

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND BUILDING PERMIT

This is to certify that EASTERN FIRE SERVICES
of PO Box 1582, Auburn, ME 04211

Located At 62 CUMBERLAND AVE
3 unit residential

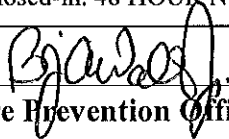
Job ID: 2011-08-1879-FAFS

CBL: 013 - - L - 002 - 001 - - - -

has permission to install a sprinkler supervisory 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

(58)

Code Enforcement Officer / Plan Reviewer

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

SCANNED

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.**

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

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



PORTLAND MAINE

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

Director of Planning and Urban Development
Penny St. Louis

Job ID: 2011-08-1879-FAFS
Installation of a sprinkler supervisory system

For installation at:
62 CUMBERLAND AVE
3 unit residential

CBL: 013 - - L - 002 - 001 - - - -

Conditions of Approval:

Fire

A sprinkler supervisory system shall be provided in accordance with NFPA 101, *Life Safety Code*, and NFPA 72, *National Fire Alarm and Signaling Code*. Sprinkler supervisory system shall monitor for water flow and sprinkler supervisory signals via an approved fire alarm panel to central station. One smoke detector shall be located over the panel, a manual pull station located at the front door, and an audible water flow alarm provided.

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

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

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

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

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

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

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

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

City of Portland, Maine - Building or Use Permit Application

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

Job No: 2011-08-1879-FAFS	Date Applied: 8/3/2011	CBL: 013 - - L - 002 - 001 - - - - -	
Location of Construction: 62 CUMBERLAND AVE	Owner Name: ECO CAPITAL LLC	Owner Address: PO Box 2412 - South Portland, ME	Phone:
Business Name:	Contractor Name: Eastern Fire Protection Co., Inc,	Contractor Address: P.O Box 1390 AUBURN MAINE 04211	Phone: (207) 784-1507
Lessee/Buyer's Name:	Phone:	Permit Type: FIRE ALARM - Fire Alarm	Zone: R-6
Past Use: Three residential dwelling units	Proposed Use: Same: Three residential DU- to install a fire alarm system	Cost of Work: \$5000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved w/conditions <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: Type:
Proposed Project Description: Install Fire Alarm		Signature: <i>Bjawa</i> (58)	
Proposed Project Description: Install Fire Alarm		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Lannie	Zoning Approval		

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>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.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p><input type="checkbox"/> Maj <input type="checkbox"/> Min <input checked="" type="checkbox"/> MM</p> <p>Date: <i>OK</i> <i>8/5/11</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>S</i></p>
	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 application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHON



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.

R-6

Installation address: 62 Cumberland Ave. CBL: 13-L-2

Exact location: (within structure) Basement

Type of occupancy(s) (NFPA & ICC): 3 Unit Apartment legal 3 DU - 2 rentM

Building owner: Paul Ledman 10,000.

System Designer (point of contact): John Kempton

Designer phone: 784-1507 E-mail: _____

Installing contractor: Eastern Fire Services Certificate of Fitness No: M1024

Contractor phone: 784-1507 E-mail: _____

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

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

The following documents shall be provided with this application:

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

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

COST OF WORK: \$3,500.00

PERMIT FEE: \$70.00
(\$10 PER \$1,000 + \$30 FOR THE FIRST \$1,000)

RECEIVED

AUG 3 - 2011

Dept. of Building Inspections
City of Portland, Maine

11.6.8

The designer shall be the responsible party for this application. Download a new copy of this application at www.portlandmaine.gov/fire for every submittal. Submit all plans in electronic PDF in addition to readable 11 1/2 x 17s to the Building Inspections Department, 389 Congress Street, Room 315, Portland, Maine 04101.

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

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

Applicant signature: [Signature] Date: 08/02/11

Siemens FACP Battery Calculations

Job Name: 62 CUMBERLAND AVE.

Date: 8/1/2011

	STANDBY	ALARM
TOTAL SYSTEM CURRENT	0.128	0.438

TOTAL FACP BATTERY CALCULATIONS			
TOTAL STANDBY CURRENT	A/H REQ'D		A/H STANDBY
0.128 Amps X	24	HRS.	3.072
TOTAL ALARM CURRENT	A/H REQ'D		A/H ALARM
0.438 Amps X	5	MIN.	0.046

Required Battery Capacity	3.118
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Always use a battery with higher AH rating than required.

BATTERY SUPPLIED: 2x12 AH


SIEMENS

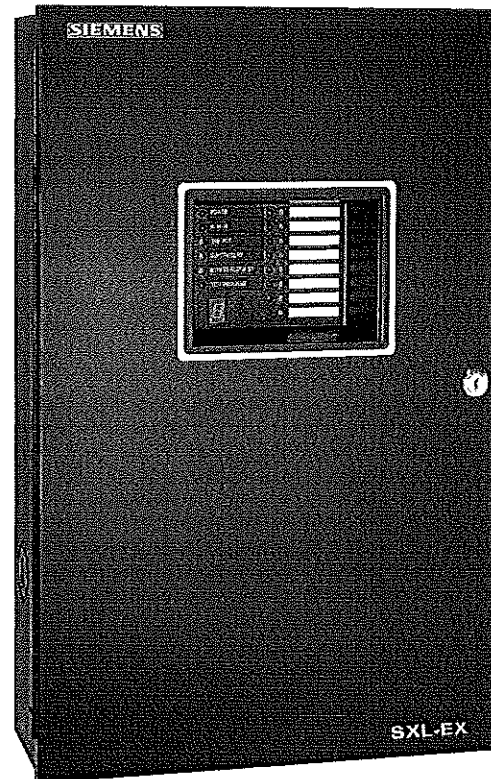
SXL-EX

Fire Safety

Conventional Zone Fire Alarm Control Panel

ENGINEER AND ARCHITECT SPECIFICATIONS

- 4 Zones — Expandable to 8 Zones
- Series 3 and Series 11 Compatible Detectors and Accessories
- Microprocessor Based Control
- Factory Programmed — Field Configurable
- 2 Style Y Notification Appliance Circuits
- 3 Amps Notification and Auxiliary Power
- 24 and 60 Hour Battery Backup
- 8 Form 'C' Relay Output Option
- 220/240 VAC, 50 HZ Power Supply Option
- Remote Serial Annunciator Option
- Sprinkler Supervisory Service
- Non-Silenceable Bell Service
- Alarm Verification by Zone
- One Person Test Feature
- Zone/Output Bypass Feature
- Subsequent Alarm and Trouble with 24 Hour Reminders
- Alarm, Trouble and Supervisory Last Event Records
-  Listed, ULC Listed, CSFM Approved



Introduction

The Siemens Fire Safety SXL-EX is the next member in a family of products designed to provide cost effective, reliable life safety equipment to the fire alarm market. The microprocessor based fire alarm control panel is supplied with four conventional zones and is expandable to eight. It has many features required by today's demanding market such as field programmability, power limited circuits, one person test, remote annunciation and sufficient power to meet ADA requirements for signaling.

The SXL-EX is designed to meet the varied fire alarm needs of small office buildings, apartment buildings, department stores, hotels, strip malls or anywhere a cost efficient, general purpose fire alarm control panel is required.

Additionally, the SXL-EX can be used to supply remote bell power for larger systems such as MXL.

Description and Features

Initiating Circuits

The base SXL-EX has four conventional, Style B (Class B) zones which are typically compatible with the DI-3* ionization detector, the PE-11* photoelectric detector and PE-11T* photo-thermal detector, Siemens Fire Safety thermal, flame and beam detectors and the MS Series of manual stations. (Please refer to the detector compatibility list in the wiring diagram for specific compatibility questions).

Any combination of 30 compatible smoke detectors can be combined on a zone. Any number of thermal detectors, manual stations or other compatible direct shorting devices may be connected to each zone. All of these initiating devices can be mixed on the same zone providing the total power requirement of the zone does not exceed 9 mA supervisory current. The SXL-EX has the additional capacity to support detector accessories such as relays, remote alarm lamps and audible bases.

(* In Canada the DI-3C, PE-11C & PE-11TC, respectively)

CATALOG NUMBER **7906**

Initiating zones can be programmed for many functions. Alarm verification allows detector application in sensitive areas with or without manual stations mixed on the zone as allowed by code. Manual station operation shall not be delayed on verified zones. Generic zone function allows the NAC's in the SXL-EX to follow the action of a master fire alarm panel in the facility.

Initiating zones can also be bypassed as required for example during construction on the premises.

The system is expanded through the model SZE-4X expander which has an additional four initiating circuits in addition to relays and open collector outputs.

The system can alternately be expanded through the model SZE-8AX expander module which has an additional four Class A (Style D) initiating circuits. The SZE-8AX also converts the four initiating circuits and the two notification circuits on the main SXL-EX to Style D (Class A) and Style Z (Class A) respectively.

Notification Appliance Circuits

The base SXL-EX has two Style Y (Class B) Notification Appliance Circuits, each rated at 1.5 Amps. The total power output of the panel, between the two notification circuits and the auxiliary output, is limited to 3 Amps. The SXL-EX notification circuits are power limited to reduce installation costs without the addition of any hardware. Three (3) Amps is sufficient to provide power for many applications requiring appliances designed to ADA specifications.

Notification Circuits can be programmed for various codes. These include temporal, march time, simplified zone code, and number of rounds. They can also be inhibited during test and programming functions.

The two circuits can be individually programmed as non-silenceable. This steady operation can be used for strobes which must continue operation after audible devices are silenced.

For compatible notification appliances, see Siemens P/N 315-096363.

Relays and Outputs

The base SXL-EX has form "C" relays for general alarm and trouble rated at 1 Amp., 30 VDC. The model SZE-4X optional expander module has an additional four general purpose, programmable relays rated at 2 Amps., 30 VDC, plus four programmable open collector outputs.

Additionally, the model SRC-8 relay module provides eight general purpose, programmable relays rated at 2 Amps., 30 VDC/120 VAC. All remote operations in the fire alarm system are controlled from the SZE-4X or the SRC-8, both of which are installed within the SXL-EX enclosure.

Visual and Audible Indicators

The SXL-EX has visible LED annunciation by zone for alarm and trouble. Additionally, there is a system alarm LED and a system trouble LED. Supervisory zones utilize

the zone trouble LED flashing in sync with a system supervisory LED to indicate an off normal situation.

Clustered with the system alarm, trouble and supervisory LEDs are also LEDs for AC power, bypass and test/program mode. A seven segment display reports a code for each system trouble and is also used during testing and programming functions. Trouble conditions are also annunciated by a piezo-electric sounder housed inside the SXL-EX.

Remote annunciation is accomplished through a serial connection with the model LED-3 or LED-4, eight zone LED annunciators. These units display alarm, supervisory and trouble conditions for 8 zones. A total of two modules can be attached to each system. The LED-3 comes with a black enclosure, the LED-4 with a white enclosure.

Auxiliary Power

The SXL-EX contains a 1/2 Amp. auxiliary power circuit which is used to drive remote devices. The total power of the panel, between the auxiliary output and the two notification circuits, is 3 Amps.

Power Supply/Battery Charger

The power supply accepts a 120 VAC/60 Hz input or, optionally, a 220/240 VAC 50 Hz input. On loss of AC power the system switches to battery operation and indicates such by flashing the AC power LED on the display. Battery capacities of 24 and 60 hours are available. See accompanying chart for model numbers and details.

Manual Controls

The SXL-EX display has four switches for acknowledging alarm, supervisory and trouble conditions; silencing notification appliance circuits; resetting the system; and for the drill function. These switches are also used when programming the control unit.

Field Programmability and Test Functions

The following functions are field programmable in the SXL-EX. These features are generally not programmed in the unit as received from the factory. Field programming is accomplished through the display and does not require the use of a computer or any proprietary tools.

Initiating Circuits

Alarm Verification by Zone, Zone Bypass, Supervisory Zone or Generic Zone when the SXL-EX is to be used to provide remote notification appliance circuits.

(Note: The default mode is an alarm causing zone.)

Notification Appliance Circuits:

Non-silenceable, Simple Zone Coding, March Time, Temporal, Silence Inhibit, Cutoff Timers and Reminders.

(Note: The default mode is a steady signal.)

Outputs:

Bypass Outputs/Relays.

System Programming:

Zone to Output Matrix and Password Maintenance.

System tests features include the One Person Test feature, a Lamp Test, Search and Clear of the alarm, trouble and supervisory history buffer.

Engineer and Architect Specifications

The fire alarm control panel shall be a Siemens Fire Safety SXL-EX, shall utilize conventional zones, shall be micro-processor based and fully field programmable. The base panel shall include four initiating zones, relays for general alarm and trouble and two power limited notification circuits capable of a total of 3 Amps of power.

The system shall be expandable via a model SZE-4X expander module which contain an additional four conventional zones, four general purpose relays and four general purpose open collector outputs.

The fire alarm system shall have the following features: subsequent alarm and trouble, one person test feature, brown out protection, 24 or 60 hour battery backup. It also has the following selectable features: supervisory

zones, alarm verification by zone, non-latching zones, alarm, trouble and supervisory history, notification appliance circuit coding, alarm/trouble 24 hour reminder, and zone/output bypass.

Any initiating device circuit shall have the capability of being mapped to any optional output via the system programming function.

The fire alarm control panel shall be UL/ULC listed and meet the requirements of NFPA 72 for local fire alarm control for automatic or manual service, and for sprinkler supervisory and waterflow service.

It shall meet NFPA 72 requirements for central station service when connected to the model 5128 or 5129 digital fire communicator.

Ordering Information

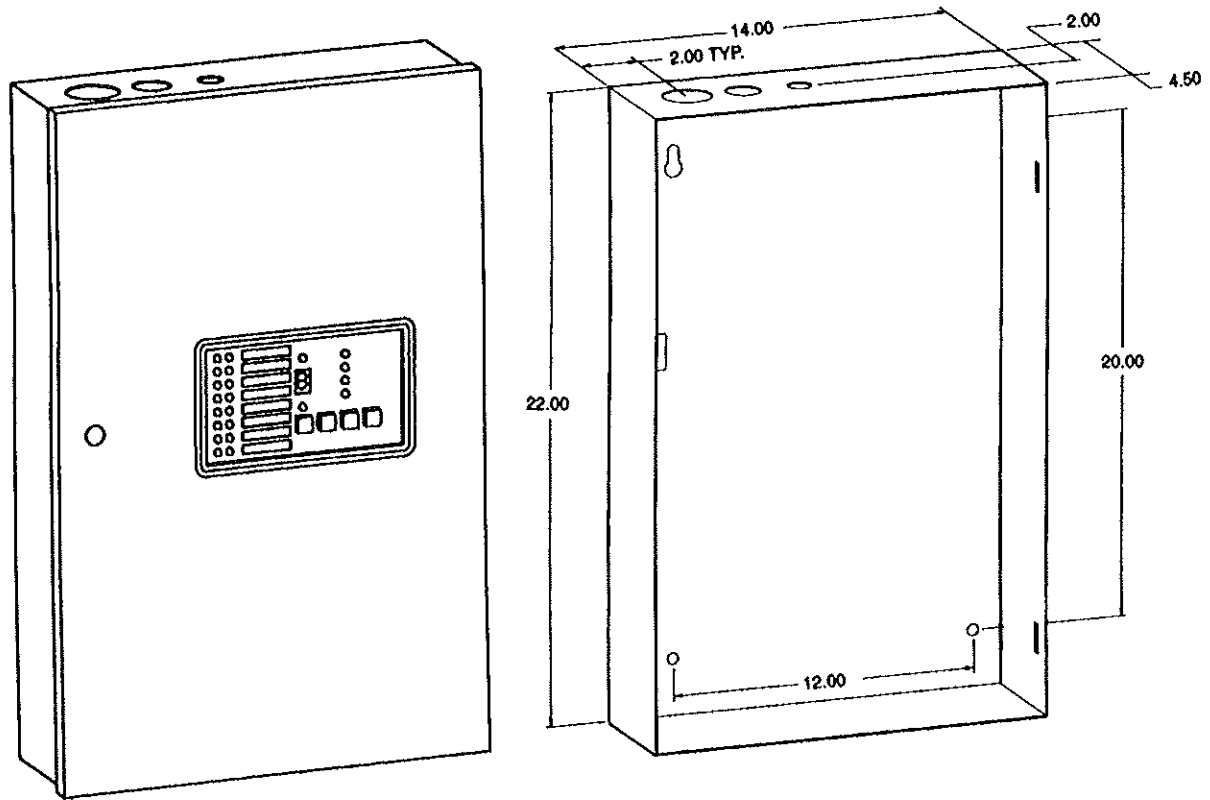
Model Number	Description	Part Number
SXL-EX	4-Zone Fire Alarm Panel	599-696000
SZE-4X	4-Zone Expander Module	500-696006
SZE-8AX	Class "A" Expander Module	500-696007
SRC-8	8 Output Relay Module	500-692972
SLT-1	Municipal Tie/Leased Line Module	500-093285
Optional Assemblies		
SXL-EX-DF	4-Zone Fire Alarm Panel w/ Dead Front Construction	599-696005
SXL-EX-RED	4-Zone Fire Alarm Panel w/ Red Enclosure	599-696004
SXL-EX-INT	4-Zone Fire Alarm Panel, 220/240 VAC 50 Hz	599-696010
Accessory Items		
LED-3	Remote Annunciator - Black	500-693062
LED-4	Remote Annunciator - White	500-693317
MM-SX	Meter Module	500-696008
FT-SX	Semi-Flush Trim Kit	500-695890
Batteries		
BT-33	6 AH Battery Set	175-387141
BT-34	10 AH Battery Set	175-387140
BP-61*	15 AH Battery Set	175-389194

* BP-61 requires a separate enclosure, such as the BB-55.

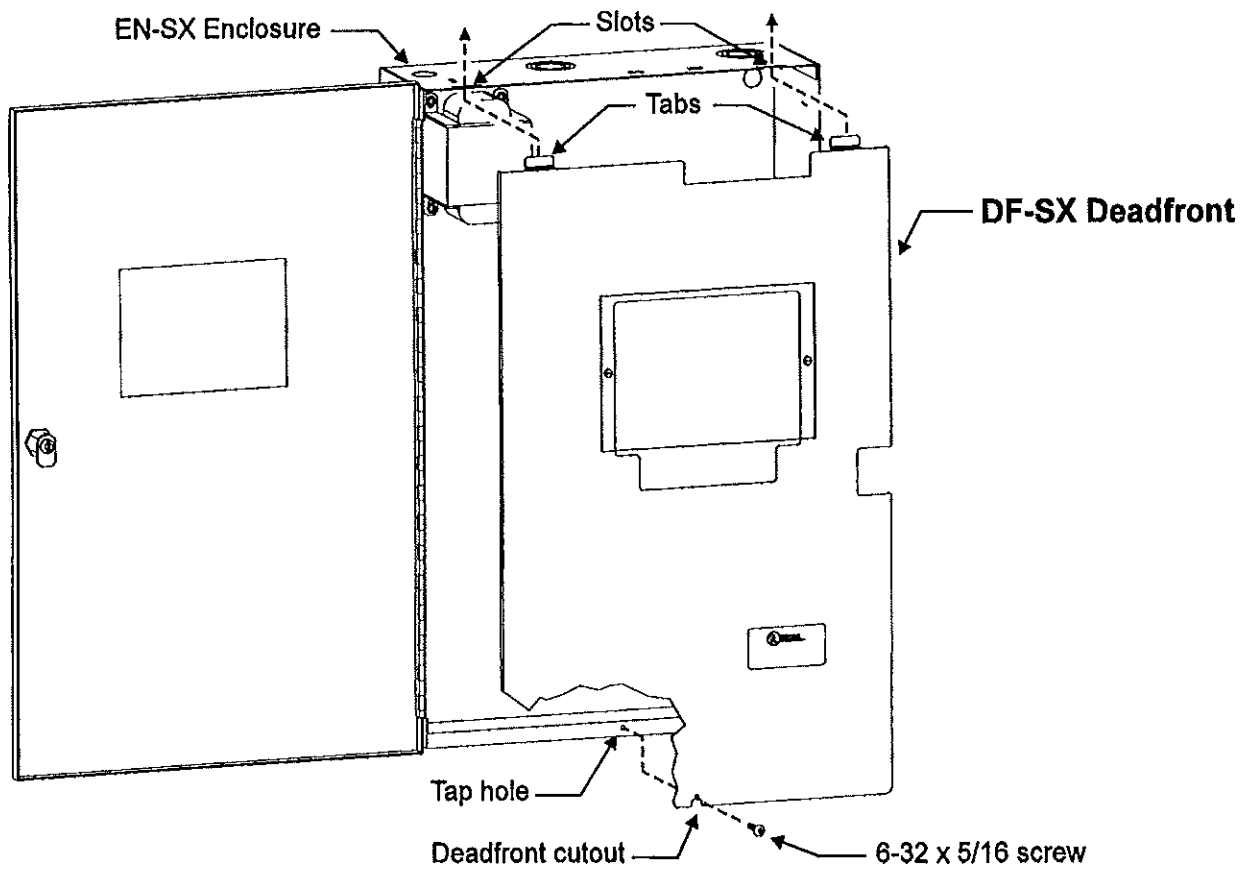
Note: SXL-EX Operation Installation and Maintenance Manual is P/N 315-095999. See Catalog Number 7907 for SZE-4X.

See Catalog Number 7902 for SRC-8. See Catalog Number 7903 for LED-3 and LED-4. See catalog number 7905 for SLT-1.

Dimensional Data

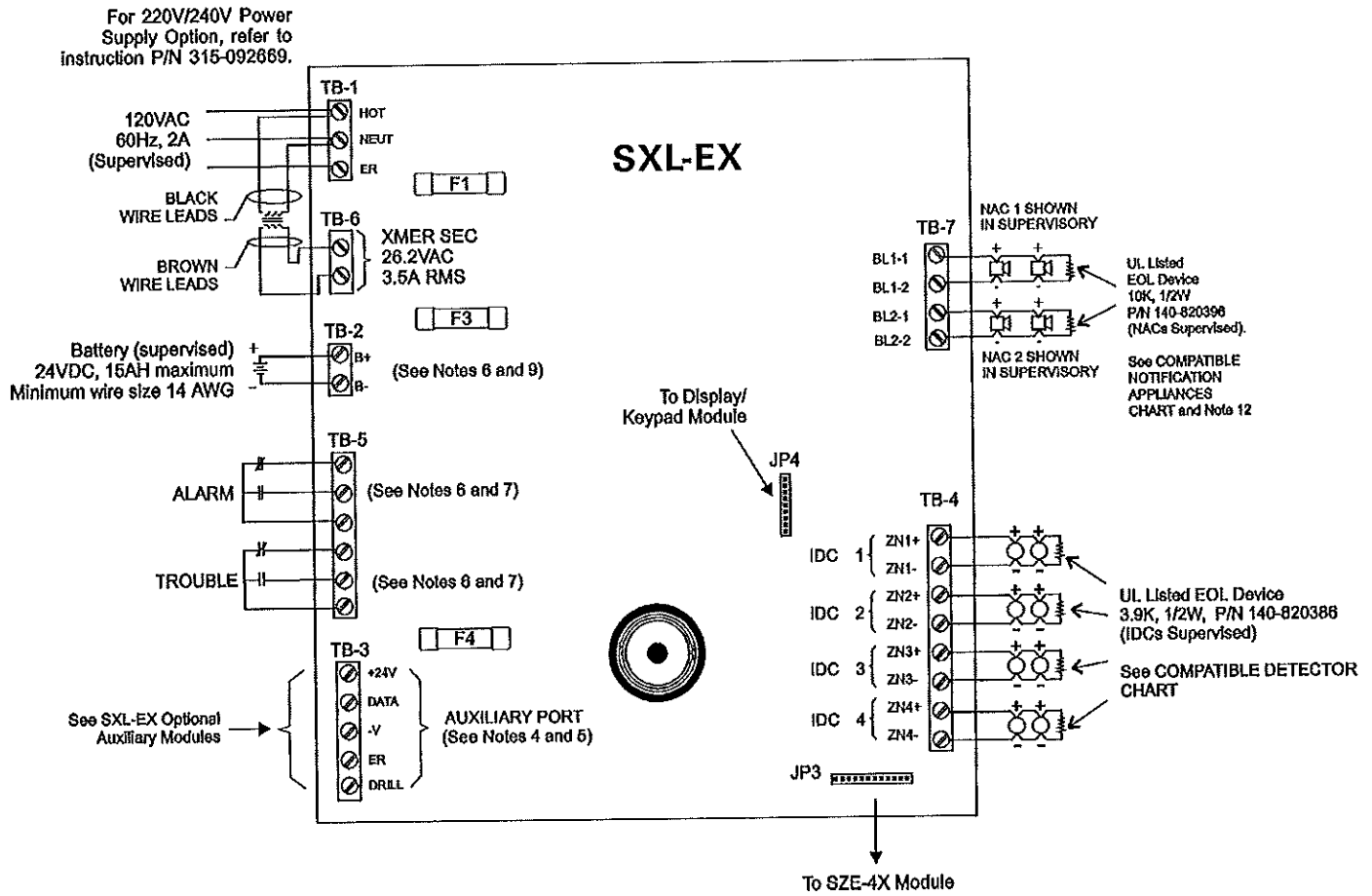


SXL-EX with Standard Enclosure



SXL-EX with Dead Front Enclosure

SXL-EX Main Board Connection Diagram



Fuse Replacement

Model Number	Description	Part Number
F1	8A, AC Input	105-217858
F2	15A, Batteries	105-224090
F3	.75A, AUX Port	105-280300

Alarm/Trouble Relay Electrical Ratings

1.0A at 30 VDC Resistive Only
0.5A at 30 VAC Resistive Only

NOTES:

- All field wiring must be in accordance with NFPA 70, Article 760.
- Make no wiring connections while the System is powered.
- Alarm Relay Contacts are shown de-energized and Trouble Relay Contacts are shown energized. Suitable for resistive load only.
- Auxiliary output rated 0.5 amps at +24VDC filtered. Maximum line impedance of 5 ohms.
- Combined current output for NAC1, NAC2, and auxiliary outputs is limited to 3.0 amps.
- Equipment connected to these terminals must be located within the same room.
- Refer to the SXL-EX Operation, Installation, and Maintenance Manual, P/N 315-095997, for further details.
- No T-Tapping allowed.
- Connect standby batteries only to terminals B+ and B-. The batteries may be installed in either the bottom of the cabinet or in a UL listed battery enclosure.
- In all cases the Siemens Fire Safety model number is the compatibility identifier, including the control panel, module(s), and all compatible initiating devices.
- When using the SLF-1 module, not suitable for remote station protected premises service where separate transmission circuits are required for fire, supervisory, and trouble signals.
- All power limited wiring requires separation from non-power limited wiring. Refer to the SXL-EX Power Limited Wiring Instructions, P/N 315-095994.

Compatible Detectors			
Detector	Quantity per Loop	Base	Installation Instructions Part No.
DI-3/3H	30	DB-3S	315-081943-1
DI-A3/A3H	30	DB-3S	315-081943-1
DI-B3/B3H	30	AD-31	315-093234-3
DT-3P-135	30	DB-3S	315-084401-5
DT-11	30	DB-11 DB-3S with DB-ADPT	315-095429-1 315-095429-1
PB-1191A	1	PB-1191B	315-095424-2
PE-3/3T	30	DB-3S AD-31LP	315-090875-6 315-093234-3
PE-11/11T	30	DB-11 DB-3S with DB-ADPT	315-094198-5 315-094198-5

Initiating Device Circuit Electrical Ratings

Voltage: 16.4-26.4 VDC
 Supervisory Current: 9mA (max)
 Alarm Current: 120mA (max)

Maximum line impedance of 25 ohms per IDC zone.
 All IDC zones are supervised and power limited per NFPA 70, Article 760.
 Each IDC zone must use at least 18 AWG, 300V insulation, color coded wire for low voltage circuits where local codes require conduit. Where local codes permit, use limited energy shielded cable rated at 300V.
 Each IDC zone will support one initiating device in alarm. The IDC zone compatibility is an unlimited number of shorting type devices. For smoke detector compatibility, see the Compatible Detectors chart.

Notification Appliance Circuit Electrical Ratings

Voltage: 24 VDC
 Supervisory Current: 1.5mA (max)
 Alarm Current: 1.5A (max)

Each NCA rated at 1.5A, +24 VDC.
 Maximum line impedance per circuit of 3.0 ohms.
 All NACs are supervised.
 Each NCA must use at least 14 AWG, 300V insulation, color coded wire.
 All NACs are power limited per NFPA 70, Article 760 for non-coded applications.

SZE-4X Form C Relay Electrical Ratings

2.0A at 30 VDC Resistive Only
 0.5A at 30 VAC Resistive Only

Open Collector Electrical Ratings


50mA (max) at 26.4 VDC (max)

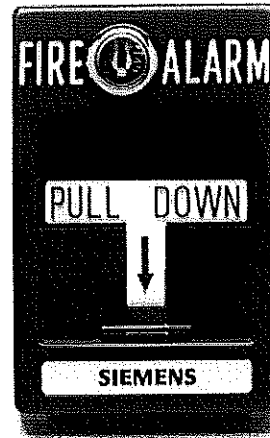
SIEMENS MSM SERIES

Fire Safety

Metal Manual Fire Alarm Box

ENGINEER AND ARCHITECT SPECIFICATIONS

- Rugged Die-Cast Metal Housing
- Reset Key Matches Control Panel
- Optional Break Glass Operation
- Single-Gang Semi-Flush Mount
- Optional Surface Mount Backbox
- Double-Action Institutional, Weather-Proof and Explosion-Proof Models Available
-  UL Listed, ULC Listed, CSFM, FM and NYMEA Approved



Standard Model
Or Weatherproof



Institutional Model

Description

The MSM Series manual stations feature a rugged die-cast metal housing that satisfies both architectural and code requirements for manual fire alarm box initiation devices. The MSM-Series box features keyed reset using the same key as the control panels.

The MSM Series models are low-profile with all surfaces either painted or plated to inhibit corrosion. These boxes have raised lettering and are shipped with two reset keys and a break glass rod (use of rod is optional.) Options include: double action, institutional, weatherproof, and explosion-proof.

These stations are equipped with a S.P. S.T. switch rated at 10amps @ 120 VAC and all connections are made to a terminal block. The explosion-proof model has a D.P. D.T. switch. **Both the weatherproof and explosion-proof models are shipped complete with backbox.** (Backbox is optional with other models, or you can mount to standard single-gang box.)

These models are intended for use with all Siemens Building Technologies, Fire Safety Division conventional zones, but can also be used with addressable zones when used in conjunction with a TRI-Series addressable module.

Dimensions

Station

Width 3.20 in.
 Height 4.75 in.
 Depth 1.20 in. (2.30 in. overall, including back of switch)

Station w/Double Action

Width 3.33 in.
 Height 4.57 in.
 Depth 1.50 in. (2.60 in. overall, including back of switch)

Weatherproof Model

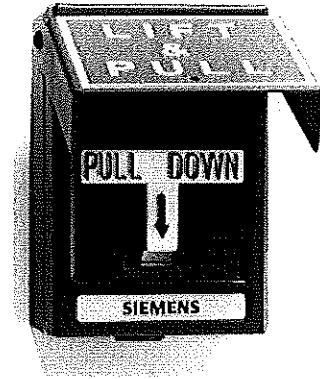
Width 3.20 in.
 Height 4.75 in.
 Depth 2.75 in.

Explosion-proof Model

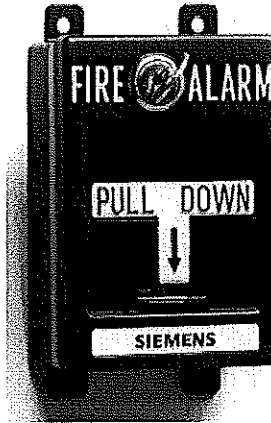
Width 3.20 in.
 Height 4.75 in. (6.00 in. overall, including mounting ears)
 Depth 3.50 in.

Ordering Information

Model Number	Description	Part Number
MSM-K	Manual Station, Metal w/Key	500-698215
MSM-KD	Manual Station, Metal w/Key, Double Action	500-698216
MSM-K-WP	Manual Station, Metal w/Key, Weatherproof	500-698217
MSM-KD-WP	Manual Station, Metal w/Key, Weatherproof, Double Action	500-698218
MSM-EXP	Manual Station, Metal w/Key, Explosion-proof	500-698219
MSM-INST	Manual Station, Metal w/Key, Institutional	500-698220
MSM-BOX	Surface Backbox for MSM-series Manual Stations	500-698221



Double Action Model



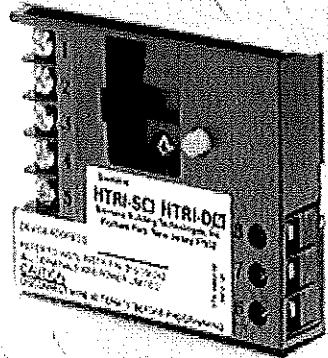
Explosion-proof Model

FireFinder XLS and FS-250 Panels

HTRI Series Interface Modules Models HTRI-D, HTRI-R and HTRI-S

ARCHITECT AND ENGINEER SPECIFICATIONS

- Interfacing and supervising normally open (NO) or normally closed (NC) contacts
- Integral SPDT relay on Model HTRI-R (up to 4 amps)
- Dual input on Model HTRI-D, using a single address
- Polarity insensitive with *SureWire™* technology
- Multi-color light-emitting diode (LED) indicates status [green / amber / red]
- Easy front access to programming port and wiring terminals
- Mounts 4-inch square, 2-1/4"-deep box (or double-gang box)
- Dynamic supervision
- Comes with 5-x-5" faceplate
- Two-wire operation
- Model DPU programs and verifies address of the device and tests for proper functionality
- Electronic address programming is easy and dependable
- ⓈUL Listed & ⓈULC Listed;
FM, CSFM and NYMEA Approved



Product Overview

The Siemens Industry, Inc. — Fire Safety HTRI Series Intelligent interface modules are designed to provide the means of interfacing direct shorting devices to the FireFinder XLS and FS-250 Fire Alarm Control Panel loop circuit.

The HTRI Series modules provide the most advanced method of address programming and supervision on the market — combined with sophisticated control panel communication. Each HTRI Series interface module incorporates a microcomputer chip. The HTRI Series microcomputer chip technology and its sophisticated bi-directional communication capabilities with the control panel, achieve the state of an 'intelligent device.'

Specifications

The HTRI Series intelligent interface modules are available in three (3) models. Models HTRI-S and HTRI-R are designed to monitor a (NO) or (NC) dry contact.

The interface module reports the status of the (NO) or (NC) contact to the control panel. Model HTRI-S can only monitor and report the status of the contact, while Model HTRI-R incorporates an addressable Form C relay.

The Model HTRI-R relay and contact device input are controlled at the same address. For the control panel system, the relay and input contact can be controlled as a separate function. The relay is typically used where control or shunting of external equipment is required.

The Model HTRI-D is a dual-input module that is designed to supervise and monitor two (2) sets of dry contacts. Model HTRI-D only requires one (1) address, but responds independently to each input. Model HTRI-D is ideal for monitoring a water-flow switch and its respective valve tamper switch.

Model HTRI has a multi-color LED that flashes 'green' when operating in *normal*; 'amber' if unit is in *trouble* condition, and 'red' to indicate a change of state.

Specifications (continued)

Model HTRI-D flashes twice — once for each address, and Model HTRI-R LED indicates a change of state in the relay. The device's microcomputer chip has the capacity of storing, in memory, identification information; as well as important operating-status information.

Siemens Industry, Inc., — Fire Safety innovative technology allows all HTRI Series intelligent interface modules to be programmed by using the Device Programming / Test Unit. Model DPU is a compact, portable and menu-driven accessory that makes programming and testing an interface device faster, easier and more dependable than previous methods.

Model DPU eliminates the need for mechanical addressing mechanisms, such as: program jumpers, DIP switches or rotary dials, since Model DPU electronically sets the HTRI Series interface address into the interface microcomputer-chip non-volatile memory. Vibration, corrosion and other conditions that deteriorate mechanical addressing mechanisms are no longer a cause for concern.

The HTRI Series is fitted with screw terminals for connection to an addressable circuit. The HTRI Series is fully compatible on the same FireFinder XLS and FS-250 circuits with all intelligent H-Series detectors, HMS Series addressable manual stations, or any other addressable intelligent modules, such as Model HZM or Model HCP.

All HTRI Series intelligent interface modules are ©UL listed. Environmental operating conditions for all HTRI Series modules are 32°F (°C) to 120°F (49°C) with a relative humidity of no greater than 93%, non-condensing.

Electrical Ratings

Current Draw
(Active or Standby) 1mA

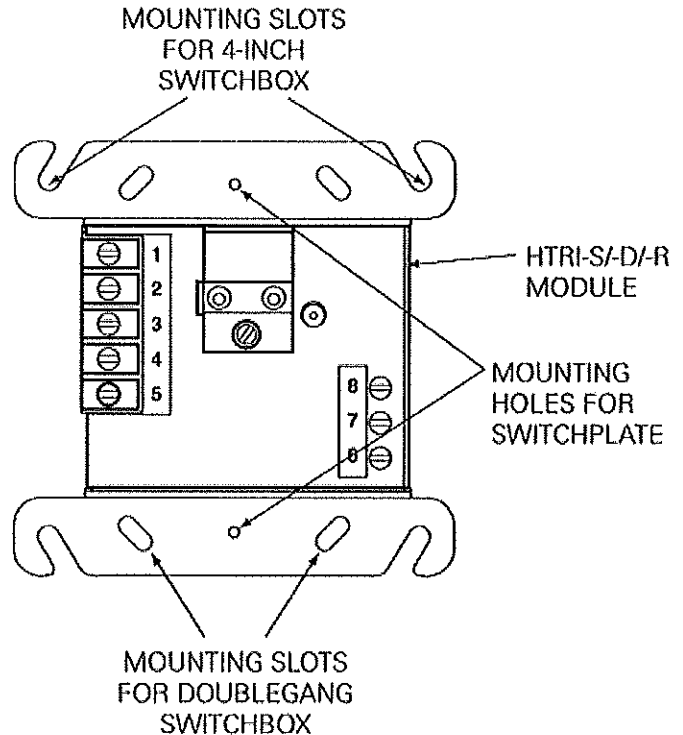
Model HTRI-R Relay Ratings

Resistive: 4 Amps, 125 VAC
4 Amps, 30 VDC

Inductive: 3.5A, 120 VAC (0.6P.F.)
3.0A, 30 VDC (0.6P.F.)
2.0A, 120 VAC (0.4P.F.)
2.0A, 120 VAC (0.35P.F.)
2.0A, 30 VDC (0.35P.F.)

Mounting Diagram

Models HTRI-S, HTRI-D and HTRI-R mount directly into a 4-inch square, 2 ¼-inch deep box or a double-gang box (user supplied). A 5-inch square, off-white faceplate is included with each HTRI Series module.



Details for Ordering


Model Number	Part Number	Description	Shipping Wgt.	
			Lb.	Kg.
HTRI-S	500-033370	Single Input	7 oz.	2
HTRI-R	500-033300	Single Input w/Relay	7 oz.	2
HTRI-D	500-033360	Dual Input	7 oz.	2

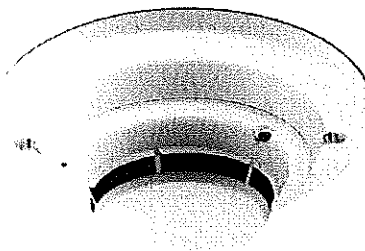
Notice: This marketing catalog sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.

PE-11 and PE-11T

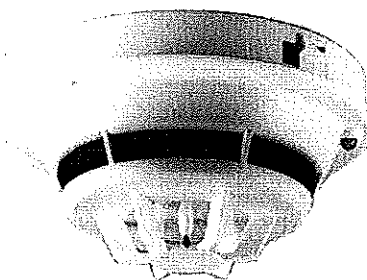
Photoelectric Smoke Detector

ENGINEER AND ARCHITECT SPECIFICATIONS

- Advanced Field Cleanable Chamber Design
- Self Diagnostic
- Multi-Color LED for Normal, Trouble or Alarm Indication
- Low-Profile Design
- Easy Twist-In Base Design
- Designed and Manufactured in USA at ISO 9001 Facility
-  Listed, ULC Listed, CSFM NYMEA, FM Approved



PE-11
(shown with DB-11 Base)



PE-11T

Introduction

The Siemens Building Technologies, Fire Safety PE-11 Series Photoelectric Smoke Detector, with its microprocessor controlled self-diagnostic circuitry, eliminates cumbersome sensitivity test equipment. It is the most advanced detector in its class. This detector employs a simple twist-in base for ease of maintenance and has a field cleanable/replaceable labyrinth and bug screen. This detector is highly immune to false alarm caused by deceptive phenomena such as dust or RF. The PE-11 has a full range of accessories available, including remote alarm indicator, remote sensitivity and alarm indicator, relay, audible base and a base adapter that allows use in older Fire Safety DB-3S Series bases.

Description

The PE-11 is a two-wire, plug-in type photoelectric smoke detector which is compatible with Fire Safety PXL, SXL, and System 3 conventional systems and conventional loops of MXL Series, IXL and XL3 analog-addressable systems.

The PE-11 contains an infra-red light emitting diode (LED) and a light sensing photodiode arranged so that under

normal conditions, light from the LED does not reach the photodiode. When smoke enters the photo chamber, light emitted from the IR LED is scattered by the smoke particles and is received by the photodiode. The electrical signal produced by the photodiode is compared to a factory set alarm threshold, and if sufficient to indicate an alarm, latches the detector alarm. The PE-11 is reset at the control panel.

The PE-11 has UL/ULC listed self-testing circuitry which tests the detector for defective operation or contamination every 7-8 seconds. If a problem is detected, the multi-color LED indicator will flash amber until the problem is corrected. The detector flashes green in normal operation. In the alarm mode, the detector will flash red every 2-3 seconds, and latch into alarm, alerting the control panel to the alarm condition. This microprocessor-controlled self-diagnostic system eliminates the need for external test meters or other equipment for detector testing and also alerts users to trouble conditions prior to periodic system checks.

CATALOG NUMBER **6173**

Replaces Catalog Number 6169

The detector is field cleanable by twisting the detector out of the base, unsnapping the chamber from the outer cover and cleaning or replacing the removable chamber labyrinth and bug screen.

An optional 135°F (57°C) Thermal Sensor is available with the model PE-11T. When the optional thermal sensor is utilized, an alarm condition will be initiated when the temperature in the proximity of the sensor reaches 135°F. At this point the detector locks into alarm.

The PE-11 utilizes the low-profile DB-11 surface mounting base which may be used with a 4 inch square or octagonal box, as well as a single-gang electrical box. The DB-11 has screw clamp terminals for easy wiring. The base has an optional concealed locking device to prevent unauthorized detector removal. For smaller 3" electrical boxes or european size boxes, you can use the DB-11E base.

The PE-11 is capable of operating both a remote lamp and a relay or audible base when used with a PXL or MXL Series control panel, other panels will allow one accessory per detector. The RSA-11 Remote Sensitivity and Alarm indicator duplicates the multi-color LED of the detector at a remote location to indicate normal operation (green), trouble or out of sensitivity (amber), or alarm (red) for detectors located in out of the way places such as duct detectors, under computer room floors, or above suspended ceilings. The RL-11 is simply a remote red LED to indicate an alarm condition of a detector. Due to the advanced circuitry required for multi-color remote lamps, all remote lamps require 3 wires.

The RR-11 is a relay module that may be added to the DB-11 base for use as a relay base. The RR-11 incorporates a single pole double throw relay to allow detector control of dampers, doors, or other equipment where this control is required. The ADB-11 is an audible base for use where local annunciation from an individual detector is desired. This audible base is installer selectable for either steady or temporal tone.

For installations where the need to use a PE-11 in an existing Fire Safety DB-3S base is desired, a DB-ADPT adapter will allow for that installation. The DB-ADPT twists into the DB-3S and the PE-11 twists into the DB-ADPT just as it does into the DB-11 base.

The PE-11 and all of the above listed accessories are UL and ULC listed, and approved by CSFM and NYMEA, and other local boards where applicable.

Application Data

The PE-11 is fully compatible with other Fire Safety low voltage detectors and may be intermixed on the same conventional zone circuit. The PE-11 is applicable to the 30 foot spacing (900 sq. ft.) as referred to in the National Fire Protection Standard 72. This detector spacing, however, is based on ideal conditions and should be used only as a guide in planning detector layout. Do not mount detectors close to ventilation or air conditioning outlets that may move smoke away from the detector. Exposed joists or ceiling beams may also effect safe positioning of smoke detectors. It is mandatory that engineering judgement be applied regarding detector placement and spacing.

Architect and Engineer Specifications

The photoelectric smoke detector shall be a plug-in unit which mounts to a twist/in base and shall be UL listed.

The smoke detector shall operate on a two-wire circuit and shall contain a multi-color LED indicator indicating the detector is operational by flashing green, trouble by flashing amber, and alarm by flashing red. The detector shall be continually self testing with visual operation indication and not require additional hardware or contact with the detector for testing purposes.

The detector shall allow for easy cleaning or replacement of screens and/or chamber components without affecting calibration.

The base assembly into which the detector is installed shall be a twist/in design with screw clamp terminals. A security lock shall be installed in those areas where tamper resistant installation is required as indicated in the drawings.

The detector or group of detectors shall require a two-wire circuit of #18 AWG thermoplastic fixture wire enclosed in conduit, or #18 AWG limited energy shielded cable without conduit, if permitted by local building codes. All wiring shall be approved for fire alarm use and in compliance with national and local codes.

When required, the smoke detector shall contain a 135°F fixed temperature self restoring heat sensor. Actuation of this device shall lock the detector alarm circuit.

The detector shall be Fire Safety Model PE-11 or Model PE-11T with a DB-11 surface mounting base.

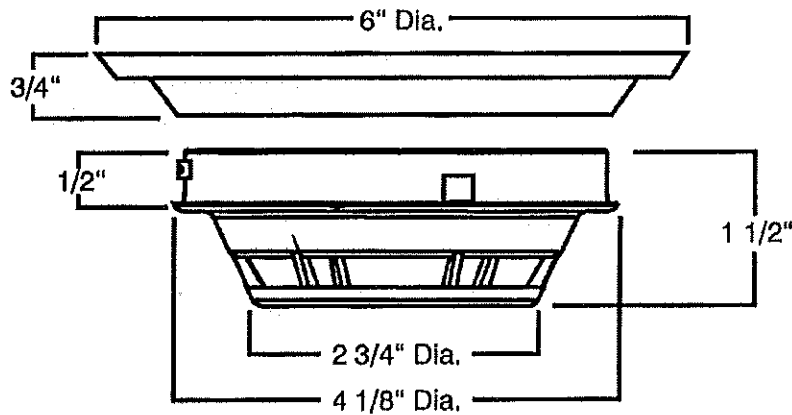
Technical Specifications

Current Requirements:	Normal - 110uA peak Alarm - 40mA
Voltage Range:	16 - 26.6VDC
Operating Temperature:	0 - 39°C
Humidity:	93% non-condensing

Ordering Information

Model Number	Description	Part Number
PE-11	Conventional Photoelectric Smoke Detector	500-094150
PE-11T	Photoelectric Smoke Detector with 135°F Thermal Sensor	500-095110
DB-11	Low-Profile Surface Mount Base	500-094151
DB-11E	Smaller Diameter Detector Base	500-094151E
RLC-11	Remote Red LED, Ceiling Mount	500-694625
RLW-11	Remote Red LED, Wall Mount	500-694626
RSAC-11	Remote Multi-Color LED, Ceiling Mount	500-694935
RSAW-11	Remote Multi-Color LED, Wall Mount	500-695101
RR-11	Relay Module	500-694922
DB-ADPT	Adapter for PE-11 to DB-3 Base	500-094187
LK-11	PE-11 Detector Locking Kit	500-695350
DMK-11	Detector Maintenance Kit	500-695338
AD-11P	Air Duct Housing	500-095984
AD-11PR	Air Duct Housing with Relay	500-095657
AD-11UK	Upgrade Kit for Use in Older AD Series Duct Housing	500-695967
In Canada, Please Order:		
PE-11C	Conventional Photoelectric Smoke Detector	500-095630
PE-11TC	Photoelectric Smoke Detector with 135°F Thermal Sensor	500-095982
DB-11C	Low-Profile Surface Mount Base	500-095687

PE-11 Detector Mounted in DB-11 Base

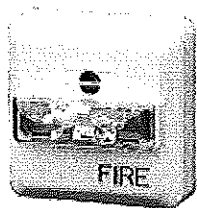


NOTE: The new DB-11E base has a diameter dimension of 4 1/2 inches.

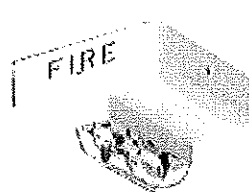
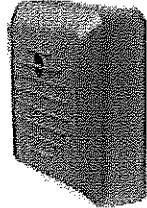
'08 Series Notification Appliances

ZH & ZR – Strobes, Horns, & Horn / Strobes

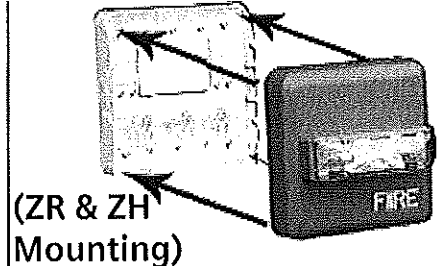
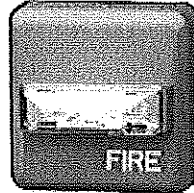
Application: Indoor



ZH Series



ZR Series



(ZR & ZH Mounting)

Product Overview

- Strobes can be synchronized using the Siemens DSC sync modules, FS-250 panel, XLS panel, or PAD-3 power supply with built-in sync protocol
- Selectable Continuous Horn or Temporal (Code-3) Tones with 90 or 95 dBA selectable setting (ZH)
- Ceiling-mount models feature field-selectable Candela settings of 15/30/75/95cd and 115/177cd
- Wall-mount models feature field-selectable Candela settings of 15/30/75/110cd and 135/185cd
- Base plate is protected by a disposable cover, and the appliances can quickly snap onto the base after the walls are painted
- Strobes produce 1 flash per second
- "Special Applications" listed with Siemens panels
- EZ Mount Universal Mounting Plate (ZBB) – uses single plate for ceiling and wall mount installations
- EZ Mount design – with separate base plate – provides ability to pre-wire the base and test the circuit wiring before the walls are covered
- ⓈUL Listed & ⓈULC Listed;
FM, CSFM & NYMEA Approved
- ADA / NFPA compliant

Specifications

- **General**
 - Audible/Visual notification appliances shall be listed for indoor use only
 - Appliances shall be listed under ⓈUL Standard 1971 (Standard for Safety Signaling Devices for Hearing Impaired) and ⓈUL Standard 464 (Fire Protective Signaling)
 - Appliances shall use a universal back plate, which shall allow mounting to a single-gang, double-gang, 4-inch-square, 4"-octal, or a 3-1/2"-octal backbox
 - Two-wire appliance wiring shall be capable of directly connecting to the mounting back plate
 - Continuity check shall occur for entire NAC circuit prior to attaching any audible / visual-notification appliances
 - Dust cover shall fit and protect the mounting plate
 - Dust cover shall be easily removed when the appliance is installed over the back plate
 - Removal of an appliance shall result in a trouble condition by the Fire Alarm Control Panel (FACP)

Specifications – (continued)

- **Strobes**

- Strobe appliances shall produce a minimum flash rate of 60 flashes per minute (1 flash per second) over the Regulated Input Voltage Range, and shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens
- Strobes shall be available with two or four field-selectable settings in one unit, and shall be rated – per ©UL 1971 – for up to:
 - 15/30/75/110cd for wall mounted
 - 135/185cd for wall mounted
 - 15/30/75/95cd for ceiling mounted
 - 115/177cd for ceiling mounted
- Strobes shall operate over an extended temperature range of 32°F to 120°F (0°C to 49°C), and be listed for maximum humidity of 95% RH
- Strobe inputs shall be polarized for compatibility with standard reverse-polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP)

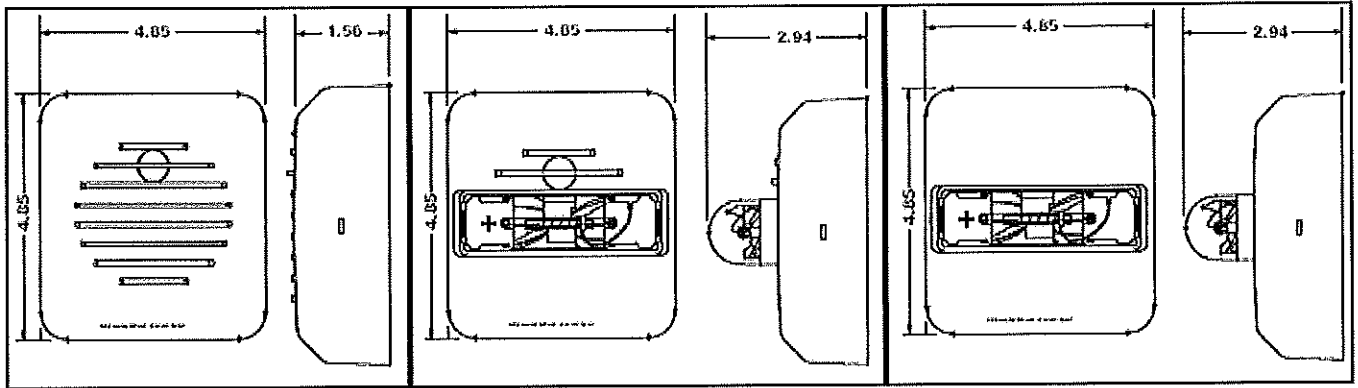
- **Audibles and Audible / Strobe Combinations**

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

- **Synchronization Modules**

- The strobe portion, when synchronization is required, shall be compatible with DSC sync modules, FS-250 panel, XLS panel, or PAD-3 power supply with built-in sync protocol
- The strobes shall not drift out of synchronization at any time during operation
- Audibles and strobes shall be able to synchronize on a 2-wire circuit with the capability to silence the audible, if required
- Strobes shall revert to a non-synchronized flash-rate, if the sync module or Power Supply should fail to operate (i.e. – contacts remain closed)
- All notification appliances shall be listed for Special Applications:
 - Strobes are designed to flash at 1-flash-per-second minimum over their “Regulated Input Voltage Range”
 - **Note:** 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 ZH Strobe products are listed under ©UL Standards 1971 and 464 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%)
 - Series ZH horns are listed under ©UL Standard 464 for audible signal appliances (Indoor use only)

Mounting Diagram



(Shown In Inches)

Mounting Options

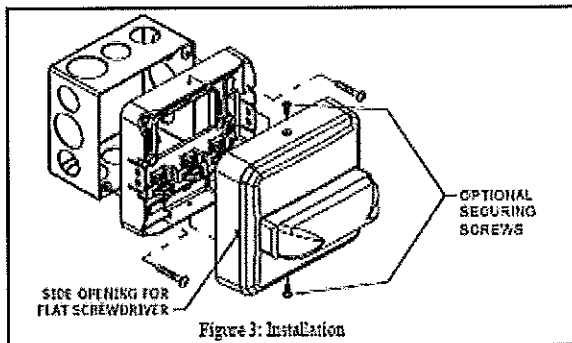


Figure 3: Installation

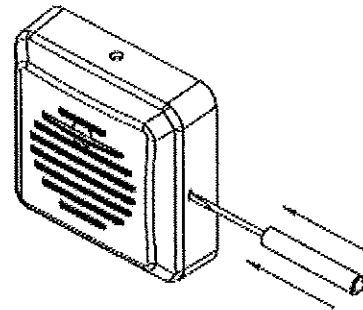


Figure 4: Removal (See step 8 below)

1. Install mounting plate as shown in figure 1 to a single-gang, double-gang, 4" square, 4" octagon, or a 3 1/2" octagon backbox with the provided pan head screws. To remove dust cover, place thumb and index finger on top edges of cover and pull off cover.
2. Connect field wiring per figures 2 and 3.
3. Address wires back into backbox.
4. Place dust cover over mounting plate to protect the terminals while performing wiring continuity check.
5. Remove dust cover before snapping or installing the appliance onto the mounting plate per fig 3.
6. Important: Device only has one mounting orientation. Match the top of the base to the top of the device.
7. If it is desired to further secure the device to the base, then two optional screws are provided. To install these screws punch out the screw holes located at the top and bottom of the device.
8. To remove the appliance, push a small flat-bladed screwdriver into the side opening. The screwdriver must clear the snap release opening by 1/4" to disengage the snap. Do not pry off housing with the screw driver. Apply pressure with screw driver, inserted in either side opening, as shown in Fig 4 to release the housing.

Technical Data

		ZH and ZH-MC Horn Reverberant dBA per UL464 [ZH-MC and ZH at 24V]		
		16.0V	24V	33.0V
Continuous Horn	High	83	87	90
	Low	77	81	83
Code 3 Horn or March Time*	High	79	82	86
	Low	72	76	79

*Available in sync mode only

In (Amps)	ZH Horn Current Draw	
	Horn Setting	16-33 Volts
DC	High*	0.044
	Low*	0.018
FWR	High*	0.075
	Low*	0.045

*Current Draw is the same for the Continuous Horn, Code 3 Horn and March Time Settings.

Technical Data – (continued)

UL Listed Models and Ratings					
Models*	Operating Voltage (Special Application) [Per UL 1971] (VDC/VRMS)	Voltage Range [Per ULC- S528-02] (VDC/VRMS)	Horn	Mounting	Strobe Candela (cd)
ZR-MC	16.0-33.0	20.0-31.0	—	Wall	15/30/75/110
ZR-HMC	16.0-33.0	20.0-31.0	—	Wall	135/185
ZR-MC-C	16.0-33.0	20.0-31.0	—	Ceiling	15/30/75/95
ZR-HMC-C	16.0-33.0	20.0-31.0	—	Ceiling	115/177
ZH-MC	16.0-33.0	20.0-31.0	X	Wall	15/30/75/110
ZH-HMC	16.0-33.0	20.0-31.0	X	Wall	135/185
ZH-MC-C	16.0-33.0	20.0-31.0	X	Ceiling	15/30/75/95
ZH-HMC-C	16.0-33.0	20.0-31.0	X	Ceiling	115/177
ZH	16.0-33.0	20.0-31.0	X	Wall or Ceiling	—

*Available in red and white

UL Current Ratings (ZR Strobe Only) Maximum RMS Current (AMPS)													
		MC				HMC		MC-C				HMC-C	
		15cd	30cd	75cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	115cd	177cd
DC	16-33VDC	0.064	0.098	0.175	0.233	0.318	0.445	0.069	0.111	0.200	0.264	0.318	0.445
FWR	16-33VRMS	0.108	0.164	0.268	0.368	0.482	0.684	0.117	0.180	0.297	0.398	0.482	0.684

UL Current Ratings ZH Horn Strobe Maximum RMS Current (AMPS)														
		Horn Setting	MC				HMC		MC-C				HMC-C	
			15cd	30cd	75cd	110cd	135cd	185cd	15cd	30cd	75cd	95cd	115cd	177cd
DC	16-33VDC	High*	0.078	0.113	0.195	0.259	0.371	0.506	0.087	0.131	0.222	0.292	0.371	0.506
		Low*	0.070	0.107	0.188	0.246	0.324	0.455	0.075	0.121	0.213	0.277	0.324	0.455
FWR	16-33VRMS	High*	0.141	0.200	0.302	0.406	0.521	0.722	0.149	0.216	0.331	0.438	0.521	0.722
		Low*	0.123	0.179	0.290	0.391	0.497	0.699	0.131	0.195	0.319	0.421	0.497	0.699

* Current Draw is the same for the Continuous Horn;
Code 3 Horn and March Time Settings

Details for Ordering – (Including Mounting Options & Agency Approvals)

Model Number	Part Number	Description	Mounting Options*	Agency Approvals			
				UL	ULC	FM	CSFM
ZH-R	500-636159	Z Horn: Red	B,D,E,F	X	X	X	X
ZH-W	500-636160	Z Horn: White	B,D,E,F	X	X	X	X
ZH-MC-R	500-636161	Z Horn: Multi Candela (Wall), Red	B,D,E,F	X	X	X	X
ZH-MC-W	500-636162	Z Horn: Multi Candela (Wall), White	B,D,E,F	X	X	X	X
ZH-HMC-R	500-636163	Z Horn: Hi Multi Candela (Wall), Red	B,D,E,F	X	X	X	X
ZH-HMC-W	500-636164	Z Horn: Hi Multi Candela (Wall), White	B,D,E,F	X	X	X	X
ZH-MC-CR	500-636165	Z Horn: Multi Candela (Ceiling), Red	B,D,E,F	X	X	X	X
ZH-MC-CW	500-636166	Z Horn: Multi Candela (Ceiling), White	B,D,E,F	X	X	X	X
ZH-HMC-CR	500-636167	Z Horn: Hi Multi Candela (Ceiling), Red	B,D,E,F	X	X	X	X
ZH-HMC-CW	500-636168	Z Horn: Hi Multi Candela (Ceiling), White	B,D,E,F	X	X	X	X
ZR-MC-R	500-636169	Z Strobe: Multi Candela (Wall), Red	B,D,E,F	X	X	X	X
ZR-MC-W	500-636170	Z Strobe: Multi Candela (Wall), White	B,D,E,F	X	X	X	X
ZR-HMC-R	500-636171	Z Strobe: Hi Multi-Candela (Wall), Red	B,D,E,F	X	X	X	X
ZR-HMC-W	500-636172	Z Strobe: Hi Multi-Candela (Wall), White	B,D,E,F	X	X	X	X
ZR-MC-CR	500-636173	Z Strobe: Multi Candela (Ceiling), Red	B,D,E,F	X	X	X	X
ZR-MC-CW	500-636174	Z Strobe: Multi Candela (Ceiling), White	B,D,E,F	X	X	X	X
ZR-HMC-CR	500-636175	Z Strobe: Hi Multi Candela (Ceiling), Red	B,D,E,F	X	X	X	X
ZRS-HMC-CW	500-636176	Z Strobe: Hi Multi Candela (Ceiling), White	B,D,E,F	X	X	X	X
ZBB-R	500-636193	Accessory — (Includes base, dust cover, mounting screws and installation sheet)					
ZBB-W	500-636194	Accessory — (Includes base, dust cover, mounting screws and installation sheet)					

X = listed / approved

* = Refer to catalog sheet #: 2585 for detailed mounting options


Notice: This marketing catalog sheet is not intended to be used for system design or installation purposes.
For the most up-to-date information, refer to each product's installation instructions.

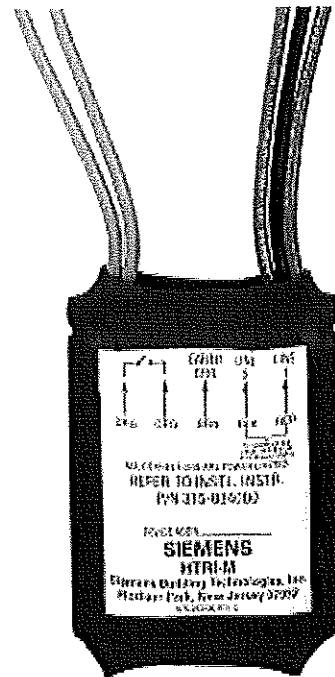
HTRI-M Intelligent Device Interface Module

For Use With the FireFinder-XLS and FS-250 Control Panel

ENGINEER AND ARCHITECT SPECIFICATIONS

Intelligent Interface Modules For FireFinder™ XLS and FS-250 Control Panels

- Interfaces and Supervises Normally Open (Fire Detection) or Normally Closed Contacts (Security Detection)
- Compact Size Allows Mounting in Single Gang Box Behind Equipment
- Polarity Insensitive with SureWire™ Technology
- Operates with FireFinder XLS DLC Circuit
- Innovative Technology Supports Comprehensive System and Interface Communication
- Dynamic Supervision
- Two Wire Operation
- DPU Device Program/Test Unit Electronically Programs and Verifies Device's Address and Tests Device's Functionality
-  ULC Listed CSFM, FM and NYMEA Pending



Introduction

The HTRI-M Intelligent interface module is designed to provide the means of interfacing direct shorting devices to the FireFinder XLS or FS-250 system's DLC loop circuit.

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

Description

The HTRI-M is designed to monitor a normally open or closed dry contact and reports the contact's status to the control panel.

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

Siemens Building Technologies, Inc. innovative technology allows all HTRI-M intelligent interface modules to be programmed by using the DPU Device Program/Test Unit. The DPU is a compact, portable, menu driven accessory that makes programming and testing an interface device faster, easier and more dependable than previous methods. The DPU eliminates the need for mechanical addressing mechanisms, such as program jumpers, DIP switches or rotary dials, because it electronically sets the HTRI-M interface's address into the interface's microcomputer chip non-volatile memory. Vibration, corrosion and other conditions that deteriorate mechanical addressing mechanisms are no longer a cause for concern. This HTRI-M is connected to the program/tester with the programming cable provided with the tester. This cable (P/N 110-694927) utilizes two (2) alligator clip connectors, to attach to the HTRI-M.

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

The HTRI-M is fully compatible on the same DLC circuit with all intelligent H Series detectors, HMS Series addressable manual stations or any other H Series addressable intelligent modules, such as the HZM or HCP.

All HTRI-M intelligent interface modules have been UL and ULC submitted.

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

Ordering Information

Model Number	Description	Shipping oz.	Weight kg.	Part Number
HTRI-M	Single Input	3.5	.1	500-034000
HTRI-MC	ULC Model for Canada	3.5	.1	500-034000C

Electrical Ratings

Current Draw (Active or Standby): 1.5mA

NOTICE: The use of other than Fire Safety detectors and bases with Fire Safety equipment will be considered a misapplication of Fire Safety equipment and as such void all warranties either expressed or implied with regard to loss, damage, liabilities and/or service problems.

GS3055-I CF

GSM-GPRS INTERFACE

Installation Manual



WARNING: This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer.

Table of Contents

Introduction	1
Features	1
Technical Specifications	1
Description	2
Approvals Information	2
Identification of Parts	3
Installation of GS3055-I CF	4
GS3055-I CF Connections Descriptions	5
Status LEDs	6
Operating Modes	6
Simulated Land Line (Dialler) Mode	6
Inputs Activation Mode	7
Outputs	7
Contact ID Events Description	7
Appendix - Wiring diagrams	8

Introduction

The GS3055-I CF is a complete UL commercial fire and/or burglary solution for a wireless communicator that can send status change events information over the GSM GPRS Network from the Alarm Control Panel at the protected premises to a supervising station. The device is compatible with UL listed alarm receivers Models SG-SYSTEM III (using SG-DRL3-IP line card), SG-SYSTEM II and SG-SYSTEM I.

Features

- Compatible with listed alarm control panels that have an integrated DACT and support a 4 or 10-digit Contact ID Communication Format
- Complete solution CF Kit includes tamper protection output, listed power supply and battery standby capability for 24h,
- Telephone line Overvoltage protection and monitoring with automatic switch over to the GSM network communication path when a phone line trouble condition exists,
- GSM network connection and signal strength indicator,
- 4 Input lines and 4 Open collector outputs available for interfacing with the alarm control panel
- Internet/Intranet IP communication over the GSM GPRS network.

Technical Specifications

Input Voltage: 120V/60HZ/0.3A
Standby Voltage: 12V/7Ah
Standby Time: 24h (NSC) plus 5 minutes alarm
Standby Battery: Sealed, rechargeable type, replace every 3-5 years
Low Battery Trouble Indication Threshold: 11.5Vdc
Battery Deep Discharge Protection (cut-off) 9.5Vdc
Recharging Current: 700mA (max.)
Inputs: 12V/1mA, 4 available, supervised
Outputs: 12V/50mA, 4 open-collector available, not supervised
Internal Event Buffer: 256 events (not viewable)
Loop Resistance: 1k Ohm (max. loop resistance between devices connected in series on T1/R1)
Operating Frequency: 850/1900MHz (Dual Band GSM Radio)
Antenna Gain: 1.5dB (product shall be used only with the supplied antenna)
Operating temperature: 0°C - 49°C (32°F - 120°F)
Humidity: 93%RH maximum (non-condensing)
Metal enclosure: ... red painted, with hardwired transformer and high voltage connection box included
Dimensions: 290mm x 254mm x 75mm (11-1/2' x 10' x 3')
Weight: 5.8Kg (12.8 lbs) (including standby battery)

*This equipment, GS3055-I CF, is fixed and shall be installed by Service Persons only (Service Person is defined as a person having the appropriate technical training and experience necessary to be aware of hazards to which that person may be exposed in performing a task and of measures to minimize the risks to that person or other persons) according to the local rules and regulations. It shall be installed and used within an environment that provides the pollution degree max 2, over voltages category II, in non-hazardous, indoor locations only. This manual shall be used with the Installation Manual of the alarm control panel. All instructions specified within that manual must be observed. **WARNING: The metal shell of the RS232 connector is not earthed! Before connecting to this port, check the metal shell for HAZARDOUS VOLTAGES!***

Description

The GS3055-I CF has the capability of communicating alarm signals via the GPRS data network. The capability enables a fast reliable path to central stations equipped with a Sur-Gard System III, System II, or SG-SYSTEM I receiver. By connecting a GS3055-I CF to a control panel's standard PSTN interface, telephone based Contact ID signals are decoded and seamlessly routed through the GPRS network to any of the compatible receiver options.

The performance of the GS3055-I CF depends greatly on GSM Network coverage, therefore, it should not be mounted without first performing placement tests to determine the best location for reception (minimum one green LED is ON). Optional antenna kits are available.

The GS3055-I CF requires enrollment with CONNECT 24 to operate. Dealer application forms and additional information on the CONNECT 24 Voice Response Unit (VRU) and web user-interface can be found at www.connect24.com or at the following telephone numbers:

USA 1-888-251-7458

CANADA 1-888-955-5583

Approvals Information

For Commercial Fire Monitoring Installations:

The GS3055-ICF can be used in the following configurations:

1. Standalone communicator, single communication technology - 5 minutes supervision (Heartbeat sent to supervising station every 5 minutes or less)
2. Back-up communicator line for a DACT (no heartbeat sent).
 - Alarm signals must be sent first over the primary communication path (DACT) and if this is known to have failed, over the secondary communication paths (Other transmission technologies).
 - Primary: Compatible Listed control unit's land line to central station (primary).
 - Secondary: GS3055-I CF transmission through GSM-GPRS network to central station.
 - Every 24 hours a check-in signal must be sent to the central station over the primary dialer. The GS3055-I CF sends a heartbeat test transmission to the supervising station every 24hours.
 - Each communication path shall be monitored for integrity (DACT shall have line monitoring enabled and GS3055-ICF shall have cellular connection supervision enabled).

For UL Central Station Commercial Burglary Installations:

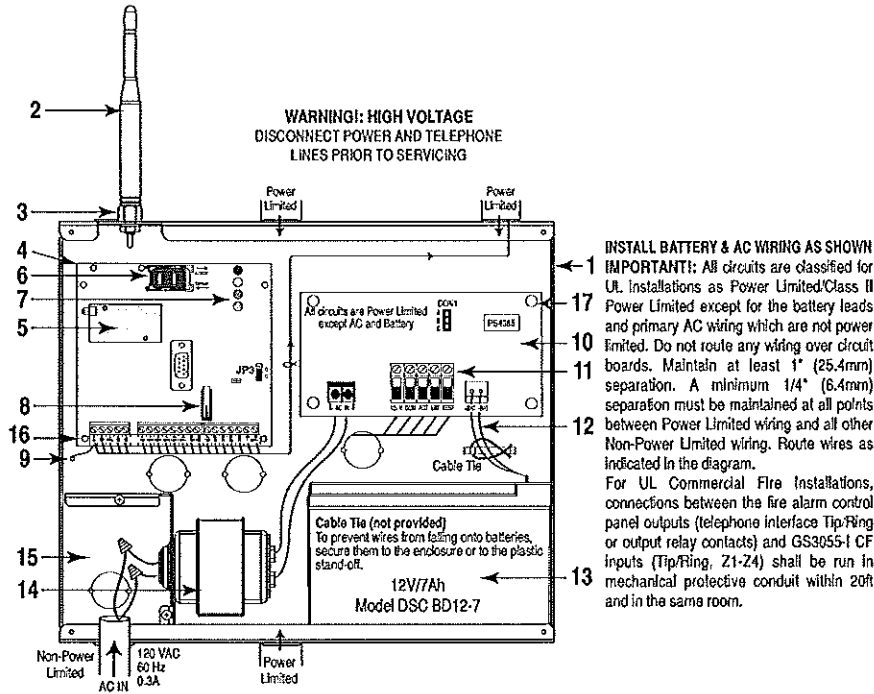
The GS3055-I CF can be used in the following configurations:

1. Standalone communicator, single line-200 second supervision (Heartbeat sent to supervising station every 135s, alarm receiver supervision window set to 200s).
2. Primary communicator line for a DACT (Heartbeat sent to supervising station every 135s, alarm receiver supervision window set to 200s).
3. Back-up communicator line for a DACT (no heartbeat sent).

The GS3055-ICF is designed to work with the Contact ID communication format as described in SIA DC-05 Standard. Before completing the field installation of the alarm monitoring system please ensure communication with the supervising central station is successful by sending several events and getting confirmation that they have been received.

Identification of Parts

The numbers in square brackets [] in this manual refer to the main parts of the GS3055-I CF (see Fig.1 below) described in this section.



NOTES: Connection of metal-clad cable, conduit, metal raceway or the like is permitted as a means for grounding. Use the supplied starwashers to secure the mains connection box cover and the front cover of the enclosure.

PARTS	
1	GS3055-I CF Metal Enclosure
2	External Antenna (supplied)
3	Antenna mounting hardware
4	GS3055-I CF PCB Assembly
5	GSM Radio with Connector for Antenna
6	SIM Card Socket
7	Status LEDs
8	Tamper Switch
9	GS3055-I CF Connections (see Fig. 2 for details)
10	Power Supply PCB Assembly
11	Power Supply Connections (see Fig. 3 for details)
12	Standby Battery Leads
13	Standby Battery 12V/7Ah
14	Transformer 16.5V/37VA
15	Mains Connections Box with Cover

Figure 1 - Parts

Installation of GS3055-I CF

CONNECT 24 Enrollment Information

Only authorized dealers can enroll a GS3055-I CF with CONNECT 24. Dealer application forms and additional information on the CONNECT 24 Voice Response Unit can be found at the CONNECT 24 web site www.connect24.com. Please contact CONNECT 24 at the number below for assistance:

USA 1-888-251-7458

CANADA 1-888-955-5583

NOTE: Steps 1 and 2 should be completed before powering the GS3055-I CF unit.

STEP 1 - Activate Your SIM Card

Your SIM card must be activated with Connect 24 prior to use. Please call the Voice Response Unit (VRU) at least 24 hours prior to installation at 1-866-910-3865.

STEP 2 - Initialize the GS3055-I CF with Connect 24

Call the VRU at the toll-free number. Follow the voice prompts and enter in your profile number, installer ID number, installer PIN number and central station number. Ensure all information is available before calling the VRU. All this information can be found in your VRU Enrollment Package.

NOTE: For UL Commercial Fire listed products the supervision heartbeat shall be enabled.

STEP 3 - Determine Best Signal Location

1. Remove the screws and the front cover of the GS3055-I CF metal enclosure [1].
2. Fit the antenna [2] (ensure that the bolt [3] is fastened tightly).
3. Connect the antenna to the GSM Radio [5] and ensure the connector is secure..

NOTE: Before inserting or removing the SIM card, please ensure the unit is powered down.

4. Ensure the SIM card is placed in its socket [6]
5. Power up the GS3055-I CF module [4] and check signal strength on status LEDs [7].
 - Use a DC power source rated 12V/0.7A connected to +/- 12V terminals [9]
 - Allow unit to power up
 - The green LEDs will indicate the signal strength. The bottom green LED must be ON for the location to be acceptable. Please refer to the "Status LEDs" section for more information.
6. Power down the GS3055-I CF by removing the DC power source.

STEP 4 - Connect the GS3055-I CF

1. Using the cabinet, mark the 4 screw locations then drill the anchor screw holes.

NOTE: Check for cable conduits and water pipes before drilling.

2. Using anchor screws (not included), mount the cabinet to the wall.
3. Run the cables, then pull them through the cable entry or the knockouts provided.
4. Complete the connections to the terminal blocks [9], [11]. **Ensure power and Telco circuit connections are made only after the cabinet has been secured to the building or structure and has been connected to the protective earth ground.** Descriptions of the terminals can be found in the "Connecting the GS3055-I CF" section.
5. Using the 4 screws, reattach the front cover securely to the cabinet [1].

NOTE: Please refer to Figures 2 and 3 at the end of this manual for wiring diagrams.

GS3055-I CF Connections Descriptions

GS3055-I CF Module

⏏ (1) Earth Ground - This terminal must be connected to the Mains Earth, in order to comply with the Telecommunications Network Safety Standards (Overvoltage Protection Requirements).

TIP (2) / RING (3) External telephone line - These terminals must be connected directly to the incoming telephone line.

T1 (4) / R1 (5) Internal telephone line - These terminals must be connected to the TIP and RING of the control panel.

COM(6,14) Common - This terminal is connected internally to Power Ground.

PGM1 (7), PGM2 (8), PGM3 (9), PGM4 (10) Programmable type open-collector outputs. These outputs can be activated by programmed events, refer to "Outputs" section for details. The maximum current sink of each output must not exceed 50mA. PGM1, PGM2 and PGM3 are active low and PGM4 is active high.

AUX+ (11) Auxiliary 12V Output - Special applications output, power-limited, 200mA PTC Protected. This terminal is used in conjunction with the PGM outputs to activate a supervision relay. Recommended relay: DSC Model RM-2.

NOTE: Current drawn from this terminal is directly drawn from the power supply.

Tamper (12-13) - These terminals are connected in series to the Tamper microswitch [8]. They will be closed when the cabinet is properly closed, and will open when the front cover is removed.

Z1-Z4 (15-16-17-18) Inputs - These terminals are set up to trigger events. Refer to "Inputs Activation Mode" section for details.

+12V (19), -12V (20) Device Power Supply - These terminals must be connected to the output of the power supply [10]. When the connections are completed, connect the Red and Black wires [12] to a 12V, 7Ah battery [13].

Power Supply Module

AC - Supervised input, connect the secondary of the transformer to these terminals. Connect the primary of the transformer to a dedicated electrical circuit.

+12V/COM - Special application output circuit, power limited, connect to GS3055-I CF power input circuit. Connect the +12V output to +12V input on the GS3055-I CF module and the COM output to the -12V input on the GS3055-I CF module.

ACT (AC Trouble) - This open collector output activates when an AC Trouble is detected: Rated 50mA.

NOTE: AC Trouble output shall be connected to an input on the alarm control panel that provides immediate local annunciation and delayed remote transmission for 1 to 3 hours. If such input is not able to provide the delay for AC loss transmission, input 1 of the GS3055-I CF can be used. When input 1 is triggered, the GS3055-I CF will immediately annunciate an AC trouble by flashing the RED status LED 9 times, and will delay the AC loss event transmission by 2 hours.

LBT (Battery Trouble) - This open collector output activates when a Battery Trouble condition is detected: Rated 50mA.

TEST (Charger Trouble) - This open collector output activates when the charging circuit is in a trouble condition: Rated 50mA.

These outputs shall be connected to zone inputs of an alarm control panel in order to provide the required trouble supervision (visual and audible indication required at the control panel). The outputs are active low (switched to ground) and can be connected to a control panel directly or by using a listed supervision relay (suggested model: DSC, RM-2 Relay).

+BAT/-BAT - This connector is used to connect the standby battery, non-power limited. Use single lead battery wire assembly provided.

NOTE: When disposing of batteries, follow the instructions and and precautions printed on the batteries, and contact your municipal offices for information on the disposal of used batteries.

Status LEDs

The GS3055-I CF has 4 LEDs used for local indication of module functionality, status (trouble conditions) and receiving signal strength.

▲ RED — This LED is Normally OFF, it will blink in the event of trouble. This LED will switch ON within 3 minutes in the event of GSM Radio [5] trouble, or when the GSM Network is unavailable (NO SERVICE). If this LED blinks, the following list will indicate the specific trouble based on the number of blinks, by priority. On power-up, the GS3055-I CF will check for trouble conditions to be restored in the order listed below. It will indicate the status of the highest priority, unrestored trouble condition with the corresponding number of flashes of the RED LED.

When the highest priority trouble condition has been cleared, the next highest priority trouble condition will be displayed.

1 flash - Power Trouble (*Low input voltage*)

2 flashes - Radio/SIM Failure (*Check SIM Card connection*)

3 flashes - GSM Network Problem (*SIM Card not active, poor signal strength, antenna not connected*)

4 flashes - Insufficient Signal Strength (*Poor location*)

5 flashes - Connect 24 Configuration SMS Failure (*Improper VRU programming*)

When the configuration is ready, remove power for 2-3 seconds to allow the unit to restart and recheck status.

6 flashes - Receiver Not Initializing (*Improper VRU programming*)

8 flashes - Primary Receiver absent (*Receiver not acknowledging*)

9 flashes - AC Trouble (Input 1) triggered.

Off - No Troubles

YELLOW — This LED will switch ON when the interface switches to the GSM Network (due to land line trouble). This LED can also blink quickly once (GPRS TX) or twice (GPRS RX).

NOTE: The top two LEDs will blink during the initialization activation stages.

Y GREEN (Top) — When this LED is ON, the reception is optimal. This LED will switch ON only when the other GREEN LED is ON.

Y GREEN (Bottom) — If this LED is OFF and the RED LED is ON, the GSM Network service is unavailable (NO SERVICE). This LED will Blink when the GSM Network reception is bad. If this LED is ON, the GS3055-I CF will be able to communicate to the GSM network.

Operating Modes

Simulated Land Line (Dialler) Mode

The simulated land line mode provides the alarm control panel (with dialler interface) with a backup communication path in the event of PSTN line trouble. If the voltage on the land line terminals (TIP/RING) drops below 4V for a period of between 10 to 45 seconds (depending on the device connected to the T1/R1 terminals), the GS3055-I CF will switch the connected alarm control panel to the GSM Network for approximately 30-40 seconds. At the end of this interval, it will check the land line:

- If the land line is restored, it will switch the connected alarm control panel back to the land line;
- If the land line is still down, it will continue to simulate the land line until it is restored. The GS3055-I CF will not switch during ongoing calls.

In this mode the communication of an event follows the sequence below:

- When an event is triggered, the alarm control panel dialler goes off-hook
- The GS3055-I CF will assert dial tone
- The Alarm Control Panel dials the number of the central station. Ensure the alarm control panel inserts a 1-second pause (minimum), or has dial tone search enabled before dialing the number
- The GS3055-I CF detects the DTMF dialing and stops the dial tone

NOTE: The GS3055-I CF is unable to decode pulse dialing.

- The GS3055-I CF will send the required Contact ID dual tone handshake to the alarm control panel
- After receiving the handshake, the alarm control panel transmits the event alarm message in Contact ID format
- The GS3055-I CF decodes and transforms the Contact ID digits into an IP packet and sends it to the Supervising Station Receiver over the GSM GPRS network

- The receiver acknowledges the received event and sends a command to the GS3055-I CF to generate the corresponding 1400Hz kiss-off signal for 800ms minimum
- After the GS3055-I CF generates the kiss-off, the alarm control panel goes on-hook if no more events need to be sent, or it can send the next event

Inputs Activation Mode

The GS3055-I CF also has 4 inputs that can be used to trigger specific event transmissions. The events associated with these inputs will be transmitted using Contact ID Communication Format. The default settings for these inputs (as they should be correlated at the supervising station) are:

INPUT 1- AC LOSS INPUT 3 - FIRE ALARM
 INPUT 2 - FIRE SUPERVISORY INPUT 4 - TROUBLE

For UL Commercial Fire Listing, the GS3055-I CF operating in this mode shall be used in conjunction with a listed primary communication method.

These inputs are normally open type and will activate when a short condition is detected between the terminal and the COM. Refer to the GS3055-I CF Wiring Diagram (Figure 2) at the back of this manual.

NOTE: When the GS3055-I CF is configured in Land Line Mode, these inputs should be restricted to monitoring of trouble conditions.

NOTE: For UL listing, connections between alarm panel outputs and GS3055-I CF inputs shall be run in mechanical protective conduit within 20ft and in the same room. To reduce interference with the antenna, it is recommended that metal conduit is not connected to the knock-outs on the top of the cabinet.

Outputs

The GS3055-I CF has 4 open collector outputs, switched to ground, capable of a maximum of 50mA. Internal events on the GS3055-I CF can trigger the outputs to turn on an LED or activate an input on the alarm control panel. The default settings are as follows:

OUTPUT 1 - Land Line Trouble: Output is normally high and will switch to ground when the telephone line is down.

OUTPUT 2 - GSM Module or Network Trouble: Output is normally high and will switch to ground when the GS3055-I CF cannot connect or communicate to the GSM network.

OUTPUT 3 - Activation: Output is normally high and will switch to ground during activation.

OUTPUT 4 - General Module Trouble: Output is normally low and will switch to high when any of the previous troubles occur and/or a Failure to Communicate (FTC) trouble is detected.

NOTE: Once an output has been activated automatically, it will not restore its state until all the causes of activation are cleared.

Contact ID Events Description

Event Codes

Input 1 Activation: E301 AC LOSS ZONE 991
 Input 1 Restoral: R301 AC LOSS ZONE 991
 Input 2 Activation: E200 Fire Supervisory ZONE 992
 Input 2 Restoral: R200 Fire Supervisory ZONE 992
 Input 3 Activation: E110 FIRE ZONE 993
 Input 3 Restoral: R110 FIRE ZONE 993
 Input 4 Activation: E300 System Trouble ZONE 994
 Input 4 Restoral: R300 System Trouble ZONE 994
 PSTN Line Down: E351 TELCO 1 FAULT 000
 PSTN Line Restoral: R351 TELCO 1 FAULT 000
 Periodic Report: E603 Periodic RF Xmission 000
 Periodic report with off-normal condition .. E608 Periodic Test Xmission with System Trouble Present 000
 GSM UNIT ACTIVATION: R552 Radio Xmitter Disabled 000
 GSM INTERNAL BUFFER FULL: E624 EVENT LOG OVERFLOW 000
 FTC RESTORAL: R354 FAILURE TO COMMUNICATE 000

NOTE: The GS3055-I CF does not support local or remote programming. Upon activation through Connect 24 the product will operate as described in the previous sections of this manual.

APPENDIX - Wiring diagrams

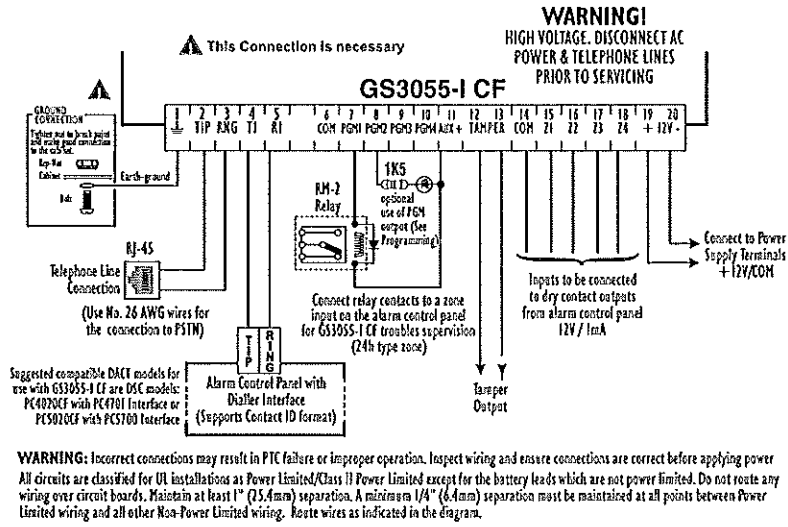


Fig. 2 - GS3055-I CF Module Wiring Diagram

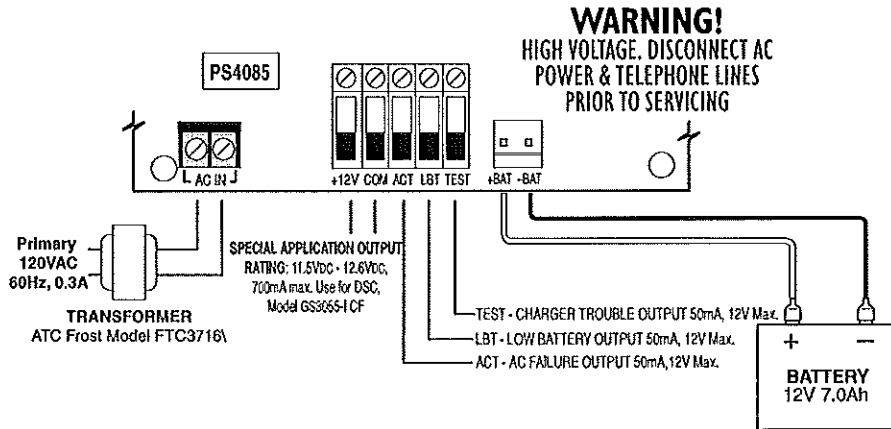


Fig. 3 - Power Supply Wiring Diagram

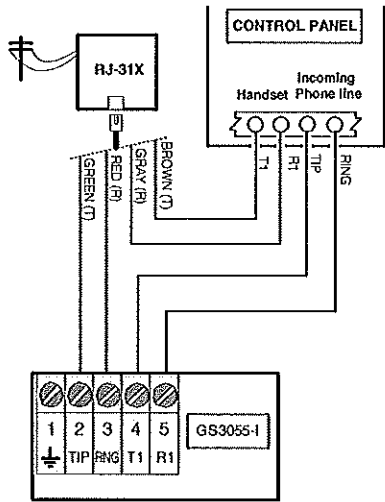


Fig. 4 - Telephone Connection

NOTES:

1. Program the Control Panel's input Zone/Point as 24th "Supervisory" type with the keypad only announcement when activated.
2. A supervision relay, DSC model RM-2 can be used, as indicated in Fig. 4 in order to provide supervision of the control panel (for total power loss) when the GS3055-1 CF is powered by a Separate Power Supply. When the GS3055-1 CF is powered by the control panel the relay is not required since a loss of voltage at the power input terminals on the GS3055-1 CF will generate a trouble signal transmission to the monitoring station.
3. Output 4 on the GS3055-1 CF must be set as "Active High".

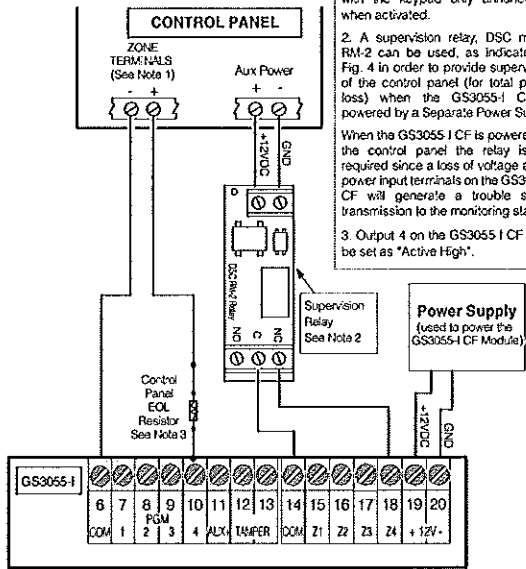


Fig. 5 - Optional Power Supply And Supervision Wiring Diagram

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment. This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

IMPORTANT INFORMATION

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be provided to the Telephone Company.

GS3055-1 CF Product Identifier US: F53AL00BGS3055

REN: 0.0B

USOC Jack: RJ-31X

Telephone Connection Requirements

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Ringer Equivalence Number (REN)

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call.

In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format: US: AAAEQ#TFXXXX. The digits represented by # are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Incidence of Harm

If this equipment GS3055-1 CF causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Changes in Telephone Company Equipment or Facilities

The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

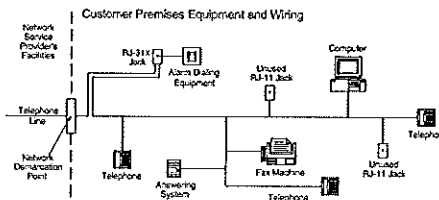
Equipment Maintenance Facility

If trouble is experienced with this equipment for repair or warranty information, please contact the facility indicated below. If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is solved. This equipment is of a type that is not intended to be repaired by the end user.

DSC c/o APL Logistics, 757 Douglas Hill Rd., Lithia Springs, GA 30122

Additional Information

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information. Alarm dialling equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialling equipment must be connected to a properly installed RJ-31X jack that is electrically in series with and ahead of all other equipment attached to the same telephone line. Proper installation is depicted in the figure below. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer about installing the RJ-31X jack and alarm dialling equipment for you.



Industry Canada Compliance Statement

This Equipment meets the applicable Industry Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that Industry Canada technical specifications were met. It does not imply that Industry Canada approved the equipment. The Ringer Equivalence Number (REN) for this terminal equipment is 0.0. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all devices does not exceed 5.

Cet équipement est conforme aux spécifications techniques applicables aux équipements terminaux d'Industrie Canada. Ceci est confirmé par le numéro d'enregistrement. L'abréviation IC précédant le numéro d'enregistrement signifie que l'enregistrement a été effectué sur la base de la Déclaration de conformité indiquant que le produit est conforme aux spécifications techniques d'Industrie Canada. Ceci n'implique pas que le produit ait été approuvé par Industrie Canada.

Le nombre équivalent de sonneries (REN) de cet appareil terminal est 0.0. Le REN attribué à chaque équipement terminal fournit une indication sur le nombre maximum de terminaux pouvant être connectés sur une interface téléphonique. La terminaison sur une interface peut constituer n'importe quelle combinaison d'appareils, à la condition seulement que la somme des Nombres équivalents de sonneries de tous les appareils ne soit pas supérieure à 5.

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations. Cet appareil numérique de la Classe B respecte toutes les exigences de règlement sur le matériel brouilleur du Canada.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met. This manual is applicable to the following GS3055-1 CF Cellular Alarm Communicator Models:

GS3055-1 FCC ID: F5306GS30551 and IC: 160A-GS30551

GS3055-2 FCC ID: F5306GS30552 and IC: 160A-GS30552

WARNING: To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20cm or more must be maintained between the antenna of this device and persons during device operation.

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