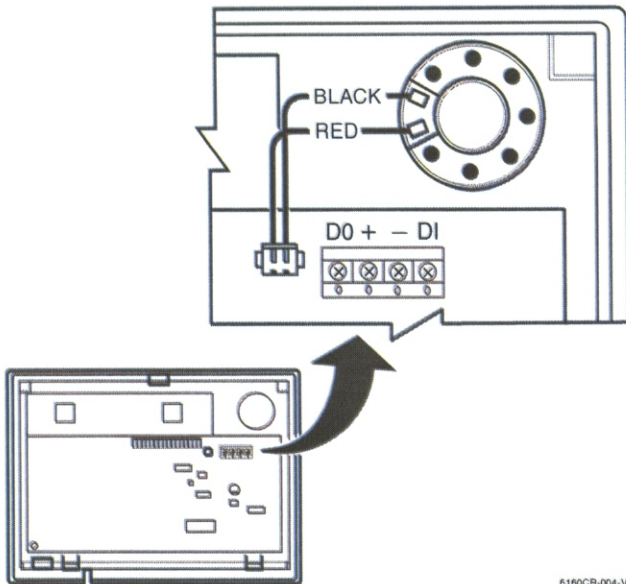


Figure 2

6160CR-004-V0

### SETTING THE KEYPAD ADDRESS

The keypad address must be set according to the control panel being used (refer to the individual control panel's instructions for details). Available addresses are from 00 through 30. The keypad is shipped with a default address of 31 (non-addressable mode). To change the address, do the following:

#### 1. Enter keypad address mode:

Power up the keypad. Within 60 seconds of power-up, press and hold down the [1] and [3] keys together for 3 seconds. The current address will be displayed and the cursor will be under the "tens" digit (**31**).

#### Notes:

*If a keypad needs to be re-addressed to work with your control, there is no initial time limit to change the address. However, once a correct address is entered or successful communication is made with the control panel, the following notes apply.*

- *If system has been powered up for more than 2 minutes, you must power the keypad down, then power it up again in order to change the keypad's address.*

- *The keypad will not enter the address mode if the system is in the program mode.*
- *If 10 seconds have passed with no key entry, the keypad automatically exits the address mode.*
- *The current address may be viewed at any time by pressing and holding [1] and [3] keys together.*

#### 2. Set the desired address:

Enter the desired address. For example, for address 12, enter 1, then 2. Display shows (12).

#### 3. Exit the address mode:

Press the "star" key (\*) to save the displayed address and exit the address mode.

### KEYPAD LABELS

**Function key labels:** A set of adhesive-backed labels with some typical function symbols (e.g., fire, police, emergency, etc.) is provided. These labels come in four colors (red, blue, green, and white) and may be placed on the appropriate function keys (A, B, C, or D) for ease of identifying the individual key's function (as determined by the control panel's capability and programming).

### SPECIFICATIONS

**Physical:** 5.250" H x 7.437" W x 1.312" D

**Display:** Alphanumeric, 32-character (2 lines x 16 characters), LCD back-lit

**LEDs:** Armed (red), Ready (green), \*Trouble (yellow) and \*Supervisory (yellow)  
\* See control panel's instructions for specific applications regarding Trouble and Supervisory LEDs.

**Sounder:** High-quality speaker

**Electrical:** Voltage: +12VDC

Current: 45mA standby;  
150mA in alarm (sounder, back light and LED on)

**FOR WARRANTY INFORMATION AND LIMITATIONS OF THE ENTIRE SYSTEM, REFER TO THE INSTALLATION INSTRUCTIONS FOR THE CONTROL PANEL WITH WHICH THIS DEVICE IS USED.**

**ADEMCO  
GROUP**

165 Eileen Way, Syosset, New York 11791  
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K3590-ADCFV1 8/01





# 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: 32 Mellen Street CBL: \_\_\_\_\_

Exact location: (within structure) \_\_\_\_\_

Type of occupancy(s) (NFPA & ICC): \_\_\_\_\_

Building owner: Community Alcoholism Orientation House - Serenity House

System Designer: Robin Russell

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

Installing contractor: Protection One License No: MC 60018702

Contractor phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

This is a new application: YES  NO

This is an amendment to an existing permit: YES  NO  Permit no: \_\_\_\_\_

**The following documents have been provided with this application:**

Floor plans: YES  NO

Wiring diagram: YES  NO

Annunciator details: YES  NO

Bid specifications: YES  NO

Equipment data sheets: YES  NO

Battery & voltage drop calculations: YES  NO

Sequence of operations: YES  NO

Designer/ personnel qualifications: YES  NO

COST OF WORK: \$2,885.00

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

**RECEIVED**  
**PERMIT ISSUED**

NOV - 3 2009  
NOV - 3 2009

**Dept. of Building Inspections**  
**City of Portland Maine**  
**City of Portland**

Download a new copy of this document from Inspection Division on-line at [www.portlandmaine.gov](http://www.portlandmaine.gov) for every submittal. Submit all plans on 11X17 copies or electronic PDF's in addition to full sized plans to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

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

All installation(s) must comply with NFPA 70, NFPA 72, and Fire Department Technical Standard(s).

Applicant signature: William Burke Date: 11/3/09



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**DEFINITIONS**

- FIRE ALARM SYSTEM:** A combination of components consisting of initiating devices, signal devices and control devices; all of which either report to or receive a signal from a central control point (FACP).
- HIGH-RISE:** Any structure seventy-five (75) feet or more above grade level. Lineal measure shall be from the lowest point of the occupiable space to the top floor of the structure as determined by the Fire Chief.
- CLASS "C" FIRE ALARM SYSTEM:** A fire alarm system of the least degree, intended to be used in occupancies where life safety hazards are minimal and the occupant load is low.
- CLASS "B" FIRE ALARM SYSTEM:** A fire alarm system intended to be used where life safety hazards are greater than usual due to higher fire loads, larger structures or greater occupant loads.
- CLASS "A" FIRE ALARM SYSTEM:** A fire alarm system required in all structures where the greatest hazards are present due to fire loads, high occupant density or excessive size. These systems are intended for use where total evacuation is impractical and/or the earliest possible warning is desirable and a need exists for the control of panic.



---

GENERAL REQUIREMENTS  
SECTION 1.0

- 1.1 All structures, as herein defined, shall be provided with some level of early warning, installed and maintained as detailed by this ordinance and other referenced publications. The intent of this ordinance is to provide early warning to all persons where danger from fire may not be immediately evident, to allow those persons to safely evacuate the area and/or take other appropriate action.
- 1.2 The Fire Prevention Bureau shall review each building permit application for all structures except one (1) and two (2) family homes, to determine the need and extent of fire alarm protection.
- 1.3 The level of protection required shall be based on the size and type of construction, occupancy classification (as determined by NFPA 101) and building contents.
- 1.4 Fire alarm protection may be required in structures not specifically required to be protected by other sections of these standards to offset exit deficiency, mixed occupancies or other safety situations not otherwise addressed.
- 1.4.1 At the discretion of the Fire Chief, state of the art alternate fire protection systems may be accepted as an equivalent substitute to the fire alarm systems detailed in these standards.
- 1.5 Some level of fire alarm protection shall be required for any of the following occupancies:
- High-rise buildings (any occupancy classification, class "A" system required)
  - High Hazard Occupancies/Public Assemblies
  - Educational Occupancies
  - Detention and Correctional Occupancies
  - Hotels and Dormitories
  - Apartment Buildings (4 or more stories or 11 or more units)
  - Residential Board and Care Facility
  - Mercantile Occupancies
  - Business Occupancies (when occupied by 50 or more persons)
  - Industrial Occupancies (when occupied by 50 or more persons or any high hazard classification)
  - Storage (when stored materials are classified as hazardous and the structure is normally occupied)
  - Special Structures (when determined by the Fire Prevention Bureau)
  - Any mixed occupancy that includes a residential use.
- 1.6 All equipment used in any one structure shall be of the same manufacturer. All control equipment shall be listed under "UL" category UOJZ as a single control unit. Partial listings shall not be acceptable.
- 1.7 All control equipment must have transient protection devices to comply with UL864 requirements.
- 1.8 The installation of any fire alarm system shall comply with the performance standards for a Type "A", "B" or "C" system or as specified or modified by the Fire Prevention Bureau.
- 1.9 The "Performance Standards" for Type "A", "B", and "C" systems shall be met unless waived by the Fire Chief in his discretion.
- 1.10 All structures requiring a fire alarm system shall be provided with a "Knox Box" – make, model and size as determined by the Portland Fire Prevention Bureau. Knox Box shall be located as specified by the fire department. All keys required to operate the fire alarm system shall be placed within this box.



- 
- 1.11 All installations shall comply with the applicable requirements of NFPA 72, The National Electrical Code, and the Fire Prevention Bureau.
- 1.12 All applications for "Fire Alarm Permits" shall be made at the building inspection office on forms provided by the Fire Prevention Bureau. All information requested on the forms shall be completed when applicable to the proposed installation and all supportive documentation provided before the permit can be reviewed.
- 1.13 In addition to the "Fire Alarm Permit", the installer shall apply for an electrical permit through the building inspection office.
- 1.14 Any application for a Class A or B fire alarm system shall include:
- 1) A copy of the Bid Specification.
  - 2) Complete descriptive data indicating "UL" listings for all system components.
  - 3) A complete description of the sequence of operation.
  - 4) A complete wiring diagram for all components being connected to the system.
  - 5) Floor plans indicating the placement of all equipment.
  - 6) Annunciator details showing the labeling of all zones.
  - 7) Battery Calculations.
- 1.14.1 Any application for a Class C fire alarm system shall include those items listed above as required by the Fire Prevention Bureau.
- 1.15 Any additions or modifications from approved plans will require the submission of an amendment and approval from the fire department.
- 1.16 After the completion of installation, the installation contractor shall provide the Fire Prevention Bureau with a "Fire Alarm Acceptance Report" per NFPA 72 before the "Certificate of Occupancy" can be issued.
- 1.17 All fire alarm wiring shall be protected from vandalism by means of electrical mechanical tubing ("EMT") or metal conduit or concealment within the wall cavity.
- 1.18 Any fire alarm system, including all peripheral devices, shall be maintained and kept operational at all times. Whenever any initiating device is activated and rendered inoperable, it shall be repaired or replaced within twenty-four (24) hours. Any other component needing repair or replacement shall be started within twenty-four (24) hours of disablement and continued until completed as parts are received.
- 1.19 Any alarm system requiring more than one (1) zone shall be provided with individual zone disconnects.
- 1.20 Any Class "A" or "B" fire alarm system shall submit CAD drawings of said system.



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CONTROL EQUIPMENT  
SECTION 2.0

- 2.1 The Fire Alarm Control Panel (FACP) or an annunciator panel shall be placed at the primary point of entry as defined by the Fire Prevention Bureau.
- 2.2 Programmable systems shall be capable of being programmed onsite.
- 2.3 PACP and annunciator panels shall have visual and audio trouble indicators.
- 2.4 All control features shall be placed within the FACP only.
- 2.5 Any FACP which is placed within a space shall have the door leading to that space labeled with the words "Fire Alarm Control Panel".
- 2.6 The tripping of a tamper switch shall activate a trouble condition only and shall not sound the evacuation signals.
- 2.7 The activation of a Class "A" or "B" fire alarm system shall automatically send a signal to either the "Municipal" fire alarms or an approved "Central Receiving Station" when required by Municipal Ordinance 2.5. "Municipal" Fire Alarm Connections shall be approved by the Fire Chief.
- 2.8 Any structure required to have a fire alarm system shall provide a firefighter communication system, which, at the discretion of the Fire Chief, may consist a telephone communication system or a state of the art system such as a fixed repeater system. Said system shall be a Motorola Approved Fixed repeater system and shall meet the interface requirements of the City of Portland's 800 mhz radio system. All such equipment shall be properly installed and regularly maintained by the property owner and will be available for inspection and use of the City of Portland 24/7.



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INITIATING DEVICES  
SECTION 3.0

- 3.1 Exhaust hood extinguishing systems, halon systems, and standpipe systems shall be electrically connected to the evacuation system.
- 3.2 Detection devices located within concealed spaces or spaces deemed inaccessible by the Fire Prevention Bureau shall have an indicator visible to the firefighter from all normally occupied spaces approved by the Fire Prevention Bureau.
- 3.3 Any initiating device not connected to the FACP shall be so labeled.
- 3.4 All fire alarm pull stations, control equipment, and audio visual equipment shall be red, with the exception that FACP may be a different color when proper labeling is provided.
- 3.5 All areas that are part of a defined exit system (hallways, stairways, lobbies, etc.) and any areas prone to smoldering fires shall be protected with smoke detectors. All other areas shall be protected with heat detectors. The heat detectors shall be rate-of-rise in all cases when practical.
- 3.6 The fusing of any sprinkler head shall activate the fire alarm.
- 3.7 All detection devices shall be protected against radio frequency activation.



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SIGNALING DEVICES  
SECTION 4.0

- 4.1 The use of bells as a signal device is prohibited in any system.
- 4.2 All Class "A" systems shall be provided with two (2) separate signal circuits installed so as to reduce the chances of both being damaged by a single incident.
- 4.3 The activation of the fire alarm system in all high-rise occupancies shall sound an audible and visible alarm on the floor of initiation, the two (2) floors above, and the floor below. Whenever any incident requires the activation of a floor connected to other floors by means of an unprotected vertical opening, the alarm activation shall be extended to include all floors so interconnected. If a second zone goes into alarm, then a general evacuation shall be sounded.
- 4.4 All other structures shall sound a general evacuation throughout all floors unless otherwise approved by this office.
- 4.5 All residential occupancies requiring a fire alarm system shall equip each living with an approved "mini-horn" connected to the FACP.
- 4.6 The use of chimes shall be restricted to hospitals, nursing homes, convalescent homes, institutions for the mentally handicapped, and other occupancies where sudden loud noises might cause panic or confusion to the occupants. Any occupancy using chimes as the signal devices must provide staff which is awake twenty-four (24) hours a day.
- 4.7 The Fire Prevention Bureau may require multi-lingual voice evacuation systems in all facilities using prerecorded voice evacuation systems. Prerecorded messages shall use a female voice and state the following at the completion of a thirty (30) second alert tone:

*"Attention Please! The fire alarm system has detected an emergency condition within the building. Please proceed to the nearest stairway and exit the building. Do not use the elevators."*

---

TYPE A FIRE ALARM SYSTEM PERFORMANCE STANDARDS  
SECTION 5.0

- 5.1 Type "A" Fire Alarm System Performance Standards.
- 1) "UL" Listed
  - 2) Meet all applicable NFPA; local and state standards
  - 3) Supervision of all peripheral devices
  - 4) Addressable detection devices
  - 5) Alarm Verification
  - 6) Voice communications
  - 7) Firefighter telephones and/or radio communications
  - 8) Municipal connection
  - 9) Separate audio and visual trouble indication
  - 10) Individual zone or device disconnect
  - 11) Building systems status indication
  - 12) Elevator recall
  - 13) Sprinkler activation and zone indication
  - 14) History recall
  - 15) Prerecorded messages
  - 16) Drill switch
  - 17) "Knox Box"
  - 18) Field programmable
  - 19) Two (2) separate signal circuits per floor.



---

TYPE B FIRE ALARM SYSTEM PERFORMANCE STANDARDS  
SECTION 6.0

- 6.1 Type "B" fire alarm system performance standards:
- 1) "UL" Listing
  - 2) Meet all applicable NFPA, local, and state standards
  - 3) Zone indication
  - 4) Separate audio and visual trouble indication
  - 5) Municipal connection capabilities
  - 6) Supervision of all peripheral devices
  - 7) Sprinkler activation and zone indication (when applicable)
  - 8) Individual zone disconnect
  - 9) Drill switch

---

TYPE C FIRE ALARM SYSTEM PERFORMANCE STANDARDS  
SECTION 7.0

- 7.1 Type "C" Fire Alarm System Performance Standards.
- 1) "UL" Listed
  - 2) Meet all applicable NFPA, local, and state standards
  - 3) Zone indication
  - 4) Separate audio and visual trouble indication
  - 5) Supervision of all peripheral devices
  - 6) Sprinkler activation and zone indication (when applicable)



# NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES<sup>®</sup>

HEREBY CERTIFIES THAT

**Robin L. Russell**

HAS ATTAINED THE GRADE OF

**LEVEL II**

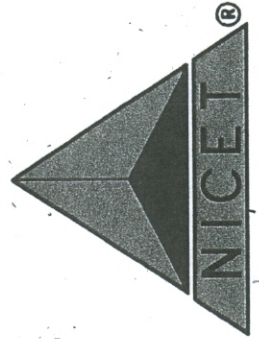
IN FIRE PROTECTION ENGINEERING TECHNOLOGY  
FIRE ALARM SYSTEMS

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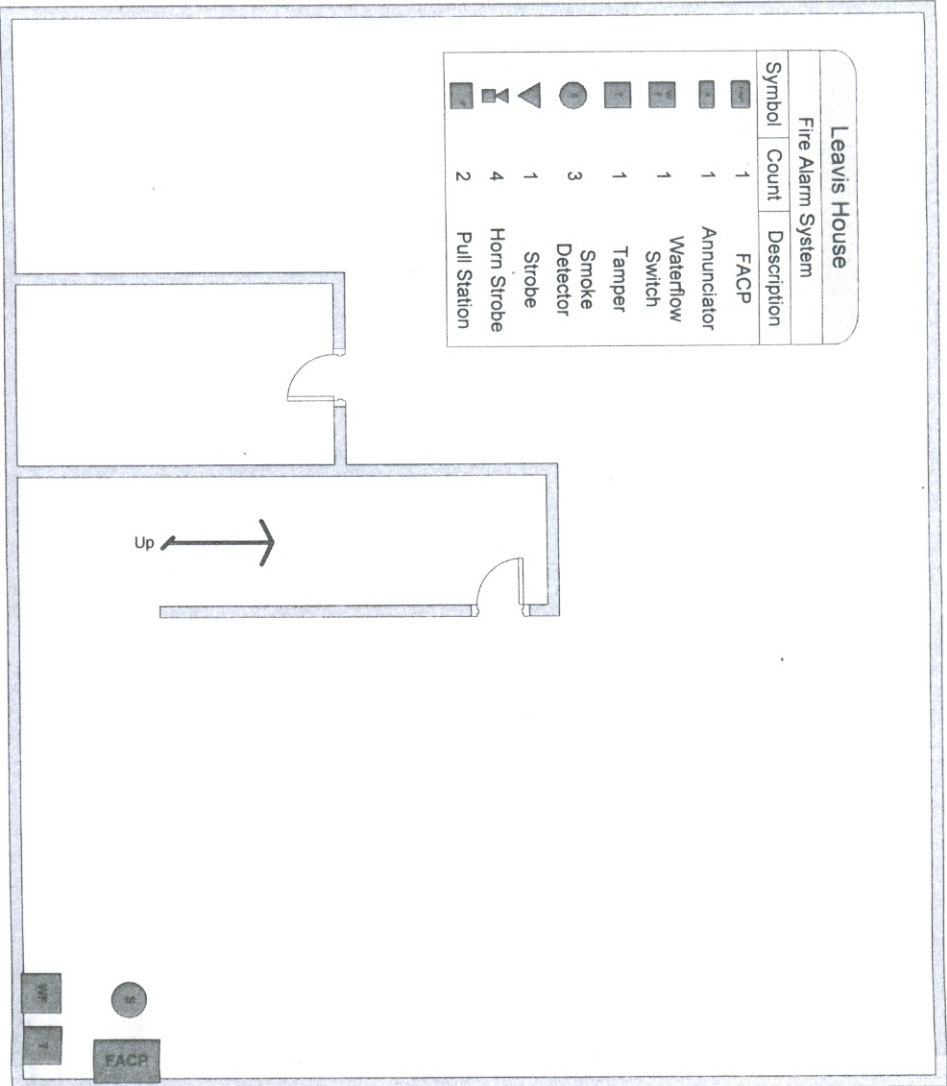
CERTIFICATION NUMBER 110826

  
CHAIRMAN OF THE BOARD OF GOVERNORS, NICET

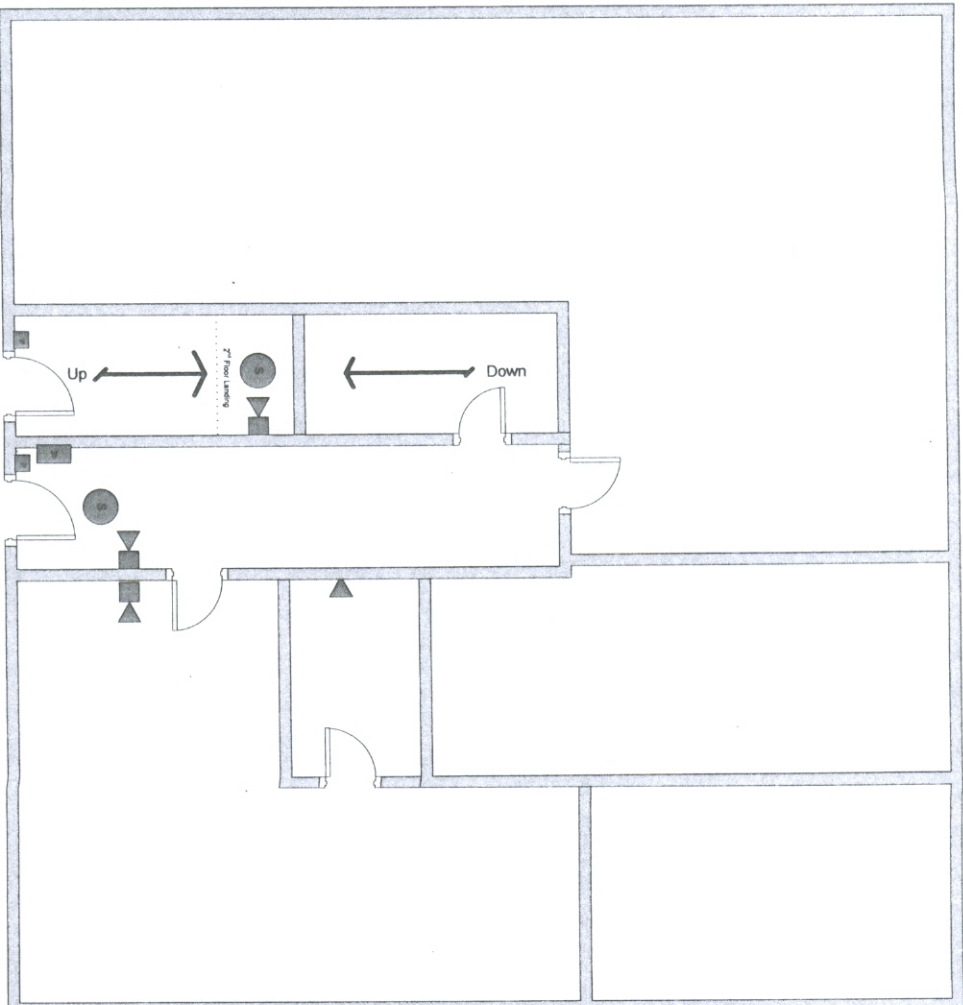


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**Basement**



**1<sup>st</sup> Floor & 2<sup>nd</sup> Floor Landing**



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11/2/09



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