



*E x p r e s s*

# Installation Instructions

Document No. 466-1665 Rev. B

This document describes the installation, programming, testing, and troubleshooting procedures for installing Concord Express security systems.

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# Notices

## FCC Notices

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference 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:

- Install a quality radio or television outdoor antenna if the indoor antenna is not adequate.
- Reorient or relocate the panel.
- Move the panel away from the affected equipment.
- Move the panel away from any wire runs to the affected equipment.
- Connect the affected equipment and the panel to separate outlets, on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.
- Send for the FCC booklet *How to Identify and Resolve Radio-TV Interference Problems*, available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock Number: 004-000-00345-4.

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

This equipment complies with part 68 of the FCC rules. On the FCC label affixed to this equipment is the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. If requested, provide this information to your telephone company.

The REN is used to calculate the maximum number of devices your telephone line will support with ringing service. In most areas the sum of all device RENs should not exceed 5.0. Contact your local telephone company to determine the maximum REN for your calling area.

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

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

If you experience trouble with this equipment, please contact

**Interactive Technologies, Inc.**  
**2266 Second Street North**  
**North Saint Paul, MN 55109**  
**1-800-777-1415**

for service and repair information. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or until 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.

## Declaration of Conformity (DoC)

Interactive Technologies, Inc. declares that the ITI model no. 60-806-95R is in conformity with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Industry Canada Warnings

### Notice:

The Industry Canada Label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational, and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirement document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

### Notice:

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Number of all the devices does not exceed 5.

## AVIS D'INDUSTRIE CANADA

### AVIS:

L'étiquette d'Industrie Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme aux normes de protection, d'exploitation et de sécurité des réseaux de télécommunications, comme le prescrivent les documents concernant les exigences techniques relatives au matériel terminal. Le Ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas le dégradation du service dans certaines situations.

Les réparations de matériel homologué doivent être coordonnées par un représentant désigné par le fournisseur. L'entreprise de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

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

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

### AVIS:

L'indice d'équivalence de la sonnerie (IES) assigné à chaque dispositif terminal indique le nombre maximal de terminaux qui peuvent être raccordés à une interface. La terminaison d'une interface téléphonique peut consister en une combinaison de quelques dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

## Trademarks

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This manual may refer to products that are announced but are not yet available.



### **INTERACTIVE TECHNOLOGIES, INC.**

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**F: 651/779-4890**

**W I R E L E S S**

Security

Automation

Access Control

## About This Manual

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

Planning sheets are included for you to record hardware layout and software programming settings.

## Special Installation Requirements

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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 Systems

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This section describes the requirements for UL Listed systems.

### Basic System

- Control Panel (60-806-95R)
- SuperBus 2000 2x16 LCD Touchpad (60-746-01), SuperBus 2000 Fixed English LCD Touchpad (60-820), SuperBus 2000 2x20 LCD Touchpads (60-803, 60-809), or SuperBus 2000 2x20 VFD Touchpads (60-804, 60-810)
- Standard Class II 16.5 VAC, 25 VA Power Transformer; manufacturer—Tech Electro Ind, Inc. Part No. 48A0164 (60-822)
- Hardwire Interior Siren (13-374) or Hardwire Siren (13-046)

## 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), Wireless Learn Mode PIR Motion Sensor (60-703-95, 60-511, or 60-639)
- IMMEDIATE TROUBLE BEEPS set to on
- UL 98 OPTIONS set to on (see page 37)
- RECEIVER FAILURE set to on
- AC FAILURE set to on
- EXIT DELAY set to 60 seconds or less
- QUICK EXIT set to off
- EXIT EXTENSION set to off
- SIREN TIMEOUT set to 4 minutes or more
- SIREN VERIFY set to on
- ENTRY DELAY set to 45 seconds or less

## 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  
Sentrol (ESL) models 429AT, 521B, or 521BXT learned into sensor group 26
- Wireless Smoke Sensor 60-506-319.5 or 60-645-95 learned into sensor group 26
- IMMEDIATE TROUBLE BEEPS set to on
- UL 98 OPTIONS set to on (see page 37)
- RECEIVER FAILURE set to on
- AC FAILURE set to on
- SIREN VERIFY set to on

### UL 1023 & 985 24-Hour Backup

- For 24-hour backup, the total current draw for all connected devices is limited to 90 mA continuous using a 4.0 AH battery.

### 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 Systems

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This section describes the requirements for ULC (UL Canada) Listed systems.

#### CSA Certified Accessories

#### Residential Burglary Alarm System Unit (ULC-S309)

Same as “UL Basic System and Household Burglary Alarm System Unit (UL 1023)” as described on previous page.

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

Same as “UL Basic System and Household Fire Warning System (UL 985)” as described on previous page.

#### Note

For 24-hour backup, external power drain is limited to 90 mA continuous using a 4.0AH battery.

### California State Fire Marshall Listed Systems

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

- SMOKE VERIFY must be set to off

### Planning the Installation

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This section describes the systems’s 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, to help prepare for system installation.

### Standard Panel

---

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

- **Power:** Input for an AC step-down, plug-in style transformer.
- **Auxiliary Power Output:** Output that supplies up to 750 mA (90 mA for UL Listed systems) at 12 VDC for bus devices and hardwired detectors, such as touchpads and motion detectors.
- **Bus A and B:** Input and output that provides communication between bus devices and the panel.
- **2 Onboard Outputs:** One 12-volt and one open-collector output that can be set up to activate other signalling devices, based on system events.
- **6 Supervised Hardwire Zones:** Inputs for various hardwired detectors. Zone 6 can be set up in programming to accept 2-wire smoke detectors.
- **Built-In Radio Receiver:** Allows use of up to eight ITI 319.5 MHz. crystal and/or SAW Learn Mode wireless sensors and touchpads.
- **Phone Line Connection:** Allows panel to communicate with central monitoring station and/or pagers.

### Touchpads

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The following describes the different touchpads that can be used for system programming and operation.

- **SuperBus 2000 2x16 LCD Alphanumeric Touchpad:** Provides complete system programming and operation control. Displays system messages and indicates system status.

- **SuperBus 2000 2x20 LCD/VFD Alphanumeric Touchpads:** Provide complete system programming and operation control, display system messages and indicate system status.
- **SuperBus 2000 Fixed English LCD Touchpad:** Provides operation control and user-programming access (*not installer/dealer programming*). Displays system messages and indicates system status.

## SnapCards

The following SnapCards expand the system as described:

- **8Z Input SnapCard:** Provides eight additional hardwire zone inputs, of which two are dedicated for using 2-wire smoke detectors.
- **4 Output SnapCard:** Provides four form C relay outputs that can be set up to activate other signalling devices, based on system events.
- **4Z Input/2 Output Combo SnapCard:** Provides three standard hardwire zone inputs, one 2-wire smoke detector loop input, and two outputs that can be set up to activate other signalling devices, based on system events.

## Installing the System

This section describes how to install the system control panel. Before starting the installation, plan your system layout and programming using the worksheets provided in Appendix A.

Installing the system consists of the following:

- Determining the Panel Location
- Total System Power and Wire Length Guidelines
- Mounting the Panel
- Identifying Panel Main Components
- Installing Optional SnapCards
- Connecting Detection Devices to Panel Zone Inputs
- Connecting Sirens
- Connecting Alphanumeric Touchpads
- Installing an RJ-31X Phone Jack

- Connecting the Phone Line to the Panel with a DB-8 Cord
- Connecting the AC Power Transformer
- Powering Up the Panel

## Determine the Panel Location

Before permanently mounting the panel, determine panel location using the following guidelines:

- Centrally locate the panel with relation to detection devices whenever possible, to help reduce wire run lengths and labor.
- Avoid running wires parallel with electrical wiring or fixtures such as fluorescent lighting, to prevent wire runs from picking up electrical noise.
- Mount the panel at a comfortable working height (about 45 to 55 inches from the floor to the bottom of the panel, as shown in Figure 1).
- Leave space to the left and right of the panel for wiring, phone jack, and mounting optional modules.
- For installations that include wireless sensors, allow at least 10 inches above the panel cabinet for the antenna.
- Allow at least 24 inches in front of the panel to open the panel door.

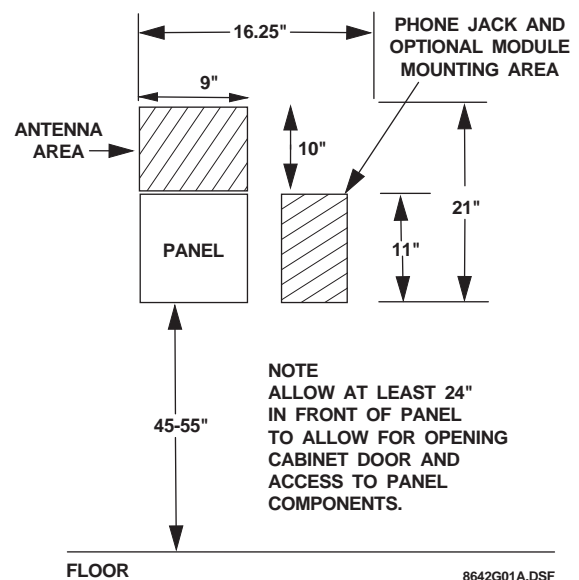


Figure 1. Determining Panel Location

## Total System Power and Wire Length Guidelines

Table 1 describes panel voltage/current output ranges.

**Table 1. Panel Voltage/Current Output Ranges**

| Panel Terminal | Voltage Range                         | Max. Current  |
|----------------|---------------------------------------|---|
| 4 (+12V)       | 8.5 - 14.2 VDC<br>9.1 - 14.2 VDC (UL) | 750 mA—non-UL Listed systems<br>90 mA—UL Listed systems                             |
| 7 (OUT1/+12)   | 8.5 - 14.2 VDC                        | 1.25 A at default configuration—non-UL Listed systems.<br>650 mA—UL Listed systems. |
| 17 (Z6/2W+)    | 8.9 - 13.7 VDC                        | 80 mA   |

Table 2 describes the maximum and normal standby current draw of each device connected to panel power (panel terminal 4—+12V). For UL Listed systems, the normal standby current draw must not exceed 90 mA.

**Table 2. Maximum/Standby Device Current Draw**

| Device                                       | Max. mA Draw | Normal Standby mA Draw   |
|--|--------------|--|
| SuperBus 2000 2x16 LCD Alphanumeric Touchpad | 90 mA        | 57 mA  |
| SuperBus 2000 LCD Fixed English LCD Touchpad | 65 mA        | 33 mA  |
| SuperBus 2000 2x20 LCD Alphanumeric Touchpad | 120 mA       | 75 mA  |
| SuperBus 2000 2x20 VFD Alphanumeric Touchpad | 120 mA       | 75 mA  |
| 4 Input/2 Output SnapCard                    | 185 mA       | 10 mA + 2.5 mA per zone used + 7 mA per smoke loop used + 34 mA per relay used |
| 8Z Hardwire Zone Expander SnapCard           | 230 mA       | 10 mA + 2.5 mA per zone used + 7 mA per smoke loop used                        |
| 4 Output SnapCard                            | 130 mA       | 6 mA + 34 mA per relay used  |

**Note**

For UL Listed systems, the difference between the standby current draw and maximum current draw of each device must be subtracted from the UL allowed alarm load of 650 mA (panel terminal 7—OUT1/+12).

Total system wire allowed varies depending on devices powered by the panel, wire length between devices and panel, and combined wire length of all devices.

Table 3 describes the maximum wire length allowed between compatible devices and the panel.

**Table 3. Maximum Device Wire Lengths**

| Device                                       | Max. Wire Length to Panel   | Wire Type |
|--|---|-----------|
| AC Power Transformer                         | 18 ga.—25 ft.   | Stranded  |
| Earth Ground                                 | 16 ga.—25 ft.   | Solid     |
| Telephone (RJ-31X)                           | as required   | Stranded  |
| Detection Devices                            | 22 or 18 ga.—300 ohms maximum loop resistance + 2k EOL                                    | Stranded  |
| 2-Wire Smoke Detectors                       | 22 ga.—330 ft.<br>18 ga.—830 ft.<br>(based on 10 ohms maximum loop resistance + 2k EOL)   | Stranded  |
| Sirens                                       | 22 or 18 ga.—50 ohms maximum loop resistance when using ITI siren models 13-374 or 13-046 | Stranded  |
| SuperBus 2000 2x16 LCD Alphanumeric Touchpad | 22 ga.—300 ft.<br>18 ga.—750 ft.  | Stranded  |
| SuperBus 2000 Fixed English LCD Touchpad     | 22 ga.—300 ft.<br>18 ga.—750 ft.  | Stranded  |
| SuperBus 2000 2x20 LCD Alphanumeric Touchpad | 22 ga.—250 ft.<br>18 ga.—600 ft.  | Stranded  |
| SuperBus 2000 2x20 VFD Alphanumeric Touchpad | 22 ga.—250 ft.<br>18 ga.—600 ft.  | Stranded  |



## Mounting the Panel

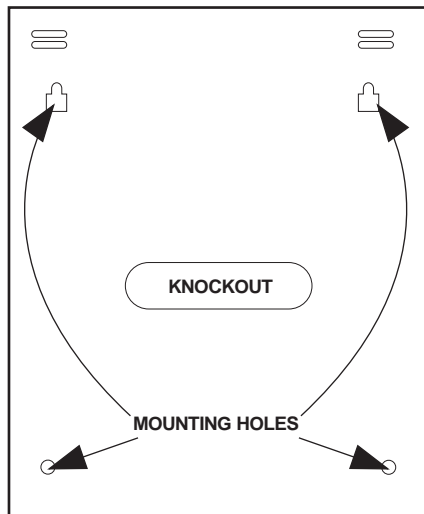
Use the following procedure to mount the panel to the wall or wall studs.

### Caution

Make sure you are free of static electricity whenever you work on the panel with the cover open. To discharge any static, first touch the metal panel chassis, then stay in contact with the chassis when touching the circuit board. Using an approved grounding strap is recommended.

### To mount the panel cabinet and circuit board:

1. Open the panel door and slide it up to remove it from the cabinet. Set the door aside.
2. Remove the knockout to provide access for system wiring (see Figure 2).
3. Feed all device wires through the knockout and place the panel in position against the wall.
4. Level the panel and mark the top and bottom mounting holes (see Figure 2).
5. Install anchors where studs are not present.
6. Partially insert screws into the two top mounting hole locations, then hang the panel on the two screws.
7. Recheck for level, insert the two lower screws, and tighten all four mounting screws.



8642G02A.DSF

Figure 2. Mounting the Cabinet

8. Install the antenna housing (included with panel) by pushing it down into the top-left hole of the cabinet until it snaps into place (see Figure 3).

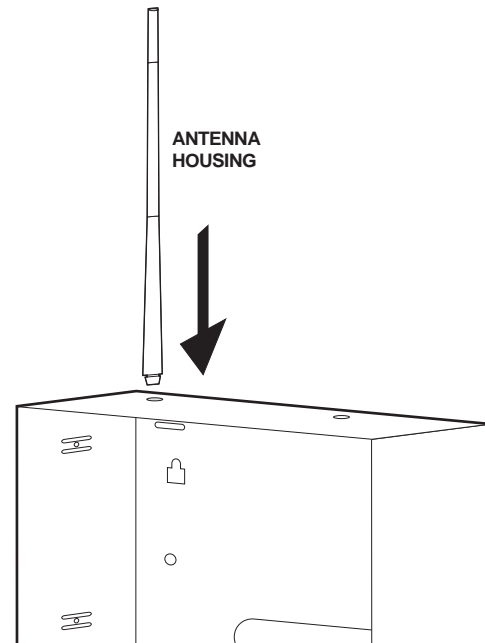
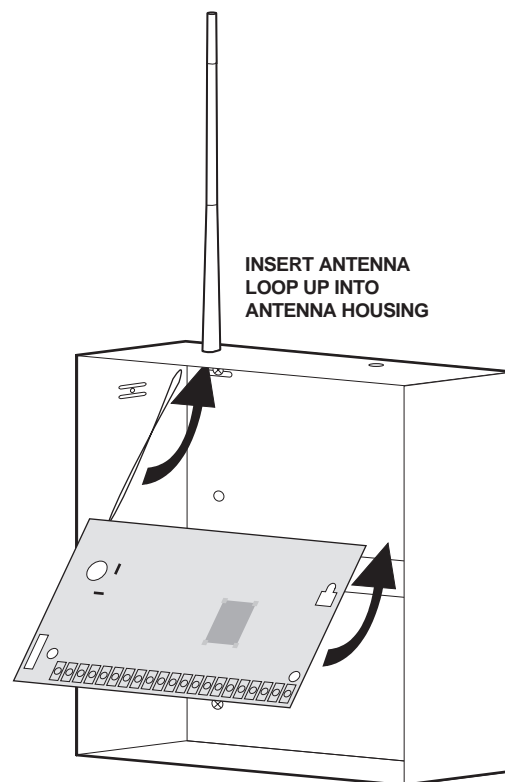


Figure 3. Installing the Antenna Housing

9. Install the circuit board into the cabinet, inserting the loop antenna loop up into the antenna housing (see Figure 4), then secure the circuit board with the four mounting screws (included).



8642G32A.DSF

Figure 4. Installing the Circuit Board

## Identify Panel Components

Before installing devices and making wiring connections, familiarize yourself with the panel's main components. Figure 5 shows the main component locations on the circuit board.

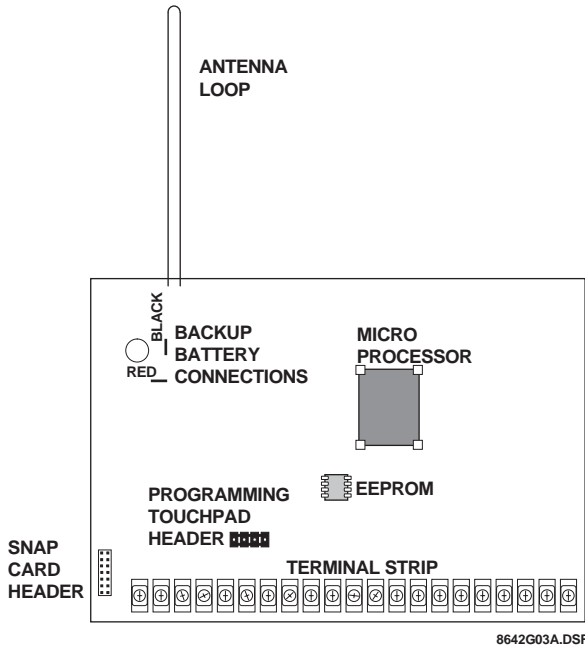


Figure 5. Main Component Locations

## Connecting the Panel to Earth Ground

For maximum protection from lightning strikes and transients, connect the lower-right circuit board screw to earth ground as shown in Figure 6. Use 16-gauge, solid copper wire from an earth grounded cold water pipe clamp to the panel.

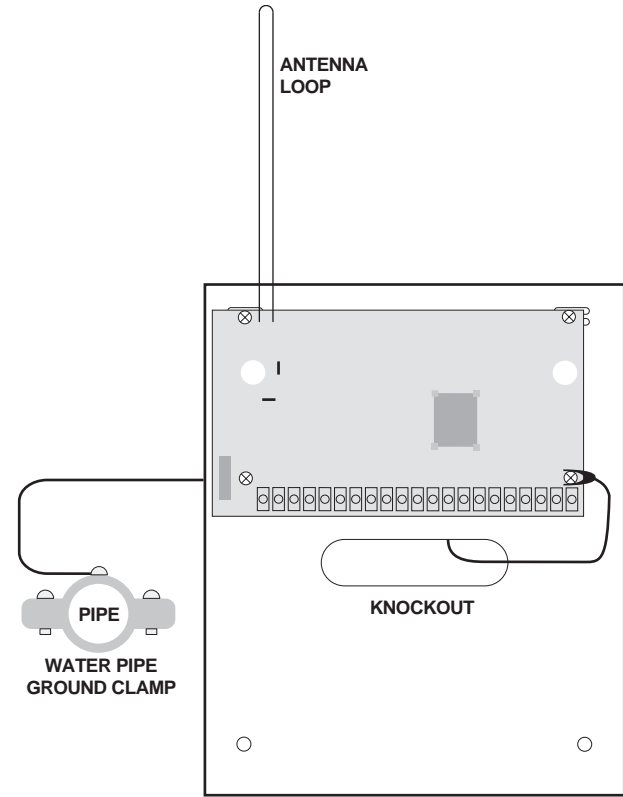


Figure 6. Connecting the Panel to Earth Ground

### Note

For best results, it is recommended that you crimp a spade lug on the wire end at the panel and secure the lug under the circuit board screw as shown in Figure 6.

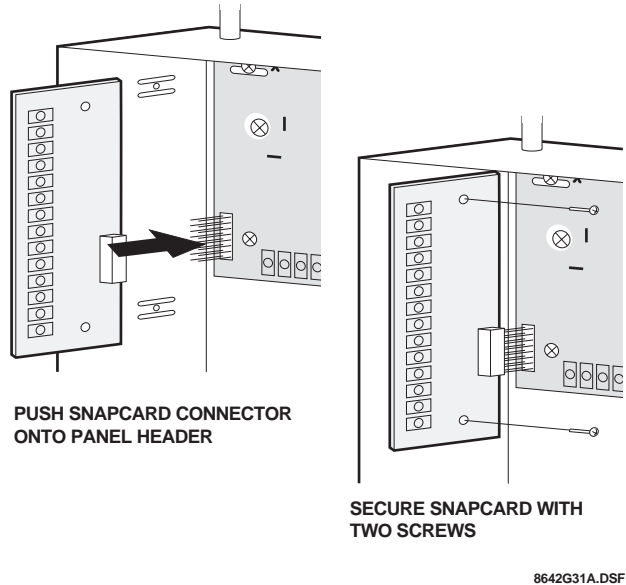
## Installing Optional SnapCards

The SnapCard Header on the lower-left side of the panel accepts one of the following SnapCard models:

- 8Z Input SnapCard—60-757
- 4 Output SnapCard—60-758
- 4Z Input/2 Output Combo SnapCard—60-756

Install the desired SnapCard onto the panel's SnapCard Header and secure it in place with two screws, included with the card (see Figure 7).

## Connecting Intrusion Detection Devices



**Figure 7. Installing a SnapCard onto the Panel's SnapCard Header**

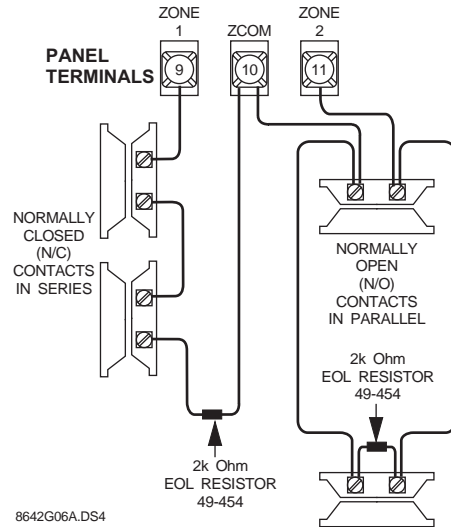
Connect all necessary input/output wiring using the *installation instructions* included with the SnapCard.

## Connecting Detection Devices to Panel Zone Inputs

Zone inputs 1 through 6 are supervised using a 2k-ohm, end-of-line resistor (included with panel) at the last device on the circuit. All six zones accept either normally open (N/O) or normally closed (N/C) detection devices.

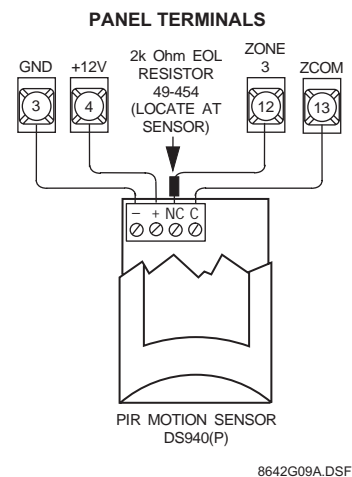
The maximum loop resistance for each zone input is 300 ohms, plus the 2k end-of-line (EOL) resistor.

Figure 8 shows the typical wiring for N/C and N/O door/window intrusion detection.



**Figure 8. Connecting N/C and N/O Intrusion Detection Circuits**

Figure 9 shows the typical wiring for Detection Systems model DS940(P) PIR motion detectors. The minimum available panel voltage for hardwired PIR motion detectors is 8.5 VDC (9.1 VDC for UL Listed systems).



**Figure 9. Connecting a PIR Motion Detector**

## Connecting 2-Wire Smoke Detectors

Zone input 6 can be set up (in program mode) to accept 12 VDC, 2-wire smoke detectors by the following manufacturers:

- System Sensor models 2100D, 2100TD, 2100S, 2100TS, 2400, 2400TH
- Sentrol (ESL) models 429AT, 521B, 521BXT—models 521B and 521BXT require the following dip switch settings: 1-on, 2-off.

### WARNING!

Use only the 2-wire smoke detector models described above. Alarm signals from other detectors may not be processed correctly if the panel has lost AC power and is operating only from the backup battery.

When set up for 2-wire smoke detectors, zone 6 can handle up to 10 smoke detectors with 100 uA maximum idle current per detector. Maximum total loop current allowed in an alarm condition is 80 mA. The maximum loop resistance for 2-wire smoke detectors connected to zone input 6 is 10 ohms, plus the 2k EOL resistor.

### Note

When using 2-wire smoke detectors on Zone 6, the TWO-WIRE SMOKE setting (in program mode) must be turned on **before** entering the LEARN SENSORS menu. See *ONBOARD OPTIONS—INPUTS* in the section “Programming the Panel” for complete details.

### Caution

Panel terminal 16 (ZCOM/2W-) cannot be used as a common loop connection for any other zones, when using Zone 6 for 2-wire smoke detectors.

Connect one or more, 2-wire smoke detectors to the panel as shown in Figure 10.

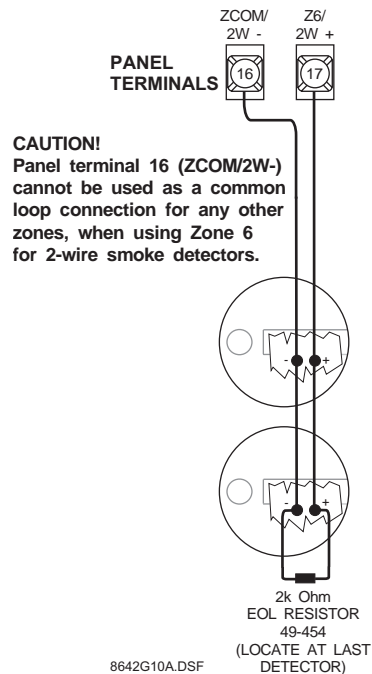


Figure 10. Connecting 2-Wire Smoke Detectors

## Connecting 4-Wire Smoke Detectors

### Note

For UL Listed systems, 4-wire smoke detectors cannot be connected to onboard panel zone inputs.

Zone inputs 1 through 6 can be used with 4-wire smoke detectors that latch and remain in the alarm state until power is removed, then restored to the detector. The panel provides this power interruption from panel terminal 8 (OUT2/OC), provided that the output configuration number is set (in program mode) to 01500.

For more information on output configuration numbers, see the section “Programming the Panel.”

### Note

The TWO-WIRE SMOKE setting (in program mode) must be *off* when connecting 4-wire smoke detectors to zone 6.

Use only 4-wire smoke detectors that operate 8.5 to 14.2 VDC.

Connect up to five Sentrol (ESL) model 449AT (ITI part no. 13-360) smoke detectors to panel power input as shown in Figure 11.

**Note**

Panel terminal 8 (OUT2/OC) must be set to configuration number 01500, for connected smoke detectors to reset after canceling a fire alarm.

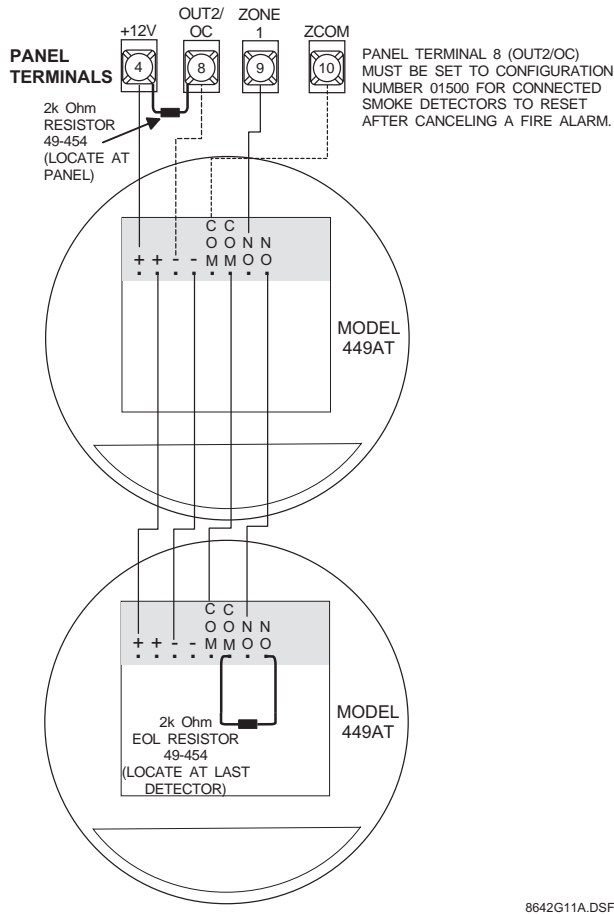


Figure 11. Connecting 4-Wire Smoke Detectors

## Connecting Sirens

Two onboard, programmable outputs allow for siren connections, when using the default setting of each output. (For more information on output configuration numbers, see the section “Programming the Panel.”)

The following describes siren connections using the default settings of each onboard output.

## Hardwire Interior Siren (13-374)

Panel terminal 7 (OUT1/+12V) is a +12-volt, programmable output. At the default configuration setting, this output can provide up to 1.25 amps during an alarm (650 mA for UL Listed systems), depending on the current consumption of all devices connected to panel terminal 4 (+12V) and any installed Snap-Card.

The default configuration setting (00410) activates the output 15 seconds after any audible alarm condition occurs, allowing for a siren connection without changing the output configuration number.

Connect one or two sirens to the panel for supervision, as shown in Figure 12. The maximum loop resistance allowed using this siren is 50 ohms, plus the 2k EOL resistor. If SIREN VERIFY is turned off (see the section “Programming the Panel”), the 2k EOL resistor is not required.

**Note**

For UL Listed systems, SIREN VERIFY must be on and the 2k EOL resistor installed.

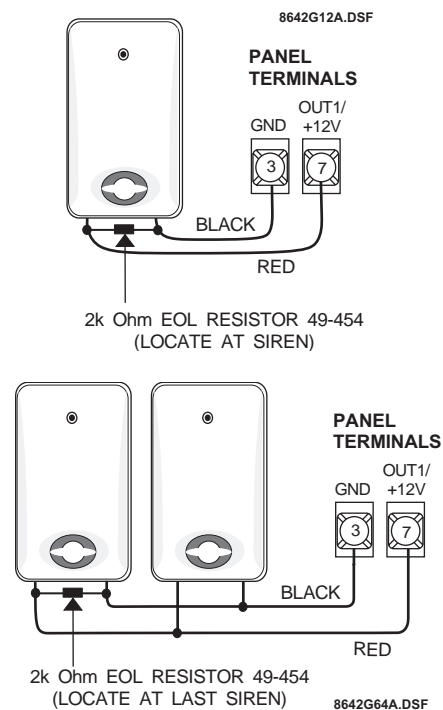


Figure 12. Connecting Hardwire Interior Siren 13-374

## Hardwire Siren (13-046)

Connect one or two sirens to the panel for supervision, as shown in Figure 13. The maximum loop resistance allowed using this siren is 50 ohms, plus the 2k EOL resistor. If SIREN VERIFY is turned off (see the section “Programming the Panel”), the 2k EOL resistor is not required.

**Note**

For UL Listed systems, SIREN VERIFY must be on and the 2k EOL resistor installed.

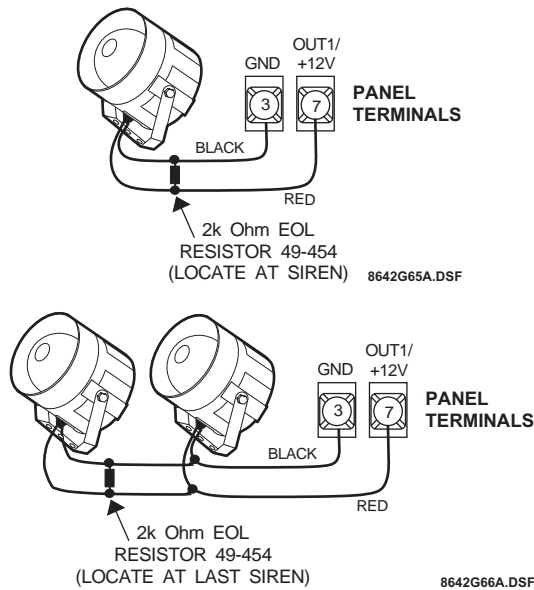


Figure 13. Connecting Hardwire Siren 13-046

## Interior Piezo Siren (30-006)

Panel terminal 8 (OUT2/OC) is an open-collector (switched path-to-ground), programmable output that can handle up to 200 mA current.

The default setting activates the output for status and alarm tones, allowing for a piezo siren connection without changing the output configuration number.

Connect the piezo siren to the panel terminals with a 2k resistor, as shown in Figure 14.

**Note**

Piezo siren connections to terminal 8 require a 2k resistor that can be located at the panel, since it does not supervise the circuit.

**Note**

If using an external power supply instead of panel terminal 4, the supply voltage must be limited to 9.5 VDC maximum and the negative side of the power supply must be connected to panel ground (terminal 3).

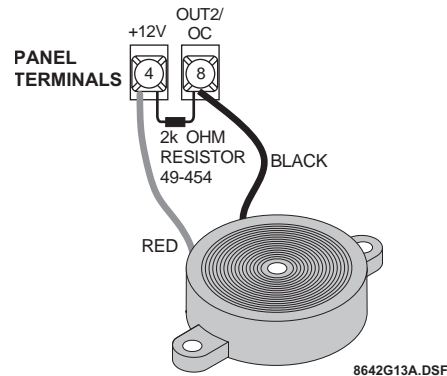


Figure 14. Connecting an Interior Piezo Siren

## Connecting Siren Drivers, Self Contained Sirens, Bells

Power for a siren driver, self-contained siren, or a bell can be connected to panel terminals 7 (OUT1/+12V) and 3 (GND).

Panel terminal 7 (OUT1/+12V) is a +12-volt, programmable output. At the default configuration setting, this output can provide up to 1.25 amps during an alarm (650 mA for UL Listed systems).

The default configuration setting (00410) activates the output 15 seconds after any audible alarm condition occurs.

The following siren drivers, self-contained sirens, and bells have been tested and found compatible for use with the panel:

- Moose Models MPI-11, MP-47, MP-47B (use only 8-ohm speaker loads)
- Altronix Model ALSD2 (4- or 8-ohm speaker loads)
- ATW Models DT-24, DS508 (both self-contained)
- Wheelock MB-G6-12 Six-inch, 12V Bell

Refer to the manufacturer’s documentation for installation details.

## Connecting Touchpads

- SuperBus 2000 2x16 LCD Alphanumeric Touchpad (60-746-01)
- SuperBus 2000 2x20 LCD Alphanumeric Touchpads (60-803, 60-809)
- SuperBus 2000 2x20 VFD Alphanumeric Touchpad (60-804, 60-810)
- SuperBus 2000 Fixed English LCD Touchpad (60-820)

Alphanumeric touchpads can be used for installer programming, system operation, and user programming. Fixed english touchpads can be used for system operation and user programming, but not for installer programming.

### Note

Be sure to have an alphanumeric (programming) touchpad on hand for on-site programming in installations that do not include one as part of the final system configuration. This programming touchpad can be connected to the Programming Touchpad Header (see Figure 21), using a Programming Touchpad Cable (part no. 60-791).

Connect 2x16 and fixed english LCD touchpads to the panel power output and bus terminals as shown in Figure 15.

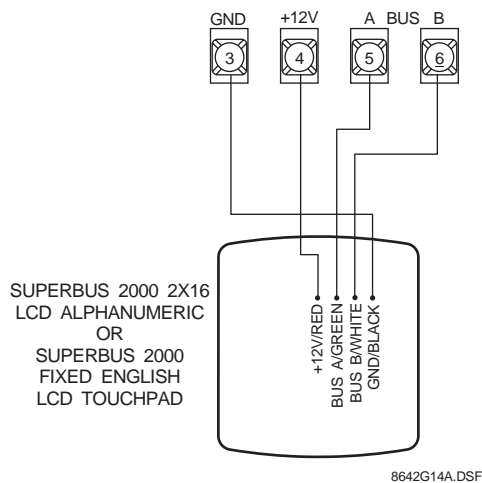


Figure 15. Connecting 2x16 Alphanumeric and Fixed English LCD Touchpads

The 2x20 LCD/VFD touchpads include a supervised hardwire input for connection to a hardwire detection device (see Figure 16).

Connect 2x20 LCD/VFD touchpads to the panel power output and bus terminals as shown in Figure 16.

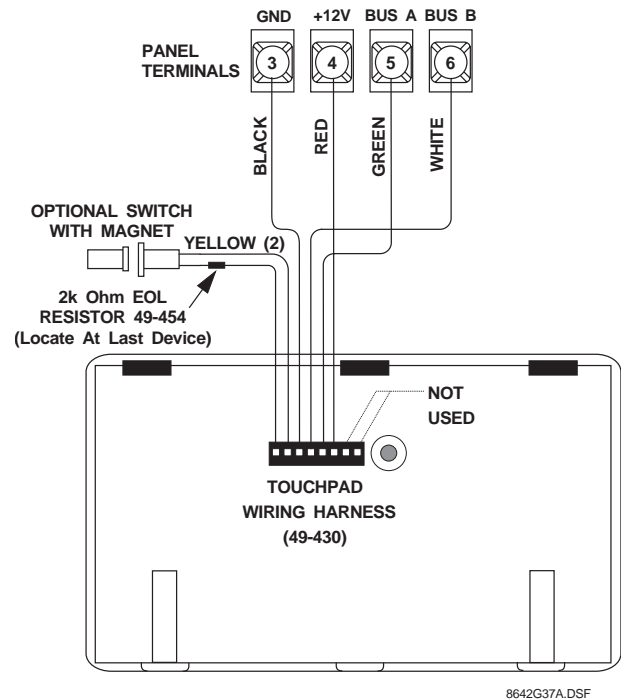


Figure 16. Connecting 2x20 LCD/VFD Touchpads

## Installing an RJ-31X Phone Jack (13-081)

Use the following guidelines when installing an RJ-31X phone jack for system control by phone and central station monitoring.

- Locate the RJ-31X jack (CA-38A in Canada) no further than five feet from the panel.
- The panel must be connected to a standard analog (loop-start) phone line, that provides 48 volts DC (on-hook or idle) which increases to 89 to 105 volts AC (ring voltage).

### Note

The panel cannot be used on a digital or PBX phone line. These systems are designed for digital type devices only, operating anywhere from 5 volts DC and up. The panel uses an analog modem and does not have a digital converter, adapter, or interface to operate through such systems.

## Installing the System

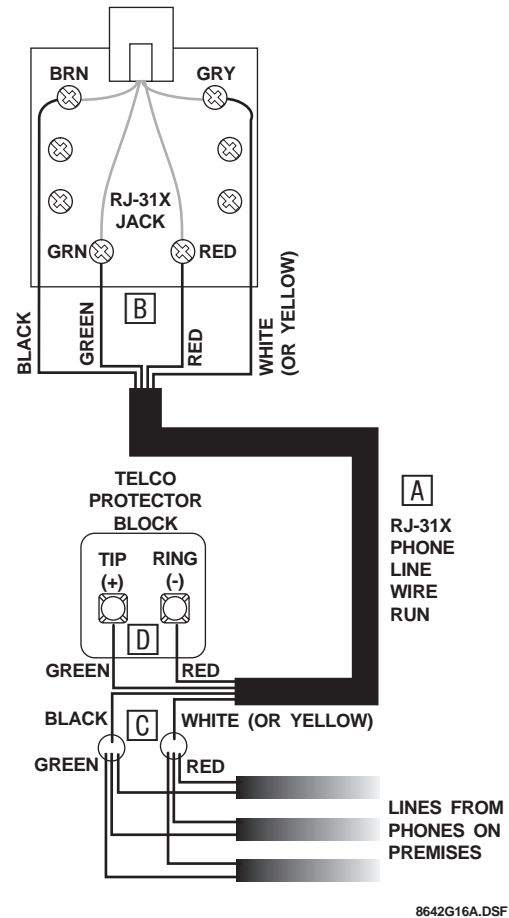
- For full line seizure, install an RJ-31X phone jack on the premises phone line so the panel is ahead of all phones and other devices on the line. This allows the panel to take control of the phone line when an alarm occurs, even if the phone is in use or off-hook.
- If an analog line is not available, contact your customers' telecommunications specialist and tell him/her you need an analog line off the phone switch (PBX mainframe) or a 1FB (standard business line).

### Note

Connecting the panel to an analog line off the phone switch places the panel *ahead* of the phone system, preventing panel access from phones on the premises. However, the panel can still be accessed from off-site phones.

### To connect a phone line to the panel using an RJ-31X/CA-38A jack:

1. Run a 4-conductor cable from the TELCO protector block to the jack location (see **A** in Figure 17).
2. Connect one end of the cable to the jack (see **B** in Figure 17).
3. At the TELCO protector block, remove the premises phone lines (lines from phone jacks on premises) from the block and splice them to the black and white (or yellow) wires of the 4-conductor cable (see **C** in Figure 17).
4. Connect the green and red wires from the 4-conductor cable to the TIP (+) and RING (-) posts on the block (see **D** in Figure 17).



**Figure 17. Installing an RJ-31X Phone Jack**

5. Check the phones on the premises for dial tone and the ability to dial out and make phone calls. If phones do not work correctly, check all wiring and correct where necessary. Proceed to the "Troubleshooting" section of this manual if problems persist.



## Connecting the Phone Line to the Panel with a DB-8 Cord

After installing the RJ-31X jack, you are ready to connect the phone line to the panel. A DB-8 cord (not included) uses a plug at one end for connecting to the RJ-31X module and flying leads on the other end for panel terminal connections.

### To connect the DB-8 cord to the panel terminals and RJ-31X jack:

1. Connect the green, brown, gray, and red flying leads from the DB-8 cord to panel terminals 18, 19, 20, and 21 (see Figure 18).
2. Insert the DB-8 cord's plug into the RJ-31X (see Figure 18).

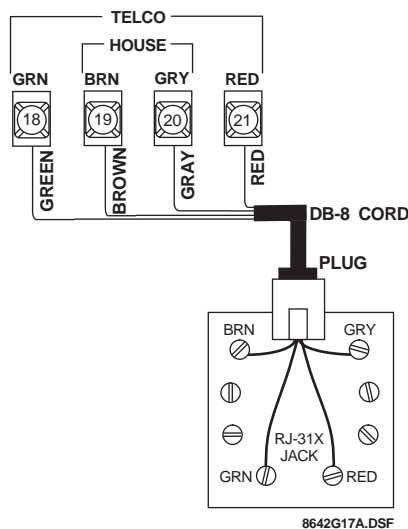


Figure 18. Connecting the DB-8 Cord to the Panel and RJ-31X Jack

3. Check the phones on the premises for dial tone and the ability to dial out and make phone calls. If phones do not work correctly, check all wiring and correct where necessary. Proceed to the “Troubleshooting” section of this manual if problems persist.

## Connecting the AC Power Transformer (60-822)

The panel must be powered by a plug-in stepdown transformer that supplies 16.5 VAC, 25 VA.

Connect the power transformer to the panel as shown in Figure 21.

### Caution

Do not plug in the power transformer at this time. The panel must be powered up using the sequence of steps described in the following section, “Power Up the Panel.”

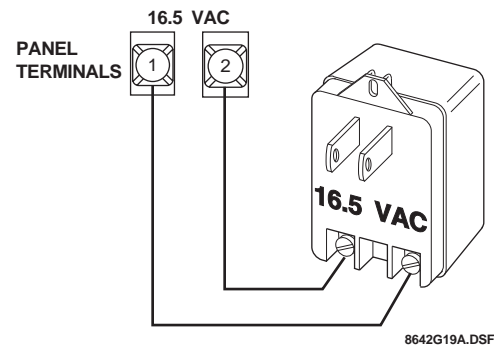


Figure 19. Connecting a Power Transformer

## Powering Up the Panel

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

### Note

If you plan on connecting an alphanumeric touchpad to the programming touchpad header on the panel, *do not connect it until after the panel is powered up*. Refer to “Entering Programming Mode,” later in this section.

### 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 20).

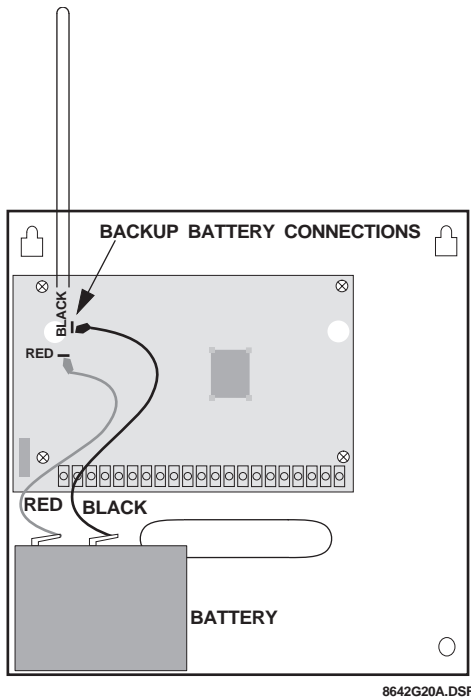


Figure 20. Connecting the Backup Battery

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 ground fault circuit interrupt (GFCI).

Alphanumeric touchpads display *\*\*\*\*\**, *SCANNING BUS DEVICES*, then a date and time display. Fixed english touchpads briefly show all text, no text, *BUS SCAN*, then a time display.

**Note**

If touchpads don't display anything, immediately unplug the transformer and disconnect the backup battery. Refer to the "Troubleshooting" section.

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

**WARNING!**

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

5. Hold the outlet cover in place and plug the transformer into the lower receptacle.
6. Use the screw supplied with the transformer to secure the transformer to the outlet cover.

## Programming the Panel

This section describes how to program all settings found in programming mode. For on-site system programming, an alphanumeric touchpad is required.

## Entering Programming Mode

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

**To enter programming mode using an alphanumeric touchpad connected to the panel terminals:**

1. Make sure the system is disarmed.
2. Press [8] + [4][3][2][1] + [0] + [0]. The touchpad shows *SYSTEM PROGRAMMING*.

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

1. Connect the red, black, green, and white wires from the Programming Touchpad Cable (60-791) to the power and bus wires on an alphanumeric touchpad, matching the wire colors on each.
2. Make sure the system is powered up and disarmed.
3. Connect the plug on the cable onto the panel programming touchpad header (see Figure 21).

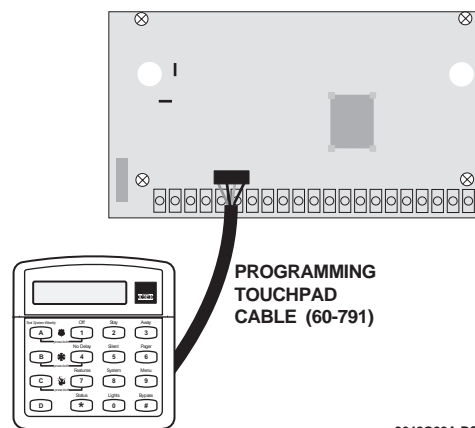


Figure 21. Connecting a Programming Touchpad

4. Press **[8]** + **[4][3][2][1]** + **[0]** + **[2]**. The touchpad sounds one short beep and the display shows *SERVICE TOUCHPAD ACTIVE*.
5. Press **[8]** + **[4][3][2][1]** + **[0]** + **[0]** and the display shows *SYSTEM PROGRAMMING*.
6. After programming is completed, simply disconnect the touchpad from the panel header.

## Touchpad Button Programming Functions

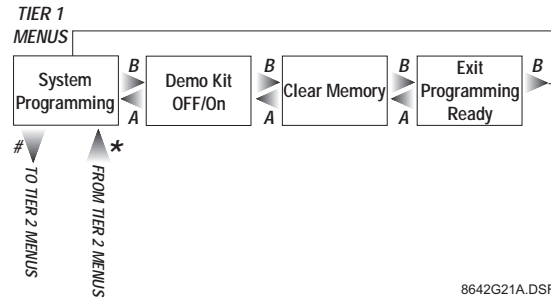
In program mode, touchpad buttons let you navigate to all installer programming menus for configuring the system. Table 4 describes the touchpad button functions in program mode.

**Table 4. Alphanumeric Touchpad Button Programming Functions**

| Button               | Programming Function   |
|----------------------|--|
| <b>[#]</b>           | Selects menu item or data entry.   |
| <b>[*]</b>           | Deselects menu item or data entry (if pressed before #).   |
| <b>[A] &amp; [B]</b> | Scroll through available options at the current menu tier. Also scroll through sensor text options during sensor text programming. |
| <b>[C]</b>           | Enters pauses when programming phone numbers.  |
| <b>[D]</b>           | Deletes certain programmed settings.   |
| <b>[0] thru [9]</b>  | Enter numeric values wherever needed.  |
| <b>[1] &amp; [2]</b> | Select off (1) or on (2) wherever needed.  |
| <b>[1] thru [6]</b>  | Press and hold to enter alphabetical characters A thru F for account numbers.  |
| <b>[7] &amp; [9]</b> | Press and hold to enter * (7) or # (9) for phone numbers.  |

## Moving Through Program Mode Tiers and Menus

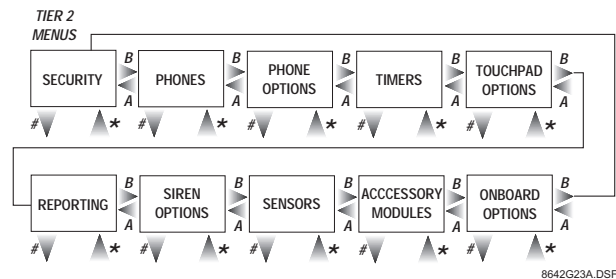
There are two basic tiers of programming menus. Tier 1 menus are accessible immediately after entering program mode (see Figure 22).



**Figure 22. Tier 1 Programming Menus**

Arrows pointing right represent pressing **[B]**, arrows pointing left represent pressing **[A]**.

The arrow below the *System Programming* menu represents pressing **[#]** to move to tier 2 programming menus. Only when *System Programming* is displayed can you advance to tier 2 menus (see Figure 23).



**Figure 23. Tier 2 Programming Menus**

Again, arrows pointing right represent pressing **[B]**, arrows pointing left represent pressing **[A]**.

Arrows below each menu represent pressing **[#]** to advance to those settings that pertain to that menu. Only when a specific menu is displayed can you advance to those settings. For example, from the *SENSORS* menu pressing **[#]** gives you access to learning sensors, programming sensor text, deleting sensors, and viewing sensor programming.

Settings in tier 2 menus can also be accessed by entering shortcut numbers. See the section, “Programming Tier 2 Menu Items” for complete details.

## Programming Tier 1 Menu Items

This section guides you through programming tier 1 menu items as they appear in sequence. Depending on whether you're installing a new system or changing programming to an existing system will determine the exact order you need to follow. For example, for new installations you should always clear memory before programming any system settings.

**Demo Kit Mode** *(System Programming)*

(Default = off) This setting determines whether the panel is used for a standard installation (off) or as a demo kit (on). Turning on this feature and performing a memory clear changes the following settings:

System Master Code = 1234

User Code 00 = 1001 (standard user code capabilities)

User Code 01 = 1002 (standard user code capabilities, bypass sensors)

User Code 04 = 1122 (standard user code capabilities, system tests)

Zone 1 (hardwire) = Group 10, Front Door

Zone 2 (hardwire) = Group 13, Bedroom Window

Zone 3 (hardwire) = Group 17, Living Room PIR

Zone 4 (hardwire) = Group 01, Panic

Zone 5 (wireless) = Group 01, Keychain Touchpad

Zone 6 (wireless) = Group 13, Kitchen Window

COMM FAILURE = off

Entry Delay = 8 seconds

Exit Delay = 8 seconds

Extended Delay = 1 minute

Siren Timeout = 2 minutes

Status Beeps = on (all touchpads)

Central Station Reporting = sensors learned into groups 01 and 03, Duress code use, and phone test (8 + CODE + 2)

**To turn Demo Kit Mode off or on:**

- With the display showing *DEMO KIT MODE OFF/ON* (current setting), press [1] (off) or [2] (on), then press [#].  
The display flashes the entered setting, then stops after pressing [#] and displays *DEMO KIT MODE OFF/ON* (new setting).
- Clear panel memory to enable the demo kit mode (see next menu).

**Clear Memory** *(System Programming)*

Clearing memory deletes all existing programming information (except the Dealer Code). Clear memory on all newly installed panels before programming.

**To Clear Panel Memory:**

- With the system in program mode, press [B] until the display shows *CLEAR MEMORY*.
- Press [#] and the display shows *ENTER CODE TO CLEAR MEMORY*.
- Enter the **4-digit installer** [C][O][D][E] (default = 4321) or **dealer** [C][O][D][E] (if programmed) + [#].  
After about one second, the system restarts and the panel scans the bus to learn all bus devices.

If the system doesn't respond as described, repeat step 3.

## Programming Tier 2 Menu Items

This section guides you through programming tier 2 menu items as they appear in sequence. Each menu on tier 2 represents a group of settings related to the menu name.

Figure 24 shows the menus available on tier 2.

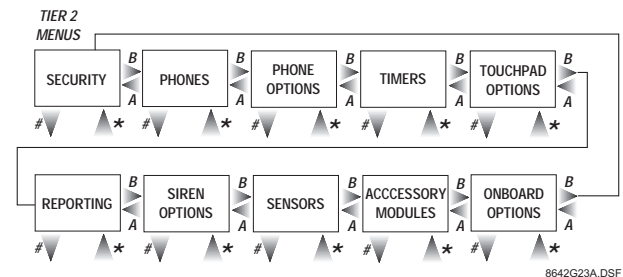


Figure 24. Tier 2 Programming Menus

## Using Shortcut Numbers

To go directly to a setting in tier 2, you can enter the shortcut number for that setting. Shortcut numbers in this manual appear in parenthesis (), under the setting name. For example:

|                                  |                          |
|----------------------------------|--------------------------|
| <b>Downloader Code</b><br>(0000) | <i>(Security-Global)</i> |
|                                  |                          |

Shortcut numbers can be used from any setting location within tier 2.

### To advance to tier 2 program menus:

With the system in program mode and the display showing *SYSTEM PROGRAMMING*, press **#** once. The display should show *SECURITY*.

## Security Menu

The *SECURITY* menu lets you choose whether security settings affect the whole system (global) or a specific partition.

### To access global or partition security menu items:

1. With the display showing *SECURITY*, press **#**.  
The display should show *GLOBAL*.
2. Press **#** again to advance to global settings or--Press **A** or **B** to display *PARTITION 1*, then press **#** to advance to partition 1 settings.

The following describes how to program the security settings that appear under *GLOBAL*.

### Downloader Code *(Security-Global)* (0000)

(Default = 12345) The 5-digit downloader code is used in conjunction with downloader programming. The downloader operator must have the panel's 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**, + **#**.

The display flashes the entered code, then stops after pressing **#** and displays *DOWNLOADER CODE nnnnn* (*new code*).

#### Note

The Downloader Code cannot be deleted or cleared from panel memory. To change the Downloader Code to its default setting, enter 12345 in the procedure above.

### Installer Code *(Security-Global)* (0001)

(Default = 4321) The 4-digit installer code is used for entering program mode and changing system settings. If a dealer code (see below) 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** + **#**.

The display flashes the entered code, then stops after pressing **#** and displays *INSTALLER CODE nnnn* (*new code*).

#### Note

The Installer Code cannot be deleted or cleared from panel memory. To change the Installer Code to its default setting, enter 4321 in the procedure above.

## Programming the Panel

### Dealer Code (Security—Global) (0002)

(Default = none) The 4-digit dealer code is used to prevent unauthorized persons from changing the programmed central station phone number. When changed from its default setting, all central station phone numbers can be changed only by entering program mode using the dealer code. (If a Dealer Code is programmed, entering program mode with the installer code lets you program all system settings except for the Dealer Code and central station phone numbers.)

#### To program a Dealer Code:

With the display showing *DEALER CODE \*\*\*\**, enter the desired **4-digit code** + **#**.  
The display flashes the entered code, then stops after pressing **#** and displays the new code.

#### To delete a Dealer Code:

With the display showing *DEALER CODE nnnn* (*current code*), press **D**.  
The display shows *DEALER CODE \*\*\*\**.

#### Note

The Dealer Code cannot be deleted by clearing panel memory.

The following describes how to program the security settings that appear under *PARTITION 1*.

### Account Number (Security—Partition 1) (0010)

(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 flashes the entered number, then stops after pressing **#** and displays the new number.

### Quick Arm (Security—Partition 1) (0011)

(Default = off) Quick Arm allows system arming without using an access code. When turned 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.

#### To turn Quick Arm off or on:

With the display showing *QUICK ARM OFF/ON* (*current setting*), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### Quick Exit (Security—Partition 1) (0012)

(Default = on) This setting determines whether users can open and close a standard entry/exit door (sensor groups 10 and 19 only) while the system is armed, without causing an alarm.

One example would be going out to get the morning paper while the system is armed. Another example would be leaving the armed premises without having to disarm and re-arm the system.

When turned on, pressing **D** on a touchpad while the system is armed starts a 2-minute timer that allows one standard entry/exit door to be activated once (opened, then closed).

When turned off, the system must be disarmed before opening any protected door.

#### Note

For UL Listed systems, Quick Exit must be turned off.

#### To turn Quick Exit off or on:

With the display showing *QUICK EXIT OFF/ON* (*current setting*), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Exit Extension** (Security—Partition 1)  
**(0013)**

(Default = on) This setting determines whether the user can re-enter and exit again through an entry/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 turned on, the panel restarts the exit delay timer if the user re-enters the premises through a designated delay door, before the exit delay time expires.

When turned off, the exit delay timer does not restart if the user re-enters the premises, forcing them to disarm the system to avoid setting off an accidental alarm.

**Note**

For UL Listed systems, Exit Extension must be turned off.

**To turn Exit Extension off or on:**

With the display showing *EXIT EXTENSION OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Auto Stay Arming** (Security—Partition 1)  
**(0014)**

(Default = on) This setting determines whether 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.

With the feature turned on, the user arms the system 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.

**To turn Auto Stay Arming off or on:**

With the display showing *AUTO STAY ARMING OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Keyswitch Sensor** (Security—Partition 1)  
**(0015)**

(Default = none) This feature lets users arm and disarm the system using a keyswitch wired to a hardwire zone input or a wireless door/window sensor.

For example, if sensor/zone 1 is designated as the keyswitch sensor and the system is disarmed, tripping the sensor/zone arms the system to AWAY. If the system is armed to STAY or AWAY, tripping the sensor disarms the system. The panel reports opening, closing, and force armed reports (if turned on) to the central monitoring station.

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 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 n* (current sensor number), enter the desired **sensor number (01-16)**, then press **#**.

The display flashes the entered sensor number, then stops after pressing **#** and displays the new number.

**Duress Code** (Security—Partition 1)  
(0016)

(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.

**Note**

To use this feature, the *DURESS OPTION* setting under the *REPORTING—PARTITION 1* menu must be turned on.

**Caution**

Because using duress codes often results in false alarms due to code entry errors, it is strongly recommended not to program duress codes.

If a duress code is absolutely necessary, their use with an Interrogator is highly recommended to reduce false alarms and accidental dispatches.

**To program a Duress Code:**

With the display showing *DURESS CODE \*\*\*\**, enter the desired **4-digit duress code**, then press **#**. The display flashes the entered setting, then stops after pressing **#** and displays the new code.

**To delete a Duress Code:**

With the display showing *DURESS CODE nnnn* (*current code*), press **0**. The display shows *DURESS CODE \*\*\*\**.

## Phones Menu

The *PHONES* menu lets you set up central station reporting for the system (global) and pager reports (partition specific).

The following describes how to program the settings that appear under *CS PHONE 1-2*.

**Phone Number** (Phones—CS Phone 1-2)  
(0100-cs phone 1, 0110-cs phone 2)

(Default = none) This setting is used for programming the central station receiver's 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 one second. To enter #, press and hold **9** for one second.

**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.

**Note**

Call-waiting services should be disabled to prevent interrupting panel communication to the central monitoring station or pager. To program a dialing prefix that disables call-waiting, see the *CALL WAIT CANCEL* setting under the menu *PHONE OPTIONS—GLOBAL*.

**To program a Central Station Phone Number:**

With the display showing *PHONE NUMBER \_* (*or current number*), enter the desired **phone number + #**.

The display flashes the entered number, then stops after pressing **#** and displays the new number.

**To delete a Central Station Phone Number:**

With the display showing *PHONE NUMBER* (*current number*), press **0**.

The display shows *PHONE NUMBER \_*.



**High Level Rpts** (Phones—CS Phone 1-2)  
(0101-cs phone 1, 0111-cs phone 2)

(Defaults: CS Phone 1 = on, CS Phone 2 = off) This setting determines whether the following conditions report to the central station:

Fire, Police, Auxiliary, Duress, and Freeze alarms, No Activity, Receiver Failure (or jam), System Tamper (40 incorrect keypresses or touchpad supervisory), and entering or exiting Sensor Test mode.

**To turn High-Level Reports off or on:**

With the display showing *HIGH LEVEL RPTS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Low Level Rpts** (Phones—CS Phone 1-2)  
(0102-cs phone 1, 0112-cs phone 2)

(Defaults: CS Phone 1 = on, CS Phone 2 = off) This setting determines whether non-alarm conditions report to the central station, such as Force Armed, Hardwire Zone Trouble (open or short), Supervisory (wireless devices), Low Battery (wireless devices), and other non-alarm related conditions.

**To turn Low-Level Reports off or on:**

With the display showing *LOW LEVEL RPTS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Open/Close Rpts** (Phones—CS Phone 1-2)  
(0103-cs phone 1, 0113-cs phone 2)

(Defaults: all off) This setting determines whether opening and closing reports are sent to the central station. 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.

**To turn Opening/Closing Reports off or on:**

With the display showing *OPEN/CLOSE RPTS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Backup** (Phones—CS Phone 1-2)  
(0104-cs phone 1, 0114-cs phone 2)

(Defaults: CS Phone 1 = on, CS Phone 2 = off) This setting determines whether the panel uses another programmed central station phone number for reporting if three initial attempts are unsuccessful. CS PHONE 1 is backed up by CS PHONE 2, and CS PHONE 2 is backed up by CS PHONE 1. The panel makes up to 16 attempts (8 per phone number), alternating between the two programmed phone numbers.

For example, if *BACKUP* is on and three failed reporting attempts occur using CS PHONE 1, the panel switches to CS PHONE 2 for three more reporting attempts. If these attempts fail, the panel switches back to CS PHONE 1 for five more reporting attempts and, if necessary, switches back to CS PHONE 2 for five final attempts.

**To turn Backup off or on:**

With the display showing *BACKUP OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

## Programming the Panel

### Reporting Format *(Phones—CS Phone 1-2)* (0105-cs phone 1, 0115-cs phone 2)

(Defaults: all 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 Format:

With the display showing *REPORTING FORMAT SIA/CID (current setting)*, press **[1]** (for SIA) or **[2]** (for CID), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

The following describes how to program the phone settings that appear under *PAGER PHONE 1* thru *3*.

### Phone Number *(Phones—Pager Phone 1-3)* (0120-pager 1, 0130-pager 2, 0140-pager 3)

(Default = none) This setting is used for programming a phone number that communicates to a pager. Phone numbers can be 1 to 24 digits long, and include pauses or \* and # characters. To enter pauses, press **[C]**. To enter \*, press and hold **[7]** for one second. To enter #, press and hold **[9]** for one second.

#### Note

Call-waiting services should be disabled to prevent interrupting panel communication to the central monitoring station or pager. To program a dialing prefix that disables call-waiting, see the *CALL WAIT CANCEL* setting under the menu *PHONE OPTIONS—GLOBAL*.

#### To program a Pager Phone Number:

With the display showing *PHONE NUMBER \_ (or current number)*, enter the desired **pager phone number** including pauses, then press **[#]**.

The display flashes the entered number, then stops after pressing **[#]** and displays the new number.

#### To delete a Pager Phone Number:

With the display showing *PHONE NUMBER (current number)*, press **[0]**.

The display shows *PHONE NUMBER \_*.

### High Level Rpts *(Phones—Pager Phone 1-3)* (0121-pager 1, 0131-pager 2, 0141-pager 3)

(Default = on) This setting determines whether the following alarm conditions report to a pager:

Fire, Police, Auxiliary, Duress, and Freeze alarms, No Activity, Receiver Failure (or jam), System Tamper (40 incorrect keypresses or touchpad supervisory), and entering or exiting Sensor Test mode.

#### To turn High-Level Reports off or on:

With the display showing *HIGH LEVEL RPTS OFF/ON (current setting)*, press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

### Low Level Rpts *(Phones—Pager Phone 1-3)* (0122-pager 1, 0132-pager 2, 0142-pager 3)

(Default = off) This setting determines whether the following non-alarm conditions report to a pager, such as Force Armed, Hardwire Zone Trouble (open or short), Supervisory (wireless devices), Low Battery (wireless devices), and other non-alarm related conditions.

#### To turn Low-Level Reports off or on:

With the display showing *LOW LEVEL RPTS OFF/ON (current setting)*, press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays *LOW LEVEL RPTS OFF/ON (new setting)*.

**Open/Close Rpts** (Phones—Pager Phone 1-3)  
(0123-pager 1, 0133-pager 2, 0143-pager 3)

(Default = off) This setting determines whether opening and closing reports are sent to a 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.

**To turn Opening/Closing Reports off or on:**

With the display showing *OPEN/CLOSE RPTS OFF/ON* (current setting), press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

**Latchkey Reports** (Phones—Pager Phone 1-3)  
(0124-pager 1, 0134-pager 2, 0144-pager 3)

(Default = on) This setting determines whether the panel reports to a pager when the system is disarmed, using the latchkey modifier (**[6]**) and latchkey designated access code.

**To turn Latchkey reports off or on:**

With the display showing *LATCHKEY REPORTS OFF/ON* (current setting), press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

**Streamlining** (Phones—Pager Phone 1-3)  
(0125-pager 1, 0135-pager 2, 0145-pager 3)

(Default = on) This setting whether the panel includes (off) or excludes (on) the account number when reporting to a pager.

**To turn Streamlining off or on:**

With the display showing *STREAMLINING OFF/ON* (current setting), press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

The following describes how to program the phone settings that appear under *DOWNLOADER PHONE*.

**Phone Number** (Downloader Phone)  
(0150)

(Default = none) This setting is used for programming the phone number of a computer used for programming the panel from off-site. Phone numbers can be 1 to 24 digits long, including pauses or \* and # characters. To enter pauses, press **[C]**. To enter \*, press and hold **[7]** for one second. To enter #, press and hold **[9]** for one second.

**Note**

Call-waiting services should be disabled to prevent interrupting panel communication to the central monitoring station or pager. To program a dialing prefix that disables call-waiting, see the *CALL WAIT CANCEL* setting under the menu *PHONE OPTIONS—GLOBAL*.

**To program a downloader phone number:**

With the display showing *PHONE NUMBER* (current number), enter the desired **phone number** + **[#]**.

The display flashes the entered number, then stops after pressing **[#]** and displays the new setting.

## Phone Options Menu

The *PHONE OPTIONS* menu lets you set up system phone access and communications that affect the whole system (global) or a specific partition.

The following describes how to program the phone option settings that appear under *GLOBAL*.

**Phone Test** (Phone Options—Global)  
(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 + CODE + 2.

**To turn the Phone Test setting off or on:**

With the display showing *PHONE TEST OFF/ON* (current setting), press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

## Programming the Panel

### Auto Phone Test (02001) *(Phone Options—Global)*

(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.” and “Next Phone Test” settings found under *TIMERS—GLOBAL*).

#### To turn Automatic Phone Test off or on:

With the display showing *AUTO PHONE TEST OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### Auto Test Reset (02002) *(Phone Options—Global)*

(Default = on) This setting determines whether the Auto Phone Test interval is reset after any successful report to the central monitoring station. (Refer to the “Phone Test Freq.” and “Next Phone Test” settings found under *TIMERS—GLOBAL*).

When turned on, the panel reports an Auto Phone Test only if no other reports are made during any Phone Test Freq. time period. Any other successful panel report to the central monitoring station resets the Next Phone Test setting to the Phone Test Freq. value.

When turned off, an Auto Phone Test is always reported according to the Phone Test Freq. setting, even if the panel makes any 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.

#### To turn Auto Test Reset off or on:

With the display showing *AUTO TEST RESET OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### Comm Failure (02003) *(Phone Options—Global)*

(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.

#### Note

For UL Listed systems, Comm Failure must be turned on.

#### To turn Communication Failure notification off or on:

With the display showing *COMM FAILURE OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### DTMF Dialing (02004) *(Phone Options—Global)*

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

#### To turn DTMF Dialing off or on:

With the display showing *DTMF DIALING OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Dialer Abort** (Phone Options—Global)  
**(02005)**

(Default = on) This setting determines whether users can stop the panel's first dialing attempt (within the Dialer Abort Delay time setting), to report to the central station. When turned on, alarm reports from sensors in groups 00-20, 34, and 35 can be aborted by entering **1 + CODE** within the Dialer Abort Delay time setting (defaulted to 30 seconds). Cancel and restoral reports from these sensor groups are also aborted, if the related alarm report was aborted. Other reports that can be aborted include System Alarm Tamper/Cancel, No Activity Alarm/Cancel, Touchpad Police and Auxiliary Panic/Cancel, Recent Closing, and Two Trip Error. Fire alarm reports to the central station cannot be aborted.

**To turn Dialer Abort off or on:**

With the display showing *DIALER ABORT OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Dial Abort Delay** (Phone Options—Global)  
**(02006)**

(Default = 30 seconds) This setting determines how much time (15-120 seconds) the user has to enter the disarm command, to prevent the panel from reporting to the central monitoring station.

**To change the Dial Abort Delay:**

With the display showing *DIAL ABORT DELAY nn* (current setting), enter the desired **time (15-120 seconds)**, then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Cancel Message** (Phone Options—Global)  
**(02007)**

(Default = on) This setting determines whether the panel reports a cancel message to the central monitoring station, after disarming the system to clear an alarm condition.

**To turn Cancel Message off or on:**

With the display showing *CANCEL MESSAGE OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Pager Delay** (Phone Options—Global)  
**(02008)**

(Default = 15 seconds) This setting determines how long a report is delayed to a pager (00 - 30 seconds), 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* (current setting), enter a **two digit time (00 - 30)**, then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Call Wait Cancel** (Phone Options—Global)  
**(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, pager, or downloader phone number. The prefix can be up to eight digits. For prefixes that require dialing \* or #, press and hold for two seconds **7** (for \*) or **9** (for #).

**To set up Call Wait Cancel:**

With the display showing *CALL WAIT CANCEL \_\_* (or current setting), enter the desired **prefix**, then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

## Programming the Panel

The following describes how to program the phone option settings that appear under *PARTITION 1*.

|  |
|--|
| <b>Remote Access</b> (Phone Options—Partition 1)<br><b>(0210)</b>  |
| (Default = on) This setting determines whether the panel can be accessed from off-site for downloader programmer.  |
| <b>To turn Remote Access off or on:</b><br>With the display showing <i>REMOTE ACCESS OFF/ON</i> (current setting), press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b> .<br>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.   |
| <b>Ring/Hang/Ring</b> (Phone Options—Partition 1)<br><b>(0211)</b>   |
| (Default = on) This setting determines how the panel picks up (seizes) the phone line for downloader programming by remote access.   |
| <b>Note</b><br>The REMOTE ACCESS setting (above) must be turned on for this feature to work.<br><br>When turned on, the caller must listen for one or two full rings, hang up, then call the premises again within the next 10-40 seconds. The system answers after the first ring. The “on” setting is recommended if an answering machine shares the phone line with the panel.<br><br>When turned off, the caller must listen for 12 full rings before the system answers. The “off” setting is recommended if there is no answering machine sharing the phone line with the panel. |
| <b>To turn Ring/Hang/Ring access off or on:</b><br>With the display showing <i>RING/HANG/RING OFF/ON</i> (current setting), press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b> .<br>The display begins flashing the entered selection, then stops and displays the new setting.  |

## Timers Menu

The *TIMERS* menu lets you set up the various system feature times that affect the whole system (global) or a specific partition.

The following describes how to program the timer settings that appear under *GLOBAL*.

|  |
|--|
| <b>Supervisory Time</b> (Timers—Global)<br><b>(0300)</b>   |
| (Default = 03:00) This setting determines what time of day the panel sends supervisory, low battery, or auto phone test reports to the central station. The setting is based on a 24-hour timer so a.m. and p.m. settings are not needed.  |
| <b>Note</b><br>The panel's clock must be set with the correct time for accurate supervisory time reporting. Refer to the “User Programming” section for setting the panel's clock.   |
| <b>To set the Supervisory Time:</b><br>With the display showing <i>SUPERVISORY TIME HH:MM</i> (current setting), enter the desired <b>4-digit time value</b> (for example, enter 1330 to set the supervisory time for 1:30 p.m.), then press <b>#</b> .<br>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting. |
| <b>RF Tx Timeout</b> (Timers—Global)<br><b>(0301)</b>  |
| (Default = 12 hours) This setting determines how many hours (2 - 24) the panel has to receive at least one signal from a wireless device (learned into a supervised group). If the panel does not receive a signal from any supervised wireless device within the set time, the panel reports a supervisory condition to the central station.                        |
| <b>Note</b><br>For U.L. Listed residential burglary installations, the RF Tx Timeout must be set to 12 hours or less.  |
| <b>To set the RF Tx Timeout:</b><br>With the display showing <i>RF TX TIMEOUT nm HOURS</i> (current setting), enter the desired <b>2-digit timeout value (02 - 24)</b> , then press <b>#</b> .<br>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.  |

**Phone Test Freq. (0302)** *(Timers—Global)*

(Default = 7 days) This setting determines how often the panel sends the automatic phone test (see Auto Phone Test under Phone Options—Global) to the central station or a pager. The phone test frequency can be set to report every 1 to 255 days.

**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 flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Next Phone Test (0303)** *(Timers—Global)*

(Default = 7 days) This setting determines how many days (1 - 255) until the next automatic phone test occurs. When setting up Phone Test Freq. (see above), Next Phone Test must be set to accurately count the number of days left in the cycle before the next phone test occurs. This setting should be the same or less than the Phone Test Freq. setting.

**To set the Next Phone Test:**

With the display showing *NEXT PHONE TEST nnn DAYS (current setting)*, enter the **number of days (1 - 255)**, then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Output Trip Time (0304)** *(Timers—Global)*

(Default = 4 seconds) This setting determines how long onboard and SnapCard outputs are activated, when configured for a momentary trip.

**To set the Output Trip Time:**

With the display showing *OUTPUT TRIP TIME nn SECONDS (current setting)*, enter the **number of seconds (1 - 12)**, then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Activity Timeout (0305)** *(Timers—Global)*

(Default = 24 hours) This setting determines how long the system goes (1 - 42 hours) without user interaction and device activation before sending a ‘no activity’ report to the central station.

**To set the Activity Timeout:**

With the display showing *ACTIVITY TIMEOUT nn HOURS (current setting)* enter the desired **2-digit time value (1 - 42)**, then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Daylight Savings (0306)** *(Timers—Global)*

(Default = on) This setting determines whether the panel’s clock automatically adjusts for daylight savings time changes in spring and fall.

**To turn Daylight Savings off or on:**

With the display showing *DAYLIGHT SAVINGS OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

The following describes how to program the timer settings that appear under *PARTITION 1*.

**Entry Delay (0310)** *(Timers—Partition 1)*

(Default = 32 seconds) This setting determines how much time (32 - 240 seconds) users have to disarm the system after entering the armed premises through a designated delay door, to avoid causing an alarm.

**Note**  
For UL Listed residential installations, the Entry Delay must be set to 45 seconds or less.

**To set the Entry Delay:**

With the display showing *ENTRY DELAY nnn SECONDS (current setting)*, enter the desired **time value (32 - 240 using 8-second intervals)**, then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

|   |                             |
|---|-----------------------------|
| <b>Exit Delay</b><br>(0311)   | <i>(Timers—Partition 1)</i> |
| <p>(Default = 64 seconds) This setting determines how much time (48 - 184 seconds) the user has to leave the premises through a designated delay door after arming the system, to avoid causing an alarm.</p> <p><b>Note</b><br/>For UL Listed residential installations, the Exit Delay must be set to 60 seconds or less.</p> <p><b>To set the Exit Delay:</b></p> <p>With the display showing <i>EXIT DELAY nnn SECONDS (current setting)</i>, enter the desired <b>time value (48 - 184 using 8-second intervals)</b>, then press <b>#</b>.<br/>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p> |                             |
| <b>Extended Delay</b><br>(0312)   | <i>(Timers—Partition 1)</i> |
| <p>(Default = 4 minutes) This setting determines how much time (1 - 8 minutes) the user has to enter or exit the premises through a designated extended delay door, without causing an alarm.</p> <p><b>Note</b><br/>For UL Listed systems, Extended Delay shall not be used.</p> <p><b>To set the Extended Delay:</b></p> <p>With the display showing <i>EXTENDED DELAY nn MINUTES (current setting)</i>, enter the desired <b>time value (1 - 8)</b>, then press <b>#</b>.<br/>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>  |                             |
| <b>Siren Timeout</b><br>(0313)  | <i>(Timers—Partition 1)</i> |
| <p>(Default = 4 minutes) This setting determines how long sirens sound (1 - 30 minutes) if no one is present to disarm the system.</p> <p><b>Note</b><br/>For UL Listed systems, Siren Timeout must be set to 4 minutes or more.</p> <p><b>To set the Siren Timeout:</b></p> <p>With the display showing <i>SIREN TIMEOUT nn MINUTES (current setting)</i>, enter the desired <b>time value (1 - 30)</b>, then press <b>#</b>.<br/>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>  |                             |

## Touchpad Options Menu

The *TOUCHPAD OPTIONS* menu lets you set up touchpad panic and arming operation.

The following describes how to program the touchpad option settings that appear under *PARTITION 1*.

|  |                                       |
|--|---------------------------------------|
| <b>Fire Panic</b><br>(0400)  | <i>(Touchpad Options—Partition 1)</i> |
| <p>(Default = on) This setting determines whether touchpad fire panic buttons are enabled (on) or disabled (off).</p> <p><b>To change the Fire Panic setting:</b></p> <p>With the display showing <i>FIRE PANIC OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>. The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>                    |                                       |
| <b>Aux. Panic</b><br>(0401)  | <i>(Touchpad Options—Partition 1)</i> |
| <p>(Default = on) This setting determines whether touchpad auxiliary panic buttons are enabled (on) or disabled (off).</p> <p><b>To change the Auxiliary Panic setting:</b></p> <p>With the display showing <i>AUXILIARY PANIC OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.<br/>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p> |                                       |
| <b>Police Panic</b><br>(0402)  | <i>(Touchpad Options—Partition 1)</i> |
| <p>(Default = on) This setting determines whether touchpad police panic buttons are enabled (on) or disabled (off) on.</p> <p><b>To change the Police Panic setting:</b></p> <p>With the display showing <i>POLICE PANIC OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>. The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>           |                                       |



**Keychain TP Arm (Touchpad Options—Partition 1) (0403)**

(Default = off) This setting determines whether keychain touchpads arm the system directly to AWAY with NO DELAY (on) or increments from OFF to STAY, or from STAY to AWAY (off).

**To change the Keychain Touchpad Arming setting:**

With the display showing *KEYCHAIN TOUCHPAD ARM OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Star Is No Delay (Touchpad Options—Partition 1) (0404)**

(Default = off) This setting determines whether the keychain touchpad star button controls an onboard/SnapCard output (off) or the NO DELAY feature (on).

**To change the Keychain Star Is No Delay setting:**

With the display showing *STAR IS NO DELAY OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

## Reporting Menu

---

The *REPORTING* menu lets you set up which system events (global or partition) are reported to the central monitoring station.

The following describes how to program the reporting settings that appear under *GLOBAL*.

**24-Hour Tamper (Reporting—Global) (05000)**

(Default = off) This setting determines whether the panel sounds sirens and reports a tamper alarm when wireless sensor tamper switches are activated, even when the system is disarmed (OFF).

**To turn 24-Hour Tamper off or on:**

With the display showing *24-HOUR TAMPER OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Buffer Control (Reporting—Global) (05001)**

(Default = off) This setting determines whether all system events are logged in the buffer (off) or if only arming level changes are logged in the buffer (on).

**To turn Buffer Control off or on:**

With the display showing *BUFFER CONTROL OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Back In Service (Reporting—Global) (05002)**

(Default = on) This setting determines whether the panel reports to the central station after AC and backup battery power are restored after an extended power outage.

**To turn Back In Service reports off or on:**

With the display showing *BACK IN SERVICE OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

|  |                           |
|--|---------------------------|
| <b>Bypass Reports (05003)</b>  | <i>(Reporting—Global)</i> |
| <p>(Default = off) This setting determines if the panel reports to the central station or a pager whenever sensors or zones are bypassed.</p> <p><b>To turn Bypass Reports off or on:</b></p> <p>With the display showing <i>BYPASS REPORTS OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.</p> <p>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>   |                           |
| <b>Low CPU Battery (05004)</b>   | <i>(Reporting—Global)</i> |
| <p>(Default = on) This setting determines whether the panel reports a low panel battery to the central station or pager, before shutting down.</p> <p><b>To turn Low CPU Battery reports off or on:</b></p> <p>With the display showing <i>LOW CPU BATTERY OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.</p> <p>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>  |                           |
| <b>Battery Restoral (05005)</b>  | <i>(Reporting—Global)</i> |
| <p>(Default = off) This setting determines whether the panel reports to the central monitoring station or pager, when a wireless sensor reports to the panel after battery replacement.</p> <p><b>To turn Battery Restoral reports off or on:</b></p> <p>With the display showing <i>BATTERY RESTORAL OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.</p> <p>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p> |                           |

|  |                           |
|--|---------------------------|
| <b>Buffer Full Rpt (05006)</b>   | <i>(Reporting—Global)</i> |
| <p>(Default = off) This setting determines whether the panel sends an event buffer full report to the central monitoring station when the event buffer is nearly full.</p> <p><b>To turn Buffer Full Report off or on:</b></p> <p>With the display showing <i>BUFFER FULL RPT OFF/ON (current setting)</i>, press <b>#</b>.</p> <p>Press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.</p> <p>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p>  |                           |
| <b>Zone Restorals (05007)</b>  | <i>(Reporting—Global)</i> |
| <p>(Default = off) This setting determines whether the panel reports a restoral to the central monitoring station or pager for wireless or hardwire zones in alarm, before the alarm is canceled.</p> <p><b>Note</b><br/>As with all ITI panels, hardwire smoke detectors connected to Concord or SnapCard hardwire zones do not send restorals.</p> <p><b>To turn Zone Restoral reporting off or on:</b></p> <p>With the display showing <i>ZONE RESTORALS OFF/ON (current setting)</i>, press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.</p> <p>The display flashes the entered setting, then stops after pressing <b>#</b> and displays the new setting.</p> |                           |

**Two Trip Error (05008)** *(Reporting—Global)*

(Default = off) This setting determines if the panel sends an error report to the central monitoring station when a two-trip alarm is not verified (see “ALARM VERIFY” later in this section and “Appendix A: Table A3. Sensor Group Characteristics”).

If this feature is turned on and a second sensor trip does not occur within a 4-minute time period, the panel sends a TWO TRIP ERROR report to the central monitoring station.

When this feature is turned off, the panel does not send error reports.

**Note**  
For UL Listed systems, Two Trip Error must be turned off.

**To turn Two Trip Error off or on:**  
With the display showing *TWO TRIP ERROR OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**TP Panic RPT FMT (05009)** *(Reporting—Global)*

(Default = off) This setting determines how the panel reports touchpad panic alarms to the central station.

When turned on, touchpad panic alarms report using the following 3-digit codes:

Medical—596, Auxiliary—597, Police—598, Fire—599

When turned off, touchpad panic alarms report using a 3-digit code from 500 to 503, with the last digit identifying the touchpad device number.

**To turn TP Panic RPT FMT off or on:**  
With the display showing *TP PANIC RPT FMT OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**AC Failure (05010)** *(Reporting—Global)*

(Default = off) This setting determines whether the panel reports to the central station after AC power to the panel is out for 15 minutes.

**Note**  
For UL Listed systems, AC Failure must be turned on.

**To turn AC Failure reports off or on:**  
With the display showing *AC FAILURE OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Receiver Failure (05011)** *(Reporting—Global)*

(Default = off) This setting determines whether the panel reports if no wireless sensor signals have been received for two hours, or if the receiver is being jammed (constant signal).

**Note**  
For U.L. Listed installations that include wireless devices, this feature must be on.

**To turn Receiver Failure reports off or on:**  
With the display showing *RECEIVER FAILURE OFF/ON (current setting)*, press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**RF Low Bat Rpt (05012)** *(Reporting—Global)*

(Default = weekly) This setting determines whether the panel reports to the central monitoring station or pager daily or weekly, when a wireless device reports 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 flashes the entered setting, then stops after pressing **#** and displays the new setting.

### RF Supv Report (05013) *(Reporting—Global)*

(Default = weekly) This setting determines whether the panel reports to the central monitoring station or pager daily or weekly, when the panel detects a wireless device supervisory condition.

#### 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 flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

### Swinger Limit (05014) *(Reporting—Global)*

(Default = 1) This setting determines the maximum number of times a sensor/zone in groups 00 - 20, 29, or 34 can go into alarm during a single arming period, before the panel automatically bypasses that sensor/zone. The automatic bypass is logged into the event buffer.

When set to 1, the panel automatically bypasses a sensor/zone, the first time it causes an alarm. When set to 2, the panel automatically bypasses a sensor/zone if it causes a second alarm during the same arming period.

A sensor/zone that is automatically bypassed can be automatically unbypassed during the same arming period, *only* if the system receives no further activations from that sensor/zone over the next 48 - 50 hours.

Changing the arming level clears all automatically bypassed sensors/zones and resets the Swinger Limit count on all sensors/zones.

#### To set the Swinger Limit:

With the display showing *SWINGER LIMIT n* (current setting), press **[1]** or **[2]**, then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

The following describes how to program the settings that appear under *REPORTING—PARTITION 1*.

### Opening Reports (0510) *(Reporting—Partition 1)*

(Default = off) This setting determines whether the panel sends an opening report to the central station or pager, after disarming the system.

#### Note

To use this feature, the *OPEN/CLOSE REPORTS* settings under the *PHONES—CS PHONE 1-2* and/or *PHONES—PAGER PHONE 1-3* menus must be turned on for the specific CS Phone or Pager Phone number.

#### To turn Opening Reports off or on:

With the display showing *OPENING REPORTS OFF/ON* (current setting), press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

### Closing Reports (0511) *(Reporting—Partition 1)*

(Default = off) This setting determines whether the panel sends a closing report to the central station or pager, after arming the system.

#### Note

To use this feature, the *OPEN/CLOSE REPORTS* settings under the *PHONES—CS PHONE 1-2* and/or *PHONES—PAGER PHONE 1-3* menus must be turned on for the specific CS Phone or Pager Phone number.

#### To turn Closing Reports off or on:

With the display showing *CLOSING REPORTS OFF/ON* (current setting), press **[1]** (off) or **[2]** (on), then press **[#]**.

The display flashes the entered setting, then stops after pressing **[#]** and displays the new setting.

**Recent Closings** (Reporting—Partition 1)  
(0512)

(Default = on) This setting determines whether the panel sends a recent closing report to the central station or a pager, if an alarm occurs within two minutes *after* the exit delay time expires. Such a report is used to identify a possible exit fault.

**To turn Recent Closings off or on:**

With the display showing *RECENT CLOSINGS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**No Activity** (Reporting—Partition 1)  
(0513)

(Default = off) This setting determines whether the panel sends a no activity report to the central station or pager, if there is no system activity within a preset time period (see *TIMERS—ACTIVITY TIMEOUT*).

**To turn No Activity reports off or on:**

With the display showing *NO ACTIVITY OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Duress Option** (Reporting—Partition 1)  
(0514)

(Default = off) This setting determines whether the system can be controlled using a programmed duress code (see *SECURITY—PARTITION 1—DURESS CODE*).

**Caution**

Because using duress codes often results in false alarms due to code entry errors, it is strongly recommended not to program any duress codes.

If a duress code is absolutely necessary, their use with an Interrogator is highly recommended to reduce false alarms and accidental dispatches.

**To turn Duress Option off or on:**

With the display showing *DURESS OPTION OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Force Armed** (Reporting—Partition 1)  
(0515)

(Default = off) This setting determines whether the panel reports to the central monitoring station when a user force arms the system.

Force Armed occurs if the user presses **BYPASS** when arming the system with open sensors/zones protesting.

**Note**

Auto Force Armed always reports to the central monitoring station.

Auto Force Armed occurs if the user *does not* press **BYPASS** when arming the system with open sensors/zones protesting and the siren time expires.

**Note**

For UL Listed systems, Force Armed must be turned off.

**To turn Force Armed off or on:**

With the display showing *FORCE ARMED OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

**Alarm Verify** (Reporting—Partition 1)  
(0516)

(Default = off) This setting determines whether the panel reports to the central monitoring station after a single sensor/zone trip (off) or waits for a second trip before reporting (on).

This setting affects sensors/zones learned into groups 10 through 20. If Alarm Verify is set to on, group 18 responds the same as group 17. See “Appendix A, Table A.3: Sensor Group Characteristics.”

**Note**

For UL Listed systems, Alarm Verify must be turned off.

**To turn Alarm Verify off or on:**

With the display showing *ALARM VERIFY OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### System Tamper (Reporting—Partition 1) (0517)

(Default = off) This setting determines whether the armed system goes into alarm if several incorrect access codes (40 consecutive keypresses) are entered. This setting also determines whether the panel reports to the central station if a bus device stops communicating with the panel.

#### To change the System Tamper setting:

With the display showing *SYSTEM TAMPER OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

## Siren Options Menu

The *SIREN OPTIONS* menu lets you set up siren operation and supervision.

The following describes how to program the siren option settings that appear under *GLOBAL*.

### Immediate Beeps (Siren Options—Global) (0600)

(Default = off) This setting determines whether the panel activates trouble beeps immediately (on) once a wireless device supervisory condition is detected, or only if the condition exists at panel supervisory time (off). (Refer to *TIMERS—GLOBAL—SUPERVISORY TIME*.)

#### Note

For UL Listed systems, this feature must be on.

#### To turn Immediate Beeps off or on:

With the display showing *IMMEDIATE BEEPS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### Disable Trouble Beeps (Siren Options—Global) (0601)

(Default = off) This setting determines whether the panel activates trouble beeps when a wireless device supervisory condition is detected.

#### Note

For UL Listed systems, this feature must be off.

#### To turn Disable Trouble Beeps off or on:

With the display showing *DISABLE TR BEEPS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

### UL 98 Options (Siren Options—Global) (0602)

(Default = off) This setting determines whether the panel complies with UL 98 requirements (4-hour trouble beep restart, 4-hour backup battery test, 2-hour supervisory time period for sensor group 26—Fire).

#### Note

For UL Listed systems, this feature must be on.

#### To turn UL 98 Options off or on:

With the display showing *UL 98 OPTIONS OFF/ON* (current setting), press **1** (off) or **2** (on), then press **#**.

The display flashes the entered setting, then stops after pressing **#** and displays the new setting.

The following describes how to program the settings that appear under *SIREN OPTIONS—PARTITION 1*

|   |                                    |
|---|------------------------------------|
| <b>Siren Verify</b><br>(0610)   | <i>(Siren Options—Partition 1)</i> |
| <p>(Default = off) This setting determines whether the panel monitors sirens connected to panel terminal 7 (OUT1/+12V).</p> <p>When turned on, sirens connected to panel terminals 3 (GND) and 7 (OUT1/+12V) require a 2k EOL resistor. Refer to “Installing the System—Connecting Piezo Sirens” for complete details.</p> <p><b>Note</b><br/>For UL Listed systems, this feature must be on.</p> <p><b>To turn Siren Verify off or on:</b></p> <p style="padding-left: 40px;">With the display showing <i>SIREN VERIFY OFF/ON</i> (<i>current setting</i>), press <b>[1]</b> (off) or <b>[2]</b> (on), then press <b>[#]</b>.</p> <p style="padding-left: 40px;">The display flashes the entered setting, then stops after pressing <b>[#]</b> and displays the new setting.</p> |                                    |

## Sensors Menu

The *SENSORS* menu gives you access to the following:

- *LEARN SENSORS*—lets you learn hardwire zones and wireless sensors into panel memory and assign zones/sensors to specific partitions.
- *SENSOR TEXT*—lets you program sensor text for zone/sensor identification.
- *DELETE SENSORS*—lets you delete zones/sensors from panel memory.
- *EDIT SENSORS*—lets you view and/or change sensor/zone group assignment, view sensor number and text assignments of learned sensors/zones, identify whether zone is wireless or hardwire, and indicates sensor/zone/touchpad input N/C or N/O configuration.

The following describes how to program the sensor settings that appear under *LEARN SENSORS*.

**Note**

If 2-wire smoke detectors are connected to hardwire zone input 6, the TWO-WIRE SMOKE setting must be turned on **before** entering the LEARN SENSORS menu. See *ONBOARD OPTIONS—INPUTS* later in this section.

|  |                  |
|--|------------------|
| <b>Learn Sensors</b><br>(070)  | <i>(Sensors)</i> |
| <p>(Default = none) The following describes how to learn hardwire zones and wireless devices into panel memory.</p> <p><b>To Learn Sensors into panel memory:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>SENSORS</i>, press <b>#</b> and the display shows <i>LEARN SENSORS</i>.</li> <li>2. Press <b>#</b> and the display shows <i>SENSOR GROUP 0</i>.</li> <li>3. Enter the desired <b>2-digit sensor group</b> + <b>[#]</b> (see Table A.4 in “Appendix A” for a description of all sensor group characteristics). The display shows <i>TRIP SENSOR nn</i>, where nn is the displayed (next available) sensor number.</li> <li>4. To change the displayed sensor number, enter the desired <b>2-digit sensor number</b> + <b>[#]</b>.</li> <li>5. With the desired sensor number displayed, trip the sensor or zone as follows: <ul style="list-style-type: none"> <li>• <b>Hardwire Zones</b>—trip the zone into the alarm state.</li> <li>• <b>Wireless Sensors</b>—follow the instructions included with each sensor. <ul style="list-style-type: none"> <li>• <b>Wireless Door/Window Sensors with External Contacts</b>—place the external contact in the alarm condition, then activate the sensor’s tamper switch.</li> <li>• <b>Handheld Wireless Touchpads</b>—press and hold the BYPASS button until the touchpad LED flashes.</li> <li>• <b>Keychain Touchpads</b>—press and hold the lock and unlock buttons together until the touchpad LED flashes.</li> <li>• <b>ELM Keychain Touchpads</b>—a.) Press and release the unlock button twice quickly, then press and hold until the LED flashes three times. b.) Press and release the unlock button once quickly, then press and hold until the LED flashes two times. c.) Press and hold the unlock button until the LED flashes once.</li> </ul> </li> </ul> </li> <li>6. Continue tripping sensors to learn them into the selected sensor group. To stop learning sensors into a group, press <b>[*]</b> twice and start again from step 1 (<i>LEARN SENSORS</i>) to learn sensors into another group (or use the <i>EDIT SENSORS</i> menu to change group assignment after learning the sensor/zone).</li> </ol> |                  |

### Sensor Text (071) (Sensors)

(Default = none) Use the following guidelines for programming text to identify zone/sensor locations.

- There are 16 character/word locations or “Item Numbers” for each zone/sensor name. Item numbers for each character/word appear in “Appendix A, Table A4.”
- If a desired word does not appear in the list, create it using characters (custom text).
- When using words, spaces between them appear automatically. When creating words using characters, you must reserve an item number for a ‘space’ after creating 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.
- Plan ahead before programming sensor text. You may need to abbreviate words you create, to avoid running out of item numbers.

#### To program Sensor Text:

1. With the display showing *LEARN SENSORS*, press **[B]** until the display shows *SENSOR TEXT*.
2. Press **[#]** and the display shows *TEXT FOR SN 01*.
3. Press **[#]** and the display shows:  
*Sn 01 ITEM 00*  
*000 -*  
where *ITEM 00* is the first character/word location and *000* is the 3-digit character/word number.
4. Enter the 3-digit number of the desired character/word or scroll forward through the numbers by pressing **[B]** or backward by pressing **[A]**. If you make a mistake, simply enter the correct 3-digit number or continue scrolling through choices.
5. Press **[#]** to accept the displayed choice and the display shows:  
*Sn 01 ITEM 01*  
*000 -*
6. Repeat steps 4 and 5 as needed to complete the zone/sensor name.
7. Press **[\*]** after entering the last 3-digit character/word number. The display shows the complete text name. For example:  
*TEXT FOR SN 01*  
*FRONT ENTRY DOOR*

### Delete Sensors (072) (Sensors)

(Default = none) The following describes how to remove hardware 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 *LEARN SENSORS*, press **[B]** until the display shows *DELETE SENSORS*.
2. Press **[#]** and the display shows *DELETE SN NN* (*lowest zone/sensor number in panel memory*).
3. Press **[#]** to delete the displayed sensor or enter the desired sensor number, then press **[#]**.  
The display flashes the entered number, then stops and shows *DELETE SENSOR NN DONE*.

Repeat steps 2 and 3 until all desired sensors are deleted.



| Edit Sensors<br>(073)   | <i>(Sensors)</i> |
|---|------------------|
| <p>(Default = none) This menu lets you view the assignments for each learned zone/sensor. For example, the display shows:</p> <p style="text-align: center;"><i>S01 P1 G13 NC HW<br/>BACK DOOR</i></p> <p>where S01 = zone/sensor number, P1 = partition 1, G13 = sensor group 13, NC = normally closed, HW = hard-wired, and BACK DOOR is the programmed text name.</p> <p>You can also change the zone/sensor group assignment, eliminating the need to delete and re-learn the zone/sensor.</p> <p><b>To Edit Sensors:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>LEARN SENSORS</i>, press <b>[B]</b> until the display shows <i>EDIT SENSORS</i>.</li> <li>2. Press <b>[#]</b> and the display shows the lowest sensor number zone/sensor assignments.</li> <li>3. Press <b>[A]</b> or <b>[B]</b> to scroll through all learned zone/sensor number assignments.</li> <li>4. When the desired zone/sensor is displayed press <b>[#]</b>. The display shows <i>SENSOR GROUP nn (current group assignment)</i>.</li> <li>5. Enter the desired group number, then press <b>[#]</b>. The display shows the new group assignment.</li> </ol> |                  |

## Accessory Modules Menu

The *ACCESSORY MODULES* menu gives you access to the following:

- *BUS DEVICES*—this menu lets you read bus device unit numbers, assign bus devices to a partition, and other features associated with a specific bus device.
- *SNAPCARD*—this menu lets you set the configuration number for each SnapCard output.

The following describes how to program the settings that appear under *ACCESSORY MODULES—BUS DEVICES*.

**Note**

Most settings under *ACCESSORY MODULES—BUS DEVICES* have no shortcut numbers.

| Unit - ID<br>(0800 thru 0803)   | <i>(Acc. Modules—Bus Devices)</i> |
|---|-----------------------------------|
| <p>(Default = none) This menu lets you identify all connected bus devices, each device address, unit ID number, and other configurations based on a specific device. You can also delete learned bus device addresses.</p> <p><b>To identify bus device Unit and ID:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>BUS DEVICES</i>, press <b>[#]</b>. The display shows the bus device unit number and the 8-digit unit ID number. For example:<br/><i>UNIT - ID<br/>0—02110185</i><br/>where 0 is the bus device unit number and 02110185 is the unit ID number.</li> </ol> <p><b>Note</b><br/>To help identify bus devices, the 8-digit unit ID number is also located on a label on the back of each Super-Bus 2000 device.</p> <ol style="list-style-type: none"> <li>2. Press <b>[A]</b> or <b>[B]</b> to identify all other bus device unit numbers (0-3) and identification numbers.</li> </ol> <p><b>To delete learned bus device unit numbers:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>BUS DEVICES</i>, press <b>[#]</b>. The display shows the bus device set to unit number 0.</li> <li>2. Press <b>[A]</b> or <b>[B]</b> until the bus device unit number you want to delete is displayed.</li> <li>3. Press <b>[D]</b>. The display changes the unit number to <i>NONE</i>.</li> </ol> |                                   |
| Device ID   | <i>(Acc. Modules—Bus Devices)</i> |
| <p>(Default = none) This menu lets you change a bus device ID number when replacing a defective bus device.</p> <p><b>To change a Device ID:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing the desired touchpad, press <b>[#]</b>. The display shows <i>DEVICE ID (current ID)</i>.</li> <li>2. Enter the ID of the new bus device, then press <b>[#]</b>. The display flashes the entered selection, then stops after pressing <b>[#]</b> and shows the new setting.</li> <li>3. Exit programming mode.</li> <li>4. Remove AC and battery power from the panel.</li> <li>5. Replace the defective bus device with a new one.</li> <li>6. Apply AC and battery power to the panel.</li> </ol>  |                                   |

**Status Beeps** (Acc. Modules—Bus Devices)

(Default = on) This setting determines whether the selected touchpad sounds status beeps. Each touchpad can be set individually. This feature is usually turned off if a touchpad is located in or near bedrooms, to avoid disturbing persons sleeping.

**Note**

For UL Listed systems, Status Beeps must be turned on.

**To turn touchpad Status Beeps on or off:**

1. With the display showing the desired touchpad, press **#** then **B** once. 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, then press **#**.  
The display flashes the entered selection, then stops after pressing **#** and shows the new setting.

**Key Beeps** (Acc. Modules—Bus Devices)

(Default = on) This setting determines whether selected touchpads sound beeps when their buttons are pressed. This feature is usually turned off if a touchpad is located in or near bedrooms, to avoid disturbing persons sleeping.

**To turn Key Beeps on or off:**

1. With the display showing the desired touchpad, press **#** + **B** + **#** + **B**. The display shows *KEY BEEPS OFF/ON (current setting)*.
2. Press **1** (off) or **2** (on) to select the desired setting, then press **#**.  
The display flashes the entered selection, then stops after pressing **#** and shows the new setting.

The following describes how to program the settings that appear under *SNAPCARDS*.

**Output 1, 2, 3, 4** (Acc. Modules—SnapCards)  
(081000—output 1, 081010—output 2, 081020—output 3, 081030—output 4)

(Defaults: Output 1 = 01400, Output 2 = 00410, Output 3 = 00903, Output 4 = 01003) This setting lets you assign the 5-digit configuration number for each SnapCard relay output, that determines which system event activates the output and the duration or time the output is activated.

The first three digits represent the trigger number of an event such as, an alarm, open sensor, or arming the system.

The last two digits represent how the output responds such as, momentary, sustained (or latched), or for a preset time.

Tables A6 - A10 in “Appendix A” identify system event trigger and response numbers.

**To assign configuration numbers to SnapCard Relay outputs:**

1. With the display showing *SNAPCARDS*, press **#**. The display shows *OUTPUT PROGRAMMING*.
2. Press **#** again and the display shows *OUTPUT 1*.
3. Press **A** or **B** to select the desired output (1 - 4), then press **#**. The display shows *OUTPUT n (current setting)*.
4. Enter the desired **5-digit configuration number** for this output, then press **#**.  
The display flashes the entered number, then stops after pressing **#** and shows the new setting.

## Onboard Options Menu

The *ONBOARD OPTIONS* menu lets you set up the following built-in options:

*INPUTS*—this menu lets you set panel zone input 6 for 2-wire smoke operation and turn the smoke verification feature off/on.

*OUTPUTS*—this menu lets you assign the panel’s two built-in outputs to partitions and set their configuration numbers.

The following describes how to program the settings that appear under *ONBOARD OPTIONS—INPUTS*.

| Smoke Verify<br>(0900)  | <i>(Onboard Options—Inputs)</i> |
|---|---------------------------------|
| <p>(Default = off) This setting determines whether the panel requires two alarm signals within five minutes (on) from 2-wire smoke detectors connected to panel zone input 6 and/or SnapCard zone inputs, or any other hardwire zone learned into sensor group 26 (FIRE), before activating system sirens and reporting to a central station or pager.</p>  |                                 |
| <p><b>Note</b><br/>For California State Fire Marshall Listed installations, this feature must be off.</p>   |                                 |
| <p><b>To turn Smoke Verify off or on:</b></p> <ol style="list-style-type: none"> <li>With the display showing <i>ONBOARD OPTIONS</i>, press <b>#</b> twice. The display shows <i>SMOKE VERIFY OFF/ON (current setting)</i>.</li> <li>Press <b>1</b> (off) or <b>2</b> (on), then press <b>#</b>.<br/>The display flashes the entered number, then stops after pressing <b>#</b> and shows the new setting.</li> </ol> |                                 |

| Two-Wire Smoke<br>(0901) | <i>(Onboard Options—Inputs)</i> |
|--------------------------|---------------------------------|
|--------------------------|---------------------------------|

(Default = off) This setting determines whether panel zone input 6 is set up for 2-wire smoke detectors (on) or for standard intrusion or 4-wire smoke detectors (off).

**Note**

If 2-wire smoke detectors are connected to hardwire zone input 6, this setting must be turned on **before** entering the LEARN SENSORS menu.

**To turn Two-Wire Smoke off or on:**

- With the display showing *ONBOARD OPTIONS*, press **#** twice, then **B** once. The display shows *TWO WIRE SMOKE OFF/ON (current setting)*.
- Press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered number, then stops after pressing **#** and shows the new setting.

| Output 1, 2.<br>(09100—output 1, 09110—output 2) | <i>(Onboard Options—Output 1, 2)</i> |
|--|--------------------------------------|
|--|--------------------------------------|

(Defaults: Output 1 = 00410, Output 2 = 01710) This setting lets you assign the selected output’s 5-digit configuration number that determines which system event activates the output and the duration or time the output is activated.

The first three digits represent the trigger number of an event such as, an alarm, open sensor, or arming the system.

The last two digits represent how the output responds such as, momentary, sustained (or latched), or for a preset time.

Tables A6 - A10 in “Appendix A” identify system event trigger and response numbers.

**To set up onboard Output 1 & 2 partition and configuration assignments:**

- With the display showing *ONBOARD OPTIONS*, press **#** + **B**. The display shows *OUTPUT PROGRAMMING*.
- Press **#** and the display shows *OUTPUT 1*. Press **B** to select *OUTPUT 2*.
- After selecting the desired output, press enter. The display shows *CONFIGURATION (current setting)*.
- Enter the desired **configuration number**, then press **#**.  
The display flashes the entered number, then stops after pressing **#** and shows the new setting.

## 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 **[A]** once and the display shows *EXIT PROGRAMMING*.
3. Press **[#]**. The panel exits program mode and the touchpad displays the time and date.

## Entering User Programming Mode

---

The user programming mode lets you program the following system settings:

- Time and Date
- User Codes
- Options
- View System Version Information

You can enter user programming from an alphanumeric or fixed english touchpad, using the system master code.

The system master code default is **[1][2][3][4]**.

### To enter user-programming mode:

Press **[9] + [C][0][0][E]**. The display shows *TIME AND DATE*.

## Time and Date Menu

---

The *TIME AND DATE* menu lets you set the panel's clock and calendar. Alphanumeric touchpads display the time and date whenever the system is disarmed. Setting the time and date is important for accurate tracking of system events stored in the event buffer. The panel uses a global clock and calendar for time and date.

The following describes how to set the panel's time and date.

| Time<br>(00)   | <i>(Time and Date)</i> |
|--|------------------------|
| <p>(Default = 00:00) This setting lets you adjust the panel's clock to the correct time. The panel uses a 24-hour clock, eliminating the need to designate am or pm. For example, to set the time to 4:17pm, enter 1617.</p>   |                        |
| <p><b>To set the Time:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>TIME AND DATE</i>, press <b>[#]</b> and the display shows <i>TIME hh:mm AM/PM (current time)</i>.</li> <li>2. Enter the correct time (0000 - 2359), then press <b>[#]</b>.<br/>The display flashes the entered time, then stops after pressing <b>[#]</b> and displays the new time.</li> </ol>   |                        |
| Date<br>(01)   | <i>(Time and Date)</i> |
| <p>(Default = 01/01/00) This setting lets you adjust the panel's calendar to the correct month, day, and year.</p>   |                        |
| <p><b>To set the Date:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>TIME AND DATE</i>, press <b>[#]</b> then <b>[B]</b> and the display shows <i>DATE nn/nn/nn (current date)</i>.</li> <li>2. Enter the correct month (01 - 12), day (01 - 31), and year (00 - 99). For example, enter 090100 for September 1, 2000, then press <b>[#]</b>.<br/>The display flashes the entered date, then stops after pressing <b>[#]</b> and displays the new date.</li> </ol> |                        |

## User Codes Menu

The *USER CODES* menu lets you program/change regular user access codes and the system master code.

| User Codes<br>(10nn0—nn = user 01 thru 15)   | (User Codes) |
|--|--------------|
| <p>(Default = none) User Codes perform basic arming and disarming functions. The system allows up to 16 user codes (user numbers 00 - 15). User numbers that show **** indicate no code is currently programmed for that user number.</p>  |              |
| <p><b>To program Regular User Codes:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>USER CODES</i>, press <b>#</b> and the display shows <i>REGULAR USER CODES</i>.</li> <li>2. Press <b>#</b> and the display shows <i>USER nn (first available user number)</i>.</li> <li>3. Press <b>A</b> or <b>B</b> to select the desired user number, then press <b>#</b>. The display shows <i>USER nn - nnnn</i>.</li> <li>4. Enter a 4-digit user code or press <b>A</b> or <b>B</b> to select the desired user number and enter a 4-digit user code, then press <b>#</b>.<br/>The display flashes the entered code, then stops after pressing <b>#</b> and displays <i>USER nn - nnnn (new code)</i>.</li> </ol> |              |
| <p><b>To delete Regular User Codes:</b></p> <ol style="list-style-type: none"> <li>1. With the display showing <i>USER CODES</i>, press <b>#</b> and the display shows <i>REGULAR USER CODES</i>.</li> <li>2. Press <b>#</b> and the display shows <i>USER nn - nnnn (first available user number)</i>.</li> <li>3. Press <b>A</b> or <b>B</b> to select the desired user number/user code you want to delete, then press <b>#</b>. The display shows <i>USER nn - nnnn</i>.</li> <li>4. Enter a 4-digit code that is the same as the system master code, then press <b>#</b>.<br/>The display flashes the entered code, then stops after pressing <b>#</b> and displays <i>USER nn - **** (no code)</i>.</li> </ol>                       |              |

| Direct Bypassing<br>(10nn1—nn = user 01 thru 15) | (User Codes) |
|--|--------------|
|--|--------------|

(Default = off) This setting determines whether a user code can bypass sensors.

**To turn user code Direct Bypassing off or on:**

1. With the display showing *USER CODES*, press **#** and the display shows *REGULAR USER CODES*.
2. Press **#** and the display shows *USER nn (first available user number)*.
3. Press **A** or **B** to select the desired user number, then press **#**. The display shows *USER nn - nnnn*.
4. Press **B** and the display shows *DIRECT BYPASSING OFF/ON (current setting)*.
5. Press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#**.

| System Tests<br>(10nn2—nn = user 01 thru 15) | (User Codes) |
|--|--------------|
|--|--------------|

(Default = off) This setting determines whether a user code can perform phone and sensor tests.

**To turn user code System Tests off or on:**

1. With the display showing *USER CODES*, press **#** and the display shows *REGULAR USER CODES*.
2. Press **#** and the display shows *USER nn (first available user number)*.
3. Press **A** or **B** to select the desired user number, then press **#**. The display shows *USER nn - nnnn*.
4. Press **B** and the display shows *SYSTEM TESTS OFF/ON (current setting)*.
5. Press **1** (off) or **2** (on), then press **#**.  
The display flashes the entered setting, then stops after pressing **#**.

### System Master Code (110) (User Codes)

(Default = 1234) The System Master Code performs all system operations and user programming.

#### To change the System Master Code:

1. With the display showing *USER CODES*, press **#** then **B**. The display shows *SYSTEM MASTER CODE*.
2. Press **#** and the display shows *SYSTEM MASTER nnnn (current code)*.
3. Enter a new 4-digit code, then press **#**. The display flashes the entered code, then stops after pressing **#** and displays the new code.

## Options Menu

---

The *OPTIONS* menu lets you set up the system for downloading, silent arming, and adjust alphanumeric touchpad display brightness.

### Downloading (20) (Options)

(Default = on) This setting determines whether the panel can communicate with ITI ToolBox software for programming the system from off-site.

#### Note

The panel must have a Downloader phone number and Downloader code programmed and be connected to a phone line for this feature to work.

#### To turn Downloading off or on:

1. Enter user programming with the system master code. The display shows *TIME AND DATE*.
2. Press **A** or **B** until the display shows *OPTIONS*.
3. Press **#** and the display shows *DOWNLOADING OFF/ON (current setting)*.
4. Press **1** (off) or **2** (on) then press **#**. The display flashes the entered selection, then stops after pressing **#** and displays the new setting.

### Silent Arming (21) (Options)

(Default = off) This setting determines whether the partition arms the system with (off) or without (on) sounding status beeps from sirens and the touchpad.

#### Note

Turning this feature on means the user never has to press 5 (SILENT) before arming the system in order to silence status sounds.

#### To turn Silent Arming off or on:

1. Enter user programming mode with the system master code. The display shows *TIME AND DATE*.
2. Press **A** or **B** until the display shows *OPTIONS*.
3. Press **#**, then **B** and the display shows *SILENT ARMING OFF/ON (current setting)*.
4. Press **1** (off) or **2** (on) then press **#**. The display flashes the entered selection, then stops after pressing **#** and displays the new setting.

### Touchpad Brightness (22) (Options)

(Default = 2) This setting lightens or darkens the background on touchpad displays. Each touchpad display can be set independently to compensate for lighting conditions in the touchpad location.

#### To adjust Touchpad Brightness:

1. Enter user programming mode with the system master code. The display shows *TIME AND DATE*.
2. Press **A** or **B** until the display shows *OPTIONS*.
3. Press **#**, then **B** twice and the display shows *TOUCHPAD BRIGHTNESS n (current setting)*.
4. Enter a setting from **0** (darkest background) to **3** (brightest background) then press **#**. The display flashes the entered selection, then stops after pressing **#** and displays the new setting.

### Chime On Close (Options) (25)

(Default = off) This setting determines whether a single chime is sounded when a perimeter door or window is closed.

#### To turn Chime On Close off or on:

1. Enter user programming mode with the system master code. The display shows *TIME AND DATE*.
2. Press **[A]** or **[B]** until the display shows *OPTIONS*, then press **[#]**. The display shows *DOWNLOADING OFF/ON*.
3. Press **[A]** or **[B]** until the display shows *CHIME ON CLOSE OFF/ON (current setting)*.
4. Press **[1]** (off) or **[2]** (on) then press **[#]**. The display flashes the entered selection, then stops after pressing **[#]** and displays the new setting.

## System Version Menu

The *SYSTEM VERSION* menu lets you view and identify panel hardware and software. This information is primarily used for troubleshooting purposes.

### System Version (30 = factory code, 31 = system number, 32 = system level)

(Default = N/A) This menu lets you view and identify panel hardware and software version.

#### To view and identify the System Version:

1. Enter user programming with the system master code. The display shows *USER CODES*.
2. Press **[A]** or **[B]** until the display shows *SYSTEM VERSION*.
3. Press **[#]** and the display shows *FACTORY CODE nnn\*nnnn*.
4. Press **[B]** and the display shows *SYSTEM NUMBER \*nnnnnnn*.
5. Press **[B]** again and the display shows *SYSTEM LEVEL nnnn*.

## Downloader Programming

The panel can be programmed remotely using ToolBox. Use the information you recorded in Appendix A to inform the downloading operator of your installation's programming requirements.

### ToolBox Downloader Programming

#### Note

A Downloader Phone Number must be programmed and user-programmable option Downloading must be set to on in order for remote downloader programming to work.

#### To initiate a ToolBox download session:

1. Contact your download station and ask the operator to prepare to download to the panel.
2. Make sure the system is disarmed.
3. Press **[8]** + **system master [C][O][D][E]** + **[7]** + **[0]** (any), **[1]** (down), or **[2]** (up).

The display shows *SYSTEM DOWNLOAD IN PROGRESS* during the downloading process.

If the alphanumeric touchpad does not display *SYSTEM DOWNLOAD IN PROGRESS*, call the downloader operator to verify the downloader phone number and that ToolBox is set up properly. Refer to the "Troubleshooting" section if the problem persists.

## Testing the System

This section describes the following:

- Basic System Commands
- Testing Zones/Sensors
- Testing Phone Communication
- Testing Central Station/Pager Communication

You should test the system after installing, servicing, and after adding or removing devices from the system. UL Listed systems should be tested weekly.

Refer to the “Troubleshooting” section if correct test results are not achieved.

## Basic System Commands

Table 5 describes the system’s basic touchpad operating commands. For complete details on system operation, including user programming, refer to the system’s owner’s manual.

**Table 5. Basic System Commands**

| Command                               | System Response  |
|---------------------------------------|--|
| * (STATUS)                            | Indicates system’s current status  |
| 1 + CODE                              | Disarms system to OFF  |
| 2 + CODE                              | Arms system to STAY  |
| 3 + CODE                              | Arms system to AWAY  |
| 2 (quick arm on)                      | Arms system to STAY  |
| 3 (quick arm on)                      | Arms system to AWAY  |
| 2 or 3 + CODE + 4<br>or<br>2 or 3 + 4 | Makes entry/exit doors instant (4 must be pressed within five seconds of arming) |
| 5 + 2 or 3 + CODE<br>or<br>5 + 2 or 3 | Arms system silently (no arming status beeps)                                    |
| 7 + 1                                 | Turns chime feature on and off   |
| 7 + 6                                 | Identifies alarms in memory  |
| 8 + CODE + 2                          | Initiates a phone test   |
| 8 + CODE + 3                          | Initiates a sensor test  |
| 8 + installer CODE + 3                | Initiates a dealer sensor test   |

## Testing Zones/Sensors

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

If the system does not respond as described in the following procedure, see the “Troubleshooting” section.

### Note

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

1. Place all sensors/zones in their non-alarm state.
2. At an alphanumeric touchpad, enter the sensor test mode by pressing **[8] + installer [C][O][D][E] + [3]**. The touchpad sounds one beep and displays *SENSOR TEST*.

The system stays in sensor test for 15 minutes. When less than 5 minutes remain, touchpads and interior sirens beep once every minute. After 15 minutes the panel disarms to *OFF*, automatically.

3. Trip each zone/sensor one at a time. Touchpads (and interior sirens) should sound one short, high-pitched beep and the display shows the sensor name (or number if text for that sensor is not programmed) and *OK*.

### Note

If you hear a long, low-pitched beep, proceed to the following section “If a Zone/Sensor Does Not Test.”

4. Press the **STATUS** button when you think all zones/sensors are tested. The touchpad displays any untested sensors/zones and touchpad panics. If all sensors/zones and touchpad panics have been tested, the display shows *SENSOR TEST OK* or *ZOnEs ALL TESTEd* (fixed english touchpads).
5. Test any untested zones/sensors and touchpad panics.
6. If you need more time to complete the sensor test, press **[8] + installer [C][O][D][E] + [3]** while the system is still in sensor test. This restarts the 15 minutes of test time.
7. When all sensors/zones and touchpad panics have been tested, press **[1] + installer [C][O][D][E]** to exit sensor test.



## If a Wireless Sensor Does Not Test

If touchpads display **SENSOR FAILURE** and sirens sound a long, low-pitched beep when a zone/sensor is tripped, this indicates wireless sensor signal strength is below acceptable limits. Distance from the receiver and/or installation environment are most likely affecting the sensor's signal strength.

When possible, locate wireless sensors within 100 feet of the panel. While a transmitter may have a range of 1,000 feet or more out in the open, the environment at the installation site can have a significant effect on transmitter range. Refer to the "Troubleshooting" section to resolve the problem.

For wireless sensors that don't respond, use an ITI RF Sniffer (60-401) test tool to verify that the sensor is transmitting. Constant beeps from the RF Sniffer indicate a runaway (faulty) sensor. Remove the sensor's battery and replace the sensor.

## Testing Phone Communication

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

### To perform a phone test:

- Contact the central monitoring station to inform them that you are testing the system.
- Press **[8]+system master [C][O][D][E] + [2]**.  
The display reads *PHONE TEST* and the touchpad sounds one beep.  
When the panel completes the test, the system returns to the previous arming level, automatically.

If the display continues to show *PHONE TEST* for 1½ minutes or more, enter **[1]+system master [C][O][D][E]** and refer to the "Troubleshooting" section.

## Testing Central Station/Pager Communication

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

### To test communication with the central station/pager:

- Call the central station and tell the operator that you will be testing the system.
- Arm the system.
- Test each of the touchpad and wireless panic buttons and trip at least one sensor of each type (fire, intrusion, etc.) to verify correct operation.
- Check pager displays to verify reports are received.

Pagers display an event code, digit sensor number, and the last four digits of the account number. For example, a pager display of *999 002 7468* indicates the following:  
999 = alarm condition  
002 = sensor/zone in alarm or user number  
7468 = last four digits of account number

### Note

The way information is displayed varies with pager services and may not match the example above. Account numbers with alpha-characters also vary when displayed, depending on pager service. Account numbers are not displayed if STREAMLINING is turned on.

Table 6 describes pager system event codes.

**Table 6. Pager System Event Codes**

| Code | System Event              |
|------|---------------------------|
| 009  | Zone Restoral             |
| 111  | System Disarmed           |
| 118  | Trouble condition cleared |
| 119  | Alarm Canceled            |
| 222  | System Armed to STAY      |
| 333  | System Armed to AWAY      |
| 555  | Phone Test                |
| 888  | System Trouble Condition  |
| 009  | System in Alarm           |

## Testing the System

Table 7 describes pager sensor/zone number and user number report codes.

**Table 7. Pager Sensor/Zone and User Number Codes**

| Code      | Sensor/Zone or User Number                       |
|-----------|--|
| 000       | System event not caused by a zone or user        |
| 001 - 024 | Sensor/Zone Numbers 1 - 24                       |
| 600 - 615 | Regular User Codes 0 - 15 used                   |
| 678       | System Master Code used                          |
| 679       | Installer Code used                              |
| 680       | Dealer Code used                                 |
| 697       | Quick Arm used                                   |
| 698       | Keyswitch Sensor used                            |
| 699       | System Armed Itself (during service or power-up) |

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

## Testing Outputs/Sirens

All outputs (onboard and SnapCard) should be tested to verify configuration programming.

### Caution

Be sure to contact the central monitoring station *before* activating outputs that trigger from an alarm condition.

### To test outputs:

- Contact the central monitoring station to inform them that you are testing the system.
- Verify that all wiring at the panel and output devices is correct.
- Activate the appropriate device to trigger each output as programmed.
- Verify that each output responds according to the programmed configuration number.

For outputs that trigger sirens, verify that the correct alarm sounds are produced from these sirens. Table 8 describes the system alarm sounds you should hear for each alarm event.

**Table 8. System Alarm Sounds**

| Alarm Type           | Alarm Sound                     |
|----------------------|---------------------------------|
| Fire                 | Repeating series of three beeps |
| Police/<br>Intrusion | Continuous tone                 |
| Auxiliary            | Rapid beeps                     |

- Contact the central monitoring station when you are finished testing.

## Changing Fixed English LCD Touchpad Chime and Trouble Beep Tones

The frequency (pitch) of chime and trouble beep tones from a Fixed English LCD Touchpad can be adjusted to a more desirable or distinct tone, and to compensate for hearing impaired persons.

### Note

Chime and trouble beep tones sound using the default frequency during, or within 15 seconds of any button activity at that specific touchpad.

### To change status tone pitch:

- Press and hold the **[\*]** and **[0]** buttons together until you hear a steady tone, then release the buttons.
- Press and hold **[1]** to lower the pitch or press and hold **[2]** to raise the pitch.
- Release the button when the desired pitch is heard.

After about 15 seconds of no touchpad activity, the steady tone stops sounding.

# Troubleshooting

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This section describes what to do if you experience problems with system operation. Topics are divided into separate tables for easy reference.

- Table T1: Panel Power
- Table T2: Access Codes
- Table T3: Arming and Disarming
- Table T4: Bypassing
- Table T5: Wireless Sensor and Touchpad Batteries
- Table T6: Central Station/Pager Reporting
- Table T7: Alphanumeric Touchpads
- Table T8: Sirens
- Table T9: Hardwire Zones
- Table T10: Wireless Sensor Zones
- Table T11: Wireless Touchpads
- Table T12: Phones
- Table T13: Downloader

## Panel Power

**Table T1: Panel Power Troubleshooting**

| Problem   | Action/Solution   |
|---|---|
| Panel does not power up. Touchpads don't display or respond.  | <ol style="list-style-type: none"> <li>1. Check that panel transformer is plugged into an unswitched outlet.</li> <li>2. Check the AC circuit breaker to be sure the circuit is live.</li> <li>3. Check that the backup battery is installed correctly and the AC power transformer is plugged in.</li> <li>4. Check for proper panel and transformer wiring.</li> <li>5. Measure the incoming AC voltage at panel terminals 1 and 2. It should read about 16.5 VAC.</li> </ol>   |
| No incoming AC voltage at panel terminals 1 and 2.  | <ol style="list-style-type: none"> <li>1. Unplug the AC power transformer and disconnect the wires from the transformer and the panel.</li> <li>2. Check transformer to panel wire for short or open circuits.</li> <li>3. Plug in the transformer and check for 16.5 VAC at the transformer unconnected terminals. If zero (0) volts, replace the transformer.</li> </ol>  |
| Touchpad display indicates <i>System Low Battery</i> or voice sounds " <i>System low battery.</i> " | <ol style="list-style-type: none"> <li>1. Check that the backup battery is installed correctly and the AC power transformer is plugged in.</li> <li>2. Measure the incoming AC voltage at the panel terminals 1 and 2. It should read about 16.5 VAC.</li> <li>3. Remove the backup battery power by disconnecting the battery's red (positive) wire. Check for 11.75 to 13.5 VDC battery charging voltage between panel terminal 3 (GND) and the disconnected red battery wire. If the charging voltage is <b>not</b> within range, call Technical Services.</li> <li>5. Check for 11.75 to 13.5 VDC battery voltage between the backup battery's spade lugs. If the battery voltage is <b>not</b> within this range, replace the battery.</li> </ol> <p><b>Note</b><br/>When the panel is running a backup battery test, the reading at the connected battery can range from 11.2 to 13.5 VDC. The panel automatically runs a backup battery test under the following conditions: (1) on initial power-up, (2) during user sensor test, (3) once every minute when backup battery has failed, (4) once every 24 hours at the programmed STIME (UL 98 Options off) or once every 4 hours (UL 98 Options on).</p> <p><b>Note</b><br/>With the AC power transformer plugged in, the panel automatically charges the battery. While the battery is charging for the first time it is normal for the system to indicate <i>System battery failure</i>. This can take a number of hours depending on the battery's initial charge. Once the battery reaches 12.5 VDC (full charge as measured while in battery test), the condition clears. If the trouble condition persists after 24 hours, replace the backup battery.</p> |

**Table T1: Panel Power Troubleshooting (cont.)**

| Problem  | Action/Solution   |
|--|---|
| <p>After pressing <b>STATUS</b> the touchpads flash <i>AC</i> or display <i>AC Power Failure/AC Failure</i>. (Panel continues to operate from backup battery.)</p> | <ol style="list-style-type: none"> <li>1. Check the AC circuit breaker to be sure the circuit is live.</li> <li>2. Check for proper panel and transformer wiring.</li> <li>3. Check that the transformer is plugged into a nonswitched outlet and secured with the provided screw.</li> <li>4. Check that the transformer is supplying AC to the panel. (Transformer internal fuse may be blown.)</li> </ol> <p><b>WARNING!</b><br/>Be careful when securing the transformer to an outlet with a metal cover. Hold the cover tightly in place. You could receive a serious shock if the metal outlet cover drops down onto the prongs of the plug while you are securing the transformer and cover to the outlet box.</p> |

## Access Codes

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**Table T2: Access Code Troubleshooting**

| Problem   | Action/Solution  |
|---|--|
| <p>Customer cannot remember access code(s).</p> | <ol style="list-style-type: none"> <li>1. Check your records to see if you have the customer's access code(s) on file.</li> <li>2. Verify the access code(s) using the Downloader.</li> <li>3. Clear memory and reprogram the panel locally.</li> </ol>  |
| <p>Installer cannot remember install code.</p>  | <ol style="list-style-type: none"> <li>1. Check your records to see if you have the install code on file.</li> <li>2. Verify the install code using the Downloader.</li> <li>3. Use the Dealer Code to enter program mode and view the installer code.</li> <li>4. Call Technical Support for assistance.</li> </ol> |
| <p>Installer cannot remember dealer code</p>    | <ol style="list-style-type: none"> <li>1. Check your records to see if you have the dealer code on file.</li> <li>2. Verify the dealer code using the Downloader.</li> <li>3. Call Technical Support for assistance.</li> </ol>  |

## Arming and Disarming

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**Table T3: Arming/Disarming Troubleshooting**

| Problem  | Action/Solution   |
|--|---|
| <p>System protests and won't arm.</p><br><p>System won't disarm.</p> | <ol style="list-style-type: none"> <li>1. If arming to level 2, make sure all monitored perimeter doors and windows are closed.</li> <li>2. If arming to level 3, make sure all perimeter and interior sensors are closed.</li> <li>3. Press <b>STATUS</b> for an indication of the problem.</li> </ol><br><ol style="list-style-type: none"> <li>1. Disarming using incorrect code. Enter correct code.</li> <li>2. Access code is not programmed or set up in user programming to disarm system.</li> <li>3. Wireless touchpad is not learned into system or hardwire touchpad is not communicating to panel. Check installer programming for learned wireless touchpads.</li> <li>4. The installer code is being used to disarm the system. The system is designed <i>not to disarm</i> using the installer code. Use a regular or system master code to disarm the system.</li> </ol> |

## Bypassing

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**Table T4: Bypassing Troubleshooting**

| Problem  | Action/Solution   |
|--|---|
| <p>Touchpad indicates <i>Invalid</i> and/or "<i>Invalid</i>" is heard when you attempt to bypass a sensor.</p><br><p>System cancels sensor bypass when you try to arm to level 2 or 3.</p> | <ol style="list-style-type: none"> <li>1. Sensor is already bypassed.</li> <li>2. Attempting to bypass a 24-hour sensor that cannot be bypassed (group 26 fire sensors).</li> <li>3. Sensor is not active in the current arming level.</li> </ol><br><ol style="list-style-type: none"> <li>1. Sensor is being bypassed before arming to 2—STAY or 3—AWAY. Arm to the desired level before bypassing a sensor.</li> </ol> |

## Wireless Sensor and Touchpad Batteries

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**Table T5: Wireless Sensor/Touchpad Battery Troubleshooting**

| Problem  | Action/Solution   |
|--|---|
| System indicates <i>Sensor/Touchpad nn low battery</i> . | <p>1. Replace the indicated device battery. Test the sensor/touchpad after replacing the battery.</p> <p><b>Note</b><br/>If the sensor/touchpad is not tested after battery replacement, the system continues to show a low battery condition, since that was the last signal it received from the device. Testing the sensor/touchpad with new batteries allows the panel to receive a signal with good battery information.</p> |

## Central Station/Pager Reporting

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**Table T6: Reporting Troubleshooting**

| Problem   | Action/Solution   |
|---|---|
| Central station/pager is not receiving reports. | <ol style="list-style-type: none"> <li>1. Check that the premises phone line is working.</li> <li>2. Perform a phone test.</li> <li>3. Check that the DB-8 cord is plugged into the RJ-31X/CA-38A jack.</li> <li>4. Check that the DB-8 cord is wired correctly to the panel.</li> <li>5. Check for correct phone line wiring between the TELCO block and RJ-31X/CA-38A jack.</li> <li>6. Replace faulty RJ-31X/CA-38A jack.</li> <li>7. Replace faulty DB-8 cord.</li> <li>8. Verify that central station/pager phone number is programmed into the panel. Reprogram the phone number and retest, if necessary.</li> <li>9. Verify that the correct phone format (SIA or CID) is being used.</li> <li>10. For pagers, extend the pager delay setting (see the <i>PHONE OPTIONS—GLOBAL</i> menu in the “Programming” section).</li> </ol> |

## Alphanumeric Touchpads

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**Table T7: Alphanumeric Touchpad Troubleshooting**

| Problem   | Action/Solution   |
|---|---|
| <p>Display shows all *****.</p> <p>Display is blank.</p> <p>Touchpad buttons don't beep when pressed.</p> | <p>1. Touchpad is not connected to panel bus terminals or is wired incorrectly. Check and correct wiring.</p> <p>1. Check that panel is powered up.<br/>                 2. Check for touchpad power and/or bus miswiring, opens, or shorts.<br/>                 3. Check touchpad brightness setting (see the user-programming <i>OPTIONS</i> menu in the "Programming" section).</p> <p>1. Check for touchpad power and/or bus miswiring, opens, or shorts.<br/>                 2. Check that key beeps option is set to on (see the <i>ACCESSORY MODULES—BUS DEVICES</i> menu in the "Programming" section).</p> |

## Sirens

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**Table T8: Hardwire Siren Troubleshooting**

| Problem   | Action/Solution  |
|---|--|
| <p>Piezo sirens connected to Snap Card, or onboard (panel) outputs 1 and/or 2 don't produce any alarm sounds.</p> | <p>1. Check for incorrect wiring between siren and panel; correct where necessary.</p> <p>2. Output has not been configured (set up) to activate sirens. Enter program mode and configure output (see <i>ACCESSORY MODULES—BUS DEVICES—SNAP CARD</i>, or <i>ONBOARD OPTIONS—OUTPUT 1, 2</i> in the "Programming" section).</p> |



## Hardwire Zones

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**Table T9: Hardwire Zone Troubleshooting**

| Problem  | Action/Solution   |
|--|---|
| System doesn't go into alarm when zone is tripped. | <ol style="list-style-type: none"> <li>1. System is disarmed. Arm system and then trip the zone.</li> <li>2. Zone is not learned into panel memory. Enter installer/dealer program mode—LEARN SENSORS, and learn zone into memory.</li> </ol>   |
| Zone reports trouble condition.                    | <ol style="list-style-type: none"> <li>1. Check that onboard and Snap Card zone inputs have a 2k-ohm EOL resistor installed at the last device on the loop in series for N/C loops, in parallel for N/O loops.</li> <li>2. Check for zone wire fault—short circuit on N/C loops, open circuit on N/O loops.</li> <li>3. Make sure all devices on zone are in non-alarm state, then enter disarm command to reset zone.</li> </ol> |

## Wireless Sensor Zones

**Table T10: Wireless Sensor Zone Troubleshooting**

| Problem  | Action/Solution  |
|--|--|
| System doesn't respond (in sensor test or when armed) when sensor is tripped.                          | <ol style="list-style-type: none"> <li>1. Verify that panel loop antenna is installed up into antenna housing mounted on top of panel cabinet.</li> <li>2. Check that the wireless sensor battery is installed.</li> <li>3. Check the sensor battery for low voltage. Replace batteries, if necessary.</li> <li>4. Use an RF Sniffer (60-401) to verify that sensor is transmitting.</li> <li>5. Sensor is not learned into panel memory. Enter installer/dealer program mode—LEARN SENSORS, and learn sensor into memory.</li> </ol>                                    |
| Sensor reports trouble condition.  | <ol style="list-style-type: none"> <li>1. Sensor tamper switch is tripped—sensor cover is off, not latched securely, or sensor is not mounted securely. Secure sensor mounting and/or cover, then trip sensor to clear the condition.</li> <li>2. Check the sensor battery for low voltage. Replace batteries, if necessary.</li> </ol>  |
| Touchpad indicates <i>[sensor #] supervisory</i> and/or <i>Sensor [sensor #] supervisory</i> is heard. | <ol style="list-style-type: none"> <li>1. Use an RF Sniffer (60-401) to verify that sensor is transmitting. If sensor is not transmitting, check battery for low or no voltage and replace.</li> <li>2. Change mounting position of sensor (from horizontal to vertical or vice versa) and test sensor several times for consistency.</li> <li>3. Sensor signal is not reaching panel/receiver because sensor is too far away. Remove sensor from mounted location and test from other locations. Mount sensor in area where signal can reach panel/receiver.</li> </ol> |
| Smoke sensor beeps once every minute.  | <ol style="list-style-type: none"> <li>1. Sensor batteries are getting low. Replace batteries.</li> </ol> <p><b>Note</b><br/>System Sensor smoke sensors (model RF2300) don't transmit a low battery signal to the panel/receiver until battery voltage drops to within a range of 4.7 to 5.4 VDC. The sensor sounds beeps to notify occupants that the sensor's batteries need replacing, but the sensor does not transmit a low battery signal to the panel until the next supervisory signal (69 minutes later).</p>  |

## Wireless Touchpads

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**Table T11: Wireless Touchpad Troubleshooting**

| Problem  | Action/Solution  |
|--|--|
| System doesn't respond to commands entered from wireless touchpad. | <ol style="list-style-type: none"> <li>1. Verify that panel loop antenna is installed up into antenna housing mounted on top of panel cabinet.</li> <li>2. Check that touchpad battery is installed.</li> <li>3. Check the touchpad battery for low voltage. Replace battery, if necessary.</li> <li>4. Use an RF Sniffer (60-401) to verify that touchpad is transmitting.</li> <li>5. Touchpad is not learned into panel memory. Enter program mode and learn touchpad into memory.</li> </ol> |
| Touchpad reports trouble condition.                                | <ol style="list-style-type: none"> <li>1. Check the touchpad battery for low voltage. Replace battery, if necessary.</li> </ol>  |

## Phones

---

**Table T12: Phone Troubleshooting**

| Problem   | Action/Solution  |
|---|--|
| Loss of dial tone at on-site phones after wiring RJ-31X jack or connecting the DB-8 cord. | <ol style="list-style-type: none"> <li>1. Wait 2 minutes and try again. The panel may be busy trying to report to the central station.</li> <li>2. Disconnect the panel DB-8 cord from the RJ-31 jack. If the phone still doesn't work, the system is okay and the problem is in the wiring.</li> <li>2. Check RJ-31X jack wiring and TELCO block wiring. Replace RJ-31X jack if necessary.</li> <li>3. Check DB-8 cord connections at the panel and RJ-31X jack. Replace cord if necessary.</li> <li>4. Perform a phone test after troubleshooting the phone line.</li> </ol> |
| Constant dial tone, preventing dial-out on premises phones.                               | <ol style="list-style-type: none"> <li>1. One or more polarity-sensitive phones exist on-site. Reverse the phone wires connected to the brown and gray wire terminals on the RJ-31X jack.</li> </ol>   |

## Downloading/Uploading

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**Table T13: Downloader Troubleshooting**

| Problem  | Action/Solution  |
|--|--|
| Download/upload session fails on a pre-programmed panel. | <ol style="list-style-type: none"> <li>1. Check all Action/Solution steps in Table T12, above.</li> <li>2. Verify Downloader Phone Number matches ToolBox setting.</li> <li>2. Verify Downloader CODE matches ToolBox setting.</li> <li>3. Verify Dealer CODE matches ToolBox setting.</li> <li>4. Verify panel Account Number matches ToolBox setting.</li> </ol> |
| Download/upload session fails on an unprogrammed panel.  | <ol style="list-style-type: none"> <li>1. Check all Action/Solution steps in Table T12, above.</li> </ol>  |

# Appendix A: System Configuration Worksheets

Customer Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_

Zip \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

**Table A1. System Hardwire Devices**

| Part No.  | Description  | Qty. | mA     | SubTot. |
|---|--|------|--------|---------|
| Hardwire Sensors/Detectors  |  |      |        |         |
| N/A   | Sentrol series 2100D, 2100TD, 2100S, 2100TS, 2400, 2400TH, or ESL series 429AT, 521B, 521BXT |      | 10 mA  |         |
| 13-463  | Visus LP60 PIR Motion Detector   |      | 10 mA  |         |
| 13-464  | DS940 PIR Motion Detector  |      | 10 mA  |         |
| 13-465  | DS940P PIR Motion Detector   |      | 10 mA  |         |
| SuperBus Devices (4 maximum)  |  |      |        |         |
| 60-746-01   | SuperBus 2000 2x16 LCD Alphanumeric Touchpad   |      | 90 mA  |         |
| 60-820  | SuperBus 2000 Fixed Display Touchpad   |      | 65 mA  |         |
| 60-803-04   | SuperBus 2000 2x20 LCD Alphanumeric Touchpad   |      | 120 mA |         |
| 60-804-04   | SuperBus 2000 2x20 VFD Alphanumeric Touchpad   |      | 120 mA |         |
| SnapCards (1 per panel)   |  |      |        |         |
| 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 |         |
| Total current on terminal 4 (+12V) must not exceed 750 mA (90 mA for UL Listed systems—see Tables 1 and 2 on page 8 in the section “Installing the System: Total System Power and Wire Length Guidelines”). |  |      |        | mA      |

**Table A2. Zone/Sensor Assignments**

| No. | Group | Zone/Sensor Text |
|-----|-------|------------------|
| 01  |       |                  |
| 02  |       |                  |
| 03  |       |                  |
| 04  |       |                  |
| 05  |       |                  |
| 06  |       |                  |
| 07  |       |                  |
| 08  |       |                  |
| 09  |       |                  |
| 10  |       |                  |
| 11  |       |                  |
| 12  |       |                  |
| 13  |       |                  |
| 14  |       |                  |
| 15  |       |                  |
| 16  |       |                  |
| 17  |       |                  |
| 18  |       |                  |
| 19  |       |                  |
| 20  |       |                  |
| 21  |       |                  |
| 22  |       |                  |
| 23  |       |                  |
| 24  |       |                  |

**Table A3. Sensor Group Characteristics**

| No. | Name               | Application  | Alarm     | Delay          | Restoral | Supervisory | CS Report | Chime | 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             |

Table A3. Sensor Group Characteristics (cont.)

| No. | Name                            | Application  | Alarm         | Delay    | Restoral | Supervisory | CS Report           | Chime | Active Levels |
|-----|---------------------------------|--|---------------|----------|----------|-------------|---------------------|-------|---------------|
| 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       |
| 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  |          |             |                     |       | 1, 2, 3       |
| 33  | Siren                           | Wireless Siren Supervision. ‡  | Silent        | Instant  |          | ✓           | ✓                   |       | 1, 2, 3       |
| 34  | Gas                             | Carbonmonoxide (CO) Gas Detectors ‡  | Auxiliary     | Instant  | ✓        | ✓           | ✓                   |       | 1, 2, 3       |
| 35  | Local Instant Police (Day Zone) | Local alarm in levels 1 and 2. Reports to CS in level 3.   | Police        | Instant  | ✓        | ✓           | ✓<br>(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. Sensor Text/Item Numbers**

|                        |                  |
|------------------------|------------------|
| 001—Aborted            | 047—Detector     |
| 002—AC                 | 048—Dining       |
| 003—Access             | 049—Disarmed     |
| 004—Active             | 050—Door         |
| 005—Activity           | 051—Down         |
| 006—Alarm              | 052—Download     |
| 007—All                | 053—Downstairs   |
| 008—AM                 | 054—Drawer       |
| 009—Area               | 055—Driveway     |
| 010—Arm                | 056—Duct         |
| 011—Armed              | 057—Duress       |
| 012—Arming             | 058—East         |
| 013—Attic              | 059—Energy Saver |
| 014—Auxiliary          | 060—Enter        |
| 015—Away               | 061—Entry        |
| 016—Baby               | 062—Error        |
| 017—Back               | 063—Exit         |
| 018—Bar                | 064—Exterior     |
| 019—Basement           | 065—Factory      |
| 020—Bathroom           | 066—Failure      |
| 021—Battery            | 067—Family       |
| 022—Bedroom            | 068—Father’s     |
| 023—Bottom             | 069—Feature      |
| 024—Breezeway          | 070—Fence        |
| 025—Building           | 071—Fire         |
| 026—Bus                | 072—First        |
| 027—Bypass             | 073—Floor        |
| 028—Bypassed           | 074—Force        |
| 029—Cabinet            | 075—Foyer        |
| 030—Canceled           | 076—Freeze       |
| 031—Car                | 077—Front        |
| 032—Carbon<br>Monoxide | 078—Furnace      |
| 033—Central            | 079—Gallery      |
| 034—Chime              | 080—Garage       |
| 035—Closed             | 081—Gas          |
| 036—Closet             | 082—Glass        |
| 037—Closing            | 083—Goodbye      |
| 038—Code               | 084—Hallway      |
| 039—Computer           | 085—Heat         |
| 040—Control            | 086—Hello        |
| 041—Date               | 087—Help         |
| 042—Daughter’s         | 088—High         |
| 043—Degrees            | 089—Home         |
| 044—Delay              | 090—House        |
| 045—Den                | 091—In           |
| 046—Desk               | 092—Install      |

|               |                 |                     |
|---------------|-----------------|---------------------|
| 093—Interior  | 139—Pool        | 185—0               |
| 094—Intrusion | 140—Porch       | 186—1               |
| 095—Invalid   | 141—Power       | 187—2               |
| 096—Is        | 142—Press       | 188—3               |
| 097—Key       | 143—Program     | 189—4               |
| 098—Kids      | 144—Progress    | 190—5               |
| 099—Kitchen   | 145—Quiet       | 191—6               |
| 100—Latchkey  | 146—Rear        | 192—7               |
| 101—Laundry   | 147—Receiver    | 193—8               |
| 102—Left      | 148—Report      | 194—9               |
| 103—Level     | 149—RF          | 195—A               |
| 104—Library   | 150—Right       | 196—B               |
| 105—Light     | 151—Room        | 197—C               |
| 106—Lights    | 152—Safe        | 198—D               |
| 107—Living    | 153—Schedule    | 199—E               |
| 108—Load      | 154—Screen      | 200—F               |
| 109—Loading   | 155—Second      | 201—G               |
| 110—Low       | 156—Sensor      | 202—H               |
| 111—Lower     | 157—Service     | 203—I               |
| 112—Main      | 158—Shed        | 204—J               |
| 113—Master    | 159—Shock       | 205—K               |
| 114—Mat       | 160—Side        | 206—L               |
| 115—Medical   | 161—Siren       | 207—M               |
| 116—Memory    | 162—Sliding     | 208—N               |
| 117—Menu      | 163—Smoke       | 209—O               |
| 118—Mother’s  | 164—Son’s       | 210—P               |
| 119—Motion    | 165—Sound       | 211—Q               |
| 120—No        | 166—South       | 212—R               |
| 121—North     | 167—Special     | 213—S               |
| 122—Not       | 168—Stairs      | 214—T               |
| 123—Now       | 169—Stay        | 215—U               |
| 124—Number    | 170—Supervisory | 216—V               |
| 125—Off       | 171—System      | 217—W               |
| 126—Office    | 172—Tamper      | 218—X               |
| 127—OK        | 173—Temperature | 219—Y               |
| 128—On        | 174—Test        | 220—Z               |
| 129—Open      | 175—Time        | 221— (space)        |
| 130—Opening   | 176—To          | 222—’ (apostrophe)  |
| 131—Panic     | 177—Touchpad    | 223— - (dash)       |
| 132—Partition | 178—Trouble     | 224— _ (underscore) |
| 133—Patio     | 179—Unbypass    | 225— *              |
| 134—Pet       | 180—Unit        | 226— #              |
| 135—Phone     | 181—Up          | 227— :              |
| 136—Please    | 182—West        | 228— /              |
| 137—PM        | 183—Window      | 229— ?              |
| 138—Police    | 184—Zone        |                     |



Table A5. System Settings (cont.)

Table A5. System Settings

| Menu Name & (Default)  | Shortcut No.   | Setting                          |
|--|--|----------------------------------|
| Installer Programming—8 + Installer/Dealer CODE + 00                         |  |                                  |
| AC Failure (Off)   | 05010  |                                  |
| Account No. (00000)  | 0010   |                                  |
| Activity Timeout (24 hours)  | 0305   |                                  |
| Alarm Verify (Off)   | 0516   |                                  |
| Auto Phone Test (Off)  | 02001  |                                  |
| Auto Stay Arming   | 0014   |                                  |
| Auto Test Reset (On)   | 02002  |                                  |
| Auxiliary Panic (On)   | 0401   |                                  |
| Back In Service (On)   | 05002  |                                  |
| Backup<br>(CS Phone 1 On, CS Phone 2 Off)                                    | 0104 - cs phone 1<br>0114 - cs phone 2   |                                  |
| Battery Restoral (Off)   | 05005  |                                  |
| Buffer Control (Off)   | 05001  |                                  |
| Buffer Full Report (Off)   | 05006  |                                  |
| Bypass Reports (Off)   | 05003  |                                  |
| CS Phone 1 (None)  | 0100   |                                  |
| CS Phone 2 (None)  | 0110   |                                  |
| Call Wait Cancel (None)  | 02009  |                                  |
| Cancel Message (On)  | 02007  |                                  |
| Closing Reports (Off)  | 0511   |                                  |
| Comm. Failure (On)   | 02003  |                                  |
| Daylight Savings (On)  | 0306   |                                  |
| Dealer Code (None)   | 0002   |                                  |
| Delete Sensors (None)  | 072  |                                  |
| Dialer Abort (On)  | 02005  |                                  |
| Diale Abort Delay (30 seconds)   | 02006  |                                  |
| Disable Trouble Beeps (Off)  | 0601   |                                  |
| Downloader Code (12345)  | 0000   |                                  |
| Downloader Phone No. (None)  | 0150   |                                  |
| DTMF Dialing (On)  | 02004  |                                  |
| Duress Code (None)   | 0016   |                                  |
| Duress Option (Off)  | 0514   |                                  |
| Edit Sensors (None)  | 073  |                                  |
| Entry Delay (32 seconds)   | 0310   |                                  |
| Exit Delay (64 seconds)  | 0311   |                                  |
| Exit Extension (On)  | 0013   |                                  |
| Extended Delay (4 minutes)   | 0312   |                                  |
| Fire Panic (On)  | 0400   |                                  |
| Force Armed (Off)  | 0515   |                                  |
| High Level Reports<br>(CS Phone 1 On, CS Phone 2 Off, Pagers 1, 2, 3 all On) | 0101 - cs phone 1<br>0111 - cs phone 2<br>0121 - pager 1<br>0131 - pager 2<br>0141 - pager 3 | _____<br>_____<br>_____<br>_____ |
| Immediate Trouble Beeps (Off)  | 0600   |                                  |
| Installer Code (4321)  | 0001   |                                  |
| Keychain TP Arming (Off)   | 0403   |                                  |

| Menu Name & (Default)  | Shortcut No.   | Setting                                   |
|--|--|---|
| Keyswitch Sensor (None)  | 0015   |   |
| Latchkey Reports<br>(Pagers 1, 2, 3 all On)                                  | 0124 - pager 1<br>0134 - pager 2<br>0144 - pager 3   | _____<br>_____<br>_____                   |
| Learn Sensors (None)   | 070  |   |
| Low CPU Battery  | 05004  |   |
| Low Level Reports<br>(CS Phone 1 On, CS Phone 2 Off, Pagers 1, 2, 3 all Off) | 0102 - cs phone 1<br>0112 - cs phone 2<br>0122 - pager 1<br>0132 - pager 2<br>0142 - pager 3 | _____<br>_____<br>_____<br>_____<br>_____ |
| Next Phone Test (4 days)   | 0303   |   |
| No Activity Reports (Off)  | 0513   |   |
| Open/Close Reports ( All Off)  | 0103 - cs phone 1<br>0113 - cs phone 2<br>0123 - pager 1<br>0133 - pager 2<br>0143 - pager 3 | _____<br>_____<br>_____<br>_____<br>_____ |
| Opening Reports (Off)  | 0510   |   |
| Output 1<br>(00410 - any audible alarm)                                      | 09100  |   |
| Output 2<br>(01710 - status & alarm tones)                                   | 09110  |   |
| Output Trip Time (4 seconds)   | 0304   |   |
| Pager Delay (15 seconds)   | 02008  |   |
| Pager Phone 1 (None)   | 0120   |   |
| Pager Phone 2 (None)   | 0130   |   |
| Pager Phone 3 (None)   | 0140   |   |
| Phone Test (On)  | 02000  |   |
| Phone Test Freq. (7 days)  | 0302   |   |
| Police Panic (On)  | 0402   |   |
| Quick Arm (Off)  | 0011   |   |
| Quick Exit (On)  | 0012   |   |
| Receiver Failure (Off)   | 05011  |   |
| Recent Closings (On)   | 0512   |   |
| Remote Access (On)   | 0210   |   |
| RF Low Battery RPT (Weekly)  | 05012  |   |
| RF Superisory RPT (Weekly)   | 05013  |   |
| RF TX Timeout (12 hours)   | 0301   |   |
| Reproting Format (All CID)   | 0105 - cs phone 1<br>0115 - cs phone 2   | _____<br>_____                            |
| Ring/Hang/Ring (On)  | 0302   |   |
| Sensor Text (None)   | 071  |   |
| Siren Timeout (4 minutes)  | 0313   |   |
| Siren Verify (Off)   | 0610   |   |
| Smoke Verify (Off)   | 0900   |   |
| SnapCard Output 1<br>(01400 - keychain touchpa *<br>button activation)       | 081000   |   |
| SnapCard Output 2<br>(00410 - any audible alarm)                             | 081010   |   |
| SnapCard Output 3<br>(00903 - arming to STAY or<br>AWAY)                     | 081020   |   |

**Table A5. System Settings (cont.)**

| Menu Name & (Default)   | Shortcut No.            | Setting                 |
|---|-------------------------|-------------------------|
| SnapCard Output 4<br>(01003 - arming to AWAY)                       | 081030                  |                         |
| Star Is No Delay (Off)  | 0404                    |                         |
| Superviroy Time (03:00)   | 0300                    |                         |
| Swinger Limit (1)   | 05014                   |                         |
| System Tamper (Off)   | 0517                    |                         |
| TP Panic RPT FMT (Off)  | 05009                   |                         |
| Two Trip Error (Off)  | 05008                   |                         |
| Two Wire Smpke (Off)  | 0901                    |                         |
| UL 98 Options (Off)   | 0602                    |                         |
| Zone Restorals (Off)  | 05007                   |                         |
| User Programming—9 + System Master CODE                             |                         |                         |
| Chime On Close (Off)  | 25                      |                         |
| Date (01/01/00)   | 01                      |                         |
| Downloading (On)  | 20                      |                         |
| Factory Code  | 30                      | (Factory-set)           |
| Silent Arming (Off)   | 21                      |                         |
| System Level  | 32                      | (Factory-set)           |
| System Master Code (1234)   | 110                     |                         |
| System Number   | 31                      | (Factory-set)           |
| Time (00:00)  | 00                      |                         |
| Touchpad Broghtness (2)   | 22                      |                         |
| User Code 00 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10000<br>10001<br>10002 | _____<br>_____<br>_____ |
| User Code 01 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10010<br>10011<br>10012 | _____<br>_____<br>_____ |
| User Code 02 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10020<br>10021<br>10022 | _____<br>_____<br>_____ |
| User Code 03 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10030<br>10031<br>10032 | _____<br>_____<br>_____ |
| User Code 04 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10040<br>10041<br>10042 | _____<br>_____<br>_____ |
| User Code 05 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10050<br>10051<br>10052 | _____<br>_____<br>_____ |
| User Code 06 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10060<br>10061<br>10062 | _____<br>_____<br>_____ |
| User Code 07 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10070<br>10071<br>10072 | _____<br>_____<br>_____ |

**Table A5. System Settings (cont.)**

| Menu Name & (Default)   | Shortcut No.            | Setting                 |
|---|-------------------------|-------------------------|
| User Code 08 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10080<br>10081<br>10082 | _____<br>_____<br>_____ |
| User Code 09 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10090<br>10091<br>10092 | _____<br>_____<br>_____ |
| User Code 10 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10100<br>10101<br>10102 | _____<br>_____<br>_____ |
| User Code 11 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10110<br>10111<br>10112 | _____<br>_____<br>_____ |
| User Code 12 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10120<br>10121<br>10122 | _____<br>_____<br>_____ |
| User Code 13 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10130<br>10131<br>10132 | _____<br>_____<br>_____ |
| User Code 14 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10140<br>10141<br>10142 | _____<br>_____<br>_____ |
| User Code 15 (None)<br>Direct Bypassing (off)<br>System Tests (off) | 10150<br>10151<br>10152 | _____<br>_____<br>_____ |

**Table A6. System Event Trigger Numbers**

| System Event                                       | Trigger No. |
|--|-------------|
| Fire Alarm   | 001         |
| Police Alarm                                       | 002         |
| Auxiliary Alarm                                    | 003         |
| Any Audible Alarm                                  | 004         |
| Silent Alarm (sensor groups 2, 3, and duress)      | 005         |
| Any Audible or Silent Alarm                        | 006         |
| HOM Group 27, 28, 32 in Alarm                      | 007         |
| Major Trouble (phone or receiver failure)          | 008         |
| Arming to STAY or AWAY                             | 009         |
| Arming to AWAY                                     | 010         |
| AVM is Interactive (audio session in progress)     | 011         |
| Fail-to-Communicate (panel can't call CS or pager) | 012         |
| AVM Trip (edge)                                    | 013         |
| Keychain Touchpad Star Button-Press                | 014         |
| Smoke Power (for resetting 4-wire smoke detectors) | 015         |
| Exterior Siren                                     | 016         |
| Interior Siren                                     | 017         |
| AVM Trip (pulse)                                   | 018         |

**Table A7. 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         |
| 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 A8. Sensor Number Event Trigger Numbers**

| Sensor Number | State    | Trigger No. | State | Trigger No. |
|---------------|----------|-------------|-------|-------------|
| Sensor 01     | in alarm | 129         | open  | 229         |
| Sensor 02     | in alarm | 130         | open  | 230         |
| Sensor 03     | in alarm | 131         | open  | 231         |
| Sensor 04     | in alarm | 132         | open  | 232         |
| Sensor 05     | in alarm | 133         | open  | 233         |
| Sensor 06     | in alarm | 134         | open  | 234         |
| Sensor 07     | in alarm | 135         | open  | 235         |
| Sensor 08     | in alarm | 136         | open  | 236         |
| Sensor 09     | in alarm | 137         | open  | 237         |
| Sensor 10     | in alarm | 138         | open  | 238         |
| Sensor 11     | in alarm | 139         | open  | 239         |
| Sensor 12     | in alarm | 140         | open  | 240         |
| Sensor 13     | in alarm | 141         | open  | 241         |
| Sensor 14     | in alarm | 142         | open  | 242         |
| Sensor 15     | in alarm | 143         | open  | 243         |
| Sensor 16     | in alarm | 144         | open  | 244         |
| Sensor 17     | in alarm | 145         | open  | 245         |
| Sensor 18     | in alarm | 146         | open  | 246         |
| Sensor 19     | in alarm | 147         | open  | 247         |
| Sensor 20     | in alarm | 148         | open  | 248         |
| Sensor 21     | in alarm | 149         | open  | 249         |
| Sensor 22     | in alarm | 150         | open  | 250         |
| Sensor 23     | in alarm | 151         | open  | 251         |
| Sensor 24     | in alarm | 152         | open  | 252         |

**Table A9. System Feature Event Trigger Numbers**

| Feature               | State    | Trigger No. |
|-----------------------|----------|-------------|
| Phone Test            | in alarm | 205         |
| AC Failure            | in alarm | 206         |
| CPU Low Battery       | in alarm | 207         |
| Auto Phone Test       | in alarm | 208         |
| Receiver Failure      | in alarm | 209         |
| Back In Service       | in alarm | 210         |
| Phone Failure         | in alarm | 211         |
| Buffer Full           | in alarm | 212         |
| Two Trip Error        | in alarm | 213         |
| System Tamper         | in alarm | 214         |
| No Activity           | in alarm | 216         |
| Fire Panic            | in alarm | 217         |
| Police Panic          | in alarm | 218         |
| Auxiliary Panic       | in alarm | 219         |
| Opening Report        | in alarm | 220         |
| Closing Report        | in alarm | 221         |
| Latchkey Report       | in alarm | 222         |
| Duress                | in alarm | 223         |
| Force Armed Report    | in alarm | 224         |
| Recent Closing Report | in alarm | 226         |
| Sensor Test Report    | in alarm | 227         |

**Note**

When using event trigger numbers in Table 9, the corresponding feature must be turned on to activate outputs.

Notes for Table A10 Response Numbers

**Table A10. Response Numbers**

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

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

**Note**

The relay's mechanical lifetime 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.

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**

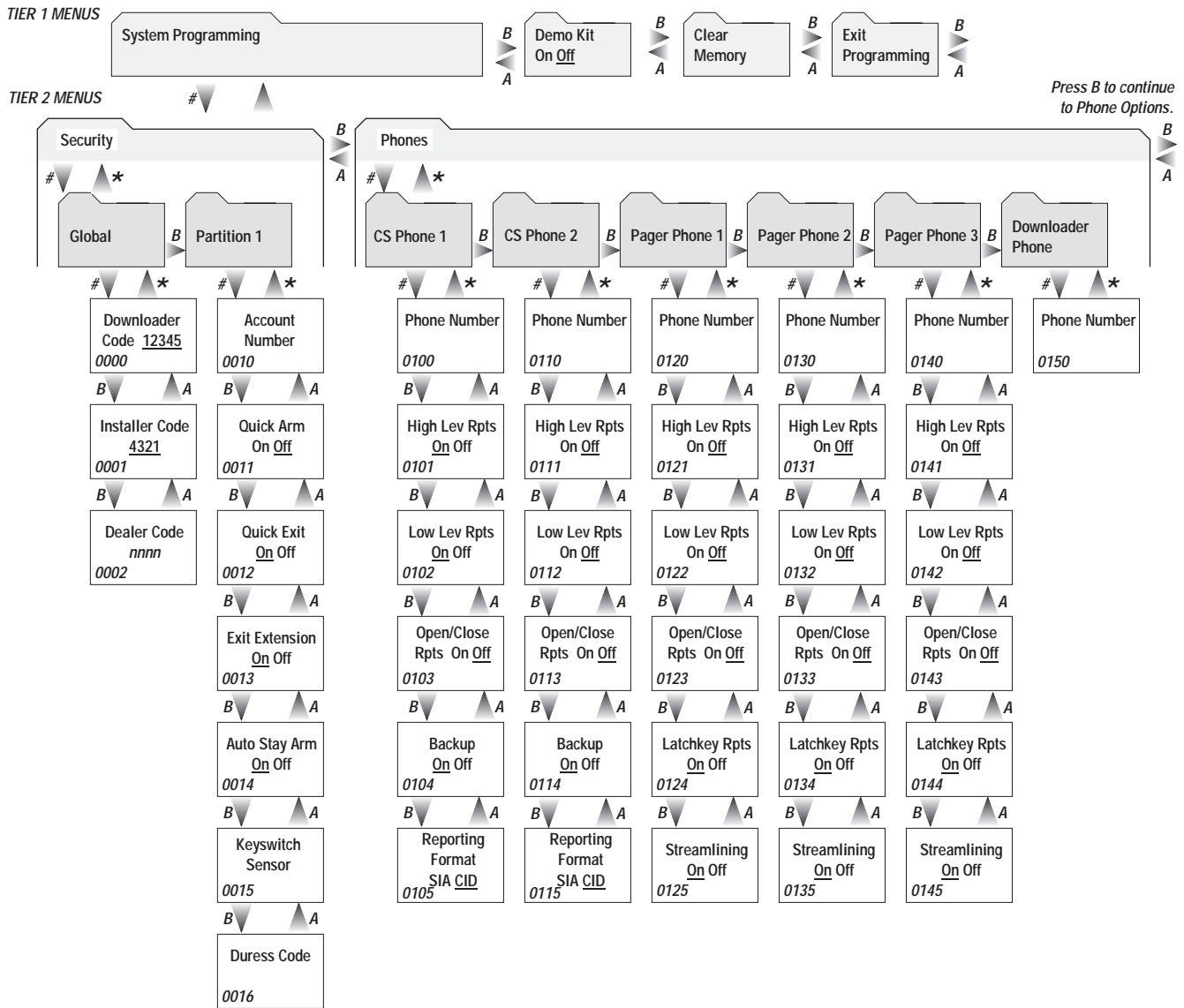
The trip delay is factory set for 30 seconds and cannot be changed.

5. Activated outputs set up for a 3-minute response time remain active for the entire 3 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.



# Programming Mode Menus and Settings



**Notes**

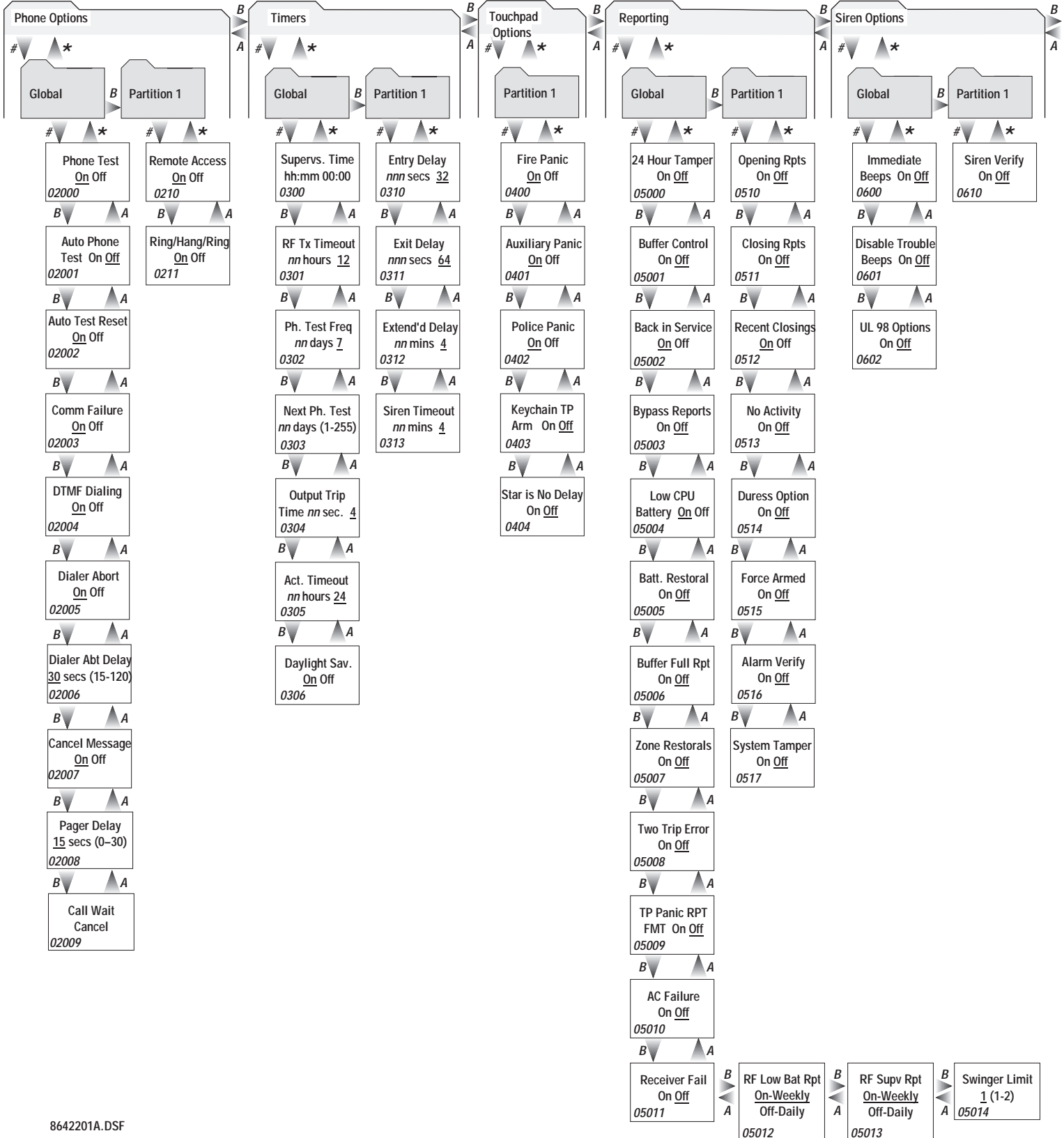
- Underlined settings indicate defaults.
- Shortcut numbers appear in the lower-left corner of each menu box, where applicable.

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# Programming Mode Menus and Settings

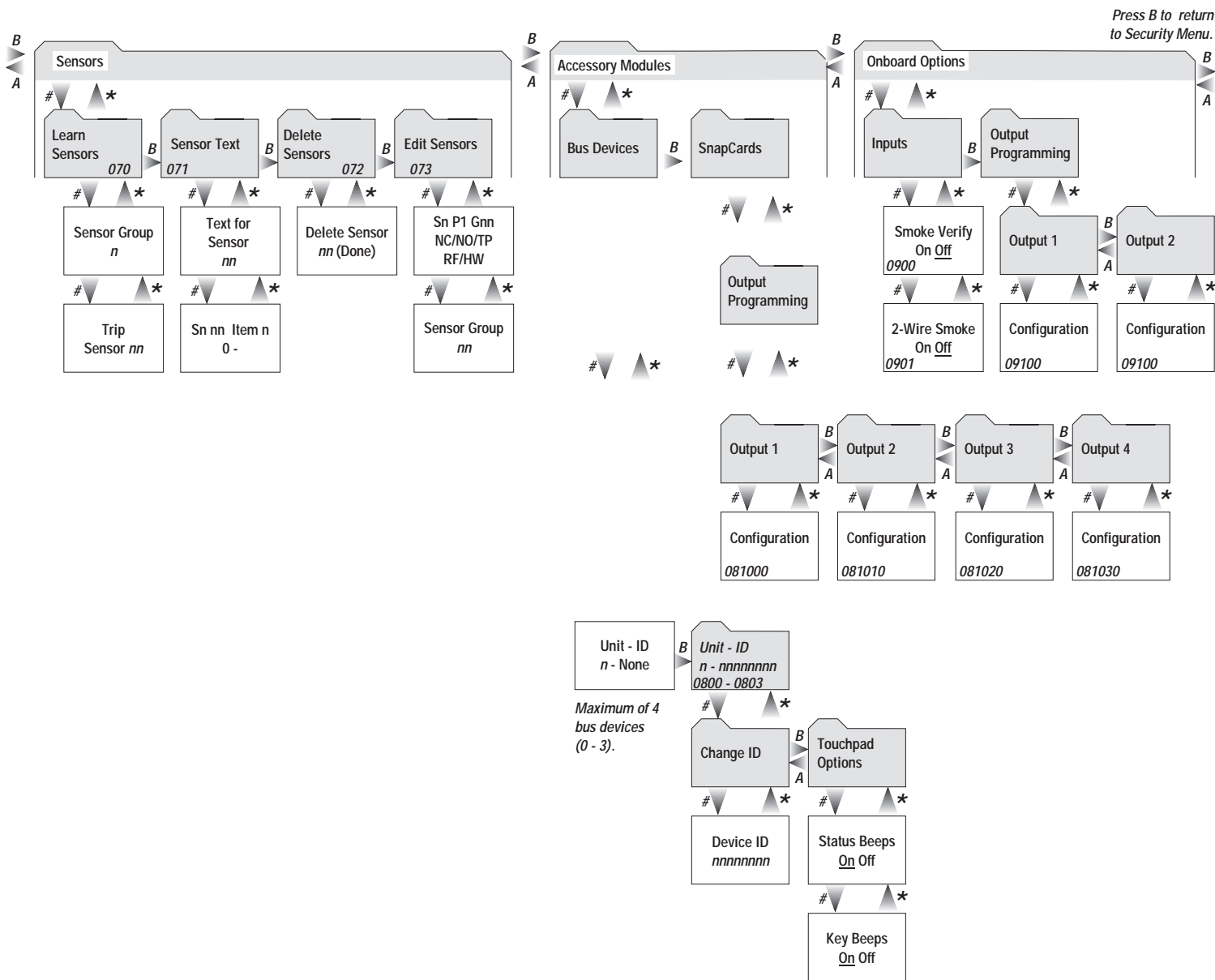
Press B to continue to Sensors.

## TIER 2 MENUS



8642201A.DSF









# CONCORD EXPRESS SYSTEM WIRING DIAGRAM (60-806)

ALL PANEL TERMINAL CONNECTIONS ARE CLASS II POWER LIMITED

