CITY OF PORTLAND
BUILDING PERMIT

This is to certify that
CUNNINGHAM SECURITY
10 PRINCES POINT RD
YARMOUTH, ME 04096

For installation at
250 READ ST
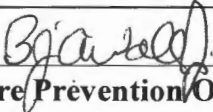**RECORDING STUDIO**

Job ID: 2012-03-3602-FAFS

CBL: 147- A-022-001

has permission to install supervised fire alarm system

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

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Code Enforcement Officer / Plan Reviewer

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

BUILDING PERMIT INSPECTION PROCEDURES
Please call 874-8703 or 874-8693 (ONLY)
or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**

- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**

- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Final Fire

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

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

Job ID: 2012-03-3602-FAFS
install supervised fire alarm system

For installation at:
250 READ ST
RECORDING STUDIO

CBL: 147- A-022-001

Conditions of Approval:

Fire

The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.

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

All smoke detectors and smoke alarms shall be photoelectric.

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

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

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

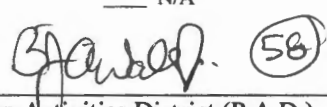Installation of a Fire Alarm system requires a Knox Box to be installed per city ordinance.

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

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

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

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2012-03-3602-FAFS	Date Applied: 3/27/2012	CBL: 147- A-022-001		

Location of Construction: 250 READ ST	Owner Name: JJ & L CORP	Owner Address: 256 READ STREET, PORTLAND, ME 04103		Phone:
Business Name: Rock Dog Studios	Contractor Name: Cunningham Security Systems, Michael Major	Contractor Address: 10 PRINCESS POINT RD YARMOUTH MAINE 04096		Phone: 846-3250
Lessee/Buyer's Name:	Phone:	Permit Type: FIRE ALARM		Zone: B-2

Past Use: Recording studio, television studio & rehearsal space- NOT A CONCERT HALL OR PUBLIC VENUE	Proposed Use: Same: recording & television studios with a rehearsal space –NOT A CONCERT HALL OR PUBLIC VENUE - to install a fire alarm	Cost of Work: $3,000.00	CEO District:
		Fire Dept: ⤓ Approved w/ conditions ___ Denied ___ N/A Signature: _(signature)_ (58)	Inspection: Use Group: Type: Signature:

Proposed Project Description: Install Fire Alarm w/ electric	Pedestrian Activities District (P.A.D.)

Permit Taken By: Lannie	Zoning Approval

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

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	___ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan	___ Approved	___ Approved w/Conditions
	___ Denied	___ Denied
___ Maj ___ Min ___ MM		
Date: OK - 3/27/12	Date:	Date:

CERTIFICATION

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

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

Fire Alarm Permit

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

B-2

Installation address: **250 Read Street**   CBL: **147A-22-1**

Exact location: (within structure) **Front door**

Type of occupancy(s) (NFPA & ICC): **Office**   *recording studio, -*

Building owner: **JJ & L Corp   - 254 Read St**   *01,02 television studio*
                                                          rehearsal space -

System Designer (point of contact): **Cunningham Security Systems**   *Not A concert hall or public Venue*
      Must be

Designer phone: **207-846-3350**   E-mail: **mmajor@cunninghamsecurity.cc**

Installing contractor: **Cunningham Security Systems**   Certificate of Fitness No: **1004**

Contractor phone: **207-846-3250**   E-mail: **mmajor@cunninghamsecurity.cc**

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

Amendment to an existing permit: YES ( )   NO ( )   Permit no: _____

The following documents shall be provided with this application:

[✓] Floor plans	[✓] Scope of Work
[✓] Wiring diagram	[ ] 11 ½ x 17s
[✓] Annunciator details	[✓] pdf copy (may be e-mailed)
[✓] Input/ Output Matrix	[ ] Designer qualifications
[✓] Equipment data sheets	[✓] Battery/ voltage drop calcs
[ ] Electrical Permit Pulled (check alarm/com)	

COST OF WORK: **3,000.00**

PERMIT FEE: **50**
($10 PER $1,000 + $30 FOR THE FIRST $1,000)
+ 55

RECEIVED

MAR 27 2012

Dept. of Building Inspections
City of Portland Maine

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

The underline designer shall be the responsible party for this application. Download a new copy of this application at **www.portlandmaine.gov/fire** for every submittal. **Submit all plans in electronic PDF in addition to readable 11 ½ x 17s to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.**

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

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

Applicant signature: _____   Date: **3 -26 · 12**

MS-5UD(E)/MS-10UD(E) Series

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

FIRE·LITE·ALARMS
by Honeywell

Control/Communicators

General

The **MS-5UD-3(E)** is a five-zone FACP (Fire Alarm Control Panel) and the **MS-10UD-7(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 i^3 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 MS-5UD-3 and MS-10UD-7 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 *Fire•Lite 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.

New options include a UL listed printer, PRN-6F and FireLite's IPDACT Internet Monitoring module. 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 MS-5UD-3E and MS-10UD-7E offers the same features as the MS-5UD-3 and MS-10UD-7 but allow 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 DF-60440.*

Features

- Listed to UL Standard 864, 9th edition.
- Built-in DACT (Digital Alarm Communicator/Transmitter).
- Style B (Class B) IDC (Initiating Device Circuit)
  - MS-5UD-3 - five IDCs.
  - MS-10UD-7 - ten IDCs.
- Style Y (Class B) NAC (Notification Appliance Circuit) - special application power
  - MS-5UD-3 - four NACs.
  - MS-10UD-7 - 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 CAC-5X Style Z (Class A) Converter Module for NACs and IDCs (2 required for MS-10UD-7).
- Form-C Relays for Alarm, Trouble and Supervisory - Contact Ratings 2.0 A @ 30 VDC or 0.5 A @ 30 VAC (resistive).
- 3.0 A total system current for MS-5UD-3.
- 7.0 A total system current for MS-10UD-7.
- Optional Dress Panel DP-51050
- Optional Trim Ring TR-CE 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 ANN-RLY.
  - Optional LED Annunciator Module ANN-LED,
  - Optional Remote Annunciator ANN-80.
  - Optional Remote Printer Gateway ANN-S/PG.
  - Optional LED Annunciator Driver ANN-I/O.
- Optional 4XTMF 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)
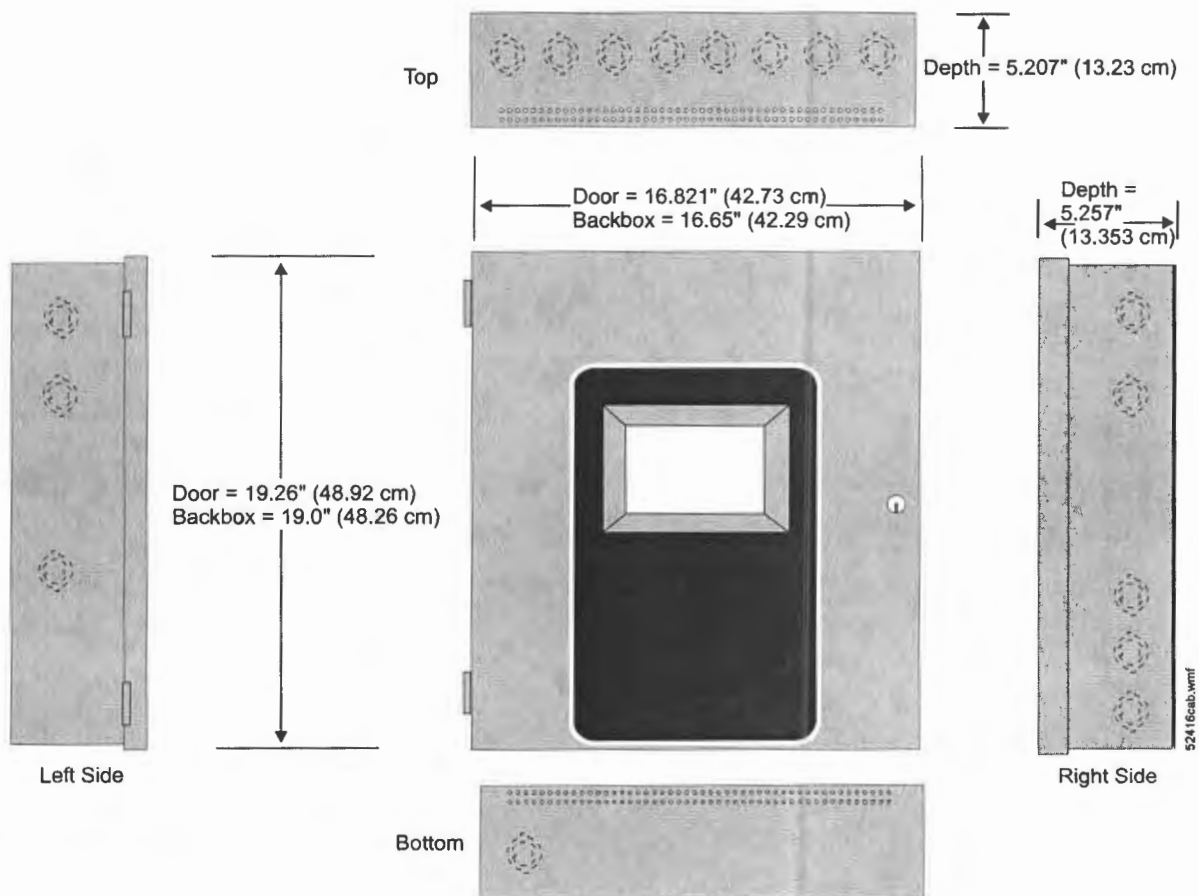- DRILL

Terminal Blocks

AC Power – TB1:

- MS-5UD-3 (FLPS-3 Power Supply): 120 VAC, 50/60 HZ, 1.00 A.
- MS-5UD-3E (FLPS-3 Power Supply): 240 VAC, 50 HZ, 0.54 A.
- MS-10UD-7 (FLPS-7 Power Supply): 120 VAC, 50/60 HZ, 3.80 A.
- MS-10UD-7E (FLPS-7 Power Supply): 240 VAC, 50/60 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 MS-5UD-3(E), and 26 AH battery for MS-10UD-7(E). [Two 18 Ah batteries can be housed in the FACP cabinet. Larger batteries require separate battery box such as the BB-26 or BB-55.]

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

- Minimum Battery Size: 7 AH.

Initiating Device Circuits – TB4 (and TB 6 on MS-10UD-7 only):

- Alarm Zones 1 - 5 on TB 4 (MS-5UD-3 and MS-10UD-7).
- Alarm Zones 6 - 10 on TB6 (MS-10UD-7 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 *Fire•Lite Device Compatibility Document* for listed compatible devices.

Notification Appliance Circuits – TB5 (and TB 7 on MS-10UD-7 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 MS-5UD-3, 2.5 A maximum per NAC; 7.0 A for MS-10UD-7(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 *Fire•Lite 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 *Fire•Lite Device Compatibility Document* for listed compatible devices.

Remote Sync Output - TB2: Remote power supply synchronization output, only required for the MS-5UD-3. 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

MS-5UD-3: Five-zone, 24-volt Fire Alarm Control Panel (includes backbox, FLPS-3 power supply, technical manual, and a frame & post operating instruction sheet). 120 VAC operation.

MS-5UD-3E: Same as MS-5UD-3 except for 240 VAC operation.

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

MS-10UD-7E: Same as above with 240 VAC FLPS-7.

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 DF-60407 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

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 MS-5UD-3 and MS-10UD-7(E) main circuit board and to J7 on the MS-10UD-7(E).

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

4XTMF: 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

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

ANN-LED: LED Annunciator with three LEDs for each zone: Alarm, Trouble, and Supervisory. Mounts in the DP-51050(B) dress panel. Red. (For white, order **ANN-LED-W**.)

ANN-RLED: LED Annunciator with three alarm (red) indicators for up to 30 input zones or addressable points. (Red. For white, order **ANN-LED-W**.) (See DF-60241).

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

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

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.

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

BB-55: Battery backbox, holds up to two 25 AH batteries.

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

PRN-6F: UL listed printer.

SYSTEM SPECIFICATIONS

System Capacity

- Annunciators 8

Electrical Specifications

- **MS-5UD-3 (FLPS-3 Power Supply):** 120 VAC, 60 HZ, 1.0 A
- **MS-10UD-7 (FLPS-7 Power Supply):** 120 VAC, 60 HZ, 3.90 A
- **MS-5UD-3E (FLPS-3 Power Supply):** 240 VAC, 50 HZ, 0.54 A.
- **MS-10UD-7E (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 MS-5UD-3 and MS-10UD-7 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 S624
- **FM Approved**
- **CSFM:** 7165-0075:0214
- **MEA:** MEA: 333-07-E

NOTE: For ULC-listed models, see DF-60440.

NFPA Standards

The MS-5UD-3(E) and MS-10UD-7(E) 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 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, 4XTMF is required.)
- **PROPRIETARY** (Automatic, Manual and Waterflow).
- **CENTRAL STATION** (Automatic, Manual and Waterflow, and Sprinkler Supervised).
- **OT, PSDN** (Other Technologies, Packet-switched Data Network)

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.
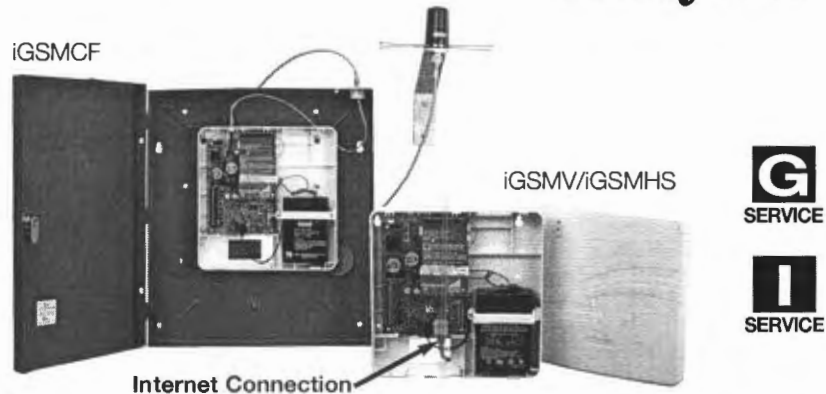
Made in the U.S.A.

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

iGSMCF

Internet and Digital Cellular Communicators

With Remote Services Capability

iGSMV/iGSMHS

Honeywell

G SERVICE

I SERVICE

Internet Connection

Honeywell is focused on providing the future of alarm communication solutions for the security industry. Alternative communication methods are critical in the marketplace due to VoIP, migration from POTS and growth of digital radio networks.

Honeywell's Internet and GSM Communicators deliver secure, reliable and complementary Internet and digital communications via the GSM (Global System for Mobile) network. Our exclusive, Triple-Path Communications solution combines Internet service with GSM for added reliability and an extra level of security, offering substantial benefits to protect your investment by future-proofing your recurring revenue.

Our GSM radio technology is unique in that it uses GPRS service for data and alarm communications and automatically switches to SMS for alarms if GPRS is unavailable. Through the Internet or radio, the Internet and GSM Communicators offer full data reporting and uploading/downloading with most Honeywell control panels. Plus, with zone inputs and optional dialer capture capability we're compatible with other manufacturers' control panels as well.

All signals are delivered to Honeywell's AlarmNet Network Control Center, which routes the information to the appropriate central station. The state of the art AlarmNet Network Control Center is fully redundant and monitored 24/7. AlarmNet has the ability to route messages using AlarmNet-i and 800 PLUS services, providing true redundancy and multi-path message delivery.
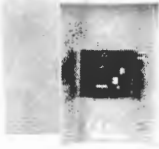
FEATURES

- **Universal Control Panel Compatibility** – Flexible modes of operation allow ECP alarm reporting by Honeywell control panels, 4204 relay mode for Honeywell controls (that do not support ECP alarm reporting) and zone triggering for use with other control panels.

- **Dialer Capture Ready** – Compatible with Dialer Capture Intelligence Device DCID (for LYNX) or DCID-EXT (other control panels). Captures Contact ID messages from the panel's phone line and sends them to the central station via the GSM radio.

- **Six Input Zones** – Each zone can be configured for +V, -V, or EOLR triggering. Each zone can be programmed for inverted operation, delayed reporting and restoral reporting. Zone 1 can distinguish between pulsed and steady inputs.

- **Full Contact ID or ADEMCO High-Speed Reporting** – ECP mode with compatible Honeywell control panels support full Contact ID reporting. All other modes use ADEMCO High-Speed reporting format.

- **Tamper Protected Enclosure** – Built-in tamper sends a report when a tamper condition is detected and a restore when cleared.

- **Built-In Power Supply** – On board charging circuit design accommodates back-up battery. Includes primary power and battery supervision.

- **Back-Up Battery** – 6V 3.1Ah supplied to deliver up to 24 hours of standby operation.

- **256-bit AES Encryption** – Advanced Encryption Standard used for secure communications.

- **Triple-Path Technology** – Provides three paths of communication using Internet, GPRS (General Packet Radio Service), and SMS (Short Message Service). Uses Internet as primary with dual GSM technology as back-up. GSM path utilizes GPRS and automatically switches to SMS if GPRS is unavailable.

- **Upload/Download** – With select Honeywell control panels using Internet and optionally GPRS. Requires Compass version 1.5.8.54a or higher.

- **Dynamic Signaling with Certain Honeywell Control Panels** – Provides management of control panel dialer and digital cellular communicator. Programmable priority and delays determine signal path.

- **Diagnostic LEDs** – Provide signal strength and status indications.

- **QOS** – Quality of Service diagnostics via AlarmNet supply vital information including when message was received, battery voltage, input voltage, signal strength, and message path.

- **Web-Based Programming** – Allows complete interactive programming from AlarmNet Direct. https://services.alarmnet.com/AlarmnetDirect

- **Intelligent Supervision** – Any message generated serves as a supervision message per optional 24 hour or 30 day intervals. This feature effectively limits required messages to be sent.

- **Remote Services Capability*** – Optional Total Connect value-added web-based or SMS system control as well as e-mail notification of system events.

- **Two-Way Voice Transport** – GSM voice channel capable to allow two-way voice session in conjunction with an audio verification system (iGSMV).

- **Line Security** – Approved for line security applications with 200-second supervision intervals (iGSMHS).

*Service subscription required.

Internet and Digital Cellular Communicators

ACCESSORIES

7720P Programmer	K14139 Battery	1332 Transformer (1332CN for Canada)	DCID Dialer Capture Intelligence Device (For non-ECP LYNX controls)	DCID-EXT Dialer Capture Intelligence Device (For non-ECP capable control panels)

Communication Devices	Description	Testing Agency	Commercial Standards							Residential Standards		
			UL 365 Police Connected Burglar Alarm Commercial Burglar	UL 609 Local Burglar Alarm Systems	UL 1610 Central Station Burglar Alarm Commercial Burglar	UL 1635 Digital Alarm Communications Commercial Burglar	NIST National Institute of Standards and Technology	UL 864 Rev. 9 Standalone*	UL 864 Rev. 9 Primary/ Backup**	California State Fire Marshal (CSFM)	UL 1023 Household Burglar Alarm	UL 985 Household Fire
iGSMV iGSMCF	Internet/GSM Cellular Communication Module	ETL	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*Standalone listing does not require a separate listed DACT.
**Primary/backup listing requires use of a listed DACT.

Communication Devices	Description	Testing Agency	Canadian Standards				
			ULC-S303-M91 Local Burglar Alarm	ULC-S304-06 Central and Monitoring Station Burglar Alarm	ULC-S545-02 Residential Fire Warning System	ULC Subject C1023-74 Household Burglar	ULC-S559-04
iGSMVCN	Internet/GSM Cellular Communication Module	cUL/ULC	✓	✓	✓	✓	✓

Agency Listings
iGSMV-EX, iGSMHS and iGSMHSCN pending.

SPECIFICATIONS

Power
- **Input Operating Voltages:**
  10.5–14.3VDC or 9–16.5VAC, transformer included
- **Backup Battery:**
  6V 3.1A (24 hrs. standby)

- **Current Requirements:**
  – 60mA standby
  – 400mA during transmission
- **Transmission Power:**
  – 850 MHz – 1 Watt
  – 1900 MHz – 2 Watts

Mechanical
- **Dimensions:** 8" H x 7.5" W x 1.86" D
- **Operating Temperature:**
  -22° F to 140° F (-30° C to 60° C)
- **Humidity:**
  0% – 90% non-condensing

ORDERING

iGSMCF	Standalone Commercial Fire Communications Kit
iGSMHS	Internet and Digital Cellular High Security Communicator
iGSMHSCN	Internet and Digital Cellular High Security Communicator for Canada
iGSMVCN	Internet and Digital Cellular Communicator for Canada with Remote Services Capability
iGSMV	Internet and Digital Cellular Communicator

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

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Honeywell

BG-12LX

Addressable Manual Pull Station

Fire·Lite Alarms
by Honeywell

Addressable Devices

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.

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

SYSTEM SENSOR®

Photoelectric Smoke Detectors

System Sensor i³™ series smoke detectors represent

significant advancement in conventional detection.

The i³ family is founded on three principles: installation

ease, intelligence, and instant inspection.

Features

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

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

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

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

Agency Listings

| UL LISTED S911 | FM APPROVED 3011446 | 7272-1653:152 | MEA approved 290-01-E | MSFM approved 2093 | ETL us 3180932 |

ⓘ³ Smoke Detector Specifications

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

Electrical Specifications

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

Physical Specifications

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

LED Modes

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

Power-Up Sequence for LED Indication

Condition	Duration
Initial LED status indication	80 seconds

Ordering Information

Model	Thermal	Wiring	Alarm Current
2W-B	No	2-wire	130 mA max. limited by control panel
2WT-B	Yes	2-wire	130 mA max. limited by control panel
4W-B	No	4-wire	20 mA @ 12 V, 23 mA @ 24 V
4WT-B	Yes	4-wire	20 mA @ 12 V, 23 mA @ 24 V
Accessories			
2W-MOD2	2-wire loop test / maintenance module	RT	Removal / replacement tool
SENS-RDR	Sensitivity reader	A77-AB2	Retrofit adapter bracket, 6.6 inch (16.76 cm) diameter