Simon 3 Installation Manual

interlogix
A UTC Fire & Security Company

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Intended use

Use this product only for the purpose it was designed for; refer to the data sheet and user documentation. For the latest product information, contact your local supplier or visit us online at www.utcfireandsecurity.com.

Manufacturer

UTC Fire & Security Americas Corporation, Inc.
1275 Red Fox Rd., Arden Hills, MN 55112-6943, USA

FCC compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC ID: B4Z-787E-SIMON

Part 68. This equipment complies with Part 68 of the FCC rules and the requirements adopted by ACTA. A label on this equipment contains a product identifier in the format US:AAAEQ##TXXXX. You must provide this number to the telephone company upon request.

FCC registration number: B4ZUSA-27621-AL-E REN: 0.2B

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

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

In most cases, the sum of all device RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact your local telephone company.

For products approved after July 23, 2001, the REN is part of the identifier with the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point. (For example, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Alarm dialing equipment must be able to seize the telephone line and place a call in an emergency situation even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialing equipment must be properly connected to an RJ31X jack that is electrically in series and ahead of all other equipment attached to the same telephone line. If you have any questions concerning these instructions, consult your local telephone company or a qualified installer about installing an RJ31X jack and alarm dialing equipment for you.

If this equipment causes harm to the telephone network, the telephone company may temporarily disconnect your service. The telephone company may notify you in advance, but when advance notice isn't practical, they will notify you as soon as possible and advise you of your right to file a complaint with the FCC.

The telephone company may make changes in their facilities, equipment, operations, or procedures that could affect the operation of the equipment. If they do, they will notify you in advance so you can make the modifications to maintain uninterrupted service.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

This equipment may not be used on coin service provided by the telephone company. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

If you experience trouble with this equipment, please contact the company that installed the equipment for service and repair information. If the equipment is causing harm to the telephone network, the telephone company may ask you to disconnect the equipment until the problem is resolved.

Contact information www.utcfireandsecurity.com or www.interlogix.com

Customer support www.interlogix.com/customer-support

Canada notice

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradatio n of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company ca use to request the user to disconnect the equipment.

For your protection, make sure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together.

Caution: Do not make connections yourself. Contact the appropriate electrician or electric inspection authority.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the LNs of all the devices does not exceed 100. Load Number:.1 *The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.* IC: 867A 787SIMON

"AVIS: -L ´étiquette du ministère des Communications du Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme a certaines normes de protection, d´ exploitation et de sécurité des réseaux de télécommunications. Le ministère n´ assure toutefois pas que le matériel fonctionnera a la satisfaction de l´ utilisateur.

Avant d´ installer ce matériel, l´ utilisateur doit s´ assurer qu´ il est permis de le raccorder aux installations de l´ enterprise locale de télécommunication. Le matériel doit également etre installé en suivant une méthod acceptée de raccordement. Dans certains cas, les fils intérieurs de l´ enterprise utilisés pour un service individuel a ligne unique peuvent etre prolongés au moyen d´ un dispositif homologué de raccordement (cordon prolongateur téléphonique interne). L´ abonné ne doit pas oublier qu´ il est possible que la conformité aux conditions énoncées ci-dessus n´ empechent pas le dégradation du service dans certaines situations. Actuellement, les enterprises de télécommunication ne permettent pas que l´ on raccorde leur matériel a des jacks d´ abonné, sauf dans les cas précis prévus pas les tarrifs particuliers de ces enterprises.

Les réparations de matériel homologué doivent etre effectuées pas un centre d´ entretien canadien autorisé désigné par le fournisseur. La compagne de télécommunications peut demander a l´ utilisateur de débrancher un appareil a la suite de réparations ou de modifications effectuées par l´ utilisateur ou a cause de mauvais fonctionnement.

Pour sa propre protection, l´ utilisateur doit s´ assurer que tous les fils de mise a la terre de la source d´ énergie électrique, des lignes téléphoniques et des canalisations d´´ eau métalliques, s´ il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissment. - L´ utilisateur ne doit pas tenter de faire ces raccordements lui-meme; il doit avoir recours a un service d´ inspection des installations électriques, ou a electricien, selon le cas".

Une note explicative sur les indices de charge (voir 1.6) et leur emploi, a l´ intention des utilisateurs du matériel terminal, doit etre incluse dans l´ information qui accompagne le materiel homologué. La note pourrait etre rédigée selon le modèle suivant:

"L´ indice de charge (IC) assigné a chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut etre raccordée a un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut etre constituée de n´ import somme des indices de charge de l´ ensemble des dispositifs ne dépasse pas 100."

L´ Indice de charge de cet produit est _____.

Content

Preface

This is the Simon 3 Installation Manual for models 60-875, 600-1012, and 60-910 (not investigated for use by UL). This document includes an overview of the product and detailed instructions explaining:

- how to install; and
- how to program your system.

There is also information describing how to contact technical support if you have questions or concerns.

To use this document effectively, you should have the following minimum qualifications:

- a basic knowledge of intrusion systems; and
- a basic knowledge of electrical wiring and low-voltage electrical connections.

Read these instructions and all other documentation entirely before installing or operating this product. The most current versions of this and related documentation may be found on our website. Refer to Online resources on page 80 for instructions on accessing our online publication library.

Note: A qualified service person, complying with all applicable codes, should perform all required hardware installation.

Safety terms and symbols

These terms may appear in this manual:

Caution: Cautions identify conditions or practices that may result in damage to the equipment or other property.

WARNING: Warnings identify conditions or practices that could result in equipment damage or serious personal injury.

Chapter 1
Introduction

This chapter provides a product overview, including UL requirements, system components, and planning information.

In this chapter:

Content

Product overview

This manual provides information for planning, installing, programming, and testing this security system. When necessary, this manual refers you to other documentation included with compatible devices.

Planning sheets are included for you to record sensor locations and software programming settings.

This security system can be used as a fire warning system, an intrusion alarm system, an emergency notification system, or any combination of the three.

Special installation requirements

Some installations may require configurations dictated by city/state codes, insurance, or Underwriter's Laboratories (UL). This section describes the various component and configuration listings.

UL listed installations

This section describes the requirements for UL listed installations.

Basic system

Control Panel - 60-875-95R (basic panel) 60-875-01-95R (with *2-way voice) 60-875-10-3 (with *transmitter) 60-875-11-3 (with *2-way voice and *transmitter) 600-1012 (Broadband Ready)

Backup Battery - 6V 1.2 AH (34-025) (Portalac model # PE6V1.2)

Transformer - Standard Class II 9 VAC, 700 mA Power Transformer (22-109-ITI) or Class II 9 VAC, 700 mA Line Carrier Power Transformer (22-129-ITI). Obtained through UTC Fire & Security Alternate transformer for UL installation: MG Electronics Model MGT925, 9 VAC, 25 VA UTC Fire & Security Part 22-155.

Hardwired Siren - (13-046)

* Not investigated for use by UL.

Household Burglary Alarm System Unit (UL 1023)

Basic system, plus:

- Hardwired magnetic contact (13-068 or 13-071) or wireless Learn Mode door/window sensor (60-670).
- Option 01: Panel piezo beeps set to on.
- Option 10: Entry delay set to 45 seconds or less.
- Option 11: Exit delay set to 60 seconds or less.

- Option 19: RF timeout set to less than 24 hours.
- Option 29: Control panel alarms turned on.
- Option 38: Autoarm set to on.
- Option 39: Siren timeout set to 4 minutes or more.
- Option 40: 7 set to on.
- Option 50: RF jam detect set to on.
- Option 53: Hardwired siren supervision set to on if Option 29 is set to off.
- Option 59: Exit extension set to off.
- Option 67: Quick exit set to off.

Household Fire Warning System (UL 985)

Basic system, plus:

- Wireless Smoke Sensor 60-848-95 learned into sensor group 26
- Option 01: Panel Piezo Beeps turned on
- Option 29: Control Panel Alarms set to on
- Option 39: Siren Timeout set to 4 minutes or more
- Option 40: Trouble Beeps set to on
- Option 50: RF Jam Detect set to on
- Option 53: Hardwired Siren Supervision set to on if Option 29: Control Panel Alarms is set to off
- Option 85: Smoke Supervision must be set to on

UL 1023 & 985 24-Hour Backup

For 24-hour backup, the total current draw for all connected devices is limited to 25mA (during normal standby conditions) using a 1.2 AH battery.

UL 1635 Digital Alarm Communicator System

Same as UL 1023 & 985, plus:

- Option 12: Phone 1 Reports set to 0 or 1
- Option 16: Auto Phone Test set to 001
- Option 19: RF Timeout set to less than 4 hours
- Option 24: AC Power Failure Report set to on
- Option 25: CPU Low Battery Report set to on
- Option 26: Fail to Communicate set to on

- Option 50: RF Jam Detect set to on
- Option 10 and 17: Entry Delay plus the Dialer Delay must not exceed 60 seconds

Note: These option settings are in addition to UL 1023 and 985 and are required only if the system is set up for Central station reporting.

SIA system requirements

SIA system requirements are the same as those described for a UL listed basic system. Plus if multiple annunciation is required, use Hardwired Siren part no.13-046.

UL requirements take priority over SIA requirements.

Table 1 below describes programming requirements to meet ANSI-SIA CP-01.

Table 1: ANSI-SIA programming requirements

Option number	Function	Deafault setting	Required setting
10	“Option 10: Entry delay” on page 41	30 seconds	30 to 254 seconds
11	“Option 11: Exit delay” on page 41	60 seconds	45 to 154 seconds
17	“Option 17: Dialer delay” on page 44	30 seconds	14 to 45 seconds
38	“Option 38: Autoarm” on page 51	On	On
45	“Option 45: Sensor alarm restoral report” on page 54	Off	3
52	“Option 52: Unvacated premises” on page 56	On	On
56	“Option 56: Call waiting” on page 58	Off	On if reporting to central station and customer has call waiting service.
59	“Option 59: Exit extension” on page 59	On	On
68	“Option 68: Swinger shutdown” on page 61	On (one trip)	On (one trip)
69	“Option 69: SIA limits” on page 61	On	On
86	“Option 86: Fire alarm verify” on page 66	Off	On

Option number	Function	Deafault setting	Required setting
N/A	Duress/panic code	Disabled	Disabled
N/A	Cross zoning	Disabled	Enabled for PIRs

Table 2 below describes non-programmable (hard coded) system operation as required to meet ANSI-SIA CP-01 and is provided only for your reference.

Table 2: System operation required for ANSI-SIA

Function	Operation
Silent exit	All annunciators disabled
Remote arming exit time and progress annunciation	All annunciators enabled
Abort annunciation	Enabled
Cancel report annunciation	Enabled
Recent closing	Enabled (two minute window)
Exit error	Enabled
Restoration of power	Panel resumes operation in same arming state and disregards alarm signals from sensors for the first 60 seconds after power restoration

Central station reporting

The communication path between the panel and the receivers can be either DACT or internet. One is not a backup for the other.

The panel has been tested with the following central station receivers using SIA and Contact ID reporting formats:

- Radionics D6600 Central Station Receiver
- Sur-Gard Central Station Receiver with models SG-DRL2A and SG-CPM2
- CS5000 Digital Alarm Communicator Receiver
- Osborne-Hoffman (OH2000E) Network Receiver

Note: Before beginning installation, installers must verify compatibility with the following central station receivers.

UL Canada listed installations

This section describes the requirements for CUL (UL Canada) Listed installations.

Canadian Standards CSA Certified Accessories

Residential Burglary Alarm System Unit (ORD-C1023-1974)

Basic system as described for “UL 1023 Listed Installations” plus:

- Hardwired Magnetic Contact (13-068 or 13-071) or Wireless Learn Mode Door/Window Sensor (60-670)
- Option 39: Siren Timeout set to 5 minutes or more

Residential Fire Warning System Control Unit (ULC-S545-M89)

Basic system as described for “UL 985 Listed Installations” plus:

- Wireless Smoke Sensor 60-848-95 learned into sensor group 26
- Option 39: Siren Timeout set to 5 minutes or more
- For 24-hour backup, the total current draw for all connected devices is limited to 33 mA (during normal standby conditions) using a 1.2 AH battery.

California State Fire Marshall listed installations

Applied for.

Planning the installation

This section describes system capabilities to help you get familiar with the system. System configuration on page 82 provides planning sheets with tables that let you record the hardware and programming configuration of the system. Fill in all necessary information ahead of time to help prepare for system installation.

Standard panel

The following describes the basic panel (out-of-box) hardware capabilities.

Power - Input for an AC step-down, plug-in style transformer.

2 siren outputs/zone inputs - Terminals for connecting hardwired sirens or normally closed (NC) loop switch circuits.

Phone line connection - Allows panel to communicate with central monitoring station, voice event notification and/or pagers.

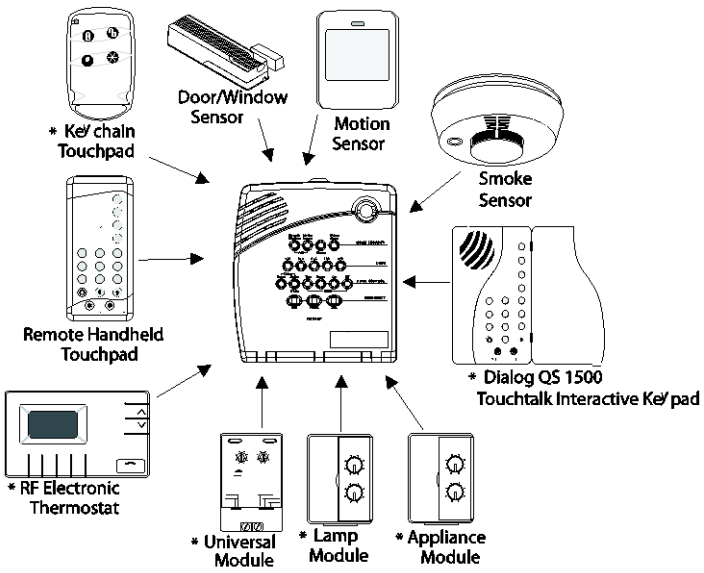
System overview

This section gives an overview of the components that make up the system (control panel and system devices). Before installation, plan your system layout and programming using the worksheets in “System configuration” on page 90.

System components

The security system has three types of components: the control panel, devices that report to the panel and devices that respond to commands from the panel (Figure 1 below). (* Not investigated for use by UL.).

Figure 1: System components



Control panel

The control panel is the main processing unit for all system functions. It receives and responds to signals from wireless sensors and wireless touchpads throughout the premises. For monitored systems, the panel can be connected to the premises phone line for central monitoring station, pager, and/or voice event notification reporting.

Two panel models are available. One has an onboard 2-way voice microphone, the other does not. The Interrogator 200 audio verification module can be added to either panel.

Note: An optional Braille Kit (60-915) is available for visually impaired users.

User interface

When the panel cover is closed, the panel buttons operate the security system. The user operates the panel by pressing panel buttons or by using a touchpad. Refer to the User Manual for complete operation instructions.

When the panel cover is open, the buttons program the security system. The panel can be programmed onsite by the installer or user, or from offsite using

ToolBox® software. See the ToolBox manual and ToolBox online help for offsite programming instructions.

ToolBox has not been investigated by UL and should not be used to program panels in UL listed systems.

Panel tamper

If the panel cover is opened while the system is armed, an intrusion alarm occurs. When the system status button is subsequently pressed, the panel says System Access Alarm.

System devices

The system can monitor up to 24 sensors and may use any of the following:

Door/window sensor (60-670)

For intrusion protection, install Door/Window sensors on all ground-floor doors and windows. At a minimum, install them in the following locations:

- All easily accessible exterior doors and windows.
- Interior doors leading into the garage.
- Doors to areas containing valuables such as cabinets and closets.

Indoor motion sensor (60-639)

Indoor motion sensors are ideal whenever it is not practical to install door/window sensors on every opening. Identify areas where an intruder is likely to walk through. Large areas in an open floor plan, downstairs family rooms, and hallways are typical locations for indoor motion sensors. For installations with pets, use the SAW Pet Immune PIR (60-807).

Outdoor motion sensor (60-639)

Use outdoor motion sensors to detect motion in a protected outdoor area. Detected motion in this protected area can sound chimes or turn on outside lights. **Do not use outdoor motion sensors for intrusion protection.**

Freeze sensor* (60-742)

Freeze sensors detect low temperature conditions which may indicate a furnace failure. The sensor contains a bimetallic thermal switch connected to the built-in transmitter. The sensor transmits an alarm signal to the panel when the surrounding temperature drops to about 41°F (5°C). When the temperature rises to 50°F (10°C), the sensor transmits a restore signal.

Water sensor* (60-744)

Water sensors detect a water leak/rising water. The detector is connected to the sensor by an 8-foot (2.4-meter) cable. Water that reaches both detector contact points activates the sensor, causing it to transmit an alarm signal.

Smoke sensor (60-848-95)

Smoke sensors provide fire protection by causing an alarm to sound throughout the house. You can add smoke sensors near sleeping areas and on every floor of the house. Avoid areas that could have some smoke or exhaust such as attics, kitchens, above fireplaces, dusty locations, garages, and areas with temperature extremes. In these areas you may want to install Rate-of-Rise sensors to detect extreme temperature changes. See “Emergency Planning” and the instructions packaged with the smoke sensor for complete placement information.

Carbon monoxide (CO) alarm* (60-652-95)

The Learn Mode™ CO alarm alerts users to hazardous levels of carbon monoxide gas. If dangerous concentrations of gas are present, the red indicator light comes on, the internal siren goes off, and an alarm is transmitted to the panel. The panel sounds its own alarm and reports to the central station.

Keyfob* (60-659)

The keyfob lets you turn the system on and off from right outside the home or activate a panic alarm if there is an emergency. If you have X10 Lamp Modules, you can use key-fobs to turn all system controlled lights on and off.

ELM (encrypted learn mode) keyfob* (60-832)

The ELM (Encrypted Learn Mode™) 2-button keyfob is an alkaline battery-powered, wireless touchpad that allows users to arm and disarm their system, and activate a police or auxiliary panic alarm. Random encrypted signal transmissions provide high security to help prevent signal copying.

Note: The ELM keyfob is only compatible with Simon® 3 panels version 3.3 and later.

Remote handheld touchpad (60-671)

The remote handheld touchpad lets you turn the system on and off while in the home, turn system controlled lights on and off (all or individual lights), or activate a panic alarm if there is a non-medical emergency.

Dialog QS1500 touchtalk interactive keypad* (60-924-01-3)

The wall-mounted wireless Dialog QS1500 Touchtalk interactive keypad combines a conventional Learn Mode™ touchpad with an RF receiver, speech chip, and voice amplification circuit.

Dialog RF electronic thermostat* (60-909-95)

The Dialog RF Electronic Thermostat provides a money saving and convenient way to monitor and control temperatures. The thermostat uses low and high temperature limits to save energy. Temperature limits set on the thermostat

determine when the heat or air conditioning turns on. There can be only one RF Thermostat per system.

Water-resistant personal help button* (60-906-95)

The water-resistant personal help button is a wireless device used for activating police, medical or auxiliary alarms through your system. When the help button is pressed, the light mounted under the cover will blink and an alarm signal is transmitted.

X10 modules*

When the panel is powered using the line carrier power transformer, the system can work with any of the following modules:

- X10 lamp module (13-403)
- X10 appliance module (13-402)
- X10 power horn/remote siren module (13-398)
- X10 universal module (13-399)

Note: Use of X10 modules has not been investigated by UL.

Interrogator 200 audio verification module* (60-787)

The audio verification module (AVM) gives the central station operator the ability to hear what's happening at the premises during an alarm and to speak directly to the system user. The operator can then determine how serious an alarm is, find out what kind of help is needed, and dispatch the appropriate assistance. Only one AVM may be installed per panel.

Ethernet interface module (60-938)

The Ethernet interface module is designed to provide an additional reporting method for Simon panels. The module reports events to the premisesconnect.com web site and up to two Osborne-Hoffman (OH2000E) network receivers.

Premisesconnect.com is used by:

- Installers - to aid in installation and maintenance of security systems.
- Dealers - to simplify customer and account management.
- First responders - to identify where and how to respond.
- Customers - to receive event notifications and to control their security system.

Dialog™ telephone interface module (DTIM) (60-879-95R)

The DTIM is a battery operated communication link between the security system control panel and the central monitoring station. The DTIM receives radio signals from the panel, then uses the phone line to report security system events to the central station.

Note: The DTIM doesn't support AVM, remote access or any call back from the central station. It is for reporting purposes only.

* Not investigated for use by UL.

Planning sensor types and locations

The first step to an easy and successful installation is to decide what areas or items to protect, which lights or appliances to operate, and the best location for the panel, touchpad, sensors, and sirens.

Metal objects, mirrors, and metallic wallpaper can block signals sent by the wireless sensors. Make sure there are no metal objects in the way when installing the system.

Use the planning tables in "System configuration" on page 90 to determine the appropriate sensor type for the sensors you will be adding. You'll need to understand the application for each sensor. For example, keyfobs are typically programmed as sensor group 01 (Portable panic), used to send an intrusion alarm to a central monitoring station. This sensor type is instant intrusion, it does not require restoral or supervisory communication with the panel and it is active in 4 arming levels (disarm, arm doors & windows, arm motion sensors, and arm doors/windows and motions sensors).

Table 3 below shows devices and recommended sensor groups.

Table 3: Recommended sensor groups

Device	Sensor group	Device	Sensor group
Keyfob	01, 03, 06, 07	Interior door	14
ELM keyfob	01, 03, 06, 07	Window sensor	13
Remote handheld touchpad	01, 03, 06, 07	CO alarm	34
QS 1500 keypad	01, 03, 06, 07	Freeze sensor	29
Indoor motion sensor	17 (intrusion), 25 (chime)	Water sensor	38
Outdoor motion sensor	25	RF electronic thermostat	36
Smoke sensor	26	Personal help button	01, 03
Exterior door	10	DTIM	08, 36

Control panel

Locate the panel where alarm sounds can be heard and is easily accessible for operation. Do not install the panel near a window or door where it can be reached easily by an intruder.

Remote handheld touchpad

Locate Remote Handheld Touchpads where they will be convenient and offer quick access to the user.

QS1500 keypad

Locate QS1500 Keypads where they will be convenient and offer quick access to the user. When mounted, they must be within 600 feet (183 meters) of the control panel.

Keyfob

Keyfobs attach to the owner's key ring or can be conveniently carried.

Dialog telephone interface module

Mount the DTIM within 100 feet (30 meters) of the panel, but no closer than 10 feet (3 meters) to another DTIM or the panel.

X10 modules

The system can control up to 8 individual unit numbers on Lamp, Wall switch, Appliance, and Universal Modules.

House code and unit numbers

Each device (lamp, appliance, etc.) controlled by the panel must have an identification setting. The modules use two dials to set identification codes: one with letters A through P and one with numbers 1 through 16.

The lettered dial sets the house code, which enables the system to differentiate this home from other homes in the area. Set all modules (except the remote siren) and the panel to the same house code.

The numbered dial sets the unit number, which identifies and lets you control a specific device. Each device must have a unique unit number (1-8) to be individually controlled. For example, lights and appliances operated from a Remote Handheld Touchpad or operated by a sensor; or lights programmed to go on during the entry/exit delay or at scheduled times.

All Lamp Modules with the same house code will turn on or flash as a group during an alarm or when operating the "Light" button on a key-fob.

Note: When unit numbers 9-16 are used for lamp modules, they can only be controlled by an all on or all off command. A lamp will flash to the arming level if its unit number is set to 10. A lamp set to unit number 10 will flash once if the panel is disarmed, twice if doors & windows are armed, etc. The remote siren can be set to any unit number to hear alarm sounds. Set it to unit number 9 to also hear arming level beeps, status beeps, and trouble beeps. Do not use a lamp module to control appliances. Use an appliance module, since the wattage rating on Lamp Modules is less than on Appliance Modules.

Manually controlling lights

Lights with even unit numbers (2, 4, 6, 8) can be controlled from either the panel, Remote Handheld Touchpad or QS1500 Keypad. Lights with odd unit numbers (1, 3, 5,7) can only be controlled from a Remote Handheld Touchpad or QS1500 Keypad.

To fill out the home control planning table, do the following:

1. Set the house code on all modules (except the remote siren) to the same letter.
2. Set the Remote Siren house code to the next alphabetical letter. For example, if you chose house code B in step 1 above, set the remote siren house code to C.
3. Set the module unit numbers.
4. List the location of the lamp or appliance in the Location column.
5. Write the location of each lamp module on an adhesive note and label the module.
6. Decide if the device should be activated by sensors, entry/exit delay time, or a combination. An example of sensor activation is using a motion sensor to turn on a light. Record the information in the appropriate columns.

Note: The house code instructions that come with the power-horn siren won't work with this panel. Follow the house code instructions given here.

Use Table 4 below and Table 5 on page 14 to help you plan X10 module installations.

If you are using a universal module to operate a device, make sure to assign a unique unit number to this module, choosing from 1 to 8.

Table 4: X10 house code assignments

X10 device	Settings
Lamp, appliance, universal	Set all modules to the same house code (A to O) except the remote sirens.

X10 device	Settings
Remote sirens	House code must be set to the next higher alphabetical letter.

Table 5: X10 unit number assignments

Unit number	Result
1 to 8	Used for sensor-activated, time-activated, and entry/exit delay lights. • Sensor activated lights are enabled and disabled by pressing the Lights Sensor Activated button on the panel. • Time activated lights are enabled and disabled by pressing the Lights Time Activated button on the panel. • If using the universal module to operate a device, be sure to assign a unique unit number. • The Star button on the keyfob activates the universal module controlled device or turns on special lights if programmed.
9	Used for remote siren or light control. • For remote sire use, sirens with this setting sound alarms, arming level beeps, status beeps, and trouble beeps. • For light control, lamp modules with this setting are controlled by an all on or all off command.
10	Used for remote siren or light control. • For remote siren use, sirens with this setting only sound alarms. • For light control, lamps will flash according to selected arming level and are controlled by an all on or all off command.
11 to 16	Used for lamp modules and controlled by an all on or all off command.

Chapter 2
Installation

This chapter provides an information on how to install the panel and system components.

In this chapter:

Content

Installing the system

This section describes how to open the panel for mounting, mount the panel, connect sirens, hardwired contacts, and the AC power transformer.

Materials needed

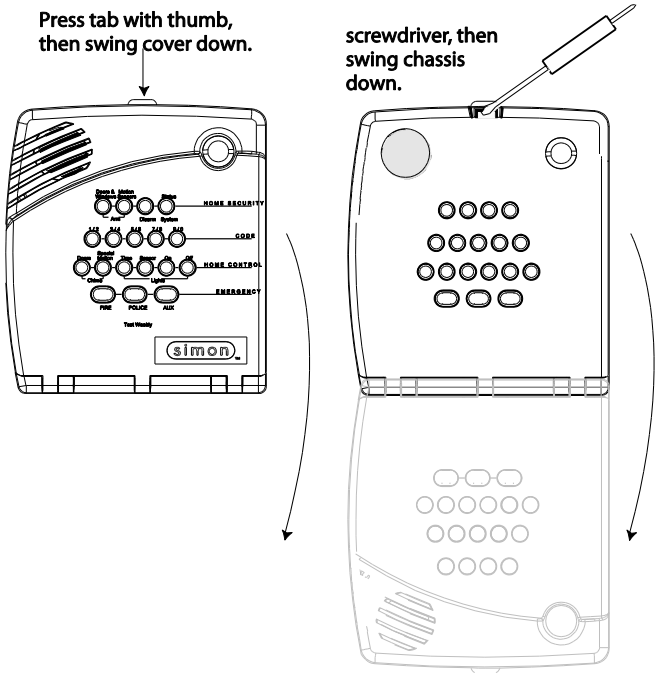
- Pencil
- Phillips and flathead screwdrivers

Opening the panel cover and chassis

Tabs at the top of the panel secure and release the front cover and the chassis. The plastic hinges on the panel bottom allow the cover and chassis to swing down and out of the way (Figure 2 below).

Note: If Option 40 (trouble beeps) is on, the panel will sound six trouble beeps every minute the panel cover is open.

Figure 2: Opening the cover



Mounting the panel

The panel must be securely mounted on a wall or on the optional Tabletop Base.

Wall mounted panel

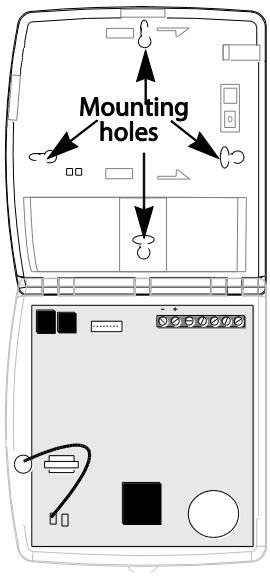
The panel must be securely mounted to the wall using the four screws supplied to prevent accidental movement and to protect the consumer from the system wiring and terminals.

To wall mount the panel, do the following:

1. Choose a panel location.
2. Run all necessary power, phone, siren, and hardwired contact wires to the desired panel location.
3. Hold the panel against the wall and mark the mounting hole locations (Figure 3 below) with a pencil.
4. Insert wall anchors into holes where studs are not present.
5. Install all screws and tighten gently.

When choosing the AC outlet location for the AC power transformer, make sure the outlet is not controlled by a switch or that it is not part of a ground fault interrupt circuit (GFIC).

Figure 3: Wall-mount mounting holes



Tabletop mounted panel

The tabletop base must be fitted to the back of the panel if the panel is to be used on a table or bench.

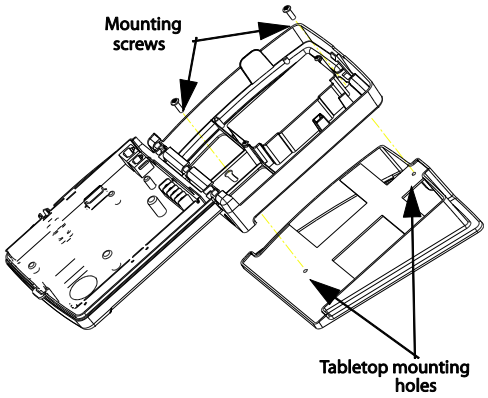
To mount the panel using a tabletop base, do the following:

1. Select a suitable location near power and phone line.

2. Run all necessary wires from the panel through the openings in the tabletop base.
3. Place the panel back on the tabletop base until the top and bottom panel mounting holes line up with the mounting holes on the tabletop base (Figure 4 below).
4. Secure the panel to the tabletop base with the screws provided.
5. Ensure the cables are neat and will not create a tripping hazard.

Note: A tabletop mounted application is only recommended when the panel requires the power and telephone cable as the only hardwired connections. Use the wall mounted position in all other applications.

Figure 4: Tabletop mounting holes



Connecting hardwired devices

The panel has seven screw terminals located on the upper-right corner of the circuit board (see Figure 3 on page 15) for connecting AC power, sirens and/or hardwired detectors.

Note: Program sensors and devices before you install them.

AC terminals

These terminals are used for connecting a Class II 9 VAC, 700 mA AC power transformer. For systems with no X10 modules, use transformer part no. 22-109-ITI. For systems with X10 modules, use transformer part no. 22-129-ITI.

All inputs and outputs are Class II power limited circuits.

HWIN1, HWIN2, and DCOUT terminals

These terminals are dual purpose and can be used for either siren or hardwired detector connections. Options 96 and 97 control how the output on HWIN1 and HWIN2 will function.

Sirens

From the factory, these terminals are set up for siren operation with HWIN1 handling interior sirens (status and alarm sounds), HWIN2 handling exterior sirens (alarm sounds only), and DCOUT providing the positive (+) voltage.

With Option 53: Hardwired Siren Supervision turned on, sirens connected to HWIN1 and HWIN2 are supervised and require a 4.7 kohm resistor in the circuit. If either of these terminals is not used with Option 53 on, you must connect a 4.7 kohm resistor between the unused terminal and DCOUT.

Note: The total current available from the DCOUT terminal is 250 mA (50 mA with the Ethernet interface module installed) at up to 122°F (50°C).

Hardwired Detectors

To set up HWIN1 and/or HWIN2 for hardwired detectors, make the required connections as described under “Wiring Hardwired Contacts,” then proceed to Programming on page 17 to add (learn) them into panel memory.

Wiring interior sirens

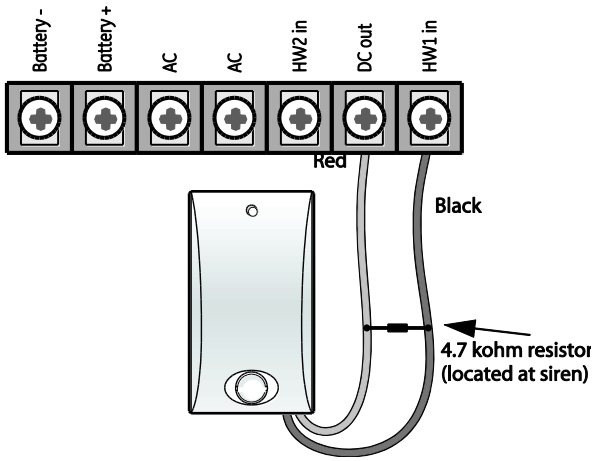
Panel terminal HWIN1 can be used for connecting interior sirens and activates for status and alarm sounds.

For circuit supervision, which allows the panel to detect if the siren wire is cut (open), “Option 53: Hardwired siren supervision” on page 57 must be turned on and interior sirens must be wired with a resistor in the circuit.

LD105 hardwired interior siren

Connect the LD105 hardwired interior siren (13-374) to the panel using a 4.7 kohm resistor (included with siren) as shown in Figure 5 on page 20. The resistor must be connected across the siren wires as close to the siren as possible. Do not install the resistor at the panel terminals. This does not provide supervision of the wire.

Figure 5: Hardwire interior siren with supervision



Note: If you are installing only an interior siren and no exterior siren and Option 53 is on, you must connect a 4.7 kohm resistor between the HWIN1 and DCOUT terminals in addition to the resistor between HWIN2 and siren and Option 53 is on, you must connect a 4.7 kohm resistor between the HWIN2 and DCOUT terminals in addition to the resistor between HWIN1 and DCOUT.

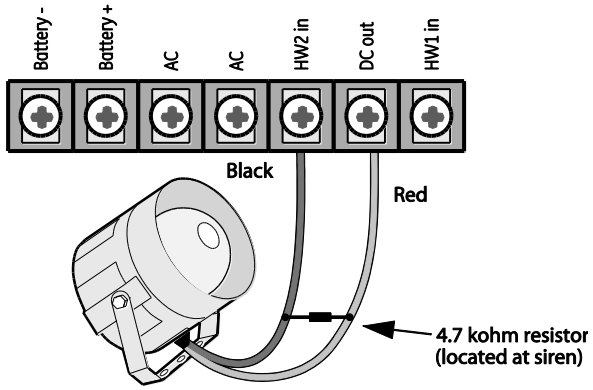
Wiring exterior sirens

Panel terminal HWIN2 can be used for connecting exterior sirens and activates when intrusion and fire alarms occur. Exterior sirens can be wired with or without a resistor in the circuit for supervision. For circuit supervision which allows the panel to detect if the siren wire is cut (open), “Option 53: Hardwired siren supervision” on page 57 must be turned on.

Hardwired exterior siren with supervision

Connect the hardwired exterior siren (13-046) to the panel using a 4.7 kohm resistor (included with siren) as shown in Figure 6 on page 21. The resistor must be connected across the siren wires as close to the siren as possible. Do not install the resistor at the panel terminals. This does not provide supervision of the wire.

Figure 6: Hardwire exterior siren with supervision

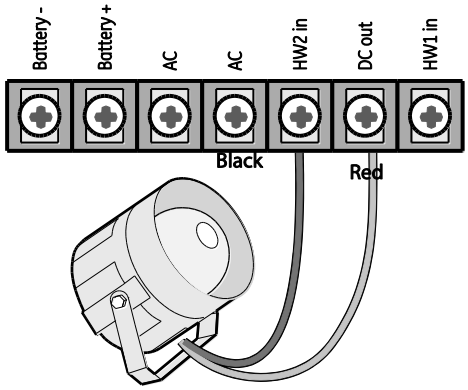


Note: If you are installing only an exterior siren and no interior siren and Option 53 is on, you must connect a 4.7 kohm resistor between the HWIN1 and DCOUT terminals in addition to the resistor between HWIN2 and DCOUT shown in Figure 6 above.

Hardwired exterior siren without supervision

With Option 53 turned off, connect the Hardwired Exterior Siren (13-046) to the panel without a resistor as shown in Figure 7 below.

Figure 7: Hardwire exterior siren without supervision



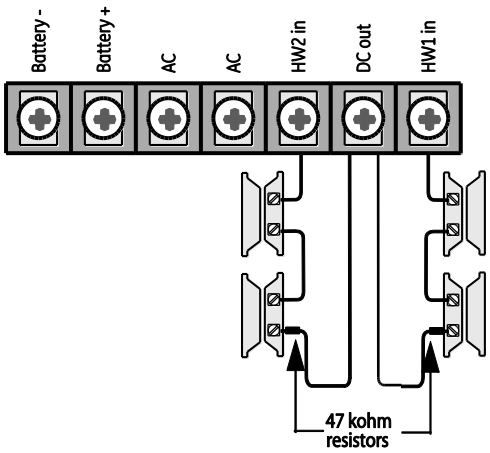
Wiring hardwired contacts

You can connect hardwired reed switches (normally closed loop only) to HWIN1 and/or HWIN2, if either terminal is not being utilized for a hardwired siren. Other types of hardwired detectors should not be used.

The total resistance of the wire loop must not exceed 3 ohms. This allows you to use up to 200 feet (61 meters) of 2-conductor, 22-gauge stranded wire.

Connect hardwired reed switches to the panel using a 47 kohm resistor as shown in Figure 8 below. The resistor must be connected at the last switch in the circuit. Do not install the resistor at the panel terminals. This does not provide supervision of the wire.

Figure 8: Normally closed hardwire reed switches



Wiring a phone line to the panel

You can connect a phone line to the panel for systems monitored by a central monitoring station and/or systems that notify users by a digital pager or voice event notification.

Basically, there are two methods for connecting the panel to a phone line; full line seizure and no line seizure.

Full line seizure

This method requires that the panel be wired ahead (or in front) of all other phones, answering machines, computers, or other devices on the phone line. This allows the panel to take over (seize) the phone line, even if another device on the line is in use.

An RJ-31X (CA-38A) jack should be installed when wiring for full line seizure. This lets the user quickly and easily disconnect the panel from the phone line in case the panel disables the phone line due to a malfunction.

Note: For UL Listed systems, the RJ31X jack must be mounted within 5 feet (1.5meters) of the panel.

Full line seizure wiring with an RJ31X

For full-line seizure with an RJ31X, see Figure 9 on page 24 and do the following:

1. Run a 4-conductor cable from the TELCO block to the RJ-31X (A).
2. Connect the 4-conductor cable wires to the RJ-31X (B).
3. Disconnect the Green and Red premises phone jack wires from the TELCO block and splice them to the 4-conductor cable Black and White (or Yellow) wires (C). Use weatherproof wire connectors for these splices.
4. Connect the 4-conductor cable Green and Red wires to the TELCO block TIP (+)and Red to RING (-) posts (D).
5. Connect the phone cord included with the panel to the RJ31X and the panel LINEIN jack (E).

Note: For UL listed systems, the RJ31X jack must be mounted within 5 ft. (1.5 m) of the panel.

Full line seizure with one premises phone

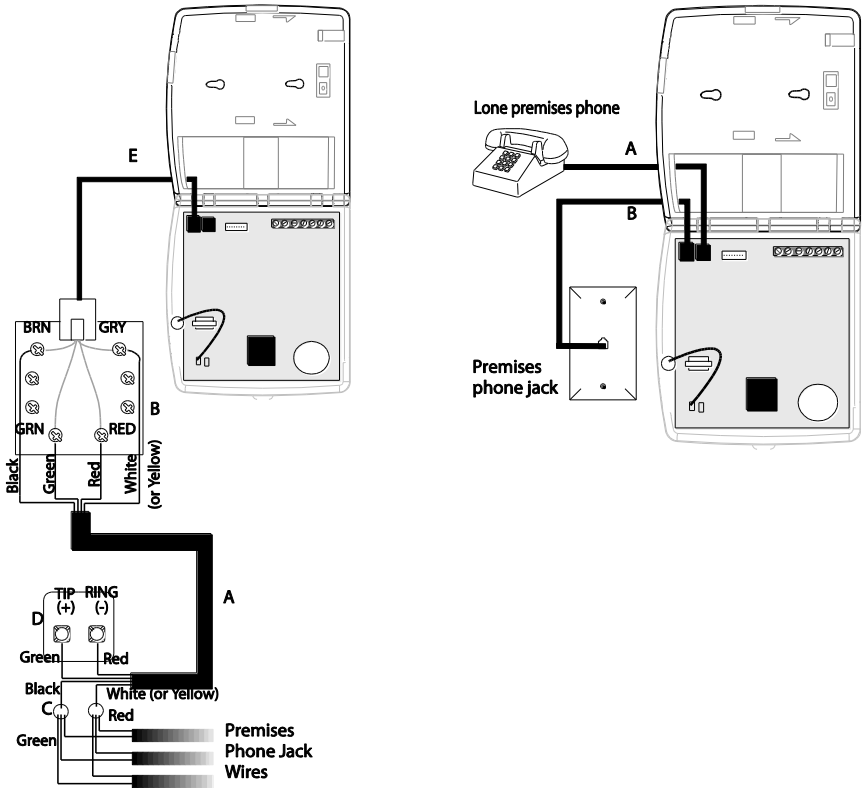
If a single phone is all that exists on the premises, full line seizure can be accomplished without an RJ-31X.

For full seizure with a premises phone, see Figure 9 on page 24 and do the following:

1. Disconnect the phone from the premises phone jack and plug it into the panel PHONE jack (A). This jack is disconnected automatically whenever the panel reports.
2. Connect the phone cord included with the panel to the panel LINE IN jack and the premises phone jack (B).

Note: If the customer ever adds a phone or other phone device to another phone jack, full line seizure no longer exists. Inform the customer to contact you if they want to add a phone or other device so that you can rewire for full line seizure by adding an RJ-31X.

Figure 9: Full line seizure wiring



No line seizure

This method is typically used where DSL (digital subscriber line) service exists. DSL allows multiple devices on a single phone line to be used simultaneously. Connecting the panel LINE IN jack to an available phone jack on the premises is all that is required. An in-line filter may be required to ensure panel reporting is successful. Connecting the panel to a standard phone (voice) line in this manner should be avoided. Other devices in use at the same time the panel is using the line can prevent reports from going through.

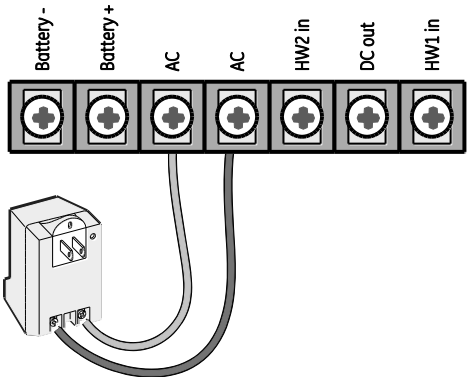
Note: For UL installations, installer needs to verify line seizure.

Wiring the power transformer

Connect the power transformer to the panel AC terminals as shown in Figure 10 on page 25.

Note: Do not plug in the transformer at this time

Figure 10: Power transformer wiring



Powering up the panel

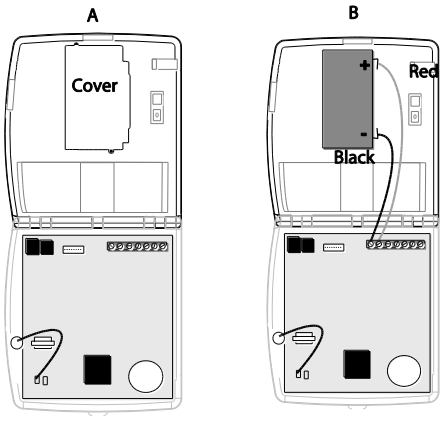
When applying power to the panel connect the battery first, then plug in the AC power transformer. This sequence prevents a battery fault condition.

Installing the panel backup battery

To install the panel backup battery, do the following:

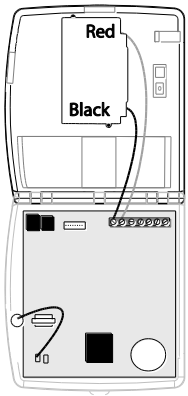
1. Remove the cover from the battery compartment (Figure 11 below).
2. Connect the red and black battery leads (included with panel) to the panel terminals and then to the battery.
3. Place the battery in the compartment, running the wires through the openings in the top and bottom of the compartment.

Figure 11: Installing the backup battery



4. Replace the cover to the battery compartment (Figure 12 on page 26).

Figure 12: Battery installed



Caution: Tighten the screws to the battery compartment securely. Failure to do so could result in damage to the panel board when the cover and chassis are closed.

Applying AC power

Make sure the outlet is not controlled by a switch and that it is not part of a ground fault interrupt circuit (GFIC).

To apply AC power, do the following:

1. Remove the center screw from the outlet cover plate and hold the cover plate in place.

WARNING: Use extreme caution when securing the transformer to a metal outlet cover. You could receive a serious shock if a metal cover drops down onto the prongs of the plug while you are securing the transformer and outlet cover to the outlet box.

2. Plug the transformer into the lower receptacle of the outlet so that the hole in the transformer tab lines up with the outlet cover screw hole. The panel voice should announce Hello, system XX is OK.
3. Insert the cover plate screw through the transformer tab and the outlet cover plate. Tighten the screw firmly.

Installing X10 modules

To install lamp and appliance modules, do the following:

1. Set the unit code dial to a unit number different from all other X10 modules (between 1 and 8).
2. Set the house code for the installation.
3. Plug the module into a wall outlet.
4. Plug the lamp/appliance into the module.

Caution: Do not plug appliances or lamps with 300-watt or larger bulbs into lamp modules.

To install universal modules, do the following:

1. Set the unit code dial to a unit number different from all other X10 modules (between 1 and 8).
2. Set the house code for the installation.
3. Set the module switches to momentary and relay only.
4. Connect the module terminals to the desired device terminals.
5. Plug the universal module into a wall outlet.

Note: See Light and appliances control to program a keyfob to activate a universal module controlled device.

Chapter 3
Programming

This chapter provides information on programming your system.

In this chapter:

Content

Program mode

There are two codes you can use to enter program mode.

Utility Access Code 1 (Dealer Code) - Depending upon how Option 54 is set, the default utility access code is 654321, 54321, 4321 (factory default), or 321. This code can be used for all programming.

Utility Access Code 2 (Installer Code) - Depending upon how Option 54 is set, the default access code is 654321, 54321, 4321 (factory default), or 321. This code is limited to changing all but the following: Utility Access Code 1, Options 4, 5, 6, 8, 9, 12, 13, 54, and 69.

To enter program mode, do the following:

1. Open the panel cover.
2. Enter Utility Access Code 1 or 2 using the numbered keys.

The panel is now in program mode. Follow the programming arrows on the panel label. The system prompts you through programming steps with beeps and voice messages.

Caution: Do not power down the panel while in programming mode or all programming will be lost. The panel stores programmed information only when you exit program mode (close the cover and leave closed for at least five seconds).

Program the panel in this order:

1. Set the panel clock.
2. Add (learn) sensors.
3. Set house code and light and appliance controls (entry/exit activated lights, sensor activated lights, time activated lights).
4. Change numbered options as needed.

Close the cover to exit program mode when you are finished programming.

Reset memory to the factory defaults

To reset memory to factory defaults, do the following:

1. Open the panel cover and enter Utility Access code 1.
2. Unplug the transformer and disconnect the battery.
3. Simultaneously press and hold Cancel, Clock set, and Minutes +.

4. Restore power to the panel with the battery while pressing the three buttons. The panel announces, Hello, System XX OK. Release the buttons.
5. Plug in the transformer to the outlet.

Note: If Option 8 (phone lock) is on, options 4, 5, 6, 7, 8, 9, 12, 13, 54, 56, and dealer code will not reset to their defaults.

Set the clock

To reset the clock, do the following:

1. Press **Clock Set** from the Start Menu.
2. Press the **Hours** + and – keys and listen to the voice prompts. Stop when panel voice announces the correct hour.
3. Press the **Minutes** + and – keys and listen to the voice prompts. Stop when the panel announces the correct minutes.
4. Press **Done**. The panel announces the set time.

Adding (learning) sensors

These instructions describe how to add sensors, touchpads and other system devices into panel memory. The panel recognizes a sensor when you press a sensor program button, press and release a tamper switch, press a sensor test button, or put a sensor into alarm.

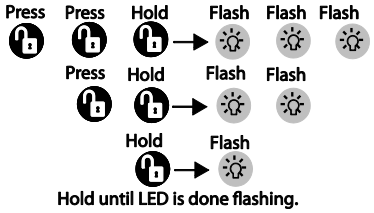
The hardwired inputs must have sirens or hardwired sensors with 47 kohm resistors connected between the DCOUT and HWIN1 or HWIN2 terminals before learning in a sensor. If one of these connections is not made, the panel will learn in a hardwired zone.

Note: If you are installing a sensor on a gun case, jewelry box, or similar usage, and the sensor is active in level one, you must sub-disarm to avoid putting the panel into alarm when the sensor and the magnet are separated.

Table 6 below describes the programming button location for each device.

Table 6: Device programming

Device	Programming
Door/window sensor	Press the button on the top of the sensor (cover removed) or trip the tamper.
Motion sensor	Press the button on the back of the sensor (mounting plate removed) or trip the tamper.

Device	Programming
Smoke sensor	Trip the tamper, press the test button, remove the base, or put the sensor in alarm.
Keyfob	Press and hold Lock and Unlock buttons together.
ELM keyfob	
Remote handheld touchpad	Press the Emergency buttons.
QS1500 keypad	Press Light off button six times.
Hardwired sensors	Separate the sensor from the magnet.
CO alarm	Plug in the module, wait five to seven seconds, and press and hold the Test button for nine beeps.
Freeze and water	Trip the tamper or press and hold the button on top of the sensor (cover removed) until the control panel confirms programming. If the button is not held down long enough, system status reports the sensor as open.
Dialog RF electronic thermostat	Unplug the thermostat from the base plate, wait a few seconds, then plug the thermostat back into the base plate.
Personal help button	Press the help button until the light blinks.
DTIM (When changes are made to panel programming options that affect DTIM, the DTIM is not updated until panel programming mode is existed. After a few minutes, the DTIM should be updated.)	Press and release the DTIM tamper switch as follows: 1. Press three times, holding the tamper switch down on the third press until the LED flashes three times. Release after the third flash. 2. Immediately press two times, holding the tamper switch down on the second press until the LED flashes two times. Release after the second flash. 3. Immediately press and hold, then wait for the panel to beep once indicating it learned the DTIM. Release the tamper switch.

When adding (learning) sensors, the panel uses an ascending numbering sequence starting with 1. You can override this by entering a 2 digit sensor number using the numbered keys immediately after entering the sensor group.

Use Table 22 on page 90 (that you filled out during system planning), to help program sensors.

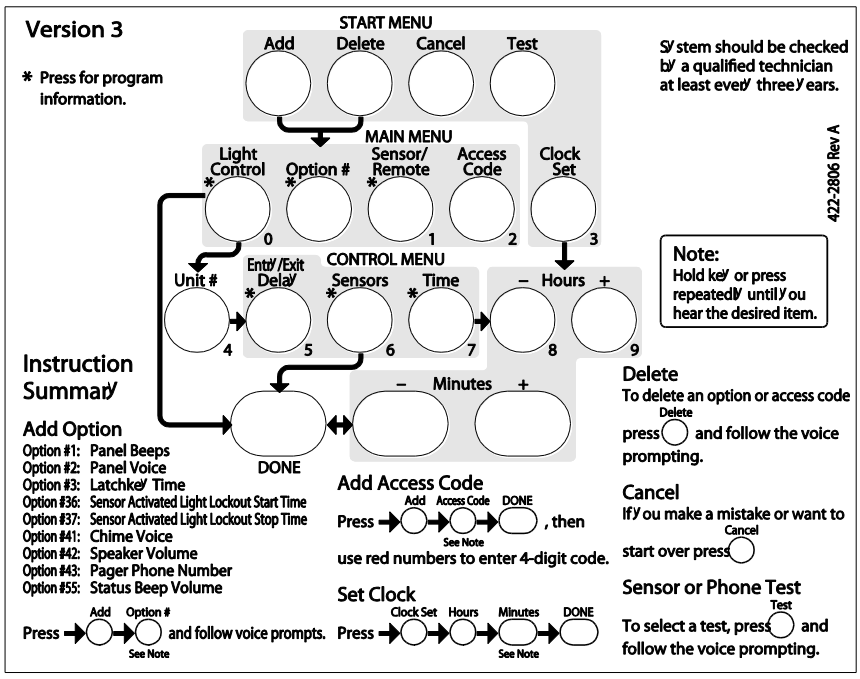
Note: For a more specific location name, press Option # for compass directions (north, northeast, east, southeast, south, southwest, west, northwest).

Add hardwired or RF sensors or remote control

To add a hardwired sensor, an RF sensor, or a remote control, see Figure 13 below and do the following:

1. Press Add. The panel announces Select from Main Menu.
2. Press Sensor/Remote. The panel announces Press button on sensor.
3. Press the sensor program button or release sensor tamper switch. The panel announces Keychain Remote. Press sensor again for next name or press Done to select.
4. Press Sensor/Remote repeatedly until you hear the name or item you want to use. An alphabetical list of names the panel uses appears in “System configuration” on page 90. Each name may be used more than once.
5. Press Done when you hear the desired name. The panel announces Use numbered keys to enter sensor group.
6. Enter the 2-digit sensor group. The panel announces the sensor group and the first available sensor number, then prompts you to press Done to accept.
7. Press Done. The panel confirms programming by announcing the sensor number, name, and group.

Figure 13: Programming label



Delete sensors

To delete sensors, do the following:

1. Press **Delete**. The panel announces Select from Main Menu.
2. Press **Sensor/Remote** repeatedly until you hear the name and number you want deleted, then press **Done**. The panel announces that the sensor is deleted.

X10 module operation

Use the following procedures to program X10 module operations into panel memory. Notice that the **Light Control** button is used to program all X10 module operations (light, appliance, and universal).

House code

To program the house code, do the following:

1. Press **Add**.
2. Press **Light Control** repeatedly until you hear the desired house code letter.
3. Press **Done**.
4. Set the HOUSE dial on each lamp, appliance, and universal module, to the same letter.
5. Set the HOUSE dial on power horn/remote sirens to the next sequential alphabetical letter.

Entry/exit activated module

To add an entry/exit activated module, do the following:

1. Press **Add**.
2. Press **Light Control.**
3. Press **Unit #** repeatedly until you hear the unit number that matches the one you chose for the module.
4. Press **Entry/Exit Delay**. The panel confirms your programming.

To delete an entry/exit-activated module, do the following:

1. Press **Delete**.
2. Press **Light Control.**
3. Press **Unit #** repeatedly until you hear the unit number you want deleted.
4. Press **Entry/Exit Delay**, then press **Done**. The panel confirms your programming.

Sensor-activated module

To add a sensor-activated module, do the following:

1. Press **Add**.
2. Press **Light Control.**
3. Press **Unit #** repeatedly until you hear the unit number that matches the one you chose for the module.
4. Press **Sensors** until you hear the sensor you want to control the light.
5. Press **Done**. The panel confirms your programming.

Note: A keyfob button can also be programmed to control a light or appliance module.

To delete a sensor-activated module, do the following:

1. Press **Delete**.
2. Press **Light Control**.
3. Press **Unit #** repeatedly until you hear the unit number you want deleted.
4. Press **Sensors** until you hear the one you want deleted.
5. Press **Done**. The panel confirms your programming.

Time-activated module

To add a time-activated module, do the following:

1. Press **Add**.
2. Press **Light Control.**
3. Press **Unit #** until you hear the unit number that matches the one you chose on the module.
4. Press **Time**.
5. Press **Hours** and **Minutes** to set the beginning of the schedule.
6. Press **Done**.
7. Press **Hours** and **Minutes** to set the end of the schedule.
8. Press **Done**. The panel confirms your programming.

To delete a time-activated module, do the following:

1. Press **Delete**.
2. Press **Light Control.**
3. Press **Unit #** repeatedly until you hear the unit number you want deleted.

4. Press **Time**.
5. Press **Done**. The panel confirms your programming

Ethernet interface module

The following are requirements for an ethernet interface module:

- Broadband Internet connection (DSL or cable modem)
- An available 10Base-T or 10/100Base-T Ethernet port

Note: Devices between the Ethernet interface module and the transmission line (hub, router, cable modem, etc. must be UL listed and must not receive power from a switched outlet.

Caution: If connecting devices (hub, router, cable modem) do not have a battery backup, the system will lose communication with the reporting station if AC power is lost.

In order to program the module through the Simon panel you must activate the connection between the panel and module. Activating the communication channel and gaining access to the module's remote options is accomplished by turning Option 89: Serial port protocol on page 60 on.

To activate the Ethernet interface module, do the following:

1. Enter Utility Access Code 1 (Dealer Code) if you are not already in program mode.
2. Press Add.
3. Press Option #.
4. Press 8, then 9.
5. Press Done. The panel announces Option 89 is on.
6. Verify both the red and green LEDs on the module and ethernet connector are blinking.

See Options 89 to 92 for custom programming options. Refer to the Ethernet Interface Installation Instructions (466-2161) for more information on this module.

Numbered options

Numbered options let you customize system operation according to dealer and user needs.

The “Option settings” on page 95 lists all system options and their characteristics. Fill in the last column of the table before programming to help speed up the programming process.

Although the panel voice prompts you through programming, it is not necessary to wait for the complete message before pressing the next button in the programming sequence.

There are two ways to reach the desired option setting.

- Press **Add** or **Delete**, then press **Option** # repeatedly until you hear the option you want changed.

Or—

- Press **Add** or **Delete**, **Option** #, then enter the option number using the numbered keys.

The instructions in the following section use the last method.

Option 1: Panel piezo beeps

This option determines whether the panel piezo produces beeps based on system activity (on) or is silent (off). Default is on.

To turn this option on, press **Add, Option #, 01, Done**.

To turn this option off, press **Delete, Option #, 01, Done**.

Note: For all UL listed systems, Option 1 must be on (added).

Table 7 below describes all possible beeps.

Table 7: Possible piezo beeps

Activity	Piezo beep response
Arm doors/windows	Exit delay: Two beeps sound every five seconds and two times per second during the last ten seconds.
	Silent exit: Two beeps sound at the beginning of the exit delay and two more sound just before the exit delay expires.
	Entry delay: Two beeps sound every five seconds and two times per second during the last ten seconds.
Arm motion sensors	Exit delay: Three beeps sound every five seconds and three times per second during the last ten seconds.
	Silent exit: Three beeps sound at the beginning of the exit delay and three more sound just before the exit delay expires.
	Entry delay: Three beeps sound every five seconds and three times per second during the last ten seconds.

Activity	Piezo beep response
Arm doors/windows and motion sensors	Exit delay: Four beeps sound every five seconds and four times per second during the last ten seconds. Silent exit: Four beeps sound at the beginning of the exit delay and Four more sound just before the exit delay expires. Entry delay: Four beeps sound every five seconds and four times per second during the last ten seconds.
Disarm	One beep.
Chime doors	Two beeps (when programmed).
Chime special motion	Three beeps (when programmed).
Trouble beeps	Six times every minute. Press System Status to stop beeps for four hours.
No activity	Twenty beeps every minute for five minutes (when programmed).

Option 02: Panel voice

This option determines whether the panel announces all status, alarm, and program mode messages (on), or only announces messages for canceled alarms, open sensors (protesting), when System Status is pressed, or if the panel is in program mode (off). Default is on.

To turn this option on, press **Add, Option #, 02, Done.**

To turn this option off, press **Delete, Option #, 02, Done.**

Option 03: Latchkey

This option determines whether the panel reports a latchkey alarm if the system is not disarmed at a preset time between midnight and 11:59 P.M. (on). If the latchkey feature is disabled (off), the panel will not report a latchkey alarm. Default is off.

To turn this option on, do the following:

1. Press Add, Option #, 03.
2. Press the Hours +/- buttons to select the correct hour.
3. Press the Minutes +/- buttons to select the correct minute.
4. Done.

To turn this option off, press **Delete, Option #, 03, Done.**

Note: The system clock must be set for the latchkey feature to work.

Option 04: Primary phone number

This option lets you program up to a 26-digit central monitoring station receiver phone number for monitored systems (on), or delete an existing primary phone number (off). Default is off.

Press **Test** for each required pause, **Add** for a *, and **Delete** for a # (each of which uses one of the 26 available places). You must press Done if you enter fewer than 26 digits. The phone number is automatically stored without pressing **Done** if you use all 26 places.

To set this option, press **Add**, **Option #, 04**. Use the numbered keys to enter the phone number (up to 26 digits) and press Done.

To turn this option off, press **Delete, Option #, 04, Done**.

Option 05: Secondary phone number

This option lets you program up to a 26-digit central monitoring station receiver/numeric pager/voice event notification phone number for monitored systems (on), or delete an existing secondary phone number (off). Default is off.

Press **Test** for each required pause, **Add** for a *, and **Delete** for a # (each of which uses one of the 26 available places). You must press **Done** if you enter fewer than 26 digits. The phone number is automatically stored without pressing **Done** if you use all 26 places.

Note: For numeric pagers, add two pauses at the end of the number. Some pagers may require three, four, or more additional pauses to work correctly. Pagers that require the panel to dial more than 26 digits will not work. The panel calls a numeric pager twice for each report. Silent alarms report to a pager as an intrusion alarm.

To set this option, press **Add**, **Option #, 05**. Use the numbered keys to enter the phone number (up to 26 digits) and press **Done**.

To turn this option off, press **Delete, Option #, 05, Done**.

Option 06: Downloader phone number

This option lets you program up to a 26-digit phone number for a computer modem for using ToolBox Downloader (on), or delete an existing phone number (off). Default is off.

Press **Test** for each required pause, **Add** for a *, and **Delete** for a # (each of which uses one of the 26 available places). You must press Done if you enter fewer than 26 digits. The phone number is automatically stored without pressing Done if you use all 26 places.

To set this option, press **Add, Option #, 06**. Use the numbered keys to enter the phone number (up to 26 digits) and press **Done**.

To turn this option off, press **Delete, Option #, 06, Done**.

Option 07: Account number

This option lets you program up to a 10-character alphanumeric account number (on) or delete an existing account number (off). Default is 00000.

To enter letters (A - F only), press **9** then the **Minutes +** button. The panel announces the letter A. Continue pressing the **Minutes +** button to progress through the alphabet. You must press **Done** if you enter fewer than 10 characters. The account number is automatically stored without pressing **Done** if you enter 11 characters (only the first 10 are stored).

The CID format only supports account numbers with letters B through F, or numbers 0 through 9 (or a combination of those letters and numbers).

To set this option, press **Add, Option #, 07**. Use the keys to enter the account number (up to 10 characters) and press **Done**.

To turn this option off, press **Delete, Option #, 07, Done**.

Option 08: Phone jack

This option prevents resetting of phone/reporting related Options 04, 05, 06, 07, 08, 09, 12, 13, 54, 56 and Utility Code 1 when a memory clear is performed (on), or resets these options to their default values when a memory clear is performed (off). Default is off.

To turn this option on, press **Add, Option #, 08, Done**.

To turn this option off, press **Delete, Option #, 08, Done**.

Option 09: Downloader code

This option lets you set a unique five-digit code that is required for initiating ToolBox sessions (on) or sets the code to its default (off). Default is 12345.

The code must be five digits long and can range from 00000 to 99999. The downloader code must match the downloader access code in the ToolBox account to perform ToolBox sessions.

Note: The downloader code should always be changed from the default setting to avoid competitor theft.

To set this option, press **Add, Option #, 09**. Use the numbered keys to enter the downloader code (five digits) and press Done.

To turn this option off, press **Delete, Option #, 09, Done**.

Option 10: Entry delay

This option determines how much time the user has to disarm the system after entering the armed premises through a designated delay door, before an alarm occurs. Beeps sound during the entire delay time to remind the user to disarm the system. Default is 030 seconds.

When turned on, the entry delay can be set from 005 to 254 seconds (030 to 254 if SIA Limits Option 69 is on). All entries must be three digits. When turned off, the entry delay is set to 005 seconds.

Note: For UL listed systems, the entry delay must not exceed 45 seconds.

To set this option, press **Add, Option #, 10**. Use the numbered keys to enter the three-digit delay time and press **Done**.

To turn this option off, press **Delete, Option #, 10, Done.**

Option 11: Exit delay

Determines how much time the user has to leave the premises through a designated delay door after arming the system. Beeps sound after arming the system to remind the user to leave the armed premises. Default is 060 seconds.

If a delay door is opened after the exit delay expires, the entry delay begins. If the user arms the system with no delay and opens a delay door after the exit delay expires, an alarm occurs.

When turned on, the exit delay can be set from 005 to 254 seconds (045 to 254 if SIA Limits Option 69 is on). All entries must be three digits. When turned off, the exit delay is set to 005 seconds.

Note: For UL listed systems, the exit delay must not exceed 60 seconds.

To set this option, press **Add, Option #, 11**. Use the numbered keys to enter the three-digit delay time and press Done.

To turn this option off, press **Delete, Option #, 11, Done**.

Option 12: Phone 1 reports

This option determines the primary phone number (Option 4) report content and reporting format. All entries must be two digits. Table 8 describes the phone report choices. Default is 00.

Note: UL has only verified reporting compatibility with the CS5000 Digital Alarm Communicator Receiver. For UL listed systems, Phone 1 Reports must be set to 00 or 01.

Alarms include: Fire, Intrusion, Emergency, Silent, and Alarm Cancels.

Nonalarms include: Latchkey, No Activity, Openings, Closings, Fail to Open, Fail to Close, Force Armed, AC Power Failure, CPU Low Battery, and Trouble Restorals.

This option must be turned off if using a DTIM to transmit on the regular phone line.

To set this option, press **Add, Option #, 12**, Use the numbered keys to enter 00 to 10 (see Table 8 below) and press **Done**.

To turn this option off, press **Delete, Option #, 12, Done**.

Table 8: Phone report choices

Setting number	Content	Format
Off	None	None
00	All	SIA
01	All	Contact ID
02	Alarms only	SIA
03	Alarms only	Contact ID
04	Nonalarms only	SIA
05	Nonalarms only	Contact ID
06	Phone failure (backup)	SIA
07	Phone failure (backup)	Contact ID
08	Latchkey, No Activity, Phone Test, Openings, Closings, Fail to Open/Close, AC Power Restorals/Failures	Pager
09	Same as setting 08 plus Alarms	Pager
10	Alarms and Latchkey only (“Option 43: Numeric pager/voice event notification phone number” on page 53 and “Option 44: Numeric pager/voice event notification phone 3 reports” on page 54).	Voice event notification

Option 13: Phone 2 reports

This option determines the secondary phone number (Option 5) report content and reporting format. Table 8 on page 42 describes the choices. All entries must be two digits. Default is off

Note: This option must be turned off if using a DTIM to transmit on the regular phone line.

To set this option, press **Add, Option #, 13**. Use the numbered keys to enter 00 to 10 and press Done.

To turn this option off, press **Delete, Option #, 13, Done**.

Option 14: DTMF dialing

This option determines whether the panel uses DTMF (on) or pulse (off) for dialing programmed phone numbers. Default is on.

To turn this option on, press **Add, Option #, 14, Done**.

To turn this option off, press **Delete, Option #, 14, Done**.

Option 15: No activity timeout

This option determines whether the panel sends a no activity report to a central station or pager when the programmed time period elapses (on), or if the feature is disabled (off). Default is off.

No activity means control panel, remote handheld, and keyfob buttons have not been pressed and sensors have not been tripped within a specified period of time (except sensors in group 25).

The timeout can be set from 02 to 24 hours. All entries must be two digits.

To set this option, press **Add, Option #, 15**. Use the numbered keys to enter a time 02 to 24 (all entries must be two digits) and press Done.

To turn this option off, press **Delete, Option #, 15, Done.**

Option 16: Auto phone test

This option determines whether the panel automatically performs a periodic phone test (on) or not (off). Default is off.

The test interval can be from 001 to 254 days. Entries must be three digits. The time of day the panel performs the test is determined by Option 72 (supervisory time), which must be turned on for this feature to work.

Note: For UL 1635 listed systems, this option must be set to 001 days.

To set this option, press **Add, Option #, 16**. Use the numbered keys to enter the number of days 001 to 254 (all entries must be three digits) and press Done.

To turn this option off, press **Delete, Option #, 16, Done**.

Option 17: Dialer delay

This option determines whether the panel delays dialing programmed phone numbers before sending reports (on), or if dialing begins immediately (off). Default is 030.

If Option 21 (opening reports) is on, the panel does not delay dialing if the system is disarmed before the delay time expires. The panel dials immediately for both the alarm and opening report.

Note: Regardless of this option setting, the panel always dials immediately for alarms from sensors in groups 0 to 8, and 26, for alarms triggered by the control panel or remote handheld touchpad emergency buttons, and for programming, AC power failure, and low battery reports.

The delay time can be set from 005 to 254 seconds (015 to 045 if Option 69: SIA limits is on). Entries must be three digits.

Note: For UL installations, this option must not exceed 45 seconds.

To set this option, press **Add, Option #, 17**. Use the numbered keys to enter the time 005 to 254 seconds (all entries must be three digits) and press Done.

To turn this option off, press **Delete, Option #, 17, Done**.

Option 18: Alarm cancel report

This option sets the time frame that determines whether the panel reports an alarm cancel message to the central station. Default is 006.

If the system is disarmed from an alarm state within the programmed time, the panel sends an alarm cancel message to the central station. An alarm cancel message is not reported if the system is disarmed after the programmed time expires. The time can be set from 006 to 255 minutes. Entries must be three digits. When set to 255, the panel always reports alarm cancel messages. Turning off this option disables alarm cancel reporting.

To set this option, press Add, Option #, 18. Use the numbered keys to enter the time 006 to 255 minutes (all entries must be three digits) and press Done.

To turn this option off, press **Delete, Option #, 18, Done**.

Option 19: RF timeout

This option determines the time period the panel must receive at least one supervisory signal from learned sensors before identifying a sensor failure and sounding trouble beeps. Any sensor failure is reported immediately and again at the supervisory time (“Option 72: Supervisory time” on page 62).

The timeout can be set from 02 to 36 hours. Entries must be two digits. Default is 12 hours.

Setting this feature to 2 hours (02) may cause false reports. For UL 1635 listed systems, RF timeout must be set to less than 4 (04) hours. For UL 1023 listed systems, RF timeout must be set to less than 24 hours.

To set this option, press **Add, Option #, 19**. Use the numbered keys to enter the time 02 to 36 hours (all entries must be two digits) and press Done.

To turn this option off, press **Delete, Option #, 19, Done**.

Option 20: Manual phone test

This option determines whether the user can perform a manual phone test to verify communication to a central station/pager (on), or not (off). Default is on.

To turn this option on, press **Add, Option #, 20, Done**.

To turn this option off, press **Delete, Option #, 20, Done**.

Option 21: Opening reports

This options determines whether the panel sends opening reports to a central station or pager whenever the system is disarmed (on), or not (off). Default is off.

To turn this option on, press **Add, Option #, 21, Done**.

To turn this option off, press **Delete, Option #, 21, Done**.

Option 22: Closing reports

This option determines whether the panel sends closing reports to a central station or pager whenever the system is armed (on), or not (off). Default is off.

To turn this option on, press **Add, Option #, 22, Done.**

To turn this option off, press **Delete, Option #, 22, Done**.

Option 23: Force armed report

This option determines whether the panel sends a force armed report to a central station or pager if the user bypasses protesting sensors (indirect bypass) when arming the system (on), or not (off). Default is off.

To turn this option on, press **Add, Option #, 23, Done**.

To turn this option off, press **Delete, Option #, 23, Done**.

Option 24: AC power failure report

This option determines whether the panel sends AC power failure reports to a central station or pager after the programmed time expires (on), or not (off). Default is off.

When the panel is without AC power for 30 seconds, the panel LEDs turn off. When the panel is without AC power for the programmed time, an AC power failure is reported. The panel reports an AC power restoral when AC power returns to the panel.

The time can be set from 005 to 254 minutes. Entries must be three digits.

Note: For UL listed systems, this option must be set to 15 minutes.

To set this option, press **Add, Option #, 24**. Use the numbered keys to enter the time 005 to 254 minutes (all entries must be three digits) and press **Done**.

To turn this option off, press **Delete, Option #, 24, Done.**

Option 25: CPU low battery report

This option determines whether the panel sends a low CPU battery report to the central station when the panel backup battery voltage drops below 5.4 volts (on), or not (off). Default is on.

Note: For UL listed systems, this option must be on.

To turn this option on, press **Add, Option #, 25, Done**.

To turn this option off, press **Delete, Option #, 25, Done**.

Option 26: Fail to communicate

This option determines whether the panel and interior sirens sound trouble beeps if it is unable to successfully send a report to a central station or pager (on), or not (off). Default is on.

Note: For UL listed systems, this option must be on.

To turn this option on, press **Add, Option #, 26, Done**.

To turn this option off, press **Delete, Option #, 26, Done**.

Option 27: Ring/hang/ring

This option determines when the panel answers a remote phone access or Toolbox call. Depending on whether an answering machine exists at the panel location, offsite access to the panel can be done with a series of phone calls or just one. Default is 1.

For offsite access where an answering machine does not exist, the user or ToolBox operator calls the panel location once and listens for 10 rings. The panel should answer after the tenth ring.

For offsite access where an answering machine exists, the user or ToolBox operator must do the following:

1. Call the panel location.
2. Let the phone ring once, then hang up.
3. Wait at least 10 seconds but not more than 40, then call the panel location again. The panel should answer on the first ring.

If set to 1 or 5, perform steps 1 to 3 once.

If set to 2 or 6, perform steps 1 to 3 twice.

If set to 3 or 7, perform steps 1 to 3 three times.

Table 9 below shows the available settings.

Table 9: Ring/hang/ring settings

Setting	Control panel answers after:
1	Ring/hang/ring or 10 rings
2	Ring/hang/ring/hang/ring or 10 rings
3	Ring/hang/ring/hang/ring/hang/ring or 10 rings
4	10 rings
5	Ring/hang/ring
6	Ring/hang/ring/hang/ring
7	Ring/hang/ring/hang/ring/hang/ring
Off	Disabled, no remote (offsite) access

To set this option, press **Add, Option #, 27.** Use the numbered keys to enter 1 to 7 and press Done.

To turn this option off, press **Delete, Option #, 27, Done**.

Option 28: No delay from keyfob

This option determines whether a keyfob arms the system with no delay (on) or not (off). Default is off.

Note: When this feature is on, the system must be disarmed before entering the premises, since it is disabling the entry delay. If Option 58 (remote touchpad arming) is on, keyfobs cannot disarm the system and will cause an alarm upon entering.

To turn this option on, press **Add, Option #, 28, Done**.

To turn this option off, press **Delete, Option #, 28, Done**.

Option 29: Panel piezo alarms

This option determines whether the panel piezo emits alarm sounds (on) or not (off). Default is on.

Note: For UL listed systems where this option is off, at least one UL listed external audible signal device must be used and Option 53 (hardwired siren supervision) must be on.

To turn this option on, press **Add, Option #, 29, Done.**

To turn this option off, press **Delete, Option #, 29, Done**.

Option 30: Panel panic alarms

This option determines whether the panel panic buttons (police, auxiliary, and fire) activate alarms when pressed (on), or not (off). Default is on.

To turn this option on, press **Add, Option #, 30, Done**.

To turn this option off, press **Delete, Option #, 30, Done**.

Option 31: Downloader enable

This option determines whether the panel can be accessed using ToolBox (on), or not (off). Default is on.

To turn this option on, press **Add, Option #, 31, Done**.

To turn this option off, press **Delete, Option #, 31, Done**.

Option 32: 300 baud

This option determines whether the baud rate used by the panel for central station or ToolBox communication is 300 bps (on) or 110 bps (off). Default is on.

To turn this option on, press **Add, Option #, 32, Done**.

To turn this option off, press **Delete, Option #, 32, Done**.

Option 33: Audio verification

This option determines whether the system can perform two-way voice audio sessions with a central station operator (on), or not (off). Default is off.

Panel voice announcements are silenced during audio sessions. If the operator does not terminate the session correctly, panel announcements may not occur for up to 90 seconds after the operator hangs up. If this option is off, Option 47 (AVM mode) and Option 48 (panic talk - AVM) will not work.

Note: For this option to work correctly, the panel must have a two-way voice microphone or an Interrogator 200 Audio Voice Module attached.

To turn this option on, press **Add, Option #, 33, Done**.

To turn this option off, press **Delete, Option #, 33, Done**.

Option 34: Fail to open report

This option determines whether the panel sends a fail to open report to a central station or pager if the system has not been disarmed by the programmed time (on), or not (off). Default is off.

Note: System time must be set correctly for this feature to work.

To set this option, do the following:

1. Press **Add, Option #, 34**.
2. Press the **Hours** +/- buttons to select the correct hour.,
3. Press the **Minutes** +/- buttons to select the correct minute.
4. Press **Done**.

To turn this option off, press **Delete, Option #, 34, Done**.

Option 35: Fail to close report

This option determines whether the panel sends a fail to close report to a central station or pager if the system has not been armed by the programmed time (on), or not (off). Default is off.

Note: System time must be set correctly for this feature to work.

To set this option, do the following:

1. Press **Add, Option #, 35**.
2. Press the **Hours** +/- buttons to select the correct hour.
3. Press the **Minutes** +/- buttons to select the correct minute.
4. Press **Done**.

To turn this option off, press **Delete, Option #, 35, Done**.

Option 36: Sensor activated light lockout start time

This option sets the start time that determines when the panel prevents the sensor activated lights feature from turning on sensor activated lights. Default is off.

Note: System time must be set correctly for this feature to work.

When a time value is set (on) and the sensor activated lights feature is on, the panel prevents sensor activated lights from turning on between the programmed start time (this option) and the programmed stop time (Option 37). Both Options 36 and 37 must have a time programmed for this feature to work correctly. When both Options 36 and 37 are turned off and the sensor activated lights feature is on, sensor activated lights turn on at all times.

To set this option, do the following:

1. Press **Add, Option #, 36**.
2. Press the **Hours** +/- buttons to select the correct hour.
3. Press the **Minutes** +/- buttons to select the correct minute.
4. Press **Done**.

To turn this option off, press **Delete, Option #, 36, Done**.

Option 37: Sensor activated light lockout stop time

This option sets the stop time that determines when the panel prevents the sensor activated lights feature from turning on sensor activated lights. Default is off.

Note: System time must be set correctly for this feature to work.

When a time value is set (on) and the sensor activated lights feature is on, the panel prevents sensor activated lights from turning on between the programmed start time (Option 36) and the programmed stop time (this option). Both Options 36 and 37 must have a time programmed for this feature to work correctly. When both Options 36 and 37 are turned off and the sensor activated lights feature is on, sensor activated lights turn on at all times.

To set this option, do the following:

1. Press **Add, Option #, 37**.
2. Press the **Hours** +/- buttons to select the correct hour.
3. Press the **Minutes** +/- buttons to select the correct minute.
4. Press **Done**.

To turn this option off, press **Delete, Option #, 37, Done**.

Option 38: Autoarm

This option determines how long the system protests (announces open/failed sensors) when attempting to arm with open/failed sensors, before bypassing these sensors and automatically arming the rest of the system. Default is on.

Note: The panel protests an arming attempt when it has not received a restore (close) signal from sensors learned into restore-specific sensor groups. Sensors learned into group 26 (Fire) cannot be bypassed. See “System configuration” on page 90 to identify sensor groups with restore signal requirements.

When this option is on, the panel announces all open/failed sensors repeatedly for four minutes, then automatically bypasses the open sensors and arms the rest of the system. If a sensor is opened during the exit delay and then left open, the panel will go into alarm after the exit delay has expired. This option must be on for Option 52 (unvacated premises) and 59 (exit extension) to work correctly.

If there are open sensors, pressing the Arm Doors & Windows button a second time (before the four-minute time expires) bypasses all open sensors and arms the rest of the system. Pressing this button a third time eliminates the entry delay. If there are no open sensors, pressing the Arm Doors & Windows button a second time (before the exit delay expires) eliminates the entry delay.

Note: For UL Listed systems, this option must be on.

When this option is off, the panel announces all open/failed sensors once, then automatically bypasses the open sensors and arms the rest of the system after the exit delay has expired. If other sensors are opened during the exit delay, they will also be bypassed if left open.

Note: If a Group 13 (instant perimeter) sensor is opened during the exit delay, the panel goes into immediate alarm.

To turn this option on, press **Add, Option #, 38, Done.**

To turn this option off, press **Delete, Option #, 38, Done**.

Option 39: Siren timeout

This option determines how long sirens sound alarms if no one is present to disarm the system. The time can be set from 002 to 254 minutes. Entries must be three digits. When this feature is turned off, sirens sound alarms until the alarm is canceled (system is disarmed). Default is 004 minutes.

Note: For UL listed systems, this option must be set to at least four minutes.

To set this option, press **Add, Option #, 39**. Use the numbered keys to enter the time 002 to 254 minutes (all entries must be three digits) and press **Done**.

To turn this option off, press **Delete, Option #, 39, Done**.

Option 40: Trouble beeps

This option determines whether the panel, X10, and hardwired interior sirens sound six beeps every minute when a trouble condition occurs (on) or not (off). Default is on.

The following conditions cause trouble beeps:

- AC power failure (when Option 24 is on).
- Low CPU battery.
- Sensor failure (supervisory).
- Sensor trouble (i.e. low battery, tamper, etc.).
- Fail to communicate.
- Restoration of power (if no DTIM installed).
- No activity timer has timed out. Trouble beeps continue for five minutes and if the panel does not see activity, trouble beeps stop and the panel reports the no activity to the central station.

Trouble beeps can be silenced by arming or disarming the system, or by pressing the Status button. Trouble beeps resume four hours later if the trouble condition is not cleared.

Note: For UL listed systems, this option must be on.

To turn this option on, press **Add, Option #, 40, Done**.

To turn this option off, press **Delete, Option #, 40, Done**.

Option 41: Chime voice

This option determines whether the panel announces the sensor number and name (on) or only sounds beeps (off), when the chime doors or chime special motion features are on and sensors in groups 10, 13, and 25 are tripped while the system is disarmed. Default is off.

To turn this option on, press **Add, Option #, 41, Done**.

To turn this option off, press **Delete, Option #, 41, Done**.

Option 42: Speaker level

This option sets the volume of voice messages from the panel speaker. Default is 8.

The volume can be set from 1 (lowest) to 8 (highest). Resetting this option returns the setting to the default value (8).

To set this option, press **Add, Option #, 42**. Use the numbered keys to enter 1 to 8 and press **Done**.

To turn this option off (return to default), press **Delete, Option #, 42, Done**.

Option 43: Numeric pager/voice event notification phone number

This option lets you program up to a 26-digit phone number for numeric pager or voice event notification (on), or delete an existing phone number (off). Default is off.

When used to call a numeric pager, a three-digit code appears on the pager display to identify the report. When used to call a remote phone (voice event notification), a person at the remote phone location can hear system voice alarm announcements. See “Voice event notification” on page 82.

Press **Test** for each required pause, **Add** for a *, and **Delete** for a # (each of which uses one of the 26 available places). You must press **Done** if you enter fewer than 26 digits. The phone number is automatically stored without pressing **Done** if you use all 26 places.

Note: Some pagers may require more than three or four additional pauses after the last digit to work correctly (see “Option 05: Secondary phone number” on page 39).

To set this option, press **Add, Option #, 43**. Use the numbered keys to enter the phone number (up to 26 digits) and press Done.

To turn this option off, press **Delete, Option #, 43, Done**.

Option 44: Numeric pager/voice event notification phone 3 reports

This option determines the report content and reporting format when Option 43 is programmed. All entries must be two digits. Default is off.

To set this option, press **Add, Option #, 44**. Use the numbered keys to enter 08, 09, or 10 (all entries must be two digits) and press **Done**.

To turn this option off, press **Delete, Option #, 44, Done**.

Table 10 below shows the report choice.

Table 10: Report choices

Setting	Content	Format
Off	None	None
08	Latchkey, No Activity, Phone Test, Openings, Closings, Fail to Open/Close, AC Power Restorals/Failures	Numeric pager
09	Same as setting 08 plus Alarms	Numeric pager
10	Alarms and Latchkey only	Voice event notification

Option 45: Sensor alarm restoral report

This option determines whether the panel reports sensor alarm restorals (on), or not (off). Default is off.

To set this option, press **Add, Option #, 45**. Use the numbered keys to enter 1, 2, or 3 and press **Done**.

To turn this option off, press **Delete, Option #, 45, Done**.

Table 11 below describes the possible settings.

Table 11: Report settings

Setting	When restorals are reported
Off	No restoral reporting
1	Immediately after sensor is closed or restored after dial delay
2	After siren timeout expires if sensor is restored
3	When system is disarmed if sensor is restored

Option 46: Fire shutdown - AVM

This option determines whether system sirens are silenced during a two-way audio session (on) or not (off). Beeps sound every 10 seconds while sirens are silenced. Default is off.

To turn this option on, press **Add, Option #, 46, Done**.

To turn this option off, press **Delete, Option #, 46, Done**.

Option 47: AVM mode

This option determines whether the panel hangs up and waits for a callback from the central station operator before starting an audio session (on), or stays on line with the central station for an instant audio session (off). Default is off.

Note: Option 33 (audio verification) must be on for this feature to work.

To set this option to callback, press **Add, Option #, 47, Done**.

To set this option to instant, press **Delete, Option #, 47, Done**.

Option 48: Panic talk - AVM

This option determines whether the central station operator can talk to the user during a silent alarm (off) or just listen in on the premises (on). Default is off

Silent alarms occur when sensors learned into groups 02 or 03 are tripped, when the panic code is entered, or when the panel **Police** button is pressed and Option 74 (silent panel police panic) is turned on.

Note: Option 33 (audio verification) must be on for this feature to work.

To turn this option on, press **Add, Option #, 48, Done**.

To turn this option off, press **Delete, Option #, 48, Done**.

Option 49: Arming LEDs shutdown

This option determines whether the panel LEDs (buttons) turn off 30 seconds after the last button press (on), or remain on for the entire arming period (off). Default is off.

To turn this option on, press **Add, Option #, 49, Done**.

To turn this option off, press **Delete, Option #, 49, Done**.

Option 50: RF jam detect

This option determines whether the panel checks for and reports RF interference/jam to the central station (on), or not (off). Default is off.

If this option is on and the panel receives a constant 319.5 MHz signal, the panel speaker announces RF Failure and reports the condition to the central station. Touchpads will announce Option 50 Detected. If this option is off, the panel does not detect an RF jam.

Note: For UL listed systems, this option must be on.

To turn this option on, press **Add, Option #, 50, Done**.

To turn this option off, press **Delete, Option #, 50, Done**.

Option 51: 24-hour sensor tamper

This option determines whether the system (armed or disarmed) goes into and reports an alarm anytime a sensor tamper switch is tripped (on), or only when the system is armed and a tamper switch of an armed sensor is tripped (off). Default is off.

To turn this option on, press **Add, Option #, 51, Done**.

To turn this option off, press **Delete, Option #, 51, Done**.

Option 52: Unvacated premises

This option determines whether the system automatically arms down to level 2 (Arm Doors & Windows) if the user arms the system to level 4 (Arm Doors & Windows, + Arm Motion Sensors) without leaving the premises (on), or remains at the armed level chosen by the user (off). Default is on.

Note: If Options 81 and 82 are programmed, the RF thermostat will change from energy saving mode to normal operating mode when the panel is armed to level 2.

This feature does not work from a keyfob.

Option 38 (autoarm) must be on for this feature to work.

To turn this option on, press **Add, Option #, 52, Done**.

To turn this option off, press **Delete, Option #, 52, Done**.

Option 53: Hardwired siren supervision

This option determines whether the panel monitors hardwired sirens for open conditions (on), or not (off). If this option is turned on, sirens connected to the panel terminals require an EOL resistor in the wire circuit (see “Installing the system” on page 16 for siren wiring). If this option is turned off, EOL resistors are not required whether sirens are connected or not. Default is off.

Note: For UL listed systems, this feature must be on and EOL resistors installed. Also for UL listed systems, this feature must be on if Option 29 (panel piezo alarms) is off.

To turn this option on, press **Add, Option #, 53, Done**.

To turn this option off, press **Delete, Option #, 53, Done**.

Option 54: Access code length

This option determines how many digits are in all access codes. Turning on this option lets you set the access code length to 3, 4, 5, or 6 digits. Turning off this option resets the access code length to the default setting. Changing the access code length changes the Master, Utility 1, and Utility 2 access codes to their respective defaults as described in Table 12 below. Default is 4.

Changing the access code length clears/deletes any user codes that were previously programmed. If the customer wants the access code length changed, it should be set before programming any new (unprogrammed) access codes, whenever possible.

To set this option, press **Add, Option #, 54**. Use the numbered keys to enter 3, 4, 5, or 6 and press **Done**.

To reset this option (to default), press **Delete, Option #, 54, Done**.

Table 12: Default codes

Setting	Default code		
	Master	Utility 1	Utility 2
3	123	3321	321
4	1234	4321	4321
5	12345	54321	54321
6	123456	654321	654321

Option 55: Status beep volume

This option determines the panel piezo volume level for status sounds such as arming, trouble, and status beeps. The volume can be set from 01 (lowest) to 10 (highest). Resetting this option returns the volume to the default setting. Entries must be two digits. Default is 07.

To set this option, press **Add, Option #, 55**. Use the numbered keys to enter 01 to 10 (entries must be two digits) and press **Done**.

To reset this option (return to default), press **Delete, Option #, 55, Done**.

Option 56: Call waiting

This option lets you program up to a 26-digit number or code that disables call waiting or any other phone service before dialing central station, pager, or voice event notification phone numbers (on). When this option is turned off, the panel dials only the central station or pager phone numbers. Default is off.

Caution: Do not change Option 56 from its default if the customer doesn't have call waiting. Verify with the customer that they have call waiting with their phone service provider before changing this option from its default. Changing this option from its default without call waiting will prohibit the panel from calling the central station.

Press **Test** for each required pause, Add for a *, and Delete for a # (each of which uses one of the 26 available places). You must press **Done** if you enter fewer than 26 digits. The phone number is automatically stored without pressing Done if you use all 26 places.

To set this option, press **Add, Option #, 56.** Use the numbered keys to enter the phone number (up to 26 digits) and press **Done**.

To reset this option (return to default), press **Delete, Option #, 56, Done**.

Option 57: Supervisory/tamper report

This option determines whether the panel sends supervisory reports to a central station as a tamper (on) or a supervisory (off). Default is off.

This option is typically used only in Europe where a supervisory condition is required to report as a tamper.

To report supervisories as tamper reports, press **Add, Option #, 57, Done**.

To report supervisories as supervisory reports, press **Delete, Option #, 57, Done**.

Option 58: Remote touchpad arming

This option determines whether keychain and remote touchpads can disarm the system only during exit and entry delays (on), or arm and disarm the system anytime (off). Default is off.

Caution: If this option and Option 28 (no delay from keyfob) are on, users cannot enter and/or disarm using remote touchpads without causing an alarm.

To turn this option on, press **Add, Option #, 58, Done**.

To turn this option off, press **Delete, Option #, 58, Done**.

Option 59: Exit extension

This option determines whether the panel restarts the exit delay time if the user enters the armed premises during the initial exit delay period (on), or not (off). Turning this feature on allows users to reenter during the exit delay period, without disarming and then rearming the system. Turning this feature off requires the user to disarm and rearm the system. Option 38 (autoarm) must be on for exit extension to work. Default is on.

Note: For UL listed systems, this option must be off.

To turn this option on, press **Add, Option #, 59, Done.**

To turn this option off, press **Delete, Option #, 59, Done**.

Option 60: Secure arming

This option determines whether an access code is required when arming the system (on) or not (off). This option does not affect keyfob arm/disarm operation. Default is off.

To turn this option on, press **Add, Option #, 60, Done**.

To turn this option off, press **Delete, Option #, 60, Done**.

Option 61: Demo mode

This option determines whether the panel operates as a demonstration model (on) or a standard panel (off). Turning on this feature disables low battery supervision and allows the microphone to remain on continuously during an AVM session. System time setting is not required when this setting is on. Default is off.

To turn this option on, press **Add, Option #, 61, Done**.

To turn this option off, press **Delete, Option #, 61, Done**.

Option 62: Supervisory protest

Determines whether the panel protests arming if it has not received a supervisory signal from any sensor 15 minutes before arming (on) or not (off). Default is off.

Note: This feature must be turned on for European installations, but turned off for U.S. installations.

To turn this option on, press **Add, Option #, 62, Done**.

To turn this option off, press **Delete, Option #, 62, Done**.

Option 63: 24-hour time

This option determines whether the panel uses a 24-hour clock (on) or 12-hour clock (off). Default is off.

To set this option to a 24-hour clock, press **Add, Option #, 63, Done**.

To reset this option to a 12-hour clock, press **Delete, Option #, 63, Done.**

Option 64: No arm on panel low battery.

This option determines whether the system prevents users from arming if a low CPU battery condition exists (on) or not (off). Default is off.

To turn this option on, press **Add, Option #, 64, Done**.

To turn this option off, press **Delete, Option #, 64, Done**.

Option 65: No usage report

This option determines whether the panel sends a no usage report to the central station if the user has not operated the system before the programmed time expires (on) or not (off). The timer starts each time the system is disarmed. Default is off.

This is a customer service feature that alerts the central station if a customer is not using their security system. The service provider can then contact the customer to find out why the system is not being used, and help correct any problems for the customer.

The time can be set from 001 to 254 days. Entries must be three digits.

To set this option, press **Add, Option #, 65**. Use the numbered keys to enter 001 to 254 days (entries must be three digits) and press **Done**.

To reset this option to its default (off), press **Delete, Option #, 65, Done**.

Option 66: External siren delay

This option determines whether external siren activation is delayed 30 seconds after an alarm caused by a delayed sensor (on), or if external siren activation is immediate upon alarm activation (off). Default is off.

To turn this option on, press **Add, Option #, 66, Done**.

To turn this option off, press **Delete, Option #, 66, Done**.

Option 67: Quick exit

This option determines whether pressing the Disarm button when the system is armed activates the exit delay time to allow exit and reentry without disarming the system (on) or not (off). Default is off.

This feature is useful if the user wants to step outside briefly and return. If the system is armed and the user presses the Disarm button, the panel announces Exit time on and sounds exit delay beeps. This allows a designated entry/exit door to be open for up to two minutes without causing an alarm. When the door is closed, the beeps stop and the door is armed again.

Note: For UL listed systems, this option must be off.

To turn this option on, press **Add, Option #, 67, Done**.

To turn this option off, press **Delete, Option #, 67, Done**.

Option 68: Swinger shutdown

This option determines whether the panel prevents the same sensor from activating an alarm more than once in a single arming period (on) or not (off). Default is on.

Swinger shutdown does not affect smoke and fire sensors.

To turn this option on, press **Add, Option #, 68, Done**.

To turn this option off, press **Delete, Option #, 68, Done**.

Option 69: SIA limits

This option determines whether entry, exit, and dialer delay times fall within SIA limits (on) or factory ranges (off). Default is on.

If Options 10, 11, or 17 are set outside the SIA limits while Option 69 is off, turning Option 69 on will not affect Options 10, 11, or 17 until they are manually changed.

When this option is off, there are no CS reports for sensor tests.

Note: This option is not investigated for use by UL.

Table 13 shows the available settings when this option is on or off.

Table 13: SIA limits

Affected option	SIA limits (Option 68 on)	Factory 68 (Option 68 off)
Option 10: Entry delay	030 to 254 seconds	005 to 254 seconds
Option 11: Exit delay	045 to 254 seconds	005 to 254 seconds
Option 17: Dialer delay	015 to 045 seconds	005 to 254 seconds

To turn this option on, press **Add, Option #, 69, Done**.

To turn this option off, press **Delete, Option #, 69, Done**.

Option 70: Not available

Option 71: Programming report

This option determines whether the panel sends a report to the central station anytime the programming mode is entered/exited (on) or not at all (off). Default is off.

The panel sends a report whenever the dealer (Utility 1) or installer (Utility 2) code is used to enter programming mode and another report is sent when the programming session ends (when the cover is closed).

To turn this option on, press **Add, Option #, 71, Done**.

To turn this option off, press **Delete, Option #, 71, Done**.

Option 72: Supervisory time

This option determines when the panel reports supervisory conditions (sensor failures) and automatic phone tests to the central station. Default is 12:00am.

Note: The panel clock must be set to the correct time for this option and Option 16 (auto phone test) to work correctly.

To set the supervisory time, do the following:

1. Press **Add, Option #, 72**.
2. Press the **Hours** +/- buttons to select the correct hour.
3. Press the **Minutes** +/- buttons to select the correct minute.

4. Press **Done**.

To turn this option off, press **Delete, Option #, 72, Done**.

Option 73: Modem sensitivity

This option determines whether the modem sensitivity is set to normal (off) or high (on). Default is off.

Note: This feature should be used only if the panel experiences consistent trouble reporting to the central station. Otherwise, leave this option off.

To turn this option on, press **Add, Option #, 73, Done**.

To turn this option off, press **Delete, Option #, 73, Done**.

Option 74: Silent panel police panic

This option determines whether pressing the panel police panic button causes an audible (off) or silent (on) alarm. Default is off.

Note: For UL Listed systems, this option must be off (audible).

To turn this option on, press **Add, Option #, 74, Done.**

To turn this option off, press **Delete, Option #, 74, Done**.

Option 75: VOX mic gain

This option sets the mic gain (sensitivity) that triggers the voice-activated switching (VOX). Room size, acoustics, and furnishings where the panel or Interrogator 200 are located will influence the setting. The available settings are 01 (low) to 64 (high). Entries must be two digits. Default is 14.

For panels with a built-in microphone, we recommend a setting of 14. For systems using the Interrogator 200, a setting of 07 should be used.

To set this option, press **Add, Option #, 75**. Use the numbered keys to enter 01 to 64 (entries must be two digits) and press **Done**.

To turn this option off (return to default), press **Delete, Option #, 75, Done**.

Option 76: VOX gain range

This option sets the gain range for the voice-activated switching (VOX). The available settings are 01 (low) to 64 (high). Entries must be two digits. Default is 64.

For best results, this option should be set equal to or greater than Option 75 (VOX mic gain). For panels with a built-in microphone, this option should be set to the default value.

Note: This option works in conjunction with Option 75 (VOX mic gain). It is important to follow the setting recommendations as described to achieve acceptable operation.

To set this option, press **Add, Option #, 76**. Use the numbered keys to enter 01 to 64 (entries must be two digits) and press **Done**.

To turn this option off (return to default), press **Delete, Option #, 76, Done**.

Option 77: Manual mic gain

This option determines the gain level (sensitivity) during two-way audio sessions, when Option 33 (audio verification) is set to 0 or 1 (speak). Room size, acoustics, and furnishings where the panel or Interrogator 200 are located will influence the setting. The available settings are 01 (low) to 64 (high). Entries must be two digits. Default is 64.

For panels with a built-in microphone, we recommend a setting of 64. For systems using the Interrogator 200, use a setting of 20.

To set this option, press **Add, Option #, 77**. Use the numbered keys to enter 01 to 64 (entries must be two digits) and press **Done**.

To turn this option off (return to default), press **Delete, Option #, 77, Done**.

Option 78: VOX receiver gain

This option determines the receiver gain level during two-way audio sessions. This option can be set from 01 to 10. Entries must be two digits. Default is 06.

If the VOX is switching the speaker on when the central station operator is not talking, lower both this setting and Option 75 (VOX mic gain). If the VOX is not switching the speaker on when the central station operator is talking, raise this setting and lower Option 75.

Note: Changing this setting does not affect speaker volume.

To set this option, press **Add, Option #, 78**. Use the numbered keys to enter 01 to 10 (entries must be two digits) and press **Done**.

To turn this option off (return to default), press **Delete, Option #, 78, Done**.

Option 79: Panel cover tamper

This option determines whether the panel activates a tamper alarm anytime the cover is opened (on), or only when the system is armed (off). Default is off.

To enter program mode when this option is on, you must first enter the master access code, then open the cover and enter program mode within 10 seconds.

To turn this option on, press **Add, Option #, 79, Done.**

To turn this option off, press **Delete, Option #, 79, Done**.

Option 80: Alarm report verification

This option determines whether the panel verifies successful alarm reports to the central station/pager with the voice message Phone communication okay (on), or not (off). Default is off.

To turn this option on, press **Add, Option #, 80, Done**.

To turn this option off, press **Delete, Option #, 80, Done**.

Option 81: Heating set point

This option lets you adjust the heating set point. You can set the heating set point between 51°F and 91°F. Default is off.

If the room temperature falls below the heating set point, the RF electronic thermostat will turn the furnace on until the room temperature returns to the heating set point. Refer to the Dialog RF Electronic Thermostat Instructions (466-1931) for more information on its use.

To adjust the heating set point, press **Add, Option #, 81**. Use the numbered keys to enter 51 to 91 and press **Done**.

To turn this option off, press **Delete, Option #, 81, Done**.

Option 82: Cooling set point

This option lets you adjust the cooling set point. You can set the cooling set point between 51°F and 91°F. Default is off.

If the room temperature rises above the cooling set point, the RF electronic thermostat will turn the air conditioner on until the room temperature returns to the cooling set point. Refer to the Dialog RF Electronic Thermostat Instructions (466-1931) for more information on its use.

To adjust the cooling set point, press **Add, Option #, 82.** Use the numbered keys to enter 51 to 91 and press **Done**.

To turn this option off, press **Delete, Option #, 82, Done**.

Option 83: X10/RF light control

This option determines what type of light control will be used by the panel. If this option is on, the panel uses the RF light control modules to control lights. If this option is off, the panel uses X10 modules to control lights. Default is off.

To turn this option on (RF light control), press **Add, Option #, 83, Done**.

To turn this option off (X10 light control, default), press **Delete, Option #, 83, Done**.

Option 84: European compliance

For European installations. Default is off.

Option 85: Smoke supervision

This option determines how often the panel must receive supervisory signals from the smoke sensors. If this option is on, the panel must receive at least one supervisory signal from smoke sensors every four hours or it will identify a sensor failure and sound trouble beeps. If this option is off, the time for receiving supervisory signals is determined by Option 19 (RF timeout). Default is off.

Note: For UL 985 listed systems, this option must be on.

To turn this option on, press **Add, Option #, 85, Done**.

To turn this option off, press **Delete, Option #, 85, Done**.

Option 86: Fire alarm verify

This option determines when a fire alarm is reported to the central station. If this option is on, a single smoke sensor must stay in alarm for at least one minute before the panel reports the alarm to the central station. If a second (different) smoke sensor goes into alarm before the siren timeout (Option 39) expires, the panel immediately reports the alarm to the central station. If this option is off, the panel immediately reports an alarm to the central station when a smoke sensor goes into alarm. Default is off.

To turn this option on, press **Add, Option #, 86, Done**.

To turn this option off, press **Delete, Option #, 86, Done**.

Option 87: Two-way RF touchpad voice

This option determines the amount of broadcast speech that is sent to two-way RF touchpads (Dialog QS1500 Touchtalk Interactive Keypad). If this option is on, the panel will send broadcast speech messages to the touchpads for arming, disarming, alarm cancel, and dialer abort events. If this option is off, the panel only sends broadcast speech messages to the touchpads for voice chime events. Refer to the Dialog QS1500 Touchtalk Interactive Keypad Instructions (466-2105) for more information on its use. Default is off.

To turn this option on, press **Add, Option #, 87, Done**.

To turn this option off, press **Delete, Option #, 87, Done**.

Option 88: Custom defaults

DO NOT attempt to change or program this option without authorization from UTC Fire & Security. Changing this option could make your panel inoperable.

Option 89: Serial port protocol

This option determines if the Ethernet interface module is enabled. If this option is on, the Ethernet interface module protocol on the serial port connector is enabled. If this option is off, the downloader protocol on the serial port connector is disabled. Default is off.

To turn this option on, press **Add, Option #, 89, Done**.

To turn this option off, press **Delete, Option #, 89, Done**.

Option 90: Comm channel 1 reports

This option determines which reports are sent to central station receiver 1 by the Ethernet interface module. Default is off.

- Off = no reports
- 0 = all event reports
- 1 = alarms and manual comm test

When this option is on, only SIA accounts will report phone communication failures to premisesconnect.com.

To set this option, press **Add, Option #, 90**. Use the numbered keys to enter 0 or 1 and press **Done**.

To turn this option off, press **Delete, Option #, 90, Done**.

Option 91: Comm Channel 2 reports

This option determines which reports are sent to central station receiver 2 by the Ethernet interface module. Default is off.

- Off = no reports
- 0 = all event reports
- 1 = alarms and manual comm test

When this option is on, only SIA accounts will report phone communication failures to premisesconnect.com.

To set this option, press **Add, Option #, 91**. Use the numbered keys to enter 0 or 1 and press **Done**.

To turn this option off, press **Delete, Option #, 91, Done**.

Option 92: Comm channel 3 reports

This option determines which reports are sent to premisesconnect.com by the Ethernet interface module. Default is off.

- Off = no reports
- 0 = all event reports

When this option is on, only SIA accounts will report phone communication failures to premisesconnect.com.

To set this option, press **Add, Option #, 92**. Use the numbered keys to enter 0 and press **Done**.

To turn this option off, press **Delete, Option #, 92, Done**.

Option 93: DTIM reports phone 1

This option determines what events the DTIM reports on phone 1 (Option 04). Default is off.

See “Option 12: Phone 1 reports” on page 42, for more information on Phone 1 reporting formats.

- Off = no reports
- 0 = all events SIA format
- 1 = all events CID format
- 2 = alarms and manual phone test SIA format
- 3 = alarms and manual phone test CID format
- 4 = non alarms only SIA format
- 5 = non alarms only CID format

To set this option, press **Add, Option #, 93**. Use the numbered keys to enter 0 to 5 and press **Done**.

To turn this option off, press **Delete, Option #, 93, Done**.

Option 94: DTIM reports phone 2

This option determines what events the DTIM reports on phone 2 (Option 05). Default is off.

See “Option 13: Phone 2 reports” on page 43, for more information on Phone 2 reporting formats.

- Off = no reports
- 0 = all events SIA format
- 1 = all events CID format
- 2 = alarms and manual phone test SIA format
- 3 = alarms and manual phone test CID format
- 4 = non alarms only SIA format
- 5 = non alarms only CID format
- 6 = backup channel SIA format
- 7 = backup channel CID format

To set this option, press **Add, Option #, 94**. Use the numbered keys to enter 0 or 7 and press **Done**.

To turn this option off, press **Delete, Option #, 94, Done**.

Option 95: Not available

Option 96: HWIN2 output function

This option determines how the HWIN2 output will function. Default is 1

- Off = no output
- 1 = exterior siren output
- 2 = output activated when armed
- 3 = output activated when disarmed
- 4 = fail to communicate output; activates when fail to communicate condition occurs (Option 26 must be on)
- 5 = alarm output activated when panel is in alarm

When hardwired sensors are on HWIN2, this option should be set to off.

To set this option, press **Add, Option #, 96.** Use the numbered keys to enter 0 or 5 and press **Done**.

To turn this option off, press **Delete, Option #, 96, Done**.

Option 97: HWIN1 output function

This option determines how the HWIN1 output will function. Default is 1

- Off = no output
- 1 = interior siren output
- 2 = output activated when armed
- 3 = output activated when disarmed
- 4 = fail to communicate output; activates when fail to communicate condition occurs (Option 26 must be on)
- 5 = alarm output activated when panel is in alarm

When hardwired sensors are on HWIN1, this option should be set to off.

To set this option, press **Add, Option #, 97**. Use the numbered keys to enter 0 or 5 and press **Done**.

To turn this option off, press **Delete, Option #, 97, Done**.

Programming system access codes

The system has the following access codes:

Utility access code 1 (dealer code) - Depending upon how Option 54 is set, the default utility access code is 654321, 54321, 4321 (factory default), or 321. This code can be used for all programming.

Utility access code 2 (installer code) - Depending upon how Option 54 is set, the default access code is 654321, 54321, 4321 (factory default), or 321. This code is limited to changing all but the following: Utility Access Code 1, Options 4, 5, 6, 8, 9, 12, 13, 54, 56 and 69.

Utility access code 3 - For future use.

Master access code - Depending on how Option 54 is set, the default master access code is 123456, 12345, 1234 (factory default), or 123. This code is used to: disarm the panel, subdisarm the panel, program light control, set the system clock, program the master code, program access codes 1 to 5, program the panic code, perform a sensor or phone test, and program options 1, 2, 3, 31, 36, 37, 41, 42, 43, 55, 81, and 82.

Access codes (1 to 5) - The panel can have up to five secondary user access codes. These can be used by children, a baby sitter, or a service

person to disarm (or arm if Option 60 is on). These codes cannot be used for programming.

Panic Code - The panic code is able to arm, disarm, or subdisarm the panel and send a silent alarm to the central station. There will be no indication of an alarm at the panel.

Note: Because different codes can be entered using the same button presses you have to use caution when programming the panic code. You need to ensure that the panic code does not use the same button presses as other access codes. For example, if the master code is 1234, do not program the panic code to be 2244. The panel would interpret these codes to be the same code.

Add a code

To add a code, do the following:

1. Press Add.
2. Press Access Code. Continue pressing this button until you hear the access code to be changed.
3. Press Done.
4. Use the numbered keys to enter the new access code. The panel announces the new code.

Delete a code

To delete a code, do the following:

1. Press Delete.
2. Press Access Code. Continue pressing this button until you hear the access code to be deleted.
3. Press Done. The panel announces the code is deleted.

Chapter 4
Testing the system

This chapter describes how to test the control panel, sensors, phone communication, central station communication and the X10 lamp modules. You should test the system after installing, after servicing, and after adding or removing devices from the system.

In this chapter:

Content

Control panel

Test the Control Panel by pressing the buttons as described below.

Note: An access code is required when arming if Option 60: Secure arming on page 53 is on.

ARM Doors & Windows - The panel arms doors and windows. Press twice to eliminate the programmed entry delay. The button will blink when No Entry Delay is on.

ARM Motion Sensors - The panel will arm motion sensors. Press twice to turn latchkey on. The button blinks when latchkey is on.

DISARM - The panel will prompt you to enter an access code. Enter the appropriate code and the panel will disarm doors, windows, and motion sensors. Table 14 below describes the arming levels.

Table 14: Arming levels

Arming level	Description
0	Subdisarm (master access and panic codes only) and bypasses 24-hour intrusion sensors (master access code only). Fire sensors (group 26) cannot be subdisarmed.
1	Disarm the system.
2	Arm doors and windows.
3	Arm motion sensors.
4	Arm doors, windows, and motion sensors.

Note: Forty key presses for invalid codes (i.e. 10 invalid 4-digit codes) will cause a system access alarm. The alarm locks all touchpads, except keychains, for 90 seconds.

- No beeps verify subdisarms (LED blinks).
- One beep indicates the system is disarmed.
- Two beeps verify that door/window sensors are armed.
- Three beeps verify that motion sensors are armed.
- Four beeps verify that both door/window and motion sensors are armed.

SYSTEM STATUS - Press to determine system status and system time.

CHIME Doors - Press to enable two beeps that sound from interior sirens, panel siren, and the X10 power horn siren (if set to unit number 9) when a protected door or window learned into sensor group 10 or 13 is opened. If “Option 41: Chime voice” on page 53 is on, the panel speaker also announces the sensor name and number.

CHIME Special Motion - Press to enable three beeps that sound from interior sirens, panel siren, and the X10 power horn siren (if set to unit number 9) when a motion sensor that is programmed as sensor type 25 is activated. If there are no sensors learned into sensor group 25, this function will not be available. If "Option 41: Chime voice" on page 53 is on, the panel speaker also announces the sensor name and number.

LIGHTS Time Activated - Press to enable system controlled lights to turn on/off at a scheduled time.

LIGHTS Sensor Activated - Press to enable system controlled lights to turn on for four minutes when a specific sensor is tripped.

AUX, POLICE, FIRE - Press and hold or press twice quickly to activate a nonmedical, police, or fire emergency alarm.

Sensor testing

We recommend that you test the sensors after all programming is completed and whenever a sensor-related problem occurs. To test the sensors, do the following:

1. Place all sensors in their secured (nonalarm) state.
2. Open the panel cover.
3. Enter the appropriate access code.
4. Press Test. The panel announces Sensor test, press again to change or Done to select.
5. Press Done.

Note: While the sensor test is a valuable installation and service tool, it only tests sensor operation for the current conditions. You should do a sensor test after any change in environment, equipment, or programming.

The panel will prompt you to trip each sensor one at a time. You may follow the panel voice prompting or test the sensors in any order. Table 15 below describes how to trip the sensors.

Table 15: Tripping sensors

Sensor	Tripping the sensor
Door/window	Open the secured door or window.
Freeze	Remove the sensor cover. Apply ice in a plastic bag to the sensor (for 10 to 15 minutes). Do not allow the sensor to get wet.

Sensor	Tripping the sensor
Water	Press a wet rag or wet finger over both of the round gold-plated terminals on the bottom of the detector.
Carbon monoxide alarm	Unplug the CO alarm. Plug it back in, wait five minutes, then press the test/reset button until the unit beeps eight times.
Glass guard	Tap the glass 3 or 4 in. (8 cm) from the sensor.
Motion sensor	Avoid the motion sensor field of view for five minutes, then enter its view.
Rate-of rise heat detector	Rub your hands together until warm, then place one hand on the detector for 30 seconds.
Shock	Tap the glass twice, away from the sensor. Wait at least 30 seconds before testing again.
Smoke	Press and hold the test button until the system sounds transmission beeps.
Personal help button	Press and hold the button until the light blinks and the panel sounds at least seven beeps
Keyfob	Press and hold the Lock and Unlock buttons simultaneously for three seconds.
Remote handheld touchpad/QS1500 keypad	Press and hold the two Emergency buttons simultaneously for three seconds.
RF electronic thermostat/DTIM	Automatically tested when the sensor test begins.

6. Interior sirens and speakers sound transmission beeps and a voice announcement identifies the tripped sensor. Each beep represents one RF packet. Count the number of beeps and refer to Table 16 for minimum requirements. After the beeps, the panel announces, Sensor Name is activated, sensor status is XX (XX = number of RF packets). The system will continue to prompt for sensors that have not yet been tested. When all sensors have been tested the panel will announce, Sensor test complete, press **Done**.

Table 16: Minimum beep requirements

Sensor type	Number of beeps
Wireless intrusion sensors	7 to 8
Wireless smoke and heat sensors	7 to 8
Wireless environmental/personal help buttons	7 to 8
Hardwired loops, RF thermostat, DTIM	1
Emergency buttons (remote handheld touchpads only)	7 to 8

Note: If a sensor does not meet the minimum transmission beep requirements, see “Sensor/panel communication” below.

7. Press **Done**. The panel announces, Sensor Test OK.
8. If you press **Cancel** or **Done** and the panel has not heard from all sensors, the panel will respond, Sensor test canceled or failure.

Sensor/panel communication

The panel antenna can be put into the wall to increase the panel RF range.

Caution: Do not do this for installations that require antenna tamper for external antennas

If sirens do not beep when a sensor is tripped, use an RF Sniffer (60-401) test tool to verify that the sensor is transmitting. Constant beeps from the RF Sniffer indicate a runaway (faulty) sensor. Replace the sensor.

If possible, locate sensors within 100 ft. (30 m) of the panel. While a sensor may have a range of 500 ft. (152 m) or more out in the open, the environment at the installation site can have a significant effect on transmitter range. A change in sensor location may help overcome adverse wireless conditions and can be accomplished by the following:

- Reposition the sensor.
- Relocate the sensor.
- If necessary, replace the sensor.

To reposition a sensor, do the following:

1. Rotate the sensor and test for improved sensor communication at 90 and 180degrees from the original position.
2. If poor communication persists, relocate the sensor.

To relocate a sensor, do the following:

1. Test the sensor a few inches from the original position.
2. Increase the distance from the original position and retest until an acceptable location is found.
3. Mount the sensor in the new location.
4. If no location is acceptable, replace the sensor.

To replace a sensor, do the following:

1. Test a known good sensor at the same location.

2. If the transmission beeps remain below the minimum level, avoid mounting a sensor at that location.
3. If the known good sensor functions, contact UTC Fire & Security for repair or replacement of the problem sensor.

Phone communication

Perform a phone test to check the phone communication between the panel and the central station.

To perform a phone test or Downloader (DL) phone test, do the following:

1. Open the panel cover.
2. Enter the appropriate access code.
3. Press Test twice to perform a phone test, or press Test three times to perform a DL phone test.
4. Press Done. The panel confirms that a phone test or downloader phone test has begun. When the phone test is complete, the panel will announce Phone Test is OK within three minutes. The panel will say Phone test is on three times if you have a pager. Your pager will display 101 101 if the phone test to the pager was successful.

Note: Not investigated for use by UL.

If the test is unsuccessful, the System Status button will light and the panel will say Phone communication failure within 10 minutes.

If the phone test fails, do the following:

1. Check that the panel is connected to the phone jack.
2. Check the phone number programmed into the panel.
3. Perform the phone test again.
4. If the phone test fails again, check the phone connection wiring.

Offsite phone operation

Test the system from a remote phone by calling the panel and using the commands in Table 17 on page 79.

Table 17: Remote phone operation

System failure	Phone command
Disarm	* + CODE + 1
Arm doors/windows	* + CODE + 2
Arm motion sensors	* + CODE + 3
Arm doors/windows with no entry delay	* + CODE + 2 + 2
Arm motion sensors with latchkey	* + CODE + 3 + 3
Arm doors/windows and motion sensors	* + CODE + 2 + 3
Arm doors/windows with no entry delay and motion sensors with latchkey	* + CODE + 2 + 2 + 3 + 3
Toggle lights	* + CODE + 0
System status	* + CODE + # + 1
Audio verification	* + CODE + 5 + X (X = a command from audio verification set)
Terminate session	* + CODE + 9

Central station communication

After performing sensor and phone tests, check that the system is reporting alarms successfully to the central station.

To test communication with the central station, do the following:

1. Call the central station and tell the operator that you will be testing the system.
2. Arm the system.
3. Test each of the wireless panic buttons and trip at least one sensor of each type (fire, intrusion, etc.) to verify that the appropriate alarms are working correctly.
4. When you finish testing the system, call the central station to verify that the alarms were received.

Table 18 below provides the sensor/user reporting codes.

Table 18: Reporting codes

Arm or disarm from:	Reports as user:
Panel, remote handheld touchpad, or QS1500 keypad	0
Keyfob	1 to 24 (sensor number)

Arm or disarm from:	Reports as user:
Panel auxiliary panic	25
Panel tamper	26
Panel police tamper	27
Panel fire panic	28
Utility access code 1	28
Utility access code 2	29
Master code	30
Access codes 1 to 5	31 to 35
Panic code	36

Dialog telephone interface module (DTIM)

The following describes the basic steps for testing transmitting range from the DTIM to the panel. For complete testing instructions, refer to the DTIM documentation. Be sure to attach the cover onto the DTIM before testing wireless communication.

To test transmitting range, do the following:

1. Place the DTIM in the desired location, between 10 and 100 ft (3 and 30 m) from the panel.
2. Put the panel into sensor test mode (see “Sensor testing” on page 75). The panel should sound one beep. This indicates good reception from the DTIM to the panel.

Note: If you don’t hear a beep, test the DTIM in different locations. Mounting locations should be limited to areas where the panel responds with a beep. Also, you may not get any beeps if a neighboring Simon panel is in a downloading session with ToolBox®.

3. To retest transmitting range after relocating the DTIM (or after a neighboring system is finished downloading), you must exit and reenter sensor test mode.
4. Exit from test mode after determining acceptable locations.

Pager communication

Use Table 19 on page 81 to determine what the numeric message is reporting.

Table 19: Pager reporting message

Reports	Numerics message	Reports	Numeric message
Phone test	-101 -101	Fail to open	-112 -112
AC power restoral	-102 -102	Fail to close	-113 -113
AC power failure	-103 -103	Bypass	-114 -114
Latchkey	-104 -104	Restoral	-115 -115
No activity	-105 -105	Supervisory	-116 -116
Panic code	-106 -106	Trouble	-117 -117
Emergency	-107 -107	Tamper	-118 -118
Intrusion	-108 -108	Gas	-119 -119
Fire	-109 -109	Freeze	-120 -120
Openings	-110 -110	Environmental	-121 -121
Closings	-111 -111	Programming/sensor test	-122 -122

Two-way voice operation

To initiate an audio session, the central station operator must do the following:

1. After the panel has completed reporting the alarm, pick up the CS phone and press the * button to start the audio session.
2. Press 1 or 0 to speak, 2 for VOX operation, and 3 or 6 to listen (see Table 20 below).
3. Press 99 to terminate the session.

Table 20: Audio verification set

Phone button	Function
0 or 1	Speak.
2	VOX operation.
3 or 6	Listen.
7	Extend session for 90 more seconds.
88	Terminate session with call back (the panel answers on the first ring if called within five minutes).
99	Terminate session with no call back.

Note: Panel voice announcements are silenced during AVM sessions. If the operator does not terminate the session correctly, panel announcements may not occur for up to 90 seconds after the operator hangs up.

Voice event notification

Testing this feature requires two people; one at the alarm site and the other at the location the panel is programmed to call (option 5 and/or 43). The panel only reports alarms and latchkey when this feature is set up.

Caution: If the system is monitored by a central station, contact them first before setting off any alarms to avoid a false dispatch.

To test voice event notification, do the following:

1. Contact the central monitoring station (if system is monitored) to inform them you are testing the system and not to dispatch authorities.
2. At the system site, put the system into an alarm condition.
3. At the calling location, pick up the phone after it starts ringing. You should hear the panel voice announce Press star for alarm.
4. Press * and the panel voice identifies the alarm. If there is more than one alarm in progress, you must press * for the panel voice to identify them.
5. After all alarms have been identified, the panel announces Press # to exit.
6. Press # to terminate the call. You must terminate the call by pressing #. Otherwise, the panel may not disconnect from the phone line for up to two minutes.

RF thermostat operation

The following information is important for the RF Thermostat to function through your control panel:

- The panel needs to be armed to Level 4 (doors/windows and motion sensors) for Energy Saving Mode to work.
- If there are no motion sensors in the system, the Motion Sensors button must still be pressed (armed to level 4).
- Both options can be turned on at the same time.
- Thermostat has to be in auto mode for Options 81 and 82 to work correctly.
- If Options 81 and 82 are programmed, the RF thermostat will go from Energy Saving Mode to normal operating mode when the panel is armed to level 2.

Personal help button

The following information is important for the personal help button to function through your control panel:

- Test the help button from several locations within the premises to check for a consistent response.
- Instruct the user to test the help button weekly
- Decide how the user wants to access the help button (wall mount, belt clip, wrist band or necklace).

For more information on the personal help button refer to the Water Resistant Personal Help Button documentation.

X10 operation

The following sections describe how to test X10 lamp, siren, appliance, and universal module operation.

Manual lamp module control

Control panel - Press the Lights On button and enter the number of the lamp module to test individual lamp modules 2, 4, 6, and 8. The panel responds with Lights # on/off. Press the Lights On button twice to turn on all lamp modules. Press the Lights Off button twice to turn off all lamp modules.

Keyfob - Press the Light button repeatedly to turn all lights on and off. The panel responds with Lights on/off.

Remote Handheld Touchpad/QS1500 Keypad - Press the Lights On button and the unit number of the lamp module to test individual lamp modules 1 to 8. The panel responds with Lights # on/off. Pressing the Lights On or Lights Off button twice, turns all the lights on or off.

X10 siren and lamp module functions

All sirens turn off when the system is disarmed or when the siren timeout expires. Siren priority is as follows:

1. Fire (highest priority)
2. Intrusion
3. Emergency

If an alarm of greater priority occurs during an alarm of lower priority, the greater priority alarm sirens sound. Fire alarms sound a temporal 3 pattern (0.5 seconds on, 0.5 seconds off for three beeps then 1.5 seconds off).

Note: The X10 siren must be set to unit number 9 to hear emergency alarms and status beeps. To hear emergency alarms only, set it to unit number 10.

Table 21 below describes alarm siren and X10 light functions.

Table 21: X10 siren and lamps

	Fire	Intrusion	Emergency
X10 lights	Steady	Flashing	Steady
X10 siren	Steady	Steady	Alarm beeps
Interior and panel siren	Temporal 3	Steady	Fast on/off
Exterior siren	Temporal 3	Steady	

Chapter 5
Troubleshooting and support

This chapter provides information to help you troubleshoot problems and contact technical support in case you need assistance with your UTC Fire & Security equipment.

In this chapter:

Content

Troubleshooting

This section provides information to help you diagnose and solve various problems that may arise while configuring or using your UTC Fire & Security product and offers technical support contacts in case you need assistance at : www.interlogix.com/customer-support

Troubleshooting your system

System status

- How do I clear System Status (alarm memory)?

  From a disarmed state press System Status, listen to the status message, the press Disarm.

- The panel announces Siren 1 failure or Siren 2 failure.

  Turn option 53 off if a hardwired siren or sensor is not connected.

  Check for the correct end-of-line resistor in HWIN 1 and 2 circuits.

- Panel announces low battery.

  Check that the panel backup battery is connected.

  Check panel backup battery voltage. If less than 5.4 volts, replace battery, clear system status message and run a sensor test.

  If AC power has been off for an extended period, the backup battery could still be charging.

- Panel announces RF failure. Touchpads announce option 50 detected.

  Option 50 is RF jam detect. The control panel has detected RF interference.

- Panel announces that a sensor is open.

  See “Sensors” on page 87.

- Panel announces system time is not set.

  Set the system time.

Control panel

- Panel announces function not available when Chime Doors button is pressed.

  No sensors are programmed using sensor type 10 or 13.

- Panel announces function not available when Chime Special Motion button is pressed.

  No sensors are programmed using sensor type 25.

- Panel announces function not available when Lights Time Activated button is pressed.

  No time activated lights have been programmed.

- Panel announces function not available when Lights Sensor Activated button is pressed.

  No sensor activated lights have been programmed.

- Panel announces invalid, sensor already programmed as sensor name.

  This sensor is already programmed. Delete the sensor if not correctly programmed.

Options (programmed by the homeowner)

- Panel does not beep.

  Turn on (add) option 1.

- Latchkey does not function.

  Latchkey time (option 3) is not set. Set latchkey time.

  Latchkey is not enabled. Enable latchkey by pressing Arm Motion Sensors button twice.

  The phone number is not programmed properly, Reprogram the phone number (options 13 or 43).

  System time is not set. Set system time.

Sensors

- A sensor does not work.

  Make sure the battery is good and installed correctly.

  Check for interference from metal objects. Move or rotate the sensor.

  Move the sensor to a new location.

- Door or window is closed, but the panel announces it is open.

  Ensure that the arrow on the magnet and the guide line on the transmitter are aligned and within 1/4 inch of each other.

  The sensor tamper switch may be open (cover off).

- Motion sensors go off continuously.

  Be sure the sensor is mounted on a solid surface and the viewing field is free from sources of changing temperature.

- Motion sensor does not respond to motion.

Make sure the sensor battery is good and installed correctly. Wait two minutes after installing a new battery to test the sensor.

Adjust the sensor mounting, leave the area for three minutes, then retest.

The environment may be too hot or too cold. Outdoor sensors will operate between 32 and 120°F (0 to 49°C).

Dirt or dust may be causing the problem. Wipe the sensor with a clean, damp cloth.

X10 modules

- All lamp or siren modules are not working.

  Be sure the panel transformer is plugged into an outlet that is not controlled by a switch.

  Check that the panel is powered using the line carrier power transformer.

  House code may be programmed incorrectly.

- One lamp or siren module is not working.

  Unplug nearby equipment that may be causing interference (light dimmer switches, televisions, appliances with older motors).

  Check that the switch on the lamp or appliance is turn on and remains on.

  Make sure the lamp has a working bulb.

  Make sure the lamp or appliance is plugged into the lamp/appliance module, the module is plugged into the outlet and the outlet is not controlled by a switch.

  Make sure the House and Unit codes are correct.

  Move the module to a different outlet that is on the same phase (branch) of the household electrical circuit as the panel.

- Time or sensor activated light is not working.

  Make sure you have programmed the light to be activated by a timer or sensor.

  Make sure the system clock is set.

  Make sure these functions have been enabled by pressing the **Lights Time Activated/Sensor Activated** button on the panel. The functions are enabled if the button is lit.

Appendix A
System configuration and emergency planning

This appendix provides system configuration tables, emergency planning information and specifications.

In this appendix:

Content

System configuration

Table 22 below provides a place to record your system devices, sensor group numbers, and sensor names.

Table 22: system device information

Sensor number	Device	Sensor group	Sensor name/location	Notes
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

Sensor names in alphabetical order are:

Attic, Back door, Back window, Basement, Basement window, Bathroom, Bathroom window, Bedroom, Bedroom window, Child’s room, Child’s room

window, Closet, Den, Den window, Dining room, Dining room window, Downstairs, Downstairs window, Front door, Front window, Garage, Garage door, Garage window, Guest room, Guest room window, Hallway, Keychain remote, Kitchen, Kitchen window, Laundry room, Laundry room window, Living room, Living room window, Master bedroom, Master bedroom window, Medicine cabinet, Module, Office, Office window, Patio door, Phone communication module, Porch, Porch window, Special chime, System panic, Touchpad remote, Upstairs, Upstairs window, Utility room

Table 23 below describes sensor group characteristics.

Table 23: Sensor group characteristics

Type	Name/application	Siren type	Delay	Restoral	Supervisory	Active in levels
00	Fixed panic. 24-hour audible fixed emergency button	Intrusion	I	No	Yes	1234
01	Portable panic. 24-hour audible portable emergency button	Intrusion	I	No	No	1234
02	Fixed panic. 24-hour silent fixed emergency buttons. Status light will not blink.	Silent	I	No	Yes	01234
03	Portable panic. 24-hour silent portable emergency buttons. Status light will not blink.	Silent	I	No	No	01234
04	Fixed auxiliary. 24-hour auxiliary sensor.	Emergency	I	No	Yes	01234
05	Fixed auxiliary. 24-hour emergency button. Siren shut off confirms CS report.	Emergency	I	No	Yes	01234
06	Portable auxiliary. 24-hour portable auxiliary button.	Emergency	I	No	No	01234
07	Portable auxiliary. 24-hour portable auxiliary button. Siren shut off confirms CS report.	Emergency	I	No	No	01234
08	Special intrusion. Such as gun cabinets and wall safes. DTIM (tamper only).	Intrusion	I	Yes	Yes	1234
09	Special intrusion. Such as gun cabinets and wall safes.	Intrusion	S	Yes	Yes	1234
10	Entry/exit/delay. Entry/exit/delay that requires a standard delay time. Chime.	Intrusion	S	Yes	Yes	24

Type	Name/application	Siren type	Delay	Restoral	Supervisory	Active in levels
13	Instant perimeter. Exterior doors and windows. Chime	Intrusion	I	Yes	Yes	24
14	Instant interior. Interior doors.	Intrusion	F	Yes	Yes	234
15	Instant interior. Interior PIR motion sensors.	Intrusion	F	No	Yes	234
16	Instant interior. Interior doors	Intrusion	F	Yes	Yes	34
17	Instant interior. PIR motion sensors and sound sensors.	Intrusion	F	No	Yes	34
18	Instant interior. Cross-Zone# PIR motion sensors.	Intrusion	F	No	Yes	34
19	Delayed interior. Interior doors that initiate a delay before going into alarm.	Intrusion	S	Yes	Yes	34
20	Delayed interior. PIR motion sensors that initiate a delay before going into alarm.	Intrusion	S	No	Yes	34
21	Local instant interior. 24-hour local alarm zone protecting anything that opens and closes. No reports.	Intrusion	I	Yes	Yes	1234
22	Local delayed interior. Same as group 21, plus activation initiates a delay before going into alarm. No reports.	Intrusion	S	Yes	Yes	1234
23	Local instant auxiliary. 24-hour local alarm zone protecting anything that opens and closes. No reports.	Emergency	I	Yes	Yes	01234
24	Local instant auxiliary. 24-hour local alarm zone protecting anything that opens and closes. Sirens shut off at restoral. No reports.	Emergency	I	Yes	Yes	01234
25	Local special chime. Notify the user when a door is opened. Sounds emit from a local annunciator. Direct bypass and unbypass when no special motion chime sensors are in the security system. No reports.	Three beeps	I	No	Yes	01234
26	Fire. 24-hour fire, rate-of-rise heat, and smoke sensors.	Fire	I	Yes	Yes	01234

Type	Name/application	Siren type	Delay	Restoral	Supervisory	Active in levels
27	Lamp control or other customer feature. No reports	Silent	I	Yes	Yes	01234
28	PIR motion sensor, sound sensor, or pressure mat. No reports.	Silent	I	No	Yes	01234
29	Auxiliary. Freeze sensors.	Trouble beeps	I	Yes	Yes	01234
32	PIR motion sensor or sound sensor. No reports.	Silent	I	No	No	01234
34	Carbon monoxide alarm	Emergency	I	Yes	Yes	01234
35	Entry/exit delay interior PIR motion sensor	Intrusion	S	No	Yes	234
36	Special intrusion. Such as gun cabinets and wall safes. Reports as tamper if tripped. RF thermostat. DTIM (tamper only).	Intrusion	I	Yes	Yes	1234
37	Light switch control. X10 modules turn either on or off when a door is opened. No reports.	Silent	I	No	Yes	01234
38	Auxiliary. Water sensors.	Trouble beeps	I	Yes	Yes	01234

Delays:

I - Instant delay (no delay, immediate alarm).

S - Standard delay (alarm sounds after programmed entry delay time).

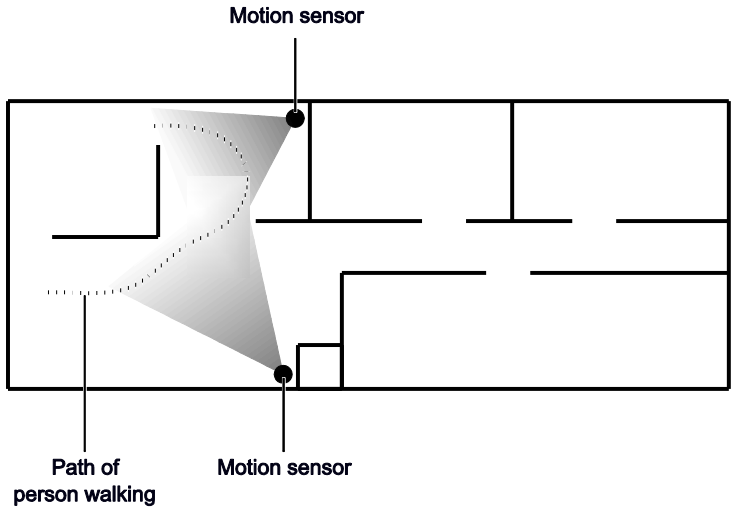
F - Follower delay (alarm sounds immediately if entry/exit delay is not active, otherwise

Cross-zoning

Cross-zone (two-trip) refers to two different Group 18 sensors that must be tripped within two minutes of each other to report an alarm to the central station. Figure 14 on page 94 shows the path of a person walking from the kitchen to the living room. When the person is detected walking through the kitchen, the motion sensor in the kitchen is tripped, sounding a local alarm. If motion is detected by the living room motion sensor within two minutes, an alarm report will be sent to the central station.

Note: We do not recommend cross-zoning for exit/entry zones. Each zone has the ability to individually protect the intended area (e.g. motion detector patterns overlap).

Figure 14: Cross-zone detection



Home control planning

Table 24 below provides a space to record your home control plan.

Table 24: Home control planning

Module			Activated by		Time activated	
Unit #	**Type**	**Location**	**Sensor**	**Entry/exit**	**Start time**	**Stop type**
Example	Lamp	Hall lamp	Module	Yes	8 p.m.	10:30 p.m.

System access codes

The factory default settings are four-digit access codes, but the default codes will change whenever Option 54 (access code length) is reset. Table 25 below lists the default for each access code length.

Table 25: System access codes

Type	Default	Installer settings
Utility Access Code 1	654321, 54321, 4321, or 321	
Utility Access Code 2	654321, 54321, 4321, or 321	
Master Access Code	123456, 12345, 1234, or 123	
Access Code 1	None	
Access Code 2	None	
Access Code 3	None	
Access Code 4	None	
Access Code 5	None	
Panic Code	None	

Option settings

Table 26 below describes the numbered programming options.

Table 26: Numbered option settings

Opt.	Function	Default	Delete	Range	Who can change	Installer settings
01	Panel piezo beeps (must be on for UL listed systems)	On	Off	On/Off	U1, U2, M	
02	Panel voice	On	Off	On/Off	U1, U2, M	
03	Latchkey option	Off	Off	12:00a to 11:59p	U1, U2, M	
04	Primary phone number	Off	Off	26 digits	U1	
05	Secondary phone number	Off	Off	26 digits	U1	
06	Downloader phone number	Off	Off	26 digits	U1	
07	Account number	00000	00000	0 - FFFFFFFFFF	U1, U2	
08	Phone lock	Off	Off	On/Off	U1	
09	Downloader code	12345	12345	00000-99999	U1	

Opt.	Function	Default	Delete	Range	Who can change	Installer settings
10	Entry delay (must be 45 seconds or less for UL listed systems)	030 sec	005 sec	005 to 254 sec 030 to 254 if option 69 is added	U1, U2	
11	Exit delay (must be 60 seconds or less for UL listed systems)	060 sec	005 sec.	005 to 254 sec 045 to 254 if option 69 is added	U1, U2	
12	Phone 1 reports (must be 00 to 01 for UL listed systems)	00	Off	00 to 10	U1	
13	Phone 2 reports	Off	Off	00 to 10	U1	
14	DTMF	On	Pulse	On/Off	U1, U2	
15	No activity report	Off	Off	02 to 24 hours	U1, U2	
16	Auto phone test (must be set to 001 for UL listed systems)	Off	Off	001 to 254 days	U1, U2	
17	Dialer delay	030	Off	005 to 254 sec 015 to 045 if option 69 is added	U1, U2	
18	Alarm cancel	006	Off	006 to 255 min	U1, U2	
19	RF timeout (SUPSYNC) must be set to less than 04 for UL 985 and 1635 listed systems, or less than 24 for UL 1023 listed systems.	12 hrs	12 hrs	02 to 36 hrs	U1, U2	
20	Manual phone test	On	Off	On/Off	U1, U2	
21	Opening reports	Off	Off	On/Off	U1, U2	
22	Closing reports	Off	Off	On/Off	U1, U2	
23	Force armed report	Off	Off	On/Off	U1, U2	
24	AC power failure report (must be added for UL listed systems)	Off	Off	005 to 254 min	U1, U2	
25	CPU low battery report (must be added for UL listed systems)	On	Off	On/Off	U1, U2	

Opt.	Function	Default	Delete	Range	Who can change	Installer settings
26	Fail to communicate (must be added for UL listed systems)	On	Off	On/Off	U1, U2	
27	Ring/hang/ring	1	Off`	1 to 7	U1, U2	
28	No delay from key chain touchpad	Off	Off	On/Off	U1, U2	
29	Panel piezo alarms (must be added for UL listed systems or a siren must be connected)	On	Off	On/Off	U1, U2	
30	Panic alarms	On	Off	On/Off	U1, U2	
31	Downloader enable	On	Off	On/Off	U1, U2, M	
32	300 baud central station communication	On	110 baud	On/Off	U1, U2	
33	Audio verification	Off	Off	On/Off	U1, U2	
34	Fail to open	Off	Off	12:00a to 11:59p	U1, U2	
35	Fail to close	Off	Off	12:00a to 11:59p	U1, U2	
36	Sensor activated light lockout start time	Off	Off	12:00a to 11:59p	U1, U2, M	
37	Sensor activated light lockout stop time	Off	Off	12:00a to 11:59p	U1, U2, M	
38	Autoarm (must be added for UL listed systems)	On	Off	On/Off	U1, U2	
39	Siren time out (must be greater than 4 minutes for UL listed systems)	004 min	Siren never times out	002 to 254 minutes/no time out	U1, U2	
40	Trouble beeps (must be added for UL listed systems)	On	Off	On/Off	U1, U2	
41	Chime voice	Off	Off	On/Off	U1, U2, M	
42	Speaker level	8	8	1 to 8	U1, U2, M	
43	Pager phone number	Off	Off	26 digits	U1, U2, M	
44	Pager phone 3 reports	Off	Off	08 to 10	U1, U2	
45	Sensor alarm restoral	Off (0)	Off (0)	0 to 3	U1, U2	
46	Fire shutdown - AVM	Off	Off	On/Off	U1, U2	
47	Audio verification mode	Off	Off	On (callback) Off (instant)	U1, U2	

Opt.	Function	Default	Delete	Range	Who can change	Installer settings
48	Panic talk - AVM	Off	Off	On/Off	U1, U2	
49	Arming LEDs shutdown	Off	Off	On/Off	U1, U2	
50	RF jam detect (must be added for UL listed systems)	Off	Off	On/Off	U1, U2	
51	24-hour sensor tamper	Off	Off	On/Off	U1, U2	
52	Unvacated premises	On	Off	On/Off	U1, U2	
53	Hardwired siren supervision (must be added for UL listed systems if option 29 is deleted)	Off	Off	On/Off	U1, U2	
54	Access code length	4	4	3 to 6	U1	
55	Status beep volume	07	07	01 to 10	U1, U2, M	
56	Call waiting	Off	Off	1 to 26 digits/Off	U1, U2	
57	Supervisory tamper report	Off	Off	On/Off	U1, U2	
58	Remote touchpad arming	Off	Off	On/Off	U1, U2	
59	Exit extension (must be deleted for UL listed systems)	On	Off	On/Off	U1, U2	
60	Secure arming	Off	Off	On/Off	U1, U2	
61	Demo mode	Off	Off	On/Off	U1, U2	
62	Supervisory protest	Off	Off	On/Off	U1, U2	
63	24-hour clock	Off	Off	On/Off	U1, U2	
64	No arm on panel low battery	Off	Off	On/Off	U1, U2	
65	No usage report	Off	Off	1 to 254, Off	U1, U2	
66	External siren delay	Off	Off	On/Off	U1, U2	
67	Quick exit (must be disabled for UL listed systems)	Off	Off	On/Off	U1, U2	
68	Swinger shutdown	On	Off	On/Off	U1, U2	
69	SIA limits	On	Off	On/Off	U1	
70	Not available					
71	Programming report	Off	Off	On/Off	U1, U2	
72	Supervisory time	12:00a	Off	12:00a to 11:59p	U1, U2	
73	Modem sensitivity	Off	Off	On (high)/Off (normal)	U1, U2	

Opt.	Function	Default	Delete	Range	Who can change	Installer settings
74	Panel police panic auto	Off	Off	On (alert)/Off (audible)	U1, U2	
75	VOX mic gain	14	14	01 to 14	U1, U2	
76	VOX gain range	64	64	01 to 64	U1, U2	
77	Manual mic gain	64	64	01 to 64	U1, U2	
78	VOX receiver gain	06	06	01 to 06	U1, U2	
79	Panel tamper alarm	Off	Off	On/Off	U1, U2	
80	Alarm report verification	Off	Off	On/Off	U1, U2	
81	Heating set point	Off	Off	51 to 91°F (10 to 33°C)	U1, U2	
82	Cooling set point	Off	Off	51 to 91°F (10 to 33°C)	U1, U2	
83	X10 RF light control	Off	Off	On/Off	U1, U2	
84	European compliance (for European installations)					
85	Smoke supervision (must be set to on for UL 985 listed systems)	Off	Off	On/Off	U1, U2	
86	Fire alarm verify	Off	Off	On/Off	U1, U2	
87	2-way RF touchpad voice	Off	Off	On/Off	U1, U2	
88	Custom defaults (for custom installations). Do not attempt to change or program this option without authorization for UTC Fire & Security. Changing this option could make your panel inoperable.					
89	Serial port protocol	Off	Off	On/Off	U1, U2	
90	Comm channel 1 reports	Off	Off	0 to 1	U1, U2	
91	Comm channel 2 reports	Off	Off	0 to 1	U1, U2	
92	Comm channel 3 reports	Off	Off	Off/0	U1, U2	
93	DTIM reports phone 1	Off	Off	0 to 5	U1, U2	
94	DTIM reports phone 2	Off	Off	0 to 7	U1, U2	
95	Not available					
96	HWIN2 output function	1	Off	1 to 5	U1, U2	
97	HWIN1 output function	1	Off	1 to 5	U1, U2	

User codes:

- U1 = Utility access code 1
- U2 = Utility access code 2
- M = Master access code

Specifications

Power requirements	9 VAC, 700 mA
Rechargeable batteries	6.0 VDC, 1.2 Ah lead-acid. The battery will last 24 hours with no AC and specified standby load
Radio frequency	319.5 MHz (60-875) 433 MHz (60-910)
Nominal range	500 ft. (153 m), open-air receiving range
Storage temperature	-29 to 140°F (-34 to 60°C)
Operating temperature	32 to 120°F (0 to 49°C)
Maximum humidity	90% relative humidity, noncondensing
Auxiliary power	Unregulated 5.1 to 12 VDC, power-limited to 250 mA (maximum) at 10 VDC

Quick reference table

Quick Reference Table

How to …	Control Panel	Remote Handheld Touchpad	Keychain Touchpad	Remote Phone
Disarm the System (Level 1)	Disarm + Access Code	Disarm + Access Code	Press once	Press * + Code + 1
Subdisarm the System (Level 0)	Enter Master Code while system is disarmed	Enter Master Code while system is disarmed		Press * + Master Code + 1
Arm Only - Doors & Windows (Level 2)	Doors & Windows, Arm — Press once	ARM Doors & Windows — Press once	Press once	Press * + Code + 2
Arm Only – Motion Sensors (Level 3)	Motion Sensors, Arm — Press once	ARM Motion Sensors — Press once		Press * + Code + 3
Arm Doors, Windows & Motion Sensors ~ (Level 4)	Doors & Windows, Motion Sensors, Arm — Press each button once	ARM Doors & Windows, ARM Motion Sensors — Press each button once	Press twice	Press * + Code + 2 + 3
Activate No Entry Delay	Doors & Windows, Arm — Press twice	ARM Doors & Windows — Press twice	Press once (if programmed)	Press * + Code + 2 + 2
Activate Latchkey Feature	Motion Sensors, Arm — Press twice	ARM Motion Sensors — Press twice	Press 3 times	Press * + Code + 3 + 3
Activate a Panic Alarm	Police — Press twice	Press both Emergency buttons and hold for 3 seconds	Press both & hold for 3 seconds	
Check the System Status	System Status — Press once	SYSTEM STATUS — Press once		Press * + Code + # + 1
Set Doors or Special Motion to Chime	Chime, Doors, Motion, Bypass — Press either Doors or Motion once			
Direct Bypass a Sensor	Bypass — Press once to bypass, then code. Press again to unbypass			
Turn Time Activated Lights On/Off	Time, Lights — Press once			
Turn Sensor Activated Lights On/Off	Sensor, Lights — Press once			
Turn On/Off Special Lights	On, Lights OR Off, Lights — Press once + even unit number	+ Unit # OR + Unit #	Press once	
Turn All Lights On/Off	On, Lights OR Off, Lights — Press twice	Press twice OR Press twice	Press once	Press * + Code + 0

~ Automatically activates Energy Saving Mode for systems with an RF Thermostat

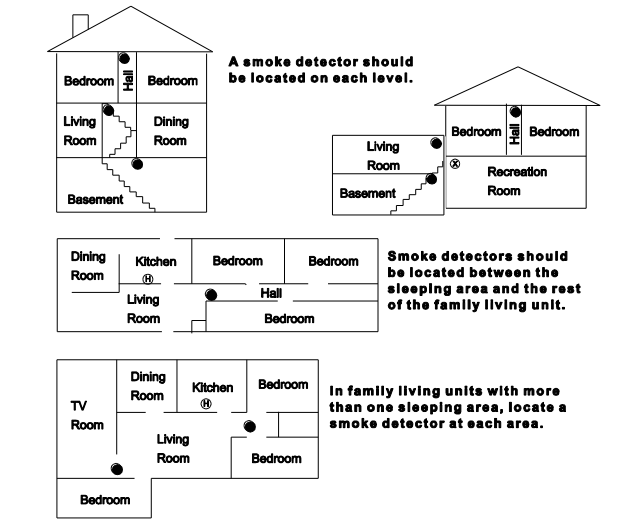
Emergency planning

Use these guidelines to draw an emergency floor plan for the homeowner:

- Show all building levels.
- Show exits from each room (we recommend two exits per room).
- Show the locations of all safety system components.
- Show the locations of any fire extinguishers.

Figure 15 below shows a sample floor plans with smoke detector locations.

Figure 15: Diagrams of smoke detector locations



NOTE: Ceiling-mounted smoke detectors should be located in the center of the room or hall, or not less than 4 inches from the wall. When the detector is mounted on the wall, the top of the detector should be 4 to 12 inches from the ceiling.

NOTE: Do not install smoke detectors where normal ambient temperatures are above 100°F or below 40°F. Also, do not locate detectors in front of AC/ Heat registers or other locations where normal air circulation will keep smoke from entering the detector.

NOTE: Additional information on household fire warning is available at nominal cost from: The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269. Request Standard No. NFPA74.

● Required smoke detector

Ⓗ Heat detector

Ⓧ Indicates smoke detector is optional if door is not provided between basement and recreation rooms.

Use the following guidelines for smoke detectors:

- A smoke detector should be located on each level.
- Smoke detectors should be located between the sleeping areas and the rest of the family living unit.
- In family living units with more than one sleeping area, locate a smoke detector at each area.

- Ceiling-mounted smoke detectors should be located in the center of the room or hall, or not less than 4 inches from the wall. When the detector is mounted on the wall, the top of the detector should be 4 to 12 inches from the ceiling.
- Do not install smoke detectors where normal ambient temperatures are above 100°F or below 40°F. Do not locate detectors in front of AC/heat registers or other locations where air circulation will keep smoke from entering the detector.

Note: Additional information on household fire warning is available at nominal cost from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269. Request Standard No. NFPA74.