

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-03-3490-ALTCOMM 2012-48903 FAFS	Date Applied: 10/02/2012	CBL: 306- B-018-001	
Location of Construction: 68 WALDRON WAY	Owner Name: KELTON REAL ESTATE HOLDINGS LLC	Owner Address: 68 WALDRON WAY PORTLAND, ME 04103	Phone:
Business Name: Maine Parts & Machine	Contractor Name: Cunningham Security Systems	Contractor Address: 10 PRINCES POINT ROAD, YARMOUTH, ME 04096	Phone: 879-1877
Lessee/Buyer's Name:	Phone:	Permit Type: FAFS	Zone: I-M
Past Use: Industrial manufacturing with accessory office and warehouse	Proposed Use: Same: Industrial manufacturing with accessory office and warehouse - to install fire alarm	Cost of Work: \$3,000.00	CEO District:
		Fire Dept: 10/15/12 <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: Type:
		Signature: <i>[Signature]</i> (58)	Signature:
Proposed Project Description: fire alarm		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Brad		Zoning Approval	

1. This permit application does not pre Applicant(s) from meeting applicab Federal Rules.
2. Building Permits do not include pl septic or electrical work.
3. Building permits are void if work within six (6) months of the date c False informatin may invalidate a permit and stop all work.

SCANN

~~XXXXXXXXXX~~
Finish int wall demo

Special Zone or Reviews	Zoning Appeal	Historic Preservation
	<input type="checkbox"/> e	<input checked="" type="checkbox"/> Not in Dist or Landmark
	<input type="checkbox"/> laneous	<input type="checkbox"/> Does not Require Review
	<input type="checkbox"/> tional Use	<input type="checkbox"/> Requires Review
	<input type="checkbox"/> pretation	<input type="checkbox"/> Approved
	<input type="checkbox"/> roved	<input type="checkbox"/> Approved w/Conditions
	<input type="checkbox"/> nied	<input type="checkbox"/> Denied
		Date: <i>[Signature]</i>

I hereby certify that I am the owner of record o the owner to make this application as his authorized agent and I agree... the application is issued, I certify that the code official's authorized representative shall have the... to enforce the provision of the code(s) applicable to such permit.

owner of record and that I have been authorized by sdiction. In addition, if a permit for work described in all areas covered by such permit at any reasonable hour

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

12-3-12 G & BW MOVE HEAT DETECTORS TO TOP CHORD OF
BILL STEEL TRUSS

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that
CUNNINGHAM SECURITY
10 PRINCES POINT RD
YARMOUTH, ME 04096

For installation at
68 WALDRON WAY
MAINE PARTS & MACHINE

Job ID: 2012-03-3490-ALTCOMM

CBL: 306- B-018-001

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

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

58

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

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

SCANNED

BUILDING PERMIT INSPECTION PROCEDURES

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

or email: buildinginspections@portlandmaine.gov

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

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

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.



PORTLAND MAINE

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

Director of Planning and Urban Development
Jeff Levine

Job ID: 2012-03-3490-ALTCOMM
extend fire alarm coverage to addition

For installation at:
68 WALDRON WAY
MAINE PARTS & MACHINE

CBL: 306- B-018-001

Conditions of Approval:

Fire

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.

The fire alarm annunciator shall have a clear lockable cover with instructions how to reset it on the inside.

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

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

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

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

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

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

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

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

A master box connection is not authorized for this building.



2012-48903

Fire Alarm Permit

Entered 10/3/12
(B)

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.

2012-03-3490-Altcomm

Installation address: 68 Waldron Way CBL: 306-B18-001

Exact location: (within structure) Mechanical Room

Type of occupancy(s) (NFPA & ICC): Warehouse and Storage *I-M*

Building owner: Kelton Real Estate Holdings LLC

System Designer (point of contact): Michael Major *Warehouse with Accessory of use*

Designer phone: 207-846-3350 E-mail: mmajor@cunninghamsecurity.ca

Installing contractor: BH Milliken Certificate of Fitness No: 1004

Contractor phone: 207-879-1877 E-mail: bhm@bhmilliken.com

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

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

The following documents shall be provided with this application:

- Floor plans
- Wiring diagram
- Annunciator details
- Input/ Output Matrix
- Equipment data sheets
- Electrical Permit Pulled (check alarm/com)
- Scope of Work
- 11 1/2 x 17s
- pdf copy (may be e-mailed)
- Designer qualifications
- Battery/ voltage drop calcs

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

COST OF WORK: \$ 3000
2500

PERMIT FEE: 50
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

RECEIVED
OCT 02 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: [Signature] Date: 10.2.12

CUNNINGHAM

Security Systems

10 Princes Point Road • Yarmouth, Maine 04096
(207) 846-3350 • Fax (207) 846-6080 • (800) 210-0257

10/2/12

Lieutenant Benjamin Wallace, Jr.
Portland Fire Department
380 Congress Street
Portland Maine 04101

Please find attached a permit application for the property located at 68 Waldron Way. The scope of this permit application includes the installation of eleven initiation devices and five occupant notification appliances. There is currently a conventional Vista 128FB panel. BH Milliken has installed all of the conduit, wiring and devices, Cunningham Security shall be programming and testing.

Please contact me with any questions at 207-846-3350.

Sincerely,



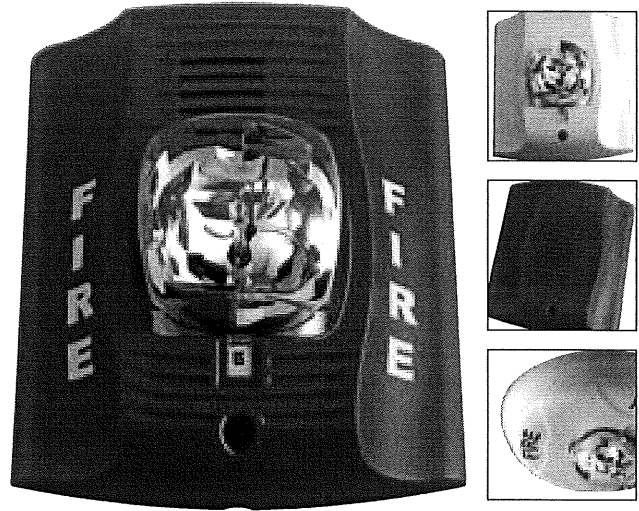
Michelle Perkins, Operations Manager

Planning • Installation • Monitoring • Service
Visit our web site at: www.cunninghamsecurity.com



Selectable-Output Horns, Strobes, and Horn Strobes

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



SPECTRAlert
ADVANCE
from System Sensor

Features

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

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

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

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

Agency Listings



S4011 (chimes, horn strobes, horns)
S5512 (strobes)



3023572



MEA452-05-E



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

SpectrAlert Advance Specifications

Architect/Engineer Specifications

General

SpectrAlert Advance horns, strobes, and horn strobes shall mount to a standard 4 × 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 × 1⅞-inch back box. A universal mounting plate shall be used for mounting ceiling and wall products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, SpectrAlert Advance products, when used with the Sync-Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync-Circuit Module, 12-volt-rated notification appliance circuit outputs shall operate between 9 and 17.5 volts; 24-volt-rated notification appliance circuit outputs shall operate between 17 and 33 volts. Indoor SpectrAlert Advance products shall operate between 32 and 120 degrees Fahrenheit from a regulated DC or full-wave rectified unfiltered power supply. Strobes and horn strobes shall have field-selectable candela settings including 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, and 185.

Strobe

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

Horn Strobe Combination

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

Synchronization Module

The module shall be a System Sensor Sync-Circuit model MDL listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and horns at temporal three. Also, while operating the strobes, the module shall silence the horns on horn strobe models over a single pair of wires. The module shall mount to a 4⅞ × 4⅞ × 2⅞-inch back box. The module shall also control two Style Y (class B) circuits or one Style Z (class A) circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

Standard Operating Temperature	32°F to 120°F (0°C to 49°C)
Humidity Range	10 to 93% non-condensing
Strobe Flash Rate	1 flash per second
Nominal Voltage	Regulated 12 DC/FWR or regulated 24 DC/FWR ¹
Operating Voltage Range ²	8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
Input Terminal Wire Gauge	12 to 18 AWG
Ceiling-Mount Dimensions (including lens)	6.8" diameter × 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 × 2.2" high (180 mm diameter × 57 mm high)
Wall-Mount Trim Ring Dimensions (sold as a 5 pack) (TR-HS, TRW-HS)	5.7" L × 4.8" W × 0.35" D (145 mm L × 122 mm W × 9 mm D)
Ceiling-Mount Trim Ring Dimensions (sold as a 5 pack) (TRC-HS, TRCW-HS)	6.9" diameter × 0.35" high (175 mm diameter × 9 mm high)

Notes:

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

UL Current Draw Data

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

UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, Standard Candela Range (15-115 cd)										
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	
FWR Input										
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	

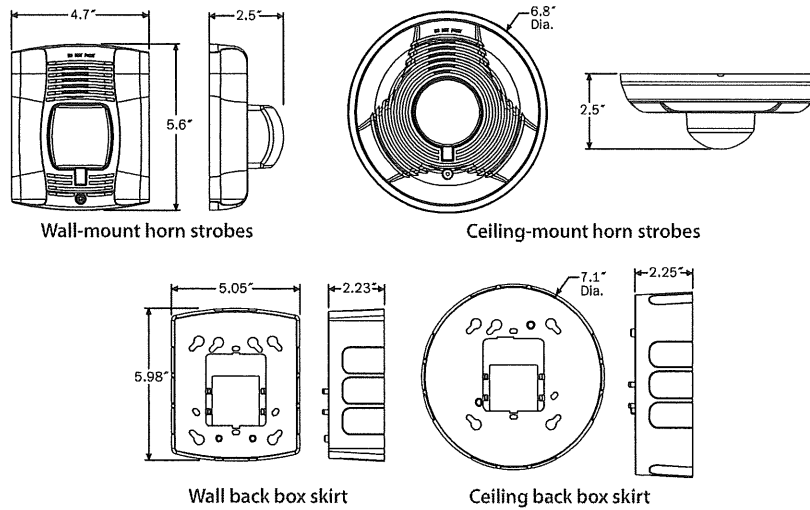
UL Max. Current Draw (mA RMS), 2-Wire Horn Strobe, High Candela Range (135-185 cd)										
DC Input	16-33 Volts				FWR Input	16-33 Volts				
	135	150	177	185		135	150	177	185	
Temporal High	245	259	290	297	Temporal High	215	231	258	265	
Temporal Medium	235	253	288	297	Temporal Medium	209	224	250	258	
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	

Horn Tones and Sound Output Data

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

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

SpectrAlert Advance Dimensions



SpectrAlert Advance Ordering Information

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

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

Notes:

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

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

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



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 for current product information, including the latest version of this data sheet.
A05-0395-007 - 4/09 - #2132



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.

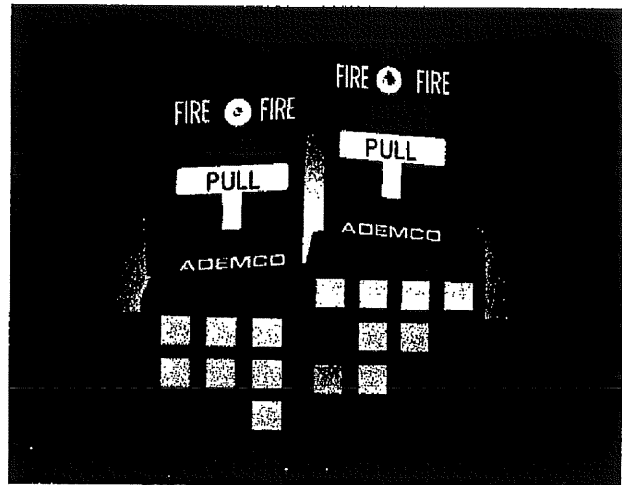
Two alarm deterrent break tubes are supplied with each manual station; one tube is visible from the front, and the spare is stored in a compartment within the unit.

■ 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

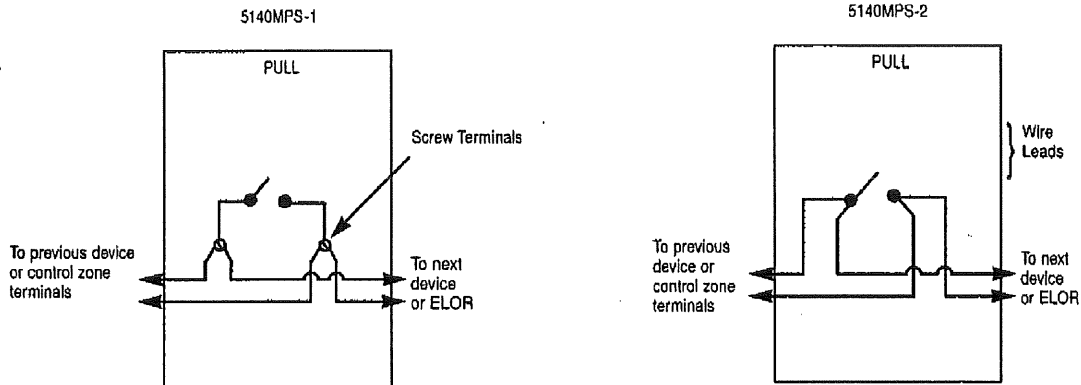
®ADEMCO

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.

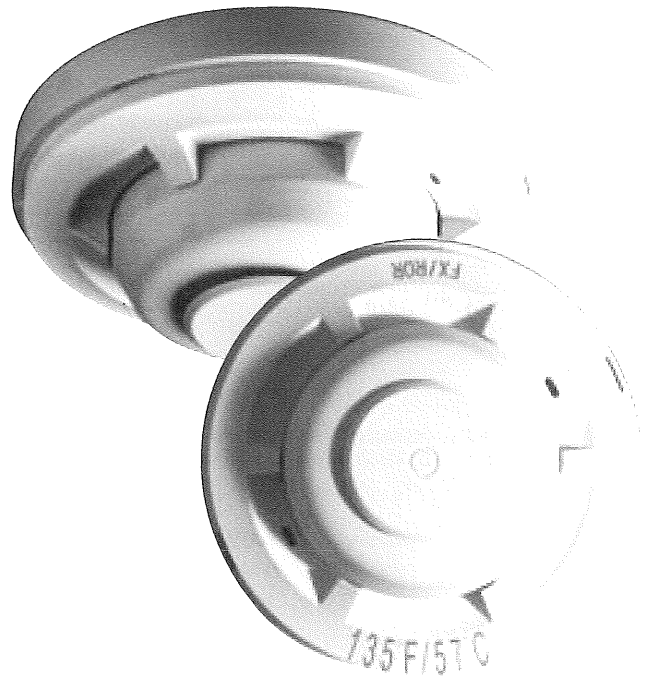
An operated station shall automatically condition itself so as to be visually detected, as operated, at a mini-

mum 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.



5600 Series Mechanical Heat Detectors

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



Features

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

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

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

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

Agency Listings



52101

3016008

199-03-E

7270-1209.227

Specifications

Architectural/Engineering Specifications

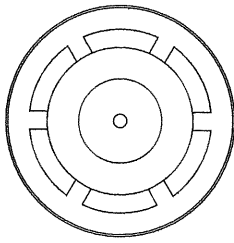
Mechanical heat detector shall be a System Sensor 5600 series model number _____, listed to Underwriters Laboratories UL 521 for Heat Detectors for Fire Protective Signaling Systems. The detector shall be either a single-circuit or a dual-circuit type, normally open. The detector shall be rated for activation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

Physical/Operating Specifications

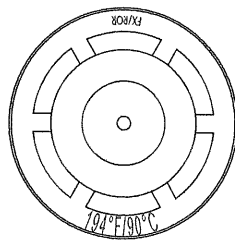
Maximum Installation Temperature	5601P, 5603, 5621, and 5623: 100°F (38°C) 5602, 5604, 5622, and 5624: 150°F (65.6°C)
Operating Humidity Range	5 to 95% RH non-condensing
Dimensions with mounting bracket	Diameter: 4.57 inches (11.6cm) Height: 1.69 inches (4.3cm)
Alarm Temperature	5601P, 5603, 5621, and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

Electrical Specifications

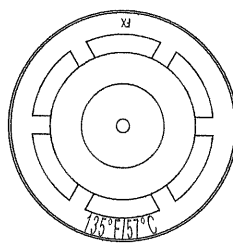
Operating Voltage / Contact Ratings	6–125VAC / 3A 6–28VDC / 1A 125VDC / 0.3A 250VDC / 0.1A
Input Terminals	14–22 AWG



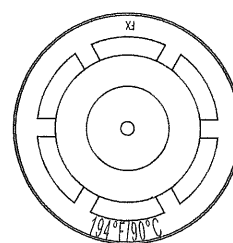
5601P



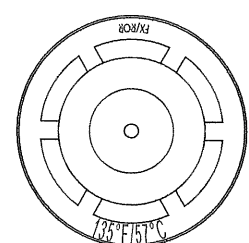
5602, 5622



5603, 5623



5604, 5624



5621

Ordering Information

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

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



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

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Product specifications subject to change without notice. Visit systemsensor.com for current product information, including the latest version of this data sheet.
A05-0351-002 • 11/06 • #1676



PORTLAND MAINE

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

Receipts Details:

Tender Information: Check , Check Number: 17478

Tender Amount: 50.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 10/3/2012

Receipt Number: 48904

Receipt Details:

Referance ID:	8240	Fee Type:	BP-FIRE
Receipt Number:	0	Payment Date:	
Transaction Amount:	50.00	Charge Amount:	50.00
Job ID: Job ID: 2012-03-3490-ALTCOMM - Single story addition to commercial building			
Additional Comments: 68 Waldron			

Thank You for your Payment!

CUNNINGHAM

Security Systems

10 Princes Point Road • Yarmouth, Maine 04096
(207) 846-3350 • Fax (207) 846-6080 • (800) 210-0257

February 5, 2013

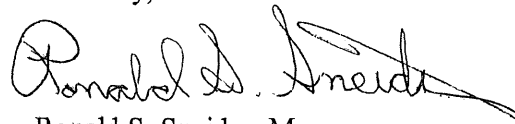
Code Enforcement Office
City of Portland
389 Congress Street
Portland, ME 04101
(207) 874-8705
Fax#: (207) 874-8716

To Whom It May Concern:,

This letter is to inform you that on October 26, 2012, we completed the installation, programming and testing of the new fire alarm devices added to the new space at Maine Parts & Machine located at 68 Waldron Way in Portland, Maine. These new devices were tied into the existing fire alarm control panel and programmed and test to NFPA 72 standards. Signals were sent from these devices to our central monitoring station. These devices were all found to be fully functional at that time.

Should you have any questions or comments regarding this matter, please feel free to contact me at (207) 846-3350.

Sincerely,



Ronald S. Snider, Manager

cc: Acct. File

PLUMBING APPLICATION

Department of Health and Human Services
Division of Environmental Health

11956

PROPERTY ADDRESS

Town or Plantation: PORTLAND ME

Street Subdivision Lot #: 88 WALDRON WAY

PROPERTY OWNERS NAME

MAINE PARTS & MACHINE

Last: _____ First: _____

Applicant Name: TITAN MECHANICAL

Mailing Address of Owner/Applicant (If Different): 232 RIVERSIDE INO PENNY

306 BOIS
Caution: Permit Required
Plumbing shall not be installed until a Permit is attached here by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the plumbing in accordance with this application and the Maine Plumbing Rules.
201246742

Owner/Applicant Statement

I certify that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Local Plumbing Inspectors to deny a Permit.

[Signature] 8/6/12
Signature of Owner/Applicant / Date

Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Maine Plumbing Rules.

[Signature] #360
Local Plumbing Inspector Signature / Date Approved

PERMIT INFORMATION

This Application is for 1. <input checked="" type="checkbox"/> NEW PLUMBING 2. <input type="checkbox"/> RELOCATED PLUMBING	Type of Structure To Be Served: 1. <input type="checkbox"/> SINGLE FAMILY DWELLING 2. <input type="checkbox"/> MODULAR OR MOBILE HOME 3. <input type="checkbox"/> MULTIPLE FAMILY DWELLING 4. <input type="checkbox"/> OTHER - SPECIFY _____	Plumbing To Be Installed By: 1. <input checked="" type="checkbox"/> MASTER PLUMBER 2. <input type="checkbox"/> OIL BURNERMAN 3. <input type="checkbox"/> MFG'D. HOUSING DEALER/MECHANIC 4. <input type="checkbox"/> PUBLIC UTILITY EMPLOYEE 5. <input type="checkbox"/> PROPERTY OWNER LICENSE # <u>02666</u>
---	---	--

SCANNED

Hook-Up & Piping Relocation

Maximum of 1 Hook-Up
 HOOK-UP: to public sewer in those cases where connection is not regulated and inspected by the local Sanitary District.
 HOOK-UP: to an existing subsurface wastewater disposal system.

PIPING RELOCATION: of sanitary lines, drains, and piping without new fixtures.

Column 2	Column 1
Number	Type of Fixture
	Hosebib / Silcock
	Bathtub (and Shower)
	Floor Drain
	Shower (Separate)
	Urinal
	Sink
	Drinking Fountain
	Wash Basin
	Indirect Waste
	Water Closet (Toilet)
	Water Treatment Softener, Filter, etc.
	Clothes Washer
	Grease / Oil Separator
	Dish Washer
<u>2</u>	Roof Drain
	Garbage Disposal
	Bidet
	Laundry Tub
	Other: _____
	Water Heater
	Fixtures (Subtotal) Column 2
	Fixtures (Subtotal) Column 1
	Fixtures (Subtotal) Column 2
	Total Fixtures
	Fixture Fee
	Transfer Fee
	Hook-Up & Relocation Fee
	Permit Fee (Total)

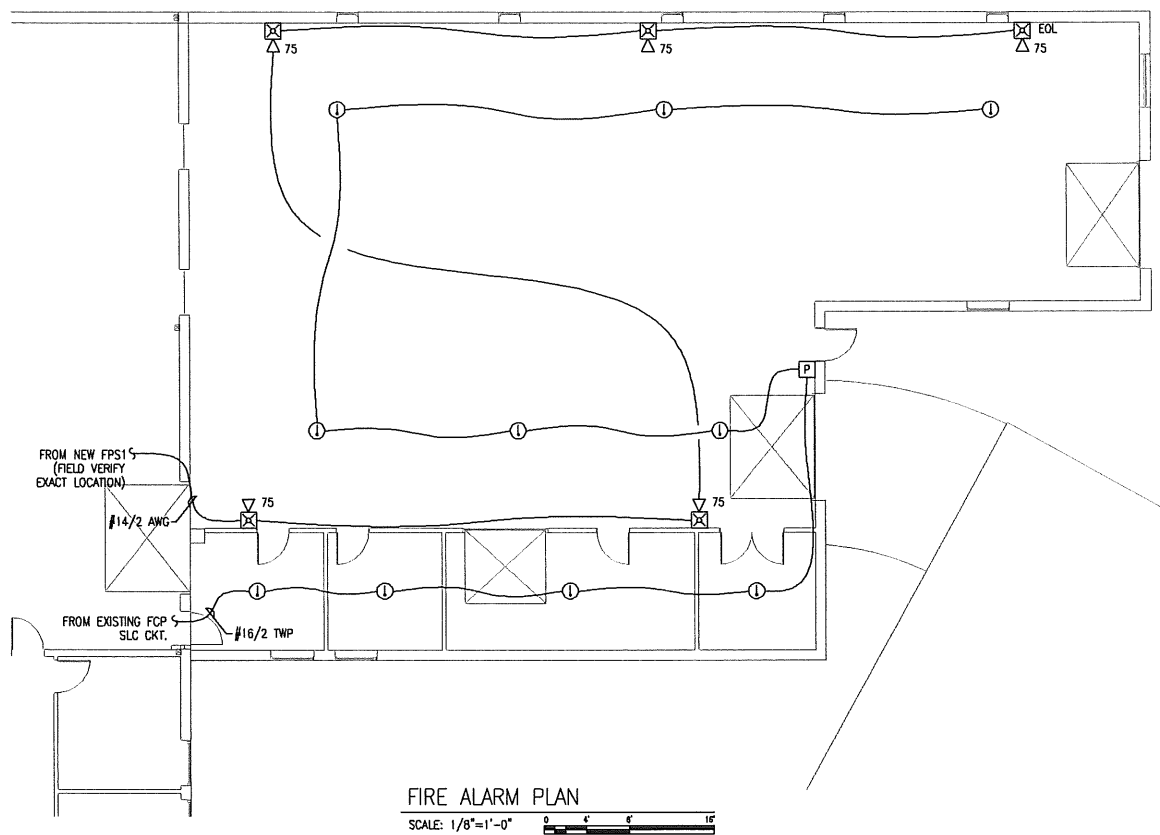
OR

TRANSFER FEE
[\$6.00]

SEE PERMIT FEE SCHEDULE FOR CALCULATING FEE

306 BOIS

RECEIVED
ASB 8 2012
Dept. of Building Inspections
City of Portland Maine



FIRE ALARM PLAN
SCALE: 1/8"=1'-0"

GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- INSTALLATION SHALL COMPLY WITH NEC, NFPA 72 AND ALL OTHER APPLICABLE CODES AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- WIRING DEPICTED ON THESE PLANS IS SCHEMATIC - ACTUAL WIRE LOCATIONS MAY DIFFER FROM THESE PLANS. WIRING SHALL BE PERFORMED AS ACTUAL BUILDING CONSTRUCTION CONDITIONS ALLOW AND TO MINIMIZE PENETRATIONS THROUGH AREA SEPARATION WALLS AND FIRE WALLS. THE USE OF A RACEWAY IS PERMITTED AS LONG AS NO 110V OR HIGHER VOLTAGE CABLES ARE IN THE SAME RACEWAY.
- FIRE RATINGS SHALL BE MAINTAINED FOR ALL PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.
- POWER FOR ALL FIRE ALARM PANELS AND FIRE ALARM POWER SUPPLIES MUST BE PROVIDED BY A DEDICATED AC BRANCH CIRCUIT.
- POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST REMAIN SEPARATED IN CABINET. ALL POWER-LIMITED CIRCUIT WIRING MUST REMAIN AT LEAST 0.25" AWAY FROM ANY NONPOWER-LIMITED CIRCUIT WIRING. FURTHERMORE, ALL POWER-LIMITED AND NONPOWER-LIMITED CIRCUIT WIRING MUST ENTER AND EXIT THE CABINET THROUGH DIFFERENT KNOCK OUTS AND/OR SEPARATE CONDUITS.
- WHEN UTILIZING CLASS "A" CIRCUITS, SEPARATE OUTGOING AND RETURN CONDUCTORS OF CLASS "A" CIRCUITS BY A MINIMUM OF 12" WHERE RUN VERTICALLY AND 48" WHERE RUN HORIZONTALLY.
- WHEN UTILIZING SHIELDED CABLE TIE SHIELDS THROUGH AND INSULATE AT EACH JUNCTION BOX. INSULATE AND TAPE BACK AT END.
- ALL FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE.
- SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED AND FINAL.
- LOCATE SMOKE DETECTORS A MINIMUM OF THREE (3) FEET FROM MECHANICAL DIFFUSERS. WALL-MOUNTED SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 4" AND A MAXIMUM OF 12" FROM CEILING. CEILING-MOUNTED SMOKE DETECTORS SHALL BE MOUNTED ON CEILINGS AND NOT ON THE BOTTOMS OF BEAMS OR JOISTS.
- PROVIDE SYNCHRONIZATION OF ALL VISUAL NOTIFICATION APPLIANCE CIRCUITS. PROVIDE ALL REQUIRED SYNC MODULES. PROVIDE A MULTI-SYNC MODE SLAVE CONNECTION BETWEEN ALL SYNC MODULES.
- VERIFY ALL FIELD SELECTABLE AUDIBILITY SETTINGS OF NOTIFICATION APPLIANCES WITH FIRE ALARM CONTRACTOR.
- UPON COMPLETION OF THE FIRE ALARM SYSTEM INSTALLATION AND PROGRAMMING, THE INSTALLING CONTRACTOR SHALL PERFORM FINAL TESTING OF THE ENTIRE SYSTEM PER ALL APPLICABLE CODES, AND SHALL COORDINATE AND PERFORM A FINAL FIRE ALARM SYSTEM INSPECTION.
- PROVIDE OFF-SITE MONITORING AS REQUIRED BY THE INTERNATIONAL FIRE CODE, SECTION 907.15 AND THE LOCAL AUTHORITY HAVING JURISDICTION.
- INSTALLING CONTRACTOR SHALL, PHYSICALLY, LABEL ALL INITIATING DEVICES AND NOTIFICATION APPLIANCE CIRCUIT END OF LINE (WHEN WIRING CLASS "B"). THESE LABELS SHALL BE IN PLACE PRIOR TO START-UP AND TESTING.

FIRE ALARM SYMBOL LEGEND		
NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT		
SYMBOL	DESCRIPTION	MOUNTING
FCP	FIRE ALARM CONTROL PANEL	WALL-TOP Ø 66"
FPS	FIRE ALARM POWER SUPPLY	FIELD VERIFY
FSA	FIRE SYSTEM ANNUCIATOR	WALL-TOP Ø 66"
FSD	FIRE/SMOKE DAMPER	BY OTHERS
⊙	SMOKE DETECTOR	CEILING
⊙	DUCT SMOKE DETECTOR	BY OTHERS
⊙	HEAT DETECTOR	CEILING
CM	ADDRESSABLE CONTROL MODULE	FIELD VERIFY
MM	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
P	MANUAL PULL STATION	WALL-TOP Ø 48"
R	CONTROL RELAY (MULTI-VOLTAGE)	FIELD VERIFY
RM	ADDRESSABLE RELAY MODULE	FIELD VERIFY
⊙	MAGNETIC DOOR HOLDER	FIELD VERIFY
⊙	WATER FLOW SWITCH	BY OTHERS
⊙	VALVE TAMPER SWITCH	BY OTHERS
⊙	BELL	BY OTHERS
⊙	CEILING MOUNT STROBE	FIELD VERIFY
⊙	CEILING MOUNT HORN / STROBE	FIELD VERIFY
⊙	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
⊙	HORN	WALL Ø 10"-0
⊙	HORN / STROBE	WALL 80"-96"
⊙	SPEAKER / STROBE	WALL 80"-96"
⊙	SPEAKER	WALL Ø 90"
⊙	STROBE	WALL 80"-96"

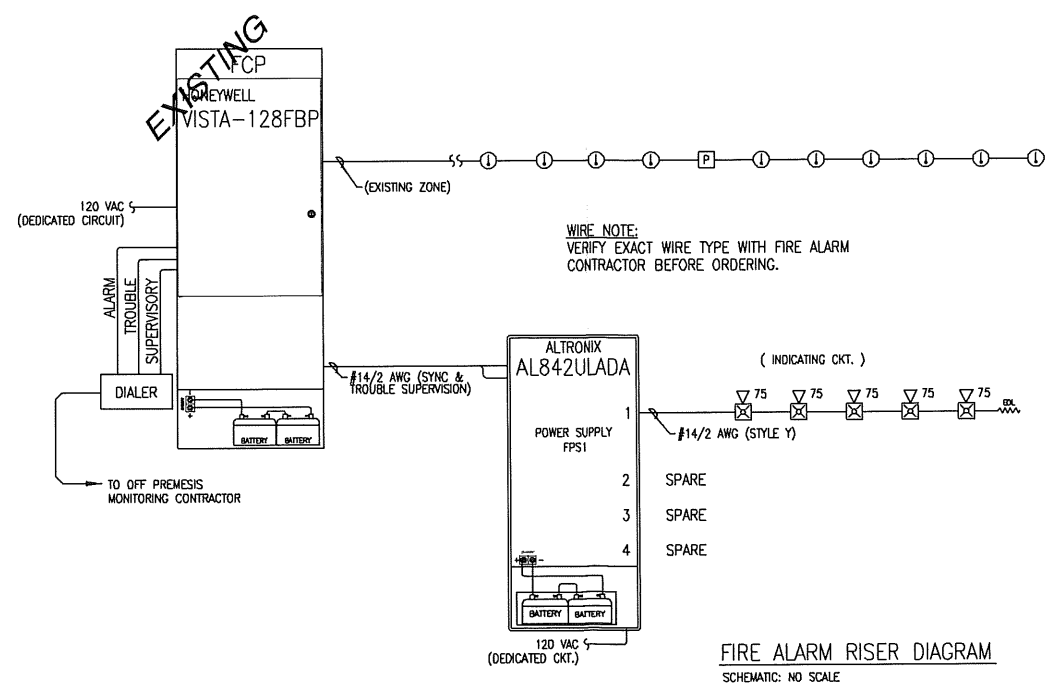
ABBREVIATION	DESCRIPTION
E	EXISTING
G	WITH GUARD
P	PENDENT MOUNT
R	RESIDENTIAL (110V)
S	SOUNDER BASE
WP	WEATHER PROOF
EOL	END OF LINE RESISTOR
EOLR	END OF LINE RELAY
AWG	AMERICAN WIRE GAUGE
TWP	TWISTED PAIR
TWSP	TWISTED SHIELDED PAIR
FPLP	FIRE POWER LIMITED PLENUM
FPLR	FIRE POWER LIMITED RISER

SYMBOL	DESCRIPTION
⊙	DEVICE ADDRESS - 1
⊙	OR L10001
⊙	OR BATTERY LOOP (0 or 4 - BATTERY DETECTOR OR MODULE #)

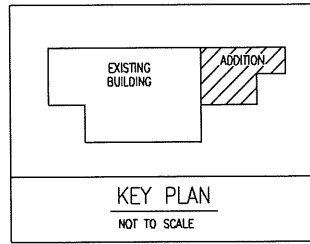
SYMBOL	DESCRIPTION
⊙	WIRE TYPE APPROXIMATED CONDUCTOR COUNT
⊙	WIRE SIZE
⊙	# OF CABLES (IF OMITTED ONLY 1 CABLE NEEDED)

FPS1 Battery Calculation		9/27/2012
PROJECT NAME:	MAINE PARTS & MACHINE	
Required Standby Time:	24 Hours	
Required Alarm Time:	5 Minutes	
Regulated Load in Standby		
Device Type	Number of Devices	Current (Amps)
ALB02ULADA Main Circuit Board	1	0.09000
TOTAL STANDBY LOAD		0.09000
Regulated Load in ALARM		
Device Type	Number of Devices	Current (Amps)
ALB02ULADA Main Circuit Board	1	0.17500
FPS1-1	1	0.88000
TOTAL ALARM LOAD		1.05500
Battery Requirements		
Standby Load Current (Amps)	0.09000	Required Standby Time in Hours = 24.00000
Alarm Load Current (Amps)	1.05500	Required Alarm Time in Hours = 0.08333
Total Ampere Hours (before derating factor)	2.24792	
Derating Factor	1.2	
TOTAL AMPERE HOURS REQUIRED	2.69750	
BATTERIES TO BE PROVIDED (2 - 12v) 7 AH		

NAC Circuit Voltage Drop Calculation		9/27/2012		
Project Name	MAINE PARTS & MACHINE			
Circuit Number	FPS1-1			
Nominal System Voltage	20.4 volts	Wire Gauge		
Minimum Device Voltage	16 volts	Resistance Per 1000		
Distance from source to 1st device	50	14 6.14		
Wire Gauge for balance of circuit	14	6.14		
Max Output Current	2.0 amps			
Total Circuit Current	0.880 amps			
Circuit is within limits				
Device	Distance previous device	Voltage at Device	Drop from source	Percent Drop
Device 1	0.176	20.13	0.27	1%
Device 2	0.176	19.94	0.46	2%
Device 3	0.176	19.66	0.74	4%
Device 4	0.176	19.58	0.82	4%
Device 5	0.176	19.54	0.86	4%
Totals	0.880	253		



FIRE ALARM INPUT	ADDITION OPERATIONS MATRIX				
	FIRE ALARM OUTPUT	ACTIVATE ALARM INDICATOR	ACTIVATE AUDIBLE ALARM	ACTIVATE TROUBLE INDICATOR	ACTIVATE AUDIBLE TROUBLE INDICATOR
HEAT DETECTORS	●	●	●	●	●
PULL STATIONS	●	●	●	●	●
FIRE ALARM AC POWER FAIL	●	●	●	●	●
FIRE ALARM LOW BATTERY	●	●	●	●	●
OPEN CIRCUIT	●	●	●	●	●
GROUND FAULT	●	●	●	●	●
NAC SHORT CIRCUIT	●	●	●	●	●
LOSS OF AC TO BUILDING	●	●	●	●	●



UNICAD Inc.
5741 10 6000 So.
Hooper, UT 84315
Office: 801.885.2410
Fax: 801.724.6110
www.unicad.net

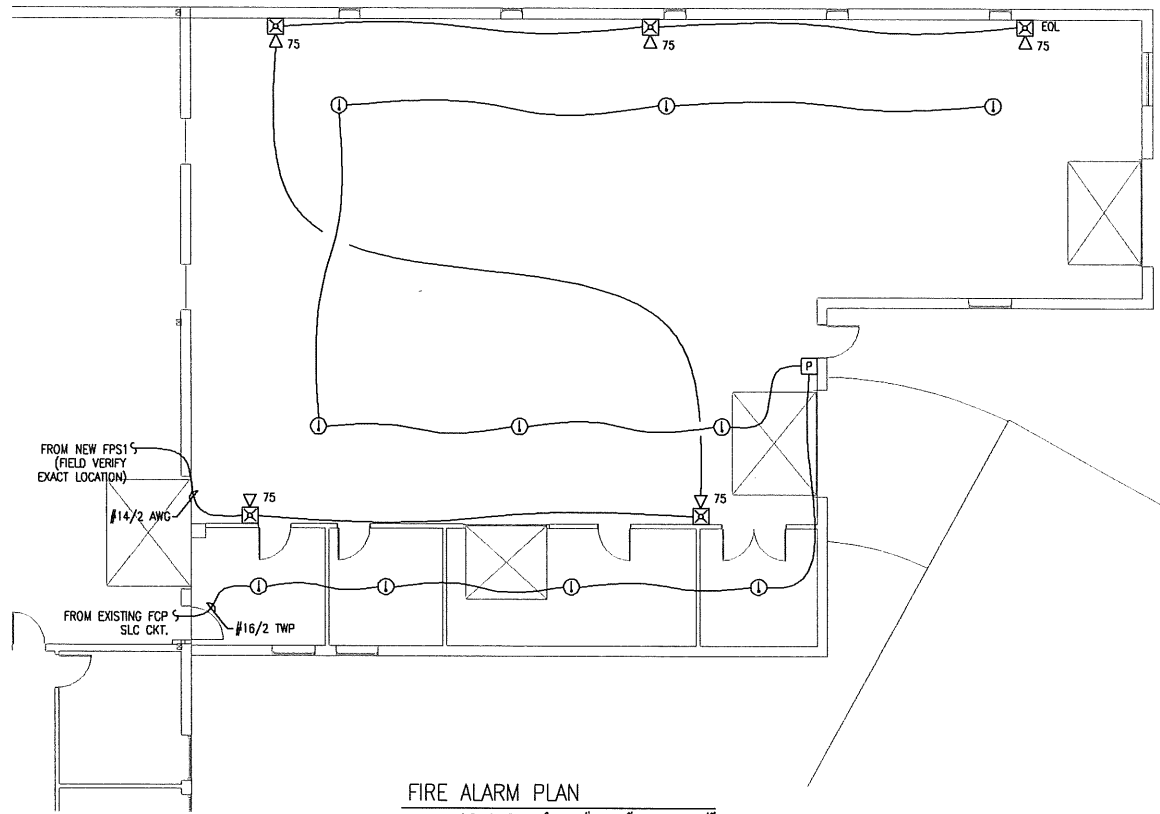
CUNNINGHAM
Security Systems
10 Princess Point Road, Yarmouth, Maine 04096
Office: 207.846.3350 • Fax: 207.846.6080

MAINE PARTS & MACHINE ADDITION
68 WALDRON WAY
PORTLAND, MAINE
FIRE ALARM PLAN

DATE	9/28/2012
DESCRIPTION	ISSUED FOR REVIEW & APPROVAL
REVISION	0

DRAWN	JPB UNICAD JOB #12416
CHECKED	WAYNE B. HAWES NICET IV 90496
DATE	9/28/2012
REVISION	0
SCALE	1/8" = 1'-0"

FA-1



FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"

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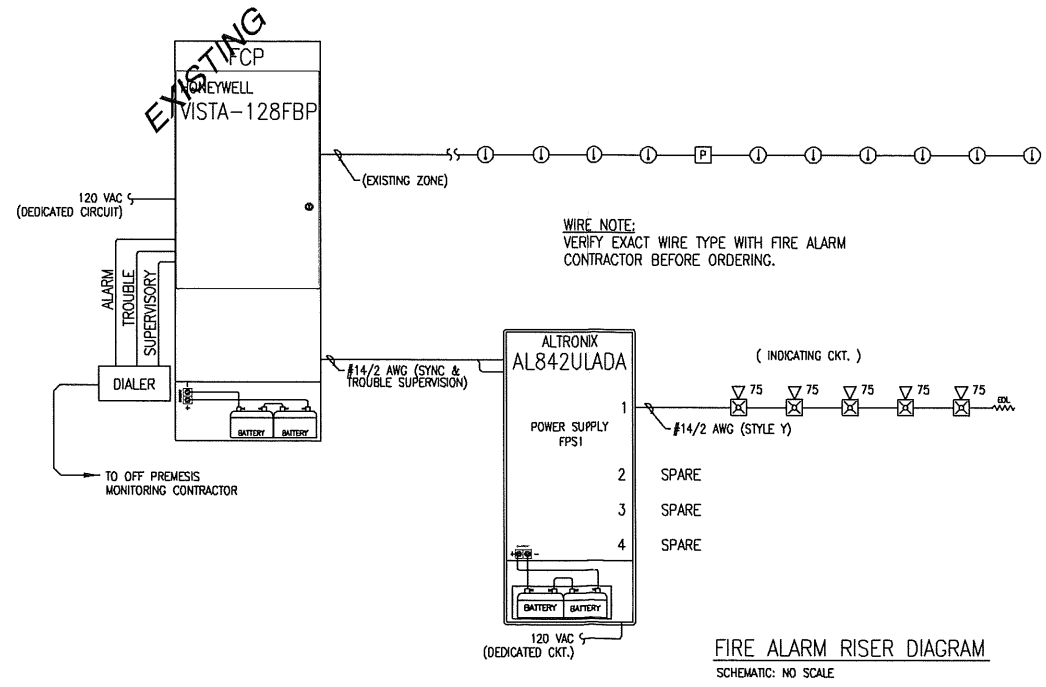
FIRE ALARM SYMBOL LEGEND		
NOTE: ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT		
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FPS	FIRE ALARM POWER SUPPLY	FIELD VERIFY
FSA	FIRE SYSTEM ANNIUNCIATOR	WALL-TOP @ 66"
FSD	FIRE/SMOKE DAMPER	BY OTHERS
②	SMOKE DETECTOR	CEILING
②--	DUCT SMOKE DETECTOR	BY OTHERS
①	HEAT DETECTOR	CEILING
CM	ADDRESSABLE CONTROL MODULE	FIELD VERIFY
MM	ADDRESSABLE MONITOR MODULE	FIELD VERIFY
P	MANUAL PULL STATION	WALL-TOP @ 48"
R	CONTROL RELAY (MULTI-VOLTAGE)	FIELD VERIFY
RM	ADDRESSABLE RELAY MODULE	FIELD VERIFY
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⊖	WATER FLOW SWITCH	BY OTHERS
⊖	VALVE TAMPER SWITCH	BY OTHERS
⊖	BELL	BY OTHERS
⊖	CEILING MOUNT STROBE	FIELD VERIFY
⊖	CEILING MOUNT HORN / STROBE	FIELD VERIFY
⊖	CEILING MOUNT SPEAKER / STROBE	FIELD VERIFY
⊖	HORN	WALL @ 10'-0"
⊖	HORN / STROBE	WALL 80"-96"
⊖	SPEAKER / STROBE	WALL 80"-96"
⊖	SPEAKER	WALL @ 90"
⊖	STROBE	WALL 80"-96"

ABBREVIATION	DESCRIPTION
E	EXISTING
G	WITH GUARD
P	PENDENT MOUNT
R	RESIDENTIAL (110V)
S	SOUNDER BASE
WP	WEATHER PROOF
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EOLR	END OF LINE RELAY
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FPLP	FIRE POWER LIMITED PLENUM
FPLR	FIRE POWER LIMITED RISER

SYMBOL	DESCRIPTION
②	DEVICE ADDRESS - L10001 OR (0 or N - DENOTES DETECTOR OR MODULE #)
①	WIRE TYPE ASSOCIATED CONDUCTOR COUNT
②	WIRE SIZE (IF OMITTED ONLY 1 CABLE NEEDED)

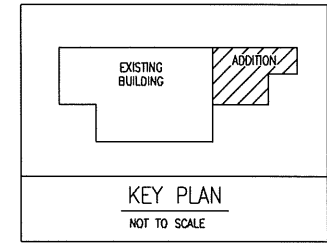
FPS1 Battery Calculation		9/27/2012
PROJECT NAME: MAINE PARTS & MACHINE		
Required Standby Time:	24 Hours	
Required Alarm Time:	5 Minutes	
Regulated Load in Standby		
Device Type	Number of Devices	Current (Amps)
ALB02ULADA Main Circuit Board	1	0.09000
TOTAL STANDBY LOAD		0.09000
Regulated Load in ALARM		
Device Type	Number of Devices	Current (Amps)
ALB02ULADA Main Circuit Board	1	0.17500
FPS1-1	1	0.88000
TOTAL ALARM LOAD		1.05500
Battery Requirements		
Standby Load Current (Amps)	0.09000	Required Standby Time in Hours = 24.00000
Alarm Load Current (Amps)	1.05500	Required Alarm Time in Hours = 0.08792
Total Ampere Hours (before derating factor)		2.24792
Derating Factor		1.2
TOTAL AMPERE HOURS REQUIRED		2.69750
BATTERIES TO BE PROVIDED (2 - 12v)		7 AH

NAC Circuit Voltage Drop Calculation		9/27/2012	
Project Name: MAINE PARTS & MACHINE			
Circuit Number: FPS1-1			
Nominal System Voltage	20.4 volts	Wire Gauge: 14	
Minimum Device Voltage	16 volts	Resistance Per 1000: 6.14	
Distance from source to 1st device	50	Wire Gauge for balance of circuit: 14	
Max Output Current	2.0 amps		
Total Circuit Current	0.880 amps		
Circuit is within limits			
Device	Device Current	Distance previous device	Voltage at Device
Device 1	0.176		20.13
Device 2	0.176	43	19.94
Device 3	0.176	88	19.66
Device 4	0.176	36	19.58
Device 5	0.176	36	19.54
Totals	0.880	253	



FIRE ALARM RISER DIAGRAM
SCHEMATIC: NO SCALE

ADDITION OPERATIONS MATRIX						
FIRE ALARM INPUT		FIRE ALARM OUTPUT	FIRE ALARM INDICATOR	ACTIVATE AUDIBLE ALARM	ACTIVATE TROUBLE INDICATOR	ACTIVATE TROUBLE INDICATOR
HEAT DETECTORS						
PULL STATIONS						
FIRE ALARM AC POWER FAIL						
FIRE ALARM LOW BATTERY						
OPEN CIRCUIT						
GROUND FAULT						
NAC SHORT CIRCUIT						
LOSS OF AC TO BUILDING						



KEY PLAN
NOT TO SCALE

CUNNINGHAM
Security Systems

10 Princes Point Road, Yarmouth, Maine 04096
Office: 207.846.3350 • Fax: 207.846.6080

REVISION	DESCRIPTION	DATE
0	ISSUED FOR REVIEW & APPROVAL	9/28/2012

MAINE PARTS & MACHINE ADDITION
 68 WALDRON WAY
 PORTLAND, MAINE
 FIRE ALARM PLAN

DRAWN	JPB UNICAD JOB #12416
CHECKED	WAYNE B. HAWS NICET IV 90496
DATE	9/26/2012
REVISION	0
SCALE	1/8" = 1'-0"

FA-1