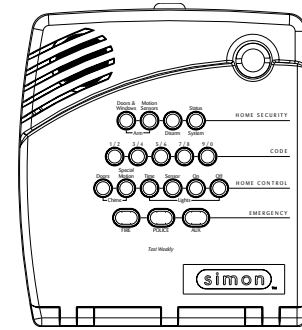


Simon 3 Security System Control Panel

Document Number: 466-1873 BETA TEST
June 2001



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FCC Notices

FCC Part 15 Information to the User

Changes or modifications not expressly approved by Interlogix Inc. can void the user's authority to operate the equipment.

FCC Part 15 Class B

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 interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the affected equipment and the panel receiver to separate outlets, on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Part 68

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

The REN is used to determine the maximum number of devices that may be connected to your telephone line. In most areas, the sum of all device RENs should not exceed five (5.0).

If this equipment causes harm to the telephone network, the telephone company may temporarily disconnect your service. If possible, you will be notified in advance. When advance notice is not practical, you will be notified as soon as possible. You will also be advised of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment. You will be given advanced notice in order to maintain uninterrupted service.

If you experience trouble with this equipment, please contact the company that installed the equipment for service and repair information. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

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 degradation 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 cause 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 attempt to make connections yourself. Contact the appropriate electrician or electric inspections 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: _____ Acceptability Number: _____

“AVIS: - L'étiquette du ministère des Communications du Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le ministère n'assure toutefois pas que le matériel fonctionnera à 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'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel à ligne unique peuvent être 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'empêche pas la dégradation du service dans certaines situations. Actuellement, les entreprises de télécommunication ne permettent pas que l'on raccorde leur matériel à des jacks d'abonné, sauf dans les cas précis prévus par les tarifs particuliers de ces entreprises.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à 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.

Avertissement. - L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas”.

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

“L'indice de charge (IC) assigné à chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle somme des indices de charge de l'ensemble des dispositifs ne dépasse pas 100.”

L'Indice de charge de cet produit est _____.



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Introduction

The system is easy to install if you plan ahead and perform the installation in the following order:

1. Determine locations for hardwire sirens, sensors, and the panel. Use the tear out planning sheets at the back of this manual.
2. Wire the Class II transformer, hardwire sirens, and phone.
3. Determine sensor, light, and system option operation.
4. Program the sensors, lamp and appliance modules, and system options.

Note

Program (add) sensors into panel memory before installing them at their permanent location.

5. Install sensors, lamp and appliance modules.
6. Test the system.

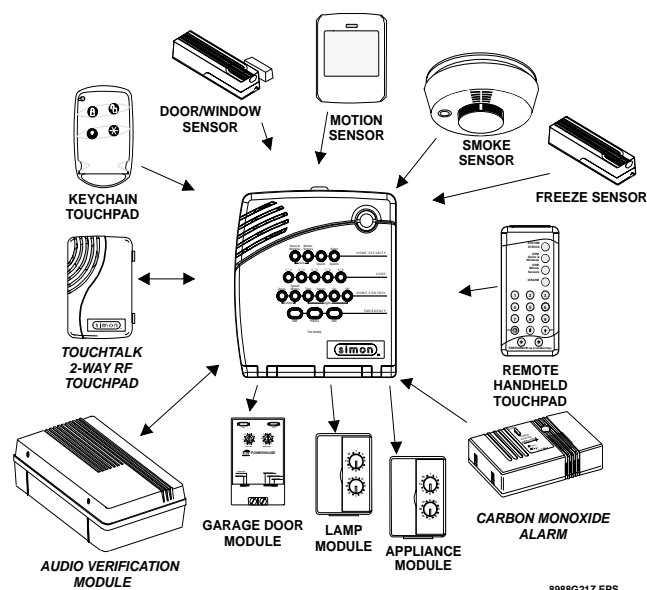


Figure 1. Typical Security System Components

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.

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 reporting.

Two panel models are available. One has an on-board 2-way voice microphone, the other does not. The Interrogator[®] 200 Audio Verification Module can be added to either panel.

User Interface

When the panel cover is closed, the panel buttons *operate* the security system. When the panel cover is open, the buttons *program* the security system.

Operation

The user operates the panel by pressing panel buttons or by using a touchpad. See the User Manual for complete operation instructions.

Panel Programming

The panel can be programmed on-site by the installer or user, or from off-site using ITI ToolBox[®] software. See the "Programming" section of this manual for complete on-site programming instructions. See the ITI ToolBox manual and ToolBox on-line help for off-site programming instructions.

Note

ITI 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. Large areas in an open floor plan, downstairs family rooms, and hallways are candidates for indoor motion sensors. If pets will be in the area, use the ITI SAW Pet Immune PIR (60-807). Indoor motion sensors can also be used to sound chimes, but cannot be used for intrusion protection and as a chime sensor simultaneously.

Outdoor Motion Sensor (60-639)

Use outdoor motion sensors to identify 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. When the

temperature rises to 50°F, the sensor transmits a restore signal to the panel.

Water Sensor (60-744)*

Water sensors detect a water leak in a home or business. 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

Smoke sensors can provide fire alert protection by causing the 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” on page 26 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 calls the central station.

Keychain Touchpad (60-659)

The Keychain Touchpad enables you to turn the system on and off from right outside the home or to turn on the siren and to call the central monitoring station if there is an emergency. If you have Lamp Modules, you can use keychain touchpads to turn all system controlled lights on and off.

Remote Handheld Touchpad (60-671)

The Remote Handheld Touchpad enables you to turn the system on and off while in the home, turn lights controlled by the system on and off (all or individual lights), or turn on a system siren and call the central monitoring station if there is a non-medical emergency. The Remote Handheld Touchpad will report an alarm type specific to its sensor type (see the “Sensor Group Characteristics” on page 33).

X-10 Modules

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

- X-10 Appliance Modules (13-402)
- X-10 Powerhorn/Remote Siren Modules (13-398)
- X-10 Universal/Garage Door Modules (13-399)
- X-10 Wall Switch Modules (13-397)
- Interrogator® 200 Audio Verification Module (AVM) (60-787)

Note

Use of the above X-10 modules has not been investigated by UL.

Interrogator® 200 Audio Verification Module (60-677)*

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.

**) Not investigated by UL*

Planning Sensor Types & 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. Use the previous information and the Table “Recommended Sensor Types” on page 2, to note your requirements.

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 Appendix A 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, Keychain Touchpads are typically programmed as sensor type 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).

Recommended Sensor Types

Device	Recommended Sensor Type
Keychain Touchpad	01, 03, 06, 07
Remote Handheld Touchpad	01, 03, 06, 07
Indoor Motion Sensor	17 (intrusion), 25 (chime)
Outdoor Motion Sensor	25
Smoke Sensor	26
Exterior Door	10
Interior Door	14
Window Sensor	13
CO Alarm	34
Freeze & Water Sensors	29

Control Locations

Control Panel

Locate the panel so that the 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.

Keychain Touchpad

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

Lamp, Appliance, Wallswitch, and Universal Module Control

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

House Code and Unit Numbers

Each device (lamp, appliance, garage door, 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.

Note

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 Keychain Touchpad.

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.

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.

To Fill Out the Home Control Planning Table:

1. Set the house code on all modules (except the remote siren) to the same letter.

Note

The house code instructions that come with the Powerhorn Siren won't work with this panel. Follow the house-code instructions given here.

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.

Note

If you are using a Universal Module to operate a garage door, make sure to assign a unique unit number to this module, choosing from 1-8.

4. List the location of the lamp or appliance in the Location column of the "Home Control Planning Table*" on page 34.
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.

Use the following tables to help you further plan X-10 module installation.

House Code Assignments

House Codes	Results
A through P	Set all modules to the same house code except the remote sirens.
Next Higher House Code	Remote Siren needs must be set to the next higher alphabetical letter.

Unit #	Result
1 - 8	Used for sensor-activated, time-activated, and entry/exit delay lights. <ul style="list-style-type: none"> <input type="checkbox"/> Sensor-activated lights are enabled and disabled pressing the LIGHTS Sensor Activated button on the panel. <input type="checkbox"/> 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 garage door, be sure to assign a unique unit number. <ul style="list-style-type: none"> <input type="checkbox"/> The STAR button on the KeyChain Touchpad activates the universal module to open the garage door or to turn on special lights if programmed.
9 - 16	Used for lamp modules and controlled by an all on or all off command.
9	Used for remote siren to hear arming level beeps, status beeps and trouble beeps. If set to any other number the user will hear only alarm sounds.
10	Lamps will flash to arming level.

Installing the System

Use the following procedure to mount the panel to the wall or wall studs, using the supplied mounting hardware and the panel mounting holes.

Materials Needed

- Pencil
- Hammer
- Screwdriver

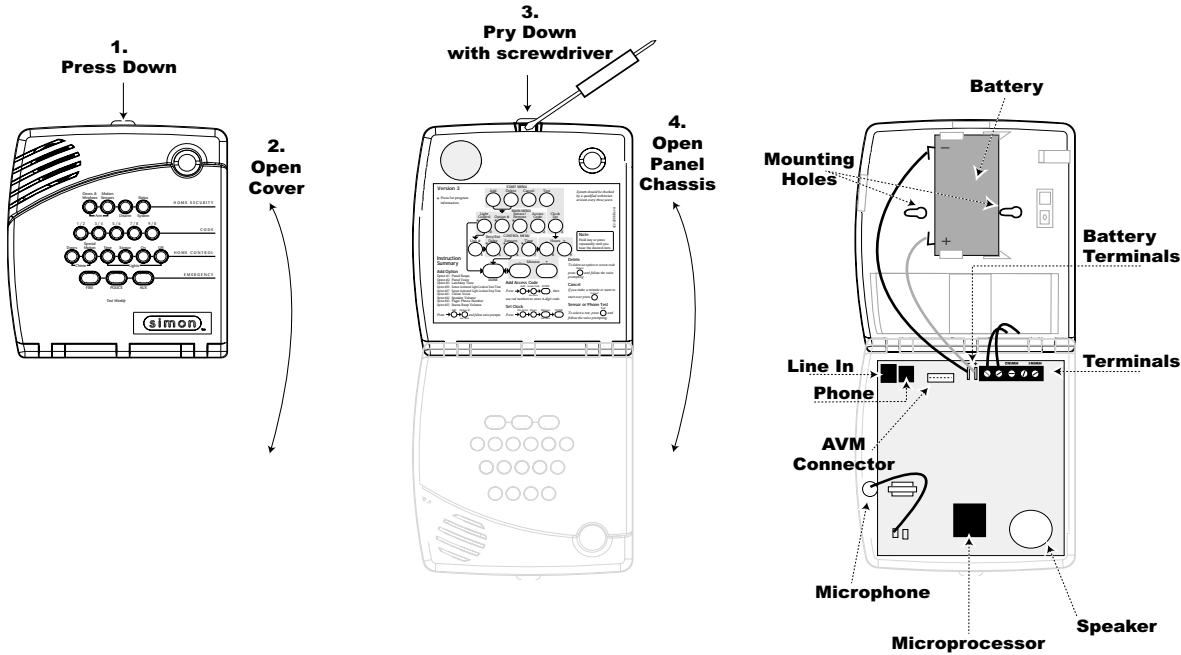


Figure 2. Opening the Panel Cover and Panel Chassis

Mounting the Panel

The panel can be wall-mounted or placed on a desk or table-top. If you are not wall-mounting the panel, skip steps 2-7 of the following procedure.

1. Choose a spot within a few feet of an electrical outlet (the outlet should not be controlled by a wall switch) and also within reach of a telephone jack.
2. Open the panel cover and panel chassis (see Figure 2). Position the panel on the wall.
3. Mark the screw hole locations with a pencil.
4. Start holes with the tip of the screwdriver or a nail.
5. Tap the wall anchors provided into the holes (if wall anchors are needed).
6. Insert the screws and partially tighten them with the screwdriver.
7. Hang the panel on the screws and tighten securely.
8. Remove the center screw from the outlet cover plate.

WARNING!

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

9. Position the transformer so that its screw hole is aligned with the screw hole on the outlet cover plate. Plug the transformer into the outlet.

10. Replace the cover plate screw and use it to secure the transformer to the outlet cover plate. Tighten the screw firmly with your screwdriver.

Hardwire Interior Sirens¹

The ITI interior Phone Jack Siren (60-683) may be used with this panel.

Turn option 53 on for siren supervision. When option 53 is on and a hardwire interior siren is not connected, a 47k ohm resistor (two 47k ohm resistors are shipped with the panel) must be connected across the DCOUT and HWIN terminals. If a 47k ohm resistor or a siren is not connected to the interior siren terminals, SYSTEM STATUS will say *Siren 2 failure*.

Follow the siren installation instructions included with the siren for specific end-of-line resistor connections. Do not exceed 250 mA total current draw for outputs HWIN1 and HWIN2. See Figure 3 for a generalized wiring connection.

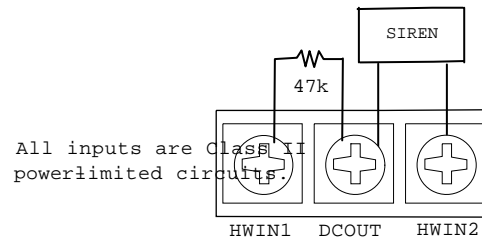


Figure 3. Supervised Interior Siren Connections

1) Not investigated by UL

Hardwire Exterior Siren

The Hardwire Exterior Siren (13-046) may be used with this panel.

Turn option 53 on for siren supervision. When option 53 is on and a hardwire exterior siren is not connected, a 47k ohm resistor (two 47k ohm resistors are shipped with the panel) must be connected across the DCOUT and HWIN terminals. If a 47k ohm resistor or a siren is not connected to the exterior siren terminals, SYSTEM STATUS will say *Siren 1 failure*.

Wire sirens to be supervised by using a 4.7k ohm end-of-line resistor, included with the siren.

Do not exceed 250 mA total current draw for outputs HWIN1 and HWIN2. See Figure 4 for wiring connections.

Note

Two 47k ohm resistors are included with the panel. These should not be used for end-of-line resistors when wiring sirens.

Failure to terminate unused inputs as shown will cause the panel to indicate siren 1 and siren 2 failure.

HWIN1 sounds only alarms. HWIN2 sounds both alarms and status sounds.

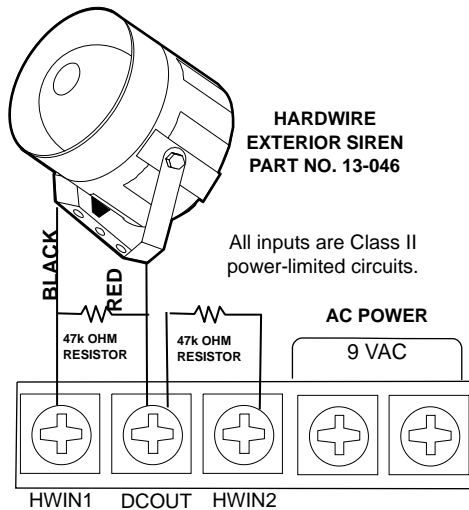


Figure 4. Supervised Exterior Siren Connections

Hardwire Sensors

This section shows how to wire hardwire sensors to the panel (see Figure 5). For more programming information on installing hardwire devices, see “Adding (Learning) Sensors” on page 8. Wire the sensors you want in series with a 47k Ohm resistor (included with the panel)

Important !

These inputs are designed only for sensors with reed switches. Other types of hardwire sensors should not be used.

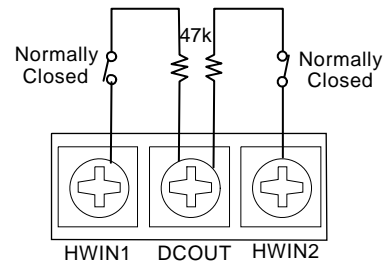


Figure 5. Wire Hardwire Sensors Normally Closed

Antenna

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.

Universal Module

Install a universal module for garage door control as follows:

1. Set the unit code dial to a unit number different from all other X-10 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 garage door opener button terminals.
5. Plug the universal module into a wall outlet.

Note

See “Light and Appliance Controls” to program a Key-chain Touchpad to open a garage door.

Power Transformer

Connect the power transformer as shown in Figure 6. Plug the transformer into an unswitched outlet.

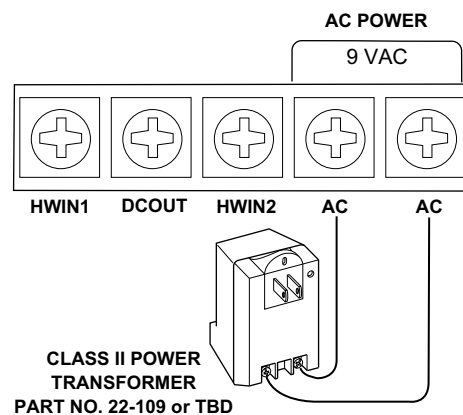


Figure 6. Power Transformer Control Panel Connections

Backup Battery

The rechargeable battery will be fully charged nine hours after you plug in the transformer. If you check system status while the battery is charging, the system may report a low battery.

To replace the battery

1. Open the panel cover and panel chassis (see Figure 2. on page 4).
2. Disconnect the wires from the battery, press tabs outward, and slide the battery to the right (see Figure 7).
3. Slide the new battery in until the tabs click into place and reconnect the battery wires, observing polarity.

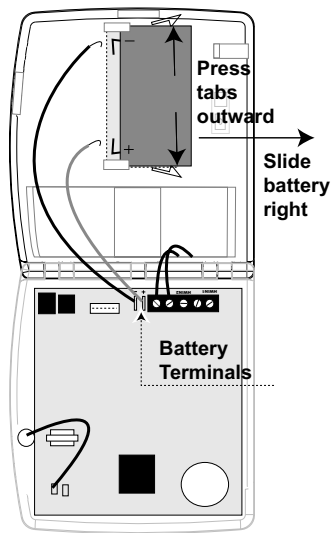


Figure 7. Rechargeable Battery Removal

Phone Line Connections

Full Line Seizure with an RJ-31X

1. Install and wire the RJ-31X jack as shown in Figure 8.

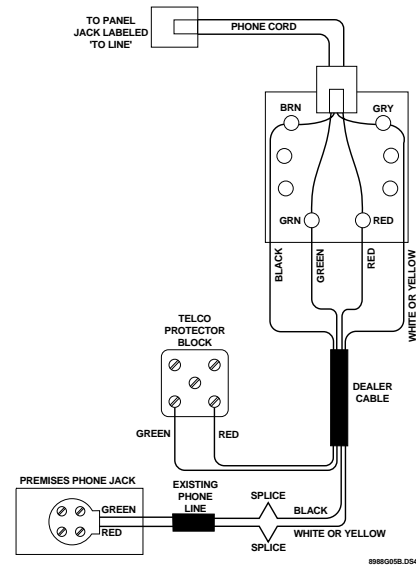


Figure 8. RJ-31X Wiring Diagram

2. Plug one end of the phone cord (included with the panel) into the RJ-31X jack.
3. Plug the other end of the phone cord into the panel LINE IN jack (see Figure 2. on page 4).

Full Line Seizure with an RJ-11

If there is only one phone at the installation site, full line seizure can be done without using an RJ-31X jack by utilizing the panel PHONE jack. The panel disables this jack when the panel reports to the central monitoring station to ensure that reports get through.

Connecting the Phone Line to the Panel with an RJ-11

1. Unplug the existing phone from the wall phone jack and plug it into the panel PHONE jack.
2. Plug one end of a regular phone cord into the panel LINE IN jack.
3. Plug the other end of the phone cord into the wall phone jack.

Sensor Installation

Program sensors and devices before you install them. Use the following section to program the panel and add the sensors to panel memory.

Programming

This panel was designed to be easy to use and program. These instructions tell you how to set up for programming and to put the panel in program mode.

1. Arrange the sensors, modules, panel, and user controls on a table.
2. Open the panel cover (see Figure 2).

Note

Do not open the panel cover if the system is armed.

3. Enter Utility Access Code 1 using red numbered keys.

Note

The default for utility access codes 1 and 2 is 4321. The default master access code is 1234. If Option 54 has been added, all the access code defaults will be reset to the appropriate number of digits (see the Table, "System Access Codes" on page 34).

4. You are now in program mode. Follow the programming arrows. The system will prompt you through programming steps with beeps and voice messages.

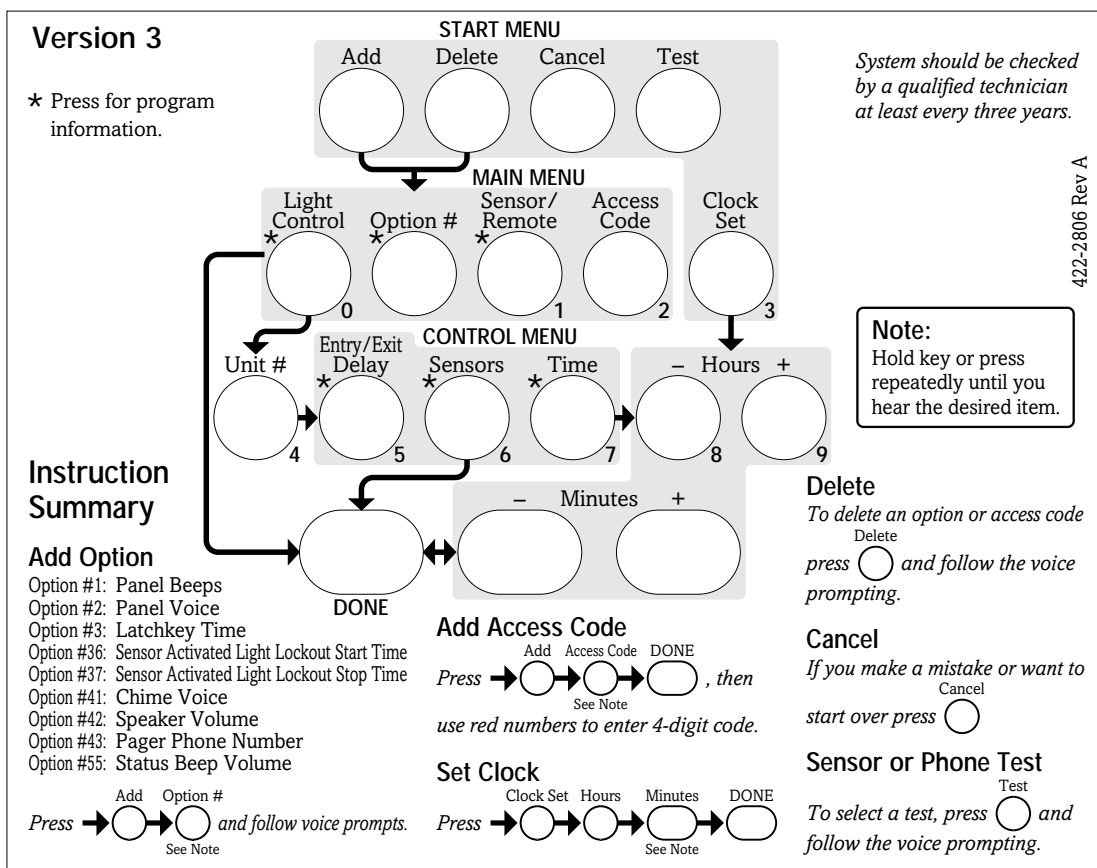
Program the panel in this order:

1. Set panel clock.
2. Add (learn) sensors.
3. Set House Code and Light & Appliance Controls (Entry/Exit activated lights, Sensor activated lights, Time activated lights).
4. Change numbered Options as needed.
5. Program Access Codes.

Closing the Cover

If you need more time before proceeding with programming, simply close the panel cover until you are ready to continue.

When you close the cover, the panel reverts to the operating mode. The control panel piezo, hardwire internal siren, and the X-10 powerhorn will beep once.



Reset Memory to the Factory Defaults

If it becomes necessary to set ALL programming back to the factory defaults, do the following:

1. Open the panel cover and enter Utility Access code 1.
2. Unplug the transformer and the battery.
3. Simultaneously press **Cancel**, **Clock Set**, and **Minutes +**.
4. Restore power to the panel with either the battery or the transformer while pressing these three buttons.
5. Plug in the transformer or connect the battery.

Note

If Phone Lock is on, options 04, 05, 06, 08, 09, 12, and 13 will not reset to their defaults.

Set the Clock

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 show you how to program sensors, touchpads and other system devices into the panel. The panel recognizes a sensor when you press the sensor program button or tamper switch.

Note

The hardwire inputs must have sirens or hardwire sensors with 47k Ohm resistors connected between the DCOU and HWIN1 or HWIN2 terminals before learning in a sensor. If one of these connections is not made, the panel will learn in a hardwire zone. See "Installing the System" on page 4.

Note

If you are installing a sensor used with 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.

The following table, "Device Programming," describes the programming button location for each device.

Device Programming

Device	To Program
Door/Window Sensor	Press button on top of sensor (cover removed) or trip tamper
Motion Sensor	Press button on back of sensor (mounting plate removed)
Keychain Touchpad	Press lock & Unlock buttons
Remote Handheld Touchpad	Press the EMERGENCY buttons
Hardwire Sensors	Separate sensor from magnet
CO Alarm	Plug in the module and within 30 seconds press and hold the test button for 6 beeps
Freeze & Water	Press the button on top of the sensor (cover removed) until the control panel confirms the programming. If the button is not held down long enough, SYSTEM STATUS will report the sensor is open.

The panel uses an ascending numbering sequence (beginning with 1) when adding (learning) sensors. You can override this by entering the desired sensor number using the numbered keys.

Use the Table in Appendix C, which was filled out during the system planning, to help program sensors.

To add a hardwire or RF sensor or remote control:

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 or tamper button. 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. The order of names the panel uses are listed in Appendix C. Each name may be used more than once.

Note

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

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 (from the Table, "Sensor Group Characteristics" on page 33). The panel announces the sensor number and sensor group, then prompts you to press Done to accept.

Note

If you wish to use a sensor number other than the next one available, use the numbered keys to enter a 2 digit sensor number immediately after entering the sensor type.

7. Press **DONE**. The panel confirms programming by announcing the sensor number, name, and group.

Deleting Sensors

To delete sensors:

1. Press **Delete**. The panel announces "Select from Main Menu."
2. Press **Sensor/Remote** repeatedly until you hear the name you want deleted.
3. Press **DONE**. The panel announces that the sensor is deleted.

Light and Appliance Controls

Use the following procedure to program X-10 module operations into panel memory. Notice that the **Light Control** button is used to program **all** X-10 module operations (light, appliance, wall switch, and universal).

To program the house code:

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 powerhorn/remote sirens to the next sequential alphabetical letter.

To add an entry/exit activated module:

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 add a sensor-activated module:

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.

Note
A Keychain Touchpad button can also be programmed to control a light or appliance module.
5. Press **DONE**. The panel confirms your programming.

To add a time-activated module:

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 an Entry/Exit-activated module:

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**. The panel confirms your programming.

To delete a sensor-activated module:

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.

To delete a time-activated module:

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

Numbered Options

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

The "Numbered Options" table in Appendix B lists all system options and their characteristics. Fill in the last column of the table before programming to help speed up the programming process.

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 following instructions use the last method.

Note

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.

Option 01: Panel Piezo Beeps (Default = On)

Determines whether the panel piezo produces beeps based on system activity (on) or is silent (off). Table X "Panel Piezo Beeps" describes all possible beeps.

Panel Piezo Beeps

Activity	Piezo Beep Response
ARM Doors & Windows	Exit Delay—2 beeps sound every 5 seconds and 2 times per second during the last 10 seconds. Silent Exit—2 beeps sound at the beginning of the exit delay and 2 more sound just before the exit delay expires. Entry Delay—2 beeps sound every 5 seconds and 2 times per second during the last 10 seconds.
ARM Motion Sensors	Exit Delay—3 beeps sound every 5 seconds and 3 times per second during the last 10 seconds. Silent Exit—3 beeps sound at the beginning of the exit delay and 3 more sound just before the exit delay expires. Entry Delay—3 beeps sound every 5 seconds and 3 times per second during the last 10 seconds.
ARM Doors/Windows & Motion Sensors	Exit Delay—4 beeps sound every 5 seconds and 4 times per second during the last 10 seconds. Silent Exit—4 beeps sound at the beginning of the exit delay and 4 more sound just before the exit delay expires. Entry Delay—4 beeps sound every 5 seconds and 4 times per second during the last 10 seconds.
DISARM	1 beep
CHIME DOORS	2 beeps (when programmed)
CHIME SPECIAL MOTION	3 beeps (when programmed)
Trouble Beeps	6 beeps every minute. Press SYSTEM STATUS to stop beeps for 4 hours.
No Activity	20 beeps every minute for 5 minutes (when programmed)

To turn on Panel Piezo Beeps, press:

Add—Option #—01—DONE.

To turn off Panel Piezo Beeps, press:

Delete—Option #—01—DONE.

Note

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

Option 02: Panel Voice (Default = On)

Determines whether the panel announces all status, alarm, and program mode messages (on), or only when SYSTEM STAUS is pressed or if the panel is in program mode (off).

To turn on Panel Voice, press:

Add—Option #—02—DONE.

To turn off Panel Voice, press:

Delete—Option #—02—DONE.

Option 03: Latchkey (Default = Off)

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), or if the Latchkey feature is disabled (off).

Note

The system clock must be set for the Latchkey feature to work.

To set Latchkey, press:

Add—Option #—03—Hours—Minutes—DONE.

To turn off Latchkey, press:

Delete—Option #—03—DONE.

Option 04: Primary Phone Number (Default = none)

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).

Press Test for each required pause, Add for a *, and Delete for a # (each of which uses one of the 26 available places).

To set Primary Phone Number, press:

Add—Option #—04—Up to 26 digits—DONE.

Note

Pressing DONE is required if you enter fewer than 26 digits. The phone number is automatically stored without pressing DONE if all 26 places are used.

To delete Primary Phone Number, press:

Delete—Option #—04—DONE.

Option 05: Secondary Phone Number (Default = none)

Lets you program up to a 26-digit central monitoring station receiver/numeric pager phone number for monitored systems (on), or delete an existing secondary phone number (off).

Press Test for each required pause, Add for a *, and Delete for a # (each of which uses one of the 26 available places).

Note

For numeric pagers, add 2 pauses at the end of the number. Some pagers may require 3 or 4 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. See the Table "Pager Reporting Messages" for more reporting information.

To set Secondary Phone Number, press:

Add—Option #—05—Up to 26 digits—DONE.

Note

Pressing DONE is required if you enter fewer than 26 digits. The phone number is automatically stored without pressing DONE if all 26 places are used.

To delete Secondary Phone Number, press:

Delete—Option #—05—DONE.

Option 06: Downloader Phone Number (Default = none)

- Lets you program up to a 26-digit phone number for a computer modem for using ITI ToolBox Downloader (on), or delete an existing phone number (off).

Press Test for each required pause, Add for a *, and Delete for a # (each of which uses one of the 26 available places).

To set Downloader Phone Number, press:

Add—Option #—06—Up to 26 digits—DONE.

Note

Pressing DONE is required if you enter fewer than 26 digits. The phone number is automatically stored without pressing DONE if all 26 places are used.

To delete Downloader Phone Number, press:

Delete—Option #—06—DONE.

Option 07: Account Number (Default = 00000)

- Lets you program up to a 10-character alphanumeric account number (on) or delete an existing account number (off).

To enter letters, press 9 then the Minutes + button. The panel announces the letter A. Continue pressing the Minutes + button to progress through the alphabet.

Note

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 Account Number, press:

Add—Option #—07—Up to 10 characters—DONE.

Note

Pressing DONE is required if you enter fewer than 10 characters. The account number is automatically stored without pressing DONE if 11 characters are entered, of which only the first 10 are stored.

To delete Account Number, press:

Delete—Option #—07—DONE.

Option 08: Phone Lock (Default = on)

- Prevents unauthorized persons from clearing panel memory to change phone/reporting related Options 04, 05, 06, 08, 09, 12, and 13 (on), or allows anyone to clear panel memory and change these option settings (off).

To turn on Phone Lock, press:

Add—Option #—08—DONE.

To turn off Phone Lock, press:

Delete—Option #—08—DONE.

Option 09: Downloader Code (Default = 12345)

- Lets you set a unique 5-digit code that is required for initiating ToolBox sessions (on) or sets the code to its default (off).

The code must be 5 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 Downloader Code, press:

Add—Option #—09—5-digit code—DONE.

To delete Downloader Code (return to default), press:

Delete—Option #—09—DONE.

Option 10: Entry Delay (Default = 030 sec)

- Determines how long Entry Delay beeps sound to alert the user to disarm the system when entering the armed premises through a designated entry/exit door, before an alarm occurs.

When turned on, the Entry Delay can be set from 005-254 seconds (030-254 if SIA Limits Option 69 is on). All entries must be 3 digits. When turned off, the Entry Delay is set to 005 seconds (030 if Option 69: SIA Limits is on).

Note

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

To set Entry Delay, press:

Add—Option #—10—3-digit delay time—DONE.

To reset Entry Delay (return to default), press:

Delete—Option #—10—DONE.

Option 11: Exit Delay (Default = 060 sec)

- Determines how long Exit Delay beeps sound after arming the system to alert the user to leave the armed premises through a designated entry/exit door, before an alarm occurs.

When turned on, the Exit Delay can be set from 005-254 seconds (045-254 if SIA Limits Option 69 is on). All entries must be 3 digits. When turned off, the Exit Delay is set to 005 seconds (045 if Option 69: SIA Limits is on).

Note

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

To set Exit Delay, press:

Add—Option #—11—3-digit delay time—DONE.

To reset Exit Delay (return to default), press:

Delete—Option #—11—DONE.

Option 12: Phone Mod 1 (Default = 0)

Determines the primary phone number (Option 4) report content and reporting format.

Note

UL has only verified reporting compatibility with the ITI CS5000 Digital Alarm Communicator Receiver.

The following table describes the choices.

Phone Mod 1

Setting #	Content	Format
0	All	SIA
1	All	Contact ID
2	Alarms only	SIA
3	Alarms only	Contact ID

Note

For UL listed systems, Phone Mod 1 must be set to 0 or 1.

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

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

To set Phone Mod 1, press:

Add—Option #—12—0, 1, 2, or 3—DONE.

To reset Phone Mod 1 (return to default), press:

Delete—Option #—12—DONE.

Option 13: Phone Mod 2 (Default = 00)

Determines the secondary phone number (Option 5) report content and reporting format. The following table describes the choices. All entries must be 2 digits.

Phone Mod 2

Setting #	Content	Format
00	All	SIA
01	All	Contact ID
02	Alarms only	SIA
03	Alarms only	Contact ID
04	Non-Alarms only	SIA
05	Non-Alarms only	Contact ID
60	Phone 1 failure	SIA
07	Phone 1 failure	Contact ID
08	Latchkey, No Activity, Phone Test, Openings, Closings, Fail to Open/Close, AC Power Restorals/ Failures	Pager
09	Same as setting 8 plus Alarms	Pager
10	Alarms only	Voice

To set Phone Mod 2, press:

Add—Option #—13—0, 1, 2, or 3—DONE.

To reset Phone Mod 2 (return to default), press:

Delete—Option #—13—DONE.

Option 14: DTMF Dialing (Default = on)

Determines whether the panel uses DTMF (on) or pulse (off) for dialing programmed phone numbers.

To turn on DTMF Dialing, press:

Add—Option #—14—DONE.

To turn off DTMF Dialing, press:

Delete—Option #—14—DONE.

Option 15: No Activity Time-out (Default = off)

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).

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

The time-out can be set from 02 - 24 hours. All entries must be 2 digits.

To set No Activity Time-out, press:

Add—Option #—15—02 - 24—DONE.

To turn off No Activity Time-out, press:

Delete—Option #—15—DONE.

Option 16: Auto Phone Test (Default = off)

Determines whether the panel automatically performs a periodic phone test (on) or not (off).

The test interval can be from 001 - 254 days. Entries must be 3 digits. The time of day the panel performs the test is determined by Option 19: Supervisory Time.

Note

For UL 1635 listed systems, Auto Phone Test must be set to 001 days.

To set Auto Phone Test, press:

Add—Option #—16—001 - 254—DONE.

To turn off Auto Phone Test, press:

Delete—Option #—16—DONE.

Option 17: Dialer Delay (Default = off)

Determines whether the panel delays dialing programmed phone numbers to send reports (on), or if dialing begins immediately (off).

If Option 21: Opening (Disarming) 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 0-8, 26, and for alarms triggered by the control panel or remote handheld touchpad emergency buttons.

The delay time can be set from 005 - 254 seconds (015 to 045 if Option 69: SIA Limits is on). Entries must be 3 digits.

Note

For UL installations, the Dialer Delay must not exceed 45 seconds.

To set Dialer Delay, press:

Add—Option #—17—005 - 254—DONE.

To turn off Dialer Delay, press:

Delete—Option #—17—DONE.

Option 18: Alarm Cancel Report (Default = 005 minutes)

Determines when the panel reports an alarm cancel message to the central station.

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 005 - 255 minutes. Entries must be 3 digits. When set to 255, the panel always reports alarm cancel messages. Turning off this option disables alarm cancel reporting.

To turn on Alarm Cancel Report, press:

Add—Option #—18—005 - 255—DONE.

To turn off Alarm Cancel Report, press:

Delete—Option #—18—DONE.

Option 19: RF Timeout (Default = 2 hours)

Determines the time period the panel must receive at least one supervisory signal from learned sensors before sounding trouble beeps.

The timeout can be set from 02-24 hours. Entries must be 2 digits.

Note

For UL listed systems, RF Timeout shall not exceed 4 hours.

To change RF Timeout, press:

Add—Option #—19—02 - 24—DONE.

To reset RF Timeout (return to default), press:

Delete—Option #—19—DONE.

Option 20: Manual Phone Test (Default = on)

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

To turn on Manual Phone Test, press:

Add—Option #—20—DONE.

To turn off Manual Phone Test, press:

Delete—Option #—20—DONE.

Option 21: Opening Reports (Default = off)

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

To turn on Opening Reports, press:

Add—Option #—21—DONE.

To turn off Opening Reports, press:

Delete—Option #—21—DONE.

Option 22: Closing Reports (Default = off)

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

To turn on Closing Reports, press:

Add—Option #—22—DONE.

To turn off Closing Reports, press:

Delete—Option #—22—DONE.

User Codes for Opening and Closing Reports

Arm or Disarm from:	Reports as User:
Panel or Remote Handheld Touchpad	0
Keychain Touchpad	1-24 (sensor number)
Master Code	30
Access Codes 1-5	31-35
Panic Code	36

Option 23: Force Armed Report (Default = off)

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).

To turn on Force Armed Report, press:

Add—Option #—23—DONE.

To turn off Force Armed Report, press:

Delete—Option #—23—DONE.

Option 24: AC Power Failure Report (Default = off)

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

When the panel is without AC power for the programmed time, panel LEDs shut off and an AC power failure is reported. The panel reports an AC power restoration when AC power returns to the panel.

The time can be set from 5-254 minutes. Entries must be 3 digits.

Note

For UL listed systems, AC Power Failure must be set to a value within the available range.

To turn on AC Power Failure Report, press:

Add—Option #—24—005 - 254—DONE.

To turn off AC Power Failure Report, press:

Delete—Option #—24—DONE.

Option 25: CPU Low Battery Report (Default = on)

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).

Note

For UL listed systems, CPU Low Battery Report must be on.

To turn on CPU Low Battery Report, press:

Add—Option #—25—DONE.

To turn off CPU Low Battery Report, press:

Delete—Option #—25—DONE.

Option 26: Fail to Communicate (Default = on)

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).

Note

For UL listed systems, Fail to Communicate must be on.

To turn on Fail to Communicate, press:

Add—Option #—26—DONE.

To turn off Fail to Communicate, press:

Delete—Option #—26—DONE.

Option 27: Ring/Hang/Ring (Default = 1)

Determines when the panel answers a remote phone access or TollBox call. Depending on whether an answering machine exists at the panel location, off-site access to the panel can be done with a series of phone calls or just one.

The following table shows the available settings.

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
Off	Disabled—no remote (off-site) access

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

For off-site access where an answering machine exists, the user or ToolBox operator must perform the following steps:

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, perform steps 1 - 3 once.

If set to 2, perform steps 1 - 3 twice.

If set to 3, perform steps 1 - 3 three times.

To turn on Ring/Hang/Ring, press:

Add—Option #—27—1, 2, 3, or 4—DONE.

To turn off Ring/Hang/Ring (disable remote access), press:

Delete—Option #—27—DONE.

Option 28: No Delay from Keychain Touchpad (Default = off)

Determines whether a keychain touchpad arms the system with no delay (on) or not (off).

To turn on No Delay from Keychain Touchpad, press:

Add—Option #—28—DONE.

To turn off No Delay from Keychain Touchpad, press:

Delete—Option #—28—DONE.

Option 29: Panel Piezo Alarms (Default = on)

Determines whether the panel piezo emits alarm sounds (on) or not (off).

Note

For UL listed systems, at least one listed external audible signal device shall be used if the internal piezo is disabled.

To turn on Panel Piezo Alarms, press:

Add—Option #—29—DONE.

To turn off Panel Piezo Alarms, press:

Delete—Option #—29—DONE.

Option 30: Panel Panic Alarms

Determines whether the panel panic buttons (police, auxiliary, and fire) activate alarms when pressed (on), or not (off).

To turn on Panel Panic Alarms, press:

Add—Option #—30—DONE.

To turn off Panel Panic Alarms, press:

Delete—Option #—30—DONE.

Option 31: Downloader Enable

Determines whether the panel can be accessed using Tool-Box (on), or not (off).

To turn on Downloader Enable, press:

Add—Option #—31—DONE.

To turn off Downloader Enable, press:

Delete—Option #—31—DONE.

Option 32: 300 Baud (Default = on)

Determines whether the baud rate used by the panel for central station communication is 300 bps (on) or 110 bps (off).

To turn on 300 Baud, press:

Add—Option #—32—DONE.

To turn off 300 Baud, press:

Delete—Option #—32—DONE.

Option 33: Audio Verification (Default = off)

Determines whether the system can perform 2-way voice audio sessions with a central station operator immediately after an alarm report (on), or not (off).

Note

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.

Note

The user can perform 2-way voice audio sessions if Option 27: Ring/Hang/Ring is on. To conduct an audio session using remote phone access see the Table "Phone Commands for Remote Access" in the "Testing" section.

To turn on Audio Verification, press:

Add—Option #—33—DONE.

To turn off Audio Verification, press:

Delete—Option #—33—DONE.

Option 34: Fail to Open Report (Default = off)

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).

To turn on Fail to Open Report, press:

Add—Option #—34—Hours—Minutes—DONE.

To turn off Fail to Open Report, press:

Delete—Option #—34—DONE.

Option 35: Fail to Close Report (Default = off)

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).

To turn on Fail to Close Report, press:

Add—Option #—35—Hours—Minutes—DONE.

To turn off Fail to Close Report, press:

Delete—Option #—35—DONE.

Option 36: Sensor Activated Light Lockout Start Time (Default = off)

Sets the START time that determines when the panel prevents the sensor activated lights feature from turning on sensor activated lights.

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).

Note

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 Sensor Activated Light Lockout Start Time, press:

Add—Option #—36—Hours—Minutes—DONE.

To turn off Sensor Activated Light Lockout Start Time, press:

Delete—Option #—36—DONE.

Option 37: Sensor Activated Light Lockout Stop Time (Default = off)

Sets the STOP time that determines when the panel prevents the sensor activated lights feature from turning on sensor activated lights.

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).

Note

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 Sensor Activated Light Lockout Stop Time, press:

Add—Option #—37—Hours—Minutes—DONE.

To turn off Sensor Activated Light Lockout Stop Time, press:

Delete—Option #—37—DONE.

Option 38: Auto Arm (Default = off)

Determines whether the panel automatically bypasses protesting sensors and arms the system after 4 minutes (on) or not (off). Any sensor that requires restoral and is open when the panel is armed will automatically be bypassed when the panel is done protesting. The panel will protest for 4 minutes, then auto arm. [Pressing the ARM Doors & Windows button a second time will stop the control panel protest and auto arm the system. Pressing this button a third time will arm with no entry delay. The panel will go into alarm if an instant alarm sensor is opened during an exit delay. A sensor learned as type 26 can never be bypassed.]

1. Press **Add** from the Start menu.
2. Press **Option # 38**.
3. Press **DONE**.

Delete disables auto arm. Any sensor that requires restoral and is open when the exit delay expires will automatically be bypassed. Beeps indicating the arming level will sound four times when the control panel is armed and one time when the exit delay ends. [The panel will go into alarm if an instant alarm sensor is opened during an exit delay. A sensor learned as type 26 can never be bypassed.]

1. Press **Delete** from the Start menu.
2. Press **Option # 38**.
3. Press **DONE**.

Option 39: Siren Time-out (Default = 4 min.)

Determines how long sirens sound alarms if no one is present to cancel the alarm (disarm the system).

The time can be set from 001 - 254 minutes. Entries must be 3 digits. When this feature is turned off, sirens sound alarms until the alarm is canceled (system is disarmed).

Note

For UL listed systems, Siren Time-out must be set to at least 4 minutes.

To set Siren Time-out, press:

Add—Option #—39—001 - 254—DONE.

To turn off Siren Time-out, press:

Delete—Option #—39—DONE.

Option 40: Trouble Beeps (Default = on)

Determines whether the panel and system sirens sound six beeps every minute when a trouble condition occurs (on) or not (off). The following conditions cause trouble beeps:

- AC power failure
- Low CPU battery
- Sensor failure (supervisory)
- Sensor trouble (low battery or tripped tamper)
- Fail to communicate
- No Activity timer has timed out. Trouble beeps continue for 5 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 4 hours later if the trouble condition is not cleared.

Note

For UL listed systems, Trouble Beeps must be on.

To turn on Trouble Beeps, press:

Add—Option #—40—DONE.

To turn off Trouble Beeps, press:

Delete—Option #—40—DONE.

Option 41: Chime Voice (Default = off)

Determines whether the panel voice announces the sensor number and name (on) or not (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.

To turn on Chime Voice, press:

Add—Option #—41—DONE.

To turn off Chime Voice, press:

Delete—Option #—41—DONE.

Option 42: Speaker Level (Default = 8)

Sets the volume of voice messages from the panel speaker.

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

To set Speaker Level, press:

Add—Option #—42—1 - 8—DONE.

To turn off Speaker Level (return to default), press:

Delete—Option #—42—DONE.

Option 43: Pager Phone Number (Default = off)

Lets you program up to a 26-digit pager phone number (on), or delete an existing pager phone number (off).

Press Test for each required pause, Add for a *, and Delete for a # (each of which uses one of the 26 available places).

Note

This phone number can only call a pager. Some pagers may require 3 or 4 additional pauses after the last digit to work correctly.

To set Pager Phone Number, press:

Add—Option #—43—Up to 26 digits—DONE.

Note

Pressing DONE is required if you enter fewer than 26 digits. The phone number is automatically stored without pressing DONE if all 26 places are used.

To delete Pager Phone Number, press:

Delete—Option #—43—DONE.

Option 44: Pager Phone Mod 3 (Default = 09)

Determines the pager phone number (Option 43) report content and reporting format. The following table describes the choices. All entries must be 2 digits.

Phone Mod 3

Setting #	Content	Format
08	Latchkey, No Activity, Phone Test, Openings, Closings, Fail to Open/Close, AC Power Restorals/Failures	Pager
09	Same as setting 8 plus Alarms	Pager
10	Alarms only	Voice

To set Phone Mod 3, press:

Add—Option #—44—08, 09, or 10—DONE.

To reset Phone Mod 3 (return to default), press:

Delete—Option #—44—DONE.

Option 45: Sensor Alarm Restoral Report (Default = off)

Determines whether the panel reports sensor alarm restorals (on), or not (off). The following table describes the possible settings.

Sensor Alarm Restoral Settings

Setting	When Restorals are Reported
Off	No restoral reporting
1	Immediately after sensor is closed or restored
2	After siren timeout expires
3	When system is disarmed

To turn on Sensor Alarm Restoral Report, press:

Add—Option #—45—1, 2, or 3—DONE.

To turn off Sensor Alarm Restoral Report, press:

Delete—Option #—45—DONE.

Option 46: Fire Shutdown - AVM (Default = off)

Determines whether system sirens are silenced during a 2-way audio session (on) or not (off). Beeps sound every 10 seconds while sirens are silenced.

To turn on Fire Shutdown - AVM, press:

Add—Option #—46—DONE.

To turn off Fire Shutdown - AVM, press:

Delete—Option #—46—DONE.

Option 47: AVM Mode (Default = off)

Determines whether the central station operator can call back the panel immediately after hanging up and start a 2-way audio session (on) or not (off).

To turn on AVM Mode, press:

Add—Option #—47—DONE.

To turn off AVM Mode, press:

Delete—Option #—47—DONE.

Option 48: Panic Talk - AVM (Default = off)

Determines whether the central station operator can talk to the user during a silent alarm (on) or just listen in on the premises (off).

Silent alarms occur when sensors learned into groups 02 or 03 are tripped, or whenever the Panic Code entered.

To turn on Panic Talk - AVM, press:

Add—Option #—48—DONE.

To turn off Panic Talk - AVM, press:

Delete—Option #—48—DONE.

Option 49: Arming LEDs Shutdown (Default = off)

Determines whether the panel arming LEDs (buttons) turn off 30 seconds after arming (on), or remain on for the entire arming period (off).

To turn on Arming LEDs Shutdown, press:

Add—Option #—49—DONE.

To turn off Arming LEDs Shutdown, press:

Delete—Option #—49—DONE.

Option 50: RF Jam Detect (Default = off)

Determines whether the panel checks for and reports RF interference/jam to the central station (on), or not (off).

If this option is on and the panel receives a constant 319.5 MHz signal, the panel speaker announces “Option 50 detected” and reports the condition to the central station. If this option is off, the panel is unable to detect an RF jam.

Note

For UL listed systems, RF Jam Detect must be on.

To turn on Arming LEDs Shutdown, press:

Add—Option #—50—DONE.

To turn off Arming LEDs Shutdown, press:

Delete—Option #—50—DONE.

Option 51: 24 Hour Tamper (Default = off)

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

To turn on 24 Hour Tamper, press:

Add—Option #—51—DONE.

To turn off 24 Hour Tamper, press:

Delete—Option #—51—DONE.

Option 52: Unvacated Premises (Default = on)

Determines whether the system automatically arms down to level 2 (ARM Doors & Windows) if the user arms the system to a higher level without leaving the premises (on), or remains at the armed level chosen by the user (off).

If this option is turned on and the user arms to level 3 (ARM Motion Sensors) or 4 (ARM Doors & Windows, + ARM Motion Sensors) but does not exit the premises within the Exit Delay time, the panel automatically changes to arming level 2.

To turn on Unvacated Premises, press:

Add—Option #—52—DONE.

To turn off Unvacated Premises, press:

Delete—Option #—52—DONE.

Option 53: Hardwire Siren Supervision (Default = off)

Determines whether the panel monitors hardwired sirens for open or shorted 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” for siren supervision wiring). If this option is turned off, EOL resistors are not required whether sirens are connected or not.

Note

For UL listed systems, Hardwire Siren Supervision must be on and EOL resistors installed.

To turn on Hardwire Siren Supervision, press:

Add—Option #—53—DONE.

To turn off Hardwire Siren Supervision, press:

Delete—Option #—53—DONE.

Option 54: Access Code Length (Default = 4)

Determines how many digits are in an access code.

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.

Note

Changing this option resets all access codes and their defaults to the selected digit length. For example, setting this option to 3 digits changes the Utility Access Code from 4321 to 321.

To change Access Code Length, press:

Add—Option #—54—3, 4, 5, or 6—DONE.

To reset Access Code Length (to default), press:

Delete—Option #—54—DONE.

Option 55: Status Beep Volume (Default = 9)

Determines the panel piezo volume level for status sounds such as arming, trouble, and status beeps.

The volume can be set from 1 (lowest) to 20 (highest). Turning off this option resets the volume to the default setting.

To set Status Beep Volume, press:

Add—Option #—52—DONE.

To reset Status Beep Volume (return to default), press:

Delete—Option #—52—DONE.

Option 56: Call Waiting (Default = off)

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

Press Test for each required pause, Add for a *, and Delete for a # (each of which uses one of the 26 available places).

To program Call Waiting, press:

Add—Option #—56—Up to 26 digits—DONE.

Note

Pressing DONE is required if you enter fewer than 26 digits. The phone number is automatically stored without pressing DONE if all 26 places are used.

To delete Call Waiting, press:

Delete—Option #—56—DONE.

Option 57: Supervisory/Tamper Report (Default = off)

Determines whether the panel sends supervisory reports to a central station or pager as a tamper (on) or a supervisory (off).

Note

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 (Default = off)

Determines whether wireless touchpads (keychain and remote) can disarm the system only after the entry delay starts (on) or anytime during the armed period (off).

To turn on Remote Touchpad Arming, press:

Add—Option #—57—DONE.

To turn off Remote Touchpad Arming, press:

Delete—Option #—57—DONE.

Option 59: Exit Extension

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 on this feature allows users to re-enter after arming, without disarming and then re-arming the system. Turning off this feature requires the user to disarm and re-arm the system.

Note

For UL listed systems, Exit Extension must be off.

To turn on Exit Extension, press:

Add—Option #—59—DONE.

To turn off Exit Extension, press:

Delete—Option #—59—DONE.

Option 60: Secure Arming (Default = off)

Determines whether an access code is required when arming the system (on) or not (off).

This option does not affect keychain toupad arm/disarm operation.

To turn on Secure Arming, press:

Add—Option #—60—DONE.

To turn off Secure Arming, press:

Delete—Option #—60—DONE.

Option 61: Demo Mode (Default = off)

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.

To turn on Demo Mode, press:

Add—Option #—61—DONE.

To turn off Demo Mode, press:

Delete—Option #—61—DONE.

Option 62: Supervisory Protest (Default = off)

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).

Note

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

To turn on Supervisory Protest, press:

Add—Option #—62—DONE.

To turn off Supervisory Protest, press:

Delete—Option #—62—DONE.

Option 63: 24 Hour Time (Default = off)

Determines whether the panel uses a 24-hour clock (on) or 12-hour clock (off).

To turn on 24 Hour Time, press:

Add—Option #—63—DONE.

To turn off 24 Hour Time, press:

Delete—Option #—63—DONE.

Option 64: No Arm on Panel Low Battery**(Default = off)**

Determines whether the system prevents users from arming if a low CPU battery trouble condition exists (on) or not (off).

To turn on No Arm on Panel Low Battery, press:

Add—Option #—64—DONE.

To turn off No Arm on Panel Low Battery, press:

Delete—Option #—64—DONE.

Option 65: No Usage Report (Default = off)

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.

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 3 digits.

To turn on No Usage Report, press:

Add—Option #—65—001 - 254—DONE.

To turn off No Usage Report, press:

Delete—Option #—65—DONE.

Option 66: External Siren Delay (Default = off)

Determines whether external siren activation is delayed 30 seconds after an entry or exit delay door is tripped and the delay expires (on), or if external siren activation is immediate (off).

To turn on External Siren Delay, press:

Add—Option #—66—DONE.

To turn off External Siren Delay, press:

Delete—Option #—66—DONE.

Option 67: Quick Exit (Default = off)

Determines whether pressing the disarm button when the system is armed activates the exit delay time to allow exit and re-entry without disarming the system (on) or not (off).

This feature is useful if the user wants to step outside briefly and return, such as to get the paper. 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 2 minutes without causing an alarm. When the door is closed, the beeps stop and the door is armed again.

Note

For UL listed systems, Quick Exit must be off.

To turn on Quick Exit, press:

Add—Option #—67—DONE.

To turn off Quick Exit, press:

Delete—Option #—67—DONE.

Option 68: Swinger Shutdown

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

Note

Swinger Shutdown does not affect smoke and fire sensors.

To turn on Swinger Shutdown, press:

Add—Option #—68—DONE.

To turn off Swinger Shutdown, press:

Delete—Option #—68—DONE.

Option 69: SIA Limits (Default = on)

Determines whether Entry, Exit, and Dialer delay times fall within SIA limits (on) or factory ranges (off).

The following table shows the available settings when this option is on or off..

SIA Limits

Affected Option	SIA Limits (Option 69 on)	Factory Ranges (Option 69 off)
Option 10: Entry Delay	030-254 seconds	005-254 seconds
Option: 11 Exit Delay	045-254 seconds	005-254 seconds
Option: 17 Dialer Delay	015-045 seconds	005-045 seconds

To turn on SIA Limits, press:

Add—Option #—69—DONE.

To turn off SIA Limits, press:

Delete—Option #—69—DONE.

Option 70: Line Cut Detection (Default = off)

Determines whether the panel detects and indicates a phone line failure trouble condition before the programmed time expires (on) or not at all (off).

Note

The hardware required to use this option is not included with all panels. Ask your supplier for details.

Important !

This option will only work correctly if the panel phone line is wired for line seizure! If the panel is wired in parallel with the phone line and this option is on, the panel detects a "line cut" whenever the phone is in use.

The range is 02-48 in 5 second increments, with 02 being a 10 second delay and 48 being a 240 second delay.

To turn on Line Cut Detection, press:

Add—Option #—70—02 - 48—DONE.

To turn off Line Cut Detection, press:

Delete—Option #—70—DONE.

Option 71: Programming Report (Default = off)

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

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

To turn on Programming Report, press:

Add—Option #—71—DONE.

To turn off Programming Report, press:

Delete—Option #—71—DONE.

Option 72: Supervisory Time (Default = 12:00am)

Determines when the panel reports supervisory conditions (sensor failures) to the central station.

To set Supervisory Time, press:

Add—Option #—72—Hours—Minutes—DONE.

Toreset Supervisory Time (return to default), press:

Delete—Option #—71—DONE.

Option 73: Modem Sensitivity (Default = off)

Determines whether the modem sensitivity is set to normal (off) or high (on).

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 on Modem Sensitivity, press:

Add—Option #—73—DONE.

To turn off Modem Sensitivity, press:

Delete—Option #—73—DONE.

Option 74: Silent Panel Police Panic (Default = off)

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

Note

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

To turn on Silent Panel Police Panic, press:

Add—Option #—74—DONE.

To turn off Silent Panel Police Panic, press:

Delete—Option #—74—DONE.

Option 75: VOX Mic Gain (Default = 16)

Determines the gain level (sensitivity) that triggers the voice-activated switch (VOX) during 2-way audio sessions, when Option 33: Audio Verification is set to 2 (VOX).

Room size, acoustics, and furnishings where the panel or Interrogator 200 are located will influence the setting. The available settings are 01 (low) - 64 (high). Entries must be 2 digits.

For panels with a built-in microphone, a setting of 16 is recommended. For systems using the Interrogator 200, a setting of 4 should be used.

To set VOX Mic Gain, press:

Add—Option #—75—01 - 64—DONE.

To reset Vox Mic Gain (return to default), press:

Delete—Option #—75—DONE.

Option 76: VOX Gain Range (Default = 64)

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.

Determines the gain range for the voice-activated switch (VOX).

The available settings are 01 (low) - 64 (high). Entries must be 2 digits.

For panels with a built-in microphone, this option should be set to 4x the setting of Option 75: VOX Mic Gain. For systems using the Interrogator 200, this option should be set to 2x the setting of Option 75: VOX Mic Gain.

To set VOX Gain Range, press:

Add—Option #—76—01 - 64—DONE.

To reset VOX Gain Range (return to default), press:

Delete—Option #—76—DONE.

Option 77: Manual Mic Gain (Default = 64)

Determines the gain level (sensitivity) during 2-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) - 64 (high). Entries must be 2 digits.

For panels with a built-in microphone, a setting of 64 is recommended. For systems using the Interrogator 200, a setting of 20 should be used.

To set Manual Mic Gain, press:

Add—Option #—77—01 - 64—DONE.

To reset Manual Mic Gain (return to default), press:

Delete—Option #—77—DONE.

Option 78: VOX Receiver Gain (Default = 6)

Determines the receiver gain level during 2-way audio sessions.

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 setting. If the VOX is not switching the speaker on when the central station operator is talking, raise this setting and lower Option 75: VOX Mic Gain setting.

Note

Changing this setting does not affect speaker volume.

This option can be set from 01 - 10. Entries must be 2 digits.

To set VOX Receiver Gain, press:

Add—Option #—78—1 - 10—DONE.

To reset VOX Receiver Gain (return to default), press:

Delete—Option #—78—DONE.

System Access Codes

Utility Access Code 1

This access code is used during installation. Depending upon how Option 54 is set, the default utility access code is 654321, 54321, 4321, or 321. This code can be used for all programming.

Utility Access Code 2

Depending upon how Option 54 is set, the default access code is 654321, 54321, 4321, or 321. This access code is used for all programming except changing utility access code 1 and changing options 4, 5, 6, 8, 9, 12, 13, 54, and 69.

Master Access Code

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

Note

If the installer deletes the master access code, the owner may enter program mode by pressing cancel.

Access Codes (1 - 5)

The panel can have up to 5 secondary user access codes. These could 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 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.

To add a code:

1. Press the **Add** button.
2. Press the **Access Code** button. Continue pressing the Access Code button until you hear the access code to be changed.
3. Press **DONE**.
4. Enter the new access code by using the red numbered keys.

The panel says, *code name is XXXXXX* (the new 3- to 6-digit access code).

To delete a code:

1. Press **Delete** from the Start menu.
2. Press the **Access Code** button. Continue pressing the Access Code button until you hear the access code to be deleted.
3. Press **DONE**.

The panel says, *code name is deleted*.

Testing the System

This section describes how to perform the following test procedures:

- Control Panel
- Testing sensors
- Testing phone communication
- Testing central station communications
- Testing the X-10 Lamp Modules

You should test the system after installing, after servicing, and after adding or removing devices from the system.

Control Panel

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

- ARM Doors & Windows**-The panel arms Doors & 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.

Arming Levels

Arming Level	Description of Level
0	Bypasses 24 hour intrusion sensors (Master Access Code Only)
1	Disarm the system
2	Arm Doors and Windows
3	Arm Motions
4	Arm Doors, Windows, and Motions

- Two beeps verify that Door/Window sensors are armed.
- One beep indicates the system is disarmed
- 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 will sound from the interior siren output, the panel siren, and the X-10 powerhorn siren (if set to unit number 9) when a protected door or window that is programmed as sensor type 10 or 13 is opened.
- CHIME Special Motion**- Press to enable three beeps that will sound from the interior siren output, the panel siren, and the X-10 powerhorn 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 as type 25, this function will not be available. The control panel will also announce which sensor was tripped if chime voice (option 41) is on.

- 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 4 minutes when a specific sensor is tripped.
- AUX, POLICE, FIRE**-Press and hold or press twice quickly to activate a non-medical, police, or fire emergency alarm

Testing Sensors

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

Note

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

1. Place all sensors in their secured (non-alarm) state.
 2. Open the panel cover.
 3. Enter the appropriate access code.
 4. Press **Test**.
- The panel responds with *Sensor test, press again to change or DONE to select*.
5. Press **DONE**.

Note

If the primary or secondary phone number (option 4 or 5) has been programmed, after pressing **Test** a second time, the panel announces *Phone Test*. The phone testing procedure will be discussed later in this manual. After pressing **Test** a third time, the panel announces *DL phone test*.

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.

Interior sirens and speakers sound transmission beeps as each sensor is tripped. Each beep represents one RF packet.

Use the Table "Sensor Tripping Instructions" on page 23 to trip sensors

6. **Count the number of transmission beeps** and refer to the Table, "Minimum Transmission Beeps" on page 23 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*.
7. Press **DONE**. The system will respond, *Sensor Test OK*.
8. If **Cancel** or **DONE** is pressed and the panel has not heard from all sensors, the panel will respond, *Sensor test canceled or failure*.

Note

If a sensor does not meet the minimum transmission beep requirements, refer to the "If a Sensor Fails the Sensor Test" section of this manual.

Sensor Tripping Instructions

Sensor	Do This
Door/Window	Open the secured door or window
Freeze	Apply ice to the sensor. Do not allow the sensor to get wet
Water	Press a wet rag or wet finger over both of the round, gold-plated terminals on the underside of the sensor
Carbon Monoxide Alarm	Unplug the CO Alarm. Plug it back in, then press the TEST/RESET button until the unit beeps 8 times
Glass Guard	Tap the glass 3 or 4 inches from the sensor
Motion Sensor	Avoid the Motion Sensor field of view for 5 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
Panic Buttons	Press and hold the appropriate panic button(s) for 3 seconds
KeyChain Touchpad	Press and hold LOCK and UNLOCK simultaneously for 3 seconds
Remote Handheld Touchpad	Press and hold the 2 EMERGENCY buttons simultaneously for 3 seconds

Minimum Transmission Beeps

Type of Sensor	Number of Beeps
Wireless Intrusion Sensors	7-8 beeps
Wireless Smoke & Heat Sensors	7-8 beeps
Wireless Environmental/Panic Buttons	7-8 beeps
Hardwire Loops	1
Emergency Buttons (Remote Handheld Touchpads only)	7-8 beeps

If a sensor fails the sensor test

If sirens do not beep when a sensor is tripped, use an ITI 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 feet of the panel. While a transmitter may have a range of 500 feet or more out in the open, the environment at the installation site can have a significant effect on transmitter range. Sometimes a change in sensor location can help overcome adverse wireless conditions.

To improve sensor communication

- reposition the sensor
- relocate the sensor
- if necessary, replace the sensor

To reposition a sensor

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

To relocate a sensor

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

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 ITI 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

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 3 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.

If the test is unsuccessful, the **SYSTEM STATUS** button will light and the panel will say *Phone communication failure* within 10 minutes.

If the panel announces *Phone communication failure*, proceed to the following instructions.

If the phone test fails

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.

Control Panel Function	Phone Command
DISARM	* + CODE + 1
ARM Doors/ Windows	* + CODE + 2
ARM Doors/ Windows with No Entry Delay	* + CODE + 2 + 2
ARM Motion Sensors	* + CODE + 3
ARM Motion Sen- sors with Latchkey	* + CODE + 3 + 3
ARM Doors/Win- dows 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 the audio verification command set). See the Table, "Audio Verification Set" on page 26
Terminate session	* + CODE + 9
CODE = any access code except utility access codes 1 and 2	

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:

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.

Pager Communication

Use the following table to determine what the numeric message is reporting.

Pager Reporting Message

Reports	Numeric Message
Phone Test	-101 -101
AC Power Restoral	-102 -102
AC Power Failure	-103 -103
Latchkey	-104 -104
No Activity	-105 -105
Panic Code	-106 -106
Emergency	-107 -107
Intrusion	-108 -108
Fire	-109 -109
Openings	-110 -110
Closings	-111 -111
Fail to Open	-112 -112
Fail to Close	-113 -113

Testing 2-Way Voice Operation

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

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.
3. Press 99 to terminate the session.

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.

Note

To conduct an audio session using remote phone access see the Table "Phone Commands for Remote Access" in the "Testing" section.

Audio Verification Set

Phone Button(s)	Function
0-1	Speak
2	VOX operation
3 or 6	Listen
7	Extend session for 90 more seconds
88	Terminates session with call back (the panel answers on the first ring if called within 5 minutes)
99	Terminates session with no call back

X-10 Lamp Modules

Use the "Home Control Planning Table*" on page 34 to determine the full extent of module testing to be accomplished.

To test the system controlled lamp modules:

1. Press the **LIGHT** button on the Key Chain Touchpad repeatedly to turn all lights on and off. The panel responds with *Lights on/off*.
2. Press the **Lights On** button and the **unit #** of the lamp module using the numeric buttons on the Remote Handheld Touchpad to test individual lamp modules, the panel will respond with *Lights # on/off*.

Siren and X-10 Lamp Module Functions

All sirens will time out in the programmed siren time-out (Option 39, 1-254 minutes). 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 will sound a temporal 3 pattern. Temporal 3 is 0.5 seconds on, 0.5 seconds off for 3 beeps then 1.5 seconds off.

Note

The X-10 must be set to unit #9 to "hear" emergency alarm beeps.

Alarm Siren and X-10 Light Information

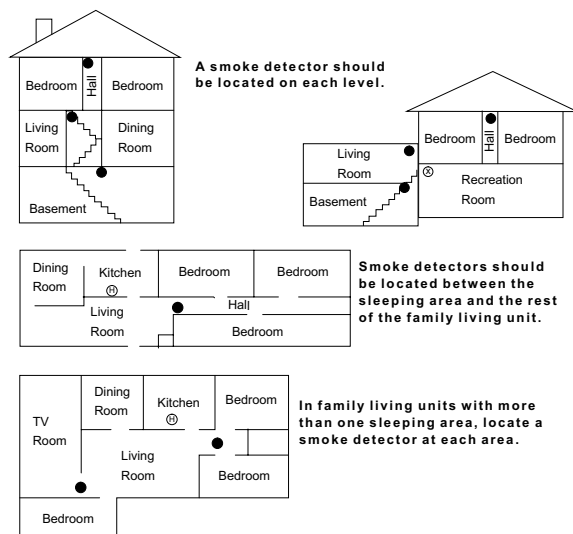
	Fire	Intrusion	Emergency
X-10 Lights	Steady	Flashing	Steady
X-10 Siren	Steady	Steady	Alarm beeps
Interior & Panel Siren	Temporal 3	Steady	Fast on/off
Exterior Siren	Temporal 3	Steady	

Emergency Planning

Emergency Planning Floor Plan

Use the following guidelines when drawing an emergency floor plan for the homeowner:

- Show all building levels.
- Show exits from each room (2 exits per room are recommended).
- Show the locations of all security system components.
- Show the locations of any fire extinguishers.



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.

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Figure 9. Diagram of smoke detector locations.

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

OR

6.0 VDC 3.2 Ah Lead-Acid.
The battery will last 60 hours
with no AC (Euro version only)

Radio Frequency:319.5 MHz + or - 140 kHz

Nominal Range:500 feet, open-air receiving range

Storage Temperature Range:-29° to 140 ° F (-34° to 60° C)

Operating Temperature Range: 32° to 122 ° F (0° to 50° C)

Maximum Humidity:90% relative humidity, noncondensing

Auxiliary Power:Regulated & unregulated, fused 12
VDC at 250 mA (maximum)

Appendix A: Troubleshooting

Use the following table to aid you with troubleshooting problems during installation.

Troubleshooting Guide

Problem	Solution
<u>System Status</u>	
How to clear SYSTEM STATUS (Alarm Memory)	From a disarmed state press SYSTEM STATUS, listen to the status message, then press DISARM.
SYSTEM STATUS says <i>Siren 1 failure or Siren 2 failure</i> .	<input type="checkbox"/> Turn option 53 off if a hardwire siren or sensor is not connected. <input type="checkbox"/> Check for the correct end-of-line resistor at Hardwire inputs 1 and 2. See "Hardwire Interior Sirens" on page 4.
SYSTEM STATUS says <i>Low Battery</i> .	If the control panel has just been plugged in, the control panel will indicate a low battery until the battery is fully charged (up to 24 hours).
SYSTEM STATUS says <i>Option 50 Detected</i> .	Option 50 is RF jam detect. The control panel has detected RF interference.
SYSTEM STATUS says that a sensor is open.	See Sensors section below.
SYSTEM STATUS says <i>System time is not set</i> .	Set the system time.
<u>Control Panel</u>	
The system says <i>Function not available</i> when Chime Doors is pressed.	No sensors are programmed using sensor type 10 or 13.
The system says <i>Function not available</i> when Chime Special Motion is pressed.	No sensors are programmed using sensor type 25.
The system says <i>Function not available</i> when LIGHTS Time Activated is pressed.	No time activated lights have been programmed.
The system says <i>Function not available</i> when LIGHTS Sensor Activated is pressed.	No sensor activated lights have been programmed.
The system says <i>Invalid. Sensor already programmed as Sensor Name</i> .	This sensor is already programmed. Delete sensor if not correctly programmed.
<u>Options (Programmable by the homeowner)</u>	
The Control Panel does not beep.	Add option 1.
Latchkey does not function.	<input type="checkbox"/> Latchkey time (option 3) is not set. Set Latchkey time. <input type="checkbox"/> Latchkey is not enabled. Enable Latchkey by pressing ARM Motion Sensors twice. <input type="checkbox"/> The phone number is not programmed properly. Reprogram the phone number. (option 43) <input type="checkbox"/> System Time is not set. Set system time.
<u>Sensors</u>	
A sensor does not work.	<input type="checkbox"/> Make sure the battery is fresh and installed correctly. <input type="checkbox"/> Check for interference from metal objects. Move or rotate the sensor. <input type="checkbox"/> Move the sensor to a new location.
Door or window is closed, but the panel voice says it is open.	<input type="checkbox"/> Be certain the arrow on the magnet and the guide line on the transmitter are aligned and are within 1/4 inch of each other. <input type="checkbox"/> The sensor tamper switch may be open if it is a crystal sensor.
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.

Troubleshooting Guide

Problem	Solution
Motion sensor does not respond to motion.	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure the sensor battery is fresh and installed correctly. Wait 2 minutes after installing a new battery to test the sensor. <input type="checkbox"/> Adjust the sensor mounting. <input type="checkbox"/> Leave the area for 3 minutes, then retest. <input type="checkbox"/> The environment is too hot or too cold. Outdoor sensors will operate between 32° and 120°F. <input type="checkbox"/> Dirt or dust may be causing the problem. Wipe the sensor with a clean, damp cloth.
<p><u>X-10 Modules</u></p> <p>All Lamp Modules or Siren not working.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure the panel transformer is plugged directly into an outlet and that the outlet is not controlled by a wall switch. <input type="checkbox"/> The transformer may not work. Try a known-good transformer. <input type="checkbox"/> House code was programmed incorrectly.
One Lamp Module or Siren is not working.	<ul style="list-style-type: none"> <input type="checkbox"/> Unplug nearby equipment that may be causing interference (light dimmer switches, televisions, appliances with older motors). <input type="checkbox"/> Check that the switch on the lamp or appliance is turned on and remains on. <input type="checkbox"/> Make sure the lamp has a working bulb. <input type="checkbox"/> 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 wall switch. <input type="checkbox"/> Make sure the House and Unit Codes are correct. <input type="checkbox"/> Move the Module to a different outlet that is on the same phase (branch) of the household electrical circuit as the panel.
Time activated or sensor activated light not working.	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure you have programmed the light to be activated by a timer or sensor. <input type="checkbox"/> Make sure the system clock is set. <input type="checkbox"/> Make sure these functions have been enabled by pressing the LIGHTS Time Activated/Sensor Activated on the panel. They are enabled if the button is lit.

Appendix B: Options

Programmable Options

Opt. #	Function	Default	Delete	Range	Who Can Change:	Installer Settings
01	Panel Piezo Beeps (must be added 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	12:00 Midnight - 11:59 PM	U1 U2 M	
04	Primary Phone Number	None	None	26 digits	U1	
05	Secondary Phone Number	None	None	26 digits	U1	
06	Downloader Phone Number	None	None	26 digits	U1	
07	Account Number	00000	00000	0 - FFFFFFFF9	U1 U2	
08	Phone Lock	On	Off	On/Off	U1	
09	Downloader Code	12345	12345	00000-99999	U1	
10	Entry Delay (must be 45 seconds or less for UL listed systems)	030 sec	005 sec	005-254 sec 030-254 if Option 69 is added	U1 U2	
11	Exit Delay (must be 60 seconds or less for UL listed systems)	060 sec	005 sec	005-254 sec 045-254 if Option 69 is added	U1 U2	
12	Phone Mod 1 (must be 0 or 1 for UL listed systems)	0	0	0-3	U1	
13	Phone Mod 2	00	00	00-10	U1	
14	DTMF	On	Pulse	On/Off	U1 U2	
15	No Activity Report	Off	Off	02-24 hrs	U1 U2	
16	Auto Phone Test (must be set to 001 for UL listed systems)	Off	Off	001-254 days	U1 U2	
17	Dialer Delay	Off	Off	005-254 sec 015-045 is Option 69 is added	U1 U2	
18	Alarm Cancel	005	Off	005-255 min	U1 U2	
19	Supervisory Time (SUPSYNC)	12 hrs	02 hrs	02-24 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	005-254 min	U1 U2	
25	CPU Low Battery Report (must be added for UL listed systems)	On	Off	On/Off	U1 U2	
26	Fail to Communicate (must be added for UL listed systems)	On	Off	On/Off	U1 U2	
27	Ring/Hang/Ring	1	Off	1-4	U1 U2	
28	No Delay from Key Chain Touchpad	Off	Off	On/Off	U1 U2	
29	Control Panel 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	

Programmable Options

Opt. #	Function	Default	Delete	Range	Who Can Change:	Installer Settings
32	300 Baud Central Station Communications	On	110 Baud	On/Off	U1 U2	
33	Audio Verification	Off	Off	On/Off	U1 U2	
34	Fail to Open	Off	Off	12:00 Midnight - 11:59 PM	U1 U2	
35	Fail to Close	Off	Off	12:00 Midnight - 11:59 PM	U1 U2	
36	Sensor Activated Light Lockout Start Time	Off	Off	12:00 Midnight - 11:59 PM	U1 U2 M	
37	Sensor Activated Light Lockout Stop Time	Off	Off	12:00 Midnight - 11:59 PM	U1 U2 M	
38	Auto Arm	Off	Off	On/Off	U1 U2	
39	Siren Time Out (must be greater than 4 minutes for UL listed systems)	04 min	Siren never times out	002 - 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	1-8	U1 U2 M	
43	Pager Phone Number	Off	Off	26 digits	U1 U2 M	
44	Pager Phone Mod 3	9	9	08-10	U1 U2	
45	Sensor Alarm Restoral	Off	Off	On/Off	U1 U2	
46	Fire Shutdown - AVM	Off	Off	On/Off	U1 U2	
47	Audio Verification Mode	Off	Off	On/Off	U1 U2	
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 Tamper	Off	Off	On/Off	U1 U2	
52	Unvacated Premises	On	Off	On/Off	U1 U2	
53	Hardwire 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	3-6	U1 U2	
55	Status Beep Volume	7	7	1 - 10	U1 U2 M	
56	Call Waiting	Off	Off	1-26 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	1-254/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 U2	

Programmable Options

Opt. #	Function	Default	Delete	Range	Who Can Change:	Installer Settings
70	Line Cut Detection	Off	Off	02-48 (10-240 sec in 5 sec intervals)/Off	U1 U2	
71	Programming Report	Off	Off	On/Off	U1 U2	
73	Modem Sensitivity	Off (normal)	Off	On (high)/Off (normal)		
74	Panel Police Panic Audio	Off (audible)	Off	On (silent)/Off (audible)		
75	VOX Mic Gain	16	16	1-64 (on)/Off		
76	VOX Gain Range	64	64	1-64 (on)/Off		
77	Manual Mic Gain	64	64	1-64 (on)/Off		

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 buttons	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, such as Pendant Panic	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 alert 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.	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 require a standard delay time. Chime	Intrusion	S	Yes	Yes	24
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*	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 Report	Intrusion	I	Yes	Yes	1234
22	Local delayed interior: same as group 21, plus activation initiates a delay before going into alarm. No report.*	Intrusion	S	Yes	Yes	1234
23	Local instant Auxiliary: 24 hour local alarm zone protecting anything that opens and closes.‡ No report	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 report.*	Emergency	I	Yes	Yes	01234
25	Local Special Chime: Notify the user when a door is opened. Sounds emit from a local annunciator.* No report	Three Beeps	I	No	Yes	01234
26	Fire: 24 hour fire, rate-of-rise heat, and smoke sensors§.	Fire	I	Yes	Yes	01234
27	Lamp control or other customer feature.‡ No report	Silent	I	Yes	Yes	01234
28	PIR motion sensor, sound sensor, or pressure mat.‡ No report	Silent	I	No	Yes	01234
29	Auxiliary: Freeze and Water Sensors	Trouble Beeps	I	Yes	Yes	01234
32	PIR motion sensor or sound sensor‡ No report	Silent	I	No	No	01234
34	Carbon Monoxide Alarm	Emergency	I	Yes	Yes	01234
35	Entry/Exit Delay Interior PIR Motion	Intrusion	S	No	Yes	234

* This type is not certified as a primary protection circuit for UL-listed systems and is for supplementary use only.

§ This type is required for UL-listed residential fire alarm applications.

‡ This type has not been investigated by UL.

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 alarm sounds after programmed entry delay time)

Home Control Planning Table*

Module			Activated by		Time Activated	
Unit #	Type	Location	Sensor	Entry/Exit	Start Time	Stop Time
Example	Lamp	Hall lamp	Motion	Yes	8 p.m.	10:30 p.m.
1						
2						
3						
4						
5						
6						
7						
8						

System Access Codes

Type	Default ^a	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	

















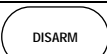
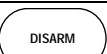

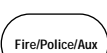




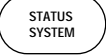


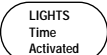





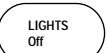

a. The factory default setting is a 4-digit access code, but the default codes will change whenever Option 54 (Access Code Length) is reset. The default for each access code length is listed.

Appendix C: Planning Tables

Sensor/ Device Name*	Sensor Type	Remote Locations	Front Door	Front Window	Back Door	Back Window	Garage Door	Garage Window	Master Bedroom	Master Bedroom Window	Bedroom	Bedroom Window	Guest Room	Child's Room	Utility Room	Living Room	Dining Room	Bathroom	Laundry Room	Kitchen	Kitchen Window	Porch	Porch Window	Patio Door	Office	Office Window	Den	Den Window	Garage	Special Chime	Basement	Basement Window	Upstairs	Upstairs Window	Downstairs	Downstairs Window	Hallway	Medicine Cabinet	Closet	Attic	System Panic	Module	Phone Comm.Module										
Key Chain Touchpad†	01	X																																																			
Door/Window†	13		X																																																		
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* Use the Table "Sensor Group Characteristics" in Appendix B to determine sensor type numbers
 † These are examples only.

Quick Reference Table

How to ...	Control Panel	Remote Handheld Touchpad	Keychain Touchpad	Remote Phone Control
Arm the system - Doors & Windows				Press * + Master Code + 2
Arm the System -Motion Sensors				Press * + Master Code + 3
Arm the System -Doors/Windows & Motion Sensors	 	 	 Press twice	Press * + Master Code + 2 + 3
Activate No Entry Delay	 Press twice	 Press twice	 Press once if programmed	Press * + Master Code + 2 + 2
Activate The Latchkey feature	 Press twice	 Press twice	 Press 3 times	Press * + Master Code + 3 + 3
Disarm the system	 + Access Code	 + Access Code		Press * + Master Code + 1
Subdisarm the system	Master Code	Master Code		Press * + Master Code + 1
Send an alarm to the Central Monitoring Station	 Press twice or press & hold for 3 seconds.	 Press both EMERGENCY buttons. Press & hold for 3 seconds.	  Press & hold for 3 seconds.	
Check the system status				Press * + Master Code + # + 1
Set doors to Chime				
Set Special Motion Chime				
Set lights to time activated				
Set lights to sensor activated				
Open a garage door or turn on special lights		 Unit #		
Toggle lights	<i>Lights on</i>		 Press twice	Press * + Master Code + 0
	<i>Lights off</i>		 Press twice	