

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that
PROTECTION PROFESSIONALS
325 US Route One
FALMOUTH, ME 04105

For installation at
165 PARK AVE
KING MIDDLE SCHOOL

Job ID: **2012-08-4712-FAFS**

CBL: **049- A-001-001**

has permission to **install occupant notification for new student health clinic**
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
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


Fire Prevention Officer


Code Enforcement Officer / Plan Reviewer

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

BUILDING PERMIT INSPECTION PROCEDURES

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

or email: buildinginspections@portlandmaine.gov

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: 2012-08-4712-FAFS
install occupant notification for new
student health clinic

For installation at:
165 PARK AVE
KING MIDDLE
SCHOOL

CBL: 049- A-001-001

Conditions of Approval:

Fire

This permit is directly connected to permit 2012-07-4504-ALTCOMM to add fire alarm occupant notification to the new student clinic and bathrooms.

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 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.

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

A Knox Box is required.

System acceptance and commissioning must be coordinated with alarm contractor 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.

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-08-4712-FAFS	Date Applied: 8/14/2012	CBL: 049- A-001-001	
Location of Construction: 165 PARK AVE / 92 DEERING AVE	Owner Name: CITY OF PORTLAND	Owner Address: 389 CONGRESS ST PORTLAND, ME 04101	Phone:
Business Name: King Middle School	Contractor Name: Casco Bay Electric	Contractor Address: 91-J AUBURN STREET #1196 PORTLAND MAINE 04103	Phone: (207) 221-3331
Lessee/Buyer's Name:	Phone:	Permit Type: FIRE ALARM	Zone: R-5
Past Use: Middle School (King)	Proposed Use: Same: School – to add fire alarm to the Health Clinic	Cost of Work: \$3,000.00	CEO District:
		Fire Dept: 8/30/12 <input checked="" type="checkbox"/> Approved w/ conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A Signature: <i>Gayle</i> (58)	Inspection: Use Group: Type: Signature:
Proposed Project Description: fire alarm		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle		Zoning Approval	

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

Special Zone or Reviews

☐ Shoreland
☐ Wetlands
☐ Flood Zone
☐ Subdivision
☐ Site Plan

___ Maj ___ Min ___ MM

Date:

8/15/12

Zoning Appeal

☐ Variance
☐ Miscellaneous
☐ Conditional Use
☐ Interpretation
☐ Approved
☐ Denied

Date:

Historic Preservation

☐ Not in Dist or Landmark
☐ Does not Require Review
☐ Requires Review
☐ Approved
☐ Approved w/Conditions
☐ Denied

Date:

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 appication 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

2012 08 4712

66



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.

92 Deering / 165 Rock Ave
52 Deering Ave

Installation address: _____ CBL: 049 A 001

Exact location: (within structure) Health Clinic

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

Building owner: City of Portland

System Designer (point of contact): Must be Swift Current Engineering

Designer phone: 847-9280 E-mail: _____

Installing contractor: Casco Bay Electric Certificate of Fitness No: M1001

Contractor phone: (207)-221-3331 E-mail: Dan@cascoBayElectric.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:

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

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

COST OF WORK: \$3,000.00
PERMIT FEE: \$50.00
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

Waiver
RECEIVED
AUG 14 2012

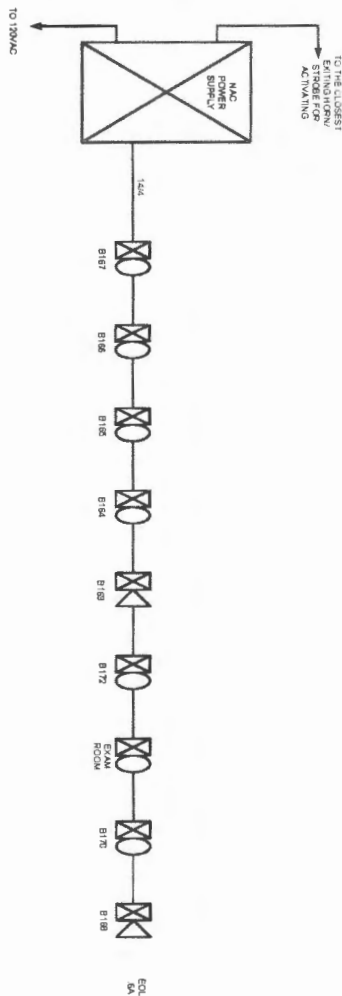
Dept. of Building Inspections
City of Portland, Maine

The designer shall be the responsible party for this application. Download a new copy of this permit form 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: 8/13/12



GENERAL NOTES

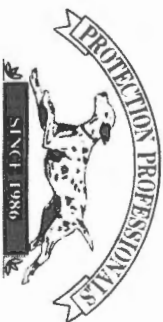
1. FIRE ALARM SYSTEM WIRING MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE, APPLICABLE STATE AND LOCAL CODES, AND SHALL BE COORDINATED WITH THE LOCAL AUTHORITY HAVING JURISDICTION.
2. CAUTION: DO NOT CONNECT ANY POWER TO THE CONTROL PANEL, BATTERIES OR 120V AC UNTIL ALL OTHER WIRING IS TESTED AND CONNECTED.
3. DO NOT INSTALL FIRE ALARM CONTROL PANEL OR SMOKE DETECTOR IN AN UNVENTILATED AREA.
4. DO NOT INSTALL ANY AC CABLES, CARRYING CONDUCTORS CLOSE TO OR IN THE SAME PLACEMENT WITH THE ALARM SYSTEM CONDUCTORS.
5. SOLID LINES REPRESENT CONNECTIONS TO BE MADE BY THE SYSTEM INSTALLER.
6. SEE NOTES, PAGE 6200, INSTALLATION MANUAL FOR ADDITIONAL WIRING INSTRUCTIONS.
7. ALL RELAYS ARE SHOWN IN NORMAL SUPERVISORY CONDITION. ALL RELAYS ARE FORM "C" TYPE.

INSTALLATION NOTES

1. SMOKE DETECTORS SHALL NOT BE MOUNTED ANY CLOSER THAN 3" FROM ANY AIR DUCT OPENINGS.
2. ELEVATOR LOBBY SMOKE DETECTORS SHALL BE MOUNTED WITHIN 10' OF THE ELEVATOR DOOR.
3. MANUAL PULL STATIONS SHALL BE MOUNTED PER ADA REQUIREMENTS, 48" AFF OR 47" AFF TO CORNER WITH SOLID/HOLLOW REINFORCED MOUNTINGS.
4. WALL MOUNTED HORN/STROBES & STROBES SHALL BE MOUNTED 6" FROM CEILING, OR 36" TO 48" AFF TO THE CENTER OF STROBE.
5. HORN/STROBES & STROBES SHALL BE MOUNTED 15" FROM THE CORNER OF THE WALL. IF THIS IS NOT POSSIBLE, DEVICE SHALL BE CENTERED ON THAT WALL.
6. CEILING MOUNTED HORN/STROBES SHALL BE LOCATED IN A SYMMETRICAL MANNER DOWN CENTER OF HALLWAY WHEN POSSIBLE.

NOTIFICATION TO INSTALLERS

1. Do not touch any other Blue Diamond Alarm Systems until the installer has been notified. Confirm with your office that you are doing the least time before starting work.
2. Please call our office at least ten days in advance to schedule final connections & testing (referred to as "Final").
3. Prior to our arrival at the facility to perform "Final", all of your wires must be:
 - a. Labeled by name and device location per the Blue Diamond.
 - b. Free of grounds, shorts or opens.
 - c. Properly must be maintained throughout.
 - d. All circuits must show proper resistance.
 - e. Shielded cable strips with must be connected and fully isolated from contact with badhouses or any metal surface.
 - f. Installed in accordance with N.E.C.A. and N.E.P.A. #72.
4. We require that your ceiling hardware be present and ready to install our detectors prior to any preparation for "Final".
5. Before scheduling "Final", contact our office and confirm the requirements for your system. We will provide you with a detailed connection sheet provided through our firm or another party.
6. There may be additional changes to the contract if there are delays or extra labor due to improper wiring or unanticipated items.
7. If you have any questions regarding proper wiring methods or installation of the devices we have provided to you, call our office at 707.773.3755.



NAC RISER

King Middle School
52 Deering Ave.
Portland, ME

PROTECTION
PROFESSIONALS

Phone: (207) 775-5755
Fax: (207) 781-2064

325 US ROUTE ONE
FAIRMOUTH, ME 04105

Battery calculation

Quantity	Part #	Description	Standby	Alarm	Total standby	Total alarm
1		NAC Power Supply	0.0300	0.0500	0.0300	0.0500
7	ZR-MC-R	Strobe-15cd	0.0000	0.0570	0.0000	0.3990
	ZR-MC-R	Strobe-30cd	0.0000	0.0850	0.0000	0.0000
	ZR-MC-R	Strobe-75cd	0.0000	0.1350	0.0000	0.0000
	ZR-MC-R	Strobe-110cd	0.0000	0.1820	0.0000	0.0000
	ZR-HMC-R	Strobe-135cd	0.0000	0.2050	0.0000	0.0000
	ZR-HMC-R	Strobe-185cd	0.0000	0.2530	0.0000	0.0000
2	ZH-MC-R	Horn/strobe-15cd	0.0000	0.0820	0.0000	0.1640
	ZH-MC-R	Horn/strobe-30cd	0.0000	0.1020	0.0000	0.0000
	ZH-MC-R	Horn/strobe-75cd	0.0000	0.1480	0.0000	0.0000
	ZH-MC-R	Horn/strobe-110cd	0.0000	0.1970	0.0000	0.0000
	ZH-HMC-R	Horn/strobe-135cd	0.0000	0.2420	0.0000	0.0000
	ZH-HMC-R	Horn/strobe-185cd	0.0000	0.2820	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000
	MH-R	Minihorns	0.0000	0.0260	0.0000	0.0000
	8715	Audible Base	0.0000	0.0240	0.0000	0.0000
		CO Detection	0.0200	0.0200	0.0000	0.0000
		Miscellaneous			0.0000	0.0000
		Miscellaneous			0.0000	0.0000
		Miscellaneous			0.0000	0.0000
		Miscellaneous			0.0000	0.0000
9	TOTAL	Miscellaneous			0.0000	0.0000
TOTAL			0.0500	2.0900	0.0300	0.6130

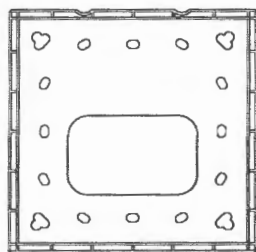
	Hours	Standby current			Total
	24	0.0300			0.7200
Minutes		Alarm current			
5	0.083333333	0.6130			0.0511
		Battery Capacity			
	20%	0.7711			0.9253

Sequence of Operations

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

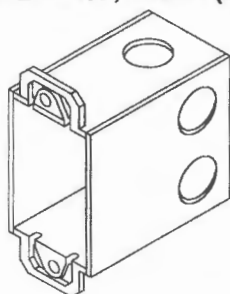
Mounting Matrix and Details

(A) UNIVERSAL MOUNTING PLATE



"AS" Mounting (item included with AS series devices)

(B) SINGLE-GANG, FLUSH (BO)

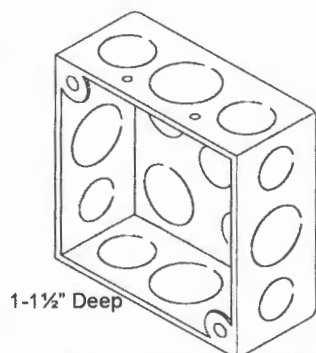


MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series AH, AS, MH, NH, NS, ST

(D) 4" SQUARE, FLUSH (BO)



1-1½" Deep

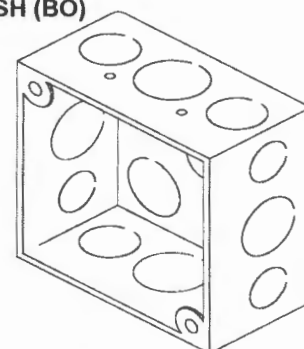
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series MH115, B6, B10, AH, AS, HS, MBDC, MTH, NH, NS, ST

(E) 4" SQUARE, DEEP, FLUSH (BO)

2-1/8" Deep

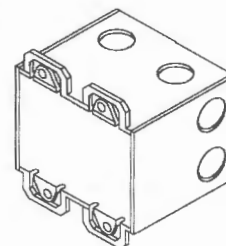


MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
8	8	8	8

Used with Series MH115, B6, B10, AH, AS, SETSF, SET-ULC, HS, MBDC, MTH, NH, NS, ST

(F) DOUBLE-GANG, FLUSH (BO)



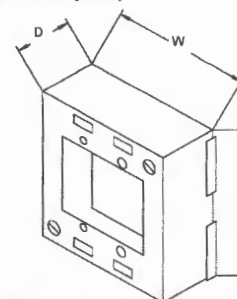
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

Used with Series AH, AS, HS, MT, NH, NS, ST

(G) DOUBLE-GANG, SURFACE (BO)

L	W.
4-3/4"	4-3/4"
D.	GANG #
1-3/4"	2



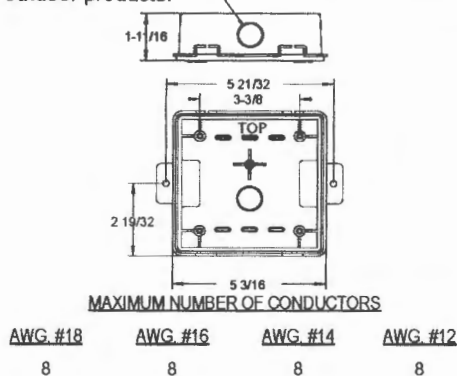
MAXIMUM NUMBER OF CONDUCTORS

AWG. #18	AWG. #16	AWG. #14	AWG. #12
4	4	4	4

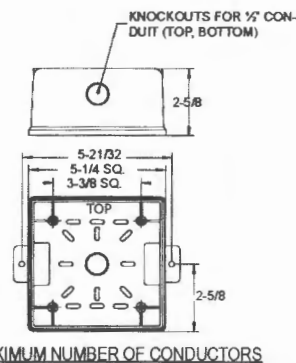
Used with Series AH, AS, NH, NS, ST

(I) WPBBS (ORDER CODE: RED 500-636137)

Plastic backbox for surface mounting series AS weather-proof outdoor products.



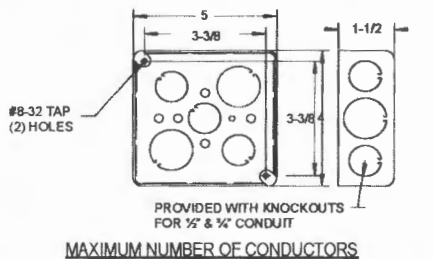
(M) MT-SUR-BOX BACKBOX (ORDER CODES: RED 500-693168, WHITE 500-636118)



Used with Series SET, HS, MTH, MTWP. For surface mounting MT products.

(J) BBS BACKBOX (ORDER CODES: RED 500-636110)

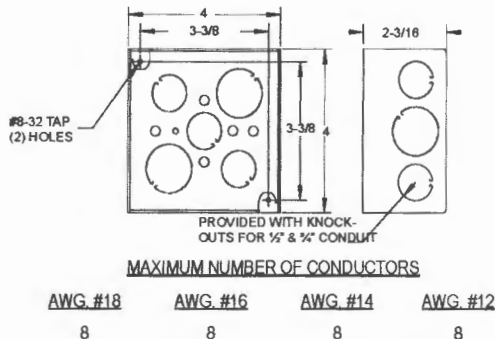
Standard steel backbox with knockouts for interior surface mounting, concealed conduit mounting or semi-flush applications.



Used with Series MH115, B6, B10, AH, AS, MBDC, MTH-15-115, NH, NS, ST

(N) DBBS BACKBOX (ORDER CODE: RED 500-636111)

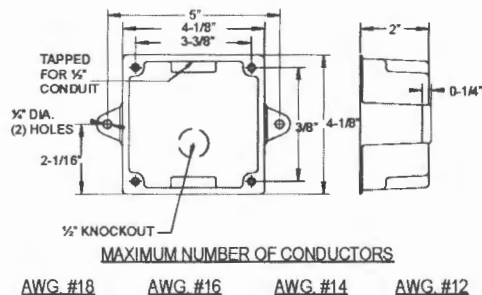
Standard steel backbox provided with knockouts for interior surface mounting, concealed conduit mounting or semi-flush applications.



Used with Series MH115, B6, B10, AH, AS, SETSF, HS, MBDC, MTH, NH, NS, ST

(K) WBBS WEATHER RESISTANT BACKBOX (ORDER CODES: RED 500-636129, WHITE 500-636131)

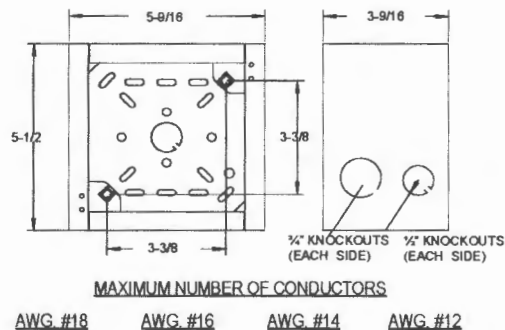
Sturdy die cast housing, threaded conduit hole and knockout for outdoor applications.



Used with Series MH115, B6, B10, SETSF, MBDC, MTH-15-115

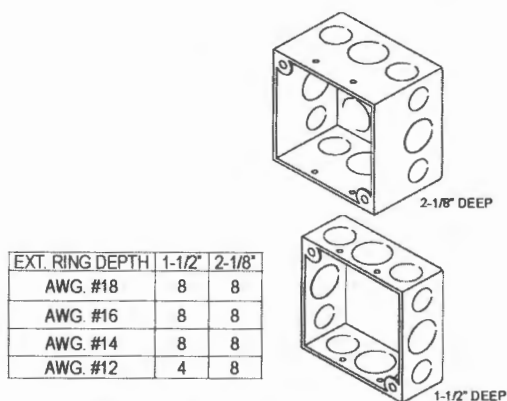
(P) SBBS BACKBOX (ORDER CODES: RED 500-636119, WHITE 500-636120)

For surface mounting speakers, chimes, and electronic applications.



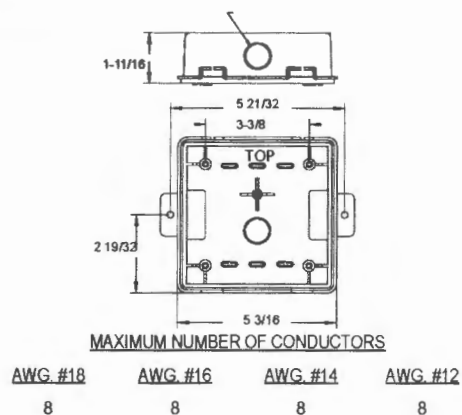
Used with Series B6, B10, CH, SEF, SET, SETFL, HS, MBDC, MTH, NH, NS, ST

(Q) 4" SQUARE DEEP W/ EXTENSION RING, FLUSH (BO)



Used with Series CH, SEF, SET, SETFL

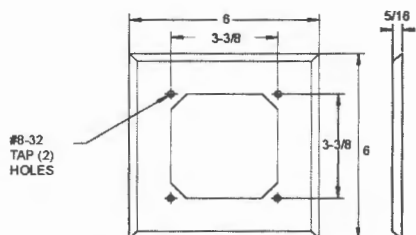
(T) WPSBBS (ORDER CODES: RED 500-636139, WHITE 500-636140)



Used with Series ST-WP

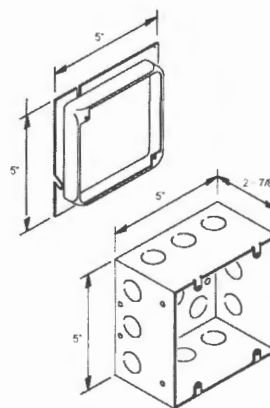
(R) SFPS SEMI-FLUSH PLATE (ORDER CODES: RED 500-636124, WHITE 500-636125)

Stamped aluminum surface wall plate which mounts behind the basic unit and serves to cover recessed backboxes in semi-flush mounting applications.



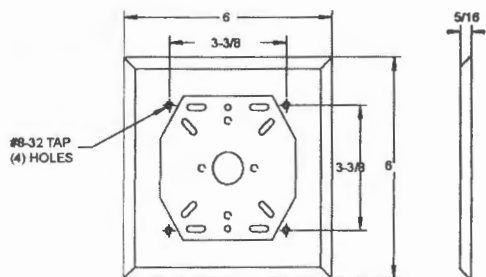
Used with Series MT, SET, SE, NH, NS, ST

(U) 5" SQUARE BACKBOX W/ EXTENSION RING, FLUSH (BO)



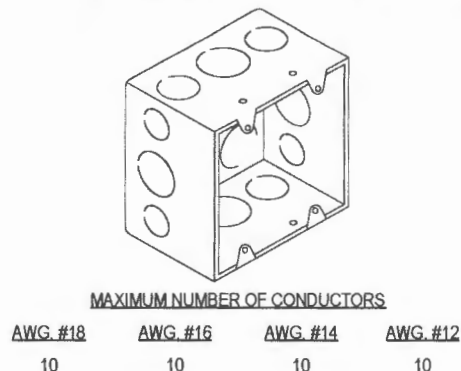
(S) APS ADAPTER PLATE (ORDER CODE: RED 500-630109)

Stamped aluminum adapter plate designed for applications where semi-flush installations cannot be used. The plate can be mounted to standard octagon or round backboxes single or double gang boxes or plaster rings. The backbox and basic unit are then fastened to the plate. This type mounting is referred to as a concealed conduit installation.

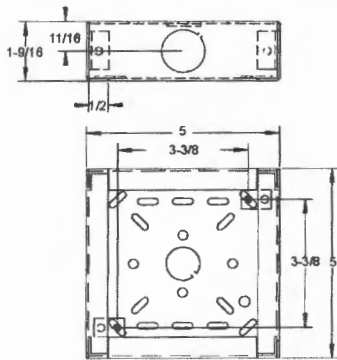


Used with Series MBDC

(W) 4 11/16" SQUARE, DEEP SURFACE (BO)

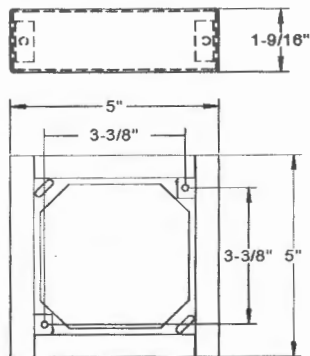


(X) SHBBS SQUARE, SURFACE BACKBOX
(Order Codes: Red 500-636126, White 500-636127)



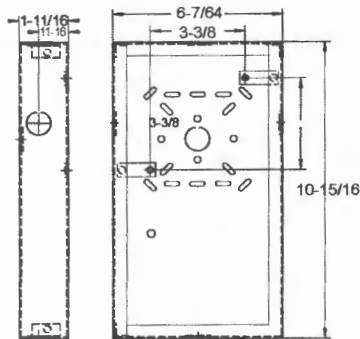
Used with Series AS, AH, NS, Z

(Y) SERS SQUARE SEMI-FLUSH EXTENSION RING (Order Codes: Red 500-636122, White 500-636123)

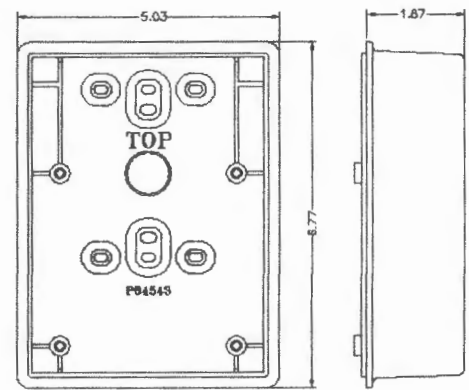


Used with Series CH, SEF, SET

(Z) SBL2S BACKBOX (Order Codes: RED 500-636121)

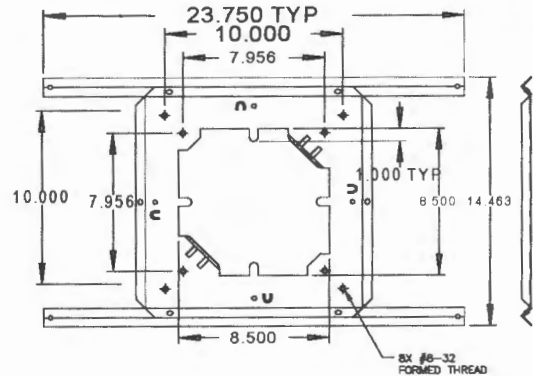


(BB) SPSSB (ORDER CODES: RED 500-636114, WHITE 500-636115)



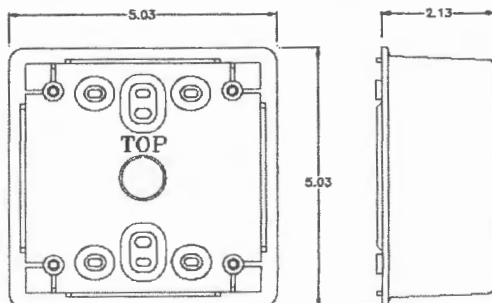
Used with Series SE-MC/HMC
(wall mount speaker/ strobe)

(CC) SB-W 8" CEILING SUPPORT BRIDGE (ORDER CODE: WHITE 500-634882)



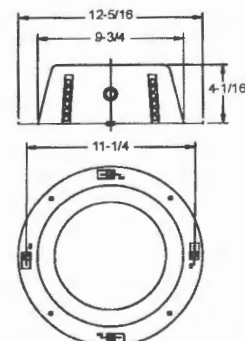
Used with Series S 8" Ceiling Speakers

(AA) SPSB (Order Codes: Red 500-636112, White 500-636113)



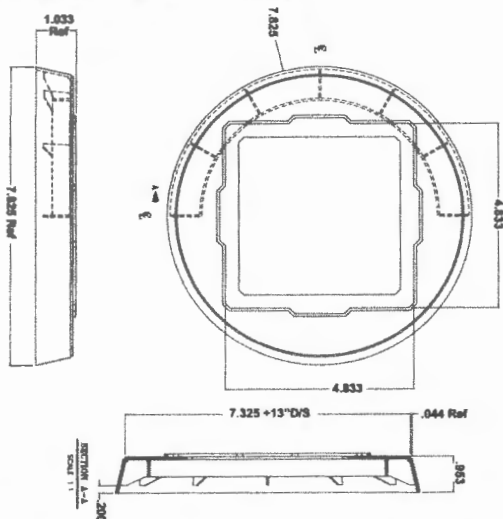
Used with Series SE Speakers

(DD) SE-1 8" CEILING SPEAKER BACKBOX (ORDER CODE: WHITE: 500-634881)



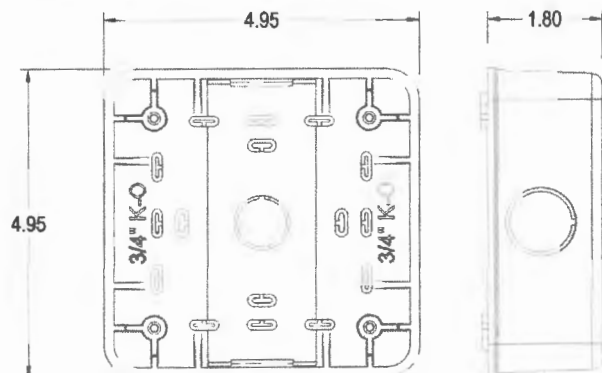
Used with 8" Ceiling Speakers

(EE) SPECT EXTENSION RING (ORDER CODE: RED 500-636116, WHITE 500-636117)



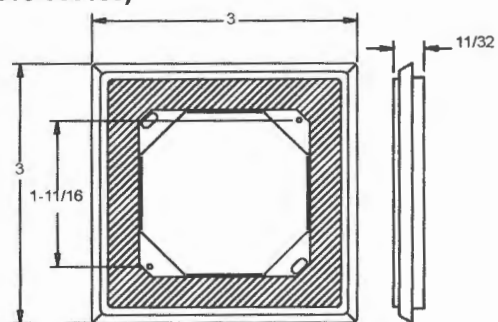
Used with Series SE-MC-C (ceiling mount strobe)

(FF) ZBB (ORDER CODES: RED 500-636193, WHITE 500-636194)



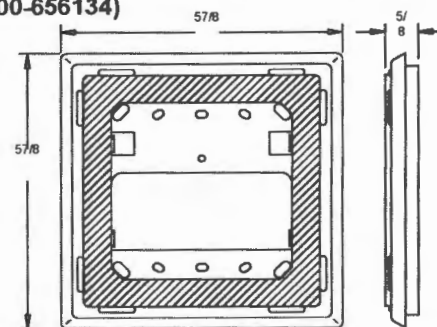
Used with Series Z

(GG) WFPS PLATE (ORDER CODES: RED 500-636135, WHITE 500-636136)



Used with MTH-WP, ST-WP

(HH) WFPAS PLATE (Order Codes: Red 500-363133, White 500-656134)



Used with AS-WP

MOUNTING MATRIX

	Series SET-C	Series ST	Series ST-MC-RETRO	Series MH115	Series SE	Series B10-115	Series CH	Series SETSF-B	Series SETSF	Series MBDC	Series SET/SET Wall Mount	Series SE-C	Series MH	Series MTH	Series NH/NS	Series HS	Series AS/AH	Series AH-WB(3), MT-WP(4), MTH	Series Z
(A) Universal Mounting Plate (included with AS series devices)																	X		
(B) 1-GANG x 2" Deep - Flush (BO)		X											X		X		X		X
(D) 4" x 4" x 1.5" Deep - Flush (BO)		X	X	X		X				X				X	X		X		X
(E) 4" x 4" x 2.125" Deep - Flush (BO)		X	X	X	X	X		X		X				X	X	X	X		X
(F) 2-Gang x 3.5" Deep - Flush (BO)		X												X	X	X	X		X
(G) 2-Gang x 1.75" Deep - Surface (BO)		X												X		X			
(I) WPBBS-R Weatherproof Backbox for AS-WP																		2	
(J) BBS Surface (SP) Note 9		X		X	X				X	X				X					
(K) WBBS Weatherproof (SP)				X	X			X	X								X	3	
(M) MT-SUR-BOX Surface & Weatherproof (SP)											X			X		X		4	
(N) DBBS Surface (SP)		X		X	X			X	X					X	X	X			
(P) SBBS Surface (SP)	X	X			X	X	X		X	X				X	X	X	X		
(Q) 4" x 4" x 2.125" Box w/ 1.5" Extension Ring- Flush (BO)	X		X			X	X				X	X							
(R) SPT Semi-Flush Plate (SP)		X		X	X	X	X		X	X				X	X	X	X		
(S) APS Adapter Plate (SP)					X				X	X	X								
(T) WPSBBS-R Weatherproof Backbox for ST-WP																		1	
(U) 5" Square Backbox w/ Extension Ring, Flush (BO)	X					X	X					X							
(W) 4.6875" x 4.6785" x 2.125" Deep Surface (BO)															X		X		
(X) SHBBS (SP) Shallow Surface		X			X				X						X		X		
(Y) SERSSemi-Flush Extension Ring (Retrofit Appl.)	X					X					X								
(Z) SBLS-2 Surface (SP)		X	X	X		X	X	X	X										
(AA) SPSB Backbox for SE Speaker					X														
(BB) SPSSB Backbox for SE Speaker Strobe					X														
(EE) SPEXT Extension Ring												X							
(FF) ZBB																			X

MOUNTING NOTES

Caution: The mounting options figures show the maximum number of field wires (conductors) that can enter the backbox used with each mounting option. If these limits are exceeded, there may be insufficient space in the backbox to accommodate the field wires and stresses from the wires could damage the product.

Although the limits shown for each mounting option comply with the National Electrical code (NEC), Siemens recommends use of the largest backbox option and the use of approved field wires whenever possible, to provide additional wiring room for easy installation and minimum stress on the product from wiring.

Caution: Check that the installed product will have sufficient clearance and wiring room prior to installing backboxes and conduit, especially if sheathed multiconductor cable or 3/4" conduit fittings are used.

1. Mounting hardware for each mounting option is supplied.
2. Conduit entrances to the backbox should be selected to provide sufficient wiring clearance for the installed product. When extension rings are required, conduit should enter through the backbox, not the extension ring. Use Steel City #53151 (1-1/2" deep) or #53171 (2-1/8" deep) extension rings (as noted in the mount-

3. When terminating field wires, do not use more lead length than required. Excess lead length could result in insufficient wiring space for the appliance.
4. Use care and proper techniques to position the field wires in the backbox so that they use minimum space and produce minimum stress on the product. This is especially important for stiff, heavy gauge wires and wires with thick insulation or sheathing.
5. Do not pass additional wires (used for other than the appliance) through the backbox "unless the backbox is of a sufficient size to permit additional wiring as described in NEC 314.16 (B)". Such additional wires could result in insufficient wiring space for the appliance.

NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Siemens Inc. standard terms and conditions.

BACKBOX MOUNTING HEIGHTS **for SIEMENS WALL MOUNTED** **HORIZONTAL STROBE** **APPLIANCES NFPA-72 (2007)**

7.5.4.1* Wall-mounted appliances shall be mounted such that the entire lens is not less than 2030 mm (80 in.) and not greater than 2440 mm (96 inc.) above the finished floor or at the mounting height specified using the performance-based alternative 7.5.4.5

7.5.4.2 Where low ceiling heights do not permit mounting at a minimum of 2030 mm (80 in.), visible appliances shall be mounted within 150 mm (6 in.) of the ceiling. The room size covered by a strobe of a given value shall be reduced by twice the difference between the minimum mounting height of 2030 mm (80 inc.) and the actual, lower mounting height.

Backbox Mounting Options*	Series AS/AH Audible Strobe		Series ST-MC-RETRO Flush and Surface Retrofit Plate		Series NS Horn Strobe		Series Z and ST Strobe		Series MTH Multitone	
	80 IN	6 IN	80 IN	6 IN	80 IN	6 IN	80 IN	6 IN	80 IN	6 IN
(B) 1-Gang x 2" Deep - Flush (BO)	77 ½"	8 ½"			78 ¾"	7 ⅝"	79 ⅛"	6 ⅞"		
(D) 4" x 4" x 1.5" Deep - Flush (BO)	77"	9"	83 15/16"		77 7/8"	8 1/8"	78 5/8"	7 3/8"	79 15/16"	6 1/16"
(E) 4" x 4" x 2.125" Deep - Flush (BO)	77"	9"	83 15/16"		77 7/8"	8 1/8"	78 5/8"	7 3/8"	79 15/16"	6 1/16"
(F) 2-Gang x 3.5" Deep - Flush (BO)	77 ½"	8 ½"			78 ¾"	7 ⅝"	79 ⅛"	6 ⅞"	80 9/16"	5 7/16"
(G) 2-Gang x 1.75" Deep - Surface (BO)	77 ½"	8 ½"			78 ¾"	7 ⅝"	79 ⅛"	6 ⅞"	80 9/16"	5 7/16"
(M) MT-SUR-BOX Surface & Weatherproof (SP)									79 ¾"	6 5/8"
(P) SBBS Surface (SP)									79 1/4"	6 3/4"
(Q) 4" x 4" x 2.125" Box w/ 1.5" Extension Ring - Flush (BO)										
(U) 5" Square Backbox w/ Extension Ring, Flush (BO)	69 ½"	8 ½"	83 7/16"		77 ¾"	7 ⅝"	78 1/8"	6 7/8"	79 7/16"	5 9/16"
(X) SHBBS (SP) Shallow Surface	76 ½"	9 ½"			77 ¾"	8 5/8"	78 1/8"	7 7/8"		
(Y) 4" x 4" x 1.5" Box w/ 1.5" Extension Ring Plate (BO)										
(Z) SBL2S Surface (SP)			78"							
(FF) ZBB							78 1/8"	7 7/8"		

Backbox Mounting Options*	Series CH Chime Strobe		Series SET-V Speaker Strobe		Series SEF-C Speaker Strobe		Series SET-C Speaker Strobe	
	80 IN	6 IN	80 IN	6 IN	80 IN	6 IN	80 IN	6 IN
(P) SBB Surface (SP)	77 ¾"	8 ¼"	79 3/16"	6 13/16"	77 ¾"	8 ¼"	77 ¾"	8 ¼"
(Q) 4" x 4" x 2.125" Box w/ 1.5" Extension Ring - Flush (BO)	77 ½"	7 ½"	80"	6"	78 ½"	7 ½"	78 ½"	7 ½"
(U) 5" Square Backbox w/ Extension Ring - Flush (BO)	78"	7"	79 ½"	5 ½"	78"	7"	78"	7"
(X) SHBB (SP) Shallow Surface								
(Y) 4" x 4" x 1.5" Box w/ 1.5" Extension Ring Plate - Flush (BO)	78 ½"	7 ½"	80"	6"				

* Measured from Bottom of Backbox

NOTES: (BO) = By Others (SP) = Siemens Product

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



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

8/07 2M SBT/IG

August 2007 - New Issue

Z Strobes, Horns, Horn/Strobes

Features

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

Description

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

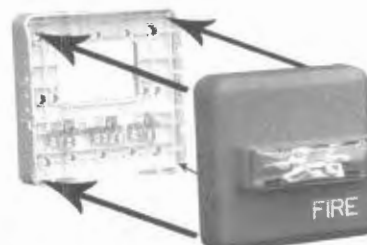
The Siemens Series Z appliances incorporate the same dependable circuitry and high efficiency optics that are used in Siemens ST strobes, NS horn/strobes and NH horns and have the same high performance ratings. The Series Z appliances are "Special Applications" listed with Siemens panels.



Series ZH



Series ZR



ZR AND ZH Mounting

Engineering Specifications

General

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

Strobes

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

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

Audibles and Audible/Strobe Combinations

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

Synchronization Modules

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

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

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

Technical Information

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

Ordering Information / Mounting Requirements / Approvals

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

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

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



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

Overview



The AL602ULADA, AL802ULADA and AL1002ULADA are extremely cost effective voltage regulated remote NAC Power Extenders. They may be connected to any 12 or 24 volt Fire Alarm Control Panel (FACP). Primary applications include Notification Appliance Circuit (NAC) expansion (supports ADA requirements) and will provide auxiliary power to support system accessories.

AL602ULADA

- 24VDC or 12VDC rated @ 6.5 amp max.
- Two (2) Class A or four (4) Class B outputs.

AL602ULADAJ

- Larger enclosure.

AL802ULADA

- 24VDC or 12VDC rated @ 8 amp max.
- Two (2) Class A or four (4) Class B outputs.

AL802ULADAJ

- Larger enclosure.

AL1002ULADA

- 24VDC rated @ 10 amp max.
- Two (2) Class A or four (4) Class B outputs.

AL1002ULADAJ

- Larger enclosure.

Specifications

- Two (2) Class A or two (2) Class B FACP inputs.
- Two (2) NC dry contact trigger inputs (AL802ULADA and AL1002ULADA only)
- Two (2) Class A or four (4) Class B indicating circuits.
- Two (2) Class B outputs may be paralleled for more power on an indicating circuit.
- One (1) Aux. Power Output @ 1 amp supply current (w/battery back up).
- Signal Circuit Trouble Memory - facilitates quickly locating intermittent system trouble and eliminates costly and unnecessary service calls. LED's indicate a prior fault (short, open, ground) has occurred on one or more signaling circuit outputs.
- 2-wire Horn/Strobe Sync mode allows audible notification appliances (Horns) to be silenced while visual notification appliances (Strobes) continue to operate.
- Horn/Strobe sync protocols include: Gentex®, System Sensor®, Faraday, Amseco.
- 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.

Agency Approvals



UL Listed Control Units and Accessories for Fire Alarm Systems (UL 864),
UL Listed Standard for Safety for Fire Protective Signaling Systems (UL 1481).



MEAN NYC Department of Buildings Approved.



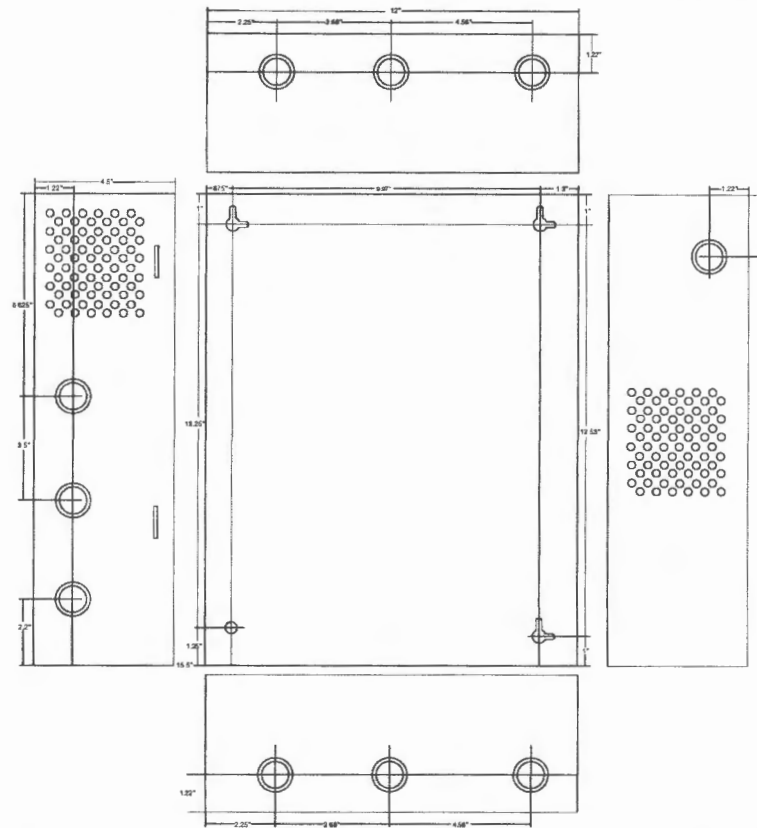
California State Fire Marshal Approved.



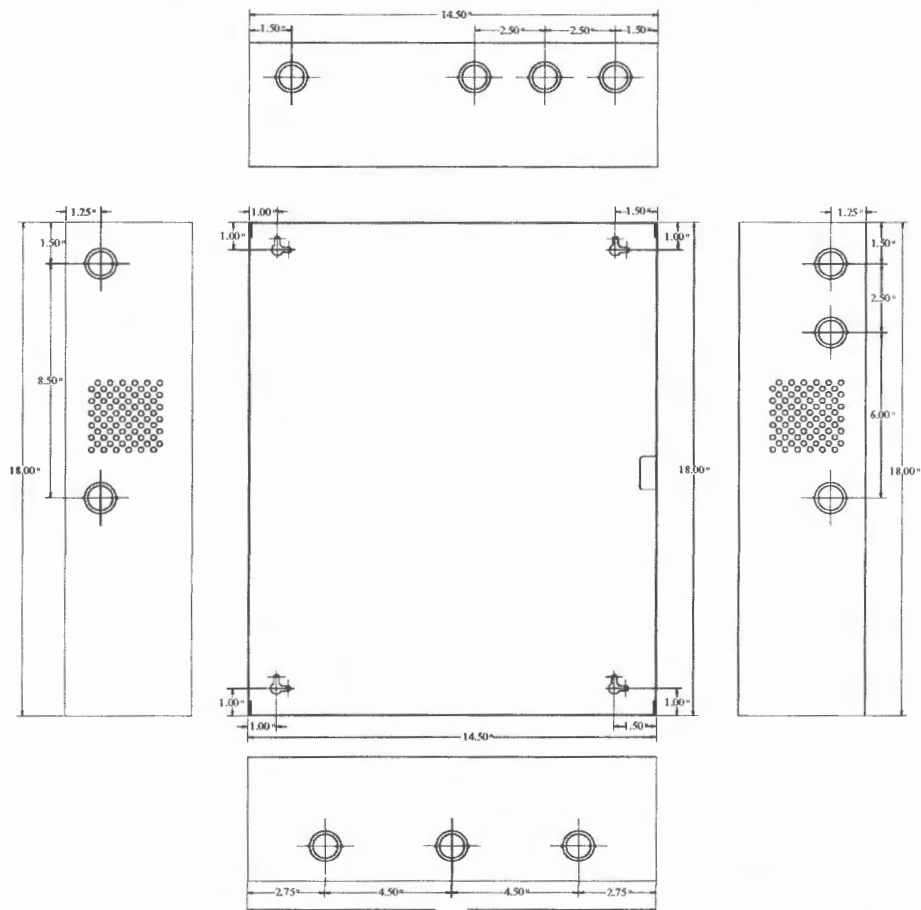
Factory Mutual Approved.

ENCLOSURE DIMENSIONS

AL602ULADA, AL802ULADA and AL1002ULADA: 15.5"H x 12"W x 4.5"D



AL602ULADAJ, AL802ULADAJ and AL1002ULADAJ: 18"H x 14.5"W x 4.625"D





PORTLAND MAINE

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

Receipts Details:

Tender Information: Cash

Tender Amount: 0

Receipt Header:

Cashier Id: gguertin

Receipt Date: 8/15/2012

Receipt Number: 47121

Receipt Details:

Reference ID:	7644	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	0.00	Charge Amount:	50.00
Job ID: Job ID: 2012-08-4712-FAFS - fire alarm			
Additional Comments:			

Thank You for your Payment!