Gamewell FCI
FIRE CONTROL INSTRUMENTS
by Honeywell

7100 Series Fire Alarm Control Installation/Operating Manual

Document: 9000-0447
Print Date: 6/6/07 Rev. I

P/N 9000-0447 Rev. I ECN: 06-528

12 Clintonville Road, Northford, CT 06472-1610 USA • TEL: (203) 484-7161 • FAX: (203) 484-7118
www.gamewell-fci.com

Fire Alarm System Limitations

While a fire alarm system may lower insurance rates, it is not a substitute for fire insurance!

This manual is designed for use by factory-trained installers and operators of the Gamewell-FCI, 7100 Series, Fire Alarm Control. All illustrations, functional descriptions, operating and installation procedures, and other relevant information are contained in this manual.

The contents of this manual are important, and the manual must be kept with the fire alarm control panel at all times. If building ownership is changed, this manual, including any testing and maintenance information, must be passed along to the new owner(s).

The fire alarm control panel is part of a system. Manuals and instructions for other devices forming part of the system should be kept together. Purchasers who install this system for use by others must leave the instructions with the user. A copy of these instructions is included with each product and is available from the manufacturer.

This equipment is Listed by various listing agencies for use in fire alarm systems. Use only components which are compatible with the Gamewell-FCI System. The installation MUST be in accordance with the instructions in this manual. **THEREFORE:**

- DO NOT deviate from the procedures described in this manual.
- DO NOT assume any details not shown in the instructions.
- DO NOT modify any electrical or mechanical features.
- DO comply with all codes and standards set forth by the Authority Having Jurisdiction.

The term “Authority Having Jurisdiction” has become a standard term in the fire alarm industry. An acceptable definition of “Authority Having Jurisdiction” is:

Fire alarm systems installed in the USA fall under the jurisdiction of some authority. In some areas this may be a local fire department; in other areas it may be a building inspector, insurance firm, etc. Different authorities may have their own local requirements for the way the fire alarm system is installed and used. Most local authorities base their requirements on the National Fire Protection Agency (NFPA) codes, but there may be important differences. You must install this system in the way in which the Authority Having Jurisdiction requires. If you do not know which authority has jurisdiction in your area, contact your local fire department or building inspector for guidance. It is important that you tell users to be aware of any requirements defined by the Authority Having Jurisdiction.

9000-0447 Rev. I

The installation MUST be in accordance with the following standards:

- National Fire Alarm Code (NFPA 72)
- National Electrical Code (NFPA 70)
- Life Safety Code (NFPA 101)
- NFPA 92A – Recommended Practice for Smoke Control Systems

WARNING: Touching components which are improperly installed, applied or operated could be hazardous and possibly fatal. Short circuits could cause arcing that could result in molten metal injuries. Therefore, only qualified technicians familiar with electrical hazards should perform checkout procedures.

Safety glasses should be worn, and test equipment used for voltage measurements should be designed for this purpose and be in good working order.

ENVIRONMENTAL CONSIDERATIONS:

It is important that this equipment be operated within its specifications:

• Recommended operating temperature range**:**	60° to 80° F (15° to 27° C)
• Absolute maximum operating temperature range**:**	32° to 120° F (0° to 49° C)
• Operating humidity:	Not to exceed 93% Non-condensing at 90° F (32° C)

Operating this equipment within the recommended temperature range will extend the useful life of the system standby batteries.

INSTALLATION CONSIDERATIONS:

Check that you have all of the equipment you need to make the installation. Follow the field wiring diagrams and installation notes in this manual.

Install the equipment in a clean, dry environment (minimal dust). Avoid installing equipment where vibrations will occur.

Remove all electronic assemblies prior to drilling, filing, reaming, or punching the enclosure. When possible, make all cable entries from the sides; being careful to separate the power-limited conductors from the non power-limited conductors. Before making modifications, verify that they will not interfere with battery, transformer and printed circuit board location.

Do not over-tighten screw terminals. Over-tightening may damage threads, resulting in

reduced terminal contact pressure and difficulty with screw terminal removal. Disconnect all sources of power before servicing, removing, or inserting any circuit boards. Control unit and associated equipment may be damaged by removing and/or inserting cards, sub-assemblies, or interconnecting cables while the unit is energized.

WIRING CONSIDERATIONS:

This fire alarm control panel contains power-limited circuits. You cannot connect external sources of power to these circuits without invalidating their approval.

Verify that wire sizes are adequate for all initiating device and notification appliance circuits. Most devices cannot tolerate more than a 10% drop from the specified device voltage.

The installer must make sure that the wiring and devices installed in the system meet the current National Electrical Code, NFPA 70, and all applicable state and local building code requirements.

Use the conductor size and type required by local codes. (See NFPA 70, Article 760). Wiring resistance must not be more than that shown on the field wiring diagrams.

To reduce errors and help in servicing the system, all conductors should be tagged or otherwise coded and logged at installation to identify circuit assignment and polarity. If the conductors are logged with a code, keep the log that explains the code with the manual, so that it is available to other people working on the panel.

Like all solid state electronic devices, this system may operate erratically or be damaged when subjected to lightening induced transients. Although no system is completely immune to lightening transients and interference, proper grounding will reduce susceptibility. We do not recommend the use of overhead or outside aerial wiring due to the increased susceptibility to nearby lightening strikes. Consult with the Gamewell-FCI Technical Support Department if any problems are anticipated or encountered.

To prevent the spread of fire, use proper patching materials to areas where system wiring passes through the fire-rated walls or floors.

SURVIVABILITY:

Per the National Fire Alarm Code, NFPA 72, all circuits necessary for the operation of the notification appliances shall be protected until they enter the evacuation signaling zone that they serve. Any of the following methods shall be considered acceptable as meeting these requirements:

1) A 2-hour rated cable or cable system
2) A 2-hour rated enclosure
3) Performance alternatives approved by Authority Having Jurisdiction

MAINTENANCE:

To keep your fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations and UL and NFPA Standards, and applicable state and local codes. At a minimum, the requirements of Chapter 7 of NFPA, the National Fire Alarm Code, shall be followed. A preventative maintenance agreement should be arranged through the manufacturer's local representative. Though smoke detectors are designed for long life, they may fail at any time. Any smoke detector, fire alarm system, or any component of that system shall be repaired or replaced immediately.

OTHER CONSIDERATIONS:

The equipment was tested according to EC directive 89/336/EEC for Class A equipment and was verified to the limits and methods of EN 55022.

An automatic fire alarm system—typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control panel with remote notification capability can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premise following the recommendations of the current edition of the National Fire Protection Association NFPA Standard 72, manufacturer's recommendations, State and local codes. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not into alarm in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second-floor detector, for example, may not sense a first-floor or basement fire.

Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

- Barriers such as closed or partially closed doors, walls, or chimneys may inhibit particle or smoke flow.
- Smoke particles may become "cold," stratify, and not reach the ceiling or upper walls where detectors are located.

- Smoke particles may be blown away from detectors by air outlets.
- Smoke particles may be drawn into air returns before reaching the detector.

The amount of “smoke” present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors will not go into alarm.

Smoke detectors, even when working properly, have sensing limitations. Detectors that have photo-electronic sensing chambers tend to detect smoldering fires better than flaming fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast-flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire.

Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Rate-of-rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist. Heat detectors are designed to protect property, not life.

IMPORTANT! Smoke detectors must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power. If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building. Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol or medication. Please note that:

Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.

Studies have shown that certain people, even when they hear a fire alarm signal, do not respond or comprehend the meaning of the signal. It is the property owner's responsibility to conduct fire drills and other training exercise to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals. In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A fire alarm system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time and only if the batteries have been properly maintained and replaced regularly.

Equipment used in the system may not be technically compatible with the control panel. It is essential to use only equipment listed for service with your control panel.

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup radio transmission systems are recommended.

The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards. At a minimum, the requirements of NFPA 72 -2002-1999 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be scheduled monthly or as required by National and/or local fire codes and should be performed by authorized professional fire alarm installers only. Adequate written records of all inspections should be kept.

While installing a fire alarm system may make the owner eligible for a lower insurance rate, a fire alarm system is not a substitute for insurance. Property owners should continue to act prudently in protecting the premises and the people in the premises and should properly insure life and property and buy sufficient amounts of liability insurance to meet their needs.

Limit-C-9-2005

Installation Precautions

Adherence to the following will aid in problem-free installation with long-term reliability:

WARNING - Several different sources of power can be connected to the fire alarm control panel. Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until manuals are read and understood.

CAUTION - System Re-acceptance Test after Software Changes: To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Re-acceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring. All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified. Equipment used in the system may not be technically compatible with the control panel. It is essential to use only equipment Listed for service with this control panel.

This system meets Underwriter's Laboratories requirements for operation at 0-49º C/32-120º F and at a relative humidity (non condensing) of 85% at 30°C (86°F) per NFPA, and 93% ± 2% at 32°C ± 2°C (89.6°F ± 1.1°F) per UL 93% ± 2% RH (non-condensing) 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 15-27º C/60-80º F.

Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightening induced transients. Although no system is completely immune from lightening transients and interference, proper grounding will reduce susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightening strikes. Consult with the Technical Services Department if any problems are anticipated or encountered.

Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, or printed circuit board location.

Do not tighten screw terminals more than 9 in-lbs. Over-tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static suppressive packaging to protect electronic assemblies removed from the unit.

Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation.

Precau-D1-9-2005

Documentation Feedback

Your feedback helps us keep our documentation up-to-date and accurate. If you have any comments or suggestions about our online Help or printed manuals, you can email us.

- Please include the following information:
- Product name and version number (if applicable)
- Printed manual or online Help
- Topic Title (for online Help)
- Page number (for printed manual)
- Brief description of content you think should be improved or corrected
- Your suggestion for how to correct/improve documentation

Send email messages to:

FireSystems.TechPubs@honeywell.com

Please note this email address is for documentation feedback only. If you have any technical issues, please contact Technical Services.

TABLE OF CONTENTS

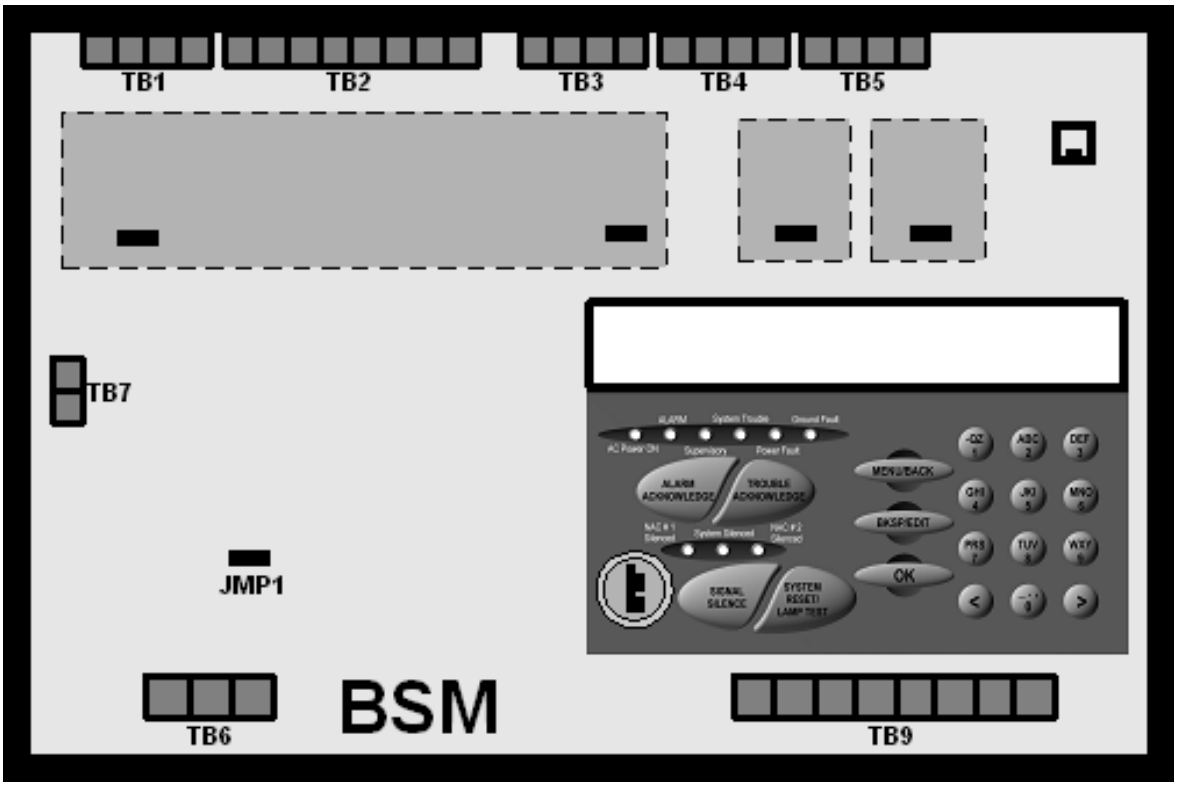


Figure 1 Basic System Module (BSM)

1.0 System Overview

1.1 Description

The Gamewell-FCI 7100 is a multiprocessor-based analog/addressable system, designed for commercial, industrial and institutional fire alarm applications. It is available with either one or two signaling line circuits.
The 7100 Series is Listed by Underwriter's Laboratories, Standard UL 864, 9th Edition. It is suitable for the following signaling services:

- Automatic Fire Detector Alarm
- Manual Fire Alarm
- Waterflow Alarm
- Supervisory
- Automatic Smoke Alarm, non-coded and master coded operation
- Releasing Device Service

The 7100 Series complies with the requirements of the following National Fire Protection Association (NFPA) Standards:

- NFPA 13 - Installation of Sprinkler Systems
- NFPA 16 - Deluge Foam-Water Sprinkler Systems
- NFPA 72 - National Fire Alarm Code:
  - Central Station Fire Alarm Systems
  - Local Fire Alarm Systems
  - Auxiliary Fire Alarm Systems
  - Remote Station Fire Alarm Systems
  - Proprietary Fire Alarm Systems

1.2 Features

1.2.1 Standard Features

- Two (2) Class B, Style 4 Signaling Line Circuits
- Two (2) Class B, Style Y Notification Appliance Circuits
- Alarm and Trouble dry contacts
- Accommodates 99 Gamewell-FCI Approved, UL Listed compatible analog sensors per SLC
- Accommodates 98 Gamewell-FCI Approved, UL Listed compatible addressable monitor/control devices per SLC
- 80-character alphanumeric LCD display
- 280 event history buffer (non-volatile)
- Power-limited
- Resettable/Non-resettable 1.0 amp. @ 24 VDC power output, FWR
- Alarm verification
- Walk test
- Multi-level alarm processing
- Positive alarm Sequence (PAS) operation
- NAC coding
- Trouble reminder
- Integral RS-232 port
- Key Switch - keyed alike with the door lock and renders the key pad inoperative until activated.

1.2.2 Optional Features

- Class A Module (CAOM) with Disconnect Switches for NACs and SLCs
- Digital Alarm Communicator (DACT) (Model 7100-D)
- RS-232 Printer Transient Module (PTRM), Supervised
- Municipal Circuit Option Module (MCOM)

1.3 Control and Indicators

1.3.1 Switch Controls

- Alarm Acknowledge
- Trouble Acknowledge
- Signal Silence
- System Reset/Lamp test
- Programming buttons
  - Menu/Back
  - Back Space/Edit
  - OK
- 12 button keypad

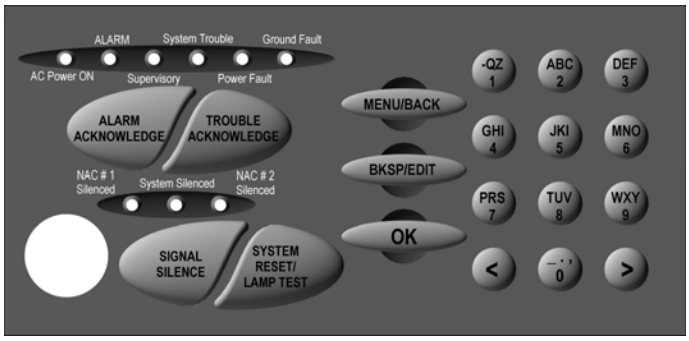


Figure 2

1.3.2 LED Indicators

- AC Power On (green)
- Alarm (red)
- Supervisory (yellow)
- System Trouble (yellow)
- Power Fault (yellow)
- Ground Fault (yellow)
- NAC 1 Silenced (yellow)
- NAC 2 Silenced (yellow)
- System Silenced (yellow)

1.3.3 Audible Sounder

An Alarm/Trouble sounder is located on the Basic System Module (BSM).

1.4 Optional Modules

The following optional modules and features are available:

1.4.1 Digital Alarm Communicator (DACT)

The Model 7100-D provides an integral digital communicator (DACT), fully programmable from the keypad, which is compatible with Digital Alarm Receivers (DACRs) that can receive the following formats:

- SIA DC8
- SIA DCS20
- Ademco Contact ID
- 3+1 1400 Hz
- 3+1 2300 Hz
- 4+2 1400 Hz
- 4+2 2300 Hz

1.4.2 Class A Option Module (CAOM)

All 7100 Models are supplied with Class B Notification Appliance Circuits and Class B Signaling Line Circuits. For Class A operation, the addition of a CAOM Module is required. This module operates with all 7100 Models and enables the signaling line circuits to operate as Class A, Style 6 or 7 and notification appliance circuits to operate as Class A, Style Z. It supplies the additional terminals for these circuits.

1.4.3 Municipal Circuit Option Module (MCOM)

The MCOM Module can trip a Local Energy City Master Box, or operate in reverse polarity mode for leased line connection. It can also energize a solenoid for releasing.

1.4.4 Printer Transient Module (PTRM)

The serial output on the BSM is connected via an existing RS-232 RJ-11 connector, J3. This can be used to communicate to the control with a laptop computer while at the panel. The PTRM module is intended for systems where a permanent connection is required. This type of connection requires that the RS-232 port have sufficient transient protection to comply with the applicable codes for wiring leaving the confines of the control box, as well as the proper isolation of the signal to prevent damage or interference caused by the connection to certain EDP devices. Connections are limited to the same room. The PTRM supplies supervision and transient protection as well as the necessary isolation.

1.4.5 LCD-7100 Remote Serial Annunciator Module

The LCD-7100 Serial Remote Annunciator provides an 80-character display and function keys for “Alarm Acknowledge”, “Trouble Acknowledge”, “Signal Silence”, “System Reset/Lamp Test” and “System Drill Test”.
The 80-character display shows all pertinent information except for menus.

1.4.6 LDM-7100 Remote LED Driver Module

Each LDM-7100 LED Driver Module provides 7100 Control Panel output for thirty-three (33) remote LEDs. Three (3), LDM-7100 modules may be mounted in a single annunciator for a maximum total of 99 points per annunciator.
The annunciator may be located up to 4,000 feet from the panel and up to four (4), additional annunciators can be connected, configured identically with the first.

1.4.7 INI-7100-UTP, Intelligent Network Interface, Unshielded, Twisted-Pair

E3 Broadband Network interface to the 7100 FACP using copper wire network terminations only. It occupies one node on the E3 Series™ Broadband Network.

OR

1.4.8 INI-7100-FO, Intelligent Network Interface, Fiber-Optic

E3 Broadband Network interface connection to the 7100 FACP using either fiber-optic cable or copper wire network terminations. It occupies one node on the E3 Broadband Network.

Note: The Network Graphic Annunciator Module (NGA) is required when more than seven (7), 7100 Series panels are networked. See the E3 Broadband Installation/Operating Manual Part Number: 9000-0575 for details.

1.5 Specifications

Power Supply Output

Supervisory current	1.0 amp. (max.) (24 VDC nominal)
Alarm current	3.335 amp. (max.) (24 VDC nominal)

Notification Appliance Circuits (TB1)
- Two (2) regulated power outputs
- Power-limited
- Supervised
- Non-coded
- Max. alarm load 1.5 amp. /circuit
  Special application: See Compatibility Addendum/ P/N 9000-0427 for a list of Gamewell-FCI Approved, UL Listed notification appliances.

Use U.L. Listed End of Line Resistor EOL-N (47K), P/N 4700-0512

Alarm Dry Contacts (TB2)
- Form "C"
- Rated 2 amp. @ 30 VDC Resistive

Alarm signals latch in. Supervisory and System Trouble signals do not latch in.

Trouble Dry Contacts (TB2)
- Form "C"
- Rated 2 amp. @ 30 VDC Resistive

Transfer Relay Control (TB2) (Special Application)
Transmit loss of AC power or brown out to Gamewell-FCI Model DRBC-1 battery charger.
- Power-limited
- Unsupervised

Signaling Line Circuits (TB3)
- One (1) or two (2) Class "B", Style 4 circuits
- 24 VDC nominal
- Power-limited
- Supervised
- 40 Ohm max. line resistance
- 0.5 µf max. capacitance

Capacity of 99 analog sensors and 98 addressable devices per circuit

Earth Ground Connection (TB4)

AC Input (TB6)
- 120/240 VAC, 50/60 Hz, 2 amp. @ 120 VAC, 1 amp. @ 240 VAC
- Non-power-limited

NOTICE: Terminal TB4 must be connected to an earth ground connection per Article 760 of the National Electrical Code. Failure to make a proper earth ground connection to a metallic cold water pipe or driven ground rod to this terminal will result in loss of lightening protection, reduce the tolerance of the system to transients, and will adversely affect the operation of the system. Panel neutral or conduit ground is not acceptable; minimum wire size is 14 AWG.

24 VDC external power, system (TB4) (Special Application)
- Unregulated, FWR
- Resettable and non-resettable
- 1.0 amp. max. each circuit, 1.0 amp. max. combined
- Unsupervised

Battery Connection (TB7)

- Supervised
- 24 VDC nominal
- Maximum battery size 31 AH
- Non-power-limited
- 0.6 A max. battery charge current

The **RS-232 port**, consists of an RJ11 connector which provides a standard serial port for the connection to a Listed output device for supplementary type service. Typical examples of such devices include any UL Listed EDP device (remote printer or video terminal), any UL Listed Signaling Device (such as the Keltron VS4095/5 printer), or any UL Listed Signal System Unit.

Ratings: 15 VDC (max.)
.05 amp. (max.) current
9600 baud
8 bits, 1 stop bit, no parity.

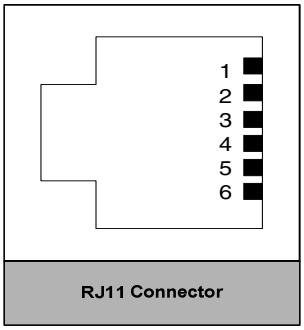


Figure 3

Connections to the RJ11 serial connector are as follows:

Terminal	**Description**
2	RXD
3, 4	GND
5	TXD
6	Supervision

Available cables for RS-232 connection are:

Part No.	**Model**	**Description**
6100-0077	RJ11-DB9PC	RJ11 to 9-pin DB9 (Connector only - PC Laptop)
6100-0074	RJ11-DB25	RJ11 to 25-pin (DB25) (connector only-printer)
6100-0075	RJ11C-6	RJ11 to RJ11 cable, 6-inches
6100-0076	RJ11C-20	RJ11 to RJ11 cable, 20 feet

NOTE: The BSM is shipped with jumpers installed on the middle three pairs of pins on J2. These jumpers must be removed when the PTRM is installed.

BSM J2

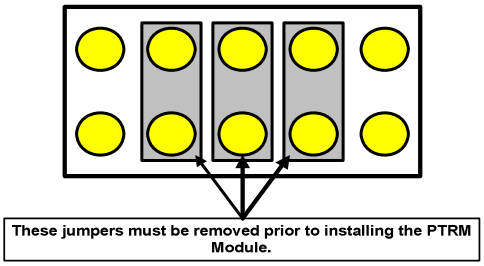


Figure 4

2.0 Installation

2.1 General

Components are ordered and shipped in separate packaging for the enclosure and Basic System Module kit. The 7100 is intended for installation indoors, in a dry location. The shipping carton contains an installation drawing, backbox, Basic System Module (BSM), power transformer and door.

1) Refer to the System Assembly Drawing, P/N 9000-0457.

2) The BSM module consists of a main operating board with pluggable terminal strips, an 80-character LCD display and programming keypad. Install this module immediately unless any optional modules are to be used in the system. The optional modules are supplied separately, and should be installed on the BSM before it is mounted in the backbox. Before installing the BSM into the system backbox, refer to the installation instruction sheets shipped with each module for the proper installation procedures.

3) Install the transformer into the backbox. Connect the transformer to the BSM.

4) Install the door after the BSM is in place.
   Note that the door can only be installed (or removed) when it is opened at least 90° from the backbox.

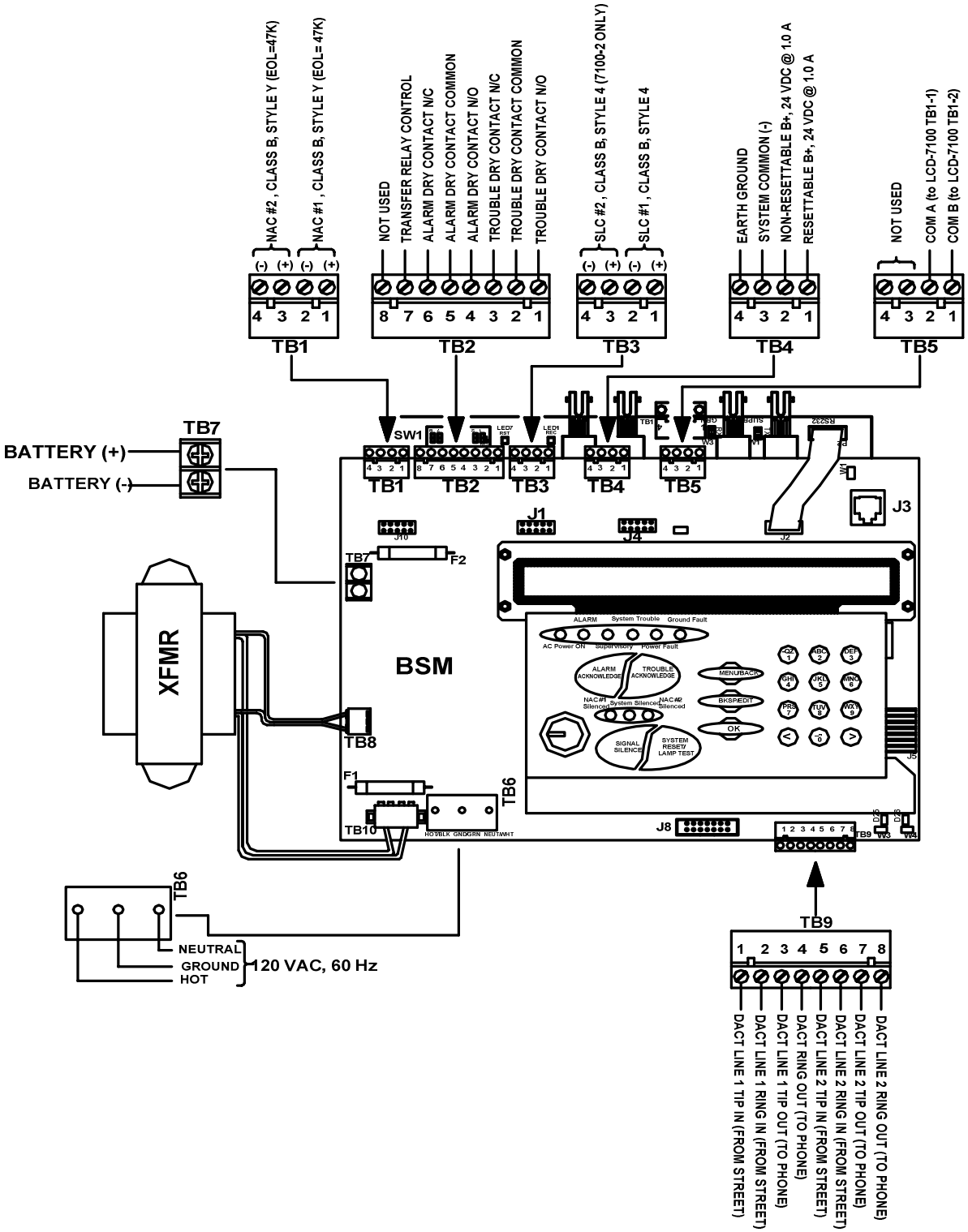


Figure 5 7100 Wire Connections

3.0 Basic System Module (BSM)

Table 3-1 Field Wiring Connections		
Designation	**Description**	**Comments**
TB1-1		NAC Circuit 1 (+) Class B, Style Y
TB1-2		NAC Circuit 1 (-) Class B, Style Y
TB1-3		NAC Circuit 1 (+) Class B, Style Y
TB1-4		NAC Circuit 2 (-) Class B, Style Y
TB2-1	TRBL	Trouble contacts, N/O, 2 amp @ 30 VDC (resistive)
TB2-2	TRBL	Trouble contacts, Common
TB2-3	TRBL	Trouble contacts, N/C
TB2-4	ALM	Alarm contacts, N/O, 2 amp. @ 30 VDC (resistive)
TB2-5	ALM	Alarm contacts, Common
TB2-6	ALM	Alarm contacts, N/C
TB2-7		Transfer control
TB2-8		Not used
TB3-1		Signaling Line Circuit 1 (+) Class B, Style 4
TB3-2		Signaling Line Circuit 1 (-) Class B, Style 4
TB3-3		Signaling Line Circuit 2 (+) Class B, Style 4 (7100-2, -2D only)
TB3-4		Signaling Line Circuit 2 (-) Class B, Style 4 (7100-2, -2D only)
TB4-1		Resettable Power, 24 VDC 1.0 amp.
TB4-2		Non-resettable Power, 24 VDC 1.0 amp.
TB4-3		System Common
TB4-4		Earth Ground
TB5-1	COM B	To LCD-7100 TB1-2
TB5-2	COM A	To LCD-7100 TB1-1
TB5-3, -4		Not used
TB6-1	AC “Hot”	120 VAC “Hot”, 50/60 Hz 2 amp., 240 VAC “Hot”, 50/60 Hz 1 amp.
TB6-2	Ground	Ground
TB6-3	AC Neutral	120 VAC Neutral, 240 VAC “Hot”
TB7-1	Batt+	Battery terminal (+)
TB7-2	Batt-	Battery terminal (-)
TB9-1	DACT	Line 1 Tip In (non-power-limited) From street
TB9-2	DACT	Line 1 Ring In (non-power-limited) From street
TB9-3	DACT	Line 1 Tip Out (non-power-limited) To phone
TB9-4	DACT	Line 1 Ring Out (non-power-limited) To phone
TB9-5	DACT	Line 2 Tip In (non-power-limited) From street
TB9-6	DACT	Line 2 Ring In (non-power-limited) From street
TB9-7	DACT	Line 2 Ring Out (non-power-limited) To phone
TB9-8	DACT	Line 2 Ring Out (non-power-limited) To phone

Table 3-2 LEDs Jumpers		
Designation	**Description**	**Comments**
LEDs LED25	 Yellow	 Line 1 Trouble
LED26	Yellow	Line 2 Trouble
Jumpers W1		 Not used
W2		OUT to disable battery
W3		IN – No Local Phone Line 1
W4		IN – No Local Phone Line 2
J6		Connection to keypad
JMP1		Cut for 240 VAC input operation

3.1 Power

3.1.1 AC Input

Connection of the 120/240 VAC, 50/60 Hz power source must be made per the requirements of the National Electrical Code, NFPA 70, Article 760, the applicable NFPA requirements, and/or the Authority Having Jurisdiction. Guidelines to follow are:

- Connections must be to a dedicated branch circuit.
- Connections must be mechanically protected.
- All means of disconnecting the circuit must be clearly marked: “FIRE ALARM CIRCUIT CONTROL".
- Accessible only to authorized personnel.
- For 240 VAC operation, no conductor shall have a potential greater than 150 V to ground.

See Table 3-1 for AC input and battery connections.

IMPORTANT: Always apply AC power first, then connect the batteries.

3.1.2 Battery Connections

- TB7-1 is positive. See Table 3-1.
- TB7-2 is negative. See Table 3-1.
- Observe polarity

See Table 3-3 for Battery Calculations

3.1.3 Auxiliary Power Output, Resettable/Non-resettable (Special Application)

- TB4-1 Resettable, 24 VDC, max. 1.0 amp., FWR. Suitable for use with projected beam smoke detectors SPB-24, or DH Series duct detectors.
- TB4-2 Non-resettable, 24 VDC, max. 1.0 amp., FWR. Suitable for use with the Firemark door holders.
  NOTE: Total output is 1.0 amp max. combined.
- TB4-3 Common negative
- TB4-4 Not used

3.1.4 Earth Ground Connection

- TB4-4 Earth Ground

3.2 Relay Connections

System Trouble Contacts

- TB2-1 Normally Open
- TB2-2 Common
- TB2-3 Normally Closed

Transfers on any trouble condition and/or supervisory alarm.

System Alarm Contacts

- TB2-4 Normally Open
- TB2-5 Common
- TB2-6 Normally Closed

Transfers upon any system alarm except supervisory.

Table 3-3 Battery Standby Chart						
Qty	**Module**	**Description**	**Supv. Current**	**Alarm Current**	**Total Supv. Current**	**Total Alarm Current**
	BSM-1	Basic System Module, 1 SLC	0.056 A	0.076 A		
	BSM-2	Basic System Module, 2 SLC	0.065 A	0.085 A		
	BSM-1D	Basic System Module, 1 SLC w/DACT	0.075 A	0.095 A		
	BSM-2D	Basic System Module, 2 SLC w/DACT	0.085 A	0.095 A		
	PTRM	Printer Transient Module	0.020 A	0.020 A		
	CAOM	Class A Option Module	0.001 A	0.001 A		
	MCOM	Municipal Circuit Option Module	0.001 A	0.001 A		
	LCD-7100	Optional Remote Serial Annunciator	0.050 A	0.075 A		
	LDM-7100	LED Driver Module	0.035 A	0.200 A*		
	INI-7100	Intelligent Network Interface Module	0.040 A	0.040 A		
		Addressable Modules				
		Smoke and heat sensors				
		Notification Appliances				
		Aux. Power Devices				
		Misc. Devices				
TOTALS						
A	Total Supv. Current					
B	Enter number of standby hours required**					
C	Multiply Line A times hours in Line B – enter					
D	Total alarm current from above					
E	Enter alarm sounding period in hours. (5 minutes = .084 hr.)					
F	Multiply Line D times Line # - enter					
G	Total of Lines C & F – enter					
H	Multiply Line G by 1.2 – enter (Total ampere/hours required***)					

NOTE:
* With all LEDs and optional buzzer energized.

** 24 hrs for NFPA 72 protected premises or Central Station signaling, or Auxiliary, or Remote Supervising Station Fire Alarm Systems.

*** Use the next size battery with a capacity greater than required. Maximum 31 A/H capacity.

3.3 Notification Appliance Circuits

The 7100 provides two (2), 24 VDC Class B, Style Y notification appliance circuits. Class A, Style Z operation is accomplished by adding the Class A Option (CAOM) Module.

Wiring Instructions

- NAC 1 - TB1-1 (+), TB1-2 (-)
- NAC 2 - TB1-3 (+), TB1-4 (-)

(Polarity markings indicate the polarity of the circuit in alarm condition).
Use U.L. Listed End of Line Resistor EOL-N (47K), P/N 4700-0512

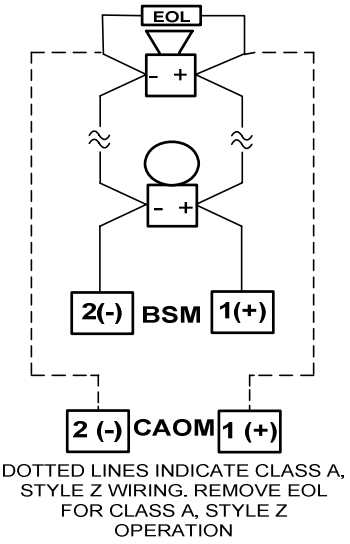


Figure 6 Notification Appliance Circuit Wiring

Circuit Ratings

- 24 VDC regulated
- Max. alarm load 1.5 amp./circuit
- Ground fault test impedance: 20 kOhms
- 18 AWG minimum
- If synchronization of strobes is required MDL-FC Synchronization Modules must be connected. Class B, Style Y operation only Special application: See Compatibility Addendum/ P/N 9000-0427 for a list of Gamewell-FCI Approved, UL Listed notification appliances.
- Supervised
- Power-limited

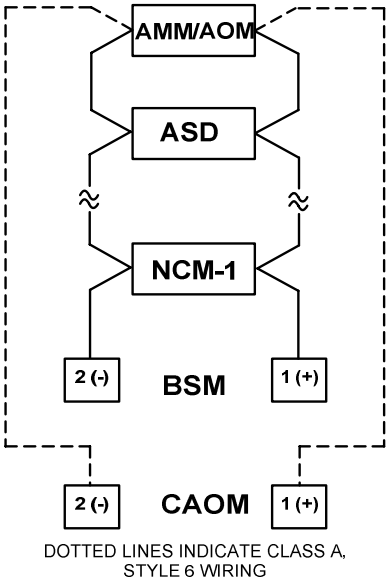
NOTE: The CAOM module is furnished with the End of Line resistor installed.

3.4 Signaling Line Circuits

The 7100 provides one (1), or two (2), 24 VDC Class B, Style 4 signaling line circuits. Class A, Style 6 or 7 operation is accomplished by adding the Class A Option (CAOM) Module. See Figure 7 for Style 4 or 6 wiring, and Figure 8 for Style 7 wiring.

Wiring Instructions

SLC 1 - TB3-1 (+), TB3-2 (-)
SLC 2 - TB3-3 (+), TB3-4 (-) (7100-2 only)
(Polarity markings indicate the polarity that should be maintained throughout the circuit. Polarity must be observed on all devices connected to the circuit).



NOTE: A white wire lead of The NCM-1 module (if used) must be connected to earth ground.

Figure 7 Signaling Line Circuit Wiring

Circuit Ratings

24 VDC (nominal)
Current: 0.090 amp max. (supervisory)
0.097 amp max. (alarm)
0.750 amp max. (short circuit)

- 40 Ohms max. line resistance
- 0.5 µf max. line capacitance
- Ground fault test impedance: 20 kOhms
- 18 AWG minimum, straight lay or twisted-pair unshielded
- Power-Limited
- Supervised

See Compatibility Addendum/ P/N 9000-0427 for a list of Gamewell-FCI Approved, UL Listed sensors and modules.

3.4.1 Style 7 Signaling Line Circuit Installation

When using a Control Module as a Notification Appliance Circuit (NAC), the isolation described in Section 3.4, Signaling Line Circuits, Style 7, Figure 7 is required, or riser conductors must be installed in accordance with the survivability from attack by fire requirements in National Fire Alarm Code, NFPA 72.

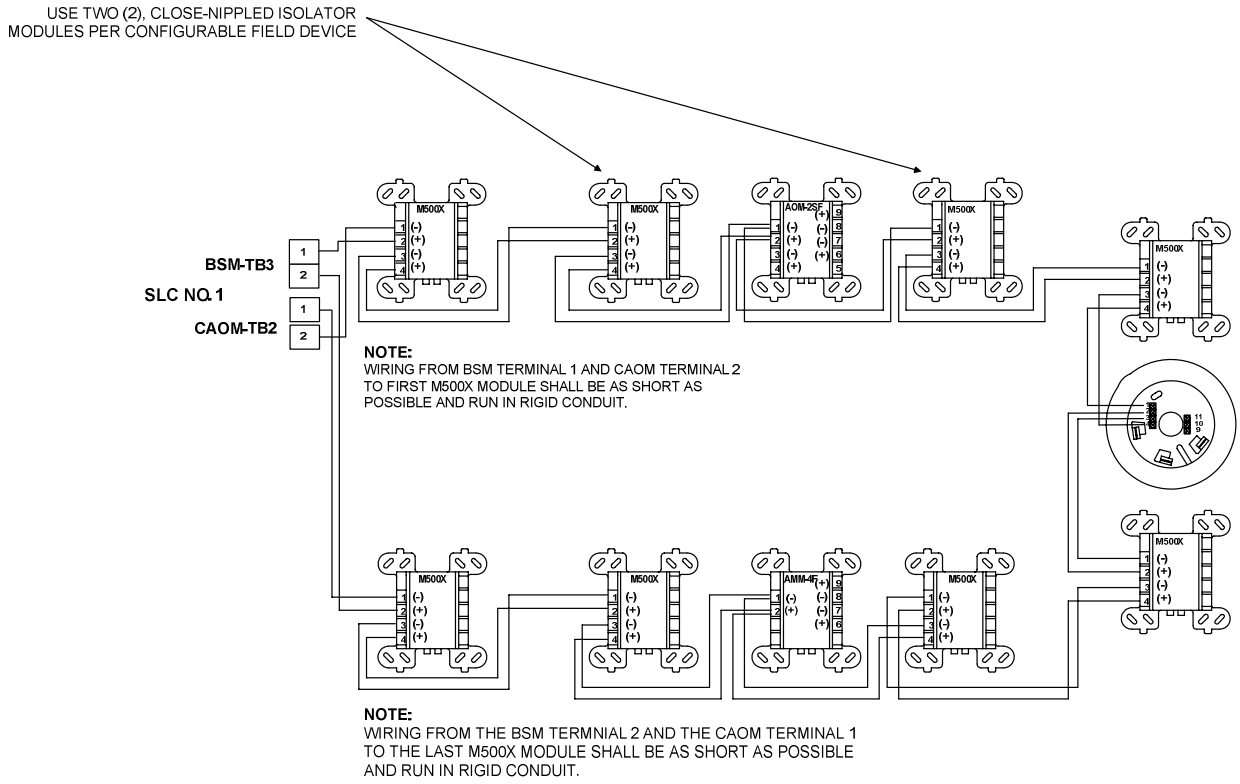


Figure 8

3.5 Analog Sensors

The 7100 accommodates only Gamewell-FCI approved, UL Listed, analog sensors and bases. See the Gamewell-FCI Publication, P/N 9000-0427 for a list of approved sensors and bases. Each signaling line circuit can accommodate 99 sensor address points, using Address numbers 01 to 99.

3.5.1 Address Switches

Addresses are set via the rotary switches on each sensor or module. Setting the address is accomplished by turning each of the two (2) rotary switches until they point to the numbers indicating the proper address (e.g., SW1 @ #2 and SW2 @ #5 would indicate address #25).

3.5.2 Drift Compensation

The 7100 contains a program which performs continuous testing of analog sensors, including sensitivity tests. This program will compensate all analog sensors for age and environmental conditions. Should a problem occur in a sensor, a “Failed Test”, “Dirty” or “Very Dirty” indication for the specific device will appear on the system display and be recorded in the Event Log and the Serial Port.

3.6 Addressable Modules

The 7100 accommodates only Gamewell-FCI approved, U.L. Listed, addressable monitor and/or control modules. See the Gamewell-FCI Compatibility Addendum, P/N 9000-0427 for a list of approved modules. Each SLC can accommodate 98 addressable module points, using Addresses 101 through 198.
In the event of common mode noise problems, a Noise Control Module (NCM-1) may be installed. See Figure 7. The white wire lead must be connected to earth ground.

3.6.1 Address Switches

These addresses are set via the rotary switches on each module. Setting the address is accomplished by turning each of the two (2) rotary switches until they point to the numbers indicating the proper address (e.g., SW1 @ #5 and SW2 @ #7 would indicate address # 157). Note that the “100" digit is pre-set in all addressable modules.

IMPORTANT: In systems incorporating the Positive Alarm Sequence (PAS) in conjunction with addressable modules, (AMM-2F, -4F, -4SF), only one (1) initiating device may be connected to each module (address).
EXAMPLE: Connect only one manual station per AMM-2F module.

3.7 Deleted.

3.8 Deleted.

3.9 Optional Modules

3.9.1 Class A Option Module (CAOM)

The Class A Option Module (CAOM) provides Class A signaling for the notification appliance circuits and Class A, Style 6 or 7 signaling for the signaling line circuits. Style 7 wiring requires the use of an M500X Isolator Module on both sides of a device. It also provides a disconnect switch for each signaling line circuit and a common disconnect switch for both notification appliance circuits. See Table 3-4 for wiring connections.

3.9.2 Municipal Circuit Option Module (MCOM)

The Municipal Circuit Option Module (MCOM) provides output for a local energy city master box, releasing solenoid programmed via the FCP or CAMWORKS, or reversed polarity output for leased line connection intended for connection to a polarity reversal circuit of a remote station receiving unit having compatible ratings. See Table 3-4 for wiring connections. Refer to the Compatibility Addendum P/N 9000-0427 for a list of compatible solenoids.

Ratings	Master Box (NPL)	Polarity Reversal (PL)	Releasing Service
Nominal voltage	24 VDC	24 VDC	24 VDC
Supervisory current	.0018 amp.	.012 amp.	.0005 amp.
Alarm current	.510 amp. (max.)	.012 amp.	.700 amp.
Line resistance	35 ohms (max.)		2 ohms (max)
Trip coil resistance	14.5 ohms (max.)		

3.9.3 Printer Transient Module (PTRM)

The Printer Transient Module (PTRM) provides sufficient transient protection to the RS-232 output to comply with the applicable codes for wiring leaving the confines of the control box, as well as the proper isolation of the signal to prevent damage or interference caused by a connection to certain EDP devices.

Table 3-4 Optional Module Wiring Connections

CAOM Module			
Designation	**Description**	**Comments**	
TB1-1	NAC1	NAC Circuit 1, Class A return (+)	
TB1-2	NAC1	NAC Circuit 1, Class A return (-)	
TB1-3	NAC2	NAC Circuit 2, Class A return (+)	
TB1-4	NAC2	NAC Circuit 2, Class A return (-)	
TB2-1	SLC1	SLC Circuit 1, Class A return (+)	
TB2-2	SLC1	SLC Circuit 1, Class A return (-)	
TB2-3	SLC2	SLC Circuit 2, Class A return (+)	(7100-2, -2D only)
TB2-4	SLC2	SLC Circuit 2, Class A return (-)	(7100-2, 2D only)
MCOM Module			
TB1-1		Output (+)	
TB1-2		Output (-)	
Jumpers			
W1	MCOM	UP for Polarity Reversal operation DOWN for city master box or releasing operation.	
W2	MCOM	UP for Polarity Reversal operation DOWN for city master box or releasing operation.	
PTRM Module Jumper			
W1	PTRM	OUT for supervision of PTRM Module IN for no supervision	
NOTE: The BSM is shipped with jumpers installed on the middle three pairs of pins on J2. These jumpers must be removed when the PTRM is installed.			

3.10 Digital Communicator Operation (7100-D Model)

The 7100-D digital communicator model features numerous formats for communication to a central station. The 7100-D provides the following functions:

- Line seizure - takes control of the phone lines, disconnecting any premises phones using the same lines.
- Off/On-Hook - perform on and off-hook status to phone lines.
- Listen for dial tone - 440 Hz tone typical in most networks.
- Dialing the Central Station phone number – programmable.
- Discern proper Central Station “ACK” and “Kiss-off” tone.
- Transmit data to the Central Station.
- Verify that data has been accepted by the Central Station.
- Hang-up and release phone lines.
- Communicate in a variety of formats.

3.11 Central Station Reporting

UL Listed receivers compatible with the 7100 are listed in Table 3-5 below:

Table 3-5 UL Listed Receivers Compatible with the 7100

Manufacturer	Receiver Model	Formats
Silent Knight	Model 9000†	SIA-8 SIA-20 SK4/2 3/1 14 3/1 23
Silent Knight	Model 9800/9500	SIA-8 SIA-20 SK4/2 3/1 14 3/1 23 Contact ID
Ademco	Model 685	3/1 14 3/1 23
Sur-Gard (Ver. 1.64 or higher)	SG-MLR2-DG	SIA-8 SIA-20 SK4/2 3/1 14 3/1 23 Contact ID
Osborne Hoffman	Quickalert	SIA-8 SIA-20

† If you are using the Model 9000 and the message “HELP” appears on the printer after attempting to download, the 9000 software must be upgraded.
The Model 9000 must have the Model 9307 software package, Revision 900501 or later, to print the PROGRAMMING PASS and PROGRAMMING FAIL messages.

3.12 7100-D DACT Event Reporting Codes

The 7100-D DACT event reporting codes are shown in Table 3-6 below:

Table 3-6 DACT-E3 Event Reporting Codes

Event	SIA	Contact ID	4/2	3/1
Fire Alarm (Smoke or Manual Station)	FA GGT	1 110 00 GGT	0T	0
Fire Alarm Restored	FH GGT	3 110 00 GGT	2T	2
Waterflow Alarm	SA GGT	1 113 00 GGT	0T	0
Waterflow Alarm Restored	SH GGT	3 113 00 GGT	2T	2
Trouble (except Waterflow or Special AMM)	FT GG0	1 373 00 GG0	8T	8
Trouble Restored	FJ GG0	3 373 00 GG0	7T	7
Trouble (Waterflow AMM)	ST GG0	1 370 00 GG0	8T	8
Trouble Restored (Waterflow AMM)	SJ GG0	3 203 00 GG0	7T	7
Trouble (Special AMM)	UT GG0	1 370 00 GG0	8T	8
Trouble Restored (Special AMM)	UJ GG0	3 370 00 GG0	7T	7
Supervisory / Tamper (Module)	SS GGT	1 203 00 GGT	6T	6
Supervisory Restored (Module)	SR GGT	3 203 00 GGT	7T	7
PAS/Action/Supervisory (Sensor)	FS GGT	1 200 00 GGT	6T	6
PAS/Action/Supervisory Restored (Sensor)	FR GGT	3 110 00 GGT	7T	7
Disable (except Waterflow or Special AMM)	FB GG0	1 571 00 GG0	8T	8
Disable Restored	FU GG0	3 571 00 GG0	7T	7
Disable (Waterflow AMM)	SB GG0	1 570 00 GG0	8T	8
Disable Restored (Waterflow AMM)	SU GG0	3 570 00 GG0	7T	7
Disable (Special AMM)	UB GG0	1 570 00 GG0	8T	8
Disable Restored (Special AMM)	UU GG0	3 570 00 GG0	7T	7
AC Fail	AT 0	1 301 00 000	8T	8
AC Fail Restored	AR 0	3 301 00 000	7T	7
Phone Line 1 Fault	LT 1	1 351 00 000	81	8
Phone Line 1 Fault Restored	LR 1	3 351 00 0000	71	7
Phone Line 2 Fault	LT 2	1 352 00 000	82	8
Phone Line 2 Fault Restored	LR 2	3 352 00 000	72	7
Automatic Test (NORMAL)	RP 0	1 602 00 000	90	9
Automatic Test (With Exception)	RP991	1 602 00 991	91	9

For Contact ID and SIA Formats:

GG = group number assigned to the device, 00-99
(For networked systems, GG = Node number)

T = Type of device or event causing the event to be reported.

- 0= Non-loop event
- 1= Any event or device type not listed below
- 2= Manual Station
- 3= Supervisory Device (Non-latching)
- 4= Supervisory Device (Latching)
- 5= Waterflow (Non-silenceable)
- 6= Smoke Alarm
- 8= Multilevel Device

Note:Special AMMs include the following functions:
Reset Switch, Silence Switch, Drill Switch, Alarm Acknowledge Switch, Trouble Acknowledge Switch.

3.13 Telephone Requirements

- DC Ringer Equivalence Number (REN) = 0.5B
- AC Ringer Equivalence Number = 1.3
- Complies with FCC Part 8

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

3.14 Digital Communicator

Before connecting the 7100-D to the public switched telephone network, the installation of two (2) lines is necessary. The following information is provided if required by the local telephone company:

Manufacturer:
Gamewell-FCI
12 Clintonville Road
Northford, CT 06472-1610 USA
Product Model Number: 7100-D
FCC Registration Number: 6KWUSA-34215-AL-T
Ringer Equivalence: 0.5B

3.15 Telephone Company Rights and Warnings

The telephone company, under certain circumstances, may temporarily discontinue services and/or make changes in its facilities, services, equipment or procedures which may affect the operation of this digital communicator. However, the telephone company is required to give advance notice of such changes or interruptions. If the digital communicator causes harm to the telephone network the telephone company reserves the right to temporarily discontinue service. Advance notification will be provided except in cases when advance notice is not practical. In such cases, notification will be provided as soon as possible. The opportunity will be given to correct any problems and to file a complaint.

DO NOT CONNECT THIS PRODUCT TO COIN TELEPHONE, GROUND START OR PARTY LINE SERVICES.

- When the digital communicator activates, premise phones will be disconnected.
- Two separate phone lines are required. Do not connect both telephone interfaces to the same telephone line.
- The digital communicator must be connected to the public switched telephone network upstream of any private telephone system at the protected premises.
- This equipment is designed to be connected to the telephone network or premises wiring via terminal blocks.

3.16 FCC Required Information

This equipment complies with Part 68 of the FCC Rules. The Ringer Equivalence Number (REN) is listed in Section 3.13, while the FCC Registration Number is listed in Section 3.14. These numbers must be provided to the telephone company, if requested.

3.17 Repairs

The 7100-D Digital Communicator does not contain any user-serviceable parts. The unit must be returned to the factory for repair through an authorized Gamewell-FCI distributor.

3.18 Optional Accessories

3.18.1 LCD-7100 Serial Remote Annunciator

The LCD-7100 Serial Remote Annunciator provides an 80-character display and function keys for the following:

- "Alarm Acknowledge" - "System Reset/Lamp Test"
- "Trouble Acknowledge" - "System Drill Test"
- "Signal Silence"

- The 80-character display shows all pertinent information except for menus.
- Keypad functions are enabled only when the keylock is turned to the "Unlocked" position, with the exception of the "Trouble Acknowledge" switch which silences the local audible trouble sounder.
- Operating LEDs provided are as follows:
  - "Alarm" - "Power Fault" - "NAC #1 Silenced"
  - "Supervisory" - "System Silenced" - "NAC #2 Silenced"
  - "System Trouble"
- The LCD-7100 is flush or surface-mounted on a standard 4-gang electrical box.
- The 7100 Series control can accommodate up to five (5), remote LCD-7100 annunciators which may be located up to 4,000 feet from the main control panel. See Table 3-7 below for resistance limitations of the connecting circuit.

Table 3-7 Resistance Limitations

No. of LCD-7100 Units	1	2	3	4	5
Max resistance of 24 VDC power circuit (ohms) to most distant LCD	70	38	24	17	4

3.18.2 LDM-7100 LED Driver Module

Each LDM-7100 LED Driver Module provides 7100 Control Panel output for thirty-three (33), remote LEDs. Three (3), LDM-7100 modules may be mounted in a single annunciator for a maximum total of 99 points per annunciator.

The annunciator may be located up to 4,000 feet from the panel and up to four (4), additional annunciators can be connected, configured identically with the first. See Table 3-8 for resistance limitations for the connecting circuit.

Note, that if more than four (4), LDM-7100 modules are installed, an external regulated and power-limited power supply Listed for use with fire protective signaling units is required.

The module is intended for mounting inside the enclosure of a UL Listed remote annunciator. It may be mounted by means of mounting screws or stacked using a metal hex standoff kit. Wire routing and installation methods are to be in accordance with the annunciator installation instructions.

Table 3-8 Resistance Limitations

Qty. of LDM-7100 modules	1	2	3	4	5 to 15
Max resistance of 24 VDC power Circuit (ohms) to most distant LDM	40	20	14	10	See above.

NOTE 1: Maximum attenuation for the entire fiber-optic line is 8 dB.

NOTE 2: The use of fiber-optic cable is not permitted in New York City.

4.0 Programming/Operation Instructions

4.1 LED Indicators

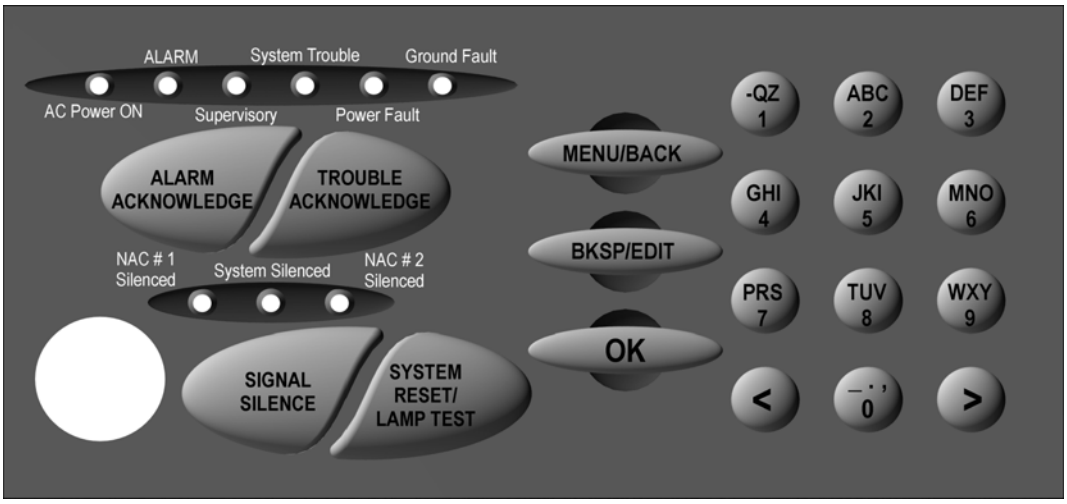


Figure 9 LED Indicators

Table 4-1 LED Indicators		
Designation	**Description**	**Comments**
AC Power On	(green)	Lights to indicate presence of 120/240 VAC input.
Alarm	(red)	Lights when system is in alarm, flashes until alarm is acknowledged.
Supervisory	(yellow)	Lights when supervisory condition exists, flashes until trouble acknowledge is performed.
System Trouble	(yellow)	Lights to indicate trouble condition, flashes until trouble is acknowledged.
Power Fault	(yellow)	Lights during a LOW or NO Battery condition.
Ground Fault	(yellow)	Lights to indicate a ground on a field conductor
NAC 1 Silenced	(yellow)	Lights to indicate that NAC Circuit has been silenced via the Signal Silence Switch (if programmed as silenceable).
NAC 2 Silenced	(yellow)	Lights to indicate that NAC Circuit has been silenced via the Signal Silence Switch (if programmed as silenceable).
System Silenced	(yellow)	Lights when a System Silence has been performed. Flashes when disabled.

4.2 Panel Switches

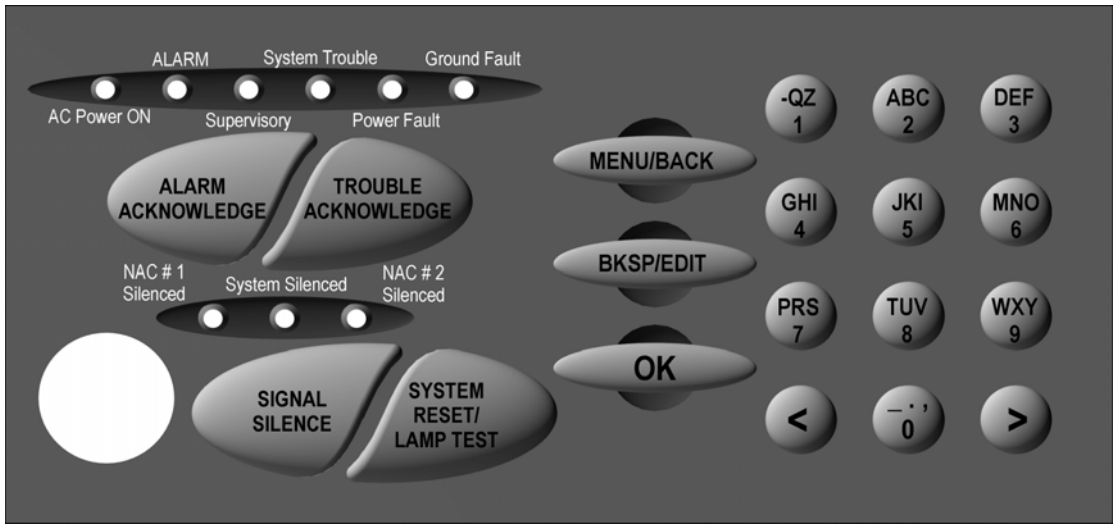


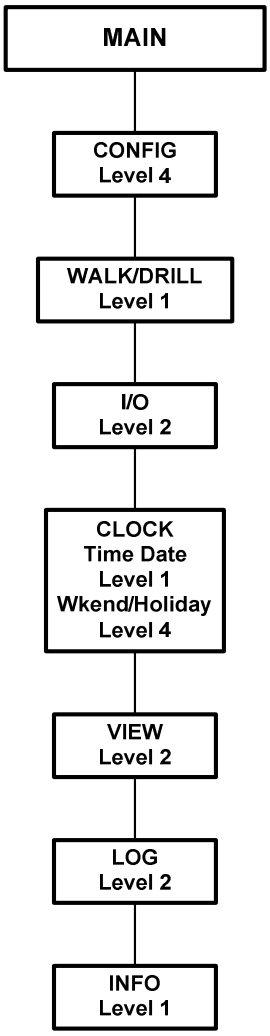
Figure 10 Switches

Table 4-2 Switches	
Designation	**Comments**
Alarm Acknowledge	Silences the panel audible sounder. This switch must be pressed once for each Alarm condition present in the system.
Trouble Acknowledge	Silences the panel audible sounder. This switch must be pressed once for each Trouble or Supervisory condition present in the system.
Signal Silence	Press once and any outputs programmed as silenceable will be deactivated. (All applicable silence LEDs will light). A second activation will re-activate the previously silenced outputs. This switch only functions if an Alarm or Supervisory condition exists in the system.
Lamp Test/Reset	Press momentarily and all LEDs (including all elements in the display) will light momentarily. Press and hold to reset the system.
Menu/Back	Used in programming. The display will prompt the operator as to which function applies. “Menu” is pressed to initially put the 7100 into programming mode. The “Back” function will step the operator out of the programming mode one element at a time.
BKSP/Edit	Used in programming. The display will prompt the operator as to which function applies.
OK	Accepts any changes made in the programming field.
Alphanumeric Keys	These 12 keys allow the user to choose a specific point address by using the numbers for point sensitivity reading, disabling an address, etc. Press each key the number of times necessary to display the correct character on the display. Example: Pressing the “2” key, Once will display the letter “A” Twice will display the letter “B” Three times will display the letter “C” Four times will display the number “2”
PK-625 Key Switch	This key switch is keyed alike with the door lock, and must be operated in order to activate the keypad.

5.0 System Programming

System programming can be performed either by front panel programming as shown below or via portable computer and the Gamewell-FCI Field Configuration Program.

7100
MENU STRUCTURE



5.1 MAIN Menu Selections

CONFIG	Where automatic configuration of the system is accomplished, as well as all of the system global programming, input to output group programming and NAC coding.
WALK/DRILL	Allows the user to select Audible or Silent Walk Test as well as activating and de-activating the System Drill function.
I/O	Allows the user to activate (turn on) or de-activate (turn off) any output in the system.
CLOCK	Selection supplies the options for programming the system time, date, day/night weekend and holidays.
LOG	Options for manipulating the Event Log are display, print, clear (buffer) and selecting to print only the Sensitivity Report.
INFO	Gives the user basic system information such as the current firmware version, the last configuration date as well as the last menu Designation used during the last system configuration update.

5.1.1 Addresses/Default settings after Autoconfiguration

Sensors occupy Addresses 01-99 on the signaling line circuits. Sensors are ion, photoelectronic, or thermal. They are latching and non-verified when autoconfigured. Monitor/Control modules occupy Addresses 101-198. The type of device assigned to a monitor module during autoconfiguration depends on the address as shown below:

Address	Device
100-149	Manual station
150-159	Supervisory switch
160-169	Waterflow switch
170	Silence switch
171	Reset switch
172	Fire Drill switch
173	Alarm/Acknowledge switch
174	Trouble/Supv. Acknowledge switch
175	Aux switch
176-179	Tamper switch
180-184	Control panel
185-189	Remote zone
190-198	Normally open contacts

AOM modules are silenceable and activate on general alarm (day or night). AOM modules modified by breaking off tabs are non-silenceable and activate on general alarm (day or night).

Main
Any selection
 	
(Only opens if adequate access has not already been obtained)
	`[GAIN ] Type password for level 3:`
	`[ACCESS] 000000`
	keypad: enters password (shows as "XXX…" on display)
	OK: if password is valid for desired level (or higher), opens access, logs the event, and continues to next menu. If not, returns to Main Menu.

Main
Config
Password
	`[CHANGE ] Level 1, User 1 111111`
	`[PASSWORD] select key in password`
	keypad: enters new password for specified level and user
	<>: scrolls through levels and users.
	If current access level is lower than selection, password is shown as XXXXXX, otherwise as digits.

Main
Config
Inputs
Type
Edit
 	
(If BKSP/EDIT is pressed, and editing is possible).
	`[DEFINE] AMM Type 43 (Alarm)`
	`[TYPE ] 1: select response`
	<>: scrolls through available response categories:
	• Alarm • Tamper
	• Manual Station • Waterflow
	• Supervisory
	Note that Alarm, Manual Station and Waterflow all produce alarm response, except Manual Station which may use PAS (depending on the global PAS settings) and Waterflow disables silencing.
	OK: accepts the response selection and opens the Edit Device Type Menu.

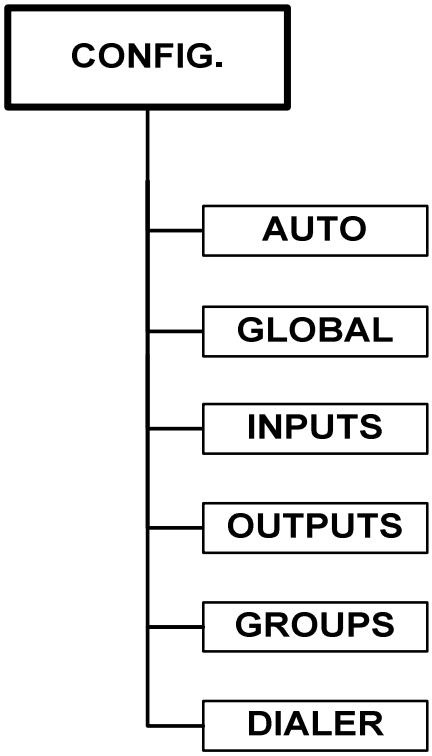
Main
Config
Inputs
Type
Define Type
 	
(After response category is accepted)
	`[EDIT ] Spark De (__ Alpha, repeat`
	`[TYPE LBL] move, EDIT flip case, OK`
	Initially, label comes up all underscores.
	Keypad: enters text via telephone codes. Scrolls through the numeral's associated lower case letters, plus the numeral itself.
	Example:
	• Press "2" key once for 'a', again for 'b', again for 'c', and again for '2'. Press again to scroll back to 'a'.
	• To change to/from upper case, press "BKSP/EDIT", or scrolls to the previous or next letter.
	• "BACK" exits to the Add Type menu without making a change.
	• OK accepts new label and exits to the Select Input Type Menu.

Main
Config
Inputs (or Outputs)
Select
Location
Edit
_____or_____
Main
Config
System ID
Edit
	`[EDIT 1ST] (____ Alpha key, repeat`
	`[LOC WORD] move, EDIT flip case, OK`
	Keypad: enters text (See Edit Device Type Menu). OK: accepts new text for selected address.

Various (If OK is pressed when an illegal value has been entered).	`Error! Entry is not valid. Press BACK, then change value or press BACK again.`

5.2 CONFIG. Menu Selections

AUTO	Is the selection used to either initialize the system or update it.
GLOBAL	Is the key feature to the simplicity of programming. Most system as well as individual SLC device programming can be accomplished here.
INPUTS	Allow the user to insert point-to-point address information to sensors and monitor points individually for device type, location, input group(s), and to modify any of the global programming.
OUTPUTS	Gives the same programming capabilities supplied to the inputs.
GROUPS	Supply the option to allow either Alarm or Supervisory devices access to the system general output list for each type (General Alarm or General Supervisory outputs).
DIALER	Configuration gives the user the ability to turn the DACT on, program primary and secondary phone numbers and accounts, the format that the receiver requires, as well as the event types that are or are not transmitted.



NOTE:
The DACT account programming options for Alarm, Test, Trouble and Supervisory events are defaulted to “MUST” in the Reporting Options section. In order to use this panel for remote signaling purposes all events must be transmitted off-premises.

If one account is used, it is required that the Reporting Option for each event (Alarm, Test, Trouble, Supervisory) be set to “MUST”. If two accounts are used, it is required that the reporting option for each event be set to “MUST” between the two accounts.

Reporting options for each event (Alarm, Test, Trouble, Supervisory) are as follows:

OFF Event will not be reported to the account.

CAN Event can be reported to this account.

MUST Event must be reported. The DACT will continue to attempt to report this condition until all attempts have been made. If the DACT cannot report the event, the event will remain in the system memory and will be retransmitted with a subsequent event.

Table 5-1 7100 Series Menu System	
Menu Tree	**Display and Selections**
Main	`[MAIN] 1: Config 2: Walk/Drill 3:I/O 4: Clock 5: View 6: Log 7:Info`
	1: Opens System Config Menu (PW-L4 required)
	2: Opens Walk Test / Drill Menu (PW-L1 required)
	3: Opens I/O Control Menu (PW-L2 required)
	4: Opens Set Clock Menu (PW-L1 required)
	5: Opens System Config Menu for viewing only (PW-L3 required)
	6: Opens Event Log Menu (PW-L1 required)
	Note: View option is identical to the Config option, allowing access to all the configuration menus, but prevents changing of any settings. The limiting factor between View and Config is the password level used.
Main Config	`[SYSTEM] 1: Auto 2: Global 3: Inputs` `[CONFIG] 4: Outputs 5: Groups 6: Passwords`
	1: Opens Autoconfig Menu
	2: Opens Global Config Settings Menu
	3: Opens Select Input Device Menu
	4: Opens Select Output Device Menu
	5: Opens Select Group Menu
	6: Opens Change Password Menu
Main Config Auto	`[AUTO- ] 1: Clear, then … 2: Update SLCs` `[CONFIG]`
	1: Clears system configuration, then reads SLCs.
	2: Reads SLC, finds changes. New devices get default config, missing devices are marked off-line. No change to globals or groups. (via confirm screen)
Main Config Global	`[GLOBAL] 1: I/O Devices 2: NACs 3: Codes` `[CONFIG] 4: System ID 5: Dialer 6: Misc.`
	1: Opens Device Defaults Menu
	2: Opens NAC Settings Menu
	3: Opens Coded Pattern Setup Menu
	4: Opens System ID Menu
	5: Opens Dialer Settings Menu
	6, 7: Opens Misc. Globals Menus

NOTES:

1) In general, “BACK” exits the current menu and returns it to the previous menu without changing any settings. “OK” accepts any changes that have been made and returns to the previous menu, except in special cases where it continues to the next menu in a group. (See Menu 35).

2) The Set/View Configuration functions use the same menus, but behave differently depending on the Main menu selection and password given. If the “Config” option is selected and a valid Level 4 password is entered, the menus are fully operational. If the “Views” option is selected, or if the password is not valid for Level 4, then the menus may be examined but no changes can be made.

Main Config Global Device defaults	[SET] 1: Verification 2: Sensitivity [DEFAULTS] 3: PAS 4: Multilevel
	1: Opens Set Default Verify Options Menu.
	2: Opens Set Default Sensitivity Menu.
	3: Opens Set PAS Parameters Menu.
	4: Opens Set Multilevel Parameters Menu.
Main Global ConfigDevice defaults Default Verification	[DFLT] 1: Dflt Ion, Photo Verify (None) [VERIFY] 2: Dflt Manual Sta Verify (None)
	1: Scrolls through None, Smoke, PAS.
	2: Toggles between None and PAS.
Main Config Global Device Defaults Default Sensitivity	[DFLT] DAY 1: Photo (Low) 2: Ion (Low) [SENS] NIT 3: Photo (Med.) 4: Ion (Med.)
	1: Scrolls through selections for photo sensor daytime sensitivity.
	2: As above for Ion.
	3: As above for photo night time sensitivity.
	4: As above for Ion.
Main Config Global Device Defaults PAS Parameters	[PAS] 1: Night Bypass (ON) [OPTION] T1 (15sec) T2 (180sec)
	1: Toggles Night Bypass ON/OFF.
	T1 and T2 parameters are fixed in firmware; they are shown for reference only.
Main Config Global Device defaults Multilevel Params	[MULTI] 1: Alert Threshold (35%) [LEVEL] 2: Action Threshold (65%)
	1: Scrolls through Alert Threshold options (20, 35, 50, 65%)
	2: Scrolls through Action Threshold options (35, 50, 65, 80%)
	OK: accepts settings as shown (if valid)
Main Config Global NACs	[NAC] 1:Delay Times [OPTIONS] 2: Coding & Silencing
	1: Opens Set NAC Delays Menu.
	2: Opens Set NAC Coding Menu.
Main Config Global NACs Delay Times	[NAC] 1: Silence Inhibit (None) [DELY] 2: Cutoff (None)
	1: Scrolls through Silence Inhibit Delay options (None, 1 min, 3 min, 5 min)
	2: Scrolls through Signal Cutoff Delay options (None, 5 min, 10 min, 15 min)
Main Config Global NACs Coding	[NAC] NAC 1 1: (Coded) 3: (Silenceable) [MISC] NAC 2 2: (Steady) 4: (Nonsilenceable)
	1: Toggles NAC 1 between Coded and Steady.
	2: Toggles NAC 2 between Coded and Steady.
	3: Toggles NAC 1 between Silenceable and Non-silenceable.
	4: Toggles NAC 2 between Silenceable and Non-silenceable.

Table 5-2 Sensor Sensitivity Settings

	Photo	**Ion**
Low	2.0	1.3
L/M	1.75	1.2
Med.	1.5	1.0
M/H	1.25	0.88
High	1.0	0.77

Main Config Global Codes	[CODED] 1: Set Day Alarm (MT60) Config [PATTS] to select condition <>: selects response condition from: Day Alarm, Night Alarm, Action, Supervisory, Aux. 1: Scrolls through coded pattern selections: MT60, MT120, Temporal, CA Code, Coded 4s.
Main Config Global System ID or Main Config Inputs (or Outputs) Select Location	[L,AAA] FLR1 Lobby Config [LOCTN] 7,9 chng 1st ^ chng 2nd Enter label using keypad and shift key. Press button until desired letter appears. Use BKSP/EDIT to capitalize. Use arrow keys <> to shift message from left to right or vice versa. NOTE: If this menu is opened from the Global Config Menu, System ID selection (Menu 5 option 4), SYSTM ID is displayed; otherwise, L,AAA LOCTN as shown above. 1: Toggles Multiple Trouble Acknowledge ON/OFF 2: Toggles Alarm/Trouble Reminder ON/OFF 3: Scrolls Walk Test Timeout (30m, 60m, 90m) 4: Toggles RS232 Supervision Message ON/OFF
Main Config Global Misc. [6]	[MISC] 1: MutiAck (ON) 2: Reminder (ON) Config [OPTS] 3: WT Timeout (30m) 4: SupvMsg (ON)
Main Config Global Misc. [7]	[LCD] Number of Remote Displays (1) [Annunc]

NOTE:
Some menus may appear in different contexts, but with slightly different behavior. For example, the “Select Device” menu is used in both the Config Inputs and Config Outputs sections to determine which device is to be affected. The process of selection is the same, but when the selection is complete, the result (that is, which menu opens next) differs.

NOTE: The Alarm Verification Feature is disabled when sensor cross-zoning is employed.

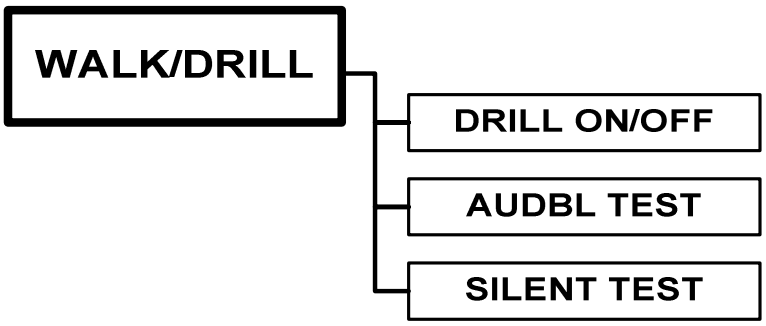
Main Config Inputs or Outputs _____or_____ Main I/O Control or Ena/Dis	[SELECT] Loop, Address: 1,001 [DEVICE] Key in or use <,> # keys: enters SLC & address (restriction: Address 200) <>: Scrolls up or down to next available device. OK: Accepts address, opens Configure Input Device Menu, Configure Output Device Menu, Control Output Menu, or Enable/Disable Device Menu, as appropriate.
Main Config Inputs Select	[CONFIG] 1: Type 2: Group 3: Verify 4: Sens [L, AAA] 5: Location 6: View 7: Copy L, AAA 1: Opens Set Input Type Menu. 2: Opens Assign Input To Group Menu. 3: Opens Set Verify/PAS Function Menu (sensors only). 4: Opens Set Sensitivity Menu (Ion, Photo devices only). 5: Opens Set SLC Device Location Menu. 6: Displays all settings for current device. 7: Copies all settings of the specified device (last input modified)
Main Config Inputs Select Type	[L, AAA] Ion Duct Det 01 (Alarm) [TYPE] ^ Key in Input Type # or use <,> <>: scroll through types which match this physical device. # keys: enter type number (no restrictions; see Type Table) Shows type and associated Response. BKSP/EDIT: If selected device type is editable, or if it is not editable but there is room to create a new user-editable type, opens Add Type menu (Menu 35). ^indicates that editing is possible.
Inputs Select Group	[L,AAA] Group 007 (00=no group) [GROUP] Key in Group# or use <,> No restrictions on group assignment.
Input Select Verify	[L,AAA] 1: Verification (Default) Options are: Default, None, Smoke Verify (Ion/Photo only), PAS
Inputs Select Sens	[L,AAA] 1: Day Sensitivity (Default) [SENS] 2: Night Sensitivity (Default) 1: Scrolls through Day Sensitivity options. 2: Scrolls through Night Sensitivity options. Options vary by type, may include: Default, 1.00%, …2.00%
Inputs Select View	[L,AAA] Ion Duct Det FLR2 Storeroom Alarm Grp23 Vfy:Default 1.75% Shows: SLC and Address, Device Type, Location Label, Device Response, and I/O Group. Shows Verify/PAS settings and day sensitivity setting if applicable (if device is set for default sensitivity, shows default day sensitivity). No changes can be made.

Main Config Outputs Select	`[CONFIG] 1: Type 2: General Resp 3: Groups` `[L,AAA ] 5: Location 6: View 7: Copy L,AAA`
	1: Opens Set Output Type Menu.
	2: Opens Assign Output To Group(s) Menu.
	3,4: Unused.
	5: Opens Set SLC Device Location Menu.
	6: Displays all settings for this device.
	7: Copies settings of the specified device (last output modified).
Main Config Outputs Select Type	`[L,AAA] 34 Silenceable Signal AOM` `Key in Output Type# or use <,>`
	<>: scroll through types which match this physical device # keys: Enter type number (no restrictions: see Type Table) Output device types cannot be edited. If the new type is an input device, “OK” key returns to the System Config Menu, otherwise to Output Config.
Select General Response	`[L,AAA] Activates for Day Alarm (YES)` `[GNL RSP] select condition 1: YES/NO`
	1: Toggles specified general group membership YES/NO.
Select I/O Group	`[L,AAA] Group 1: 36 (00 = none)` `[GROUPS] Key in group # <,> change`
	<>: scrolls through list of general groups.
	Number keys: set group number.
Select View	`[L, 1AA] Slncbl NAC Main Lobby` `ALd ALn ACT SPV TOR WKT TBL 02 00 00`
	<>: select which of the three possible groups to set.
	Shows: SLC and Address, Type, Location, General responses, Group membership. General responses show above abbreviations.
Main Config Groups	`[SELECT] Group number: 03` `[GROUP ] Key in group# or use <,>`
	If the output is activated in that condition, or – if not. # keys: enters group number.
	<>: Scrolls up or down to next group.
Main Config Groups Select General Response	`[GROUP] Activates General Alarm (NO)` `[ 03 ] Activates Genrl Supervisory (YES)`
	OK: Accepts group number, opens Configure Group Menu.
	1: Toggles General Alarm response on/off (applies to alarms initiated by Alarm, Manual, Waterflow, and Aux devices, for both Day and Night general alarm).
	2: Toggles General Supervisory response on/off (applies to off-normals initiated by Supervisory and Tamper devices).
	If a group contains inputs of several types (an unusual case), the appropriate general flag is applied for each new alarm/off-normal.

Main Config DACT (opens only if DACT is installed)	[CONFG] 0:Options 1:Line1 2:Line2 [DACT] 3:Account1 4:Account 2
	0: Opens DACT Options Menu.
	1: Opens Phone Line Options Menu for Line 1.
	2: Opens Phone Line Options Menu for Line 2.
	3: Opens Account Options Menu for Account 1.
	4: Opens Account Options Menu for Account 2.
Main Config DACT Account Options	[ACCTn] 1: Format 2: Reporting [OPTS] 3: AccountID 4: CIC & Phone#
	1: Opens Communications Format Menu Account n.
	2: Opens Reporting Options Menu for Account n.
	3: Opens Account ID Menu for Account n.
	4: Opens Account CIC / Phone Number Menu for Account n.
Main Config DACT Account Options Reporting Options	[ACCTn] 1:Alarms (Must) 2:Test (Can) [REPRT] 3: Trbl (Can) 3:Spvsry (Off)
	1: Selects reporting option for Alarms [Off, Can, Must].
	2: Selects reporting option for Test [Off, Can, Must].
	3: Selects reporting option for Troubles [Off, Can, Must].
	4: Selects reporting option for Supervisory [Off, Can, Must].
Main Config DACT Account Options Account ID Options	[ACCTn] 000000 [ID #] Type all 6 digits (leading 0s)
	# keys: enters account ID number for account n.
	BKSP, <,> not operational.
	Note: all 6 digits must be entered, with leading zeroes if necessary.
Main Config DACT Account Options CIC Number - and - Phone Number	[ACCTn] CIC:SSSSSSSS #:SSSSSSSSSSSSSSS [CIC, #] Type digits, BKSP/EDIT,
	# keys: enters CIC (dialing prefix) or phone number for account n.
	<,>: moves backward or forward through numbers.
	BKSP: Scrolls through special characters S (no digit), *, #, comma (2 sec. Pause), and @ (dial Tone Select) without advancing cursor. When desired character appears, press “>” to advance.
	Note: Cursor is on first digit of phone # when menu opens.
Main Config DACT Line Options	[LINEn] 1: Dialing Mode (0) [OPTS] 2: Line Monitor (ON)
	1: Scrolls through Dialing Mode options for Line n [0…4] 0=USA Tone or rotary (40/60), 1=USA Rotary only, 2=Tone only, 3=Tone or European Rotary (33/67), 4=European Rotary only.
	2: Toggles Line Monitoring ON/OFF for Line n.
	Note: periodic line test is enabled when either line’s Line Monitor setting is 1.
Main Config DACT Account Options Comm Format	[ACCTn] 1:Format (0) [FORMT]
	1: Scrolls through communication format options for Account n [0…6] 0=SIA DCS 8, 1=SIA DCS 20, 2=Ademco Contact ID, 3=4/2 1400 Hz, 4=3/1 1400 HZ, 5=3/1 2300 HZ, 6=4/2 2300 HZ
Main Config DACT Account Options Comm Format	[DACT] 1: DACT (OFF) :FirstTest 00:00 Config [OPTS] 2:ACDelay (10) 3:Tests/day (1)
	1: Toggles DACT operation ON/OFF.
	2: Toggles AC Fault reporting delay (0, 10, 20 hours).
	3. Scrolls through number of lines tests per day [1…4].
	<,>: Scrolls First Line Test Time setting (15-minute steps).

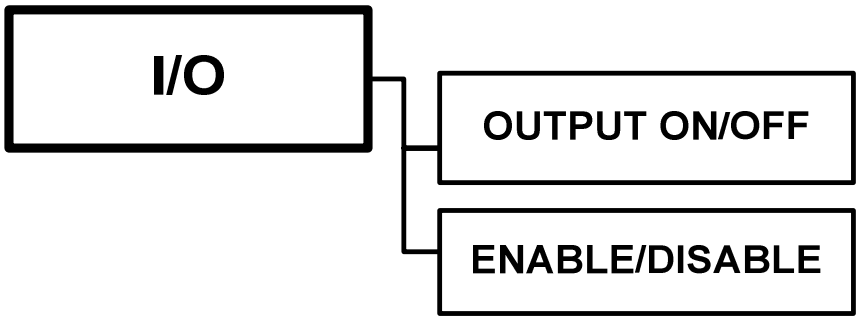
5.3 WALK / DRILL Menu Selections

Drill ON/OFF	Is a simple ON or OFF selection. ON will activate the NACs, while OFF will deactivate them.
Audible Test	Is a simple ON or OFF selection for an audible walk test. The audible appliances will sound twice for a trouble, 3 times for a supervisory signal and 4 times for an alarm.



5.4 I/O Menu Selections

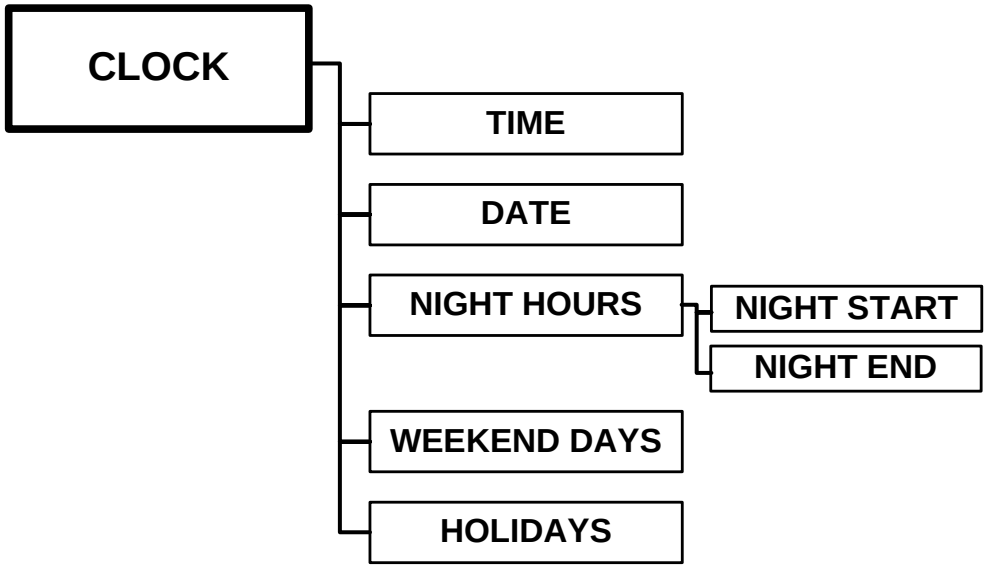
Output ON/OFF	Forces the toggling on or off of a specified output. These outputs can include NAC 1, NAC 2, Municipal Circuit (if present) and any Addressable Control Point.
Enable/Disable	Allows the user to take any addressable device on either SLC and disconnect it through software. While disabled, a point will report a trouble until it is enabled, but will not cause or respond to an alarm.



Main Walk/Drill	`[Walk/] 1: Drill (OFF) 2:Audble Test (OFF)` `[DRILL] 3: Silent Test (OFF)`
	1: Toggles Fire Drill ON/OFF.
	2: Toggles Audible Walk Test ON/OFF.
	3: Toggles Silent Walk Test ON/OFF.
Main I/O	`[I/O ] 1: Output On/Off` `[CTRL] 2: Enable/Disable Device`
	1: Opens Select Device to Control Menu.
	2: Opens Select Device to Enable Menu.
	Note: These are the same menus as used in the Configure section, or similar, except after selection they proceed to the following menus.
Main I/O Select Output On/Off	`[CNTRL] NAC 1 (AUTO)` `[L,AAA ] 1:On/Auto`
	1: Toggles selected output ON/AUTO. Output selections include NAC1, NAC2, and Muni Circuit (if present). These appear at the bottom of the output device scroll list, and can be entered by keypad as addresses 0001, 0002, and 0003. (Note that AOMs start at address 1101). If the selected device is an AOM, its location is shown, otherwise NAC 1, NAC2, or Municipal Circuit. Status LEDs and relays are not considered to be programmable outputs.
Main I/O Select Enable/Disable	`[ENA/DIS] Municipal Circuit (ENABLED)` `[L,AAA ] 1: Enable/Disable`
	1: Toggles selected device ENABLED/DISABLED

5.5 CLOCK Menu Selections

Time	Is set in 24 hour notation. It is set with hours then minutes “HHMM”.
Date	Is set as month, date and year “MMDDYY”.
Night Hours	Sets the Day/Night programming. If no time is set here, the system will always remain in the Day mode.
Night Start	Will initiate the Night/Weekend programming which is generally used to make certain sensors more sensitive to particles of combustion than during the day. This must be programmed in 24 hour notation (HHMM).
Night End	Will conclude the Night/Weekend programming. Weekend Days is where the user programs the days of the week that the premises are unoccupied (the same as Night).
Holidays	Is where the the user programs the days of the year that the premises are unoccupied (the same as Night and Weekends). This must be programmed as month and date (MMDD).

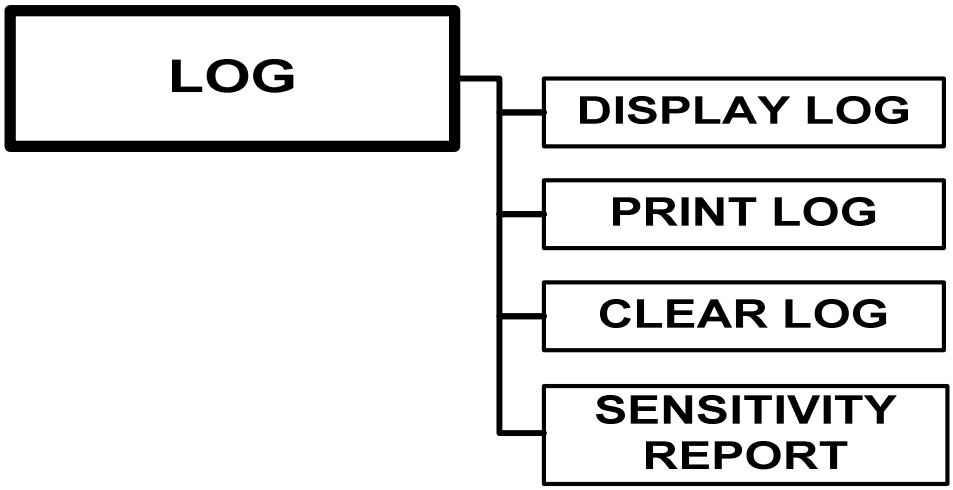


Main Clock	[SET]1: Time 2: Date 3: Night [CLOCK]4: Weekend 5: Holidays
	1: Opens Set Time Menu.
	2: Opens Set Date Menu.
	3: Opens Set Night Hours Menu.
	4: Opens Set Weekend Schedule Menu.
	5. Opens Set Holiday Schedule Menu.
Main Clock Time	[SET] 13:44 (1:44 PM) [TIME] Type HHMM (24-hour notation)
	keypad: enter time.
Main Clock Date	[SET] 07/16/98 (Thu July 16, 1998) [DATE] Type MMDDYY
	keypad: enter date.
Main Clock Night Hours	[SET] Start 17 End 07 (5:00P7:00A) [NIGHT] Type SSEE (24-hour notation)
	Keypad: enter night start and end hours.
Main Clock Weekend Days	[SET] Saturday (YES) [WKEND] select day 1:Yes/No
	1: Toggles weekend mode YES/NO for day shown.
	<>: scrolls through days of the week.
	If YES, system will operate in Night mode during the entire day.
Main Clock Holidays	[SET] 12/25 Type MMDD 0000-delete [HOLIDY] another holiday
	If NO, system will operate in Night mode during night hours only. Keypad: enters date to be treated as a holiday.
	<>: scrolls through list of holiday entries (accepting current one).

NOTE:
Level 1 access is required to enter the “Set Clock” menu. The “Set Time” and “Set Date” functions are available at Level 1 access, and it is also possible to view the other clock menu settings (day/night schedule, weekends, holidays) with Level 1 access. However, Level 3 access must be obtained before these configuration settings can be changed.

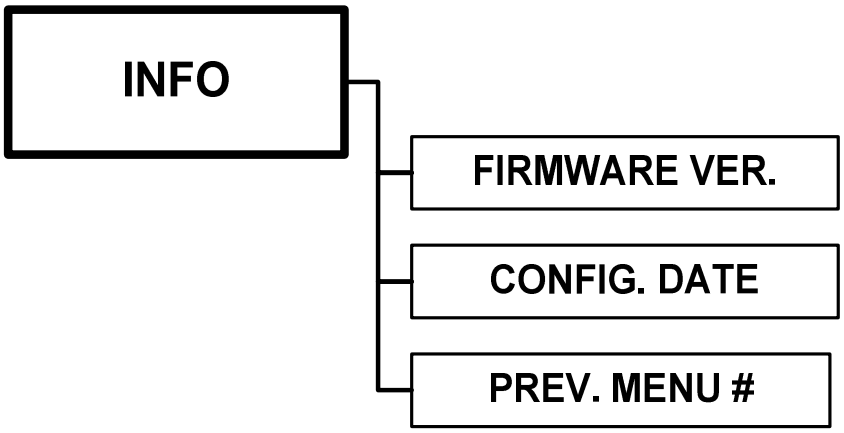
5.6 LOG Menu Selections

Display Log	Opens the System Display to all events in the buffer memory.
Print Log	Sends the entire buffer memory to the RS-232 port.
Clear Log	(Hard reset) will eliminate all events stored in the buffer memory.
Sensitivity Report	Will send sensor sensitivity information to the RS-232 port.



5.7 INFO Menu Selection

Displays the Firmware Version installed in the 7100. The last configuration and the numerical designation of the Menu Item used for the last configuration update.



Main Log	[VIEW] 1:Display Log 2: Print Log [LOG] 3:Clear Log 4:Sens. Report
	1: Opens Show Events Menu.
	2: Opens Print Log Menu.
	3: Prompts for OK; if accepted, clears the Event Log and resets panel.
	4: Initiates a sensor sensitivity printout.
Main Log Show Events	(Display shows a log entry)
	Scrolls through all logged events, beginning with the most recent event. If user attempts to scroll beyond the end (or beginning) of the log, End of log is displayed briefly, then the last (or first) event is redisplayed.
	Display cannot give instructions, since it contains all the information about the event being displayed (same as the display you would see when the event occurred).
Main Log Print Log	[PRINT} 1: All events 2:Last 20 [LOG]
	If there is no log printout in progress, starts a printout as shown above. Once the printout begins, or if a printout is in progress when this menu is opened, the message and function change to “3:Abort printout”. Printout starts immediately, not when OK is pressed.
	If printout completes while this menu is still open, the text of the menu doesn’t change until the user presses a key.
Main Log	[PANEL] Software Last Cfg. Change [INFO] V1.2-001 12:23 07/23/99 33
	Shows the system software version, time and date of the most recent change to the configuration program, and number of the menu used to make the change (i.e., what was changed).

6.0 Power Up Procedure

6.1 General

Ensure that all cables and optional modules (if any) are installed and secured per the installation instructions. DO NOT install any field wiring at this time.

1. Connect the End-of-Line devices to the notification appliance and municipal (if installed) circuits.

2. Power the panel with AC first. The system initializes and indicates a “Battery Missing” condition.

3. Connect the batteries, taking care to observe polarity.

4. The system should be in normal condition. You may proceed with the installation of field wiring. Check all wiring prior to the connection to the control panel. Do not use this panel as a circuit tester.

6.2 To set the system time (Keyswitch must be engaged).

1. Press the **MENU/Back** button on the keypad and enter the Level 1 password, XXXXXX.

2. Press the OK button.

3. The Main Menu displayeds. Press the Number 4 and the Clock Menu displays.

4. The following table includes the numbers and the purpose of each number.
   Number 1 Opens the **Time** setup.
   Number 2 Opens the **Date** setup.
   Number 3 Opens the **Day/Night** setup.
   Number 4 Opens the **Weekend** setup.
   Number 5 Opens the **Holiday** setup.
   Note: Use the keypad to enter the data. Use the **OK** button when each section is completed. The **OK** button acts as an Enter Key.

5. Press the **Reset/Lamptest** button and ensure that the time and date remain correct.

6.3 Automatic Configuration

1. Press the **Menu/Back** button on the keypad and enter the Level 4 password, YYYYYY.

2. Press the **OK** button.

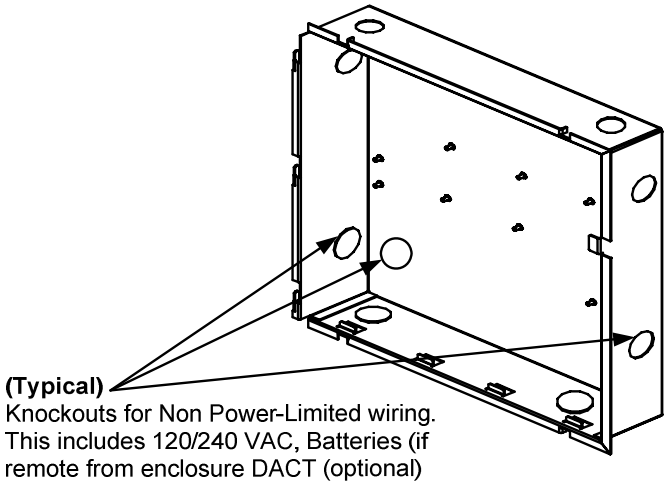
3. The Main Menu displays. Press the Number 1 and the **Configuration Menu** displays.

4. Press the Number 1 to open the Automatic Configuration Menu. Numbers 2 through 5 are for specific programming and are covered in previous sections.

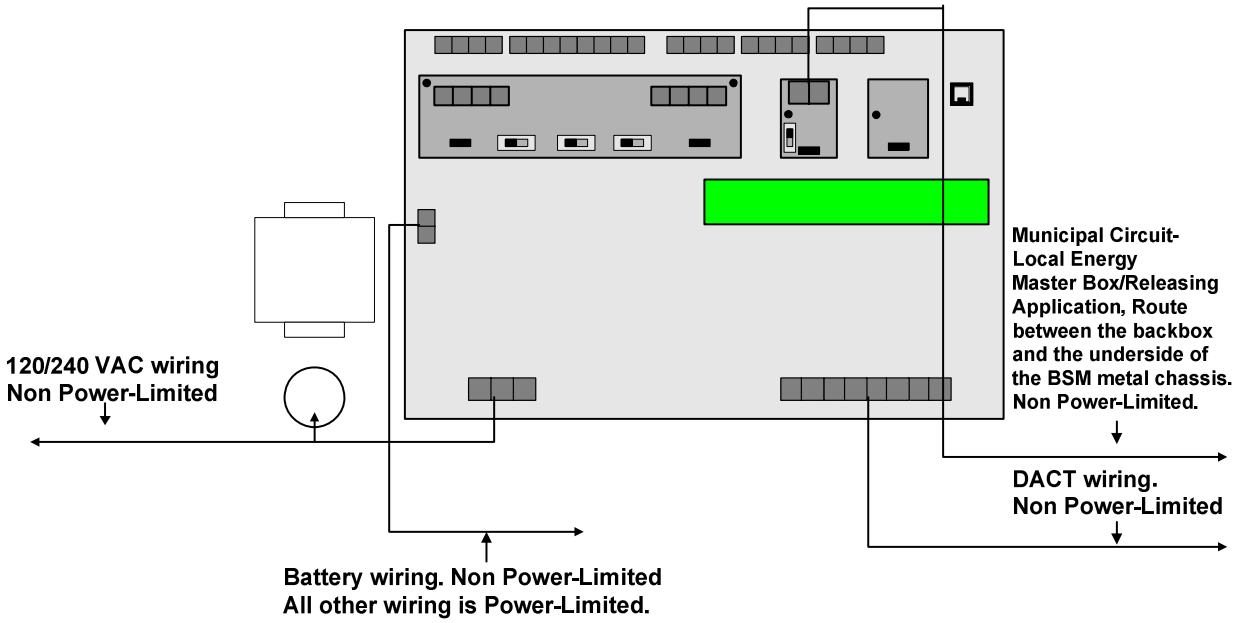
5. Since this is the first time the system is being configured, press the Number 1 to initiate the **Clear**, **Then Configure** process. This will place all of the system settings to the factory default and then read all of the devices correctly connected to the two (2), SLCs. After this process is complete, the system may be given an initial test to assure all of the devices have been installed into the system memory.

NOTE: Automatic configuration does not set the DACT. The DACT must be programmed.

Table 6-1 7100 Series Device Types and Functions					
#	Device Type	Physical	Response	Action in Alarm Condition	
1	Ion Sensor	Ion	Smoke Alarm	Trips ALARM LED and ALARM Relay Trips other outputs per Day Alarm or Night Alarm Response, or by group. Smoke Alarm may be verified or PAS; Manual Alarm may be PAS.	Alarm condition latches, trouble condition is restorable.
2	Ion Duct Sensor				
3	Photo Sensor	Photo			
4	Photo Duct Sensor				
5	Photo/Thermal				
6	Thermal	Thermal	Alarm		
7					
8	Smoke Det	AMM			
9	Manual Station		Manual Alarm		
10	Plenum Det		Alarm		
11	N.O. Contact				
12	Heat Det				
13	SubLoop				
14	Waterflow Silenceable				
15	Beam Det				
16	Duct Det				
17	FACP Alarm				
18	Remote Zone				
19	Smoke/Heat				
20	Supervisory Switch (Non Latching)	AMM	Supervisory NL	Trips general supervisory outputs, SUPERVISORY LED, TROUBLE Relay.	Alarms and Troubles restore.
21	Tamper Switch (Latching)		Supervisory L		Alarms latch, Trouble restore.
22	Waterflow NonSilenceable	AMM	Waterflow NS	Same as ALARM but inhibits panel silence.	
23	Non-Reporting Actuator Latch	AMM	Non-Report	Activates group, but produces no other response.	Alarms latch
24	Non-Reporting Actuator Nonlatch				Alarms restore
25	Non-Reporting Ion Non latch	Ion			
26	Non-Reporting Photo Non latch	Photo			
27	Ion Multilevel	Ion	Multilevel	Produces “Alert”, “Action”, or “Alarm” response depending on global %-of-alarm settings	
28	Photo Multilevel	Photo			
29	Signal Silence	AMM	Silence	Non-latching Produces the specified function	
30	Reset		Reset		
31	Drill		Fire Drill		
32	Alarm Acknowledge		Alrm Ack		
33	Trouble/Supv Acknowledge		Trbl/Supv Ack		
34	Aux		Aux		
35	End-Of-Line	AMM	EOL	Used for address M99 only	
36	Silenceable Signal	Signal AOM	(Output)	Produces “Short” indication	
37	Nonsilenceable Signal				
38	Silenceable Contacts	Form C AOM		No “Short” indication	
39	Nonsilenceable Contacts				
40 49	User-Defined Device Types	AMM	Choice of Alarm, Supervisory NL, Tamper L, Waterflow NS	Per selected response	



(Typical)
Knockouts for Non Power-Limited wiring. This includes 120/240 VAC, Batteries (if remote from enclosure DACT (optional) and Municipal (optional) wiring.
(For reference)



Power-limited and non power-limited circuit wiring must remain separated in the cabinet. All power-limited circuit wiring must remain at least 0.25" away from any non power-limited wiring. Power-limited and non power-limited wiring must enter and exit the cabinet through different knockouts and/or conduits.

Power-limited wire must be type FPL, FPLR or FPLP according to Article 760 of the National Electrical Code.

NOTE: Non power-limited wiring must be 12-18 AWG.

Figure 11 Power-Limited/Non Power-Limited Wiring

Limited Warranty

Honeywell International Inc. warrants products manufactured by it to be free from defects in materials and workmanship for eighteen (18) months from the date of manufacture, under normal use and service. Products are date stamped at time of manufacture. The sole and exclusive obligation of **Honeywell International Inc.** is to repair or replace, at its option, free of charge for parts and labor, any part that is defective in materials or workmanship under normal use and service. All returns for credit are subject to inspection and testing at the factory before actual determination is made to allow credit. **Honeywell International Inc.** does not warrant products not manufactured by it, but assigns to the purchaser any warranty extended by the manufacturer of such products. This warranty is void if the product is altered or repaired by anyone other than **Honeywell International Inc.** or as expressly authorized by **Honeywell International Inc.** in writing, or is serviced by anyone other than **Honeywell International Inc.** or its authorized distributors. This warranty is also void if there is a failure to maintain the products and systems in which they operate in a proper and workable manner. In case of defect, secure a Return Material Authorization form from our Return Authorization Department.

This writing constitutes the only warranty made by **Honeywell International Inc.**, with respect to its products. **Honeywell International Inc.**, does not represent that its products will prevent any loss by fire or otherwise, or that its products will in all cases provide the protection for which they are installed or intended. Buyer acknowledges that **Honeywell International Inc.**, is not an insurer and assumes no risk for loss or damages or the cost of any inconvenience, transportation damage, misuse, abuse, accident or similar incident.

HONEYWELL INTERNATIONAL INC. GIVES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR OTHERWISE WHICH EXTENDS BEYOND THE DESCRIPTION ON THE FACE HEREOF. UNDER NO CIRCUMSTANCES SHALL **HONEYWELL INTERNATIONAL INC.** BE LIABLE FOR ANY LOSS OF OR DAMAGE TO PROPERTY, DIRECT, INCIDENTAL OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE **HONEYWELL INTERNATIONAL INC.**'S PRODUCTS. FURTHERMORE, **HONEYWELL INTERNATIONAL INC.** SHALL NOT BE LIABLE FOR ANY PERSONAL INJURY OR DEATH WHICH MAY ARISE IN THE COURSE OF, OR AS A RESULT OF, PERSONAL, COMMERCIAL OR INDUSTRIAL USE OF ITS PRODUCTS.

This warranty replaces all previous warranties and is the only warranty made by **Honeywell International Inc**. No increase or alteration, written or verbal, of the obligation of this warranty is authorized.

Warn-HL-05-2007.fm

by Honeywell

Gamewell-FCI
12 Clintonville Road
Northford, CT 06472-1610 USA
203-484-7161
fax: 203-484-7118

www.gamewell-fci.com

ISO 9001
CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

9000-0447 Rev. I