DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

# CITY OF PORTLAND

# BUILDING PERMIT

This is to certify that PROTECTION PROFESSIONALS of 325 US Route 1, Falmouth, Maine 04105

For installation at 146 SHERMAN ST Apartment building

Job ID: 2011-12-2987-FAFS

CBL: 048- E-001-001

has permission to install supervised fire alarm

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 |

BJ Ambrogi (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

# 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
Penny St. Louis

**Job ID: 2011-12-2987-FAFS**
**install supervised fire alarm**

**For installation at:**
**146 SHERMAN ST**
**Apartment Building**

**CBL: 048- E-001-001**

## Conditions of Approval:

### Fire

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.

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

Automatic detection shall be installed as required by 101:31.3.4.4 with the following exceptions: bathrooms not exceeding 55 ft²; closets not exceeding 24 ft².

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.

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

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.

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

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

| Job No: | Date Applied: | CBL: | |
|---|---|---|---|
| **2011-12-2987-FAFS** | **12/28/2011** | **048- E-001-001** | |
| Location of Construction: **146 SHERMAN ST** | Owner Name: **QUALITY PROPERTIES** | Owner Address: **148 BREAKWATER DR. #216, SO. PORTLAND, ME 04106** | Phone: **207-774-0761** |
| Business Name: | Contractor Name: **PROTECTION PROFESSIONALS** | Contractor Address: **325 US ROUTE 1 - FALMOUTH ME 04105** | Phone: **(207) 775-5755** |
| Lessee/Buyer's Name: | Phone: | Permit Type: **FIRE ALARM -** | Zone: **R-6** |
| Past Use: **Four residential dwelling units w/one illegal unit (permit #2011-07-1592 applied for)** | Proposed Use: **Same: four legal residential dwelling units & one illegal – to install fire alarm** | Cost of Work: **$13,000.00** | CEO District: |
| | | Fire Dept: ✓ Approved w/ conditions ___ Denied ___ N/A Signature: Bjandrey. (58) | Inspection: Use Group: Type: Signature: |
| Proposed Project Description: **Install Fire Alarm** | | Pedestrian Activities District (P.A.D.) | |
| Permit Taken By: Lannie | | | |

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 electrial 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.

**Zoning Approval**

| Special Zone or Reviews | Zoning Appeal | Historic Preservation |
|---|---|---|
| ___ Shoreland | ___ Variance | ✓ Not in Dist or Landmark |
| ___ Wetlands | ___ Miscellaneous | ___ Does not Require Review |
| ___ Flood Zone | ___ Conditional Use | ___ Requires Review |
| ___ Subdivision | ___ Interpretation | ___ Approved |
| ___ Site Plan | ___ Approved | ___ Approved w/Conditions |
| ___ Maj ___ Min ___ MM | ___ Denied | ___ Denied |
| Date: OK 12/29/11 by Marge. | Date: | Date: ABM |

**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

# Fire Alarm Permit

If you or the property owner owes real estate or property taxes or user charges on any property within the city, payment arrangements must be made before permits of any kind are accepted.

Installation address: 146-148 Sherman Street CBL: 48-E-1

Exact location: (within structure) _____

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

Building owner: Mary and Jeff Cuevas

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

Designer phone: 207-775-5755 E-mail: rich@protectionprofessionals.ne

Installing contractor: Rob Pearson Certificate of Fitness No: M1001

Contractor phone: 839-3223 E-mail: _____

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

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

**The following documents shall be provided with this application:**

- ☑ Floor plans
- ☑ Wiring diagram
- ☑ Annunciator details
- ☑ Input/ Output Matrix
- ☑ Equipment data sheets
- ☑ Electrical Permit Pulled (check alarm/com)
- ☑ Scope of Work
- ☑ 11 ½ 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: $12,522.87

PERMIT FEE: 150
($10 PER $1,000 + $30 FOR THE FIRST $1,000)

RECEIVED
DEC 28 2011
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 ½ 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: _____ Date: 12-28-11

# CITY OF PORTLAND, MAINE
**Department of Building Inspections**

## Original Receipt

12-27- 20 11

Received from Protection Professionals

Location of Work 146-148 Silver

Cost of Construction $_____ Building Fee:_____

Permit Fee $_____ Site Fee: _____

Certificate of Occupancy Fee: _____

**Total:** 150

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ___ Site Plan (U2) ___

Other Fire

CBL: 48-E-1

Check #: 102664 **Total Collected $** 150

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

Taken by: S. M

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

Honeywell

# VISTA-128FBP/V128FBP-24

COMMERCIAL PARTITIONED FIRE AND BURGLARY ALARM CONTROL PANEL

**Now UL864 9th Edition Approved**

Designed to integrate seamlessly with CCTV, access control and Honeywell's full range of fire and burglary components, the new VISTA-128FBP provides the ultimate protection of life and property. The UL Listed commercial fire and burglary control panel supports up to eight partitions and up to 128 zones/points using hardwired, wireless and V-Plex® addressable technologies. A diverse line of Honeywell initiating devices, notification circuits, communication devices, keypads, RF receivers and relays are also supported. The VISTA-128FBP has been designed to mount quickly and easily in an attack resistant cabinet, and is available in 12V and 24V models.

## FEATURES

- Eight hardwired zones standard, expandable to 120 V-Plex addressable points/zones or 128 wireless points/zones
- Can control eight separate areas independently (8 partitions)
- Supports commercial wireless fire and burglary devices
- Stores up to 512 events
- Accommodates 150 user codes and up to 250 access card holders using VistaKey
- Supports V-Plex addressable VistaKey access control (1 to 8 doors)
- Two on-board notification (bell) circuits delivering 2.3A @ 12V or 3.4A @ 24V
- Automatic smoke detector sensitivity maintenance testing
- Four-wire smoke reset using onboard J2 output trigger
- Supports Dynamic Signaling for AlarmNet Communicators
- Supports Remote Control via the Internet*
- Supports Internet Alarm Reporting*
- Supports Graphical User Interface Consoles
- Listed to UL864 9th Edition
- Upload/download via Ethernet*
- Carbon monoxide (CO) zone support

** When used with AlarmNet devices.*

# VISTA-128FBP/V128FBP-24

COMMERCIAL PARTITIONED FIRE AND BURGLARY ALARM CONTROL PANEL

Honeywell

## ADDITIONAL FEATURES

- Notification Appliance Circuits (two):
  - Programmable
  - Temporal code compliant
  - Individually silenceable
- Programmable on-board auxiliary relay
- False alarm reduction features:
  - Exit error logic
  - Exit delay reset
  - Cross zoning
  - Call waiting defeat
  - Recent close report
- Supports commercial hardwired, addressable V-Plex polling loop and wireless zones
- Hardwired zones
  - Provides eight style B hardwired zones
  - EOLR supervised for Fire and UL burglary installations
  - Supports N.O. or N.C. sensors
  - Individually assignable to any eight partitions
  - Up to 32 two-wire smoke detectors each on zone one and two (64 total)
  - Up to 50 two-wire glassbreak detectors on zone eight
- Patented addressable V-Plex polling loop technology
  - Supports 120 two-wire zones points
  - Global polling technology for faster processing
  - Supervised by panel
  - Zones individually assignable to partitions, notification circuit (bell) output or auxiliary relay
  - 4,000 ft. capability without the use of shielded cable
  - Extender/Isolation bus modules
  - Eight zone – Class A and B expander module
  - Eight zone – Class B expander module
  - One zone supervised contact monitor module
- UL Listed wireless expansion
  - Supports up to 128 wireless zones/points
  - Supervised by control for check-in signals
  - Tamper protection for transmitters
  - Individually assignable up to eight partitions
  - Supports commercial wireless smoke detectors
- Access Control integration
  - Full integration with PassPoint Access Control System Complete Gateway interface of VISTA and access functions
- Up to eight doors using VistaKey V-Plex Access Control
- Event reporting
- Local printer of access or VISTA related events
- Communication
  - Phone mapping by zone response type
  - Panel operation during download

Honeywell

## SPECIFICATIONS

### Applications

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

### Electrical

- Primary power: 18VAC @ 72VA Honeywell No. 1451
- Control panel quiescent current draw: 300mA
- Backup battery:
  – 12VDC, 12AH min to 34.4AH max
  – Lead acid battery (gel type)
- Alarm power: 12VDC, 1.7A max for each notification (bell) circuit output Total 2.3A @ 12V
- Aux. standby pwr: 12VDC, 1A max
- Total power: 2.3A at 12VDC, 3.4A at 24VDC from all sources
- Standby time: 24 hours with 1A standby load using 34.4AH battery
- Fusing: Battery input, aux. and notification (bell) circuit outputs are protected using PTC circuit protectors. All outputs are power limited.
- Optional 24-volt power supply, PS 24 supplies two 24 VFW, 1.7A full wave rectified, unfiltered outputs

### Main Dialer

- Line seize: Double Pole
- Ringer equiv.: 0.7B
- Formats: ADEMCO Low Speed, ADEMCO 4+2 Express, ADEMCO High Speed, ADEMCO Contact ID, Sescoa and Radionics
- Dual phone line capability (using 5140DLM module)

### Cabinet dimensions

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

### Environmental

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

### Agency Listings

- UL609 Grade A Local Mercantile Premises and Mercantile Safe and Vault
- UL611/1610 Grades A, AA, Central Station
- UL365 Grades A, AA Police Connect
- UL864/NFPA72 Local, Central Station and Remote Station
- UL985
- Factory Mutual
- California State Fire Marshal
- MEA
- CAN/ULC S304 – Central and Monitoring Station Burglar Alarm Unit
- CAN/ULC S527 – Central Unit for Fire Alarm Systems
- CAN/ULC S303 – Local Burglar Alarm Unit
- CAN/ULC S525 – Audible Signal Appliances

# VISTA-128FBP/V128FBP-24

COMMERCIAL PARTITIONED FIRE AND BURGLARY ALARM CONTROL PANEL

## COMPATIBLE DEVICES

**Auxiliary Devices**
- 6160CR-2 – Red Alpha Keypad
- 4204 – Relay Module, four form C contacts
- 4204CF – Two supervised output circuits
- 5881 Series RF receiver
- 5883H RF receiver
- 6220S – System printer used with 4100SM serial module
- 6160CR-2 – Red Fire Keypad
- 6160 – Burglary Keypad

**Two-Wire Smoke Detectors Conventional**
- System Sensor
- ESL
- DSC

**Horn/Strobes**
- System Sensor
- Wheelock
- Gentex

**Manual Pull Stations**
- 5140MPS-1
- 5140MPS-2

**V-Plex (Addressable) Devices**
- 4208U Loop Expansion Module – eight zones
- 4101SN Single Relay/Zone Module
- 4208SNF Class A/B Expander Module
- 4190SN Remote Point Module – two zones
- 4193SN Two-Zone Serial Interface Module
- VSI Module
- 4293SN One-Zone Serial Interface Module

**V-Plex Extender/Isolation Modules**
- 4297 Extender/Isolator Module
- VSI Isolator Module

**V-Plex Smoke Detectors:**
- 5193SD
- 5193SDT

**V-Plex Passive Infrared Detectors**
- 998MX
- IS2500SN
- DT7500SN

**V-Plex (Addressable) Contacts**
- 4939SN-WH
- 4944SN-WH
- 4959SN

**V-Plex Glassbreak Detectors**
- FG1625SN

**Optional 24V Power Supply**
- PS24 – 24V power supply – 3.4A

**Commercial Wireless Devices**
- 5808W3 – Photoelectric Smoke/Heat Detector
- 5806W3 – Photoelectric Smoke Detector
- 5809 – Wireless Heat Detector
- 5817CB – Wireless Commercial Transmitter
- 5869 – Hold-Up Transmitter
- 5881ENHC – RF Receiver
- 5883H – RF Receiver

**Access Control**
- VistaKey V-Plex (addressable) Access Control
- VistaKey-SK Starter Kit
- VistaKey-EX Expansion Kit

**Alarm Communications**
- 7845i-ENT – Internet/Intranet Communicator
- 7845GSM – Digital Cellular Communicator
- 7845i-GSM – Internet and Digital Cellular Communicator
- GSMCF/iGSMCF – Commercial Fire Communication Kits (when available)

*Product specifications subject to change.*

## ORDERING

| | |
|---|---|
| **V128FBP-9** | Commercial Fire and Partitioned Burglary Alarm Control Panel 12V Model |
| **V128FBP9-24** | Commercial Fire and Partitioned Burglary Alarm Control Panel 24V Model |

**For more information:** www.honeywell.com/security/hsc

**Automation and Control Solutions**
Honeywell Security & Communications
2 Corporate Center Dr. Suite 100
Melville, NY 11747
1.800.467.5875
www.honeywell.com

L/VSTA128FBPD/D
September 2009

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

# Device List

No. 3436

| List Date |
| --- |
| 12/15/2011 |

| Bill To Name / Address | Job Site |
| --- | --- |
| Mary Cuevas<br>148 Breakwater Drive, Unit #216<br>South Portland, ME 04106 | 146-148 Sherman Street<br>Portland, Maine |

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

| Estimate No. |
| --- |
| |

| Item | Description | Qty To Order | Qty Ordered |
| --- | --- | --- | --- |
| V128FBP-PAK1 | Vista- 128 FBP kit, includes V128FBP, 6160CR, 5140DLM, Red transformer enclosure requires 120VAC direct | 1 | |
| Bat 12-12 | Battery | 2 | |
| 5881ENHC | Wireless receiver for commercial burglary and 5800 devices | 1 | |
| 06-SSU00672 | Fire Document box 12 inches wide X 13.1 inches high X 2.25 inches deep, CAT 30 keyed | 1 | |
| SF-STI7510E | Keypad cover with lock set | 1 | |
| 8085 | Ademco cam lock assembly | 2 | |
| AD-TG7FS | Fire Alarm Communicator, cell based | 1 | |
| Bat 12-7 | 12V 7AH Batteries | 1 | |
| D8004 | UL TRANSFORMER KIT | 1 | |
| BK-2WB | Smoke Detector w/ Base (over FACP) | 1 | |
| BK-5601P | 135°F Fixed Temp/Rate-of-Rise, Single-Circuit Mechanical Heat Detector (basement) | 2 | |
| 5193SD | Addressable Smoke Detectors | 10 | |
| 5140MPS-1 | Manual Pull Station | 12 | |
| 4193sn | Interface device (v-plex) | 12 | |
| 5809 | Wireless Heat Detector, 135 fixed temperature and rate of rise | 29 | |
| AX-AL602ULADA | NAC power supply, 24 or 12 VDC, 6.5 amps, two Class A or four Class B at 2.5 amps/circuit, 1 amp Aux power | 1 | |
| Bat 12-7 | 12V 7AH Batteries | 2 | |
| 500-636161 | ZH-MC-R Horn/strobe, red, wall mount, Hi or Lo volume, 15cd, 30cd, 75cd, or 110cd | 11 | |
| | State of Maine Sales Tax | | |

**Ordered By:** _____ **Date:** _____

**Received By:** _____ **Date:** _____

# Vista 128

| Quantity | Part # | Description | Standby | Alarm | Total standby | Total alarm |
|---|---|---|---|---|---|---|
| 1 | V128 | Fire Panel (maximum) | 0.305 | 0.485 | 0.305 | 0.485 |
| 1 | 6160CR | Annunicator | 0.150 | 0.150 | 0.150 | 0.150 |
| | 4208SN | Expander | 0.001 | 0.033 | 0.000 | 0.000 |
| | | | 1.000 | 0.000 | 0.000 | 0.000 |
| | | Pull Station | 0.000 | 0.000 | 0.000 | 0.000 |
| 1 | 2W | Smoke | 0.000 | 0.130 | 0.000 | 0.130 |
| | 4W | Smoke | 0.020 | 0.023 | 0.000 | 0.000 |
| | | heat | 0.000 | 0.000 | 0.000 | 0.000 |
| | | | 0.001 | 0.001 | 0.000 | 0.000 |
| | | Motion | 0.015 | 0.022 | 0.000 | 0.000 |
| | | Duct Detector | 0.001 | 0.001 | 0.000 | 0.000 |
| | | Duct smoke | 0.001 | 0.001 | 0.000 | 0.000 |
| | | Duct relay | 0.001 | 0.001 | 0.000 | 0.000 |
| | | Duct Remote | 0.001 | 0.001 | 0.000 | 0.000 |
| | | Remote light | 0.001 | 0.001 | 0.000 | 0.000 |
| | | | 0.000 | 0.000 | 0.000 | 0.000 |
| | | | 0.000 | 0.000 | 0.000 | 0.000 |
| | | NAC power maximum (24V) | 0.000 | 3.400 | 0.000 | 0.000 |
| | | NAC power maximum (12V) | | 2.300 | 0.000 | 0.000 |
| | | | | | 0.000 | 0.000 |
| | | | | | 0.000 | 0.000 |
| | | Miscellaneous | | | 0.000 | 0.000 |
| **TOTAL** | | | 1.497 | 6.549 | 0.455 | 0.765 |

| | Hours | Standby current | | | Total |
|---|---|---|---|---|---|
| | 24 | 0.4551 | | | 10.921 |
| Minutes | | Alarm current | | | |
| 5 | 0.08333333 | 0.7650 | | | 0.064 |
| | | Battery Capacity | | | |
| | 10% | 10.9850 | | | **12.083** |

# STI Polycarbonate Enclosure

STI-7500A

STI-7511D

## PRODUCT OVERVIEW

Multipurpose lockable enclosure for a wide range of larger size devices, components and instruments, such as keypads, annunciators and automated external defibrillators (AEDs) which require protection from vandalism, accidental damage, as well as the elements, such as dirt and grime. Spacers, integrated hinge and covers are formed from super tough polycarbonate material. The polycarbonate enclosures are backed by a lifetime guarantee against breakage and damage in normal use. STI enclosure is lockable with either a key or thumb lock.

## FEATURES

- Protection for large units against physical damage, grime and severe environments.
- Key or thumb lock available.
- Mounting hardware and gaskets are included.
- Fast and easy installation.
- Can be used over volume or lighting controls.
- 94V-2 flammability rating.
- Cover, integrated hinge and spacers are formed from super tough polycarbonate material.
- Each protected unit can be clearly seen and quickly identified.
- Typical working properties of polycarbonate are -40° to 250°F (-40° to 121°C).
- Lifetime guarantee against breakage of polycarbonate in normal use.

# STI Polycarbonate Enclosure

Dimensions and Technical Information

## MODELS AVAILABLE

| | |
|---|---|
| **STI-7500** | Cover with key lock and backbox |
| **STI-7501** | Cover with thumb lock and backbox |
| **STI-7510** | Cover with exterior key lock and backbox |
| **STI-7511** | Cover with exterior thumb lock and backbox |

**NOTE:** Select backbox from below

**Accessories**

| | |
|---|---|
| **18021 NEMA 4X** | 3/4" ridgid conduit hub for "A" backbox |
| **18054** | Replacement key #CH751 |
| **SUB-318** | Adapter plate used for mounting "A", "B" or "F" backbox to pedestal |
| **SUB-6297B20** | 3/4" conduit hub for "B", "C" and "F" backboxes |
| **STI-1283** | Backplate |

### BACKBOX DESCRIPTION

| | |
|---|---|
| A | Enclosed deep backbox |
| B | Enclosed backbox with double-gang electrical box |
| C | Open backbox for flush mount applications |
| D | Open conduit backbox, surface mount applications |
| E | Open backbox for flush mount applications |
| F | Enclosed backbox |

## APPROVALS & WARRANTY

### TESTING

The STI-7500 series only has been tested and approved or listed by:
· UL/cUL Listed No. S7255

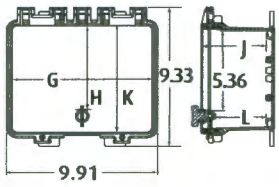
### WARRANTY

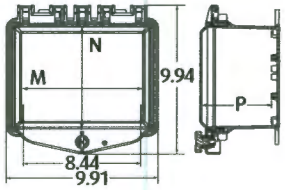
Lifetime guarantee against breakage of polycarbonate in normal use.

### NOTICE

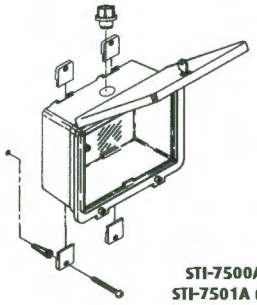
STI recommends replacement of gaskets every five years for outdoor applications.

| | STI-7500/7501 | | | | | STI-7510/7511 | | |
|---|---|---|---|---|---|---|---|---|
| BOX | G | H | J | K | L | M | N | P |
| A | 8.48 | 5.40 | 4.15 | 6.48 | 3.40 | 8.48 | 6.48 | 4.59 |
| B | 8.50 | 5.40 | 1.30 | 5.50 | 0.55 | 8.50 | 5.50 | 1.74 |
| C | 7.81 | 4.80 | 2.51 | 5.25 | 1.76 | 7.81 | 5.25 | 2.95 |
| D | 7.73 | 5.40 | 3.54 | 5.70 | 2.79 | 7.73 | 5.70 | 3.98 |
| E | 7.70 | 5.40 | 1.76 | 5.71 | 1.01 | 7.70 | 5.71 | 2.20 |
| F | 8.30 | 4.80 | 2.35 | 5.63 | 1.60 | 8.30 | 5.63 | 2.79 |

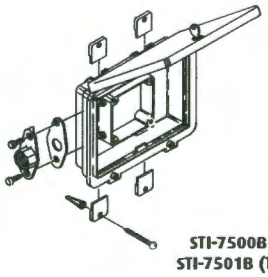


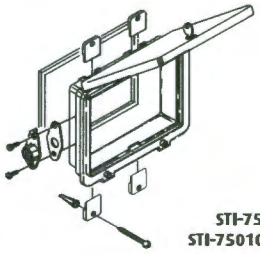

**NOTE:** Below pictures illustrate backbox differences.



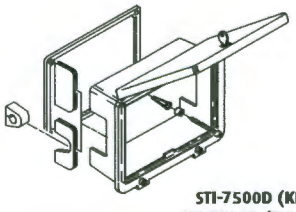
**STI-7500A (KEY LOCK)**
**STI-7501A (THUMB LOCK)**



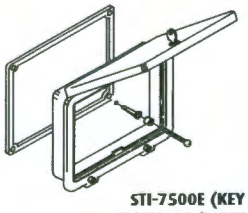
**STI-7500B (KEY LOCK)**
**STI-7501B (THUMB LOCK)**



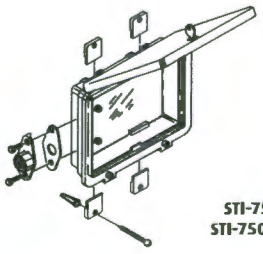
**STI-7500C (KEY LOCK)**
**STI-7501C (THUMB LOCK)**



**STI-7500D (KEY LOCK)**
**STI-7501D (THUMB LOCK)**



**STI-7500E (KEY LOCK)**
**STI-7501E (THUMB LOCK)**



**STI-7500F (KEY LOCK)**
**STI-7501F (THUMB LOCK)**


**Safety Technology International, Inc.**

2306 Airport Road
Waterford, Michigan
48327, USA

Tel: 248-673-9898
Fax: 248-673-1246
Tollfree: 800-888-4784
info@sti-usa.com
www.sti-usa.com

Unit 49G Pipers Road
Park Farm Industrial Estate
Redditch, Worcestershire
B98 0HU England

Tel: 44 (0) 1527 520 999
Fax: 44 (0) 1527 501 999
Free: 0800 085 1678 (UK)
www.sti-europe.com

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

ADEMCO
COMMERCIAL
SECURITY SOLUTIONS

## 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 predrilled 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

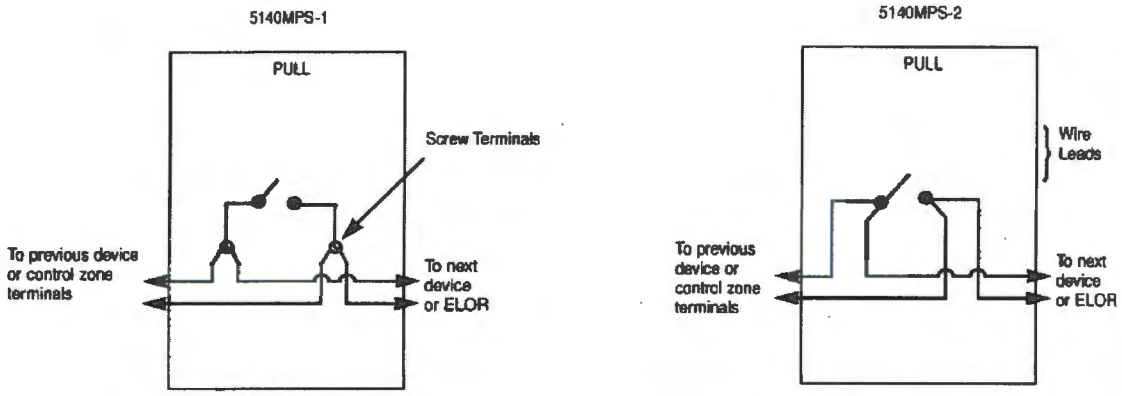
## ■ ORDERING INFORMATION

*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 minimum 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.

Honeywell

# 5808W3

PHOTOELECTRIC SMOKE/HEAT DETECTOR WITH BUILT-IN WIRELESS TRANSMITTER

Honeywell's 5808W3 is a 3V lithium powered, photoelectronic smoke/heat detector with a built-in wireless transmitter. It is intended for use with any 5800 Series Wireless Receiver/Transceiver for residential installations (for commercial installations, the 5881ENHC or the 5883H receiver is required).

The transmitter can send alarm, tamper, maintenance (when control panels are equipped to process maintenance signals), and battery condition messages to the system's receiver.

Smoothing algorithms minimize nuisance alarms by smoothing out short term spikes from dust and smoke – virtually eliminating nuisance alarms.

Since there are no holes to drill or wires to run, you can preserve the beauty of the building while protecting it. The 5808W3 is an ideal smoke detector for those difficult to wire locations, applications where room aesthetics are critical, or where hazardous materials exist.

All models also feature a restorable, built-in, fixed temperature (135°F) thermal detector that is also capable of sensing a pre-freeze condition if the temperature is below 41°F.

## FEATURES

- **Improved Robust RF Field Strength**
  The distance between the detector and receiver has been significantly increased without the need for a repeater
- **Smoothing Algorithms**
  Mathematical calculations in the detector's software that minimize nuisance alarms by smoothing out short term spikes from dust and smoke
- **Smart Check**
  A signal is sent to the control panel when the detector requires cleaning. This allows a regular, non-emergency service call to clean the detector before it goes into alarm.
- **Drift Compensation**
  Virtually eliminates nuisance alarms from long-term dust build-up by automatically adjusting the detector's sensitivity
- **Removable Detector Cover and Chamber Top**
  The technician is able to quickly and easily clean the detector chamber without disassembling the detector head
- **Approved UL Listings for Residential and Commercial Applications**
  Both residential and commercial installation requirements are met
- **Additional LED Status Indicators**
  Identifying between alarm or trouble conditions is a snap with green and red LED status indicators. A green LED denotes a normal condition while the red LED indicates abnormal conditions.
- **Easy-to-install Mounting Base**
  The sturdy mounting base allows the detector to be more easily installed on uneven surfaces (i.e. stucco). The mounting base has larger mounting ports, which accommodate drywall anchors for easy surface mounting.

**ADDITIONAL FEATURES:**

- Utilizes one long-life 3V lithium battery
- Microcontroller runs on a 4.0 MHz clock
- Horn operates at 3.3 KHz with sound pressure level of 85 dBA at 10 feet
- Built-in wireless transmitter, temporal code 3 sounder
- Maintenance signal fully complies with the sensitivity test requirement specified in NFPA 72, 7-2.2 and is approved by UL

# 5808W3

PHOTOELECTRIC SMOKE/HEAT DETECTOR WITH BUILT-IN WIRELESS TRANSMITTER

## SPECIFICATIONS

- **Dimensions**
  – Diameter: 5.3"*, Height: 2.30"
- **Weight**
  – 8.5 ounces (without batteries)
- **Operating Temperature**
  – 32–100° F (0–37.8° C)
- **Humidity Range**
  – 0% to 95% RH, non-condensing
- **Air Velocity**
  – 1,000 ft./min. max.
- **Operating Voltage**
  – 2.5–3.6VDC
- **Standby Current**
  – 8.5 mA avg.
- **Alarm Current**
  – 35 mA max.
- **Power Source**
  – One 3V CR123A lithium Battery†
- **Audible Output**
  – 85 dB min. at 10 ft.
- **Fixed Temperature Heat Sensor**
  – 135° F Fixed
- **Agency Listings**
  – UL268 – Commercial and Residential

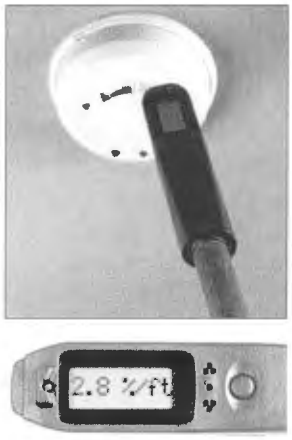
* With adapter bracket (4.9" without mounting base)

†Replacement batteries include Duracell DL123A, Sanyo CR123A, Panasonic CR123A, or ADEMCO 466

## ACCESSORIES (sold separately)

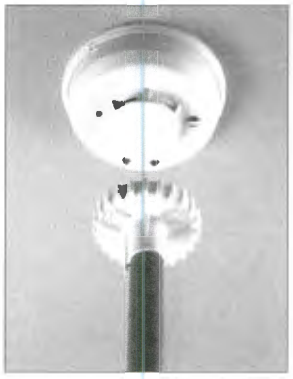
### SENS-RDR Infrared Sensitivity Reader

Reduce testing time with the handheld SENS-RDR infrared sensitivity reader. The reader simplifies sensitivity measurements and displays them precisely in terms of percent per foot obscuration. The SENS-RDR eliminates the need for magnets, voltmeters and ladders.




### RT Removal Tool

Simplifies the attachment and removal of the detector head to the mounting base; it may be attached to a threaded extension pole or broom handle thereby eliminating the need for ladders.



## ORDERING

| | |
|---|---|
| **5808W3** | Photoelectric Smoke/Heat Detector with Built-in Wireless Transmitter |
| **Accessories sold separately:** | |
| **SENS-RDR** | Hand-held Sensitivity Reader |
| **RT** | i3 Removal Tool used for easy installation and removal of head from base |

**Automation and Control Solutions**
Honeywell Security & Communications
2 Corporate Center Dr. Suite 100
P.O. Box 9040
Melville, NY 11747

www.honeywell.com

Honeywell

L/5808W3DS/D
September 2008

Honeywell

# 5809

WIRELESS HEAT DETECTOR



Honeywell's 5809 wireless fixed heat and rate-of-rise temperature sensor offers expanded fire detection and installation flexibility. It is ideal for hard to wire locations and applications that require more than smoke detection. With no wires to run, the 5809 is fast and easy to install.

The 5809 combines both rate-of-rise and fixed temperature sensors. Fires typically cause a rapid rise in temperature in the surrounding area. The 5809's rate-of-rise thermostat senses the rise in temperature and signals an alarm if the increase is 15° or more per minute. A built-in fixed temperature sensor will also signal an alarm if the environmental temperature rises above 135°F. The 5809 is UL Listed (UL521) and CSFM approved for commercial and residential applications.

## FEATURES

- Contains a built-in transmitter which can send alarm, supervisory and battery condition messages to the system's receiver/control unit
- Powered by a three-volt lithium battery. If the battery voltage gets too low, the 5809 sends a low battery signal to the control panel
- Features a tamper switch, which causes a trouble signal to be sent to the control if the unit is removed from the mounting base
- UL Listed for Commercial (when using 5881EH Receiver) or Residential applications

# 5809
WIRELESS HEAT DETECTOR

## SPECIFICATIONS:

- **Power:**
  - 3V lithium battery (Duracell DL123A, Panasonic CR123A, Sanyo CR123A, Varta CR123A)
  - Operating temperature: 40° to 140°F (6° to 60°C)
  - Rate-of-rise temperature: 15°F (8°C) increase per minute (NOTE: Rate-of-rise sensor does not operate above 38°C)
  - Fixed temperature: 135°F (57°C)
  - Maximum spacing: 50 ft x 50 ft UL, 30 ft x 30 ft FM (refer to National Fire Alarm Code Standard NFPA 72 for application requirements)
  - Dimensions: 4.4" diameter/2/2" deep
- **Agency Listings:**
  - UL 521 Listed for Commercial (when using 5881EH Receiver) or Residential applications
- **Wireless Transmission Path Test:**
  - A good RF transmission path must be established from the proposed mounting location before permanently installing the detector. To determine that there is a good signal reception from the proposed location, perform the test procedure described in the installation instructions procedure.

## MOUNTING THE DETECTOR:

- You can mount the 5809 on a wall or ceiling within the protection area:
- Wall mounting: Mount the detector 4" 6" from the ceiling
Ceiling mounting: Mount the detector at least 4" from any wall. Make sure the normal ceiling temperature will not exceed 100°F (37.8° C).
- Refer to NFPA Standard 72 for detector spacing and other requirements. Maximum spacing for UL installations is 50' x 50'
- Avoid mounting the detector near heat generating devices (e.g. ovens, heat vents, furnaces, boilers)
IMPORTANT: Heat detectors should be used for property protection. Reliance should not be placed soley on heat detectors for life safety. When life safety is involved, smoke detectors MUST also be used. Detectors must not be painted.

## TESTING THE DETECTOR:

The test procedure should be performed to determine a good RF transmission path and again after installation is completed.

CAUTION: The fixed temperature sensor is intended for one-time use. Prolonged heat during testing can damage the unit. If used carefully following the instructions described below, the heat from a portable hair dryer can be used to test the unit. If the round disk on top of the detector detaches, the detector must be replaced.
- Activiate the control panel's test mode
- Use either method (a) or (b) or activate the detector

(a) Press and release the activation button on the PC board assembly OR
(b) Holding a portable hair dryer about 12 to 18 inches away from the detector, turn the dryer on and aim the warm air at the side of the detector.
**CAUTION:** Aiming the dryer directly at the round disk on the detector can damage the unit to be replaced.
- The system's keypad should beep and the detector's ID should be displayed
- Exit the control's test mode
FCC ID: CFS 8DL 5809

This device complies with part 15 of FCC rules.

Operation is subject to the following conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## ORDERING

**5809** Heat Detector

**Honeywell Security & Custom Electronics**
Honeywell
2 Corporate Center Drive Suite 100
P.O. 9040
Melville, NY 11747
www.honeywell.com

Honeywell

L/5809/D
October 2007

Honeywell

# 5817CB

WIRELESS COMMERCIAL TRANSMITTER

The 5817CB is a universal contact-monitoring transmitter that can be used with household and commercial fire and burglary-initiating devices such as door/window contacts, motion and glassbreak detectors, sprinkler water flow switches, tamper switches, post indicator valves, manual pull stations and remote duct detectors. Upon activation, it emits an RF signal to a control panel, sending a burglary or fire alarm to a central station.

## FEATURES

- The 5817CB has three unique input loops (zones).
- The first loop (primary loop) is supervised and typically used for high-priority alarm reporting such as commercial fire or burglary.
- The second loop is the built-in, normally closed reed switch used in conjunction with magnet.
- The third loop is another normally closed household burglary loop. All three loops may be used.
- A fourth (automatically enrolled) loop contains two tamper switches to protect the 5817CB.

## MOUNTING

1. Remove the transmitter cover by inserting the flat blade of a small screwdriver into the pry-off slot at the bottom end of the unit (on the right side closest to the cover's decorative ribs and twisting).

2. Disengage the supplied mounting plate from the unit by inserting the blade of a small screwdriver into the mounting plate release hole (see Diagram 2) and pushing the locking tab out (see Diagram 1). Slide the mounting plate downward along the case back.

**Note**: For this application, the alignment guide strip along one edge of the mounting plate serves no function and may be broken away, if desired.

3. If concealed wiring is to be used, feed the wires through the concealed wiring entry hole on one corner of the plate (surface wiring is mentioned in step 5 below).

4. Install the mounting plate, with its caseholding posts pointing up, in the location selected as described in the installation instructions. Use the two flat-head screws supplied. Note: To ensure proper operation of the unit's back tamper (when it is separated from the mountain plate), the screws must be anchored to a wall stud or other solid wood material.

5. Set the DIP switch (after the control panel has enrolled the transmitter's input ID's) for the desired primary loop characteristics, as described in the table on the following page.

# 5817CB

WIRELESS COMMERCIAL TRANSMITTER

| Primary Loop Options Table | | | | |
|---|---|---|---|---|
| Switch Setting | DIP Switch Position | | | |
| | 1 | 2 | 3 | 4 |
| **On** | **Repeating transmission** (every 4 sec.) upon primary loop fault use for high priority alarm, such as fire. | Switch must **always** be in the **on** position | Switch must **always** be in the **on** position | Switch must **always** be in the **off** position |
| **Off** | **Single transmission** per primary loop change-of-state | | | |

Notes: a. In order for the control panel to enroll the transmitter, the DIP switches must be Set to OFF-ON-ON-OFF (see Diagram 2).
b. The auxiliary loops are not affected by the DIP switch settings.

Wiring Connections

Connect the loop wiring to the unit's terminals before installing the battery (see Diagram 2).

Notes: a. Primary loop 1 is a supervised loop and must have an end-of-line (EOL) resistor (470K ohms, supplied) placed across the sensor. Additionally, for primary loop 1, a contact device may not be installed more than 20 feet from the transmitter.
b. If loop 2 is not going to be used, the magnet is not necessary.
c. If loop 3 is not going to be used, no connection is needed across its terminals. For UL household burglary and fire installations, the loop 3 contact device (if used) may not be more than 3 feet from the transmitter.

## SPECIFICATIONS:

- **Dimensions:**
  - 1-9/16"W x 3-1/2"H x 1-3/16"D (40mm x 89mm x 30mm)
  - Battery 3v Lithium (see BATTERY INSTALLATION AND REPLACEMENT).
- **UL Listings:**
  - Commercial Fire UL864
  - Household Fire UL985
  - Household Burg UL1023
  - Commercial Burg UL365, UL609, UL1076, UL1610

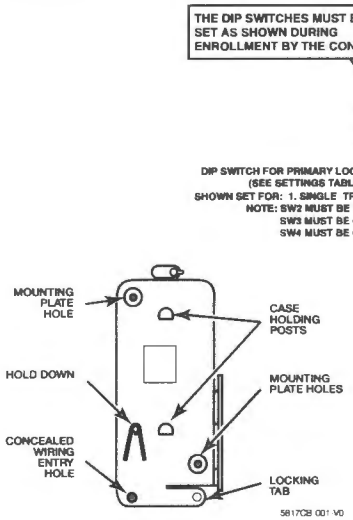



**Diagram 1. Mounting Plate**

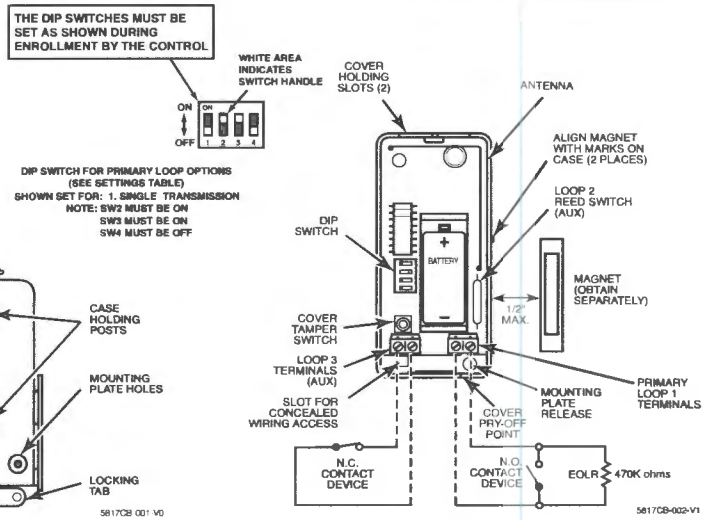



**Diagram 2. Transmitter, Cover Removed**

Note: For UL commercial and household fire installations, only one initiating device may be connected to this transmitter. For UL commercial burglary installations, multiple initiating devices may be used as long as the devices all service the same function such as door/window contacts, motion or glassbreak detectors. All initiating devices must be located within the same room.

## ORDERING

**5817CB** Wireless Commercial/Household Transmitter

**Honeywell Security & Custom Electronics**
Honeywell
2 Corporate Center Drive Suite 100
P.O. Box 9040
Melville, NY 11747
www.honeywell.com

L/5817CB/D
August 2007

SYSTEM SENSOR®

# Photoelectric Smoke Detectors


*System Sensor's i³™ series smoke detectors represent significant advancement in conventional detection. The i³ family is founded on three principles: installation ease, intelligence, and instant inspection.*

## Features

- Plug-in detector line, mounting base included
- Large wire entry port
- In-line terminals with SEMS screws
- Mounts to octagonal and single-gang backboxes, 4-square backboxes, or direct to ceiling
- Stop-Drop 'N Lock attachment to base
- Removable detector cover and chamber
- Built-in remote maintenance signaling
- Drift compensation and smoothing algorithms
- Simplified sensitivity measurement
- Wide angle, dual color LED indication
- Loop testing via EZ Walk feature
- Built-in test switch

**Installation ease.** The i³ line redefines installation ease with its plug-in design. This allows an installer to pre-wire the bases included with the heads. The large wire entry port and in-line terminals provide ample room for neatly routing the wiring inside the base. The base accommodates a variety of back box mounting methods, as well as direct mounting with drywall anchors. To complete the installation, i³ heads plug in to the base with a simple Stop-Drop 'N Lock™ action.

**Intelligence.** i³ detectors offer a number of intelligent features to simplify testing and maintenance. Drift compensation and smoothing algorithms are standard with the i³ line to minimize nuisance alarms. Two-wire i³ detectors needing cleaning can generate a remote maintenance signal, when connected to the 2W-MOD2 loop test/maintenance module, or to a panel equipped with the i³ protocol. This signal is indicated by LEDs located at the module and the panel. The SENS-RDR, a wireless device, displays the sensitivityof i³ detectors in terms of percent per-foot obscuration.

**Instant inspection.** The i³ series provides wide-angle red and green LED indicators for instant inspection of the detector's condition: normal standby, out-of-sensitivity, alarm, or freeze trouble. When connected to the 2W-MOD2 loop test/maintenance module or a panel with the i³ protocol, the EZ Walk loop test feature is available on two-wire i³ detectors. This feature verifies the initiating loop wiring by providing LED status indication at each detector.

## Agency Listings

UL LISTED S911 | FM APPROVED 3011446 | 7272-1209:210 | MEA approved 290-01-E | MSFM approved 2093

# Smoke Detector Specifications

## Architectural/Engineering Specifications

Smoke detector shall be a System Sensor i³ Series model number_____, listed to Underwriters Laboratories UL 268 for Fire Protection Signaling Systems. The detector shall be a photoelectric type (Model 2W-B, 4W-B) or a combination photoelectric/thermal (Model 2WT-B, 4WT-B) with thermal sensor rated at 135°F (57.2°C). The detector shall include a mounting base for mounting to 3½-inch and 4-inch octagonal, single gang, and 4-inch square back boxes with a plaster ring, or direct mount to the ceiling using drywall anchors. Wiring connections shall be made by means of SEMS screws. The detector shall allow pre-wiring of the base and the head shall be a plug-in type. The detector shall have a nominal sensitivity of 2.5 percent-per-foot nominal as measured in the UL smoke box. The detector shall be capable of automatically adjusting its sensitivity by means of drift compensation and smoothing algorithms. The detector shall provide dual color LED indication which blinks to indicate power up, normal standby, out of sensitivity, alarm, and freeze trouble (Model 2WT-B, 4WT-B) conditions. When used in conjunction with the 2W-MOD2 module, 2-wire models shall include a maintenance signal to indicate the need for maintenance at the alarm control panel, and shall provide a loop testing capability to verify the circuit without testing each detector individually.

## Electrical Specifications

| | |
|---|---|
| **Operating Voltage** | Nominal: 12/24V non-polarized<br>Minimum: 8.5V<br>Maximum: 35V |
| **Maximum Ripple Voltage** | 30% peak to peak of applied voltage |
| **Standby Current** | 2-wire: 50 μA maximum average; 4-wire: 50 μA maximum average |
| **Maximum Alarm Current** | 2-wire: 130 mA limited by control panel; 4-wire: 20 mA @12V, 23mA @ 24V |
| **Peak Standby Current** | 2-wire: 100 μA; 4-wire: n/a |
| **Alarm Contact Ratings** | 2-wire: n/a; 4-wire: 0.5 A @ 30V AC/DC |

## Physical Specifications

| | |
|---|---|
| **Dimensions (including base)** | 5.3 inches (127 mm) diameter; 2.0 inches (51 mm) height |
| **Weight** | 6.3 oz. (178 grams) |
| **Operating Temperature Range** | 2W-B and 4W-B: 32°F–120°F (0°C–49°C); 2WT-B and 4WT-B: 32°F–100°F (0°C–37.8°C) |
| **Operating Humidity Range** | 0 to 95% RH non-condensing |
| **Thermal Sensor** | 135°F (57.2°C) fixed |
| **Freeze Trouble** | 2WT-B and 4WT-B only: 41°F (5°C) |
| **Sensitivity** | 2.5%/ft. nominal |
| **Input Terminals** | 14–22 AWG |
| **Mounting** | 3½-inch octagonal back box<br>4-inch octagonal back box<br>Single gang back box<br>4-inch square back box with a plaster ring<br>Direct mount to ceiling |

## LED Modes

| LED Mode | Green LED | Red LED |
|---|---|---|
| Power up | Blink every 10 seconds | Blink every 10 seconds |
| Normal (standby) | Blink every 5 seconds | off |
| Out of sensitivity | off | Blink every 5 seconds |
| Freeze trouble | off | Blink every 10 seconds |
| Alarm | off | Solid |

## Power Up Sequence for LED Indication

| Condition | Duration |
|---|---|
| Initial LED status indication | 80 seconds |

# Ordering Information

| Model | Thermal | Wiring | Alarm Current |
|---|---|---|---|
| 2W-B | No | 2-wire | 130 mA max. limited by control panel |
| 2WT-B | Yes | 2-wire | 130 mA max. limited by control panel |
| 4W-B | No | 4-wire | 20 mA @ 12V, 23mA @ 24V |
| 4WT-B | Yes | 4-wire | 20 mA @ 12V, 23mA @ 24V |

## Accessories

| | | | |
|---|---|---|---|
| 2W-MOD2 | 2-wire loop test / maintenance module | RT | Removal / replacement tool |
| SENS-RDR | Sensitivity reader | A77-AB2 | Retrofit adapter bracket, 6.6 in. (16.76cm) diameter |

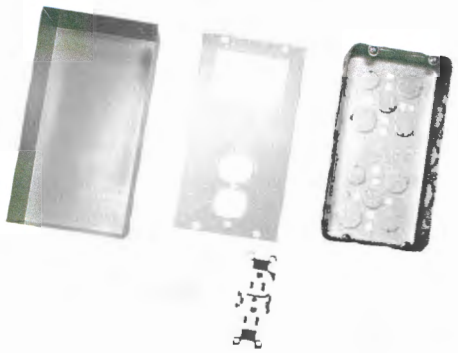
SYSTEM SENSOR®

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


A05-0318-006 • 7/06 • #1676

BOSCH
Invented for life

# D8004 Transformer Enclosure



The D8004 Transformer Enclosure protects the AC plug-in transformer and ensures that it remains securely fixed to the AC wall outlet. The D8004 Transformer Enclosure may be required for certain applications; the most common being fire alarm.

## Certifications and Approvals

| Region | Certification | |
|---|---|---|
| USA | UL | AMCX: Central Station Alarm Units (UL1610, UL1635), AOTX: Local Alarm Units (UL464, UL609), APAW: Police Station Alarm Units (UL365, UL464), NBSX: Household Burglar Alarm System Units (UL1023), UOXX: Control Unit Accessories, System (UL864, 9th edition), UTOU: Control Units and Accessories - Household System Type (UL985) |
| | FM | |
| | CSFM | 7167-1615: 100, 7165-1615: 112, 7165-1615: 119 |
| | NYC-MEA | 12-92-E, Vol. 12 |
| | | 12-92-E, Vol. 15 |

## Technical Specifications

**Environmental Considerations**

| | |
|---|---|
| Environment: | Indoor, dry |

**Mechanical Properties**

**Cover**

| | |
|---|---|
| Color: | Light gray |
| Dimensions: | 8.8 in. x 4.7 in. x 3.0 in. (22.4 cm x 11.9 cm x 7.6 cm) |
| Material: | Cold-rolled steel, 18 gauge (1.2 mm) |

**Outlet Box**

| | |
|---|---|
| Dimensions: | 8.7 in. x 4.6 in. x 1.7 in. (22.1 cm x 11.7 cm x 4.3 cm) |
| Material: | Galvanized steel, 18 gauge (1.2 mm) |

**Power Requirements**

| | |
|---|---|
| Voltage (supply): | 120 VAC |

## Ordering Information

**D8004 Transformer Enclosure** **D8004**
For applications such as fire alarm that might require a transformer enclosure.

# 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)


Series ZH


Series ZR


ZR AND ZH Mounting

## 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.

## Engineering Specifications

### General

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

### Strobes

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

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

**Audibles and Audible/Strobe Combinations**

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

**Synchronization Modules**

When synchronization of strobes or temporal Code-3 audibles is required, the appliances shall be synchronized using the Siemens 5406B sync modules, MPC-6000 panels, MPC-7000 panels, or RSE-300 power suppies with built-in sync protocol. The strobes shall not drift out of synchronization at any time during operation. Audibles and strobes shall be able to be synchronized on a 2-wire circuit with the capability to silence the audible if required. If the sync module or power supply fails to operate (i.e., contacts remain closed), the strobes shall revert to a non-synchronized flash rate. All notification appliances shall be listed for "Special Applications".

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

## Technical Information

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

## Ordering Information / Mounting Requirements / Approvals

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

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

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

FARADAY

**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**

# AL602ULADA, AL802ULADA, AL1002ULADA
## NAC Power Extenders

Rev. AL602/802/1002ULADA- A05I

## 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).

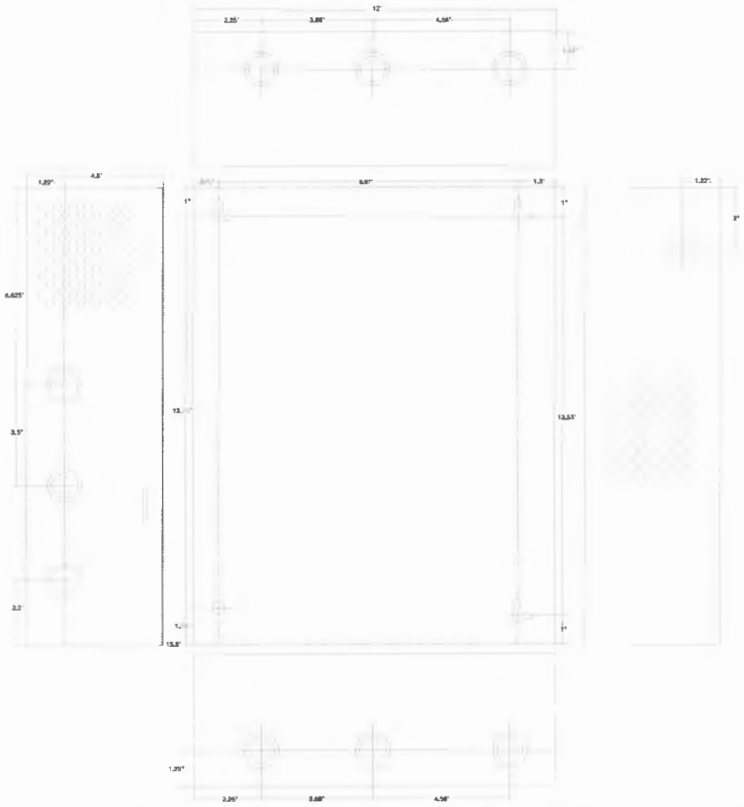
MEA Approved — NYC Department of Buildings Approved.

California State Fire Marshal Approved.

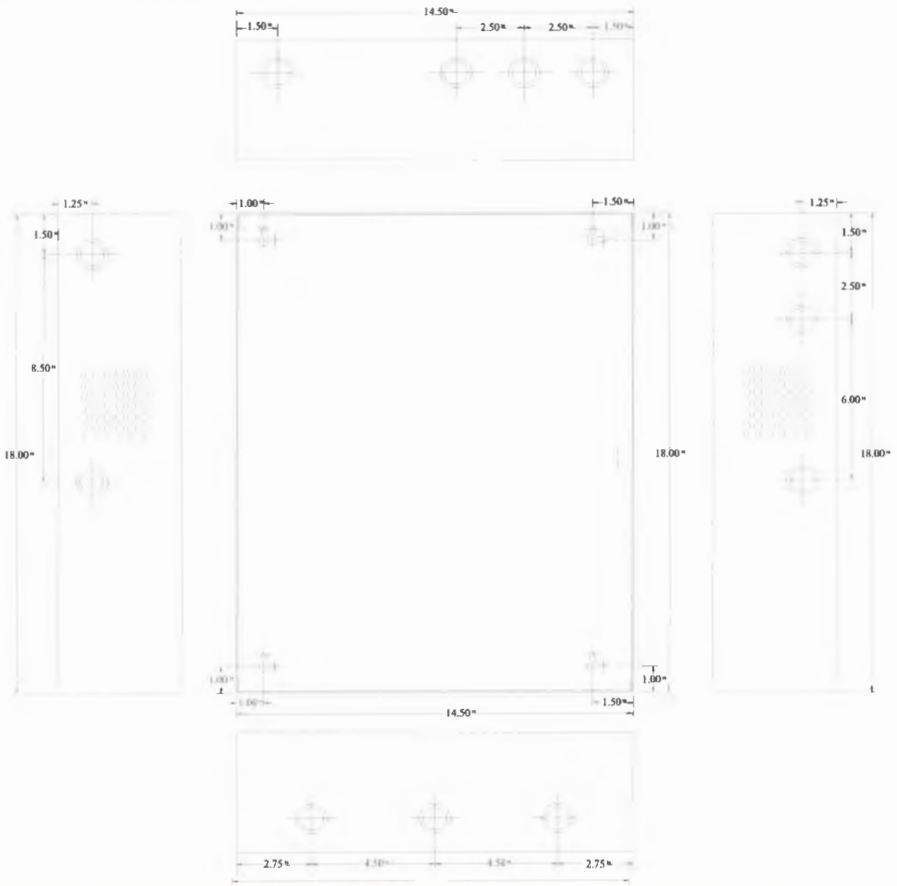
FM APPROVED — Factory Mutual Approved.

## ***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



# Sequence of Operations

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

TELGUARD

# TG-7FS | CELLULAR ALARM COMMUNICATOR

COMMERCIAL FIRE

## PRODUCT FEATURES

- Meets UL 864 requirements for sole, primary or backup path communications.
- Supports virtually all alarm formats for universal panel compatibility.
- Connects to your central station's PSTN or IP receivers.
- Saves your customers money by replacing landline costs.

The Telguard TG-7FS is the ideal cellular alarm communications solution for commercial fire systems. The TG-7FS transmits alarm signals from the fire panel over the digital cellular network to the designated monitoring station.

Compliant with the 2010 Edition of NFPA 72, the TG-7FS can serve as the sole communications path for the fire alarm system, replacing all of the landlines currently dedicated to the master control unit. On average, cellular monitoring costs the end user significantly less than a dedicated landline. For each landline replaced with a TG-7FS, the monthly communications bill decreases.

By being able to signal failures to the central station within five minutes of an outage, the TG-7FS can be installed as the sole path for commercial fire installations. For existing installations, all landlines can be swapped for a single TG-7FS because of the new five minute supervision mode.

The TG-7FS can also be installed as a backup path, and upgraded to sole path at a later date.

### Telguard Online

Telguard makes adopting cellular easy with a secure Internet portal. The straightforward web interface allows security dealers and central stations to quickly and efficiently access Telguard based services 24/7. This advanced tool has multi-level user authorization and provides total account management of UL Listed Telguard cellular alarm communicators.

### Telguard Cellular Service

Telguard Cellular Service provides nationwide digital cellular network coverage for all Telguard units. Telguard's Communication Center is UL listed and provides seamless connectivity between the alarm panel, the Telguard family of products and the central station. Telguard Technical Support provides a single point of contact for both cellular service and Telguard product questions.

### Advanced Reliability

- Available relay output for tripping the alarm control panel when a trouble condition occurs.
- Automatic self-tests with central station notification ensure the cellular system is operating.
- 128 bit AES (Advanced Encryption Standard) alarm signals ensure authentication and security.
- Features SMS backup to reduce false alarms, providing supervision using SMS if GPRS fails.

TELGUARD

# TG-7FS | CELLULAR ALARM COMMUNICATOR

## Power

- Transmit power: 1.0W-2.0W (maximum allowable).
- Power Consumption: 60mA (Standby) 250mA (Transmission).
- Transformer: 12VAC, 800mA UL listed plug-in.

## Radio Transceiver

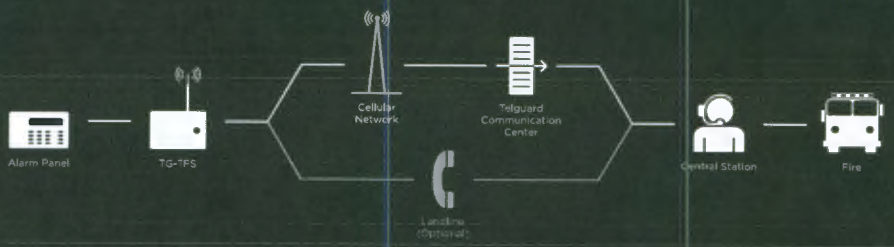
- Dual band cellular and PCS.
- GSM 850MHz: Class 4 (2 watts).
- GSM 1900MHz: Class 1 (1 watt).
- Antenna: 9" dipole with 2dBi gain, 12 ft of cable and universal mounting bracket.
- FCC part 15, 22, 24 and 68 compliant.

## Physical Details

- TG-7FS: 7.5" H x 11.5" W x 3.5" D
- Shipping Weight: 8lbs
- Operating Environment: 0°C to +50°C; up to 95% humidity (non-condensing).

## Standard Features

- Full data reporting.
- Automatic self-test (5 min. & daily).
- Power supply with battery harness.
- Locking, red metal encloure.
- Two programmable supervisory trip outputs.
- Alarm format support for SIA2, Contact ID, pulse (3x1, 4x2), modem IIe, & IIIa2, DMP.
- Telephone line monitor built-in, with Standard Line Security.




Telguard technology allows full data reporting for unlimited point-to-point signal details and maximum transmitting power for superior in-building penetration.

Telguard products are easy to install, economical, and UL Listed.

### Accessories

- ACD 12, ACD 35, ACD 50, ACD 100: 12/35/50/100 feet of low loss, high performance cable.
- HGD-0: High gain directional antenna.
- EXD-0: External antenna.

### UL Listings

**Commercial Fire**

864 • Control units & accessories for fire alarm systems

**Commercial Burglary**

365 • Police Station connected burglar alarm units and systems

1610 • Central station burglar alarm units

**Residential**

985 • Household fire warning systems

1023 • Household burglar alarm systems

UL LISTED

NFPA INTERNATIONAL

ESA ELECTRONIC SECURITY ASSOCIATION Executive Strategic Partner Gold

Telguard, a Division of Telular Corporation, 2727 Paces Ferry Road, SE, Suite 1-800, Atlanta, GA, 30339, USA.
877-428-4238. www.Telguard.com. 

# Project Data Sheet

REV. 11.05.09

## PROJECT INFORMATION

| | |
|---|---|
| Project (Estimate) Number | 4311 |
| Project Name | 146-148 Sherman Street |
| Project Address | Portland, Maine |
| | |
| Contract Date | 12/7/2011 |
| Signed Contract (Yes / No?) | yes |
| Purchase Order # | |
| Certified Payroll (Yes / No?) | no |
| Billing Date | |
| Sales Representative | Rich |

## BILLING ADDRESS

| | |
|---|---|
| Buyer | Mary Cuevas (409-4046) or Jeff (615-9131) |
| Street or Box # | |
| City, State, Zip | |
| Phone Number | |
| Fax Number | |
| Contact Person | Betty Lane Realtor at 632-6143 |
| Contact Cell | New Owner: Roger Buck at 749-9059 |
| Email Address | |
| Submittals Needed(Yes/No?) | yes |
| Est. Submittals Date | asap |
| Est. Delivery Date | construction started by Bob Pearson |
| Est. Finals Date | as soon as possible |

## HOURS ESTIMATED

| | |
|---|---|
| Submittals and Risers | |
| Programming | |
| Final Testing and Startup | |
| Project Management | |

## PROJECT TYPE / SCOPE

Install and finals for fire alarm system

# Project Order Sheet

## PROJECT INFORMATION

Device List Number 3436

Project Name

Project Address

## MATERIAL ORDERS

**FARADAY**
Date Needed:
Date Ordered: 12/15/2011
Date Received:
Date Shipped:

**BOSCH**
Date Needed:
Date Ordered: 12/15/2011
Date Received:
Date Shipped:

**ADI**
Date Needed:
Date Ordered: 12/15/2011
Date Received:
Date Shipped:

**KNOX**
Date Needed:
Date Ordered: given to office to order
Date Received:
Date Shipped:

**TEKTONE**
Date Needed:
Date Ordered:
Date Received:
Date Shipped:

_____
Date Needed:
Date Ordered:
Date Received:
Date Shipped:

# Programming Sheet

| INFORMATION FOR PROGRAMMING | Yes | No |
|---|---|---|
| Dialer? | XXX | |
| Will system be monitored by us? | XXX | |
| City Masterbox? | | XXX |
| Radio Masterbox by us? | | XXX |
| Is Floor Above And Below notification required? | | XXX |
| Are non-silencable horn/strobes only required? | XXX | |
| Will there be audible bases in occupied rooms? | | XXX |
| Special features, ie: smoke dampers, controls? | | XXX |
| Local Jurisdiction? | | |
| State Jurisdiction? | | |
| Estimated number of devices? | 55 | |