

- 4) Secure the battery in place by gently tightening the screw on top of the chassis.
- 5) Connect the black wire from the Panel circuit board on the negative (-) battery terminal.
- 6) Connect the red wire from the Panel circuit board on the positive (+) battery terminal.

Applying AC Power to the Panel

After connecting all hardware devices to the Panel and installing the backup battery, you are ready to power up the Panel.

To power up the Panel:

- 1) Plug the transformer into an outlet that is not controlled by a switch.
- 2) Make sure the tamper bypass switch is set to BYPASS.
- 3) Turn on the Panel power switch and note the following:
 - The green power LED on the Panel turns on.
 - Interior sirens and piezos sound one beep and interior speakers announce the message, *Alarm system is off.*
 - Alphanumeric touchpads perform a self-test, automatically.
 - After completing self-tests, touchpads display 1 - OFF with the 1 flashing, indicating the Panel is at default settings (not programmed).
 - Interior sirens and piezos sound six beeps every minute, indicating the Panel is unprogrammed.

Note: If the Power LED is off or flashing and no beeps or voice messages sound, turn off the Panel power switch, disconnect the backup battery, and unplug the transformer. Refer to Appendix D "Troubleshooting."

- 4) Unplug the transformer, then remove the existing screw securing the AC outlet cover.

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 cover to the outlet box.

- 5) Hold the outlet cover in place and plug the transformer into the lower receptacle.

- 6) Use the screw supplied with the transformer to tighten the transformer to the outlet cover.

Adjusting Status Sound Volume

The Panel allows you to set the volume level for status sounds and status messages from speakers connected to Panel terminal 16 (VOICE). Alarm sounds and messages are always at full volume.

To adjust the status sound volume:

- 1) Locate the speaker volume adjustment potentiometer (pot) on the Panel.
- 2) Press COMMAND + STATUS.
- 3) While listening to the full status message, increase or decrease the volume level by turning the pot counterclockwise or clockwise, respectively.

Repeat steps 2 and 3 until the desired volume level is reached.

Programming the Panel

Programming the panel includes the following procedures:

- Entering program mode
- Clearing memory
- Learning wireless sensors and hardwire zones
- Programming panel configuration options
- Programming upper sensor numbers
- Programming feature numbers
- Exiting program mode
- Programming from the CS-4000

Note: All on-site programming must be done using an Alphanumeric Touchpad.

Entering Program Mode

The Panel must be in program mode to perform on-site programming.

To enter program mode:

- Set the tamper bypass switch to NORMAL. Alphanumeric touchpads display PROGRAM MODE and interior speakers, sirens, and piezos sound six beeps every minute as a reminder that the Panel is in the program mode.

Clearing Memory

You must clear the memory of all new Panels before programming.

To clear Panel memory:

- Press and hold the memory clear button on the Panel for at least 3 seconds, then release the button.

After releasing the button, interior speakers announce, *Memory good-bye*.

Learning Wireless Sensors and Hardwire Zones

After completing the group assignment for each sensor in Table A.3, use the following procedure to learn all wireless sensors and hardwire zones.

To learn wireless sensors:

- 1) Using the Alphanumeric Touchpad, press STATUS or BYPASS repeatedly until the display reads PROGRAM SENSORS.
- 2) Press COMMAND and the display reads LEARN GROUP __ __.
- 3) Enter the appropriate group number (01 to 29, 32).
- 4) Press COMMAND and the display reads LEARN Sn01, with the 01 flashing.
- 5) Press COMMAND if sensor 01 is correct or enter another number (01 to 32 for CareTaker Plus; 01 to 40 for Security Pro 4000) and then press COMMAND.
- 6) The display reads TRIP Sn01. Trip the sensor as described in the sensor's installation instructions. The display reads TRIP Sn02 and interior speakers announce, *Sensor one okay. Sensor two*.
Continue learning sensors into the current group number by repeating steps 5 and 6.
To learn wireless sensors into other groups, press FIRE and follow steps 2 through 6.
- 7) Exit from programming sensors pressing FIRE.

Deleting Wireless Sensors and Hardwire Zones

If you want to reassign a sensor to another group, you must delete that sensor first.

To delete a sensor from a group:

- 1) Press STATUS or BYPASS until the display reads DELETE SENSORS.
- 2) Press COMMAND and the display reads DELETE Sn01.

Note: After pressing COMMAND in step 2, the display shows the lowest programmed sensor number.

- 3) Press COMMAND if sensor 01 is correct or enter another number (01 to 32 for CareTaker Plus; 01 to 40 for Security Pro 4000) and then press COMMAND.
- 4) Press COMMAND and the display reads DEL Sn01 - OK.
Continue deleting sensors by repeating steps 3 and 4.
- 5) Exit from deleting sensors by pressing FIRE.

Learning Wireless Touchpads

The system can learn up to four wireless touchpads.

To add wireless touchpads:

- 1) Press STATUS or BYPASS until the display reads LEARN TOUCHPADS.
- 2) Press COMMAND and the display reads PRESS TP 01 BYP.
- 3) Press BYPASS on the wireless touchpad and the display reads PRESS TP 02 BYP.
Repeat step 3 until all wireless touchpads are learned.
- 4) Exit from learning touchpads by pressing FIRE.

CAUTION: After exiting from learning touchpads, re-entering the learn touchpads menu and pressing COMMAND automatically deletes all learned touchpads. When adding wireless touchpads to the system, you must also re-learn existing touchpads.

Programming Sensor Text

This section describes how to program sensor names. Use the word and character numbers you recorded in Appendix A to program sensor text.

- 1) Press BYPASS or STATUS until the display reads PROGRAM SENSOR TEXT.
- 2) Press COMMAND and the display reads Sn __ __.
- 3) Enter a sensor number from 01 to 40 and the display reads Sn01.
- 4) Press COMMAND and the display reads A 00.
- 5) Enter the appropriate word number or character number.
- 6) Press COMMAND and the display reads B 00.
- 7) Repeat steps 5 and 6 until the whole sensor name is entered.
- 8) Press FIRE and the display shows the sensor number and name.

- 9) Press **BYPASS** to cycle to the next sensor number and repeat steps 1 through 9 until all sensor names are programmed.
- 10) Exit from programming text by pressing **FIRE**.

Programming Panel Configuration Options

This section describes how to program the following:

- Phone Number
- Phone Format
- Siren Timeout
- Duress Code
- Account Number
- Entry Delay 1
- Entry Delay 2
- Exit Delay
- Activity Timeout
- House Code**
- Freeze Temp
- Alphanumeric Touchpad Loop Input
- Unit Number
- Touchpad Quiet
- Chime Display

Use the Panel configuration settings you recorded on Table A.4 to program the system.

Programming the Phone Number

- 1) Press **BYPASS** until the display reads **PHONE NUMBER**.
- 2) Press **COMMAND** and the display shows **_____**.
- 3) Enter the central station receiver phone number (up to 18 digits). If you need a pause between digits, press **POLICE** for each pause.
- 4) Press **COMMAND** and the display reads **OK**.

Programming the Phone Format

- 1) Press **BYPASS** until the display reads **PHONE FORMAT**.
- 2) Press **COMMAND** and the display reads **SET ITI FMT**.
- 3) Press **BYPASS** or **STATUS** to cycle to the desired setting: **ITI**, **4/2 1400**, or **4/2 2300**.
- 4) Press **COMMAND** and the display reads **SET OK**.

Programming the Siren Timeout

- 1) Press **BYPASS** until the display reads **SIREN TIMEOUT**.
- 2) Press **COMMAND** and the display reads **SET SIREN __ MIN**.
- 3) Enter two-digit time (01 to 15).
- 4) Press **COMMAND** and the display reads **SET SIREN OK**.

Programming the Duress Code

- 1) Press **BYPASS** until the display reads **DURESS CODE**.
- 2) Press **COMMAND** and the display reads **SET DURESS**.
- 3) Enter any two digits (00 to 99).
- 4) Press **COMMAND** and the display reads **SET DURESS OK**.

Programming the Account Number

- 1) Press **BYPASS** until the display reads **ACCOUNT NUMBER**.
- 2) Press **COMMAND** and the display reads **SET NUMBER**.
- 3) Enter any five digits.
- 4) Press **COMMAND** and the display reads **SET NUMBER OK**.

Programming Entry Delay 1

- 1) Press **BYPASS** until the display reads **ENTRY DELAY 1**.
- 2) Press **COMMAND** and the display reads **SET ENTRY __ SEC**.
- 3) Enter two-digit time (08 to 88 seconds).
- 4) Press **COMMAND** and the display reads **SET ENTRY OK**.

Programming Entry Delay 2

- 1) Press **BYPASS** until the display reads **ENTRY DELAY 2**.
- 2) Press **COMMAND** and the display reads **SET ENTRY __ MIN**.
- 3) Enter one-digit time (1 to 8 minutes).
- 4) Press **COMMAND** and the display reads **SET ENTRY OK**.

Programming the Exit Delay

- 1) Press **BYPASS** until the display reads **EXIT DELAY**.
- 2) Press **COMMAND** and the display reads **SET EXIT _ _ SEC**.
- 3) Enter two-digit time (08 to 88 seconds).
- 4) Press **COMMAND** and the display reads **SET EXIT OK**.

Programming the Activity Timeout

- 1) Press **BYPASS** until the display reads **ACTIVITY TIME-OUT**.
- 2) Press **COMMAND** and the display reads **SET TIME-OUT _ _ H**.
- 3) Enter two-digit time (01 to 24 hours).
- 4) Press **COMMAND** and the display reads **SET TIME-OUT OK**.

Programming the House Code

- 1) Press **BYPASS** until the display reads **HOUSE CODE**.
- 2) Press **COMMAND** and the display reads **SET CODE**.
- 3) Enter three-digit number (002 to 254).
- 4) Press **COMMAND** and the display reads **SET CODE OK**.

Programming the Freeze Temp

- 1) Press **BYPASS** until the display reads **FREEZE TEMP**.
- 2) Press **COMMAND** and the display reads **SET TEMP**.
- 3) Enter two-digit temperature (40 to 90).
- 4) Press **COMMAND** and the display reads **SET TEMP OK**.

Programming the Alphanumeric Touchpad Loop Input

- 1) Press **BYPASS** until the display reads **LOOP IS No** (normally closed, open on alarm). Press **FIRE** to leave loop normally closed, or proceed to step 2.
- 2) Press **COMMAND** and the display reads **LOOP IS No** (normally open, closed on alarm).

Programming Touchpad Quiet

- 1) Press **BYPASS** until the display reads **TOUCHPAD QUIET Y** (yes). Press **FIRE** to leave setting as is or proceed to step 2.
- 2) Press **COMMAND** and the display reads **TOUCHPAD QUIET N** (no).

Programming Chime Display

- 1) Press **BYPASS** until the display reads **CHIME DISPLAY N** (no). Press **FIRE** to leave setting as is or proceed to step 2.
- 2) Press **COMMAND** and the display reads **CHIME DISPLAY Y** (yes).

Programming Upper Sensors

Upper sensors are features you turn on or off, depending on your customer's needs. We recommend upper sensors that default on, remain on.

Use the settings you recorded in Table A.5 when programming upper sensors.

To program upper sensor numbers:

- 1) Press **BYPASS** or **STATUS** until the display reads **UPPER SENSORS**.
- 2) Press **COMMAND** and the display reads **Sn77 OFF - TOUCHPAD TAMPER**.
- 3) Press **COMMAND** to toggle upper sensor 77 on, or press **BYPASS** to cycle to the next upper sensor.

Repeat steps 2 and 3 until all upper sensors are programmed to suit the installation.

Requesting CS-4000 Programming

Although most information can be programmed from the Panel, some information must be programmed from the central station. Use the information you recorded in Table A.7 to inform the central station of your installation's programming requirements for the following:

- Optional Feature Numbers
- Secondary phone number
- Phone modes (PMODEs)
- Secondary access codes
- Automatic phone test frequency

Note: The CS-4000 requires version 5.1 software (80-105) or greater to support Security Pro 4000 Panels.

To request CS-4000 Central Station programming:

- 1) Contact your central station and ask the operator to program the Panel for the values you have recorded in Table A.7.
- 2) Give the operator the Panel's account number and the phone number of the premises, and ask them to call back immediately.
- 3) Hang up the phone.

- 4) When the phone rings, enter CODE + 8 at the Alphanumeric Touchpad. The display reads 8 - PHONE TEST.
- 5) When the central station releases the Panel, the display reads 1 - OFF. The operator may call you to discuss the programming.

Installing Line Carrier Devices

This section describes how to install the following wireless devices:

- Wireless Interior Siren (WIS)
- X-10[®] Lamp Module

Installing and Programming the WIS

Installing and programming the WIS includes:

- Setting the DIP switches and installing the battery
- Connecting an external siren to the WIS
- Programming the house code

Note: You must power the system with the optional Line Carrier Power Transformer (60-346-500) when using the WIS.

Setting the DIP Switches and Installing the Battery

A 9-volt backup battery (not included) powers the WIS during an AC power failure. The battery type can be alkaline, lithium, or NiCd. When backup battery voltage gets low, the WIS sounds a single beep every 60 seconds until the battery is replaced.

To set DIP switches and install the backup batteries:

- 1) Remove the battery cover on the back of the WIS (see Figure 26).

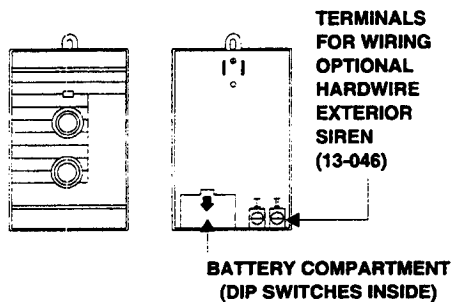


Figure 26. WIS Battery Cover Location

- 2) Set DIP switches as appropriate (see Figure 27).

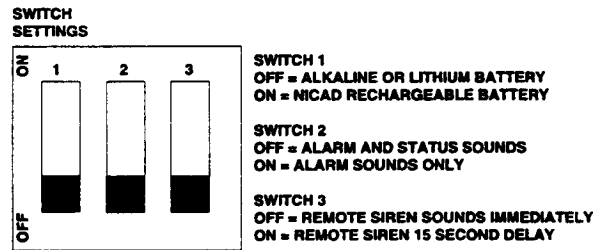


Figure 27. DIP Switch Settings

WARNING: Never turn ON switch 1 when installing an alkaline or lithium battery. Personal injury may result if these batteries are recharged, short circuited, punctured, or discharged at higher than acceptable rates.

- 3) Connect the battery to the battery clip and insert the battery into the compartment.
- 4) Replace the battery cover.

Connecting an External Siren to the WIS

Figure 28 shows how to connect the Hardwire Exterior Siren (13-046) to the WIS terminals. These terminals activate for alarms only and provide 100 mA maximum current at 6 VDC.

CAUTION: Only the Hardwire Exterior Siren (13-046) can be connected to the WIS terminals. Other sirens may draw more current than the WIS can provide and can cause permanent damage to the WIS.

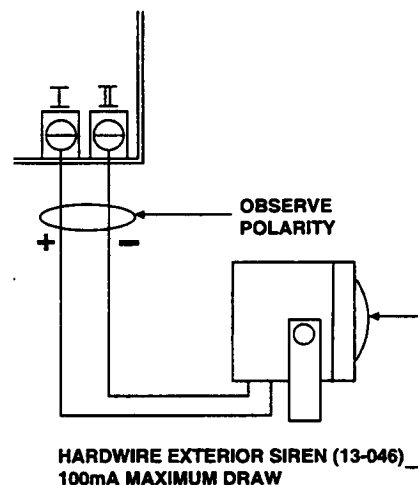


Figure 28. Connecting the Hardwire Exterior Siren to the WIS

Programming the WIS House Code

- 1) Plug the WIS into an outlet that is not controlled by a switch.
- 2) Press STATUS on a wireless or alphanumeric touchpad.

The WIS sounds one beep and the WIS LED flashes, indicating the WIS received the signal from the Panel.

If the WIS does not respond, unplug it and disconnect the battery. Wait at least 30 seconds, then reconnect the battery and repeat steps 1 and 2. If the WIS still does not respond, proceed to Appendix D "Troubleshooting."

- 3) Unplug the WIS and remove the outlet cover screw.
- 4) Plug the WIS into the outlet and secure it with the outlet screw.

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

Installing X-10 Lamp Modules

When installing X-10 Lamp Modules:

- You must power the Panel using the optional Line Carrier Power Transformer (60-346-500).
- Do not use extension cords to connect several lamps to one module.
- Use only lamps with incandescent lighting.
- Do not plug X-10 Lamp Modules into outlets controlled by a switch.

To install the X-10 Lamp Module:

- 1) Plug the lamp cord into the bottom of the module.
- 2) Plug the module into a lower AC outlet.
- 3) Refer to Table A.4 for the house code you programmed into the Panel, then find the letter that corresponds to that house code from Table B.2. Each letter setting represents 16 house codes.
Example: House code 113 corresponds with B on the X-10 Lamp Module's house dial.
- 4) Set the house dial on the module to the appropriate letter.
- 5) Set the unit number dial to 1 (for Security Pro 4000 systems use any number, 1 to 9).

Testing the System

This section describes how to perform the following test procedures:

- Testing sensors
- Testing phone communication
- Testing central station communication

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

Testing Sensors

We recommend that you do a sensor test 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) Set the tamper/bypass switch to normal and attach the Panel cover.
 - 2) Place all sensors in their secured (non-alarm) state.
 - 3) Enter CODE + 9 at an alphanumeric touchpad.
- The Panel speaker announces *Sensor test is on*, interior sirens and speakers sound one long beep, and the display reads 9 - SENSOR TEST.
- 4) Trip each sensor.

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

- 5) Count the number of transmission beeps and refer to Table 1 for minimum requirements.

After the beeps, the Panel speaker announces, *Sensor [sensor #] OK*, confirming the sensor number tested. If the system does not respond, or if the sensor does not meet the minimum transmission beep requirements, refer to "If a Sensor Fails the Sensor Test."

- 6) Press the STATUS button when you think all sensors are tested.
The system announces untested sensor numbers.
- 7) Test all untested sensors.
- 8) Enter CODE + 9 while the system is still in sensor test if you need more time to complete the sensor test.

The system stays in sensor test for an additional 15 minutes, preserving the list of untested sensors.

After 15 minutes, the Panel disarms to level 1.

- 9) Enter CODE + 1 to exit sensor test.

The system disarms to level 1, and the Panel speaker announces, *Alarm system is off.*

Table 1. Minimum Transmission Beeps

Type of Sensor	Number of Beeps
Intrusion Sensors	7 - 8 beeps
Wireless Environmental/Panic Buttons	7 - 8 beeps
Hardwire Loops	1
Panel Emergency Buttons	1

If a Sensor Fails the Sensor Test

If sirens do not beep when a sensor is tripped, use an RF Sniffer (60-401) to verify that the sensor is transmitting. Constant beeps from the RF Sniffer indicate a runaway sensor. Remove the sensor's battery and replace the sensor.

Locate sensors within 100 feet of the Panel whenever possible. While a transmitter may have a range of 500 feet or more, the environment at the installation site can have a significant effect on transmitter range. Sometimes a change in sensor location can help overcome adverse premises conditions.

To improve sensor communication, you can:

- 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° from the original position.
- 2) If poor communication persists, relocate the sensor as described below.

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.

or-- If no location is acceptable, replace the sensor as described in the next procedure "To replace a sensor."

To replace a sensor:

- 1) Test a working sensor at the same location.

- 2) If the transmission beeps remain below the minimum level, avoid mounting a sensor at that location.

or-- If the replacement sensor works, contact ITI for repair or replacement of the problem sensor.

Testing Phone Communication

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

To perform a phone test:

- Enter CODE + 8 at an alphanumeric touchpad. The display reads 8 - PHONE TEST, the Panel speaker and all interior sirens sound one long beep, and the Panel speaker announces, *Phone test is on.*

When the Panel completes the test, the system returns to level 1, and the Panel speaker announces, *Alarm system is OFF.*

If the Panel announces, *Phone test failure*, proceed to the next procedure "If the phone test fails."

If the phone test fails:

- 1) Check to be sure the Panel is plugged into the RJ-31X (CA-38A) jack.
- 2) Enter ACCESS CODE + 8 again.
- 3) If the phone test fails again, check the phone number programmed into the Panel.
- 4) If the phone test fails again, check the phone connection wiring.

Testing Central Station Communication

After performing sensor and phone tests, check that the system is reporting alarms successfully to the central station. Also verify that X-10 Lamp Modules are operating correctly.

To test communication with central station:

- 1) Call the central station and tell the operator that you will be testing the system.
- 2) Arm the system.
- 3) Trip at least one sensor of each type—fire, intrusion, etc.—to verify that the appropriate alarms are working correctly.
- 4) If X-10 Lamp Modules are installed, check to be sure they operate correctly.

Lights should turn on steady during fire and auxiliary/medical alarms and flash during an intrusion alarm.

- 5) When you finish testing the system, call the central station to verify that the alarms were received.

Appendix A: System Planning Worksheets

Fill in customer information about this installation below.

Customer _____	
Address _____	
City _____	State/Zip _____
County _____	Phone _____

Table A.1 Wireless Sensors

Part No.	Description	Qty.
60-362	Door/Window Sensor	
60-409	Recessed Door Sensor	
60-499	Slim Line Door/Window Sensor	
60-107	Shock Sensor	
60-356	DS923 PIR Motion Sensor	
60-459	Sound Sensor	
60-462	Glass Guard Sensor	
60-352	System Smoke Sensor	
60-506	System Smoke Sensor	
60-460	Rate-of-Rise Heat Sensor	
60-589-319.5	Manual Fire Pull Sensor	
60-504	Freeze Sensor	
60-452	Pendant Emergency Sensor	
60-458	Single Button Emergency Sensor	
60-457	Dual Button Emergency Sensor	
60-578-10-95	Water-Resistant Emergency Sensor	
60-348-10-95	HandHeld Wireless Touchpad	
60-453-10-95	Wall-Mount Wireless Touchpad	

Table A.2 Hardwire Devices

Part No.	Description	Qty.	mA	Sub.
Hardwire Sensors				
13-068	Magnetic Contact 3/8" press fit		N/A	
13-070	Magnetic Contact - sur- face mount		N/A	
13-077	ESL 445AT Smoke Detec- tor		100 mA	
79-004	Fire Pull Station		N/A	
13-028	PIR Motion Detector		10 mA	
Hardwire Sirens				
60-483	Slim Line Hardwire Inte- rior Siren & Piezo		30 mA	
60-278	Hardwire Interior Siren and Piezo		75 mA	
30-006	Piezo Status Beeper		5 mA	
13-046	Hardwire Exterior Siren		100 mA	
Miscellaneous Components				
60-248	Alphanumeric Touchpad		100 mA	
60-436	Feature Expansion Mod- ule		300 mA	
60-470	Interrogator Module		290 mA	
Total Power Consumption cannot exceed				500 mA †

Table A.3 Sensor Groups and Locations

No.	Group	Type and Location
01		
02		
03		
04		
05		
06		
07		
08		
09		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		

Table A.3 Sensor Groups and Locations

No.	Group	Type and Location
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		

Table A.4 Panel Configuration Settings

Feature	Choices	Setting
Primary Phone Number	2 to 18 digits, including pauses	
Phone Format	ITI 4/2, 1400 Hz 4/2, 2300 Hz	
Siren Timeout	01-15 minutes	
Duress Code	00-99	
Account Number	00000-99999	
Entry Delay 1	08-88 seconds	
Entry Delay 2	1-8 minutes	
Exit Delay	08-88 seconds	
Activity Timeout	1-24 hours	
House Code	001-254	
Freeze Temp	40-90	
Loop Is	N/C or N/O	
Unit Number	1-7	
Touchpad Quiet	Y (yes) or N (no)	
Chime Display	Y (yes) or N (no)	

Table A.5 Upper Sensor Numbers

No.	Description	Default	Setting
77	Touchpad Tamper	OFF	
78	Freeze Sensor	OFF	
79	No Activity	OFF	
80	Touchpad Fire Emergency	ON	
81	Touchpad Police Emergency	ON	
82	Touchpad Auxiliary Emergency	ON	
83	Manual Phone Test	ON	
84	Opening Report	OFF	
85	Closing Report	OFF	
86	Duress Alarm	ON	
87	Force Armed	OFF	
87	Auto Force Armed, always ON	ON	ON
88	Energy Saver Enable	OFF	
89	RF Touchpad Supervisory or Low Battery	OFF	
90	AC Power Failure	OFF	
91	Low Panel Battery	ON	
92	Panel Tamper	ON	
93	Automatic Phone Test	OFF	
94	Receiver Failure	ON	
95	Panel Back In Service	ON	
96	Phone Failure	ON	

Table A.6 Feature Numbers

No.	Description	Default	Setting
F00	Remote Phone Access	ON	
F01	RING twice - hang-up - RING - answer	ON	
F02	Exterior Siren Delay	OFF	
F03	Toll Saver	ON	
F04	Low Battery Reports	ON	
F05	Sensor Supervisory Reports	ON	
F06	Dialer Abort	ON	
F07	Access Key Type - * (off) or # (on)	OFF	
F11	Interior Siren Sounds	OFF	
F12	Alarm Restoral Reports	OFF	
F13	Low Battery Restoral Reports	OFF	
F14	Hourly Phone Test	OFF	
F15	Alarm Verification	OFF	
F16	Trouble Beeps - Off for U.L. systems.	OFF	
F17	24-Hour Sensor Tamper Alarm	OFF	
F21	Immediate Trouble Beeps -On for ULC systems.	OFF	
F25	Keychain Touchpad Arming	OFF	
F32	Energy Saver/No Delay	OFF	

Appendix B: Programming Tables

This appendix contains tables for selecting sensor group numbers and X-10 Lamp Module house codes. Table notes for Table B.1 appear at the bottom of the table, on the next page.

Table B.1 Sensor Group Characteristics

No.	Name	Application	Alarm	Delay	Restoral	Supervisory	CS Report	Chime	Arming Levels
00	Fixed Panic	24-hr audible fixed emergency buttons.	Police	Instant		√	√		1, 2, 3
01	Portable Panic	24-hr audible portable emergency buttons.	Police	Instant			√		1, 2, 3
02	Fixed Panic	24-hr silent fixed emergency buttons.	Silent	Instant		√	√		1, 2, 3
03	Portable Panic	24-hr silent portable emergency buttons.	Silent	Instant			√		1, 2, 3
04	Fixed Auxiliary	24-hr auxiliary sensor, such as Pendant Panic or holdup button.	Auxiliary	Instant		√	√		1, 2, 3
05	Fixed Auxiliary	24-hr auxiliary emergency button. Siren cutoff confirms CS report.	Auxiliary	Instant		√	√		1, 2, 3
06	Portable Auxiliary	24-hr portable auxiliary alert button.	Auxiliary	Instant			√		1, 2, 3
07	Portable Auxiliary	24-hr portable auxiliary button. Siren cutoff confirms CS report.	Auxiliary	Instant			√		1, 2, 3
08	Special Intrusion	Special belongings, such as gun cabinets and wall safes.	Police	Instant	√	√	√		1, 2, 3
09	Special Intrusion	Special belongings, such as gun cabinets and wall safes.	Police	Standard	√	√	√		1, 2, 3
10	Entry/Exit Delay	Garage doors and entrances that require a standard delay time.	Police	Standard	√	√	√	√	2, 3
11	Entry/Exit Delay	Garage doors and entrances that require an extended delay time.	Police	Extended	√	√	√	√	2, 3
12	Entry/Exit Delay x 2	Driveway gates and other entry/exit points that require a twice-extended delay time.	Police	Twice Extended	√	√	√	√	2, 3
13	Instant Perimeter	Exterior doors and windows.	Police	Instant	√	√	√	√	2, 3
14	Instant Interior	Interior doors.	Police	Follower	√	√	√		2, 3
15	Instant Interior	Interior PIR motion sensors.	Police	Follower		√	√		2, 3
16	Instant Interior	Interior doors.	Police	Follower	√	√	√		3

Table B.1 Sensor Group Characteristics (Continued)

No.	Name	Application	Alarm	Delay	Restoral	Supervisory	CS Report	Chime	Arming Levels
17	Instant Interior	PIR motion sensors.	Police	Follower		√	√		3
18	N/A. If this group is entered, group 17 is actually assigned.								
19	Delayed Interior	Interior doors that initiate a delay before going into alarm.	Police	Standard	√	√	√		3
20	Delayed Interior	PIR motion sensors that initiate a delay before going into alarm.	Police	Standard		√	√		3
21	Local Instant Interior	24-hr local alarm zone protecting anything that opens and closes.	Police	Instant	√	√			1, 2, 3
22	Local Instant Interior	Same as group 21, plus activation initiates a delay before going into alarm.	Police	Standard	√	√			1, 2, 3
23	Local Instant Auxiliary	24-hr local alarm zone protecting anything that opens and closes.	Auxiliary	Instant	√	√			1, 2, 3
24	Local Instant Auxiliary	24-hr local alarm zone protecting anything that opens and closes. Sirens shut off at restoral.	Auxiliary	Instant	√	√			1, 2, 3
25	Local Special Chime	Notify the user when a door is opened. Sounds emit from a local annunciator.	Special Chime	Instant	√	√			1, 2, 3
26	Fire	24-hr fire, rate-of-rise heat, and smoke sensors. Ψ	Fire	Instant	√	√	√		1, 2, 3
27	Custom	Door/Window sensor. Δ	Silent	Instant	√	√			1, 2, 3
28	Custom	PIR motion sensor, sound sensor, or pressure mat. Δ	Silent	Instant		√			1, 2, 3
29	Auxiliary	Freeze sensor.	Auxiliary	Instant	√	√	√		1, 2, 3
32	Custom	On-site HOM device controlled by keychain touchpads.Δ							1, 2, 3

Note: Check marks (√) represent characteristics which are present in a group.

Ψ This group is required for UL listed residential fire alarm applications.

Δ This group has not been investigated by UL.