

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 10-1020	Issue Date:	CBL: 334 A014001
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Location of Construction: 56 Milliken St	Owner Name: Kdjs Partners Llc	Owner Address: Po Box 4821	Phone:
Business Name:	Contractor Name: Protection One	Contractor Address: 10 Manuel Drive Portland	Phone 2073475316
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	Zone: I-M

Past Use: Commercial / Warehouse	Proposed Use: Commercial / Install fire alarm system.	Permit Fee: \$120.00	Cost of Work: \$9,750.00	CEO District: 5
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Proposed Project Description: Install fire alarm system.	FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied w/conditions 8/1/10 Signature: <i>[Signature]</i>	INSPECTION: Use Group: BISI Type: Fire Alarm IBC, 2003 Signature: <i>[Signature]</i>
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PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	Signature: _____ Date: _____

Permit Taken By: gg	Date Applied For: 08/18/2010	Zoning Approval	
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM- <input type="checkbox"/> Date: <i>8/19/10</i>	<p>Zoning Appeal</p> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	<p>Historic Preservation</p> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: _____
	<p>PERMIT ISSUED</p> <p>SEP 16 2010</p> <p>City of Portland</p>		

RECEIVED

SEP 20 2010

CERTIFICATION

City of Portland
Planning Division

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
------------------------	---------	------	-------

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	DATE	PHONE
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DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

BUILDING INSPECTION PERMIT

Permit Number: 16029
PERMIT ISSUED

This is to certify that Keljs Partners Llc / Protection One
has permission to Install fire alarm system.
AT 56 Milliken St SEP 16 2010
CBL 334 A014001

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

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

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

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

OTHER REQUIRED APPROVALS

Fire Dept. [Signature]
Health Dept. _____
Appeal Board _____
Other _____
Department Name _____

[Signature]
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

Old for clear out
[Signature]

City of Portland, Maine - Building or Use Permit

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

Permit No: 10-1020	Date Applied For: 08/18/2010	CBL: 334 A014001
-----------------------	---------------------------------	---------------------

Location of Construction: 56 Milliken St	Owner Name: Kdjs Partners Llc	Owner Address: Po Box 4821	Phone:
Business Name:	Contractor Name: Protection One	Contractor Address: 10 Manuel Drive Portland	Phone (207) 347-5316
Lessee/Buyer's Name	Phone:	Permit Type: Fire Alarm System	

Proposed Use: Commercial / Install fire alarm system.	Proposed Project Description: Install fire alarm system.
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Dept: Zoning Status: Approved Reviewer: Marge Schmuckal Approval Date: 08/19/2010
 Note: Ok to Issue:

Dept: Building Status: Approved with Conditions Reviewer: Jonathan Rioux Approval Date: 09/16/2010
 Note: Ok to Issue:

- 1) Fire Alarm systems shall be installed per Sec. 907 of the IBC 2003
- 2) Separate permits are required for any electrical, plumbing, sprinkler, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
- 3) Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.

Dept: Fire Status: Approved with Conditions Reviewer: Ben Wallace Jr. Approval Date: 09/01/2010
 Note: Ok to Issue:

- 1) The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.
- 2) Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance
- 3) As-built documents shall be submitted in pdf to the Building Inspections Office upon completion of job.
- 4) System acceptance and commissioning must be co-ordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
- 5) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS". Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.
- 6) Wall strobe candela must meet spacing requirements of NFPA 72.
Sprinkler gate tampers and air pressure are to be supervisory signals- not alarm signals.

PERMIT ISSUED

SEP 16 2010

City of Portland



Fire Alarm Permit

PERMIT TO:
PROTECTION ONE
10 MANUEL DR
PORTLAND, ME 04103
(207)347-5316

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: 56 MILLIKEN ST CBL: 334 A 014

Exact location: (within structure) FRONT WAREHOUSE BUILDOUT

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

Building owner: BARBER FOODS, P.O. Box 4821, PORTLAND, ME 04103

System Designer (point of contact): ROBIN RUSSELL

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

Installing contractor: PROTECTION ONE Certificate of Fitness No: 1003

Contractor phone: (207) 347-5316 E-mail: JOHNKEMPTON@PROTECTIONONE.COM

This is a new application: YES NO

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

The following documents shall be provided with this application:

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

COST OF WORK: \$9750.00

PERMIT FEE: \$120.00
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

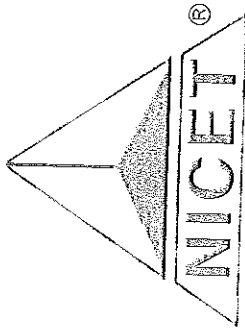
RECEIVED
AUG 18 2010
Dept. of Building Inspections
City of Portland Maine

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

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

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

Applicant signature: Will M. Brooks Date: 8/18/10



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

Providing Certification Programs Since 1961

BE IT KNOWN THAT

Robin L. Russell

IS HEREBY AWARDED CERTIFICATION AT

LEVEL II

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

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

Certification Valid through April 1, 2013

CERTIFICATION NUMBER 110826

CHAIRMAN OF THE NICET BOARD OF GOVERNORS

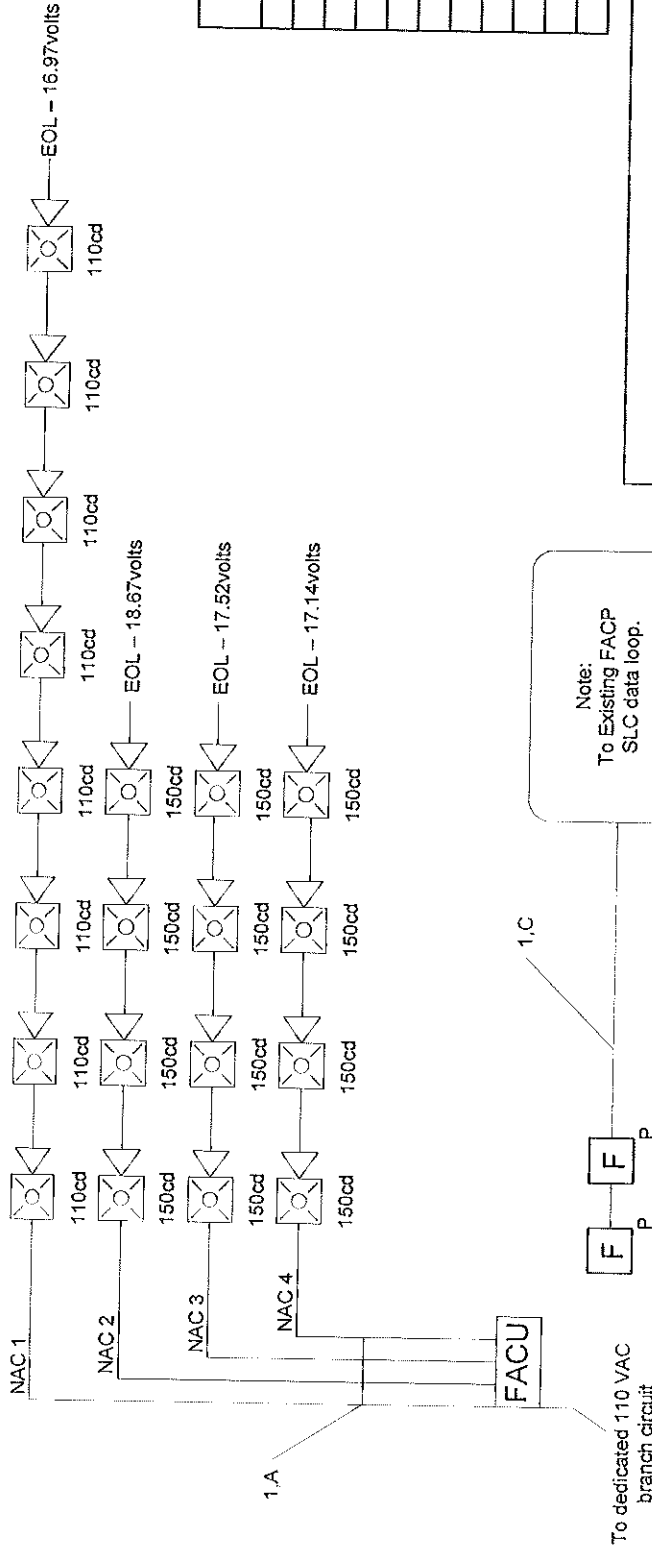
A DIVISION OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Protection One

Barber Foods

8/16/10

Device Add. Riser



Wire Legend		
Description		
Letter	Gauge	Type
A	12/2	FPLR
B	14/2	FPLR
C	16/2	FPLR
D	18/2	FPLR
E	12/4	FPLR
F	14/4	FPLR
G	16/4	FPLR
H	18/4	FPLR
I	18/6	FPLR

Parts List

	H/S	12	GCS24CR	Gentex Ceiling Horn/Strobe 150cd
	H/S	8	GES24WR	Gentex Wall Horn/Strobe 110cd
	FACU	1	802ULADA	Altronix 8amp H/S Power Supply
	P/S	2	FMM-462	Bosch Addressable Pull Station

Protection One
 10 Manuel Drive
 Portland, ME, 04103
 207-347-5316 Phone
 207-772-7355 Fax

Project Name: Barber Foods
 Project Number: 100808052
 Designer: John Kempton
 Date: 8/13/10

Circuit Summary

Circuit Number	Circuit Name	Supply Voltage (VDC)	Alarm Current	Wire Type	Ohms / 1000 ft.	Length (Feet)	Total Resistance (Ohms)	Voltage Last Device
1	Nac Loop 1	20.4	2.008	#12AWG Solid	2.01	425	1.71	16.97
2	Nac Loop 2	20.4	1.908	#12AWG Solid	2.01	225	0.90	18.67
3	Nac Loop 3	20.4	1.908	#12AWG Solid	2.01	375	1.51	17.52
4	Nac Loop 4	20.4	1.908	#12AWG Solid	2.01	425	1.71	17.14

Notes:

- 1.) Wire resistance is taken from Chapter 9 Table 8 of the National Electric Code (NFPA70). Resistance shown is calculated at 75 degrees Centigrade (167 degrees Fahrenheit)
- 2.) Formula used for calculation:
 Total Resistance = (Length x 2) / 1000 x Ohms Per 1000 Ft.
 Voltage Last Device = Supply Voltage - (Alarm Current x Total Resistance)
- 3.) Calculations are based on average current draw of devices using a regulated power supply only.

Circuit Number	Circuit Name	Qty.	Device	Current Each (Amps)	Total Current (Amps)
1	Nac Loop 1	8	Genlex GEC3-24 110Cd Horn/Strobe	0.251	2.008
Total Circuit Current: 2.008					
2	Nac Loop 2	4	Genlex GCC24 150Cd Horn/Strobe	0.477	1.908
Total Circuit Current: 1.908					
3	Nac Loop 3	4	Genlex GCC24 150Cd Horn/Strobe	0.477	1.908
Total Circuit Current: 1.908					
4	Nac Loop 4	4	Genlex GCC24 150Cd Horn/Strobe	0.477	1.908
Total Circuit Current: 1.908					

Circuit Devices

Project Name: Barber Foods
 Project Number: 100808052
 Designer: John Kempton
 Date: 8/13/10

Protection One
 10 Manuel Drive
 Portland, ME, 04103
 207-347-5316 Phone
 207-772-7355 Fax

Altronix 802 Battery Calculation Work Sheet

Device	Number of Devices	Current per Device	Stand-by Current	Alarm Current
AL802ULADA (Current draw from battery)	1	Stand-by: 90mA Alarm: 175mA	90mA	175mA
A	AL802 Current		90mA	175mA
Aux. Devices		<i>Refer to device manual for current ratings.</i>		
not used		Alarm/Stand-by		
not used		Alarm/Stand-by		
not used		Alarm/Stand-by		
not used		Alarm/Stand-by		
not used		Alarm/Stand-by		
B				
Auxiliary Devices Current (must not exceed 1 amp)				
Notification Appliance Devices		<i>Refer to device manual for current ratings.</i>		
Gentex GES3-24 110CD H/S	8	Alarm: 251mA		2008mA
Gentex GCC24 150CD H/S	12	Alarm: 477mA		5724mA
not used		Alarm:		
not used		Alarm:		
not used		Alarm:		
C				
Notification Appliances Current must not exceed 8 amp (10000mA)				
D	Total alarm current			7732mA
E	Total current ratings converted to amperes (line D X .001			7907mA
F	Number of standby hours (24 for NFPA 72, Chapter 1, 1-5.2.5		.09A	7.91A
G	Multiply lines E and F.	Total stand-by AH	24hr	
			2.16AH	
H	Alarm Sounding period in hours. (For example, 5 minutes = .0833 hours.)			5min.
I	Multiply lines E and H.			0.66AH
J	Add lines G and I.		2.82AH	
	Multiply line J by 1.20 (20% extra insurance to meet desired performance)			
K	Total ampere - hours required		3.38	

Units are capable of recharging 40AH battery max. If total ampere - hour required exceeds 40AH, decrease AUX current to provide enough stand-by time for the application.



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

August 20

Received from

John Hampton

Location of Work

56 Alexander

Cost of Construction \$ _____

Building Fee: _____

Permit Fee \$ _____

Site Fee: _____

Certificate of Occupancy Fee: _____

Total: 190.00

Building (IL)

Plumbing (I5)

Electrical (I2)

Site Plan (U2)

Other _____

CBL: 334 A 014

Check #: MC

Total Collected \$ 190.00

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

Taken by: [Signature]

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

19.84AH	ity
1.98AH	ity
.35AH	
22.17AH	

200.0mA	200.0mA
826.7mA	826.7mA
= 0.83A	= 0.83A
500.0mA	500.0mA
1387.7mA	1387.7mA
= 1.39A	= 1.39A

quired

- Supervises 12 or 24 VDC notification appliance circuits

(NACs)

- Supervised signal silencing switch
- Notification appliance circuit rated at 3.0 A
- Multiple module configurations
- Mounts in panel enclosure



Mounts in Panel Enclosure

The D192G mounts inside the control panel enclosure using existing mounting holes or with a D137 or D138 Mounting Bracket. Refer to the control panel's installation guide for more information on mounting.

Certifications and Approvals

Region	Certification
USA	UL Listed Auxiliary power supply for and Commercial e of power supply on devices. for silencing the rm panel. When position, the D192G n to the control eels.
Australia	C-tick
	AMCX: Central Station Alarm Units (UL1610, UL1635), APAW: Police Station Alarm Units (UL365, UL464), APOU: Proprietary Alarm Units (UL1076), NBSX: Household Burglar Alarm System Units (UL1023), UOJZ: Control Units, System (UL864, 9th edition)
	CSEFM 7167-1615: 100, 7165-1615: 113, and 7165-1615: 119
	NYC-MEA 12-92-E, Vol. 12 12-92-E, Vol. 12
	12-92-E, Vol. 15 12-92-E, Vol. 15

m power supply
alarm power supply
e current for each

and wire according
odule. No more than
system. For UL
ower supply can be
ugh the D192G

must be supervised
ore than 6 m (20 ft)
d the power supply
be supervised by a

0.75 in)

Asia-Pacific
Robat Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 579937
Phone: +65 6288 5511
Fax: +65 6571 2698
www.boschsecurity.com
Represented by

supports ALDA requirements) and will provide auxiliary power to support system accessories.


<p>AL802ULADA • 24VDC or 12VDC rated @ 8 amp max. • Two (2) Class A or four (4) Class B outputs.</p>	<p>AL1002ULADA • 24VDC rated @ 10 amp max. • Two (2) Class A or four (4) Class B outputs.</p>	<p>AL802ULADAJ • Larger enclosure.</p>	<p>AL1002ULADAJ • Larger enclosure.</p>
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Specifications


<p>• 3 FACP inputs. • DA only) • 3 indicating circuits. • Parallel for more. • Amp supply current facilitates quickly and eliminates s. LED's indicate a s occurred on one s and audible be silenced while s continue : Gentex®)</p>	<p>• Temporal Code 3 Mode. • Steady Mode. • Input to Output Follower Mode (maintains synchronization of notification appliance circuits). • March Time. • Compatible with 24VDC or 12VDC fire panels. • Common trouble inputs and outputs. • Ground fault detection. • Input 115VAC. • AC fail supervision (form "C" contacts). • Low battery supervision (form "C" contacts). • Battery presence supervision (form "C" contacts). • Power supply, logic board, red enclosure, cam lock, transformer & battery leads. • Enclosure: - Combination knockouts re 1/2" and 3/4" - Accommodates up to two (2) 12VDC/12AH batteries.</p>
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Agency Approvals

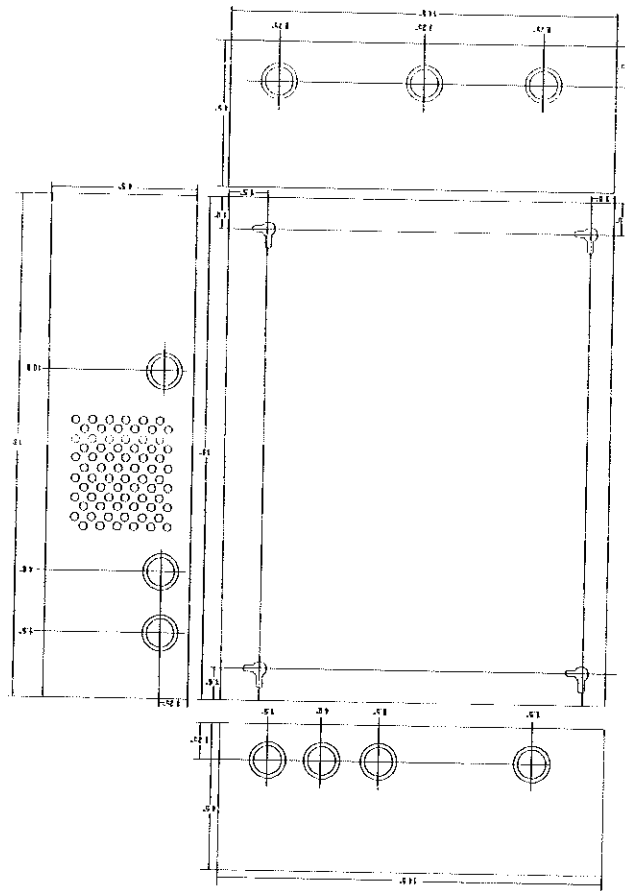
California State Fire Marshal Approved.



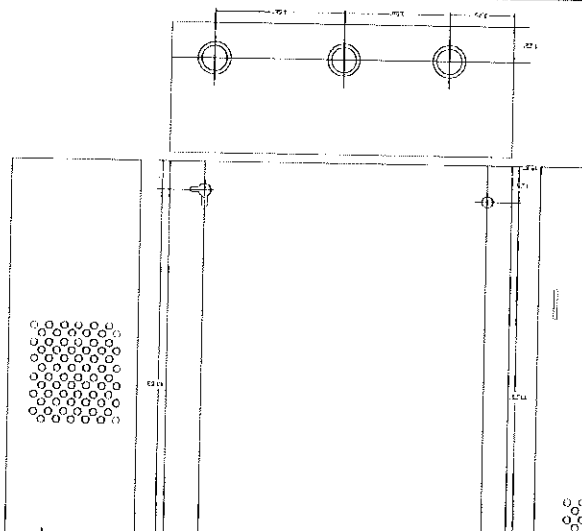
Factory Mutual Approved.



Accessories
 (864),
 ty for Fire
 s (UL 1481),
 s Approved.



802ULADAJ and AL102ULADAJ: 18"H x 14.5"W x 4.625"D



Evacuation Signals

strobe and horn/strobe combination that
 arms and the lowest current available.

foot field selectable candela options of 15,
 C offers tamperproof field selectable

ndela.

continuous or synchronizable temporal three in
 and whoop tone. All tones are easy for
 using switches.

current and has a minimum flash rate

Product Listings

the standard 4" metal mounting plate
 de® feature that allows the installer to
 also features a locking mechanism which
 at any screws showing.

mate® - Instant Voltage Verification
 (the voltage drop draw and match it to

464 and ANSUL 1971, listed for use
 nted for three years from date of purchase.

ela options of 15, 30, 60, 75 & 110
 DC
 on Testing

5" deep

ntex AVSM Control Module

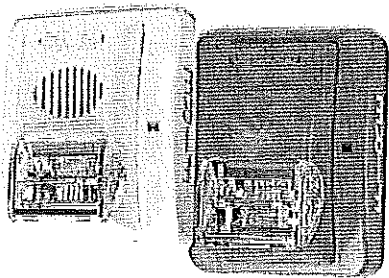
2400Hz tone

available on whoop tone)
 face Mount Box)

ng

(units) 16-33VDC or FWR (24VDC units)

12 & 24 VDC SERIES



SIGNALING



• ANSUL 464 & ANSUL 1971 Listed

• FM Approved

- CSFM: 7135-0569:122 (GEC3-24 & GEH-24)
- 7125-0569:123 (GEC3-24)
- 7125-0569:129 (GEC3-12)
- 7135-0569:130 (GEC3-12 & GEH-12)
- MEA: 285-91-E (GEC3-24 & GEC3-24)
- 580-06-E (GEC3-12 & GEC3-12)

Product Compliance

- NFPA 72
- Americans with Disabilities Act (ADA)
- Quality Management System is certified
 to: ISO 9001:2008



The GE3 Series is not listed for outdoor use.
 Lower since the time the horn is off is averaged into the sound output rating. While the horn is at pressure is the same as the continuous mode.
 The voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see signaling signaling circuit with any of our strobe products (see Technical Bulletin 014).
 These units are not meeting the minimum UL reverberant sound level required for public mode fire protection service. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is usually at the maximum RMS current within the listed voltage range (16-33VDC for 24VDC units) (0-17VDC for the minimum listed voltage (16VDC for 24VDC units) (8VDC for 12VDC units). For audibles the max current is usually at installation manual.

The GE3 Series is not listed for outdoor use.
 Lower since the time the horn is off is averaged into the sound output rating. While the horn is at pressure is the same as the continuous mode.
 The voltage range for filtered DC power and unfiltered (FWR [Full Wave Rectified]) power, see signaling signaling circuit with any of our strobe products (see Technical Bulletin 014).
 These units are not meeting the minimum UL reverberant sound level required for public mode fire protection service. Use the high dBA setting for public mode application (not applicable when using the chime tone. The chime tone is usually at the maximum RMS current within the listed voltage range (16-33VDC for 24VDC units) (0-17VDC for the minimum listed voltage (16VDC for 24VDC units) (8VDC for 12VDC units). For audibles the max current is usually at installation manual.

GE3-24 Product Horn Current Ratings			
Horn Mode	Minimum dBA @ 10ft, per UL 464 (HIGH)	Minimum dBA @ 10ft, per UL 464 (LOW)	Regulated 24VDC High Selling (mA)
	Temp 3 2400Hz	78	71
Temp 3 Mechanical	76	70	25
Temp 3 Chime	70	66	15
Continuous 2400Hz	81	74	28
Continuous Mechanical	80	72	25
Continuous Chime	70	66	15
Whoop	82	69	56



Ratings (mA)	
24VDC (16-33 Volts)	UL Max1
30mA	42mA
35mA	60mA
66mA	97mA
80mA	116mA
103mA	157mA

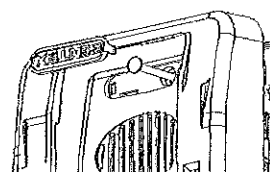
Final Voltage	Candela (ANSI/UL 1971)	Reverberant dBA @ 10ft, per ANSI/UL 464	In Anechoic Room dBA @ 10ft.
DC	15, 30, 60, 75	62-82	100
DC	15, 30, 60, 75, 110	62-82	100
DC	15, 30, 60, 75	62-82	100
DC	15, 30, 60, 75	62-82	100

Candela, Low Profile Evacuation Horn/Strobe

R = Red Faceplate
 W = White Faceplate
 All units are available in plain (no lettering).
 Plain units are non-returnable.
 ALERT bezel available AGENT bezel available

DC	15, 30, 60, 75
DC	15, 30, 60, 75, 110
DC	15, 30, 60, 75, 110

allows the installer to
 vision, remove the signal
 signals without changing
 connector for snap-in-place
 angle gang, double gang 4"

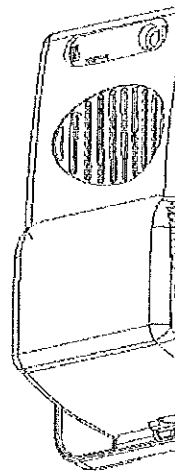
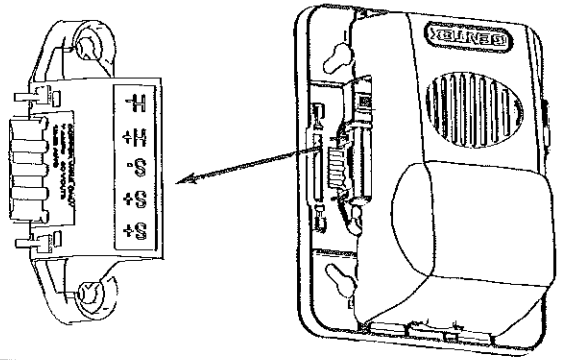


- Note:
- Switch Positions 1 and 2 in the OFF position to select isolated horn and strobe power inputs
 - Switch Position 6 ON = HIGH dBA
 - Switch Position 6 OFF = LOW dBA

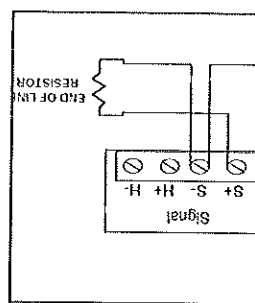
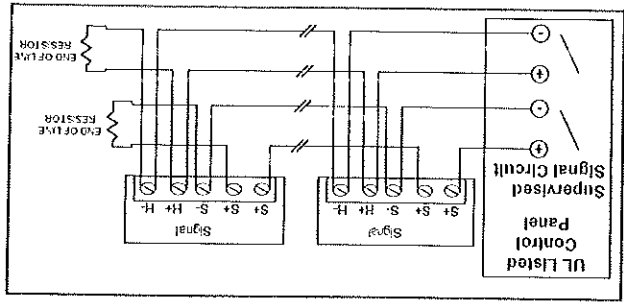
Whoop	Whoop	Whoop	Whoop
Chime - Continuous	OFF	ON	OFF
	OFF	OFF	OFF
	ON	OFF	OFF

Checkmate® - Instant Voltage Verification

The access holes are provided in the back of the terminal block to allow the voltage to be measured directly without removing the device. Typically this would be done at the end of the line to confirm design criteria. Most measurements will be taken using the S+ and S- locations although access is provided to other locations. NOTE: Care should be taken to not short the test probes.



Diagrams for Emergency Notification Evacuation Series



Strobe and Horn Strobe

strobe or horn/strobe combination
alarms and the lowest current

selectable candlea options of 15, 30,

unchable temporal three in 240Hz or
for the professional to change in the
shipped from the factory in the

current and has a minimum flash

d with the 4" mounting plate which
ature that allows the installer to eas-

ckmate™ - Instant Voltage

iller to check the voltage without

nd UL 1971 listed for use with fire
three years from the date of pur-

options of 15, 30, 75, 95, 115 & 150

vision Testing

tion

x Series Control Module

r Signals

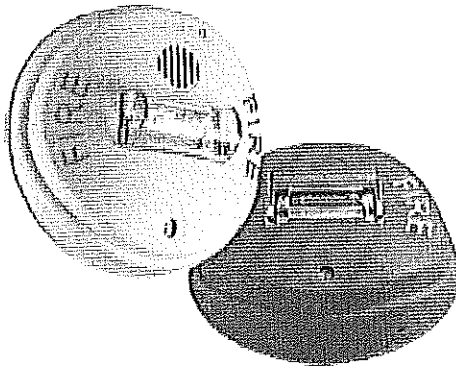
al Tone

oral 3

elling Surface Mount Box).
hing

S E R I E S

24 VDC



Product Listings



Listed by UNDERWRIGHTS LABORATORIES, INC.
This product has been tested and found to

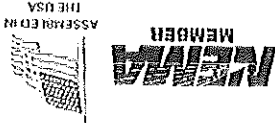
- BFP (City of Chicago)
- BS+A/MEA #285-91-E
- CSFM 7135-0569:122 (GCC)
- 7125-0569:123 (GCS)

- FM Approved
- UL 464 & UL 1971 Listed
- CAN/ULC S526-M87 Listed

ULSZ7.S3406 Listed (GCC)

Product Compliance

- NFPA 72
- Americans with Disabilities Act (ADA)



Acceptable Horn/Strobe

Normal Voltage	Candela	Reverberant dBa @ 10ft, Per UL 464	In Anechoic Room dBA @10ft.
14 VDC	15, 30, 75, 95, 115, 150	81-86	90
14 VDC	15, 30, 75, 95, 115, 150	81-86	90
14 VDC	15, 30, 75, 95, 115, 150	81-86	90
14 VDC	15, 30, 75, 95, 115, 150	81-86	90

0 49° C)

regulated voltage range for filtered DC power and
power, see installation manual.

coded or pulsing signaling circuit with any of our strobe
or 014 for more information).

unt, "R" = Red Faceplate/"W" = Off-White Faceplate

GCS/GCC Product Strobe Current Ratings					
30cd	75cd	95cd	115cd	150cd	150cd
101mA	167mA	200mA	214mA	286mA	454mA
130mA	247mA	318mA	360mA	454mA	454mA

Minimum dBA @ 10ft. per UL464 (HIGH)	Minimum dBA @ 10ft. per UL464 (LOW)	Regulated 24VDC Max. Operating @ High Setting (mA)
83	75	23
81	73	22
86	78	23
84	76	22

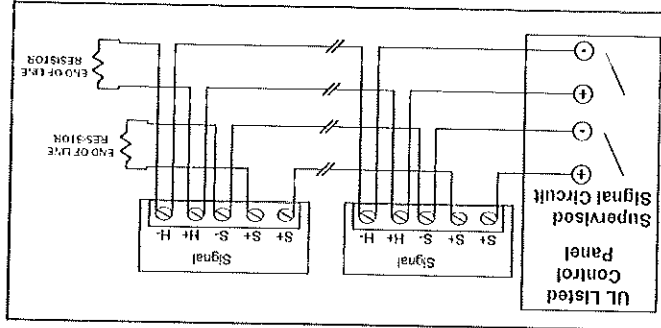
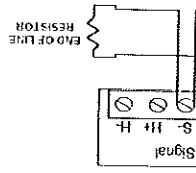
age will result in not meeting the minimum UL reverberant sound level required for public
are acceptable only for private mode fire alarm use. Use the high dBA setting for public

one is rated lower since the time the horn is off is averaged into the sound output rating.
poral 3 mode its sound pressure is the same as the continuous mode.

the strobe current draw and the horn current draw.

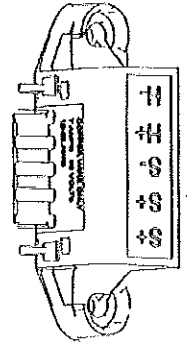
MS method. UL max current rating is the maximum RMS current within the listed voltage
C for 12VDC units). For strobes the UL max current is usually at the minimum listed
12VDC units). For audibles the max current is usually at the maximum listed voltage.

manual.



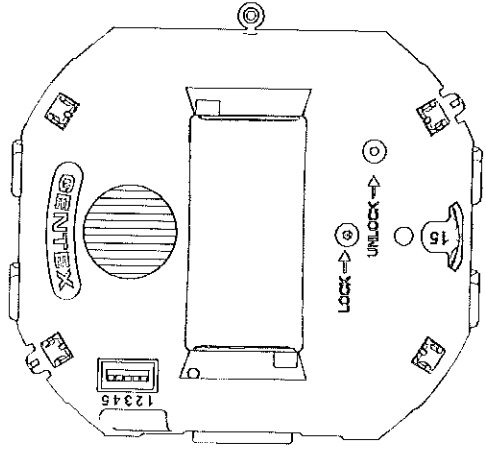
Optional GCS/GCC Wiring Diagrams

of the terminal block without removing the end of the line to will be taken using provided to other not short the test

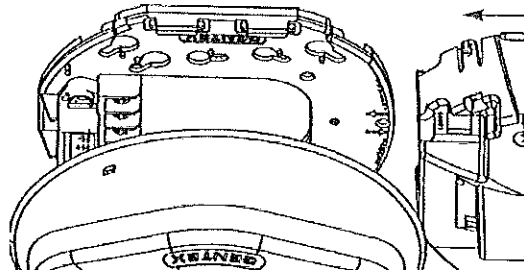


Verification

Switch positions 1 and 2 in the down position to select isolated horn and strobe power inputs. Switch 3 selects between temporal or non-temporal tone. Up is temporal. Switch 4 selects between mechanical or high frequency tone. Up is mechanical. Switch 5 selects between high or low dBA. Up is high dBA.



Switch Locations





Manual Stations allow
 an alarm and
 initiating device is
 Control Panels and
 (FACP).
 ing on-board slide
 09124 data
 by the control panel
 ts, or ground faults
 addressable feature
 alarm or trouble
 tated the alarm or

the die cast with
 applications. All
 pleted to inhibit
 al Stations
 abilities Act (ADA)

a expansion circuit
 ss is set through
 allowing

- Single-rang mounting
- Latching alarm lever and key-locked reset
- Rugged die-cast housing with 14 gauge (1.9 mm) plated steel back and corrosion-resistant construction
- Optional scored acrylic breakrod

programmable device identification by the control panel.

Certifications and Approvals

Listings and Approvals:
 UL UNIL: Boxes, Non-Coded (UL38)
 CSFM: 7150-1615: 122
 Complies with: Americans with Disabilities Act (ADA 4.28.3)
 National Fire Protection Association (NFPA 72)

Installation/Configuration Notes

The FM-462 Series Addressable Manual Stations are compatible with the following products:

Category	Product ID	Product Description
Control	D7212G	Control panel
Panels:	D7412G	Control panel
	D9412G	Control panel
	D9124	Addressable FACP
Modules	D9127U	POPI module

Mounting Considerations

The FM-462 manual stations are for indoor use only.

Dimensions (HxWxD): 4.75 in. x 3.2 in. x 0.875 in.
 (12.1 cm x 8.1 cm x 2.2 cm)
 Material: Painted die-cast metal, plated steel back and
 painted steel front

Power Requirements

Current (alarm): 0.8 mA
 Current (normal): 0.5 mA
 Voltage (operating): 7 VDC to 15 VDC supplied by the control panel

Ordering Information

FMM-462 Single-Action Manual Station
 FMM-462
 FMM-462-D Double Action Manual Station
 FMM-462-D
 Hardware Accessories
 D102 Replacement Key
 D102
 FMM-100BB-R Surface-mount Back Box (red)
 FMM-100BB-R
 FMM-100GR Scored Acrylic Breakrods
 FMM-100GR

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