GE Interlogix

www.GE-InterlogixSecurity.com

Part No:
60-734, 60-692-01-95R
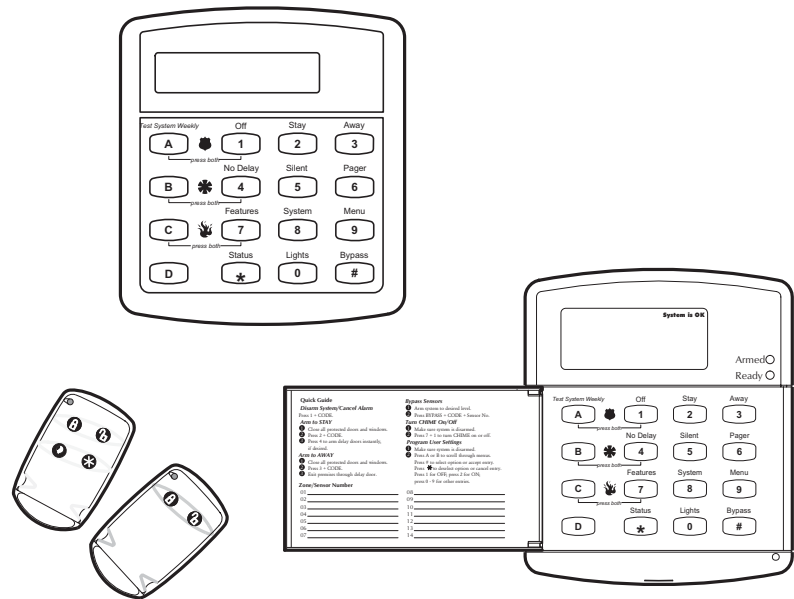
Concord™ RF
(with Software Version 2.52)

Installation & Programming Guide

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.

ACTA 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.

FCC Part 68 Registration No. B4ZUSA-25644-AL-E

The REN is used to determine the maximum number of devices that may be connected to your telephone line. Excessive RENs on a telephone line may result in devices not ringing in response to an incoming call. In most areas, the sum of all device RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

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

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

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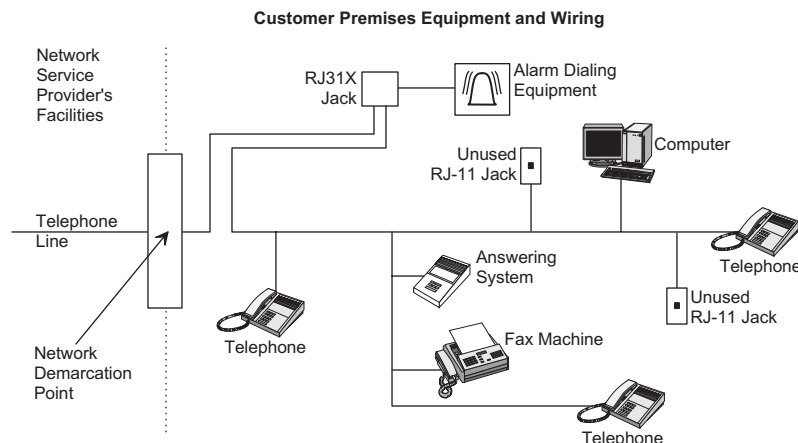
If this equipment causes harm to the telephone network, the telephone company may temporarily disconnect your service. If possible, you will be notified in advance. When advance notice is not practical, you will be notified as soon as possible. You will also be advised of your right to file a complaint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

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. You will be given advance 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/or 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.

GE Interlogix

Contents

Special Installation Requirements

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

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

UL Listed Installations

This section describes the requirements for UL Listed installations.

Basic System

- Control Panel (60-734-01 or 60-792-01-95R)
- Backup Battery 12V 4 AH (60-681) or 12V 7 AH (60-680)
- SuperBus® 2000 Fixed Display Touchpad (60-820), 2x16 LCD Touchpad (60-746-01), 2x20 LCD Touchpad (60-803), or 2x20 VFD Touchpad (60-804)
- Standard Class II 24 VAC, 30 VA Power Transformer (60-761), Class II 24 VAC, 30 VA Line Carrier Power Transformer (60-762), or Standard Class II 24 VAC, 50 VA Power Transformer (60-778), Class II 24 VAC, 50 VA Line Carrier Power Transformer (60-779)
- Interior Speaker Siren (60-528), Exterior Speaker Siren (13-060), Slim Line Hardwire Interior Siren (60-483-01) or Hardwire Exterior Siren (13-046)

Basic system may also include a SuperBus 2000 RF Receiver (60-764-01-95R-16Z) or (60-764-01-95R-32Z) or (60-764-01-95R-MAX).

Household Burglary Alarm System Unit (UL 1023)

Basic system, plus:

- Hardwire Magnetic Contact (13-068 or 13-071) or Wireless Learn Mode Door/Window Sensor (60-362)
- IMMEDIATE TROUBLE BEEPS set to on
- UL 98 OPTIONS set to on
- RECEIVER FAILURE set to on (if wireless devices are used)
- SIREN VERIFY set to on
- EXIT DELAY set to 60 seconds
- QUICK EXIT set to off
- EXIT EXTENSION set to off
- SIREN TIMEOUT set to 4 minutes or more
- ENTRY DELAY set to 45 seconds or less
- AC FAILURE set to on
- RF TX TIMEOUT set to 24 hours (if system includes a built in or SuperBus 2000 RF Receiver and wireless smoke sensors)

Household Fire Warning System (UL 985)

Basic system, plus:

- Hardwire Smoke Detector: *System Sensor*™ *models* 2100D, 2100TD, 2100S, 2100TS, 2400, or 2400TH learned into sensor group 26 or *ESL models* 429AT, 521B or 521BXT learned into sensor group 26
- Wireless Smoke Sensor 60-506-319.5 or 60-838-95 learned into sensor group 26
- IMMEDIATE TROUBLE BEEPS set to on
- UL 98 OPTIONS set to on
- RECEIVER FAILURE set to on (if wireless devices are used)
- SIREN VERIFY set to on

- AC FAILURE set to on
- RF TX TIMEOUT set to 4 hours (if system includes a built in or SuperBus 2000 RF Receiver and wireless smoke sensors)

UL 1023 & 985 24-Hour Backup

- For 24-hour backup, the total current draw for all connected devices is limited to 90 mA (during normal standby conditions) using a 4.0 AH battery, or 190 mA (during normal standby conditions) using a 7.0 AH battery.

Commercial Burglary Alarm System Unit (Grade C UL 1610)

Basic system using Control Panel 60-801-01 plus:

- Hardwire Magnetic Contact (13-068 or 13-071) or Wireless Learn Mode Door/Window Sensor (60-499)
- ITI SAW PIR Sensor (60-639-95R), ITI Crystal PIR Sensor (60-703-95R), or DS924i PIR Sensor (60-511-01-95)
- IMMEDIATE TROUBLE BEEPS set to on
- UL 98 OPTIONS set to on
- RECEIVER FAILURE set to on (if wireless devices are used)
- RF TX TIMEOUT set to 4 hours
- 24-HOUR TAMPER set to on
- SYSTEM TAMPER set to on
- AUTO PHONE TEST set to on
- PHONE TEST FREQ. set to 1
- NEXT PHONE TEST set to 1
- SIREN VERIFY set to on
- AC FAILURE set to on

UL 1610 24-Hour Backup

- Same as UL 1023 & 985

UL 1635 Digital Alarm Communicator System

- Same as UL 1023 & 985

Central Station Reporting

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

- ITI CS-5000 Central Station Receiver
- Sur-Gard Central Station Receiver with models SG-DRL2A and SG-CPM2

UL Canada Listed Installations

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

Canadian Standards CSA Certified Accessories

- Residential Burglary Alarm System Unit (ULC-S309)
  The same as the basic system as described for "UL Listed Installations" plus Hardwire Magnetic Contact (13-068 or 13-071) or Wireless Learn Mode Door/Window Sensor (60-362)
- Residential Fire Warning System Control Unit (ULC-S545-M89)
  The same as the basic system as described for "UL Listed Installations" plus Hardwire Smoke Detector *System Sensor models* 2100D, 2100TD, 2100S, 2100TS, 2400, 2400TH learned into Sensor Group 26, or *ESL models* 429AT, 521B, or 521BXT learned into sensor group 26. Wireless Smoke Sensor (60-506-319.5 or 60-838-95) learned into sensor group 26. IMMEDIATE TROUBLE BEEPS set to on. RF TX TIMEOUT set to 4 hours (if system includes SuperBus 2000 RF Receiver and wireless smoke sensors).

Note
For 24-hour backup, external power drain is limited to 90 mA (during normal standby condition) using a 4.0 AH battery, or 190 mA continuous using a 7.0 AH battery.

California State Fire Marshall Listed Installations

Same as Household Fire Warning System (UL 985), plus:

• SMOKE VERIFY must be set to off

Planning the Installation

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

When planning the installation, keep in mind that the panel has the following capabilities (dependent upon devices used):

• Up to 16 SuperBus 2000 Devices (maximum of 4 RF receivers)
• Up to 76 wireless or hardwired zones

Total System Power and Wire Length Guidelines
Power

Note
(A) Class 2, Class 3, and power-limited fire alarm circuits must be installed using FPL, FPLR, FPLP, or substitute cable permitted by the National Electrical Code ANSI/NFPA 70. Wire that extends beyond the cable jacket must be separated from all other conductors by a minimum of 1/4-inch or by a nonconductive barrier.

OR

(B) Class 2, Class 3, and power-limited fire alarm circuit conductors must be installed as Class 1 or higher circuits.

The panel can supply up to 1 amp (1,000 mA) when powered by the 24 VAC, 30 VA transformer or up to 2 amps (2,000 mA) when powered by the 24 VAC, 50 VA transformer for system devices.

Wire Length

The total system wire length allowed can vary depending on devices powered by the panel, the wire length between devices and the panel, and the combined wire length of all devices.

Table 1 describes the maximum wire length allowed between compatible devices and the panel, including the maximum current draw of each device.

Table 1: Maximum Device Wire Length and Current Draw

Device	Max. Wire Length to Panel	Max. mA Draw
SuperBus 2000 2x16 LCD Alphanumeric Touchpad	22 ga.—300 ft. 18 ga.—750 ft.	90 mA
SuperBus 2000 2x20 LCD Alphanumeric Touchpad	22 ga.—250 ft. 18 ga.—600 ft.	120 mA
SuperBus 2000 2x20 VFD Alphanumeric Touchpad	22 ga.—250 ft. 18 ga.—600 ft.	120 mA
SuperBus 2000 Fixed Display Touchpad	22 ga.—300 ft. 18 ga.—700 ft.	65 mA
SuperBus 2000 RF Receiver	22 ga.—1,100 ft. 18 ga.—2,800 ft.	30 mA
SuperBus 2000 Phone Interface/Voice Module	22 ga.—40 ft. 18 ga.—120 ft.	600 mA
Power Line Carrier Card	N/A	110 mA
4 Input/2 Output SnapCard™	N/A	185 mA*
8Z Hardwire Zone Expander SnapCard	N/A	230 mA*
4 Output SnapCard	N/A	130 mA*
SuperBus 2000 8Z Input Module	22 ga.—1,800 ft. 18 ga.—4,000 ft.	35 mA
SuperBus 2000 4-Relay Output Module	22 ga.—350 ft. 18 ga.—900 ft.	180 mA
SuperBus 2000 Energy Saver Module	22 ga.—1,600 ft. 18 ga.—4,000 ft.	20 mA

Table 1: Maximum Device Wire Length and Current Draw (Continued)

Device	Max. Wire Length to Panel	Max. mA Draw
SuperBus 2000 Cellular Backup Module	Standard Power: 22 ga.—15 ft. 18 ga.—40 ft.	1600 mA
	High Power 22 ga.—10 ft. 18 ga.—30 ft.	1900 mA
SuperBus 2000 Automation Module	22 ga.—1,500 ft. 18 ga.—4,000 ft.	35 mA
Interrogator 200	22 ga.—3,200 ft. 18 ga.—4,500 ft.	10 mA
Interrogator AVM	22 ga.—110 ft. 18 ga.—260 ft.	300 mA
* Maximum current draw for the SnapCards does not include the load which may be applied to their auxiliary DC supply.		

Table 2 describes the minimum current draw of each device when the panel is operating only from the backup battery. For 24-hour backup, the total current draw of all Snap-Cards connected to the panel and devices connected to +12V BUS (panel terminal 4) is limited to 90 mA (during normal standby condition) using a 4.0 AH battery, or 190 mA (during normal standby condition) using a 7.0 AH battery.

Table 2: Minimum Device Current Draw

Device	Min. mA Draw
SuperBus 2000 2x16 LCD Alphanumeric Touchpad	15 mA
SuperBus 2000 2x20 LCD Alphanumeric Touchpad	15 mA
SuperBus 2000 2x20 VFD Alphanumeric Touchpad	15 mA
SuperBus 2000 Fixed Display Touchpad	11 mA
SuperBus 2000 RF Receiver	27 mA
SuperBus 2000 Phone Interface/Voice Module	25 mA
Power Line Carrier Card	N/A
4 Input/2 Output SnapCard	20 mA
8Z Hardwire Zone Expander SnapCard	38 mA
4 Output SnapCard	1 mA
SuperBus 2000 8Z Input Module	18 mA
SuperBus 2000 4-Relay Output Module	12 mA
SuperBus 2000 Energy Saver Module	20 mA
SuperBus 2000 Cellular Backup Module	90 mA
SuperBus 2000 Automation Module	30 mA
Interrogator 200	10 mA
Interrogator AVM	45 mA

Table 3 describes the total system wire lengths allowed when installing systems using unshielded or shielded cable.

Table 3: Total System Wire Length Allowed

Wire Type	Total System Wire
18-gauge, unshielded 18-gauge, shielded	4,500 ft. 3,000 ft.
22-gauge, unshielded 22-gauge, shielded	3,500 ft. 2,200 ft.

After determining panel location, run all necessary wires to that location using the guidelines in Table 4.

Table 4: Wire Requirements

Device	Wire Requirements
AC Power Transformer	2-conductor, 18-gauge, 25 feet max
Earth Ground	Single conductor, 16-gauge solid, 25 feet max
Telephone (RJ-31X)	4-conductor
Detection Devices	2- or 4-conductor, 18- to 22-gauge, 300-ohms max loop resistance including device
Speakers	2-conductor, 22-gauge, 175 feet max 2-conductor, 18-gauge, 440 feet max
SuperBus 2000 Devices	4-conductor, 22- or 18-gauge
Interrogator 200 AVM Power and Microphone	4-conductor, 22-gauge, shielded
2-Wire Smoke Detectors	2-conductor, 22-gauge, 330 feet max 2-conductor, 18-gauge, 830 feet max (based on 10-ohms max loop resistance plus a 2k-ohm, end-of-line resistor)

Powering Up the Panel

Note
If the alphanumeric touch-pads don't display anything, immediately unplug the transformer and disconnect the backup battery.

After connecting and wiring all devices to the panel, you are ready to apply AC and backup battery power to the panel.

➢ **To power up the panel:**.

1. Connect the red and black battery leads (included with panel) to the lugs located in the upper-left area of the panel circuit board (see Figure 1).

2. Connect the other ends of the battery leads to the battery terminals.

3. Plug the transformer into an outlet that is not controlled by a switch or a ground fault circuit interrupt (GFCI).

   Alphanumeric touchpads display **************, then *SCANNING BUS DEVICES*, and finally a date and time display.

4. To permanently mount the transformer, unplug it and remove the existing screw securing the AC outlet cover.
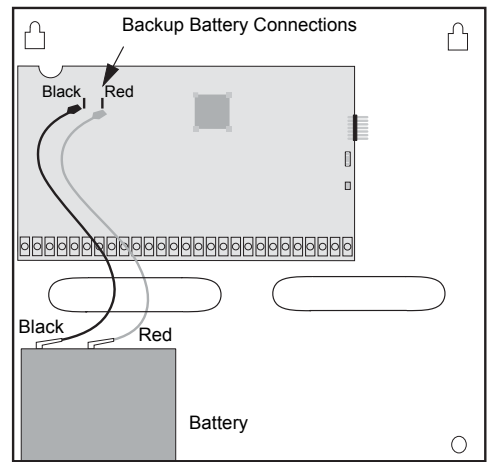

Figure 1.   Connecting the Backup Battery to the Panel (Hardwire Panel Shown—Combination Hardwire/Wireless Panel Similar)

⚠ **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 secure the transformer to the outlet cover.

Programming the Panel

For on-site system programming, an alphanumeric touchpad is required.

Entering Programming Mode

Entering programming mode is done using an installer/dealer code (default = 4321). The system can be put into program mode only when the system is disarmed.

➢ **To enter program mode:**

1. Make sure the system is disarmed in all partitions.

2. Press ⑧ + ④③②① + ⓪ + ⓪. The touchpad shows *SYSTEM PROGRAMMING.*

➢ **To enter programming mode using a programming touchpad:**

1. Make sure the system is powered up and disarmed.

2. Connect the plug on the cable onto the panel programming touchpad header (see Figure 2).

3. Press ⑧ + ④③②① + ⓪ + ②. The touchpad sounds one short beep. Press * and verify that the display shows *SERVICE TOUCH-PAD ACTIVE.*

   Trouble beeps will sound every minute to indicate that a service touchpad is active.

4. Press ⑧ + ④③②① + ⓪ + ⓪ and the display shows *SYSTEM PROGRAMMING.*

5. After programming is completed, simply disconnect the touchpad from the panel header.

Programming Touchpad Cable (60-791)
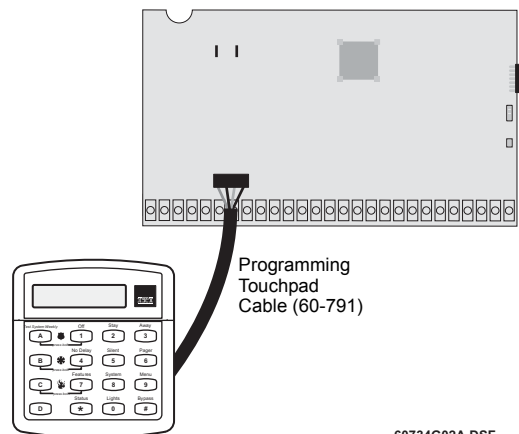
60734G02A.DSF

Figure 2. Connecting a Programming Touchpad

Setting Installer Programming Mode Features

Table 5 describes the installer programming mode features with the associated shortcut number (if any) and lets you fill in the desired system setting. Most features are on/off settings, selectable by pressing [① + # for off] or [② + # for on]. A checkbox in the Setting column lets you mark the choice.

Table 5: Installer Programming Mode Features

Feature Name & Shortcut Number	Description	Setting
24-Hour Tamper (06000)	(Default = off) When this setting is on, the panel sounds sirens and reports a tamper alarm (even when the system is disarmed), when wireless sensor tamper switches are activated. *Note* *For commercial UL Listed installations (UL 1610) the 24-Hour Tamper must be set to on.*	1 - Off ☐ 2 - On ☐
AC Failure (06010)	(Default = off) When this setting is on, the panel reports to the central station 15 minutes after AC power to the panel is lost. *Note* *For UL Listed installations, AC Failure must be set to on.*	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut Number	Description	Setting
Access Code (0906)	(Default = ∗∗∗∗ or none) This setting determines the code required to access the audio verification module to start an audio session. If no code is programmed, pressing ∗ starts an audio session. ➢ **To change the Access Code:** ♦ With the display showing *ACCESS CODE nnnn (current code)*, enter the desired 4-digit access code then press #. The display shows the new setting. ➢ **To delete an Access Code:** ♦ With the display showing *ACCESS CODE nnnn (current code)*, press ▣ to delete.	
Access Timeout (0904)	(Default = 90 sec.) If the Audio Mode is set to "Instant," then this setting determines how much time (30–300s, in 2-second increments) the central station operator has to enter the AVM access code after the panel is accessed for an audio session. ➢ **To change the Access Timeout:** ♦ With the display showing *ACCESS TIMEOUT nn SECS (current setting)*, enter the desired time then press #. The display shows the new setting.	
Account Number (partition 1-0010, partition 2-0020)	(Default = 00000) The account number is used as panel (or customer) identification for the central monitoring station. The panel sends the Account Number every time it reports to the central station. Account Numbers must be 1 to 10 characters long. Alpha characters A–F can be assigned to the Account Number by pressing and holding buttons 1–6 respectively, until the character appears. ➢ **To program an Account Number:** ♦ With the display showing *ACCOUNT NUMBER nnnnn (current number)*, enter the desired account number then press #. The display shows the new number.	Partition 1 _____ Partition 2 _____
Activity Timeout (0305)	(Default = 24 hours) This setting determines when the system sends a "no activity" report. The panel can be set to wait from 1–42 hours. If no user interaction or device activation occurs in that time, the panel sends a report to the central station. ➢ **To set the Activity Timeout:** ♦ With the display showing *ACTIVITY TIMEOUT nn HOURS (current setting)*, enter the number of hours (1–42) then press #. The display shows the new setting.	
Alarm Verify (partition 1-06108, partition 2-06208)	(Default = off) This setting determines whether the panel reports to the central monitoring station after a single sensor or zone trip (off) or waits for a second trip before reporting (on). This setting affects sensors/zones in groups 10 through 20. If Alarm Verify is set to on, group 18 responds the same as group 17 (see "Appendix A, Table A3, "Sensor Group Characteristics," on page 41). *Note* *For UL Listed installations, Alarm Verify must be set to off.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Audio Mode (0901)	(Default = 1) This setting determines how the audio verification module operates. Choose one of the following: • **(1) Instant**—Allows the central station operator instant access for an audio session by entering the AVM code or by pressing * (if an AVM access code is not programmed) upon completion of panel alarm report (also see *Access Timeout* on page 7). • **(2) Callback**—Allows the central station operator to contact persons on the premises after one ring and verify the alarm report. Operator must press * or enter the AVM access code within 20 seconds after ring. The panel does not report any alarms during the AVM session, except for fire alarms. • **(3) Callback Silent**—Same as Callback, except premises phones do not ring. ➢ **To set Audio Mode:** ◆ With the display showing *AUDIO MODE nn (current setting),* enter the desired mode number (1–3) then press #. The display shows the new setting.	
Audio Verify (0900)	(Default = off) This setting determines whether or not the system can be accessed by phone for alarm verification.	1 - Off ☐ 2 - On ☐
Auto Phone Test (02001)	(Default = off) This setting determines if the panel sends a phone test automatically to the central station or a pager on a predetermined schedule. Refer to the "Phone Test Freq." (page 24) and "Next Phone Test" (page 19) settings. *Note* *For U.L. Commercial Listed installations (UL 1610), Auto Phone Test must be set to on.*	1 - Off ☐ 2 - On ☐
Auto Stay Arming (partition 1-0014, partition 2-0024)	(Default = on) This setting determines whether or not the system automatically arms to STAY (Level 2) if the user arms the system to AWAY (Level 3) without exiting the premises. This can help prevent accidental alarms by deactivating interior motion sensors during occupied arming periods. When this feature is on and the system is armed to AWAY, touchpads (and other status sounders) emit one exit delay beep every four seconds, then one every second during the last 10 seconds. If the exit delay time expires with no standard delay sensor activation, the system automatically arms to STAY. *Note* *Arming the system to "AWAY with No Delay" overrides the Auto Stay Arming feature.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Auto Test Reset (02002)	(Default = on) This setting determines whether or not the Auto Phone Test interval is reset after any successful report to the central monitoring station. Refer to the "Phone Test Freq." (page 24) and "Next Phone Test" (page 19) settings. When this feature is on, the panel considers any successful report to the central monitoring station to be a successful phone test. Thus, any panel report resets the Next Phone Test setting to the Phone Test Freq. value. The panel only conducts an Auto Phone Test if no other reports have been made during the Phone Test Freq. time period. When this feature is off, an Auto Phone Test is always conducted according to the schedule of the Phone Test Freq. setting, even if the panel makes other reports to the central monitoring station during that time period. *Note* *Phone Test Freq must be set to 2 or higher for this feature to work.*	1 - Off ☐ 2 - On ☐
Aux. Panic (partition 1-0511, partition 2-0521)	(Default = on) This setting determines whether touchpad auxiliary panic buttons are enabled (on) or disabled (off).	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Back In Service (06002)	(Default = on) When this setting is on, the panel reports to the central station when AC and backup battery power are restored (after an extended power outage).	1 - Off ☐ 2 - On ☐
Backup (Central Station: cs phone 1-0105, cs phone 2-0115, cs phone 3-0125)	(Defaults: CS Phone 1 = on, CS Phone 2 and 3 = off) This setting determines whether or not the panel uses another programmed central station phone number for reporting if attempts with the first number are unsuccessful. When backup is off, the panel will make up to eight attempts to deliver a report with the programmed phone number. When backup is set to on, the panel makes up to 16 attempts to deliver the report, alternating between the programmed phone number and the backup phone number. CS PHONE 1 is backed up by CS PHONE 2. CS PHONE 2 is backed up by CS PHONE 1. CS PHONE 3 is backed up by CS PHONE 1.	CS Phone 1-Off ☐ On ☐ CS Phone 2-Off ☐ On ☐ CS Phone 3-Off ☐ On ☐
Battery Restoral (06005)	(Default = off) If this setting is on, the panel reports to the central monitoring station when a wireless sensor or touchpad reports a battery replacement to the panel.	1 - Off ☐ 2 - On ☐
Beep Delay (0905)	(Default = 02 sec.) This setting determines how long AVM access beeps are delayed (0–300s, in 2-second intervals) at the beginning of a 2-way audio session. ➢ **To change the Beep Delay:** ◆ With the display showing *BEEP DELAY nn SECS (current setting)*, enter the desired time then press #. The display shows the new setting.	
Buffer Control (06001)	(Default = off) When this setting is on, only arming level changes are logged in the buffer (memory) of the panel. When this setting is off, *all* system events are logged in the buffer.	1 - Off ☐ 2 - On ☐
Buffer Full Rpt (06006)	(Default = off) When this setting is on, the panel sends an "event buffer full" report to the central monitoring station when the event buffer is nearly full.	1 - Off ☐ 2 - On ☐
Bypass Reports (06003)	(Default = off) When this setting is on, the panel reports to the central station whenever sensors or zones are bypassed.	1 - Off ☐ 2 - On ☐
Call Wait Cancel (02009)	(Default = none) This feature lets you set up a dialing prefix to disable the call waiting feature before the panel makes its first dialing attempt to any programmed central monitoring station or downloader phone number. The prefix can be up to eight digits. To enter pauses, press Ⓒ. To enter *, press and hold ⑦ for one second. To enter #, press and hold ⑨ for one second. ➢ **To set up Call Wait Cancel:** ◆ With the display showing *CALL WAIT CANCEL __ (or current setting)*, enter the desired prefix then press #. The display shows the new setting. ➢ **To delete the Call Wait Cancel prefix:** ◆ With the display showing *CALL WAIT CANCEL __ (or current setting)*, press Ⓓ.	
Cancel Message (02007)	(Default = on) This setting determines whether or not the panel displays a cancel message after the user disarms the system to clear an alarm condition.	1 - Off ☐ 2 - On ☐
Cellular Backup (Central Station: cs phone 1-0107, cs phone 2-0117, cs phone 3-0127)	(Defaults: CS Phone 1=on, CS Phone 2 and 3=off) This setting determines whether the panel uses cellular communication for reporting if attempts using landline are unsuccessful.	CS Phone 1-Off ☐ On ☐ CS Phone 2-Off ☐ On ☐ CS Phone 3-Off ☐ On ☐

Table 5: Installer Programming Mode Features (Continued)

Feature Name & Shortcut Number	Description	Setting
Cellular System (100nn) nn = Unit ID [00-15]	(Default = B) This setting determines the cellular transmission system (A or B) used for cellular communication. This information is provided by the cellular provider based on installation ZIP code. ➢ **To set the Cellular System:** 1. With the display showing the desired bus device press #, then Ⓐ, or Ⓑ until the display shows *CELLULAR OPTIONS*. 2. Press # and the display shows *CELLULAR SYSTEM n (current setting)*. 3. Press ①, (B) or ②, (A) then press #. The display shows the new setting.	
Closing Reports (partition 1-06101, partition 2-06201)	(Default = off) When this setting is on, the panel sends a closing report to the central station after arming the system. *Note* *To use this feature, the Open/Close Reports settings under the Phones menu must be turned on for the specific CS Phone or Pager number.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Comm Failure (02003)	(Default = on) This setting determines whether the panel activates trouble beeps to alert users on the premises that communication to the central station failed. Failure notification occurs after the third unsuccessful reporting attempt to the central station/pager. If a Phone Supervision Card (60-789) is installed, failure notification can occur immediately if inadequate phone line voltage is detected upon the initial dialing attempt. *Note* *For UL Listed installations, Comm Failure must be turned on.*	1 - Off ☐ 2 - On ☐
Daylight Saving (0306)	(Default = on) When this setting is on, the panel clock automatically adjusts for daylight savings time changes.	1 - Off ☐ 2 - On ☐
Dealer Code (0002)	(Default = none) The 4-digit dealer code is used to prevent unauthorized persons from changing the programmed central station phone numbers. When this feature is enabled, central station phone numbers cannot be changed (unless you enter the program mode by using the dealer code). All *other* system settings are still accessible by entering the program mode with the installer code. ➢ **To program a Dealer Code:** ♦ With the display showing *DEALER CODE *****, enter the desired 4-digit code then press #. The display shows the new code. ➢ **To delete a Dealer Code:** ♦ With the display showing *DEALER CODE nnnn (current code)*, press Ⓓ. The display shows *DEALER CODE *****. *Note* *The Dealer Code cannot be deleted by clearing panel memory.*	
Delete Sensors (082)	(Default = none) The following procedure describes how to remove hardwire zone and wireless sensor numbers from panel memory. *Note* *Deleting sensors does not delete sensor text associated with the deleted sensor number. To delete sensor text, enter the Sensor Text menu and enter 000 (nulls) for each item number.* ➢ **To Delete Sensors from panel memory:** 1. With the display showing *DELETE SENSORS*, press # and the display shows *DELETE SENSOR nn (lowest zone/sensor number in panel memory)*. 2. Press # to delete the displayed sensor or—enter the desired sensor number, then press #. 3. Repeat step 2 until all desired sensors are deleted.	

Table 5: Installer Programming Mode Features (Continued)

Feature Name & Shortcut Number	Description	Setting
Device ID (100nn) nn = Unit ID (00-15)	(Default = none) This menu lets you change the bus device ID number when replacing a defective bus device. ➢ **To change a Device ID:** 1. With the display showing the desired bus device, press # twice. The display shows *DEVICE ID (current ID)*. 2. Enter the ID of the new bus device then press #. The display shows the new setting. 3. Exit programming mode. 4. Remove AC and battery power from the panel. 5. Replace the defective bus device with a new one. 6. Apply AC and battery power to the panel.	
Dial Tone Detect (02010)	(Default = on) When this setting is on, the panel does not begin dialing until it detects a dial tone. When this feature is off, the panel begins dialing a few seconds after seizing the phone line.	1 - Off ☐ 2 - On ☐
Dialer Abort (02005)	(Default = on) This setting determines whether or not the user can stop a panel before it sends a false alarm to the central station. When this feature is on, alarm reports from sensors in groups 00–20, 34, and 35 can be aborted. To abort the dialing attempt, the user must enter ① + ⒸⓄⒹⒺ (user), within the dialer abort delay time setting (defaulted to 30 sec). Cancel and restoral reports from these sensor groups are aborted at the same time. The following reports can also be aborted. • System Alarm Tamper/Cancel • No Activity Alarm/Cancel • Touchpad Police and Auxiliary Panic/Cancel • Recent Closing and Two Trip Error *Note* *Fire alarm reports to the central station cannot be aborted.*	1 - Off ☐ 2 - On ☐
Dial Abort Delay (02006)	(Default = 30 sec.) This setting determines how much time the user has to abort a panel report. ➢ **To change the Dial Abort Delay** ◆ With the display showing *DIAL ABORT DELAY nn SECS (current setting)*, enter the desired time (15–120s) then press #. The display shows the new setting.	
Disable Trouble Beeps (0701)	(Default = off) When this setting is on, the panel will not beep to alert users of wireless device supervisory trouble. *Note* *For UL Listed installations, Disable Trouble Beeps must be set to off.*	1 - Off ☐ 2 - On ☐
Downloader Code (0000)	(Default = 12345) The 5-digit downloader code is used in conjunction with downloader programming. The downloader operator must have the panel account number and downloader code in order to perform any programming. ➢ **To program a Downloader Code:** ◆ With the display showing *DOWNLOADER CODE nnnnn (current code)*, enter the desired 5-digit code then press #. The display shows the new code. *Note* *The Downloader Code cannot be deleted or cleared from panel memory.*	
DTMF Dialing (02004)	(Default = on) This setting determines whether the panel uses DTMF tones (on) or pulse (off) for dialing programmed phone numbers.	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut Number	Description	Setting
Duress Code (partition 1-0017, partition 2-0027)	(Default = none) The duress code is a unique 4-digit access code that allows users to operate the system and, at the same time, instructs the panel to send a silent alarm report to the central station. Do not use a duress code unless it is absolutely necessary. Using duress codes often results in false alarms due to code entry errors. If a duress code *is* absolutely necessary, use it with an audio verification module (AVM) to reduce false alarms and accidental dispatches. *Note* *To use this feature, the Duress Option setting must be turned on.* ➢ **To program a Duress Code:** ◆ With the display showing *DURESS CODE *****, enter the desired 4-digit duress code then press #. The display shows the new code. ➢ **To delete a Duress Code:** ◆ With the display showing *DURESS CODE nnnn (current code)*, press Ⓓ. The display shows *DURESS CODE *****.	Partition 1 _____ Partition 2 _____
Duress Option (partition 1-06104, partition 2-06204)	(Default = off) When this setting is on, the system can be controlled using a programmed duress code. Do not use a duress code unless it is absolutely necessary. Using duress codes often results in false alarms due to code entry errors. If a duress code *is* absolutely necessary, use it with the audio verification module to reduce false alarms and accidental dispatches. *Note* *For UL Listed installations, Duress Option must be set to off.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Edit Sensors (083)	(Default = none) This menu lets you view and, if desired, change the group and partition assignment for each learned zone or sensor. For example, the display shows: *S01 P1 G13 NC HW* *BACK DOOR* where: S01 = zone/sensor number, P1 = partition 1, G13 = sensor group 13, NC = normally closed, HW = hardwired, and BACK DOOR is the programmed text name. other description codes include: RF = wireless sensor TP = touchpad NO = normally open. ➢ **To Edit Sensors:** 1. With the display showing *EDIT SENSORS.*, press # and the display shows the sensor or zone with the lowest number. 2. Press Ⓐ or Ⓑ to scroll through all learned zones and sensors. 3. When the desired zone or sensor is displayed, press #. The display shows *SENSOR PTN n (current partition assignment)*. 4. Enter the desired partition number, then press #. The display shows the new partition assignment. 5. Press Ⓐ or Ⓑ and the display shows *SENSOR GROUP nn (current group assignment)*. 6. Enter the desired group number, then press #. The display shows the new group assignment.	

Table 5: Installer Programming Mode Features (Continued)

Feature Name & Shortcut Number	Description	Setting
Entry Delay (partition 1-0310, partition 2-0320)	(Default = 32 sec.) This setting determines how much time the user has to disarm the system (after entering the armed premises through a "designated delay door") without causing an alarm. ***Note*** *For residential UL Listed installations, the Entry Delay must be set to 45 seconds or less.* ➢ **To set the Entry Delay:** ◆ With the display showing *ENTRY DELAY nnn SECS (current setting)*, enter the desired time value (32–240 using 8-second intervals) then press #. The display shows the new setting.	Partition 1 _____ seconds Partition 2 _____ seconds
Entry Lights (partition 1-0400, partition 2-0410)	(Default = none) This setting determines which X-10 controlled lights turn on during entry and exit delays. ***Note*** *X-10 Lamp Modules set to 1 always turn on during the entry and exit delays.* *X-10 Lamp Modules set to 2 always flash the arming level when arming the system. For example, lights flash two times when arming to STAY (level 2), and three times when arming to AWAY (level 3).* ➢ **To set the Entry Lights:** ◆ With the display showing *ENTRY LIGHTS nnnnnnn (current setting,* enter *all* the desired light numbers (3–9 based on the UNIT dial setting on each X-10 Lamp Module) then press #. The display shows the new setting(s). ➢ **To delete Entry Lights:** ◆ Enter any light number that appears on the display, then press #. The number disappears from the display.	Partition 1 _____ Partition 2 _____
Exception Rpts (Central Station: cs phone 1-0103, cs phone 2-0113, cs phone 3-0123) (Pager: pager 1-0133, pager 2-0143, pager 3-0153, pager 4-0163, pager 5-0173)	(Default = off) When this setting is on, if the system is not armed or disarmed at the specified schedule times the panel reports to the central station and/or pager.	CS Phone 1-Off ☐ On ☐ CS Phone 2-Off ☐ On ☐ CS Phone 3-Off ☐ On ☐ Pager 1-Off ☐ On ☐ Pager 2-Off ☐ On ☐ Pager 3-Off ☐ On ☐ Pager 4-Off ☐ On ☐ Pager 5-Off ☐ On ☐
Exit Delay (partition 1-0311, partition 2-0321)	(Default = 64 sec.) This setting determines how much time the user has (after arming the system) to leave the premises through a "designated delay door" without causing an alarm. ***Note*** *For residential UL Listed installations, the Exit Delay must be set to 60 seconds or less.* ➢ **To set the Exit Delay:** ◆ With the display showing *EXIT DELAY NNN SECS (current setting),* enter the desired time value (48–184 using 8-second intervals) then press #. The display shows the new setting.	Partition 1 _____ seconds Partition 2 _____ seconds

Feature Name & Shortcut Number	Description	Setting
Extended Delay (partition 1-0312, partition 2-0322)	(Default = 4 minutes) This setting determines how much time the user has (after arming the system) to enter *or* exit the premises through a "designated *extended* delay door" (1–8 minutes). *Note* *For UL Listed installations Extended Delay may not be used.* ➢ **To set the Extended Delay:** ◆ With the display showing *EXTENDED DELAY n MINUTES (current setting)*, enter the desired time value (1–8) then press #. The display shows the new setting.	Partition 1 _____ minutes Partition 2 _____ minutes
Exit Extension (partition 1-0013, partition 2-0023)	(Default = on) This setting determines whether or not the user can re-enter and exit again through an entry or exit delay door (without disarming and re-arming the system). This helps prevent exit faults and false alarms by allowing users to re-enter the premises for a forgotten item. When exit extension is on, the panel restarts the exit delay timer if the user re-enters the premises through a standard delay door before the standard exit delay time expires. When this feature is off, the exit delay timer does not restart if the user re-enters the premises, forcing the user to disarm the system to avoid setting off an accidental alarm.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Fire Panic (partition 1-0510, partition 2-0520)	(Default = on) This setting determines whether touchpad fire panic buttons are enabled (on) or disabled (off).	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Fire Shutdown (0902)	(Default = off) This setting determines whether system sirens turn off during a fire alarm audio session.	1 - Off ☐ 2 - On ☐
Force Armed (partition 1-06105, partition 2-06205)	(Default = off) When this setting is on, the panel reports to the central monitoring station when a user "force arms" the system. *Note* *Forced arming occurs if the user presses BYPASS when arming the system with open sensors or zones protesting.* *Auto-forced arming occurs if the user does not press BYPASS (when arming the system with open sensors/zones protesting) and the siren time expires.* *Auto-forced arming always reports to the central monitoring station.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Freeze Alarm (partition 1-06107, partition 2-06207)	(Default = off) This setting determines whether the panel reports a freeze alarm to the central station or pager when the selected partition's energy saver module detects a temperature that matches a predetermined setting (Freeze Temp).	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Freeze Temp (100nn) nn = Unit ID (00-15)	(Default = 42°F) This setting determines the temperature point that the Energy Saver Module detects a potential freeze (heating failure) condition. The adjustable range is from 40° to 90°F. ➢ **To change the Freeze Temp setting:** 1. Press Ⓐ or Ⓑ until the desired bus device is displayed. 2. With the display showing the desired bus device, press # then Ⓐ or Ⓑ until the display shows *ENERGY OPTIONS*. 3. Press # and the display shows *FREEZE TEMP nn DEGREES (current setting)*. 4. Enter the desired freeze temperature (40°–90° F) and press #. The display shows the new setting.	
Global Fire (0704)	(Default = off) This setting determines whether or not sirens in both partitions sound (on) if either partition activates a fire alarm.	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut Number	Description	Setting
High Level Rpts (Central Station: CS Phone 1-0101, CS Phone 2-0111, CS Phone 3-0121) (Pager: Pager 1-0131, Pager 2-0141, Pager 3-0151, Pager 4-0161, Pager 5-0171)	(Defaults: CS Phone 1 = on, CS Phone 2 and 3 = off, Pager = on) When this setting is on, the following conditions report to the central station and/or pager: • Fire, Police, Auxiliary, and Duress alarms • No Activity • Receiver Failure (or jam) • Tamper conditions, including Zone Tampers and System Tamper (40 incorrect key presses or touchpad supervisory) • Entering or exiting Sensor Test mode • Phone Test	CS Phone 1-Off ☐ On ☐ CS Phone 2-Off ☐ On ☐ CS Phone 3-Off ☐ On ☐ Pager 1-Off ☐ On ☐ Pager 2-Off ☐ On ☐ Pager 3-Off ☐ On ☐ Pager 4-Off ☐ On ☐ Pager 5-Off ☐ On ☐
House Code (partition 1-0401, partition 2-0411)	(Defaults: partition 1 = 01-B; partition 2 = 02-C) This setting enables X-10 controlled lights to work in a selected partition without interfering with the X-10 controlled lights of the other partition. After setting the panel house code for each partition, you must set the X-10 controlled lights for that partition to the same house code. The letter that appears automatically after the house code number indicates the necessary house dial setting for X-10 modules in that partition. ➢ **To set the House Code:** ◆ With the display showing *HOUSE CODE nn-x (current setting,* enter the desired number (1–255) then press #. The display shows the new house code.	Partition 1 _____ Partition 2 _____
Immediate Beeps (0700)	(Default = off) This setting determines whether the panel activates trouble beeps as soon as a wireless device supervisory condition is detected (on), or if the panel waits until "supervisory time" to activate trouble beeps (off). ***Note*** *For UL Listed installations, Immediate Beeps must be set to on.*	1 - Off ☐ 2 - On ☐
Installer Code (0001)	(Default = 4321) The 4-digit installer code is used for entering program mode and changing system settings. If a dealer code is programmed, only those settings not associated with phone numbers can be changed. ➢ **To program an Installer Code:** ◆ With the display showing *INSTALLER CODE nnnn (current code),* enter the desired 4-digit code then press #. The display shows the new code. ***Note*** *The Installer Code cannot be deleted or cleared from panel memory.*	
Key Beeps (100nn) nn = Unit ID (00-15)	(Default = on) This setting determines whether or not selected touchpads beep when their buttons are pressed. This feature is usually turned off for a touchpad that is located in or near bedrooms, to avoid disturbing sleeping persons. ➢ **To turn Key Beeps off or on:** 1. With the display showing the desired bus device, press # then Ⓐ or Ⓑ until the display shows *KEYPAD OPTIONS.* 2. Press # then Ⓐ or Ⓑ until and the display shows *KEY BEEPS OFF/ON (current setting).* 3. Press ① (off) or ② (on) to select the desired setting and then press #. The display shows the new setting.	1 - Off ☐ 2 - On ☐
Keychain TP Arm (partition 1-0513, partition 2-0523)	(Default = off) When this setting is on, pressing the lock button on keychain touchpads arms the system directly to AWAY with NO DELAY. When this setting is off, each key-press increments the arming level (i.e., from OFF to STAY, from STAY to AWAY).	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Keyswitch Sensor (partition 1-0015, partition 2-0025)	(Default = none) This feature lets users arm and disarm the system using either a keyswitch wired to a hardwire zone input or a wireless door/window sensor. For example, if sensor 1 is designated as the keyswitch sensor and the system is disarmed, then tripping sensor 1 could arm the system to AWAY. If the system is armed to STAY or AWAY, then tripping the sensor could disarm the system (depending on keyswitch style). *Note* *It is recommended that Keyswitch Sensors are learned into group 28.* The panel reports opening, closing, and force armed reports (if turned on) to the central monitoring station. *Note* *A bypassed Keyswitch Sensor cannot arm or disarm the system.* *During an audible alarm, Keyswitch Sensors can disarm the system (which sends a cancel report to the central monitoring station), but cannot arm the system. The system can be armed only after the siren timeout expires.* *Keyswitch Sensors test the same as any other sensor and do not arm or disarm the system during a sensor test.* ➢ **To assign a Keyswitch Sensor:** ◆ With the display showing *KEYSWITCH SENSOR nn (current sensor number)*, enter the desired sensor number (01–76) and then press #. The display shows the new number. ➢ **To delete a Keyswitch Sensor:** ◆ With the display showing *KEYSWITCH SENSOR nn (current sensor number)*, press ⊡ to erase the Keyswitch Sensor.	
Keyswitch Style (partition 1-0016, partition 2-0026)	(Default = transition) This feature allows users to select how they want the system to behave when armed/disarmed by a keyswitch sensor. The choices are as follows: **Transition**: If Keyswitch Style is set to transition and the Keyswitch Sensor is tripped (opened) when the system is disarmed (level 1), the panel will automatically arm to AWAY (level 3). If the sensor is tripped (opened) when the system is armed to AWAY (level 3) or STAY (level 2), the panel will automatically disarm. **State**: If Keyswitch Style is set to state, when the Keyswitch Sensor is tripped (opened) the panel arms to AWAY (level 3). If the sensor is restored (closed) the panel disarms. Opening, closing, and force arming reports (if turned on) are reported to the central station for both Keyswitch Styles. ➢ **To assign a Keyswitch Style:** ◆ With the display showing *KEYSWITCH STYLE TRANSITION/STATE (current setting),* press ① for Transition or ② for State and then press #. The display shows the new setting.	1-Transition ☐ 2-State ☐

Feature Name & Shortcut Number	Description	Setting
Latchkey Format (partition 1-06106, partition 2-06206)	(Default = off) This setting determines whether the selected partition is set up for basic (off) or advanced (on) latchkey opening report operation. **Basic:** If the partition is armed by entering ② (or ③) + Ⓒ Ⓞ Ⓓ Ⓔ, disarming using a designated latchkey user code or keychain touchpad within an assigned time schedule sends a page. If the partition is armed by entering ② (or ③) + Ⓒ Ⓞ Ⓓ Ⓔ + ⑥ (LATCHKEY), disarming using a designated latchkey user code or keychain touchpad inside or outside of an assigned time schedule sends a page. **Advanced:** If the partition is armed by entering ② (or ③) + Ⓒ Ⓞ Ⓓ Ⓔ + ⑥ (LATCHKEY), disarming using a latchkey designated user code or keychain touchpad within an assigned time schedule sends a page. Refer to the *User's Guide* for complete Latchkey setup and operation. ➢ **To turn Latchkey Format off or on:** ◆ With the display showing *LATCHKEY FORMAT OFF/ON (current setting)*, press ① (off—basic) or ② (on—advanced) then press #. The display shows the new setting.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Latchkey Reports (Pager: pager 1-0135, pager 2-0145, pager 3-0155, pager 4-0165, pager 5-0175)	(Default = on) This setting determines whether the panel reports to a pager when the system is armed or disarmed, according to latchkey time scheduling.	Pager 1-Off ☐ On ☐ Pager 2-Off ☐ On ☐ Pager 3-Off ☐ On ☐ Pager 4-Off ☐ On ☐ Pager 5-Off ☐ On ☐
Latchkey Zones (0500)	(Default = none) This setting defines the range of keychain touchpads that will function as a latchkey user. The value entered in this section can be any valid zone number. When a zone number is entered, all zones *at* or *below* that zone number will function as a latchkey user. For example, if 5 is entered, any keychain touchpads learned into zones 1–5 will be latchkey users and all others (6–76) will not. ➢ **To set the number of Latchkey Zones:** ◆ With the display showing *LATCHKEY ZONES nnn (current setting)*, enter the desired number of latchkey zones (1–76) and then press #. The display shows the new setting. ➢ **To delete/disable Latchkey Zones:** ◆ With the display showing *LATCHKEY ZONES nnn (current setting)*, press Ⓓ.	

Table 5: Installer Programming Mode Features (Continued)

Feature Name & Shortcut Number	Description	Setting
Learn Sensors (080)	(Default = none) The following describes how to add (learn) hard-wire zones and wireless devices into panel memory. The panel comes with the following factory programmed onboard hardwire zones: • Zone 1: 10-Entry/Exit • Zone 2: 17-Instant Interior Follower • Zone 3: 13-Instant Perimeter • Zone 4: 13-Instant Perimeter • Zone 5: 13-Instant Perimeter • Zone 6: 13-Instant Perimeter *Note* *Install 2k-ohm, end of line (EOL) resistors on all unused factory programmed onboard hardwire zones. If you don't want to install EOL resistors, delete any unused zones from memory.* ➢ **To Learn Sensors into panel memory:** 1. With the display showing *LEARN SENSORS,* press # and the display shows *SENSOR PTN 1.* 2. Press # to select partition 1 or press ② + # to select partition 2. The display shows *SENSOR GROUP 0.* 3. Enter the desired sensor group + # (see Table A3 on page 41 for a description of all sensor group characteristics). The display shows *TRIP SENSOR NN*, where nn is the displayed (next available) sensor number. 4. To change the displayed sensor number, enter the desired sensor number + #. The desired sensor number is displayed. 5. With the desired sensor number displayed, force the sensor or zone you are adding (learning) into the panel memory to send a signal to the panel. 6. To add another sensor to the same sensor group and partition, go back to step 5. 7. To add sensors to another sensor group or partition, press ∗ twice and go back to step 1. *Note* *Sensors must be placed in a partition and group. To change the sensor group or partition assignment after adding a sensor or zone, use the Edit Sensors menu.*	
Line Fail Delay (partition 1-0213)	(Default = none) This setting determines the amount of time the partition 1 phone line voltage must be absent before the panel indicates a phone failure trouble condition. If a delay is *not* programmed (default), the panel will not monitor the phone line voltage. *Note* *Line Fail Delay is not available for partition 2 at this time. To use this feature, a Phone Supervision Card must be installed.* ➢ **To set the Line Fail Delay time:** ◆ With the display showing *LINE FAIL DELAY NN SECS (current setting)*, enter the desired time value (10–240 seconds) and then press #. The display shows the new setting. ➢ **To delete the Line Fail Delay time:** 1. With partition 1 selected, press Ⓐ or Ⓑ until the display shows *LINE FAIL DELAY NN SECS (current setting)*. 2. Press Ⓓ to delete the current line fail delay time.	
Local Phone Control (partition 1-0210, partition 2-0220)	(Default = on) When this feature is on, the panel can be accessed from a phone on the premises.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Low CPU Battery (06004)	(Default = on) When this setting is on, the panel reports a low panel battery to the central station before shutting down. ***Note*** *For UL Listed installations, the Low CPU Battery feature must be set to on.*	1 - Off ☐ 2 - On ☐
Low Level Rpts (Central Station: cs phone 1-0102, cs phone 2-0112, cs phone 3-0122) (Pager: pager 1-0132, pager 2-0142, pager 3-0152, pager 4-0162, pager 5-0172)	(Defaults: CS Phone 1 = on, CS Phone 2 and 3 = off, Pager = off) This setting determines whether the following non-alarm conditions report to the central station, and/or pager: • Force Armed • Hardwire Zone Trouble (open or short) • Supervisory (wireless devices) • Low Battery (wireless devices) • Phone Test • Other non-alarm related conditions	CS Phone 1-Off ☐ On ☐ CS Phone 2-Off ☐ On ☐ CS Phone 3-Off ☐ On ☐ Pager 1-Off ☐ On ☐ Pager 2-Off ☐ On ☐ Pager 3-Off ☐ On ☐ Pager 4-Off ☐ On ☐ Pager 5-Off ☐ On ☐
Next Phone Test (0303)	(Default = 7 days) This setting is used by the Auto Phone Test feature to determine when the next automatic phone test should occur. This setting should be the same as, or less than, the Phone Test Freq. setting. ***Note*** *For U.L. Commercial Listed installations (UL 1610), Next Phone Test feature must be set to 1 (day).* ➢ **To set the Next Phone Test:** ◆ With the display showing *NEXT PHONE TEST nnn DAYS (current setting)*, enter the number of days (1–255). The display flashes the entered setting. Press # and the display shows the new setting.	
No Activity (partition 1-06103, partition 2-06203)	(Default = off) When this setting is on, the panel sends a no activity report to the central station when the activity timeout expires.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Open/Close Rpts (Central Station: cs phone 1-0104, cs phone 2-0114, cs phone 3-0124) (Pager: pager 1-0134, pager 2-0144, pager 3-0154, pager 4-0164, pager 5-0174)	(Default = off) This setting determines whether opening and closing reports are sent to the central station and/or pager. When turned on, the panel sends a closing report when the system is armed and an opening report when the system is disarmed. ***Note*** *To use this feature, the Opening Reports and Closing Reports settings under the Reporting menu must be turned on for that partition.*	CS Phone 1-Off ☐ On ☐ CS Phone 2-Off ☐ On ☐ CS Phone 3-Off ☐ On ☐ Pager 1-Off ☐ On ☐ Pager 2-Off ☐ On ☐ Pager 3-Off ☐ On ☐ Pager 4-Off ☐ On ☐ Pager 5-Off ☐ On ☐
Opening Reports (partition 1-06100, partition 2-06200)	(Default = off) When this setting is on, the panel sends an opening report to the central station after disarming the system. ***Note*** *To use this feature, the Open/Close Reports settings under the Phones menu must be turned on for the specific CS Phone or Pager number.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Output 1, 2 Onboard (Configuration: Output 1-11101, Output 2-11111) (Partition Assign: Output 1-11100, Output 2-11110)	(Defaults: Output 1 = Ptn 1, 01614; Output 2 = Ptn. 1, 01710) This setting lets you assign the partition and the 5-digit configuration number. The configuration number determines • which system event activates the selected output, and • the duration or time the output is activated. The first three digits represent the trigger number of an event (such as triggering an alarm, opening a sensor, or arming the system). The last two digits represent how the output responds (such as momentary switching, maintained (or latched) switching, or switching for a preset time). *Note* *If you want to configure an output for user Output Control you must use the Output Text feature to name the output. If no Output Text is programmed, user Output Control will not function for that output.* Use the system event trigger and response numbers listed in Appendix A. ➢ **To set up onboard Output 1 & 2 partition and configuration assignments:** 1. With the display showing *ONBOARD OPTIONS*, press # + Ⓑ. The display shows *OUTPUT PROGRAMMING*. 2. Press # and the display shows *OUTPUT 1*. Press Ⓑ to select *OUTPUT 2*. 3. Press # and the display shows *PARTITION ASSIGN n (current setting),* press ① or ② to assign the output to the desired partition, then press #. The display shows *PARTITION ASSIGN (new setting)*. 4. Press Ⓑ and the display shows *CONFIGURATION TTTRR (current setting)*. 5. Enter the desired configuration number then press #. The display shows the new setting. 6. Press ∗ and repeat steps 2 through 5 until all outputs are programmed.	Output 1 _____ Output 2 _____
SnapCard Relay Outputs 1-4 (Configuration: Output 1-101001, Output 2-101011, Output 3-101021, Output 4-101031) (Partition Assign: Output 1-101000, Output 2-101010, Output 3-101020, Output 4-101030)	(Defaults: Partition Assign = all 1, Configuration Output 1 = 01400, Output 2 = 00410, Output 3 = 00903, Output 4 = 01003) This setting lets you assign a partition and a 5-digit configuration number for each SnapCard relay output. The configuration number determines • which system event activates the selected output, and • the duration or time the output is activated. ➢ **To set up SnapCard Relay output partition and configuration assignments:** 1. With the display showing *SNAPCARDS*, press #, then press Ⓐ or Ⓑ until the display shows *OUTPUT PROGRAMMING*. 2. Press # again and the display shows *OUTPUT 1*. 3. Press Ⓐ or Ⓑ to select the desired output (1-4), then press #. 4. With the display showing *PARTITION ASSIGN 1*, press ① or ② to select the desired partition. Press # to confirm the partition. 5. Press Ⓑ and the display shows *CONFIGURATION TTTRR (current setting)*. 6. Enter the desired 5-digit configuration number for this relay. Press # to confirm the setting. 7. Press ∗ and repeat steps 3 through 6 until all outputs are programmed.	Output 1 _____ Output 2 _____ Output 3 _____ Output 4 _____

Table 5: Installer Programming Mode Features (Continued)

Feature Name & Shortcut Number	Description	Setting
Output Text (Onboard: output 1-1120, output 2-1121)	(Default = none) Use the following guidelines to "name" onboard outputs: • Use the item numbers listed in Table A4 on page 43 for characters and words. • If a desired word does not appear in Table A4, create it using the characters (custom text). • When using words from Table A4, spaces between them appear automatically. When using characters from Table A4 to create words, you must reserve an item number for a 'space' after the word. • Each character or word uses up one item number. For example, a word from the list counts as one item number. A created word (such as BOY'S) counts as six item numbers—4 letters, 1 apostrophe, and 1 space. • Only 16 item numbers are allowed for each output name, so plan ahead before programming output text. You may need to abbreviate words to avoid running out of item numbers. ***Note*** *If you want to configure an output for user Output Control you must use the Output Text feature to name the output. If no Output Text is programmed, User Output Control will not function for that output.* ➢ **To program Output Text:** 1. With the display showing *OUTPUT 1* press # and the display shows *OUTPUT 1 ITEM 0 0 -_____*. Where *ITEM 0* is the first character or word location and *0* is the character or word number. 2. Enter the number of the desired character or word, or scroll through the numbers by pressing Ⓑ (forward) or Ⓐ (backward). If you make a mistake, simply enter the correct number or continue scrolling through choices. 3. Press # to accept the displayed choice and the display shows *OUTPUT 1 ITEM 1 0 - _____*. 4. Repeat steps 4 and 5 as needed to complete the output name. 5. Press ∗ after entering the last character or word number. The display shows the complete text name. For example, *OUTPUT 1 LAWN SPRINKLER*	Output 1 _____ Output 2 _____

Feature Name & Shortcut Number	Description	Setting
Output Text (SnapCard: Output 1-10110, Output 2-10111, Output 3-10112, Output 4-10113)	(Default = none) Entering text for an output allows the user to control it directly or by schedule. Use the following guidelines to "name" SnapCard outputs: • Use the item numbers that appear in Table A4 on page 43 for characters and words listed there. • If a desired word does not appear in Table A4, create it using the characters (custom text). • When using words from Table A4, spaces between them appear automatically. When using characters from Table X to create words, you must reserve an item number for a 'space' after the word. • Each character or word uses up one item number. For example, a word from the list counts as one item number. A created word (such as BOY'S) counts as six item numbers—4 letters, 1 apostrophe, and 1 space. • Only 16 item numbers are allowed for each output name, so plan ahead before programming output text. You may need to abbreviate words to avoid running out of item numbers. *Note* *If you desire an output for User Output Control you must use the Output Text feature to name the output. If no Output Text is programmed, the user will not have access to the output.* ➢ **To program Output Text:** 1. With the display showing *OUTPUT 1*, press Ⓐ or Ⓑ until the desired output number is displayed then press # and the display shows *OUTPUT N ITEM 0 0 -____*. Where *ITEM 0* is the first character/word location and *0* is the character/word number. 2. Enter the number of the desired character or word, or scroll through the numbers by pressing Ⓑ (forward) or Ⓐ (backward). If you make a mistake, simply enter the correct number or continue scrolling through choices. 3. Press # to accept the displayed choice and the display shows *OUTPUT N ITEM 1 0 -_____*. 4. Repeat steps 4 and 5 as needed to complete the output name. 5. Press ∗ after entering the last character or word number. The display shows the complete text name. For example, *OUTPUT 1_ LAWN SPRINKLER.*	Output 1 _____ Output 2 _____ Output 3 _____ Output 4 _____
Output Trip Time (0304)	(Default = 4 sec.) This setting determines how long outputs are activated when tripped (if they are configured for a momentary response). ➢ **To set the Output Trip Time:** ◆ With the display showing *OUTPUT TRIP TIME nn SECS (current setting)*, enter the number of seconds (1–12) then press #. The display shows the new setting.	
Pager Delay (02008)	(Default = 15 sec.) This setting determines how long a report is delayed to a pager, after the panel dials the pager number. *Note* *The Pager Delay time should not be set below 5 seconds, unless absolutely necessary.* ➢ **To set the Pager Delay time:** ◆ With the display showing *PAGER DELAY nn SECS (current setting)*, enter a delay time (0–30) then press #. The display shows the new setting.	

Feature Name & Shortcut Number	Description	Setting
Partition Assign (100nn) nn = Unit ID (00-15)	(Default = 1) This menu lets you assign bus devices to work in the desired partition. **Note** *SuperBus 2000 8Z Input Modules, SuperBus 2000 Automation Module, SuperBus 2000 4-Relay Output Modules, and Super-Bus 2000 RF Receivers are not assigned to partitions.* ➢ **To assign bus devices to partitions:** 1. With the display showing the desired bus device, press #. 2. Press Ⓐ or Ⓑ until the display shows *DEVICE PTN* then press #. The display shows *PARTITION ASSIGN N.* 3. Press ① or ② to select the desired partition then press #. The display shows the new setting.	
Ptn Assignment (pager 1-0137, pager 2-0147, pager 3-0157, pager 4-0167, pager 5-0177)	(Default = 1) This setting determines the partition that reports to a pager. Both partitions can be assigned to report to a single pager. ➢ **To set up Partition Assignments for pager reporting:** ♦ With the display showing *PTN ASSIGNMENT 1/2/12 (current setting)*, press ① or ② to select or remove partition 1 *or* 2, press # and the display shows the new setting.	Pager 1 _____ Pager 2 _____ Pager 3 _____ Pager 4 _____ Pager 5 _____
Phone Access Key (partition 1-0216, partition 2-0226)	(Default = #) This setting determines which touch-tone phone button is used for system access and control. If the Local Phone Control feature is enabled, the user can pick up the phone and press # (within 5 seconds) to access the security system. The panel seizes the phone line and waits for the user to enter system commands. Phone access can be changed from # to ∗. **Note** *Use the default setting (#) to avoid conflicts between the security system and other phone devices and services. Many phone devices (such as answering machines, computer modems, and FAX machines) and services (such as call-waiting, call-forwarding, and some banking transactions) require * to initiate their operation, so using * for this security feature could cause conflicts.* ➢ **To change the Phone Access Key:** ♦ With the display showing *PHONE ACCESS KEY #/* (current setting)*, press ① (for *) or ② (for #) then press #. The display shows the new setting.	Partition 1- * ☐　# ☐ Partition 2- * ☐　# ☐

Feature Name & Shortcut Number	Description	Setting
Phone Number (Central Station: cs phone 1-0100, cs phone 2-0110, cs phone 3-0120) (Downloader-0180) (Pager: pager 1-0130, pager 2-0140, pager 3-0150, pager 4-0160, pager 5-0170)	(Default = none) This setting is used for programming the central station receiver, downloader, or pager phone number. Phone numbers can be 1 to 24 digits long, including pauses or * and # characters. To enter pauses, press Ⓒ. To enter *, press and hold ⑦ for about two seconds. To enter #, press and hold ⑨ for about two seconds. *Note* *The Phone Number menus are not accessible if a Dealer Code is programmed and the Installer Code is used to enter installer programming mode. To access these menus when a Dealer Code is programmed, you must enter installer programming mode using the Dealer Code.* *Call-waiting services should be disabled to prevent interrupting panel communication to the central monitoring station, pager, or downloader. To program a dialing prefix that disables call-waiting, see the Call Wait Cancel setting.* ➢ **To program a Central Station, Pager, or Downloader Phone Number:** ◆ With the display showing *PHONE NUMBER _ (or current number)*, enter the desired phone number then press #. The display shows the new number. ➢ **To delete a Central Station, Pager, or Downloader Phone Number:** ◆ With the display showing *PHONE NUMBER (current number)*, press Ⓓ. The display shows *PHONE NUMBER _.*	CS Phone 1 _____ CS Phone 2 _____ CS Phone 3 _____ Downloader _____ Pager 1 _____ Pager 2 _____ Pager 3 _____ Pager 4 _____ Pager 5 _____
Phone Panic (partition 1-0215, partition 2-0225)	(Default = off) This setting determines whether or not a police panic alarm can be activated from a touch-tone phone. When this feature is on, pressing # + * * * * * * from a touch-tone phone on the premises causes a panic alarm.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Phone Test (02000)	(Default = on) This setting determines if the user can, at any time, test the communication from the panel to the central station or a pager by entering ⑧ + ⒸⓄⒹⒺ + ② (# + ⑧ + ⒸⓄⒹⒺ + ② from a touch-tone phone).	1 - Off ☐ 2 - On ☐
Phone Test Freq. (0302)	(Default = 7 days) This setting determines how often the panel conducts the automatic phone test (see "Auto Phone Test" on page 8). The system can be set to perform an automatic phone test anywhere from every day to every 255 days. *Note* *For U.L. Commercial Listed installations (UL 1610), Phone Test Freq. must be set to 1 day.* ➢ **To set the Phone Test Freq:** ◆ With the display showing *PHONE TEST FREQ nnn DAYS (current setting)*, enter the number of days (1–255) then press #. The display shows the new number.	
Police Panic (partition 1-0512, partition 2-0522)	(Defaults = on) This setting determines whether touchpad police panic buttons are enabled (on) or disabled (off).	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Program Report (06015)	(Default = off) When this setting is on, the panel sends a report to the central station when someone enters or exits installer programming.	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut Number	Description	Setting
Quick Arm (partition 1-0011, partition 2-0021)	(Defaults = off) Quick Arm allows system arming without using an access code. When Quick Arm is on, the system arming level can be increased from Level 1-OFF to LEVEL 2-STAY, from Level 1-OFF to LEVEL 3-AWAY, or from Level 2-STAY to LEVEL 3-AWAY, without entering an access code. A valid access code is still required to decrease the arming level or disarm the system.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Quick Exit (partition 1-0012, partition 2-0022)	(Default = on) This setting determines whether or not users can open and close a standard entry/exit door without causing an alarm (while the system is armed). This feature would be useful if the user wants to go out to get the morning paper while the system is armed. This feature also allows the user to leave the armed premises without having to disarm and re-arm the system. When Quick Exit is on, pressing ⒟ on a touchpad (while the system is armed) starts a 2-minute timer that allows one standard entry/exit door (sensor groups 10 and 19 only) to be activated once (opened, then closed). When this feature is turned off, the system must be disarmed before any protected door is opened. ***Note*** *For UL Listed installations, Quick Exit must be set to off.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Receiver Failure (06011)	(Default = off) When this setting is on, the panel reports a receiver failure under the following conditions: • No wireless sensor signals have been received for two hours or • The receiver is being jammed with a constant signal. ***Note*** *For UL Listed installations using wireless devices, Receiver Failure must be set to on.*	1 - Off ☐ 2 - On ☐
Recent Closings (partition 1-06102, partition 2-06202)	(Default = on) When this setting is on, the panel sends a recent closing report to the central station if an alarm occurs within two minutes *after* the exit delay time expires. Such a report is used to identify a possible exit fault.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Remote Access (partition 1-0211, partition 2-0221)	(Default = on) When this setting is on, the panel can be accessed from an off-site phone.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Reporting Format (Central Station: cs phone 1-0106, cs phone 2-0116, cs phone 3-0126)	(Default = CID) This setting determines whether the panel uses the SIA or CID (Contact ID) reporting format for central station communication.
	
	➢ **To select SIA or CID reporting:**
	♦ With the display showing *REPORTING FORMAT SIA/CID (current setting)*, press ① (for SIA) or ② (for CID) then press #. The display shows the new setting.
		CS Phone 1
		   SIA ☐ CID ☐
		
		CS Phone 2
		   SIA ☐ CID ☐
		
		CS Phone 3
		   SIA ☐ CID ☐

RF Low Bat Rpt (06012)	(Default = weekly) This setting determines whether the panel sends daily or weekly low battery reports to the central monitoring station when a wireless device is reporting a low battery condition to the panel. ➢ **To set RF Low Battery Report to daily or weekly:** ♦ With the display showing *RF LOW BAT RPT DAILY/WEEKLY (current setting)*, press ① (daily) or ② (weekly) then press #. The display shows the new setting.	1 - Daily ☐ 2 - Weekly ☐

Feature Name & Shortcut Number	Description	Setting
RF Supv Report (06013)	(Default = weekly) This setting determines whether the panel sends daily or weekly reports to the central monitoring station when the panel detects a supervisory condition in a wireless device. ➢ **To set RF Supv Report to daily or weekly:** ◆ With the display showing *RF SUPV REPORT DAILY/WEEKLY (current setting)*, press ① (daily) or ② (weekly) then press #. The display shows the new setting.	1 - Daily ☐ 2 - Weekly ☐
RF Tx Timeout (0301)	(Default = 12 hours) This setting determines how many hours (2–24) the panel has to receive at least one signal from a wireless sensor (learned into a supervised group). If the panel does not receive a signal from any supervised wireless sensor within the set time, the panel reports a supervisory condition to the central station. *Note* *For U.L. Listed commercial installations, the RF Tx Timeout must be set to 4 hours. For U.L. Listed residential installations, the RF Tx Timeout must be set to 24 hours.* ➢ **To set the RF Tx Timeout:** ◆ With the display showing *RF TX TIMEOUT NN HOURS (current setting)*, enter the desired timeout value (2–24) then press #. The display shows the new setting.	
Ring/Hang/Ring (partition 1-0212, partition 2-0222)	(Default = on) This setting determines how the panel picks up (seizes) the phone line for Downloader programming or remote access. Select on if an answering machine shares the phone line with the panel. Select off if there is no answering machine sharing the phone line with the panel. *Note* *The Remote Access setting must be turned on for this feature to work.* When this feature is on, the person who is calling the panel must use the following procedure: 1. Listen for one or two full rings. 2. Hang up. 3. Call the premises again within the next 10–40 seconds. The system answers after the first ring. When this feature is off, the system answers after 12 full rings.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Sensor Text (081)	(Default = none) Use the following guidelines to "name" zone and sensor locations: • Use the item numbers that appear in Table A4, "Item Numbers and Sensor Text," on page 43 for characters and words listed there. • If a desired word does not appear in Table A4, create it using the characters (custom text). • When using words from Table A4, spaces between them appear automatically. When using characters from Table A4 to create words, you must reserve an item number for a 'space' after the word. • Each character or word uses up one item number. For example, a word from the list counts as one item number. A created word (such as BOY'S) counts as six item numbers—4 letters, 1 apostrophe, and 1 space. • Only 16 item numbers are allowed for each zone or sensor name, so plan ahead before programming sensor text. You may need to abbreviate words to avoid running out of item numbers. ➢ **To program Sensor Text:** 1. With the display showing *SENSOR TEXT*, press # and the display shows *TEXT FOR SN 01*. 2. Press Ⓐ or Ⓑ until the display shows the desired sensor number (or enter the desired sensor number and press #). 3. Press # and the display shows *SN 1 ITEM 0 0 - _____*. Where *ITEM 0* is the first character/word location and *0* is the character/word number. 4. Enter the number of the desired character or word, or scroll through the numbers by pressing Ⓑ (forward) or Ⓐ (backward). If you make a mistake, simply enter the correct number or continue scrolling through choices. 5. Press # to accept the displayed choice and the display shows *SN 1 ITEM 1 0 -_____*. 6. Repeat steps 4 and 5 as needed to complete the zone or sensor name. 7. Press * after entering the last character or word number. The display shows the complete text name. For example *TEXT FOR SN 01 FRONT ENTRY DOOR*.	
Silent Talkback (0903)	(Default = off) This setting determines whether the central station operator can speak to persons on the premises (on) or only listen (off) during a silent or duress alarm audio session.	1 - Off ☐ 2 - On ☐
Siren Timeout (partition 1-0313, partition 2-0323)	(Default = 4 minutes) This setting determines how long sirens sound (1–30 minutes) if no one is present to disarm the system. *Note* *For UL Listed installations, the Siren Timeout must be set to 4 minutes or more.* ➢ **To set the Siren Timeout:** ♦ With the display showing *SIREN TIMEOUT nn MINUTES (current setting)*, enter the desired time value (1–30) then press #. The display shows the new setting.	Partition 1 _____ Partition 2 _____
Siren Verify (0710)	(Default = off) This setting determines whether or not the panel supervises the panel speaker terminals (7–8). When this feature is on, the panel will indicate a trouble condition if no speaker is connected to panel speaker terminals. *Note* *For UL Listed installations, Siren Verify must be set to on.*	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut Number	Description	Setting
Sleep Time (partition 1-0314, partition 2-0324)	(Default = 22:00 [10:00 pm.]) This setting determines the start time of a 10 hour window during which trouble beeps are suppressed. The initial occurrence of an event that causes trouble beeps within this window will not sound trouble beeps until the Sleep Time window expires. If trouble beeps from a previous event are due to be restarted during the sleep time window, they will be restarted one hour prior to Sleep Time. ➢ **To set the Sleep Time:** ◆ With the display showing *SLEEP TIME HH:MM (current setting)*, enter the desired time value (00:00-23:50 using 10 minute intervals) then press #. The display shows the new setting.	Partition 1 _____ Partition 2 _____
Smoke Verify (1100)	(Default = off) This setting determines whether the panel requires one alarm signal (off) or two alarm signals (on) within five minutes before activating system sirens and reporting to a central station. This setting affects 2-wire and 4-wire smoke detectors connected to SnapCard or onboard zone inputs that are learned into sensor group 26 (Fire). ***Note*** *For California State Fire Marshall (CSFM) Listed installations, Smoke Verify must be set to off.*	1 - Off ☐ 2 - On ☐
Star Is No Delay (partition 1-0514, partition 2-0524)	(Default = off) This setting determines whether the keychain touchpad star button controls an output (off) or the No Delay feature (on).	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
Status Beeps (100nn) nn = Unit ID [00-15]	(Default = on) This setting determines whether or not the selected touchpad sounds status beeps. Each touchpad can be set individually. This feature is usually turned off for a touchpad that is located in or near bedrooms, to avoid disturbing sleeping persons. ➢ **To turn Status Beeps off or on:** 1. With the display showing the desired bus device, press # then Ⓐ or Ⓑ until the display shows *TOUCHPAD OPTIONS*. 2. Press # and the display shows *STATUS BEEPS OFF/ON (current setting)*. 3. Press ① (off) or ② (on) to select the desired setting and then press #. The display shows the new setting. ***Note*** *For UL Listed installations, Status Beeps must be set to on.*	1 - Off ☐ 2 - On ☐
Streamlining (pager 1-0136, pager 2-0146, pager 3-0156, pager 4-0166, pager 5-0176)	(Defaults = on) This setting determines whether the panel includes (off) or excludes (on) the account number when reporting to a pager.	Pager 1-Off ☐ On ☐ Pager 2-Off ☐ On ☐ Pager 3-Off ☐ On ☐ Pager 4-Off ☐ On ☐ Pager 5-Off ☐ On ☐
Supervisory Time (0300)	(Default = randomly between 01:00 and 04:00) This setting determines what time of day the panel sends supervisory, low battery, or auto phone test reports to the central station. ***Note*** *The panel clock must be set with the correct time for accurate Supervisory Time reporting.* ➢ **To set the Supervisory Time:** 1. With the display showing *SUPERVISORY TIME HH:MM (current setting)*, enter the desired 4-digit time value. For example, enter 0330 to set the supervisory time for 3:30 A.M. 2. Press # and the display shows the new setting.	

Feature Name & Shortcut Number	Description	Setting
Swinger Limit (06014)	(Default = 1) This setting determines the maximum number of times (1–2) a sensor or zone can go into alarm (during a single arming period) before the panel automatically bypasses that sensor or zone. This feature only applies to sensors or zones in groups 00–20, 29, 34, or 35. When set to 1, the panel automatically bypasses a sensor or zone after it causes an alarm. When set to 2, the panel waits until a sensor or zone has caused a second alarm (during the same arming period) before bypassing it. At any setting, the automatic bypass is logged into the event buffer. A bypassed sensor or zone will be cleared (automatically unbypassed) if the system receives no further activations from that sensor or zone over the next 48–50 hours. Changing the arming level also clears all automatically bypassed sensors and zones and resets the Swinger Limit count on all sensors and zones. ➢ **To set the Swinger Limit:** ◆ With the display showing *SWINGER LIMIT n (current setting),* press the desired number (1–2) then press #. The display shows the new setting.	
SWS Supv Code (0703)	(Default = 3) This setting determines the system house code number used for supervising wireless sirens. ***Note*** *To supervise wireless sirens, Concord hardwire panels must include a SuperBus 2000 RF Receiver. For all Concord panels, the siren must be learned into sensor group 33 for the system to process radio signals from wireless sirens.* Supervised Wireless Sirens receive signals from the panel through the existing electrical wiring. If sirens fail to receive or process these signals, the siren transmits a wireless signal to the panel/receiver. ***Note*** *You must set both the SWS Supv Code and the partition House Code before plugging in Supervised Wireless Sirens.* ➢ **To set the SWS Supv Code:** ◆ With the display showing *SWS SUPV CODE nnn (current code),* enter the desired code (1–255) then press #. The display shows the new setting.	
System Tamper (partition 1-06109, partition 2-06209)	(Default = off) This setting determines how the panel handles possible tamper situations. When this feature is on, the panel reacts in the following two ways: • The system goes into alarm if several attempts are made to disarm the system with incorrect access codes (40 consecutive keypresses). • The panel reports to the central station if a bus device stops communicating with the panel. ***Note*** *For UL Commercial Listed installations (UL 1610), System Tamper must be set to on.*	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐

Feature Name & Shortcut Number	Description	Setting
Temperature (100nn) nn = Unit ID (00-15)	(Default = none) This setting lets you adjust the Energy Saver Module (ESM) room temperature setting to match the premises thermostat. The adjustable range is from 40°–90°F. ***Note*** *To ensure accuracy, wait at least 15 minutes before setting the ESM temperature to allow the ESM to warm or cool to actual room temperature.* ➢ **To change the ESM Temperature setting:** 1. With the display showing the desired bus device press #, then Ⓐ or Ⓑ until the display shows *ENERGY OPTIONS*. 2. Press # and then Ⓐ or Ⓑ until the display shows *TEMPERATURE nn DEGREES (current setting)*. 3. Enter the desired temperature (40°–90° F) then press #. The display shows the new setting.	
Toll Saver (partition 1-0214, partition 2-0224)	(Defaults = on) This setting determines whether the panel answers a phone call on the eighth ring (on) or twelfth ring (off) when a trouble condition exists.	Partition 1-Off ☐ On ☐ Partition 2-Off ☐ On ☐
TP Panic RPT FMT (06009)	(Default = off) This setting determines how the panel formats touchpad panic alarm reports to the central station. When this feature is turned on, touchpad panic alarms report using the following 3-digit codes: Auxiliary—597, Police—598, Fire—599 When turned off, touchpad panic alarms report using a 3-digit code from 500 to 515, with the last digit identifying the touchpad device number.	1 - Off ☐ 2 - On ☐
Two Trip Error (06008)	(Default = off) This setting works with the Alarm Verify setting (see "Alarm Verify" on page 7). If Alarm Verify is on, then the panel waits for a second sensor trip before sending an alarm. If Two Trip Error is also on and a second sensor trip *does not occur* within a 4-minute time period, then the panel sends an error report to the central monitoring station. ***Note*** *For UL Listed installations, the Two Trip Error feature must be set to off.*	1 - Off ☐ 2 - On ☐
Two Wire Smoke (1101)	(Default = off) This setting determines how onboard hardwire zone 8 is configured. When this setting is on, zone 8 will be configured for two wire smoke detectors. When off, it will be configured for a normal hardwire input.	1 - Off ☐ 2 - On ☐
UL 98 Options (0702)	(Default = off) This setting determines whether the panel complies with UL 98 requirements (4-hour trouble beep restart, 4-hour backup battery test, 4-hour smoke (group 26) zone supervisory). ***Note*** *For UL Listed installations, UL 98 Options must be set to on.*	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut Number	Description	Setting

Unit - ID
(100nn)
 	
nn = Unit ID (00-15)
	(Default = none) This menu lets you identify all connected bus devices, view each Unit Number, view the Device ID number, and configure other settings based on a specific device. This menu also lets you delete learned bus devices.
	
	➢ **To identify bus device Unit and ID:**
	1. With the display showing *BUS DEVICES*, press #. The display shows the bus Unit Number and the 8-digit Device ID number. For example, *UNIT - ID 0—02110185.* Where *0* is the Unit Number and *02110185* is the Device ID number.
	
	    Note
	    To help identify bus devices, the 8-digit Device ID number is also located on a label on each SuperBus 2000 device.
	
	2. Press Ⓐ or Ⓑ to identify all other bus Unit Numbers (0–15) and Device ID numbers.
	
	➢ **To delete learned Unit Numbers:**
	1. With the display showing *BUS DEVICES*, press #. The display shows the bus device set to Unit Number 0.
	2. Press Ⓐ or Ⓑ until the bus device Unit Number you want to delete is displayed.
	3. Press Ⓓ. The display changes the Device ID to *NONE.*	

Zone Restorals (06007)	(Default = off) When this setting is on, the panel reports a restoral to the central monitoring station for wireless or hardwire zones in alarm that are restored before the alarm is canceled. This option also controls the hardwired smoke detector reset report. When this setting is on. the panel will send a report to the central station when all detectors have been successfully reset.	1 - Off ☐ 2 - On ☐

Exiting Programming Mode

After all installer/dealer programming is completed, use the following procedure to exit programming mode.

➢ **To exit programming mode:**
1. Press ∗ until the display shows *SYSTEM PROGRAMMING.*
2. Press Ⓐ or Ⓑ until the display shows *EXIT PROGRAMMING READY.*
3. Press # and the touchpad displays the *TIME AND DATE.*

Entering User Programming Mode

Enter user programming mode from an alphanumeric or fixed display touchpad by pressing Ⓖ + system master ⒸⓄⒹⒺ. The display shows *TIME AND DATE.*

Setting User Programming Mode Features

Table 6 describes the user programming mode features with the associated shortcut number and lets you fill in the desired system setting.

Table 6: User Programming Mode Features

Feature Name & Shortcut No.	Description	Setting
Arming (0660nn) nn = Schedule number [00 to 15]	(Default = off) This setting lets you arm to Level 3—AWAY according to a time schedule.	
Chime On Close (045)	(Default = off) When this setting is on, the panel sounds a single chime when a perimeter door or window is closed.	1 - Off ☐ 2 - On ☐
Date (021)	(Default = 01/01/00) This setting lets you adjust the panel calendar to the correct month, day, and year. ➢ **To set the Date:** ◆ With the display showing *DATE nn/nn/nn (current date)*, enter the correct month (01–12), day (01–31), and year (00–99). For example, enter 090100 for September 1, 2000, then press #. The display shows the new date.	
Direct Bypassing (030nn1) nn = User number [00-59]	(Default = off) This setting determines whether or not a specific user code provides access to the "bypass sensors" feature. Set this feature to "on" for all users who need to be able to bypass sensors.	
Downloading (040)	(Default = on) When this setting is on, the panel can communicate with ToolBox® software for programming the system from off-site. *Note* *For this feature to work, the panel must be connected to a phone line and be programmed with Remote Access on.*	1 - Off ☐ 2 - On ☐
Exception Reports (Opening-062nn, Closing-063nn) nn = Schedule number [00 to 15]	(Default = off) This setting lets you attach the Exception Opening report feature and the Exception Closing report feature to time schedules. ➢ **To Attach a Schedule to Exception Opening or Exception Closing:** 1. Press Ⓐ or Ⓑ until the display shows *ATTACH SCHEDULES TO EVENTS*. 2. Press # then Ⓐ or Ⓑ until the display shows *EXCEPTION OPENING OR EXCEPTION CLOSING*. 3. Press # and the display shows *SCHEDULE 00 OFF/ON (current setting)*. If you want a different schedule, press Ⓐ or Ⓑ until the desired schedule appears. 4. Press ① (off) or ② (on) then press #. The display shows the new setting for the selected schedule.	
High Setpoint (071)	(Default = 90°F) This setting determines the temperature at which the energy saver module relay closes to activate the air-conditioner. *Note* *The High Setpoint cannot be set equal to or lower than the Low Setpoint.* ➢ **To set the High Setpoint:** ◆ With the display showing *HIGH SETPOINT NN DEGREES (current setting)*, enter the desired temperature (46–90°) then press #. The display shows the new setting.	
Latchkey Report (030nn5) nn = User number [00-59]	(Defaults: 00–05 = on, 06–59 = off) This setting determines whether or not the user code causes a latchkey report to be sent to a pager when the code is used to change arming levels.	

Table 6: User Programming Mode Features (Continued)

Feature Name & Shortcut No.	Description	Setting
Latchkey Reports (060nn—Opening, 061nn—Closing) nn = Schedule number [0 to 15]	(Defaults = off) This setting lets you attach the Latchkey Opening report feature and the Latchkey Closing report feature to time schedules.	
Light x to Sensor Y (08n) n = Light number [1–9] minus 1	(Default = 0) This menu attaches light x to sensor y. Each time a selected sensor is tripped, the selected light will turn on and a 5 minute timer will start. *Note* *The sensor must be learned into the current partition before it can be attached.* ➢ **To attach a Light to a Sensor:** 1. With the display showing *LIGHT 1 TO SENSOR Y (current setting)*, press Ⓐ or Ⓑ to select the desired light number. 2. Enter the desired sensor number (01–76) then press #. The display shows the new setting. 3. Repeat steps 1 through 2 until all desired lights are attached to sensors. ➢ **To detach a Light from a Sensor:** 1. With the display showing *LIGHT 1 TO SENSOR Y (current setting)*, press Ⓐ or Ⓑ to select the desired light number. 2. Enter 0 as the sensor number and press #.	
Lights (064xnn) x = Light number [1 to 9] minus 1, and nn = Schedule number [00 to 15]	(Default = off) This setting lets you attach light controls to a time schedule.	
Low Setpoint (070)	(Default = 50°F) This setting determines the temperature at which the energy saver module relay closes to activate the furnace. *Note* *The Low Setpoint cannot be set equal to or higher than the High Setpoint.* ➢ **To set the Low Setpoint:** ◆ With the display showing *LOW SETPOINT nn DEGREES (current setting)*, enter the desired temperature (45–89°) then press #. The display shows the new setting.	
Outputs (065xnn) x = Output number [1 to 6] minus 1, and nn = Schedule number [00 to 15]	(Default = off) This setting lets you attach outputs to a time schedule. Onboard outputs are 1–2, SnapCard outputs are 3–6. *Note* *Outputs can only be scheduled if text has been entered in installer programming. Only onboard and SnapCard outputs can be scheduled.*	
Partition Jump (030nn3) nn = User number [00-59]	(Default = off) This setting determines whether or not a specific user code can access one or both partitions. When this is set to on, the user can access both partitions.	

Feature Name & Shortcut No.	Description	Setting
Partition Master (partition 1: 0310, partition 2: 0311)	(Defaults = none) The Partition Master Code provides access to all system operations and user programming *for a single partition*. *Note* *You must be "in" the partition of the partition master code you wish to change.* ➢ **To change the Partition Master Code:** ◆ Enter a new 4-digit code then press #. The display shows the new code.	Partition 1 _____ Partition 2 _____
Remote Access (030nn2) nn = User number [00-59]	(Default = off) This setting determines whether or not the user can access the panel from a remote phone (a phone located off the premises).	
System Master (0320)	(Default = 1234) The System Master Code provides access to all system operations and user programming. ➢ **To change the System Master Code:** ◆ Enter a new 4-digit code then press #. The display shows the new code.	
System Tests (030nn4) nn = User number [00-59]	(Default = off) This setting determines whether or not a specific user code provides access to the phone and sensor tests. Set this feature to "on" for all users who need to be able to conduct phone and sensor tests.	
Set Up Schedules (05XXY) XX = Schedule number [00 to15], and Y = Start time (0), or Stop time (1) Monday thru Sunday (2–8)	(Default = 00:00) This menu lets you set up start/stop times for each day of the week. ➢ **To set up a Time Schedule:** 1. With the display showing *SET UP SCHEDULES*, press # and the display shows *SCHEDULE 00*. If you want a different schedule number, press Ⓐ or Ⓑ until the desired schedule number appears. 2. Press # and the display shows *START TIME hh:mm (current setting)*. 3. Enter the desired starting time (00:00–23:59) then press #. The display shows *START TIME hh:mm (new setting)*. 4. Press Ⓑ and the display shows *STOP TIME hh:mm (current setting)*. 5. Enter the desired stop time (00:00–23:59 then press #. The display shows *STOP TIME hh:mm (new setting)*. 6. Press Ⓑ and the display shows *MONDAY OFF/ON (current setting)*. To select a different day, continue pressing Ⓑ until the desired day appears. 7. Press ① (off) or ② (on) then press #. The display shows *THE NEW SETTING FOR THE SELECTED DAY*. 8. Repeat steps 7 and 8 until all desired settings for each day are set. 9. Repeat steps 1-8 until all desired schedules are set up.	
Silent Arming (041)	(Default = off) This setting determines whether or not the panel sounds status beeps from sirens and the touchpad when the system is armed. *Note* *When this feature is on, the user does not need to press 5 (Silent) before arming the system to prevent status sounds.*	1 - Off ☐ 2 - On ☐

Feature Name & Shortcut No.	Description	Setting
System Version (factory code-010, system number-011, system level-012)	(Default = N/A) This menu lets you view and identify panel hardware and software version. ➢ **To view and identify the System Version:** 1. With the display showing *SYSTEM VERSION*, press # and the display shows *FACTORY CODE nnn*nnnn*. 2. Press Ⓑ and the display shows *SYSTEM NUMBER *nnnnnnn*. 3. Press Ⓑ again and the display shows *SYSTEM LEVEL nnnn*.	
Time (020)	(Default = 00:00) This setting lets you adjust the panel clock to the correct time. The panel uses a 24-hour clock. For example, to set the time to 4:17 P.M., enter 1617. ➢ **To set the Time:** ◆ With the display showing *TIME hh:mm (current time)*, enter the correct time (0000–2359) then press #. The display shows the new time.	
Touchpad Brightness (042)	(Default = 2) This setting lets the user lighten or darken the background on touchpad displays. Each touchpad can be set to compensate for lighting conditions in the touchpad location. ➢ **To adjust Touchpad Brightness:** ◆ With the display showing *TOUCHPAD BRIGHTNESS n (current setting)*, enter a setting from 0 (darkest background) to 3 (brightest background) then press #. The display shows the new setting.	

Table 6: User Programming Mode Features (Continued)

Feature Name & Shortcut No.	Description	Setting
User Codes (030nn0) nn = User number [00-59]	(Default = none) User codes perform basic arming and disarming functions. The system allows up to 60 user codes (user numbers 00–59). User numbers that show **** indicate no code is currently programmed for that user number. ➢ **To program Regular User Codes:** ◆ With the display showing *USER nn - nnnn,* enter a 4-digit user code then press #. The display shows *USER nn - nnnn (new code).* ➢ **To delete Regular User Codes:** ◆ With the display showing *USER nn - nnnn,* enter the system or partition master code then press #. The display shows *USER nn -- **** (no code).*	User 00_____ User 01_____ User 02_____ User 03_____ User 04_____ User 05_____ User 06_____ User 07_____ User 08_____ User 09_____ User 10_____ User 11_____ User 12_____ User 13_____ User 14_____ User 15_____ User 16_____ User 17_____ User 18_____ User 19_____ User 20_____ User 21_____ User 22_____ User 23_____ User 24_____ User 25_____ User 26_____ User 27_____ User 28_____ User 29_____ User 30_____ User 31_____ User 32_____ User 33_____ User 34_____ User 35_____ User 36_____ User 37_____ User 38_____ User 39_____ User 40_____ User 41_____ User 42_____ User 43_____ User 44_____ User 45_____

Feature Name & Shortcut No.	Description	Setting
User Codes (Continued) (030nn0) nn = User number [00-59]		User 46_____ User 47_____ User 48_____ User 49_____ User 50_____ User 51_____ User 52_____ User 53_____ User 54_____ User 55_____ User 56_____ User 57_____ User 58_____ User 59_____
Voice Chime (044)	(Default = on) This setting determines whether speakers connected to the Phone Interface/Voice Module announce perimeter sensor/zone numbers that are tripped when the Chime feature is on. For example, "Sensor one open." ***Note*** *This menu appears only if a Phone Interface/Voice Module is connected to the panel.*	1 - Off ☐ 2 - On ☐
Volume (043)	(Default = 4) This setting determines the volume level of status sounds from speakers connected to the Phone Interface/Voice Module. ***Note*** *This menu appears only if a Phone Interface/Voice Module is connected to the panel.* ➢ **To adjust status sound Volume:** ◆ With the display showing *VOLUME n (current setting)*, enter a setting from 0 (off) to 7 (loudest) then press #. The display shows the new setting.	

Appendix A: System Planning Worksheets

Table A1: Hardwire Devices

Part No.	Description	Qty.	mA (Max.)	Sub Total
Hardwire Sensors/Detectors				
13-068	Magnetic Contact 3/8" press fit		N/A	
13-070	Magnetic Contact – surface mount		N/A	
N/A	System Sensor models 2100D, 2100TD, 2100S, 2100TS, 2400, or 2400TH or ESL series 429AT, 521B or 521BXT		10 mA	
13-082	PIR Motion Detector		10 mA	
Sirens				
60-736*	Supervised Wireless Siren		N/A	
60-483-01	Slim Line Hardwire Interior Siren		120 mA	
13-046	Hardwire Exterior Siren		145 mA	
SuperBus 2000/Miscellaneous Components				
60-746-01	2x16 LCD Alphanumeric Touchpad		90 mA	
60-820	Fixed Display LCD Touchpad		30 mA	
60-803	2x20 LCD Alphanumeric Touchpad		120 mA	
60-804	2x20 VFD Alphanumeric Touchpad		120 mA	
60-777-01	Phone Interface/Voice Module		600 mA	
60-764-01-95R	RF Receiver		30 mA	
60-755	Power Line Carrier Card		110 mA	
60-756	4 Input/2 Output SnapCard		185 mA	
60-757	8Z Hardwire Zone Expander SnapCard		230 mA	
60-758	4 Output SnapCard		130 mA	
60-774	Hardwire Input Module		18 mA	
60-770	Hardwire Output Module		91 mA	
60-620-01	Energy Saver Module		20 mA	
60-677*	Interrogator 200 Audio Verification Module		10 mA	
60-850 Standard	Cellular Backup Module		1600 mA	
60-850-01 High Power			1900 mA	
60-783-02	Automation Module		35 mA	
Total power consumption:				mA
Total power consumption using 30 VA transformer and 4.0 AH backup battery not to exceed:				1,000 mA
Total power consumption using 50 VA transformer and 7.0 AH backup battery not to exceed:				2,000 mA

* These devices not listed, investigated, or verified by UL.

† Listed, but not tested for compatibility by UL.

Table A2: Zone and Sensor Assignments

No.	RF Zone	Module Bus ID Number	Module Input Number	Group	Partition	Zone/Sensor Text
01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
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27						
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34						
35						
36						
37						
38						
39						
40						
41						
42						
43						

No.	RF Zone	Module Bus ID Number	Module Input Number	Group	Partition	Zone/Sensor Text
44						
45						
46						
47						
48						
49						
50						
51						
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53						
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55						
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75						
76						

Table A3: Sensor Group Characteristics

No.	Name	Application	Alarm	Delay	Restoral	Supervisory	CS Report	Chime (Level 1 only)	Active Levels
00	Fixed Panic	24-hour audible fixed emergency buttons.	Police	Instant		√	√		1, 2, 3
01	Portable Panic	24-hour audible portable emergency buttons.	Police	Instant			√		1, 2, 3
02	Fixed Panic	24-hour silent fixed emergency buttons.	Silent	Instant		√	√		1, 2, 3
03	Portable Panic	24-hour silent portable emergency buttons.	Silent	Instant			√		1, 2, 3
04	Fixed Auxiliary	24-hour auxiliary sensor, such as Pendant Panic or holdup button.	Auxiliary	Instant		√	√		1, 2, 3
05	Fixed Auxiliary	24-hour auxiliary emergency button. Siren shutoff confirms CS report.	Auxiliary	Instant		√	√		1, 2, 3
06	Portable Auxiliary	24-hour portable auxiliary alert button.	Auxiliary	Instant			√		1, 2, 3
07	Portable Auxiliary	24-hour portable auxiliary button. Siren shutoff 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	Entry and exit doors 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	Driveway gates and entrances 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
17	Instant Interior	PIR motion sensors. *	Police	Follower		√	√		3
18	Instant Interior	PIR motion sensors subject to false alarms. * †	Police	Follower		√	√		3
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-hour local alarm zone protecting anything that opens and closes.	Police	Instant	√	√			1, 2, 3
22	Local Delayed Interior	Same as group 21, plus activation initiates a delay before going into alarm.	Police	Standard	√	√			1, 2, 3
23	Local Instant Auxiliary	24-hour local alarm zone protecting anything that opens and closes. ‡	Auxiliary	Instant	√	√			1, 2, 3
24	Local Instant Auxiliary	24-hour 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

Table A3: Sensor Group Characteristics (Continued)

No.	Name	Application	Alarm	Delay	Restoral	Supervisory	CS Report	Chime (Level 1 only)	Active Levels
26	Fire	24-hour fire, rate-of-rise heat, and smoke sensors.	Fire	Instant	√	√	√		1, 2, 3
27	Output Module	Hardwire Output Module (HOM) lamp control or other customer feature. ‡	Silent	Instant	√	√			1, 2, 3
28	Output Module	HOM, PIR motion sensor, sound sensor, or pressure mat. ‡	Silent	Instant		√			1, 2, 3
29	Auxiliary	Freeze sensor.	Auxiliary	Instant	√	√	√		1, 2, 3
32	Output Module	HOM, PIR motion sensor, sound sensor, or pressure mat.‡	Silent	Instant					
33	Siren	Wireless Siren Supervision. ‡	Silent	Instant		√	√		1, 2, 3
34	Gas	Carbon monoxide (CO) Gas Detectors ‡	Auxiliary	Instant	√	√	√		1, 2, 3
35	Local Instant Police (Day Zone)	Local alarm in levels 1 and 2. Report to CS in level 3.	Police	Instant	√	√	√ (level 3 only)		1, 2, 3

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

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

† Sounds instant police siren if two or more sensors are tripped within 4 minutes. Otherwise sensors are followers to delayed sensors. If Alarm Verification is on, group 18 functions like group 17.

‡ This group has not been investigated by UL.

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

Table A4: Item Numbers and Sensor Text

Item Number	Sensor Text	Item Number	Sensor Text	Item Number	Sensor Text	Item Number	Sensor Text
001	Aborted	040	Control	079	Gallery	118	Mother's
002	AC	041	Date	080	Garage	119	Motion
003	Access	042	Daughter's	081	Gas	120	No
004	Active	043	Degrees	082	Glass	121	North
005	Activity	044	Delay	083	Goodbye	122	Not
006	Alarm	045	Den	084	Hallway	123	Now
007	All	046	Desk	085	Heat	124	Number
008	AM	047	Detector	086	Hello	125	Off
009	Area	048	Dining	087	Help	126	Office
010	Arm	049	Disarmed	088	High	127	OK
011	Armed	050	Door	089	Home	128	On
012	Arming	051	Down	090	House	129	Open
013	Attic	052	Download	091	In	130	Opening
014	Auxiliary	053	Downstairs	092	Install	131	Panic
015	Away	054	Drawer	093	Interior	132	Partition
016	Baby	055	Driveway	094	Intrusion	133	Patio
017	Back	056	Duct	095	Invalid	134	Pet
018	Bar	057	Duress	096	Is	135	Phone
019	Basement	058	East	097	Key	136	Please
020	Bathroom	059	Energy Saver	098	Kids	137	PM
021	Battery	060	Enter	099	Kitchen	138	Police
022	Bedroom	061	Entry	100	Latchkey	139	Pool
023	Bottom	062	Error	101	Laundry	140	Porch
024	Breezeway	063	Exit	102	Left	141	Power
025	Building	064	Exterior	103	Level	142	Press
026	Bus	065	Factory	104	Library	143	Program
027	Bypass	066	Failure	105	Light	144	Progress
028	Bypassed	067	Family	106	Lights	145	Quiet
029	Cabinet	068	Father's	107	Living	146	Rear
030	Canceled	069	Feature	108	Load	147	Receiver
031	Car	070	Fence	109	Loading	148	Report
032	Carbon Monoxide	071	Fire	110	Low	149	RF
033	Central	072	First	111	Lower	150	Right
034	Chime	073	Floor	112	Main	151	Room
035	Closed	074	Force	113	Master	152	Safe
036	Closet	075	Foyer	114	Mat	153	Schedule
037	Closing	076	Freeze	115	Medical	154	Screen
038	Code	077	Front	116	Memory	155	Second
039	Computer	078	Furnace	117	Menu	156	Sensor

Table A4: Item Numbers and Sensor Text (Continued)

Number	Text	Number	Text	Number	Text	Number	Text
157	Service	176	To	194	9	212	R
158	Shed	177	Touchpad	195	A	213	S
159	Shock	178	Trouble	196	B	214	T
160	Side	179	Unbypass	197	C	215	U
161	Siren	180	Unit	198	D	216	V
162	Sliding	181	Up	199	E	217	W
163	Smoke	182	West	200	F	218	X
164	Son's	183	Window	201	G	219	Y
165	Sound	184	Zone	202	H	220	Z
166	South	185	0	203	I	221	(space)
167	Special	186	1	204	J	222	'(apostrophe)
168	Stairs	187	2	205	K	223	- (dash)
169	Stay	188	3	206	L	224	_ (underscore)
170	Supervisory	189	4	207	M	225	*
171	System	190	5	208	N	226	#
172	Tamper	191	6	209	O	227	:
173	Temperature	192	7	210	P	228	/
174	Test	193	8	211	Q	229	?
175	Time						

Table A5: System Event Trigger Numbers

System Event	Description	Trigger No.
Null Trigger (used for direct control)	Activated only by schedule or direct command.	000
Fire Alarm	When Fire sirens are started.	001
Police Alarm	When Police sirens are started.	002
Auxiliary Alarm	When Auxiliary sirens are started.	003
Any Audible Alarm	When any of the above sirens are started.	004
Silent Alarm (sensor groups 2, 3, and duress)	When a sensor in group 2 or 3 goes into alarm or when a duress alarm is activated (does not include groups 25, 27, 28, or 32).	005
Any Audible or Silent Alarm	When any alarm is started (does not include groups 25, 27, 28, or 32).	006
HOM Group 27, 28, 32 in Alarm	When a sensor in group 27, 28, or 32 goes into alarm.	007
Major Trouble (phone or receiver failure)	When a receiver failure (S94) or a phone failure (S96) occurs.	008
Arming to STAY or AWAY	When the panel is armed to level 2 or 3.	009
Arming to AWAY	When the panel is armed to level 3.	010
AVM is Interactive (audio session in progress)	When the central station operator begins listening or talking to the premises.	011
Fail-to-Communicate (panel can't call CS or pager)	When the fail-to-communicate output is activated.	012
AVM Trip (edge)	When an AVM alarm occurs, output is activated momentarily.	013
Keychain Touchpad Star Button-Press	When the star button on a keychain touchpad is pressed.	014

Table A5: System Event Trigger Numbers (Continued)

System Event	Description	Trigger No.
Smoke Power (for resetting 4-wire smoke detectors)	Deactivated when hardwire smoke detectors need to be reset.	015
Exterior Siren	Activated for police or fire alarms.	016
Interior Siren	Activation follows all system noises	017
AVM Trip (pulse)	When an AVM alarm occurs, output is deactivated for 10 ms	018
State of System Status	Follows the state of system status (ready or trouble).	019
Tamper Condition	When any tamper is tripped	020
Closing Report Sent	When a closing report has been successfully transmitted to the central station.	021
Group XX in Alarm	When any sensor in group XX goes into alarm	see Table A6
Sensor XX in Alarm	When sensor number XX goes into alarm	see Table A7
Sensor XX Open	When sensor number XX is opened	see Table A7

Table A6: Sensor Group Event Trigger Numbers

Sensor Group	Trigger No.
Group 00 in alarm	064
Group 01 in alarm	065
Group 02 in alarm	066
Group 03 in alarm	067
Group 04 in alarm	068
Group 05 in alarm	069
Group 06 in alarm	070
Group 07 in alarm	071
Group 08 in alarm	072
Group 09 in alarm	073
Group 10 in alarm	074
Group 11 in alarm	075
Group 12 in alarm	076
Group 13 in alarm	077
Group 14 in alarm	078
Group 15 in alarm	079
Group 16 in alarm	080
Group 17 in alarm	081
Group 18 in alarm	082
Group 19 in alarm	083
Group 20 in alarm	084
Group 21 in alarm	085
Group 22 in alarm	086
Group 23 in alarm	087

Table A6: Sensor Group Event Trigger Numbers (Continued)

Sensor Group	Trigger No.
Group 24 in alarm	088
Group 25 in alarm	089
Group 26 in alarm	090
Group 27 in alarm	091
Group 28 in alarm	092
Group 29 in alarm	093
Group 32 in alarm	096
Group 33 in alarm	097
Group 34 in alarm	098
Group 35 in alarm	099

Table A7: Sensor Number Event Trigger Numbers

Sensor Number	State	Trigger No.	State	Trigger No.
Sensor 01	in alarm	129	open	257
Sensor 02	in alarm	130	open	258
Sensor 03	in alarm	131	open	259
Sensor 04	in alarm	132	open	260
Sensor 05	in alarm	133	open	261
Sensor 06	in alarm	134	open	262
Sensor 07	in alarm	135	open	263
Sensor 08	in alarm	136	open	264
Sensor 09	in alarm	137	open	265
Sensor 10	in alarm	138	open	266
Sensor 11	in alarm	139	open	267
Sensor 12	in alarm	140	open	268
Sensor 13	in alarm	141	open	269
Sensor 14	in alarm	142	open	270
Sensor 15	in alarm	143	open	271
Sensor 16	in alarm	144	open	272
Sensor 17	in alarm	145	open	273
Sensor 18	in alarm	146	open	274
Sensor 19	in alarm	147	open	275
Sensor 20	in alarm	148	open	276
Sensor 21	in alarm	149	open	277
Sensor 22	in alarm	150	open	278
Sensor 23	in alarm	151	open	279
Sensor 24	in alarm	152	open	280
Sensor 25	in alarm	153	open	281
Sensor 26	in alarm	154	open	282
Sensor 27	in alarm	155	open	283
Sensor 28	in alarm	156	open	284

Table A7: Sensor Number Event Trigger Numbers (Continued)

Sensor Number	State	Trigger No.	State	Trigger No.
Sensor 29	in alarm	157	open	285
Sensor 30	in alarm	158	open	286
Sensor 31	in alarm	159	open	287
Sensor 32	in alarm	160	open	288
Sensor 33	in alarm	161	open	289
Sensor 34	in alarm	162	open	290
Sensor 35	in alarm	163	open	291
Sensor 36	in alarm	164	open	292
Sensor 37	in alarm	165	open	293
Sensor 38	in alarm	166	open	294
Sensor 39	in alarm	167	open	295
Sensor 40	in alarm	168	open	296
Sensor 41	in alarm	169	open	297
Sensor 42	in alarm	170	open	298
Sensor 43	in alarm	171	open	299
Sensor 44	in alarm	172	open	300
Sensor 45	in alarm	173	open	301
Sensor 46	in alarm	174	open	302
Sensor 47	in alarm	175	open	303
Sensor 48	in alarm	176	open	304
Sensor 49	in alarm	177	open	305
Sensor 50	in alarm	178	open	306
Sensor 51	in alarm	179	open	307
Sensor 52	in alarm	180	open	308
Sensor 53	in alarm	181	open	309
Sensor 54	in alarm	182	open	310
Sensor 55	in alarm	183	open	311
Sensor 56	in alarm	184	open	312
Sensor 57	in alarm	185	open	313
Sensor 58	in alarm	186	open	314
Sensor 59	in alarm	187	open	315
Sensor 60	in alarm	188	open	316
Sensor 61	in alarm	189	open	317
Sensor 62	in alarm	190	open	318
Sensor 63	in alarm	191	open	319
Sensor 64	in alarm	192	open	320
Sensor 65	in alarm	193	open	321
Sensor 66	in alarm	194	open	322
Sensor 67	in alarm	195	open	323
Sensor 68	in alarm	196	open	324
Sensor 69	in alarm	197	open	325

Table A7: Sensor Number Event Trigger Numbers (Continued)

Sensor Number	State	Trigger No.	State	Trigger No.
Sensor 70	in alarm	198	open	326
Sensor 71	in alarm	199	open	327
Sensor 72	in alarm	200	open	328
Sensor 73	in alarm	201	open	329
Sensor 74	in alarm	202	open	330
Sensor 75	in alarm	203	open	331
Sensor 76	in alarm	204	open	332

Table A8: System Feature Event Trigger Numbers

Feature	State	Trigger No.
Phone Test	initiated	225
AC Failure	for 15 minutes	226
CPU Low Battery	detected (excluding first minute after power-up)	227
Auto Phone Test	begun	228
Receiver Failure	detected	229
Back In Service	alarm (AC loss, battery drain, then AC restore)	230
Phone Failure	detected	231
Buffer Full	detected	232
Two Trip Error	detected	233
System Tamper	alarm (40 incorrect code entry keystrokes)	236
Freeze	alarm	237
No Activity	alarm	238
Fire Panic	alarm	239
Police Panic	alarm	240
Auxiliary Panic	alarm	241
Opening Report	occurred	242
Closing Report	occurred	243
Latchkey Opening or Closing	occurred	244
Duress	alarm	245
Force Armed Report	occurred	246
Fire in Partition	alarm	247
Recent Closing Report	occurred	248
Sensor Test	entered	249

Table A9: Response Numbers

Siren Tracking	Trip Delay	Response Time	Response No.
no	no	momentary	00
no	no	3 minutes[5]	01
no	no	siren time[2]	02
no	no	sustained[3]	03
no	yes[4]	momentary	04
no	yes[4]	3 minutes[5]	05
no	yes[4]	siren time[2]	06
no	yes[4]	sustained[3]	07
yes[1]	no	momentary	08
yes[1]	no	3 minutes[5]	09
yes[1]	no	siren time[2]	10
yes[1]	no	sustained[3]	11
yes[1]	yes[4]	momentary	12
yes[1]	yes[4]	3 minutes[5]	13
yes[1]	yes[4]	siren time[2]	14
yes[1]	yes[4]	sustained[3]	15

Notes for Table A9 Response Numbers

Note
The mechanical lifetime of the relay may be exceeded if an output is set up for a siren tracking response and a pulsing siren (auxiliary or fire) is active for long time periods. A SnapCard relay output's lifetime expectancy is about 350 total pulsing hours.

1. If an event does not trigger sirens, siren tracking response numbers activate without turning on the output. If sirens are triggered by another event, the output pulses to match the siren.

    If the siren cadence changes (from police to fire, for example), outputs set up for siren tracking change to match the siren and all pulsing outputs pulse to one common cadence.

2. If an event does not trigger sirens, siren time response times activate outputs only if sirens are active for another reason.

3. If an alarm event does not necessarily require disarming (no activity, closing report, etc.), outputs set up for a sustained response time remain activated until the next arming level change.

4. If an event occurs that activates an output set up for trip delay, the delay and output activation can be canceled by trigger event restoral.

Note
The trip delay is factory set for 30 seconds and cannot be changed.

5. Activated outputs set up for a 3-minute response time remain active for the entire three minutes. To deactivate the output before the 3-minute time expires, you must enter program mode or remove panel power.

    Activated outputs set up for a momentary or 3-minute response time restart if the same trigger event occurs again.

System Wiring Notes

Note 1   Class II power transformer must be plugged into an unswitched AC power receptacle. Do not short the transformer terminals together. The transformer contains an internal fuse that permanently disables the output if the terminals are shorted.

Note 2   An alphanumeric touchpad is required for on-site programming.

Note 3   Speaker terminals 7 and 8 activate only for alarms in partition 1. Use speakers with an 8-ohm or higher impedance. When connecting two or more 8-ohm speakers, they must be wired in series as shown in the wiring diagram. Wiring two or more 8-ohm speakers in parallel can permanently damage the panel.

Note 4   Onboard outputs 1 and 2 are open-collector type rated for 200 mA maximum. Output 1 defaults to configuration number 01614 (exterior siren). Output 2 defaults to configuration number 01710 (interior siren). Refer to panel installation instructions for all possible settings.

Note 5   Zone (loop) wiring shown is an example that applies to all zones (except when zone 8 is configured for 2-wire smoke detectors). Install EOL resistors across all unused zone (loop) inputs.

Note 6   For UL Listed installations, wire multiple supervised hardwire smoke detectors (10 maximum) only as shown. Maximum 10 uA current draw per detector. Maximum 80 mA current draw in alarm.

Note 7   Some telephones are polarity-sensitive. Green and red wires may need to be reversed.

Note 8   A maximum of two Audio Verification Modules (60-677) are allowed (partition 1 only). Wire multiple speakers in series, and power and microphone wires in parallel. Use shielded cable where shown in diagram to prevent cross-talk between the speaker and microphone. Audio Verification Modules shall not be used in UL Listed installations.

Note 9   Connect multiple piezo sirens in parallel. Slim Line Hardwire Interior Siren status volume switch settings have no effect.

Note 10   Refer to the *SuperBus 2000 Energy Saver Module Installation Instructions* for thermostat wiring details.

Note 11   Wire Hardwire Module zone (loop) inputs as shown for the panel. Install EOL resistors across all unused zone (loop) inputs. Refer to the *Module Installation Instructions* for complete details.

SYSTEM WIRING DIAGRAM
(See notes on other side.)

ALL PANEL TERMINAL CONNECTIONS ARE CLASS II POWER LIMITED

8690G13A.DSF

Panel terminals (left side):
- 1 — 24 VAC
- 2 — 24 VAC
- 3 — GND (BLACK)
- 4 — +12 BUS (RED)
- 5 — BUS A (GREEN)
- 6 — BUS B (WHITE)
- 7 — SPEAKER
- 8 — SPEAKER
- 9 — OUTPUT 1
- 10 — OUTPUT 2
- 11 — MIC. IN
- 12 — ZONE 1
- 13 — ZONE 2
- 14 — GND
- 15 — ZONE 3
- 16 — ZONE 4
- 17 — GND
- 18 — ZONE 5
- 19 — ZONE 6
- 20 — GND
- 21 — ZONE 7
- 22 — ZONE 8 2-WIRE SMOKE IN
- 23 — 2-WIRE SMOKE POWER +
- 24 — TELCO TIP (GREEN)
- 25 — HOUSE TIP (BROWN)
- 26 — HOUSE RING (GRAY)
- 27 — TELCO RING (RED)

NOTE 1: CLASS II POWER TRANSFORMER 60-761, 60-762, 60-778, or 60-779

CLASS II 24 VAC 30 OR 50 VA

NOTE 2: SUPERBUS 2000 FIXED DISPLAY TOUCHPAD (60-820) OR 2X16 LCD ALPHANUMERIC TOUCHPAD (60-746-01)

NOTE 3: 13-060 (15 WATT) 8 - OHM SPEAKER

NOTE 3: 2 8-OHM SPEAKERS IN SERIES (16 OHMS)

NOTE 4

NOTE 3: HARDWIRE INTERIOR SPEAKER 60-528

NOTE 3: AUDIO VERIFICATION MODULE, 60-677
NOTES 3 & 8:

NOTE 5: NORMALLY CLOSED (N/C) CONTACTS IN SERIES

2k Ohm EOL RESISTOR 49-454 (LOCATE AT LAST DEVICE)

NOTE 5: NORMALLY OPEN (N/O) CONTACTS IN PARALLEL
2k Ohm EOL RESISTOR 49-454

NOTE 5: PIR MOTION SENSOR 13-082
2k Ohm EOL RESISTOR 49-454 (LOCATE AT SENSOR)

NOTE 6: 2-WIRE HARDWIRE SMOKE/HEAT DETECTOR (10 MAXIMUM)
2k Ohm EOL RESISTOR 49-454 (LOCATE AT LAST DETECTOR)

NOTE 7: RJ-31X (CA-38A) PHONE JACK

DB-8 CORD

TELCO PROTECTOR BLOCK
RING TIP
RING (-) RED
TIP (+) GRN

RJ31X PHONE LINE WIRE RUN

PHONE CONNECTIONS

TO PREMISES PHONES

NOTES 4 & 9: HARDWIRE EXTERIOR SIREN 13-046

NOTES 4 & 9: SLIM LINE HARDWIRE INTERIOR SIREN 60-483-01
HIGH GND LOW
NOT USED

TO PANEL TERMINAL 4

TO PANEL TERMINALS 7 & 8 OR PHONE INTERFACE/VOICE MODULE TERMINALS 6 & 7

SEPARATE WIRE CABLES

CABLE SHIELD WIRE

NOTES 3 & 7: SUPERBUS 2000 PHONE INTERFACE/VOICE MODULE 60-777-01

- 1 / 14 — RING RING
- 2 / 13 — RING
- 12 — TIP2
- 11 — TIP1
- 10 — GND
- 9 — AUD2
- 8 — AUD1 (PARTITION 1 VOICE MODULE ONLY)
- 8 / 7 — SPEAKER

NOTES 3 & 7: SUPERBUS 2000 PHONE INTERFACE/VOICE MODULE 60-774
- 7 — SPK2
- 6 — SPK1
- 5 — GND
- 4 — B
- 3 — A
- 2 — A BUS B
- 1 — +12V GND

PANEL TERMINALS

NOTE 7: RJ-31X (CA-38A) PHONE JACK
PLUG / DB-8 CORD

NOTE 11: SUPERBUS 2000 8Z INPUT MODULE 60-774
ZONE 8, ZONE COMMON, ZONE 7, ZONE 6, ZONE COMMON, ZONE 5, ZONE 4, ZONE COMMON, ZONE 3, ZONE 2, ZONE COMMON, ZONE 1

PANEL TERMINALS

NOTE 11: SUPERBUS 2000 4-RELAY OUTPUT MODULE 60-770
ZONE COM, ZONE 1, NO 4, COM 4, NC 4, NO 3, COM 3, NC 3, NO 2, COM 2, NC 2, NO 1, COM 1, NC 1

OPTIONAL SUPERBUS 2000 MODULE CONNECTIONS

NOTE 10: SUPERBUS 2000 ENERGY SAVER MODULE 60-620-01
THERMOSTAT TO FURNACE
PANEL TERMINALS