STANLEY®

Security Solutions

SCSS-700

Analog/Addressable Fire System Installation/Operation Manual

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Installation Procedure

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

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. This system meets NFPA requirements for operation within the range of 0°C-49°C (32°F-120°F) or humidity within the range of 10%-93% at 30°C (86°F) noncondensing. 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 lightning induced transients. Although no system is completely immune from lightning transients and interference, proper grounding will reduce susceptibility. Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning 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. Stanley Fire alarm control panels contain 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.

While installing a fire alarm system may make lower insurance rates possible, it is not a substitute for fire insurance! **An automatic fire alarm system** - typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control 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. **Any fire alarm system** may fail for a variety of reasons: Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in walls, or 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. Furthermore, all types of smoke detectors, including ionization and photoelectric types, have sensing limitations. No type of smoke detector can sense every kind of fire caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson.

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. **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. **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. **Equipment used in the system** may not be technically compatible with the control. 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. **The most common cause** of fire alarm malfunctions, however, is inadequate maintenance. All devices and system wiring should be tested and maintained by professional fire alarm installers following written procedures supplied with each device. System inspection and testing should be scheduled monthly or as required by National and/or local fire codes. Adequate written records of all inspections should be kept.

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Section 1
Introduction

The SCSS-700 Fire Alarm Control/Communicator is an analog addressable fire control system that meets the requirements of UL 864. The SCSS-700ND is used in a networked system where there is at least one SCSS-700 in the system. The SCSS-700ND is the same as the SCSS-700 without the display. When using the SCSS-700ND as a stand alone local unit, one SCSS-700ANN must be connected, and the SCSS-700ANN must be wired in conduit within 20’ of the SCSS-700ND.

1.1 Overview of Basic System

The SCSS-700 base system is packaged as an assembled stack of 3 circuit boards mounted to an aluminum housing.

1.1.1 Hardware Features

- The basic SCSS-700 panel contains one built in signaling line circuit (SLC), which supports up to 159 LiteSpeed sensors and 159 LiteSpeed modules. Additional SLC loops can be added using the model 5815XL SLC expander to increase overall point capacity to a maximum of 636 points.
- Each SLC supports 159 LiteSpeed sensors and 159 LiteSpeed modules to a maximum of 636 points per SCSS-700 control panel.
- 9.0A of output power is available through 8 sets of terminals for notification and auxiliary applications. Each circuit is power limited per UL 864 and can source up to 3.0A (total output power must not exceed 9.0A). The constant auxiliary power load must not exceed 6.0A for normal standby.
- Built-in dual phone line, digital alarm communicator/transmitter (DACT).
- Reports events to central station by point or by zone.
- UL Listed for pre-action and deluge releasing systems.
- Dedicated Form C trouble relay and two general purpose Form C programmable relays.
- Can be used with Model SCSS-700ANN remote annunciators (sold separately).
- Supports the 5865-3, 5865-4, and 5880 LED annunciators. See sections 4.9 and 4.10 for additional information on these models.
- Printing of event log available through the Model 5824 serial/parallel printer interface module (sold separately).

- Supports conventional 2-wire & 4-wire detectors using the 8 Flexput™ circuits or SLC zone modules.
- 999 software zones, 999 output groups.
- Add 4 notification/auxiliary power circuits with each 5496 Intelligent Power Module.
- Add 6 Flexput™ circuits with each 5895XL Remote Power Supply.
- Interconnection capability for up to 8 panels.

1.1.2 Network System Hardware Features

- The default network setup can contain up to eight SCSS-700 / SCSS-700ND panels connected within a networked system providing a maximum addressable point capacity of 5,088.
- The networked system can be configured to emulate a large virtual system or can be segmented into separate sites for multiple building applications.
- Each building is referred to as a “site”. All panels in a site operate as a single panel.
- Panels can be interconnected using a BUS or CLASS A (style 7) topology.
- Panels can be connected cost effectively via shielded twisted pair copper wire within conduit when the panels are located no more than 20 feet apart and within the same room.
- Panels separated by more than 20 feet or located in multiple buildings use IFP-RPT network repeater hardware to provide up to 3000 ft. of separation with twisted pair copper wire or up to 8dB loss of signal separation for fiber optic cable. All 3 methods of panel connectivity can be used within the same networked system.
- The network architecture provides true peer to peer capability allowing network survivability for all hardware that remains operational in the event of partial system failure.

1.1.3 Software Features

- Advanced analog smoke detector features:
  Three sensitivity settings (high, medium, low)
  Automatic drift compensation
  Maintenance alert region
  Point status meets calibrated smoke test requirements for NFPA 72
  Automatic day/night sensitivity adjustment
- “JumpStart AutoProgramming” feature for easy programming
- Non-volatile event history stores 1000 events per panel
- A choice of output patterns available for notification outputs, including ANSI 3.41 temporal signal
- Built-in synchronization appliance support for AMSECO, Gentex®, System Sensor®, and Wheelock®.

1.2 About this Manual

This manual is intended to be a complete reference for all installation and operation tasks for the SCSS-700 and SCSS-700ND.

Please let us know if the manual does not meet your needs in any way. We value your feedback!

1.2.1 Terms Used in this Manual

The following terminology is used with the above mentioned control panels:

Table 1-1 Manual Terminology

Term	Description
SLC	Signaling line circuit
Module	The term module is used for all hardware devices except for SLC addressable devices and notification appliances. This includes the SCSS-700/SCSS-700ND panels itself and the built-in power supply. It also refers to any (optional) 5815XL SLC expansion modules.
Input Point	An addressable sensing device, such as a smoke or heat detector or a contact monitor device.
Input Zone	A protected area made up of input points.
Output Point (or Output Circuit)	A notification point or circuit for notification appliances. Relay circuits and auxiliary power circuits are also considered output points.
Group (or “Output Group”)	A group of output points. Operating characteristics are common to all output points in the group.
Mapping	Mapping is the process of specifying which outputs are activated when certain events occur in the system. Section 8.2 explains mapping in detail.
Networking	Up to 8 panels can be networked to sites that act like one panel.

1.3 Compatible Products

Table 1-2 lists the products available from Stanley for use with the SCSS-700.

Table 1-2: SCSS-700 Compatible Products

Type of Device	Model	Description	
LiteSpeed Addressable SLC Devices	See Section 7.1 for a list of compatible devices.		
Other Modules	5815XL SLC Expander	Each 5815XL allows up to 159 LiteSpeed sensors and 159 LiteSpeed modules to be added to the system. The number of 5815XLs that can be added to the system is limited only by the maximum number of SBUS devices. However the maximum point count is limited to 636 per panel. This allows the installer to distribute the 636 points on more than two SLC loops and also allows all 636 points to be all sensors or all modules or any combination of sensors and modules.	
	5824 Serial/Parallel Printer Interface Module	Allows a printer to be attached for the on-site event logging. Maximum of two 5824s per control panel	
	5895XL Intelligent Power Module	Provides additional power, six Flexputs™ circuits, and two Form C relays. *See Model 5895XL Installation Instruction PN 151142.*	
	5496 Intelligent Power Module	Provides four additional Notification Appliance Circuits/Auxiliary power.	
	SCSS-700ANN Remote Fire Alarm Annunciator	Same operation, similar appearance as on-board annunciator.	
	5865-3 and 5865-4 LED Annunciator	LED annunciator can display up to 30 LEDs (15 red and 15 yellow). 5865-4 has key switches for silence and reset, and a system trouble LED.	
	5880 LED I/O Module	Driver for up to 40 LEDs. Interfaces with customized annunciator boards. In addition the 5880 has eight generic switch input points.	
	5883 General Purpose Relay Module	Provides 10 Form C relays. Designed to be driven by the 5880. Up to four, 5883s can be used with each 5880 module.	
	VIP-VCM	Voice Control Module used with the SCSS-700VS.	Refer to the *VIP-Series Installation Manual* P/N 53796 for more information on these accessories. VIP series is not FM approved for use with SCSS-700.
	VIP-SW16	16 switch expander with the SCSS-700VS	
	VIP-50	50 watt audio amplifier	
	VIP-125	125 watt audio amplifier	
	VIP-CE4	Provides four additional audio circuits for the VIP-50/VIP-125	
	SCS-700RM	Remote Microphone used with the SCSS-700VS.	
Misc.	7860 Telephone Cord	RJ31X cord for connecting phone line to the SCSS-700.	
	SCSS-700PK Software Suite	For communication and panel programming with a Windows-based computer and *modem (see Table 1-3 for compatible modems). Enables remote viewing of detector status and event history.	
	RBB	Remote Battery Box for mounting backup batteries up to 35AH that are too large to fit into the main control panel cabinet. Dimensions: 16" W x 10" H x 6" D (40.64 cm W x 25.4 cm H x 15.24 cm D)	
	AB-55	Remote Battery Box for mounting backup batteries up to 55AH that are too large to fit into the main control panel cabinet. Dimensions: 20" W x 12" H x 7.5" D (50.8 cm W x 30.48 cm H x 19.05 cm D)	

The following modems have been tested by Stanley for compatibility with the Software Suite software packages:

Table 1-3: Compatible Modems

Manufacturer	Model
US Robotics	28.8
Motorola	LifeStyle
	28.8, 3400 series
	Premier 33.6
MultiTech	MT19321ZDX

Limitations of Fire Alarm Systems

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 Standard 72 (NFPA 72), manufacturer's recommendations, State and local codes, and the recommendations contained in Guide for the Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off or give early warning in as many as 35% of all fires. While fire alarm systems are designed to provide 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. For example:

- 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.

In general, smoke detectors on one level of a structure cannot be expected to sense fires developing on another level.

- 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 photoelectronic 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 are subject to false alarms and nuisance alarms and may have been disconnected by users. For example, a smoke detector located in or near a kitchen may go into nuisance alarm during normal operation of kitchen appliances. In addition, dusty or steamy environments may cause a smoke detector to falsely alarm. If the location of a smoke detector causes an abundance of false alarms or nuisance alarms, do not disconnect the smoke detector; call a professional to analyze the situation and recommend a solution.
- Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially within bedrooms), smoking in bed, violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

- Heat detectors do not sense particles of combustion and are designed to alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Heat detectors are designed to protect property, not life.
- Warning devices (including horns, sirens, and bells) may not alert people or wake up sleepers who are located on the other side of closed or partially open doors. A warning device that activates on a different floor or level of a dwelling or structure is less likely to awaken or alert people. Even persons who are awake may not notice the warning if the alarm is muffled by noise from a stereo, radio, air conditioner or other appliance, or by passing traffic. Audible warning devices may not alert the hearing-impaired (strobes or other devices should be provided to warn these people). Any warning device may fail to alert people with a disability, deep sleepers, people who have recently used alcohol or drugs, or people on medication or sleeping pills.

  Please note that:

  i) Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.
  ii) 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 exercises to make people aware of fire alarm signals and instruct on the proper reaction to alarm signals.
  iii) In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.
- Telephone lines needed to transmit alarm signals from a premises to a central station may be out of service or temporarily out of service. For added protection against telephone line failure, backup radio transmission systems are recommended.
- System components, though designed to last many years, can fail at any time. As a precautionary measure, it is recommended that smoke detectors be checked, maintained, and replaced per manufacturer's recommendations.
- System components will not work without electrical power. If system batteries are not serviced or replaced regularly, they may not provide battery backup when AC power fails.
- Environments with high air velocity or that are dusty or dirty require more frequent maintenance.

In general, fire alarm systems and devices will not work without power and <u>will not function properly unless they are maintained and tested regularly.</u>

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

Requirements and recommendations for proper use of fire alarm systems including smoke detectors and other fire alarm devices:

Early fire detection is best achieved by the installation and maintenance of fire detection equipment in all rooms and areas of the house or building in accordance with the requirements and recommendations of the current edition of the National Fire Protection Association Standard 72, *National Fire Alarm Code* (NFPA 72), the manufacturer's recommendations, State and local codes and the recommendations contained in Guide for the Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. For specific requirements, check with the local Authority Having Jurisdiction (ex. Fire Chief) for fire protection systems.

Requirements and Recommendations include:

- Smoke Detectors shall be installed in sleeping rooms in new construction and it is recommended that they shall also be installed in sleeping rooms in existing construction.
- It is recommended that more than one smoke detector shall be installed in a hallway if it is more than 30 feet long.
- It is recommended that there shall never be less then two smoke detectors per apartment or residence.
- It is recommended that smoke detectors be located in any room where an alarm control is located, or in any room where alarm control connections to an AC source or phone lines are made. If detectors are not so located, a fire within the room could prevent the control from reporting a fire.
- All fire alarm systems require notification devices, including sirens, bells, horns, and/or strobes. In residential applications, each automatic alarm initiating device when activated shall cause the operation of an alarm notification device that shall be clearly audible in all bedrooms over ambient or background noise levels (at least 15dB above noise) with all intervening doors closed.
- It is recommended that a smoke detector with an integral sounder (smoke alarm) be located in every bedroom and an additional notification device be located on each level of a residence.
- To keep your 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 Chapter 14 of NFPA 72, 2010 Edition shall be followed. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be performed annually by authorized personnel only.
- The most common cause of an alarm system not functioning when a fire occurs is inadequate maintenance. As such, the alarm system should be tested weekly to make sure all sensors and transmitters are working properly.

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

Section 2
Agency Listings, Approvals, and Requirements

2.1 Federal Communications Commission (FCC)

1. The following information must be provided to the telephone company before the SCSS-700 can be connected to the phone lines:

A	Manufacturer:	Honeywell International Inc.
B	Model Number:	SCSS-700
C	FCC registration number:	AC6AL11B6820
	Ringer equivalence:	0.8B
D	Type of jack:	RJ31X
E	Facility Interface Codes:	Loop Start: 02LS2
F	Service Order Code:	9.0F

This equipment complies with Part 68 of the FCC rules and the requirements adopted by ACTA. On the inside cover of this equipment is a label that contains, among other information, a product identifier. If requested, this information must be provided to the telephone company.

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 (not provided) and modular jack must be utilized with this product. It is designed to be used with a modular jack that is also compliant.

The REN (ringer equivalence number) provided on this installation sheet is used to determine the number of devices that may be connected to the public switched telephone network. This number must not exceed 5.0. Since this product has an REN of 1.0, the number of devices is limited. The REN number is imbedded in the FCC registration number as 10BIf the SCSS-700 causes harm to the telephone network, the telephone company will notify you in advance that the temporarily 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.

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.

If trouble is experienced with the SCSS-700, for repair or warranty information, please contact STANLEY. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the SCSS-700 until the problem has been resolved.

This product cannot be adjusted or repaired in the field. It must be returned to the factory for service.

This equipment is not designed for use with party line service. Connection to party line service is subject to state tariffs. You may contact the state public utility commission, public service commission or corporation commission for information.

Since the SCSS-700 is a commercial fire alarm panel, it must be connected upstream of all other equipment utilizing the phone lines. If you have questions about the installation, contact your telephone company or a qualified installer.

Warning
This device has been verified to comply with FCC Rules Part 15. Operation is subject to the following conditions: (1) This device may not cause radio interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

2.2 Underwriters Laboratories (UL)

2.2.1 Requirements for All Installations

General requirements are described in this section. When installing an individual device, refer to the specific section of the manual for additional requirements. The following subsections list specific requirements for each type of installation (for example, Central Station Fire Alarm systems, Local Protected Fire Alarm systems, and so on). See Section 10.7 for information on releasing operation.

1. All field wiring must be installed in accordance with NFPA 70 National Electric Code.
2. Use the addressable smoke detectors specified in Section 7.1 (LiteSpeed devices) of this manual and or conventional detectors listed in the compatibility chart Appendix A
3. Use UL listed notification appliances compatible with the SCSS-700 from those specified in the *Appendix* at the back of this manual.
4. A full system checkout must be performed any time the panel is programmed.

Restricted Options:

- The loss of AC signal is defaulted to 3 hours however the system allows settings from 0 - 30 hours. For UL certified installations this number must be set from 1 to 3 hours.
- The system allows the use of non-latching spot type smoke detectors. This feature may not be used in commercial applications whereby a general alarm is sounded. It is intended for elevator recall, door holding applications, and hotel/motel room applications.
- The system allows the Alarm Verification confirmation time to be set from 1 to 255 seconds. For UL certified installations the setting must be a minimum of 60 seconds.
- Call forwarding shall not be used.
- When two count is used detector spacing shall be cut in half, you shall not use the alarm verification feature, and no delay shall be used.
- P.A.S feature shall be used only with automatic detectors.

2.2.2 Requirements for Central Station Fire Alarm Systems

1. Use both phone lines. Enable phone line monitors for both lines.
2. You must program a phone number and a test time so that the SCSS-700 sends an automatic daily test to the central station.
3. The AC Loss Hours option must be set from 1-3 hours.

2.2.3 Requirements for Local Protected Fire Alarm Systems

At least one UL listed supervised notification appliance must be used.

2.2.4 Requirements for Remote Station Protected Fire Alarm Systems - Digital Alarm Communicator Transmitter (DACT)

1. Do not exceed the current load restrictions shown in Section 3.6.
2. The AC Loss Hours option must be set from 1-3 hours for UL installations.

Section 3
Before You Begin Installing

This section of the manual is intended to help you plan your tasks to facilitate a smooth installation. Please read this section thoroughly, especially if you are installing a SCSS-700 or SCSS-700ND panel for the first time.

3.1 What's in the Box?

The SCSS-700 or SCSS-700ND ships with the following hardware:

- A cabinet with all hardware assembled
- Two keys for the front door
- Ten 4.7K ohm end-of-line resistors
- A battery cable for batteries wired in series

3.2 Environmental Specifications

It is important to protect the SCSS-700 control panel from water. To prevent water damage, the following conditions should be AVOIDED when installing the units:

- Intended for indoor use in dry locations only
- Do not mount directly on exterior walls, especially masonry walls (condensation)
- Do not mount directly on exterior walls below grade (condensation)
- Protect from plumbing leaks
- Protect from splash caused by sprinkler system inspection ports
- Do not mount in areas with humidity-generating equipment (such as dryers, production machinery)

When selecting a location to mount the SCSS-700 control panel, the unit should be mounted where it will NOT be exposed to temperatures outside the range of 0°C- 49°C (32°F-120°F) or humidity not exceeding 93% noncondensing.

3.3 Electrical Specifications

Terminal Label		Description	Rating		Earth Ground Faults
			Voltage	Current	
B		AC input (hot)	120/240 VAC, / 60 Hz	5A for the SCSS-700	N/A
G		Earth ground	N/A	N/A	N/A
W		AC input (neutral)	120/240 VAC50/ 60 Hz	5A for the SCSS-700	N/A
X	*I/O 1	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 2	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 3	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 4	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 5	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 6	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 5	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
X	*I/O 8	Flexput™ Circuits	24 VDC	3.0 Amp Notification and Aux power Circuits	0Ω
O				100 mA for initiation circuits	
B	SBUS1 OUT	SBUS communication	5 VDC	100 mA	0Ω
A					
+		SBUS power	24 VDC	1.0 A	
-					

* *Regulated for NAC circuits*

* *Special application when used for releasing or auxiliary power circuits.*

Terminal Label		Description	Rating		Earth Ground Faults
			Voltage	Current	
B	SBUS1 IN	Used for Class A installations			0Ω
A					
+					
-					
B	SBUS2 OUT	SBUS communication	5 VDC	100 mA	0Ω
A					
+		SBUS power	24 VDC	1.0 A	
-					
B	SBUS2 IN	Used for Class A installations			0Ω
A					
+					
-					
A	NETWORK	NETWORKING CONNECTION	5V	100mA	N/A
B					
GND					
N.C.	RELAY 2	General Purpose Relay 2	24 VDC	2.5 A, resistive	N/A
C					
N.O.					
N.C.	RELAY 1	General Purpose Relay 1	24 VDC	2.5 A, resistive	N/A
C					
N.O.					
N.C.	TROUBLE	Trouble Relay	24 VDC	2.5 A, resistive	N/A
C					
N.O.					
S-	SLC OUT	SLC terminals	32 VDC	150 mA	0Ω
S+					
SC-	SLC IN	Used for Class A installations			0Ω
SC+					
Ring		Phone Line 1 Telco Ring	N/A		0Ω
Tip		Phone Line 1 Telco Tip			
Ring		Phone Line 1 Premises Ring			
Tip		Phone Line 1 Premises Tip			
Ring		Phone Line 2 Telco Ring	N/A		0Ω
Tip		Phone Line 2 Telco Tip			
Ring		Phone Line 2 Premises Ring			
Tip		Phone Line 2 Premises Tip			
+	Battery	Battery Connection	24 VDC	1.12 A	N/A
–					

3.4 Wiring Specifications

Induced noise (transfer of electrical energy from one wire to another) can interfere with telephone communication or cause false alarms. To avoid induced noise, follow these guidelines:

- Isolate input wiring from high current output and power wiring. Do not pull one multi-conductor cable for the entire panel. Instead, separate the wiring as follows:

High voltage	AC power terminal
SLC loops	SLC In/Out Terminals
Audio input/output	Phone line circuits, Ring Tip Telco, Phone Terminals
Notification circuits	I/01-I/08 Terminals
SBUS	SBUS1 In/Out Terminals, SBUS 2 In/Out Terminals
Relay circuits	Trouble, Relay 1, Relay 2 Terminals

- Do not pull wires from different groups through the same conduit. If you must run them together, do so for as short a distance as possible or use shielded cable. Connect the shield to earth ground at the panel. You must route high and low voltages separately.
- Route the wiring around the inside perimeter of the cabinet. It should not cross the circuit board where it could induce noise into the sensitive microelectronics or pick up unwanted RF noise from the high speed circuits. See Figure 3-1 for an example.
- High frequency noise, such as that produced by the inductive reactance of a speaker or bell, can also be reduced by running the wire through ferrite shield beads or by wrapping it around a ferrite toroid.

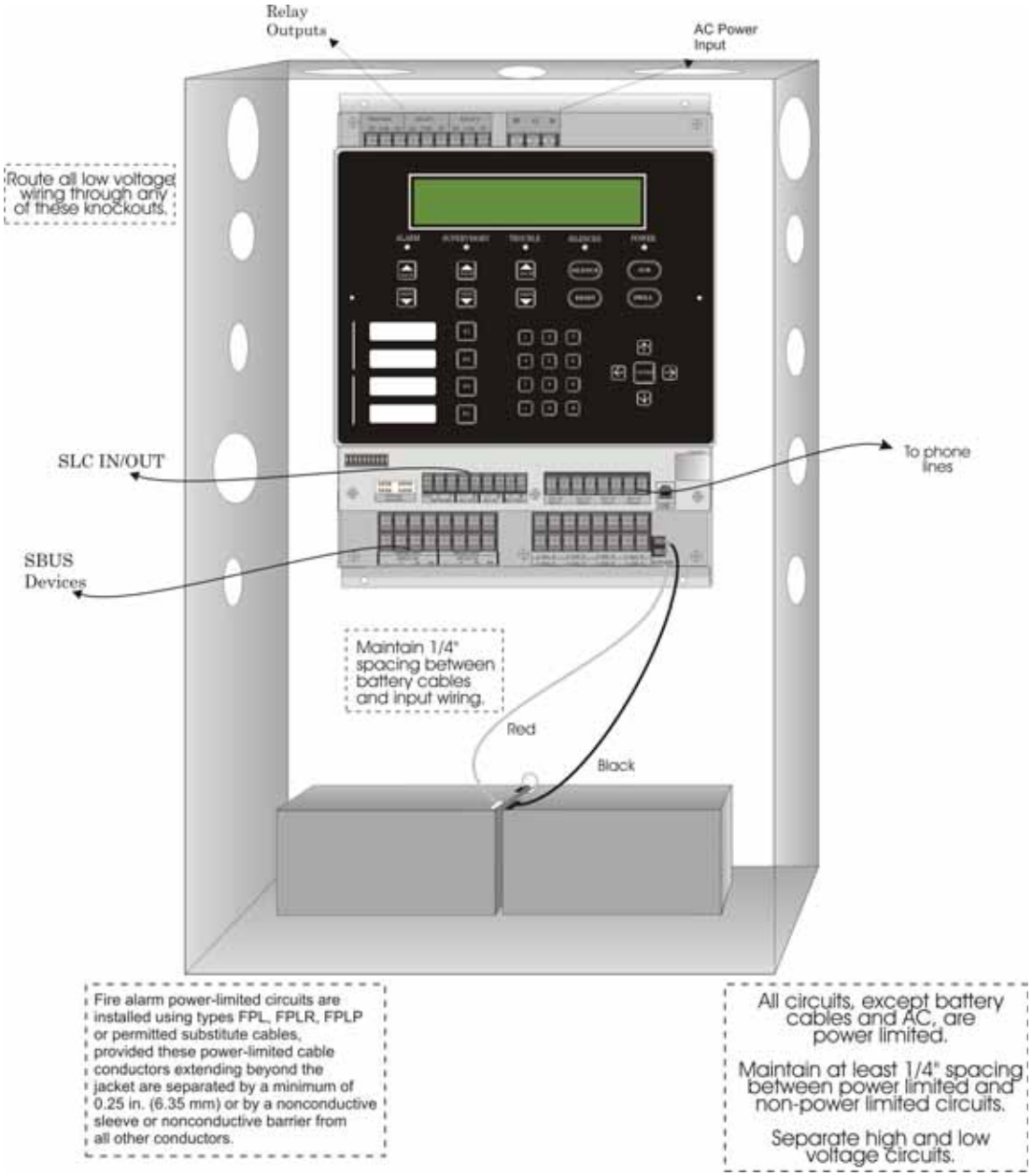


Figure 3-1 Wire Routing Example

3.5 Board Assembly Diagram

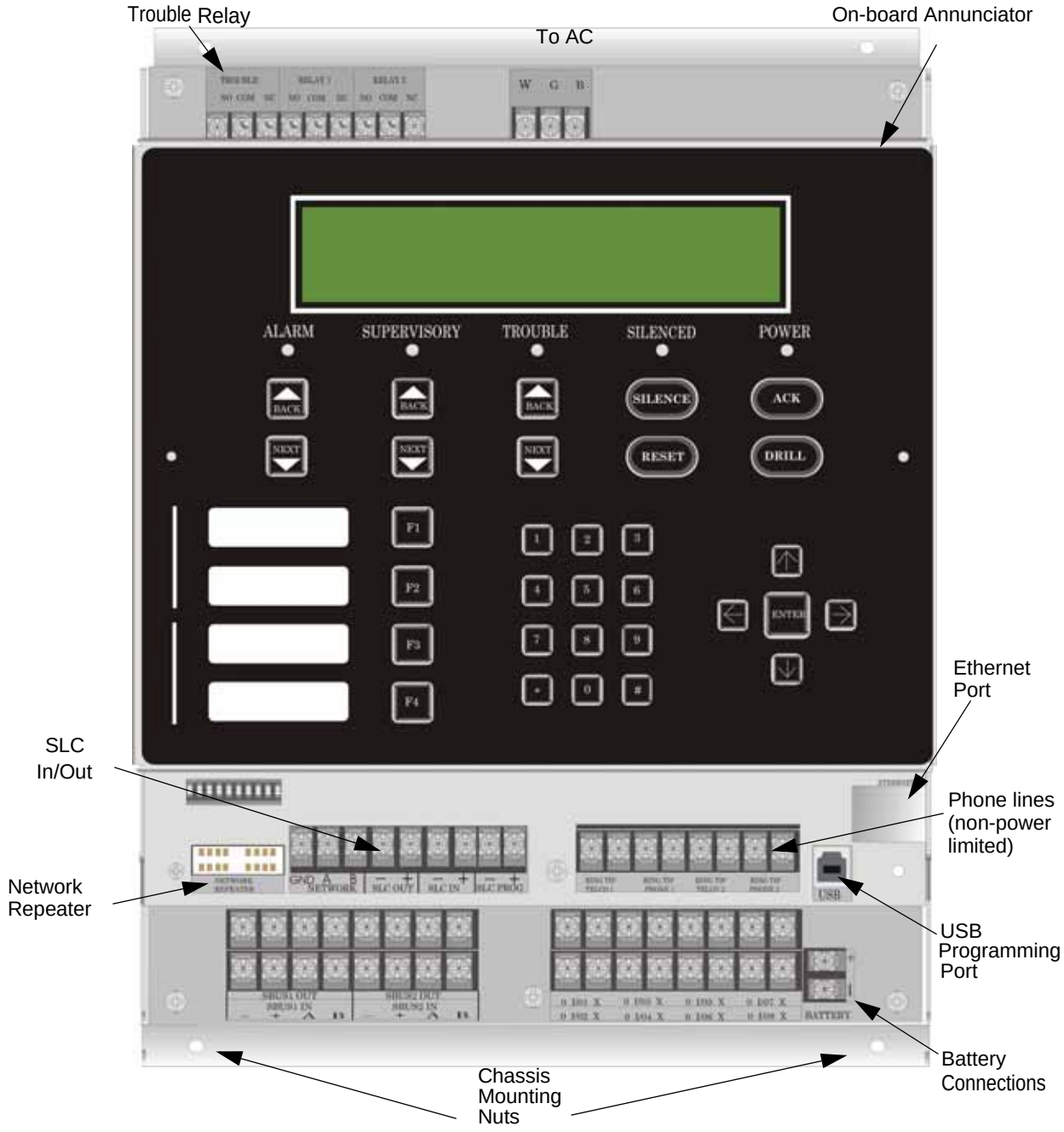


Figure 3-2 Model SCSS-700 Assembly

Figure 3-2 shows the circuit boards, metal housing and annunciator that attach the SCSS-700 assembly to the cabinet. If you should need to remove the board assembly for repair, remove the four mounting nuts which hold the assembly in the cabinet. Then lift the entire assembly out of the cabinet. Do not attempt to remove the circuit boards from the metal bracket.

3.6 Calculating Current Draw and Standby Battery

This section is for helping you determine the current draw and standby battery needs for your installation.

3.6.1 Current Draw Worksheet Requirements

The following steps must be taken when determining SCSS-700 current draw and standby battery requirements.

1. You will use the Current Draw Worksheet to determine current draw and standby battery requirements. For the SCSS-700, the worst case current draw is listed for the panel, addressable devices, and all SBUS expanders. Fill in the number of addressable devices and expanders that will be used in the system and compute the current draw requirements for alarm and standby. Record this information in the current draw worksheet on Line A.
2. Add up the current draw for all auxiliary devices and record in the table at Line B.
3. Add up all notification appliance loads and record in the table at Line C.
4. For notification appliances and auxiliary devices not mentioned in the manual, refer to the device manual for the current ratings.
5. Make sure that the total alarm current you calculated, including current for the panel itself, does not exceed 9.0 A. This is the maximum alarm current for the SCSS-700 control panel.

   If the current is above 9.0 A you will need to use a notification power expander(s) such as the Model 5496 or the 5895XL intelligent power expander, to distribute the power loads so that the SCSS-700 or the power expanders do not exceed their power rating. Refer to the current draw worksheets provided with the 5496 or the 5895XL manuals so you do not exceed their power requirements.
6. Alternatively, you may network additional SCSS-700s or SCSS-700NDs to get additional power
7. Complete the remaining instructions in the appropriate current draw worksheet for determining battery size requirements.

3.6.2 Current Draw Worksheet for LiteSpeed SLC Devices

Use Table 3-1 to determine current requirements during alarm/battery standby operation when LiteSpeed SLC devices are installed. You can install up to 159 LiteSpeed sensors per loop (636 max points per panel) *and* 159 LiteSpeed modules per loop (636 points max per panel). Copy this section if additional space is required.

Table 3-1: Current Draw Worksheet for LiteSpeed SLC Devices

Device	# of Devices	Current per Device			Standby Current	Alarm Current
For each device use this formula:	This column X	This column =			Current per number of devices.	
Fire Panel (Battery current draw)	1	Standby:		290 mA	290 mA	
		Alarm:		530 mA		530 mA
Addressable SLC Devices						
SD355 Photo	(159 max/loop & 636 max/ panel)[1]	Standby/Alarm:		0.27 mA	mA	mA
SD355-T Photo W/Heat					mA	mA
CP355 Ion					mA	mA
H355 Heat					mA	mA
H355HT Heat High Temp					mA	mA
BEAM355 (without integral test)		SLC	Standby/ Alarm:	2 mA		
		Aux. Pwr	Standby:	2 mA	mA	
			Alarm:	8.5 mA		mA
BEAM355S[6] (with integral test)		SLC	Standby/ Alarm:	2 mA		
		Aux. Pwr	Standby:	2 mA	mA	
			Alarm:	8.5 mA		mA
D355PL Duct (non-relay)		SLC	Standby/ Alarm:	0.27 mA	mA	mA
AD355 Acclimate		Standby/Alarm:		0.3 mA	mA	mA
H355R Heat Rate of Rise					mA	mA

Table 3-1: Current Draw Worksheet for LiteSpeed SLC Devices

Device	# of Devices	Current per Device			Standby Current	Alarm Current
MMF-301Mini Monitor	(159 max/loop & 636 max/ panel)[1]	Standby/Alarm		0.375mA	mA	mA
MMF-300 Monitor					mA	mA
BG-12LX Pull Station					mA	mA
MDF-300 Dual Monitor		Standby/Alarm:		0.75 mA	mA	mA
MMF-300-10 Monitor-10		Standby/Alarm:		3.5 mA	mA	mA
CMF-300 Control		SLC	Standby/	0.375mA	mA	
			Alarm:	0.375mA		mA
		Aux Pwr	Standby/	1.7mA	mA	
			Alarm:	7mA		mA
CMF-300-6 Control-6		SLC	Standby/	2.25 mA	mA	
			Alarm:	2.25 mA		mA
		Aux Pwr	Standby/	8 mA	mA	
			Alarm:	20 mA		mA
CRF-300 Relay		Standby/Alarm:		0.255 mA	mA	mA
CRF-300-6 Relay-6		Standby/Alarm:		1.45 mA	mA	mA
MMF-302 Zone		Aux Pwr	Standby/	12 mA	mA	
			Alarm:	90 mA		mA
		SLC	Standby/ Alarm	0.27 mA	mA	mA
MMF-302-6 Zone-6		Aux Pwr	Standby	50 mA	mA	
			Alarm:	270 mA		mA
		SLC	Standby/ Alarm	2 mA	mA	mA
B200SR Sounder Base	(159 max/loop & 636 max/ panel)	Aux Pwr	Standby:	1 mA	mA	
			Alarm:	15 mA		mA
		SLC	Alarm:	0.7 mA		mA
B224RB Relay Base		Standby/Alarm:		0.5 mA	mA	mA
RT151/151 KEY		Alarm:		7.5 mA		mA
RA100Z		Alarm:		10 mA		mA
I300 (Isolator Module)	(318 max/loop & 636 max/ panel)	Standby/Alarm:		0.45 mA	mA	mA
B224BI Isolator Base		Standby/Alarm:		0.5 mA	mA	mA
Accessories Modules						
5815XL SLC Expander	(63 max)[5]	Standby/Alarm:		55 mA	mA	mA
SCSS-700ANN Remote Fire Alarm Annunciator	(63 max)[5]	Standby:		25 mA	mA	
		Alarm:		50 mA		mA
5824 Serial/Parallel Module	(2 max.)	Standby/Alarm:		45 mA	mA	mA
5496 Intelligent Power Module	(63 max)[5]	Standby/Alarm:		10 mA	mA	mA
5895XL Power Module	(63 max)[5]	Standby/Alarm:		10 mA	mA	mA
5865-4 LED Annunciator (with reset and silence switches)	(63 max)[5]	Standby:		35 mA	mA	
		Alarm:		145 mA		mA

Table 3-1: Current Draw Worksheet for LiteSpeed SLC Devices

	Device	# of Devices	Current per Device	Standby Current	Alarm Current
	5865-3 LED Annunciator	(63 max)[5]	Standby: 35 mA	mA	
			Alarm: 145 mA		mA
	5880 I/O Module	(63 max)[5]	Standby: 35 mA	mA	
			Alarm: 200 mA		mA
	5883 Relay Interface		Standby: 0 mA	mA	
			Alarm: (22 mA/relay) 220 mA		mA
	VIP-VCM Voice Control Module	(1 max.)	Standby: 50 mA	mA	
			Alarm: 125 mA		mA
	VIP-SW16 Switch Expander	(3 max.)	Standby: 10 mA	mA	
			Alarm: 75 mA		mA
	VIP-50 or VIP-125 Audio Amplifier with/without VIP-CE4	(8 max.)	Standby: 10 mA	mA	
			Alarm: 10 mA		mA
	SCSS-700RM Remote Microphone	(2 max.)	Standby: 50 mA	mA	
			Alarm: 125 mA		mA
	IFP-RPT-FO Network Repeater IFP-RPT-UTP Network Repeater	(1 max)	Standby: 24 mA	mA	
			Alarm: 24 mA		mA
A	Total System Current				
	Auxiliary Devices[3]	Refer to devices manual for current rating.			
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
			Alarm/Standby: mA	mA	mA
B	Auxiliary Devices Current				
	Notification Appliance Circuits	Refer to device manual for current rating.			
			Alarm: mA		mA
			Alarm: mA		mA
			Alarm: mA		mA
			Alarm: mA		mA
C	Notification Appliances Current				mA
D	Total current ratings of all devices in system (line A + line B + C)			mA	mA
E	Total current ratings converted to amperes (line D x .001):			A	A
F	Number of standby hours			H	
G	Multiply lines E and F.		Total standby AH	AH	
H	Alarm sounding period in hours. (For example, 5 minutes = .0833 hours)				H
I	Multiply lines E and H.		Total alarm AH		AH
J	Add lines G and I. [4]		Total ampere hours required	AH	

1. Total does not include isolator devices or accessory bases.
2. If using 24 VDC aux power only. No standby or alarm current for battery calculation if using 24 VAC, 120 VAC, or 240 VAC.
3. If using door holders, you do not need to consider door holder current for alarm/battery standby, because power is removed during that time. However, during normal operation, door holders draw current and must be included in the 9.0A total current that can be drawn from the panel.
4. Use next size battery with capacity greater than required.
5. Maximum SBUS address capacity is 63 SBUS modules. The practical limit is determined by the amount of SBUS

bandwidth consumed by each SBUS module. See section 4.5.2.

6. The BEAM355S draws a maximum of 500mA from auxiliary power when the test feature is used. This should be considered when determining auxiliary power capacity but not calculated into current requirements for day to day operation.

3.6.3 Maximum Battery Standby Load

Table 3-2 and Table 3-3 show the standby load calculations for the SCSS-700 based on 24 and 90 hours of standby. The standby load calculations of line D in the Current Draw Calculation Worksheet must be less than the number shown in Table 3-2 and Table 3-3 for the selected battery size, standby hour and alarm time. The numbers below have a built in 20% derating factor for the battery amp hour capacity

Table 3-2: Maximum Battery Standby Loads for 24 Hour Standby

Rechargeable Battery Size	24 hr Standby, 5 mins. Alarm	24 hr Standby, 15 min alarm	24 hr Standby, 20 min alarm
17AH	535 mA	473mA	442mA
18AH	569mA	506mA	475mA
24AH	769 mA	706mA	675mA
33AH	1.07A	1.01A	975mA
35AH	1.14A	1.07A	1.04A
40AH	1.30A	1.24A	1.21A
55AH	1.80A	1.74A	1.71A

Table 3-3: Maximum Battery Standby Loads for 90 Hour Standby*

*Note: * For FM installations only*

Rechargeable Battery Size	90 hr Standby, 5 min alarm	90 hr Standby, 15 min alarm	90 hr Standby, 20 min alarm
33 AH	N/A	N/A	N/A
40 AH	347mA	331mA	322mA
55 AH	480mA	464mA	456mA

Warning!

Stanley does not support the use of batteries smaller than those listed in Table 3-2 and Table 3-3. If you use a battery too small for the installation, the system could overload the battery resulting in the installation having less than the required 24 hours standby power. Use Table 3-2 and Table 3-3 to calculate the correct battery amp hour rating needed for your installation. It is recommended that you replace batteries every five years.

3.7 Installation Tasks Overview

This section provides a chart listing tasks that need to be performed when installing the SCSS-700 system. The chart is intended to be a handy way for you to make sure you have completed all necessary tasks. Unless noted, these tasks do not have to be performed in the order they are listed here.

Important: Connect and address SLC devices before running JumpStart AutoProgramming.

Task	See Section (for more info.)
Main Panel Hardware Installation	
❒ Mount the control panel cabinet.	4.1
❒ Connect AC.	4.2
❒ Connect phone lines.	4.12
❒ Install 5815XL SLC expander modules (if needed).	4.7
❒ Install SCSS-700ANN Remote Fire Alarm Annunciator modules if used.	4.6
❒ Install 5865 or LED Annunciator modules if used.	4.10
❒ Install 5880 LED I/O module if customized LED annunciation will be used.	4.9
❒ Install notification appliances.	4.13.1
❒ Install auxiliary power devices (if used).	4.13.5
❒ If using a printer, install the 5824 Serial/Parallel Printer Interface Module.	4.8
❒ Connect batteries (typically last step).	4.3
SLC Device Hardware Installation **Perform these steps before running JumpStart AutoProgramming.**	
❒ Connect device bases to the loop.	7.5
❒ Set device addresses.	7.5
❒ Physically connect detectors to their bases. Connect relay and contact monitor modules.	7.3 & see device install instructions
JumpStart AutoProgramming	
JumpStart AutoProgramming searches for expanders and SLC devices connected to the panel but not programmed into the system. JumpStart AutoProgramming automatically selects some options for SLC devices. See “Input Point Configuration” section of this chart for other options. JumpStart AutoProgramming makes selections for the following options. You can customize options, if necessary.	8.1 & 9.7
Device type (detector or switch) configured by JumpStart AutoProgramming.	To change, see 9.6
Program type of detector (heat, photoelectric, or ionization) selected by JumpStart AutoProgramming.	To change, see 9.5
System Software Configuration	
❒ Select low AC hours report time (3 hours by default).	9.6.5.2
❒ Enable/disable automatic DST adjustment feature (enabled by default).	9.6.5.3
❒ Change clock display format (12-hour with AM/PM by default).	9.6.5.4
❒ Enable/disable day/night sensitivity (disabled by default).	9.6.3

Task	See Section (for more info.)
❒ Select holiday schedule (up to 18 days) if installation is using day/night sensitivity.	9.6.4
❒ Set up reporting accounts.	9.6.1
❒ Select options for phone lines.	9.6.2
❒ Customize banner message (message that displays on LCD in normal mode) if desired.	9.6.8
Input Point (SLC Device) Configuration	
JumpStart AutoProgramming automatically selects some options for SLC devices (see "JumpStart AutoProgramming" section of this chart). You can change options selected by JumpStart AutoProgramming, if necessary and further customize input point options.	
❒ Program type of switch (manual pull, fire drill, and so on), if necessary. (JumpStart AutoProgramming assigns all switches as Manual Pull type.)	9.5
❒ If the installation includes duct detectors, program detector type. (JumpStart AutoProgramming does not distinguish duct detectors from ordinary smoke detectors.)	9.5
❒ Assign a name (or description) to the point.	9.5.3.1
❒ Assign input points to zones, if necessary. (JumpStart AutoProgramming assigns all input points to Zone 1.)	9.5
Zone Configuration	
❒ Add the zone to the system if it does not already exist.	9.3.2
❒ Program a name (or description) for the zone.	9.3.1.1
❒ Select alarm delay options (detection characteristics) for zone.	9.3.1.2
❒ Select heat detector trip temperature and/or smoke sensitivity level for photoelectric smoke detectors.	9.3.1.2
Output Point Configuration	
Conventional notification circuits (circuits 1-8):	
❒ Enable circuits used for notification appliances through programming, if necessary.	9.4.1
Conventional relay circuits (circuits 9-10):	
❒ Select options for relay circuits, if desired. Note: Relay circuits will always output continuously (constant pattern), even if assigned to an Output Group that uses a different output pattern.	9.4.1
Auxiliary power circuits (circuits 1-8):	
❒ Enable any circuit used for auxiliary power devices through programming.	9.5
❒ Select type of power (door holder, constant, or resettable)	9.5
Addressable relay modules	
❒ Assign addressable relay modules to output groups through programming. (JumpStart AutoProgramming assigns all relay modules to Group 1.)	9.5
LED output points (from the 5880 LED I/O module or 5865/66 LED Annunciator)	
❒ Assign LED modules to output groups through programming.	9.5.3
All output circuits (1-8):	
❒ Disable (set to UNUSED) any unused circuits. If you do not disable unused output circuits, they will cause a trouble condition (unless an EOL resistor is used).	9.5
❒ Select a name for the point, if desired.	9.6
Output Group Configuration	
❒ Add the group to the system if it does not already exist.	9.4.2

Task	See Section (for more info.)
❒ Assign output points to the group.	9.5
❒ Program a name (or description) for the group, if desired.	9.4.1.1
Select “group properties” (see below).	
❒ Select options for activation with system switches.	9.4.1

Section 4
Control Panel Installation

Caution!
To avoid the risk of electrical shock and damage to the unit, power should be OFF at the control panel while installing or servicing.

4.1 Mounting the Control Panel Cabinet

Read the environmental specifications in Section 3.2 before mounting the control panel cabinet. This will ensure that you select a suitable location.

The panel should be accessible to main drop wiring runs. It should be mounted as close to the center of the building as possible and located within a secured area, but should be accessible for testing and service.

Mount the control panel cabinet so it is firmly secured to the wall surface. When mounting on concrete, especially when moisture is expected, attach a piece of 3/4 inch plywood to the concrete surface and then attach the cabinet to the plywood. Also mount any other modules to the plywood.

The cabinet can be surface or flush mount. If you will flush mount the cabinet, the hole for the enclosure should be 14.75" W x 25" H x 4" D. Do NOT flush mount in a wall designated as a fire break.

4.1.1 Preventing Water Damage

Water damage to the fire system can be caused by moisture entering the cabinet through the conduits. Conduits that are installed to enter the top of the cabinet are most likely to cause water problems. Installers should take reasonable precautions to prevent water from entering the cabinet. Water damage is not covered under warranty.

4.1.2 Removing the SCSS-700 Assembly from the Housing

If it should ever be necessary to remove the control panel assembly from the cabinet for repair, do so by unscrewing the nuts that connect the control panel assembly to the cabinet. Do not attempt to disassemble the circuit boards. See Section 3.5 for location of the nuts.

4.1.3 Ethernet Connection

Ethernet connection is not used at this time. For port location see Figure 3-2.

4.2 AC Connection

At installation, connect the AC terminals to the power source as shown in Figure 4-1. It may be necessary for a professional electrician to make this connection.

The AC terminals are rated at 120 VAC, 50 or 60 Hz, 5A for the SCSS-700.

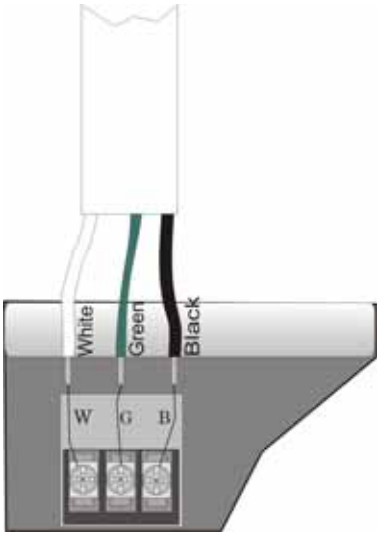


Figure 4-1 120 VAC Power Connection for the SCSS-700

4.3 Battery Connection

The control panel battery charge capacity is 17 to 55 AH. Use 12V batteries of the same AH rating. Determine the correct AH rating as per your standby load calculation (see Section 3.6).

Wire batteries in series to produce a 24-volt equivalent. Do not parallel batteries to increase the AH rating. It is recommended that you replace batteries every five years.

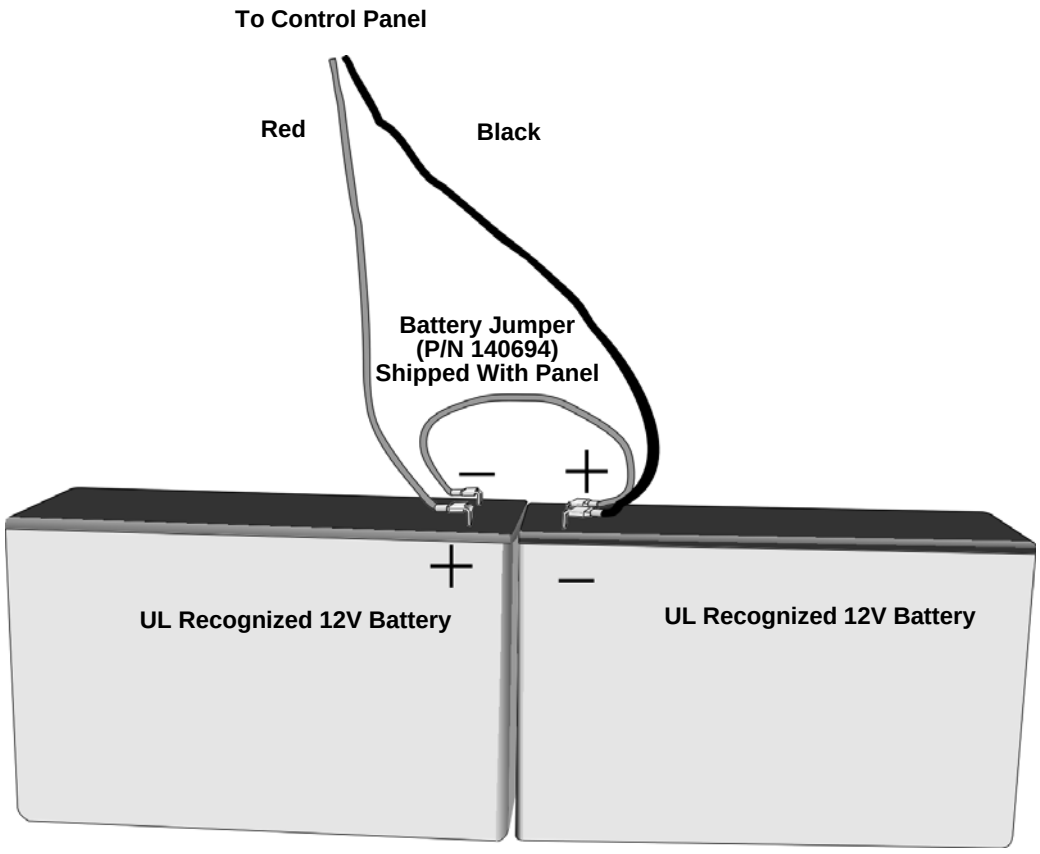


Figure 4-2 Battery Connection

4.3.1 Battery Accessory Cabinets

The Model RBB or AB-55 Accessory cabinets can be used when your required to use backup batteries that are too large to fit into the main control panel cabinet.

The RBB cabinet holds batteries up to the 35 AH size. The RBB dimensions are 16" W x 10" H x 6" D (40.64 cm W x 25.4 cm H x 15.24 cm D).

The AB-55 Accessory cabinet holds batteries up to the 55AH size. The AB-55 dimensions are 20" W x 11.5" H x 7.5" D (50.8 cm W x 30.48 cm H x 19.05 cm D).

4.3.1.1 Installing the RBB or AB-55 Accessory Cabinet and Batteries

To properly install the accessory cabinet and backup batteries, follow these steps:

1. Mount the accessory cabinet. See figure Figure 4-3 for the four cabinet mounting holes.
    - If mounting onto drywall the accessory cabinet must be mounted onto 3/4-inch plywood. This is necessary because the weight of the batteries inside the accessory cabinet could cause the cabinet to pull away from the drywall.
    - When mounting on concrete, especially when moisture is expected, attach a piece of 3/4-inch plywood to the concrete surface and then attach the RBB or AB-55 cabinet to the plywood.
    - If using the battery cable extenders provided (P/N 140643), mount the RBB or AB-55 cabinet no more than 18" away from the main control panel cabinet. This will ensure that the battery cables reach the battery terminals.

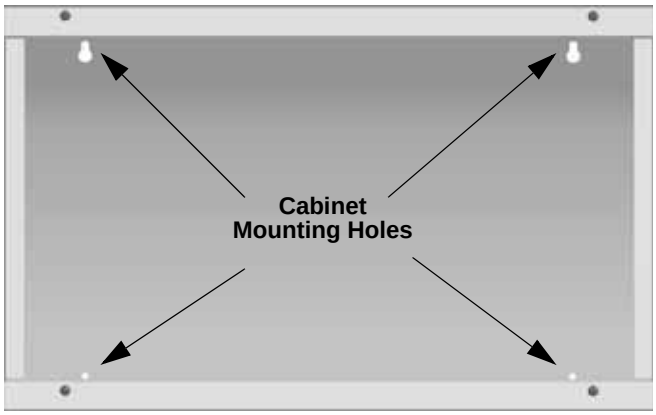


Figure 4-3 RBB or AB-55 Cabinet Mounting Holes

2. Connect the main control panel battery cables to the battery cable extenders as shown in Figure 4-4.

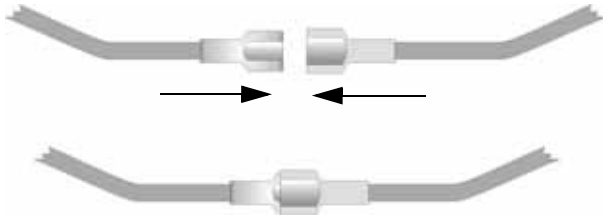


Figure 4-4 Splicing Control panel Battery Cable to RBB or AB-55 Battery Cable Extenders

3. Run extended battery cable from control panel cabinet through conduit to RBB or AB-55 cabinet.
   See Figure 4-5.

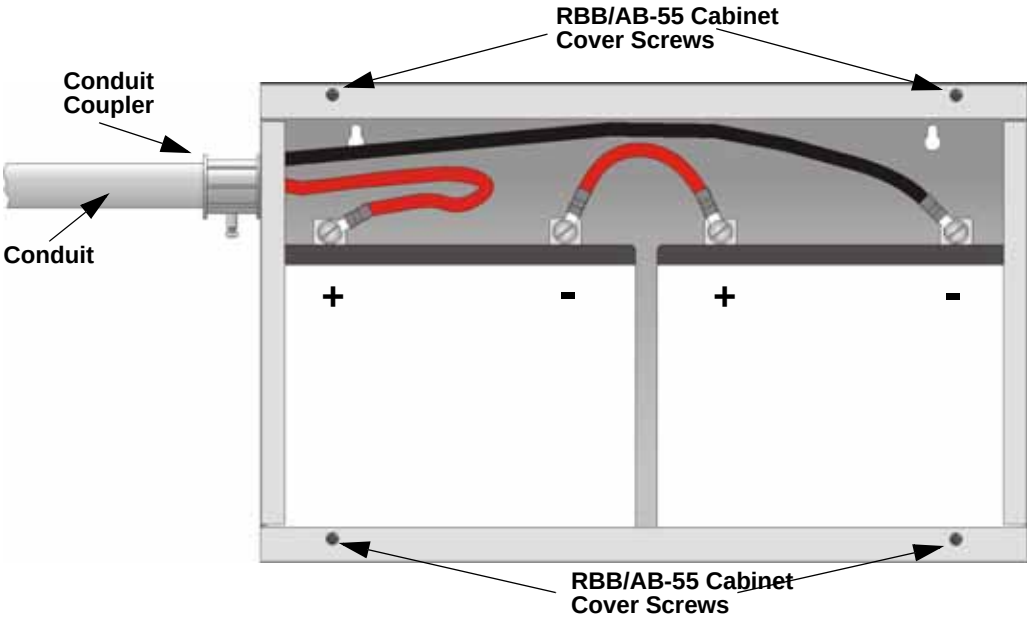


Figure 4-5 Battery Connections in the RBB or AB-55 Cabinet

Note: Figure 4-5 is an example of how the wire connections can be routed. However, any other cabinet knock-outs (on either the main control panel or the RBB/AB-55 cabinet), that are not previously being used may be utilized to connect conduit between the two cabinets.

4. Connect battery leads to the backup battery terminals. See Figure 4-5.

   Observe the proper polarity to prevent damage to the batteries or the control panel.

5. Insert the RBB or AB-55 cover screws into the cover mounting holes (see Figure 4-5).

   Screw the cover screw 3/4 of the way into the cover mounting hole.

6. Align the cover plate mounting keyhole over the cover mounting screws. See Figure 4-6.

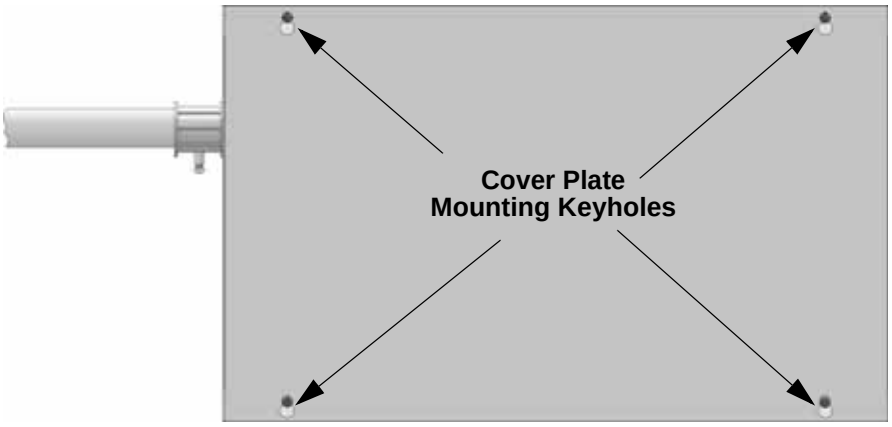


Figure 4-6 Cover Plate Mounting Keyholes and Cover Mounting Screws Alignment

7. Slide the cover into place and tighten the cover mounting screws. See Figure 4-6

4.4 SBUS Wiring

This section contains information on calculating SBUS wire distances and the types of wiring configurations (Class A and B).

4.4.1 Calculating Wiring distance for SBUS modules

The SCSS-700 panel has two SBUS circuits which can support up to 1.0A of module load per SBUS circuit. When determining the type of wire and the maximum wiring distance that can be used, you will need to calculate loads for each SBUS to ensure that each SBUS does not exceed 1.0A.

To calculate the wire gauge that must be used to connect SBUS modules to the control panel, it is necessary to calculate the total worst case current draw for all modules on a single SBUS circuit. The total worst case current draw is calculated by adding the individual worst case currents for each module. The individual worst case values are shown in the table below.

Note: Total worst case current draw on a single SBUS cannot exceed 1 amp. If a large number of accessory modules are required, and the worst case current draw will exceed the 2 amps total, then the current draw must be distributed using 5895XL Power Expanders. Each 5895XL Power Expander provides an additional SBUS, with an additional 1 amp of SBUS current. Wiring distance calculations are done separately for each 5895XL, and separately for each control panel SBUS.

Model Number	Worst Case Current Draw
SCSS-700ANN Fire Annunciator	.120 amps
5815XL	.150 amps
5824 Serial/Parallel Printer Interface Module	.040 amps
5880 LED I/O Module	.250 amps
5865 LED Fire Annunciator	.200 amps
5895XLIntelligent Power Supply	.010 amps
5496 Intelligent Power Supply	.010 amps
VIP-50	.010 amps
VIP-125	.010 amps
VIP-VCM/VIP-VCM with VIP-SW16	.125 amps/.200 amps
SCSS-700RM/SCSS-700RM with VIP-SW16	.125 amps/.200 amps

After calculating the total worst case current draw, Table 4-1 specifies the maximum distance the modules can be located from the panel on a single wire run. The table insures 6.0 volts of line drop maximum. In general, the wire length is limited by resistance, but for heavier wire gauges, capacitance is the limiting factor. These cases are marked in the chart with an asterisk (*). Maximum length can never be more than 6,000 feet, regardless of gauge used. (The

formula used to generate this chart is shown in the note below).

Table 4-1: Wire Distances Per Wire Gauge Using Copper Wire

Wiring Distance: SBUS Modules to Panel				
Total Worst Case Current Draw (amps)	**22 Gauge**	**18 Gauge**	**16 Gauge**	**14 Gauge**
0.100	1852 ft.	4688 ft.	* 6000 ft.	* 6000 ft.
0.200	926 ft.	2344 ft.	3731 ft.	5906 ft.
0.300	617 ft.	1563 ft.	2488 ft.	3937 ft.
0.400	463 ft.	1172 ft.	1866 ft.	2953 ft.
0.500	370 ft.	938 ft.	1493 ft.	2362 ft.
0.600	309 ft.	781 ft.	1244 ft.	1969 ft.
0.700	265 ft.	670 ft.	1066 ft.	1687 ft.
0.800	231 ft.	586 ft.	933 ft.	1476 ft.
0.900	206 ft.	521 ft.	829 ft.	1312 ft.
1.000 (Max)	185 ft.	469 ft.	746 ft.	1181 ft.

Note: The following formulas were used to generate the wire distance chart:

$$\text{Maximum Resistance (Ohms)} = \frac{6.0 \text{ Volts}}{\text{Total Worst Case Current Draw (amps)}}$$

$$\text{Maximum Wire Length (Feet) (6000 feet maximum)} = \frac{\text{Maximum Resistance (Ohms)}}{\text{Rpu}} * 500$$

where: Rpu = Ohms per 1000 feet for various wire gauges (see table below)

Table 4-2: Typical Wire Resistance Per 1000 ft. Using Copper Wire

Wire Gauge	Ohms per 1000 feet (Rpu)
22	16.2
18	6.4
16	4.02
14	2.54

Wiring Distance calculation example:

Suppose a system is configured with the following SBUS modules:

2 - Module SCSS-700ANN Fire Annunciator

1 - 5895XL Intelligent Power Expander

1 - 5865 LED Fire Annunciator

1 - 5824 Serial/Parallel Interface Module

The total worst case current is calculated as follows:

SCSS-700ANN Current Draw	= 2 x .120 amps	= .240 amps
5895XL Current Draw	= 1 x .010 amps	= .010 amps
5865 Current Draw	= 1 x .200 amps	= .200 amps
5824 Current Draw	= 1 x .040 amps	= .040 amps
Total Worst Case Current Draw		= .490 amps

Using this value, and referring to the Wiring Distance table, it can be found that the available options are:

370 feet maximum using 22 Gauge wire

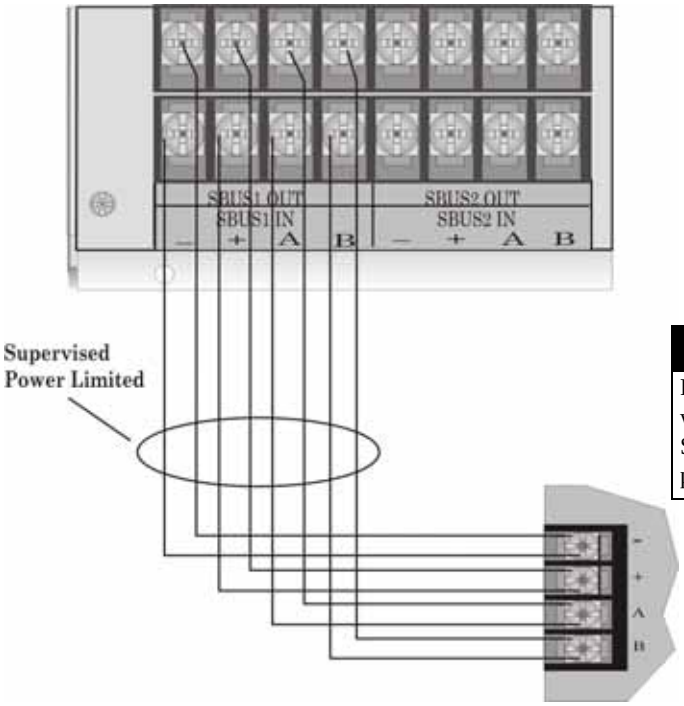
938 feet maximum using 18 Gauge wire

1493 feet maximum using 16 Gauge wire

2362 feet maximum using 14 Gauge wire

4.4.2 Wiring Configurations

Figure 4-7 illustrates SBUS 1, Class A wiring configuration and Figure 4-8 illustrates SBUS1 Class B configuration. SBUS 2 wiring configurations are the same as SBUS1.



Caution

For proper system supervision do not use looped wire under terminals marked A, B, +, and - of the SBUS device connectors. Break wire runs to provide supervision of connections.

Figure 4-7 SBUS Class A Wiring

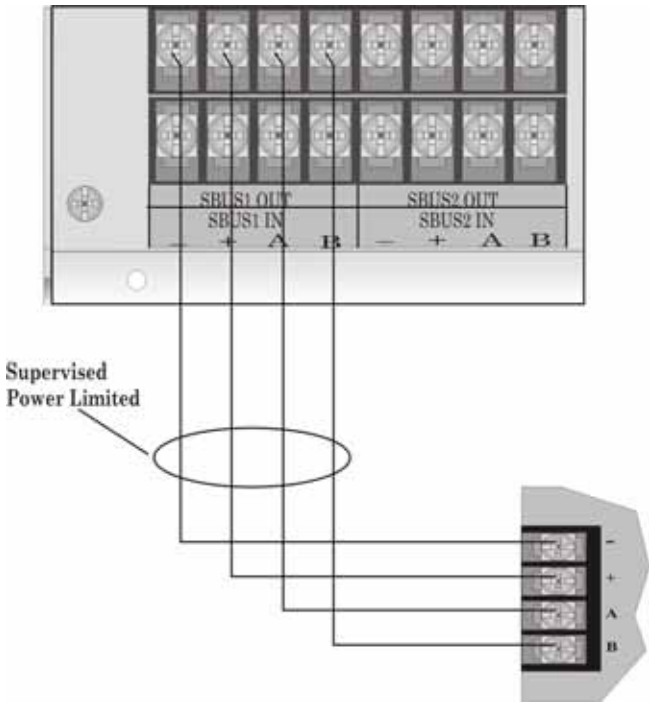


Figure 4-8 SBUS Class B Wiring

4.5 Configuring SBUS Modules

This section describes how to configure any system hardware modules that have been added to the system.

4.5.1 Assigning SBUS Module IDs

SBUS devices on a panel are addressed from 1 to 63 and are connected to either SBUS 1 or SBUS 2. Although the addressing scheme allows 63 SBUS devices to be connected to a panel the actual number is limited by current draw and SBUS bandwidth usage as discussed below. When installing a hardware module (such as 5815XL, 5824, SCSS-700ANN, 5496, 5895XL, 5865-3 or 5865-4), you must use the DIP switches on the module to assign an ID# to the module. Address zero is an invalid address and is not allowed.

Figure 4-9 shows all possible DIP switch positions and their correlation to a numerical ID. For example, to select ID 2, place DIP switch 2 in the up position.

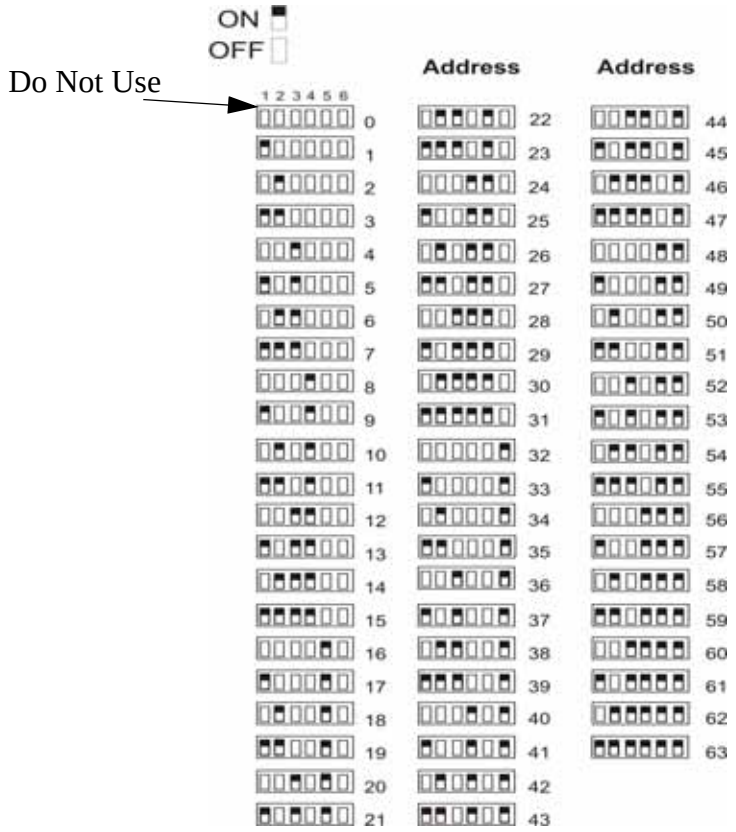


Figure 4-9 Possible SBUS module addresses

Refer to Section 9.2 to edit, add, delete, and view module list

4.5.2 SBUS Bandwidth Considerations

Each SBUS device generates a certain amount of traffic on the SBUS. Generally, the amount of traffic generated depends on the type of SBUS device. To help you figure out the SBUS bandwidth usage of a given collection of devices, we have created a tool available on the Stanley/Honeywell product website. The tool will serve as a guide to help determine how heavily loaded an SBUS is with respect to bandwidth. We recommend you use this tool if you plan to have more than eight SBUS devices per SBUS. Remember to include devices that are on 5895XL SBUS repeaters in your list of devices for SBUS bandwidth calculators.

4.6 SCSS-700ANN Remote Annunciator Installation

The optional Model SCSS-700ANN Remote Annunciator, shown in Figure 4-10, performs the same functions as the on-board annunciator. Operation is identical. The SCSS-700ANN can be surface or flush mounted.

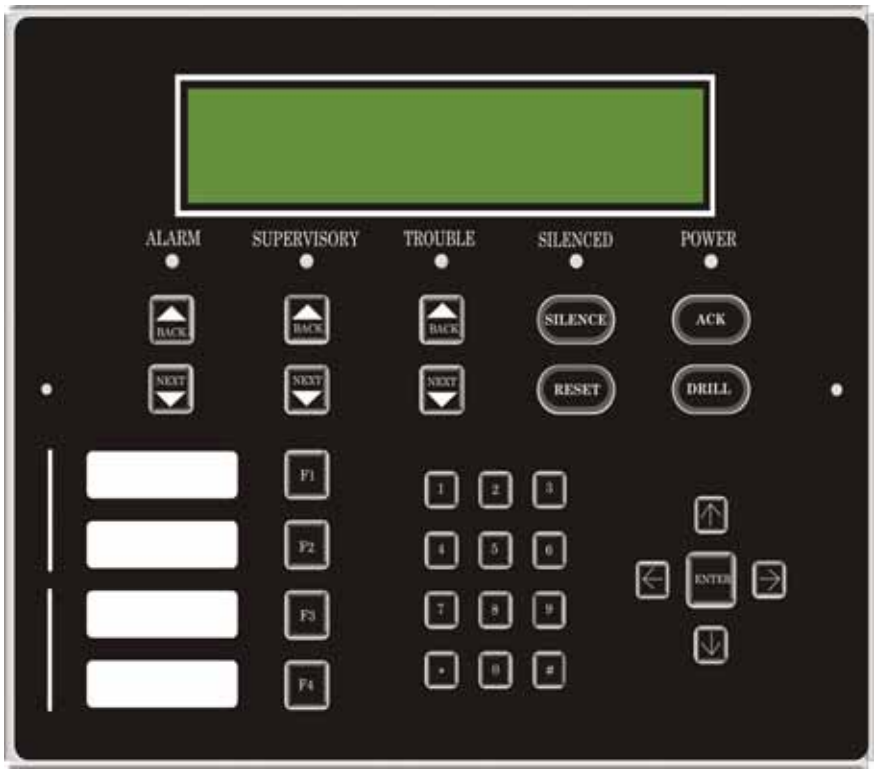


Figure 4-10 Model SCSS-700ANN Remote Annunciator, Front View

SCSS-700ANN installation involves the following steps:

1. Make sure power is off at the panel.
2. Mount the SCSS-700ANN in the desired location (see Section 4.5.1).
3. Connect the SCSS-700ANN to the panel (see Section 4.4).

4. Use the DIP switches on the back of the SCSS-700ANN to assign an SBUS ID# to the SCSS-700ANN (see Section 4.5.1).
5. The SCSS-700ANN module must be added to the system through programming. Jump-Start AutoProgramming will add the module automatically (see Section 8.1.3). You can also add it manually (see Section 9.2.2). Select a name, if desired (see Section 9.2.1.1).

4.6.1 Mounting the SCSS-700ANN

This section of the manual describes mounting the remote annunciator. The annunciator can be flush or surface mounted.

4.6.1.1 Flush Mounting

This section of the manual describes flush mounting.

Follow these steps to flush mount the SCSS-700ANN

1. The back box dimensions are 9-9/32” w x 8-3/8” h. The minimum depth 2". The back box can be mounted prior to the complete installation of the SCSS-700ANN using any of the mounting holes shown in Figure 4-11.

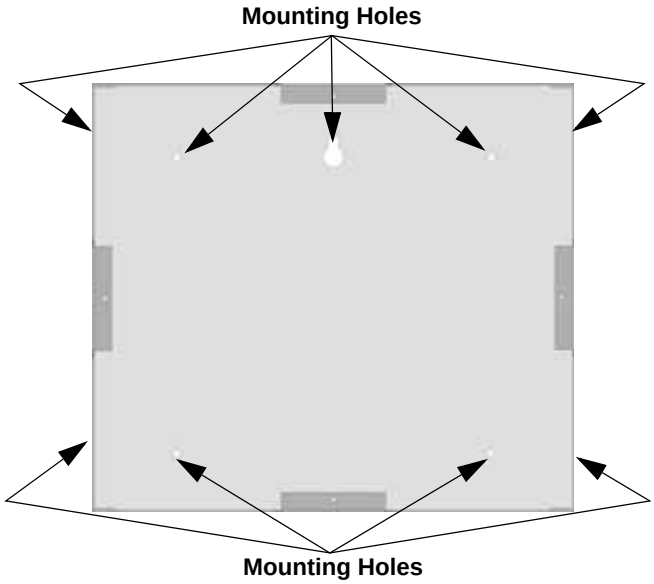


Figure 4-11 Back Box Mounting Holes

2. Remove knockout holes as needed for wires. See Figure 4-12 for backbox knockout locations

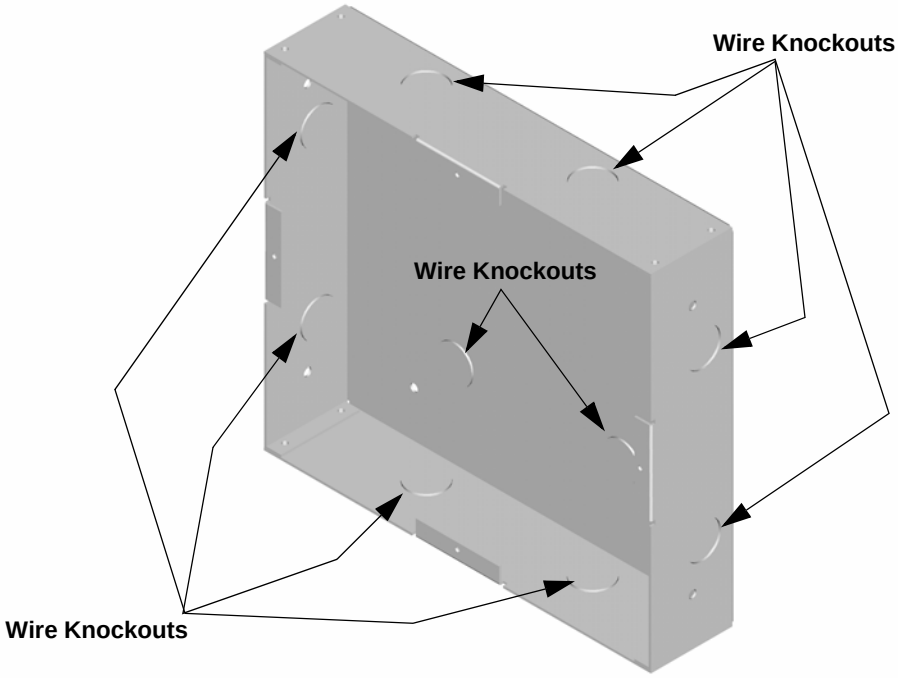


Figure 4-12 Back Box Knockout Locations

3. Wire the annunciator board to the main control panel. See Figure 4-8.
4. Attach the annunciator and door assembly to back box as shown in Figure 4-13 using the supplied screws.

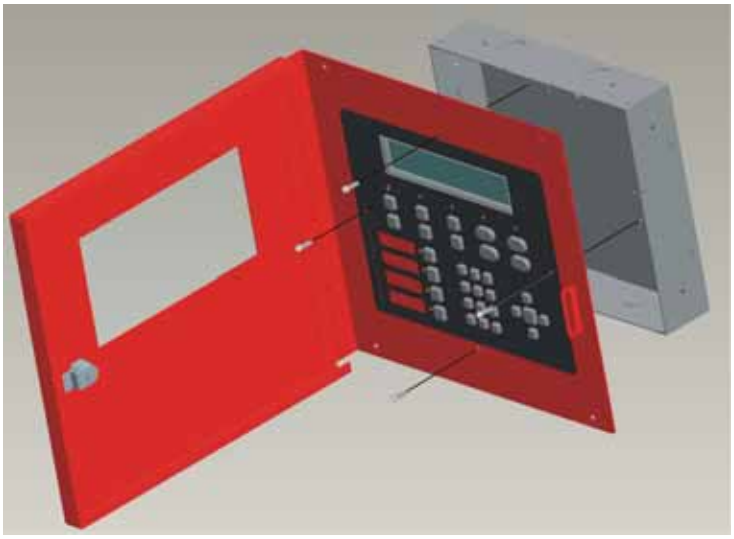


Figure 4-13 Attaching Annunciator/Door Assembly to Backbox

4.6.1.2 Surface Mounting

The Model RA-2000TR red trim ring is available for use when surface mounting the SCSS-700ANN.

1. Remove the desired knock out. See Figure 4-12.
2. To properly mount the back box, insert a single screw into the key shaped mounting hole. Do not tighten all the way. See Figure 4-14.

   Place a level on top of the back box, with the back box level insert the rest of the mounting screws.

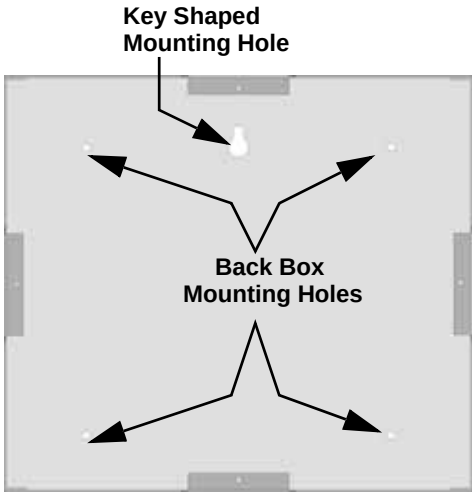


Figure 4-14 Back Box Surface Mount Holes

3. Run wires to the control panel.
4. Place the trim ring over the back box as shown in Figure 4-15.

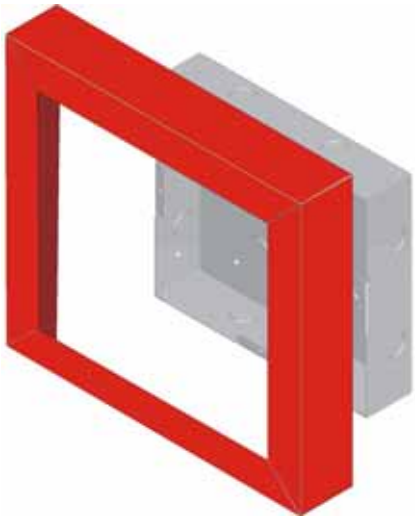


Figure 4-15 Installing Trim Ring

5. Attach the door assembly to the back box using screws provided.

6. After the SBUS wiring to the annunciator is complete (described in Section 4.6.2), replace the electronic assembly in the back box. Place the bezel over the back box and tighten the set screws on the bezel.

4.6.2 SCSS-700ANN Connection to the Panel

Connect the SCSS-700ANN to the panel as shown in Figure 4-16

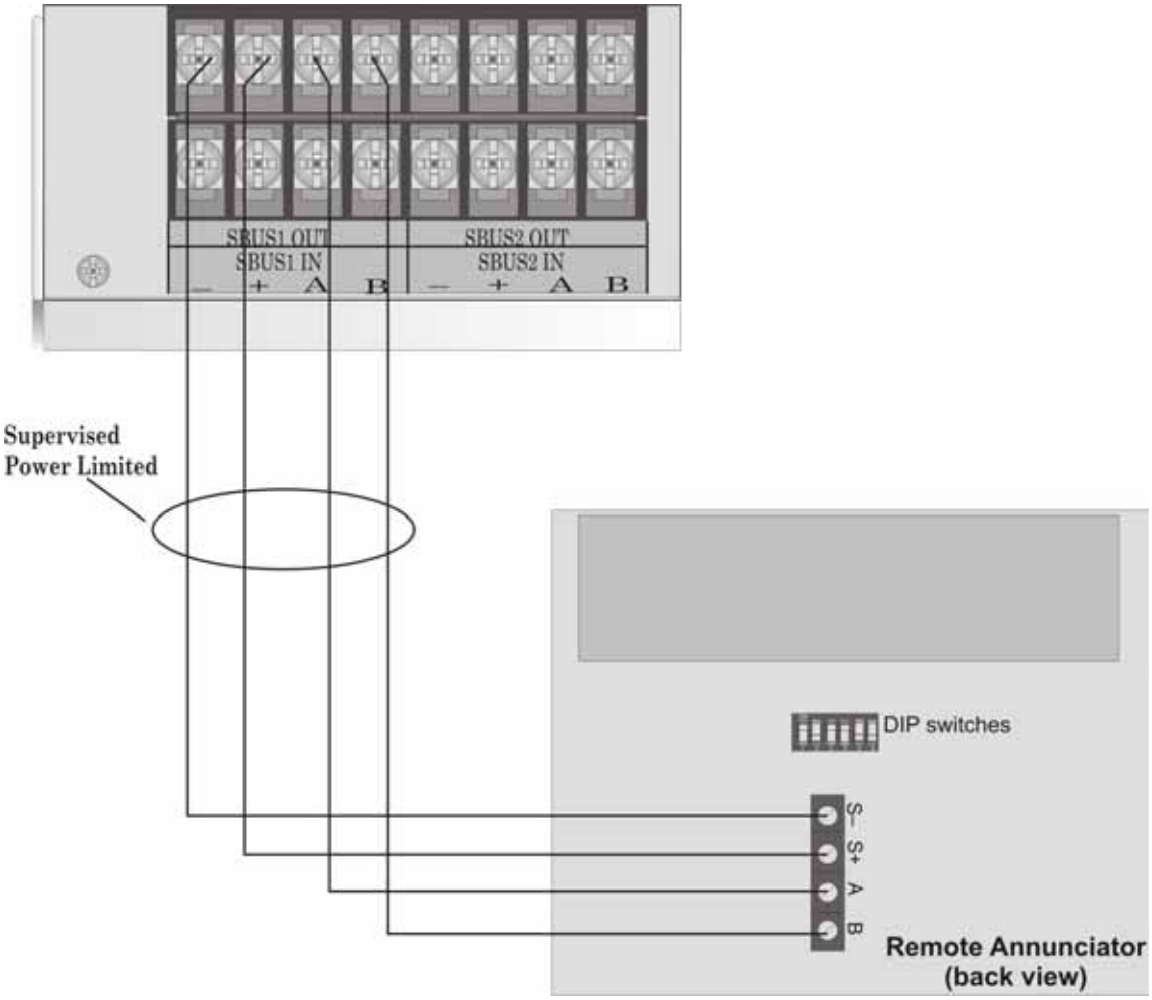


Figure 4-16 Model SCSS-700ANN Connection to the Panel

4.7 5815XL Installation

The 5815XL SLC expander lets you add additional addressable devices. The maximum number of SLC devices per panel is 636. The number of 5815XL's is limited by the maximum number of SBUS devices.

To install the 5815XL:

1. Make sure power is off at the panel.
2. Mount the 5815XL in the SCSS-700, the 5895XL cabinet, or the 5815RMK remote mounting kit. Use the standoffs located under the control panel board assembly and secure with screws provided with the 5815XL. See also Model 5895XL Installation Manual (PN 151142) or *5815RMK Remote Mounting Kit Installation Instructions* (P/N 151391).
3. Connect the 5815XL to the control panel. (See Section 4.7.1.)
4. Use on-board DIP switches to select an ID#. (See Section 4.5.1.)
5. The new 5815XL module must be added to the system through programming. JumpStart will add the module automatically (see Section 8.1). You can also add it manually (see Section 9.2.2). Select a name, if desired (see Section 9.2.1.1).
6. You are now ready to connect SLC devices to the 5815XL (see Section 7.3).

Figure 4-17 is a drawing of the 5815XL board, showing the location of terminals and DIP switches.

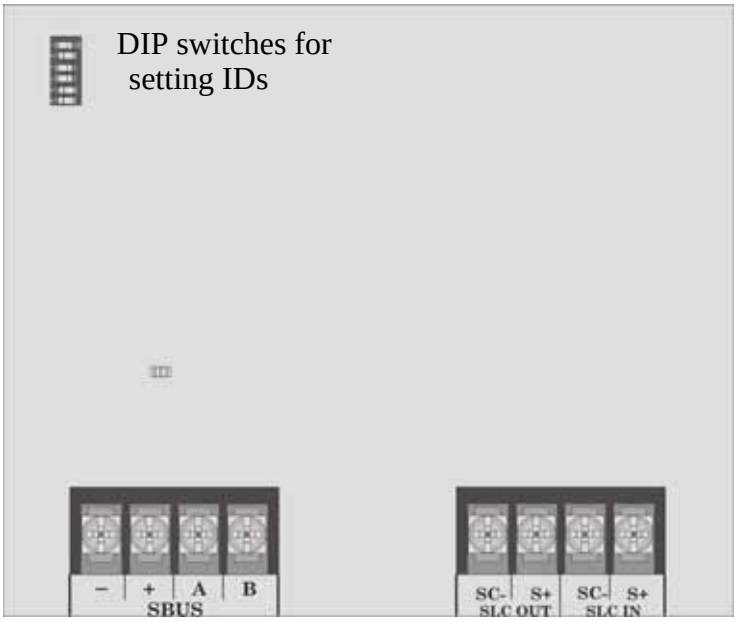


Figure 4-17 5815XL Board

4.7.1 5815XL Connection to the Panel

Connect the 5815XL to the control panel as shown in Figure 4-18. After the 5815XL is connected to the panel, it must be added to the system. This programming step is described in Section 9.2.2.

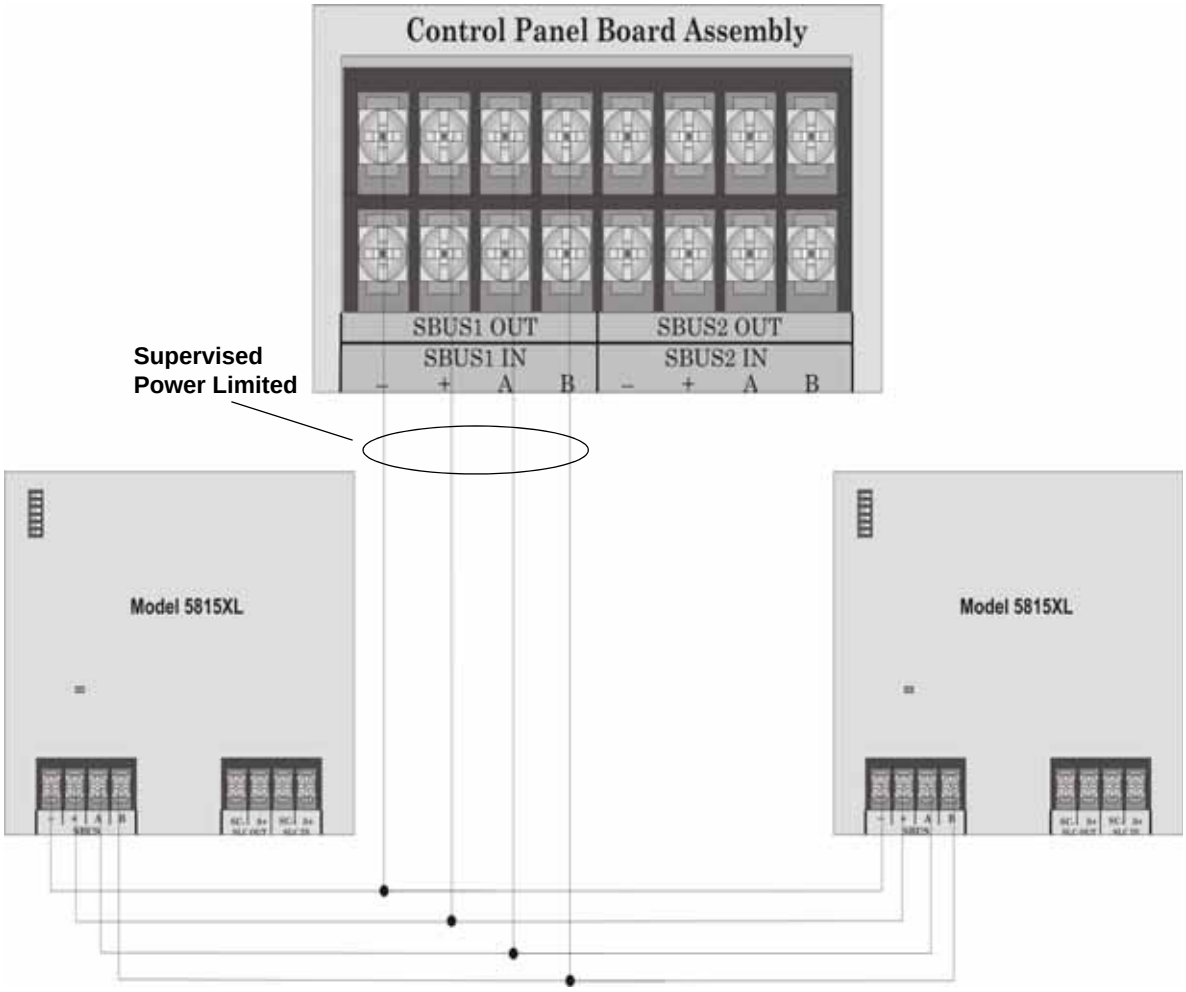


Figure 4-18 5815XL Connection to Main Panel Assembly

4.8 5824 Serial/Parallel Interface Module Installation

The 5824 serial/parallel interface module allows you to connect a printer to the panel, so you can print a real-time log of system events. Instructions for installing the 5824 appear below. The 5824 is for ancillary use only.

5824 installation involves the following steps:

1. Make sure power is off at the panel.
2. Connect the 5824 to the panel as shown in Figure 4-19.

Note: Two 5824s per panel maximum.

3. Use the DIP switches on the 5824 board to assign an ID# to the 5824 (see Section 4.5.1).
4. Configure the 5824 device through programming. See Section 4.8.1.
5. Connect a printer to the 5824 as shown in Figure 4-20.

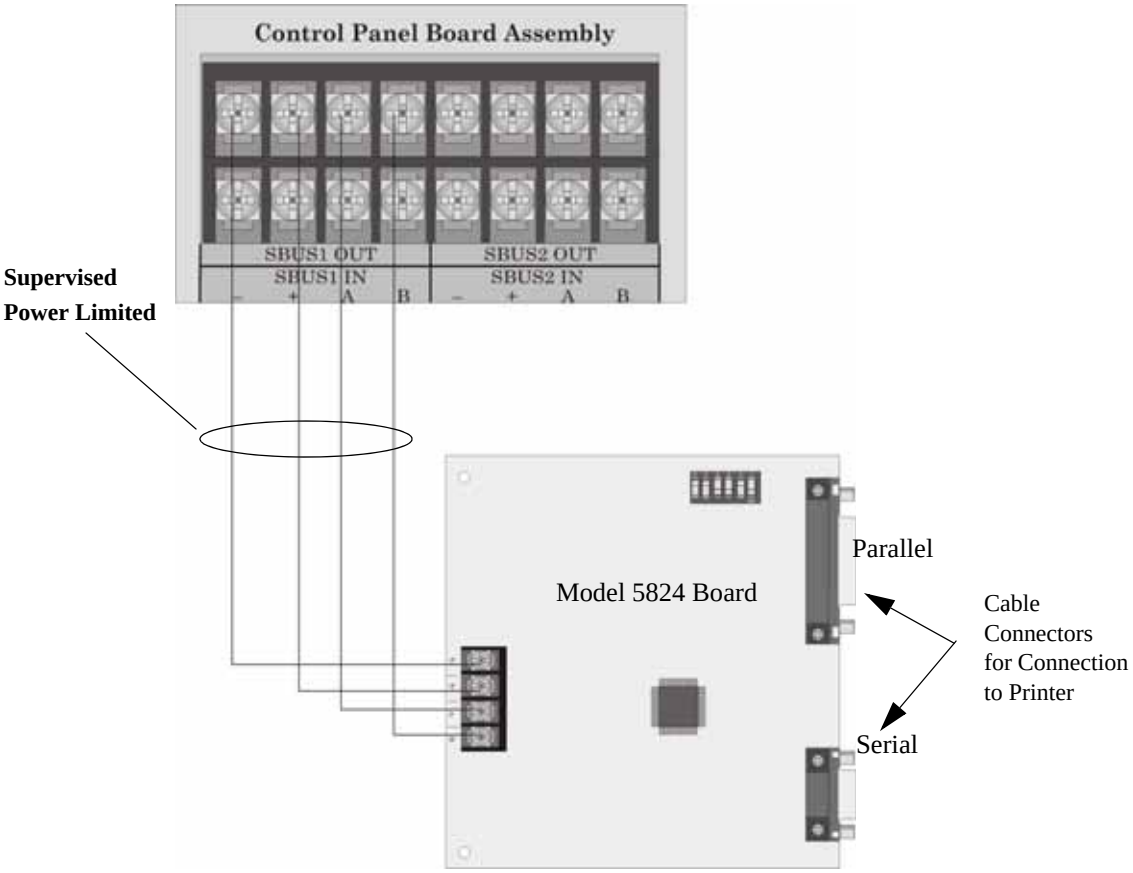


Figure 4-19 5824 Connection to the Panel

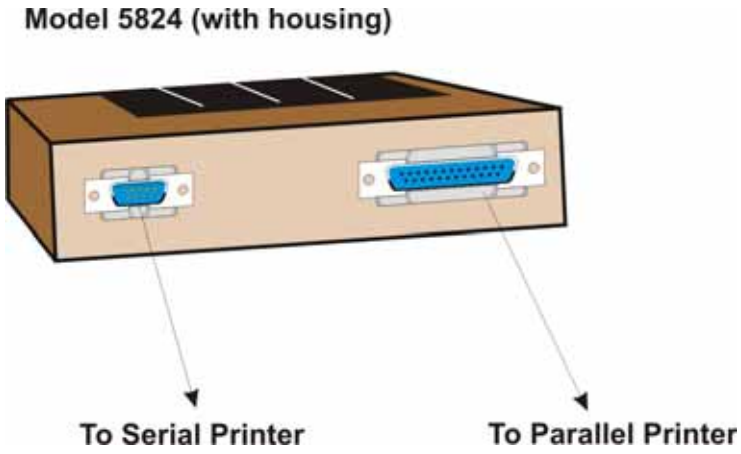


Figure 4-20 Printer Connection

4.8.1 Selecting 5824 Options

Configuring the 5824 includes the following steps:

- Add the module to the system. JumpStart will add the module automatically (see Section 8.1). You can also add it manually (see Section 9.2.2).
- Select a name, if desired (see Section 9.2.1.1).
- Select options for the printer and the output port. See below.

Printer and Output Port Options

1. From the Main Menu, select 7 for Panel Programming.
2. Select 1 for Module.
3. Select 1 for Edit Module.
4. From the list that displays, select the 5824 module you want to configure.
5. Press ENTER ENTER to bypass the next two screens. A screen similar to the one shown in Figure 4-21 will display.

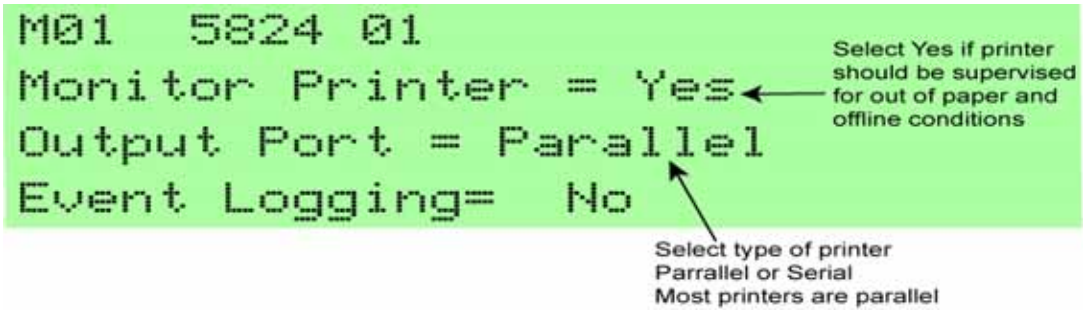


Figure 4-21 Selecting Printer and Output Port Options

6. Select options for the printer as needed for your installation. Most printers are parallel.
7. If you are using a serial printer, use the next screen to select serial port options as required for your printer. Refer to your printer manual if you need more information.

Option	Choices
Baud Rate:	75 - 19200
Data Bits:	5 - 8
Stop Bits:	.5, 1, 2
Parity:	None, Even, Odd

4.9 5880 LED I/O Module

The 5880 is an LED driver board that can be used in a wide variety of applications, including as an interface with most customized floor plan annunciator boards. The 5880 can drive up to 40 LEDs and has one PZT controller. The 5880 also has eight inputs for dry contact monitoring. The following sub-sections describe hardware installation. Refer to Section 6 for programming information.

4.9.1 5880 Board Layout

Figure 4-22 is a picture of the 5880 board showing locations of screw terminals for connection to the panel and contact monitor wiring, pin connectors for connecting LEDs and the DIP switch for selecting an SBUS ID number.

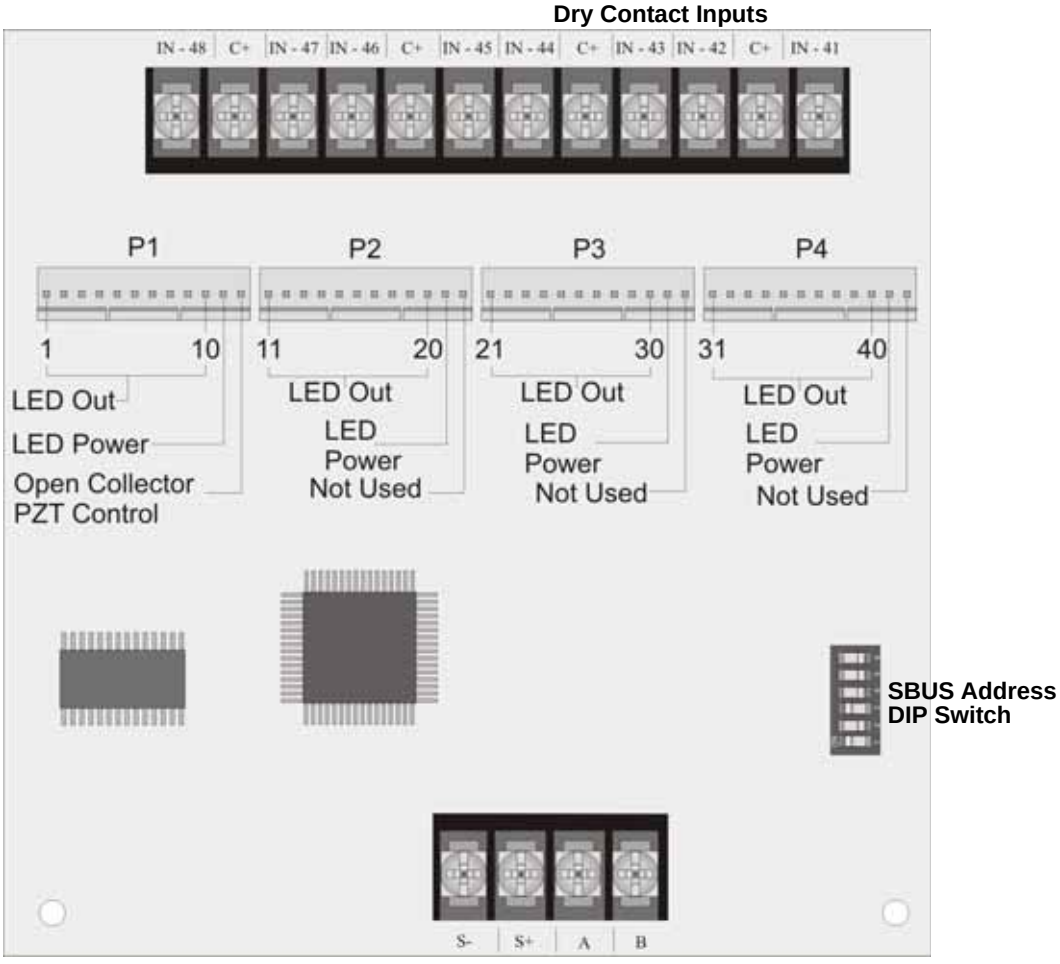


Figure 4-22 5880 Board Layout

4.9.2 FACP Connection

The 5880 connects to the panel via the SBUS. Make connections as shown in Figure 4-23. After the 5880 is connected to the panel, it must be added to the system. This programming step is described in Section 9.2.2.

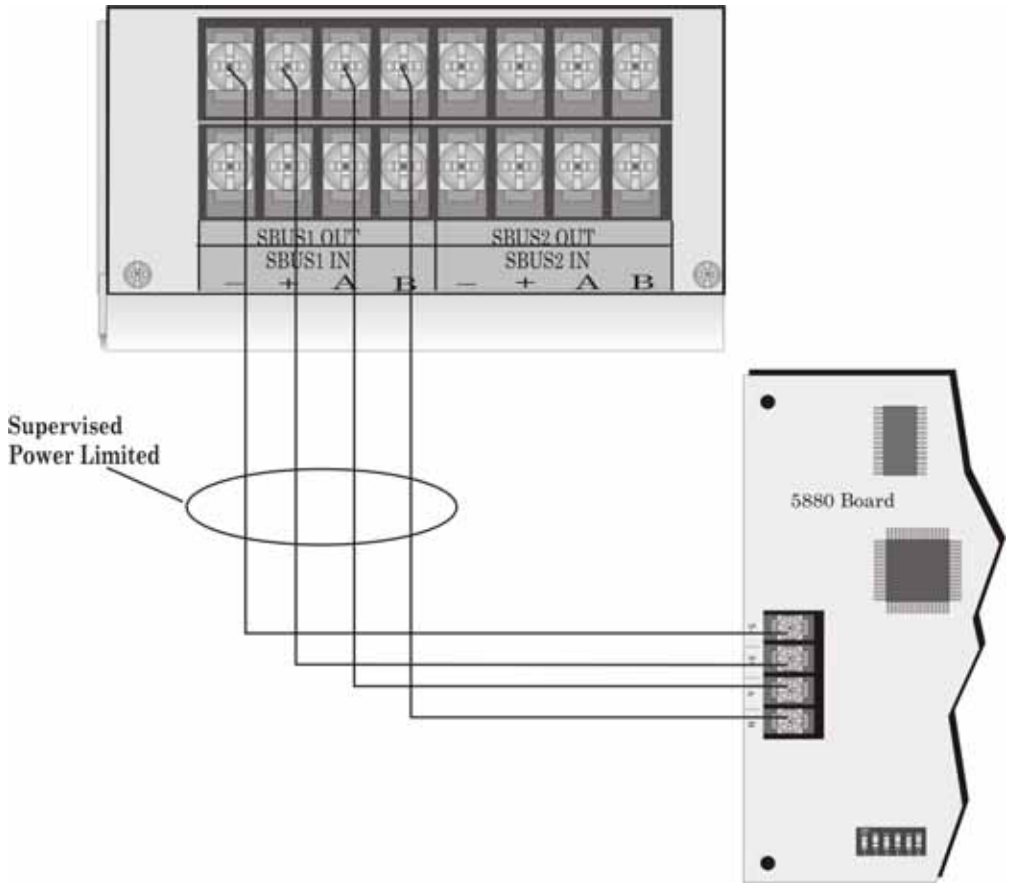


Figure 4-23 5880 Connection to Main Control Panel Assembly

4.9.3 LED Wiring

There are four 12-pin connectors on the 5880 board for connecting LEDs. Each LED gets its power from Pin 11. Internal resistors are sized so that there is approximately 10 mA of current for each LED; no series resistors are required. LED outputs can be mapped to output circuits. See Section 9.5.3 for programming details.

Wire the LEDs as shown in Figure 4-24.

On connector P1, Pin 12 is an open collector output for controlling a PZT. If used, the 5880 PZT will match the PZT pattern of the on-board (or SCSS-700ANN) annunciator.

Note: The circuit connected to "Open Collector Output" (last pin on P1) must be current limited so that no more than 100 mA of current is allowed to flow into the open collector transistor.

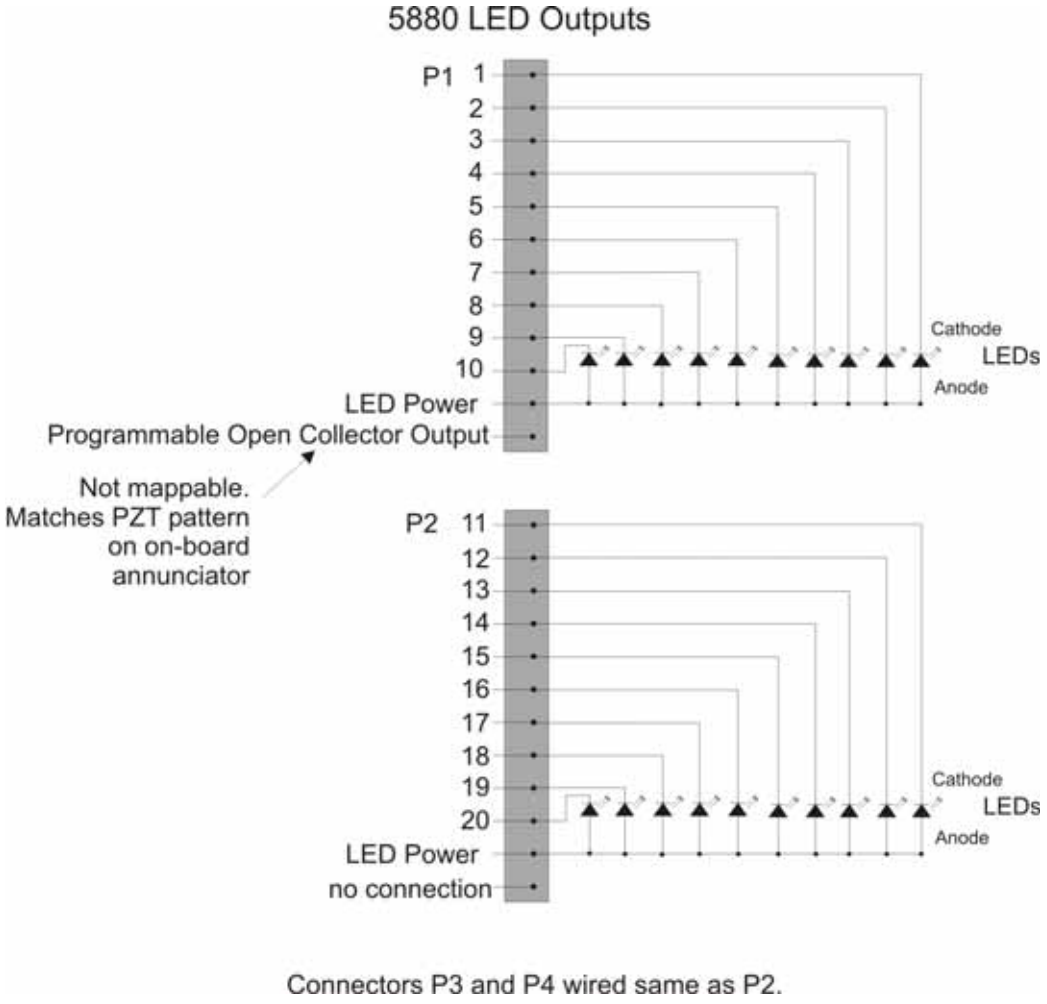


Figure 4-24 5880 Board Layout

4.9.4 Dry Contact Wiring

The 8 input circuits on the 5880 board are for monitoring switch inputs. Any type of switch supported by the control panel can be used with the 5880. For example, you can use a 5880 to monitor pull stations, water flow, tamper, reset, or silence switches.

Wire dry contacts as shown in Figure 4-25. Notice grouping of terminals; power terminals are shared by two inputs.

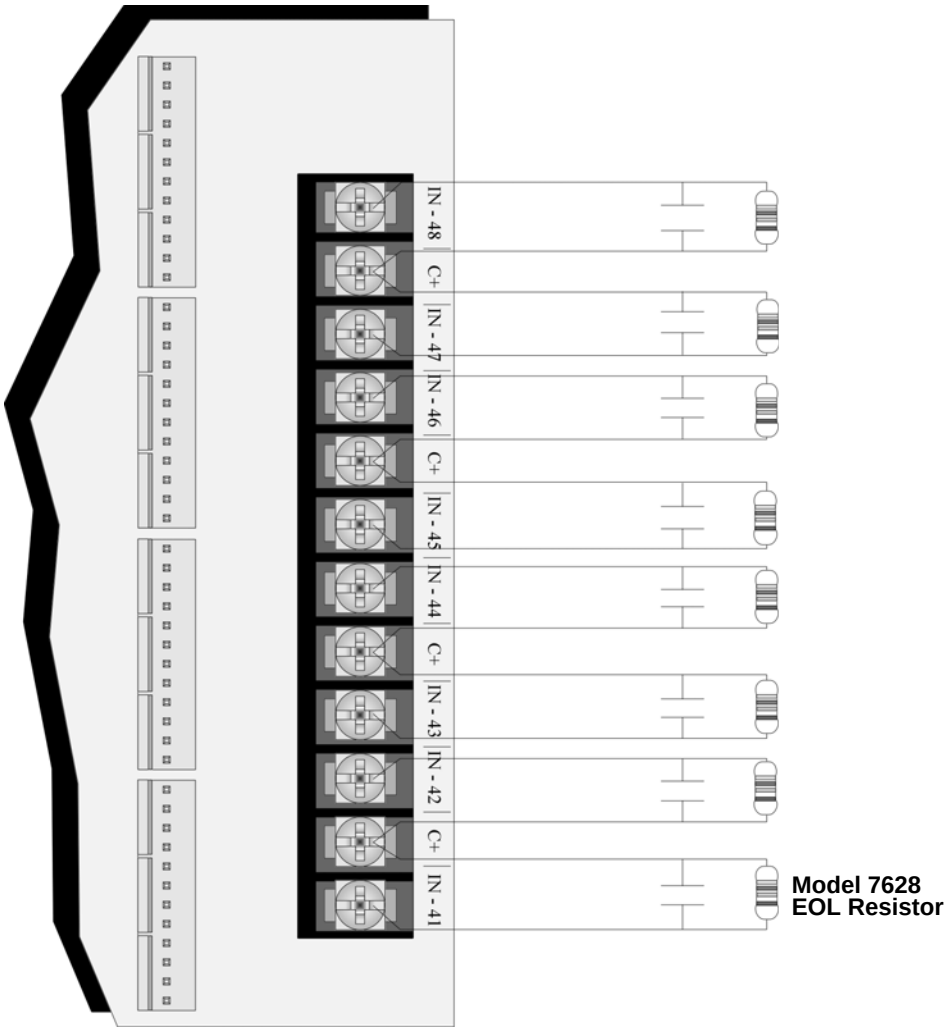


Figure 4-25 Dry Contact Wiring

4.10 5865-3 / 5865-4 LED Annunciator Installation

The 5865-3 and 5865-4 are LED annunciators. The 5865-4 has 30 mappable LEDs, remote silence and reset key switches, and a general system trouble LED. The 5865-3 has 30 mappable LEDs only. These are arranged as 15 pairs of red (typically used for alarm) and yellow (typically used for trouble) LEDs.

Installation of the 5865-3 and 5865-4 is identical. The key switches and the trouble LED follow the behavior of other system annunciators and do not require any installation steps. The following sub-sections describe how to install the 5865-3 and 5865-4 hardware. Refer to Section 9 for programming information.

Note: This manual uses "5865" when referring to aspects of the 5865-3 and 5865-4 that are common to both models.

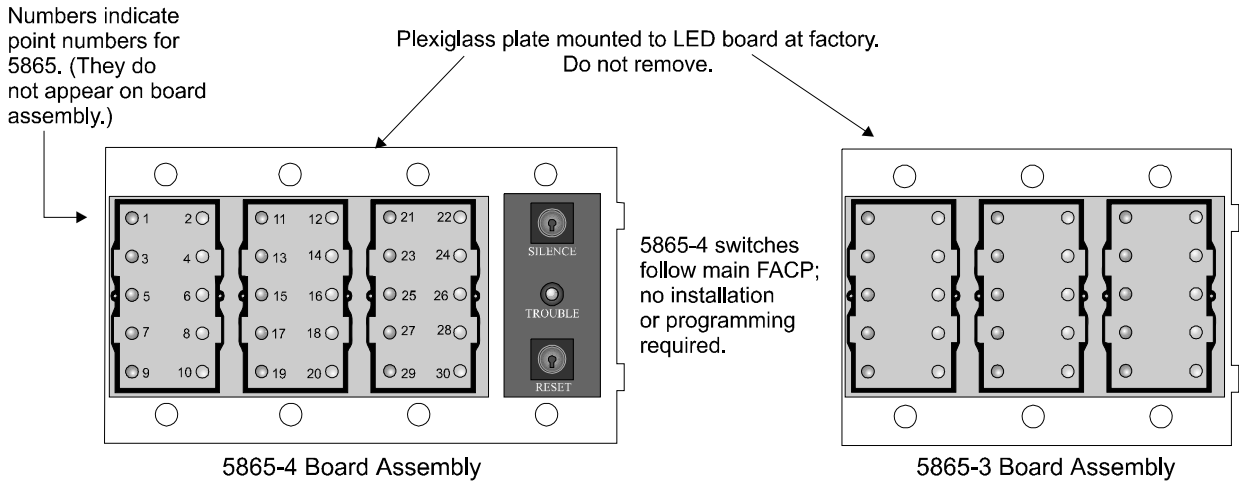


Figure 4-26 5865-3 and 5865-4 Assembly (front view)

4.10.1 FACP Connection

The 5865 connects to the panel via the SBUS. Make connections as shown in Figure 4-27. After the 5865 is connected to the panel, it must be added to the system. This programming step is described in Section 9.2.2.

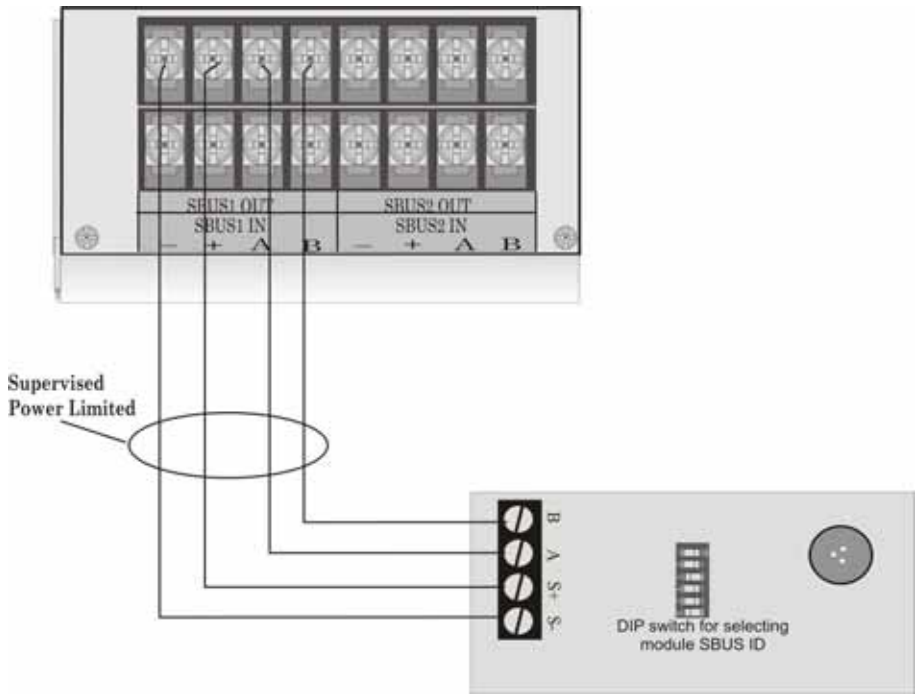


Figure 4-27 5865 Connection to the FACP

4.10.2 5865 Mounting

Mount the 5865-4 to a standard 4-gang electrical box. Mount the 5865-3 to a standard 3-gang electrical box. In Figure 4-28, the 5865-4 attached to a 4-gang box is used as an example.

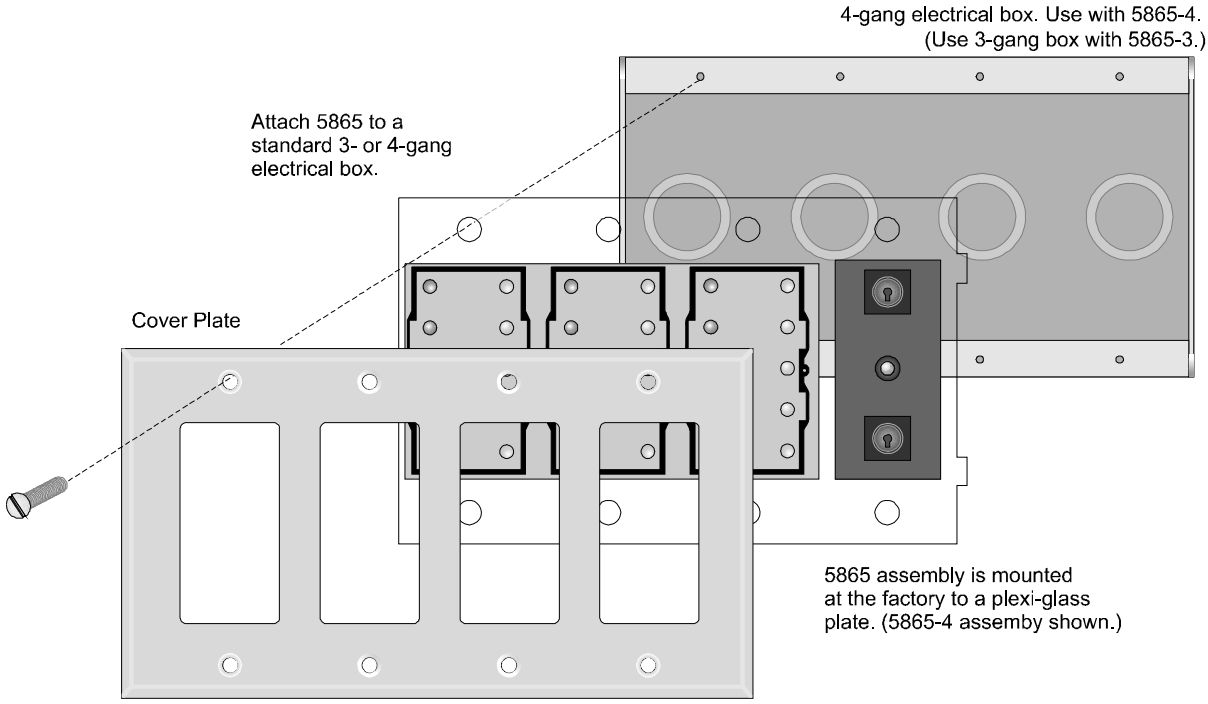


Figure 4-28 5865 Mounting Example

The 5865 ships with a set of zone description labels that can be inserted into the 5865 board assembly. These labels can be used in a typewriter or can be written on by hand. Slide the labels under the plexiglass as shown in Figure 4-29. The LEDs will show through the label when illuminated.

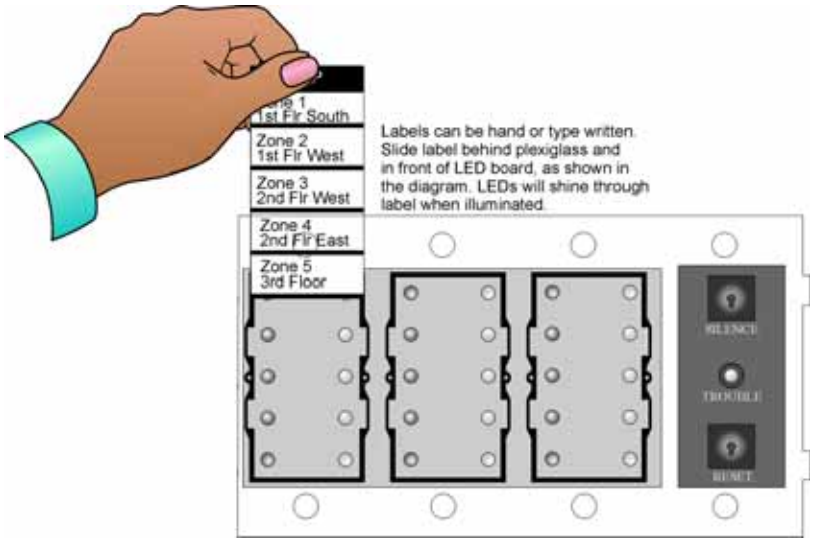


Figure 4-29 Inserting Zone Description Labels

4.11 Vip Module Installation

For Installation of the VIP-50, VIP-125, VIP-VCM, and SCSS-700RM modules refer to the VIP-Series Installation manual P/N 53796.

Note: When using these modules on a network of panels, the VBUS must not span panels. A VBUS can only be connected between modules on the same panel.

Note: VIP-50 and VIP-125 are referred to as VIP-AMP in programming menu.

4.12 Telephone Connection

Connect the telephone lines as shown in Figure 4-30. The Model 7860 phone cord is available from the factory for this purpose.

If you do not use the model 7860 to connect to the phone lines, the wire used for the connection must be 26 AWG or larger diameter wire.

A number of programmable options are available for customizing telephone lines. These options are described in Section 9.6.2.

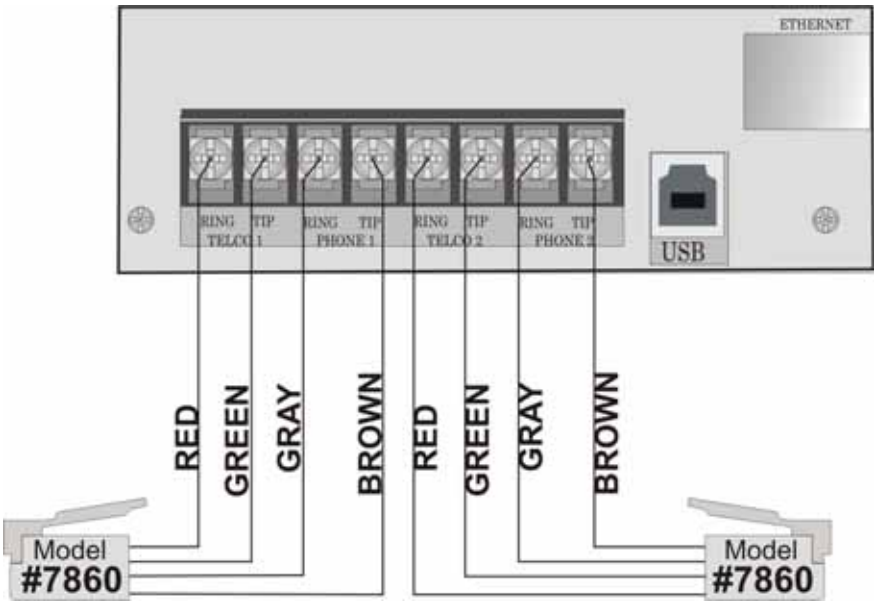


Figure 4-30 Connection of Telephone Lines

4.13 Flexputs™ I/O Circuits

The eight Flexput™ circuits are an innovative and versatile feature of the control panel. They can be used as: Class A or B notification circuits, Class A or B initiation circuits (either 2 or 4

wire detectors), or as auxiliary power (resettable, continuous, or door holder).

The polarity of the Flexput terminals differs depending on whether the circuit is programmed as an input or an output circuit. If the circuit is programmed as an input circuit (for a detector or normally open contact) the X terminal is negative and O terminal is positive. If the circuit is programmed as an output circuit (Aux power or NAC) then the X terminal is positive and the O terminal is negative.

This section of the manual explains how to install conventional notification appliances and initiating devices to be used with the system.

4.13.1 Conventional Notification Appliance

This sub-section of the manual explains how to install conventional notification appliances for Class A (Style Z) and Class B (Style Y) configurations.

4.13.1.1 Regulated Class B Notification Wiring

You must use an appliance from the list of compatible appliances in the Appendix A at the back of this manual.

To install a circuit:

1. Wire Class B Notification appliances as shown in Figure 4-31.
2. Configure the circuit through programming (see Section 9.5)

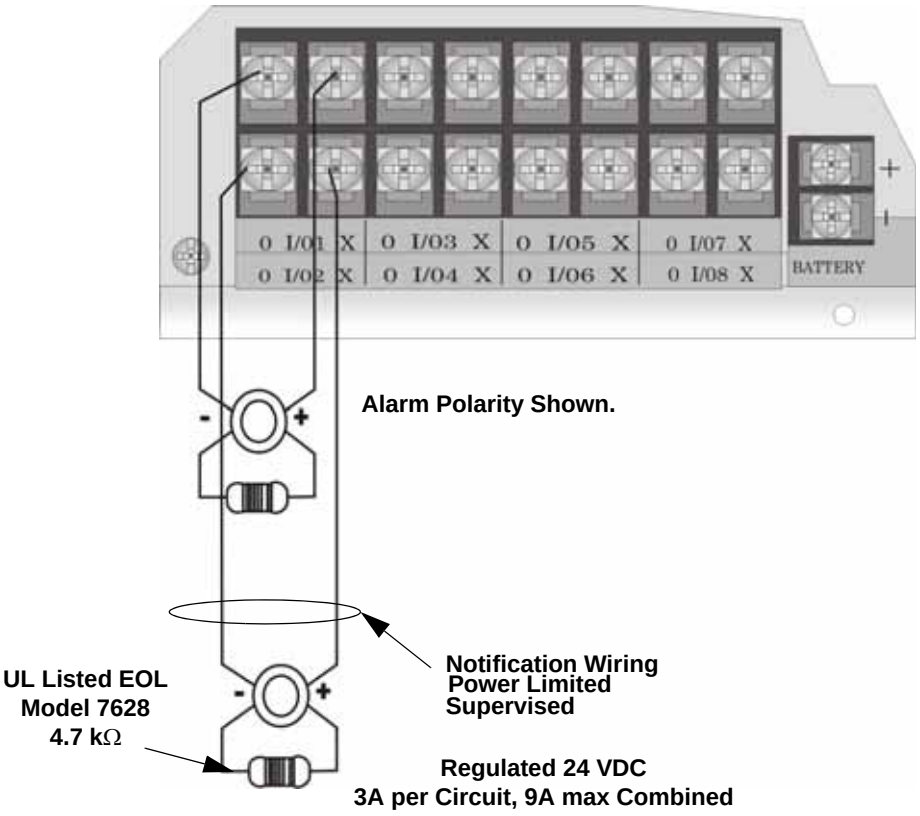


Figure 4-31 Class B Notification Appliance Circuit Wiring

Maximum voltage drop per Class B notification circuit is 3V. See Table 4-3

Table 4-3: Maximum Impedance Class B

Current	Maximum Impedance
1.0A	3Ω
1.5A	2Ω
2.0A	1.5Ω
2.5A	1.2Ω
3.0A	1.0Ω

4.13.1.2 Class A Notification Wiring

You must use an appliance from the list of compatible appliances in Appendix A at the back of this manual.

To install a Class A notification appliance circuit:

1. Wire the Class A notification appliances as shown in Figure 4-32.
2. Configure the circuit for Class A in programming (see Section 9.5).

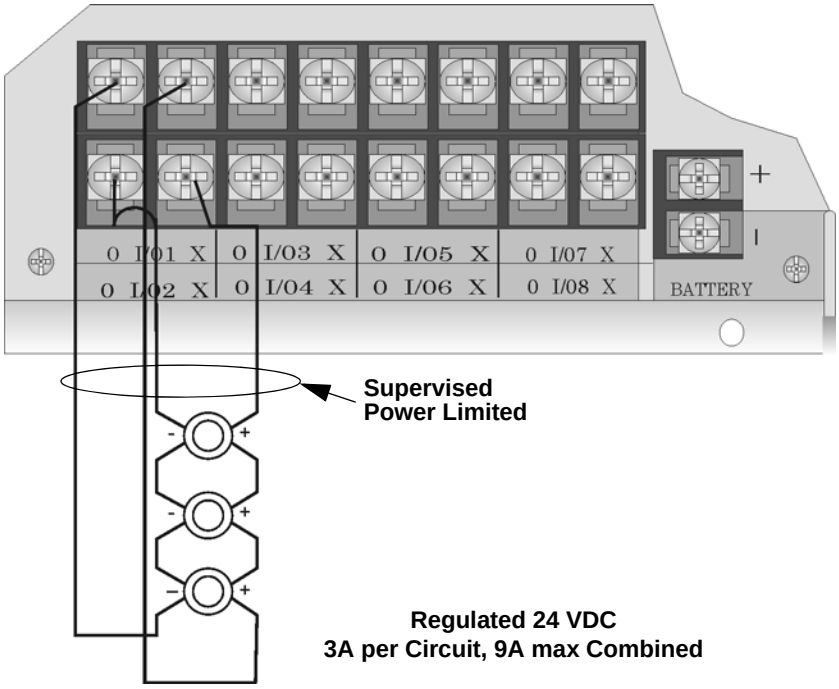


Figure 4-32 Class A Notification Appliance Circuit Configuration

Note: In programming any point that uses multiple Flexput circuits, the lowest Flexput circuit number is used to refer to the circuit pair. For example, Figure 4-32 uses both Flexput circuit 1 and 2, so in programming it would be referred to as point 1.

Maximum voltage drop is 3V per Class A circuit. See Table 4-4

Table 4-4: Maximum Impedance Class A

Current	Maximum Impedance
1.0A	3Ω
1.5A	2Ω
2.0A	1.5Ω
2.5A	1.2Ω
3.0A	1.0Ω

4.13.2 Conventional Input Switch Circuits

This section of the manual explains how to install conventional initiating devices for Class A (Style D) or Class B (Style B) configurations.

4.13.2.1 Class B Inputs

You can connect conventional Class B switches, such as waterflow switches and pull stations, directly to the Flexput circuits of the control panel.

To install a Class B switch:

1. Wire the Class B switch as shown in Figure 4-33.
2. Configure the circuit through programming (see Section 9.5).

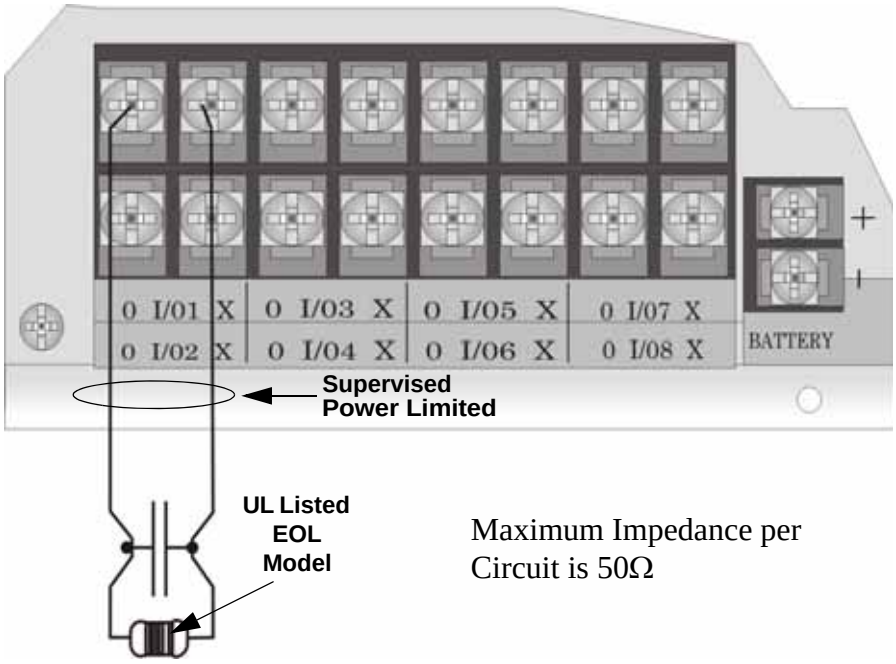


Figure 4-33 Class B Input Switches

4.13.2.2 Class A Inputs

You can connect conventional Class A switches, such as waterflow switches and pull stations, directly to the Flexput circuits of the control panel.

To install a Class A switch:

1. Wire the Class A switch as shown in Figure 4-34.
2. Configure the circuit through programming (see Section 9.5).

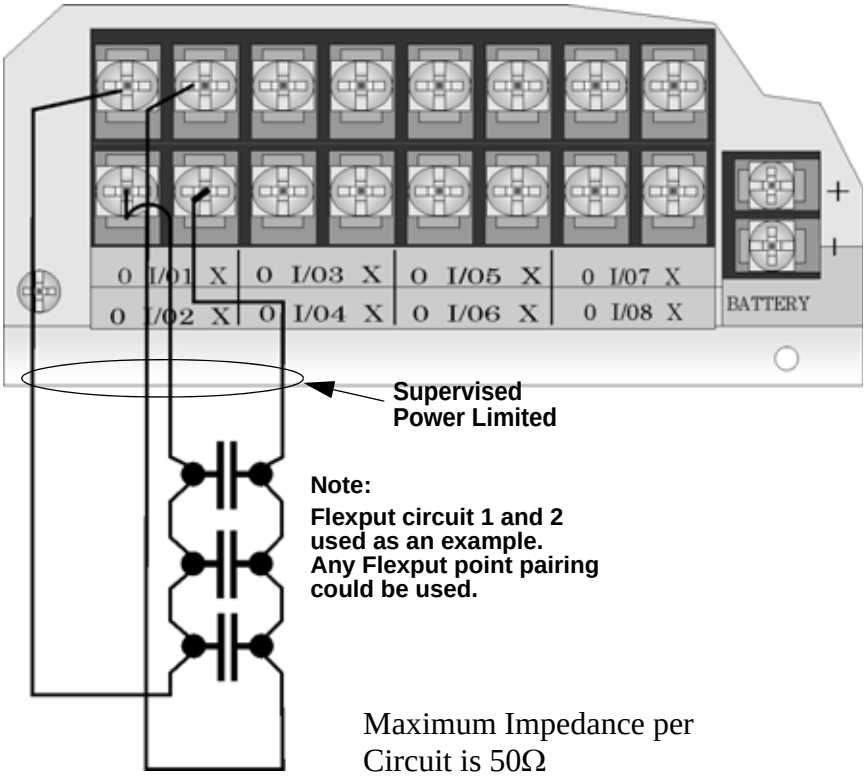


Figure 4-34 Class A initiating Switches

Note: In programming any point that uses multiple Flexput circuits, the lowest Flexput circuit number is used to refer to the circuit pair. For example, Figure 4-34 uses both Flexput circuit 1 and 2, so in programming it would be referred to as point 1.

4.13.3 Installing 2-Wire Smoke Detectors

Any compatible UL listed two-wire smoke detector can be used with the control panel (see Appendix A for list of compatible smoke detectors). Figure 4-35 and Figure 4-36 illustrate how to connect a UL listed 2-wire detector to the control panel.

4.13.3.1 Installing 2-Wire Class B Smoke Detectors

To install a Class B two-wire smoke detector, wire as shown in Figure 4-35.

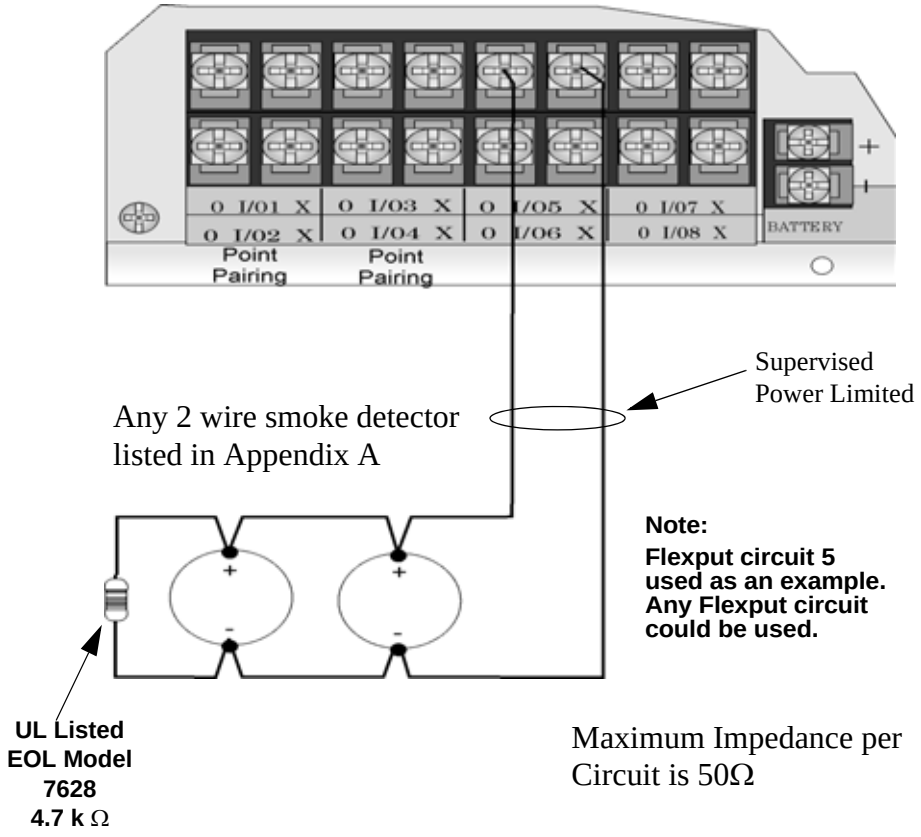


Figure 4-35 Two-Wire Class B Smoke Detector

4.13.3.2 Installing 2-Wire Class A Smoke Detector

To install a Class A two-wire smoke detector, wire as shown in Figure 4-36.

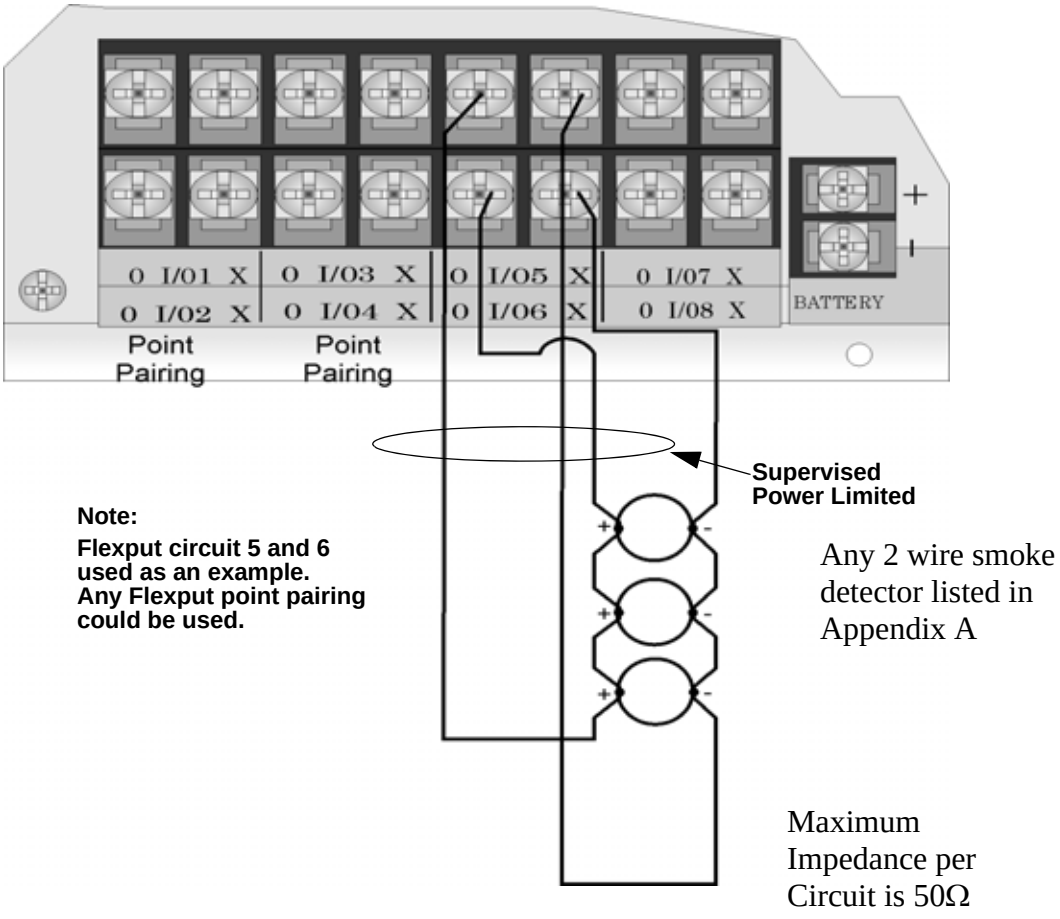


Figure 4-36 Two-Wire Class A Smoke Detector Connections

Note: In programming any point that uses multiple Flexput circuits, the lowest Flexput circuit number is used to refer to the circuit pair. For example, Figure 4-36 uses both Flexput circuit 5 and 6, so in programming it would be referred to as point 5.

4.13.4 Installing 4-Wire Smoke Detectors

Any compatible UL listed four-wire smoke detector can be used with the control panel (see Appendix A for list of compatible smoke detectors). Figure 4-37 and Figure 4-38 illustrate how to connect a UL listed four-wire detector to the control panel.

4.13.4.1 Installing a Class B 4-Wire Smoke Detector

Figure 4-37 illustrates how to install a 4-wire Class B smoke detector.

Conventions used for wiring 4-wire Class B loops:

1. Up to four Class B 4-wire smoke detector loops can be connected to the control panel at once.
2. Each Class B loop input is paired with a unique power source as shown in Figure 4-37.
3. Each loop gets smoke power from the even numbered Flexput circuit and the contact input is connected to the odd numbered Flexput circuit.

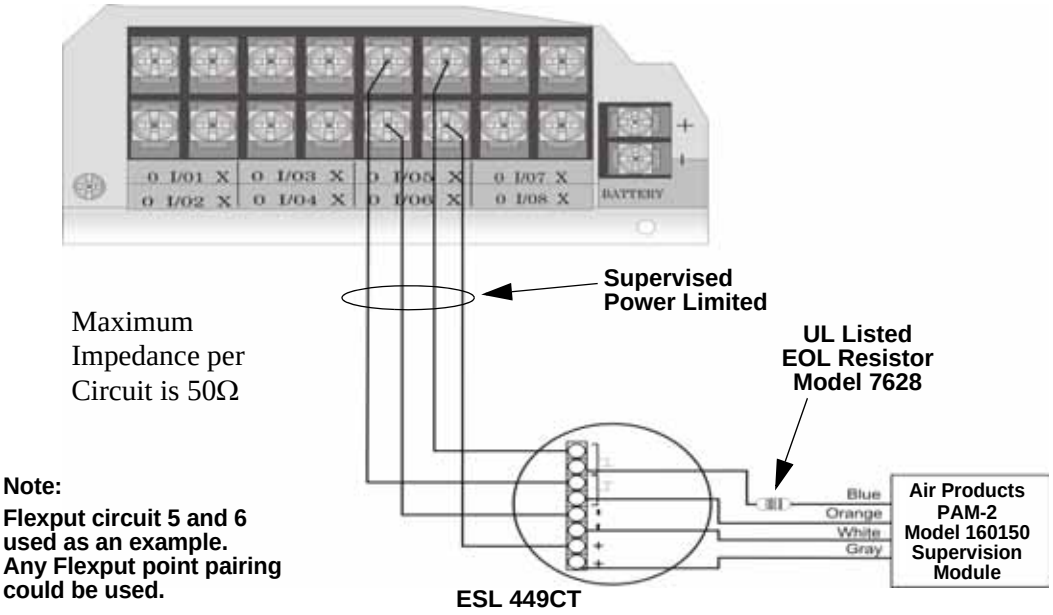


Figure 4-37 Class B 4-Wire Smoke Detector Connections

Note: In programming any point that uses multiple Flexput circuits, the lowest Flexput circuit number is used to refer to the circuit pair. For example, Figure 4-37 uses both Flexput circuit 5 and 6, so in programming it would be referred to as point 5.

4.13.4.2 Installing 4-Wire Class A Smoke Detectors

Figure 4-38 illustrates how to install 4-wire Class A detectors.

Conventions used for wiring 4-wire Class A loops:

1. Up to two Class A 4-wire loops can be connected to the control panel at once.
2. Smoke power is supplied to each Class A loop as shown in Figure 4-38.

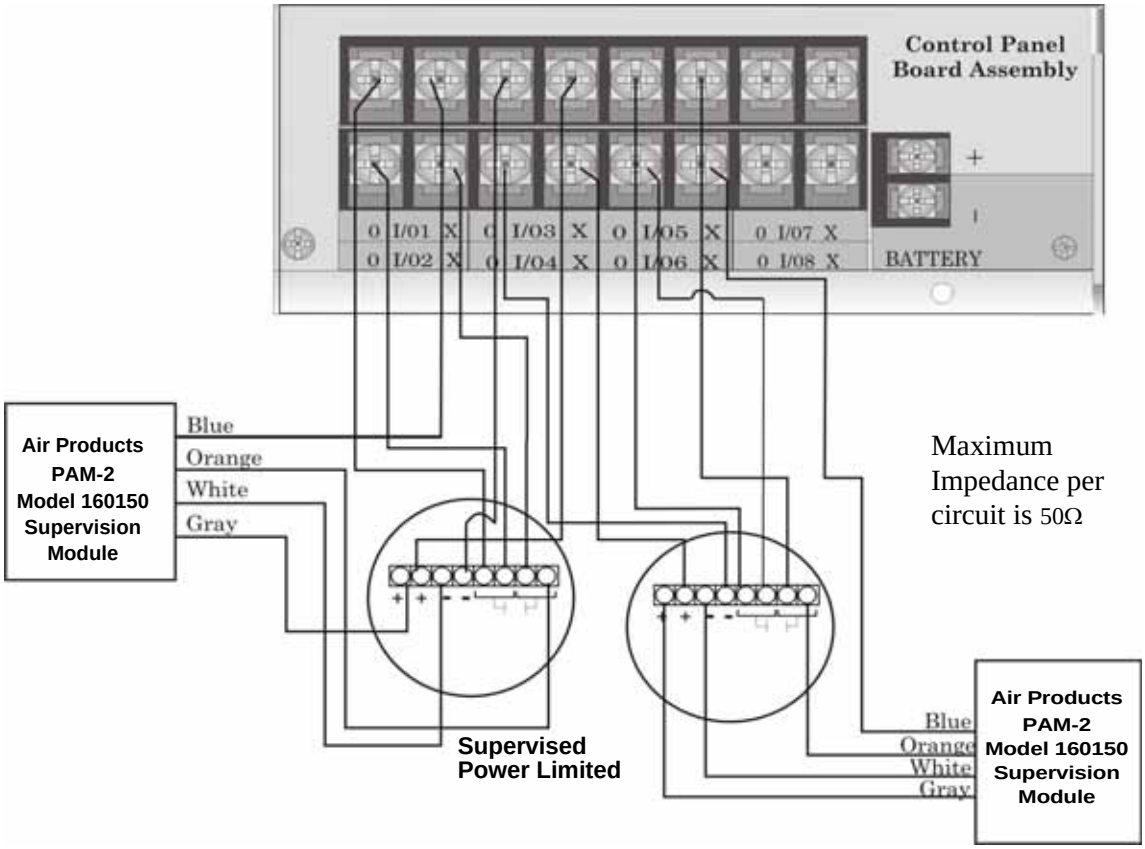


Figure 4-38 Class A 4-Wire Smoke Detector Connections

Note: In programming any point that uses multiple Flexput circuits are always referred to as the lowest Flexput circuit number used. For example, Figure 4-38 uses Flexput circuits 1, 2, 3 together and 4, 5, 6 together. In programming (1, 2, 3) would be referred to as point 1, and (4, 5, 6) would be referred to as point 4.

4.13.5 Auxiliary Power Installation

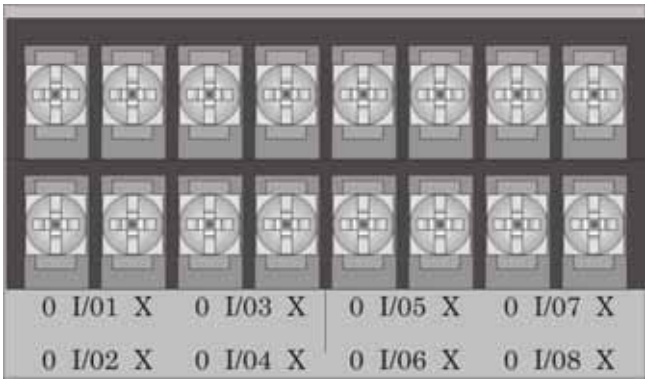
Flexput Circuits 1-8 on the control panel can be used as auxiliary power circuits. The three types of auxiliary power available are:

- Door Holder (see Section 4.13.5.1)
- Constant (see Section 4.13.5.2)
- Resettable Power (see Section 4.13.5.3)

Auxiliary power circuits are power limited. Each circuit can source up to 3A (total current for all Flexput circuits must not exceed 9.0 A in alarm, and 6A when used as constant auxiliary power in normal standby).

To install an auxiliary power circuit:

1. Wire the Flexput circuit(s) that will be used for auxiliary power. See Figure 4-39 for location of Flexput circuits.
2. Configure the auxiliary power output through programming (see Section 9.5).



When used as auxiliary power, terminals labeled "O" are negative, terminals labeled "X" are positive

Figure 4-39 Flexput Circuit Location

4.13.5.1 Door Holder Power

Door holder power is intended for fire door applications. When there are no alarms in the system and the panel has AC power, door holder circuits have 24 volt power present at their terminals. Any alarm will cause power to disconnect. Power will be re-applied when the system is reset. If AC power is off for more than 15 seconds, the auxiliary door holder power will be disconnected to conserve the battery backup. When AC power is restored, power is immediately restored to the door holder circuits.

Use a UL listed door holder such as ESL DHX-1224, for this application. See Table A-5 for compatible door holder list.

4.13.5.2 Constant Power

Use constant power for applications that require a constant auxiliary power source. Power is always present at constant circuits.

4.13.5.3 Resettable Power

Resettable power is typically used to power beam detectors, flame detectors and conventional 4-wire smoke detectors. For circuits selected as Resettable, 24 volt power is always present at the terminals unless a system reset occurs. If a system reset occurs, power is disconnected from the terminals for 30 seconds, then re-applied. See Table A-4 for compatible four wire smoke detectors.

4.14 On-Board Relays (Conventional)

The control panel has two built-in programmable relays and a built-in trouble relay. All relays are Form C rated at 2.5 A @ 24VDC.

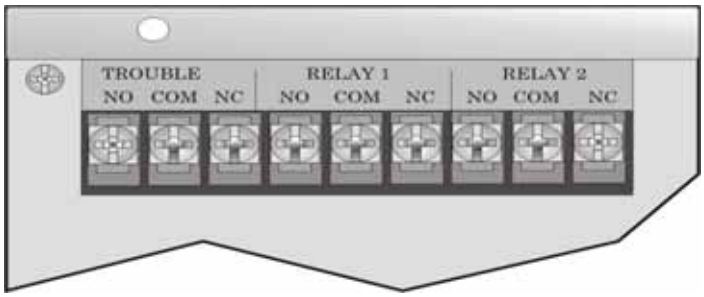


Figure 4-40 Location of Conventional Relay Circuits

4.14.1 Trouble Relay

The control panel has a dedicated Form C trouble relay built in. The relay provides a normally open and a normally closed contact. The trouble relay will deactivate under any trouble condition.

Note: The NC contact is the relay contact that is closed when the panel has power and there are no trouble conditions.

4.14.2 Programmable Relays

The control panel has two Form C programmable relays built in. Each relay provides a normally open and a normally closed contact.

To install one or two programmable relays, follow these steps.

1. Wire Relay 1 and/or Relay 2 as needed for your application. See Figure 4-40 for the location of the relay terminals.

2. Configure the relay through programming (see Section 9.5).

4.15 Remote Station Applications

4.15.1 Keltron Model 3158 Installation

The control panel is compatible with Keltron Model 3158, used for direct connection to a Keltron receiver. The 3158 reports alarms, supervisories, and troubles.

The steps for connecting the 3158 to the control panel. Refer to the 3158 installation instructions for complete information.

1. Wire the 3158 to the control panel as shown in the connection list and Figure 4-41.
2. Wire the 3158 within 20 feet of the control panel. Wiring must be enclosed in conduit.
3. Program control panel Relay 1 for alarm.
4. Program Flexput circuit 5 for alarm.
5. Program Flexput circuit 6 for supervisory non latching.

Table 4-5: Keltron 3158 to Control Panel Connections

Terminal #	Connects To
3158 Term. 1	To Keltron receiving equipment
3158 Term. 2	To Keltron receiving equipment
3158 Term. 3	Earth ground
3158 Term. 4	Not used; no connection.
3158 Term. 5	Control panel SBUS OUT +
3158 Term. 6	Control panel SBUS OUT –
3158 Term. 7	Control panel I/O5 O

Terminal #	Connects To
3158 Term. 8	Control panel Relay 1 COM
3158 Term. 9	Control panel I/O6 O
3158 Term. 10	Control panel I/O6 X
Control panel I/O5 X	Control panel Relay 1 NO
Control panel Relay 1 COM	Control panel Trouble COM
Control panel Relay 1 NO	Control panel Trouble NC

Not suitable for remote station protected premise service where separate transmission circuits are required for fire supervisory (if applicable), and trouble signals.

Intended for connection to a polarity reversal circuit of a remote station receiving unit having compatible ratings.

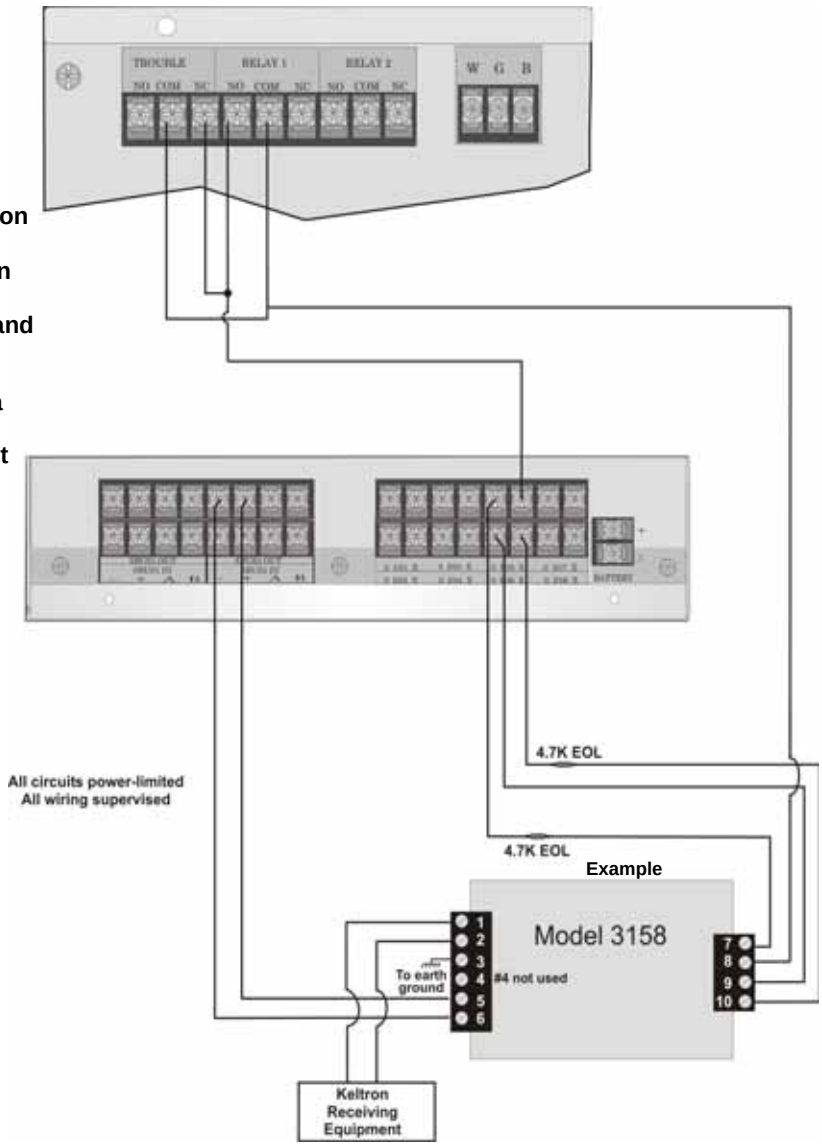


Figure 4-41 Keltron 3158 Connection to Control Panel

4.15.2 City Box Connection Using the 5220 Module

This section describes how to connect the control panel to a local energy municipal fire alarm box or "city box" as required by NFPA 72 Auxiliary Protected Fire Alarm systems for fire alarm service. The city (master) box is an enclosure that contains a manually operated transmitter used to send an alarm to the municipal communication center which houses the central operating part of the fire alarm system.

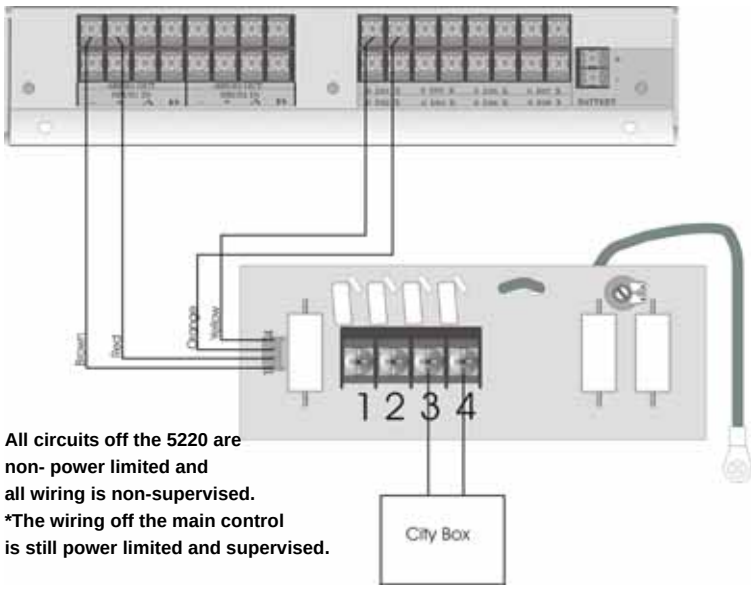
City Box Standby Current:	0 (Notification supervision current accounted for in control panel draw.)
Alarm Current:	1 Amp for 1 second 27.2 VDC max

The maximum coil and wire resistance (combined) must not exceed 30 ohms.

To install the 5220 for city box connection:

1. Use one of the knockouts on the right side of the control panel to connect the 5220 using a short piece of conduit (must not exceed 20 feet in length).
2. Wire the 5220 to the control panel as shown in Figure 4-42. This drawing also shows how to connect the city box coil to terminals 3 and 4 on the 5220. Do not install an EOL resistor in the terminals of the Flexput circuit used for this application.
3. Connect earth ground wire to the 5220 chassis with mounting screw.
4. Program the Flexput circuit as a notification circuit, Refer to Section 9.5.2. Assign this Flexput to an output group that is mapped to activate with non silenceable constant output in response to a system general alarm condition.

It is not possible to reset the remote indication until you clear the condition and reset the control panel.



Not suitable for remote station protected premise service where separate transmission circuits are required for fire supervisory (if applicable), and trouble signals.

All circuits off the 5220 are non- power limited and all wiring is non-supervised. *The wiring off the main control is still power limited and supervised.

Note: Flexput circuit 1 used as an example. Any flexput circuit could be used

Figure 4-42 City Box Connection

4.15.3 Using the CRF-300 Addressable Relay Module for City box Connection

Wire the CFR-300 as shown in Figure 4-43

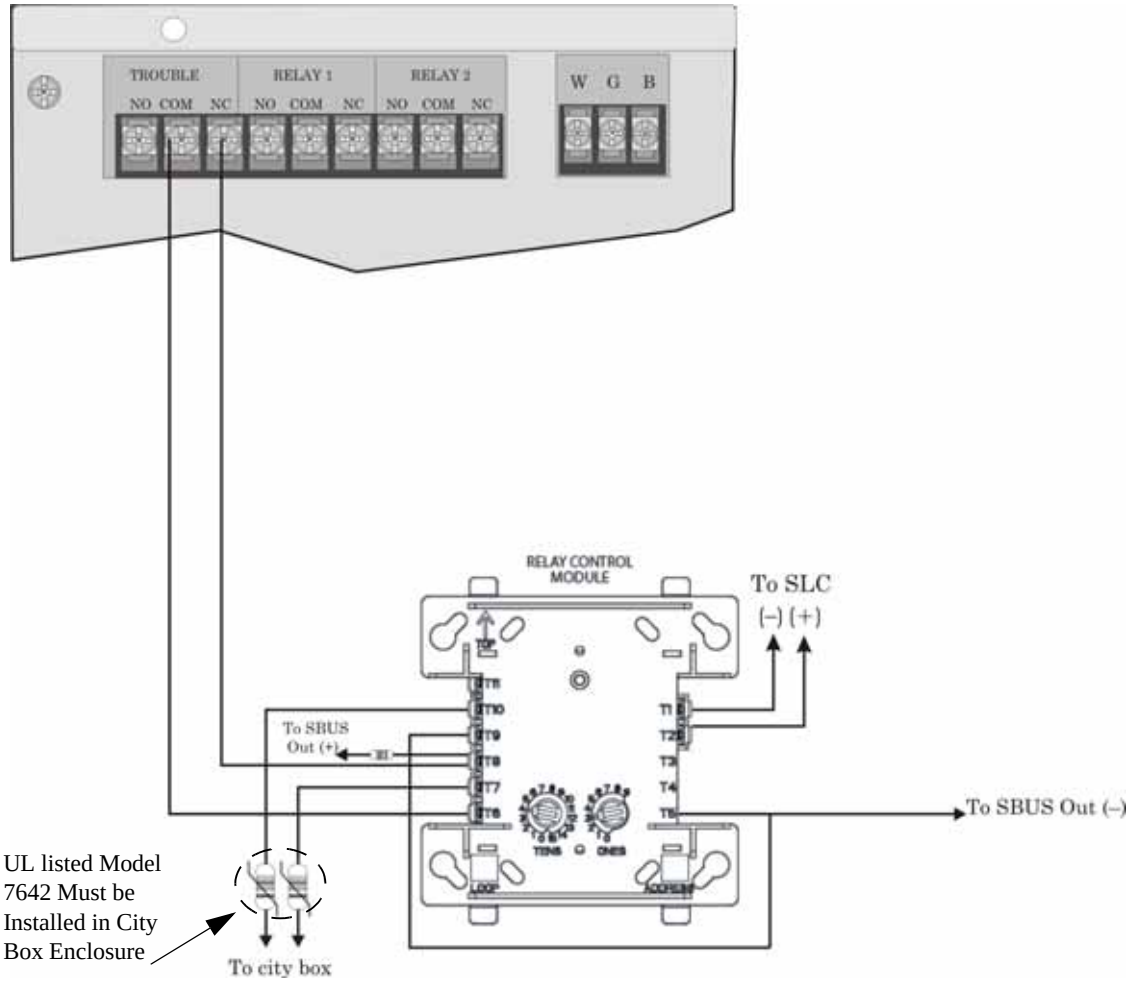


Figure 4-43 CRF-300 Module for City box Connection

4.15.4 NFPA 72 Polarity Reversal

Note: Intended for connection to a polarity reversal circuit of a control unit at the protected premises having compatible rating.

4.15.4.1 Using the 5220 Module

When the 5220 is wired and programmed for polarity reversal, it reports alarm and trouble events to a remote site. Alarms will override trouble conditions and it will not be possible to reset the remote indicator until the condition is cleared and the control panel is reset.

If an alarm condition occurs, the alarm relay will close, overriding the trouble condition.

Standby Current:	100 mA, 24 VDC
Alarm:	100 mA, 24 VDC

To install the 5220 for polarity reversal, follow the steps below:

1. Locate the knockout on the right side of the control panel cabinet to connect the 5220 using a short piece of conduit (must not exceed 20 feet in length).
2. Wire the 5220 to the control panel using the four-wire pigtail provided as shown in Figure 4-44. This diagram also shows how to connect the 5220 to the remote indicator. Do not install an EOL resistor in the terminals of the flexput circuit used for this application.
3. Connect earth ground wire to the 5220 chassis with mounting screw.
4. Program the flexput circuit as a notification circuit, Refer to Section 9.5.2. Assign this flexput to an output group that is mapped to activate with non silenceable constant output in response to a system general alarm condition.

5. If necessary, adjust loop current using the potentiometer (R10) on the 5220 board . Normal loop current is 2-to-8 mA with a 1k ohm remote station receiving unit. Maximum loop resistance is 3k ohm.

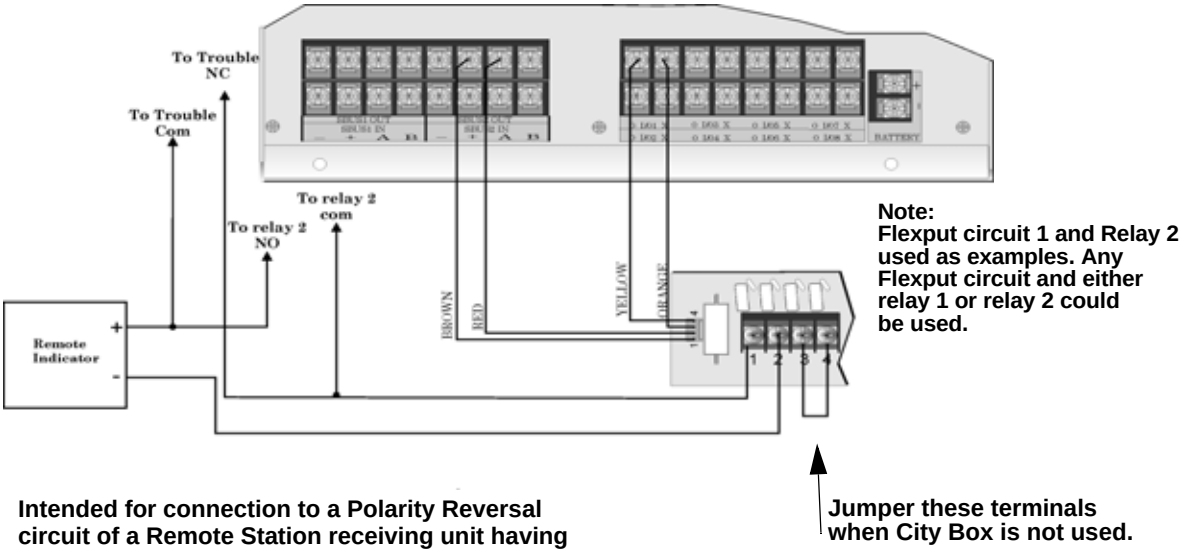


Figure 4-44 Polarity Reversal Connection Using the 5220 Module

4.15.4.2 Using the 7644 Module

When the 7644 is used for polarity reversal, it allows alarm and trouble events to be reported to a remote site. Alarms will override trouble conditions and it will not be possible to reset the remote indicator until the condition is cleared and the control panel is reset.

To install the 7644 for polarity reversal:

1. Wire the 7644 to the control panel as shown in Figure 4-45. Do not install an EOL resistor on the terminals of the flexput circuit used.

   Note: Use only Flexput circuits on the control panel for reverse polarity.

2. Program the Flexput circuit as a notification circuit. See Section 9.5.2.

3. Map the group to activate non silenceable constant on in response to a system general alarm, and to disconnect in response to a system trouble.

4. Intended for connection to a polarity reversal circuit of a remote station receiving unit having compatible rating.

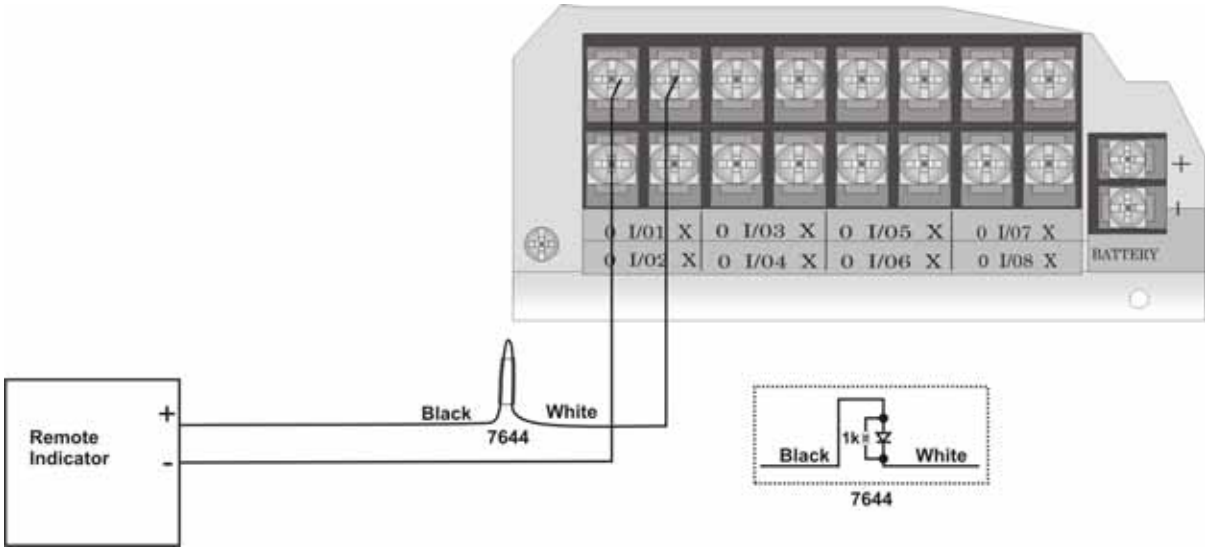
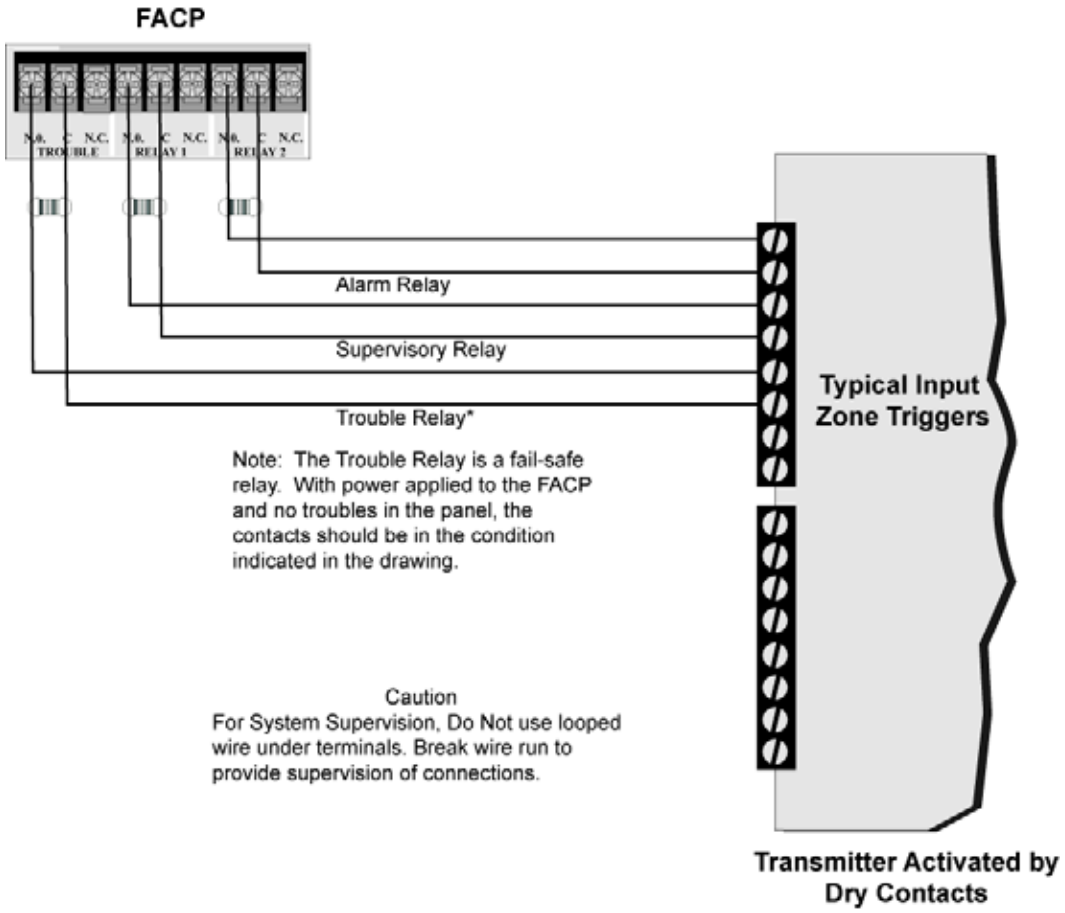


Figure 4-45 Polarity Reversal Connection Using the 7644

4.15.5 Transmitter Activated by Dry Contacts

This section describes the connection of a UL 864 listed remote station transmitter to the SCSS-700 dry relay contacts. The SCSS-700 FACP contacts must be supervised by the remote station transmitter module using end-of-line resistors (ELRs) with a value determined by the transmitter manufacturer. Power is also provided by the remote station transmitter manufacturer. Refer to the remote station transmitter manufacturer's manual for details.



Section 5
Networking

5.1 Network System Hardware Features

SCSS-700 panels can be networked to create a virtual system that is larger than 636 addressable points. Each additional SCSS-700/SCSS-700ND provides another 636 addressable points to the network total. For example, a network of eight panels provides a maximum addressable point capacity of 5,088 points (636 x 8 = 5,088).

5.1.1 Networked Sites

A networked site is a logical group of SCSS-700 and/or SCSS-700ND panels that behave as though the logical group is one large control panel. Each building is referred to as a “site”. All panels in a site operate as a single panel. The control functions like reset, silence or alarm activation operate across the entire site. There can be one or more logical sites within a networked system. Taken to the extreme, the maximum number of sites within a network system is limited to the number of panels in the network with each site comprised of only one panel.

5.1.2 Wiring Options to Connect Networked Panels

1. Direct Connect - Panels can be connected cost effectively via shielded twisted pair copper wire within conduit when the panels are located no more than 20 feet apart and in the same room.
2. Repeater Connection - Panels separated by more than 20 feet or are located in multiple buildings, must use the IFP-RPT network repeater hardware to provide up to 3000 feet of separation with twisted pair copper wire or up to 8dB loss of signal separation for fiber optic cable.

All methods of panel connectivity can be used within the same networked system. The network architecture provides true peer to peer capability allowing network survivability for all hardware that remains operational in the event of partial system failure.

5.2 Model SCSS-700ND

The model SCSS-700ND provides the same power and point capacity of an SCSS-700 panel, but does not include any user interface. It is used in networked systems where added power and/or point capacity is required but where additional user interface is not needed.

5.3 Direct Connect Wiring Option

When networking a group of SCSS-700s and/or SCSS-700NDs within a 20 foot radius of each other, you may use the direct connect method to link the panels together in the site. The cable used must be shielded twisted pair communication grade cable. See Figure 5-1, direct connect wiring option. The direct connect wiring option uses a BUS configuration. There are no T-taps or class A wiring options.

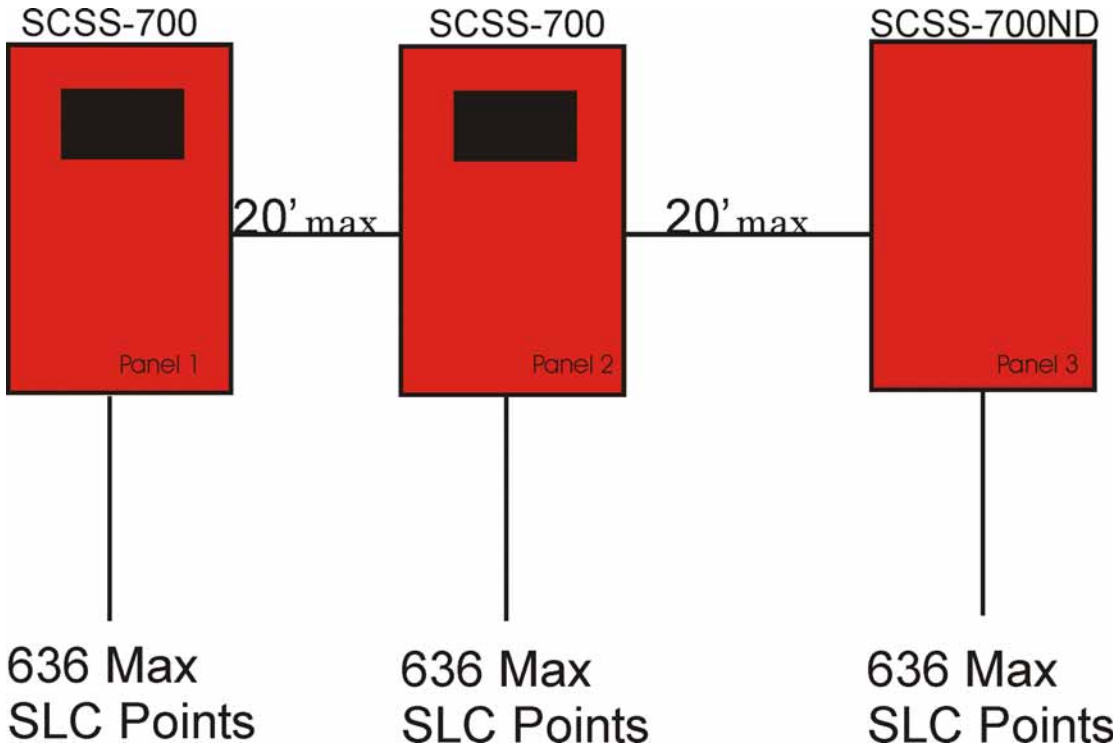


Figure 5-1 Direct Connect wiring option

5.3.1 Installing using Direct Connection within a Site:

1. Mount the SCSS-700 and/or SCSS-700ND panels within 20 feet of conduit run distance from each other. Place the conduit for routing the direct connect networking cable between panels in a bus configuration as shown above in Figure 5-1
2. Make the network wiring connections. The cable used must be shielded twisted pair 18 gauge or larger wire. See Figure 5-2 for the DIP switch termination settings for Direct Connect wire option. Run one of the twisted pair wires from the NETWORK A terminal on one panel to the NETWORK A terminal on the next panel. Use the other wire of the twisted pair to connect the NETWORK B terminals together. Run the network ground connection using the twisted pair shield between the NETWORK GND terminal on both panels. Repeat this for each additional panel until all A, B and GND terminals are wired together as a BUS.

3. Configure the network terminators. The panels at both ends of the network bus must have DIP switches 8, 9, and 10 set to the “ON” position. All panels that are not at the BUS ends must have the terminators set to the OFF position. See Figure 5-2
4. T-Tapping is not allowed, wire must be run in a BUS configuration.

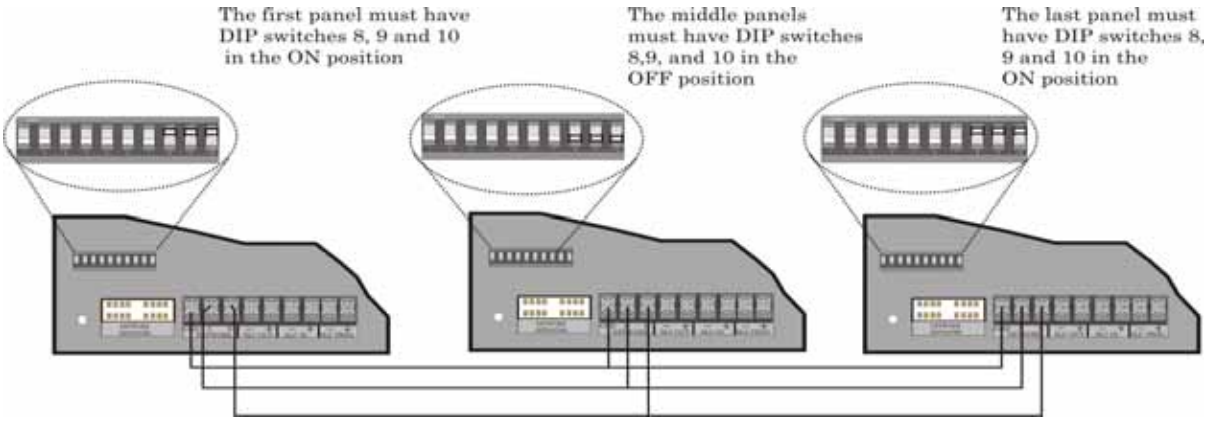


Figure 5-2 DIP Switch terminations settings for Direct Connect Wiring option

5.4 Repeater Wiring Options

Networking a group of SCSS-700 and/or SCSS-700NDs at a distance greater then 20 feet requires the use of a network repeater with each panel. Repeaters are used to travel long distances and/or between buildings. Figure 5-3 shows the repeater wiring connection for style 4, class B as a solid line. For style 7, class A the dotted line would be used in addition to the

solid lines.

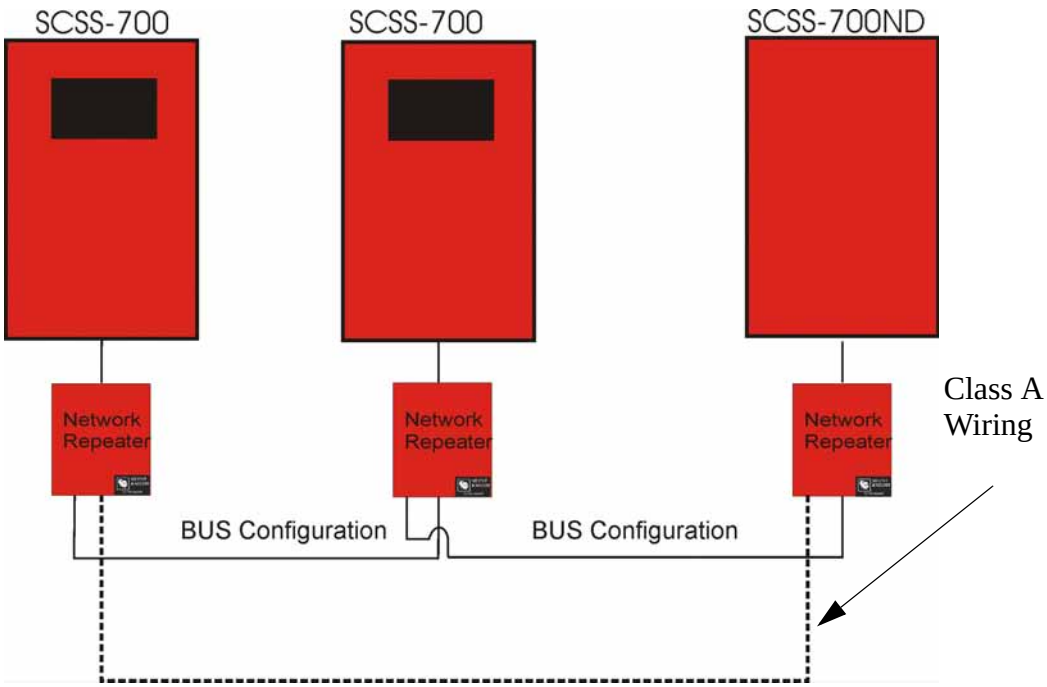


Figure 5-3 Repeater Networking Connections

5.4.1 Network Repeater Types

Network repeaters are available in two configurations. See Figure 5-4

1. P/N IFP-RPT-UTP is used for twisted pair copper wiring up to 3000 ft. between panels.

2. P/N IFP-RPT-FO is used for fiber optic cable or twisted pair wiring between panels.

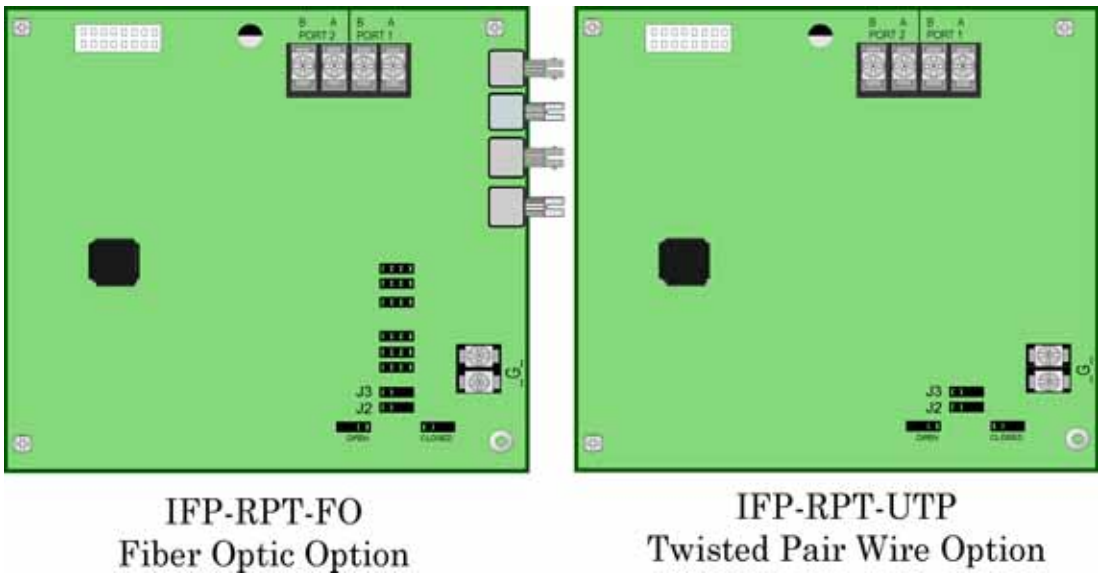


Figure 5-4 Types of Network Repeaters

The IFP-RPT-UTP repeater is used for connecting panels via unshielded twisted pair wiring up to a maximum wiring distance of 3000 feet. The IFP-RPT-FO repeater is used for connecting panels via fiber optic cable up to a maximum signal loss of 8dB. The IFP-RPT-FO repeater also has connections for unshielded twisted pair wiring so that either fiber optic cable or unshielded twisted pair wiring can be used for connecting panels.

5.4.1.1 Accessory Mounting Kits

Repeaters can be mounted within the SCSS-700 cabinet or in an accessory cabinet. Accessory kits are available that included a small cabinet with door, key, mounting hardware, 5 foot ribbon cable to connect the repeater to the control panel and the repeater printed circuit board. The accessory kits are available if you want to install the repeater outside of the SCSS-700 cabinet.
The accessory kit part numbers are:

1. IFP-RPT-UTP-KIT which includes the IFP-RPT-UTP repeater card and SK2190 enclosure.
2. IFP-RPT-FO-KIT which includes the IFP-RPT-FO repeater card and SK2190 enclosure.

5.4.2 Network Repeater Installation

The network repeater is designed to mount on one of the 5815XL standoff sets.

Use the following steps to properly mount the network repeater to the SCSS-700.

1. Place the network repeater on one of the 5815XL standoff sets. Use the standoff extenders provided for better access to the fiber optic cables if there is a clearance issue.
2. Use the 20" ribbon cable to connect the SCSS-700 to the repeater board. Run an insulated wire from the screw terminal labeled G (TB2) on the repeater to an earth screw terminal on the control panel.

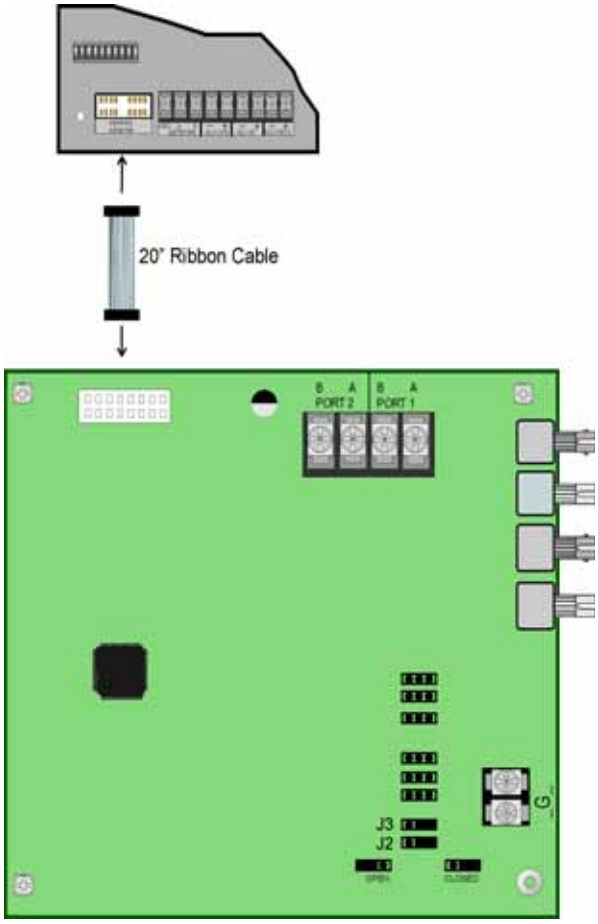


Figure 5-5 Panel to Networked repeater connection

3. Place Jumpers J2 and J3 in the CLOSED position when there is a twisted pair cable connected to port 1 of terminal block TB1. Each repeater has the ability to monitor for earth ground faults on the twisted pairs connected to port 1of its terminal block TB1. Earth fault detection for any wiring at Port 2 of TB1 is done at the next/previous repeater due to these wiring connections being connected to Port 1of TB1 at the next/previous repeater. When no twisted pair wiring is made to Port 1 of TB1 jumpers J2 and J3 must be left OPEN at the repeater. This would be the case when using fiber optic cable or when Port 2 of TB1 is only being used.
4. On fiber optic repeaters, jumpers J4 through J9 are normally left OPEN. See IFP-RPT installation instruction (p/n 9001-0061) for determining when to use J4 through J9. Fiber optic ports that are not used must have their dust caps placed on the port.

5. Based on the type of network repeater board chosen, run the twisted pair wiring /fiber optic cable to the next network repeater using a BUS or style 7 (class A) wiring method. A combination of both repeater types can be used. See Figure 5-6, Figure 5-7, Figure 5-8, and Figure 5-9 for repeater wiring examples.

5.4.2.1 Network Repeater Cable Requirements

Cable requirements for wire runs between repeaters.

1. All fiber cable must be multimode 62.5/125 micron cable with ST type connectors. It is important that the cable be verified to contain no more than 8dB of loss including the connectors.
2. Twisted pair wiring must be UNSHIELDED twisted pair conductor cable. The wire gauge must be 18 AWG or larger. The maximum wire length is 3000 ft. between repeaters.

5.4.2.2 Unshielded Twisted Pair Wiring between Multiple Panels

Unshielded twisted pair wiring between multiple panels is shown in Figure 5-6. Class A wiring is shown with a dotted line.

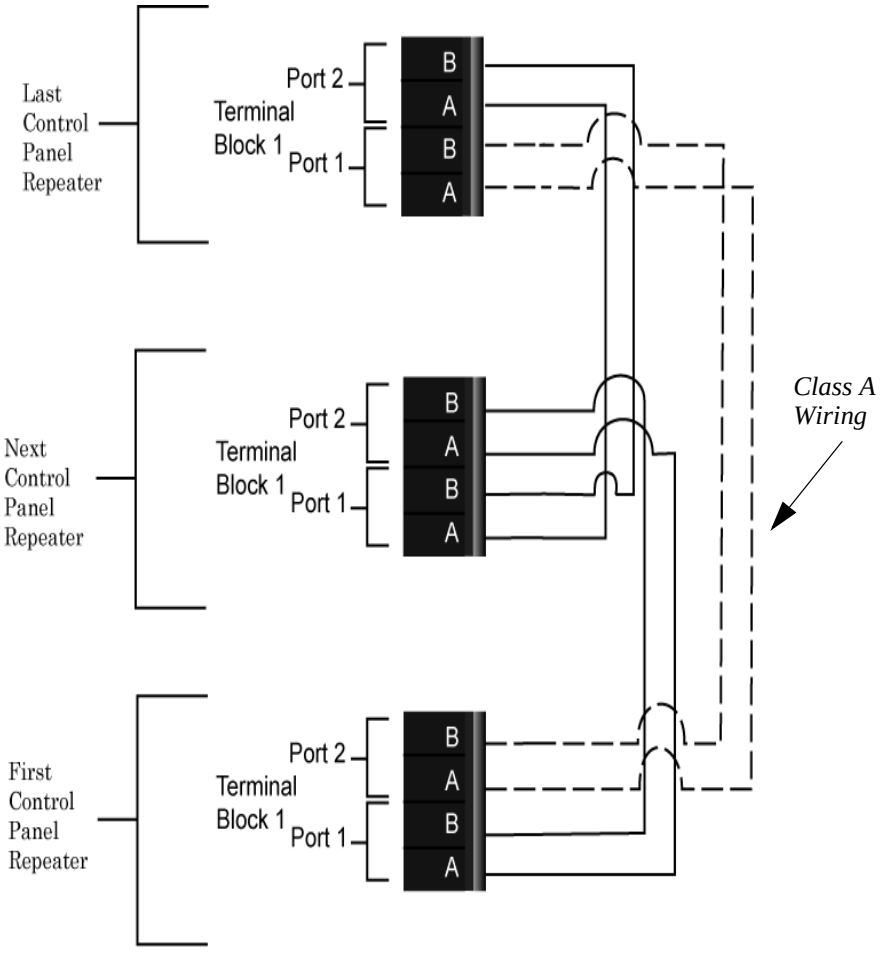


Figure 5-6 Twisted Pair Wiring Configuration

5.4.2.3 Fiber Optic Repeater Wiring

Fiber optic cable between multiple panels is shown in Figure 5-7. Class A is shown with a dotted line.

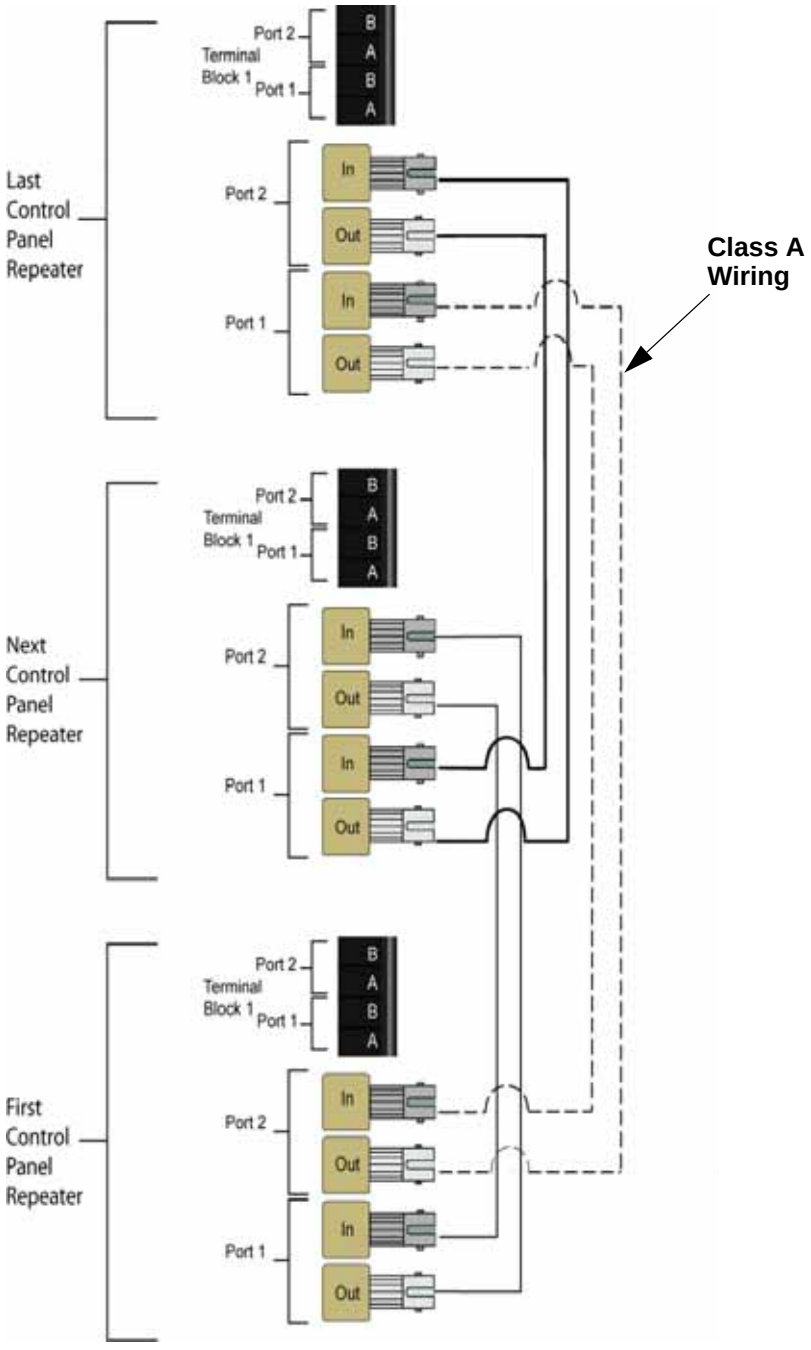


Figure 5-7 Fiber Optic Wiring Example

5.4.2.4 Fiber Optic and Twisted Pair Repeater Wiring between Multiple Panels

A mixture of fiber optic cable and twisted pair wiring between multiple panels is shown in Figure 5-8. Class A cabling is shown with dotted line.

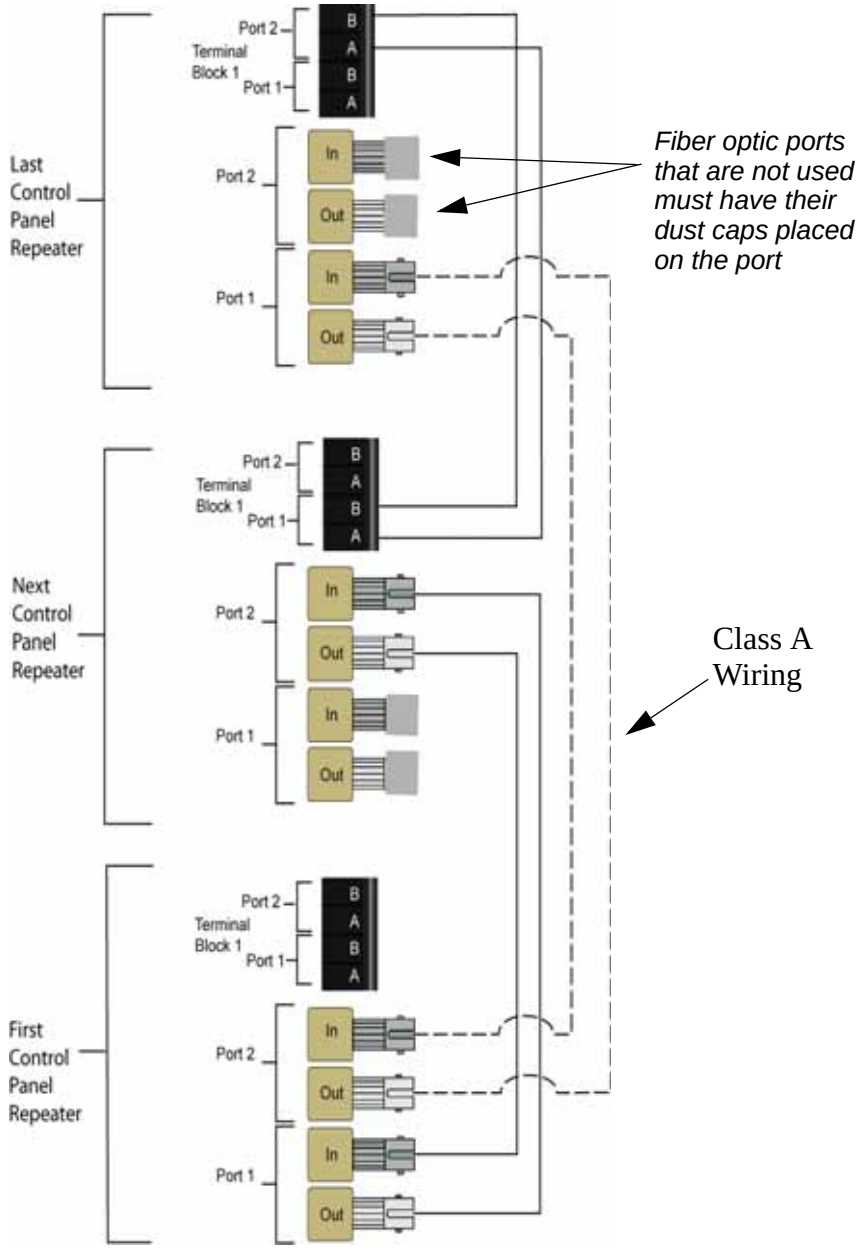


Figure 5-8 Twisted Pair and Fiber Optic Combination Wiring Example

5.5 Using Both Repeaters and Direct Connect Wiring on a Networked System

Figure 5-9 below shows a network wiring example using both repeaters and direct connect wiring. All repeaters in the system must be placed only on panels that are at the ends of a direct connect BUS or connected to panels with no direct connect network wiring.

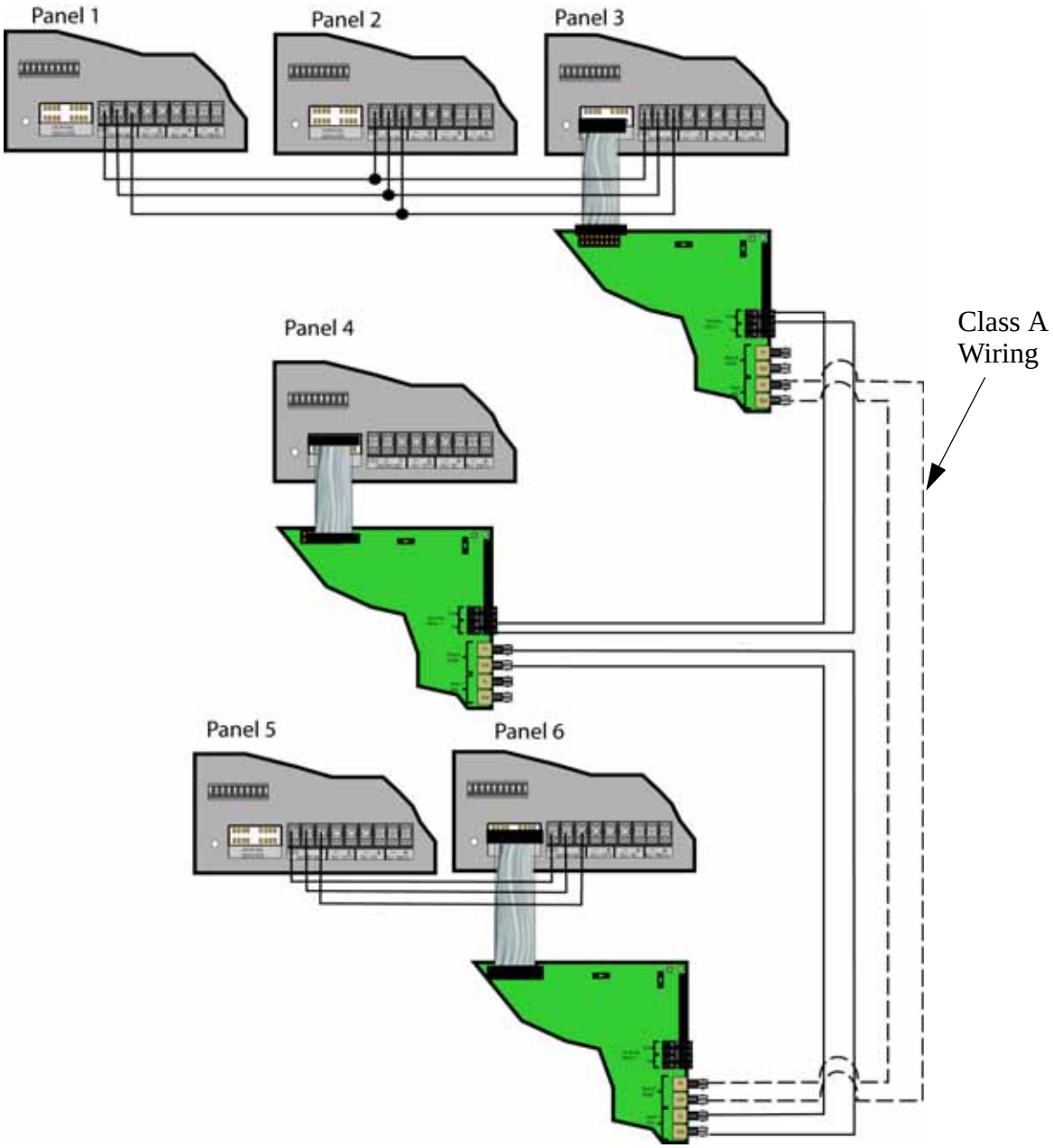


Figure 5-9 Network Wiring Example using both Repeaters and Direct Connect Wiring

5.5.1 Setting the Network Terminators at Panel DIP Switches and Repeater Jumpers

Use the following steps for determining DIP switch and jumper settings.

1. DIP switch positions 8 through 10 on the control panel are used for direct connect network BUS termination. When a panel is located at the end of a direct connect BUS and it does NOT have a repeater connected, DIP switches 8, 9 and 10 must be ON. When a panel is not direct connected to other panels, but a repeater is used to network the panel, its DIP switches 8, 9, and 10 must be ON. Otherwise, DIP switches 8, 9 and 10 are always OFF.
2. Jumper J1 on the network repeater is always CLOSED. Newer designs have this jumper permanently CLOSED. On older designs you had to physically install the jumper CLOSED.
3. Jumpers J2 and J3 for the network repeater should be present (jumper is CLOSED) only when a twisted pair is connected to Port 1 of terminal block TB1. Jumpers J2 and J3 are used to enable earth ground fault monitoring at Port 1 of terminal block TB1.
4. It is a requirement that an insulated wire be run between the network repeater terminal G (TB2) and an earth grounding screw at the control panel for all network repeater installations.

The following text details how the panel and repeater terminators must be set for the network example in Figure 5-9.

Panel 1 is at the end of a direct connect BUS and it does not have a repeater, so its DIP switches 8, 9 and 10 must be ON to provide direct connect BUS termination.

Panel 2 is NOT at the end of a direct connect BUS so its DIP switches 8, 9 and 10 must be OFF.

Note: *A repeater would not be allowed to be connected to panel 2 in this example because it is not at the end of a direct connect BUS.*

Panel 3 looks like it is at the end of a direct connect BUS, but because it has a repeater connected to it, DIP switches 8, 9 and 10 at panel 3 must be OFF. The direct connect BUS termination is provided by the repeater through jumper J1. Recall that jumper J1 must placed (CLOSED) as this is the rule for ALL repeaters. Jumpers J2 and J3 on the repeater of panel 3 must be OPEN because no wires are connected to the repeater twisted pair terminals 1 and 2 of TB1.

Panel 4 is not directly connected to other panels but it is effectively direct connected to its repeater which electrically behaves the same as a direct connected BUS between panels. Because panel 4 is connected only to its repeater its DIP switches 8, 9 and 10 at panel 4 must be ON to provide direct connect BUS termination. Jumper J1 of the repeater must also be placed (CLOSED) to provide the other direct connect BUS termination and because the rule for repeaters is that Jumper J1 must always be placed (CLOSED). Repeater jumpers J2 and J3 must be placed (CLOSED) because a wired twisted pair is connected to terminals 1 and 2 of TB1. Connecting these jumpers enables earth ground fault monitoring of the twisted pair wire

between the repeater of panel 4 and panel 3.

Panel 5 is at the end of a direct connect BUS so its DIP switches 8, 9 and 10 must be ON to provide the direct connect BUS termination.

Panel 6 looks like it is at the end of a direct connect BUS, but because it is also using a repeater its DIP switches 8, 9 and 10 must be OFF. In this example, panel 6 is actually in the middle of a direct connect BUS between panel 5 and the repeater of panel 6. Jumper J1 of the repeater is placed (CLOSED) and provides the termination. Jumpers J2 and J3 for the repeater must be OPEN because no wires are connected to the twisted pair Port 1 of TB1.

5.6 Setting the Network ID for each Panel

Note: *It is important that much thought is given when choosing the network IDs for each panel. It is difficult to change the IDs once panel programming has begun.*

The network ID for each panel is set using DIP switch positions 1 through 7. See Figure 5-10 below for possible DIP switch settings.

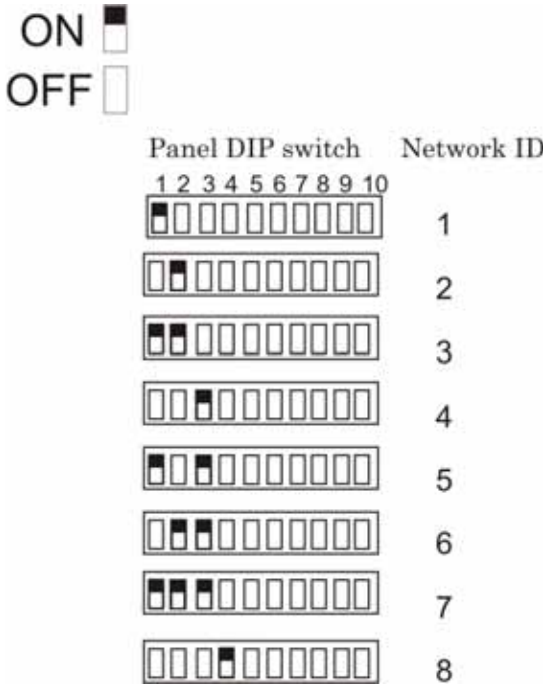


Figure 5-10 Network ID Settings

Section 6
Network Management

6.1 Network Diagnostics

6.1.1 Ping Panel

The Ping Panel menu allows you to continually ping any panel programmed into the network. As the selected panel is being pinged, the Ping Panel screen will display the reply time, minimum and maximum reply times, and sent and received counters.

6.1.2 Network Status

The Network Status screen will display statistics that are indicators of Network performance.

1. Enter the Installer Code. The panel will automatically go to the main menu.
2. Select 5 for Network Diagnostics Menu.
3. Press 1 to enter the Ping Panel Menu.
4. Press 2 to enter the Network Status Menu.

6.2 Network Programming

This section of the manual describes how to program network options using the built-in annunciator. All options described in this section can be programmed using the (SCSS-700PK).

6.2.1 Learn Network

The Learn Network menu shows you all of the panels connected to the network. Any panel that has been programmed into the network will appear as a “member.” Any panel that is connected to the network but not programmed into the network will appear as a “guest.” You can add guest panels to the network by changing their status to member in this menu. Panels showing OK are currently responding on the network. Panels not showing OK have either been removed or are not responding due to networking problems. See Section 6.1 for Network Diagnostics.

1. Enter the Installer Code. The panel will automatically go to the main menu.

2. Select 6 for Network Programming Menu.
3. Press 1 to enter the Learn Network Menu.
4. Press ENTER to add or remove panels connected to the network as member or guest.

6.2.2 Edit Network

This Menu allows you to add a panel to the network, edit the panel name and edit the panels site assignment.

To Edit Network information:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 6 for Network Programming.
3. Press 2 to enter the Edit Network Menu.

6.2.2.1 Edit Panel

4. Press 1 to edit panel Information. Select the panel which you would like to edit.

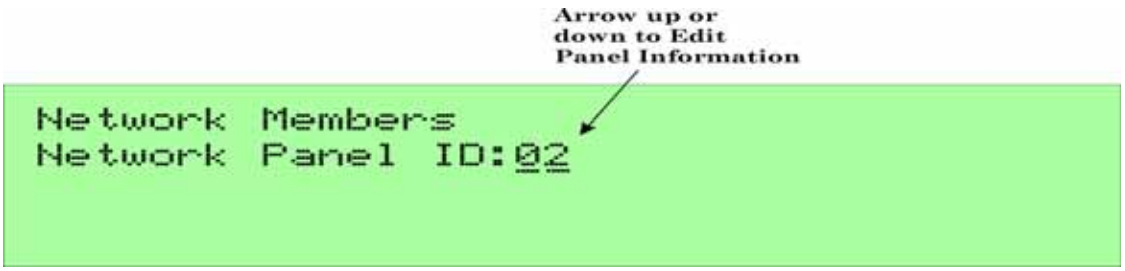


Figure 6-1 Edit Network Panel

5. If the panel you select is not already programmed as a Member of the site, it will be added to the site. Selecting a panel brings up a menu allowing you to Edit Panel Name.
6. Press 1 to Edit Panel Name.
7. Press 2 Edit Site Assignment.

6.2.2.2 Edit Site Name

8. Press 2 to edit the site name press. See Figure 6-2

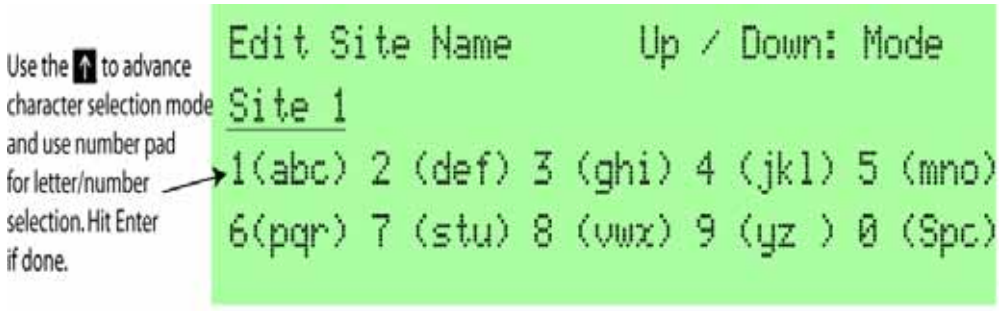


Figure 6-2 Site Assignment

See Appendix B for a list of available characters and their numeric designators.

6.2.3 Edit Panel ID

This menu option allows you to change the current Network Panel ID. It is best to carefully consider the network ID setting for each panel. Take into account any future panels that will be added to the network (future wiring of two buildings together). The Network Panel ID setting has to be unique for each panel on the network.

This menu will allow you to change the currently assigned Network Panel ID to the current Network ID dip switch setting. The system will be down as the panel needs to reboot in order to complete the transition.

When using the PC configuration software to program the panels, the Network Panel ID will be locked from future editing. The only way to change it will be to restore defaults and use this menu again.

To Edit the Network Panel ID:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 6 for Network Programming
3. Press 3 to enter the Edit Panel ID Menu
4. If the Network Panel ID is changed and valid, the system will ask you to confirm the change. If it is not correct, you can change the dip switches at this time.
5. Press up to select YES and press ENTER to confirm.

6.2.4 Computer Account

An installer at the panel site can initiate communications between the panel and a computer running the SCSS-700PK (see also Section 10.4.14). In order for this communication to function properly both the computer (running the software) and the control panel must have matching computer account numbers and computer access codes.

Before you program in this location you should know how your control panel will communicate with the downloading computer, either through direct connect USB or via the phone lines (Internal Modem).

If the panel initiates the call to a downloading computer, a phone number must be programmed in the computer accounts area. If the computer initiates the call, answering machine bypass may need to be selected (see Section 9.6.2.6).

To program computer account information:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 6 for Network Programming.
3. Press 4 to enter the Computer Account Menu.
4. Enter the computer code (up to 6-digits), then press ENTER.
5. Enter the computer access code, then press ENTER.
6. Enter the phone number the panel will dial to connect to a downloading computer (up to 40-digits), then press ENTER.

6.2.5 Access Codes

Access codes provide the user access to the control panel functions. Each access code can be customized for each user. This allows some users the ability to access programming and other higher level panel functions, while other users may only need access to lower level functions such as preforming fire drills, or acknowledging trouble conditions.

Profile 1 is the profile that dictates what functions the Fire Fighter Key has access to. (The functions that are available once you open the cabinet door and before an access code is entered). Because this is the profile for a key the user name and the access code can not be edited for this profile.

Profile 2 is the profile for the installer and is referred to as the “Installer Code”. This profiles user name and panel functions can not be edited.

Table 6-1lists the panel functions that can be selected for each user profile.

To change an access code:

Table 6-1: User Profile Selectable Panel Functions

Type of Function	Selectable Functions
Panel Operations	System Reset
	System Silence
	System Ack
	Fire Drill Key
Panel Menus	System Test •
	Fire Drill Menu
	Indicator Test
	Walk Test no Report
	Walk Test- with Report
	Dialer Test
	Clear History Buffer
	Point Functions
	Disable/Enable Point
	Point Status
	Set SLC Device Address
	SLC Single Device Locator
	SLC Mult-Device Locator
	I/O Point Control
	Event History
	Set Time & Date
	Network Diagnostics
	Network Programming
	Panel Programming
	System Information
	Upload/Download
	Multisite
	F1 Function Key
	F2 Function Key
	F3 Function Key
	F4 Function Key

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 6 for Network Programming.
3. Press 5 to enter Access Codes Menu.

   Display reads:
   ```
   Select Profile 01
   Fire Fighter's Key
   ```
4. Select the access code you wish to edit by pressing the ↑ or ↓ arrow.

5. Then press ENTER.

Profile Edit Menu

From the Profile Edit Menu you can change the users name, access code, and the panel functions that the user will have access to with their code.

Note: Profile 1 (Fire Fighter's Key) the user name and access code can not be edited. Profile 2 (Installer) the user name and panel functions can not be edited.

6.2.5.1 Edit Name

6. See Appendix B for a list of available characters and their numeric designators.

7. Then press ENTER to finish.

6.2.5.2 Edit Access Code

8. Enter new access code (minimum of 4 digits, maximum of 7 digit)

9. Press ENTER.

10. Enter code again.

11. Press ENTER.

6.2.5.3 Panel Functions

12. Press the ↑ or ↓ arrow to move through the list of available functions.

13. Then press → to move to Y (yes) or N (no) selection column.

14. Press the ↑ or ↓ arrow to select Y or N.

15. Press ENTER.

16. Repeat steps 14 through 17 until user profile is complete.

6.2.6 Dialer

Dialer Options

To edit Dialer Options, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.

2. Select 6 for Network Programming.

3. Press 6 for Dialer.

6.2.6.1 Dialer Assignments

Each panel on the SCSS-700 network specifies which network dialer is used for reporting. The network dialer capability of the SCSS-700 system allows all panels to use the same dialer providing an economical solution for reducing the number of phone lines required for reporting purposes. A dialer is specified by panel number. The network dialers will be used to report events according to the dialer report table.

6.2.6.2 Dialer Miscellaneous

When using the SIA reporting format, the dialer sends modifier information according to the SIA Modifier option. The selections for this option are enable PI SIA Modifier, Yes or No. The default selection is Yes. If set to “No”, the panel ID will be included as part of the SIA event string.

6.2.6.3 Receiver Configuration

The SCSS-700 network can report events to as many as four receivers. Each receiver is assigned a phone number and reporting format. Phone numbers can be up to forty digits long. Format choices are SIA, Contact ID, or Unused.

6.2.6.4 Dialer Report Table

The Dialer Report Table specifies event reporting for each panel on the network. Each row in the table specifies a panel, event types to report, primary and backup reporting channel, and report by point or zone. Associated with the receivers are account number and daily test option. The table can have up to 99 rows.

6.3 Network Management Quick Reference

Menu	Options/Defaults				Comments
Learn Network	Guest or member	add or remove panels into the network			See Section 6.2.1
Edit Network	Edit Panel	Network Panel ID			See Section 6.2.2
		Edit Panel Name			
		Edit Site Assignment			
	Edit Site Name	Edit Site Member			
Edit Panel ID		Change current panel ID			See Section
Computer Accounts	Computer Account #	*123456			See Section 6.2.4
	Computer Access Code	*0			
	Computer Phone #	Up to 40 digits			

Menu	Options/Defaults				Comments
Access Codes	Select Profile (01 - 20)	Edit Name			Profile 1 is the profile that dictates what functions the Firefighter Key has access to. Because this is the profile for a key the user name and the access code can not be edited for this profile. Profile 2 is the profile for the installer and is referred to as the “Installer Code”. This profiles user name and panel functions can not be edited. See Section 6.2.5.
		Edit Access Code			
		Edit Panel Function	System Reset		
			System Silence		
			System Ack.		
			Fire Drill Key		
			System Tests		
			Fire Drill Menu		
			Indicator Test		
			Walk Test no-Report		
			Walk Test w/Report		
			Dialer Test		
			Clear History Buffer		
			Point Functions		
			Disable/Enable Point		
			Point Status		
			Set SLC Device Address		
			SLC Single Device Locator		
			SLC Multi-Device Locator		
			I/O Point Control		
			Event History		
			Set Time & Date		
			Network Diagnostics		
			Network Programming		
			Panel Programming		
			System Information		
			Upload/Download		
			Multisite		
			F1 Function Key		
			F2 Function Key		
			F3 Function Key		
			F4 Function Key		

Menu	Options/Defaults					Comments
Dialer	Dialer Assignments	Primary Report Dialer	Primary	00= unused	See Section 6.2.6.1	
	Dialer Misc.	Enable PI SIA Modifier	Yes		See Section 6.2.6.2	
			No			
	Receiver Configuration	Can report up to four receivers	Receiver Number		See Section 6.2.6.3	
		Receiver Format	Contact ID			
			SIA500			
			SIA8			
			SIA20			
	Dialer Report Table		Panel		See Section 6.2.6.4	
			Report Alarms			
			Report Supervisory			
			Report Troubles			
			Report Events by Point			
			Primary Receiver			
			Primary Account			
			Test Primary Account			
			Secondary Receiver			
			Secondary Account			
			Test Secondary Account			

Section 7
LiteSpeed SLC Device Installation

Caution!
To avoid the risk of electrical shock and damage to the unit, power should be OFF at the control panel while installing or servicing.

7.1 List of LiteSpeed SLC Devices

The following LiteSpeed SLC devices can be used with the control panel. See the device installation instructions for more information (packaged with the device)

Stanley Part Numbers	Model Name/Description	Install Sheet PN
SD355	Photoelectric smoke detector	F300-24-0
SD355T	Photoelectric smoke detector with thermal (135°F)	
AD355	Multicriteria photoelectric smoke detector with thermal (135°F)	
BEAM355	Reflected beam smoke detector without test feature	F300-24-0
BEAM355S	Reflected beam smoke detector with test feature	
CP355	Ionization smoke detector	F300-23-00
D350PL	Photoelectric duct smoke detector with extended air speed range	F300-27-00
H355	Fixed temperature thermal detector (135°F)	F300-25-00
H355R	Rate-of-rise thermal detector with 135° fixed temperature	
H355HT	Fixed high temperature thermal detector (190°F)	
BG-12LX	Addressable dual action pull station	51094
I300	Fault isolator module	F300-06-00
MMF-300	Monitor module	F300-02-00
MMF-301	Mini monitor module	F300-05-00
MDF-300	Dual input monitor module	F300-09-00
MMF-300-10	10 input monitor module	F300-20-00
CRF-300	Relay module	F300-04-00
CRF-300-6	Six circuit relay module	F300-21-00
MMF-302	Zone interface module	F300-03-00
MMF-302-6	Six zone interface module	F300-22-00
CMF-300	Supervised control module	F300-07-00
CMF-300-6	Six circuit supervised control module	F300-21-00
B350LP	6" mounting base	F400-21-00
B224BI	6" isolator base	D450-15-00
B224RB	6" relay base	D450-16-01
B200SR	Intelligent sounder base	I56-3392-003
B501	4" mounting base	D550-02-00

7.2 Maximum Number of SLC Devices

The maximum number of SLC devices per panel is 636. The number of 5815XL's is limited only by the maximum number of SBUS devices.

The SLC points can be all sensors or all modules or any combination of modules and sensors.

7.3 Wiring Requirements for SLC Devices

The following information applies to all SLC devices. Refer to the section that describes the type of device you are installing for details.

7.3.1 Wiring 5815XL in Style 4 (Class B) Configuration

No special wire is required for addressable loops. The wire can be untwisted, unshielded, solid or stranded as long as it meets the National Electric Code 760-51 requirements for power limited fire protective signaling cables. Wire distances are computed using copper wire.

Maximum wiring resistance is 40 ohms.

Maximum loop length depends on the wire gauge. See Table 7-1.

Table 7-1 Maximum wiring distance for LiteSpeed devices

Wire Gauge	Max. Distance for LiteSpeed
22 AWG	1200 feet
18 AWG	3100 feet
16 AWG	4900 feet
14 AWG	7900 feet
12 AWG	10,000 feet

Figure 7-1 shows how wire length is determined for out-and-back tap and T-tap style wiring.

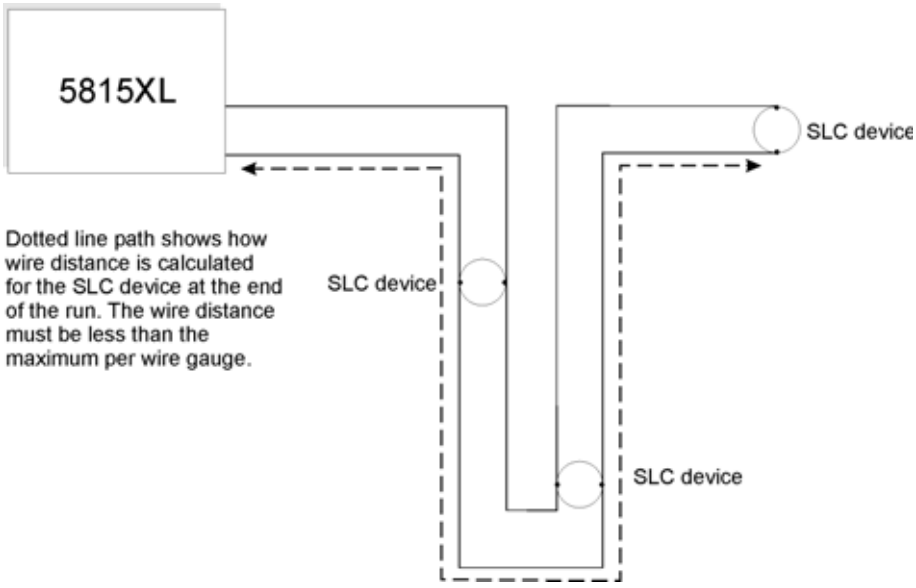


Figure 7-1 Calculating wire run length for a simple out and back tap

When using T-taps, the total length of all taps and the main bus must not exceed 40,000 feet. This requirement must be met in addition to the maximum distance requirements for the various wire gauges.

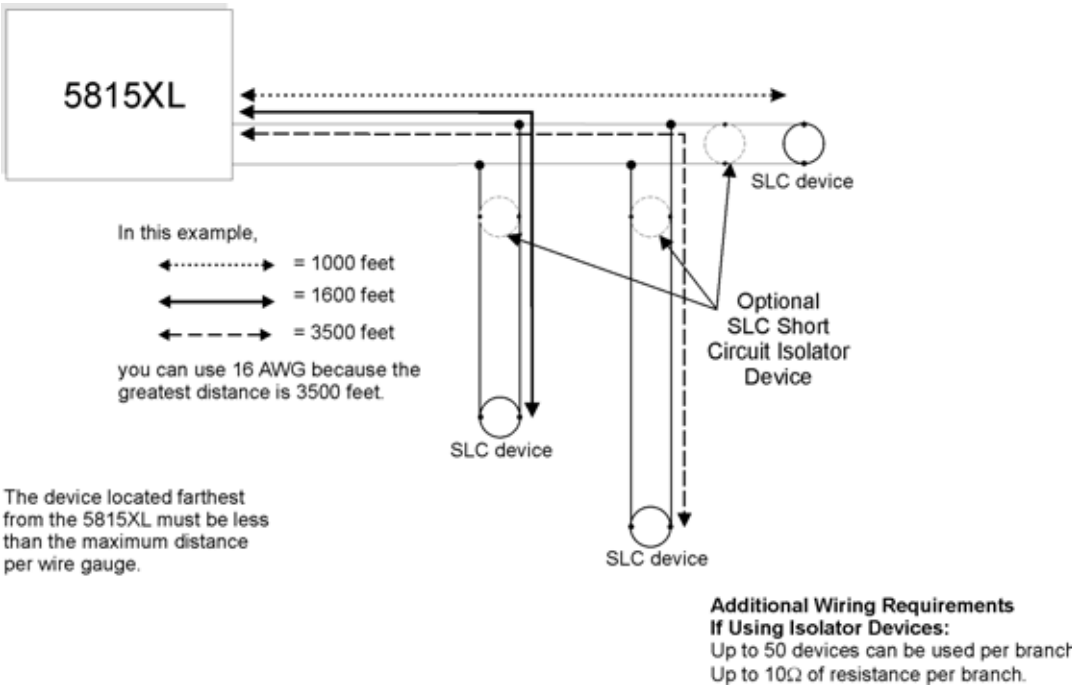


Figure 7-2 Calculating Wire Run Length for a T-tap

7.3.2 Wiring 5815XL in Style 6 & 7 (Class A) Configuration

Figure 7-3 illustrates how to wire the SLC loop for Style 6 or Style 7 Class A installations.

Note: Style 6 does not use short circuit isolator devices

Note: Style 7 wiring you have to have an isolator module as the first device on the in and the out loops.

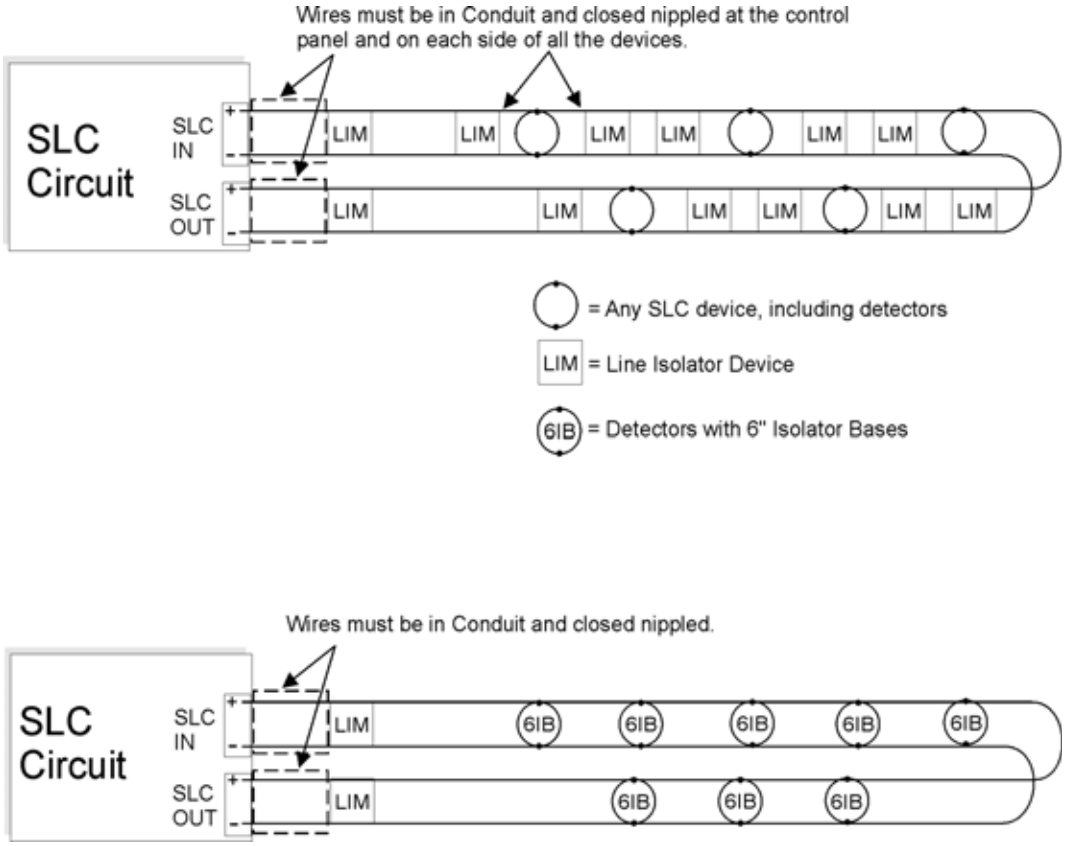


Figure 7-3 Class A SLC Configuration

Note: No t-taps allowed on class A SLC loops.

Caution
For proper system supervision do not use looped wire under terminals marked SLC + and – of the SLC device connectors. Break wire runs to provide supervision of connections.

7.4 Wiring LiteSpeed SLC Detectors

This section describes how to install LiteSpeed heat and smoke detectors. All detectors ship with installation instructions. Refer to each detectors installation instructions for more detailed information.

This information applies to the following LiteSpeed models:

- SD355 Photoelectric Smoke Detector
- SD355T Photoelectric Smoke Detector with Thermal
- AD355 Multicriteria Photoelectric Smoke Detector with Thermal
- H355 Thermal Detector (135° F)
- H355HT High Temperature Thermal Detector (190° F)
- H355R Rate-of-Rise Thermal Detector
- CP355 Ionization Smoke Detector

To wire LiteSpeed detectors:

1. Wire device bases as shown in Figure 7-4
2. Set the address for each device as described in Section 7.5

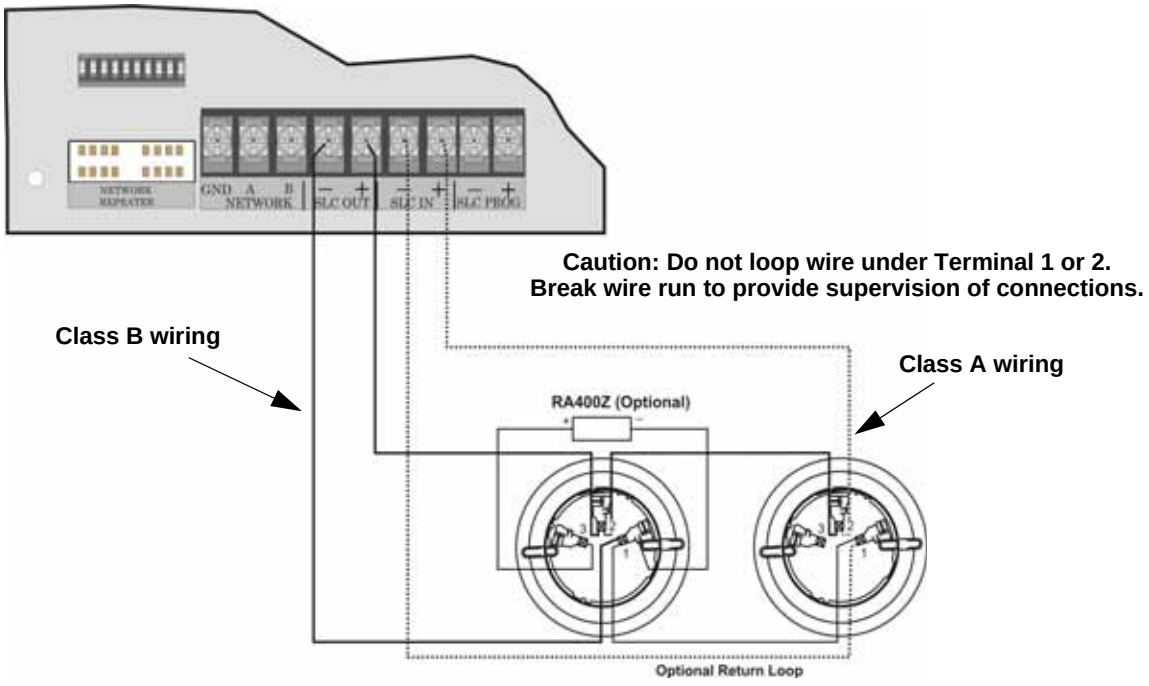


Figure 7-4 Heat and Smoke Detector Connection to the Panel.

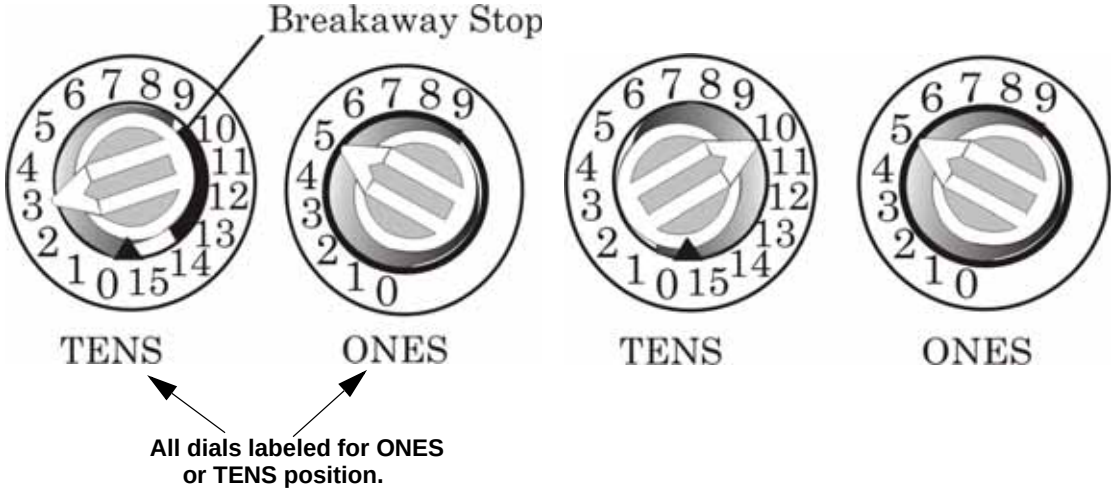
7.5 Addressing SLC Devices

All SLC devices are addressed using the two rotary dials that appear on the device board. Use the *ONES* rotary dial to set the ones place in a one or two digit number, and use the *TENS* rotary dial to set the tens place in a two or three digit number.

The control panel recognizes when a sensor or module is installed. For this reason, sensors can be assigned any unique address from 1 to 159, and modules can be assigned any unique address from 1 to 159. There can be a sensor using address 1 and a module using address 1. 0 is an invalid address. In order to set the sensor above address 99, carefully remove the stop on the upper rotary switch with thumb as shown in example 2.

Example 1: To select device address 35, turn the ONES rotary dial to **5** and the *TENS* rotary dial to **3** as shown in Figure 7-5.

Example 2: To select device address 105, turn the ONES rotary dial to **5** and the *TENS* rotary dial to **10** as show in Figure 7-5.



Example 1: Device Set to 35.

Example 2: Device Set to 105.

Figure 7-5 SLC Device Addressing Using Rotary Dials

Figure 7-6

Section 8
Programming Overview

This section of the manual is intended to give you an overview of the programming process. Please read this section of the manual carefully, especially if you are programming the control panel for the first time.

The JumpStart feature automates many programming tasks and selects default options for the system. You will run JumpStart at least once when you are installing the system. See 8.1 for details. After you run JumpStart, you may need to do some additional programming depending on your installation. Section 8 of this manual covers manual programmable options in detail.

Programming the panel can be thought of as a four part process. You must program:

- Network options. These affect how all panels in the network work together. (see Section 6 Network Management for details).
- System options. These are options that affect general operation of the panel. (see Section 9.6 for details).
- Options for input points and zones. These are primarily options that control detection behavior of devices. (see Section 9.5 for details).
- Options for output points and groups. This includes selecting characteristics for output groups and mapping output circuits to output groups. (see Section 9.5 for details).

8.1 JumpStart AutoProgramming

The JumpStart AutoProgramming feature allows for faster system setup. When you run JumpStart AutoProgramming the panel searches for expanders and SLC devices not currently in the system. The new devices are added in their default configuration. At the end of the JumpStart AutoProgramming you can choose to not accept the new devices and go back to the configuration you had before doing the JumpStart AutoProgramming. This saves the installer from having to program options for each device. Depending on the application, the installer may need to make some changes after JumpStart AutoProgramming completes.

See Section 8.1.3 for complete details about running JumpStart AutoProgramming.

8.1.1 Input Points

The first JumpStart AutoProgramming on the panel in default configuration will determine the number and type of input points (detectors or contact monitor modules) on each SLC loop. JumpStart AutoProgramming assigns the correct detector type (heat, ionization or photoelectric), so the installer does not need to edit device type for detectors. Any contact monitor modules on the system will be assigned type “Manual Pull.” The installer will need to

manually change the switch type if manual pull is not correct.

The first JumpStart AutoProgramming creates one zone (Zone 1) and assigns all input points to Zone 1. Zone 1 is mapped to Output Group 1.

8.1.2 Output Points

The first JumpStart AutoProgramming on a panel in default configuration creates three output groups and assigns output circuits as follows:

Internal Power Supply Circuits 1-8:
Configured as Notification and assigned to Group 1.

Internal Power Supply Circuit 9 (Relay 1):
Assigned to Group 998.

Internal Power Supply Circuit 10 (Relay 2):
Assigned to Group 999.

Addressable output points (Relay modules):
All addressable relay devices will be configured as “Output Pt” (general purpose output point) and assigned to Group 1.

Note: Relay output is constant even if the zone activating the relay is programmed with an output pattern.

8.1.3 Running JumpStart AutoProgramming

Run JumpStart AutoProgramming immediately after you have addressed and connected all input devices (detectors, pull stations, and so on) and output devices (notification appliances, relays, and so on).

Note: If you need to install a few devices after you have run JumpStart AutoProgramming, you can install them manually or run JumpStart again at a later time. JumpStart will keep user options, such as names, for devices already installed. Follow instructions in Section 8 for configuration.

To run JumpStart AutoProgramming, follow these steps.

1. Press 

to view Main Menu.
2. Select 7 for Panel Programming. Enter Access code.
3. Select 6 for JumpStart AutoProgramming.
4. The message “System will be shutdown during JumpStart Continue?” displays on the LCD. Select Yes to continue. A series of messages displays for the next several seconds. JumpStart scans the SLC loops for devices. This can take several minutes, depending on the number of devices attached.
5. When the message “Configuring System Done” displays, press any key to continue.

6. Select one of the following options from the menu that displays.

1 - Review System	Press 1 if you need to review the JumpStart configuration. The Review System Menu will appear. Press 1 to review Entire System or Press 2 for Changes Only.
2 - Repeat JumpStart	Press 2 if you need to rerun JumpStart for any reason.
3 - Accept Changes	1. If you are ready to make the JumpStart configuration permanent, select 3. 2. The system will ask you if the installation contains duct detectors. If there are none, select 2 for No and skip to Step 8. If the system contains duct detectors, select 1 for Yes and continue with Step 3. 3. From the list that displays, select the 5815XL device that contains the duct detectors. 4. The first photoelectric or ionization detector on the system will display. Select 1 for DUCT and 2 for NonDUCT. 5. Press ↑ to select the next detector. Select 1 for DUCT and 2 for Non-DUCT. Continue until all duct detectors have been selected. (Note: You can move backwards through the list with ↓). 6. When you reach the last detector on this device, press ←. 7. The system will ask you if there are more duct detectors in the system. If there are, select 1 for Yes and repeat from Step 3. If there are no more duct detectors, select 2 for No and continue with Step 8. 8. The system will restart in 10 seconds. You can press 1 to restart immediately. Do not select 2 for System Diagnostics. (This feature is for use in testing at the factory). 9. After the system resets, it will use the new JumpStart configuration.
4 - Discard Changes	If you want to discard the changes, and keep the configuration you had before running this JumpStart press 4.

8.2 Mapping Overview

This section of the manual is a higher level overview of mapping. Details about how to select mapping options appear in the appropriate subsections in Section 9.

Mapping is an important concept with the control panel. In general terms, mapping is assigning or linking events to outputs that should activate when events occur. You do this by assigning input points to input zones, output points to output groups and then linking or mapping zones and output groups.

Figure 8-1 is a brief overview of the concept of mapping. The next several pages of the manual show these subjects in detail.

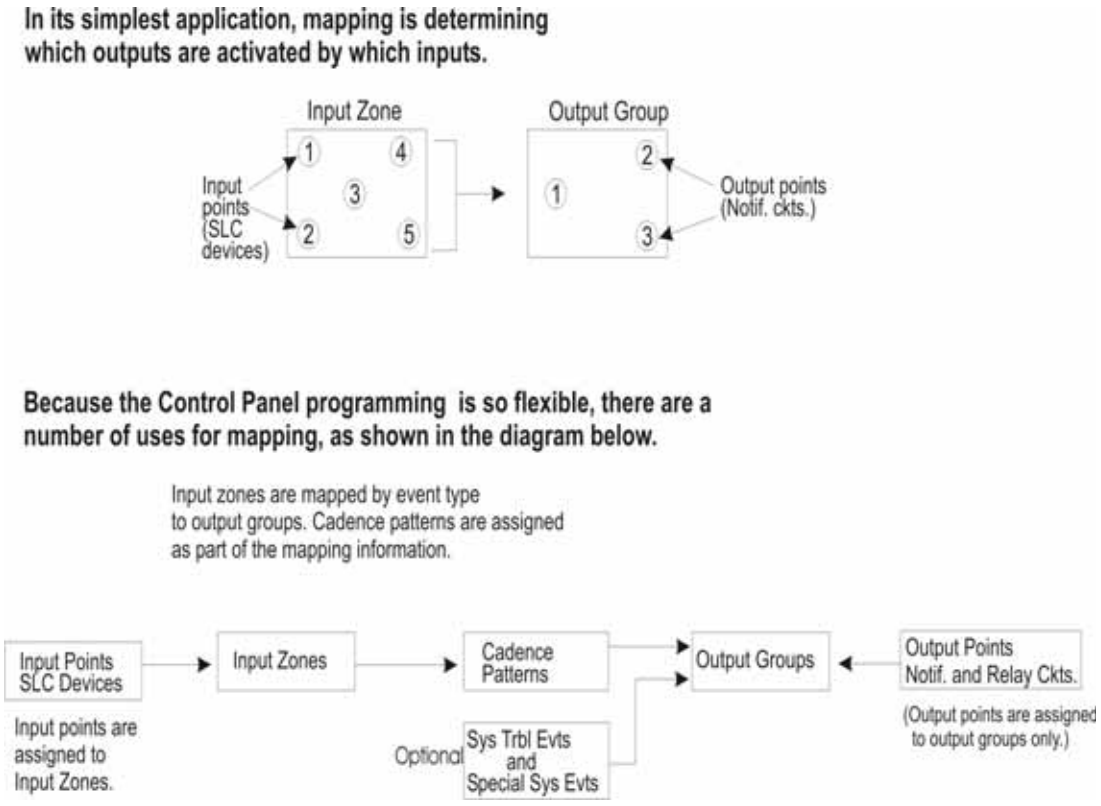


Figure 8-1 Mapping Overview

8.2.1 Input Point Mapping

Input points are assigned to input zones. Any input point can be assigned to any input zone. (Input points can be assigned to one zone only. An input point can be designated as “Unused,” which means it has not been assigned to a zone.)

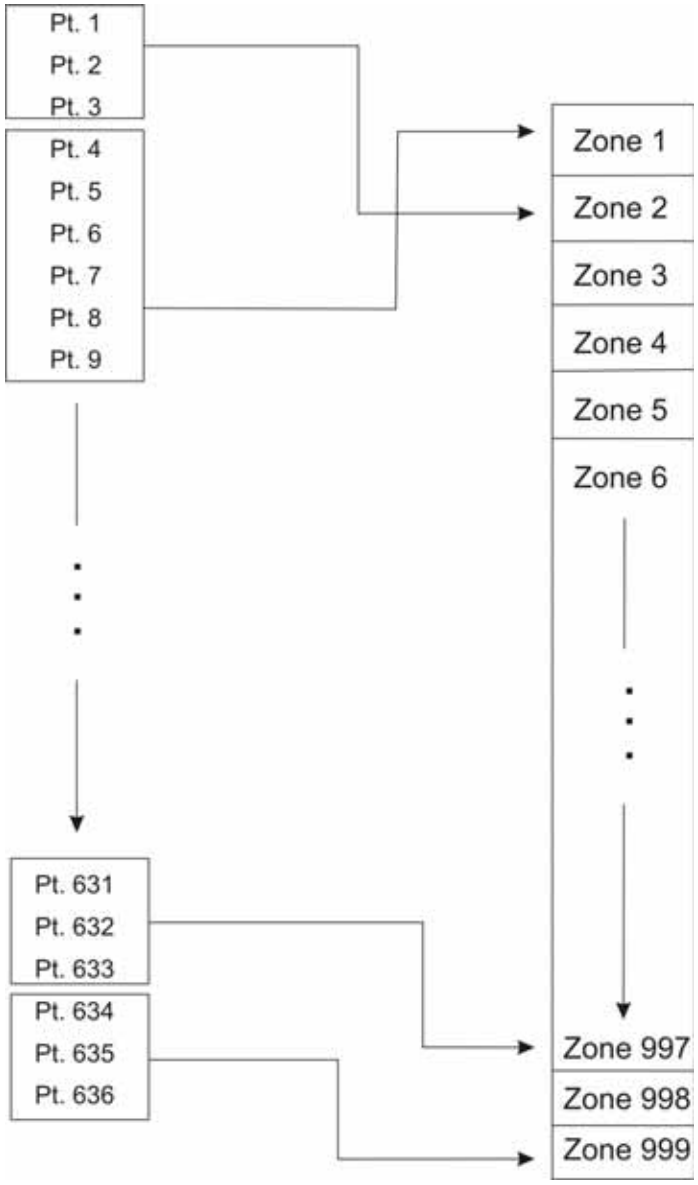


Figure 8-2 Example of Input Point Assignment

8.2.2 Output Circuit Mapping

Figure 8-3 is a simple example showing how to assign notification and relay output circuits to groups.

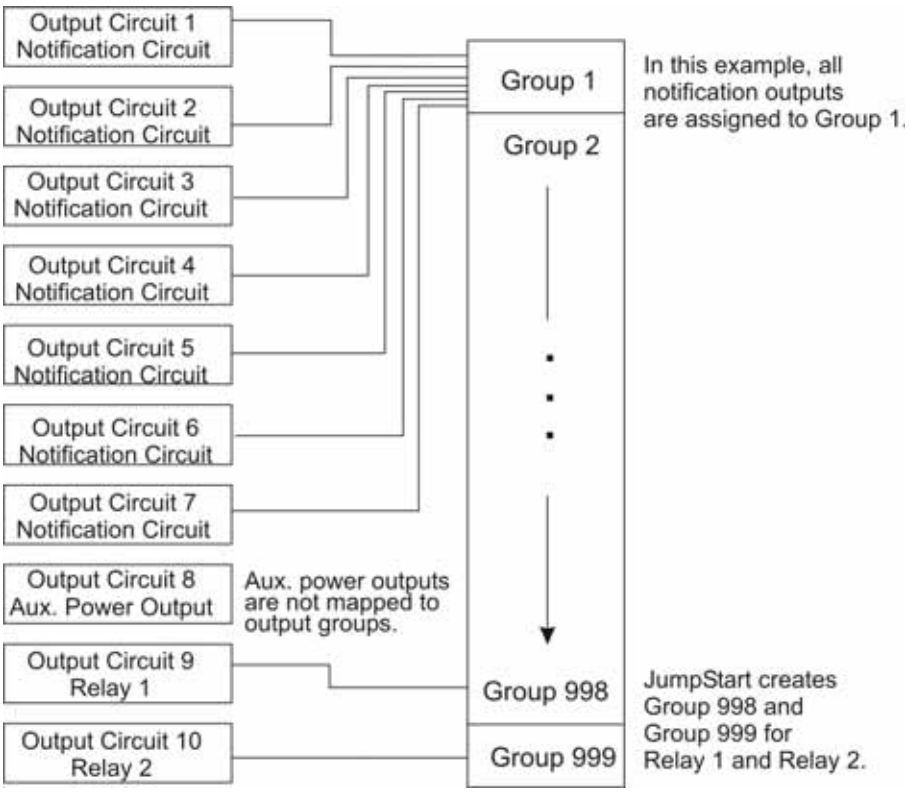


Figure 8-3 Example of Assigning Output Circuits to Groups

8.2.3 Event Mapping

There are 10 types of Zone events, 14 types of Panel events, and 6 types of Site events that can be mapped (see below). For each event type, you can activate the output groups with specific output patterns. Event types are listed in Table 8-1. Mapping examples are shown in Figure 8-4, Figure 8-5 & Figure 8-6.

Table 8-1: Event Types

Zone	Panel	Site
Manual Pull Alarm	Aux 1	Fire Drill
Water FLow Alarm	Aux 2	General Alarm
Detector Alarm (heat or smoke detectors)	SBus Exp Trouble	General Supervisory
Aux 1 and Aux 2 Alarm (user-specified alarm types)	SBUS Class A Trouble	General Pre-Alarm
Interlock alert	SLC loop Trouble	General Trouble
Interlock Release	AC loss Trouble	Site Silenced
Pre-Alarm	Battery Trouble	
Supervisory	Ground Fault Trouble	
Trouble	Phone Line Trouble	
	Reporting Account Trouble	
	Printer Trouble	
	Aux Power Trouble	
	Switch Trouble	
	Op Group Trouble	

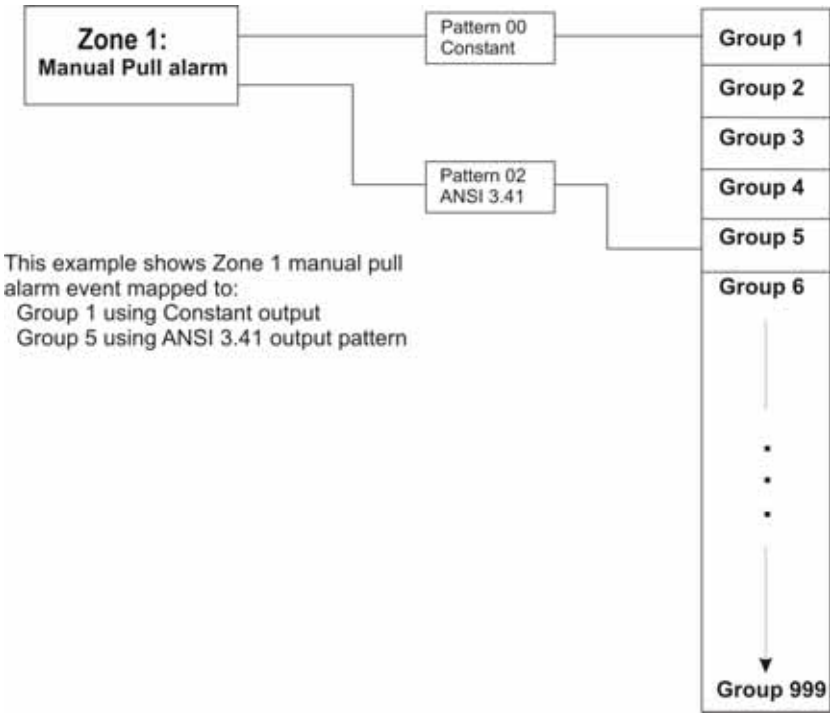


Figure 8-4 Example of Zone Events Mapped to output Groups and Patterns

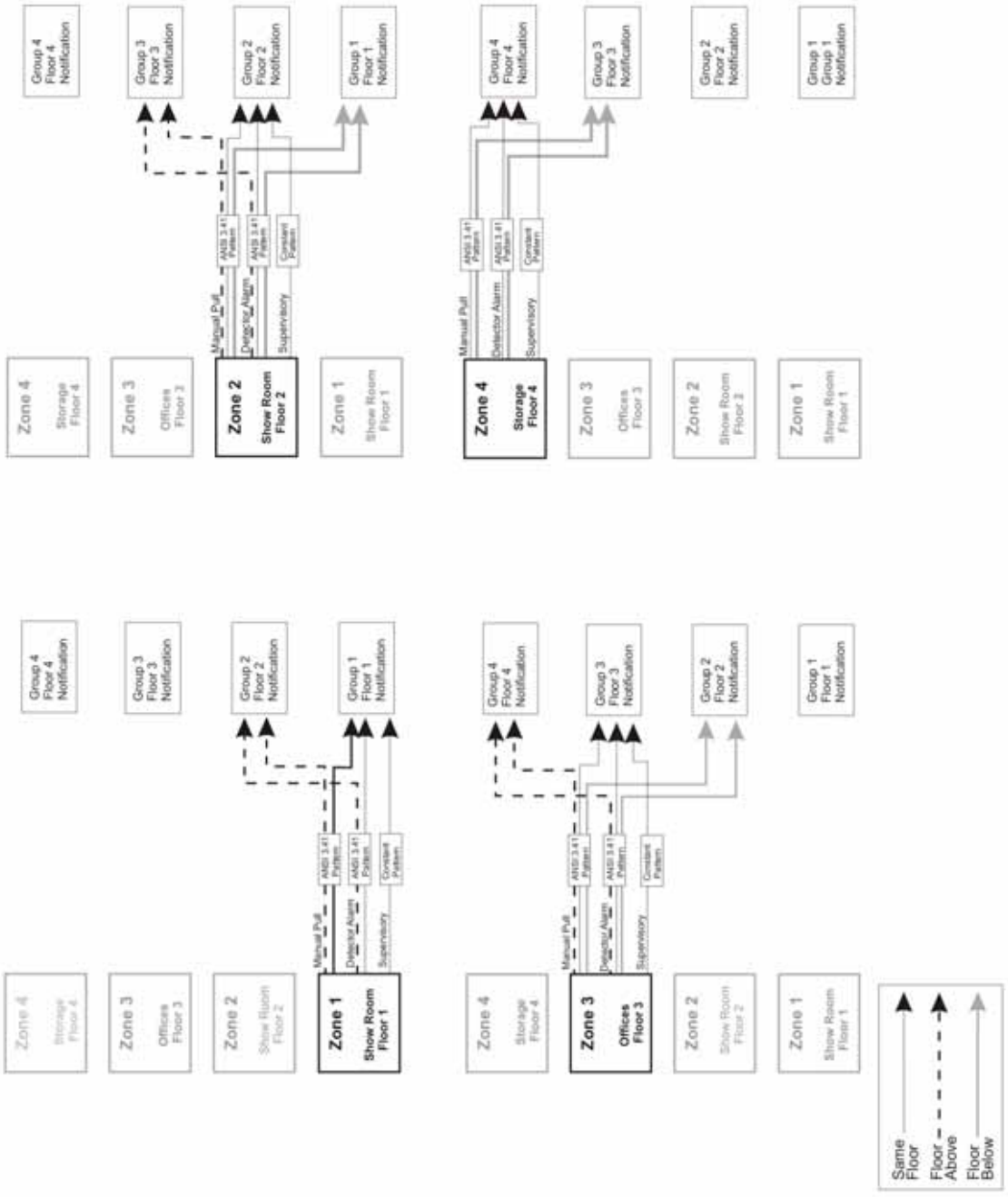


Figure 8-5 Example of Zone Events Mapped to Output Groups and Patterns on a Single Panel

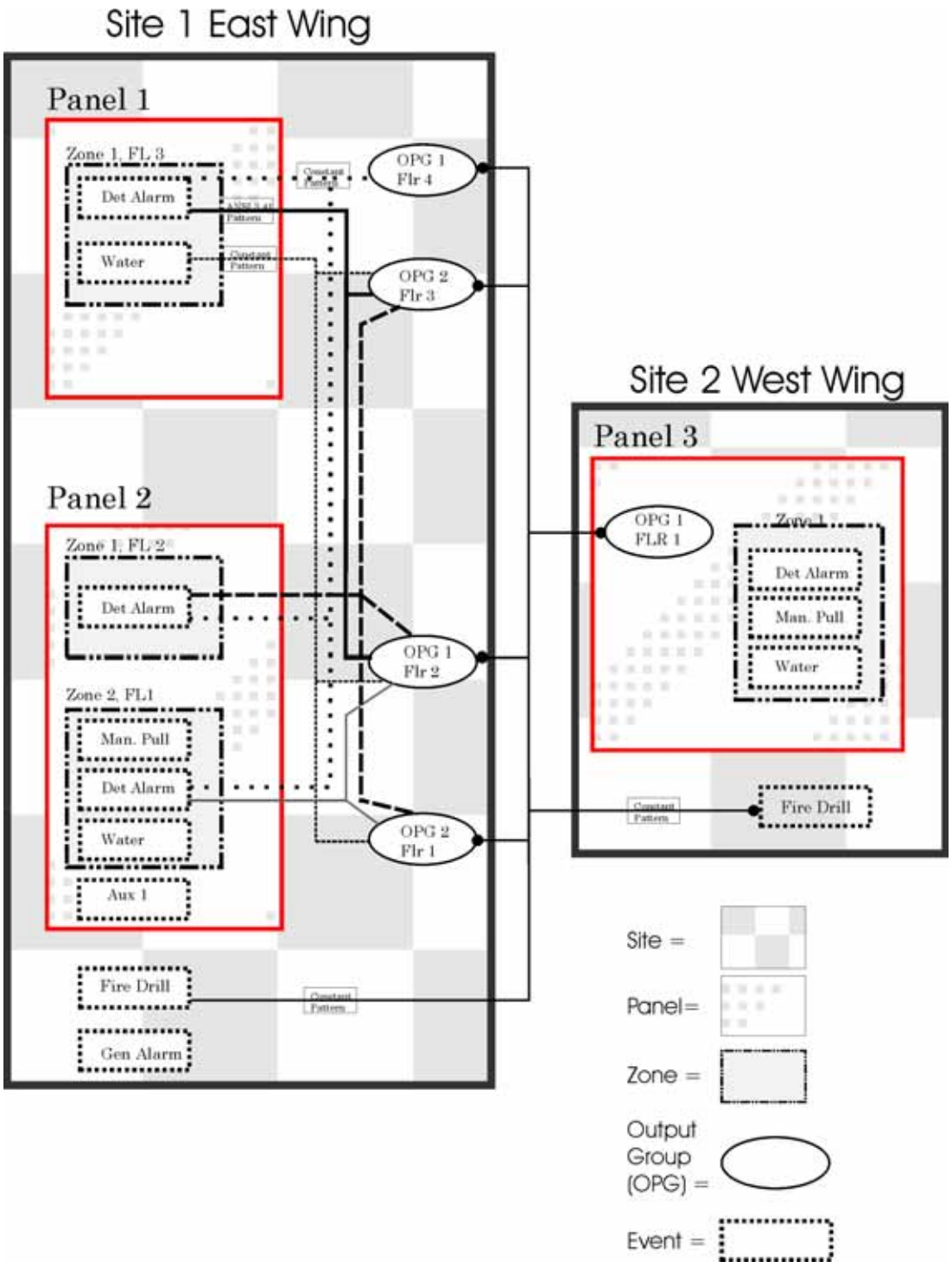


Figure 8-6 Example of Events Mapped to Output Groups and Patterns within a Networked Site

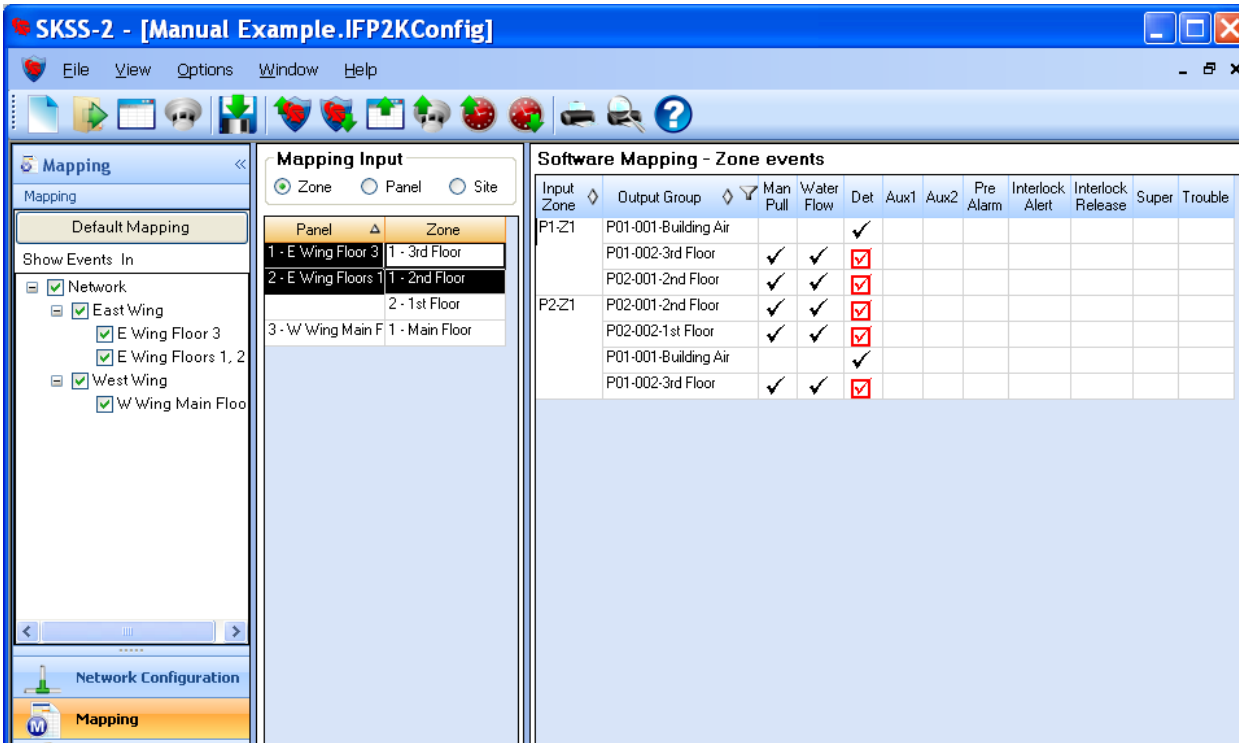


Figure 8-7 Example of SCSS-700PK Software mapping - Zone Events

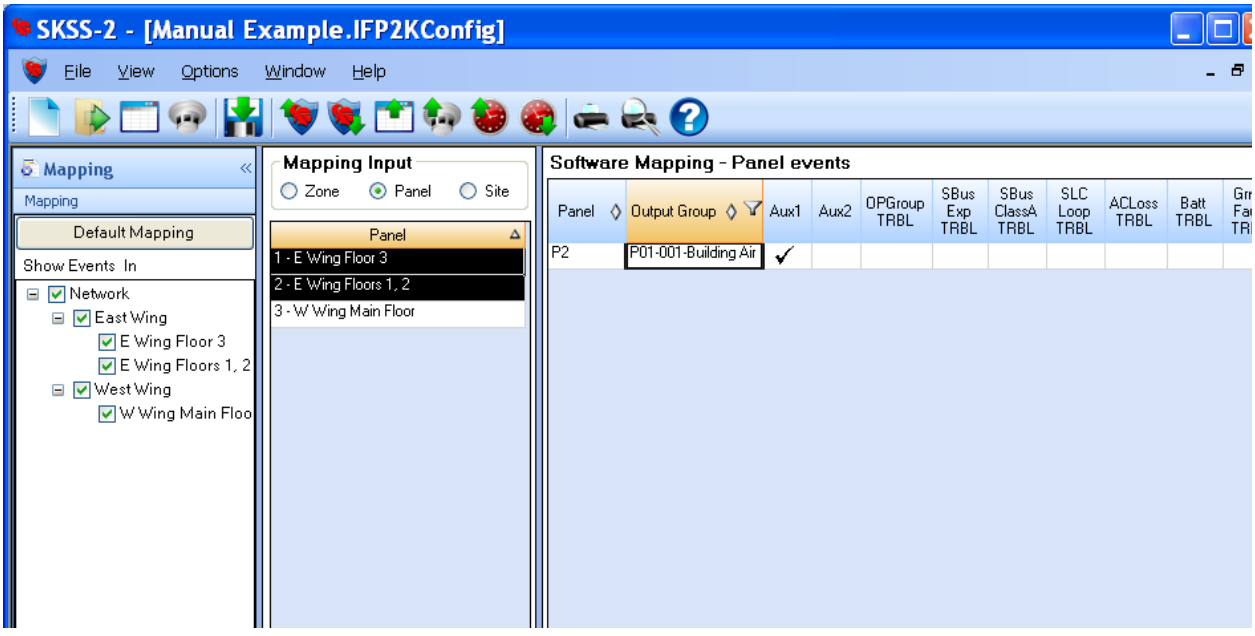


Figure 8-8 Example of SCSS-700PK Software mapping - Panel events

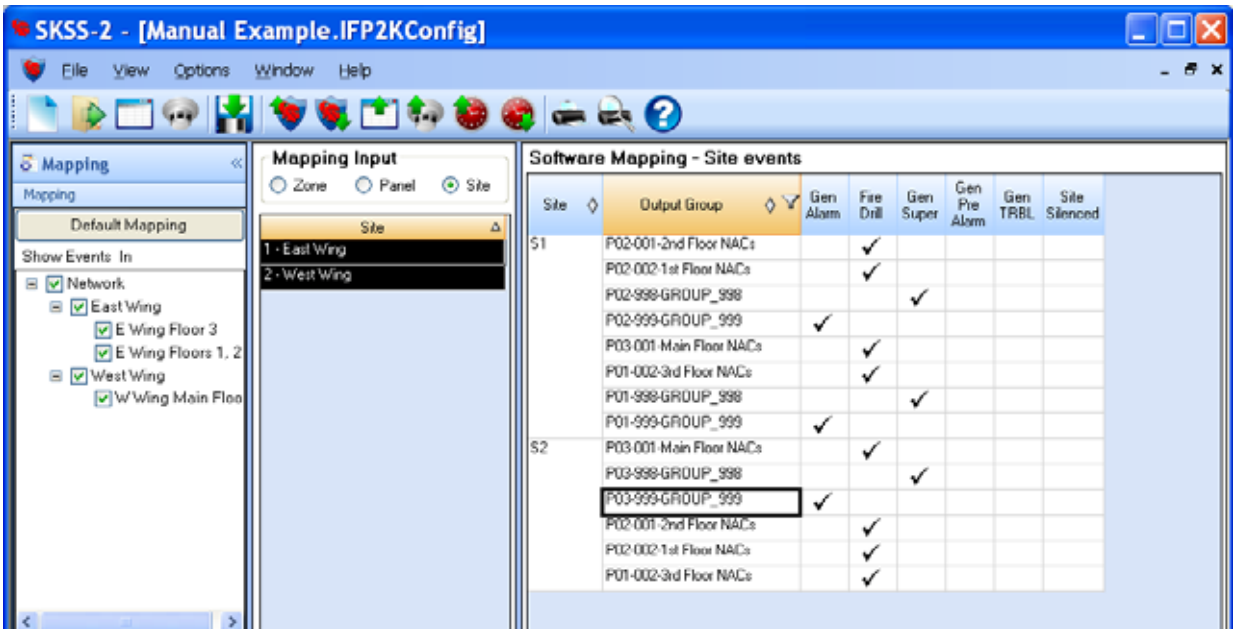


Figure 8-9 Example of SCSS-700PK Software mapping - Site Events

8.2.4 Mapping LED Points

Figure 8-10 is a simple example showing how LED points are mapped to zones and output groups. Typically you would create two output groups for each zone, one for alarms and one for troubles. (LED points are available when models 5865-3/4 and/or 5880 are used with the system.)

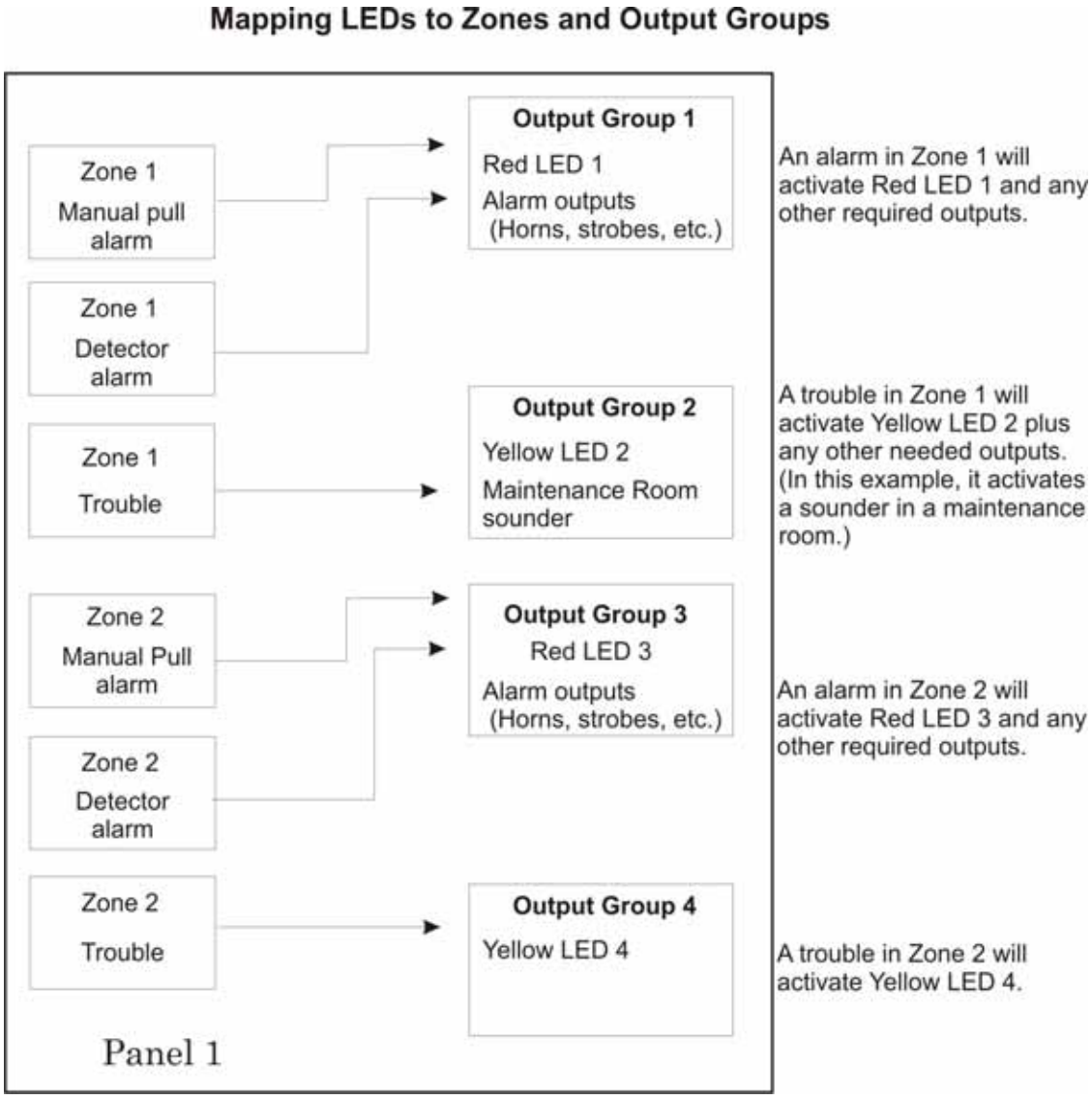


Figure 8-10 Example of LED Points Mapped to Output Groups (applies to Models 5865-3/4 and 5880)

8.2.5 Mapping LED Points for a Networked System

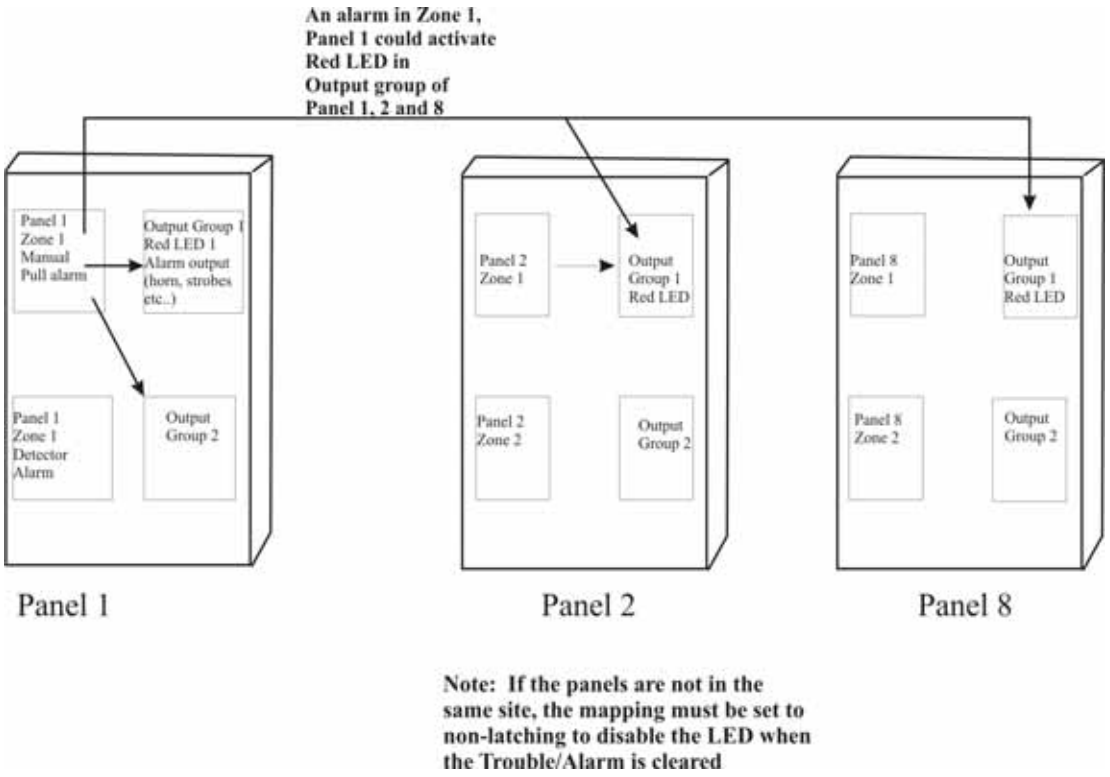


Figure 8-11 Example of Expanding Mapping of LED Points Across Panels

8.3 Programming Using the SCSS-700PK PC Configuration Software

You can use the SCSS-700PK PC configuration software to program the control panel onsite or remotely (personnel will need to be onsite during the upload or download process). SCSS-700PK is a software package that lets you easily program the control panel using a Windows-based computer and a modem*. SCSS-700PK is needed for Site/Networking Mapping. When using SCSS-700PK, you can set up the programming options for the panel, save the options in a file, then download the file to the panel. You connect to the control panel directly using the onboard USB or remotely using a modem

*See Table 1-3 for a list of modems that have been tested for compatibility with the control panel and SCSS-700PK.

8.4 Programming Using an Annunciator

Many of the SCSS-700 features can be programmed through the system annunciator, using either the control panel's on-board annunciator or a SCSS-700ANN remote annunciator.

The following subsections describe programming basics, including a description of editing keys available for programming and how to move through programming menus. Section 9 contains specific information about individual programming options.

8.4.1 Entering & Exiting Panel Programming

To enter Program Mode:

1. Enter the Installer Code (factory programmed default code is 123456).
2. Then press 7. The programming menu option displays. See Section 9 for detailed menu information and Section 8.5 for a quick reference listing all programmable options and JumpStart defaults.

To exit Program Mode:

When you have completed working with the menus, press ← (left arrow) several times until you are exited from programming mode. Two prompts will display. The first prompt is to make sure you intended to leave the panel programming (select Yes or No as appropriate). The second prompt is for accepting all changes. If you select No, any changes you have made since you entered panel programming will have no effect.

8.4.1.1 Moving through the Menus

Figure 8-12 shows how to move through the menu screens, using the main menu screen as an

example.

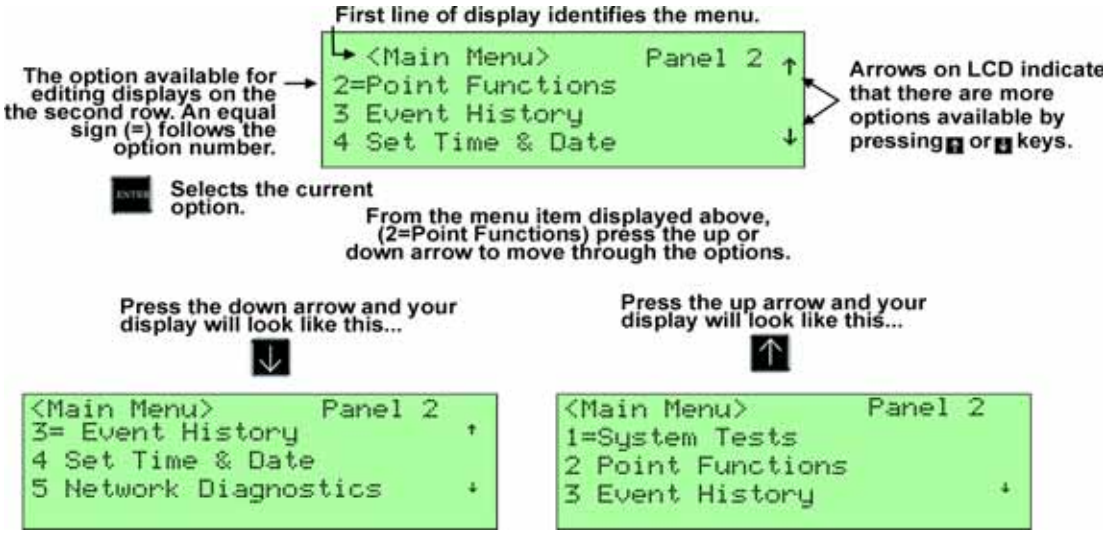


Figure 8-12 Moving through Main Menu (Main Menu used as an Example)

8.4.1.2 Selecting Options and Entering Data

There are several ways to make programming selections using the control panel depending on which screen you are currently using. The chart below is a generic explanation.

To	Press
Select from a menu.	Enter the number of the option.
Enter numeric data.	Press the appropriate number on the annunciator.
Enter text (alphanumeric data).	See Appendix B for complete list of characters.
Select from a scrolling list.	Use ↑ (up arrow) and ↓ (down arrow) to move through a list of available options. When the option you want to select is displayed, press ENTER.

8.4.1.3 Editing Keys

The keys shown in Figure 8-13 are available for use when you are in the Panel Programming Menu.

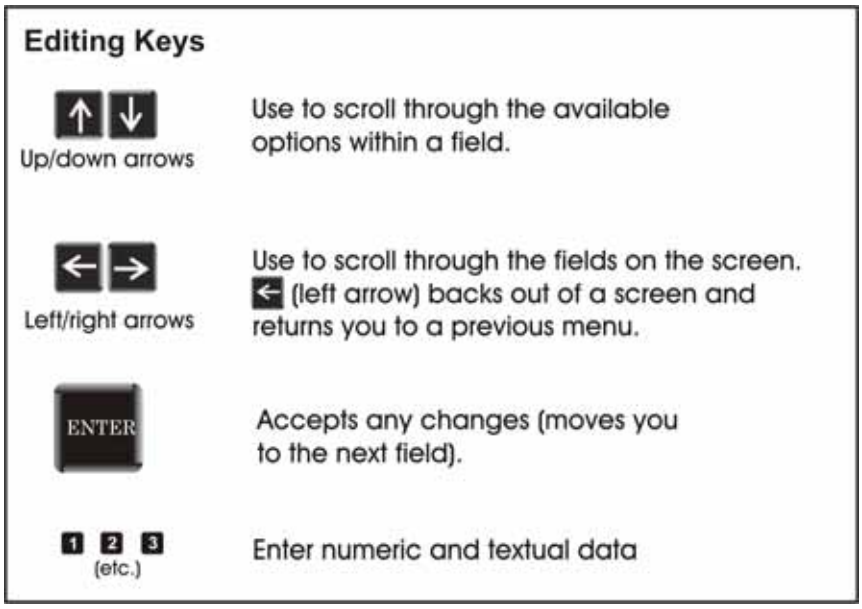


Figure 8-13 Editing Keys Available from the Panel Programming Menu

8.5 Programming Menu Quick Reference

This section of the manual lists all Panel Programming options in the order they appear on the sub-menus. Default settings are indicated in text or marked with an *asterisk. The comments column provide quick information and a reference to a section (if applicable) which has more detailed information.

Menu		Options/Defaults					Comments
Module	Edit Module	Select Module		Enter Module Name	Select Class		Section 9.2.1
	Add Module	5815XL-SLC					Section 10
		SCSS-700ANN Key stat.					
		5824-Ser/Par/IO					
		5895XL Pwr Sup					
		5496 NAC Expand					
		5880-LED/IO Dev					
		5865-LED Annunc					
		VIP-Amplifier				See section 9.9 *VIP-Series Installation Manual* P/N 53796	
		VIP-VCM					
		SCSS-700RM					
	Delete Module	List of Modules					Section 9.2.3
	View Module List	List of Modules					
Zone	Edit Zone	Select Zone to Edit		Edit Zone Name			Section 9.3.1.1
				Zone Properties	Verification Type	*1 Count	Section 9.3.1.2
						2 Count	
						Alarm Ver.	
						PAS	
						SNGL ILOCK	
						DBL ILOCK	
					Heat Temp Set	135° to 190°F	LiteSpeed devices. Section 9.3.1.2
					Smoke Sensitivity	Low, Medium, or High	Section 9.3.1.2
				Zone Accessory Opt	Cadence	00-20	Section 9.3.1.3
					Local Zone	Yes or No	

Menu		Options/Defaults					Comments
Zone (cont.)	Add Zone	Adds next available zone number.					Section 9.3.2
	Delete Zone	Select Zone to be Deleted					Section 9.3.3
	View Zone Points	List of all points in selected zone.					Section 9.3.4
Group[1]	Edit Group	Select Group		Group Name	Enter Name1		Section 9.4.1.1
					Enter Number1		
					Enter Name2		
					Enter Number2		
				Group Properties	VIP Switch Number	1 through 32	Section 9.4.1.2
					Voice EVAC Only	Y or N	Section 9.4.1.2
	Add Group						Section 9.4.2
	Delete Group	Select Group to Delete					Section 9.4.3
	View Group Points	Select Group					Section 9.4.4

Menu		Options/Defaults					Comments
Point	LiteSpeed Devices on Internal and External 5815XL	Enter Pt	SELECT MODULE (LiteSpeed only)	SWITCH	MAN_PULL		Section 9.5
					WATERFLOW	*LATCH	
						NLATCH	
					SUPERVSY	LATCH	
						NLATCH	
					FIREDRILL		
					SILENCE		
					RESET		
					PAS_ACK		
					ZN_AUX1	LATCH	
						NLATCH	
					ZN_AUX2	LATCH	
						NLATCH	
					SYS_AUX1	LATCH	
						NLATCH	
					SYS_AUX2	LATCH	
						NLATCH	
					DETECT SW		
					TAMPER	LATCH	
						NLATCH	
					MAN REL		
					ILOCK		
				NOTIF	OUTPUT PT	Select Group	Section 9.5
					AUX CONST		
					AUX RESET		
					AUX DOOR		
				RELAY	OUTPUT PT	Select Group	Section 9.5
					AUX RESET		
					AUX DOOR		
			Select Module (LiteSpeed only)	DETECTOR	2WIRE SMK	Select Group/Zone	Edit Name see Appendix B

Menu		Options/Defaults					Comments
Point con't	LiteSpeed Devices on Internal and External 5815XL con't	Enter Pt	Select Sensor (LiteSpeed ONLY)	DETECTOR	PHOTO	SDR BAS/ RLY BAS	Section 9.5
					BEAM		
					PHOT-HEAT	SDR BAS/ RLY BAS	
					HEAT HT	SDR BAS/ RLY BAS	
					ACCLIMATE	SDR BAS/ RLY BAS	
					PHOT DUCT	DCT RLY	
					ION DUCT	DCT RLY	
					HEAT	SDR BAS/ RLY BAS	
					ION	SDR BAS/ RLY BAS	
				SUPERVISORY DETECTOR	Same as DETECTOR	LATCH/ NLATCH	

Menu		Options/Defaults					Comments
Point (cont.)	Internal Pwr and External Power	Enter Pt (cont.)		Input Point Type (detector/switch)	Select Function		Per JumpStart
		Select Type		UNUSED			
				B NOTIF	Select Group		
				A NOTIF			
				AUX PWR	CONSTANT		
					RESETABLE		
					DOOR		
				B SWITCH	MAN PULL	Select zone	Latch and Non-latch feature only appear for waterflow, supervisory, tamper, zone aux1, zone aux2, system aux1, and system aux2.
					WATERFLOW	Select zone	
					SUPERVSY	Select zone	
					TAMPER	Select zone	
					FIREDRILL		
					SILENCE		
					RESET		
					PAS_ACK	Select zone	
					ZN_AUX1	Select zone	
					ZN_AUX2	Select zone	
					SYS_AUX1		
					SYS_AUX2		
					MAN REL		
					ILOCK		
				A SWITCH	Same as B SWITCH		
				B DETECTOR	2-WIRE SMK		
					4-WIRE SMK		
				A DETECTOR	2-WIRE SMK		
					4-WIRE SMK		
		Select Group or Zone Number				Group or Zone selection will appear depending on the type is selected	
		Edit Name		Enter Name		Section 9.5.3	
	5880	Enter Point #		NOTIF			
				UNUSED			
		Select Group #					
		Edit Name		Enter Name			
	5865	Enter Point #		NOTIF		Section 9.5.3	
				UNUSED			
		Select Group #					
		Edit Name		Enter Name			
Point (con't)	VIP-Amplifier	Enter Point #		NOTIF		Section 9.5.4	
				UNUSED			
		Select Group #					
		Edit Name		Enter Name			

Menu		Options/Defaults					Comments
System Options	Auto Time Test			Set the Hour	*02:00 AM	Section 9.6.1	
				Set the Minutes			
				Select AM/PM			
	Phone Lines	Select Phone Line		For each phone line (1 & 2) select:			
				Dialing Prefix	Up to 9 digits	none	Section 9.6.2
				# of Answer Rings	Range: 00-15	06	Number of rings before panel answers a call from a computer Section 9.6.2.2
				Select Dialing Option	TT	TouchTone	Touch Tone
					TT/PL		TouchTone alternating with pulse see Section 9.6.2.3
					PULSE		Pulse dialing
				Rotary Pulse Format	U = 60/40	*U	Section 9.6.2.4
					E = 66/34		
				Line Monitor	Yes	*Y	Section 9.6.2.5
					No		
				Answering Machine Bypass	Yes = enabled	*N = disabled	Section 9.6.2.6
					No = disabled		
				Phone Line Unused	Yes	*N = disabled	Section 9.6.2.7
					No		
	Daytime/ Nighttime Sensitivity.	Enable/Disable		Yes		*N	Section 9.6.3
				No			
		Day Start		enter time			
		Night Start		enter time			
		Days of the Week		Select days			
	Holiday days	Holidays 1 to 18		Enter dates			Section 9.6.4

Menu		Options/Defaults					Comments
System Options (con't)	Misc. Options 1	Water Flow Delay		0 - 90 Seconds	*30 sec	Water Flow delay is the number of sec. before water flow alarm is generated. Section 9.6.5.1	
		Low AC Report Time		0 - 30 hours	*3 hrs	Low AC Report Delay. Section 9.6.5.2	
		DST		Y (Enabled)	*Enabled	Automatic Daylight Saving Time enable or disable. Section 9.6.5.3 and 9.6.7.2. See also DST settings in Misc. Option 3, below.	
				N (Disabled)			
		CLK		AM/PM	*AM/PM	System Clock Format (AM/PM or military). Section 9.6.5.4	
				MIL			
		AC Freq:		50 Hz			Section 9.6.5.5
				60 Hz			
				Neither			
	Misc. Options 2	SYNC Strbs w/ Sil		Y (Enabled)	*Disabled		Section 9.6.6.1
				N (Disabled)			
		Auto Display Oldest		Y (Enabled)	*Disabled		Section 9.6.6.2
				N (Disabled)			
		Repeater Installed		Y (Enabled)			Section 9.6.6.3
				N (Disabled			
		Repeater Class A					Section 9.6.6.4
	Misc. Options 3	Alarm Verification time		Enter time from 1 to 250 seconds	*60 Seconds		Section 9.6.7
		DST Start		Select week: 1st, 2nd, 3rd, 4th or Last	Select month		Section 9.6.5.3 and 9.6.7.2 also DST settings in Misc. Options 1, above.
		DST End					
	Edit Banner	Internal Message		Edit Line 1			Section 9.6.8

Menu		Options/Defaults					Comments
System Options Con't	Edit Voice Commands	Select Command 1-6		User Message	Tone Select	*User Message	Section 9.6.9
				Tone only			
				Message 1			
				Message 2			
				Repeats	1-14		
					Continuous		
					None		
				Initial Delay	0 - 28 (4 sec. increments)	*12	
				Inter message Delay	4 - 32 (4 sec. increments)	*8	
				Allow Message Restart with new alarm	Yes (Y) NO (N)	* No	
	Edit Ethernet	IP Address					Section 4.1.3
		Subnet Mask					
		Default Gateway					
		DCHP Enable			Y (Yes) N (No)		
JumpStart AutoPrg	Y (Yes) N (No)					See Section 9.7	
Restore Defaults	Y (Yes) N (No)					See Section 9.8	
VIP-VCM Maint.	PC Connection						Section 9.9
	Local Recording	Select Module		Select Circuit	Select VCM Switch		

1. Use of multiple notification groups may not synchronize with each other.

Section 9
Programming

This section of the manual describes how to manually program the control panel from the built-in annunciator. Each subsection discusses these menu options in detail. All options described in this section can be performed using the Software Suite (SCSS-700PK).

Important!

Before any customized programming is done, JumpStart AutoProgramming should be run first. After JumpStart is run, thoroughly test the system. The reason the system should be tested after JumpStart AutoProgramming is because Jumpstart AutoProgramming automatically programs the system, searching for and configuring all SLC and SBUS devices it finds. JumpStart allows you to confirm the integrity of the installation prior to performing any custom programming. After determining that the hardware is properly installed, custom programming can be performed. Refer to Section 8.

9.1 UL 864 Programming Requirements

NOTICE TO USERS, INSTALLERS, AUTHORITIES HAVING JURISDICTION, AND OTHER INVOLVED PARTIES: This product incorporates field programmable software. In order for the product to comply with the requirements in the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, certain programming features or options must be limited to specific values or not used at all as indicated below.

Programming Option	Menu Item	Permitted in UL 864 (Y/N)	Possible Settings	Settings Permitted in UL 864
Misc Options 1	Low AC Report Delay	Yes	0–30 hours	1–3
Switch	Water Flow	Yes	latching and non latching	latching
Misc. Opt 3	Alarm Verification	Yes	1-250 seconds	60-250 seconds

9.2 Modules

This section lists the options available under the module option in the Panel Programming. The following modules are available for the control panel: 5824 serial/parallel printer interface module, SCSS-700ANN remote fire alarm annunciator, 5815XL SLC expander, 5895XL intelligent power module, 5496 intelligent power module, 5880 LED I/O module, 5865 LED annunciator, VIP-Amplifier (VIP-50 or VIP-125), VIP-VCM voice control module and SCSS-700RM remote microphone.

9.2.1 Edit Modules

The features that can be edited when this option is selected are module ID, module name, class of wiring (Class A or Class B), or features that are specific to the module to be edited.

To edit an existing module:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

Note: If you are working on a networked system you will need to select which panel you want to program

Display reads:

```
Initializing
Please wait . . .
```

3. Press 1 to enter module menu.
4. Press 1 to edit a module.
5. Use the ↑ or ↓ arrow to select the module you wish to edit.

9.2.1.1 Naming Modules

You can assign an English name to a system hardware module to make it easier to recognize on a display.

6. If you wish to edit the modules name press the ↑ or ↓ arrow to select each character for the modules, name (or press → to bypass name edit).

Press the → to move to the next character.

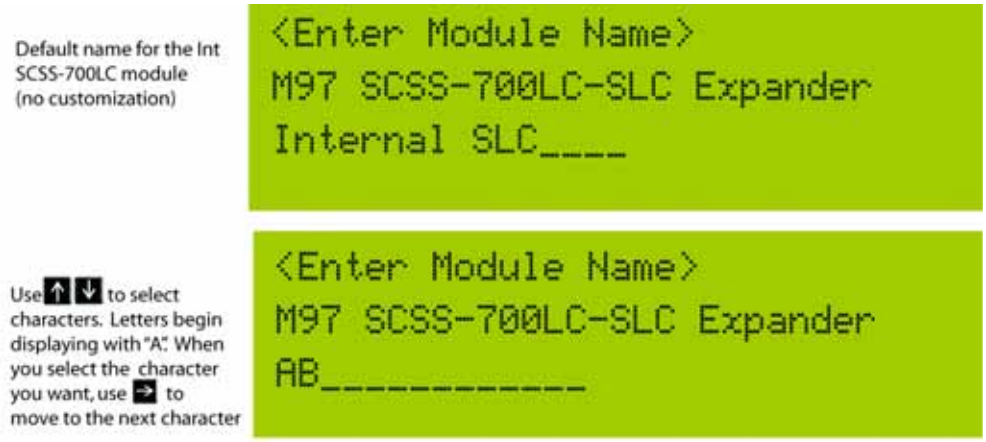


Figure 9-1 Edit module Name Programming Screen Example

9.2.1.2 Setting the 5815XL Wiring Class

7. This option applies only to the 5815XL. Each module has a unique set of options that specifically applies to the functionality of the module being edited. Choose the class of wiring you wish to use for this module (Class A or Class B) by pressing the ↑ or ↓ arrow, then press ENTER or

8. Select the option desired for the module being edited by pressing the ↑ or ↓ arrow, then press ENTER.

9.2.2 Adding a Module

If you need to add a new hardware module to the system, follow these steps.

You must be in the Main Menu to perform this task. If necessary, enter the Installer Code.

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 1 to enter module menu.
4. Press 2 to add a module.
5. From the next screen, select the number that corresponds to the type of module you are adding from the <New Module Type> screen.

   The screen will display “Adding module [#]...” for a few moments. You will be returned to the <New Module Type> screen where you can select a name for the module if desired.

You must save changes when you exit the Panel Programming or the new module will not be added.

Note: If you Add a Module that has not been physically connected, the panel will go into trouble after it reinitializes (when you exit the Panel Programming). When the new module is attached, the trouble will correct itself automatically the next time you power up the system.

9.2.3 Deleting a Module

If you ever need to delete a module, follow these steps.

You must be in the Main Menu to perform this task. If necessary, enter the Installer Code.

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 1 to enter module menu.
4. Press 3 to delete a module.
5. A warning screen will display. If you want to proceed with deleting the module, select Yes. To cancel, select No.

9.2.4 View Module List

To view a list of all modules, follow these steps.

You must be in the Main Menu to perform this task. If necessary, enter the Installer Code.

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 1 to enter module menu.
4. Press 4 to view list. Use ↑ ↓ to scroll though list.

9.3 Zone

Through the zone option in Panel Programming you can edit, add, delete, and view zone points. Selections made here affect all detectors and switches in the zone. Up to 999 zones can be used in each panel.

9.3.1 Edit Zone

Features that can be edited through the edit zone option are, edit zone name, zone properties (which includes, zone type, and detector sensitivity), and zone accessory options.

To edit a zone, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 2 to enter zone menu.
4. Press 1 to edit a zone.
5. Enter the zone number, then press ENTER.

9.3.1.1 Edit Zone Name

6. Press 1 to edit the selected zone name.

Refer to Appendix B for a list of available characters and their numeric designators.

A screen similar to the one shown in Figure 9-2 displays.

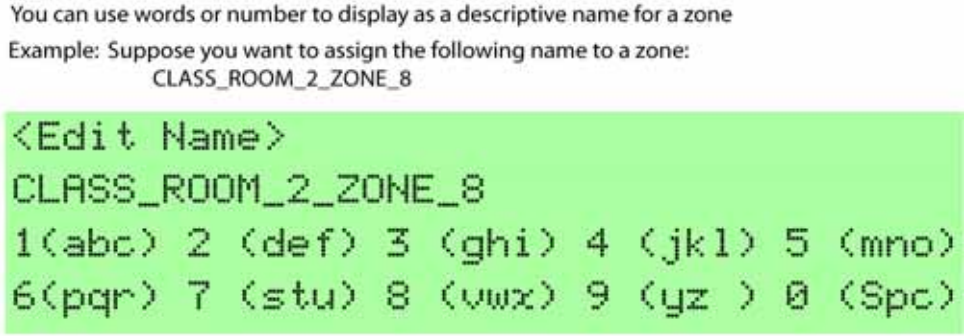
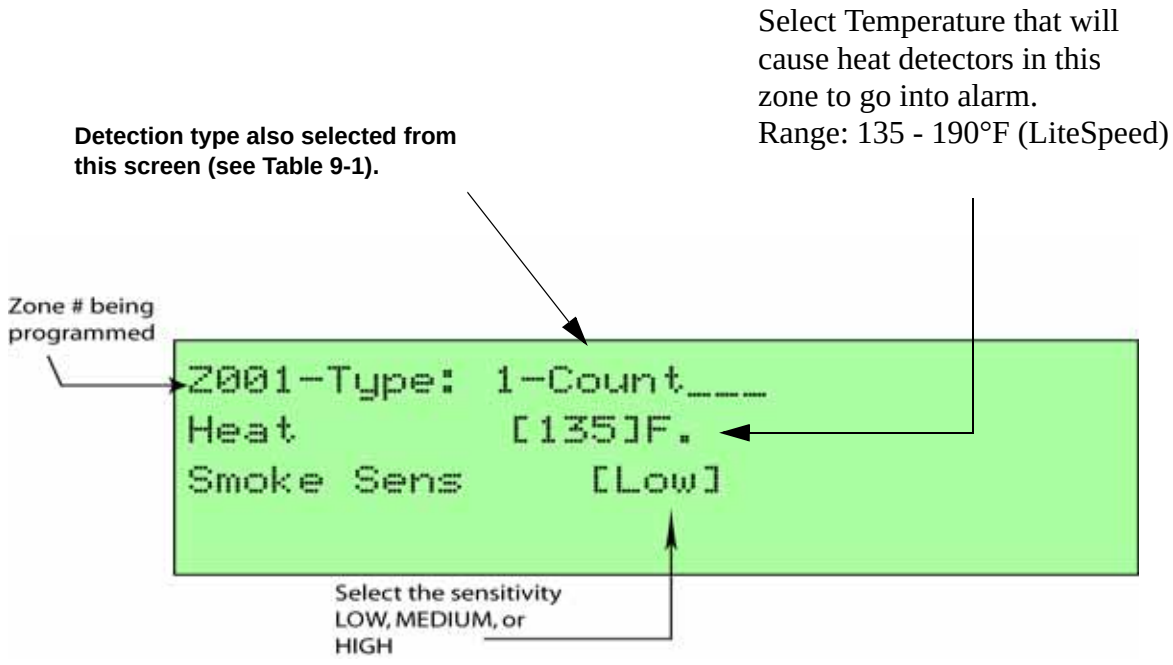


Figure 9-2 Selecting a Name for a Zone

9.3.1.2 Edit Zone Properties

Zone properties consist of alarm delay characteristics, heat detector sensitivity, and smoke detector sensitivity.

1. Do steps 1 through 5 of Section 9.3.1.
2. Press 2 to edit the properties of the selected zone.



Alarm Delay Characteristics

3. Select the alarm delay characteristics (see Table 9-1) by pressing the ↑ or ↓ arrow.

Table 9-1: Alarm Delay Characteristics

Type of Delay	Description
1-Count	One Count (No Delay). When this option is enabled, an alarm occurs immediately when a single device of any of the following types goes into alarm: detector, manual pull, water flow, Aux1 or Aux2. This is considered the most typical operation and is the default for all zones.
2-Count	When this type of alarm delay is used, two or more detectors within the zone must go into alarm in order for the zone to report an alarm. Switches of type manual pull, water flow, Aux1 and Aux2 are an exception; they will cause an alarm when only one switch is in alarm. When a single detector is in alarm in a 2-Count zone, the system enters a prealarm condition. In a prealarm condition, the touchpad PZT beeps and the annunciator display indicates that a prealarm has occurred. If the zone has been mapped to an output group for the prealarm event, the output group will activate. The prealarm will not be reported to the central station. When two count is used detector spacing shall be cut in half, you shall not use the alarm verification feature, and no delay shall be used.
Alarm Ver.	Alarm verification is an optional false alarm prevention feature that verifies an alarm condition by resetting the smoke detector. If the alarm condition still exists by the time the reset cycle has completed, the detector will go into alarm. If the detector is no longer in alarm, no report will go to the central station. The alarm verification sequence is ignored if the zone is already in alarm.
PAS	This option is intended to be used with an acknowledge switch. An alarm is delayed for 15 seconds, giving on-site personnel a chance to investigate the alarm. If the acknowledge switch is not activated within 15 seconds, an alarm occurs automatically. If this option is enabled for a zone, the zone will respond to an alarm condition as follows: • The zone will not go into alarm for 15 seconds to allow an on-site operator to activate the acknowledge switch. • If the operator does not press the acknowledge switch within 15 seconds, the zone will go into alarm. • If the operator presses the acknowledge switch within 15 seconds, a 180-second time-frame will begin counting down. This time-frame allows the operator to investigate the cause of the alarm. If the operator performs a reset within 180 seconds, the alarm will not occur. If the operator does not perform a reset within 180 seconds, an alarm will occur automatically. • The P.A.S. feature will be overridden if another alarm occurs.
SNGL ILOCK	See Section 10.7.1 for single interlock releasing operation.
DBL ILOCK	See Section 10.7.2 for double interlock releasing operation.

4. Press ENTER.

Heat Detector Sensitivity

Use this feature to set the temperature at which high temperature detectors will respond. All detectors in the zone will respond in the same way. The range for H355HT heat detector is from 135°F to 190°F.

The high temperature LiteSpeed heat detectors are absolute temperature devices. This means that they respond to an alarm immediately if the temperature in the zone goes above the programmed temperature.

5. Enter the temperature at which the heat detector will respond.
   Or
   Use the ↑ or ↓ keys to scroll through the range or enter directly from the number keys

on the annunciator, then press ENTER.

Smoke Detector Sensitivity

IMPORTANT!
Drift compensation is automatic for all smoke detectors (photoelectric and ionization). The feature is always in effect, no programming is required. See Section 10.4.11 for information about how to check if a detector is in UL compliance.

All detectors in the zone will respond as programmed in this menu location.

Table 9-2: LiteSpeed Sensitivity Choices*

Detector Protocol	Type of Smoke Detector	Choices	Comments
LiteSpeed	SD355, AD355, & SD355T	Low (3.5% obscurity)	If the day/night sensitivity option is selected, you can have different sensitivity settings during the day and at night. You can determine the days of the week that Day/Night Sensitivity will automatically adjust. You can also designate specific days as Holidays. Holiday and weekend days use night sensitivity for the entire day
		Medium (2.5% obscurity)	
		High (1.5% obscurity)	
	CP355	Low (55 pA)	
		Medium (68 pA)	
		High (80 pA)	
	D355PL	Low (2.5% obscurity)	
		Medium (2.0% obscurity)	
		High (1.5% obscurity)	

** Automatic drift compensation is always in effect for all detectors. Detectors are sampled every 3 hours. See Section 10.4.11 for information about how to check if a detector is in compliance.*

6. Use the ↑ or ↓ keys to scroll through the range or enter directly from the number keys on the annunciator.

7. Then press ENTER.

9.3.1.3 Zone Accessory Options

Single or Multi-station cadence pattern (choose from Patterns 00 to 22).

Local Zone (choose Y or N, for Yes or No).

9.3.2 Add Zone

To add a zone, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.

2. Select 7 for Panel Programming.

Display reads: Initializing
Please wait . . .

3. Press 2 to enter zone menu.
4. Press 2 to add a zone.

   A zone will be added. The system will assign the next available zone number. Options for this zone can now be programmed through the Zone Edit sub-menu. Up to 999 zones can be used per panel.

9.3.3 Delete Zone

To delete a zone, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: Initializing
   Please wait . . .

3. Press 2 to enter zone menu.
4. Press 3 to delete a zone.

   A warning screen will display. If you want to proceed with deleting the zone, select Yes. To cancel, select No.

9.3.4 View Zone Points

To view the points in a zone, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`
3. Press 2 to enter zone menu.
4. Press 4 to view zone points.
5. Enter the number of the zone you wish to view, then press ENTER.

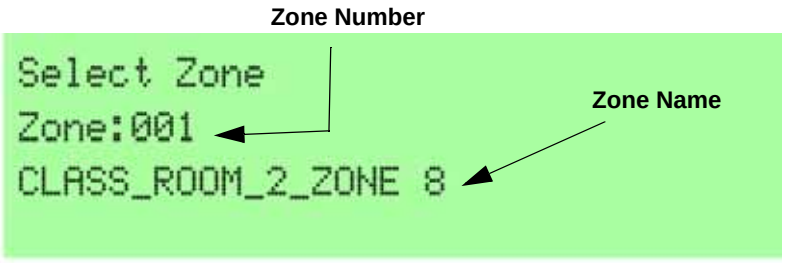


Figure 9-3 View Zone Points Screen

9.4 Group

An output group is made up of output points that have been programmed to respond in the same way. Output groups simplify programming because you have to program the output characteristics that are common to all of the group points once, instead of programming each individual point. Once you have defined the characteristics of output groups, you can assign each point to the appropriate group. All valid output points are assigned to only one output group. Unused points are not assigned to any output group. Up to 999 output groups can be defined per panel.

Each output group is defined as either a voice output group or a non-voice output group. Output points that are audio circuits (all circuits on the VIP-Amplifier and VIP-CE4) can only be assigned to voice output groups. Output points that are non-voice circuits (all other points and circuits that are on all modules except the VIP-Amplifier and VIP-CE4) are assigned to non-voice output groups.

9.4.1 Edit Group

In the edit group option you can program the name of an output group (Section 9.4.1.1) and change the properties (Section 9.4.1.2) of that group.

To edit a group, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait. . .
   ```
3. Press 3 to enter group menu.
4. Press 1 to edit group.
5. Enter the number of the group you wish to edit, then press ENTER.

9.4.1.1 Edit Group Name

6. To edit the group name, press [1].

A screen similar to the one in Figure 9-4 will display. Select a one-or two word descriptive name as shown in the diagram. Refer to Appendix B for a list of available characters and their numeric designators.

Group Name Example

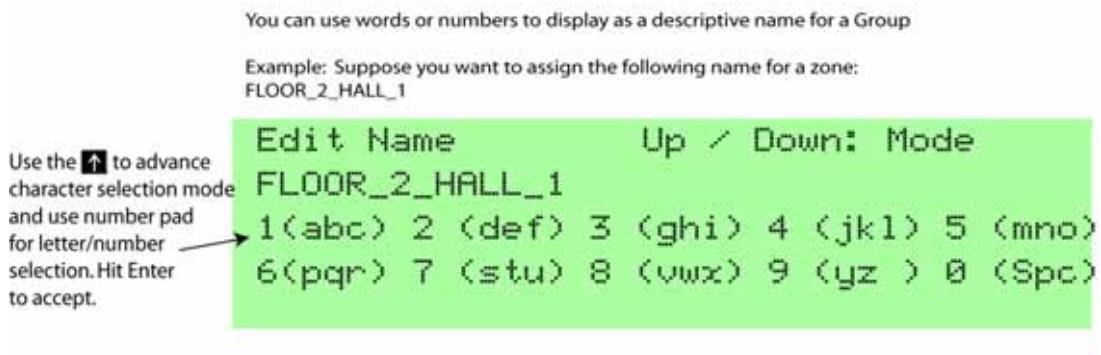


Figure 9-4 Editing Group Name Example

9.4.1.2 Edit Group Properties

The Edit Group Menu allows you to select options for each group for the following items:

- VIP switch number, which is used if it is a voice type group.
- Define output group type as voice or non-voice. See option for Voice EVAC Only in Figure 9-5

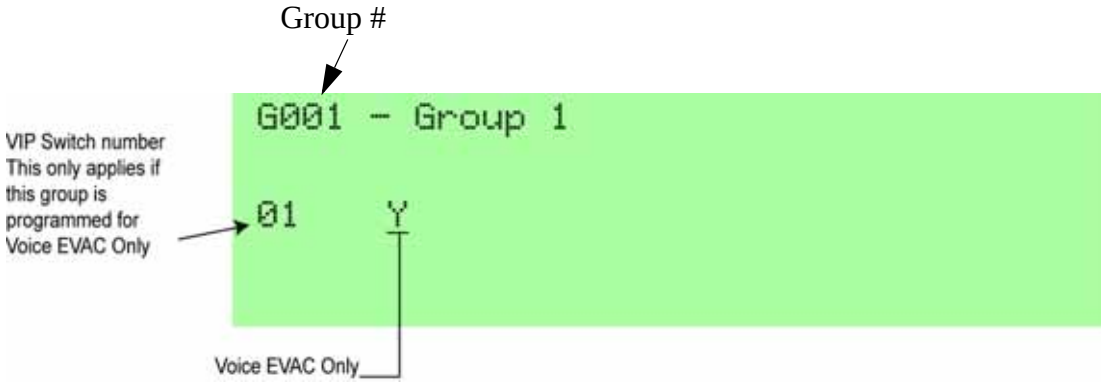


Figure 9-5 Group Properties Screen Programming Options

Define Output Group Type

Each output group is defined as either a voice output group or a non-voice output group. Output points that are audio circuits (all circuits on a VIP-Amplifier and VIP-CE4) can only be assigned to voice output groups. Output points that are non-voice circuits (all other points and circuits that are on all modules except a VIP-Amplifier and VIP-CE4) are assigned to non-voice output groups.

Each of the output groups defined as voice can be mapped to a particular Switch and LED on the VIP-VCM and VIP-SW16. Figure 9-6 illustrates how the numbers selected correspond to the VIP-VCM and -SW16.

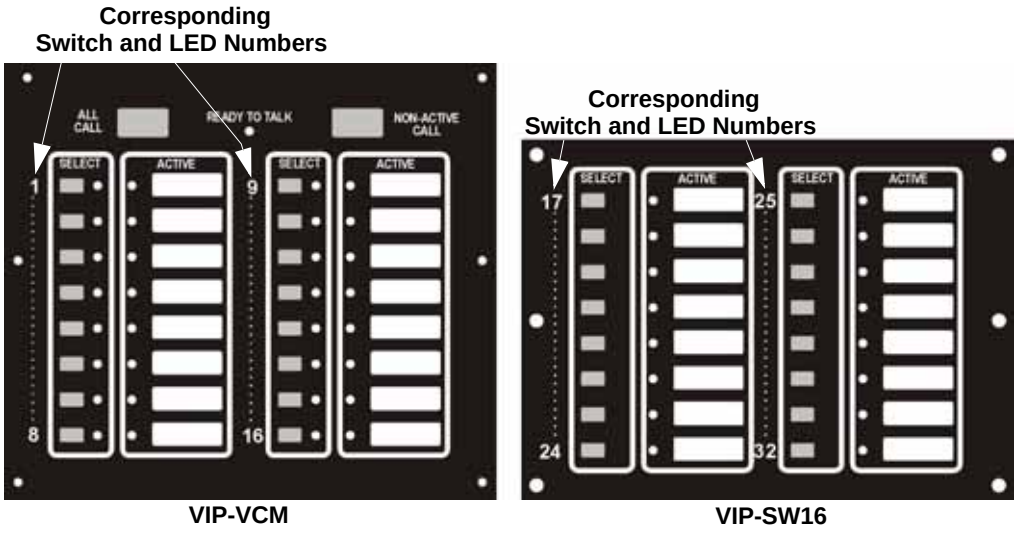


Figure 9-6 Corresponding Switch and LED for Mapping Output Groups

7. To get to this menu item repeat steps 1 through 5 of Section 9.4.1.
8. To edit group properties, press 2.
9. Press the ↓ or ↑ arrows to select the desired VIP switch number, or enter the number.
10. Press ENTER.
11. Press the ↓ or ↑ arrows to select Y (yes) to make this a voice output group or N (no) to make this a non-voice output group.

9.4.2 Add Group

To add a group:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`

3. Press 3 to enter group menu.
4. Press 2 to add a group.

   The system will assign the next available group number. Properties for the new group can now be edited if desired (see Section 9.4.1.2). A total of 999 output groups can be defined.

9.4.3 Delete Group

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

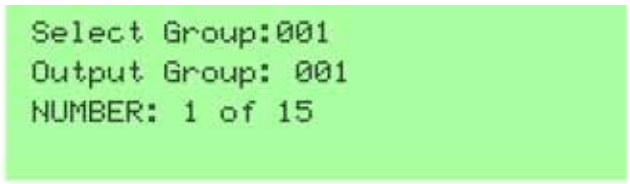
   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 3 to enter group menu.
4. Press 3 to delete a group.

   A warning screen will display. If you want to proceed with deleting the group, select Yes. To cancel, select No.

9.4.4 View Group Points

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

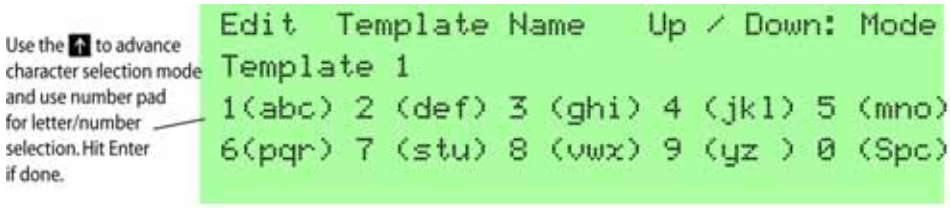
   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 3 to enter group menu.
4. Press 4 to view group points.
5. Enter the group number, then press ENTER.



9.4.5 Edit OPG Template

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 3 to enter group menu.
4. Press 5 to Edit OPG Template.
5. Enter the Template number, then Press ENTER to Edit Template Name.



9.5 Point

You may need to change characteristics of individual input points (detectors and switches) even after using JumpStart AutoProgramming. This section explains how to change options for: type of input point; latching/non-latching status (switches); and name and zone assignment of a point.

9.5.1 Point Programming For 5815XL Module

To program for an 5815XL Module points, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`

   `Please wait . . .`
3. Press 4 to enter point menu.
4. Press the ↓ or ↑ arrows to select the desired module. Refer to Section 8.5 Quick Reference Table for available choices.
5. Press ENTER.
6. Select S for sensor for M for module (LiteSpeed only).
7. Enter the number of the point you wish to edit.
8. Press ENTER.
9. Select the type of device by pressing ↓ or ↑ arrows. Refer to Table 9-3 under column heading “Type Selection” for a list of choices.

Table 9-3: Programming Options for 5815XL Modules

Type Selection	Function	Latching Option	Comments
UNUSED			select for SLC points that are unused
DETECTOR	PHOTO		spot photoelectric detectors
	ION		spot ionization detector
	HEAT		spot heat detector
	PHOT DUCT		duct photoelectric detector
	ION DUCT		duct Ion detector
	ACCLIMATE		acclimate photoelectric detector
	HEAT HT		high temperature heat detector
	PHOTO-HEAT		photoelectric detector with heat sensor
	BEAM		beam smoke detector
SUP DET	SUP PHOTO	Latching Non Latching	Use this option when you want a detector to indicate a supervisory in alarm.
	ION		
	HEAT		
	PHOT DUCT		
	ION DUCT		
	ACCLIMATE		
	HEAT HT		
	PHOTO-HEAT		
	BEAM		

Table 9-3: Programming Options for 5815XL Modules

Type Selection	Function	Latching Option	Comments
SWITCH	MAN_PULL		Use this switch type for manual pull stations. This input is always latched. The switch can clear only when an alarm is reset. This switch type has the highest priority; it overrides any other type of alarm.
	WATERFLOW	Latching (default)	Use this switch type for monitoring water flow in a sprinkler system. Switch closure will cause a sprinkler alarm. Water flow switches can be programmed as latching or non-latching. You can program a delay of up to 90 seconds to be used with a water flow switch. The delay allows for normal, brief changes in sprinkler system water pressure. The water flow alarm will not activate unless the switch is active for the programmed delay time. If a delay is used, the system begins counting down when the switch closes. If the switch opens (restores) before the timer expires, a water flow alarm is not generated. If the water flow switch remains closed after the timer expires, a water flow alarm will be generated.
		Non-Latching	
	SUPERVISY	Latching	Use this switch type for tamper monitoring of sprinklers and other fire protection devices. If a contact closes, a sprinkler supervisory event will be generated. Supervisory switches can be latching or non-latching.
		Non Latching	
	FIREDRILL		System-level, non latching switch. This switch is an alternative way of causing a fire drill. It has the same operation as the fire drill option available from the annunciator. When the switch is activated, a fire drill begins; when the switch is de-activated, the fire drill ends.
	SILENCE		This system-level switch is an alternative way to silence the system. It has the same effect as pressing the SILENCE key.
	RESET		This system-level switch is an alternative way to reset the system. It has the same effect as pressing the RESET key.
	PAS_ACK		Positive acknowledge switch. This switch must be used in zones programmed as Positive Alarm Sequence (see Table 9-3). If an acknowledge switch closes when an alarm or trouble condition is not already in progress, a trouble will occur. You must use a UL listed normally open, momentary switch type. The switch must be rated at 5V, 100 mA (minimum) and be used with an EOL resistor for supervision.
	ZN_AUX1	Latching	Use these switch types if you want to monitor special zone-level conditions (such as dry contact from a remote power supply).
		Non Latching	
	ZN_AUX2	Latching	
		Non Latching	
	SYS_AUX1	Latching	Use these switch types if you want to monitor special system-wide conditions (such as dry contact from a remote power supply).
		Non Latching	
	SYS_AUX2	Latching	
		Non Latching	
	DETECT SW		Used to monitor conventional 4-wire detectors, a contact closure will generate a detector alarm event.
	TAMPER	Latching	Performs identically to a supervisory switch, but will be indicated as a tamper switch on the LCD annunciator.
		Non Latching	
	MAN REL		Manual release switch
	ILOCK		Interlock release switch input.

Table 9-3: Programming Options for 5815XL Modules

Type Selection	Function	Latching Option	Comments
NOTIF	OUTPUT PT	Select Group	Output Point, a general use notification type. Use for driving standard notification appliances.
	AUX CONST		Use constant power for applications that require a constant auxiliary power source. Power is always present at Constant circuits.
	AUX RESET		Use for auxiliary power, resettable applications. See Section 4.13.5.3 for a description of how this option operates.
	AUX DOOR		Use for auxiliary power, door holder applications. For example, if you were using an auxiliary power supply for door holders, you would use this option. See Section 4.13.5.1 for a description of how this option operates.
RELAY	OUTPUT PT	Select Group	Output Point, a general use relay type. Use for applications requiring a relay, such as fan shutdown, elevator recall, and so on.
	AUX RESET		Use for auxiliary power, resettable applications. See Section 4.13.5.3 for a description of how this option operates.
	AUX DOOR		Use for auxiliary power, door holder applications. For example, if you were using an auxiliary power supply for door holders, you would use this option. See Section 4.13.5.1 for a description of how this option operates.

9.5.2 Point Programming For Internal or External Power Module (5895XL)

To program for an internal or external power module points:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Press 4 to enter point menu.
4. Press the ↑ or ↓ arrows to select the desired module. Refer to Section 8.5 for available choices.
5. Press ENTER.
6. Enter the number of the circuit or point you wish to edit. Refer to Table 9-4 for available selections.
7. Press ENTER.
8. Select the type by pressing the ↑ or ↓ arrows.
9. Press ENTER.

10. Select the function by pressing the ↑ or ↓ arrows.
11. Press ENTER.
12. Select the zone by pressing the ↑ or ↓ arrows.
13. Press ENTER.
14. Edit point name. See Section 9.5.3.1.

    Or

    Press → to skip point name edit.
15. Repeat Steps 1 through 15 for all circuits.

Table 9-4: Menu choices for Internal/External Power Module

Choices	Type Selections	Function Selections for each Type	Comments
Enter Point or Circuit			
Select Type	UNUSED		
	B NOTIF	NOTIF OUT	User also has Supervised/ Unsupervised option
		CTRL CKT	
	A NOTIF	Same as B NOTIF	
	AUX PWR	CONSTANT	Constant auxiliary power.
		RESETTABLE	Resettable auxiliary power.
		DOOR	Door holder auxiliary power.
	B SWITCH	MAN PULL	Refer to comments column of Table 9-3 for description of these options. Latch or Non-latching feature only appears for waterflow, supervisory, tamper, zone aux1, zone aux2, system aux1, and system aux2.
		WATERFLOW	
		SUPERVSY	
		TAMPER	
		FIREDRILL	
		SILENCE	
		RESET	
		PAS_ACK	
		ZN_AUX1	
		ZN_AUX2	
		SYS_AUX1	
		SYS_AUX2	
		MAN REL	
		ILOCK	
	A SWITCH	Same as B SWITCH	
	B DETECTOR	2-WIRE SMK	Used for Class B, 2-wire detectors.
		4-WIRE SMK	Used for Class B, 4-wire detectors.
	A DETECTOR	2-WIRE SMK	Used for Class A, 2-wire detectors.
		4-WIRE SMK	Used for Class A, 4-wire detectors.
Select Zone/Group			Group or Zone selection will appear depending on the type selected.
Edit Name			See Section 9.2.1.1.

9.5.3 Point Programming For 5880, and 5865 Modules

To program 5880 or 5865 module points

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`
3. Press 4 to enter point menu.
4. Press the ↓ or ↑ arrows to select the desired module. Refer to Section 8.5 for available choices.
5. Press ENTER.

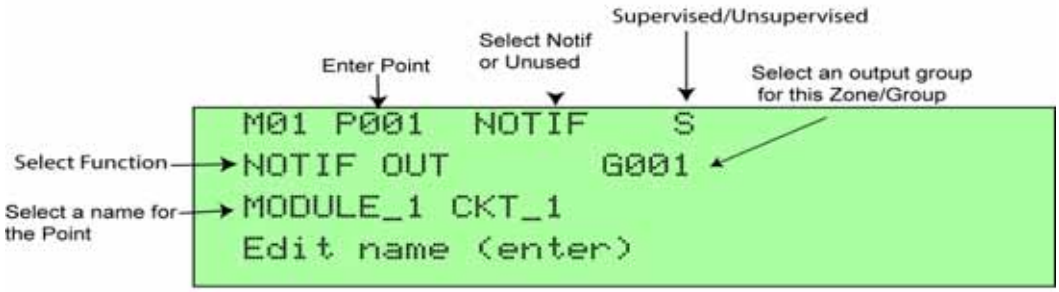


Figure 9-7 Programming Points Screen for 5880 and 5865 Modules

6. Enter the point number.
7. Press ENTER.
8. Press the ↓ or ↑ arrows to select the type (Notification or unused).
9. Press ENTER.
10. Press the ↓ or ↑ arrows to select the desired function (Notification Output or Control Circuit).
11. Press ENTER.
12. Press the ↓ or ↑ arrows to select the desired Group.

13. Press ENTER.
14. Edit module name. See Section 9.5.3.1.

    Or

    Press → to skip module name edit.
15. Repeat Steps 1 through 13 for all points.

9.5.3.1 Assigning a Name to Points

You can assign a name to a point to make it easier to recognize on a display.

To edit a point name:

16. When the Display is flashing on the Edit Name field press ENTER.
17. Refer to Appendix B for a list of available characters and their numeric designator.
18. Press to accept.

If you wish to bypass the Edit Name field press

9.5.4 Point Programming For VIP-Amplifier/VIP-CE4

To program VIP-Amplifier or VIP-CE4 module points:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait. . .`
3. Press 4 to enter point menu.
4. Press the ↓ or ↑ arrows to select the VIP-Amplifier module or VIP-CE4.
5. Press ENTER.
6. Enter the point number or in this case the circuit number (1-4).
7. Press ENTER.
8. Press the ↓ or ↑ arrows to select the type (Notification or unused).

9. Press ENTER.
10. Press the ↓ or ↑ arrows to select the desired Group.
11. Press ENTER.
12. Edit module name. See Section 9.5.3.1.

    Or

    Press → to skip module name edit.
13. Repeat Steps 1 through 13 for all voice circuits

9.6 System Options

This section of the manual explains how to customize software options that affect general operation of the system. This includes such items as: AC loss hours, system clock options, holidays schedule, telephone and reporting account options. Refer to each individual subsection for complete instructions.

9.6.1 Auto Test Time

To access the Auto Test Time screen:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Select 5 for System Options.
4. From the next menu, select 0 for Auto Test Time.
5. Enter the hour you desire the control panel to send an automatic test report (or press the ↓ or ↑ arrow), then press ENTER.
6. Enter the minutes (or press the ↓ or ↑ arrow), then press ENTER.
7. Select AM or PM by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.2 Phone Lines

To access the phone lines screen:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Select 5 for System Options.
4. Select 1 for the phone lines menu.

5. Select Phone Line to be edited (1 or 2) by pressing the ↓ or ↑ arrow, then press ENTER.

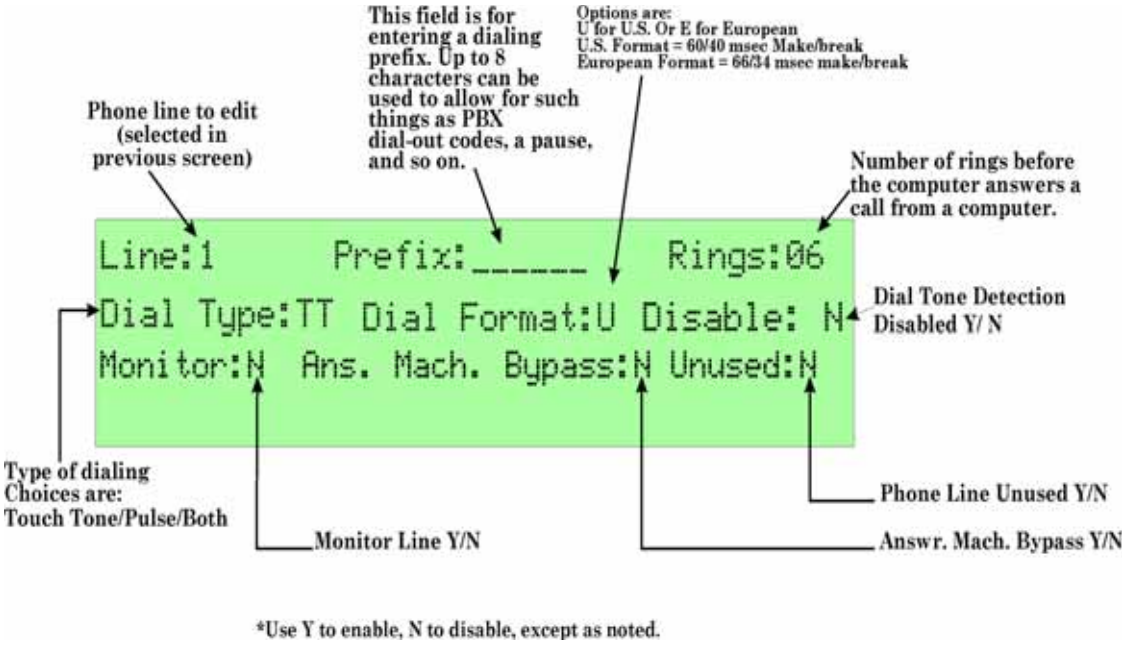


Figure 9-8 Phone Lines Editing Screen

9.6.2.1 Dialing Prefix

Enter up to 8 characters to be used for such things as PBX dial-out codes, a pause, and so on. The following special characters are available:

#	Pound (or number) key on the telephone
*	Star key on the telephone
,	Comma (character for 2-second pause)

Use the number buttons on the annunciator or the up- and down-arrow keys to select special characters. Characters begin displaying after “9”. See Figure 9-8 for an example.

6. Enter a dialing prefix (if needed), then press ENTER.

   Or

   Press → to bypass the dialing prefix option.

9.6.2.2 Number of Answer Rings

This option is used in conjunction with the SCSS-700PK. Use the option to determine the number of rings before the panel answers a call from the computer. Range is 00-15 rings. This option is factory-programmed as 06 rings, which should be compatible for most installations where the answering machine bypass feature is used. You may need to adjust it depending on the installations telephone system.

The selection made here must match the programming for this option in the Communication Configuration dialog box of the SCSS-700PK.

7. Enter the desired number of answer rings, then press ENTER.

9.6.2.3 Dial Option (TouchTone or Pulse)

8. Press the ↓ or ↑ arrow to select the dial option, then press ENTER.

Dial Option	Description
PULSE	If this option is selected, only pulse dialing will be used for this phone line.
TT	TouchTone dialing. If this option is selected, only TouchTone dialing will be used for this phone line.
TT/PL	TouchTone alternating with pulse. If this option is selected, the dialer will first attempt to use TouchTone. It will switch to pulse if TouchTone is not successful on the first attempt. It will continue to alternate between TT and pulse for additional attempts.

9.6.2.4 Rotary Format

9. Press the ↓ or ↑ arrow to select the pulse ratio for rotary dialing option, then press ENTER.

   Options are:

U	U.S. standard format. Uses the 60 msec / 40 msec make/break ratio.
E	European format. Uses the 66 msec / 34 msec make/break ratio.

9.6.2.5 Line Monitor

Enable the line monitor for each phone line that will be used. See Figure 9-8 for location of this field on the phone lines screen. When the phone line monitor has been enabled for a phone line, a trouble condition will occur if the line is not connected. If a phone line will not be used, it must be disabled.

10. Select Y (monitor line) or N (don't monitor line) by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.2.6 Answering Machine Bypass

This option is used in conjunction with the SCSS-700PK. This feature ensures that an answering machine will not interfere with communication between the panel and the computer. If an answering machine is used at the panel site, enable this feature; if an answering machine is not used, disable the feature.

This option is factory-programmed as Yes (enabled).

The selection made here must match the programming for this option in the Communication Configuration dialog box of the SCSS-700PK. See the SCSS-700PK manual for more information.

11. Select Y (answering machine bypass enabled) or N (answering machine bypass disabled) by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.2.7 Phone Line Unused

This option is used so that you can set unused phones lines to "Yes", then no autotest will be sent through that line.

This option is factory programmed as No.

12. Select Y or N by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.3 Daytime/Nighttime Sensitivity

If you need to change the time that sensitivity levels take effect (that is, the time that "Day" and "Night" begin), follow these steps.

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select [7] for Panel Programming.

   Display reads:
   ```
   Initializing
   Please wait . . .
   ```
3. Select [5] for System Options.
4. From the System Options Menu, select [2] for Daytime/Nighttime Sensitivity.

A screen similar to the one shown in Figure 9-9 will display.

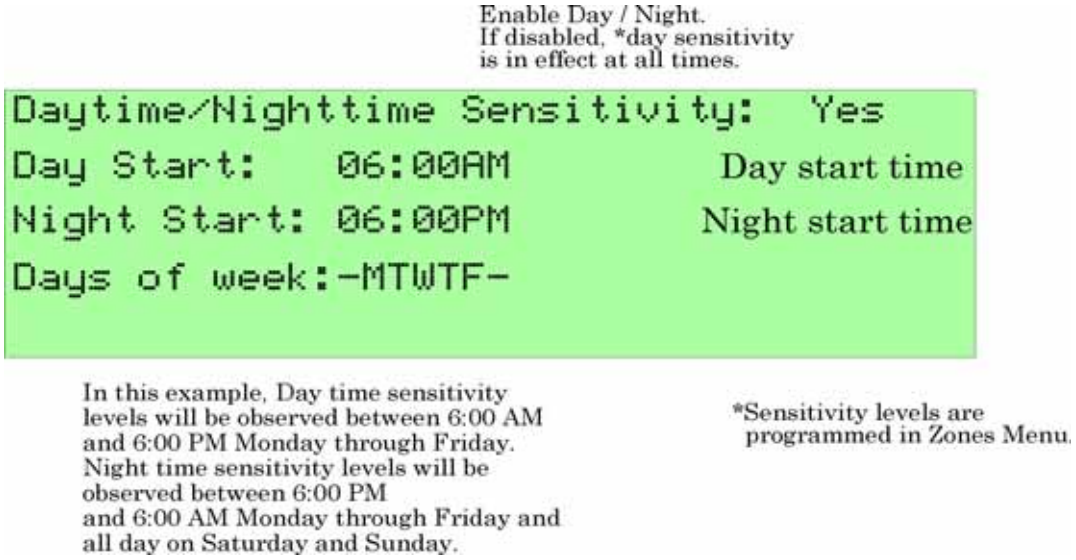


Figure 9-9 Changing Day/Night Sensitivity Time

9.6.4 Holiday Days

Up to 18 dates can be designated as holidays. When day/night sensitivity is enabled, all photoelectric smoke detectors in the system will use night sensitivity for the entire day on days designated as holidays (see Section 9.6.4).

To add or change a holiday, follow these steps.

1. Enter the installer code.The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`

   `Please wait . . .`
3. Select 5 for System Options.
4. Select 3 for Holiday Days. A screen similar to that shown in Figure 9-10 will display.
5. Edit the holiday schedules you wish to change or add holidays as needed in the programmable holiday locations.

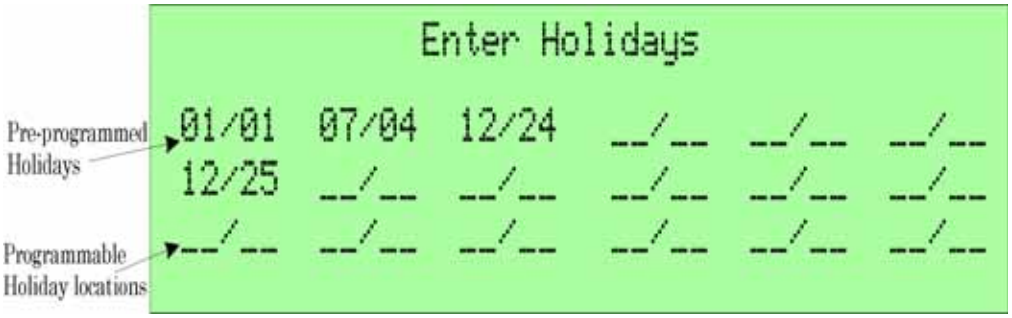


Figure 9-10 Edit Holidays Screen

6. Enter the month of the Holiday, then press ENTER.
7. Enter the day of the month for the Holiday, then press ENTER.
8. Repeat steps 6 and 7 for any remaining holidays you wish to program.

9.6.5 Miscellaneous Options 1

Through this programming option you can set the water flow delay time, low AC report delay, enable or disable automatic daylight savings time adjustment, clock format, and AC clock frequency.

9.6.5.1 Water Flow Delay

You can program a delay of 0-90 seconds (zero means no delay) to be used in conjunction with a water flow switch. The delay is system-wide. All water flow switches on the system will use the same delay period.

To access the screen for programming water flow delay, follow these steps:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`

   `Please wait . . .`
3. Select 5 for System Options.
4. Select 4 for Miscellaneous Options 1.

   A screen similar to the one shown in Figure 9-11 will display.

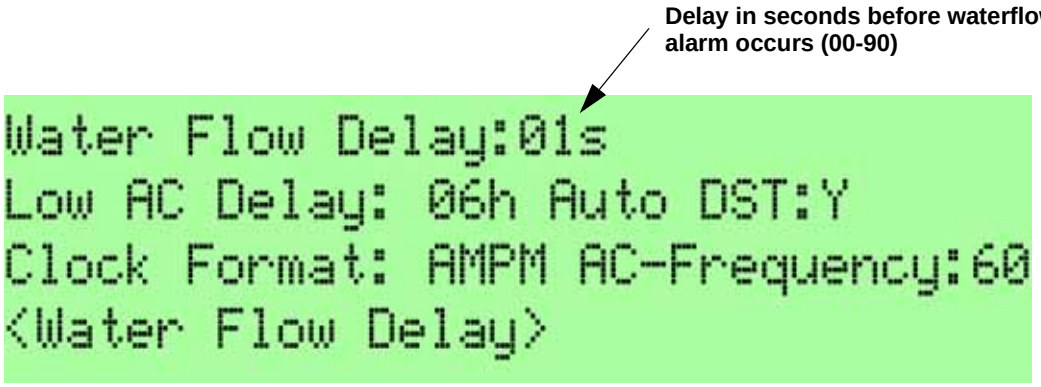


Figure 9-11 Water Flow Delay Programming Screen

5. Enter the number of seconds (0 to 90) to delay a water flow switch alarm, then press ENTER.

9.6.5.2 Low AC Report Time

Note: You must select 1-3 hours in UL central station installations and UL remote signaling installations.

You can adjust the number of hours before a Low AC report will be sent to the central station.

To program low AC report delay, follow these steps:

Note: Steps continued from step 6 of Section 9.6.5.1.

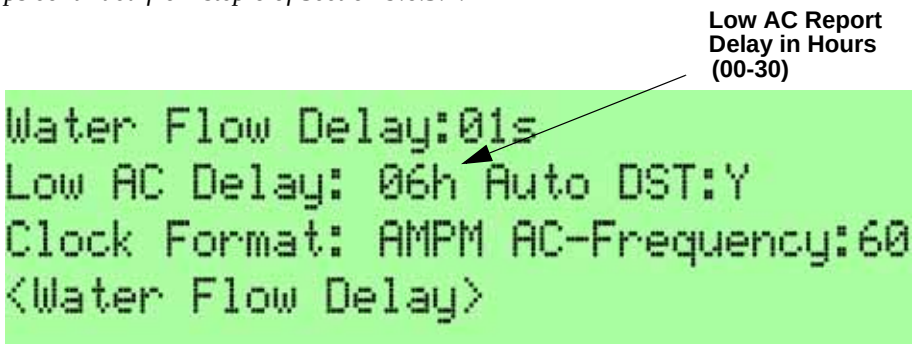


Figure 9-12 Low AC Report Delay Programming Screen

6. Enter the number of hours before a low AC report will be sent to the central station, then press ENTER. Refer to Figure 9-12.

9.6.5.3 Automatic Daylight Savings Adjustment

The control panel has an automatic DST (Daylight Saving Time) adjustment feature. Before January 2007, if this feature is enabled (set to *Yes*), the system clock will switch to DST on the first Sunday in April at 2:00 a.m. and revert to standard time on the last Sunday in October at 2:00 a.m. After January 2007, if this feature is enabled, the system clock will start and end DST according to the settings made in Misc. Options 3 (see Section 9.6.7.2). If this feature is not enabled (set to *No*) the Daylight Saving Time change is not made to the system clock.

To enable or disable DST adjustment continue programming from step 6 above:

7. Select Y (enabled) or N (disabled) by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.5.4 Clock Display Format (AM/PM or Military)

To change the system clock display format, continue programming from step 7 above:

8. Select AMPM (for AM/PM display format) or MIL (for military or 24 hr display format) by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.5.5 Change AC Line Frequency

The panel's AC line frequency is selectable for 50, 60 Hz, or Neither. AC Frequency feature dictates how the control panel will calculate time based on the AC line frequency used in the installation site. The "Neither" option can be used in areas where the AC line frequency is not dependable and you want the panel to calculate time from the internal crystal. The internal crystal is not as accurate as the AC power source and either 60 Hz or 50 Hz should normally be selected. The panel defaults to the 60 Hz. selection

To change the AC line frequency, continue programming from step 8 above:

9. Select 50Hz, 60Hz or Neither, by pressing the ↓ or ↑ arrow, then press ENTER.

9.6.6 Miscellaneous Options 2

Through this programming option you can turn the strobe synchronization during silence feature On or Off, and select the control panel to report events by zone or by point.

To edit miscellaneous options 2:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`
3. Select 5 for System Options.
4. Select 5 for Miscellaneous Options 2.

9.6.6.1 Strobes Active when Silenced

When "SYNC Strobe:" is Selected as Y (Yes) then strobes will continue to flash when the system is silenced and will stop flashing when the system is reset.

Note: The "SYNC Strobe:" only functions with outputs that use a synchronized output pattern.

5. Press the ↓ or ↑ arrow to toggle this selection between Y (Yes) or N (No).
6. Press → or ENTER to make your selection and move to the next programming option.

9.6.6.2 Auto Display Oldest Event

When this feature is programmed Y (Yes) then the oldest un-acknowledge event will automatically display on the control panel and remote annunciators after there has been no activity on any system touchpad for two minutes.

7. Press the ↓ or ↑ arrow to toggle this selection between Y (Yes) or N (No).
8. Press → or ENTER to make your selection and move to the next programming option.

9.6.6.3 IFP-RPT Repeater Installed

When the "IFP-RPT" option is programmed Y (yes) then the panel will monitor for an IFP-RPT Repeater. Set N (no) when an IFP-RPT Repeater is not installed.

9. Press the ↓ or ↑ arrow to toggle this selection between Y (Yes) or N (No).
10. Then press → or ENTER.

9.6.6.4 Both Ports Used

When the Both Ports Used option is set to Y (Yes) the panel will supervise the network wiring on both repeater ports.

11. Press the ↓ or ↑ arrow to toggle this selection between Y (Yes) or N (No).

12. Then press → or ENTER. to make your selection and move to the next programming option.

9.6.7 Miscellaneous Options 3

From Miscellaneous Options 3, you set the alarm verification time, and set the start and end week and month of Daylight Saving Time.

To edit Miscellaneous Options 3:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.
3. Enter code if prompted.

   Display reads: `Initializing`
   `Please wait . . .`

4. Select 5 for System Options.
5. Select 6 for Miscellaneous Options 3.

9.6.7.1 Alarm Verification Time

You can set the alarm verification time from 1 to 250 seconds (default is 60 seconds).

To set the alarm verification:

6. Enter the desired number of seconds for the alarm verification time.
7. Press → or ENTER to make your selection and move to the next programming option.

9.6.7.2 Daylight Saving Time Start and End

This option lets you to adjust the week and month Daylight Saving Time (DST) starts and ends. For this feature to work, you must enable (set to *Yes*) the Auto DST option under Misc. Options 1 (see Section 9.6.7.2). You can view and change the settings in this option anytime, however, settings will not take effect until 2007. The default values for the DST Start and End options reflect the August 8, 2005 DST law that goes into effect in 2007:

DST Start: The second Sunday in March
DST End: The first Sunday in November

To set the start and end for Daylight Saving Time:

8. Press the ↓ or ↑ arrow to select the week (1st, 2nd, etc.) Daylight Saving Time starts, then press ENTER to make your selection and move to the month setting.
9. Press the ↓ or ↑ arrow to select the month (January – December) Daylight Saving Time starts, then press ENTER to make your selection and move to the DST End option.
10. Press the ↓ or ↑ arrow to select the week (1st, 2nd, etc.) Daylight Saving Time ends, then press ENTER to make your selection and move to the month setting.
11. Press the ↓ or ↑ arrow to select the month (January – December) Daylight Saving Time ends, then press ENTER two times to make your selection and exit Misc. Options 3.

9.6.8 Edit Banner Message

The banner is the message that displays on the panel LCD when the system is normal, that is, when no alarms or troubles exist and no one is currently using system menus. You can create a customized message, which can be up to 40 characters.

If you do not create a customized message, the system will use the internal banner. You cannot change the internal banner.

To customizing the banner display message:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`
3. Select 5 for System Options.
4. Select 7 for Edit Banner. A screen similar to the one shown in Figure 9-13 will display

Figure 9-13 Internal Banner Message

See Appendix B for a list of available characters and their numeric designators.

5. Select each letter by pressing the ↑ or ↓ arrow, then press → to move to the next character.
6. When done, press ENTER to save the custom banner.

9.6.9 Edit Voice Commands

When a voice output group is selected to be activated by a zone, the cadence pattern specified in mapping does not apply. For voice output groups, one of six system wide voice commands will activate depending on the type of event that caused the activation. This menu option allows you program, the message to be used, the tone used, repeats, and message delays, for each of the six commands. See also Section 9.3.1 for more information.

1. Enter the installer code.The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`
3. Select 5 for System Options.
4. Select 8 for Edit Voice Commands.
5. Select the command you wish to edit (Fire Cmd, Aux 1 Cmd, Aux 2 Cmd, Pre Alarm Cmd, Supervisory Cmd, Trouble Cmd).
6. Select the desired message used for that command.
7. Select the tone to be played between messages. (High-Lo, ANSI Whoop, Cont. Whoop, ANSI, March Code, California, Steady, or Alert Tone.)
8. Select how many times you wish the message to repeat. (None, 1 - 14, or Continuous.)
9. Select the initial delay time (0 to 28 seconds, in 4 second increments).
10. Select the inter message delay time (4 to 32 seconds, in 4 second increments).
11. Enable/Disable AMR (Allow Message to Repeat after Mic). Y (Yes) or, N (No.

9.6.10 Edit Ethernet

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait . . .`
3. Select 5 for System Options.
4. Select 9 for Edit Ethernet.

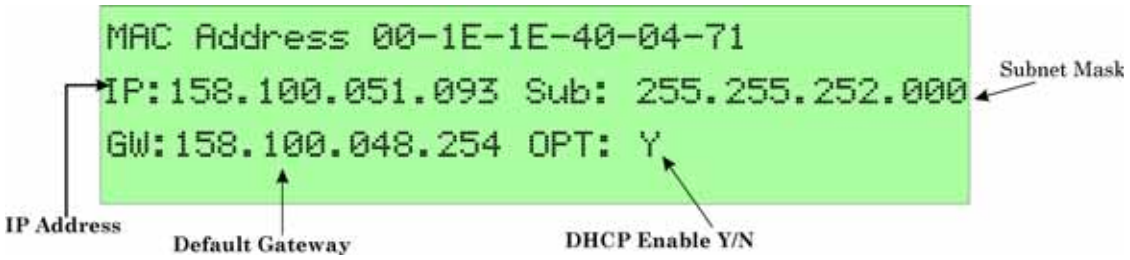


Figure 9-14 Edit Ethernet Message

9.7 JumpStart Autoprogramming

IMPORTANT!
JumpStart Auto Programming is used to auto learn the system hardware after devices have been added or removed from the system. Hardware devices which remain the same between repeat JumpStarts will retain any customized text or options associated with the device. It is best to carefully consider the network ID setting for each panel before the first jumpstart is performed. Once this is done the panel must be defaulted back to factory defaults if the network ID settings need to change.

To run JumpStart AutoProgramming:

1. Enter the installer code. The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait...`
3. Select 6 for JumpStart AutoProgramming.
4. Press the ↑ or ↓ arrow to select “Yes” from the warning screen.
5. Press ENTER.

9.8 Restore Defaults

This option allows you to restore the panel back to factory defaults. All programming will be lost.

1. Enter the installer code. The panel will automatically go to the main menu
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait...`
3. Select 7 for Restore Defaults.
4. WARNING WILL DELETE all system options.
5. Press the ↑ or ↓ arrow to select Y (Yes) or N (No) from the warning screen.
6. Press ENTER.

9.9 VIP-VCM Maintenance

This programming menu option enables the user to add and edit the user message stored in the VIP-VCM. See *VIP-Series Installation Manual* P/N 53796 for more information.

1. Enter the installer code.The panel will automatically go to the main menu.
2. Select 7 for Panel Programming.

   Display reads: `Initializing`
   `Please wait...`
3. Select 8 for VIP-VCM Maintenance.

9.9.1 PC Connection

This option is used when adding or editing user message through the 7780 SKE Voice Evacuation Software.

4. Connect the computer to the VIP-VCM via the serial ports.
5. Run the 7780 software.
6. Select 1.
7. Through the 7780 software add or edit the system messages.

9.9.2 Local Recording

Select this option if you wish to record the user message with the VIP-VCM microphone, or through the sound card of your PC. Refer to Section 4 of the *VIP-Series Installation Manual* P/N 53796or more information on this procedure.

8. Select 2.
9. Select the module you wish for play back
10. Select the circuit of the selected module you wish to hear the message played back on.
11. Record the user message.

Section 10
System Operation

Operation of the control panel is user friendly. Menus guide you step-by-step through operations. This section of the manual is an overview of the operation menus. Please read this entire section carefully before operating the panel.

Press 

to view Main Menu: Select the desired menu option. Enter your access code if prompted.

Note: See Section 6.2.5 or information on how to modify user access code profiles.

10.1 User and Installer Default Codes

User Code (factory-programmed as 1111).

Installer Code (factory-programmed as 123456).

Multi-site Installer Code (factory-programmed as 654321).

10.2 Annunciator Description

Figure 10-1 shows the annunciator that is part of the control panel board assembly.

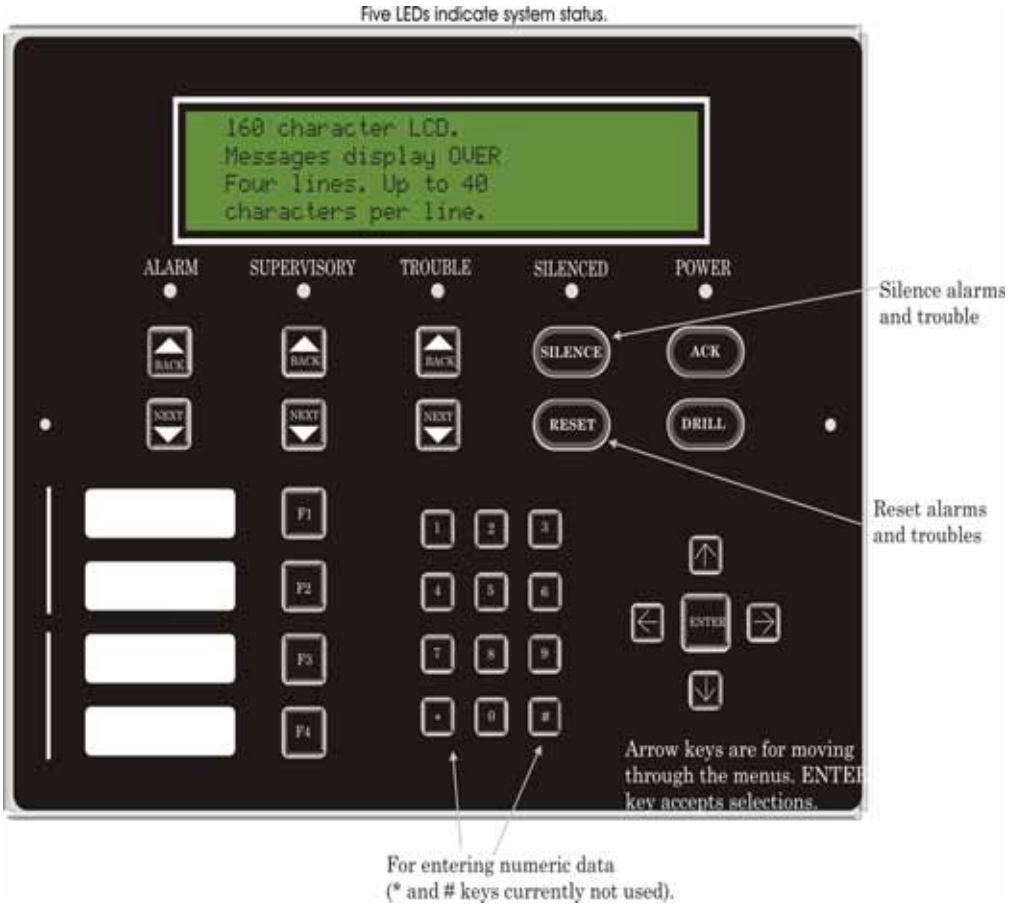


Figure 10-1 Control Panel Annunciator

10.2.1 LCD Displays

The control panel LCD displays system messages, annunciates alarms, supervisories and troubles; provides status information; and prompts for input. These messages can be up to 160 characters, displaying over four lines of 40 characters each. Annunciator keys beep when they are pressed.

10.2.2 Banner

The banner is the message that displays on the control panel when the system is in normal mode (no alarm or trouble condition exists and menus are not in use). You can create a customized message that will display instead of the internal (default) message. See Section 9.6.8 for information on editing the banner.

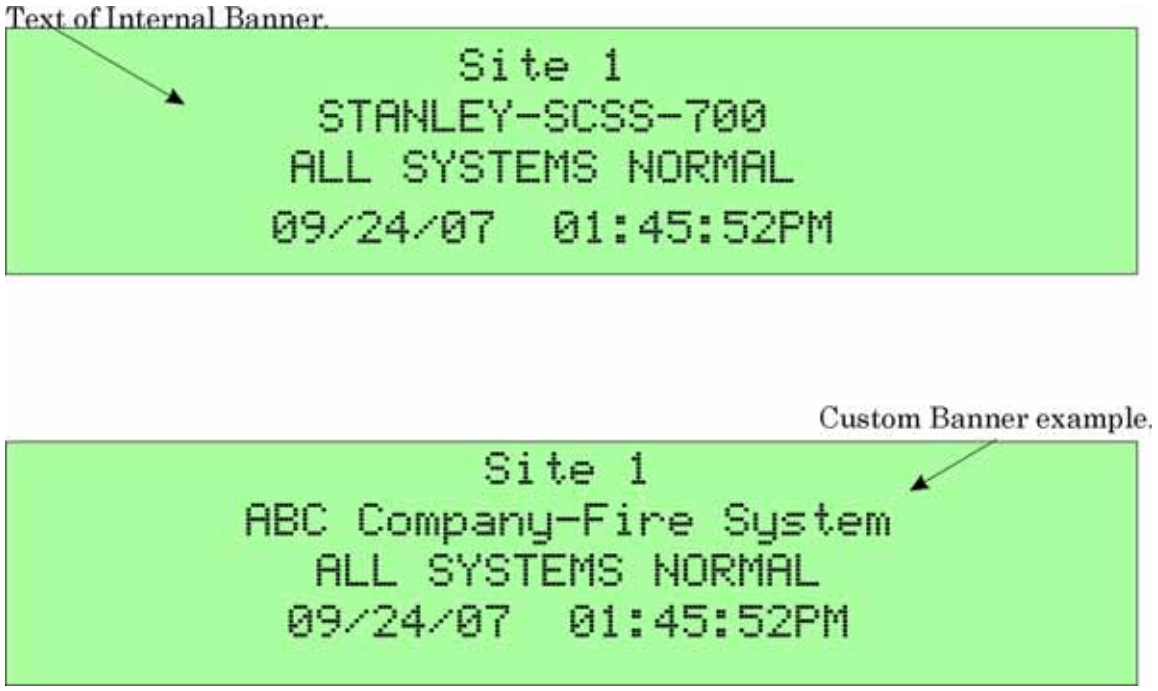


Figure 10-2 Banner Display Examples

10.3 Menu System

The control panel is easy to operate from Main Menu. To view the Main Menu press the ENTER or → button on the control panel or remote annunciator. The Main Menu will appear as shown in Section 10.3.1. Select the desired option. You will be prompted for as access code if required.

The control panel supports up to 20 access codes. The profile for each access code (or user) can be modified through the network programming option (see Section 6.2.5 for access code programming).

10.3.1 Main Menu Overview

The chart below is a brief overview of the Main Menu. These options are described in greater detail throughout this section of the manual.

Main Menu Options	Description
1 System Tests	From here both menus can access Fire Drill and Indicator Test.
2 Point Functions	From here both menus can enable / disable points.
3 Event History	Display event history on the LCD. See Section 10.4.3 for more information.
4 Set Time and Date	Set time and date for the system.
5 Network Diagnostics	Ping Panel and Network Status screen
6 Network Programming	From here menus can access Learn Network, Edit Network, Computer Accounts, Access Codes & Dialer
7 Panel Programming	Brings up a set of menus for programming the panel. These options are described in detail in Section 9.
8 System Information	Menus to view information about the panel such as model, ID, serial number, revision, send or receive application updates, Feature registration, and upgrade activation menu.
9 Upload/Download	Initiate communication from the panel site between the panel and a computer running the Software Suite2.

10.3.2 Using the Menus

To move through the menus:	Use ↓ and ↑ to move through the options in a menu. Use to move to a previous menu.
To select an option:	Enter the number of the option. –OR– Press ENTER (Enter key) if the option appears at the top of the menu (= symbol displays after the option number in this case).

10.4 Basic Operation

10.4.1 Setting Time and Date

1. From the Main Menu, select 4 for Set Date and Time.
2. Make changes in the fields on the screen. Use → (right arrow) to move through the fields. Use the ↓ and ↑ to select options in the fields.
3. When the date and time are correct, press ENTER.

10.4.2 Disable / Enable a Point

1. From the Main Menu, select 2 for Point Functions.
2. Select 1 for Disable/Enable Point.

10.4.2.1 Disable / Enable NACs by Template

1. From the Main Menu, select 2 for Point Functions.
2. Press 1 for Disable NACs by Template, press 2 to Enable NACs by Template.
3. Use ↓ and ↑ to move through the list of templates. Press ENTER to select the current template.

10.4.2.2 Disable / Enable NACs by Group

1. From the Main Menu, select 2 for Point Functions.
2. Press 3 to Disable NACs by Group, press 4 to Enable NACs by Group.

3. Use ↓ and ↑ to move through the list of groups. Press ENTER to select the group highlighted.

10.4.2.3 Disable / Enable Zone Points

1. From the Main Menu, select 2 for Point Functions.
2. Press 5 to Disable Zone Points, press 6 to Enable Zone Points.
3. Use ↓ and ↑ to move through the list of zones. Press ENTER to select the zone highlighted.

10.4.2.4 Disable / Enable Point

1. From the Main Menu, select 2 for Point Functions.
2. Press 7 to Disable /Enable Point.
3. Choose Module.

10.4.3 View Event History

Use the View Event History feature to display events on LCD. From the Main Menu, press 3 to select Event History. Events will begin displaying with most recent events first.

The panel can store up to 1000 events. When it reaches its 1000-event capacity, it will delete the oldest events to make room for the new events as they occur. In networked setups, each panel stores up to 1000 of its own events. Viewing event history shows the Event History from every panel in the site.

On multi-site displays, pressing ENTER or → brings you directly into View Event History and allows you to view the Event History from every panel in each of the sites the multi-site display is assigned to.

10.4.3.1 To clear the event history

From the Installer menu select 1 for System Tests. From the test menu select 6 Clear History Buffer. In network setups, this clears the History Buffer of all panels in the site.

10.4.4 Conduct a Fire Drill

1. From the Main Menu, press 1 for System Tests.
2. Press 1 for Fire Drill. You will be prompted to press ENTER.
3. The drill will begin immediately after you press ENTER.
4. Press any key to end the drill. (If you do not press any key to end the fire drill manually, it will time out automatically after ten minutes.)

If a fire drill switch has been installed, activating the switch will begin the drill; deactivating the switch will end the drill.

10.4.5 Conduct an Indicator Test

The indicator test checks the annunciator LEDs, PZT, and LCD display.

1. From the Main Menu, press 1 for System Tests.
2. Press 2 for Indicator Test. The system turns on each LED several times, beeping the PZT as it does so. At the same time it scrolls each available character across the LCD. A problem is indicated if any of the following occurs:

- An LED does not turn on.

- You do not hear a beep.
- All four lines of the LCD are not full.

This test takes approximately 15 seconds to complete. You can press any key to end manually while the test is still in progress. When the test ends, you will be returned to the <Test Menu>.

10.4.6 Conduct a Walk Test

1. From the Main Menu, press 1 for System Tests.

Important
If any alarm verification zones are being used, the user will be asked if they wish to disable alarm verification during walk test. This occurs for either walk test option.

2. Select 3 for Walk Test-No Rpt. The LCD will display “WALK TEST STOPPED” on Line 1 and “ENTER = start test” on Line 2. Enter the time period you wish the NAC circuit to be active for each alarm (06 to 180second), if you select this option, central station reporting will be disabled while the test is in progress.

   Or

   Select 4 for Walk Test-with Rpt. The LCD will display “WALK TEST STOPPED” on Line 1 and “ENTER = start test” on Line 2. Enter the time period you wish the NAC circuit to be active for each alarm (06 to 180 seconds) If you select this option, central station reporting will occur as normal during the walk test.

   The panel generates a TEST report to the central station when the walk test begins. During a walk test, the panel’s normal fire alarm function is completely disabled, placing the panel in a local trouble condition. All zones respond as 1-Count zones (respond when a single detector is in alarm) during a walk test. Each alarm initiated during the walk test will be reported and stored in the event history buffer.

3. Press 

to end the walk test. The system will reset. The panel will send a "TEST RESTORE" report to the central station.

If you do not end the walk test manually within four hours, it will end automatically.

If an alarm or pre-alarm condition is occurring in the system, you will not be able to enter the walk test.

Note: the panel does not do a full 30 second reset on resettable power outputs. As soon as the device is back to normal, the panel is ready to go to the next device.

10.4.7 Conduct a Dialer Test

1. From the Main Menu, press 1 for System Tests.
2. Select 5 for Dialer Test. The screen will display “Manual dialer test started”. When the test is completed, you will be returned to the <Test Menu>. A manual dialer test requires that at least one daily test be enabled in dialer programming in the network.

10.4.8 Silence Alarms or Troubles

Press SILENCE to turn off silenceable outputs and annunciator PZTs. If an external silence switch has been installed, activating the switch will silence alarms or troubles. If you are already using system menus when you press SILENCE, you will not need to enter your code or rotate the key.

Note: Alarm and trouble signals that have been silenced but the detector remains un-restored will un-silence every 24 hours until it is restored.

Note: Multi-Site displays do not allow for silencing multiple sites. Pressing SILENCE *will only locally silence the PZT built into the annunciator. To silence a site, enter a multi-site access password, select a site, and then press* SILENCE.

10.4.9 Reset Alarms

Press RESET to perform a control panel reset. If an external reset switch has been installed, activating the switch will reset alarms.

Note: Multi-Site displays do not allow for resetting multiple sites. To reset a site, enter a multi-site access password, select a site, and then press RESET.

10.4.10 Check Detector Sensitivity Through Point Status

The control panel constantly monitors smoke detectors to ensure that sensitivity levels are in compliance with NFPA 72. Detectors are sampled every three hours.

If sensitivity for a detector is not in compliance, the panel goes into trouble, generating a CAL TRBLE condition. A detector enters a CAL MAINT state to indicate that it is approaching an out of compliance condition (but is currently still in compliance).

When a CAL TRBLE condition occurs, the central station receives a detector trouble report (“373” + Zone # for Contact ID format; “FT” + Zone # in SIA format).

To check sensitivity for an individual detector, follow the steps below.

1. From the Main Menu, press 2 for Point Functions.

2. Press 2 for Point Status.
3. Select the module where the point you want to check is located.
4. Enter the number of the point you want to check and press ENTER.
5. A screen similar to those shown in Figure 10-3 will display.

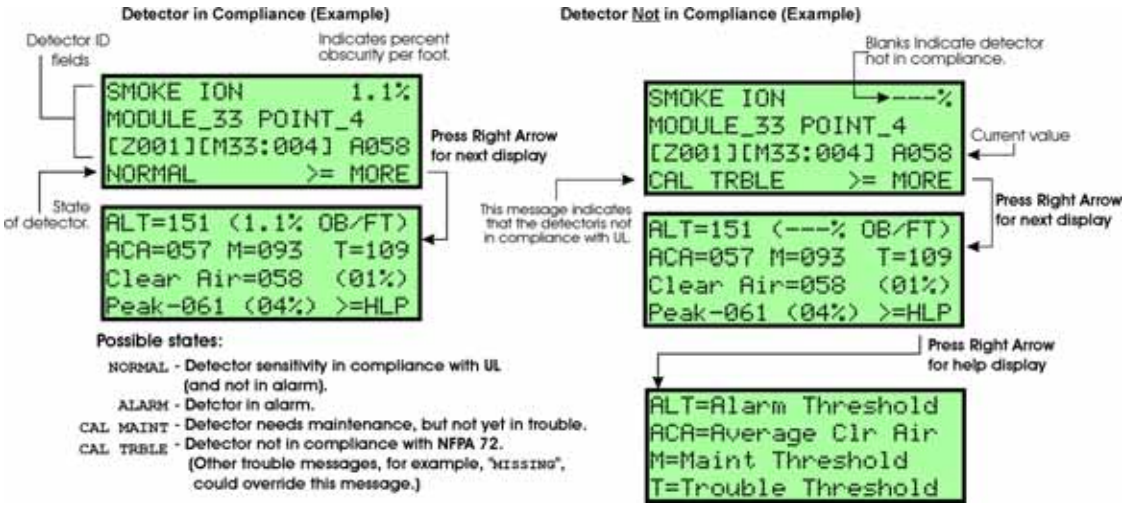


Figure 10-3 Checking Detector Sensitivity Compliance

You can print detector status by uploading the detector status to and printing from SCSS-700PK.

10.4.11 View Status of a Point

1. From the Main Menu, select 2 for Point Status.
2. From the list that displays, press ENTER to select the module where this point is located. The screen that displays will show you if the point has a trouble and will provide sensitivity compliance information. (See Section 10.4.10 for complete information about detector sensitivity compliance.)

10.4.12 View Alarms or Troubles

When the system is in alarm or trouble, you can press ↓ to view the location of an alarm or trouble.

10.4.13 System Information

Press 8 from the Main Menu to access the System Information menu.

About Panel

Press 1 to access About Panel to view the panel model, serial number and system version number and date.

Send/Receive Update

The SCSS-700/SCSS-700ND has the ability to be updated in the field. The latest SCSS-700 Firmware Update Utility can be downloaded from the Web Site. Once a panel has been updated with using the Firmware Update Utility, you can use Send/Receive Update to propagate the firmware to the other panels in the network.

1. Press 1 for Send Update or 2 for Receive Update from the System Information Menu. Available panels are listed in the menu. Note: the feature requires multi-site installer access.

2. Use ↑ and ↓ to select a panel to send/receive an update to/from. Press ENTER to start the update process.

Feature Activation

This menu is used to activate/register additional features.

1. Press 4 from the System Information Menu. This will bring up the Feature Activation Menu.

2. Press 1 to enter a six digit activation code or press 2 to review features already activated in this panel.

10.4.14 Communicating with a Remote Computer

An installer at the panel site can initiate communications between the panel and a computer running the SCSS-700PK. You can use this feature to upload a panel configuration. For example, if you have made programming changes to an installation on site using an annunciator, you can send your changes to the computer, so that the central station will have the latest data about the installation. See the software manual for more information.

To initiate communication:

1. From the Main Menu, select 9 for Up/Download.
2. From the next screen that displays, select the communication device. Options are:

1 = Internal Modem	If you select this option, you will use the panel's built-in modem to call the panel.
2 = USB connection	If you select this option, the panel and a computer are both on-site connected via a USB cable.

3. If you are using the panel's internal modem to communicate, you will be prompted to enter a phone number. If you are communicating via the USB connection, a phone number is not needed and this step will be skipped.

If the phone number you will be calling is already displayed, press ENTER. Continue with Step four.

If the phone number you will be calling is not already displayed, enter the number and press ENTER.

A phone number can be up to 40 digits long and can contain the following special characters.

#	Pound (or number) key on the telephone
*	Star key on the telephone
,	Comma (character for 2-second pause)

Use the number buttons on the annunciator or the up- and down-arrow keys to select special characters. Characters begin displaying after "9".

4. You will be prompted to enter an account number. If the account number you want to use is already displayed, just press ENTER to begin communication.

   If the account number displayed is not the correct one, enter the account number and press ENTER to begin communication.
5. The panel will attempt to communicate with the computer. If communication was established, the upload task you created will be placed in the SCSS-700PK job queue, awaiting

processing. When processing is completed, an “Unsolicited Upload” task will appear in the queue.

10.5 Operation Mode Behavior

The control panel can be in one or more of seven conditions at any given moment: Normal, Alarm, Prealarm, Supervisory, Trouble, Silenced, and Reset. Table 10-1 describes the behavior of the panel in each of these modes.

Table 10-1: Operation Mode Behavior

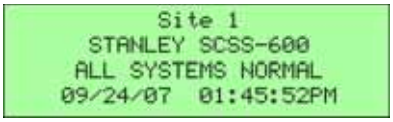
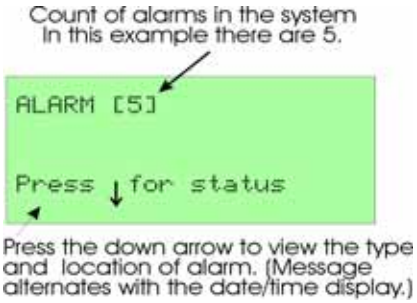
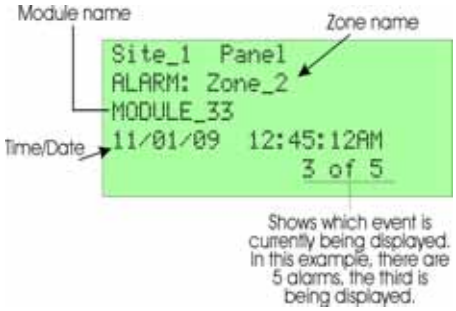
Operation Mode	Occurs When	System Behavior	In This Mode You Can
Normal	No alarm or trouble condition exists and menus are not in use.	SYSTEM POWER LED is on. The All Systems Normal display indicates that the system is in normal mode.  The current date and time display on the last line of the LCD.	Enter the appropriate code to activate the User or Installer Menu.
Alarm	A smoke detector goes into alarm or a pull station is activated.	The dialer seizes control of the phone line and calls the central station. The on-board annunciator sounds a loud, steady beep (any notification devices attached to the system will also sound). GENERAL ALARM LED is on. The LCD displays a screen similar to this one. 	Press the down arrow to view the alarm. A screen similar to this one displays.  Press SILENCE to silence the annunciator (and any notification devices attached to the system). When the alarm condition clears, press RESET to restore the panel to normal.

Table 10-1: Operation Mode Behavior

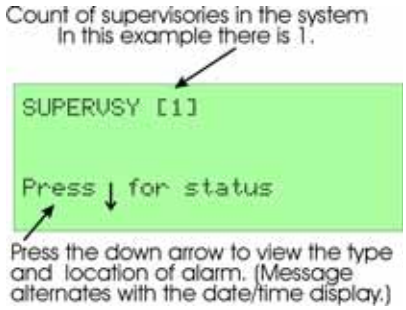
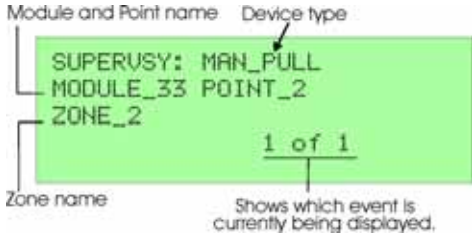
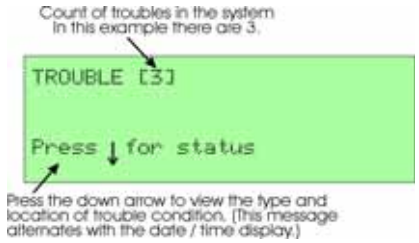
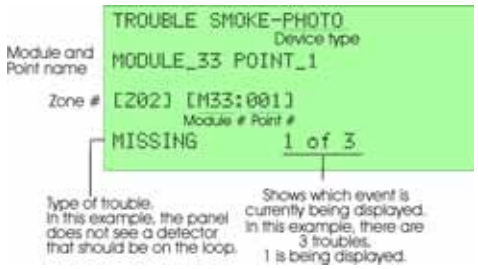
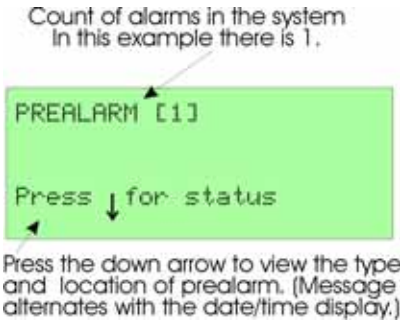
Operation Mode	Occurs When	System Behavior	In This Mode You Can
Supervisory	The system detects a supervisory condition.	The dialer seizes control of the phone line and calls the central station. The on-board annunciator sounds a loud, pulsing beep in the sequence one second on, one second off. SUPERVISORY LED is on. The LCD displays a screen similar to this one. 	Press ↓ (down arrow) to view the supervisory condition. A screen similar to this one displays.  Press SILENCE to silence the annunciator. Once the supervisory condition has been corrected, the system will restore itself automatically.
Trouble	A system trouble condition occurs.	The dialer seizes control of the phone line and calls the central station. The on-board annunciator sounds a loud, pulsing beep in the sequence one second on, nine seconds off. SYSTEM TROUBLE LED is on. The LCD displays a screen similar to this one. 	Press ↓ (down arrow) to view the trouble. A screen similar to this one displays.  Press SILENCE to silence the annunciator. Once the trouble condition has been fixed, the system will restore itself automatically.

Table 10-1: Operation Mode Behavior

Operation Mode	Occurs When	System Behavior	In This Mode You Can
Prealarm	A single detector trips in a 2-Count zone. (2-Count means two detectors must trip before an alarm is reported.)	Touchpad PZT beeps. The LCD displays a screen similar to this one. 	Press ↓ (down arrow) to view the prealarm. A screen similar to this one displays.  All system operations are available in this mode.
Reset	The RESET button is pressed followed by a valid code or rotation of the key.	All LEDs are on briefly then the LCD displays "ALARM RESET IN PROGRESS". If the reset process completes normally, the date and time normal mode screen displays.	Menus are not available during the reset process.
Silenced	An alarm or trouble condition has been silenced but still exists. To silence alarms and troubles, press SILENCE followed by the Installer or User Code or rotate the key.	SYSTEM SILENCE LED is on. SYSTEM TROUBLE, SUPERVISORY or GENERAL ALARM LED (depending on condition) is on. The annunciator (and any notification devices attached to the system) will be silenced.	Press ↓ (down arrow) to view the location of the alarm or trouble. When the condition no longer exists, the SYSTEM SILENCED and SYSTEM TROUBLE LED, SUPERVISORY or GENERAL ALARM LEDs turn off.

10.6 Multi-Site Annunciator and Multi-Site user Access

Multi-site displays are unique as they can display the status and event history of all sites they are assigned to. These displays can be especially useful in guard shacks or security centers. A multi-site display is indicated by the words “Multi-Site Display” at the top of the idle screen.

1. The ACK, DRILL, RESET and F-Macro keys are disabled until a multi-site user password has been entered and a specific site has been selected
2. Multi-site silencing rules:
   - If any of the assigned sites are silenced, the Silenced LED will be lit.
   - Silence key will only silence the sound from the multi-site annunciator on which the silence key was pressed. This is called being Locally Silenced. If Locally Silenced is enabled on a multi-site annunciator, it will be indicated by a blinking Silenced LED.
   - If any new troubles, supervisory, pre-alarms, or alarms are triggered in any assigned sites, Locally Silenced will become disabled.
   - If a multi-site annunciator is locally silenced for 24 hours, the locally silenced feature will be disabled.
3. The SCSS-700 menu system is disabled on a multi-site annunciator. Pressing the Right or Enter keys will bring you straight into event history for assigned sites. To get into the menu system, a multi-site user password must be entered and then a site selected from the site selection menu. Once this is done you will have access to the idle screen of that site and the annunciator will temporarily act like a single site annunciator.
4. A multi-site annunciator will sound the highest priority tone from the sites it is assigned to.

Note: A multi-site display is created in Module programming in the edit properties menu for an SCSS-700ANN. See section 9.2.1.

10.7 Releasing Operations

This control panel supports two types of releasing, Double Interlock Zone, and Single Interlock Zone. The Double Interlock Zone operation requires an interlock switch input in the system, and the Single Interlock does not. An interlock switch is typically a dry-contact pressure switch.

When a Single or Double Interlock Zone releasing is selected the system is will automatically default the following system parameters:

Note: The defaults created can be modified through programming if desired.

- Output Group 2 is created. Output Group 2 will be defaulted as an “Alarm” output group for all releasing zones. NAC [98:001] is assigned to Output Group 2.
- Output Group 3 is created. Output Group 3 will be defaulted as an “Pre-Alert” output group for all releasing zones. NAC [98:002] is assigned to Output Group 3.
- Output Group 4 is created. Output Group 4 will be defaulted as a “Release” output group for all releasing zones. NAC circuit [98:003] is assigned to Output Group 4.

Note: The installer must define which input points will be used for detectors, manual release switches, or interlock/pressure switches.

Note: For manual release operation, Installer must use an FM approved/ UL listed releasing manual station.

Table 10-2: Approved Releasing Solenoids

Manufacturer	Part Number	Rating	Current	Freq
Asco	T8210A107	24 VDC	3A max	0 Hz
	8210G207	24 VDC	3A max	0 Hz

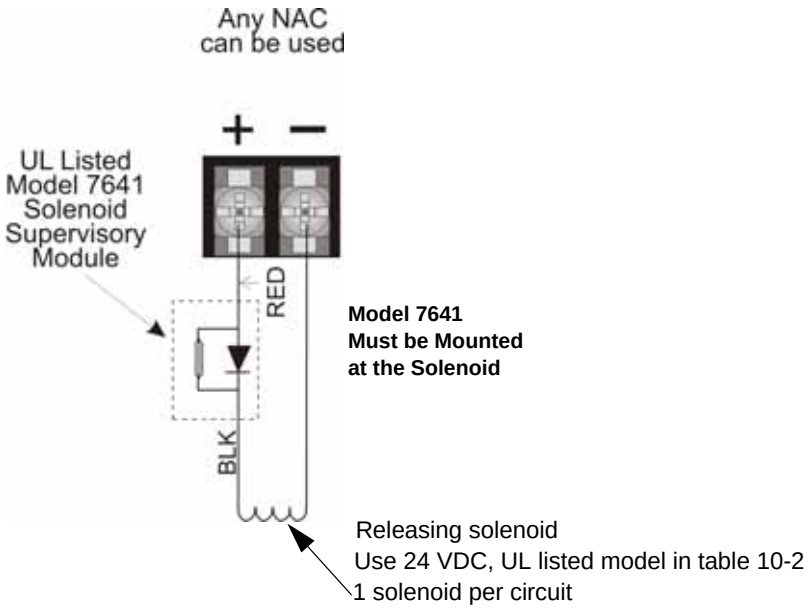


Figure 10-4 Wiring Configuration for Solenoid

10.7.1 Single Interlock Zone Releasing

A single interlock zone utilizes a minimum of two addressable detectors and a designated manual release switch.

Important!
Only addressable detectors can be used. No conventional detectors can be used.
Each Single Interlock Zone input requires at least one manual release switch.

Conditions Required for an Pre-Alert Output Activation

If any single addressable detector is activated, the “Pre-Alert” output will activate. This alerts the user that the initial stages required for a release condition are present. (Also refer to Table 10-3.)

Conditions required for an General Alarm and Release Output Activation

If two or more addressable detectors, or a manual release switch activate, the “Alarm” and the “Release” outputs will activate. (Also refer to Table 10-3)

Table 10-3: Single Interlock Zone Operation

Inputs	Output Results							
1st Addressable Detector		✔		✔		✔		✔
2nd Addressable Detector			✔	✔			✔	✔
Manual Release Station					✔	✔	✔	✔
	Normal	**Pre-Alert**	**Pre-Alert**	Release and General Alarm	Release and General Alarm	Release and General Alarm	Release and General Alarm	Release and General Alarm

10.7.2 Double Interlock Zone Releasing

A Double Interlock Zone uses a minimum of two Addressable detectors, a designated manual release switch, and an interlock switch input. An interlock switch is typically a dry-contact pressure switch and will be referred to as an interlock/pressure switch in this document.

Important!
Only addressable detectors can be used. No conventional detectors can be used.
Each Single Interlock Zone input requires at least one manual release switch.
Each Double Interlock Zone input requires at least one Interlock/pressure switch

Conditions Required for a Pre-Alert Output Activation

If any single addressable detector is activated, the “Pre-Alert” output will activate. This alerts the user that the initial stages required for a release condition are present. (Also refer to Table 10-3.)

Conditions Required for a General Alarm Output Activation

If two addressable detectors, a manual release switch is activated, or an interlock switch is active, the "Pre-Alert", and "General Alarm" outputs will activate.

Conditions Required for a Release Output Activation

Any release requires the activation of an interlock switch, and either a manual release switch or 2 activated addressable detectors. When these conditions are met, the “Release” and “General Alarm” outputs will activate, and the “Alert” outputs will deactivate.

Table 10-4: Double Interlock Zone Operation

Inputs	Output Results															
1st Addressable Detector		✔		✔		✔		✔		✔		4		4		4
2nd Addressable Detector			✔	✔			✔	✔			✔	4			4	4
Manual Release Station					✔	✔	✔	✔					4	4	4	4
Interlock/Pressure Switch									✔	✔	✔	4	4	4	4	4
	Normal	Pre-Alert	Pre-Alert	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Pre-Alert and General Alarm	Release and General Alarm	Release and General Alarm	Release and General Alarm	Release and General Alarm	Release and General Alarm

10.8 Smoke Alarm Verification

Figure 10-5 illustrates how the Smoke Alarm Verification cycle operates.

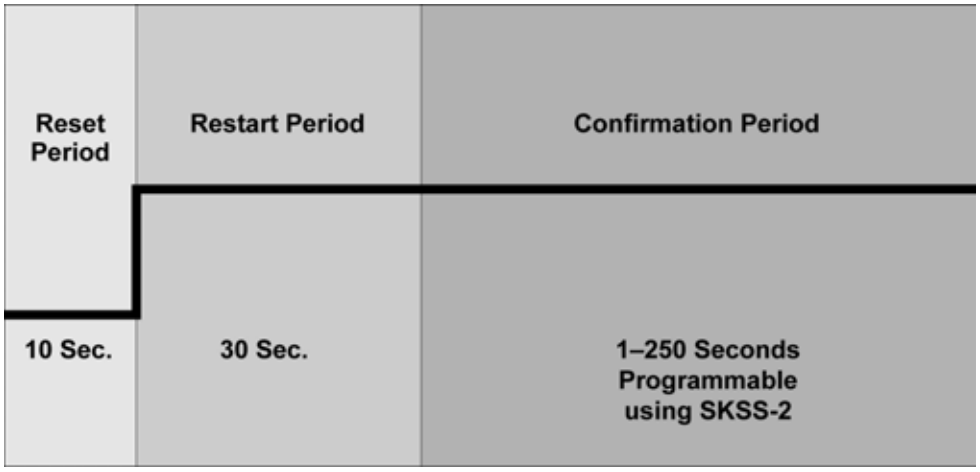


Figure 10-5 Smoke Verification Cycle

During the Confirmation Period if there is no alarm indication then the system will return to normal operation.

10.9 Function Keys

The function keys on the SCSS-700 are macro keys that can simplify and make easy access of disabling/activating up to 50 output groups or individual points.

To access the F-Key Recording Menu:

1. From the idle screen, Press and hold the F-Key that you would like to utilize.
2. Enter a PIN with F-Key macro recording privileges.

10.9.1 Recording an F-Key macro:

1. Access the F-Key Recording Menu and select the ‘Start FKEY Recording’ option.
2. This will exit you from the menu.
3. Any Disabling or Activating of points, output groups, or templates from the site at this point will be programmed into the macro. Do this by going to any annunciator within the site and entering Main Menu -> Point Functions and use Disable/Enable Pt Template or use I/O Point Control to: disable output groups or individual points, or activate individual points.
4. Once you are done with disabling or activating all the points/output groups you want. Access the F-Key Recording Menu again and select the ‘End FKEY Recording’ Option.

5. This will exit you from the menu.

10.9.2 Aborting an F-Key macro recording session:

1. After an F-Key macro recording session has been started you can cancel the session at any time by accessing the F-Key Recording Menu and selecting ‘Abort FKEY Recording’ option.
2. This will exit you from the menu.

10.9.3 Erasing an F-Key macro:

1. If an F-Key macro has already been recorded, you can erase it by accessing the F-Key Recording Menu and selecting the ‘Erase FKEY Macro’ option.
2. This will exit you from the menu.

10.9.4 Using a recorded F-Key macro:

1. From the idle screen or any annunciator in the site, press the F-Key you want to activate.
2. When you are finished, to de-activate the macro press the F-Key again.

Section 11
Reporting

This section lists receivers that are compatible with this control panel, and the reporting codes sent by the control panel for SIA and Contact ID formats.

11.1 Receivers Compatible with the Control Panel

Table 11-1 shows receivers compatible with the control panel.

Table 11-1: Receivers Compatible with the Control Panel

Manufacturer	Model	Format
Silent Knight	Model 9800	SIA and Contact ID
	Model 9000 (SIA formats)	SIA
Ademco	Model 685 (Contact ID)	Contact ID
Sur-Gard	SG-MLR2-DG (V. 1.64 or higher)	SIA and Contact ID
Osborne Hoffman	Quickalert	SIA and Contact ID

11.2 Reporting Formats Table

	SIA Reporting Format				Contact ID Reporting Format			
	SIA pi Modifier			SIA SCSS-700				
Event Description	**Module ID # (If Any)**	**SIA Event Codes**	**Parameter**	**Fixed Length Format NN - panel ID XX - SBUS ID ZZZ - zone # PPPP - Point # AAAAAA-account #**	**Qualifier**	**Event Code**	**Group #**	**Contact #**
System Events	***Note:*** System Events are reported when either "Report by Point" or Report by Zone is selected							
AC power low trouble		AT	0	ATNN000000	1	301	00	000
AC power low trouble restore		AR	0	ARNN000000	3	301	00	000
Auto dialer test communications trouble line 1		YC	1	YCNN000001	1	350	00	001
Auto dialer test communications trouble line 1 restore		YK	2	YKNN000001	3	350	00	002
Auto dialer test communications trouble line 2		YC	1	YCNN000002	1	350	00	001
Auto dialer test communications trouble line 2 restore		YK	2	YKNN000002	3	350	00	002
Automatic test normal		RP	0	RPNN000000	1	602	00	000
Automatic test off normal		RY	0	RYNN000000	1	608	00	000
Battery voltage trouble		YT	Exp. ID	YTNNXX0000	1	302	Exp. ID	000
Battery voltage trouble restore		YR	Exp. ID	YRNNXX0000	3	302	Exp. ID	000
Date changed event		JD	0	JDNN000000	1	625	00	000
Fire drill has begun		FI	0	FINN000000	1	604	00	000
Fire drill has ended		FK	0	FKNN000000	3	604	00	000
Ground fault condition trouble		YP	Exp. ID	YPNNXX0000	1	310	Exp. ID	000
Ground fault condition trouble restore		YQ	Exp. ID	YQNNXX0000	3	310	Exp. ID	000
Initial power up		RR	0	RRNN000000	1	305	00	000
Local programming aborted or ended with errors		LU	0	LUNN000000	1	628	00	000

	SIA Reporting Format				Contact ID Reporting Format			
	SIA pi Modifier			SIA SCSS-700				
Event Description	**Module ID # (If Any)**	**SIA Event Codes**	**Parameter**	**Fixed Length Format NN - panel ID XX - SBUS ID ZZZ - zone # PPPP - Point # AAAAAA-account #**	**Qualifier**	**Event Code**	**Group #**	**Contact #**
Local programming begin		LB	0	LBNN000000	1	627	00	000
Local programming ended normally		LS	0	LSNN000000	1	628	00	000
Network node trouble (panel missing)		EM	Panel ID	EMNN000000	1	334	00	000
Network node trouble restore (panel no longer missing)		EN	Panel ID	ENNN000000	3	334	00	000
Phone line 1 trouble detected		LT	1	LTNN000001	1	351	00	001
Phone line 1 trouble restore		LR	1	LRNN000001	3	351	00	001
Phone line 2 trouble detected		LT	2	LTNN000002	1	352	00	002
Phone line 2 trouble restore		LR	2	LRNN000002	3	352	00	002
Printer is offline trouble		VZ	Exp ID	VZNNXX0000	1	336	Exp. ID	000
Printer is offline trouble restore		VY	Exp ID	VYNNXX0000	3	336	Exp. ID	000
Printer is out of paper trouble		VO	Exp ID	VONNXX0000	1	335	Exp. ID	000
Printer is out of paper trouble restore		VI	Exp ID	VINNXX0000	3	335	Exp. ID	000
Remote programming aborted or ended with errors		RU	0	RUNN000000	1	413	00	000
Remote programming ended normally		RS	0	RSNN000000	1	412	00	000
Repeater ground fault trouble		EM	0103	EMNN000103	1	334	NN	103
Repeater ground fault trouble restore		EN	0103	ENNN000103	3	334	NN	103
Repeater missing trouble		EM	0100	EMNN000100	1	334	NN	100
Repeater missing trouble restore		EN	0100	ENNN000100	3	334	NN	100
Repeater Rx1 communication trouble		EM	0101	EMNN000101	1	334	NN	101
Repeater Rx1 communication trouble restore		EN	0101	ENNN000101	3	334	NN	101
Repeater Rx2 communication trouble		EM	0102	EMNN000102	1	334	NN	102
Repeater Rx2 communication trouble restore		EN	0102	ENNN000102	3	334	NN	102
SBUS Class A supervision lost		ET	Exp. ID	ETNNXX0000	1	333	Exp. ID	000
SBUS Class A supervision restore		ER	Exp. ID	ERNNXX0000	3	333	Exp. ID	000
SBUS expander trouble		ET	Exp. ID	ETNNXX0000	1	333	Exp. ID	000
SBUS expander trouble restore		ER	Exp. ID	ERNNXX0000	3	333	Exp. ID	000
SLC class A supervision trouble		ET	Exp. ID	ETNNXX0000	1	331	Exp. ID	000
SLC class A supervision trouble restore		ER	Exp. ID	ERNNXX0000	3	331	Exp. ID	000
SLC programming ended, system active		TE	0	TENN000000	3	607	00	000
SLC programming started, system shut down		TS	0	TSNN000000	1	607	00	000
SLC short circuit trouble		ET	Exp. ID	ETNNXX0000	1	332	Exp. ID	000
SLC short circuit trouble restore		ER	Exp. ID	ERNNXX0000	3	332	Exp. ID	000
Time changed event		JT	0	JTNN000000	1	625	00	000
Unable to report to account trouble		RT	Acct #	RTNNAAAAAA	1	354	Acct #	Acct #
Unable to report to account trouble restore		YK	Acct #	YKNNAAAAAA	3	354	Acct #	Acct #
User access code changed		JV	0	JVNN000000	1	602	00	000
User initiated manual dialer test		RX	0	RXNN000000	1	601	00	000
VIP VCM trouble events		ET	Exp. ID	ETNNXX0000	3	332	Exp. ID	000
VIP VCM trouble restore events		ER	Exp. ID	ERNNXX0000	1	332	Exp. ID	000
Walk test begin		TS	0	TSNN000000	1	607	00	000
Walk test end		TE	0	TENN000000	3	607	00	000
Zone Events								
Auxiliary power trouble		FT	Zone #	FTNN000ZZZ	1	320	00	000
Auxiliary power trouble restore		FJ	Zone #	FJNN000ZZZ	3	320	00	000
Detector alarm		FA	Zone #	FANN000ZZZ	1	110	00	Zone #
Detector alarm restore		FH	Zone #	FHNN000ZZZ	3	110	00	Zone #
Detector trouble		FT	Zone #	FTNN000ZZZ	1	373	00	Zone #
Detector trouble restore		FJ	Zone #	FJNN000ZZZ	3	373	00	Zone #
External Reset/Silence/Fire Drill switch trouble		UT	Zone #	UTNN000ZZZ	1	373	00	000
External Reset/Silence/Fire Drill switch trouble restore		UJ	Zone #	UJNN000ZZZ	3	373	00	000

	SIA Reporting Format				Contact ID Reporting Format			
	SIA pi Modifier			SIA SCSS-700				
Event Description	**Module ID # (If Any)**	**SIA Event Codes**	**Parameter**	**Fixed Length Format NN - panel ID XX - SBUS ID ZZZ - zone # PPPP - Point # AAAAAA-account #**	**Qualifier**	**Event Code**	**Group #**	**Contact #**
Manual pull switch alarm		FA	Zone #	FANN000ZZZ	1	115	00	Zone #
Manual pull switch alarm restore		FH	Zone #	FHNN000ZZZ	3	115	00	Zone #
Manual pull switch trouble		FT	Zone #	FTNN000ZZZ	1	373	00	Zone #
Manual pull switch trouble restore		FJ	Zone #	FJNN000ZZZ	3	373	00	Zone #
Notification output trouble		FT	Zone #	FTNN000ZZZ	1	320	00	Group #
Notification output trouble restore		FJ	Zone #	FJNN000ZZZ	3	320	00	Group #
Positive Alarm Sequence acknowledge switch trouble		FT	Zone #	FTNN000ZZZ	1	373	00	Zone #
Positive Alarm Sequence acknowledge switch trouble restore		FJ	Zone #	FJNN000ZZZ	3	373	00	Zone #
SLC LED Module trouble		ET	Zone #	ETNN000ZZZ	1	333	00	000
SLC LED Module trouble restore		ER	Zone #	ERNN000ZZZ	3	333	00	000
Supervisory/Tamper alarm condition		SS	Zone #	SSNN000ZZZ	1	203	00	Zone #
Supervisory/Tamper alarm condition restore		SR	Zone #	SRNN000ZZZ	3	203	00	Zone #
Supervisory/Tamper switch trouble		ST	Zone #	STNN000ZZZ	1	373	00	Zone #
Supervisory/Tamper switch trouble restore		SJ	Zone #	SJNN000ZZZ	3	373	00	Zone #
System-based AUX1 switch alarm		UA	Zone #	UANN000ZZZ	1	140	01	000
System-based AUX1 switch alarm restore		UH	Zone #	UHNN000ZZZ	3	140	01	000
System-based AUX1 switch trouble		UT	Zone #	UTNN000ZZZ	1	373	01	000
System-based AUX1 switch trouble restore		UJ	Zone #	UJNN000ZZZ	3	373	01	000
System-based AUX2 switch alarm		UA	Zone #	UANN000ZZZ	1	140	02	000
System-based AUX2 switch alarm restore		UH	Zone #	UHNN000ZZZ	3	140	02	000
System-based AUX2 switch trouble		UT	Zone #	UTNN000ZZZ	1	373	02	000
System-based AUX2 switch trouble restore		UJ	Zone #	UJNN000ZZZ	3	373	02	000
Water flow switch alarm		SA	Zone #	SANN000ZZZ	1	113	00	Zone #
Water flow switch alarm restore		SH	Zone #	SHNN000ZZZ	3	113	00	Zone #
Water flow switch trouble		ST	Zone #	STNN000ZZZ	1	373	00	Zone #
Water flow switch trouble restore		SJ	Zone #	SJNN000ZZZ	3	373	00	Zone #
Zone-based acknowledge switch trouble		FT	Zone #	FTNN000ZZZ	1	373	02	Zone #
Zone-based acknowledge switch trouble restore		FJ	Zone #	FJNN000ZZZ	3	373	02	Zone #
Zone-based AUX1 switch alarm		UA	Zone #	UANN000ZZZ	1	140	01	Zone #
Zone-based AUX1 switch alarm restore		UH	Zone #	UHNN000ZZZ	3	140	01	Zone #
Zone-based AUX1 switch trouble		UT	Zone #	UTNN000ZZZ	1	373	01	Zone #
Zone-based AUX1 switch trouble restore		UJ	Zone #	UJNN000ZZZ	3	373	01	Zone #
Zone-based AUX2 switch alarm		UA	Zone #	UANN000ZZZ	1	140	02	Zone #
Zone-based AUX2 switch alarm restore		UH	Zone #	UHNN000ZZZ	3	140	02	Zone #
Zone-based AUX2 switch trouble		UT	Zone #	UTNN000ZZZ	1	373	02	Zone #
Zone-based AUX2 switch trouble restore		UJ	Zone #	UJNN000ZZZ	3	373	02	Zone #
Point Events	**Note:** For LiteSpeed devices, sensors 1–159 are reported as Points 1–159, modules 1–159 are reported as Points 201–359.							
An unexpected SLC device has been detected	pi Exp. ID	XE	Point #	XENNXXPPPP	1	380	Exp. ID	Point #
An unexpected SLC device has been removed	pi Exp. ID	XI	Point #	XINNXXPPPP	3	380	Exp. ID	Point #
Auxiliary power disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Auxiliary power enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Auxiliary power Trouble	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	320	Exp. ID	Point #
Auxiliary power trouble restore	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	320	Exp. ID	Point #
Detector alarm	pi Exp. ID	FA	Point #	FANNXXPPPP	1	110	Exp. ID	Point #
Detector alarm restore	pi Exp. ID	FH	Point #	FHNNXXPPPP	3	110	Exp. ID	Point #
Detector disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Detector enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Detector trouble	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	373	Exp. ID	Point #
Detector trouble restore	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	373	Exp. ID	Point #
External Reset/Silence/Fire Drill switch disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #

	SIA Reporting Format				Contact ID Reporting Format			
	SIA pi Modifier			SIA SCSS-700				
Event Description	**Module ID # (If Any)**	**SIA Event Codes**	**Parameter**	**Fixed Length Format NN - panel ID XX - SBUS ID ZZZ - zone # PPPP - Point # AAAAAA-account #**	**Qualifier**	**Event Code**	**Group #**	**Contact #**
External Reset/Silence/Fire Drill switch enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
External Reset/Silence/Fire Drill switch trouble	pi Exp. ID	UT	Point #	UTNNXXPPPP	1	373	Exp. ID	Point #
External Reset/Silence/Fire Drill switch trouble restore	pi Exp. ID	UJ	Point #	UJNNXXPPPP	3	373	Exp. ID	Point #
Interlock switch alarm (Water Release Zone)	pi Exp. ID	FA	Point #	FANNXXPPPP	1	110	Exp. ID	Point #
Interlock switch alarm restore (Water Release Zone)	pi Exp. ID	FH	Point #	FHNNXXPPPP	3	110	Exp. ID	Point #
Interlock switch disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Interlock switch enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Interlock switch trouble (Water Release Zone)	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	373	Exp. ID	Point #
Interlock switch trouble restore (Water Release Zone)	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	373	Exp. ID	Point #
Manual pull switch alarm	pi Exp. ID	FA	Point #	FANNXXPPPP	1	115	Exp. ID	Point #
Manual pull switch alarm restore	pi Exp. ID	FH	Point #	FHNNXXPPPP	3	115	Exp. ID	Point #
Manual pull switch disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Manual pull switch enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Manual pull switch trouble	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	373	Exp. ID	Point #
Manual pull switch trouble restore	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	373	Exp. ID	Point #
Manual release switch alarm (Water Release Zone)	pi Exp. ID	FA	Point #	FANNXXPPPP	1	110	Exp. ID	Point #
Manual release switch alarm restore (Water Release Zone)	pi Exp. ID	FH	Point #	FHNNXXPPPP	3	110	Exp. ID	Point #
Manual release switch disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Manual release switch enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Manual release switch trouble (Water Release Zone)	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	373	Exp. ID	Point #
Manual release switch trouble restore (Water Release Zone)	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	373	Exp. ID	Point #
Notification output point disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Notification output point enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Notification output point trouble	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	320	Exp. ID	Point #
Notification output point trouble restore	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	320	Exp. ID	Point #
Positive Alarm Sequence acknowledge switch disabled	pi Exp. ID	FB	Point #	FBNNXXPPPP	1	571	Exp. ID	Point #
Positive Alarm Sequence acknowledge switch enabled	pi Exp. ID	FU	Point #	FUNNXXPPPP	3	571	Exp. ID	Point #
Positive Alarm Sequence acknowledge switch trouble	pi Exp. ID	FT	Point #	FTNNXXPPPP	1	373	Exp. ID	Point #
Positive Alarm Sequence acknowledge switch trouble restore	pi Exp. ID	FJ	Point #	FJNNXXPPPP	3	373	Exp. ID	Point #
Supervisory/Tamper alarm condition	pi Exp. ID	SS	Point #	SSNNXXPPPP	1	203	Exp. ID	Point #
Supervisory/Tamper alarm condition restore	pi Exp. ID	SR	Point #	SRNNXXPPPP	3	203	Exp. ID	Point #
Supervisory/Tamper point disabled	pi Exp. ID	SB	Point #	SBNNXXPPPP	1	571	Exp. ID	Point #
Supervisory/Tamper point enabled	pi Exp. ID	SU	Point #	SUNNXXPPPP	3	571	Exp. ID	Point #
Supervisory/Tamper point trouble	pi Exp. ID	ST	Point #	STNNXXPPPP	1	373	Exp. ID	Point #
Supervisory/Tamper point trouble restore	pi Exp. ID	SJ	Point #	SJNNXXPPPP	3	373	Exp. ID	Point #
System-based AUX1 switch alarm	pi Exp. ID	UA	Point #	UANNXXPPPP	1	140	Exp. ID	Point #
System-based AUX1 switch alarm restore	pi Exp. ID	UH	Point #	UHNNXXPPPP	3	140	Exp. ID	Point #
System-based AUX1 switch disabled	pi Exp. ID	UB	Point #	UBNNXXPPPP	1	571	Exp. ID	Point #
System-based AUX1 switch enabled	pi Exp. ID	UU	Point #	UUNNXXPPPP	3	571	Exp. ID	Point #
System-based AUX1 switch trouble	pi Exp. ID	UT	Point #	UTNNXXPPPP	1	373	Exp. ID	Point #
System-based AUX1 switch trouble restore	pi Exp. ID	UJ	Point #	UJNNXXPPPP	3	373	Exp. ID	Point #
System-based AUX2 switch alarm	pi Exp. ID	UA	Point #	UANNXXPPPP	1	140	Exp. ID	Point #
System-based AUX2 switch alarm restore	pi Exp. ID	UH	Point #	UHNNXXPPPP	3	140	Exp. ID	Point #
System-based AUX2 switch disabled	pi Exp. ID	UB	Point #	UBNNXXPPPP	1	571	Exp. ID	Point #
System-based AUX2 switch enabled	pi Exp. ID	UU	Point #	UUNNXXPPPP	3	571	Exp. ID	Point #
System-based AUX2 switch trouble	pi Exp. ID	UT	Point #	UTNNXXPPPP	1	373	Exp. ID	Point #
System-based AUX2 switch trouble restore	pi Exp. ID	UJ	Point #	UJNNXXPPPP	3	373	Exp. ID	Point #
Water flow switch alarm	pi Exp. ID	SA	Point #	SANNXXPPPP	1	113	Exp. ID	Point #
Water flow switch alarm restore	pi Exp. ID	SH	Point #	SHNNXXPPPP	3	113	Exp. ID	Point #
Water flow switch disabled	pi Exp. ID	SB	Point #	SBNNXXPPPP	1	571	Exp. ID	Point #

	SIA Reporting Format				Contact ID Reporting Format			
	SIA pi Modifier			SIA SCSS-700				
Event Description	**Module ID # (If Any)**	**SIA Event Codes**	**Parameter**	**Fixed Length Format NN - panel ID XX - SBUS ID ZZZ - zone # PPPP - Point # AAAAAA-account #**	**Qualifier**	**Event Code**	**Group #**	**Contact #**
Water flow switch enabled	pi Exp. ID	SU	Point #	SUNNXXPPPP	3	571	Exp. ID	Point #
Water flow switch trouble	pi Exp. ID	ST	Point #	STNNXXPPPP	1	373	Exp. ID	Point #
Water flow switch trouble restore	pi Exp. ID	SJ	Point #	SJNNXXPPPP	3	373	Exp. ID	Point #
Zone-based AUX1 switch alarm	pi Exp. ID	UA	Point #	UANNXXPPPP	1	140	Exp. ID	Point #
Zone-based AUX1 switch alarm restore	pi Exp. ID	UH	Point #	UHNNXXPPPP	3	140	Exp. ID	Point #
Zone-based AUX1 switch disabled	pi Exp. ID	UB	Point #	UBNNXXPPPP	1	571	Exp. ID	Point #
Zone-based AUX1 switch enabled	pi Exp. ID	UU	Point #	UUNNXXPPPP	3	571	Exp. ID	Point #
Zone-based AUX1 switch trouble	pi Exp. ID	UT	Point #	UTNNXXPPPP	1	373	Exp. ID	Point #
Zone-based AUX1 switch trouble restore	pi Exp. ID	UJ	Point #	UJNNXXPPPP	3	373	Exp. ID	Point #
Zone-based AUX2 switch alarm	pi Exp. ID	UA	Point #	UANNXXPPPP	1	140	Exp. ID	Point #
Zone-based AUX2 switch alarm restore	pi Exp. ID	UH	Point #	UHNNXXPPPP	3	140	Exp. ID	Point #
Zone-based AUX2 switch disabled	pi Exp. ID	UB	Point #	UBNNXXPPPP	1	571	Exp. ID	Point #
Zone-based AUX2 switch enabled	pi Exp. ID	UU	Point #	UUNNXXPPPP	3	571	Exp. ID	Point #
Zone-based AUX2 switch trouble	pi Exp. ID	UT	Point #	UTNNXXPPPP	1	373	Exp. ID	Point #
Zone-based AUX2 switch trouble restore	pi Exp. ID	UJ	Point #	UJNNXXPPPP	3	373	Exp. ID	Point #

11.3 SIA - SCSS-700 Panels PI Modifier Reporting:

Events are sent to the central station as a variable length string:

The event format is:

EEZZZZ

Where:

EE Event code (2 characters)

ZZZZ Event parameter (up to four digits – not zero filled)

1. The account number is sent using an account block that is separate from the event block
2. Multiple events can be sent within a single event block. Events are separated by a "/" character.
3. Event parameter can be either a zone, point or module number.
4. When reporting by point is enabled, the dialer uses a "pi" event to supersedes the actual point event to report the module the point is linked to.
5. Panel ID is not sent in the SIA event parameters.

For Example see :

Table 11-2: SIA- SCSS-700 Panels - PI Modifier Reporting Examples

Event	Report Zone/ Point	Panel ID	Module	Zone ZZZZ	Point ZZZZ	Fields Sent	SIA Event Data
Fire Alarm-Zone	Zone	n/a	n/a97	15	n/a	EE-ZZ	FA15
Fire Alarm-Zone	Zone	n/a	n/a	05	n/a	EE-Z	FA5
Fire Alarm-Point	Point	n/a	01	n/a	123	EE-ZZ/EE-ZZZ	pi01/FA123
Fire Alarm-Point	Point	n/a	33	n/a	203	EE-ZZ/EE-ZZZ	pi11/FA203
Expander Trouble	n/a	n/a	11	n/a	n/a	EE-ZZ	ET11
Auto Test	n/a	n/a	n/a	n/a	n/a	EE-Z	RP0
Battery Trouble-Panel 32	n/a	n/a	98	n/a	n/a	EE-ZZ	YT98
Battery Trouble-Expander 18	n/a	n/a	18	n/a	n/a	EE-ZZ	YT18
SLC Loop Shorted	n/a	n/a	44	n/a	n/a	EE-ZZ	ET44
Program Begin Panel ID=32	n/a	n/a	n/a	n/a	n/a	EE-Z	LB0
Program Begin Panel ID= 22	n/a	n/a	n/a	n/a	n/a	EE-Z	LB0
AC Power Loss- Panel 22	n/a	n/a	98	n/a	n/a	EE-Z	AT0
Fire Trouble	Point	n/a	97	n/a	200	EE-ZZ/EE-ZZZ	pi97/FT200

Table 11-2: SIA- SCSS-700 Panels - PI Modifier Reporting Examples

Event	Report Zone/ Point	Panel ID	Module	Zone ZZZZ	Point ZZZZ	Fields Sent	SIA Event Data
Fire Trouble	Zone	n/a	97	01	n/a	EE-Z	FT1
Fire Trouble-Nac	Point	n/a	98	n/a	Nac Circuit 7	EE-ZZ/EE-Z	pi98/FT7 Z=Pt. #
Fire Trouble-Nac	Zone	n/a	98	n/a	Nac Circuit 7	EE-ZZZ	FT400 ZZZ=OPG#

11.4 SIA – SCSS-700 Panel Dialer:

(Differences/additional features are underlined)

Events are sent to the Central Station Receiver as a fixed length string:

The event format is:

EEPPMMZZZZ

Where

EE Event code (2 characters)

PP Panel number (2 digits – Zero Filled) (valid range from 1 to 64)

MM Module number (2 digits – Zero Filled) (valid range from 1 to 98, typically Module information)

ZZZZ Event parameter (4 digits – Zero Filled) (typically Point, Zone or Circuit information)

1. The Event field will contain 10 digits including the 2 digit event code (EE), 2 digit panel ID (PP), 2 digit Module Number (MM) and a 4 digit Event Parameter (ZZZZ).
2. Based on the actual Event Code, the Module Number or Event Parameter fields might not contain pertinent information. In that case the field will contain zeros.
3. The account number is sent using an account block that is separate from the event block.
4. Multiple events can be sent within a single event block. Events are separated by a “/” character.
5. Event parameter can be a Zone, Point or Circuit Number.
6. “pi” modifier event is not used.
7. Panel can be set to report by either Point or Zone.

For examples see Table 11-3.

Table 11-3: SCSS-700 SIA REPORTING EXAMPLES

Event	Report Zone/ Point	Panel ID PP	Module MM	Zone ZZZZ	Point ZZZZ	Fields Sent	SIA Event Data
Fire Alarm-Zone	Zone	32	n/a	15	n/a	EE-PP-MM-ZZZZ	FA32000015
Fire Alarm-Zone	Zone	32	n/a	05	n/a	EE-PP-MM-ZZZZ	FA32000005
Fire Alarm-Point	Point	32	01	n/a	123	EE-PP-MM-ZZZZ	FA32010123
Fire Alarm-Point	Point	21	33	n/a	203	EE-PP-MM-ZZZZ	FA21330203
Expander Trouble	n/a	15	11	n/a	n/a	EE-PP-MM-ZZZZ	ET15110000
Auto Test	n/a	32	n/a	n/a	n/a	EE-PP-MM-ZZZZ	RP32000000
Battery Trouble-Panel 32	n/a	32	98	n/a	n/a	EE-PP-MM-ZZZZ	YT32980000
Battery Trouble-Expander 18	n/a	32	18	n/a	n/a	EE-PP-MM-ZZZZ	YT32180000
SLC Loop Shorted	n/a	01	44	n/a	n/a	EE-PP-MM-ZZZZ	ET01440000
Program Begin	n/a	32	n/a	n/a	n/a	EE-PP-MM-ZZZZ	LB32000000
Program Begin	n/a	22	n/a	n/a	n/a	EE-PP-MM-ZZZZ	LB22000000
AC Power Loss- Panel 22	n/a	22	98	n/a	n/a	EE-PP-MM-ZZZZ	AT22980000 MM = 00
Fire Trouble	Point	22	97	n/a	200	EE-PP-MM-ZZZZ	FT22970200
Fire Trouble	Zone	22	97	1	n/a	EE-PP-MM-ZZZZ	FT22970001 MM = 00
Fire Trouble-Nac	Point	22	98	n/a	Nac Circuit 7	EE-PP-MM-ZZZZ	FT22980007 ZZZZ=Pt. #
Fire Trouble-Nac	Zone	22	98	n/a	Nac Circuit 7	EE-PP-MM-ZZZZ	FT22980007 ZZZZ=OPG #

Section 12
Testing and Troubleshooting

12.1 Troubleshooting

This section of the manual offers suggestions for troubleshooting hardware problems. Please read this section if you encounter a problem when installing the control panel. If these suggestions do not solve your problem or if you encounter a problem that is not listed here, contact Technical Support at 800-446-6444 for assistance.

12.2 Common Problems

Problem	Possible Cause / Suggested Actions
Trouble message "DBL ADDR" (Double Address) displays on LCD.	An address has been assigned to more than one detector. Correct the address following the procedure described in Section 7.5 if using LiteSpeed devices
Auxiliary power or notification circuits have incorrect polarity.	Correct polarity. For notification and auxiliary power circuits: When in alarm or powered, terminals labeled "X" are positive, terminals labeled "O" are negative.
SLC devices are not being recognized (trouble message "Missing" displays).	Check hardware connections. If devices are physically connected, make sure wiring is correct (section 7.5 if using LiteSpeed devices). For 5815XL devices, make sure the device connects to the 5815XL via the SLC OUT terminals. There can be only one SLC loop on the main panel and on each 5815XL module. Do not connect devices to terminals labeled SLC IN.
	Make sure SLC devices have been addressed properly following the procedure described in section 7.5 if using LiteSpeed devices.
	Make sure correct polarity has been observed for SLC device wiring. See section 7.4 for LiteSpeed devices
SLC devices are not being recognized (trouble message "Missing" displays on the annunciator).	Check that SLC loop impedance is within the required range. To measure impedance, use the following procedure. 1. Disconnect both wires from the terminal block at the panel (SLC devices can remain connected). 2. Measure the impedance from positive to negative and from negative to positive. Both measurements should be greater than 500 K ohms. If the installation uses T-taps, test each T-tap individually. 3. Temporarily connect the positive wire to the negative wire of the SLC loop at the point farthest from the panel (SLC devices can remain connected). 4. Measure the impedance from positive to negative and from negative to positive. Both measurements must be less than 50 ohms.

Problem	Possible Cause / Suggested Actions
The panel indicates a ground fault trouble condition (trouble message "GROUND FAULT" displays).	An earth ground fault occurs when the panel senses an unexpected flow of current from one or more of its terminals to the earth connection (Terminal 2). Isolate the wiring that is causing the fault by removing wiring connections one at a time until the earth fault is no longer present. Pause at least five seconds after removing a wire before removing the next one.
5815XL module that has been physically connected to the panel but is not being recognized.	Check the status of the 5815XL green LED. If it flashes in the pattern .5 sec. on / .5 sec. off, it is likely that the 5815XL has not been added to the system through programming. JumpStart will add any 5815XLs connected to the panel. 5815XLs can be added manually (see Section 9.2.2). Check that the correct ID for the 5815XL module has been set through the DIP switches. Assign ID#1 to the first 5815XL and ID#2 to the second 5815XL. See Section 4.5.1 for complete details. If the wiring between the 5815XL and the panel is correct, measure the voltage from 5815XL Terminal (+) to Terminal (-). Voltage should be in the range 27.2-27.4V when AC power is present. If the green LED is not flashing, the likely cause is incorrect wiring from between the 5815X and the panel. See Section 4.7.1 for wiring details.

12.2.1 Periodic Testing And Maintenance

To ensure proper and reliable operation, it is recommended that system inspection and testing be scheduled monthly or as required by national and/or local fire codes. Testing should be done by a qualified services representative if a malfunction is encountered.

Before testing:

1. Notify the fire department and/or central alarm receiving station if an alarm condition is transmitted.
2. Notify facility personnel of a test so that alarm sounding devices are ignored during the test period.
3. When necessary, activation of Notification Appliances can be prevented by the DISABLE function

Testing:

1. Activate a input via an alarm initiating device and check that the correct outputs activate (Notification Appliances sound/flash, relays activate, alarm LED lights). Reset system. Repeat for each alarm initiating device.
2. Momentarily open the following circuits one at a time and check for a trouble sign

   -Notification Appliance (bell) Circuits.

   - Initiating devices
3. If new batteries were installed, wait 48 hours before completing this step. Remove AC power, activate initiating device and check that:

- the ALARM indicator lights.
- all active Notification Appliances sound.

Measure battery voltage while the Notification Appliances are sounding. Replace any battery with terminal voltage less than 85% of rating. Reapply AC power and RESET system.

12.2.2 Event History

The event history can be useful for tracking or recalling a trouble condition.

12.3 Built-in Troubleshooting and Testing Tools

The fire control panel has several built-in testing and troubleshooting tools that can be utilized to save time while testing and troubleshooting points and SLC devices.

12.3.1 SLC Device Locator

SLC device locator can be used to locate a device on a SLC loop.

Follow these steps to locate a particular SLC device:

1. Select 2 (Point Functions) from the Main Menu.
2. Select 4 (SLC Single Device Locator).

   A message similar to the one shown in Figure 12-1 will display.

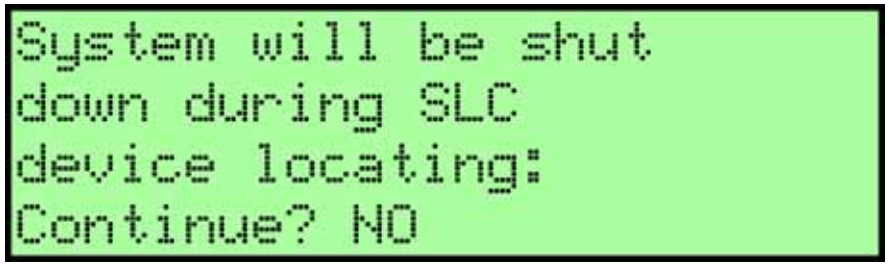


Figure 12-1 Shut Down Warning

3. Press the ↑ or ↓ arrow to toggle NO to YES then press ENTER.

   If NO is chosen you will exit back to the Point Function menu.

   If Yes is chosen the system will cease normal operation leaving the premise unprotected.
4. Select the SLC loop.
5. Enter the SLC address of the device you wish to locate.

   The LED on the selected device will start flashing.
6. Press any key to exit SLC device locator function.

Note: Once you exit the system will resume normal operation.

12.3.2 SLC Multi Device Locator

This feature is the same as SLC Single Device Locator, except you can locate up to 8 devices on a single search.

Follow these instructions to locate multiple SLC devices:

1. Select 2 (Point Functions) from the Main Menu.
2. Select 5 (SLC Dev Locator).

   A message similar to the one shown in Figure 12-2 will display.

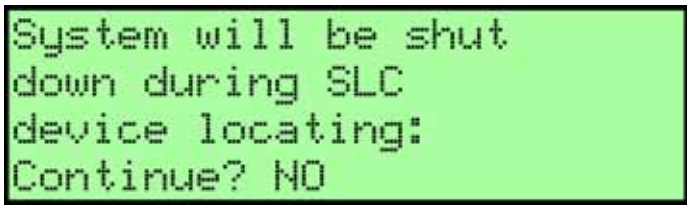


Figure 12-2 Shut Down Warning

3. Press the ↓ or ↑ arrow to toggle NO to YES then press ENTER.

   If NO is chosen you will exit back to the Point Function menu.

   If Yes is chosen the system will cease normal operation leaving the premise unprotected.
4. Select the SLC loop.
5. Enter up to 8 SLC addresses for the devices you wish to locate.

   The LEDs on the selected devices will start flashing.
6. Press the ← to exit SLC multi-locator function.

Note: Once you exit the system will resume normal operation.

12.3.3 I/O Point Control

This feature allows you to toggle any output on or off and trip any input device. This can be useful to test a point's output mapping.

Follow these steps to control a I/O point:

1. Select 2 (Point Functions) from the Main Menu.
2. Select 6 (I/O Point Control).
3. Select the Module the point is on.
4. Enter the zone number , or press the ↓ or ↑ arrow to select the point you wish to test, then press ENTER.
5. Press ENTER to generate an alarm for an input point or activate an output point.
6. To exit press ←.

12.3.4 Earth Fault Resistance

Table 12-1 lists the earth fault resistance detection for each applicable terminal on the FACP.

Table 12-1: Earth Fault Resistance Values by Terminal

Function	Terminal Label (Values in Ohms)		Low Biased		High Biased	
			High Trip	High Restore	Low Trip	Low Restore
Flexput™ Notification Circuits	X	I/O 8	–	–	0	0
	O		0	0	–	–
	X	I/O 7	–	–	0	0
	O		0	0	–	–
	X	I/O 6	-	-	0	0
	O		0	0	-	-
	X	I/O 5	-	-	0	0
	O		0	0	-	-
	X	I/O 4	-	-	0	0
	O		0	0	-	-
	X	I/O 3	-	-	0	0
	O		0	0	-	-
	X	I/O 2	-	-	0	0
	O		0	0	-	-
	X	I/O 1	-	-	0	0
	O		0	0	-	-
SBUS Communication	B	SBUS1 OUT	-	-	0	0
	A		-	-	0	0
SBUS Power	+		0	0	-	-
	-		-	-	0	0
SBUS Communication	B	SBUS1 IN	-	-	0	0
	A		-	-	0	0
SBUS Power	+		0	0	-	-
	-		-	-	0	0

Table 12-1: Earth Fault Resistance Values by Terminal

Function	Terminal Label (Values in Ohms)		Low Biased		High Biased	
			High Trip	High Restore	Low Trip	Low Restore
SBUS Communication	B	SBUS2 OUT	–	–	0	0
	A		–	–	0	0
SBUS Power	+		0	0	–	–
	–		–	–	0	0
SBUS Communication	B	SBUS 2 IN	–	–	0	0
	A		–	–	0	0
SBUS Power	+		0	0	–	–
	–		–	–	0	0
SLC Terminals	-	SLC OUT	-	-	0	0
	+		0	0	-	-
	-	SLC IN	-	-	0	0
	+		0	0	-	-

Section 13
Installation Records

This section of the manual is for you to use if you wish to track how points, zones, and groups have been programmed.

13.1 Detector and Module Point Record

If installing LiteSpeed SLC devices, use Table 13-1 to record detector points (up to 159 per SLC loop) installed on the on-board SLC loop and make a copy of Table 13-2 to record installed modules (up to 159 per SLC loop).

Table 13-1: Installation Record of Onboard Devices

Module	Addr	Zone / Group	Description
On-board	1		
On-board	2		
On-board	3		
On-board	4		
On-board	5		
On-board	6		
On-board	7		
On-board	8		
On-board	9		
On-board	10		
On-board	11		
On-board	12		
On-board	13		
On-board	14		
On-board	15		
On-board	16		
On-board	17		
On-board	18		
On-board	19		
On-board	20		
On-board	21		
On-board	22		
On-board	23		
On-board	24		
On-board	25		
On-board	26		
On-board	27		
On-board	28		

Module	Addr	Zone/ Group	Description
On-board	30		
On-board	31		
On-board	32		
On-board	33		
On-board	34		
On-board	35		
On-board	36		
On-board	37		
On-board	38		
On-board	39		
On-board	40		
On-board	41		
On-board	42		
On-board	43		
On-board	44		
On-board	45		
On-board	46		
On-board	47		
On-board	48		
On-board	49		
On-board	50		
On-board	51		
On-board	52		
On-board	53		
On-board	54		
On-board	55		
On-board	56		
On-board	57		

Table 13-1: Installation Record of Onboard Devices

Module	Addr	Zone / Group	Description
On-board	29		
On-board	59		
On-board	60		
On-board	61		
On-board	62		
On-board	63		
On-board	64		
On-board	65		
On-board	66		
On-board	67		
On-board	68		
On-board	69		
On-board	70		
On-board	71		
On-board	72		
On-board	73		
On-board	74		
On-board	75		
On-board	76		
On-board	77		
On-board	78		
On-board	79		
On-board	80		
On-board	81		
On-board	82		
On-board	83		
On-board	84		
On-board	85		
On-board	86		
On-board	87		
On-board	88		
On-board	89		
On-board	90		
On-board	91		
On-board	92		
On-board	93		
On-board	94		
On-board	95		
On-board	96		
On-board	97		
On-board	98		
On-board	99		
On-board	100		

Module	Addr	Zone/ Group	Description
On-board	58		
On-board	103		
On-board	104		
On-board	105		
On-board	106		
On-board	107		
On-board	108		
On-board	109		
On-board	110		
On-board	111		
On-board	112		
On-board	113		
On-board	114		
On-board	115		
On-board	116		
On-board	117		
On-board	118		
On-board	119		
On-board	120		
On-board	121		
On-board	122		
On-board	123		
On-board	124		
On-board	125		
On-board	126		
On-board	127		
On-board	128		
On-board	129		
On-board	130		
On-board	131		
On-board	132		
On-board	133		
On-board	134		
On-board	135		
On-board	136		
On-board	137		
On-board	138		
On-board	139		
On-board	140		
On-board	141		
On-board	142		
On-board	143		
On-board	144		

Table 13-1: Installation Record of Onboard Devices

Module	Addr	Zone / Group	Description
On-board	101		
On-board	102		
On-board	147		
On-board	148		
On-board	149		
On-board	150		
On-board	151		
On-board	152		
On-board	153		

Module	Addr	Zone/ Group	Description
On-board	145		
On-board	146		
On-board	154		
On-board	155		
On-board	156		
On-board	157		
On-board	158		
On-board	159		

Additional SLC Devices

Use the table below to record devices installed on additional 5815XL's. Make a copy of this page if additional pages are needed

Table 13-2: Installation Record of Devices Installed on 5815XL

Module	Addr	Zone / Group	Description	Module	Addr	Zone/ Group	Description

Table 13-2: Installation Record of Devices Installed on 5815XL

Module	Addr	Zone / Group	Description

Module	Addr	Zone/ Group	Description

13.2 Conventional Output Point Record

This chart can be used to keep track of how conventional output points (circuits) have been configured.

Point/Circuit	Group	Description
1		
2		
3		
4		
5		
6		
7		
8		

Appendix A
Compatible Devices

A.1 Notification Appliances

For Proper operation, you must use polarized devices with a model 7628 4.7k ohm EOL resistor on each loop. All supervised notification appliances used with the control panel must be polarized.

Note: Not all devices can use the Sync feature, be sure to check Table A-1 to ensure the devices you have chosen will work with this feature. This control is UL listed for panel wide Synchronization.

Table A-1 below lists notification appliances compatible with the fire alarm control panel. Appliances which can be synchronized indicate the type of SYNC available in the columns marked Audio and/or Visual.

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
AMSECO	SH24W-153075	✔	✔	Horn/Strobe
	SAD24-153075		✔	Strobe
	SAD24-75110		✔	Strobe
	SL24W-75110		✔	Strobe
	SL24C-3075110		✔	Strobe
	SLB24-75		✔	Strobe
	RSD24-153075		✔	Strobe
	RSD24-75110		✔	Strobe
	SH24W-75110	✔	✔	Horn/Strobe
	SH24W-3075110	✔	✔	Horn/Strobe
	SHB24-75	✔	✔	Horn/Strobe
	SCM24W-153075	✔		Chimes/Strobe
	SCM24W-75110	✔		Chimes/Strobe
	SCM24C-3075110	✔		Chimes/Strobe
	SCM24C-177	✔		Chimes/Strobe
	H24W	✔		Horn
	H24R	✔		Horn
FCI	S2415-FC			Strobe
	S241575-FC			Strobe
	S2430-FC			Strobe
	130-3117C			Mini Horn

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
FCI (con't)	130-3147C			Mini Horn
	BLV-6			Vibrating Bell
	BLV-10			Vibrating Bell
	BLVCH			Vibrating Chime
	H12/24-FC			Horn
	H12/24W-FC			Horn
	H12/24K-FC			Horn
	HC12/24-FC			Horn
	HC12/24W-FC			Horn
	HC12/24K-FC			Horn
	P2415-FC			Horn/Strobe
	P2415W-FC			Horn/Strobe
	P2415K-FC			Horn/Strobe
	P241575-FC			Horn/Strobe
	P241575W-FC			Horn/Strobe
	P241575F-FC			Horn/Strobe
	P241575K-FC			Horn/Strobe
	P2430-FC			Horn/Strobe
	P2430W-FC			Horn/Strobe
	P2430K-FC			Horn/Strobe
	P2475-FC			Horn/Strobe
	P2475W-FC			Horn/Strobe
	P2475K-FC			Horn/Strobe
	P24110-FC			Horn/Strobe
	P24110W-FC			Horn/Strobe
	P24110K-FC			Horn/Strobe
	S2430W-FC			Strobe
	S2430K-FC			Strobe
	S2475-FC			Strobe
	S2475W-FC			Strobe
	S2475K-FC			Strobe
	S24110-FC			Strobe
	S24110W-FC			Strobe
	S24110K-FC			Strobe

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
Federal Signal	450			Horn
	VALS			Horn/Strobe
Gentex	GEC-24-15	✔	✔	Horn/Strobes
	GEC-24-30	✔	✔	Horn/Strobes
	GEC-24-60	✔	✔	Horn/Strobes
	GEC-24-75	✔	✔	Horn/Strobes
	GEC-24-177	✔	✔	Horn/Strobes
	GX91	✔		MiniHorn Steady Tone
	GX93	✔		MiniHorn Temporal Tone
	HG124			Horn
	HS24-15	✔	✔	Horn/Strobe
	HS24-30	✔	✔	Horn/Strobe
	HS24-60	✔	✔	Horn/Strobe
	HS24-75	✔	✔	Horn/Strobe
	HS24-110	✔	✔	Horn/Strobe
	HS24-1575	✔	✔	Horn/Strobe
	GCC24	✔	✔	Multi Candella Horn/Strobe Ceiling Mount
	GCCR24	✔	✔	Multi Candella Horn/Strobe Ceiling Mount
	GCS24		✔	Multi Candella Strobe Ceiling Mount
	GCSR24		✔	Multi Candella Strobe Ceiling Mount
	GECR-24	✔	✔	Multi Candella Horn/Strobe
	GES24-15		✔	Strobes
	GES24-30		✔	Strobes
	GES24-60		✔	Strobes
	GES24-75		✔	Strobes
	GES24-110		✔	Strobes
	GES24-15/75		✔	Strobes
	GES24-177		✔	Strobes
	GES3-24		✔	Multi Candella Strobe
	GESR-24		✔	Multi Candella Strobe
	GEH-24	✔		Horn
	ST24-30		✔	Strobe
	ST24-60		✔	Strobe
	ST24-75		✔	Strobe

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
Gentex	ST24-110		✔	Strobe
(cont)	ST24-1575		✔	Strobe
	WGEC24-75W	✔	✔	Weatherproof Horn/Strobe
	WGES24-75W		✔	Weatherproof Strobe
	WGMS-24-X			Horn/Strobe
	GEC-24-110	✔	✔	Horn/Strobes
	GEC-24-15/75	✔	✔	Horn/Strobes
System Sensor	CHR	✔		Chime
	CHW	✔		Chime
	CHSR	✔	✔	2-Wire Chime/Strobe
	CHSW	✔	✔	2-Wire Chime/Strobe
	HR	✔	✔	Horn
	HW		✔	Horn
	HRK		✔	Horn
	P2R	✔	✔	2-Wire Horn/Strobe
	P2R-P	✔	✔	2-Wire Horn/Strobe
	PC2R	✔	✔	2-Wire Horn/Strobe
	PC2R-P	✔	✔	2-Wire Horn/Strobe
	P2RH	✔	✔	2-Wire Horn/Strobe High Candela
	P2RH-P	✔	✔	2-Wire Horn/Strobe High Candela
	PC2RH	✔	✔	2-Wire Horn/Strobe High Candela
	PC2RH-P	✔	✔	2-Wire Horn/Strobe High Candela
	P2W	✔	✔	2-Wire Horn/Strobe
	P2W-P	✔	✔	2-Wire Horn/Strobe
	PC2W	✔	✔	2-Wire Horn/Strobe
	PC2W-P	✔	✔	2-Wire Horn/Strobe
	P2WH	✔	✔	2-Wire Horn/Strobe High Candela
	P2WH-P	✔	✔	2-Wire Horn/Strobe High Candela
	PC2WH	✔	✔	2-Wire Horn/Strobe High Candela
	PC2WH-P	✔	✔	2-Wire Horn/Strobe High Candela
	P2RK	✔	✔	2-Wire Horn/Strobe
	PC2RK	✔	✔	2-Wire Horn/Strobe
	P2RHK	✔	✔	2-Wire Horn/Strobe High Candela
	PC2RHK	✔	✔	2-Wire Horn/Strobe High Candela

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
System Sensor (con't)	P4R	✔	✔	4-Wire Horn/Strobe
	PC4R	✔	✔	4-Wire Horn/Strobe
	P4RH	✔	✔	4-Wire Horn/Strobe High Candela
	P4W	✔	✔	4-Wire Horn/Strobe
	PC4W	✔	✔	4-Wire Horn/Strobe
	P4WH	✔	✔	4-Wire Horn/Strobe High Candela
	PC4WH	✔	✔	4-Wire Horn/Strobe High Candela
	P4RK	✔	✔	4-Wire Horn/Strobe
	PC4RK	✔	✔	4-Wire Horn/Strobe
	P4RHK	✔	✔	4-Wire Horn/Strobe High Candela
	PC4RHK	✔	✔	4-Wire Horn/Strobe High Candela
	PC4RH	✔	✔	4-Wire Horn/Strobe High Candela
	SR		✔	Strobe
	SR-P		✔	Strobe
	SCR		✔	Strobe
	SCR-P		✔	Strobe
	SRH		✔	Strobe High Candela
	SRH-P		✔	Strobe High Candela
	SCRH		✔	Strobe High Candela
	SCRH-P		✔	Strobe High Candela
	SW		✔	Strobe
	SW-P		✔	Strobe
	SCW		✔	Strobe
	SCW-P		✔	Strobe
	SWH		✔	Strobe High Candela
	SWH-P		✔	Strobe High Candela
	SCWH		✔	Strobe High Candela
	SCWH-P		✔	Strobe High Candela
	SRK		✔	Strobe
	SCRK		✔	Strobe
	SRHK		✔	Strobe High Candela
	SCRHK		✔	Strobe High Candela

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
Wheelock	AH-12	✔		Horn
	AH-24	✔		Horn
	AH-12WP	✔		Horn Weatherproof
	AH-24WP	✔		Horn Weatherproof
	AMT-241575W	✔	✔	Multi-Tone Horn Strobe
	AMT-24MCW		✔	Multi-Tone Horn Strobe
	AMT-241575W-NYC	✔	✔	Multi-Tone Horn Strobe
	AMT-12/24	✔		Multi-tone Horn
	AMT-12/24 NYC	✔		Multi-tone Horn
	AS-121575W		✔	Horn/Strobe
	NH-12/24	✔		Horn
	AS-241575W	✔	✔	Horn/Strobe
	AS-24MCC	✔	✔	Horn/Strobe
	AS-24MCCH	✔	✔	Horn/Strobe
	AS-24MCW	✔	✔	Horn/Strobe
	AS-24MCWH	✔	✔	Horn/Strobe
	ASWP-2475W	✔	✔	Horn/Strobe Weatherproof
	ASWP-2475C	✔	✔	Horn/Strobe Weatherproof
	ASWP-24MCWH	✔	✔	Horn/Strobe
	ASWP-24MCCH	✔	✔	Horn/Strobe
	CH-70	✔		Chime
	CH-90	✔		Chime
	CH70-241575W		✔	Chime/Strobe
	CH70-24MCW		✔	Chime/Strobe
	CH70-24MCWH		✔	Chime/Strobe
	CH90-24MCC		✔	Chime/Strobe
	CH90-24MCCH		✔	Chime/Strobe
	HS-24	✔		Horn
	HS4-241575W	✔	✔	Horn/Strobe
	HS4-24MCW	✔	✔	Horn/Strobe
	HS4-24MCWH	✔	✔	Horn/Strobe
	HS4-24MCC	✔	✔	Horn/Strobe
	MIZ-24S	✔	✔	Mini Horn Strobe
	MT-121575W		✔	MultitoneHorn Strobe
	MT-241575W	✔	✔	Multitone Horn Strobe

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
Wheelock (con't)	MT-24MCW		✔	Multitone Horn Strobe
	MTWP-2475W		✔	Multitone Horn Strobe
	MTWP-2475C		✔	Multitone Horn Strobe
	MTG-121575W	✔	✔	Multitone Horn Strobe
	MTR-121575W	✔	✔	Multitone Horn Strobe
	MTWPA-2475W	✔	✔	Multitone Horn Strobe
	MTWPB-2475W	✔	✔	Multitone Horn Strobe
	MTWPG-2475W	✔	✔	Multitone Horn Strobe
	MTWPR-2475W	✔	✔	Multitone Horn Strobe
	MTWPA-24MCCH	✔	✔	Multitone Horn Strobe
	ZNH	✔		Horn
	NS-121575W	✔	✔	Horn/Strobe
	NS-241575W	✔	✔	Horn/Strobe
	NS-24MCW	✔	✔	Horn/Strobe
	NS-24MCC	✔	✔	Horn/Strobe
	NS-24MCCH	✔	✔	Horn/Strobe
	ZNS-MCW	✔	✔	Horn/Strobe
	ZNS-MCWH	✔	✔	Horn/Strobe
	ZNS-24MCC	✔	✔	Horn/Strobe
	ZNS-24MCCH	✔	✔	Horn/Strobe
	RSS-121575W		✔	Strobe
	RSS-241575W		✔	Strobe
	RSS-24MCC		✔	Strobe
	RSS-24MCCR		✔	Strobe
	RSS-24MCCH		✔	Strobe
	RSS-24MCCHR		✔	Strobe
	RSS-24MCW		✔	Strobe
	RSS-24MCWH		✔	Strobe
	RSSP-121575W		✔	Strobe
	RSSP-241575W		✔	Strobe
	RSSR-2415W		✔	Strobe
	RSSR-2415C		✔	Strobe
	RSSR-2475W		✔	Strobe
	RSSR-2475C		✔	Strobe
	RSSR-24110C		✔	Strobe

Table A-1 Compatible Notification Appliances

Manufacturer	Model	Audio	Visual	Type
Wheelock (cont')	RSSA-24110W		✔	Strobe
	RSSB-24110W		✔	Strobe
	RSSG-24110W		✔	Strobe
	RSSR-24110W		✔	Strobe
	RSSA-24MCC		✔	Multi-Cd Strobe
	RSSB-24MCC		✔	Multi-Cd Strobe
	RSSG-24MCC		✔	Multi-Cd Strobe
	RSSR-24MCC		✔	Multi-Cd Strobe
	RSSWPA-2475W		✔	Strobe Weatherproof
	RSSWPA-24MCCH		✔	Strobe Weatherproof
	RSSWPG-24MCCH		✔	Strobe Weatherproof
	RSSWPR-24MCCH		✔	Strobe Weatherproof
	RSSWP-2475W		✔	Strobe Weatherproof
	RSSWP-2475C		✔	Strobe Weatherproof
	RSSWP-24MCWH		✔	Strobe Weatherproof
	ZRS-MCWH		✔	Strobe
	ZRS-24MCC		✔	Strobe
	ZRS-24MCCH		✔	Strobe
	MB-G6-24			Motor Bell
	MB-G10-24			Motor Bell
	MB-G6-12			Motor Bell
	MB-G10-12			Motor Bell
	MIZ-24-R			Mini-Horn
	MT-12/24-R	✔	✔	Multitone Horn
	MT4-12/24	✔	✔	Multitone Horn
	ZRS-MCW		✔	Strobe
	MTWPR-24MCCH	✔	✔	Multitone Horn Strobe
	NH-12/24R	✔		Horn
	HSR		✔	Horn Strobe
	HSW		✔	Horn Strobe
	STR		✔	Strobe
	STW		✔	Strobe
	HNR		✔	Horn
	HNW		✔	Horn

A.2 Two Wire Detectors

Table A-2 lists two-wire smoke detectors that are compatible with the fire control panel. The table is organized by manufacturer. The columns show the number of detectors per loop that can be used.

	SCSS-700
Identifier	24H
Operating voltage Range	17.1 - 27.3 VDC

Note: The maximum number of smoke detectors per zone is determined by both the current draw and the impedance of the smoke detector. If too many smoke detectors are used on any zone, false alarms could occur.

Do not mix different models of detectors on any zone; false alarms could occur.

Control unit Smoke Reset Time must be programmed for a number greater than or equal to the maximum reset time of the smoke detector.

Table A-2: Compatible Two-Wire Smoke Detectors Style B

Manufacturer	Model Name or Number *(Base model name or number in parentheses.)*	Compatibility ID		# per Loop
		Head	Base	
Apollo	55000-350 (45681-200)	55000-350	45681-200	15 / loop
	55000-250 (45681-200)	55000-250	45681-200	24 / loop
	55000-225	55000-225	45681-255, 256	15 / loop for Ion Detector's
	55000-226	55000-226		
	55000-227	55000-227	45681-200, 220, 232, 251, 252	15 / loop for Photo Electric Detector's
	55000-325	55000-325		
	55000-326	55000-326		
	55000-327	55000-327		
	55000-328	55000-328		
Hochiki	SLR-24	HD-3	HSC-220R(HB-72) NS6-220 OR NS4-220 (HB-3)	15 / loop
	SLR-24H			
	SLR-24V			
	SLR-835	HD-3		14 / loop
	SLR-835H	HD-5		

Table A-2: Compatible Two-Wire Smoke Detectors Style B

Manufacturer	Model Name or Number *(Base model name or number in parentheses.)*	Compatibility ID		# per Loop
		Head	Base	
System Sensor	1400	A	N/A	16 / loop
	1451 (B401B)	A	A	16 / loop
	2100	A	N/A	20 / loop
	2100T	A	N/A	20 / loop
	2151 (B401)	A	N/A	16 / loop
	2151T (B401)	A	N/A	16 / loop
	2400	A	N/A	16 / loop
	2400TH	A	N/A	16 / loop
	2451 (B401B)	A	N/A	16 / loop
	2451TH (B401B)	A	N/A	16 / loop

Table A-3 Compatible Two-Wire Smoke Detectors Style B or Style D

Manufacturer	Model Name or Number	Compatibility ID		# per Loop
		Head	Base	
System Sensor	2W-B	A	N/A	20 / loop
	2WT-B	A	N/A	20 / loop
	2WTA-B	A	N/A	1 / loop
	2WTR-B	A	N/A	1 / loop

A.3 Four-Wire Smoke Detectors/Devices (UL Listed)

Table A-4 Compatible Four-Wire Smoke Detectors

Smoke Detector/Base	Detector Type	Max Standby Current (mA)	Alarm Current (mA)
Fenwal CPD-7021 (w/70-201000-005 Base)	Ionization	0.10	*
Fenwal PSD-7125	Photoelectric	0.10	*
Fenwal PSD-7126 (w/70-201000-005 Base)	Photoelectric	0.10	*
Fire-Lite BLP-12-4W	Base	*	*
Gentex 824[1]	Photoelectric	0.50	*
Gentex 824T[1]	Photoelectric	0.50	*
Gentex 824CP[1]	Photoelectric	0.50	*
Gentex 824CPT[1]	Photoelectric	0.50	*
Hochiki HSC-4R[1]	Base	*	*
Hochiki SPB-24[1]	Projected Beam	0.25	*
System Sensor B112LP	Base	0.12	36
System Sensor B114LP	Base	*	*
System Sensor B404B	Base	*	*
System Sensor DH100ACDC	Photoelectric	0.15	0.70
System Sensor DH100ACDCLP	Photoelectric	0.15	0.70
System Sensor DH100ACDCLWP	Photoelectric	0.15	0.70
System Sensor DH400ACDCI[1]	Ionization Duct	25	95
System Sensor DH400ACDCP[1]	Photoelectric Duct	25	95
System Sensor 1112/24/D	Ionization	0.05	50
System Sensor 1424	Ionization	0.10	41
System Sensor 1451 (w/B402B Base)	Ionization	0.10	39
System Sensor 2112/24ATR	Photoelectric	0.50	60/70
System Sensor 2112/24AITR	Photoelectric	0.50	60/70
System Sensor 2112/24/D	Photoelectric	0.05	50
System Sensor 2112/24R	Photoelectric	0.50	60/70
System Sensor 2112/24TR	Photoelectric	0.50	60/70
System Sensor 2112/24T/D	Photoelectric w/135° Thermal	0.05	50
System Sensor 2112/24TSRB	Photoelectric w/135° Thermal Supervisory Relay	15	45
System Sensor 2312/24TB	Photoelectric	0.12	50
System Sensor 2412 (12 volt)	Photoelectric	0.12	77
System Sensor 2412AT (12 volt)	Photoelectric	0.12	58
System Sensor 2412TH (12 volt)	Photoelectric	0.12	77
System Sensor 2424[1]	Photoelectric	0.10	41
System Sensor 2424TH[1]	Photoelectric	0.10	41
System Sensor 2451	Photoelectric	0.10	39
System Sensor 2451TH (with/B402B Base)	Photoelectric	0.10	39
System Sensor 2W-MOD	Loop Test/Maintenance Mod.	30	50
System Sensor 4W-B (12/24 Volt)	Photoelectric I^3	.05	23
System Sensor4WT-B (12/24 Volt)	Photoelectric I^3 w/Therm	.05	23
System Sensor 4WTA-B (12/24 Volt)	I^3 Photo w/ Therm/Sounder	.05	35

Smoke Detector/Base	Detector Type	Max Standby Current (mA)	Alarm Current (mA)
System Sensor 4WTR-B (12/24 Volt)	I^3 Photo w/ Therm/Relay	.05	35
System Sensor 4WTAR-B (12/24 Volt)	I^3 Photo w/ Therm/ Sounder/Relay	.05	50
System Sensor 4WITAR-B (12/24 Volt)	I^3 Photo w/ Isolated Therm/ Sounder/Relay	.05	50
System Sensor 2W-MOD2	I^3 Loop Test/Maintenance Mod.	.05	*
System Sensor RRS-MOD	I^3 Reversing Relay/Sync Module	.05	*
System Sensor 6424[1]	Projected Beam	10	28.4
System Sensor Beam 1224(S)	Projected Beam	17	38.5
Notes: * Contact manufacturer for current draws			

A.4 Door Holders (UL Listed)

Table A-5 list door holders that are compatible with the fire control panel.

Table A-5 Compatible Door Holders

MANUFACTURER	MODEL	TYPE	Current (mA)
Edwards	DH150A	Floor Mount	96
Edwards	DH154A	Flush Mount	96
Edwards	DH158A	Surface Mount	96
Rixon Firemark	FM-980	Floor Mount, single	68
Rixon Firemark	FM-996	Surface Wiring	68
Rixon Firemark	FM-998	Concealed Wiring	68

A.5 Relays (UL Listed)

Table A-6 list relays compatible with the fire control panel.

Table A-6 Compatible Relays

MANUFACTURER	MODEL	Current (mA)
Air Products & Controls, LTD	MR-101/C MR-201/C PAM-1 PAM-2 PAM-SD	15 35 15 15 15
System Sensor	A77-716B PR-1 PR-2 PR-3 EOLR-1 R-10T R-14T R-20T R-24T R-10E R-14E R-20E R-24E	20 15 30 30 30 23 23 40 40 23 23 40 40

Appendix B
Editing Text Using the Built-In Programmer

This section contains tables of programmable characters that may be used for device, module, site, template, group, and zone names or phone numbers.

B.1 Characters used for Editing Text

Table B-1 list the available character and their associated numeric designator. When programming:

1. Use the up or down arrow key to scroll to the mode wanted.
2. Press the number shown in Table B-1 until the character wanted is shown.
3. Arrow left and right for position, and press enter to Accept.

Table B-1: Character Table

Lower Case Letters			
abc 1	def 2	ghi 3	jkl 4
mno 5	pqr 6	stu 7	vwx 8
yz 9	Spc 0		
Upper Case Letters			
ABC 1	DEF 2	GHI 3	JKL 4
MNO 5	PQR 6	STU 7	VWX 8
YZ 9	Spc 0		
Numbers and Special Characters			
1 [ ] 1	2 ( ) 2	3 . , 3	4 : ; 4
5 ’ " 5	6 ? ! 6	7 ‘ / 7	8 – + 8
9 = - 9	0 0	* & @ *	# $ #

Figure B-1: Edit Name Example

B.2 Example Name Edit

1. Press ↑ or ↓ to select Upper case letters mode, Press 2 until “F” appears.
2. Press ↑ or ↓ to change mode to lower case letters, Press 3 until “i” appears.
3. Press 6 until “r” appears.
4. Press 2 until “e” appears.
5. Press ENTER to accept.
6. Press 0 to space, then continue to next word using the same process.

Note: After three seconds of no change, letter will automatically be accepted. Also pressing next number will automatically accept previous choice.

Model SCSS-700 Basic Operating Instructions

These Instructions must be framed and displayed next to the SCSS-700 panel in accordance with NFPA 72 fire code for Local Protected Fire Alarm Systems. Test the system in accordance to NFPA 72.

Operation	Task to Perform
Silence Alarms and Troubles	Press SILENCE. Silence LED will light.
Reset Alarms	Press RESET.
Acknowledge Alarms and Troubles	Press ACK. When the Alarm or Trouble is acknowledged an A will appear in the annunciator display as shown Below. 
View Alarms, Supervisories, and Troubles	For each type of condition press the ↓ or ↑ button associated for Alarms, Supervisories, or Troubles.
Normal Standby	Green LED on ""Stanley SCSS-700 All Systems Normal"
Conduct a Fire Drill	Hold the DRILL button enter a code if prompted or 1. Press ENTER to access Main Menu. 2. Then press 1 to select System Tests. 3. Enter code if prompted, then press 1 to select Fire Drill. 4. Press ENTER to start the fire drill. 5. Press ENTER to end the fire drill.
View a Point's Status	1. Press ENTER to access Main Menu, then rotate the key or enter a code if prompted. 2. Then press 2 to select Point Functions. 3. Enter code if prompted, then press 2 to select Point Status. 4. Select the module the device is located on by using the ↓ or ↑. Then press ENTER. 5. Enter the point number.
Check Detector Sensitivity	1. Follow steps 1 through 5 for viewing a point status. 2. Press → to view detector sensitivity.
Set Time and Date	1. Press ENTER to access Main Menu. 2. Then press 4 to select Set Time & Date. Enter a code if prompted 3. Make changes in the fields on the screen as necessary. 4. Press ENTER if you wish to keep the changes. 5. Press ENTER to set the entered time and date.
Enable / Disable a Point	1. Press ENTER to access Main Menu, then rotate the key or enter a code if prompted. 2. Then press 2 to select Point Functions. 3. Enter code if prompted, then press 1 to select Disable / Enable Pt. 4. Select the module the point is located on by using the ↓ or ↑. Then press ENTER. 5. Enter the point number.
View Event History	1. Press ENTER to access Main Menu, then rotate the key or enter a code if prompted. 2. Press 3 to select Event History. 3. Press the ↓ or ↑ to view events in the history buffer.
For Service call:	

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Cut Along the Dotted Line

Cut Along the Dotted Line

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