# CITY OF PORTLAND

# BUILDING PERMIT

This is to certify that **DEVELOPMENTLLC BOWDOIN**

Job ID: **2011-03-588-ELEC-RR**

Located At **135 CHADWICK**

CBL: **063 - - B - 001 - 001 - - - - -**

has permission to INSTALL 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 |

**Code Enforcement Officer / Plan Reviewer**

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

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

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

| Job No:<br>**2011-03-588-ELEC-RR/**<br>**2011-1905 FAFS** | Date Applied:<br>**3/14/2011** | CBL:<br>**063 - - B - 001 - 001 - - - - -** | |
|---|---|---|---|
| Location of Construction:<br>**135 CHADWICK ST** | Owner Name:<br>**DEVELOPMENT LLC BOWDOIN** | Owner Address:<br>**131 CHADWICK ST**<br>**PORTLAND, ME - MAINE 04102** | Phone: |
| Business Name: | Contractor Name:<br>**MORRIS, MARK J** | Contractor Address:<br>**53 BOWERY BEACH RD   CAPE ELIZABETH MAINE 04107** | Phone:<br>**767-2900** |
| Lessee/Buyer's Name: | Phone: | Permit Type:<br>**Fire Alarm permit** | Zone:<br>**R-6** |
| Past Use:<br>**18 Residential Dwelling Units** | Proposed Use:<br>**SAME: 18 Residential Dwelling Units – To add a Fire Alarm System** | Cost of Work:<br><br>Fire Dept:<br>☑ Approved w/conditions<br>___ Denied<br>___ N/A<br>Signature: | CEO District:<br><br>Inspection: *R-2*<br>Use Group: *R-2*<br>Type: *Alarm*<br>Signature: |
| Proposed Project Description:<br>**135 Chadwick St. / Fire Alarm permit** | | 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 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.

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

# 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.**

1. Final inspection required by the Fire Department upon completion.

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 OCCU0PIED.
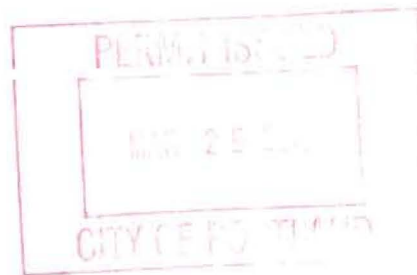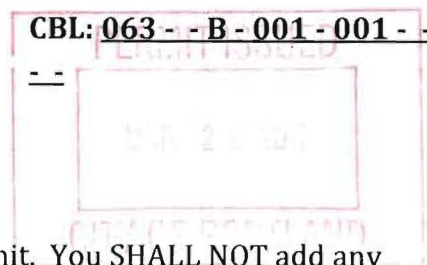
Director of Planning and Urban Development
Penny St. Louis

**Job ID: 2011-03-588-ELEC-RR**  **Located At: 135 CHADWICK**   **CBL: 063 - - B - 001 - 001 - - - - -**

## Conditions of Approval:

**Building**

1. This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. without special approvals.
2. This property shall remain an eighteen (18) residential dwelling unit building. Any change of use shall require a separate permit application for review and approval.

**Building**

1. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm HVAC systems, heating appliances, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
2. Fire Alarm systems shall be installed per Sec. 907 of the IBC 2009.

**Fire**

The basement laundry room shall have a horn/strobe.

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.

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

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

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

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

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

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

# Fire conditions

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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.

*Fire Alarm 2011-1905FAIS* (handwritten)

| | | | | | |
|---|---|---|---|---|---|
| **Job Type:** | Electrical-Repair/Replace/Upgrade | **Job Description:** | 135 Chadwick St. / Electric | **Job Year:** | 2011 |
| **Building Job Status Code:** | Initiate Plan Review | **Pin Value:** | 870 | **Tenant Name:** | |
| **Job Application Date:** | | **Public Building Flag:** | N | **Tenant Number:** | |
| **Estimated Value:** | | **Square Footage:** | | | |
| **Related Parties:** | | DEVELOPMENT BOWDOIN | | *Property Owner* | |
| | | MARK J. MORRIS - MARK MORRIS | | *ELECTRICAL CONTRACTOR* | |

### Job Charges

| Fee Code Description | Charge Amount | Permit Charge Adjustment | Net Charge Amount | Payment Date | Receipt Number | Payment Amount | Payment Adjustment Amount | Net Payment Amount | Outstanding Balance |
|---|---|---|---|---|---|---|---|---|---|

## Location ID: 10028

### Location Details

| Alternate Id | Parcel Number | Census Tract | GIS X | GIS Y | GIS Z | GIS Reference | Longitude | Latitude |
|---|---|---|---|---|---|---|---|---|
| O10350 | 063 B 001 001 | | M | | | | -70.274136 | 43.651578 |

| Location Type | Subdivision Code | Subdivision Sub Code | Related Persons | Address(es) |
|---|---|---|---|---|
| 1 | | | | 135 CHADWICK STREET WEST |

| Location Use Code | Variance Code | Use Zone Code | Fire Zone Code | Inside Outside Code | District Code | General Location Code | Inspection Area Code | Jurisdiction Code |
|---|---|---|---|---|---|---|---|---|
| ELEVEN TO TWENTY FAMILY | | NOT APPLICABLE *R-6* | | | | | DISTRICT 3 | WEST END |

### Structure Details

### Structure: Commercial electric

#### Occupancy Type Code:

| Structure Type Code | Structure Status Type | Square Footage | Estimated Value | Address |
|---|---|---|---|---|
| Commerical Mixed Use | 0 | | | 135 CHADWICK STREET WEST |

| Longitude | Latitude | GIS X | GIS Y | GIS Z | GIS Reference | | User Defined Property | Value |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Alarms Commercial | 1 |

## Permit #: 20111858

### Permit Data

*GAyla —  Not in Que  Just outside of Instore* (handwritten)

| Location Id | Structure Description | Permit Status | Permit Description | Issue Date | Reissue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 10028 | Commercial electric | Initialized | Commercial | | | |

### Inspection Details

| Inspection Id | Inspection Type | Inspection Result Status | Inspection Status Date | Scheduled Start Timestamp | Result Status Date | Final Inspection Flag |
|---|---|---|---|---|---|---|

### Fees Details

| Fee Code Description | Charge Amount | Permit Charge Adjustment | Permit Charge Adj Remark | Payment Date | Receipt Number | Payment Amount | Payment Adjustment Amount | Payment Adj Comment |
|---|---|---|---|---|---|---|---|---|
| Electric Commercial Permit Fee | $55.00 | | | 3/14/11 | 1859 | $55.00 | | |

## Permit #: 20111905

### Permit Data

| Location Id | Structure Description | Permit Status | Permit Description | Issue Date | Reissue Date | Expiration Date |
|---|---|---|---|---|---|---|
| 10028 | Commercial electric | Initialized | FIRE ALARM | | | |

### Inspection Details

| Inspection Id | Inspection Type | Inspection Result Status | Inspection Status Date | Scheduled Start Timestamp | Result Status Date | Final Inspection Flag |
|---|---|---|---|---|---|---|

### Fees Details

| Fee Code Description | Charge Amount | Permit Charge Adjustment | Permit Charge Adj Remark | Payment Date | Receipt Number | Payment Amount | Payment Adjustment Amount | Payment Adj Comment |
|---|---|---|---|---|---|---|---|---|
| Fire Permit Fee | $270.00 | | | | | | | |

# 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: **135 Charlesick St.** CBL: **063 B001**

Exact location: (within structure) **Basement Electrical Room.**

Type of occupancy(s) (NFPA & ICC): **Existing 18 Unit Apartment Building**

Building owner: **Bowdoin Development Co.**

System Designer (point of contact): *Must be* **Rich Brobst Protection Professionals**

Designer phone: **775 5755** E-mail: _____

Installing contractor: **Mark Morris Electric, Inc** Certificate of Fitness No: _____

Contractor phone: **207 767 2900** E-mail: **Mark@markmorriselectric.com**

This is a new application: YES ○ NO ○

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

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

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

*Mail To:*
*Mark Morris Electric Inc*
*104 Thadeus St. Unit 10*
*South Portland, Me.*
*04106*

COST OF WORK: **$25,000.00**

PERMIT FEE: **$270.00/00**
($10 PER $1,000 + $30 FOR THE FIRST $1,000)

**RECEIVED**

**MAR 15 2011**

Dept. of Building Inspections
City of Portland Maine

The <u>designer</u> 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 <u>addition</u> to full sized plans to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

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

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

Applicant signature: **Mark Morris** Date: **3/15/2011**

# CITY OF PORTLAND, MAINE
## Division of Building Inspections
# Original Receipt

March 15 2011

Received from _Mark Morris_

Location of Work _135 Chadwick St._

Cost of Construction $_____ Building Fee $_____
Permit Fee $_____ Site Fee $_____
Certificate of Occupancy Fee $_____
**Total:**_____

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

Other _File Again_

CBL: _063 B001_

Check #: _MC_ Total Collected _270.00_

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

Taken by: _____

EXIT DOOR

6'9"

24'00"
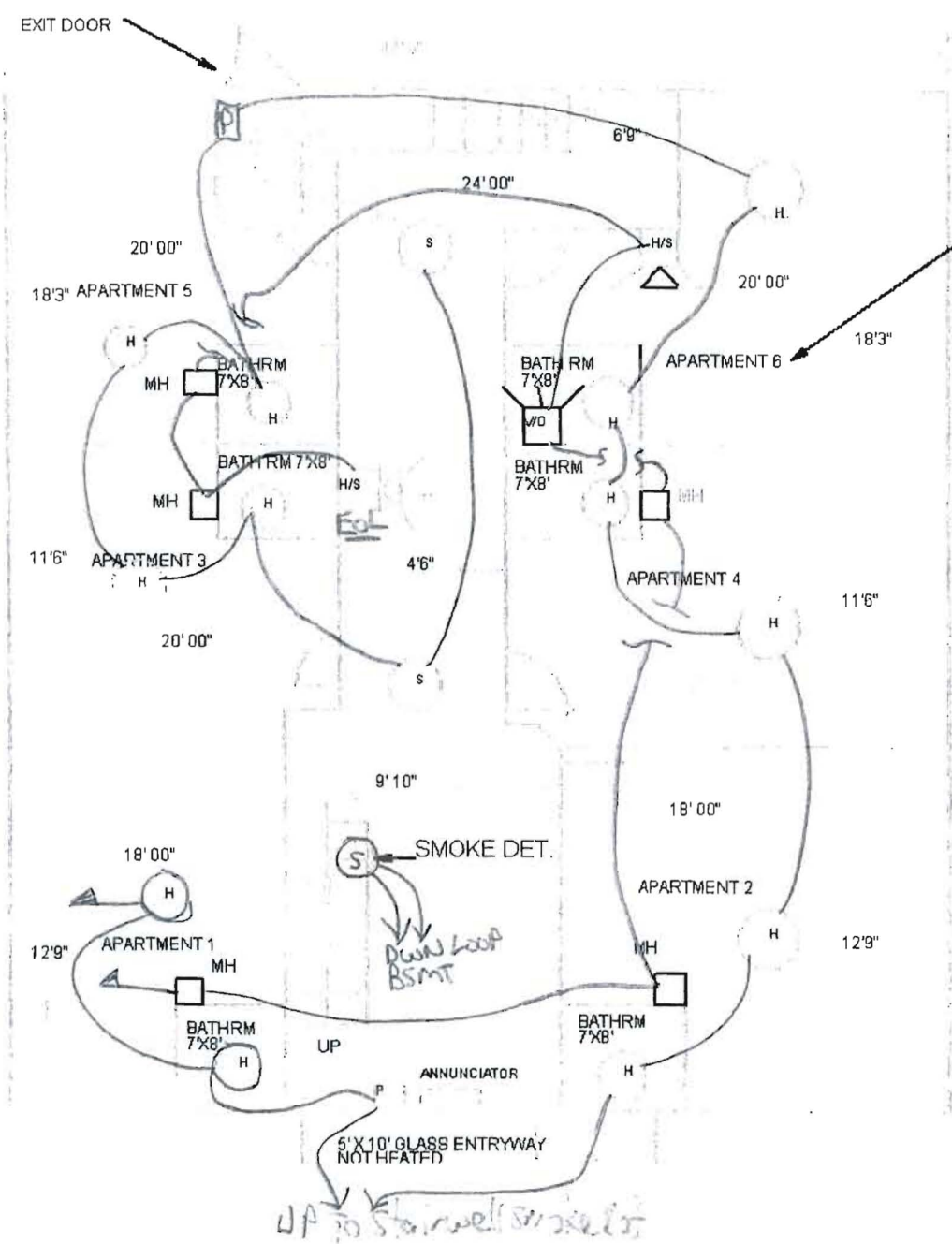
NOTE: APARTMENT 6 HAS HEARING
IMPAIRED PERSON AS TENANT.

H.

20'00"

S

H/S

20'00"

18'3" APARTMENT 5

18'3"

H

BATH RM
7'X8'

BATH RM
7'X8'

APARTMENT 6

135 CHADWICK ST.
PORTLAND, MAINE

MH

H

W/O

H

FIRST FLOOR

BATH RM 7'X8'

BATHRM
7'X8'

MH

H/S

H

MH

MH

H

APARTMENT 3

4'6"

APARTMENT 4

11'6"

H

11'6"

47'6"

11'6"

H

20'00"

S

9'10"

18'00"

SMOKE DET.

S

APARTMENT 2

18'00"

H

DWN LOOP
BSMT

APARTMENT 1

MH

H

12'9"

12'9"

H

MH

H

BATHRM
7'X8'

UP

BATHRM
7'X8'

H

ANNUNCIATOR

P

5'X10' GLASS ENTRYWAY
NOT HEATED

UP to Stairwell Smokes

NAC 3

DWN

UP
6' 9"

DWN

DWN                    24' 00"                                        18' 3"

P
18' 3"
                                                        APARTMENT 12
20' 00"                                                         20' 00"
                                            S

APARTMENT 11    BATHROOM                    BATHROOM      MH      H
                7' X 8'                      7' X 8'
                        H                                H

                BATH ROOM                   BATHROOM
                7' X 8'                       7' X 8'         MH
        MH              H                                H

20' 00"                     H/S

        H   H             EOL              APARTMENT 10        11' 6"
11' 6"
        APARTMENT 9                                           H

                                                                 20' 00"

                                    S

18' 00"                                                      18' 00"

APARTMENT 7         P    DWN         UP           APARTMENT 8      12' 9"

        H                       S                           MH
12' 9"                                                           H

        MH  BATHROOM                          BATHROOM
            7' X 8'                            7' X 8'
                H                                     H

                        DWN TO LOOP IST
                        FLR
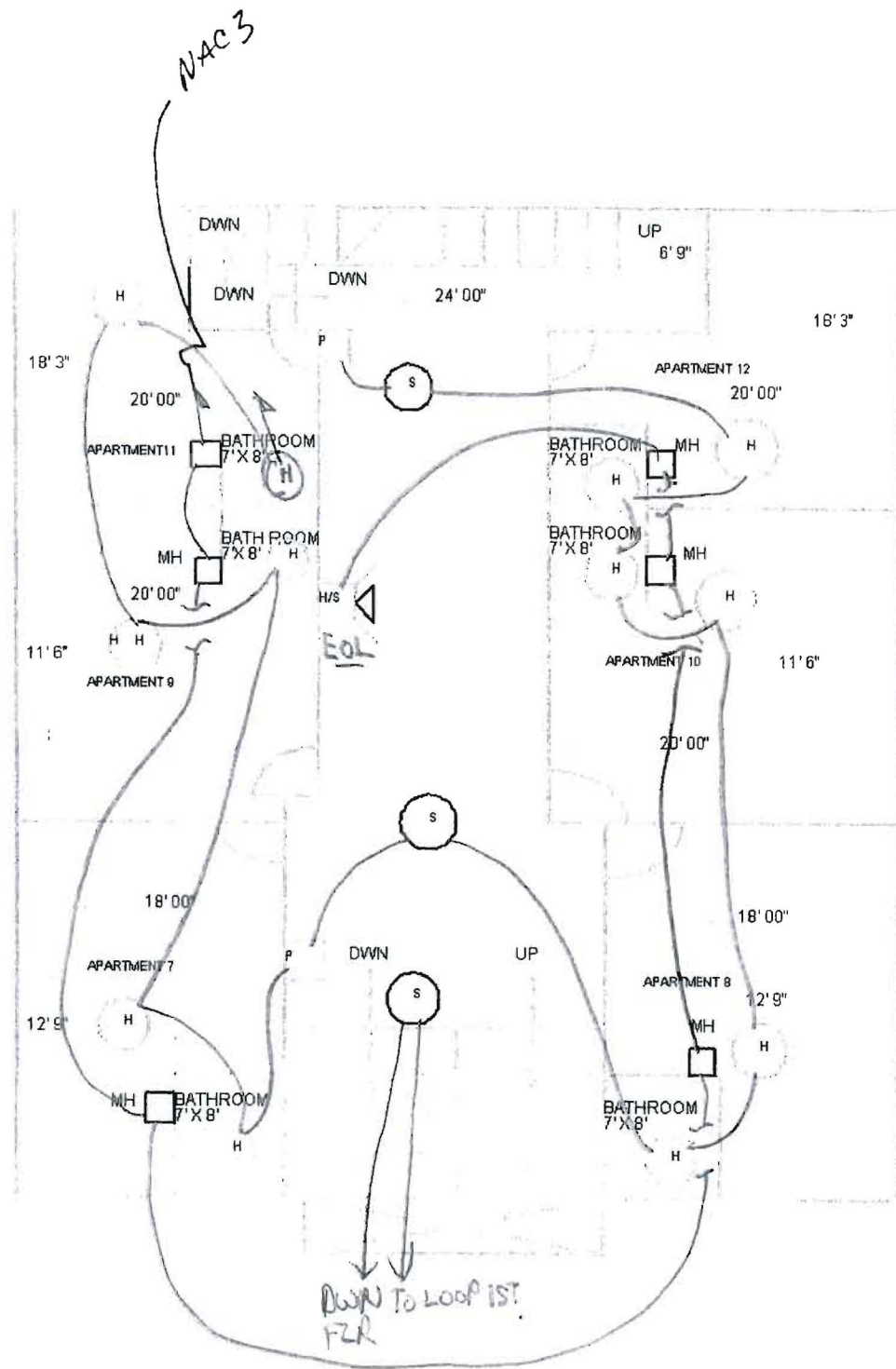
135 CHADWICK STREET
PORTLAND MAINE
SECOND FLOOR

Isolatin module

NAC 4

44' 6"

S

H
6' 9"

18' 3"
H

24' 00"

P
S

APARTMENT 18

H
18' 3"

135 CHADWICK
PORTLAND,
MAINE

3RD FLOOR

20' 00"

20' 00"

APARTMENT 17
MH

BATH ROOM
7' X 8'

HALL

MH

BATH ROOM
7' X 8'

H

H/S

MH

BATHROOM
7' X 8'

H

44' 6"

MH BATH ROOM
7' X 8'

H

H

EoL

H

MH

H

APARTMENT 16

11' 6"

11' 6"

APARTMENT 15

4' 6"

20' 00"

20' 00"

S

18' 00"

APARTMENT 13

18' 00"

H

18' 00"

MH

MH

12' 9"

12' 9"
H

MH

BATH ROOM

H

BATH ROOM
7' X 8'

H

7' X 8'

H

P

STORAGE

7'5"

H

14'6"

S

19'6"

EOL    H/S

H

S

STORAGE
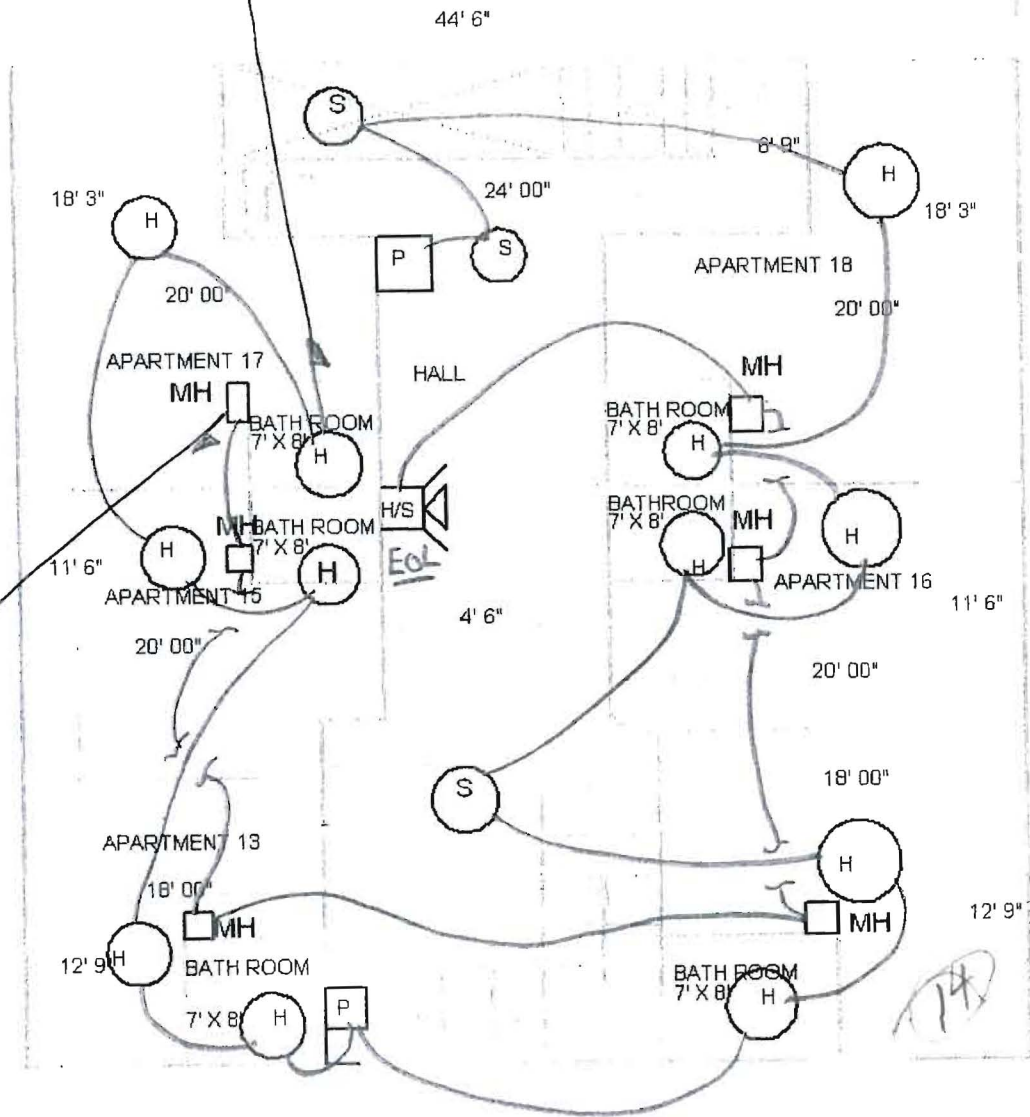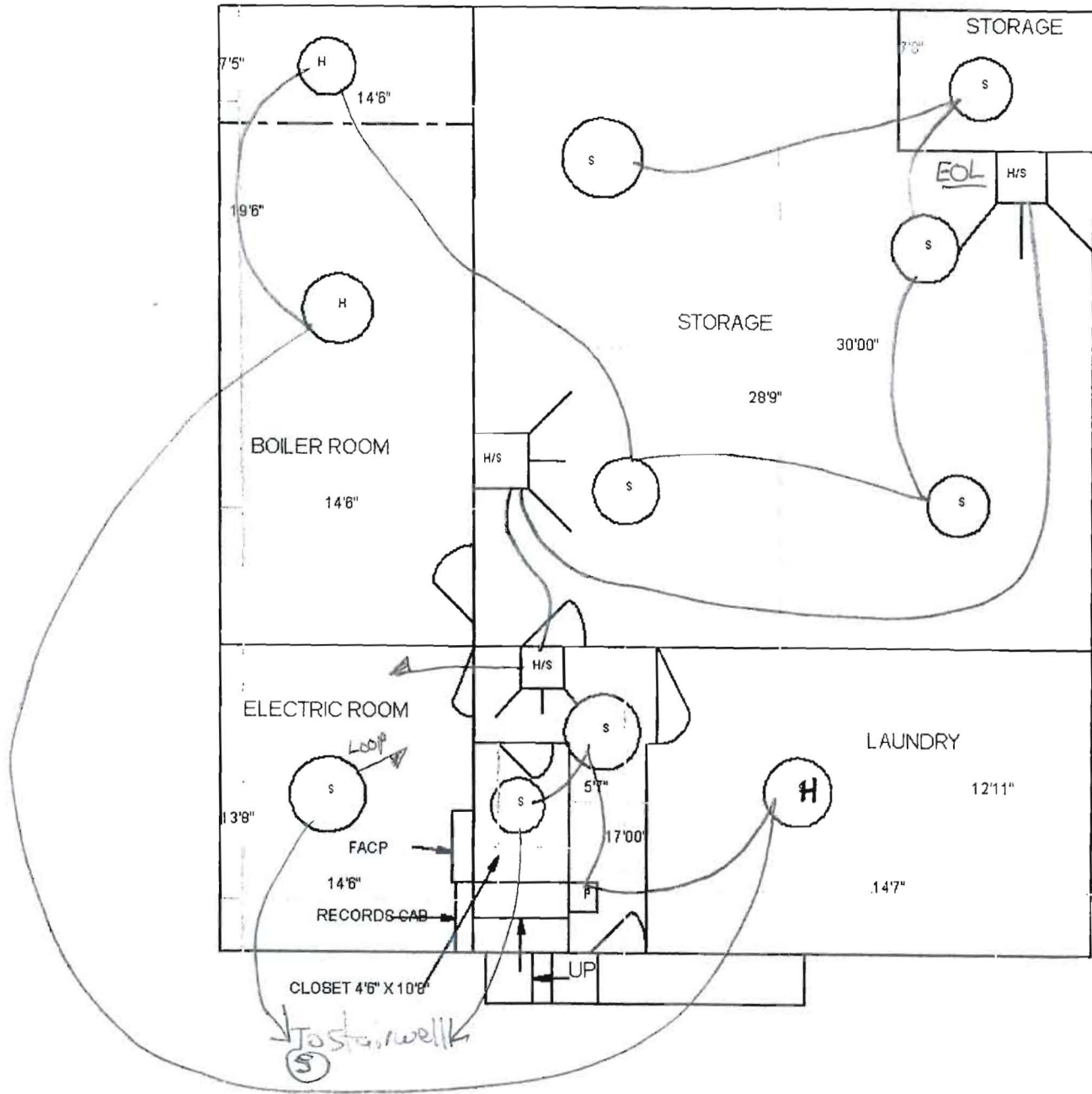
135 CHADWICK ST
PORTLAND, ME
BASMENT

30'00"

28'9"

H/S

S

S

H/S

ELECTRIC ROOM

S

LOOP

LAUNDRY

12'11"

S

5'7"

H

3'8"

S

17'00"

14'7"

FACP

14'6"

RECORDS CAB

B

CLOSET 4'6" X 10'8"

To Stairwell

S

UP

# ||||||FARADAY

## MPC-6000 Intelligent Fire Alarm Panel

### Features

- One intelligent Signaling Line Circuit
- SLC loop supports up to 252 addressable Inputs AND signal/relay outputs (504 inputs/outputs total)
- Addressable devices are polarity insensitive
- Devices operate on standard wire-no twist or shield required
- FireSmart Application Specific fire detection
- 4 Class B/2 Class A notification appliance circuits
- Up to 6A NAC Power
- Built in strobe synchronization protocol
- 80 Character backlit LCD display
- Optional Peer-to-Peer networking using MPC-Net
- One man walk test (Silent or Audible)
- Auto Program Feature
- UP to 16 remote LCD Displays with control capabilities
- Programmable from front keypad, or Windows based PC programming software
- Maintenance and technician level passwords
- Optional internal DACT
- 2000 event history log
- Made in the USA, ISO 9001 quality crafted
- (U_L) UL 864 , MEA & CSFM Listed and FM Approved

MPC-6000

### Description

The MPC-6000 is an advanced modular fire alarm panel. It features analog/addressable detection, programming, and memory capability. It's base configuration includes one analog/addressable loop, with four notification appliance output circuits.

Operating controls and indicators are mounted behind a locked cabinet door and an 80-character LCD display provides specific indications for addressable devices, while LEDs indicate general panel status.

### Hardware Configuration

The main termination board mounts in the rear of the panel. The main power supply is physically contiguous with the main termination board. The MPC-6000 main termination board provides the interface for external system connections, the SLC loop interface PCB, four NAC circuits, remote signaling circuits and indicating interfaces.

The front Display Board mounts on a hinged front plate, which is located behind a locked cabinet door. Displays for any number of zones are handled through this board.

All normal operation is controlled from the front of the panel via membrane switches. Displays are provided by an 80-character, alphanumeric, backlit LCD display and by discrete LED indicators for major panel functions.

## Wiring, Main Termination Board



Addressable Loop Circuit

Typical Notification Appliance Circuit Style Z, Class A Supervised, Power Limited See Owners Manual for Compatible Devices

Typical Notification Appliance Circuit Style Y, Class B Supervised, Power Limited See Owners Manual for Compatible Devices
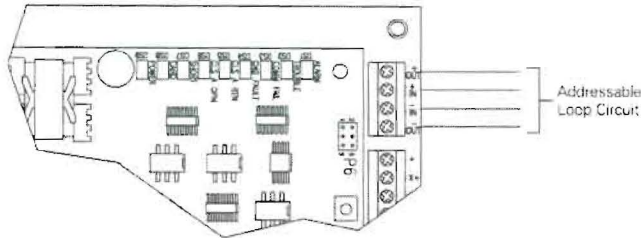
Addressable Device Circuit
Style 4 or 6 Operation
24VDC nominal
Wire Resistance-50 ohms max
(see Line Resistance Graph)
Supervised, Power Limited
See Owner's Manual for Compatible Devices

NAC Rating:
Alarm Voltage, 24V FW nominal
Max. Alarm Current 1.5A/NAC circuit
Max. Ripple: 16VAC
Max. Wire Voltage Drop: 1.0VDC
Max. Standby Current 1.0mA
NOTE:
The maximum total current for the MPC-6000 NACs is 3.0A and 6.0A with the optional additional Transformer P/N NPE-1

Polarity Shown In Alarm Condition
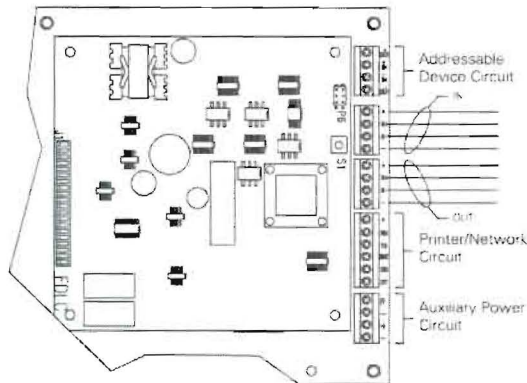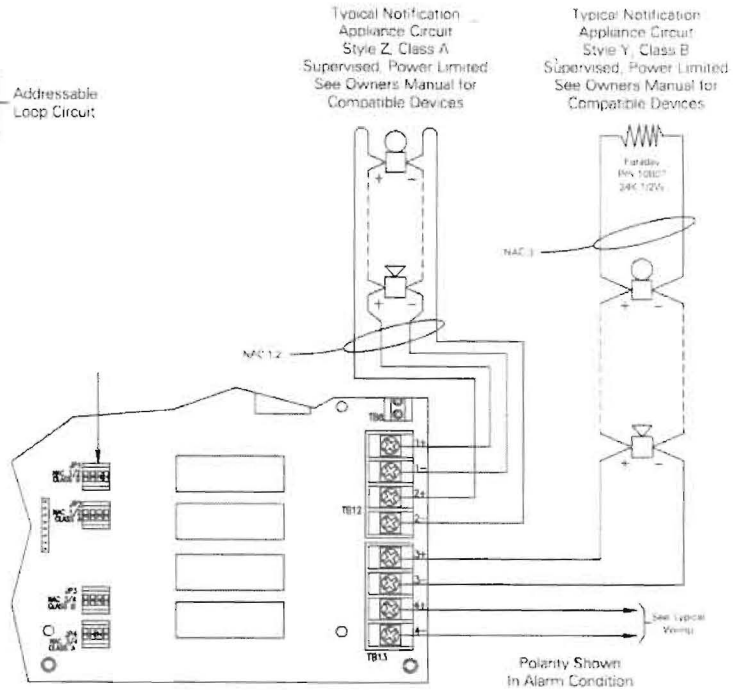
Serial Interface Circuit,
(+, -) 24VDC nominal, 0.4 max
(X+, X-) RS-485 levels
Wire Type-Twisted Pair For Data
Wire Resistance-11 ohms/line (4000' max)
Supervised, Power Limited
See Owner's Manual for Compatible Devices

Addressable Device Circuit

Printer/Network Circuit

Auxiliary Power Circuit
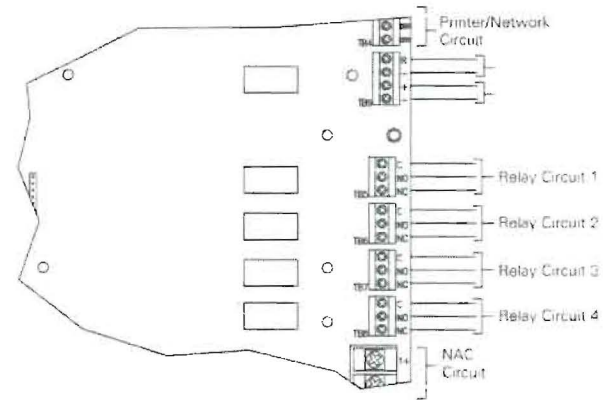
Auxiliary Power Outputs
0.4A max @24VDC nominal
Unsupervised, Power Limited
Maximum current of all auxiliary outputs circuits, Serial Interface Circuit and option boards is 0.5A for the 6000
1.0 A for the 7000

Printer/Network Circuit

Relay Circuit 1
Relay Circuit 2
Relay Circuit 3
Relay Circuit 4
NAC Circuit

Status Relay Contacts
(Shown in normal standby condition)
1A 28VDC max Resistive For Power Limited Source, Unsupervised

## General Specifications

### Environmental
Operating temperature: 32-120°F (0-49°C)
Relative Humidity - 85% @ 86°F

### Primary Supply
Primary input voltage -
120 Vac (50/60 Hz.), 240 Vac (50/60 Hz.)
Maximum primary input current -
1.3 amp @ 120 Vac

### Secondary and Trouble Power Supply
24 volt lead-acid battery with 7 AH-38 AH capacity

### Auxiliary Power Outputs
Current - 0.5 amp resettable/non-resettable
power outputs

### Status System Relays
4 relays rated @ 1 amp, 28 Vdc resistive

### NAC Circuits
Rating per NAC circuit, 1.5A ea., 6 max.

### Battery
Base cabinet will accommodate a 10 A battery
set. Larger batteries will require separate enclosure

# ||||||||FARADAY

## MPC- DACT - Digital Alarm Communication Transmitter

### Features

- (UL) UL Listed for Central Station/Remote Station Monitoring (NFPA 72 Chapter 4)

- Four separate monitoring accounts available

- Two phone lines available

- Can send serial information to monitoring station

- Reports in 8 standard communication formats

- Automatic 24 hour test available

- Mounts within the MPC-6000 or 7000 enclosure directly on the main processor board

- All programming is done as part of the CIS-4 configuration
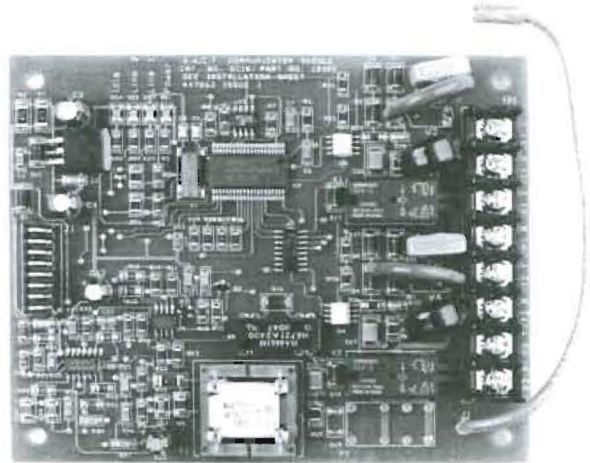
### Description

The Model MPC-DACT Digital Alarm Communica-tionTransmitter is used to provide communication between the MPC-6000 or 7000 and a central or remote monitoring station. The MPC-DACT sup-ports two lines and four accounts, and can transmit serial information (including the address of the event) to the monitoring station. Any of the ac-counts can send alarm, supervisory, trouble, reset, or trouble restore information (or any combination) as required. Communication protocols available include SIA DCS 8, SIA DCS 20, Ademco Contact ID, 3/1 1400 Hz, 3/1 2300 Hz, 4/2 1400 Hz and 4/2 2300 Hz. The FS-DACT can perform the automatic 24 hour test required by NFPA.

The MPC-DACT mounts within the MPC-6000 or 7000 enclosure on an 8-pin connection point on the main board. No external enclosure is required, and no wires are required between the panel and the dialer. Programming of account and dialing infor-mation is done as part of the system configuration. No external programmer for the dialer is required, and dialer information can be downloaded as part of the system configuration.

# IIIIIIIFARADAY

## Model RDC-2 Remote 80 Character LCD Annunciator

### Features

- 80 character, alphanumeric backlit display

- Mounts to 6 gang or 12411 surface box

- Contains four (4) menu buttons, four (4) dedicated buttons for operator interaction, six (6) LED indicators and a security key switch

- UL listed, standard 864
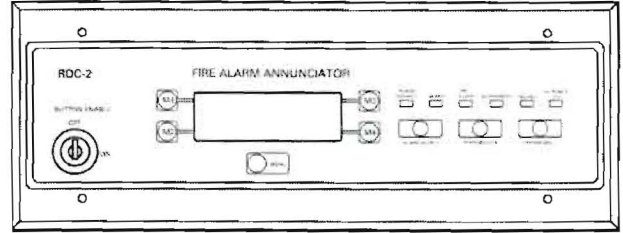


**RDC-2 Annunciator**

### Description

The RDC-2 remote LCD annunciator is an optional accessory for the MPC-6000 and MPC-7000 Fire Alarm Control Panels from Faraday. It provides a 80 character LCD display along with the system status LEDs. The button enable keyswitch allows system reset, trouble silence/acknowledge, alarm silence and menu access. The lamp test operation is also enabled by the keyswitch, but the function is limited to the annunciator. The annunciator mounts to a horizontally mounted 6-gang box, 2" deep minimum. The Faraday part number 12411 Surface Backbox may be used for surface mounting.

Up to 16 annunciators may be addressed by the communications circuit.

### Typical Wiring
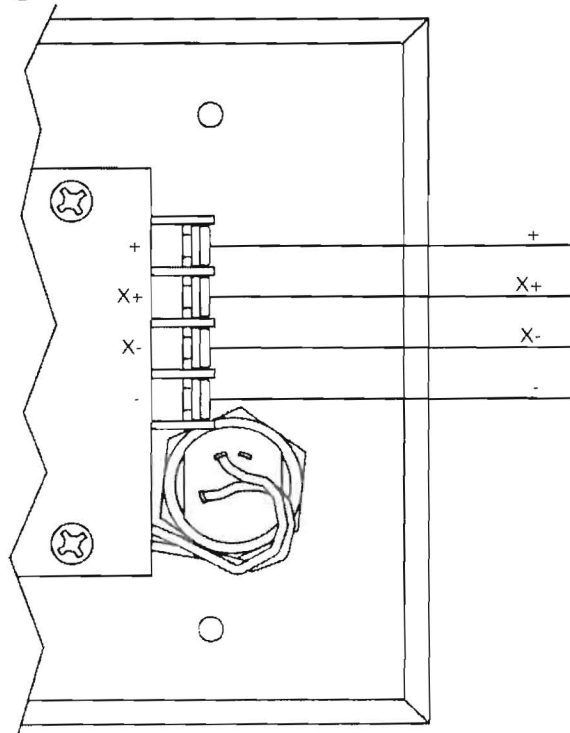


Cable for power (+ & -) and Twisted pair Cable for data (X+ & X-)-) from panel or previous remote and to next remote or 120 ohm termination resistor on the last remote.

# FDB

**FACU MAINTENANCE RECORDS**

NFPA 72 section 6.2.2.1 states, "A record of installed software and firmware version numbers shall be maintained at the location of the fire alarm control unit." The FDB is large enough to hold Operating Manuals, Permits, Shut-Down Instructions and more.
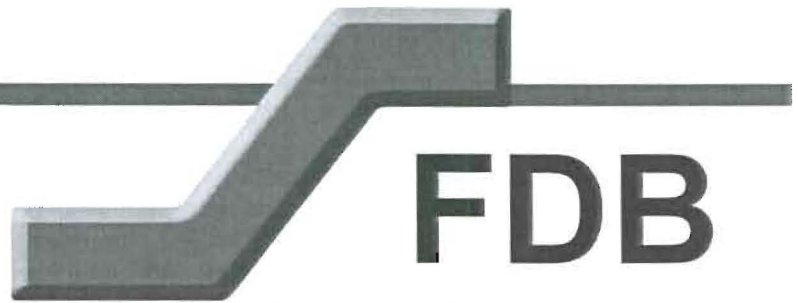
## Fire Alarm Control Unit (FACU) Records & Document Box

The Space Age FDB has been developed to be a code compliant solution to a mandated item specified by the National Fire Code (NFPA 72).

An internal galvanized sleeve holds the documents safely and securely. Access to the documents is via a high security CAT 30 Lock Set.

The galvanized sleeve also contains 2 hooks for key rings or thumb drives, a place for several business cards, a cutout for a 1.4 Oz. can of test gas and a slot where a standard CD "jewel" case can be stored.

Held in by two "wing nuts" the sleeve is easily removable to allow storage of a 1.5" 3 ring binder.

The door reads "FACU MAINTENANCE RECORDS" in 1" tall white lettering. Custom Logo and Lock Sets are available upon request.

## Standard Features:

- Overall Dimensions are:
  12" Wide x 13.1" High x 2.25" Deep
- CAT 30 Secured Locking Door
- Piano Hinged Door w/Notes Sticker
- Removable document holder can hold 1" of 8.5" x 11" paperwork
- Powder Coat Red Finish
- 16 Gauge CRS construction
- Embossed:
  Key Ring Hooks
  Business Card Holder
  CD Case Slot
- 1.4 Oz. can of detector test gas
- Private labeling available

Key Ring Hooks

Business Card Holder

Canned Smoke

CD Jewel Case

**NFPA**

Made In U.S.A.
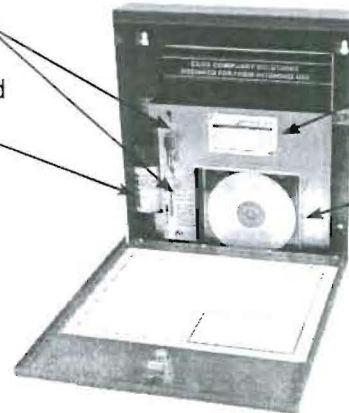
**ISO 9001 REGISTERED COMPANY**

**ADA**

Space Age Electronics, Inc.
www.1sae.com
**800.486.1723** Toll Free
508.485.0966 Local
508.485.4740 Fax

# ⅢⅢⅢ FARADAY

## Series PM6600 & PM6700 Manual Non-Code Keyed Stations

## Features

- MM101 Key Switch Cover

- Sturdy Metal Construction

- Enclosed Switch with Optional Glass Rod

- 10 Amp @ 120 Vac, 5 Amp @ 24 Vdc Switch Contact Rating

- Stations Available are: Single Action, Dual Action, Pre-Signal / General Alarm, Institutional, Weatherproof, and Explosion Proof

- UL, CSFM Listed & MEA approved

- Made in USA

PM6608/
PM6700 (right) &
PM 6696 (below)



## Description

The PM6600/6700 series meets the requirements of the keyed reset station in every way. By using the standard Faraday MM101 series key, the user eliminates the need to search through many different reset keys. All stations are constructed of a solid die cast housing and come painted glossy red. The back switch plate is made of thick 14 Ga. plated steel and comes in a one gang size.

The electrical switch has a hefty 10 Amp @ 120 Vac normally open contact rating. All stations come with terminal block connections with the exception of the single action stations. These may be ordered with terminal blocks or pigtails (See ordering information for a more detailed description).

Explosion proof and weatherproof units come complete with their own back box. Optional PM6767 matching red surface interior back boxes are also available.

## Operation

### Alarm
To activate the manual station, a firm downward pull of the recessed pull lever is required. Such action locks the lever in the down position, breaks the glass rod, (if used) and actuates the switch creating an alarm condition.

### Reset
To restore an operated manual station to normal standby condition requires the use of a standard Faraday MM101 key. The lock, located at the top of the station, is turned with an inserted MM101 key.

This lets the front of the station swing down and allows the recessed pull down lever to be reset in the normal up position. Replacement of the glass rod (if used) is not necessary to reset the station. However, spare glass rods can be stored inside the station. To lock the station swing the front of the station back up to its original position and turn the MM101 key in the previously operated position.

## Engineering Specification

Furnish and install where located on the drawings Faraday non-code pull stations. The stations should be pull down operation type with operation instructions provided on the station in raised letters. The station should be of metal construction, finished in fire alarm red/white, and shall be capable of proper operation with or without a break glass rod. Stations using any plastic parts other than the switch body, or requiring the use of a break glass rod to maintain a standby condition shall not be acceptable.

## 8701 Intelligent Monitoring Module

## Features

### Intelligent Interface Modules for use with MPC-6000 & 7000 Control Panels

• Interfaces and Supervises Normally Open Contacts

• Compact Size Allows Mounting in Single Gang Box Behind Equipment

• Polarity Insensitive Technology

• Innovative Technology Supports Comprehensive System and Interface Communication

• Dynamic Supervision

• Two Wire Operation

• 8720 Device Program/Test Unit Electronically Programs and Verifies Device's Address and Tests Device's Functionality

• (UL) Listed, CSFM and NYMEA Approved

## Introduction

The FARADAY 8701 Intelligent interface module is designed to provide the means of interfacing direct shorting devices to the MPC-6000 & 7000 initiating circuit.

The 8701 Intelligent interface module provides the market's most advanced method of address programming and supervision, combined with sophisticated control panel communication. Each 8701 interface module incorporates microcomputer chip technology and its sophisticated bi-directional communication capabilities with the control panel.

## Description

The 8701 is designed to monitor a normally open dry contact and reports the contact's status to the control panel.

The device's microcomputer chip has the capacity of storing, in memory, identification information as well as important operating status information.

FARADAY innovative technology allows all 8701 intelligent interface modules to be programmed by using the 8720 Device Program/Test Unit. The 8720 is a compact, portable, menu driven accessory that makes programming and testing an interface device faster, easier and more dependable than previous methods. The 8720 eliminates the need for mechanical addressing mechanisms, such as program jumpers, DIP switches or rotary dials, because it electronically sets the 8701 interface's address into the interface's microcomputer chip non-volatile memory. Vibration, corrosion and other conditions that deteriorate mechanical addressing mechanisms are no longer a cause for concern. This 8701 is connected to the program/ tester with the programming cable provided with the tester. This programming cable utilizes two (2) alligator clip connectors to attach to the 8701.

The 8701 Series has five leads, one for grounding, which are wired to the system with user supplied wire nuts.

# IIIIIIFARADAY

## 8709 Line Isolator Module for Use With MPC-6000 & 7000 Control Panels

## Features

- Short Circuit Isolation

- Used on MPC-6000 & 7000 Intelligent Device Circuits

- Increased Fault Tolerance

- Style 4 or Style 6

- Up to 12 Per Loop

- Requires no Programming

- Does Not Occupy a Device Address

- Mounts in Either 4" Square, 2 1/8" Deep
  or a 3 1/2" Deep Double Gang Electrical Box

- Local LED Indicator

- Cover Plate Included

- (UL) Listed, NYMEA and CSFM Submitted
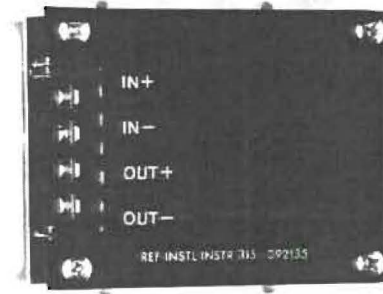
## Description

The 8709 loop isolator module provides short circuit protection on MPC-6000 & 7000 intelligent device circuits (FDLC). When a short is detected by the 8709, it isolates the affected segment of the circuit, allowing the remaining devices to continue operation. The 8709 is self-restoring, automatically reconnecting to circuit segment when the fault is removed.

The 8709 also includes a yellow LED which illuminates to indicate that the device has been activated. The 8709 mounts in either a 4" square, 2 1/8" deep or a 3 1/2" deep double gang electrical box and is supplied with a cover plate with an opening for the LED.

It can be wired in either a Style 4 or Style 6 configuration.

The 8709 does not occupy a device address on the intelligent device circuit and requires no programming. Up to twelve 8709s may be installed on each loop.

## Ordering Information

| Model | Description | Part No. |
|-------|-------------|----------|
| 8709 | Line Isolator Module | 500-033170FA |

# IIII**FARADAY**

## Models 8710, 8712, 8713 (FireSmart™) X1 Series Detectors

### Features

**Intelligent Detectors for use with MPC 6000 and 7000 Control Panels**

• Three models available Photo (8710), Photo-Thermal (8713) and 135°F Thermal, fixed and rate of rise (8712)

• High-Speed, Fault-Tolerant Communication

• Multi-color status L.E.D (green, amber, red)

• Field cleanable photo chamber

• Electronic addressing with field programmer model 8720

• Mounts in standard 8853 Series Base

• Low Profile Design

• Optional fully programmable relay base, audible base and duct housing

• Two Wire Operation

• (UL) UL Listed, CSFM, NYMEA and FM Approved

**8710**

**8712 135°F Thermal**

**8713 Photo Thermal**

### Introduction

The 8710 and 8713 intelligent photoelectric smoke detectors provide reliable smoke detection to meet today's critical life safety and property protection needs. The FireSmart series of detectors provide an extremely high degree of resistance to RFI, EMI and humidity. The FireSmart series detector utilizes a microprocessor with "on-board" EEPROM supporting the detectors sophisticated programming, error checking and self-diagnostic capabilities.

The 8710 is an intelligent smoke detector, the 8713 is a smoke detector with thermal assist, and the 8712 is a heat detector. The thermal sensors respond at 135°F. These devices are designed for use with the MPC-6000 and 7000 control panels and use the 8853 detector base.

### Description

The 8710, 8712 and 8713 are two-wire, plug-in detectors that are compatible with the MPC-6000 and 7000 control panels. Each 8710 and 8713 have a dust resistant, field cleanable photo chamber and microprocessor based electronics. The 8712 and 8713 utilize a state-of-the-art thermistor for heat sensing. All detectors have low profile, high-temperature plastic covers for maximum protection of components and use surface mount electronic components for increased reliability. Every smoke detector is shipped with a red protective dust cover.
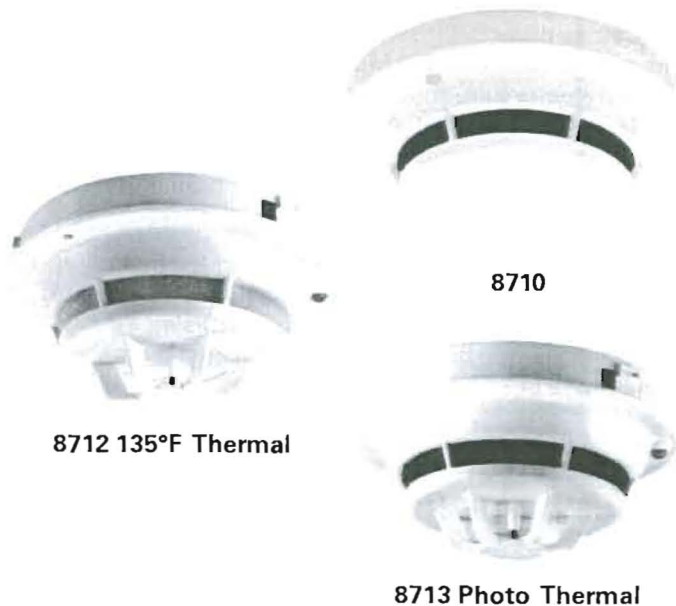
Smoke detectors utilize an infrared light emitting diode (IRLED) and a light sensing photodiode. Under normal conditions, light transmitted by the LED is directed away from the photodiode and scattered through the smoke chamber in a controlled pattern. The smoke chamber is designed to manage light dissipation and extraneous reflections from dust particles or other non-smoke airborne contaminants in such a way as to maintain stable, consistent detector operation. When smoke enters the chamber, light emitted from the IRLED is scattered by the smoke particles and is received by the photodiode.

When an alarm condition occurs, the detector "latches" in alarm and informed the control panel of its status. The detector is reset upon command from the control panel. The control panel also sets the detector's sensitivity.

Every time the control panel polls the detector, the multi-color LED will flash green to indicate that it has passed the internal self test and has communicated its status to the control panel. If the detector does not pass the self test, is dirty beyond the limits of its environmental compensation, or is in "trouble" in any way, the LED flashes amber and informs the panel of its status, allowing for easy identification of which detector is in trouble. When in alarm, the detector LED flashes red

## 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**
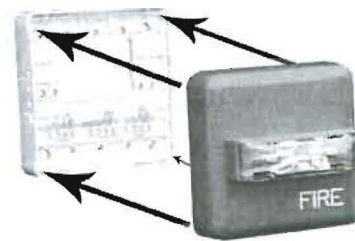
**ZR AND ZH Mounting**

## 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
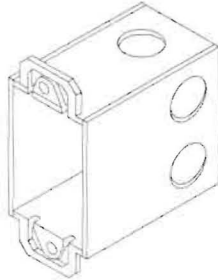
### (A) UNIVERSAL MOUNTING PLATE
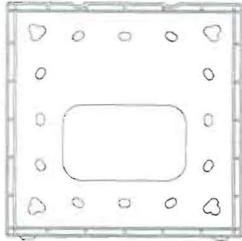


"AS" Mounting (item included with AS series devices)

### (B) SINGLE-GANG, FLUSH (BO)



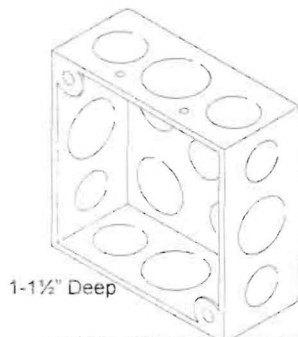MAXIMUM NUMBER OF CONDUCTORS

| 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)
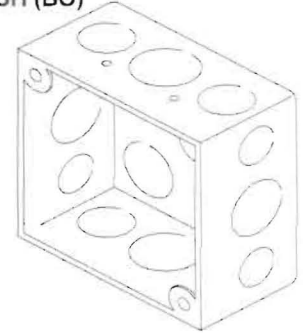


**2-1/8" Deep**

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)
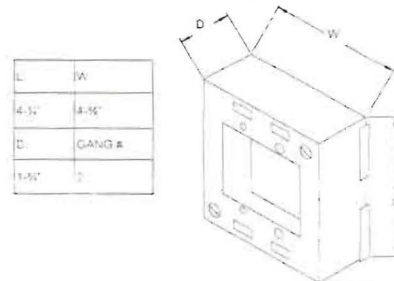


| L | W |
|---|---|
| 4-3/4" | 4-3/4" |
| D | GANG # |
| 1-3/4" | 2 |

MAXIMUM NUMBER OF CONDUCTORS

| AWG #18 | AWG #16 | AWG #14 | AWG #12 |
|---------|---------|---------|---------|
| 4 | 4 | 4 | 4 |

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

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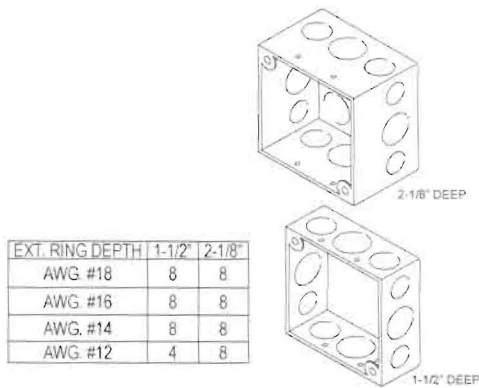


| EXT. RING DEPTH | 1-1/2" | 2-1/8" |
|---|---|---|
| AWG. #18 | 8 | 8 |
| AWG. #16 | 8 | 8 |
| AWG. #14 | 8 | 8 |
| AWG. #12 | 4 | 8 |

Used with Series CH, SEF, SET, SETFL

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



MAXIMUM NUMBER OF CONDUCTORS

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

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.
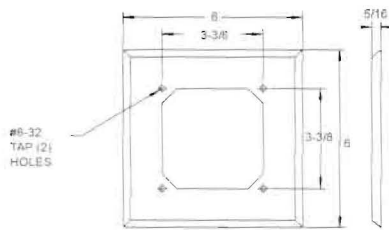


Used with Series MT, SET, SE, NH, NS, ST

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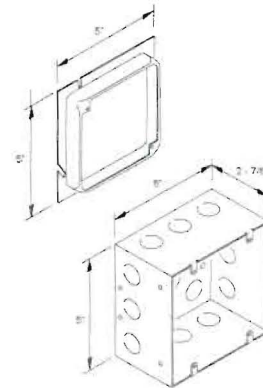


## (S) APS ADAPTER PLATE (ORDER CODE: RED 500-630109)

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.
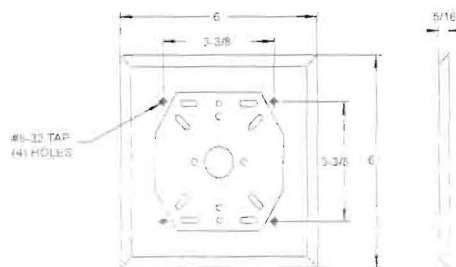


Used with Series MBDC

## (W) 4¹¹/₁₆" SQUARE, DEEP SURFACE (BO)



MAXIMUM NUMBER OF CONDUCTORS

| AWG. #18 | AWG. #16 | AWG. #14 | AWG. #12 |
|---|---|---|---|
| 10 | 10 | 10 | 10 |
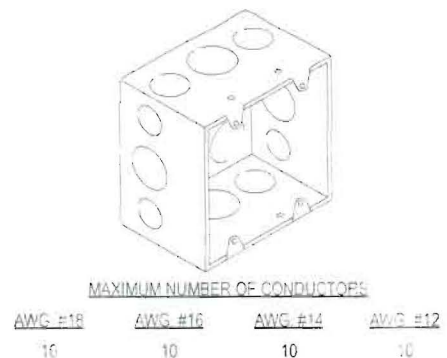
**(EE) SPEXT EXTENSION RING (ORDER CODE: RED 500-636116, WHITE 500-636117)**
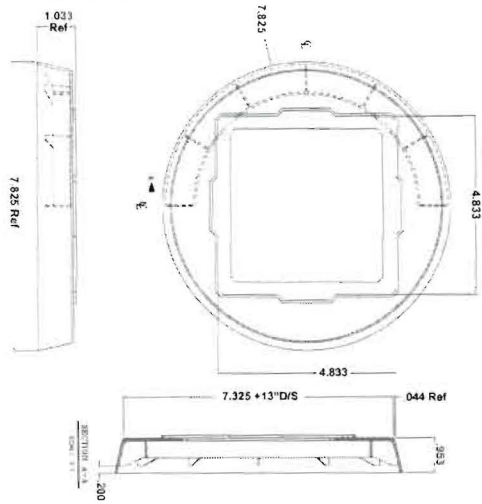


Used with Series SE-MC-C (ceiling mount strobe)

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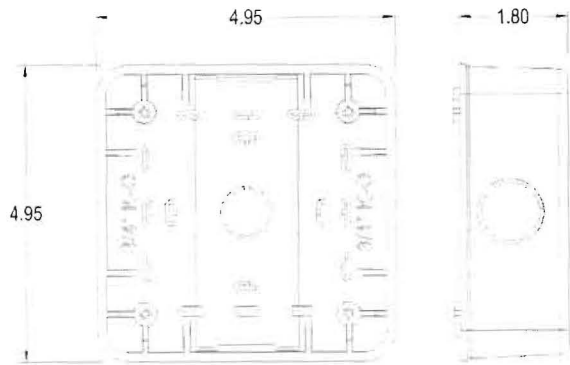


Used with Series Z

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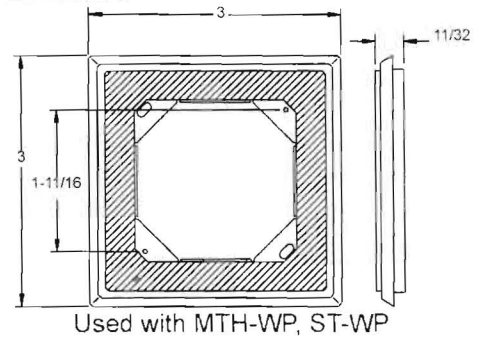


Used with MTH-WP, ST-WP

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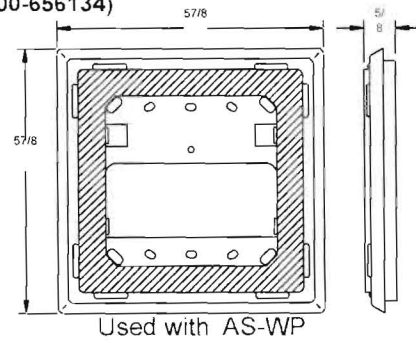


Used with AS-WP

# 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 heigh specified using the performance-based alternative 7.5.4.5

7.5.4.2 Where low ceiling heights do not permit mounting at ta 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 $3/_8$" | 7 $5/_8$" | 79 $1/_8$" | 6 $7/_8$" | | |
| (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 $3/_8$" | 7 $5/_8$" | 79 $1/_8$" | 6 $7/_8$" | 80 $9/_{16}$" | 5 $7/_{16}$" |
| (G) 2-Gang x 1.75" Deep - Surface (BO) | 77 ½ | 8 ½" | | | 78 $3/_8$" | 7 $5/_8$" | 79 $1/_8$" | 6 $7/_8$" | 80 $9/_{16}$" | 5 $7/_{16}$" |
| (M) MT-SUR-BOX Surface & Weatherproof (SP) | | | | | | | | | 79 $3/_8$" | 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 $3/_8$" | 7 $5/_8$" | 78 $1/_8$" | 6 $7/_8$" | 79 $7/_{16}$" | 5 $9/_{16}$" |
| (X) SHBBS (SP) Shallow Surface | 76 ½" | 9 ½" | | | 77 $3/_8$" | 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

# 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 | 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 | |

K-Fire Alarm sequence of operations

# Comfort Suites Wilton

| Quantity | Part # | Description | Standby | Alarm | Total standby | Total alarm |
|---|---|---|---|---|---|---|
| 1 | MPC-6000 | Fire Panel | 0.1100 | 0.2000 | 0.1100 | 0.2000 |
| 1 | RDC-2 | Annunicator | 0.0200 | 0.0850 | 0.0200 | 0.0850 |
| | RS-485 | Graphic driver | 0.0050 | 0.0000 | 0.0000 | 0.0000 |
| 1 | MPC-DACT | Dialer | 0.0380 | 0.0540 | 0.0380 | 0.0540 |
| | CT-1K | City Tie Module | 0.0050 | 0.0280 | 0.0000 | 0.0000 |
| | 8700-Series | Pull Station | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| 7 | 8701 | Mini Module | 0.0018 | 0.0018 | 0.0126 | 0.0126 |
| | 8703 | Dual Module | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| 4 | 8704 | Relay module | 0.0018 | 0.0018 | 0.0072 | 0.0072 |
| | 8705 | Conventional module | 0.0340 | 0.1000 | | |
| | 8706 | Addressable control Point | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| | 8709 | Isolator module | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| 17 | 8710 | Smoke | 0.0018 | 0.0018 | 0.0306 | 0.0306 |
| | 8713 | Smoke FireSmart | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| 39 | 8712 | Heat | 0.0018 | 0.0018 | 0.0702 | 0.0702 |
| 56 | 8853 | Basic base | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| | 8715 | Audible base | 0.0000 | 0.0240 | 0.0000 | 0.0000 |
| | 8743 | Duct Detector | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| | 8713 | Duct smoke | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| | 8704 | Duct relay | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| | 8730 | Duct Remote | 0.0018 | 0.0018 | 0.0000 | 0.0000 |
| 4 | ZR-MC-R | Strobe-15cd | 0.0000 | 0.0640 | 0.0000 | 0.2560 |
| 2 | ZR-MC-R | Strobe-30cd | 0.0000 | 0.0980 | 0.0000 | 0.1960 |
| | ZR-MC-R | Strobe-75cd | 0.0000 | 0.1750 | 0.0000 | 0.0000 |
| | ZR-MC-R | Strobe-110cd | 0.0000 | 0.2330 | 0.0000 | 0.0000 |
| | ZH-MC-R | Horn/strobe 15cd | 0.0000 | 0.0780 | 0.0000 | 0.0000 |
| | ZH-MC-R | Horn/strobe 30cd | 0.0000 | 0.1130 | 0.0000 | 0.0000 |
| | ZH-MC-R | Horn/strobe 75cd | 0.0000 | 0.1950 | 0.0000 | 0.0000 |
| | ZH-MC-R | Horn/strobe 110cd | | 0.2590 | | 0.0000 |
| | ZH-HMC-R | Horn/strobe 135cd | | 0.3710 | | 0.0000 |
| 17 | MH-R | Minihorns | 0.0000 | 0.0260 | 0.0000 | 0.4420 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| | | Miscellaneous | | | 0.0000 | 0.0000 |
| TOTAL | | | 0.2354 | 2.1264 | 0.2886 | 1.3536 |

| | Hours | Standby current | | | Total |
|---|---|---|---|---|---|
| | 24 | 0.2886 | | | 6.9264 |
| Minutes | | Alarm current | | | |
| 5 | 0.08333333 | 1.3536 | | | 0.1128 |
| | | Battery Capacity | | | |
| | 20% | 7.0392 | | | 4.70 |

L-Battery Calcuations MPC-6000                                      3/24/2011

# IIIIIIFARADAY

## MPC-6000 Intelligent Fire Alarm Panel

### Features

- One intelligent Signaling Line Circuit

- SLC loop supports up to 252 addressable Inputs AND signal/relay outputs (504 inputs/outputs total)

- Addressable devices are polarity insensitive

- Devices operate on standard wire-no twist or shield required

- FireSmart Application Specific fire detection

- 4 Class B/2 Class A notification appliance circuits

- Up to 6A NAC Power

- Built in strobe synchronization protocol

- 80 Character backlit LCD display

- Optional Peer-to-Peer networking using MPC-Net

- One man walk test (Silent or Audible)

- Auto Program Feature

- UP to 16 remote LCD Displays with control capabilities

- Programmable from front keypad, or Windows based PC programming software

- Maintenance and technician level passwords

- Optional internal DACT

- 2000 event history log

- Made in the USA, ISO 9001 quality crafted

- (UL) UL 864 , MEA & CSFM Listed and FM Approved



**MPC-6000**

### Description

The MPC-6000 is an advanced modular fire alarm panel. It features analog/addressable detection, programming, and memory capability. It's base configuration includes one analog/addressable loop, with four notification appliance output circuits.

Operating controls and indicators are mounted behind a locked cabinet door and an 80-character LCD display provides specific indications for addressable devices, while LEDs indicate general panel status.

### Hardware Configuration

The main termination board mounts in the rear of the panel. The main power supply is physically contiguous with the main termination board. The MPC-6000 main termination board provides the interface for external system connections, the SLC loop interface PCB, four NAC circuits, remote signaling circuits and indicating interfaces.

The front Display Board mounts on a hinged front plate, which is located behind a locked cabinet door. Displays for any number of zones are handled through this board.

All normal operation is controlled from the front of the panel via membrane switches. Displays are provided by an 80-character, alphanumeric, backlit LCD display and by discrete LED indicators for major panel functions.

## MH Mini Horn Appliances

### Features

- UL listed. ULC, CSFM, and FM pending.
- Field selectable settings for Temporal (Code 3) or Continuous Horn
- 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.
- Designed to meet or exceed NFPA/ANSI standards
- Convenient mounting to any standard single-gang box
- Plugs to cover mounting screws
- No additional trimplate required for flush mounting
- Fast installation with In/Out screw terminals using #12 to #18 AWG
- High sound output with low current draw
- Available in red or off-white color

Applications:

- Individual Rooms
- Apartments
- Hotels
- Motels
- Offices
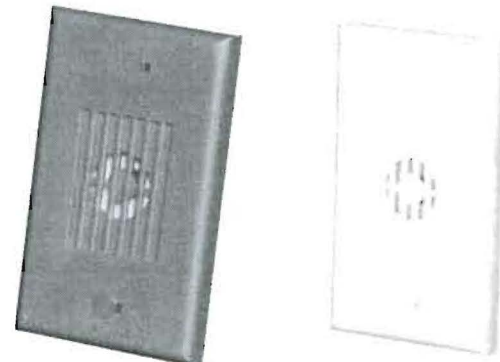


**SERIES MH**

## Description

Siemens Series MH piezoelectric Mini Horns are compact electronic alarm appliances that are listed under UL Standard 464 for Audible Appliances in Public Mode Fire Protection Systems. The Series MH models provide a field selectable Continuous or Code 3 horn tone when connected directly to a fire alarm control panel. They can also provide a synchronized code 3 horn tone using the Siemens 5406B sync modules, MPC-6000 panel, MPC-7000 panel, or RSE-300 power supply with built-in sync protocol. The series MH appliances are attractive, offer high sound output along with low current draw, and are ideal for alarm signaling in individual rooms, apartments, hotels, motels and offices. Color choices of red or off-white will blend with any décor.

## Engineering Specifications

The notification appliance shall be a Siemens MH audible appliance or approved equal. The Notification Appliance shall be electronic and shall have field select-able settings for Temporal (Code 3) or continuous horn and support coded systems operation. The anechoic sound pressure measurement on Temporal (Code 3) setting shall be 87 dBA minimum at 24VDC. The anechoic sound pressure measurement on Continuous Horn setting shall be 87 dBA minimum at 24 VDC. All models shall have provision for standard reverse polarity type supervision and IN/OUT wiring using terminals that accept #12 to #18 AWG wiring. The appliances shall be mounted indoors and mount on standard single-gang electrical backboxes requiring no additional trimplates or adapters. All notification appliances shall be listed for "Special Applications"

## 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 | Order Code | Mounting Options** | Agency Approvals | | | |
|-------|------------|--------------------|------|-----|------|----|
| | | | UL | ULC | CSFM | FM |
| MH-R | 500-636074 | B | X | # | # | # |
| MH-W | 500-636075 | B | X | # | # | # |

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

The 80-character LCD display is used to display event data, including alarms and troubles, supervisory identification of zone or device, and presentation of history. The menus are controlled by a set of four membrane switches commanding the control processor. A back light is included to assure visibility in low light, but to conserve power, it is only activated during a reported event.
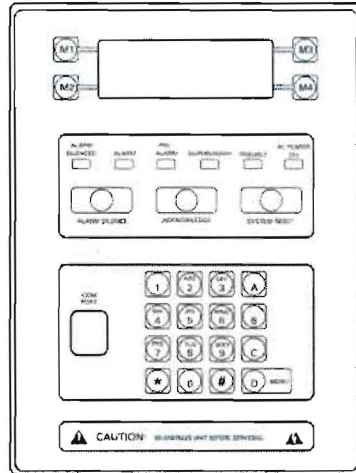
## Minimum Control Unit Configuration

A. Intelligent Signaling Line Circuit –
   The main termination board has addressable loop interface circuitry supporting one SLC loop Devices are polarity insensitive and can operate on untwisted, unshielded wire.

B. Notification Appliance Circuits –The base panel has four independent NACs. Each circuit can be selected to give continuous output, one of eight sounding patterns. NACs are style Z or Y capable, without additional modules.

C. Dry Contacts – Four programmable form "C" dry relay contacts are provided.

D. Remote Annunciation –The MPC-6000 panel will drive up to 16 annunciators and 8 remote processors on an RS-485 communication line.

E. Power Supply – A 7A, 24V nominal power supply provides all operating power to the panel for both standby and alarm conditions.

## Auxiliary Devices

A. Remote LCD Annunciator (RDC-2) –The remote LCD annunciator consists of a backlit 80 character, alphanumeric display, 4 menu buttons, 4 dedicated buttons for operator interaction, 6 LED indicators, and a security key switch.

B. Serial Annunciator (SLU-2) – Consists of one remote processor and one annunciator driver board capable of providing 16 supervised outputs for LEDs or incandescent lamps. Expansion to drive 512 LEDs or lamps is via additional processor boards and annunciator drive boards (SLE-16).

C. Serial Relay Unit (SRU-2) – Consists of remote processor and relay board which provides 8 relays with form "C" dry contacts rated at 1 amp. Expansion to 192 relays is via additional remote processor boards and relay boards (SLE-8).

## Optional Control Unit Configuration

A. MPC-DACT – The MPC-DACT provides a dual line digital alarm communications transmitter. It's parameters are set via the control unit programming sequence.

   The MPC-DACT is compatible with the following formats: SIA DCS 8, SIA DCS 20, Ademco Contact ID, 3/1 1400 Hz., 3/1 2300 Hz.,

# MOUNTING MATRIX

| | Series SET-C | Series ST | Series ST-MC-RETRO | Series MH115 | Series SE | Series B10-115 | Sereis 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 |
| (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 | | | |
| (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) SHBBS (SP) Shallow Surface | | X | | | X | | | | X | | | | | X | | | X | | |
| (Y) SERS Semi-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 mounting options) or equal with the same cut-out area.

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.

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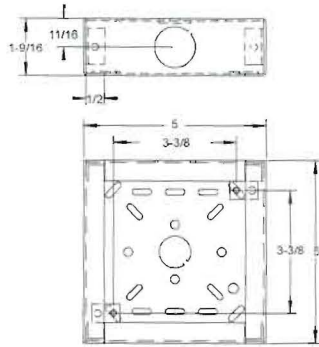


Used with Series AS, AH, NS, Z

**(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)**



**(AA) SPSB  (Order Codes: Red 500-636112, White 500-363113)**



Used with Series SE Speakers

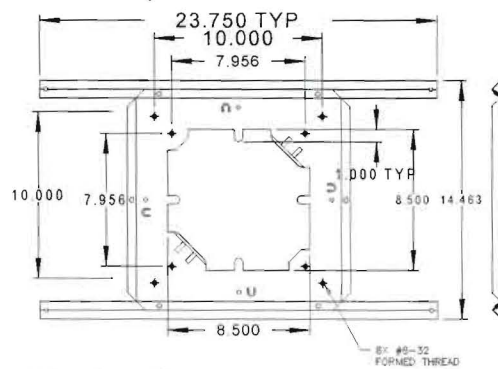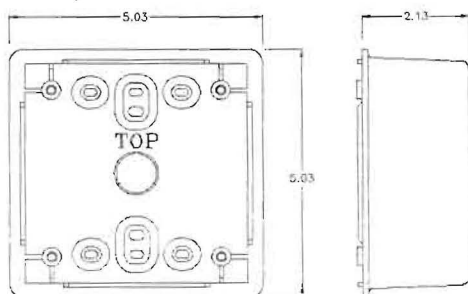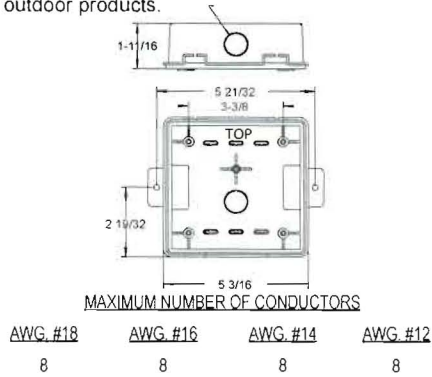**(BB) SPSSB (ORDER CODES:  RED 500-636114, WHITE 500-636115)**
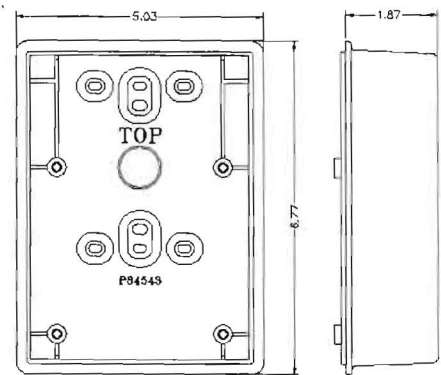


Used with Series SE-MC/HMC
(wall mount speaker/ strobe)
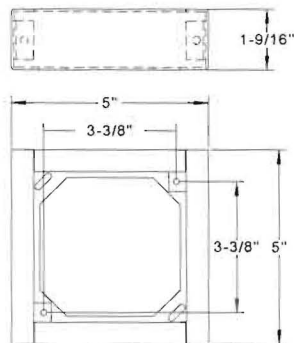
**(CC) SB-W 8" CEILING SUPPORT BRIDGE (ORDER CODE: WHITE 500-634882)**



Used with Series S 8" Ceiling Speakers

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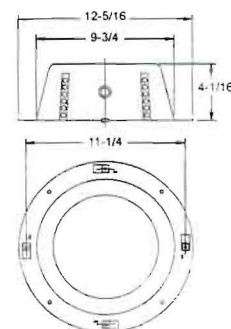


Used with 8" Ceiling Speakers

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

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



MAXIMUM NUMBER OF CONDUCTORS

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

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

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



MAXIMUM NUMBER OF CONDUCTORS

| AWG. #18 | AWG. #16 | AWG. #14 | AWG. #12 |
|----------|----------|----------|----------|
| 4 | 4 | 4 | 4 |
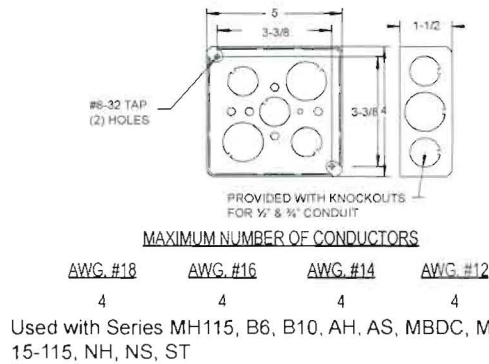
Used with Series MH115, B6, B10, AH, AS, MBDC, MTH-15-115, NH, NS, ST

## (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.



MAXIMUM NUMBER OF CONDUCTORS

| AWG. #18 | AWG. #16 | AWG. #14 | AWG. #12 |
|----------|----------|----------|----------|
| 4 | 4 | 4 | 4 |
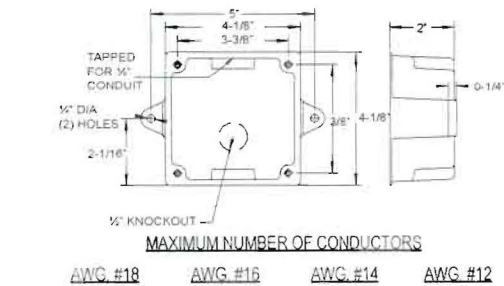
Used with Series MH115, B6, B10, SETSF, MBDC, MTH-15-115

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



MAXIMUM NUMBER OF CONDUCTORS

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

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

## (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.



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, HS, MBDC, MTH, NH, NS, ST

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

For surface mounting speakers, chimes, and electronic applications.



MAXIMUM NUMBER OF CONDUCTORS

| AWG. #18 | AWG. #16 | AWG. #14 | AWG. #12 |
|----------|----------|----------|----------|
| 8 | 8 | 8 | 8 |
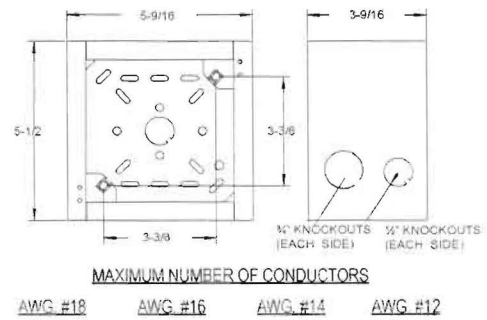
Used with Series B6, B10, CH, SEF, SET, SETFL, HS, MBDC, MTH, NH, NS, ST

Xenon flashtube enclosed in a rugged Lexan® lens. The strobes shall be available with two or four field select-able 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. Au-

dibles 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.

Detectors are assigned their address using the 8720 Field Programmer/Tester, which electronically stores address information in the detectors non-volatile memory. The 8720 can also be used for device testing and diagnostics.

The FireSmart series detectors can be on the same circuit as other 8700 series initiating devices such as manual stations, TRI Monitoring/Relay Modules, etc. Detectors are mounted in the standard 8853 or 8716 Relay Base, 8715 Audible Base, or 8840/8717 Duct Housing. Use the standard 8727C or 8727W (red) Remote Lamps when remote annunciation is required.

Smoke detectors are field cleanable per the instructions included on the installation sheet provided with the product. X1 series detectors are UL listed for operation within the standard UL specified temperature range of 32 to 100 degrees F (0 to 38 degrees C).

## Application Data

Installation of X1 series detectors require detector bases 8853, 8715, 8716, or 8840.

The 8710 and 8713 detectors can be applied within a maximum 30-foot center spacing (900 square foot area) as referenced in NFPA 72. This applications guideline is based on ideal conditions; specifically, smooth ceiling surfaces, minimal air movement and no physical obstructions between potential fire sources and the detector. Do not mount detectors in close proximity to ventilation or heating and air conditioning outlets. Exposed joints or beamed

ceilings may also affect safe spacing limitations of detectors. Should any questions arise regarding detector placement, observe NFPA 72 guidelines. Locating in close proximity to "noisy" electronic light ballasts or other sources of high level EMI or RFI should be avoided.

Good fire protection system engineering and common sense dictate how and when fire detection devices are installed and used. Contact your local Faraday authorized sales outlet whenever you need assistance applying these devices. Be sure to follow NFPA guidelines, the UL approved installation instructions provided with the product and local codes, as with any other fire protection equipment.

## Dimensions
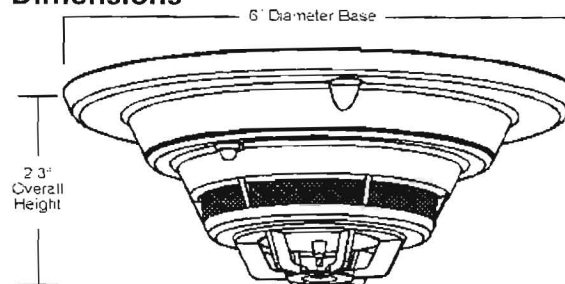


## Technical Specifications

### Operating Temperature
+32°F (0°C) to 100°F (38°C) per UL 269/268A

### Humidity
0-93% Relative Humidity Non-Condensing

### Current Draw
1 mA in alarm or stand-by mode

## Ordering Information

| Model | Description | Part No. |
|-------|-------------|----------|
| 8710 | Photoelectric Detector | 500-034800FA |
| 8713 | Photo-Thermal Detector (FireSmart™) | 500-033290FA |
| 8712 | 135°F Fixed Thermal Detector | 500-033380FA |
| 8715 | Audible Base | 500-033210FA |
| 8853 | Detector Base | 500-094151FA |
| 8840 | Air Duct Housing | 500-095656FA |
| 8717 | Air Duct Housing with Relay | 500-033280FA |
| 8716 | Relay Base | 500-033220FA |
| 8727W | Remote Lamp (red) for 4" octagon box | 500-033310FA |
| 8727C | Remote Lamp (red) for single gang box | 500-033230FA |
| 8720 | Field Programmer | 500-033260FA |
| 8846 | Detector base lock (Pkg. of 50) | 500-695350FA |

The 8701 is fully compatible on the same circuit with detectors, addressable manual stations or any addressable intelligent modules.

All 8701 intelligent interface modules have been UL and ULC Listed.

Environmental operating conditions for all 8701 modules are 32°F (°C) to 120°F (49°C) with a relative humidity of not greater than 93% non-condensating.

## Ordering Information

| Model | Description | Shipping oz. | Weight kg. | Part No. |
|-------|-------------|--------------|------------|----------|
| 8701 | Single Input | 3.5 | .1 | 500-034000FA |

## Electrical Ratings

Current Draw (Active or Standby): 1mA

Upon operation the pull down lever shall lock into the alarm position and remain so until manually reset. A common Faraday MM101 key shall be required to gain access for resetting the station, testing the station or replacing the glass rod. Stations with test features that do not test the actual station actuating switch shall not be acceptable.

Stations shall contain one or more normally open alarm contacts. Wiring to the fire alarm system initiating circuit shall be via pressure type screw terminals or pigtail wires with in and out wiring required.

## Specifications

### Electrical
Contacts – All contacts except General Alarm: 10A @ 120 Vac, General Alarm: 5A @ 30 Vdc

### Dimensions
4-3/4" (H) x 3-3/16" (W) x 7/8" (D)

### Weight
15-1/2 oz.

### Mounting
Single gang box

## Wiring



(1) N.O. Contact

(2) N.O. Contacts
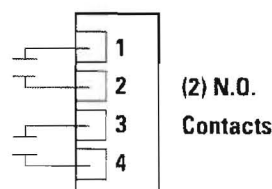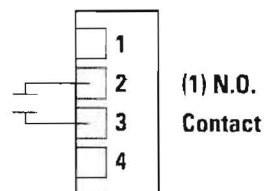
## Ordering Information

| Model | Description | Part No. |
|-------|-------------|----------|
| **Single Action Stations** | | |
| PM6700 | (RMS-1P-KL) Station, N.O., Pigtails | 500-648504FA |
| PM6608 | (RMS-1T-KL) Station, N.O., Terminals | 500-648505FA |
| **Dual Action Stations** | | |
| PM6696 | (RMS-2T-LP-KL) Station, (2) N.O., Terminals | 500-648507FA |
| **Pre-Signal/General Alarm Stations** | | |
| PM6695 | (RMS-1T-KS-KL) N.O. Pre-sig, N.O. Terminals | 500-648265FA |
| **Weatherproof Stations** | | |
| PM6699 | (RMS-2T-WP-KL) (2) N.O. Terminals | 500-648266FA |
| **Accessories** | | |
| PM6698 | (BB) Surface Back Box, Interior | 500-648506FA |
| PM7601 | Glass Rods (pack of 10) | 500-648245FA |
| 10531 | (STI1130) Cover, surface mount w/horn | 500-648563FA |
| 10538 | (STI1130) Cover, flush mount, w/ horn | 500-648591FA |
| 10539 | (STI1200) Cover, flush mount, w/o horn | 500-648253FA |

## General Specifications

### Environmental
OperatingTemperature:
  32-120°F (0-49°C)
Relative Humidity: 85% @ 86°F

### Power Consumption
  Alarm: .025 Amp
  Standby: .020 Amp

### Transmission Format
  Multiplexed, supervised style "W", power limited

### Display
  80 character, alphanumeric, backlit

### Wiring
  (2) pair, no. 18 awg. min., 4000 ft. max.,
  daisy chained, no t-taps

### Mounting
  6 gang box (supplied by others)

### Shipping Weight
  2 lbs. approx.

## Dimensions
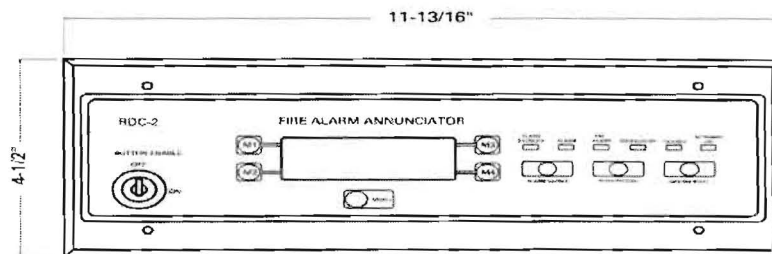


## Ordering Information

| Model | Description | Part No. |
|-------|-------------|----------|
| RDC-2 | Remote 80 character LCD annunciator | 500-648980FA |
| **Options** | | |
| 12411014 | Surface mount back box | 500-699639FA |

## Ordering Information

| Model | Description | Part No. |
|-------|-------------|----------|
| MPC-DACT | Digital dialer for the MPC-6000 or 7000 | 500-649330FA |

## Dimensions

BOX 18"
DOOR 18 3/8"

5 1/4"

BOX 22"
DOOR 22 9/32"

## Ordering Information

| Model | Description | Part No. |
|---|---|---|
| MPC-6000 | MPC-6000 Single Loop Addressable Fire Alarm Panel, Red | 599-049304FA |
| MPC-6000B | MPC-6000 Single Loop Addressable Fire Alarm Panel, Black | 599-049303FA |
| **Options** | | |
| RDC-2 | Remote Annunciator | 500-648980FA |
| NPE-1 | Transformer to expand NAC power | 500-649120FA |
| SRU-2 | RS-485 Relay Card | 500-649308FA |
| SRE-8 | 8 Relay Extender | 500-649337FA |
| SLU-2 | RS-485 LED Driver Card (16 Outputs) | 500-649307FA |
| SLE-16 | 16 LED Driver Extender | 500-649339FA |
| FAE-21 | ACC. Enclosure for RS-485 Devices | 500-401403014FA |
| MPC-DACT | Dialer for MPC-6000 and MPC-7000 | 500-649330FA |
| CT-1K | City Tie Module for MPC-6000 and MPC-7000 | 500-649336FA |
| SFTK-6R | Semi-Flush Trim for MPC-6000, Red | 500-648955FA |
| SFTK-6B | Semi-Flush Trim for MPC-6000, Black | 500-648954FA |