Form # P 04

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BU~~~~~~~~~TION

PERMIT

PERMIT ISSUED

Please Read
Application And
Notes, If Any,
Attached

This is to certify that _____ SAVI REALTY LLC /Cunning~~~~ Secur~~~~

SEP 2 9 2010

has permission to _____ Install Fire Alarm on 1st 2nd &~~~ floor

AT __193 MIDDLE ST_____ C~~~ 032 H022001

City of Portland

provided that the person or persons, fi~~ or c~~~~~~~~on a~~~~pting this permit shall comply with all of the provisions of the Statutes of Ma~~e and of the O~~~~~~ces of the City of Portland regulating the construction, maintenance and us~~~f buildings and str~~~~res, and of the application on file in this department.

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

Not~~~ation o~~~spectio~~must b~
give~~nd writt~~permissi~~rocure~
bef~~this bu~~~g or p~~~hereof i~
lath~~or oth~~~~~~~ed-in. 2~
HO~~NOTICE IS REQUIRED.

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

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept _____

Appeal Board _____

Other _____
Department Name

Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit
389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No:	Date Applied For:	CBL:
10-0987	08/16/2010	032 H022001

Location of Construction:	Owner Name:	Owner Address:	Phone:
193 MIDDLE ST	SAVI REALTY LLC	21 LOOKOUT DR	

Business Name:	Contractor Name:	Contractor Address:	Phone
	Cunningham Security Systems	10 Prince Point Road Yarmouth	(207) 846-3350

Lessee/Buyer's Name	Phone:	Permit Type:
		Fire Alarm System

Proposed Use:	Proposed Project Description:
Commercial - 1st 2nd & 3rd floor - Install Fire Alarm on 1st 2nd & 3rd floor	Install Fire Alarm on 1st 2nd & 3rd floor

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Dept: Zoning	**Status:** Approved	**Reviewer:** Marge Schmuckal	**Approval Date:** 08/17/2010

Note: Ok to Issue: ✔

Dept: Building	**Status:** Approved with Conditions	**Reviewer:** Tammy Munson	**Approval Date:** 09/29/2010

Note: Ok to Issue: ✔

1) Fire Alarm systems shall be installed per Sec. 907 of the IBC 2003

Dept: Fire	**Status:** Approved with Conditions	**Reviewer:** Ben Wallace Jr.	**Approval Date:** 09/28/2010

Note: Ok to Issue: ✔

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

2) Approved based on ammendment submitted 9/27/10.

3) 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.

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

5) As-built documents shall be submitted in pdf to the Building Inspections Office upon completion of job.

6) The Fire Department will require knox locking caps on all Fire Department Connections on the exterior of the building.

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

8) All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS". Records cabinate, FACP, annunciator(s), and pull stations shall be keyed alike.

PERMIT ISSUED

SEP 2 9 2010

City of Portland

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 Inspection 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 with construction.**

___X___ Final inspection required at completion of work performed by the Fire Department.

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OR 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.

PERMIT ISSUED

SEP 2 9 2010

City of Portland

CBL: 032 H022001   Building Permit #: 10-0987

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: _193/195 MIDDLE STREET_ CBL: _____

Exact location: (within structure) _195 1ST FLOOR - 2ND FLOOR - 3RD FLOOR_

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

Building owner: _ALAN LABOS_

System Designer (point of contact): _BRIAN EWINGS_

Must be

Designer phone: _846 - 3350_   E-mail: _BRIAN@CunninghamSecurity.com_

Installing contractor: _Cunningham Security_   Certificate of Fitness No: _____

Contractor phone: _846 - 3350_   E-mail: _Cunningham Security.com_

10 Princess Point

Yarmouth, ME 04096

This is a new application: YES ☒   NO ○

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

The following documents shall be provided with this application:

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

COST OF WORK: $ ~~955~~ _11,000_ .00

PERMIT FEE: _$130.00_

($10 PER $1,000 + $30 FOR THE FIRST $1,000)

RECEIVED

AUG 1 6 2010

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 Maine 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: _Brian Ewings_   Date: _____

FACP

BASEMENT

ELEC PANEL

3RD FLOOR

2ND FLOOR

1ST FLOOR

Legend:
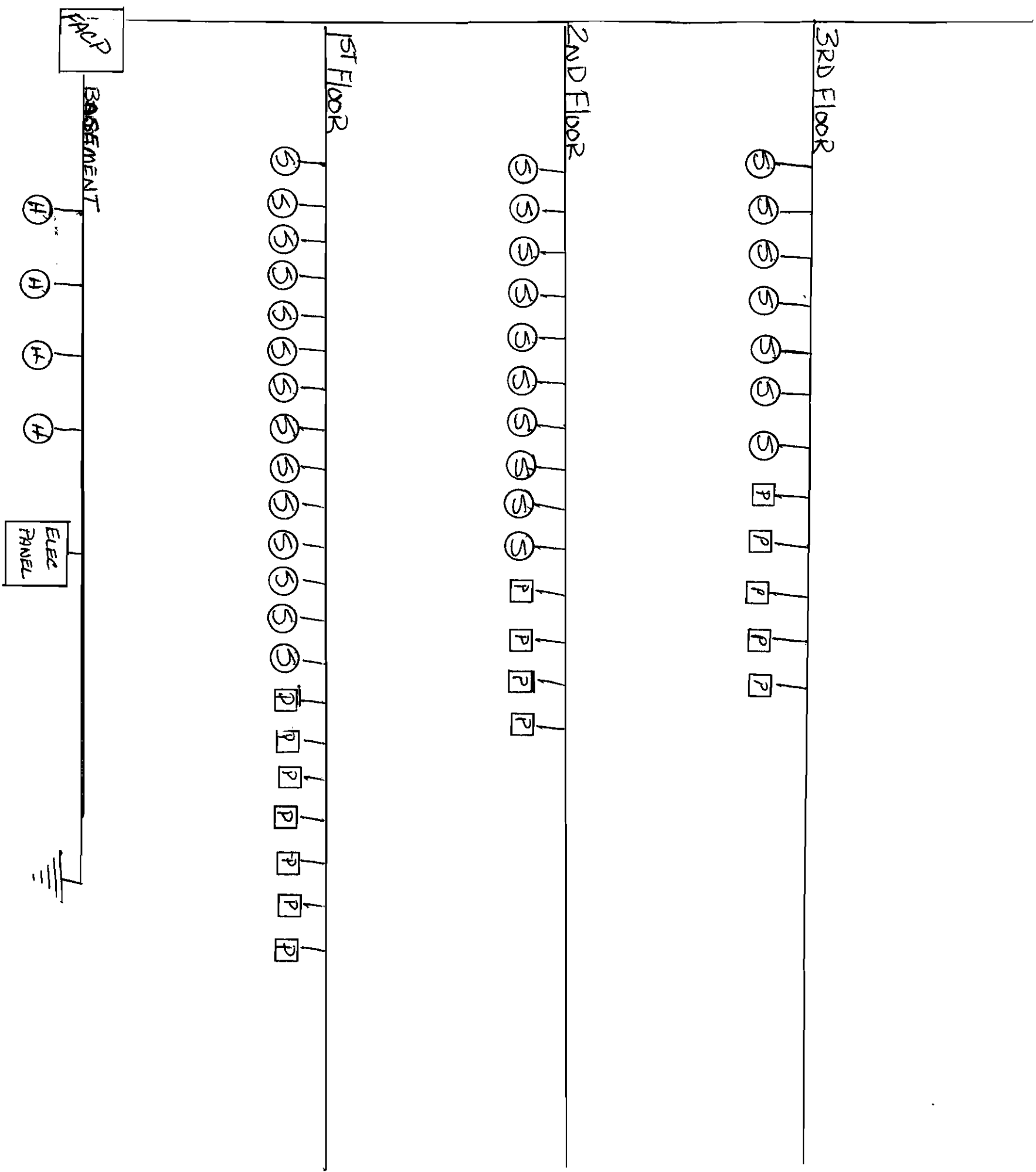
S – SMOKE

H – HEAT

P – PULL

FACP – FIRE ALARM CONTROL PANEL

SFP-5UD/SFP-10UD(E)

Five Zone Fire Alarm Control Panel
Ten Zone Fire Alarm Control Panel

Ⓝ NOTIFIER®
by Honeywell

Conventional Fire Alarm Control Panels

General

The **SFP-5UD** is a five-zone FACP (Fire Alarm Control Panel) and the **SFP-10UD(E)** is a ten-zone FACP. These control panels provide reliable fire signaling protection for small to medium-sized commercial, industrial, and institutional buildings. Both panels include built-in communicators for Central Station Service and remote upload/download.

Each of these FACPs is compatible with System Sensor's microprocessor-based i³ series detectors. These conventional smoke detectors can transmit a maintenance trouble signal to the FACP indicating the need for cleaning and a supervisory "freeze" signal when the ambient temperature falls below the detector rating. Additionally, both the SFP-5UD and SFP-10UD are compatible with conventional input devices such as two- and four-wire smoke detectors, pull stations, waterflow devices, tamper switches, and other normally-open contact devices. Refer to the *Notifier Device Compatibility Document* for a complete listing of compatible devices.

Outputs include four NACs (Notification Appliance Circuits), three programmable Form-C relays (factory programmed for Alarm, Trouble, and Supervisory) and 24 VDC special application resettable and nonresettable power outputs. The FACPs supervise all wiring, AC voltage, battery level and telephone line integrity.

Activation of a compatible smoke detector or any normally-open fire alarm initiating device will activate audible and visual signaling devices, illuminate an indicating LED, sound the piezo sounder at the FACP, activate the communicator and FACP alarm relay, and operate an optional module used to notify a remote station or initiate an auxiliary control function.

The FireWatch Series internet monitoring modules IPDACT-2 and IPDACT-2UD permit monitoring of alarm signals over the Internet saving the monthly cost of two telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line.

NOTE: The SFP-10UDE offers the same features as the SFP-10UD but allows connection to 240 VAC. Unless otherwise specified, the information in this data sheet applies to both the 120 VAC and the 240 VAC versions of these panels.

NOTE: For ULC-listed models, see dn-60437

Features

- Listed to UL Standard 864, 9th edition.
- Built-in DACT (Digital Alarm Communicator/Transmitter).
- Style B (Class B) IDC (Initiating Device Circuit)
  - SFP-5UD - five IDCs.
  - SFP-10UD - ten IDCs
- Style Y (Class B) NAC (Notification Appliance Circuit) - special application power
  - SFP-5UD - four NACs.
  - SFP-10UD - four NACs
- Notification Appliances may be programmed as
  - Silence Inhibit.
  - Auto-Silence.

- Strobe Synchronization for System Sensor, Wheelock, Gentex, Faraday, or Amseco devices.
- Selective Silence (horn-strobe mute).
- Temporal or Steady Signal
- Silenceable or Nonsilenceable.
- Optional N-CAC-5X Style Z (Class A) Converter Module for NACs and IDCs (2 required for SFP-10UD).
- Form-C Relays for Alarm, Trouble and Supervisory - Contact Ratings 2.0 A @ 30 VDC or 30 VAC (resistive).
- 3.0 A total system current for SFP-5UD.
- 7.0 A total system current for SFP-10UD.
- Optional Dress Panel DP-51050 (red)
- Optional Dress Panel DP-51050B (black).
- Optional Trim Ring TR-CE/-B for semi-flush mounting.
- 24 volt operation.
- Low AC voltage sense.
- Alarm Verification
- PAS (Positive Alarm Sequence).
- Automatic battery trickle charger.
- Up to eight ANN-BUS annunciators.
  - Optional 8 zone Relay Module N-ANN-RLY.
  - Optional LED Annunciator Module N-ANN-LED,
  - Optional Remote LCD Annunciator N-ANN-80.
  - Optional Remote Printer Gateway N-ANN-S/PG.
  - Optional LED Annunciator Driver N-ANN-I/O.
- Optional 4XTM module (conventional reverse polarity/city box transmitter).

PROGRAMMING AND SOFTWARE:

- Can be programmed at the panel with no special software or additional equipment.
- Programmable Make/Break Ratio
- Upload/Download (local or remote) of program and data via integral DACT.

USER INTERFACE:

- Built-in DACT (Digital Alarm Communicator/Transmitter).
- Integral 80-character LCD display with backlighting and keypad.
- Real-time clock/calendar with automatic daylight savings adjustments.
- ANN-BUS for connection to remote annunciators.
- Audible or silent walk test capabilities.
- Piezo sounder for alarm, trouble, and supervisory.

Controls and Indicators

LED INDICATORS
- FIRE ALARM (red)
- SUPERVISORY (yellow)
- TROUBLE (yellow)
- AC POWER (green)
- ALARM SILENCED (yellow)

CONTROL BUTTONS
- ACKNOWLEDGE
- ALARM SILENCE
- SYSTEM RESET (lamp test)
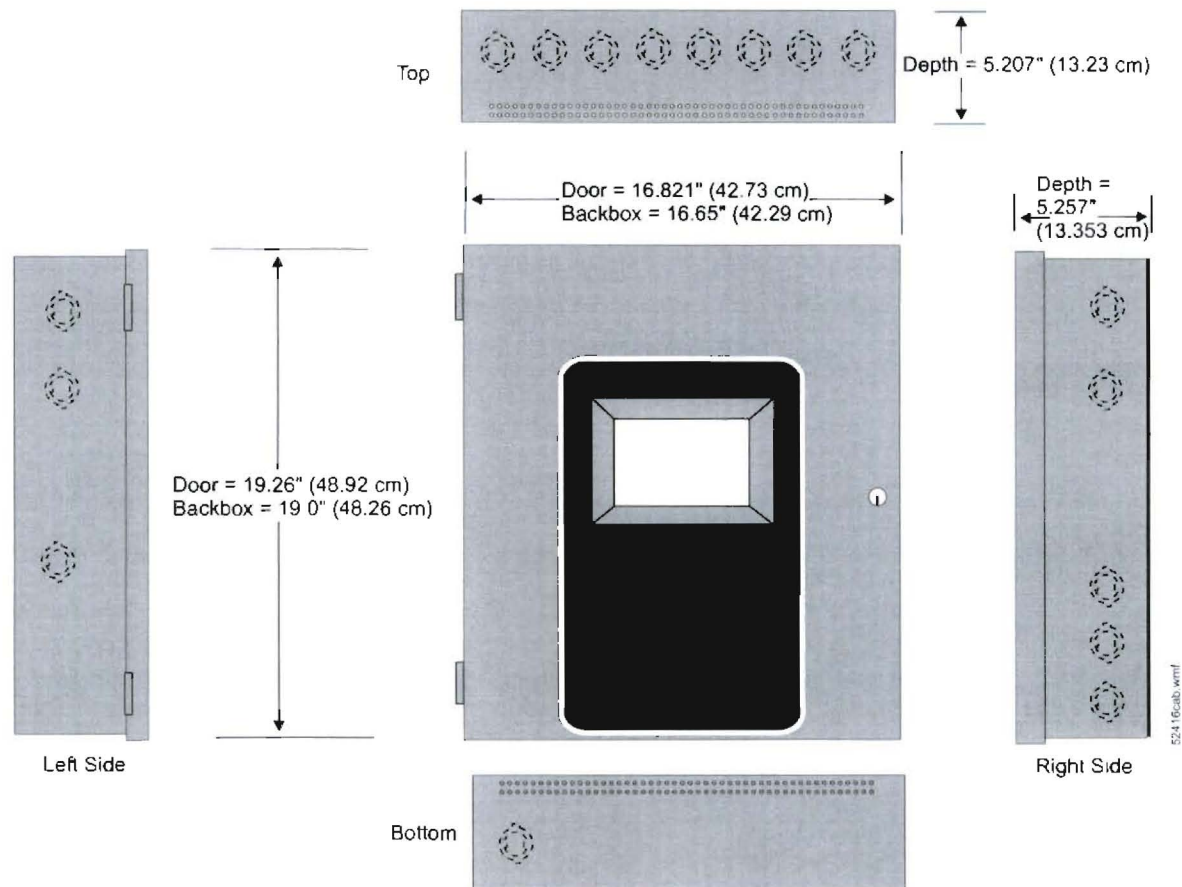- DRILL

Terminal Blocks

AC Power – TB1:

- *SFP-5UD* (FLPS-3 Power Supply): 120 VAC, 50/60 HZ, 1.00 A.
- SFP-10UD (FLPS-7 Power Supply): 120 VAC, 50/60 Hz, 3.8 A.
- SFP-10UDE (FLPS-7 Power Supply): 240 VAC, 50 HZ, 2.20 A.

Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation Supervised, nonpower-limited.

Battery (sealed lead acid only) – J12:

- Maximum Charging Circuit - Normal Flat Charge: 27.6 VDC @ 1.4 A Supervised, nonpower-limited.
- Maximum Charger Capacity: 18 AH battery for SFP-5UD, and 26 AH battery for SFP-10UD(E). [Two 18 Ah batteries can be housed in the FACP cabinet. Larger batteries require separate battery box such as the BB-26 or NFS-LBB.]
- Minimum Battery Size: 7 AH.

Top — Depth = 5.207" (13.23 cm)

Door = 16.821" (42.73 cm)
Backbox = 16.65" (42.29 cm)

Depth = 5.257" (13.353 cm)

Door = 19.26" (48.92 cm)
Backbox = 19 0" (48.26 cm)

Left Side

Right Side

Bottom

Cabinet Measurements

Initiating Device Circuits – TB4 (and TB 6 on SFP-10UD only):

- Alarm Zones 1 - 5 on TB 4 (SFP-5UD and SFP-10UD).
- Alarm Zones 6 - 10 on TB6 (SFP-10UD only).
- Supervised and power-limited circuitry
- Operation: All zones Style B (Class B).
- Normal Operating Voltage. Nominal 20 VDC
- Alarm Current: 15 mA minimum.
- Short Circuit Current. 40 mA max.
- Maximum Loop Resistance: 100 ohms.
- End-of-Line Resistor: 4 7K ohm, 1/2 watt (P/N 71252 UL-listed).
- Standby Current: 2 mA.

Refer to the *Notifier Device Compatibility Document* for listed compatible devices

Notification Appliance Circuits – TB5 (and TB 7 on SFP-10UD only):

- Four NACs
- Operation: Style Y (Class B)
- Special Application power
- Supervised and power-limited circuitry
- Normal Operating Voltage: Nominal 24 VDC
- Maximum Signaling Current: 3.0 A for SFP-5UD, 2.5 A maximum per NAC, 7.0 A for SFP-10UD(E), 3.0 A maximum per NAC.
- End-of-Line Resistor: 4 7K ohm, 1/2 watt (Part #71252)
- Max. Wiring Voltage Drop: 2 VDC

Refer to the *Notifier Device Compatibility Document* for compatible listed devices.

Form C Relays – TB8:

- *Relay 1* (factory default programmed as Alarm Relay)
- *Relay 2* (factory default programmed as fail-safe Trouble Relay)
- *Relay 3* (factory default programmed as Supervisory Relay)

Special Application Resettable Power – TB9:

- Jumper selectable by JP31 for resettable or nonresettable power
- Operating voltage: 24 VDC nominal.
- Maximum available current: 500 mA - appropriate for powering four-wire smoke detectors.
- Power-limited circuit.

Refer to the *Notifier Device Compatibility Document* for listed compatible devices.

Remote Sync Output - TB2: Remote power supply synchronization output, only required for the SFP-5UD. 24 VDC nominal special application power. Maximum current is 40 mA. End-of-Line Resistor: 4.7K ohm. Supervised and power-limited circuit.

Product Line Information

SFP-5UD: Five-zone, 24-volt Fire Alarm Control Panel (includes black backbox, FLPS-3 power supply, technical manual, and a frame & post operating instruction sheet).

SFP-5UDR: Same as above in a red backbox.

SFP-10UD: Ten-zone, 24-volt Fire Alarm Control Panel (includes black backbox, FLPS-7 power supply, technical manual, and a frame & post operating instruction sheet).

SFP-10UDE: Same as above with 220 VAC FLPS-7.

SFP-10UDR: Same as SFP-10UD in a red backbox

IPDACT, IPDACT-2/2UD Internet Monitoring Module: Mounts in bottom of enclosure with optional mounting kit (PN IPBRKT). Connects to primary and secondary DACT telephone output ports for internet communications over customer provided ethernet internet connection. Requires compatible Teldat Visoralarm Central Station Receiver. Can use DHCP or static IP. *(See data sheet DN-60389 for more information.)*

IPBRKT: Mounting kit for IPDACT in common enclosure.

IPSPLT: Y Adaptor option to allow connection of both panel dialer outputs to one cable input to IPDACT (sold separately).

OPTIONAL MODULES

N-CAC-5X: Optional (Class A) Converter Module. Converts Style B (Class B) Initiating Device Circuits to Style D (Class A); and Style Y (Class B) Notification Appliance Circuits to Style Z (Class A). Connects to J2 on the SFP-5UD and SFP-10UD main circuit board and to J7 on the SFP-10UD.

NOTE: Two Class A Converter Modules are required for the ten-zone panel.

4XTM: Transmitter module Provides a supervised output for local energy municipal box transmitter and alarm and trouble reverse polarity. Includes a disable switch and disable trouble LED. A module jumper option allows the reverse polarity circuit to open with a system trouble condition if no alarm conditions exists. Mounts to the main circuit board connectors J4 and J5.

COMPATIBLE ANNUNCIATORS

N-ANN-80: Remote LCD Annunciator. Mimics the information displayed on the FACP's LCD. Black. (For white, order: **N-ANN-80-W**.)

N-ANN-LED: LED Annunciator with three LEDs for each zone: Alarm, Trouble, and Supervisory. Includes black backbox. (For white, order **N-ANN-80-W**. For red order **N-ANN-80-R**.)

ANN-RLED: LED Annunciator with three alarm (red) indicators for up to 30 input zones or addressable points.

N-ANN-RLY: Relay module. Mounts inside the cabinet. Provides ten Form C relays.

N-ANN-S/PG: Serial/parallel printer gateway Provides a connection for a serial or parallel printer

N-ANN-I/O: Driver module Provides connections to a user-supplied graphic annunciator

ACCESSORIES

DP-51050: Optional dress panel. Restricts access to the system wiring while allowing access to the membrane switch panel. Red

DP-51050B: Same as DP-51050 except black.

BB-26: Battery backbox, holds up to two 25 AH batteries and CHG-75.

NFS-LBB: Battery backbox, holds up to two 55 AH batteries. Black.

NFS-LBBR: Same as above in red.

TR-CE-B: Optional black trim-ring for semi-flush mounted cabinets.

TR-CE: Same as above in red.

PRN-6: UL listed printer

SYSTEM SPECIFICATIONS

System Capacity

- Annunciators 8

Electrical Specifications

- SFP-5UD(R) (FLPS-3 Power Supply): 120 VAC, 60 HZ, 1.0 A
- SFP-10UD(R) (FLPS-7 Power Supply): 120 VAC, 60 HZ, 3.90 A
- SFP-5UDE (FLPS-3 Power Supply): 240 VAC, 50 HZ, 0 54 A.
- SFP-10UDE (FLPS-7 Power Supply): 240 VAC, 50 HZ, 2.20 A.
- Wire size: minimum 14 AWG (2.0 mm^2) with 600 V insulation, supervised, nonpower-limited

Cabinet Specifications

Door: 19.26" (48.92 cm.) high x 16.82" (42 73 cm.) wide x 0.72" (1.82 cm.) deep. Backbox: 19.00" (48.26 cm.) high x 16.65" (42.29 cm.) wide x 5.25" (13.34 cm.) deep. Trim Ring (TR-CE): 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide

Shipping Specifications

Dimensions:

- 20.00" (50.80 cm.) high
- 22.5" (57.15 cm.) wide
- 8 5" (21.59 cm.) deep

Weight: 27 lb (12.20 kg)

Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

Agency Listings and Approvals

The listings and approvals below apply to the basic SFP-5UD and SFP-10UD control panels. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status

- UL Listed: File S635
- FM Approved
- CSFM: 7165-0028:246
- MEA: MEA 333-07-E

NOTE: For ULC-listed models, see dn-60437

NFPA Standards

The SFP-5UD/SFP-10UD(E) complies with the following NFPA 72 Fire Alarm Systems requirements:

- LOCAL (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- AUXILIARY (Automatic, Manual and Waterflow) (requires 4XTM)
- REMOTE STATION (Automatic, Manual and Waterflow) (Where a DACT is not accepted, the alarm, trouble and supervisory relays may be connected to UL 864 listed transmitters For reverse polarity signaling of alarm and trouble, 4XTM is required.)
- PROPRIETARY (Automatic, Manual and Waterflow).
- CENTRAL STATION (Automatic, Manual and Waterflow, and Sprinkler Supervised).
- OT, PSDN (Other Technologies, Packet-switched Data Network)

(i³) Series Photoelectric Smoke Detectors

- The i³ family is founded on three principles: Installation ease, Intelligence, and Instant inspection.
- When used with the MS-5UD/-MS-10UD the 2-wire i³ detectors are capable of generating a remote maintenance signal when they are in need of cleaning.
- Simplified sensitivity measurement - simply use the wireless SENS-RDR device to display the sensitivity in terms of percent per foot obscuration.
- Drift compensation and smoothing algorithms are standard with the i³ line, to minimize nuisance alarms.
- The large wire entry port and in-line terminals provide ample room for neatly routing the wiring inside the base.

CONVENTIONAL FIRE ALARM CONTROL PANEL

compliant strobes. To ease retrofit applications, strobe synchronization is provided for System Sensor, Wheelock, Amseco, Faraday and Gentex signaling protocols, and permits use of existing devices. Both panels contain a Selective Silence feature where horns can be manually silenced while strobes continue to flash on the same NAC. This reduces confusion when first responders arrive to survey the situation, yet still warns occupants to exit the building.

Time Saving Innovations and False Alarm Reduction

Designed to reduce installation and maintenance labor time, both panels feature a Silent or Audible Walk Test operation mode that can be commanded from the front keypad. If no activity takes place after one hour, the system automatically returns to normal operation. To further reduce false alarm potential, the systems feature the ability to select alarm verification mode by each zone. This permits testing of zones that may be more prone to alarm to insure the detectors have not sensed a false indication of fire. When using the MS-5UD, a special module is available that converts all five indicating circuits and notification appliance circuits to be used in a Class A wiring configuration, enhancing wire supervision for opens or shorts. When low-cost conventional fire detection equipment is required and budget is tight, you can rest assured the advanced features found in the MS-5UD or MS-10UD will meet and exceed requirements for the most demanding applications. The MS-5UD and MS-10UD are designed and built by Fire-Lite Alarms, well known throughout the industry for high quality and exceptional design. To learn more about the MS-5UD/MS-10UD or other quality Fire-Lite products, call (203)484-7161 and ask for the distributor nearest you or visit us at www.firelite.com.

Key Applications

- Small facilities including:
  - Banks
  - Cinemas
  - Food Stores
  - Restaurants
  - Elementary Schools
  - Strip Malls
  - Small Retail Outlet Stores
  - Small Apartment Buildings Dormitories
  - Small Motels
  - Smaller Healthcare Clinics
  - Nursing Homes
  - Retirement or Assisted Living Facilities

Sold and Serviced by:

CPG
life safety signals
Commercial Products Group
2519-4th Ave, Moline, IL 61265
800.521.8219 : 800.225.4109
www.cpglifesafety.com

4050
PULLSTATIONS

document 256973 **B** rev 0209

SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with this product. In addition, listed below are some other important safety instructions and precautions you should follow:

- This unit should be installed by a qualified electrician in accordance with NFPA 72, and national and local Electrical and Fire Codes, under the direction of the authority having jurisdiction.

- If the unit is not installed in a supervisory system, it must be tested at regular intervals. Refer to NFPA 72G and the local Fire Codes for this information.

- After installation and testing are complete, provide a copy of this instruction sheet to all personnel responsible for routine testing and maintenance of this equipment.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

A. GENERAL.

Models 4050-001T and 4050-211T non-coded pull stations are Underwriters Laboratories listed for "Fire Protective Signalling Use" (category designation UNIU). These switch activated units are designed to initiate an electronic warning signal when the pull bar (marked "PULL DOWN") is manually pulled downward. An optional break shield is available for dual-action pull station requirements. The pull station is available for field input wiring in either a 4-wire version or a terminal version (see figure 1).

ADA compliant units will be noted on the backplate label. If so marked, these units (with or without break shield) comply with the maximum pull force of less than 5 lbs. as required by the Americans with Disabilities Act (ADA).

B INSTALLATION.

1. *Unpacking.*

After unpacking the pull station, examine it for damage that may have occurred in transit. If the unit has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier stating the extent of the damage. Ensure that the parts listed in the KIT CONTENTS LIST are contained in the packing carton.

2. *Electrical Connections.*

DANGER

To avoid electrical shock, DO NOT attempt to install the station(s) when power is on.

WARNING

Property damage, serious injury, or death in the protected premises may occur if wiring is improperly terminated. For proper warning system operation, ensure that the wires to the pull stations are properly terminated.

a. 4-Wire Version (Model 4050-001T).

See figure 2. The 4-wire version of the 4050 pull station has two red and two black wires attached (soldered) to the switch and secured to the pull station with a nylon strain relief. One set of wires (one black and one red) is used for the incoming signal; the other set is used for the outgoing signal. This wiring arrangement provides the NFPA 72 electrical supervision requirement.
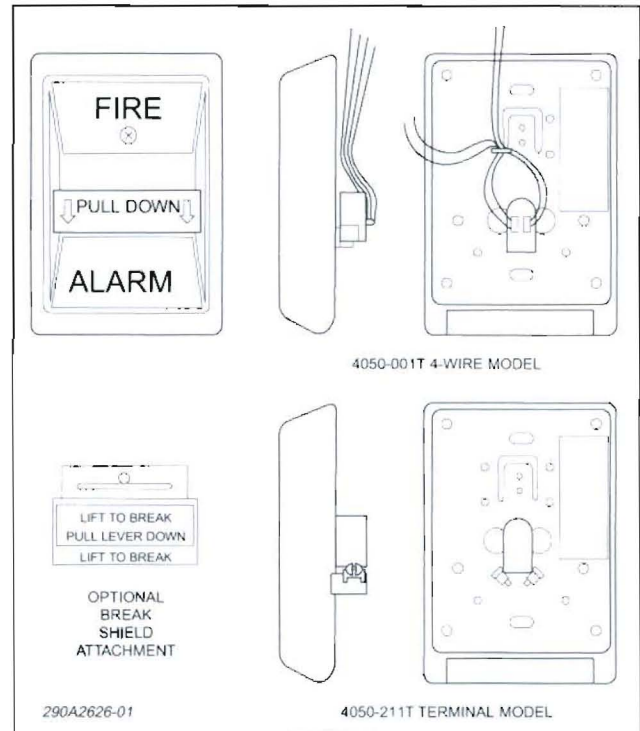

290A2626-01

4050-001T 4-WIRE MODEL

OPTIONAL BREAK SHIELD ATTACHMENT

4050-211T TERMINAL MODEL

Figure 1.

Use the proper size wire nuts or crimp terminals to secure all connections between adjoining stations and the power source.

b. Terminal Version (Model 4050-211T).

WARNING

An uninsulated section of a single conductor MUST NOT be looped around a terminal and used as two separate connections. NFPA 72 requires that the wire is severed to provide electrical supervision of the connection.

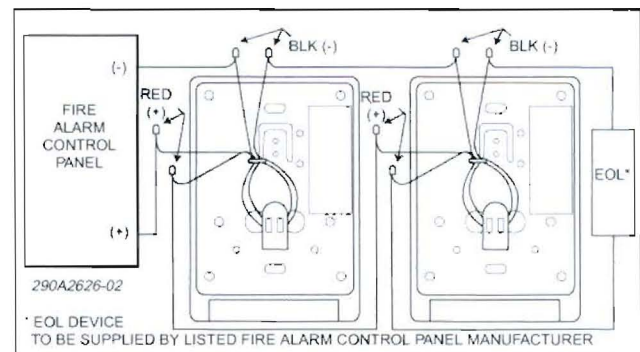Use 14 AWG (maximum) field wiring leads for the pull stations.

290A2626-02

* EOL DEVICE TO BE SUPPLIED BY LISTED FIRE ALARM CONTROL PANEL MANUFACTURER
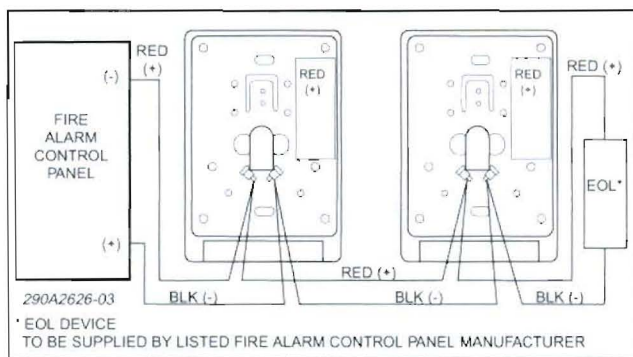
Figure 2.

Figure 3.

See figure 3. Two U-shaped saddle clamp-type terminals are supplied on the pull station for electrical connections. Strip 3/8" of insulation from all wiring leads. Attach the appropriate wires to the corresponding terminals of the back of the pull station. The red terminal indicates the positive lead. Securely tighten both of the binding screws to firmly capture the wires within the saddle clamps.

3   *Mounting Arrangements.*

WARNING

Property damage, serious injury or death could occur in the protected premises if you do not follow the correct closing procedure. Before closing the station, ensure that the switch is in the "up" (normally open) position (see figure 4), and that the mounting screws do not interfere with the internal mechanism and closing of the station.

a.   Semi-flush Mounting (see figure 4).

The Model 4050 pull stations are designed for mounting on an existing approved single gang electrical box or a 4" x 4" electrical box with a raised single gang plaster ring.

To open the pull station, loosen the #6-32 access screw located on the front of the unit. Use the two supplied #6-32 screws to secure the pull station in the electrical box. Close the station and firmly secure with the previously loosened #6-32 access screw.

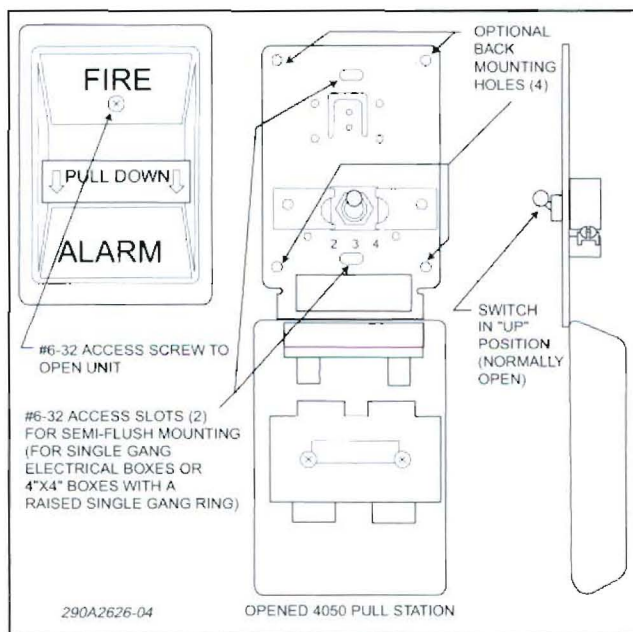b.   Surface Mounting (see figures 4 and 5).

The Model 4050 pull stations are also designed for mounting on an optional 1-1/2" deep Model 4050BB backbox.

To open the pull station, loosen the #6-32 access screw located on the front of the unit. Use four #8-32 screws (user-supplied) to secure the pull station on the backbox. Close the station and firmly secure with the previously loosened #6-32 access screw.

C.   TEST AFTER INSTALLATION.

Check for proper operation of all pull stations installed in your system.

D.   OPTIONAL BREAK SHIELD INSTALLATION.

To install the dual-action break shield after testing, loosen the #6-32 access screw and open the station. Pull down the pull bar and insert the shield's top leading edge beneath the "FIRE" nameplate. Release the pull bar and confirm that the shield is now held firmly in place, and completely covers the pull bar (see figure 5). Also ensure that the access screw is firmly tightened, securing the station front face.

E.   MAINTENANCE/SERVICE.

NOTE

A copy of this installation sheet must be given to all personnel responsible for routine testing and maintenance of this equipment.

The factory will service this unit or provide technical assistance with any problem that cannot be handled locally with satisfaction or promptness. If any unit is returned to the factory for repair, it can be accepted only if we are notified by mail or phone in advance of its arrival. Such notice should clearly indicate the service requested and give all pertinent information regarding the nature of the problem and, if possible, its cause.

This product is covered by a 5 year limited warranty. See CPG terms and conditions.

Communications and shipments should be addressed to the following:

Technical Service Department
Commercial Products Group
2519 - 4th Avenue
Moline, IL 61265
800.521.8219 • FAX 800.225.4109

F.   KIT CONTENTS LIST

Qty.	Description
1	Model 4050 Pull Station
2	#6-32 Mounting Screws
1	Installation Instructions

Figure 4.

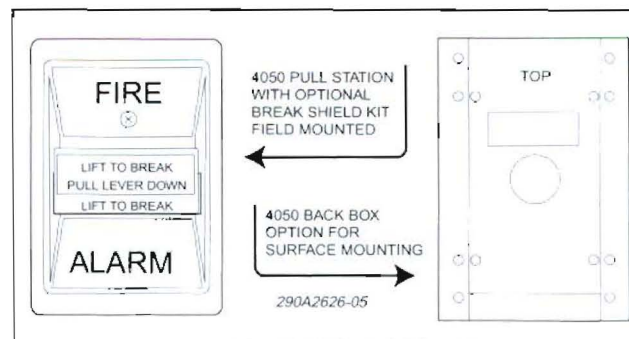*Figure 5.*

Altronix® *More than just power.*™

Security   Fire   CCTV   Access   Nurse C

Keyword Search

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Career Opportunities

AL600ULADA
NAC Power Extender

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☐ PDF Data Sheet | E-ma

Overview
Model AL600ULADA is an extremely cost effective 6.5 amp voltage regulated remote power supply/battery cha connected to any 24 volt Fire Alarm Control Panel (FACP). Primary applications include Notification Appliance as strobes and horns) expansion support to meet ADA requirements. It also provides auxiliary power to suppor accessories. The unit delivers regulated and filtered 24 volt power to Class B or Class A NAC loop circuits. Ad separate 1.0A auxiliary output with reset for four (4)-wire smoke detectors is available. The 6.5 amp rated supp divided between the four (4) outputs for powering NAC devices. Each output is rated at 2.5 amp max. An indivi amp is achieved by paralleling 2 outputs. In non-alarm condition independent loop supervision for Class A and/ NAC circuits is provided. In the event of a loop trouble the FACP will be notified via the steered input (input 1 o addition, there are common trouble output terminals (NC, C, NO) which are used to indicate general loop/syste common trouble input is provided for optional NC (normally closed) devices to report trouble to the FACP. Two signaling outputs can be employed and directed to control supervision and power delivery to any combination o outputs. The unit also features "Loop Output" trouble memory indication to help identify troublesome sporadic p Model is available in a larger enclosure AL600ULADAJ.

Agency Listings
- UL Listed Control Units and Accessories for Fire Alarm Systems (UL864).
  File# S5075.
- CSFM - California State Fire Marshal Approved
  File# 7315-1335:103.
- MEA - NYC Department of Buildings Approved

Features/Specifications
Power Supply/Charger:
- 24VDC output.
- 6.5 amp max total alarm current.
- 115VAC 60Hz., 3.2 amp.
- Short circuit and thermal overload protection
- Built-in charger for sealed lead acid or gel type battery backup
- Maximum charge current .7 amp.
- Zero voltage drop upon transfer to battery backup.
- AC input and DC output LED indicators.
- AC fail supervision (form "C" contact rated @ 1 amp 28VDC).
- Low battery and battery presence supervision (form "C" contact rated @ 1 amp 28VDC).
- Lifetime Warranty.

RoHS Com

Installation
Instructions   C
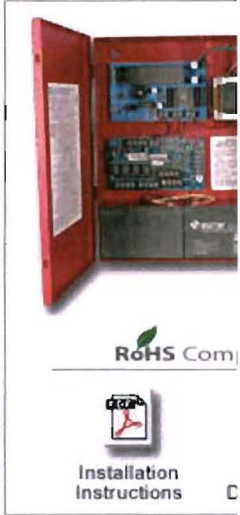
Logic Board:
- Class 2 Rated power limited outputs.
- Two (2) Class A or two (2) Class B FACP inputs
- Two (2) Class A or four (4) Class B Indicating Circuits
- Two (2) Class B outputs may be paralleled for more power on an indicating circuit
- One (1) Aux. Power Output @ 1 amp supply current (w/Battery Back Up).
- Signal Circuit Trouble Memory - facilitates quickly locating intermittent system trouble and eliminates costly a unnecessary service calls. LEDs indicate a prior fault (short, open, ground) has occured on one or more signaling circuit outputs.
- Input to Output Follower Mode (maintains synchronization of notification appliance circuits)
- Compatible with 24VDC or 12VDC fire panels.
- Common Trouble inputs and outputs.
- Ground fault detection.
- Lifetime Warranty.

Enclosure
- Accommodates up to two (2) 12VDC/12AH batteries
- Dimensions: 15.5"H x 12.23"W x 4.5"D.
- 1.125" and 1.375" combination knockouts

Similar Altronix Products
AL600ULADAJ 24VDC @ 6.5A max.
AL400ULADA 12VDC or 24VDC @ 4A max

Form # P 01

ELECTRICAL PERMIT
City of Portland, Me.

To the Chief Electrical Inspector, Portland Maine:
The undersigned hereby applies for a permit to make electrical installations
in accordance with the laws of Maine, the City of Portland Electrical Ordinance,
National Electrical Code and the following specifications:

Date _8/16/10_
Permit # _2010 - 558_
CBL# _32-H-22_

LOCATION: _193/195 MIDDLE STREET_ METER MAKE & # _____

CMP ACCOUNT # _____ OWNER _ALAN LABOS_

TENANT _AKARI HAIR SALON_ PHONE # _____

				TOTAL	EACH FEE
OUTLETS	Receptacles	Switches	Smoke Detector	.20	
FIXTURES	Incandescent	Fluorescent	Strips	.20	
SERVICES	Overhead	Underground	TTL AMPS <800	15.00	
	Overhead	Underground	>800	25.00	
Temporary Service	Overhead	Underground	TTL AMPS	25.00	
				25.00	
METERS	(number of)			1.00	
MOTORS	(number of)			2.00	
RESID/COM	Electric units			1.00	
HEATING	oil/gas units	Interior	Exterior	5.00	
APPLIANCES	Ranges	Cook Tops	Wall Ovens	2.00	
	Insta-Hot	Water heaters	Fans	2.00	
	Dryers	Disposals	Dishwasher	2.00	
	Compactors	Spa	Washing Machine	2.00	
	Others (denote)			2.00	
MISC. (number of)	Air Cond/win			3.00	
	Air Cond/cent		Pools	10.00	
	HVAC	EMS	Thermostat	5.00	
	Signs			10.00	
	Alarms/res			5.00	
	✓ Alarms/com Fire			15.00	
	Heavy Duty(CRKT)			2.00	
	Circus/Carnv			25.00	
	Alterations			5.00	
	Fire Repairs			15.00	
	E Lights			1.00	
	E Generators			20.00	
PANELS	Service	Remote	Main	4.00	
TRANSFORMER	0-25 Kva			5.00	
	25-200 Kva			8.00	
	Over 200 Kva			10.00	
			TOTAL AMOUNT DUE		
	MINIMUM FEE/COMMERCIAL 55.00		MINIMUM FEE 45.00		

RECEIVED
AUG 16 2010
Dept. of Building Inspections
City of Portland Maine

CONTRACTORS NAME _Cunningham Security_ MASTER LIC. # _MS 60008944_
ADDRESS _10 PRINCES' POINT ROAD YARM_ LIMITED LIC. # _____
TELEPHONE _207-846-3350_

SIGNATURE OF CONTRACTOR _Brian Ewing_

White Copy - Office • Yellow Copy - Applicant

◉ Fire-Lite Alarms /NOTIFIER _1024_ MS-10UD-7 Battery Calculation
by Honeywell

Secondary Power Source Requirements

Device Type	Secondary Non-Alarm Current (amps)					Secondary Alarm Current (amps)				
	Qty		Current Draw		Total	Qty		Current Draw		Total
1. System										
Main Circuit Board	1	x	0.127000	=	0.127000	1	x	0.265000	=	0.265000
4XTMF	0	x	0.005000	=		0	x	0.011000	=	
CAC-5X	0	x	0.001000	=		0	x	0.001000	=	
IPDACT-2	0	x	0.093000	=		0	x	0.136000	=	
IPDACT-2UD	0	x	0.098000	=		0	x	0.155000	=	
2. Annunciators										
ANN-80	0	x	0.015000	=		0	x	0.040000	=	
ANN-RLY	0	x	0.015000	=		0	x	0.075000	=	
ANN-I/O	0	x	0.035000	=		0	x	0.200000	=	
ANN-I/O LEDs	0	x	0.000000	=		0	x	0.010000	=	
ANN-S/PG	0	x	0.045000	=		0	x	0.045000	=	
ANN-(R)LED	0	x	0.028000	=		1	x	0.068000	=	0.06800
3. Conventional Detection										
Two-Wire Detector Heads	0	x	0.000000	=						
Four-Wire Detector Heads	0	x	0.000000	=						
Number of IDC's Used Minus 1						0	x	0.040000	=	
EOLR-1	0	x	0.020000	=		0	x	0.020000	=	
4. Other Devices										
Miscellaneous Device 1	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 2	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 3	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 4	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 5	0	x	0.000000	=		0	x	0.000000	=	
5. Notification Appliances										
NAC 1						0	x	0.000000	=	
NAC 2						0	x	0.000000	=	
NAC 3						0	x	0.000000	=	
NAC 4						0	x	0.000000	=	
Current Draw from TB9 (nonalam)	0	x	0.000000	=		0	x	0.000000	=	
			Total Standby Load		0.127000			**Total Alarm Load**		~~0.265000~~ .333

◉ Fire-Lite Alarms /NOTIFIER _1024_ MS-10UD-7 Battery Calculation
by Honeywell

Calculation in Total Sheet

		Required Standby Time in Hours			
		24 Hours			
Standby Load Current	0.12700 Amps	x	24	=	3.048 AH
		Required Alarm Time in Minutes			
		5 Minutes			
Alarm Load Current (Amps)	.333 ~~0.26500~~ Amps	x	0.084	=	~~0.022~~ .028 AH
			Total Current Load		3.07 AH
	Multiply by the Derating Factor		1.2	=	x 1.20
			Total Ampere Hours Required		3.69 ~~0.00~~

Recommended Batteries:	**BAT-1270 - 7AH Batteries**

Battery Check
The batteries can be charged by the MS-10UD-7 Charger.
The batteries can be housed in the MS-10UD-7 Cabinet.

Current Draw Check
NAC#1 current is within the limitations of the circuit.
NAC#2 current is within the limitations of the circuit.
NAC#3 current is within the limitations of the circuit.
NAC#4 current is within the limitations of the circuit.
MS-10UD-7 Control Panel:
The output current is within the panel's limitations.

State of Maine

DEPARTMENT OF PROFESSIONAL & FINANCIAL REGULATION

ELECTRICIANS' EXAMINING BOARD

License # LM50016570

Be it known that: **BRIAN A. EWINGS**

has qualified as required by Title 32 MRSA Chapter 17 and is licensed
as a

LIMITED ELECTRICIAN
LOW ENERGY

ISSUE DATE
Apr 01, 2009

Anne L. Head

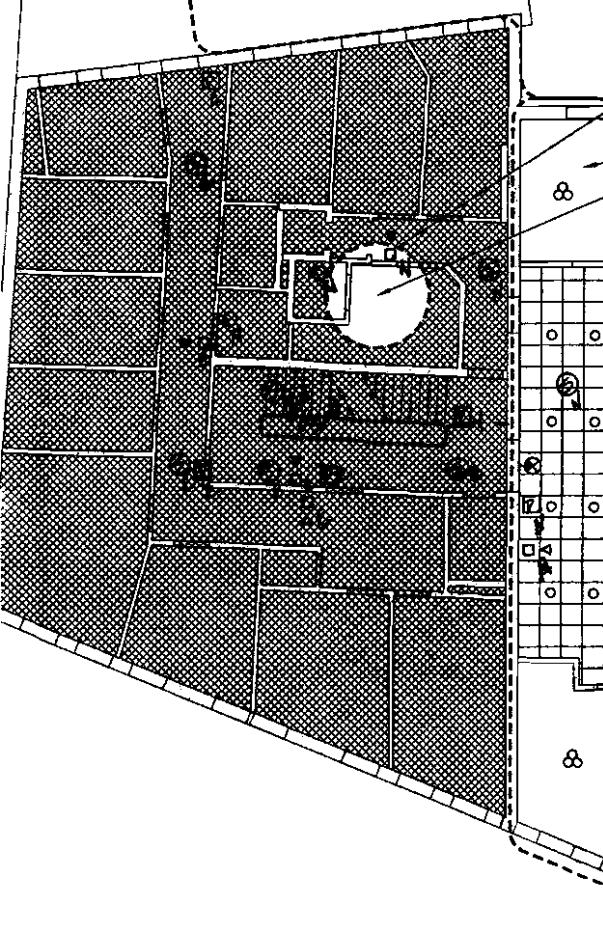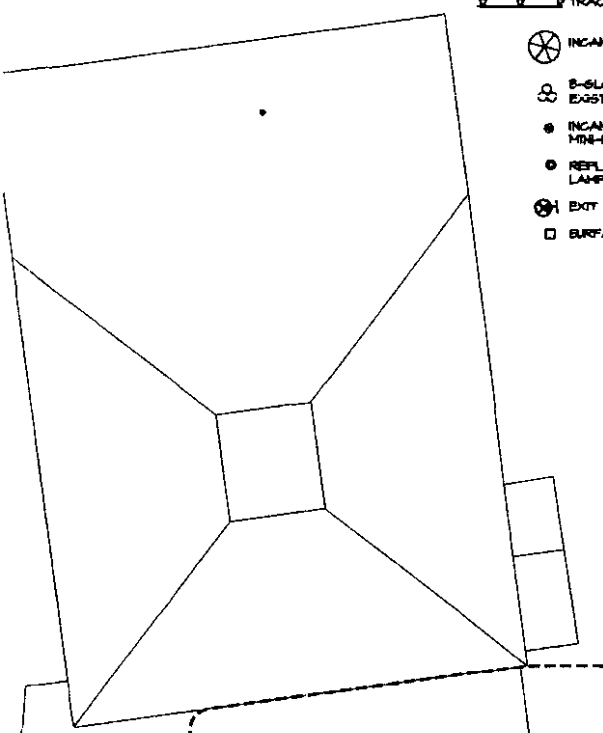**EXPIRATION DATE**
Mar 31, 2011

Director, Office of Licensing & Registration
Authorizing signature

LIGHTING LEGEND:

○   RECESSED INCANDESCENT FIXTURE

▭   SURFACE MTD FLOURESCENT STRIP W/ GEL LENS

▭▭   TRACK & HEADS (TO MATCH EXISTING @ RETAIL 101)

⊛   INCANDESCENT MULTI-LAMP CHANDELIER

  B-GLOBE/B-LAMP INCANDESCENT FIXTURE (TO MATCH EXISTING AT CONSULT ROOM 313)

  INCANDESCENT SURFACE MOUNTED FIXTURE W/ 3 MINI-PENDANTS

  REPLACE EXISTING SURFACE MTD FIXTURE W/ SINGLE LAMP INCANDESCENT

⊗   EXIT LIGHT

▢   SURFACE MOUNTED INCANDESCENT FIXTURE

CARRIAGE HOUSE

NEW GWB CEILING

PATCH & PAINT EXG PLASTER CEILING

PROVIDE NEW SPRINKLER HEADS & PIPING AT STAIR ENCLOSURE AS REQUIRED BY LOCAL CODES. SEAL ALL PIPE PENETRATIONS TO RETAIN 1-HR RATING.

AREA B:
RENOVATE EXISTING LOFT AREA, INCLUDING REMOVE EXISTING PARTITIONS, PROVIDE (2) NEW STAIRWAYS, NEW FLOORING, LIGHTING & FINISHES.

PREVIOUSLY COMPLETED WORK INCLUDES REMOVAL OF INTERIOR PARTITIONS, RE-FRAMING & SHEATHING OF FLOOR & STAIR.

CONCEAL & PROTECT PIPING IN CODART AS REQ'D BY CODES. PAINT TO MATCH CEILING & STRUCTURE.

PAINT EXISTING STRUCTURE, CEILINGS & DUCTWORK, TYP THIS ROOM. PROTECT SPRINKLER HEADS.

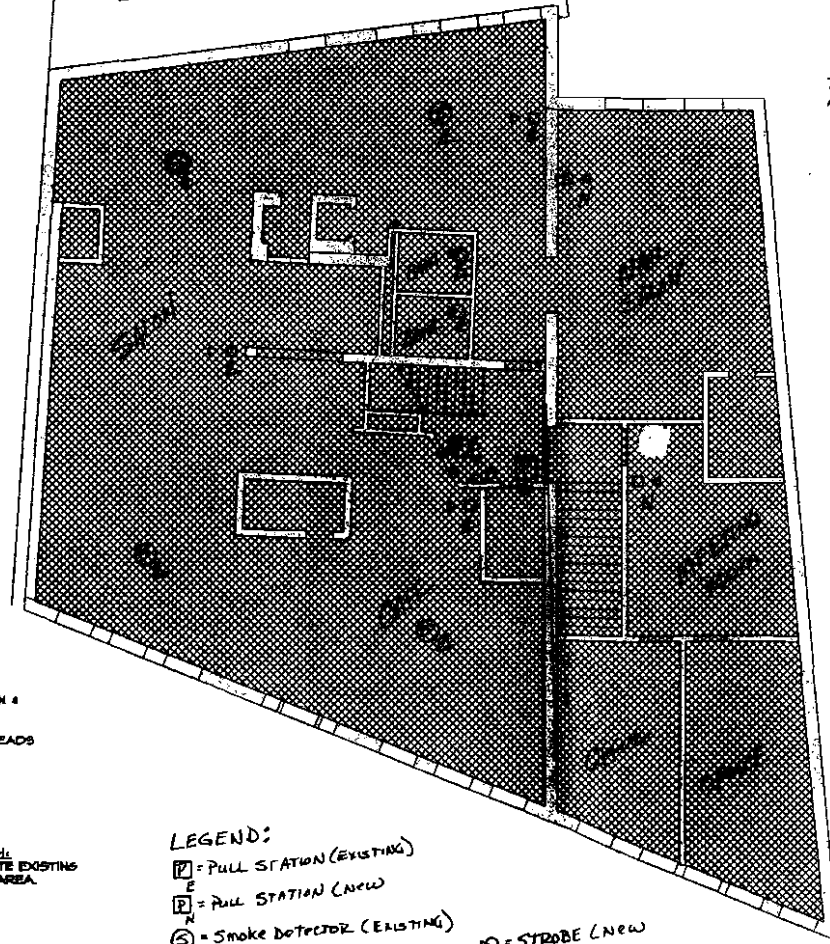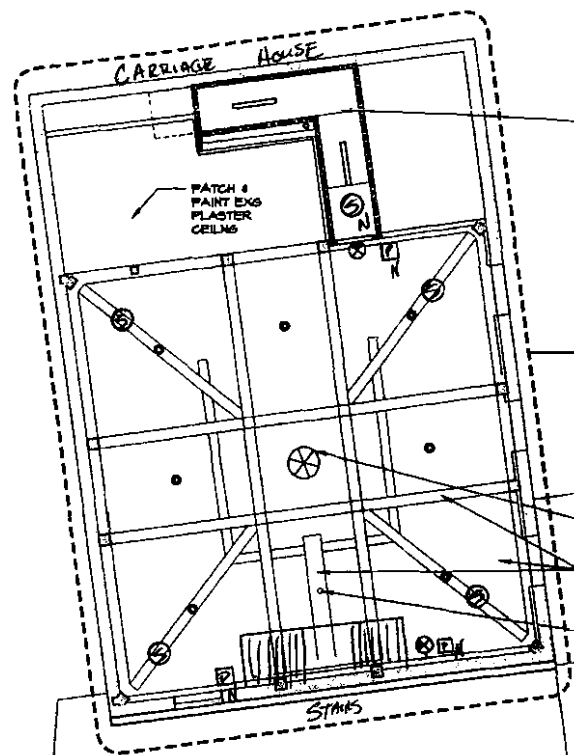REMOVE EXISTING FIXTURE ABOVE DUCT, CAP & COVER ELECTRICAL PER LOCAL CODES.

STAIRS

AREA D:
EXTERIOR EGRESS STAIR, UNDER SEPARATE CONTRACT. SEE DESCRIPTION OF PHASING @ COVER SHEET.

AREA C-2:
RECONFIGURE ROOM TO INCLUDE TOILET

PATCH, CLEAN & PAINT EXG. PROTECT SPRINKLER HEADS.

EXG CLG.

PATCH, CLEAN & PAINT EXG. PROTECT SPRINKLER HEADS

AREA C-1:
RENOVATE EXISTING OFFICE AREA.

AREA B-2:
ADD INTERNAL STAIR AS SECOND MEANS OF EGRESS FROM EXISTING LOFT AREA.

EXISTING CLG & LTG TO REMAIN

AREA B-1:
REBUILD NON-COMPLIANT STAIR TO EXISTING LOFT AREA.

NEW SLOPED GWB CEILING

EXISTING CLG & LTG TO REMAIN

NEW GWB CEILING @ 9'-2" AFF +/- (MATCH EXISTING)

7'-0"   6'-0"

ELEV

POST MOUNT LIGHTING TRACK 36"+/- BELOW EXISTING CEILING. COORDINATE FINAL LOCATION WITH OWNER.

AREA A:
CONSOLIDATE EXISTING RETAIL SPACES @ 193-195 MIDDLE STREET, INCLUDING NEW FLOORING, LIGHTING & FINISHES.

PREVIOUSLY COMPLETED WORK INCLUDES REMOVAL OF CENTRAL PARTITION AND VESTIBULE

LEGEND:

[P] = PULL STATION (EXISTING)

[P] = PULL STATION (NEW)

(S) = SMOKE DETECTOR (EXISTING)

(S) = SMOKE DETECTOR (NEW)

▷▢ = HORN STROBE (EXISTING)

▷▢ = HORN STROBE (NEW)

▢ = STROBE (NEW)

▢ = STROBE (EXISTING)

Akari

193 MIDDLE STREET, PORTLAND, MAINE

JOB NO.
10-058

DRWN. CHK
RSC

SCALE:
1/8"=1'-0"

ISSUE
26 JULY 2010

TITLE
REFLECTED CEILING PLANS

SHEET

A2

Brian A. Ewings

Ben,
The scope of work for 193 Middle Street will be to replace the present fire alarm panel with an addressable control panel, which will be in the lobby,replacing present initiating devices with addressable devices.Adding a power supply for the notification devices to keep up with current demands and sync on the strobes. This work will be in stages as the construction continues.
Battery calculations will be provided,voltage drops will be complete at the finish due to the use of existing wiring and unknown lengths at this time.New wiring will be installed for the notification circuits.

Thank you
Brian Ewings
Cunningham Security

RECEIVED

SEP 27 2010

Dept. of Building Inspections
City of Portland Maine

9/17/2010

FCPS-24FS6 / 8 Battery Calculation

Entries only to be made in the Yellow cell locations

Regulated Load in Standby

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
Main PC Board	1	X	0.065	=	0.065
Power Supervision Relays	4	X	0.025	=	0.1
Auxiliary Current Draw from TB4 Terminals 9 & 10		X		=	0
			STANDBY LOAD	=	0.165

Regulated Load in ALARM

Device Type	Number of Devices		Current (Amps)		Total Current (Amps)
Main PC Board without AC	1	X	0 145	=	0 145
Power Supervision Relays	4	X	0 025	=	0.1
Auxiliary Current Draw from TB4 Terminals 9 & 10		X		=	0
NAC / Output # 1	10	X	0.185	=	1 85
NAC / Output # 2	10	X	0.185	=	1 85
NAC / Output # 3	10	X	0.185	=	1.85
NAC / Output # 4	10	X	0.165	=	1 65
			ALARM LOAD	=	7.445

Battery Amp Hour Calculation

Standby Load Current (Amps)			Required Standby Time (Typically 24 or 60 *Hours*)		
	0.165	X	24	=	3.96 AH
Alarm Load Current (Amps)			Required Alarm Time (Typically 5 or 10 *Minutes*)		
	7 445	X	10	=	1.24 AH
			Sub Total Standby / Alarm Amp Hours		5.20 AH
			Multiply by the Derating Factor	X	1.2 *
			Total Ampere Hours Required	=	**7 AH**

Fire·Lite Alarms
by Honeywell
MS-9200UDLS Rev.2 Battery Calculation

Calculation in Total Sheet

			Required Standby Time in Hours		
			24 Hours		
Standby Load Current	0.36203 Amps	x	24	=	8.689 AH
			Required Alarm Time in Minutes		
			5 Minutes		
Alarm Load Current (Amps)	1.05500 Amps	x	0 084	=	0.089 AH
		Total Current Load			8.777 AH
	Multiply by the Derating Factor	1.2		=	x 1.20
		Total Ampere Hours Required			**10.53 AH**

Recommended Batteries:	**BAT-12120 - 12AH Batteries**

Battery Check
The batteries can be charged by the MS-9200UDLS Charger.
The batteries can be housed in the MS-9200UDLS Cabinet.

Current Draw Check
NAC#1 current is within the limitations of the circuit
NAC#2 current is within the limitations of the circuit.
NAC#3 current is within the limitations of the circuit.
NAC#4 current is within the limitations of the circuit.
MS 9200UDLS Control Panel·
The output current is within the panel's limitations.

Secondary Power Source Requirements

Device Type	Qty		Standby Current (amps) Current Draw		Total	Qty		Secondary Alarm Current (amps) Current Draw		Total
Main Circuit Board	1	x	0 137000	=	0.137000	1	x	0.360000	=	0.360000
XRM-24B	0	x	0 000000	=		0	x	0.000000	=	
4XTMF	0	x	0.005000	=		0	x	0.011000	=	
IPDACT-2	0	x	0 093000	=		0	x	0 136000	=	
IPDACT-2/2UD	1	x	0 098000	=	0.098000	1	x	0 155000	=	0.15500
ANN-BUS Devices										
ANN-80(-W)	1	x	0 015000	=	0.015000	1	x	0.040000	=	0.040000
ANN-LED	0	x	0 028000	=		0	x	0 068000	=	
ANN-RLED	0	x	0 028000	=		0	x	0 068000	=	
ANN-RLY	0	x	0 015000	=		0	x	0 075000	=	
ANN-I/O	0	x	0 035000	=		0	x	0.200000	=	
ANN-S/PG	0	x	0 045000	=		0	x	0.045000	=	
ACS Annunciators										
ACM-8RF	0	x	0.030000	=		0	x	0.158000	=	
ACM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
ACM-32AF	0	x	0.040000	=		0	x	0 056000	=	
AEM-16ATF	0	x	0.002000	=		0	x	0.018000	=	
AEM-32AF	0	x	0.002000	=		0	x	0.018000	=	
AFM-16ATF	0	x	0.040000	=		0	x	0.056000	=	
AFM-32AF	0	x	0.040000	=		0	x	0 056000	=	
AFM-16AF	0	x	0.025000	=		0	x	0.065000	=	
LDM-32F	0	x	0 040000	=		0	x	0.056000	=	
LDM-E32F	0	x	0 002000	=		0	x	0.018000	=	
LCD-80F	0	x	0.025000	=		0	x	0.064000	=	
Resettable Power										
4-Wire Smoke Detectors	0	x	0 000000	=		0	x	0 000000	=	
Addressable Devices										
BEAM355	0	x	0 002000	=						
BEAM355S	0	x	0 002000	=						
BEAM1224	0	x	0.017000	=						
CP355	0	x	0.000300	=						
SD355	21	x	0.000300	=	0.006300					
SD355T	0	x	0 000300	=						
AD355	0	x	0 000300	=						
H355	0	x	0.000300	=						
H355R	0	x	0.000300	=						
H355HT	0	x	0 000300	=						
D350P	0	x	0.000300	=						
D350RP	0	x	0.000300	=						
D350PL	0	x	0 000300	=						
D350RPL	0	x	0.000300	=						
D355PL	0	x	0.000300	=						
MMF-300	0	x	0.000400	=						
MMF-300-10	0	x	0.003500	=						
MDF-300	0	x	0 000750	=						
MMF-301	3	x	0.000375	=	0.001125					
MMF-302	0	x	0 000270	=						
MMF-302-6	0	x	0 002000	=						
BG-12LX	20	x	0.000230	=	0.004600					
CMF-300	0	x	0.000390	=						
CMF-300-6	0	x	0.002250	=						
CRF-300	0	x	0.000270	=						
CRF-300-6	0	x	0.001450	=						
300	0	x	0.000400	=						
B501BH-2	0	x	0 001000	=						
B501BHT-2	0	x	0 001000	=						
B224RB	0	x	0 000500	=						
B224BI	0	x	0.000450	=						

B200SR	0	x	0.000500	=					
			Maximum alarm draw for all Addressable devices ----------->						0.400000
EOLR-1	5	x	0.020000	=	0.100000	5	x	0.020000	=	0 100000
Miscellaneous Device 1	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 2	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 3	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 4	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 5	0	x	0.000000	=		0	x	0.000000	=	
NAC 1						0	x	0.000000	=	
NAC 2						0	x	0.000000	=	
NAC 3						0	x	0.000000	=	
NAC 4						0	x	0.000000	=	
Current Draw from TB3			0.000000	=				0.000000	=	
Total Standby Load					0.362025	Total Alarm Load				1.055000

MS-9200UDLS(E) Rev 2

Intelligent Addressable FACP
with Built-In Communicator

(logo) **Fire·Lite·Alarms**
by Honeywell

Addressable

General

The Fire•Lite MS-9200UDLS Rev 2 with Version 4.0 firmware is a combination FACP (Fire Alarm Control Panel) and DACT (Digital Alarm Communicator/Transmitter) all on one circuit board. This compact intelligent addressable control panel has an extensive list of powerful features.

While the MS-9200UDLS Rev 2 may be used with an SLC configured in the CLIP (Classic Loop Interface Protocol) mode, it can also operate in LiteSpeed™ mode—Fire•Lite's latest polling technology—for a quicker device response time. LiteSpeed's patented technology polls 10 devices at a time. This improvement allows a fully-loaded panel with up to 198 devices to report an incident and activate the notification circuits in under 10 seconds. With Litespeed polling, devices can be wired on standard twisted, unshielded wire up to a distance of 10,000 feet.

The MS-9200UDLS Rev 2's quick-remove chassis protects the electronics during construction. The backbox can be installed allowing field wiring to be pulled. When construction is completed, the electronics can be quickly installed with just two bolts.

Available accessories include ANN-BUS devices as well as ACS LED, graphic and LCD annunciators, and reverse polarity/city box transmitter.

The integral DACT transmits system status (alarms, supervisories, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. It also allows remote and local programming of the control panel using the PS-Tools Upload/Download utility. In addition, the control panel may be programmed or interrogated off-site via the public switched telephone network. Any personal computer with Windows® XP or greater, a compatible modem, and PS-Tools, the Fire•Lite Upload/Download software kit, may serve as a Service Terminal. This allows download of the entire program or upload of the entire program, history file, walktest data, current status and system voltages. The panel can also be programmed through the FACP's keypad or via a standard PS-2 computer keyboard, which can be plugged directly into the printed circuit board. This permits easy typing of address labels and other programming information.

Version 4.0 firmware supports the following: ANN-bus devices, AD355 (LiteSpeed), USB port, NAC circuit diagnostics, a new report has been added to the walk-test that lists untested devices, new device types added: audio telephone type code for ACC 25/50ZST, Photo Supervisory and auto-resettable Drill (non-latching).

The FireWatch Series Internet monitoring modules IPDACT-2 and IPDACT-2UD permit monitoring of alarm signals over the Internet saving the monthly cost of two dedicated business telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line.

NOTE: Unless otherwise specified, the term MS-9200UDLS is used in this document to refer to both the MS-9200UDLS and the MS-9200UDLS(E) FACPs (Fire Alarm Control Panels).
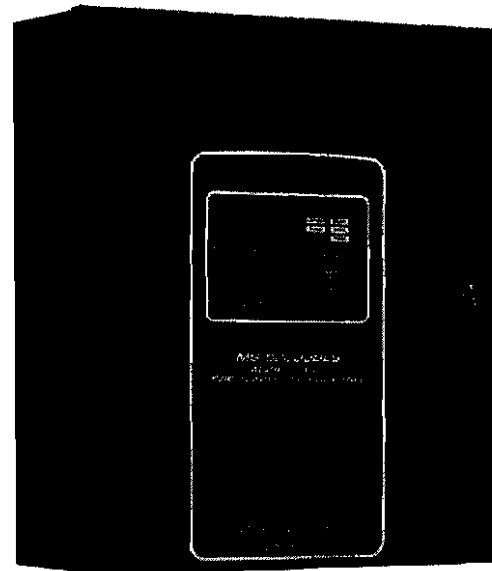
Features

- Listed to UL standard 864, 9th edition.
- On-board DACT.
- Remote site or local USB port upload/download, using PS-Tools.
- Four Style Y (Class B) or two Class A (Style Z) NAC circuits. (Up to 6.0 amps total NAC power when using optional XRM-24B.)
- Selectable strobe synchronization for System Sensor, Wheelock, and Gentex devices.
- Remote Acknowledge, Silence, Reset and Drill via addressable monitor modules or LCD-80F, ANN-80 or ACS Annunciators.
- ANN-BUS for connection to following optional modules (cannot be used if ACS annunciators are used):
  - ANN-80(-W) Remote LCD Annunciator
  - ANN-I/O LED Driver
  - ANN-S/PG Printer Module
  - ANN-RLY Relay Module
  - ANN-LED Annunciator Module
  - ANN-RLED Annunciator Module alarms only
- ACS/TERM:
  - ACS Annunciators: Up to 32 ACM Series annunciators (ACM-16AT or ACM-32 series). Cannot be used if ANN-BUS devices are used.
  - Terminal-mode Annunciators: Up to 32 LCD-80F remote annunciators.
- EIA-232 printer/PC interface (variable baud rate) on main circuit board, for use with optional UL-listed printer PRN-6F.
- Integral 80-character LCD display with backlighting.

- Real-time clock/calendar with automatic daylight savings control.
- Detector sensitivity test capability (NFPA 72 compliant).
- History file with 1,000-event capacity.
- Maintenance alert warns when smoke detector dust accumulation is excessive.
- Automatic device type-code verification.
- One person audible or silent walk test with walk-test log and printout.
- Point trouble identification.
- Waterflow (nonsilenceable) selection per monitor point.
- System alarm verification selection per detector point.
- PAS (Positive Alarm Sequence) and presignal delay per point (NFPA 72 compliant).

NOTE: Only detectors may participate in PAS.

SLC LOOP:

- SLC can be configured for NFPA Style 4, 6, or 7 operation.
- SLC supports up to 198 addressable devices per loop (99 detectors and 99 monitor, control, or relay modules).
- SLC loop maximum length 10,000 ft. (3,000 m.). *See installation manual for wire tables.*

NOTIFICATION APPLIANCE CIRCUITS (NACS):

- Four onboard NACs with additional NAC capability using output control modules (CMF-300 or CMF-300-6). The four Class B NACs can be converted to two Class A NACs with NACKEY (included).
- Silence Inhibit and Auto Silence timer options.
- Continuous, March Time, Temporal or California code for main circuit board NACs with two-stage capability.
- Selectable strobe synchronization per NAC.
- 2.5 amps maximum per each NAC circuit.

NOTE: Maximum 24VDC system power output is shared among all NAC circuits and 24VDC special-application auxiliary power outputs. Total available output is 3.0 amps. Using the optional XRM-24B transformer increases 24VDC output to 6.0 amps.

PROGRAMMING AND SOFTWARE:

- Autoprogram (learn mode) reduces installation time.
- Custom English labels (per point) may be manually entered or selected from an internal library file.
- Three Form-C relay outputs (two programmable).
- 99 software zones.
- Continuous fire protection during online programming at the front panel.
- Program Check automatically catches common errors not linked to any zone or input point.
- **OFFLINE PROGRAMMING:** Create the entire program in your office using a Windows®-based software package (order programming kit PS-Tools, separately). Upload/download system programming locally to the MS-9200UDLS(E) Rev 2 in less than one minute.
- USB programming with standard Male-A to Male-B cable.

User Interface

LED INDICATORS

- AC Power (green)
- Fire Alarm (red)
- Supervisory (yellow)
- Alarm Silenced (yellow)
- System Trouble (yellow)
- Maintenance/Presignal (yellow)
- Disabled (yellow)
- Battery Fault (yellow)
- Ground Fault (yellow)

KEYPAD CONTROLS

- Acknowledge/Step
- Alarm Silence
- Drill
- System Reset (lamp test)
- 16-key alpha-numeric pad (similar to telephone keypad)
- 4 cursor keys
- Enter

Product Line Information

MS-9200UDLS Rev 2: 198-point addressable Fire Alarm Control Panel, one SLC loop. Includes 80-character LCD display, single printed circuit board mounted on chassis, and cabinet. 120 VAC operation.

MS-9200UDLSE Rev 2: Same as **MS-9200UDLS Rev 2,** except with 240 VAC operation.

4XTMF Reverse Polarity Transmitter Module: Provides supervised output for local energy municipal box transmitter, alarm, and trouble.

PK-CD: Contains PS-Tools Programming software for Windows®-based PC computer (cable not included).

DP-9692: Optional dress panel for MS-9200UDLS Rev 2.

TR-CE: Trim Ring for semi-flush mounting.

BB-26: Battery backbox, holds up to two 25 AH batteries and CHG-75.

BB-55F: Battery box, houses two 55 AH batteries.

CHG-75: Battery charger for lead-acid batteries with a rating of 25 to 75 AH.

CHG-120F: Remote battery charging system for lead-acid batteries with a rating of 55 to 120 AH. Requires additional BB-55F for mounting.

BAT Series: Batteries, see data sheet DF-52397.

XRM-24B(E): Optional transformer. Increases system power output to 6.0 amps. Use XRM-24BE with MS-9200UDLS Rev 2(E).

PRT/PK-CABLE: Cable printer/personal computer interface cable; required for printer or for local upload/download programming.

PRN-6F: UL listed compatible event printer. Uses tractor-fed paper.

IPDACT-2/2UD, IPDACT Internet Monitoring Module: Mounts in bottom of enclosure with optional mounting kit (PN IPBRKT). Connects to primary and secondary DACT telephone output ports for internet communications over customer provided ethernet internet connection. Requires compatible Teldat VisorALARM Central Station Receiver. Can use DHCP or static IP. *(See data sheet df-60407 or df-52424 for more information.)*

IPBRKT: Mounting kit for IPDACT-2/2UD in common enclosure.

IPSPLT: Y-adaptor option allows connection of both panel dialer outputs to one IPDACT-2/2UD cable input.

COMPATIBLE ANNUNCIATORS

ANN-80(-W): LCD Annunciator is a remote LCD annunciator that mimics the information displayed on the FACP LCD dis-

play. Recommended wire type is un-shielded. (Basic model is red; order -W version for white; see *DF-52417.*)

ANN-LED: Annunciator Module provides three LEDs for each zone: Alarm, Trouble and Supervisory. Ships with red enclosure (see DF-60241).

ANN-RLED: Provides alarm (red) indicators for up to 30 input zones or addressable points. (See DF-60241).

ANN-RLY: Relay Module, which can be mounted inside the cabinet, provides 10 programmable Form-C relays. *(See DF-52431.)*

ANN-S/PG: Serial/Parallel Printer Gateway module provides a connection for a serial or parallel printer. *(See DF-52429.)*

ANN-I/O: LED Driver Module provides connections to a user supplied graphic annunciator. *(See DF-52430.)*

ACM-8RF: Relay module provides 6 Form-C 5.0 amp relays.

ACS-LED Zone Series: LED-type fire annunciators capable of providing up to 99 software zones of annunciation. Available in increments of 16 or 32 points to meet a variety of applications.

LDM Graphic Series: Lamp Driver Module series for use with custom graphic annunciators.

LCD-80F (Liquid Crystal Display) point annunciator: 80-character, backlit LCD-type fire annunciators capable of displaying English-language text.

NOTE: For more information on Compatible Annunciators for use with the MS-9200UDLS Rev 2, see the following data sheets (document numbers) ACM-8RF (DF-51555), ACS/ACMSeries (DF-52378), LDM Series (DF-51384), LCD-80F (DF-52185).

LITESPEED COMPATIBLE ADDRESSABLE DEVICES

All feature a polling LED and rotary switches for addressing.

CP355: Addressable low-profile ionization smoke detector.

SD355: Addressable low-profile photoelectric smoke detector.

SD355T: Addressable low-profile photoelectric smoke detector with thermal sensor.

H355: Fast-response, low-profile heat detector.

H355R: Fast-response, low-profile heat detector with rate-of-rise option.

H355HT: Fixed high-temperature detector that activates at 190F/88C.

AD355(A): Low-profile, intelligent, "Adapt" multi-sensor detector (B350LP base included).

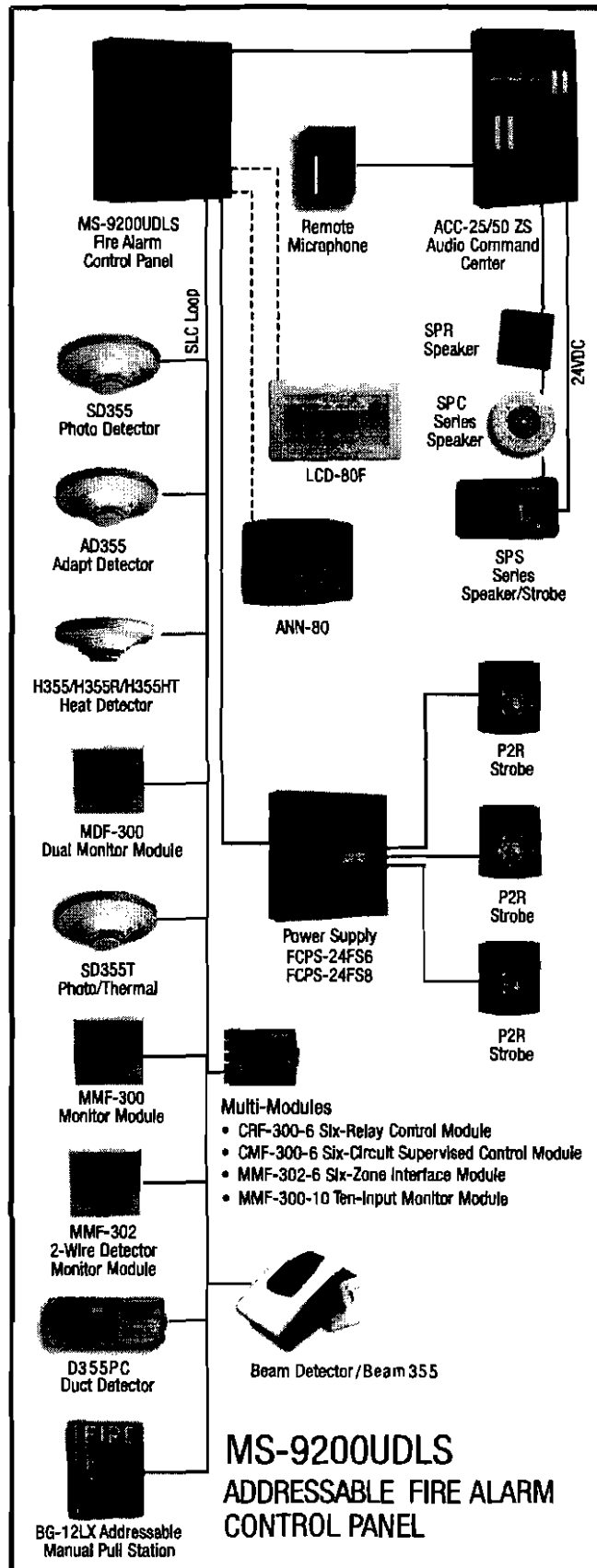**BEAM355:** Intelligent beam smoke detector.

BEAM355S: Intelligent beam smoke detector with integral sensitivity test.

D350PL: Photoelectric low-flow duct smoke detector.

D350RPL: Photoelectric low-flow duct smoke detector with relay option.

DNR(A): Innovair Flex low-flow non-relay duct-detector housing. (Order SD355 separately.)

DNRW: Innovair Flex low-flow non-relay duct-detector housing, with NEMA-4 rating. Watertight. (Order SD355 separately.)

MS-9200UDLS
Fire Alarm
Control Panel

Remote
Microphone

ACC-25/50 ZS
Audio Command
Center

SLC Loop

SD355
Photo Detector

SPR
Speaker

24VDC

SPC
Series
Speaker

LCD-80F

AD355
Adapt Detector

SPS
Series
Speaker/Strobe

ANN-80

H355/H355R/H355HT
Heat Detector

P2R
Strobe

MDF-300
Dual Monitor Module

P2R
Strobe

SD355T
Photo/Thermal

Power Supply
FCPS-24FS6
FCPS-24FS8

P2R
Strobe

MMF-300
Monitor Module

Multi-Modules
• CRF-300-6 Six-Relay Control Module
• CMF-300-6 Six-Circuit Supervised Control Module
• MMF-302-6 Six-Zone Interface Module
• MMF-300-10 Ten-Input Monitor Module

MMF-302
2-Wire Detector
Monitor Module

D355PC
Duct Detector

Beam Detector / Beam 355

BG-12LX Addressable
Manual Pull Station

MS-9200UDLS
ADDRESSABLE FIRE ALARM
CONTROL PANEL

MMF-300: Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 4.0" (10.16 cm.) box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Style B (Class B) or Style D (Class A) IDC.

MDF-300: Dual Monitor Module. Same as MMF-300 except it provides two Style B (Class B) only IDCs.

MMF-301: Miniature version of MMF-300. Excludes LED and Style D option. Connects with wire pigtails. May mount in device backbox.

MMF-302: Similar to MMF-300, but may monitor up to 20 conventional two-wire detectors. Requires resettable 24 VDC power. Consult factory for compatible smoke detectors.

CMF-300: Addressable Control Module for one Style Y/Z (Class B/A) zone of supervised polarized Notification Appliances. Mounts directly to a 4.0" (10.16 cm.) electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

CRF-300: Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 4.0" (10.16 cm.) box, surface mount using the SMB500.

BG-12LX: Addressable manual pull station with interface module mounted inside.

I300: Fault Isolator Module. This module isolates the SLC loop from short circuit conditions (required for Style 6 or 7 operation).

SMB500: Used to mount all modules except the MMF-301 and M301.

MMF-300-10: Ten-input monitor module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

MMF-302-6: Six-zone interface module for compatible conventional two-wire detectors. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

CMF-300-6: Six-circuit supervised control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

CRF-300-6: Six Form-C relay control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F.

NOTE: 1) For more information on Compatible Addressable Devices for use with the MS-9200UDLS Rev 2, see the following data sheets (document numbers): AD355 (DF-52386), BG-12LX (DF-52013), CMF-300-6 (DF-52365), CRF-300-6 (DF-52374), CMF/CRF Series (DF-52130), CP355 (DF-52383), D350PL/ D350RPL (DF-52398), H355 Series (DF-52385), I300 (DF-52389), MMF-300 Series/MDF-300 (DF-52121), MMF-300-10 (DF-52347), MMF-302-6 (DF-52356), SD355/SD355T (DF-52384). 2) Legacy 300 Series detection devices such as the CP300/CP350, SD300(T)/SD350(T) and older modules such as the M300, M301, M302, C304, and BG-10LX are not compatible with LiteSpeed polling. If the SLC contains one of these devices, polling must be set for standard LiteSpeed protocol. Please consult factory for further information on previous 300 Series devices.

Wiring Requirements

While shielded wire is not required, it is recommended that all SLC wiring be twisted-pair to minimize the effects of electrical interference. Wire size should be no smaller than 18 AWG (0.76 mm²) and no larger than 12 AWG (3.1 mm²). The wire size depends on the length of the SLC circuit. Refer to the panel manual for wiring details.

SYSTEM SPECIFICATIONS

System Capacity

- Intelligent Signalling Line Circuits.......................................1
- Addressable device capacity...196
- Programmable software zones...99
- ACS Annunciators..32
- ANN-bus devices...6

Electrical Specifications

AC Power: MS-9200UDLS Rev 2: 120 VAC, 60 Hz, 3.0 amps. MS-9200UDLS Rev 2E: 240 VAC, 50 Hz, 1.5 amps. Wire size: minimum 14 AWG (2.00 mm²) with 600 V insulation.

Battery: Two 12 V 16AH lead-acid batteries.
Battery charger capacity: 7 – 16 AH. MS-9200UDLS Rev 2 cabinet holds maximum of two 16 AH batteries.

Communication Loop: Supervised and power-limited.

Notification Appliance Circuits: Each terminal block provides connections for two Style Y (Class B) or one Style Z (Class A) for a total of four Style Y (Class B) or two Style Z (Class A) NACs. Maximum signaling current per circuit: 2.5 amps. End-of-Line Resistor: 4.7K ohm, 1/2 watt (P/N 71252 UL listed) for Style Y (Class B) NAC. Refer to panel documentation and *Fire•Lite Device Compatibility Document* for listed compatible devices.

Two Programmable Relays and One Fixed Trouble Relay: Contact rating: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). Form-C relays.

Special Application Power (24 VDC Nominal): Jumper selectable (JP4) for conversion to resettable power output. Up to 0.3 amps total DC current available from each output. Power-limited.

Four-Wire Resettable Special Application Smoke Detector Power (24 VDC nominal): Up to 0.3 amps for powering four-wire smoke detectors. Power-limited. Refer to the *Fire•Lite Device Compatibility Document* for listed compatible devices.

Remote Sync Output: Remote power supply synchronization output. Nominal special application power: 24 VDC. Maximum current: 40 mA. End-of-Line Resistor: 4.7K ohm. Output linked to NAC 1 control. Supervised and power-limited.

Telephone Interface: Unless used with Teldat VISORALARM, requires dedicated business telephone number with a minimum of 5 volts DC (off-hook voltage). Obtain dedicated phone line directly from your local phone company. Do not use shared phone lines or PBX (digital) type phone line extensions.

Cabinet Specifications

Door: 19.26" (48.92 cm.) high x 16.62" (42.73 cm.) wide x 0.12" (.30 cm.) deep. **Backbox:** 19.00" (48.26 cm.) high x

16.65" (42.29 cm.) wide x 5.20" (13.34 cm.) deep. **Trim Ring (TR-CE):** 22.00" (55.88 cm.) high x 19.65" (49.91 cm.) wide.

Shipping Specifications

Weight: 26.9 lbs. (12.20 kg.) **Dimensions:** 20.00" (50.80 cm.) high x 22.5" (57.15 cm.) wide x 8.5" (21.59 cm.) deep.

Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

NFPA Standards

The MS-9200UDLS Rev 2 complies with the following NFPA 72 Fire Alarm Systems requirements:

- **LOCAL** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **AUXILIARY** (Automatic, Manual and Waterflow) (requires 4XTMF).
- **REMOTE STATION** (Automatic, Manual, Waterflow and Sprinkler Supervisory) (Where a DACT is not accepted, the alarm, trouble and supervisory relays may be connected to UL 864 listed transmitters. For reverse polarity signaling of alarm and trouble, 4XTMF is required.)
- **PROPRIETARY** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **CENTRAL STATION** (Automatic, Manual, Waterflow and Sprinkler Supervisory).
- **OT, PSDN** (Other Technologies, Packet-switched Data Network)

Agency Listings and Approvals

The listings and approvals below apply to the basic MS-9200UDLS Rev 2 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S624
- **FM approved**
- **CSFM:** 7165-0075:208
- **MEA:** 120-06-E

ISO 9001
CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

Made in the U.S.A.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

FCPS-24FS8

8-Amp, 24-Volt Power Supply

## ⊚ Fire·Lite Alarms
by Honeywell

General

The Fire•Lite FCPS-24FS8(C/E) is a compact, cost-effective, 8-amp remote power supplies with battery charger. The FCPS-24FS8C/E) may be connected to any 12 or 24 volt fire alarm control panel (FACP) or may stand-alone. Primary applications include notification appliance (bell) circuit (NAC) expansion (to support ADA requirements and NAC synchronization) or auxiliary power to support 24 volt system accessories. The FCPS provides *regulated and filtered* 24 VDC power to four notification appliance circuits configured as either two Class B (Style Y) and Class A (Style Z, with ZNAC-4 option module) or four class B only. Alternately, the four outputs may be configured as any combination of resettable/non-resettable power outputs (optimal for powering four-wire smoke detectors. The FFCPS-24FS8(C/E) also contains a battery charger capable of charging up to 18.0 Amp hour batteries. FCPS-24FS8C/E) is ULC-listed.

NOTE: Unless otherwise specified, the term FCPS-24FS8 used in this document refers to the standard FCPS-24FS8, FCPS-24FS8C, FCPS-24FS8E

Features

* UL Listed Notification Appliance Circuit (NAC) synchronization using System Sensor, Wheelock, or Gentex "Commander" appliances.
* Operates as a "sync-follower" or as a "sync-generator" (default). *See note on page 2.*
* Contains two fully-isolated input/control circuits - triggered from FACP NAC (NAC expander mode) or jumped permanently "ON" (stand-alone mode).
* Two Class B (Style Y) or Class A (Style Z, with ZNAC-4 module) NACs (circuits 1 & 3)
* 8-amp full load output, with 3 amps maximum/circuit, in NAC expander mode (UL 864).
* 6-amp continuous output in stand-alone mode (UL 1481).
* Compatible with coded inputs; signals passed through.
* Optional power-supervision relay (EOLR-1).
* In stand-alone mode, output power circuits may be configured as: resettable, (reset line from FACP required), non-resettable, or a mix of two and two.
* Fully regulated and filtered power output - optimal for powering four-wire smoke detectors, annunciators, and other system peripherals requiring regulated/filtered power.
* Power-limiting technology meets UL power-limiting requirements.
* Form-C normally-closed trouble relay.
* Fully supervised power supply, battery, and NACs.
* Selectable earth fault detection.
* AC trouble report selectable for immediate 2-hour delay.
* Works with virtually any UL 864 fire alarm control which utilizes an industry-standard reverse-polarity notification circuit (including unfiltered and unregulated bell power).
* Requires input trigger voltage of 9 - 32 VDC.
* Self-contained in compact, locking cabinet - 15"H x 14.5"W x 2.75"D (cm: 38.1H x 36.83W x 6.985D).
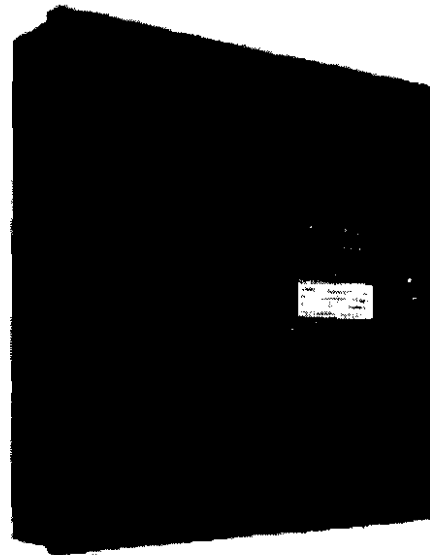
* Includes integral battery charger capable of charging up to 18 AH batteries. Cabinet capable of housing 7.0 AH batteries.
* Battery charger may be disabled via DIP switch for applications requiring larger batteries.
* Fixed, clamp-type terminal blocks accommodate up to 12 AWG (3.1mm^2) wire.

Specifications

Primary (AC) Power:

* FCPS-24FS8: 120 VAC, 60 Hz, 3.2A maximum.
* FCPS-24FS8/E: 240 VAC, 50 Hz, 1.6A maximum.
* Wire Size: minimum #14 AWG (2.0mm^2) with 600 V insulation.

Control Input Circuit:

* **Trigger Input Voltage:** 9 to 32 VDC.
* **Trigger Current:** 2.0 mA (16 - 32 V); Per input: 1.0 mA (9 - 16 V).

Trouble Contact Rating: 5 A at 24 VDC.

Auxiliary Power Output: Specific application power 500 mA maximum.

Output Circuits:

* +24 VDC filtered, regulated.
* 3.0 A maximum for any one circuit.
* Total continuous current for all outputs (stand-alone mode):
  – FCPS-24FS8: 6.0 A maximum.
* Total short-term current for all outputs (NAC expander mode):
  – FCPS-24FS8: 8.0 A maximum.

Secondary Power (Battery) Charging Circuit:

- Supports lead-acid batteries only.
- Float-charge voltage: 27.6 VDC.
- Maximum current charge: 250 mA.
- Maximum battery capacity: 7.0 AH.

Applications

Example 1: Expand notification appliance power an additional 8.0 A. Use up to four Class B (Style Y) outputs or four Class A (Style Z) outputs (using ZNAC-4). For example, the FACP notification appliance circuits will activate the FCPS when reverse-polarity activation occurs. Trouble conditions on the FCPS are sensed by the FACP through the notification appliance circuit.

Example 2: Use the FCPS to expand auxiliary regulated 24-volt system power up to 6.0 A. Both resettable and non-resettable power options are available. Resettable outputs are created by connecting the resettable output from the FACP to one or both of the FCPS inputs.

Example 3: Use addressable control modules to activate the FCPS instead of activating it through the FACP notification appliance circuits. This typically allows for mounting the FCPS at greater distances* away from the FACP while expanding system architecture in various applications.

For example, an addressable control module is used to activate the FCPS, and an addressable monitor module is used to sense FCPS trouble conditions. Local auxiliary power output from the FCPS provides power to the addressable control module.

NOTE: Addressable FACPs are capable of locating control and monitor modules at distances of up to 10,000 feet (3,046 meters) .

Sync Follower/Generator Note

In some installations, it is necessary to synchronize the flash timing of all strobes in the system for ADA compliance. Strobes accomplish this by monitoring very short timing pulses on the NAC power which are created by the FACP. When installed at the end of a NAC wire run, the FCPS-24FS8 can track (i.e. "follow") the strobe synchronization timing pulses on the existing NAC wire run. This maintains the overall system flash timing of the additional strobes attaches to the FCPS.

When the FCPS-24FS8 is configured (via DIP switch settings) as a "sync follower," the FCPS's NAC outputs track the strobe synchronization pulses present at the FCPS's sync input terminal. The pulses originate from an upstream FACP or other power supply.

When the FCPS-24FS8 is configured (via DIP switch settings) as a "sync generator," the FCPS's sync input terminals are not used. Rather, the FCPS is the originator of the strobe synchronization pulses on the FCPS's NAC outputs. In "sync generator" mode, the sync type (System Sensor, Wheelock, or Gentex) is selectable via DIP switch settings.

Standards and Codes

The FCPS-24FS8 complies with the following standards:

- **NFPA 72** National Fire Alarm Code.
- **UL 864** Standard for Control Units for Fire Alarm Systems (NAC expander mode).
- **UL 1481** Power Supplies for Fire Alarm Systems.

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S2424
- **ULC Listed:** S2424
- **CSFM Approved:** 7315-0075:206
- **MEA:** 219-02E
- **FM Listed**

Ordering Information

FCPS-24FS8: 6.0 A, 120 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15"H x 14.5"W x 2.75"D [cm: 38.1H x 36.83W x 6.985D]), and installation instructions.

FCPS-24FS8 is ULC-listed.

FCPS-24FS8E: 6.0 A, 240 VAC remote charger power supply. Includes main printed circuit board, transformers, enclosure (15"H x 14.5"W x 2.75"D [cm: 38.1H x 36.83W x 6.985D]), and installation instructions.

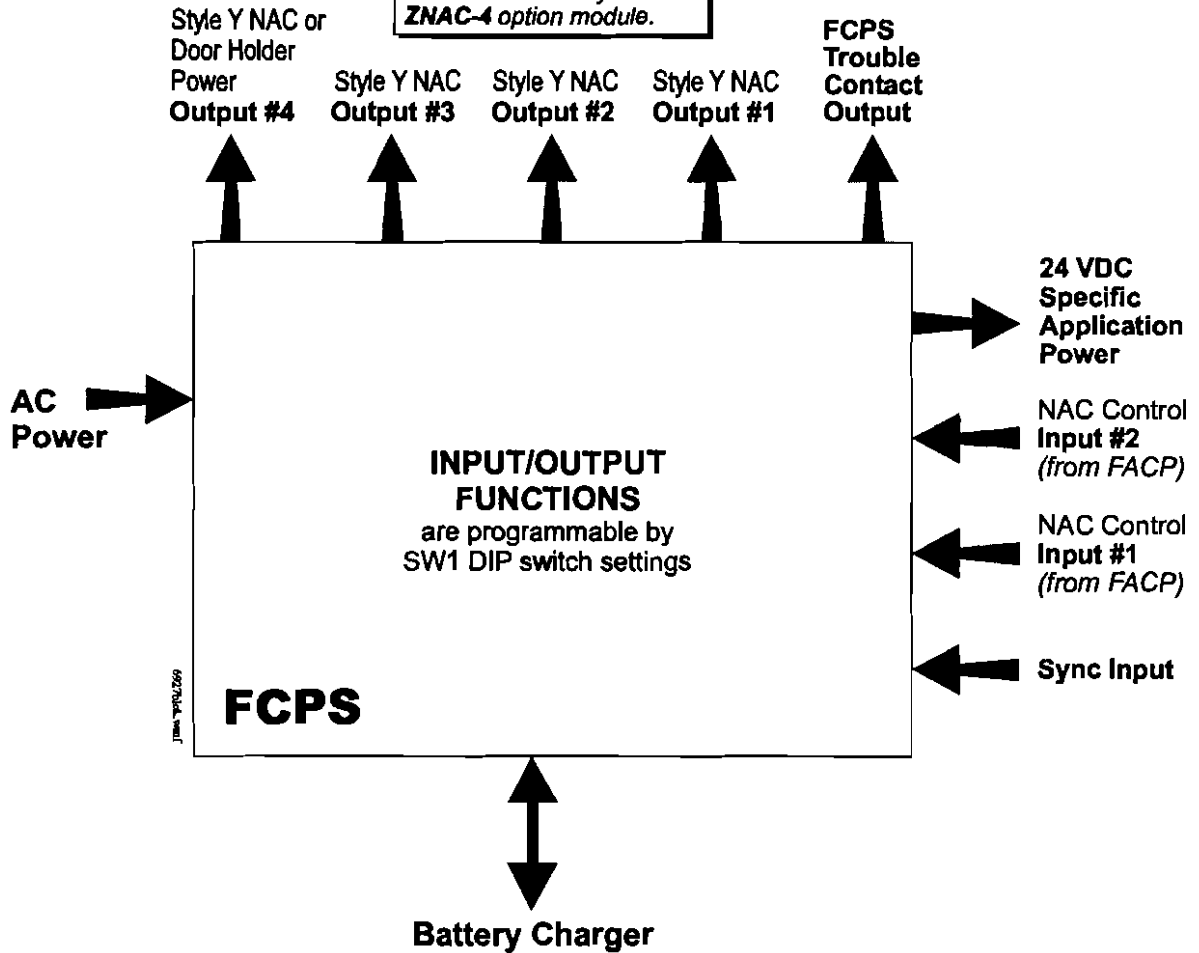**ZNAC-4:** Class A (Style Y) NAC option module.

EOLR-1: 12/24 VDC end-of-line relay for monitoring four-wire smoke detector power.

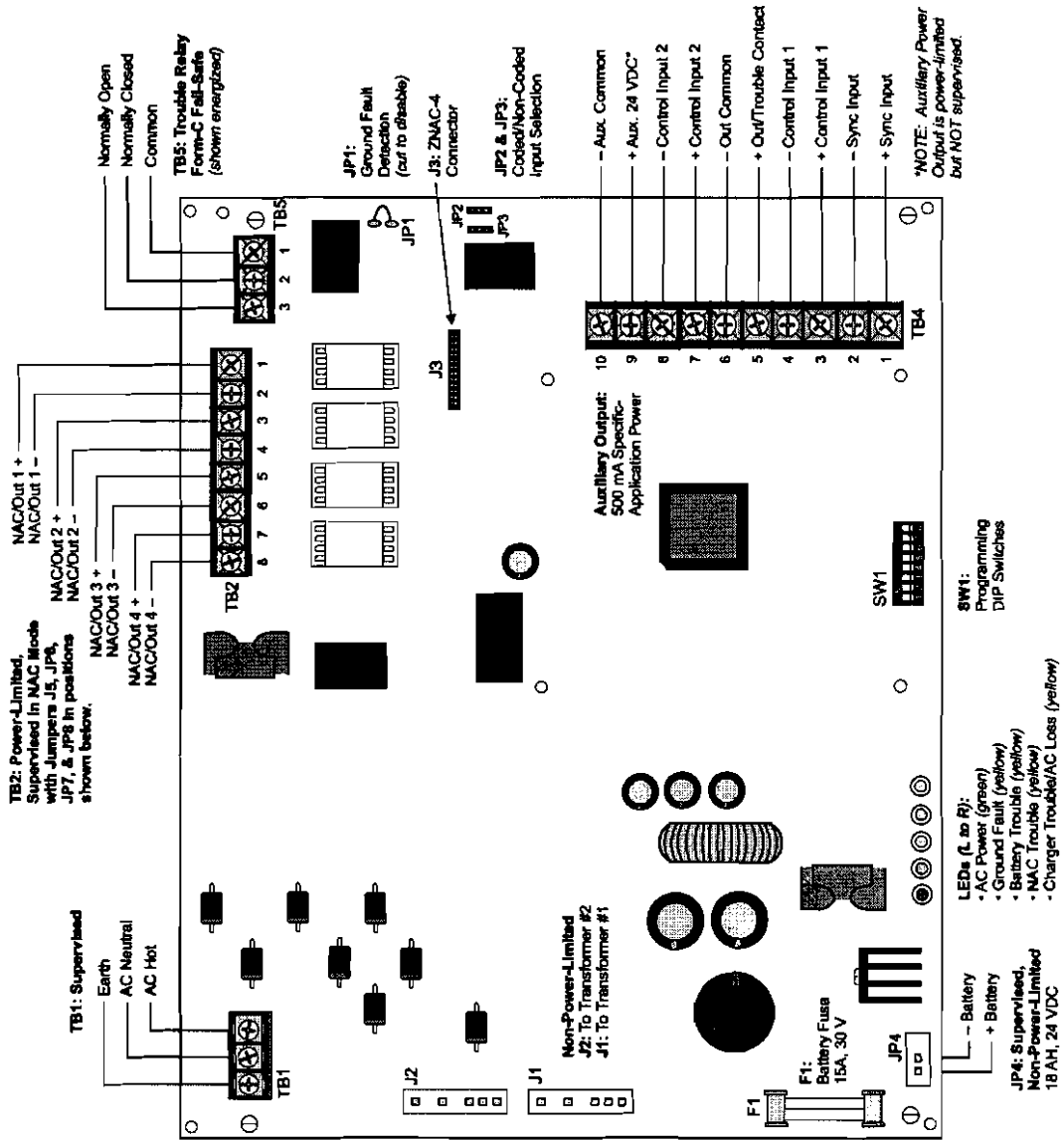**BAT-1270:** Battery, 12-volt, 7.0 AH (two required).

PS-1270: Battery, 12-volt, 7.0 AH (two required).

90286: Optional module mounting kit, is required to install an addressable module on the power supply main circuit board.

Style Y NAC or
Door Holder
Power
Output #4

Style Y NAC
Output #3

Style Y NAC
Output #2

Style Y NAC
Output #1

**FCPS
Trouble
Contact
Output**

NOTE: *All NAC outputs can be converted to Style Z with* **ZNAC-4** *option module.*

**AC
Power**

**INPUT/OUTPUT
FUNCTIONS**
are programmable by
SW1 DIP switch settings

FCPS

**24 VDC
Specific
Application
Power**

NAC Control
Input #2
(from FACP)

NAC Control
Input #1
(from FACP)

Sync Input

Battery Charger

Simplified Block Diagram

Board Layout

TB5: Trouble Relay Form-C Fail-Safe (shown energized)
- Normally Open
- Normally Closed
- Common

JP1: Ground Fault Detection (cut to disable)

J3: ZNAC-4 Connector

JP2 & JP3: Coded/Non-Coded Input Selection

TB4:
- Aux. Common
- Aux. 24 VDC*
- Control Input 2
- Control Input 2
- Out Common
- Out/Trouble Contact
- Control Input 1
- Control Input 1
- Sync Input
- Sync Input

*NOTE: Auxiliary Power Output is power-limited but NOT supervised.

Auxiliary Output: 500 mA Specific-Application Power

SW1: Programming DIP Switches

TB2: Power-Limited, Supervised in NAC Mode with Jumpers J5, JP6, JP7, & JP8 in positions shown below.
- NAC/Out 1 +
- NAC/Out 1 –
- NAC/Out 2 +
- NAC/Out 2 –
- NAC/Out 3 +
- NAC/Out 3 –
- NAC/Out 4 +
- NAC/Out 4 –

TB1: Supervised
- Earth
- AC Neutral
- AC Hot

Non-Power-Limited
J2: To Transformer #2
J1: To Transformer #1

LEDs (L to R):
- AC Power (green)
- Ground Fault (yellow)
- Battery Trouble (yellow)
- NAC Trouble (yellow)
- Charger Trouble/AC Loss (yellow)

F1: Battery Fuse 15A, 30 V

JP4: Supervised, Non-Power-Limited 18 AH, 24 VDC
- – Battery
- + Battery

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

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We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

Made in the U.S.A.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

Wheelock NS/NH Series

NS Series Horn Strobes
NH Series Horns

Fire·LITE Alarms
by Honeywell

Audio/Visual Devices

General

The Wheelock Series NS Horn Strobe Appliances will satisfy virtually all requirements for indoor, wall mount applications.

The Series NH Horn and the horn portion of the Series NS include a selectable continuous horn tone or temporal pattern (Code 3) with selectable dBA settings of 90 or 95 dBA.

Strobe options include 1575cd or Wheelock's patented Multi-Candela strobe with field selectable candela settings of 15/30/75/110cd.

These versatile Horn Strobe Appliances may be synchronized when used in conjunction with the Wheelock SM or DSM Sync Modules or a Power Supply with the Wheelock patented Sync Protocol. Additionally, the audible may be silenced while maintaining strobe activation.

All models of the Series NS and NH are designed for maximum performance, reliability and cost-effectiveness while meeting or exceeding the latest requirements of NFPA 72/ANSI 117.1/UFC and UL Standards 1971 and 464 as well as meeting ADA requirements concerning photosensitive epilepsy.

Features

*   Field selectable Candela settings 15/30/75/110cd (24 VDC Multi-Candela models) or 1575cd in 12 or 24 VDC.
*   Selectable Continuous Horn or Temporal (Code 3).
*   2 selectable dBA settings of 90 and 95 dBA in both tones.
*   12 and 24 VDC models with UL "Regulated Voltage" using filtered DC or unfiltered VRMS input voltage.
*   Patented Universal Mounting Plate.
*   Wall mount.
*   ADA/NFPA/UFC/ANSI compliant.
*   Complies with OSHA 29, Part 1910.165.
*   NH Horn is selectable 12 or 24 VDC in 1 unit.
*   Synchronize with Wheelock SM or DSM Sync Module or the Power Supply with built-in Sync Protocol.
*   Patent Pending Universal Mounting Plate for single-gang, double-gang 4" (10.16 m) square, or 100 mm European backboxes, or Wheelock's SHBB shallow surface backbox.
*   Fast Installation with IN/OUT screw terminals using #12 to #18 AWG wires.

General Notes

*   Strobes are designed to flash at 1 flash per second minimum over their "Regulated Voltage Range." Note that NFPA 72 specifies a flash rate of 1 to 2 flashes per second and ADA Guidelines specify a flash rate of 1 to 3 flashes per second.
*   All candela ratings represent minimum effective Strobe Intensity based on UL Standard 1971.
*   Series NS Strobe products are listed under UL Standard 1971 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 NH Horns are listed under UL Standard 464 for audible signal appliances (indoor use only).
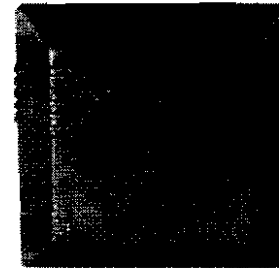
NH Horn

Multi-Candela Indicator
(bottom of Strobe Lens)

*   *"Regulated Voltage Range" is the newest terminology used by UL to identify the voltage range. Prior to this change, UL used the terminology "Listed Voltage Range."*

⚠ **WARNING: PLEASE READ THESE SPECIFICATIONS AND ASSOCIATED INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS OR 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.**

Table 1: Ratings Per UL Standard 1971			
Model	Input Voltage VDC	Regulated Voltage Range VDC/FWR	Strobe Candela (CD)
NS-24MCW	24	16.0-33.0	15/30/75/110
NS-241575W	24	16.0-33.0	15 (75 on axis)

Table 2: dBA Ratings for Series NS/NH Horn

Description	Volume	Reverberant dBA @ 10ft per UL 464		Anechoic dBA @ 10ft	
		12VDC	24VDC	12VDC	24VDC
Continuous Horn	High	83	87	89	95
	Low	76	81	84	90
Code 3 Horn	High	79	82	89	95
	Low	72	76	84	90

Table 3: *Average RMS Current Ratings

NS-24MCW with High (95 dBA) Setting

Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.077	.113	.195	.268
24.0 VDC	.065	.087	.134	.174
33.0 VDC	.089	.085	.117	.134

NS-24MCW with Low (90 dBA) Setting

Voltage	15cd	30cd	75cd	110cd
16.0 VDC	.070	.106	.188	.261
24.0 VDC	.052	.072	.126	.156
33.0 VDC	.045	.060	.097	.114

Table 4: *Average RMS Current Ratings

NS-241575W

Voltage	High (95) dBA	Low (90) dBA
16.0 VDC	.120	.116
24.0 VDC	.094	.093
33.0 VDC	.102	.078

Table 5: *Average Mean Current Ratings NH Horn 24 Volt Models

Voltage	High (95) dBA	Low (90) dBA
16.0 VDC	.019	.017
24.0 VDC	.028	.022
33.0 VDC	.039	.027

Table 6: Sync Models/Power Supply

Model Number	Input Voltage (VDC)	Average Mean Current @ 24 VDC	Mounting Options
SM-12/24-R	24	.028	W
DSM-12/24-R	24	.035	W

NOTE: SM Sync Module is rated for 3.0 amperes @ 24 VDC. DSM Sync Module is rated for 3.0 amperes per circuit. The maximum number of interconnected DSM Modules is twenty (20).

* Average RMS Current is per UL average RMS method and Average Mean Current is per UL average mean method. NH models use average mean current. For rated in Rush and Peak current across UL Listed voltage range for both filtered DC and VRMS (FWR), see Installation Instructions.

Table 7: UL Maximum Current**

Series NS/NH 24 VDC		Audible	Wall Mount Strobe Models					
		NH-12/24	NS-241575W	NS-24MCW				
		@24VDC	15/75cd	15cd	30cd	75cd	110cd	
High (95) dBA	24VDC	.044	.104	.074	.107	.184	.244	
Low (90) dBA	24VDC	.016	.096	.066	.101	.177	.232	

| Series NS/NH 12 VDC		Audible	Wall Mount	** RMS current ratings are per UL average RMS method. UL max current rating is the maximum RMS current within the listed voltage range (16-33V for 24V units). For strobes, the UL max current is usually at the minimum listed voltage (16V for 24V units). For audibles, the max current is usually at the listed voltage (33V for 24V units). For unfiltered FWR ratings, see installation instructions.
		NH-12/24	Aud/Strobe	
		@12VDC	NS-121575W	
High (95) dBA	12VDC	.021	.220	
Low (90) dBA	12VDC	.012	.210	

⚠ WARNING: CONTACT WHEELOCK FOR THE CURRENT INSTALLATION INSTRUCTIONS (P83983) SERIES NS-24MCW, (P84234) SERIES NS-12 AND 24 VDC SINGLE CANDELA MODELS, (P83600) SERIES NH AND "GENERAL INFORMATION" SHEET (P82380) ON THESE PRODUCTS. THESE DOCUMENTS UNDERGO PERIODIC CHANGES. IT IS IMPORTANT THAT YOU HAVE CURRENT INFORMATION ON THE PRODUCTS. THESE MATERIALS CONTAIN IMPORTANT INFORMATION THAT SHOULD BE READ PRIOR TO SPECIFYING OR INSTALLING THESE PRODUCTS, INCLUDING:

- TOTAL CURRENT REQUIRED BY ALL APPLIANCES CONNECTED TO SYSTEM SECONDARY POWER SOURCES.
- FUSE RATINGS ON NOTIFICATION APPLIANCE CIRCUITS TO HANDLE PEAK CURRENTS FROM ALL APPLIANCES ON THOSE CIRCUITS.
- COMPOSITE FLASH RATE FROM MULTIPLE STROBES WITHIN A PERSON'S FIELD OF VIEW.
- ADDING, REPLACING OR CHANGING APPLIANCES OR CHANGING CANDELLA SETTINGS WILL AFFECT CURRENT DRAW. RECALCULATE CURRENT DRAW TO INSURE THAT THE TOTAL AVERAGE CURRENT AND TOTAL PEAK REQUIRED BY ALL APPLIANCES DO NOT EXCEED THE RATED CAPACITY OF THE POWER SOURCES OR FUSES.
- THE VOLTAGE APPLIED TO THE PRODUCTS MUST BE WITHIN THEIR "REGULATED VOLTAGE RANGE."
- INSTALLATION OF 110 CANDELA STROBE PRODUCTS IN SLEEPING AREAS.
- INSTALLATION IN OFFICE AREAS AND OTHER SPECIFICATION AND INSTALLATION ISSUES.
- THESE APPLIANCES ARE NOT DESIGNED TO BE USED ON CODED SYSTEMS IN WHICH THE APPLIED VOLTAGE IS CYCLED ON AND OFF.
- FAILURE TO COMPLY WITH THE INSTALLATION INSTRUCTIONS OR GENERAL INFORMATION SHEETS COULD RESULT IN IMPROPER INSTALLATION, APPLICATION, AND/OR PROPERTY DAMAGE AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.
- CONDUCTOR SIZE (AWG), LENGTH AND AMPACITY SHOULD BE TAKEN INTO CONSIDERATION PRIOR TO DESIGN AND INSTALLATION OF THESE PRODUCTS, PARTICULARLY IN RETROFIT INSTALLATIONS.

Wiring Diagrams

SIGNAL
NS/NH APPLIANCE
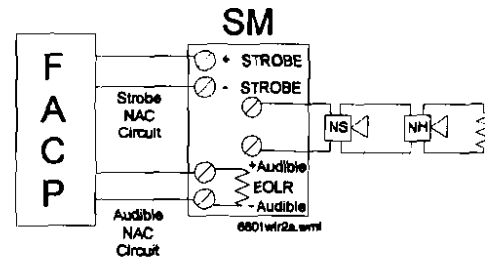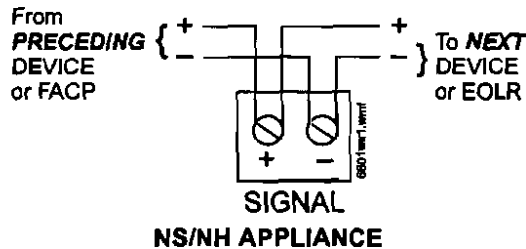
NS AND NH APPLIANCES
SYNCHRONIZED WITH SM MODULE
SINGLE CLASS "B" NAC CIRCUIT WITH
AUDIBLE SILENCE FEATURE
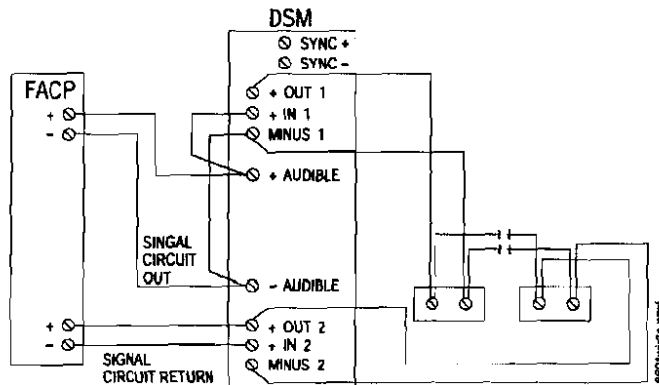
NS AND NH APPLIANCES SYNCHRONIZED WITH DSM
MODULE DUAL CLASS "A" NAC CIRCUIT WITH NO
AUDIBLE SILENCE FEATURE

NOTE: NS/NH must be set on Code 3 horn tone to achieve synchronized temporal (Code 3) tone. Refer to installation instruction (P83983, P83600 respectively).

NOTE: For detail using SM or DSM Sync Module refer to data sheet S3000 or installation instructions P83123 for SM and P83177 for DSM.

Architectural/Engineering Specifications

The audible/visual notification appliances shall be Wheelock Series NS Horn Strobe appliances and Series NH Horn appliances or approved equals. The Series NS appliances shall meet and be listed for UL Standard 1971 (Emergency Devices for the Hearing-Impaired for Indoor Fire Protection Service). The Series NH Horn shall be UL Listed under Standard 464 (Fire Protective Signaling). The horn strobe shall be listed for indoor use and shall meet the requirements of FCC Part 15 Class B. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by the Fire Alarm Control Panel (FACP).

The audible portion of the appliance shall have a minimum of two (2) field selectable settings for dBA levels (90 and 05 dBA) and shall have a choice of continuous or temporal (Code 3) audible outputs.

The strobe portion of the appliance shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Xenon flashtube enclosed in a rugged Lexan lens. The Series NS shall be of low current design. Where wall mount, Multi-Candela appliances are specified, the strobe intensity shall never have field selectable settings and shall be rated per UL Standard 1971 for 15/30/75/110 candela. The selector switch for selecting the candela setting shall be tamper resistant. The 1575 candela strobe shall be specified when 15 candela UL Standard1971 Listing with 75 candela on-axis is required (e.g. ADA compliance).

When synchronization is required, the appliance shall be compatible with Wheelock's SM, DSM Sync Modules or a Power Supply with Wheelock's built-in patented Sync Protocol. The strobes shall not drift out of synchronization at any time during operation. 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. The appliance shall also be designed so that the audible signal may be silenced while maintaining strobe activation.

The Series NS Horn Strobes and NH Horn shall incorporate a patented Universal Mounting Plate that shall allow mounting to a single-gang, double-gang, 4 inch square, and 100 mm European backboxes, or the SHBB Surface Backbox. If required, an NATP (Notification Appliance Trimplate) shall be provided.

All notification appliances shall be backward compatible.

Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in progress. Consult factory for listing status.

- **ULC Listed:** E5946
- **ULC Listed:** CS 243, CS 356
- **CSFM:** 7125-0785:142
- **MEA:** 151-92-E
- **FM Approved**

Ordering Information

Model	Strobe Candela	Non-Sync	Sync w/ SM, DSM	24 VDC	12 VDC	2 Wire	Mounting Options	Agency Approvals				
								UL	MEA	CSFM	FM	BFP
NS-24MCW-FR	15/30/75/110	X	X	X	-	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X
NS-24MCW-FW	15/30/75/110	X	X	X	-	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X
NS-241575W-FR	15 (75 on axis)	X	X	X	-	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X
NH-12/24-R	12V, 24V	X	X	X	X	X	B,D,E,F,G,H,J,N,O,R,X	X	X	X	X	X

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Made in the U.S.A.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

SD355(A), SD355T(A), SD355R(A)

Addressable Photoelectric Smoke Detectors

⊙ Fire·LiTe·Alarms
by Honeywell

General

The **SD355(A)** and **SD355T(A)** addressable, low-profile plug-in photoelectric detectors use a state-of-the-art photoelectric sensing chamber with communications to provide open area protection and are used exclusively with Fire•Lite's Addressable Fire Alarm Control Panels (FACPs). The SD355T(A) adds thermal sensors that will alarm at a fixed temperature of 135°F (57°C) Since these detectors are addressable, they will help emergency personnel quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage Two LEDs on each sensor light to provide a local, visible sensor indication. Remote LED annunciator capability is available as an optional accessory (P/N **RA100Z(A)**). The **SD355R** is a remote test capable detector for use with D355PL or DNR(W) duct smoke detector housings

Features

SLC loop:

* Two-wire loop connection.
* Unit uses base for wiring

Addressing:

* Addressable by device.
* Direct Decade entry of address: 01 – 99 with MS-9200 series, and 01 – 159 with MS-9600 series.

Architecture:

* Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires
* Sleek, low-profile design.
* Integral communications and built-in type identification.
* Built-in tamper-resistant feature
* Removable cover and insect-resistant screen for simple field cleaning.

Operation:

* Withstands air velocities up to 4,000 feet-per-minute (20 m/sec.) without triggering a false alarm.
* Factory preset at 1.5% nominal sensitivity for panel alarm threshold level.
* Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on in alarm

Mechanicals:

* Sealed against back pressure.
* Direct surface mounting or electrical box mounting.
* Mounts to: single-gang box, 3.5" (8.89 cm) or 4.0" (10 16 cm) octagonal box, or 4 0" (10.16 cm) square electrical box *(using a plaster ring — included).*

Other system features:

* Fully coated circuit boards and superior RF/transient protection.
* 94-V0 plastic flammability rating.
* Low standby current

Options:

* Remote LED output connection (P/N RA100Z).

SD355 with B350LP base

SD355T with B350LP base

Applications

Use photoelectric detectors in life-safety applications to provide a broad range of fire-sensing capability, especially where smoldering fires are anticipated. Ionization detectors are often better than photoelectric detectors at sensing fast, flaming fires.

Construction

These detectors are constructed of off-white LEXAN®. SD355(T) plug-in, low-profile smoke detectors are designed to commercial standards and offer an attractive appearance.

Installation

SD355(T) plug-in detectors use a detachable mounting base to simplify installation, service and maintenance. Mount base on box which is at least 1.5 inches (3.81 cm) deep Suitable boxes include:

* 4.0" (10.16 cm) square box with plaster ring.
* 4.0" (10.16 cm) octagonal box
* 3 5" (8.89 cm) octagonal box
* Single-gang box.

NOTE: *Because of the inherent supervision provided by the SLC loop, **end-of-line resistors** are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class B) wiring. SD355R mounts in a D355PL or DNR(W) duct detector housing*

BG-12LX

Addressable Manual Pull Station

Fire·Lite·Alarms
by Honeywell

General

The Fire-Lite BG-12LX is a state-of-the-art, dual-action (i.e., requires two motions to activate the station) pull station that includes an addressable interface (mounted inside) for Fire-Lite's addressable fire alarm control panels (FACPs) Because the BG-12LX is addressable, the control panel can display the exact location of the activated manual station. This leads fire personnel quickly to the location of the alarm.

Features

- Maintenance personnel can open station for inspection and address setting without causing an alarm condition.
- Built-in bicolor LED, which is visible through the handle of the station, flashes in normal operation and latches steady red when in alarm
- Handle latches in down position and the word "ACTIVATED" appears to clearly indicate the station has been operated.
- Captive screw terminals wire-ready for easy connection to SLC loop (accepts up to 12 AWG/3 25 mm² wire)
- Can be surface mounted (with SB-10 or SB-I/O) or semi-flush mounted Semi-flush mount to a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box.
- Smooth dual-action design.
- Meets ADAAG controls and operating mechanisms guidelines (Section 4 1 3[13]); meets ADA requirement for 5 lb. maximum activation force.
- Highly visible
- Attractive shape and textured finish.
- Key reset
- Includes Braille text on station handle.
- Optional trim ring (BG12TR).
- Meets UL 38, Standard for Manually Actuated Signaling Boxes

Construction

Shell, door, and handle are molded of durable polycarbonate material with a textured finish.

Specifications

- **Shipping Weight:** 9 6 oz. (272 15 g)
- **Normal operating voltage:** 24 VDC.
- **Maximum SLC loop voltage:** 28.0 VDC.
- **Maximum SLC loop current:** 230 µA.
- **Temperature Range:** 32°F to 120°F (0°C to 49°C)
- **Relative Humidity:** 10% to 93% (noncondensing)
- **For use indoors in a dry location**

Installation

The BG-12LX will mount semi-flush into a single-gang, double-gang, or standard 4" (10.16 cm) square electrical outlet box, or will surface mount to the model SB-10 or SB-I/O surface backbox If the BG-12LX is being semi-flush mounted, then the optional trim ring (BG12TR) may be used The BG12TR is usually needed for semi-flush mounting with 4" (10.16 cm) or double-gang boxes (not with single-gang boxes)

Operation

Pushing in, then pulling down on the handle causes it to latch in the down/activated position. Once latched, the word "ACTIVATED" (in bright yellow) appears at the top of the handle, while a portion of the handle protrudes from the bottom of the station To reset the station, simply unlock the station with the key and pull the door open. This action resets the handle; closing the door automatically resets the switch.

Each manual station, on command from the control panel, sends data to the panel representing the state of the manual switch Two rotary decimal switches allow address settings (1 – 159 with Breakaway Tab removed for MS-9600 Series, 1 – 99 and MS-9200UDLS, 1 – 50 for MS-9050UD).

Architectural/Engineering Specifications

Manual Fire Alarm Stations shall be non-coded, with a key-operated reset lock in order that they may be tested, and so designed that after actual Emergency Operation, they cannot be restored to normal except by use of a key. An operated station shall automatically condition itself so as to be visually detected as activated. Manual stations shall be constructed of red-colored polycarbonate material with clearly visible operating instructions provided on the cover. The word FIRE shall appear on the front of the stations in white letters, 1.00 inches (2.54 cm) or larger. Stations shall be suitable for surface mounting on matching backbox SB-10 or SB-I/O; or semi-flush mounting on a standard single-gang, double-gang, or 4" (10.16 cm) square electrical box, and shall be installed within

the limits defined by the Americans with Disabilities Act (ADA) or per national/local requirements Manual Stations shall be Underwriters Laboratories listed.

Manual stations shall connect with two wires to one of the control panel SLC loops. The manual station shall, on command from the control panel, send data to the panel representing the state of the manual switch. Manual stations shall provide address setting by use of rotary decimal switches.

Product Line Information

BG-12LX: Dual-action addressable pull station. Includes key locking feature.

SB-10: Surface backbox; metal.

SB-I/O: Surface backbox; plastic

BG12TR: Optional trim ring.

17003: Keys, set of two.

Agency Listings and Approvals

In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S711
- **MEA:** 67-02-E
- **CSFM:** 7150-0075:0184
- **FDNY:**
- **FM** Approved

Patented: U.S Patent No. D428.351; 6,380,846; 6,314,772, 6,632,108

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Made in the U.S.A.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX. (877) 699-4105
www.firelite.com

MMF-300(A) Series, MDF-300(A)

Addressable Monitor Modules

⊙ Fire·Lite Alarms
by Honeywell

General

Four different monitor modules are available for Fire•Lite's intelligent control panels to suit a variety of applications. Monitor modules are used to supervise a circuit of dry-contact input devices, such as conventional heat detectors and pull stations, or monitor and power a circuit of two-wire smoke detectors (MMF-302)

MMF-300 is a standard-sized module (typically mounts to a 4" [10 16 cm] square box) that supervises either a Class A (Style D) or Class B (Style B) circuit of dry-contact input devices

MMF-301 is a miniature monitor module (a mere 1.3" (3.302 cm) H x 2.75" (6 985 cm) W x 0.5" (1.270 cm) D) used to supervise a Class B (Style B) circuit of dry-contact input devices. Its compact design allows the MMF-301 to often be mounted in a single-gang box behind the device it monitors

MMF-302 is a standard-sized module used to monitor and supervise compatible two-wire, 24 volt, smoke detectors on a Class A (Style D) or Class B (Style B) circuit.

MDF-300 is a standard-sized dual monitor module used to monitor and supervise two independent two-wire Style B (Class B) dry-contact initiating device circuits (IDCs) at two separate, consecutive addresses in intelligent, two-wire systems.

LiteSpeed™ is a communication protocol developed by Fire•Lite Engineering that greatly enhances the speed of communication between analog intelligent devices. Intelligent devices communicate in a grouped fashion. If one of the devices within the group has new information, the panel CPU stops the group poll and concentrates on single points. The net effect is response speed greater than five times that of other designs.

MMF-300 Monitor Module

- Built-in type identification automatically identifies this device as a monitor module to the control panel
- Powered directly by two-wire SLC loop. No additional power required
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring
- Direct-dial entry of address. 01 – 159 on MS-9600 series panels, 01 – 99 on other compatible systems.
- LED flashes during normal operation and latches on steady to indicate alarm

The MMF-300 Monitor Module is intended for use in intelligent, two-wire systems, where the individual address of each module is selected using the built-in rotary switches. It provides either a two-wire or four-wire fault-tolerant Initiating Device Circuit (IDC) for normally-open-contact fire alarm and supervisory devices. The module has a panel-controlled LED indicator. The MMF-300 can be used to replace M300 modules in existing systems

MMF-300 APPLICATIONS

Use to monitor a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact alarm activation devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit may be wired as an NFPA Style B (Class B) or Style D (Class

MMF-300 (Type H)

A) Initiating Device Circuit A 47K ohm End-of-Line Resistor (provided) terminates the Style B circuit. No resistor is required for supervision of the Style D circuit.

MMF-300 OPERATION

Each MMF-300 uses one of the available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC) A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop)

MMF-300 SPECIFICATIONS

Nominal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.0 mA (LED on).

Maximum operating current: 375 µA (LED flashing).

Maximum IDC wiring resistance: 1,500 ohms.

EOL resistance: 47K ohms.

Temperature range: 32°F to 120°F (0°C to 49°C).

Humidity range: 10% to 93% noncondensing.

Dimensions: 4 5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box.

MMF-301 Mini Monitor Module

- Built-in type identification automatically identifies this device as a monitor module to the panel
- Powered directly by two-wire SLC loop. No additional power required.
- High noise (EMF/RFI) immunity
- Tinned, stripped leads for ease of wiring.
- Direct-dial entry of address. 01 – 159 on MS-9600 series panels, 01 – 99 on other compatible systems
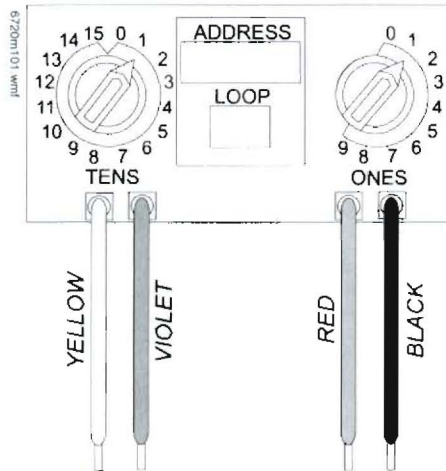
The MMF-301 Mini Monitor Module can be installed in a single-gang junction directly behind the monitored unit. Its small size and light weight allow it to be installed without rigid mounting. The MMF-301 is intended for use in intelligent, two-wire systems where the individual address of each module is selected using rotary switches. It provides a two-wire initiating device circuit for normally-open-contact fire alarm devices. The MMF-301 can be used to replace M301 modules in existing systems.

MMF-301 APPLICATIONS

Use to monitor a single device or a zone of four-wire smoke detectors, manual fire alarm pull stations, waterflow devices, or other normally-open dry-contact devices. May also be used to monitor normally-open supervisory devices with special supervisory indication at the control panel. Monitored circuit/device is wired as an NFPA Style B (Class B) Initiating Device Circuit. A 47K ohm End-of-Line Resistor (provided) terminates the circuit

MMF-301 OPERATION

Each MMF-301 uses one of the available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC).

MMF-301 SPECIFICATIONS

Nominal operating voltage: 15 to 32 VDC.

Maximum operating current: 375 μA.

Maximum IDC wiring resistance: 1,500 ohms.

EOL resistance: 47K ohms.

Temperature range: 32°F to 120 F (0 C to 49°C)

Humidity range: 10% to 93% noncondensing.

Dimensions: 1.3" (3 302 cm) high x 2.75" (6.985 cm) wide x 0.65" (1 651 cm) deep.

Wire length: 6" (15.24 cm) minimum.

MMF-302 Interface Module

- Supports compatible two-wire smoke detectors
- Supervises IDC wiring and connection of external power source.
- High noise (EMF/RFI) immunity.
- SEMS screws with clamping plates for ease of wiring
- Direct-dial entry of address: 01 – 159 on MS-9600 series panels, 01 – 99 on other compatible systems
- LED flashes during normal operation.

- LED latches steady to indicate alarm on command from control panel.

The MMF-302 Interface Module is intended for use in intelligent, addressable systems, where the individual address of each module is selected using built-in rotary switches. This module allows intelligent panels to interface and monitor two-wire conventional smoke detectors. It transmits the status (normal, open, or alarm) of one full zone of conventional detectors back to the control panel. All two-wire detectors being monitored must be UL compatible with the module. The MMF-302 can be used to replace M302 modules in existing systems.

MMF-302 APPLICATIONS

Use the MMF-302 to monitor a zone of two-wire smoke detectors. The monitored circuit may be wired as an NFPA Style B (Class B) or Style D (Class A) Initiating Device Circuit. A 3.9 K ohm End-of-Line Resistor (provided) terminates the end of the Style B or D (class B or A) circuit (maximum IDC loop resistance is 25 ohms). Install ELR across terminals 8 and 9 for Style D application.

MMF-302 OPERATION

Each MMF-302 uses one of the available module addresses on an SLC loop. It responds to regular polls from the control panel and reports its type and the status (open/normal/short) of its Initiating Device Circuit (IDC) A flashing LED indicates that the module is in communication with the control panel. The LED latches steady on alarm (subject to current limitations on the loop).

MMF-302 SPECIFICATIONS

Nominal operating voltage: 15 to 32 VDC.

Maximum current draw: 5.1 mA (LED on).

Maximum IDC wiring resistance: 25 ohms.

Maximum operating current: 270 μA (LED flashing).

EOL resistance: 3.9K ohms.

External supply voltage (between Terminals T3 and T4): DC voltage: 24 volts power limited. Ripple voltage. 0.1 Vrms maximum. Current: 90 mA per module maximum

Temperature range: 32°F to 120°F (0°C to 49°C)

Humidity range: 10% to 93% noncondensing.

Dimensions: 4.5" (11.43 cm) high x 4" (10.16 cm) wide x 1.25" (3.175 cm) deep. Mounts to a 4" (10.16 cm) square x 2.125" (5.398 cm) deep box.

MDF-300 Dual Monitor Module

The MDF-300 Dual Monitor Module is intended for use in intelligent, two-wire systems It provides two independent two-wire initiating device circuits (IDCs) at two separate, consecutive addresses. It is capable of monitoring normally open contact fire alarm and supervisory devices The module has a single panel-controlled LED.

NOTE: The MDF-300 provides two Class B (Style B) IDC circuits ONLY. Class A (Style D) IDC circuits are NOT supported in any application.

MDF-300 SPECIFICATIONS

Normal operating voltage range: 15 to 32 VDC

Maximum current draw: 6.4 mA (LED on).

Maximum operating current: 750 μA (LED flashing).

Maximum IDC wiring resistance: 1,500 ohms.

EOL resistance: 47K ohms.

Temperature range: 32° to 120°F (0° to 49°C)

Humidity range: 10% to 93% (non-condensing).

Dimensions: 4.5" (11.43 cm) high x 4" (10.16 cm) wide x 2.125" (5.398 cm) deep

MDF-300 AUTOMATIC ADDRESSING

The MDF-300 automatically assigns itself to two addressable points, starting with the original address. For example, if the MDF-300 is set to address "26", then it will automatically assign itself to addresses "26" and "27"

NOTE: "Ones" addresses on the MDF-300 are 0, 2, 4, 6, or 8 only. Terminals 6 and 7 use the first address, and terminals 8 and 9 use the second address.

⚠ CAUTION:
Avoid duplicating addresses on the system.

Installation

MMF-300, MMF-302, and MDF-300 modules mount directly to a standard 4" (10.16 cm) square, 2.125" (5.398 cm) deep, electrical box. They may also be mounted to the SMB500 surface-mount box. Mounting hardware and installation instructions are provided with each module. All wiring must conform to applicable local codes, ordinances, and regulations. These modules are intended for power-limited wiring only.

The MMF-301 module is intended to be wired and mounted without rigid connections inside a standard electrical box. All wiring must conform to applicable local codes, ordinances, and regulations.

Agency Listings and Approvals

In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status

- **UL:** *S2424*
- **ULC:** *S3705 ("A" suffix models)*
- **FM Approved**
- **CSFM:** 7300-0075-185
- **MEA:** 72-01-E

Product Line Information

NOTE: "A" suffix indicates ULC Listed model.

MMF-300(A): Monitor module.

MMF-301(A): Monitor module, miniature

MMF-302(A): Monitor module, two-wire detectors.

MDF-300(A): Monitor module, dual, two independent Class B circuits.

SMB500: Optional surface-mount backbox

NOTE: See installation instructions and refer to the SLC Wiring Manual, PN 51309.

Architects'/Engineers' Specifications

Specifications of these devices and all FireLite products are available from FireLite.

ISO 9001
CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
All specifications are subject to change without notice.

Made in the U.S.A.

For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.
www.firelite.com

P	Smokes	AV's	STROBE
PULLS			
9 - 1ST FLOOR	6 - 1ST FLOOR	12 - 1ST FLOOR	2 - 1ST FL
4 - 2ND FLOOR	7 - 2ND FLOOR	8 - 2ND FLOOR	2 - 2ND FL
6 - 3RD FLOOR	6 - 3RD FLOOR	5 - 3RD FLOOR	2 - 3RD FL

4th FLOOR

REPLACE - SMOKE ELEVATOR RECALL

REMOVE - EXTRA SMOKE

TIE IN - A-V

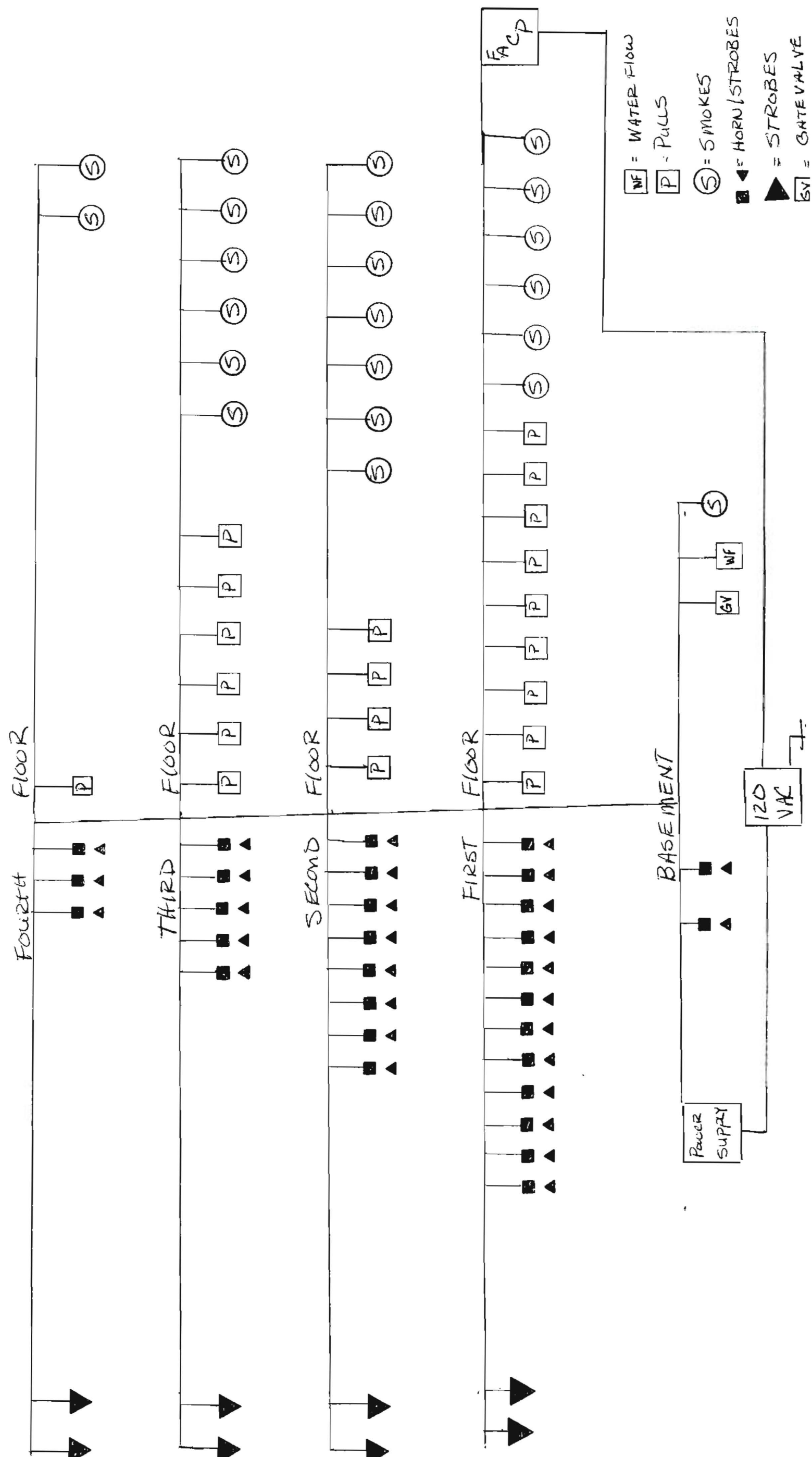ADD - 2 NEW AU'S ⎫ IN TENANTS SPACE
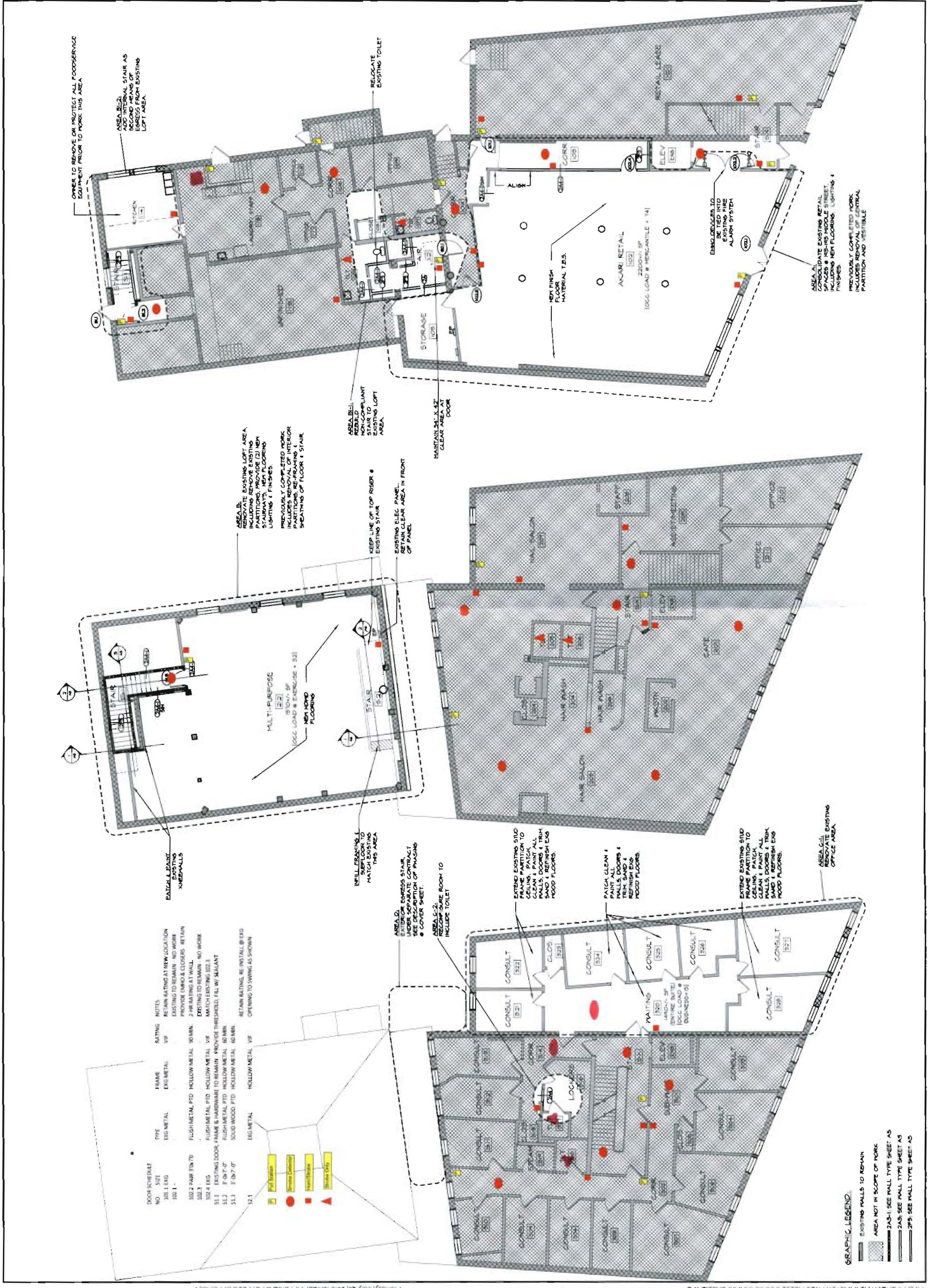ADD - 1 PULL ⎬ NEAR STAIR LANDING
ADD - 1 SMOKE ⎭

BASEMENT

REPLACE AV - 195 SIDE

ADD AU - 193 SIDE

REPLACE HEAT OVER POWER SUPPLY WITH
SMOKE -

Legend:
- WF = WATER FLOW
- P = PULLS
- S = SMOKES
- ■ = HORN/STROBES
- ▲ = STROBES
- GV = GATE VALVE

FACP

FOURTH FLOOR

THIRD FLOOR

SECOND FLOOR

FIRST FLOOR

BASEMENT

120 VAC

POWER SUPPLY

PDT
ARCHITECTS
48 DARTMOUTH STREET
PORTLAND, MAINE 04101
207-775-1059
www.pdtarchs.com

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Akari

193 MIDDLE STREET, PORTLAND, MAINE

JOB NO. 10-008
DRAWN: CHK
AJR
SCALE: 1/8"=1'-0"
ISSUE: 26 JULY 2010
TITLE: FIRST FLOOR PLAN
SHEET: A1

OWNER TO REMOVE OR PROTECT ALL FOODSERVICE EQUIPMENT PRIOR TO WORK THIS AREA.

AREA B-2:
ADD INTERNAL STAIR AS SECOND MEANS OF EGRESS FROM EXISTING LOFT AREA.

RELOCATE EXISTING TOILET

AREA B-1:
REBUILD NON-COMPLIANT STAIR TO EXISTING LOFT AREA.

MAINTAIN 34" x 42" CLEAR AREA AT DOOR

KITCHEN

STORAGE

AKARI RETAIL
2200+/- SF
(OCC. LOAD @ MERCANTILE = 14)

CORR
ELEV
STAIR

RETAIL LEASE

NEW FINISH FLOOR MATERIAL T.B.D.

EXISTING DEVICES TO BE TIED INTO EXISTING FIRE ALARM SYSTEM

AREA A:
CONSOLIDATE EXISTING RETAIL SPACES @ 195-199 MIDDLE STREET, INCLUDING NEW FLOORING & FINISHES.

PREVIOUSLY COMPLETED WORK INCLUDES REMOVAL OF CENTRAL PARTITION AND VESTIBULE.

AREA B:
RENOVATE EXISTING LOFT AREA, INCLUDING REMOVE EXISTING PARTITIONS, PROVIDE (2) NEW STAIRWAYS, NEW FLOORING LIGHTING & FINISHES.

PREVIOUSLY COMPLETED WORK INCLUDES REMOVAL OF INTERIOR PARTITIONS, RE-FRAMING & SHEATHING OF FLOOR & STAIR.

KEEP LINE OF TOP RISER @ EXISTING STAIR

EXISTING ELEC. PANEL. RETAIN CLEAR AREA IN FRONT OF PANEL

MULTI-PURPOSE
1510+/- SF
(OCC. LOAD @ EXERCISE = 52)

NEW HARD FLOORING

STAIR

STAIR

PATCH & PAINT EXISTING KNEEWALLS

INFILL FRAMING TO MATCH EXISTING THIS AREA

AREA D:
EXTERIOR EGRESS STAIR, UNDER SEPARATE CONTRACT. SEE DESCRIPTION @ COVER SHEET.

AREA C:
RECONFIGURE ROOM TO INCLUDE TOILET

HALL SALON
MEETING
OFFICE
STAIR
CAFE
OFFICE

EXTEND EXISTING STUD FRAME PARTITION TO CEILING. PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM. SAND & REFINISH EXG WOOD FLOORS.

PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM. SAND & REFINISH EXG WOOD FLOORS.

EXTEND EXISTING STUD FRAME PARTITION TO CEILING. PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM. SAND & REFINISH EXG WOOD FLOORS.

AREA C-1:
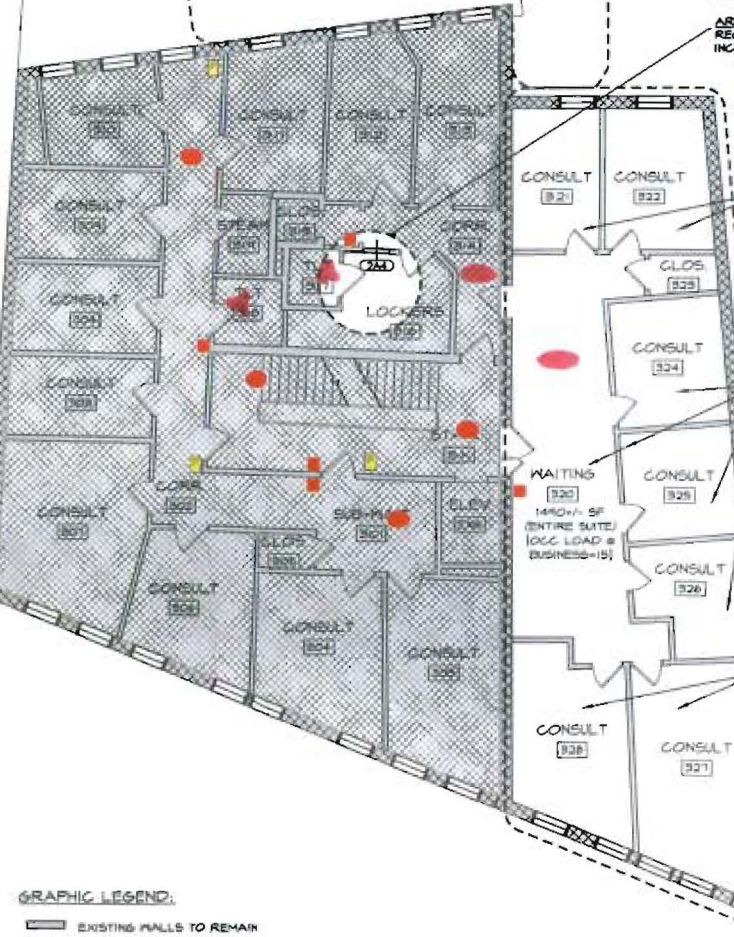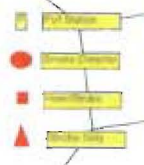RENOVATE EXISTING OFFICE AREA.

CONSULT
CLOS.
CONSULT
CONSULT
CONSULT
CONSULT
CONSULT
WAITING
AREA +/- SF
(ENTIRE SUITE) OCC. LOAD @ BUSINESS= 151
LOAD
CONSULT

DOOR SCHEDULE

NO.	SIZE	TYPE	FRAME	RATING	NOTES
		EXG METAL	EXG METAL		
201.1 EXG				V.I.F.	RETAIN RATING AT NEW LOCATION
000.1					EXISTING TO REMAIN - NO WORK
					PROVIDE EMRG & CLOSER, RETAIN
102.2 PAIR 3'0x7'0		FLUSH METAL PTD	HOLLOW METAL	90 MIN.	2-HR RATING AT WALL
102.3		FLUSH METAL PTD	HOLLOW METAL	V.I.F.	MATCH EXISTING 102.3
102.4 EXG		EXISTING DOOR, FRAME & HARDWARE TO REMAIN	HOLLOW METAL		EXISTING TO REMAIN - NO WORK
51.1	3'-0x7'-0"	FLUSH METAL PTD	HOLLOW METAL	60 MIN.	PROVIDE THRESHOLD, FILL W/ SEALANT
51.2	3'-0x7'-0"	SOLID WOOD PTD	HOLLOW METAL	60 MIN.	
52.1			EXG METAL	V.I.F.	RETAIN RATING, RE-INSTALL EXG OPENING TO SWING AS SHOWN

GRAPHIC LEGEND

EXISTING WALLS TO REMAIN
AREA NOT IN SCOPE OF WORK
2A3-1, SEE WALL TYPE SHEET A5
2A3-2, SEE WALL TYPE SHEET A5
2P5, SEE WALL TYPE SHEET A5

Akari
193 MIDDLE STREET, PORTLAND, MAINE

DOOR SCHEDULE

NO.	SIZE	TYPE	FRAME	RATING	NOTES
101.1 EXG		EXG METAL	EXG METAL	VIF	RETAIN RATING AT NEW LOCATION
102.1					EXISTING TO REMAIN - NO WORK
					PROVIDE EMHD & CLOSERS. RETAIN
102.2 PAIR 3'0x7'0		FLUSH METAL, PTD	HOLLOW METAL	90 MIN.	2-HR RATING AT WALL.
102.3					EXISTING TO REMAIN - NO WORK
102.4 EXG		FLUSH METAL, PTD	HOLLOW METAL	VIF	MATCH EXISTING 102.3
S1.1	EXISTING DOOR, FRAME & HARDWARE TO REMAIN - PROVIDE THRESHOLD, FILL W/ SEALANT
S1.2	3'-0x7'-0"	FLUSH METAL, PTD	HOLLOW METAL	60 MIN.
S1.3	3'-0x7'-0"	SOLID WOOD, PTD	HOLLOW METAL	60 MIN.
					RETAIN RATING, RE-INSTALL @ EXG
S2.1		EXG METAL	HOLLOW METAL	VIF	OPENING TO SWING AS SHOWN.

GRAPHIC LEGEND:
- EXISTING WALLS TO REMAIN
- AREA NOT IN SCOPE OF WORK
- 2A3-1, SEE WALL TYPE SHEET A5
- 2A3, SEE WALL TYPE SHEET A5
- 2F3, SEE WALL TYPE SHEET A5

AREA B:
RENOVATE EXISTING LOFT AREA,
INCLUDING REMOVE EXISTING
PARTITIONS, PROVIDE (2) NEW
STAIRWAYS, NEW FLOORINS,
LIGHTING & FINISHES.

PREVIOUSLY COMPLETED WORK
INCLUDES REMOVAL OF INTERIOR
PARTITIONS, RE-FRAMING &
SHEATHING OF FLOOR & STAIR.

AREA D:
EXTERIOR EGRESS STAIR,
UNDER SEPARATE CONTRACT.
SEE DESCRIPTION OF PHASING
@ COVER SHEET.

AREA C-2:
RECONFIGURE ROOM TO
INCLUDE TOILET.

AREA C-1:
RENOVATE EXISTING
OFFICE AREA.

AREA B1-2:
ADD INTERNAL STAIR AS
SECOND MEANS OF
EGRESS FROM EXISTING
LOFT AREA.

AREA B1-1:
REBUILD
NON-COMPLIANT
STAIR TO
EXISTING LOFT
AREA.

AREA A:
CONSOLIDATE EXISTING RETAIL
SPACES @ 193-195 MIDDLE STREET,
INCLUDING NEW FLOORING, LIGHTING &
FINISHES.

PREVIOUSLY COMPLETED WORK
INCLUDES REMOVAL OF CENTRAL
PARTITION AND VESTIBULE.

OWNER TO REMOVE OR PROTECT ALL FOODSERVICE
EQUIPMENT PRIOR TO WORK THIS AREA

PATCH & PAINT EXISTING KNEEWALLS

INFILL FRAMING & SUBFLOOR TO MATCH EXISTING THIS AREA

KEEP LINE OF TOP RISER @ EXISTING STAIR

EXISTING ELEC. PANEL. RETAIN CLEAR AREA IN FRONT OF PANEL.
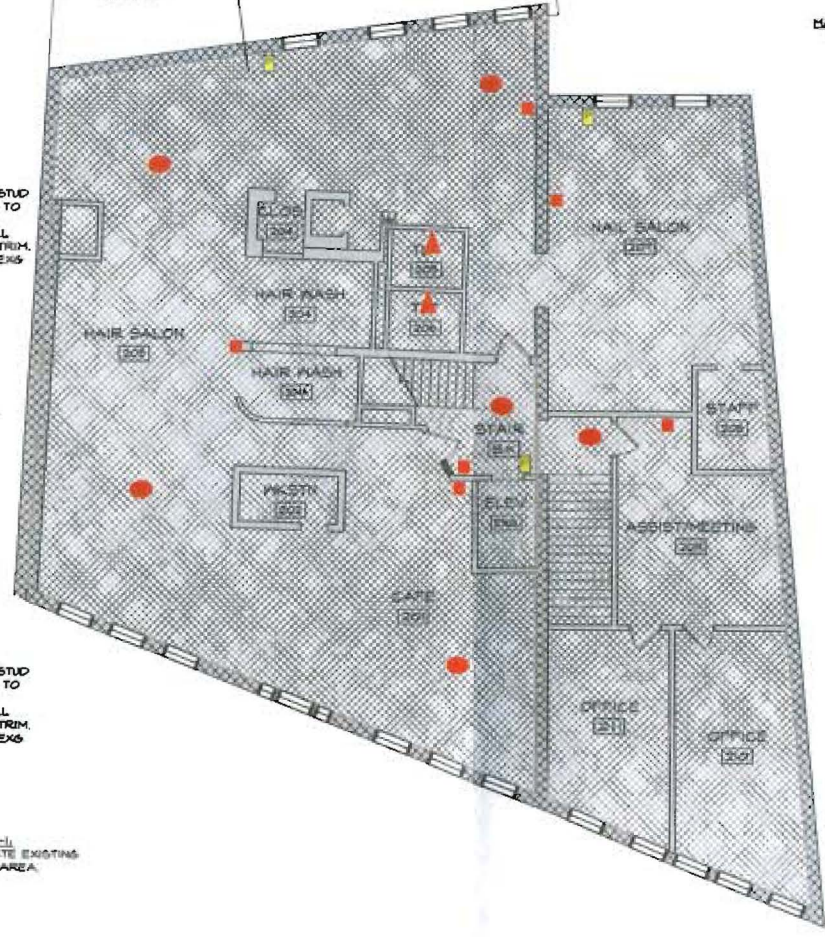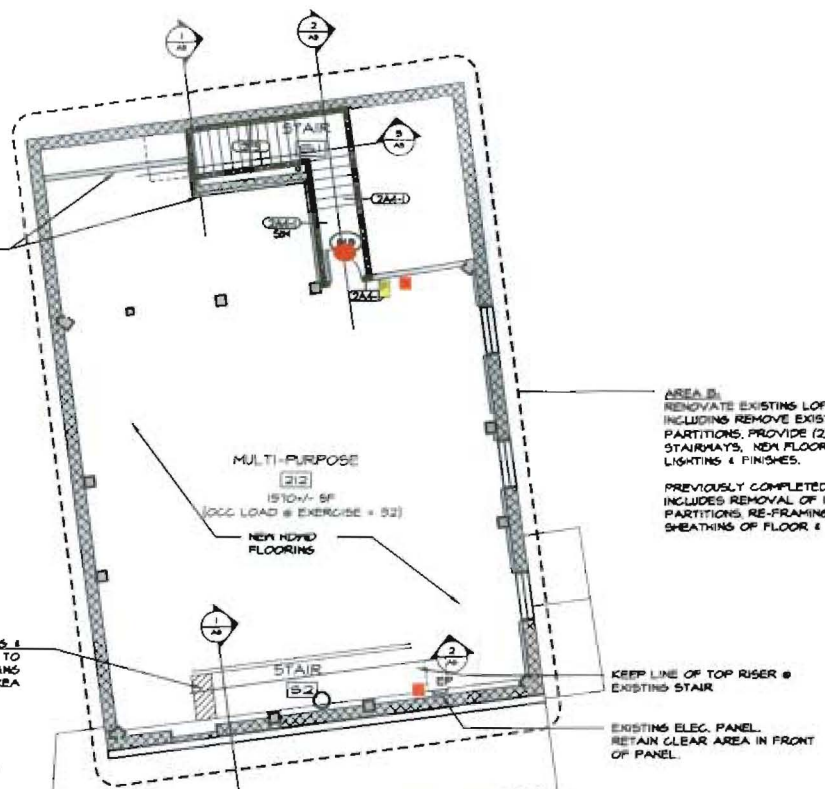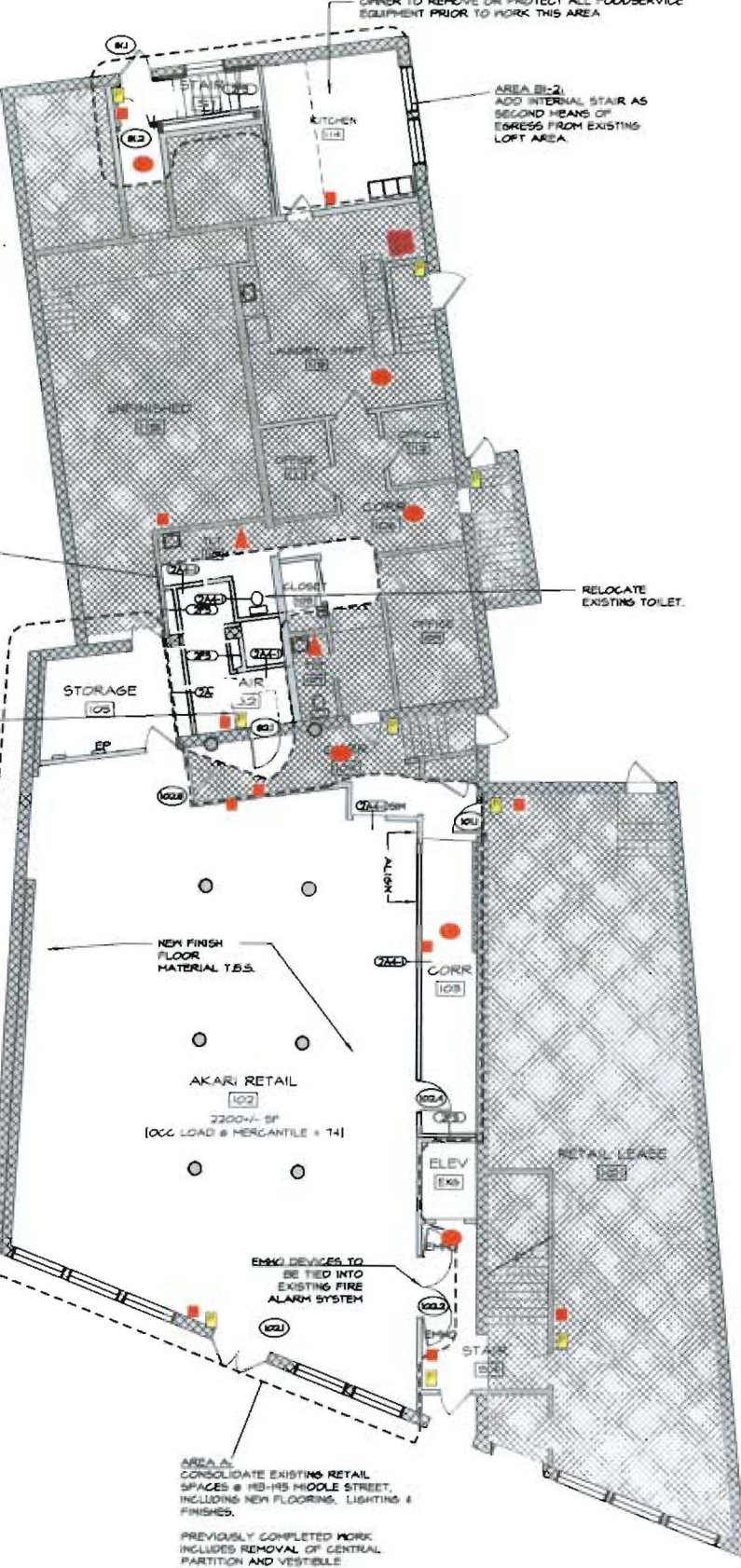
EXTEND EXISTING STUD FRAME PARTITION TO CEILING, PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM, SAND & REFINISH EXG WOOD FLOORS.

PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM, SAND & REFINISH EXG WOOD FLOORS.

EXTEND EXISTING STUD FRAME PARTITION TO CEILING, PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM, SAND & REFINISH EXG WOOD FLOORS.

RELOCATE EXISTING TOILET.

MAINTAIN 54" X 42" CLEAR AREA AT DOOR

NEW FINISH FLOOR MATERIAL T.B.S.

EMHD DEVICES TO BE TIED INTO EXISTING FIRE ALARM SYSTEM

MULTI-PURPOSE
212
1510+/- SF
(OCC LOAD @ EXERCISE = 32)
NEW WOOD FLOORING

STAIR

STAIR

Room labels:
CONSULT, STEAM, CORR, CLOS., WAITING, LOCKERS, SUB-WAIT, ELEV
WAITING 320, 1490+/- SF (ENTIRE SUITE) (OCC LOAD @ BUSINESS = 15)

HAIR SALON, HAIR WASH, NAIL SALON, STAFF, CAFE, OFFICE, STAIR, ELEV, ASSIST MEETING, PEDI

KITCHEN, FLOOR, STORAGE 108, CORR 108
AKARI RETAIL 102, 2200+/- SF (OCC LOAD @ MERCANTILE = 74)
RETAIL LEASE, ELEV, CORR, STAIR

\\PDT-FS1\DATA2\MASTER PROJ FILES2\AKARI\AKARI BASE.DWG

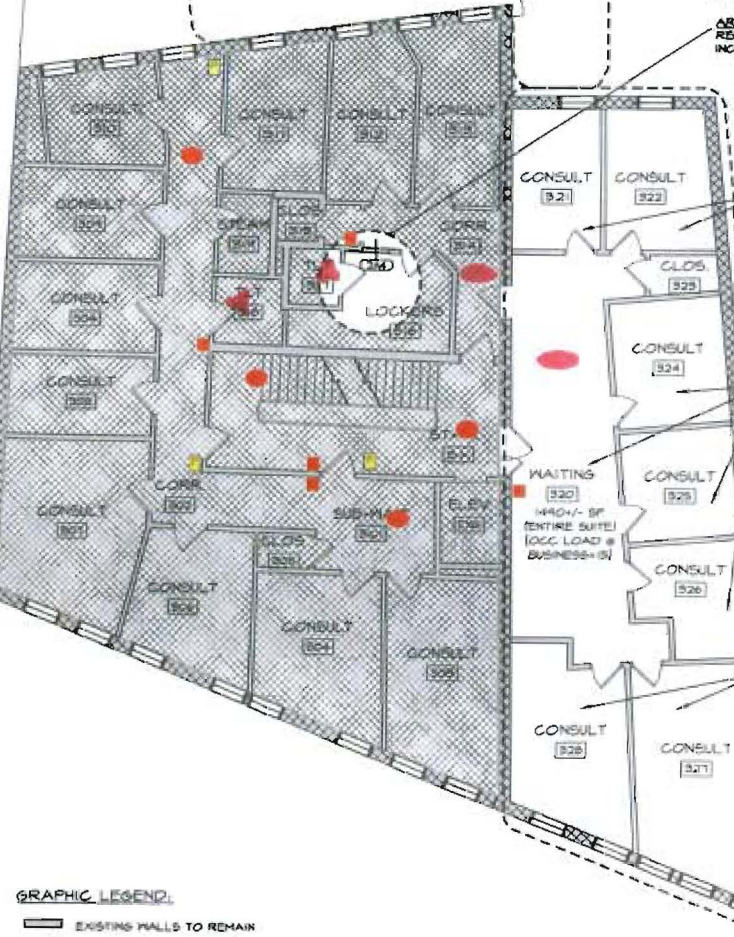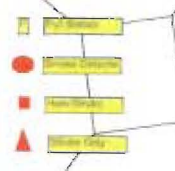Monday, July 26, 2010 10:45:27 AM BRIDGTON BECCA CASEY

Akari

193 MIDDLE STREET, PORTLAND, MAINE

JOB NO. 10-058
DRWN. AJR CHK.
SCALE: 1/8"=1'-0"
ISSUE: 26 JULY 2010
TITLE: FIRST FLOOR PLAN
SHEET

A1

DOOR SCHEDULE

NO	SIZE	TYPE	FRAME	RATING	NOTES
101.1 EXG		EXG METAL	EXG METAL	VIF	RETAIN RATING AT NEW LOCATION
102.1 -					EXISTING TO REMAIN - NO WORK. PROVIDE EMHO & CLOSERS. RETAIN
102.2 PAIR 3'0x7'0		FLUSH METAL PTD	HOLLOW METAL	30 MIN.	2-HR RATING AT WALL
102.3 -					EXISTING TO REMAIN - NO WORK
102.4 EXG		FLUSH METAL PTD	HOLLOW METAL	VIF	MATCH EXISTING 102.3
51.1	EXISTING DOOR, FRAME & HARDWARE TO REMAIN - PROVIDE THRESHOLD, FILL W/ SEALANT				
51.2	3'-0x7'-0"	FLUSH METAL PTD	HOLLOW METAL	60 MIN.	
51.3	3'-0x7'-0"	SOLID WOOD PTD	HOLLOW METAL	60 MIN.	RETAIN RATING, RE-INSTALL @ EXG
52.1		EXG METAL	HOLLOW METAL	VIF	OPENING TO SWING AS SHOWN

GRAPHIC LEGEND:

- EXISTING WALLS TO REMAIN
- AREA NOT IN SCOPE OF WORK
- 2AB-1; SEE WALL TYPE SHEET A5
- 2A5; SEE WALL TYPE SHEET A5
- 2F5; SEE WALL TYPE SHEET A5

Plan notes and callouts:

- PATCH & PAINT EXISTING KNEEWALLS
- AREA B: RENOVATE EXISTING LOFT AREA, INCLUDING REMOVE EXISTING PARTITIONS, PROVIDE (2) NEW STAIRWAYS, NEW FLOORING, LIGHTING & FINISHES. PREVIOUSLY COMPLETED WORK INCLUDES REMOVAL OF INTERIOR PARTITIONS, RE-FRAMING & SHEATHING OF FLOOR & STAIR.
- INFILL FRAMING & SUBFLOOR TO MATCH EXISTING THIS AREA
- AREA D: EXTERIOR EGRESS STAIR UNDER SEPARATE CONTRACT. SEE DESCRIPTION OF PHASING @ COVER SHEET.
- AREA C-2: RECONFIGURE ROOM TO INCLUDE TOILET
- KEEP LINE OF TOP RISER @ EXISTING STAIR
- EXISTING ELEC. PANEL RETAIN CLEAR AREA IN FRONT OF PANEL.
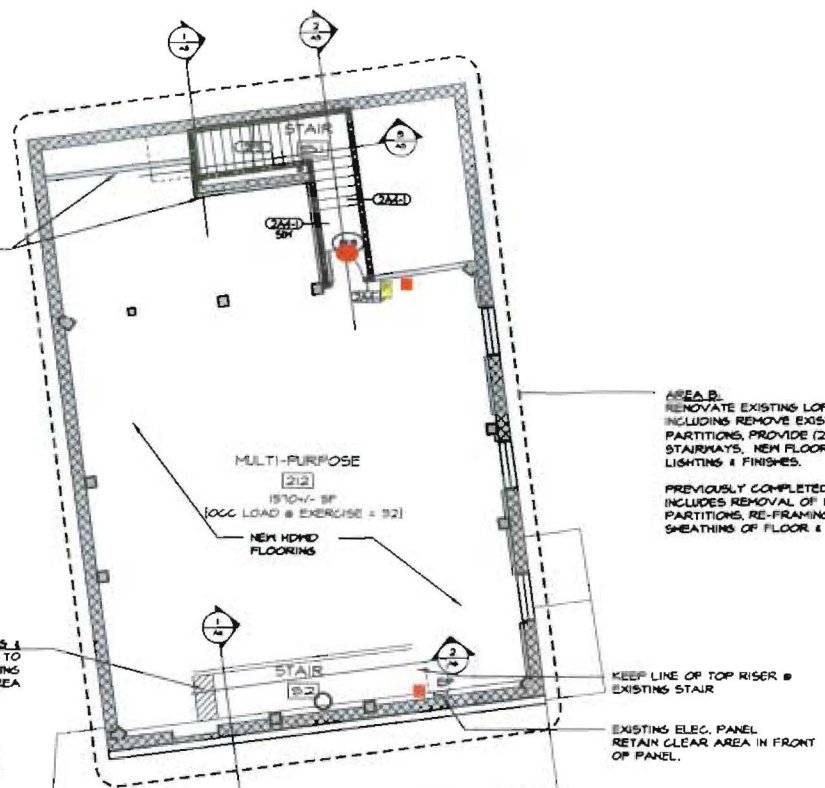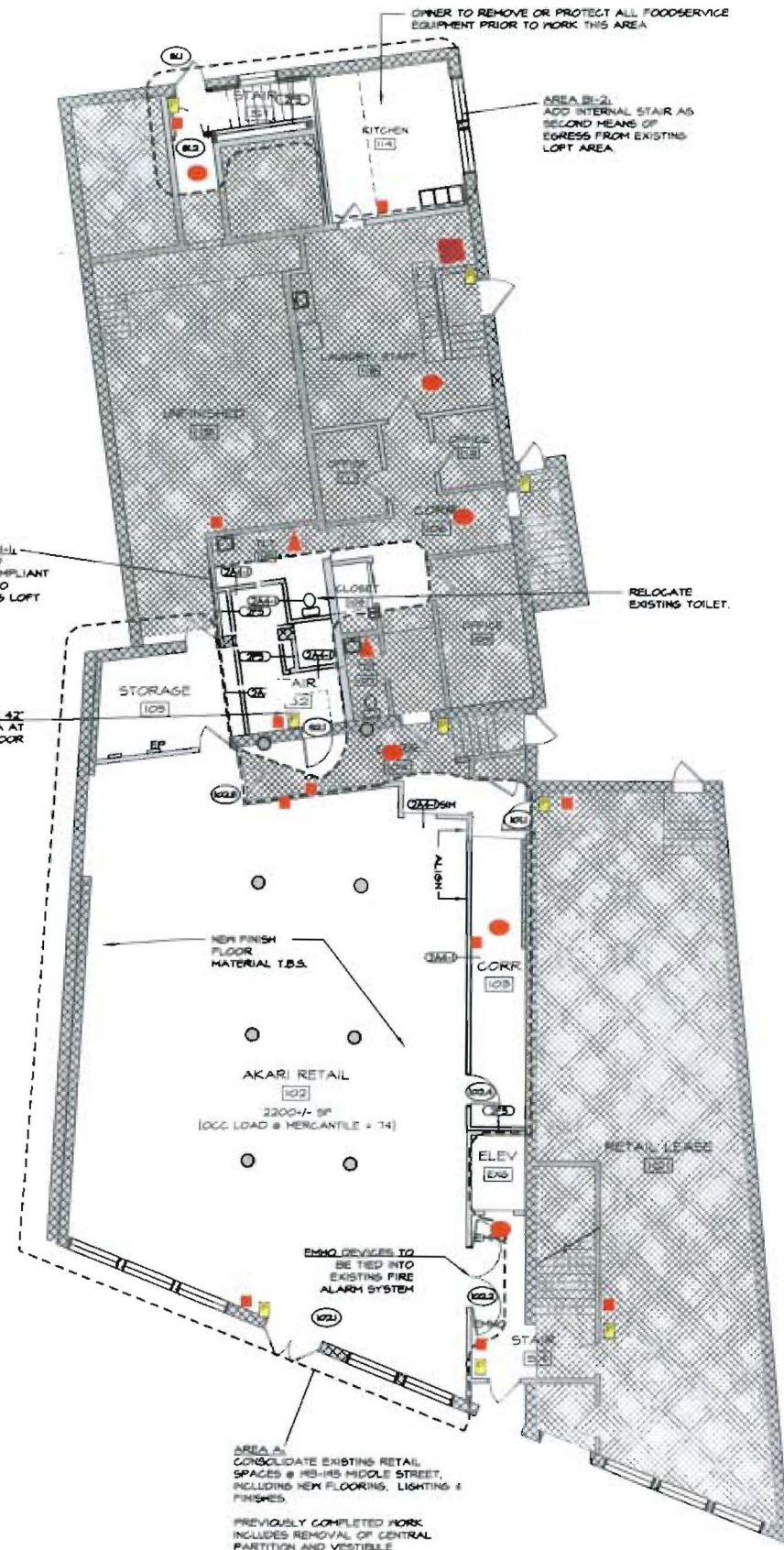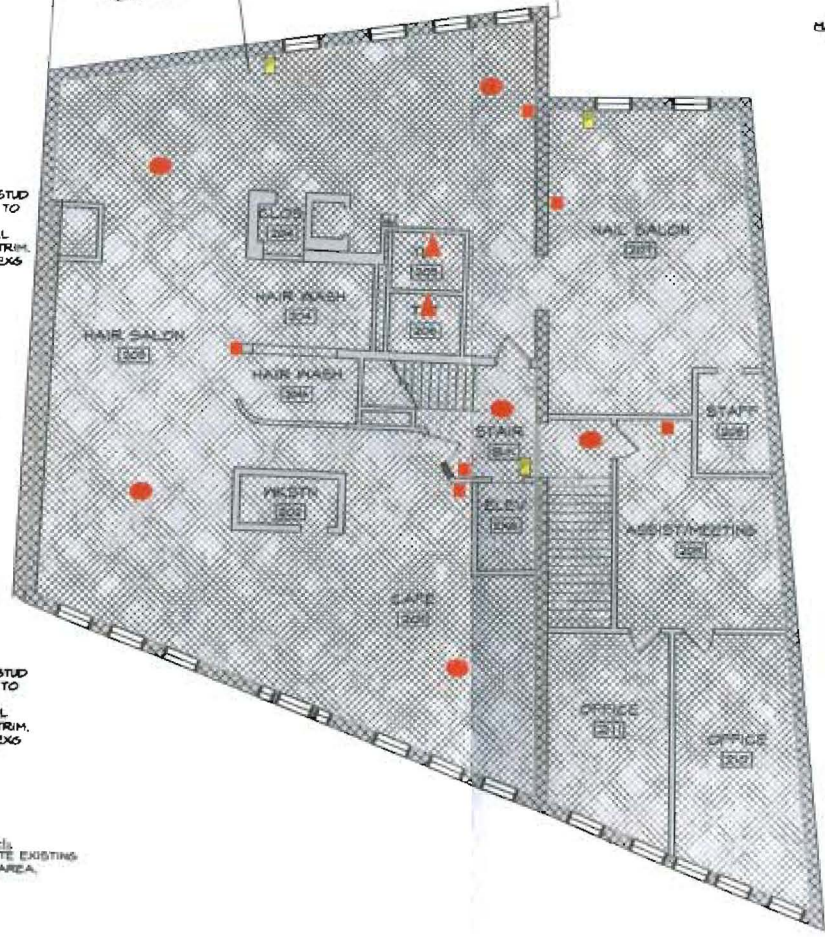- EXTEND EXISTING STUD FRAME PARTITION TO CEILING. PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM. SAND & REFINISH EXG WOOD FLOORS.
- PATCH, CLEAN & PAINT ALL WALLS, DOORS & TRIM. SAND & REFINISH EXG WOOD FLOORS.
- AREA C-1: RENOVATE EXISTING OFFICE AREA
- OWNER TO REMOVE OR PROTECT ALL FOODSERVICE EQUIPMENT PRIOR TO WORK THIS AREA
- AREA B-2: ADD INTERNAL STAIR AS SECOND MEANS OF EGRESS FROM EXISTING LOFT AREA
- AREA B-1: REBUILD NON-COMPLIANT STAIR TO EXISTING LOFT AREA
- RELOCATE EXISTING TOILET
- MAINTAIN 34" X 42" CLEAR AREA AT DOOR
- NEW FINISH FLOOR MATERIAL T.B.S.
- EMHO DEVICES TO BE TIED INTO EXISTING FIRE ALARM SYSTEM
- AREA A: CONSOLIDATE EXISTING RETAIL SPACES @ 193-195 MIDDLE STREET, INCLUDING NEW FLOORING, LIGHTING & FINISHES. PREVIOUSLY COMPLETED WORK INCLUDES REMOVAL OF CENTRAL PARTITION AND VESTIBULE.

Room labels:

- STAIR
- MULTI-PURPOSE 212 (1510+/- SF) (OCC LOAD @ EXERCISE = 52) — NEW HDWD FLOORING
- STAIR
- KITCHEN 114
- STORAGE 105
- A.J.R.
- AKARI RETAIL 102 (2200+/- SF) (OCC LOAD @ MERCANTILE = 74)
- CORR 108
- ELEV
- STAIR
- RETAIL LEASE
- CLOSET
- CONSULT (multiple)
- WAITING 320 (1440+/- SF ENTIRE SUITE) (OCC LOAD @ BUSINESS = 15)
- LOCKERS
- CORR
- CLOS. 325
- SUB-WA
- HAIR SALON
- HAIR WASH
- STAFF
- STAIR
- ELEV
- ASSIST/MEETING
- OFFICE