CONCORD™

STUDENT TRAINING GUIDE

Concord

January 2001

interlogix

SECURITY & LIFE SAFETY GROUP

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Table of Contents

Planning the Installation

Installation

Peripheral Installation

Programming

Testing the System

Troubleshooting

System Operation

End-User Training

CONCORD

Module 1–Planning the Installation

Introduction

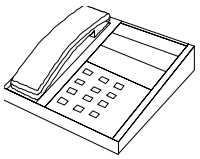
This module teaches the installer how to plan the installation of the Concord system.

What's in This Module

Major Features

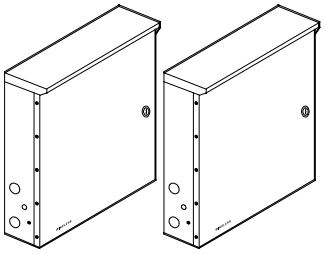
This section outlines the major features of the Concord system. You need to understand the system before planning the installation.

- 4 versions: integrated 16, integrated 32, hardwire, and commercial
- 2 partitions
- 1,500-foot range
- 2 Onboard programmable outputs
- Attack resistant metal housing
- SAW radio receiver
- 60 user codes with programmable authority levels
- 100 event buffer
- Latchkey paging
- 16 programmable schedules for lighting and outputs
- Key-switch arming
- Built-in 12-watt siren driver
- One 2-wire smoke loop on board
- Total System Power
  - 12 VDC 1 Amp power with 24 VAC, 30 VA transformer
  - 12 VDC 2 Amp power 24 VAC, 50 VA transformer
- Supervised Wireless Interior Siren (SWIS) Compatible (Requires PLC card)
- 16 SuperBus Modules
- SIA II and Contact ID reporting formats (no ITI format)
- ELM keychain support
- Snap Cards allow expansion of features
  - 8Z Input SnapCard (6 inputs, 2 2-wire smoke light)
  - 4Z Output SnapCard
  - Combo Input/Output SnapCard (3 input, 2 output, two-wire smoke loop)
- 2-Way voice communication with optional Interrogator 200 Audio Verification Module
- Hardwire touchpads display text descriptions of alarms and sensor conditions
- Energy Saver
- Optional Phone Interface Voice/Module
  - Provides on-premise & off-premise phone control
  - Provides status voice
  - Provides alarm voice
- PC programmable with ITI ToolBox Downloader

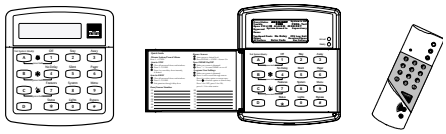




System Components

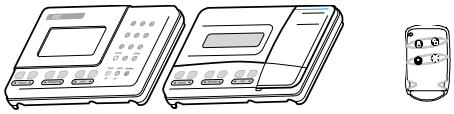
This task familiarizes you with the basic components of the Concord system.



- Panels Versions
  - Concord Hardwire
  - Concord RF 16
  - Concord RF 32
  - Commercial

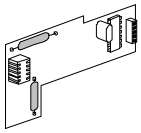


- Hardwire Touchpads
  - SB2000 Fixed English
  - SB2000 2x16 LCD
  - SB2000 2x20 LCD
  - SB2000 2x20 VFD



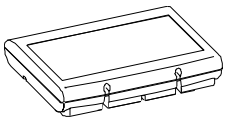
- Wireless Touchpads
  - Hi-Tech Handheld Touchpad
  - 2- and 4-button keychain touchpads

- SuperBus RF Receivers
  - 16 zone wireless receiver
  - 32 zone wireless receiver
  - 76 zone wireless receiver

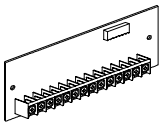


- Power Line Carrier (PLC) Card
  - Allows use of Supervised Wireless Interior Siren and X-10 devices

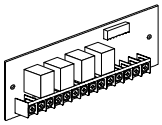
- Phone Line Supervision Card



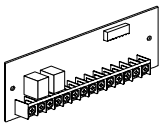
- Phone Interface/Voice Module
  - Allows operation from a touch-tone phone and gives system a 220+ word vocabulary
  - Provides alarm voice



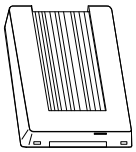
- 8Z Input SnapCard
  - Adds 6 hardwire zones and two 2-wire smoke loops



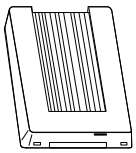
- 4Z Output SnapCard
  - Adds 4 Form-C relay outputs



- Combo Input/Output SnapCard
  - Adds one 2-wire smoke loop
  - Three hardwire zones
  - Two hardwire outputs



- SuperBus 2000 Hardwire Input Module
  - Adds 8 hardwire inputs



- SuperBus 2000 Hardwire Output Module
  - Adds 4 Form-C relay outputs

- Supervised Wireless Interior Siren (SWIS)

- Interrogator 200 Audio Verification Module
  - Provides voice communication with the Central Station

- Energy Saver Module
  - Allows the Concord system to control a thermostat by placing the energy saver module in series with the existing thermostat.

Student Notes

Planning Wires and Current Draw

This task helps you determine what wire you need and maximum current draw for each device.

TABLE 1-1. Wire Length and Maximum Current Draw for Devices.

Device	Maximum Wire Length to Panel	Maximum mA Draw
SuperBus 2000 2x16 LCD Alphanumeric Touchpad	22 ga.—300 ft. 18 ga.—750 ft.	90 mA
SuperBus 2000 Fixed English Display Touchpad	22 ga.—300 ft. 18 ga.—700 ft.	65 mA
SuperBus 2000 2x20 LCD Alphanumeric Touchpad	22 ga.—250 ft. 18 ga.—600 ft.	120 mA
SuperBus 2000 2x20 VFD Alphanumeric Touchpad	22 ga.—250 ft. 18 ga.—600 ft.	120 mA
SuperBus RF Receiver	22 ga.—1,100 ft. 18 ga.—2,800 ft.	30 mA
SuperBus Phone Interface/Voice Module	22 ga.—40 ft. 18 ga.—120 ft.	600 mA
Power Line Carrier Card	N/A	110 mA
Combo Input/Output SnapCard	N/A	185 mA
8Z Zone Input SnapCard	N/A	230 mA
4Z Output SnapCard	N/A	130 mA
SuperBus 2000 Hardwire Input Module	22 ga.—1,800 ft. 18 ga.—4,500 ft.	18 mA
SuperBus 2000 Hardwire Output Module	22 ga.—350 ft. 18 ga.—900 ft.	91 mA
SuperBus 2000 Energy Saver Module	22 ga.—1,600 ft. 18 ga.—4,000 ft.	20 mA
Interrogator 200 Audio Verification Module	22 ga.—3,200 ft. 18 ga.—4,500 ft.	10 mA
Interrogator	22 ga.—110 ft. 18 ga.—260 ft.	300 mA

TABLE 1-2. Total Allowed Wire Length for System.

Wire Type	Total System Wire for Systems *with* Touchpads	Total System Wire for Systems *without* LED Touchpads
22-gauge, unshielded 22-gauge, shielded	2,000 ft. 1,300 ft.	4,500 ft. 3,000 ft.
18-gauge, unshielded 18-gauge, shielded	1,600 ft. 900 ft.	3,500 ft. 2,200 ft.

Refer to Table 1-3 for the minimum current draw of each device when the panel is operating only from the backup battery. For 24-hour backup, the total current draw of all connected devices is limited to 100 mA continuous using a 4.0 AH battery, or 200 mA continuous using a 7.0 AH battery.

TABLE 1-3. Current Draw Minimums for Devices.

Device	Minimum mA Draw
SB 2000 2x16 LCD Alphanumeric Touchpad	15 mA
SB 2000 Fixed English Display Touchpad	11 mA
SB 2000 2x20 LCD Alphanumeric Touchpad	20 mA
SB 2000 2x20 VFD Alphanumeric Touchpad	20 mA
SuperBus 2000 RF Receiver	27 mA
SuperBus 2000 Phone Interface/Voice Module	25 mA
Power Line Carrier Card	N/A
4Z Output SnapCard	20 mA
8Z Input SnapCard	38 mA
4 Input/Output SnapCard	1 mA
SuperBus 2000 Hardwire Input Module	18 mA
SuperBus 2000 Hardwire Output Module	11 mA
SuperBus 2000 Energy Saver Module	20 mA
Interrogator 200 Audio Verification Module	10 mA
Interrogator	45 mA

TABLE 1-4. Control Panel Wiring Requirements.

Device	Wire Requirements
AC Power Transformer	2-conductor, 18-gauge, stranded, 25 feet maximum
Earth Ground	Single 14-gauge, stranded or solid, 25 feet maximum
Telephone (RJ-31X)	4-conductor, 22- to 24-gauge, solid or stranded
Detection Devices	2- or 4-conductor, 18- to 22-gauge, stranded, 50 ohms maximum loop resistance including device
Sirens, Piezos, and Speakers	2- or 4-conductor, 18-gauge, stranded, 500 feet maximum
SuperBus 2000 Devices (alphanumeric touchpad, HIM, and ESM)	4-conductor, 22-gauge, maximum 500 feet
Fixed English Display Touchpad	4-conductor, 22-gauge, 300 feet maximum
SuperBus 2000 RF Receiver	4-conductor, 22-gauge, 1,100 feet maximum
SuperBus Phone Interface/Voice Module	4-conductor, 18- to 22-gauge, 50 feet maximum
Interrogator 200 AVM Microphone	2-conductor, 22-gauge, stranded, shielded*, 500 feet maximum

Using the Planning Checklist

Use the following System Planning Checklist for a quick, error-free installation.

- How will the system be used? (fire warning, intrusion alarm, partitions, etc.)
- Will there be hardwired components?
- Which wireless components will be used?
- Where will the control panel, touchpad, and sensors be located?
- Plan panel option programming:
- Which panel configuration options will be used?
- Who will train the users?
- How and when will the users be trained?
- Do you have all the components you need for the job?

Student Notes

Planning Partitions

This task illustrates planning a system that uses partitions. Partitioning allows a system to be used like it's more than one system.

Concord has two partitions. That means that one Concord system could be set up to provide security for two businesses. The users would not know that they were using the same system.

Global Settings

System Settings that affect both partitions:

- The time and date
- The System Master code
- The phone number of the central monitoring station
- The downloader phone number
- The Dialer Delay feature

Partition-Specific Settings

System Settings that affect either partition:

- The Partition Maser code (1 per partition)
- The user access codes (60 total)
- Pager phone numbers
- Light control (9 total)
- The Latchkey feature
- The Notify by Exception feature
- The Downloading option
- The Silent Arming option
- Touchpad brightness settings
- Speaker volume settings
- The Energy Saver Module (ESM) feature and its high and low set points

Programming Partitions

Only one partition can be programmed at a time.

While one partition is being programmed, the other partition cannot be programmed. Some partition-specific settings share resources, such as access codes and time schedules. This means that if Partition 1 uses user numbers 1 through 20, Partition 2 cannot use those numbers.

System Planning Worksheets

Fill in customer information about this installation:

Customer _____

*Address*_____

*City*_____*State/Zip* _____

*Country*_____*Phone*_____

TABLE 1-5. Wireless Sensors.

Part No.	Description	Quantity
60-362	Learn Mode Door/Window Sensor	
60-741-95	Learn Mode Micro Recessed Door/Window Sensor	
60-499	Learn Mode Slim Line Door/Window Sensor	
60-461*	Learn Mode Shock Sensor	
60-459 *	Learn Mode Sound Sensor (ITI)	
60-462 *	Learn Mode Glass Guard Sensor	
60-506	Learn Mode System Smoke Sensor	
60-460	Rate-of-Rise Heat Sensor	
60-589 *	Manual Fire Pull Sensor	
60-504 *	Learn Mode Freeze Sensor	
60-452	Learn Mode Pendant Panic Sensor	
60-458	Single Button Panic Sensor	
60-457	Dual Button Panic Sensor	
60-578	Water-Resistant Panic Sensor	
60-348	Handheld Wireless Touchpad	
60-453	Wall-Mount Wireless Touchpad	
60-511	Learn Mode DS924i PIR Motion Sensor	
60-582	Learn Mode Sound Sensor (IntelliSense)	
60-645-95	Wireless Smoke Sensor (System Sensor 2300RFITI)	

*** Not UL listed; not intended for use in UL listed systems.**

TABLE 1-6. Hardwire Devices.

Part No.	Description	Qty.	mA	Sub
Hardwire Sensors/Detectors				
13-068 *	Magnetic Contact 3/8" press fit		N/A	
13-070 *	Magnetic Contact Surface Mount		N/A	
13-360	ESL 449AT Smoke/Heat Detector		15 mA	
13-391	Power Supervision Module		20 mA	
79-004 *	Fire Pull Station		N/A	
13-028 *	PIR Motion Detector		10 mA	
Hardwire Sirens				
60-252	Hardwire Interior Speaker and Piezo		5 mA	
60-278	Hardwire Interior Siren and Piezo		75 mA	
60-483	Slim Line Hardwire Interior Siren and Piezo		120 mA	
13-046	Hardwire Exterior Siren		145 mA	
Miscellaneous Components				
60-584	Superbus 2000 Hardwire Input Module (HIM)		15 mA	
60-585	Superbus 2000 Hardwire Input Module (HIM)			
60-764-01 -95R-16Z	SuperBus Receiver			
60-746-01	Superbus 2000 2X16 Alphanumeric Touchpad		100 mA	
60-620	Superbus 2000 Energy Saver Module (ESM)		10 mA	
60-803-04	Superbus 2000 2X20 LCD Alphanumeric Touchpad		115 mA	
60-804-04	Superbus 2000 2X20, VFD Alphanumeric Touchpad		120 mA	
60-677 *	Audio Verification Module (AVM)		10 mA	
60-820	SupereBus 2000 Fixed English Display Touchpad		65 mA	

*** Total power consumption not to exceed: 1,000 mA**

TABLE 1-7. Sensor Groups and Locations.

No.	Group	Type and Location
01		
02		
03		
04		
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34		
35		
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37		
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No.	Group	Type and Location
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TABLE 1-8. 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
20	Delayed Interior	PIR motion sensors that initiate a delay before going into alarm. *	Police	Standard		✓	✓		3

TABLE 1-8. Sensor Group Characteristics (Continued).

No.	Name	Application	Alarm	Delay	Restoral	Supervisory	CS Report	Chime	Active Levels
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	Carbon monoxide (CO) Gas Detector	Auxiliary	Instant	✓	✓	✓		
35									

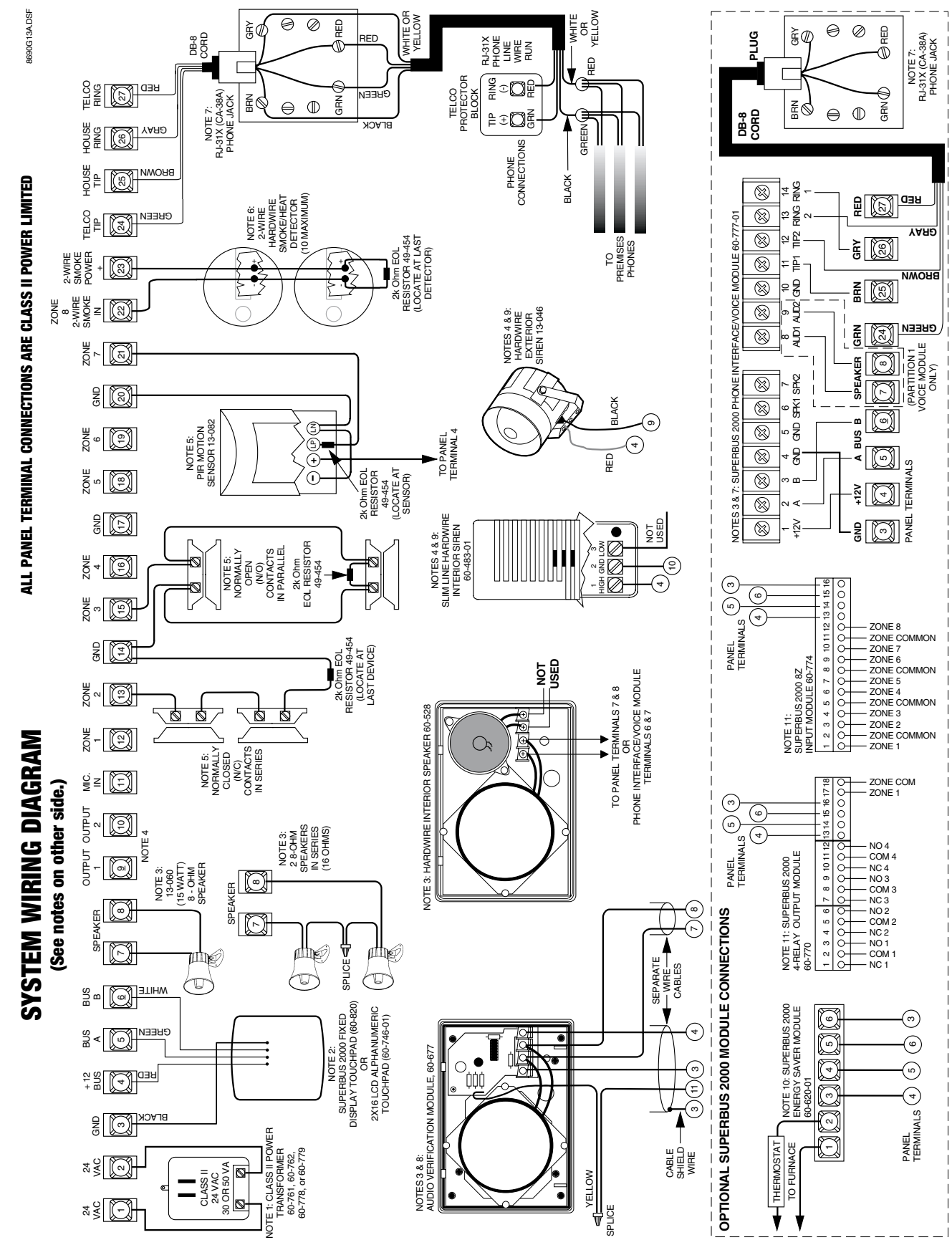
Note: Check marks (√) represent characteristics present in a group.

* 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.


SYSTEM WIRING DIAGRAM
(See notes on other side.)
ALL PANEL TERMINAL CONNECTIONS ARE CLASS II POWER LIMITED
8690G13A.DSF
NOTE 1: CLASS II POWER TRANSFORMER 60-761, 60-762, 60-778, or 60-779
CLASS II 24 VAC 30 OR 50 VA
24 VAC
GND
+12 BUS
BUS A
BUS B
SPEAKER
OUTPUT 1
OUTPUT 2
MIC. IN
ZONE 1
ZONE 2
GND
ZONE 3
ZONE 4
GND
ZONE 5
ZONE 6
GND
ZONE 7
ZONE 8 2-WIRE SMOKE IN
2-WIRE SMOKE POWER
TELCO TIP
HOUSE TIP
HOUSE RING
TELCO RING
NOTE 2: SUPERBUS 2000 FIXED DISPLAY TOUCHPAD (60-820) OR 2X16 LCD ALPHANUMERIC TOUCHPAD (60-746-01)
BLACK
WHITE
GREEN
RED
BROWN
GRAY
GREEN
RED
NOTE 3: 13-060 (15 WATT) 8 - OHM SPEAKER
NOTE 4
NOTE 3: 2 8-OHM SPEAKERS IN SERIES (16 OHMS)
SPLICE
NOTE 5: NORMALLY CLOSED (N/C) CONTACTS IN SERIES
NOTE 5: NORMALLY OPEN (N/O) CONTACTS IN PARALLEL
2k Ohm EOL RESISTOR 49-454
2k Ohm EOL RESISTOR 49-454 (LOCATE AT LAST DEVICE)
NOTE 6: 2-WIRE HARDWIRE SMOKE/HEAT DETECTOR (10 MAXIMUM)
2k Ohm EOL RESISTOR 49-454 (LOCATE AT LAST DETECTOR)
NOTE 5: PIR MOTION SENSOR 13-082
2k Ohm EOL RESISTOR 49-454 (LOCATE AT SENSOR)
TO PANEL TERMINAL 4
NOTES 4 & 9: HARDWIRE EXTERIOR SIREN 13-046
BLACK
RED
NOTES 4 & 9: SLIM LINE HARDWIRE INTERIOR SIREN 60-483-01
HIGH GND LOW
NOT USED
NOTE 3: HARDWIRE INTERIOR SPEAKER 60-528
NOT USED
TO PANEL TERMINALS 7 & 8 OR PHONE INTERFACE/VOICE MODULE TERMINALS 6 & 7
NOTES 3 & 8: AUDIO VERIFICATION MODULE, 60-677
SEPARATE WIRE CABLES
CABLE SHIELD WIRE
YELLOW
SPLICE
DB-8 CORD
NOTE 7: RJ-31X (CA-38A) PHONE JACK
GRY
RED
BRN
GRN
BLACK
GREEN
WHITE OR YELLOW
RED
TELCO PROTECTOR BLOCK
TIP (+)
RING (-)
GRN
RED
RJ-31X PHONE LINE WIRE RUN
WHITE OR YELLOW
RED
PHONE CONNECTIONS
BLACK
GREEN
TO PREMISES PHONES
NOTES 3 & 7: SUPERBUS 2000 PHONE INTERFACE/VOICE MODULE 60-777-01
1 +12V
2 A
3 B
4 +12V
5 A BUS
6 B
7 SPK2
8 SPK1
9 AUD2
10 AUD1
11 GND
12 TIP1
13 TIP2
14 RING
RING
GND
+12V
A BUS
B
SPEAKER
AUD1
AUD2
GND
TIP1
TIP2
RING
RING
PANEL TERMINALS
(PARTITION 1 VOICE MODULE ONLY)
RED
GRAY
BROWN
GREEN
DB-8 CORD
PLUG
GRY
RED
BRN
GRN
NOTE 7: RJ-31X (CA-38A) PHONE JACK
OPTIONAL SUPERBUS 2000 MODULE CONNECTIONS
PANEL TERMINALS
NOTE 11: SUPERBUS 2000 8Z INPUT MODULE 60-774
ZONE 8
ZONE COMMON
ZONE 7
ZONE 6
ZONE COMMON
ZONE 5
ZONE 4
ZONE COMMON
ZONE 3
ZONE 2
ZONE COMMON
ZONE 1
PANEL TERMINALS
NOTE 11: SUPERBUS 2000 4-RELAY OUTPUT MODULE 60-770
ZONE COM
ZONE 1
NO 4
COM 4
NC 4
NO 3
COM 3
NC 3
NO 2
COM 2
NC 2
NO 1
COM 1
NC 1
THERMOSTAT
TO FURNACE
NOTE 10: SUPERBUS 2000 ENERGY SAVER MODULE 60-620-01
PANEL TERMINALS

System Wiring Notes

Note 1

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

Note 2

An alphanumeric touchpad is required for on-site programming. If the installation includes more than one touchpad, connect just one touchpad and use it to program system settings. When connecting additional touchpads, each one must be set with a unique device address. Refer to the touchpad or panel installation instructions.

Note 3

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

Note 4

Onboard outputs 1 and 2 are open-collector type. Output 1 defaults to configuration number 01400. Output 2 defaults to configuration number 00410. Refer to panel installation instructions for all possible settings.

Note 5

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

Note 6

For UL listed installations, wire multiple supervised hardwire smoke detectors (10 maximum) only as shown. Maximum 10 uA current draw per detector. Maximum 80 mA current draw in alarm. Maximum 100 mA current draw in non-alarm state.

Note 7

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

Note 8

A maximum of two Audio Verification Modules are allowed. Wire multiple speakers in series, and power and microphone wires in parallel. Use shielded cable where shown in diagram to prevent cross-talk between the speaker and microphone. Audio Verification Modules may not be used in UL listed installations.

Note 9

Connect multiple piezo sirens in parallel. Status beeps do not sound from piezo sirens connected to outputs. Slim line hardwire interior siren status volume switch settings have no effect.

Note 10

All SuperBus devices must be set with a different device address before applying power. Devices with the same device address setting will not work correctly. For installations with just one touchpad and module, the default settings can be used.

Note 11

Refer to the Energy Saver Module installations instructions for thermostat wiring details.

Note 12

Wire hardwire input module zone (loop) inputs as shown for the panel, except use 4.7k-ohm EOL resistors. Install EOL resistors across all unused zone (loop) inputs.

Module 2-Installation

Introduction

This module teaches you how to install the Concord Security System.

What's in This Module

Installing the Panel (60-734-01)

This task illustrates finding the best location and mounting the panel.

CAUTION

Do not apply power to the panel until all module/card installation and panel wiring is completed. Determine the panel location.

- Use a central location.
- Avoid excessive metal if the SuperBus 2000 RF receiver is used (HVAC ducts, foil wallpaper, gas/water pipes, and electrical wiring)
- Mount the panel at a comfortable working height (about 45 to 55 inches from the floor).
- Allow a minimum of 9 inches above the panel for the antennas, if the SuperBus 2000 RF receiver is used.
- Allow space to the right or left of the panel for wiring, phone jack, and optional module mounting.
- Allow at least 24 inches in front of the panel for access.

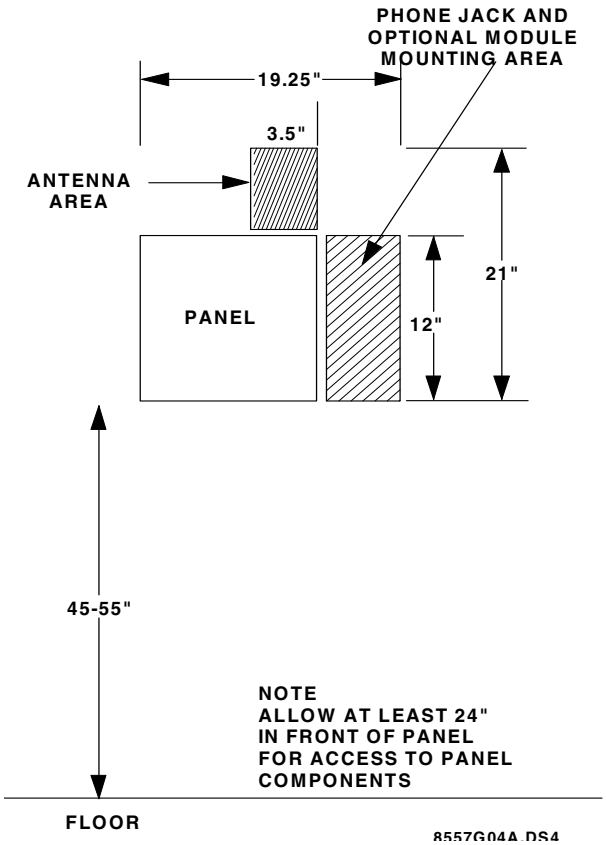


FIGURE 2-1. Determining the Panel Location.

Running Wires to the Panel Location

After determining the panel location, run all the necessary wires to the location using the Table 1-4.

CAUTION

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

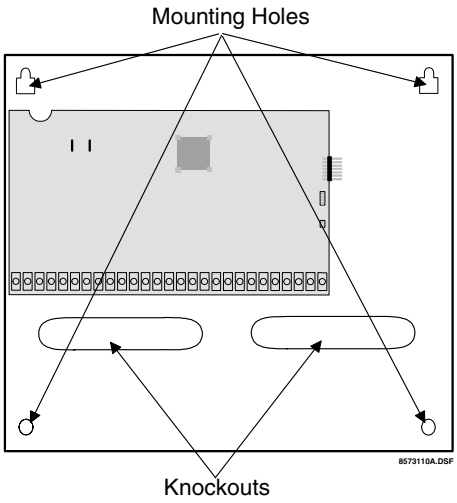


FIGURE 2-2. Mounting the Panel.

1. Open the panel cover.
2. Remove the necessary wiring knockouts. Be careful not to damage the circuit board.
3. Feed all wires through the wiring knockouts.
4. Place the panel in position against the wall (or studs).
5. Level the enclosure and mark the locations of the two mounting holes and two keyhole mounting holes.
6. Use the right anchors and screws. Partially insert screws into the two anchors at the top keyhole locations, and then hang the panel chassis on the two screws.
7. Level the enclosure. Insert the two lower screws, and then tighten all four mounting screws.

NOTE

Remember to leave room for the antennas, which extend 9 inches above the top of the enclosure.

Identifying the Main Components

This task illustrates the location of the panel's main components.

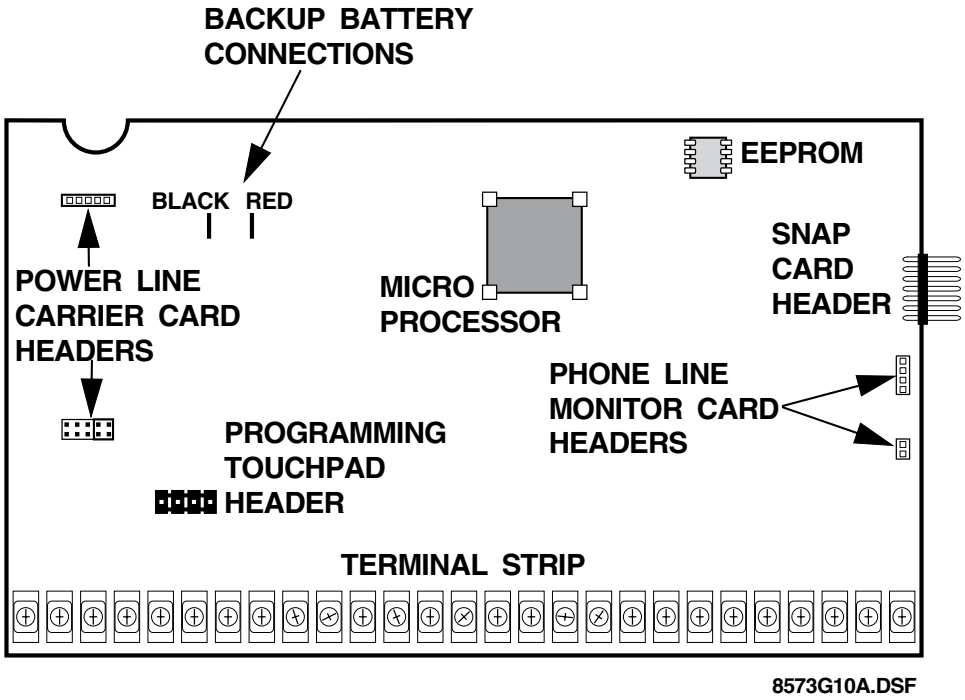


FIGURE 2-3. Concord Panel Main Components.

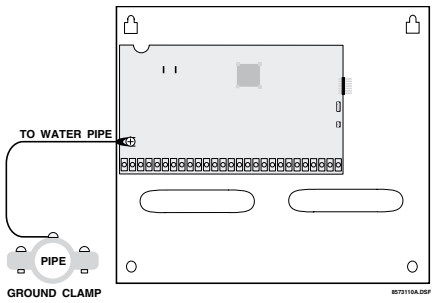
Student Notes

Connecting the Panel to Earth Ground

This task illustrates connecting the panel to earth ground to protect from lightning strikes and transients.

CAUTION

Do not apply power to the panel until all module/card installation and panel wiring is completed.

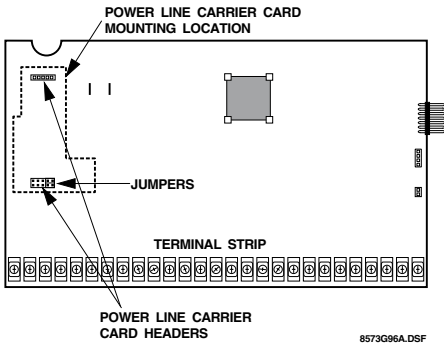


1. Using a spade lug, connect a 16-gauge, solid copper wire to the lower-left circuit board screw.
2. Connect the other end of the wire to an earth ground, for example: an earth grounded cold-water pipe clamp.

FIGURE 2-4. Grounding the Panel.

Installing Power Line Carrier Cards (60-755)

This task illustrates installing the Power Line Carrier (PLC) card. The PLC card lets you add Supervised Wireless Sirens for alarm and status sounds and X-10 modules for light and appliance control.



1. Remove the two jumpers from the lower headers.
2. Install the card on the header pins shown in Figure 2-5.
3. No wiring is necessary.

FIGURE 2-5. Header Pin Locations.

NOTE

The lower header has two jumpers installed from the factory that must be removed before installing the Power Line Carrier Card. Leave these jumpers in place if you are not installing a Power Line Carrier Card.

Installing SnapCards (60-756, 60-757, 60-758)

This task illustrates installing Snap Cards.

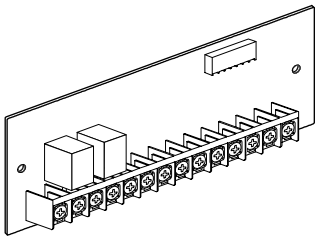
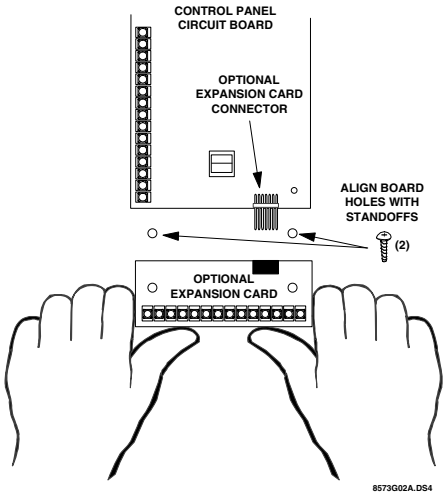


FIGURE 2-6. Combo Input/Output SnapCard.

1. Disconnect the panel power and the backup battery.



2. Install the SnapCard onto the panel's SnapCard Header.
3. Secure the card with the two screws provided with the card.
4. Wire the input devices to the card. Refer to Figures 2-6 through 2-9 and Tables 2-1 through 2-3.

   Use terminals 11 and 12 for the two-wire 12V smoke detector loop. You can connect up to 10 two-wire smoke detectors on this loop.
5. Use end-of-line (EOL) resistors as shown on any hardwire loops.
6. Reconnect the backup battery and panel AC power.

Combo Input/Output SnapCard

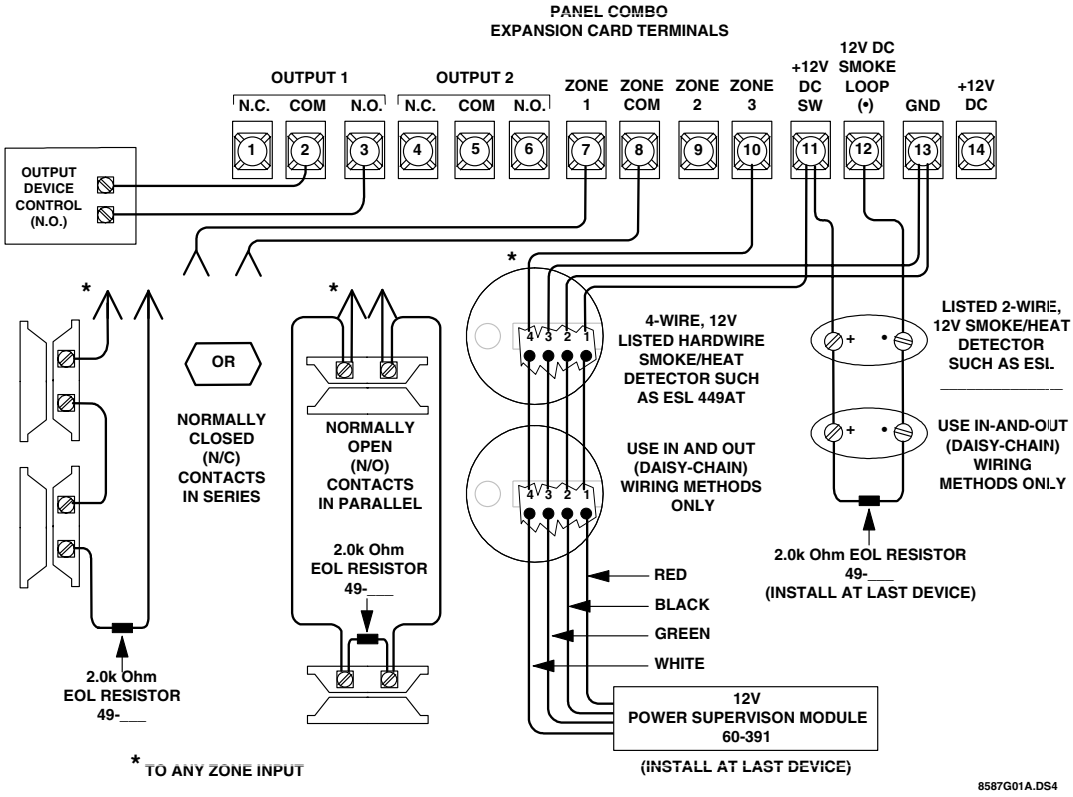


FIGURE 2-7. Combo Input/Output SnapCard Wiring Diagram.

TABLE 2-1. Wiring Terminal Descriptions -Combo SnapCard.

Terminal Number	Description	Use
1	Relay 1 N/C	Normally closed (N/C) (opens on activation) output 1/dry relay contact connection.
2	Relay 1 COM	Common (C) side of output 1 dry relay N/C and N/O contacts (terminals 1 and 3). 5 AMP at 30 VDC maximum.
3	Relay 1 N/O	Normally open (N/O) (closes on activation) output 1/dry relay contact connection.
4	Relay 2 N/C	Normally closed (N/C) (opens on activation) output 2/dry relay contact connection.
5	Relay2 COM	Common (C) side of output 2 dry relay N/C and N/O contacts (terminals 2 and 6). 5 amp at 30 VDC maximum.
6	Relay 2 N/O	Normally open (N/O) (closes on activation) output 2/dry relay contact connection.
7	ZN1	Hardwire Input zone 1
8	ZCOM	Common for hardwire input zones 1, 2, and 3
9	ZN2	Hardwire Input zone 2
10	ZN3	Hardwire Input zone 3
11	SMK+	Smoke detector power supply. Switched 12 VDC at 100 mA maximum. Positive (+) side of 2-wire, 12 VDC smoke loop.
12	SMK-	Negative (-) side of 2-wire, 12 VDC smoke loop.
13	GND	Common ground for 4-wire smoke detector and rate-of-rise heat sensors
14	+12VDC	Auxiliary DC power supply. 12 VDC at 500 mA maximum.

Input SnapCard

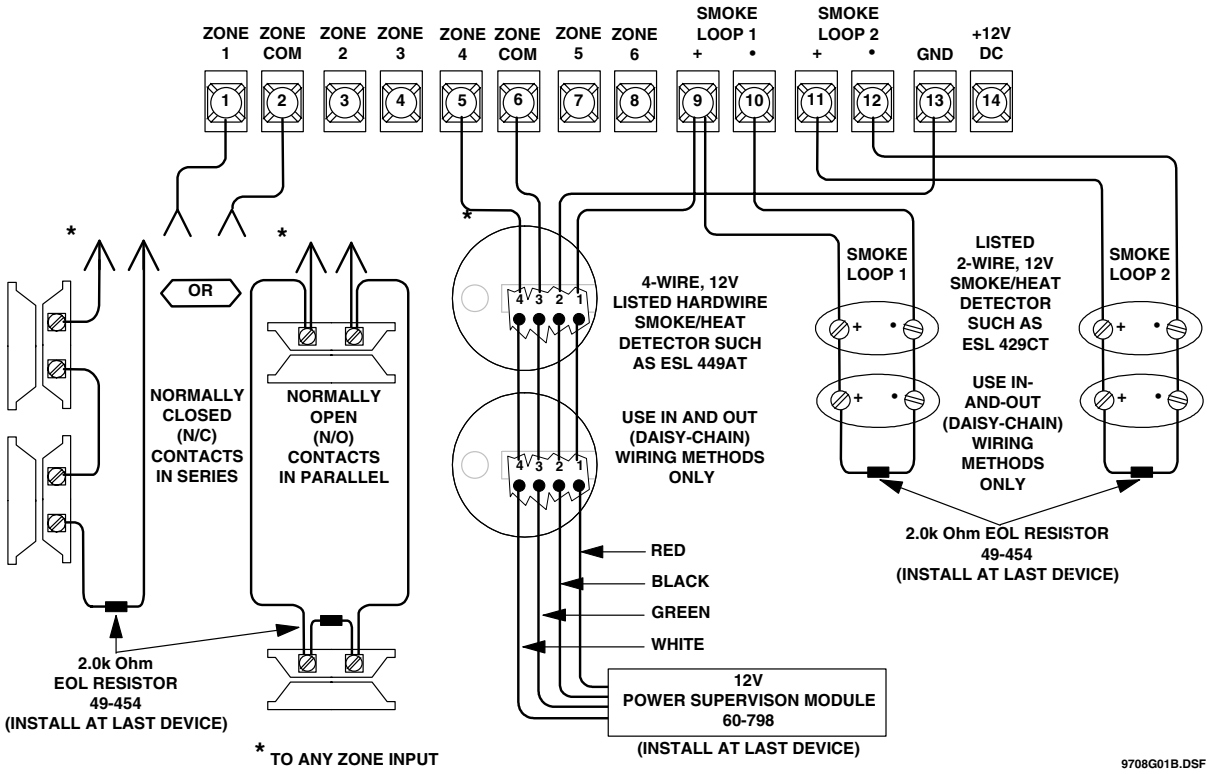


FIGURE 2-8. Input SnapCard Wiring Diagram.

TABLE 2-2. Wiring Terminal Descriptions - Input SnapCard.

Terminal Number	Description	Use
1	Zone 1	Hardwire input zone 1
2	Zone COM	Common for zones 1, 2, and 3
3	Zone 2	Hardwire input zone 2
4	Zone 3	Hardwire input zone 3
5	Zone 4	Hardwire input zone 4
6	Zone COM	Common for zones 4, 5, and 6
7	Zone 5	Hardwire input zone 5
8	Zone 6	Hardwire input zone 6
9	12V Smoke Loop 1 (Pos)	Positive side of 2-wire 12V smoke loop1. Connect up to 20 12V class B smoke detectors between terminals 9 and 10. (Terminal also supplies +12 VDC switched power to 4-wire smoke detectors).
10	12V Smoke Loop (Neg)	Negative side of 2-wire 12V smoke loop1
11	12 Smoke Loop 2 (Pos)	Positive side of 2-wire 12V smoke loop 2. Connect up to 20 12V class B smoke detectors between terminals 11 and 12. (Terminal also supplies +12 VDC switched power to 4-wire smoke detectors).
12	12 Smoke Loop 2 (Neg)	Negative side of 2-wire 12V smoke loop 2
13	GND	Auxiliary power supply ground return
14	+12VDC OUT	Auxiliary regulated DC power supply. 12 VDC at 0.5 amp maximum.

Output SnapCard

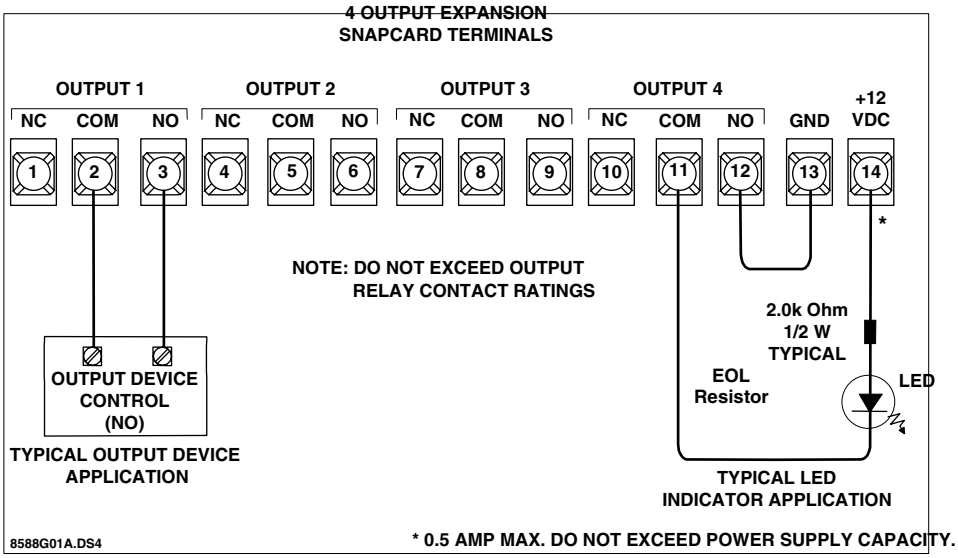


FIGURE 2-9. Output SnapCard Wiring Diagram.

TABLE 2-3. Wiring Terminal Descriptions - Output SnapCard.

Terminal Number	Description	Use
1	1 N/O	Normally open (N/O) (closes on activation) output 1/dry relay contact connection.
2	1 COM	Common (C) side of output 1 dry relay N/C and N/O contacts (terminals 1 and 3). 5 amp at 30 VDC maximum.
3	1 N/C	Normally closed (N/C) (opens on activation) output 1/dry relay contact connection.
4	2 N/O	Normally open (N/O) (closes on activation) output 2/dry relay contact connection.
5	2 COM	Common (C) side of output 2 dry relay N/C and N/O contacts (terminals 4 and 6). 5 amp at 30 VDC maximum.
6	2 N/C	Normally closed (N/C) (opens on activation) output 2/dry relay contact connection.
7	3 N/O	Normally open (N/O) (closes on activation) output 3/dry relay contact connection.
8	3 COM	Common (C) side of output 3 dry relay N/C and N/O contacts (terminals 7 and 9). 5 amp at 30 VDC maximum.
9	3 N/C	Normally closed (N/C) (opens on activation) output 3/dry relay contact connection.
10	4 N/O	Normally open (N/O) (closes on activation) output 4/dry relay contact connection.
11	4 COM	Common (C) side of output 4 dry relay N/C and N/O contacts (terminals 10 and 12). 5 amp at 30 VDC maximum.
12	4 N/C	Normally closed (N/C) (opens on activation) output 4/dry relay contact connection.
13	GND	Auxiliary power supply ground return.
14	+12VDC	Auxiliary output regulated DC power supply. 12 VDC at 500 mA maximum.

Connecting Detection Devices to the Panel Zone Inputs

This task illustrates connecting hardwire devices to the panel.

If you are installing two-wire smoke detectors, you must configure the panel to recognize them. They must be connected to zone 8. See *Programming the System for Two-Wire Smoke Detectors* in *Module 4 – Programming* for step-by-step programming instructions.

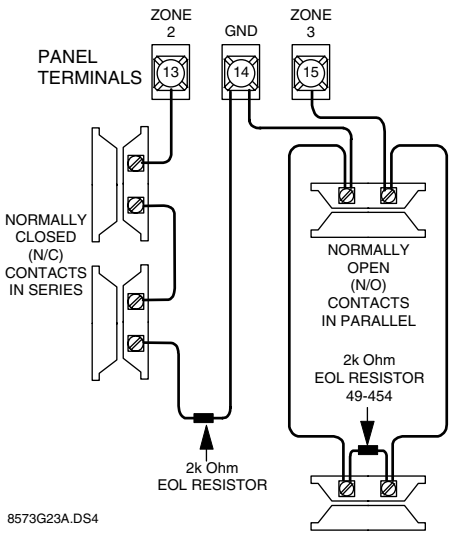


FIGURE 2-10. N/C and N/O Intrusion Detection Circuits.

Wire all zone inputs using a 2k-ohm end-of-line resistor to provide supervision for the zone.

Wire the end-of-line resistor at the last device on the circuit.

Refer to typical wiring for N/C and N/O intrusion detection circuits (Figure 2-10).

1. Using 2-conductor, 22-gauge or larger wire, connect your hardwire loops to the panel.
2. Verify that end-of-line resistors are installed properly (normally open sensors in parallel, normally closed sensor in series).

Connecting Two-Wire Smoke Detectors to the Panel

This task illustrates connecting two-wire smoke detectors to the panel.

You can connect up to ten 2-wire smoke devices to the panel.

NOTE

If you are installing two-wire smoke detectors, you must configure the panel to recognize them. They must be connected to zone 8. See *Programming the System for Two-Wire Smoke Detectors* in *Module 4 – Programming* for step-by-step programming instructions.

NOTE

When zone input 8 is set up for 2-wire smoke detectors, the maximum loop current allowed is 100 mA (in alarm)

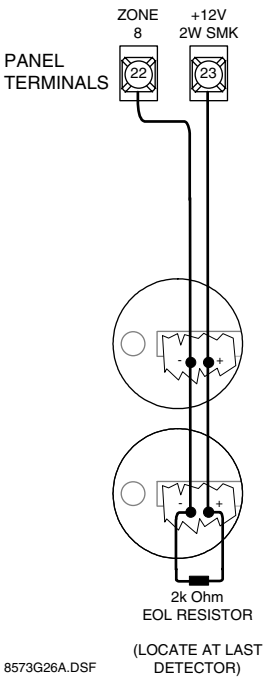


FIGURE 2-11. Connecting 2-wire Smoke Detectors to the Panel.

Zone input 8 can be set up in program mode, to accept 12 VDC, 2-wire smoke detectors by the following manufactures:

- System Sensor models 2100, 2100T, 2400, and 2400T
- Sentrol models 429C, 429CT, 521B, 521BXT

1. Using 2-conductor, 22-gauge or larger wire, connect smoke detectors to the panel.

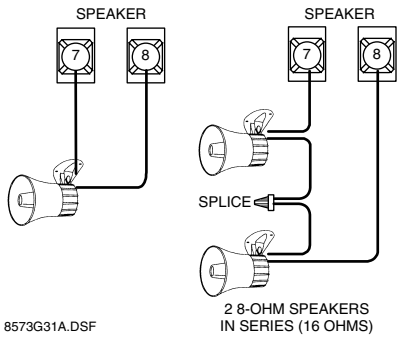
2. Verify that end-of-line resistors are installed properly (normally open sensors in parallel, normally closed sensor in series).

Connecting a 15-Watt Speaker (13-060)

This task illustrates connecting a 15-watt speaker to the Concord panel.

The panel provides a built-in siren driver output for intrusion (warble) and fire (temporal 3) alarm sounds. The built-in siren driver trips only for partition one alarms.

The output accepts a minimum 8-ohm load.



Connect speakers to the panel as shown in Figure 2-12.

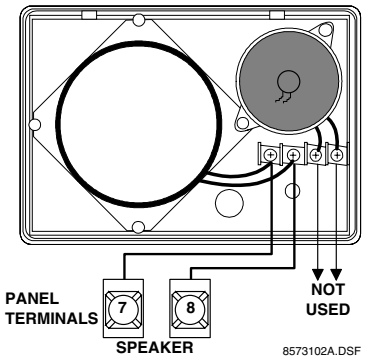
FIGURE 2-12. Connecting a 15-watt Speaker to the Contol Panel.

Connecting Hardwire Interior Speakers

This task illustrates wiring hardwire interior speakers to the Concord panel.

CAUTION

Connect only the large speaker to panel terminals 7 and 8 as shown. The smaller speaker cannot handle the output of terminals 7 and 8 and should not be connected, to avoid damaging the speaker.

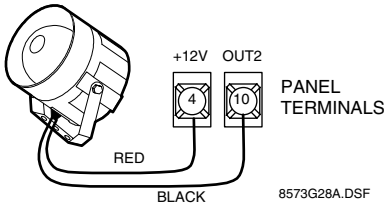


Connect speaker to the panel as shown in Figure 2-13.

FIGURE 2-13. Wiring a Hardwire Interior Speaker to the Panel.

Connecting Hardwire Exterior Sirens (13-046)

This task illustrates wiring hardwire exterior sirens to the Concord panel.

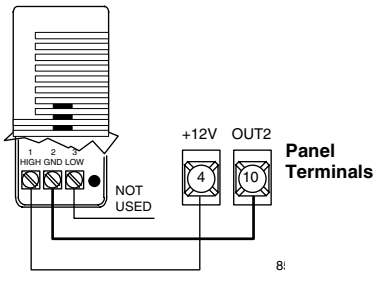


Connect siren to the panel as shown in Figure 2-14.

FIGURE 2-14. Wiring a Hardwire Exterior Speaker to the Panel.

Connecting Slim Line Hardwire Interior Sirens (60-483-01)

This task illustrates wiring slim line hardwire interior sirens to the Concord panel.



Connect siren to the panel as shown in Figure 2-15.

FIGURE 2-15. Wiring a Slim Line Interior Siren to the Panel.

Connecting SuperBus 2000 Phone Interface/Voice Modules (60-777-01)

This task illustrates wiring the optional SuperBus 2000 Phone Interface/Voice module to the Concord panel.

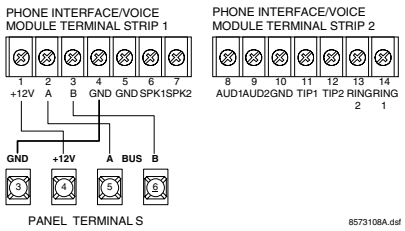


FIGURE 2-16. Wiring the Power and Bus Terminals.

1. Connect the module to the panel power and bus terminals as shown in Figure 2-16.

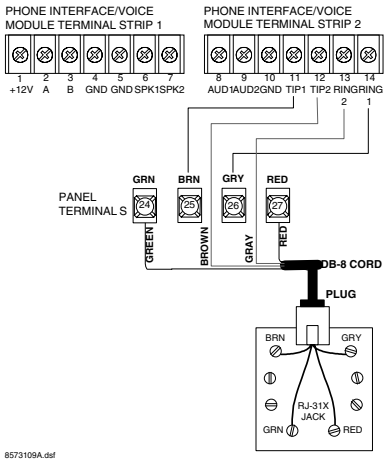


FIGURE 2-17. Wiring the Phone Connection.

2. Connect the phone line to the Phone Interface/Voice Module and panel terminals as shown in Figure 2-17.

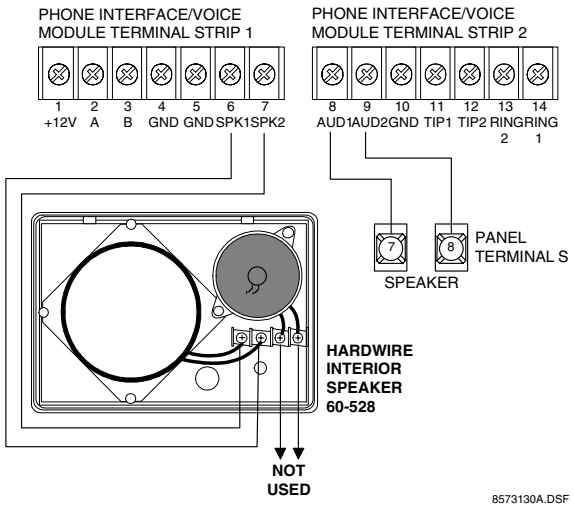


FIGURE 2-18. Wiring the Hardwire Interior Speaker.

3. Connect an interior speaker to the module terminals as shown in Figure 2-18.

   When connected as shown, the speaker produces both voice messages and alarm sounds.

   If the customer does not want alarm sounds over their speakers, remove the jumpers between 8 and 9 on the phone interface voice module and 7 and 8 on the panel.

   NOTE

   To prevent voice messages from being heard outside, do not connect exterior speakers to module terminals 6 and 7.

Connecting SuperBus 2000 Energy Saver Modules (60-620-01)

This task illustrates wiring optional SuperBus 2000 Energy Saver modules to the Concord panel.

Connect the ESM to the panel and premises thermostat as shown in Figure 2-19.

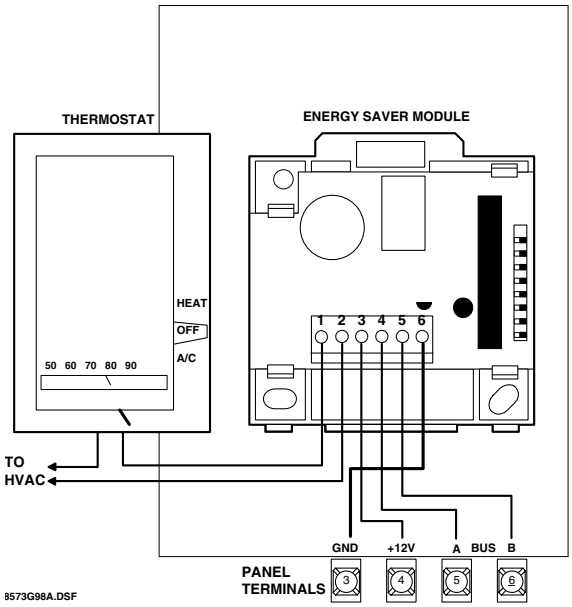
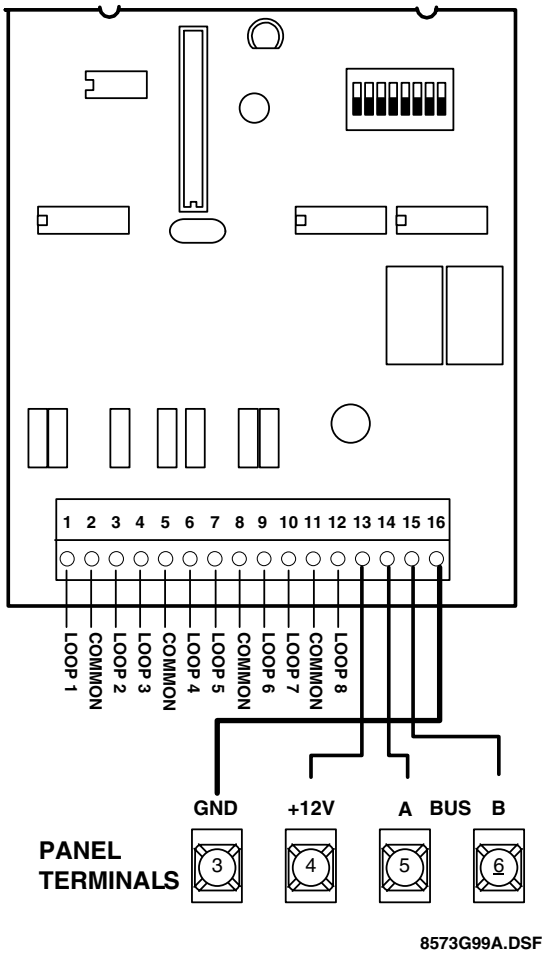


FIGURE 2-19. Wiring the Energy Saver Module to the Panel.

Connecting SuperBus 2000 8-Zone Input Module (60-774)

This task illustrates wiring the optional SuperBus 2000 8-Zone Input Module to the Concord panel.



Connect the 8-Zone Input Module to the panel and detection loops as shown in Figure 2-20.

FIGURE 2-20. Wiring the SuperBus 2000 8-Zone Input Module to the Panel.

Connecting SuperBus 2000 4 Relay Output Module (60-770)

This task illustrates wiring the optional SuperBus 2000 4 Relay Output Module to the Concord panel.

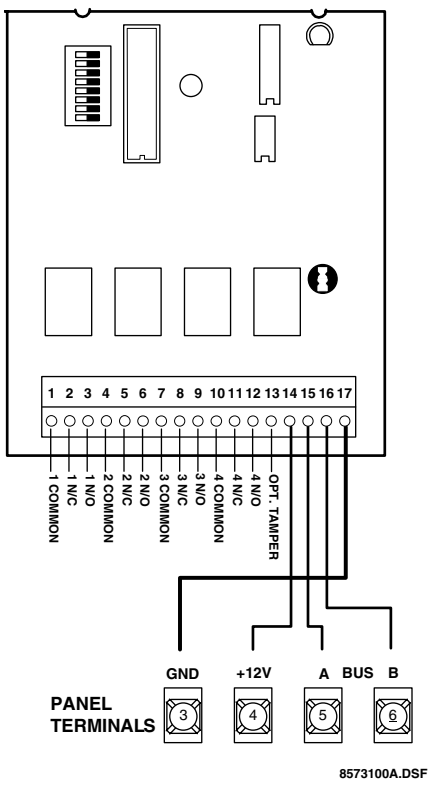


FIGURE 2-21. Wiring the SuperBus 2000 4 Relay Output Module to the Panel.

Connect the 4 Relay Output Module to the panel as shown in the Figure 2-21.

Connecting SuperBus 2000 RF Receivers (60-764-95R)

This task illustrates wiring the optional SuperBus 2000 RF Receiver to the Concord panel.

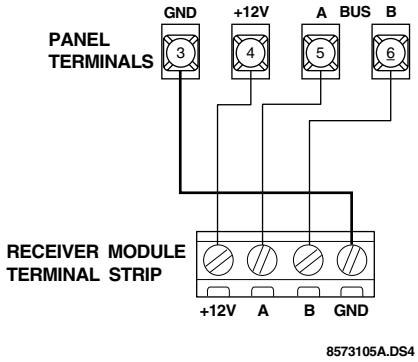


FIGURE 2-22. Wiring the SuperBus 2000 RF Receiver to the Panel.

Connect the SuperBus 2000 RF Receiver to the panel as shown in the Figure 2-22.

NOTE

A maximum of four wireless receivers can be used on a Concord system.

Connecting Alphanumeric and Fixed English Display Touchpads (60-746-01, 60-803-04, 60-804-04, and 60-820)

This task illustrates connecting touchpads to the Concord panel.

1. Disconnect the panel's transformer and backup battery.
2. Run a 4-conductor, 18- to 22-gauge wire from the panel to the touchpad location.
3. Splice the 4-conductor cable wires to the red, black, green, and white wires located on the back of the touchpad.
4. Connect the touchpad wiring to the panel terminals as shown in Figure 2-23.

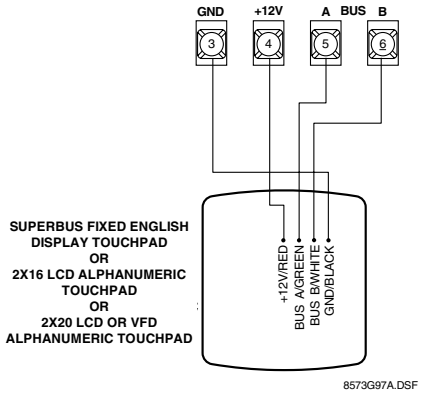


FIGURE 2-23. Wiring the Touchpad to the Panel.

Student Notes:

Connecting Phone Lines to the Panel

This task demonstrates connecting the Concord panel to the phone line using DB-8 cord.

A DB-8 cord uses a plug at one end for connecting to the RJ-31X and flying leads on the other end for panel terminal connections.

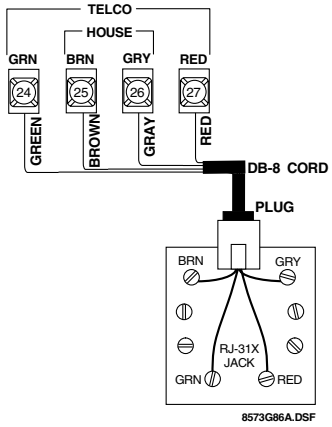


FIGURE 2-24. Wiring the DB-8 Cord to the Panel and RJ-31 Jack.

1. Connect the green, brown, gray, and red flying leads from the DB-8 cord to panel terminals 24, 25, 26, and 27.

NOTE

If you are using a SuperBus 2000 Phone Interface/Voice Module, see Figure 2-16, Figure 2-17, and Figure 2-18.

2. Insert the DB-8 cord plug into the RJ-31X.
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 connections.

Connecting AC Power Transformers (60-761)

This task illustrates connecting the AC Power Transformer to the Concord panel.

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, "Powering Up the Panel."

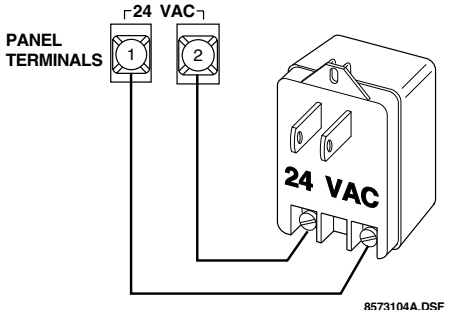


FIGURE 2-25. Connecting the Transformer to the Panel Terminals.

1. The panel must be powered by a plug-in step-down transformer that supplies 24 VAC, 30 VA (60-761) or 24 VAC, 50 VA (60-778).
2. install a Line Carrier Transformer for systems installed with:
    - a PLC card
    - Supervised Wireless Sirens
    - X-10 Lamp Modules for light control
3. Connect the power transformer to the panel as shown in Figure 2-25.

Powering Up the Panel

This task demonstrates powering up the Concord panel after all wiring is complete.

CAUTION

You must wire all devices to the panel before applying AC and backup battery power.

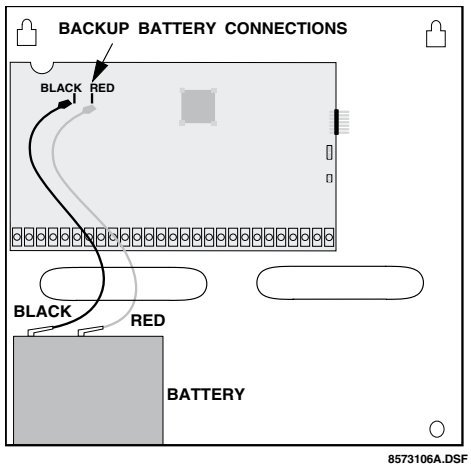


FIGURE 2-26. Connecting the Backup Battery to the Panel.

1. Connect the red (+) and black (-) battery leads (included with panel) to the + and - lugs located in the upper-left area of the panel circuit board (see Figure 2-26).
2. Connect the other ends of the battery leads to the battery terminals.
3. Verify that all wiring is correct and that there are no loose wires.
4. Plug the transformer into an outlet that is not controlled by a switch.
5. Alphanumeric touchpads show a date and time display.

   If alphanumeric touchpads don't display anything, immediately unplug the transformer and disconnect the backup battery. Refer to "Troubleshooting" section.
6. 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.

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

Module 3-Peripheral Installation

Introduction

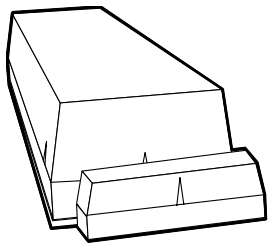
This module teaches the installer how to install wireless peripheral devices for the Concord system.

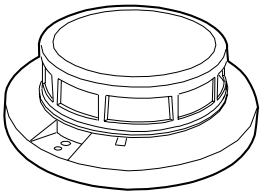
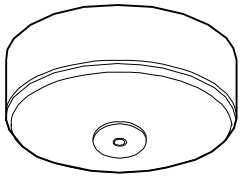
What's in This Module

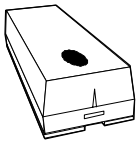
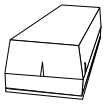
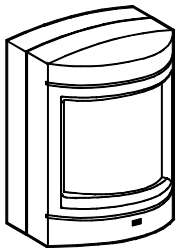
Locating Wireless Sensors

This table provides tips for finding the best locations for wireless sensors.

Sensor	Do	Don't
All Sensors	• Try to keep all sensors within 150 feet of the CPU. The 150 foot distance recommendation is given as a starting guide line. The panel has an open air range of at least 1500 feet, but the installation environment will influence this range.	• Place sensors or magnets on any metallic surface such as metal doors or foil wallpaper. If you must, then use spacers to keep sensor and magnet away from the metal. • Place sensors in areas with excessive metal or electrical wiring, such as furnace/utility rooms. • Place sensors in areas where they will be exposed to moisture. • Place sensors in locations where the temperature will exceed the sensor's operating limits of 10 to 120 °F.

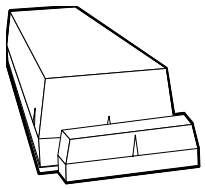
Sensor	Do	Don't
Door/Window Sensors 60-362 and 60-499 	• Mount the sensor on the door frame (magnet on the door or on double doors, mount sensor on the least used door, magnet on the other door). • Mount the sensors with screws, not double-sided tape.	• Place sensors on a door within 5 inches of the floor to avoid damage to sensors.

Sensor	Do	Don't
Smoke Sensor 60-645 	• Determine the best location for each smoke sensor to optimize early detection and maintain accessible escape routes out of the building. • Locate a smoke sensor at the bottom of the basement stairwell(s). For other stairwells, locate Smoke Sensors at top of the stairwell. • Mount sensors on ceilings whenever possible. Make sure that the Smoke Sensor is no closer than 4" to any wall. • Place the smoke sensor no more than 6" from ceiling for wall mounting. • Locate the smoke sensor in any hallway servicing bedrooms. For maximum protection, place a Smoke Sensor inside each bedroom, especially smokers' bedrooms or rooms where electric blankets and electrical devices are used.	• Mount smoke sensors in rooms with sloped, peaked, or gabled ceilings whenever possible. If unavoidable, mount detector(s) within 3 feet (measured horizontally) from the highest point of the ceiling. • Mount smoke sensor in or near damp or very humid areas such as bathrooms with showers. • Install near fluorescent light fixtures. Noise from electrical lights may cause nuisance alarms. • Place sensors in a location where the temperature will exceed the Smoke Sensor's operating limits of 40° to 100°F. • Mount in very dusty or dirty areas. • Mount near fresh air inlets or returns or excessively drafty areas. • Mount in areas where many insects are present.
Sensor	**Do**	**Don't**
Rate of Rise Heat Sensor 60-460 	• Use heat detectors to protect property. Also use smoke detectors where life safety is involved. • Mount sensors within 150 feet of CPU. • Ceiling mounting near the center of the area to be protected is recommended. Do not mount within 4 inches of a wall. • If wall mounting, the top of the detector must be within 4 to 6 inches of the ceiling.	• Mount where ceiling temperatures exceed 100° F. • Mount a Rate of Rise Sensor too close to something that changes temperature rapidly, for example, above an oven or near a heat duct, furnace or boiler.

Sensor	Do	Don't
Freeze Sensor 60-504 	• Locate the sensor in an area that is likely to get cold first. • Locate the sensor on an interior wall where there is free movement of air.	• Locate the sensor in the same room as a furnace, water heater, or any other heat source that may stay warm after the furnace fails. • Locate the sensor on an outside wall or near the basement floor.
Sensor	**Do**	**Don't**
Glass Guard Sensor 60-462 	• Mount sensor on glass at least 1-inch from the frame. • Mount sensor on a fixed pane of glass.	• Use more than four additional devices in series with the sensor.
Sensor	**Do**	**Don't**
PIR Motion 60-511 	• Mount so there is a reference point (such as a wall) at the end of its detection pattern. • Mount so that an intruder will most likely walk across the detection pattern. • Mount 5 to 8 feet above the floor. • Mount on an insulated outside wall facing in. • Mount on a surface that is rigid and free from vibration.	• Mount in direct sunlight. • Aim at air conditioners, heat vents, wood stoves, fireplaces, or any intermittent heat source. • Aim at solar heated walls or uninsulated metal walls. • Aim at moving objects. • Mount in an area where the coverage may be blocked by any temporary items such as boxes or freight.

Installing the Door/Window Sensor (60-362)

This task illustrates installing the door/window sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



1. Remove the sensor cover by pressing on the end of the cover (that has an opening for wire) to release the tab on the cover from the slot on the sensor base.

NOTE

It is important to be free of all static electricity when handling sensor circuit boards. Touch a grounded metal surface before handling the circuit board. Always handle the circuit board by the edges and never set the circuit board on any metallic surface.

2. Carefully remove the circuit board by pulling back on the tab and lifting the battery holder, or gently flex the plastic sensor base to release the circuit board. To guard against static, place the circuit board in sensor cover before continuing.

NOTE

The sensor base has markings that indicate the position of the reed switches when the circuit board is reinstalled. Use the markings for aid in alignment. Spacers are available if the sensor will be mounted on a metallic surface or height alignment is needed.

3. Mount the sensor base using #6 flathead screws. Two screw holes are provided, one is enlarged to allow for sensor alignment. Two small additional holes are provided for mounting the sensor with 18-gauge wire nails (brads) and a brad driver.

NOTE

Ensure the magnet won't interfere with door or window opening. Do not use two sided tape to mount the magnet.

4. Mount magnet base within 3/8-inch of the sensor base, centered on the base's notch or tab.
Use two #6 x ½-inch flathead screws.

NOTE

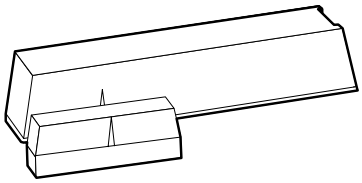
After determining which reed switch will be used, remove the other reed switch by clipping the leads as close to the board as possible.

5. Reattach the circuit board to the sensor base.

6. Reattach the sensor cover to the sensor base.

Installing the Slim Line Door/Window Sensor (60-499)

This task covers installing the slim line door/window sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



1. Remove the sensor cover by pressing on the cover release catch.

NOTE

The notch on the sensor base indicates the reed switch position when the circuit board is installed.

2. Mount the sensor base. Two screw holes are provided, one is enlarged to allow for sensor alignment.

   Use #4 x 1-inch pan head screws when mounting the sensor.

   Two small additional holes are provided for mounting the sensor with 18 gauge wire nails (brads) and a brad driver.

NOTE

Ensure the magnet won't interfere with the door or window opening. Don't use two-sided tape to mount magnet.

3. Mount the magnet base within 3/8-inch of the sensor base, centered on the notch. Use two #4 x 1-inch pan head screws or #18 x 1/2-inch wire nails.

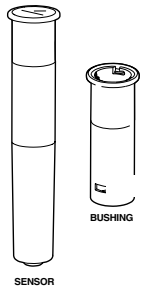
4. Remove the spring from the accessory pack and place on the tamper switch.

5. Replace the sensor cover, while positioning the tamper spring to protrude through the hole in the sensor base.

   The tamper switch detects removal of the cover or removal of the sensor from the wall.

Installing the Micro Recessed Door/Window Sensor (60-741-95)

This task details installing the recessed door/window sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



1. Program the recessed door/window sensor and perform a dealer sensor test before installing the sensor.

   To simulate mounting, test the transmitter by holding it on the exterior side of the door frame and then tripping it.

2. Using a 5/8-inch spade or paddle bit, drill a hole to the minimum depth of 3¾-inches in the door or the window frame.
3. Slide the transmitter tube into the hole. The lip of the tube should fit snugly against the door frame surface.
4. Perform a dealer sensor test to verify that the transmitter is still working.

Installing the Magnet

5. Drill a 5/8-inch diameter hole for mounting the magnet in wood. The hole should be 2-inches deep and centered opposite of the transmitter hole.
6. Place the magnet in the hole. It should fit tightly. If it doesn't fit tightly, secure it with an adhesive.

NOTE

Ensure the magnet doesn't interfere with the door or window opening.

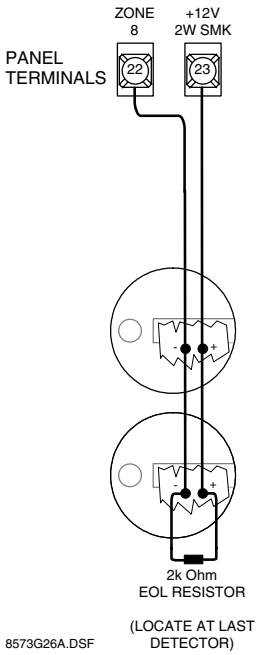
7. Perform a customer sensor test to be sure the sensor and magnet are aligned properly.

Connecting 2-Wire Smoke Detectors

This task illustrates connecting 2-wire smoke detectors to the Concord panel.

Zone input 8 can be set up (in program mode) to accept 12 VDC, 2-wire smoke detectors by the following manufacturers:

- System Sensor models 2100, 2100T, 2400, 2400T
- Sentrol models 429C, 429CT, 521B, 521BXT



When zone input 8 is configured for 2-wire smoke detectors, the maximum allowed loop current draw is 100 mA (in alarm).

Connect up to ten 2-wire smoke detectors to the panel as shown in Figure 3-1

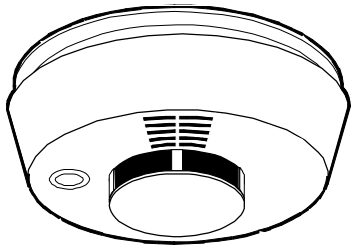
NOTE

Note: Zone 8 must have the 2-wire smoke option turned on for 2- wire smoke detectors to operate correctly. See *ONBOARD OPTIONS—INPUTS* in the "Programming" section for complete details.

FIGURE 3-1. Connecting 2-wire Smoke Detectors.

Installing the 2100 ARFT (60-838-95) Smoke Sensor

This task details installing the 2100 Smoke Sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual*.

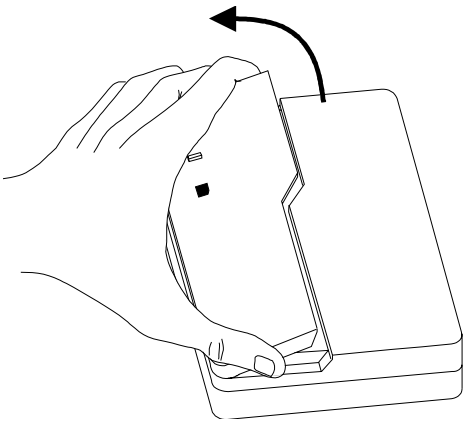


Model 2100ARFT

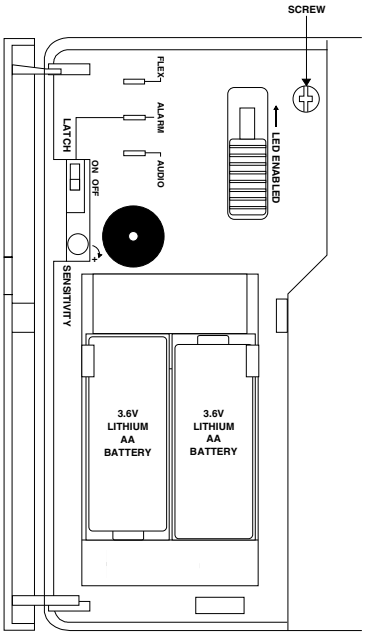
1. Remove the sensor mounting bracket.
2. Mount bracket directly onto wood surfaces using #8, 1 ½-inch wood screws. If you mount it to plaster or drywall, use appropriate anchors.
3. Insert the batteries and look for proper polarity.
4. Place the sensor in the mounting bracket by aligning the arrows on the mounting bracket and smoke detector.

Installing the FlexGuard Sound Sensor (60-834)

This task illustrates installing the FlexGuard Sound Sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



1. Open the sensor door by grasping it at the top and bottom with one hand and pulling upward.



2. Remove the sensor cover screw using a Phillips screwdriver.

3. Remove the sensor cover by first pulling up at the top of the cover, then lift up at the bottom.

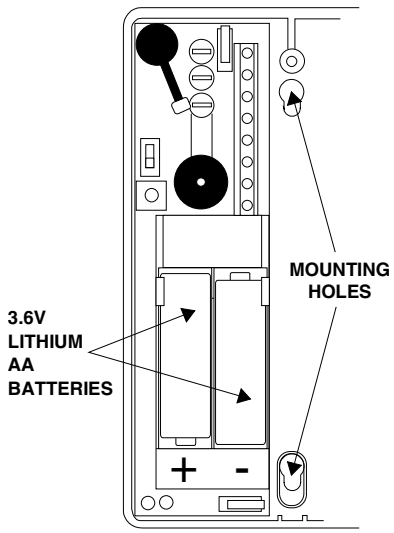


FIGURE 3-2. Mounting Hole Locations.

4. Place the sensor base on the desired location on the wall or ceiling and mark the narrow portion of the mounting holes. See Figure 3-2.

NOTE

Use anchors if installing in plaster or drywall.

5. Insert screws part way into the wall.

6. Place the sensor base on the screws and slide the narrow portion of the mounting holes onto the screws.

7. Gently tighten the screws to secure the sensor in place.

8. Before attaching the sensor cover to the sensor, first close the door on the sensor cover.

NOTE

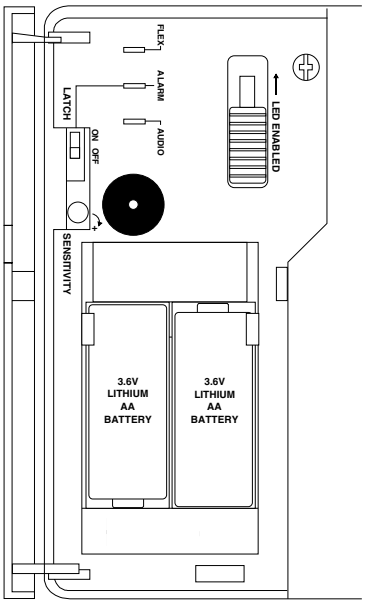
Do not bend the tamper switch lever while installing the cover.

9. Align the top edge of the cover and base, then swing the cover down in the direction of the arrow.

10. Carefully open the door and while holding the cover in place, install the sensor cover screw.

Adjusting the Flex Sensitivity

1. Open the sensor door and slide the orange LED ENABLE switch in the direction of the arrow. An orange tab protrudes from the side of the sensor to indicate the LEDs are active.



2. Using a small pocket screwdriver, increase the sensitivity by turning the sensitivity control completely clockwise (maximum).
3. Close the sensor door.
4. Turn on any heating/air-conditioning system, and any other equipment in the sensor's vicinity.

   Observe the yellow flex LED for one minute with equipment running. Excessive subsonic (inaudible) noise typically produced by air handling systems may cause the flex LED to flash randomly.

5. If the flex LED flashes randomly, decrease the sensitivity by turning the sensitivity control counterclockwise just until the flashing stops.

Testing the Audio and Flex Ranges

NOTE

For UL listed systems, the installer should test the unit at least once a year.

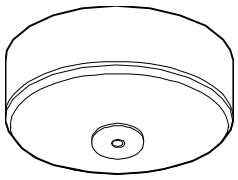
1. Hold the tester at the farthest point of the glass to be protected (25-feet maximum).
2. Activate the tester in the manual mode. If the green LED on the sensor flashes, the audio microphone will detect breaking glass at that distance.

Testing the Flex Range

1. Set the tester to the flex mode and press the red button to arm the simulator.
2. Within 30 seconds of arming the tester, generate a flex signal by striking the glass with your hand or a cushioned tool.
3. The tester will automatically generate a simulated glassbreak sound, and the sensor's red LED should light indicating an alarm condition.
4. Open the sensor door and slide the orange LED ENABLE switch back to its normal position.

Installing the Rate of Rise Heat Sensor (60-460)

This task details installing the rate of rise heat sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



1. Remove the sensor mounting bracket.

NOTE

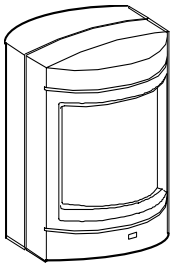
Use anchors if installing in plaster or drywall.

2. Mount bracket directly onto wood surfaces using #8, 1 ½-inch wood screws.
3. Insert batteries and look for proper polarity.
4. Place the sensor in the mounting bracket.

Installing the PIR Wall Mount Motion Sensor (60-511)

This task details installing the DS924 motion detector (PIR). For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.

Mounting without Swivel Bracket



PIR MOTION

NOTE

If you are mounting the base in drywall or plaster, first drill a 1/8-inch pilot hole. This will help you determine what type of material is behind the surface and whether to use a drywall anchor or the #6 x 1-inch wood screw.

You can mount the PIR with the swivel bracket or without.

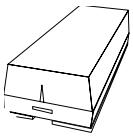
1. Remove the mounting plate by gently pushing in with your thumb and prying it away from the PIR body.
2. Remove the PIR cover.
3. Secure the mounting plate using either of the corner-mount knock outs that fit the mounting situation.
4. Place the PIR body into the mounting plate and secure it to the mounting plate using the mounting plate screw.
5. Set the pulse sensitivity. See the DS924 instructions for more information.
6. Remove the mounting plate by gently pushing in with your thumb and prying it away from the PIR base.

Mounting with the Swivel Bracket

7. Mount the swivel bracket with the #6 x 1-inch wood screw for the corner mount or flat surface oriented with the hallway.
8. Using the #6 x 5/8-inch metal screw secure mounting plate to the swivel bracket. Tighten the screw until snug. Do not fully tighten the screw yet.
9. Replace PIR base into mounting plate. Check the PIR for correct alignment. When finished, gently remove the PIR base from the mounting plate and fully tighten the metal screw in the swivel bracket.
10. Replace the PIR base into the mounting plate and secure it to the mounting plate with the mounting plate screw.

Installing the Shock Sensor (60-461)

This task details installing the shock sensor. For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



1. Remove the sensor cover to disengage the top of the cover from the slot in the sensor base.

NOTE

If only the self-contained reed switches will be used, place a jumper between terminals 2 and 3 on the transmitter circuit board.

2. Secure the sensor using the two screw holes in the base.

   One hole is larger to allow alignment of the sensor.

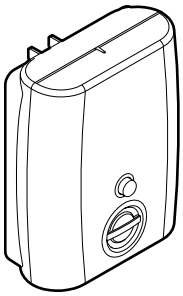
3. Put the sensor circuit board back into place, sliding the reed-switch end in first then snapping the board in place. Be sure the locking tab is secure and the board is level.

NOTE

If you are mounting the base in drywall or plaster, first drill a 1/8-inch pilot hole. This will help you determine what type of material is behind the surface and whether to use a drywall anchor or the #6 x 1-inch wood screw.

Installing the Supervised Wireless Interior Siren (60-736-95)

This task illustrates installing the Supervised Wireless Interior Siren (SWIS). For programming and testing instructions, refer to the *Concord Security System Reference Manual* or the corresponding Concord training module.



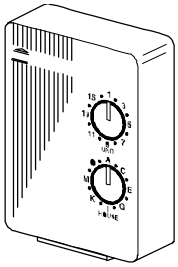
1. Power up the panel.
2. Install the siren backup battery.
3. Enter program mode and set the partition House Code to the desired setting.
4. Proceed to the *SIREN OPTIONS* menu and set the SWS Supervision Code to the desired setting.
5. Proceed to the *LEARN SENSORS* menu and select the desired partition, sensor group 33, and the desired sensor number.
6. When the touchpad display shows *TRIP SENSOR nn*, plug the siren into an electrical outlet. The siren should beep once and the siren's LED should flash 10 times, indicating the panel learned the siren's transmitter ID and that the siren learned both the partition House Code and SWS Supervision Code.
7. Exit program mode.

NOTE

When installing supervised wireless interior sirens for supervised operation, be sure to program sensor text that clearly identifies each siren. For example, *HALLWAY SIREN* or *BASEMENT SIREN*. This can help both you and your customer locate a specific siren if a problem occurs.

Installing the X-10 Lamp Module (13-204)

This task illustrates installing the X-10 Lamp Module.



X-10 Lamp Module

1. Make sure the panel uses the Line Carrier Transformer (60-762 or 60-779) and a power line carrier card (60-755).
2. Plug the lamp cord into the bottom of the X-10 Lamp Module.
3. Plug the X-10 Lamp Module into a lower AC outlet.
4. Set the house code on the X-10 Lamp Module.
   - Determine the house code that is programmed into the panel.
   - Find that house code on the following table.
   - Look to the left column of the table for the letter that corresponds to the house code.
   - For example, house code 105 corresponds to letter J.
   - Rotate the **House** dial to the corresponding letter.

TABLE 3-1. X-10 House Code Settings.

A		16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
B	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
C	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
D	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
E	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
F	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
G	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
H	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
I	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
J	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
K	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
L	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
M	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
N	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
O	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
P	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

The system will turn on the lamp connected to the X-10 Lamp Module during entry and exit delays, police, auxiliary/ medical, and fire alarms.

Module 4–Programming

Introduction

This module teaches the installer how to program the most commonly used features of the Concord system.

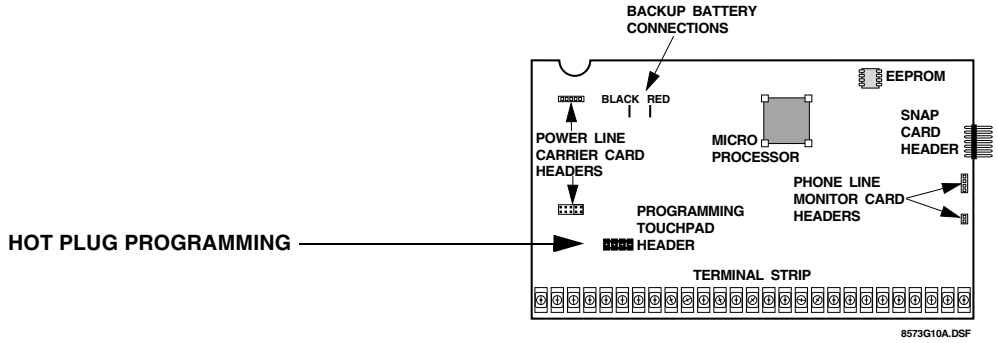
Using what they've learned here, installers should be able to complete other programming tasks not presented in this module using just the programming flowchart.

What's in This Module

Entering and Exiting Programming Mode

This task illustrates entering and exiting programming mode.

Hot Plug Programming



Use installation programming cable (60-791) to setup a Concord system with a Fixed English Display Touchpad.

NOTE
An alphanumeric touchpad must be used for programming (60-746-01, 60-803-04, 60-804-04).

1. Plug the programming touchpad (a 2x16 LCD, 2x20 LCD, or 2x20 VFD) into the header on the CPU.
2. Enter **8** + **Installer Code** (default: **4321**)+ **0** + **2**.
3. Press **Status** to verify. The system displays:

SERVICE TOUCHPAD ACTIVE

NOTE
Exit programming BEFORE removing the touchpad.

4. Follow the steps in Entering and Exiting Programming Mode.
5. You must exit programming before you remove the touchpad—the address is automatically removed.

Entering Programming Mode

You must enter programming mode before you can program any of the system programming options.

NOTE
An alphanumeric touchpad must be used for programming.

1. Disarm the system.
2. Enter **8** + **Installer Code** (default: **4321**)+ **0** + **0**.

   The system shows:

SYSTEM PROGRAMMING

Exiting Programming Mode

You must exit programming mode to place the system back in normal mode.

1. Press **A** or **B** until the system displays:

EXIT PROGRAMMING READY

2. Press #.

   The system displays the day, date and time. The system is in Run mode. The Fixed English Display Touchpad will only show time.

Clearing Memory

This task illustrates resetting the Concord system memory back to factory defaults.

NOTE
Clearing memory will remove the pre-programmed hardwire zones.

1. Enter program mode.
2. Press **B** until the system displays:

CLEAR MEMORY

3. Press #.

ENTER CODE TO CLEAR MEMORY

4. Enter the installer code / dealer code. (Default 4321)
5. Press #.
6. Immediately remove the programming touchpad before Concord performs a scan bus. This prevents the touchpad from being re-learned into the system.
7. Re-connect the touchpad.
8. Refer to the Hot Plug Programming section to enter programming.

   The panel will clear the memory, then exit program mode.

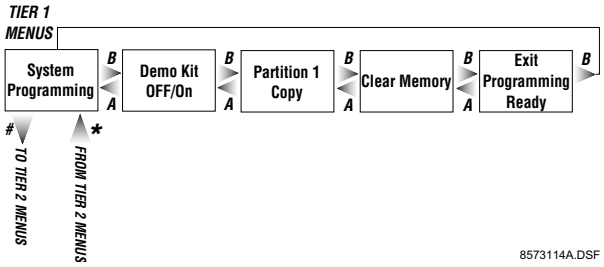
Tour of the Concord Programming Menus

This task illustrates navigating through the Concord programming tiers and menus.

The Concord menus are contained in two tiers: Tier 1 and Tier 2.

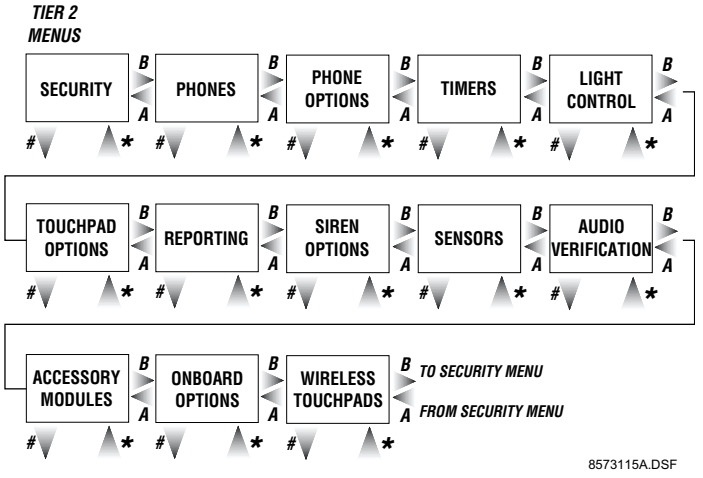
Tier 1 contains the following menus:

- System Programming
- Demo Kit
- Partition 1 Copy
- Clear Memory
- Exit Programming Ready



Tier 2 contains the following menus under the System Programming menu of Tier 1:

- Security
- Phones
- Phone Options
- Timers
- Light Control
- Touchpad Options
- Reporting
- Siren Options
- Sensors
- Audio Verification
- Accessory Modules
- Onboard Options
- Wireless Touchpads



Navigating Through the Menus

Use the following touchpad buttons to navigate through the menus. Look at the programming chart while you are reviewing this Table 4-1.

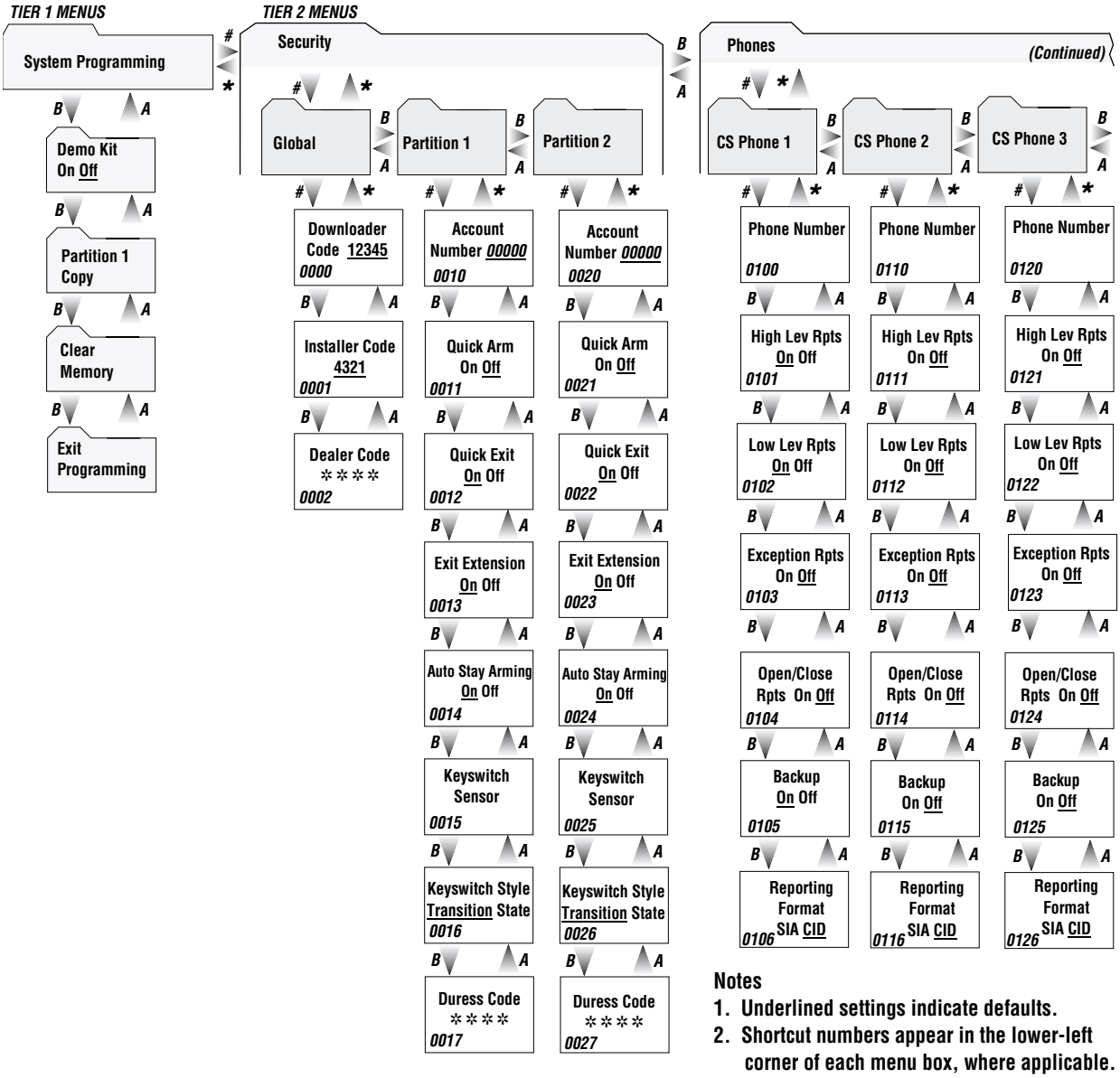
TABLE 4-1. Concord Programming Navigation.

Button	Programming Function	Example
Numeric Buttons	Used to enter numeric values such as menu numbers, delay times and sensor numbers. Also used to enter text characters and word codes during sensor text programming.	When you want to go to the Sensors menu and you are looking at the Security menu, press **08 +** #
A	Scrolls backward to previous menu. Displays previous sensor text library character during sensor text programming.	When you want to move back to the Security menu and you are looking at the Phone Options menu, press **A** twice.
B	Scrolls forward to next menu on current tier. Displays next sensor text library character during sensor text programming.	When you want to move to the Touchpad Options menu and you are looking at the Security menu, press **B** four times.
C	Used to enter pauses when programming phone numbers.	When you need to program a pause in a phone number, use **C**.
D	Deletes programming for certain menu items.	
#	Used to move forward to next menu tier, and enter or accept displayed entry.	When you want to get into the Sensor menu and the touchpad shows, "**SENSORS**", press # to open the Sensors menu.
*****	Cancels and exits displayed programming command (if pressed before #). Backs out to previous menu tier.	When you are done programming sensors and you want to go back to the Sensor menu, press * as many times as needed until you see "**SENSORS**" displayed on the touchpad.
1	Toggles programming options to Off or No	
2	Toggles programming options to On or Yes	
0 thru 9	Enter numeric values wherever needed	
1 thru 6	Press and hold to enter alphabetical characters A thru F for account numbers.	
7 and 9	Press and hold to enter * (7) or # (9) for phone numbers	

Concord Programming Menus

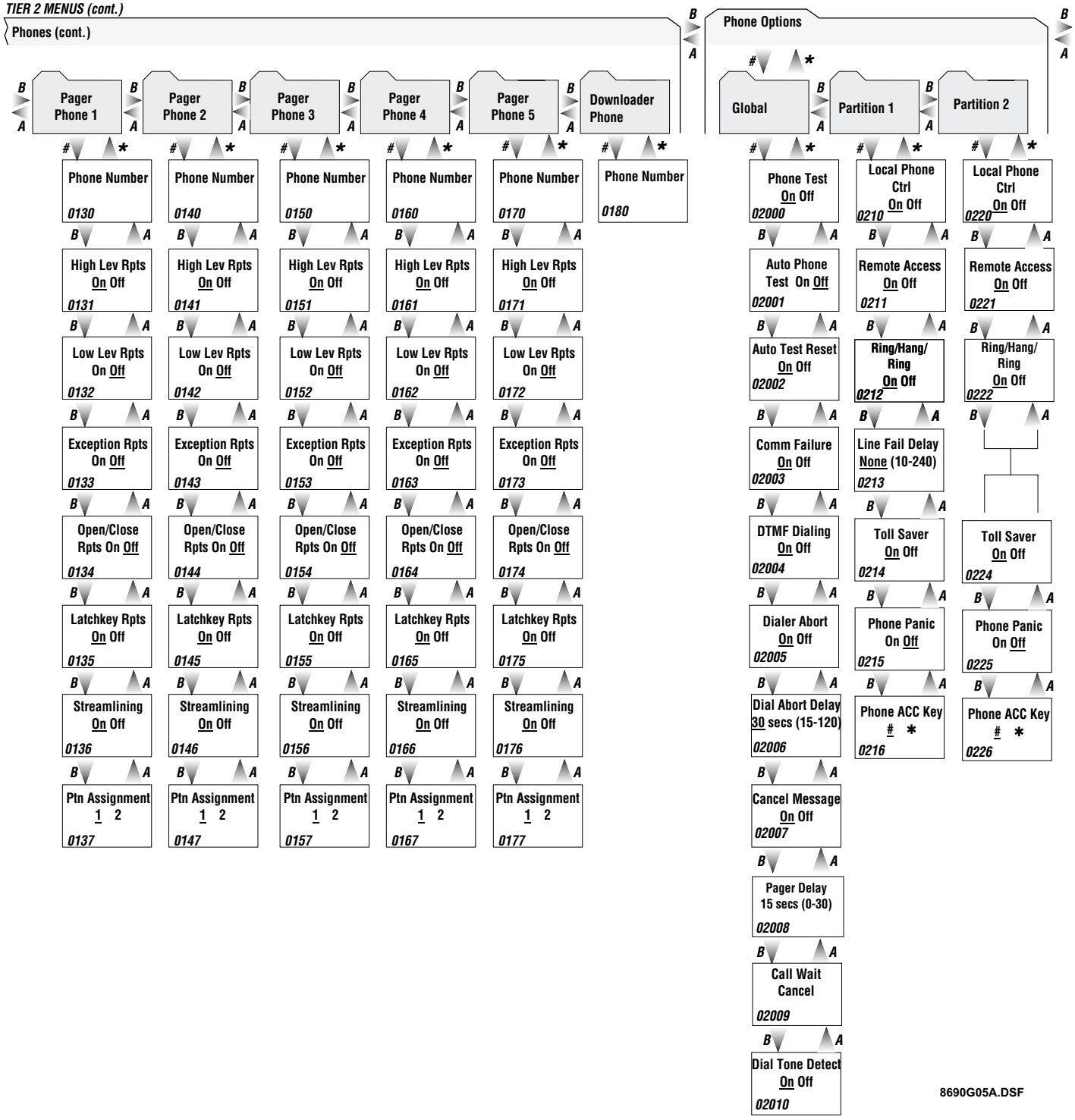
To enter Programming Mode:

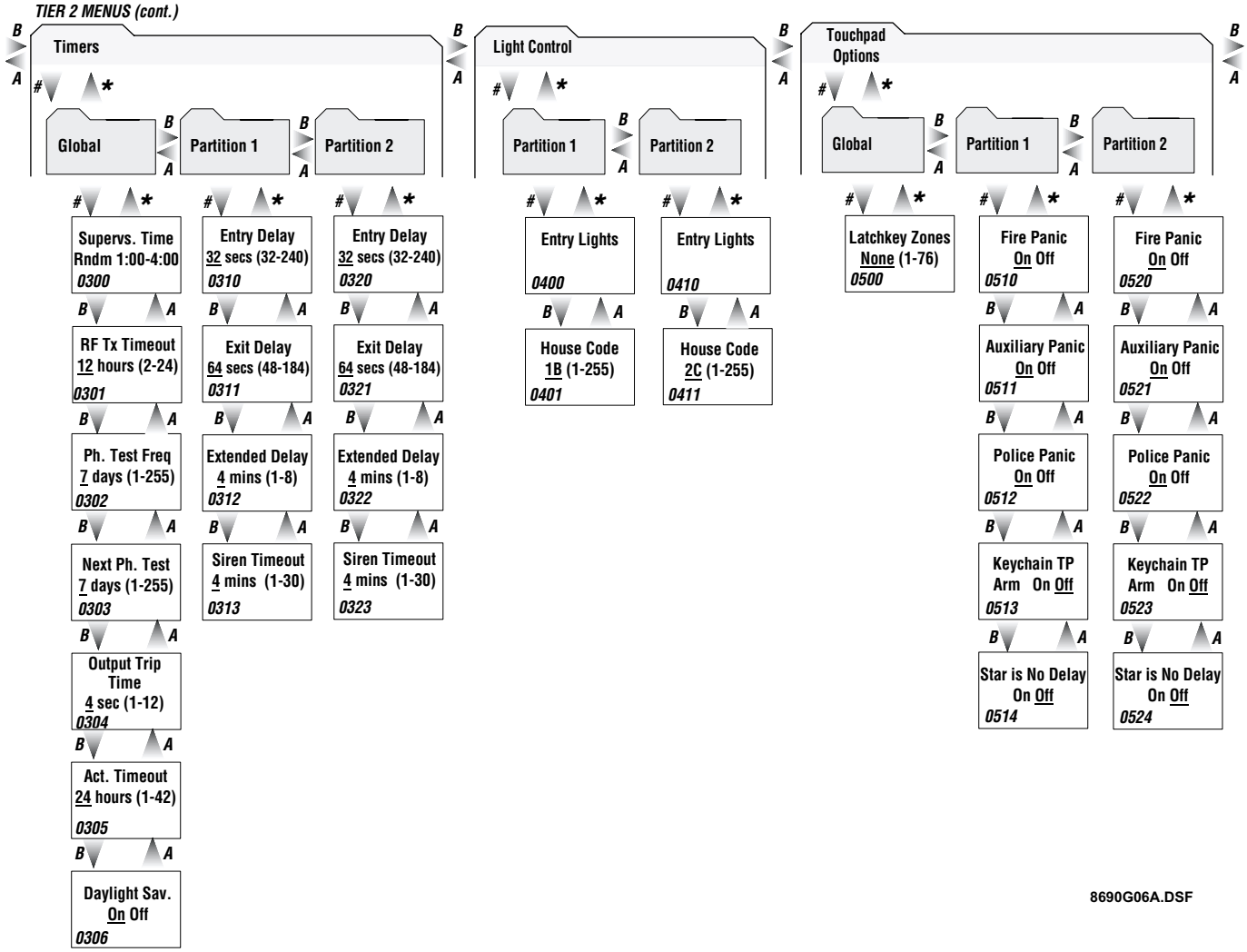
8 + Installer or
Dealer Code + 0 + 0

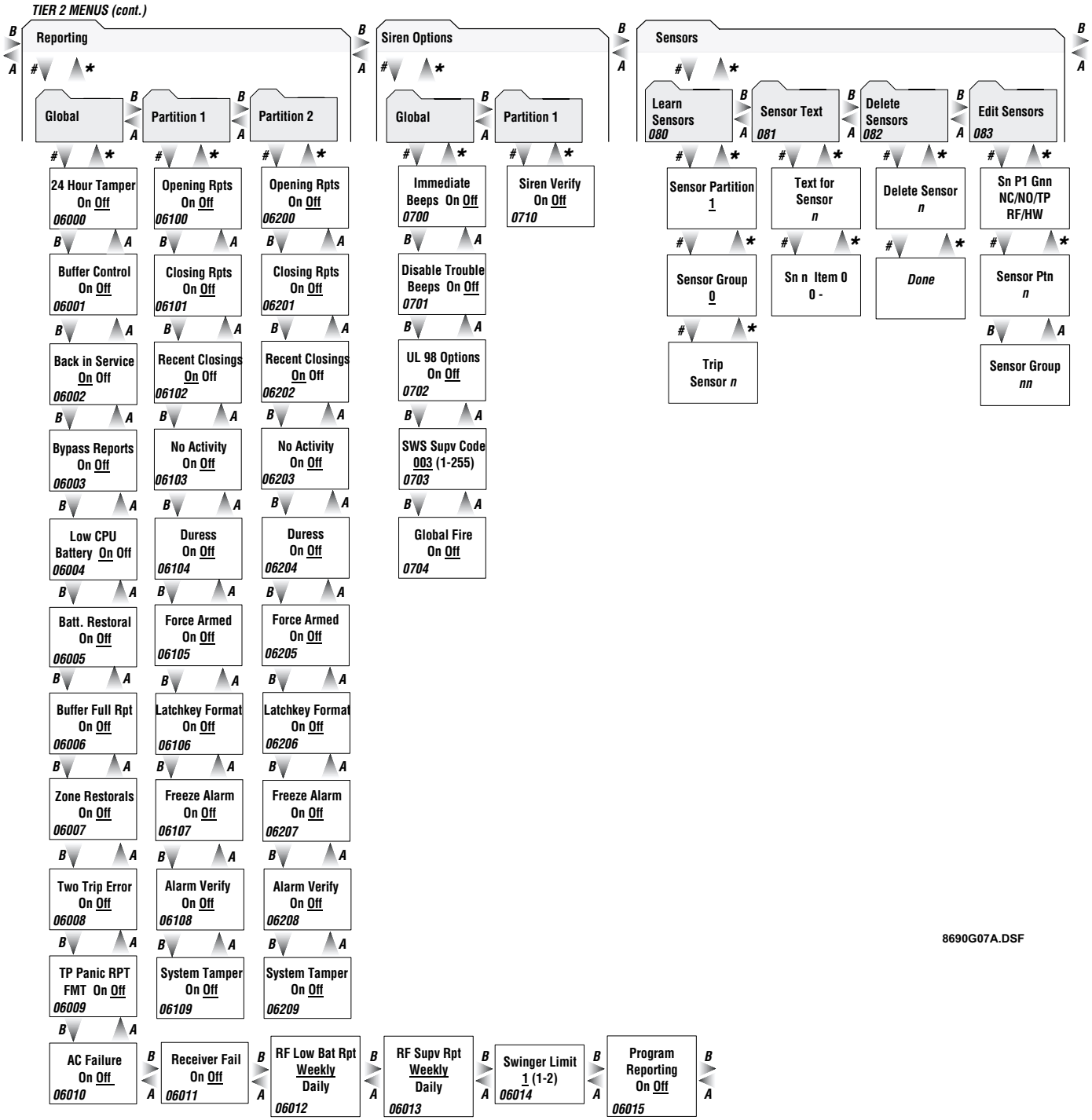


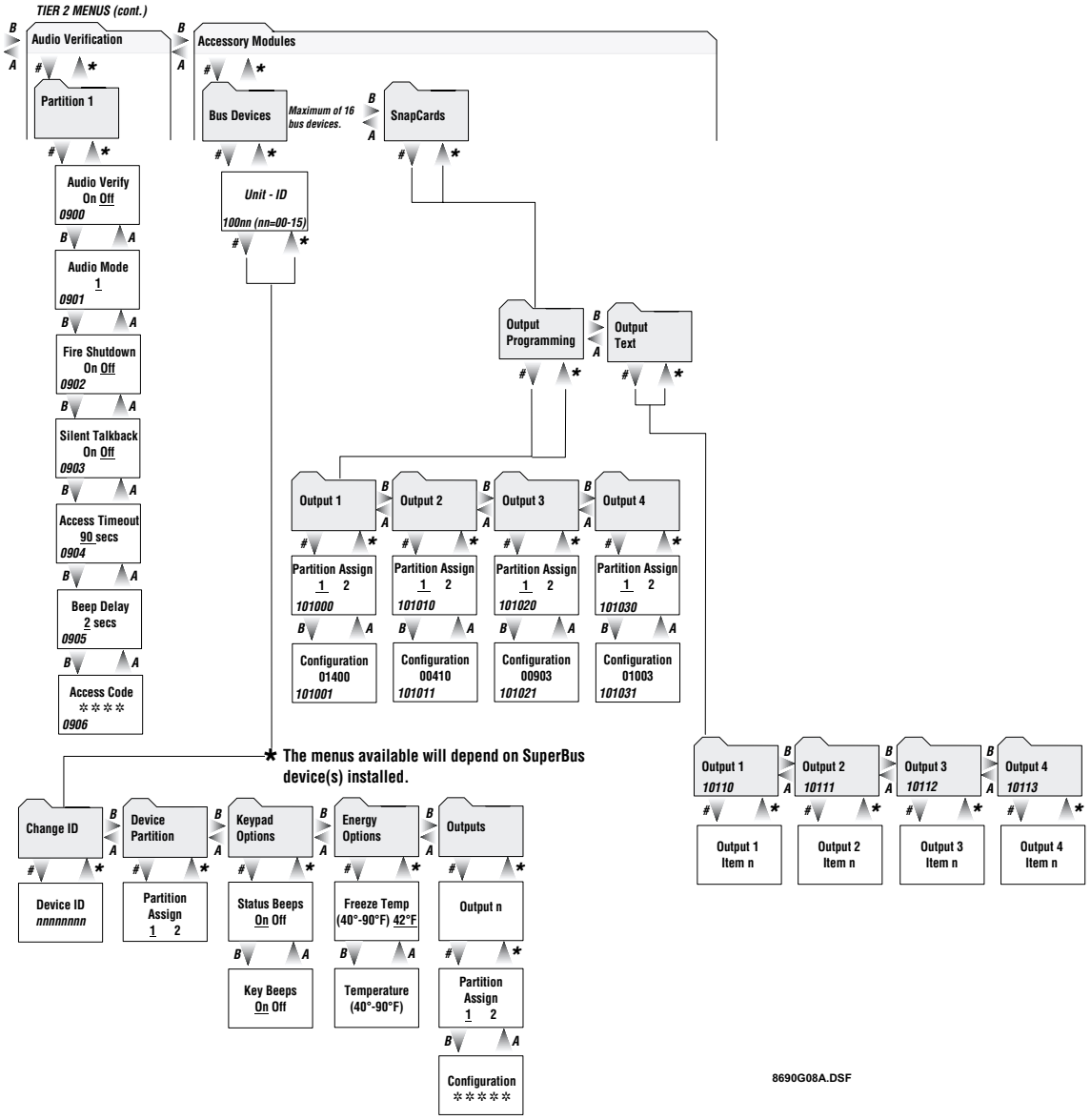
Notes

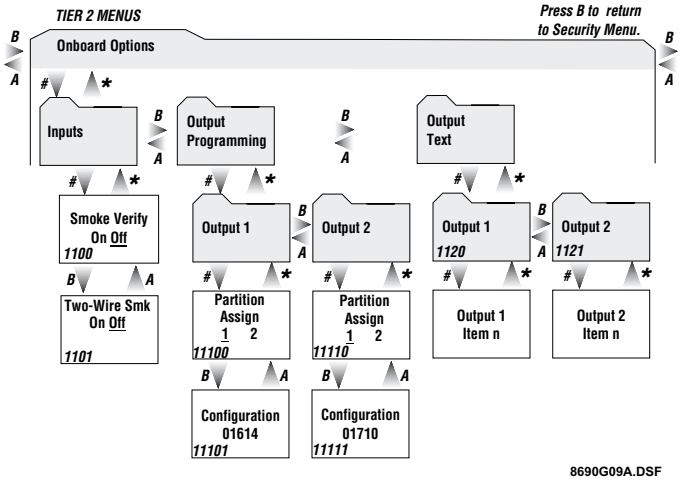
1. **Underlined settings indicate defaults.**
2. **Shortcut numbers appear in the lower-left corner of each menu box, where applicable.**


TIER 2 MENUS (cont.)
Phones (cont.)
Pager Phone 1
Pager Phone 2
Pager Phone 3
Pager Phone 4
Pager Phone 5
Downloader Phone
Phone Number 0130
Phone Number 0140
Phone Number 0150
Phone Number 0160
Phone Number 0170
Phone Number 0180
High Lev Rpts On Off 0131
High Lev Rpts On Off 0141
High Lev Rpts On Off 0151
High Lev Rpts On Off 0161
High Lev Rpts On Off 0171
Low Lev Rpts On Off 0132
Low Lev Rpts On Off 0142
Low Lev Rpts On Off 0152
Low Lev Rpts On Off 0162
Low Lev Rpts On Off 0172
Exception Rpts On Off 0133
Exception Rpts On Off 0143
Exception Rpts On Off 0153
Exception Rpts On Off 0163
Exception Rpts On Off 0173
Open/Close Rpts On Off 0134
Open/Close Rpts On Off 0144
Open/Close Rpts On Off 0154
Open/Close Rpts On Off 0164
Open/Close Rpts On Off 0174
Latchkey Rpts On Off 0135
Latchkey Rpts On Off 0145
Latchkey Rpts On Off 0155
Latchkey Rpts On Off 0165
Latchkey Rpts On Off 0175
Streamlining On Off 0136
Streamlining On Off 0146
Streamlining On Off 0156
Streamlining On Off 0166
Streamlining On Off 0176
Ptn Assignment 1 2 0137
Ptn Assignment 1 2 0147
Ptn Assignment 1 2 0157
Ptn Assignment 1 2 0167
Ptn Assignment 1 2 0177
Phone Options
Global
Partition 1
Partition 2
Phone Test On Off 02000
Auto Phone Test On Off 02001
Auto Test Reset On Off 02002
Comm Failure On Off 02003
DTMF Dialing On Off 02004
Dialer Abort On Off 02005
Dial Abort Delay 30 secs (15-120) 02006
Cancel Message On Off 02007
Pager Delay 15 secs (0-30) 02008
Call Wait Cancel 02009
Dial Tone Detect On Off 02010
Local Phone Ctrl On Off 0210
Remote Access On Off 0211
Ring/Hang/Ring On Off 0212
Line Fail Delay None (10-240) 0213
Toll Saver On Off 0214
Phone Panic On Off 0215
Phone ACC Key # * 0216
Local Phone Ctrl On Off 0220
Remote Access On Off 0221
Ring/Hang/Ring On Off 0222
Toll Saver On Off 0224
Phone Panic On Off 0225
Phone ACC Key # * 0226
8690G05A.DSF


TIER 2 MENUS (cont.)
Timers
Light Control
Touchpad Options
Global
Partition 1
Partition 2
Supervs. Time Rndm 1:00-4:00 0300
RF Tx Timeout 12 hours (2-24) 0301
Ph. Test Freq 7 days (1-255) 0302
Next Ph. Test 7 days (1-255) 0303
Output Trip Time 4 sec (1-12) 0304
Act. Timeout 24 hours (1-42) 0305
Daylight Sav. On Off 0306
Entry Delay 32 secs (32-240) 0310
Exit Delay 64 secs (48-184) 0311
Extended Delay 4 mins (1-8) 0312
Siren Timeout 4 mins (1-30) 0313
Entry Delay 32 secs (32-240) 0320
Exit Delay 64 secs (48-184) 0321
Extended Delay 4 mins (1-8) 0322
Siren Timeout 4 mins (1-30) 0323
Entry Lights 0400
House Code 1B (1-255) 0401
Entry Lights 0410
House Code 2C (1-255) 0411
Latchkey Zones None (1-76) 0500
Fire Panic On Off 0510
Auxiliary Panic On Off 0511
Police Panic On Off 0512
Keychain TP Arm On Off 0513
Star is No Delay On Off 0514
Fire Panic On Off 0520
Auxiliary Panic On Off 0521
Police Panic On Off 0522
Keychain TP Arm On Off 0523
Star is No Delay On Off 0524
8690G06A.DSF


TIER 2 MENUS (cont.)
Reporting
Global
24 Hour Tamper On Off 06000
Buffer Control On Off 06001
Back in Service On Off 06002
Bypass Reports On Off 06003
Low CPU Battery On Off 06004
Batt. Restoral On Off 06005
Buffer Full Rpt On Off 06006
Zone Restorals On Off 06007
Two Trip Error On Off 06008
TP Panic RPT FMT On Off 06009
AC Failure On Off 06010
Partition 1
Opening Rpts On Off 06100
Closing Rpts On Off 06101
Recent Closings On Off 06102
No Activity On Off 06103
Duress On Off 06104
Force Armed On Off 06105
Latchkey Format On Off 06106
Freeze Alarm On Off 06107
Alarm Verify On Off 06108
System Tamper On Off 06109
Receiver Fail On Off 06011
Partition 2
Opening Rpts On Off 06200
Closing Rpts On Off 06201
Recent Closings On Off 06202
No Activity On Off 06203
Duress On Off 06204
Force Armed On Off 06205
Latchkey Format On Off 06206
Freeze Alarm On Off 06207
Alarm Verify On Off 06208
System Tamper On Off 06209
RF Low Bat Rpt Weekly Daily 06012
Siren Options
Global
Immediate Beeps On Off 0700
Disable Trouble Beeps On Off 0701
UL 98 Options On Off 0702
SWS Supv Code 003 (1-255) 0703
Global Fire On Off 0704
Partition 1
Siren Verify On Off 0710
RF Supv Rpt Weekly Daily 06013
Swinger Limit 1 (1-2) 06014
Program Reporting On Off 06015
Sensors
Learn Sensors 080
Sensor Partition 1
Sensor Group 0
Trip Sensor n
Sensor Text 081
Text for Sensor n
Sn n Item 0 0 -
Delete Sensors 082
Delete Sensor n
Done
Edit Sensors 083
Sn P1 Gnn NC/NO/TP RF/HW
Sensor Ptn n
Sensor Group nn
8690G07A.DSF


TIER 2 MENUS (cont.)
Audio Verification
Accessory Modules
Partition 1
Bus Devices
Maximum of 16 bus devices.
SnapCards
Audio Verify On Off 0900
Unit - ID 100nn (nn=00-15)
Audio Mode 1 0901
Fire Shutdown On Off 0902
Silent Talkback On Off 0903
Access Timeout 90 secs 0904
Beep Delay 2 secs 0905
Access Code **** 0906
Output Programming
Output Text
Output 1
Output 2
Output 3
Output 4
Partition Assign 1 2 101000
Partition Assign 1 2 101010
Partition Assign 1 2 101020
Partition Assign 1 2 101030
Configuration 01400 101001
Configuration 00410 101011
Configuration 00903 101021
Configuration 01003 101031
* The menus available will depend on SuperBus device(s) installed.
Output 1 10110
Output 2 10111
Output 3 10112
Output 4 10113
Output 1 Item n
Output 2 Item n
Output 3 Item n
Output 4 Item n
Change ID
Device Partition
Keypad Options
Energy Options
Outputs
Device ID nnnnnnnn
Partition Assign 1 2
Status Beeps On Off
Freeze Temp (40°-90°F) 42°F
Output n
Key Beeps On Off
Temperature (40°-90°F)
Partition Assign 1 2
Configuration *****
8690G08A.DSF


TIER 2 MENUS
Press B to return to Security Menu.
Onboard Options
Inputs
Output Programming
Output Text
Smoke Verify On Off 1100
Two-Wire Smk On Off 1101
Output 1
Output 2
Partition Assign 1 2 11100
Partition Assign 1 2 11110
Configuration 01614 11101
Configuration 01710 11111
Output 1 1120
Output 2 1121
Output 1 Item n
Output 2 Item n
8690G09A.DSF

Using Programming Shortcuts

Concord allows you to get to the menu you want more quickly than pressing the **A**, **B**, and **#** buttons over and over.

1. Look at the programming table and find the menu item you want to display. The programming functions are listed alphabetically.
2. Enter the number of the menu item you see on the programming flowchart.
3. For example: The Reporting Menu is **06**. When the system displays, "**SECURITY**", press **06** to go directly to the Reporting Menu.
4. Almost all menu items on the programming flowchart have numbers. Use them to move directly to that choice.

System Programming	Shortcut Number	Available Settings	Defaults	Installer Setting
24-hour Tamper	06000	On/Off	Off	
AC Failure	06010	On/Off	Off	
Access Timeout	0904	30-300 Seconds	90 Seconds	
Account Number Partition 1, Partition 2	0010, 0020	1-10 Digits Long		
Activity Timeout	0305	01-42 Hours	24 Hours	
Alarm Verify Partition 1, Partition 2	06108, 06208	On/Off	Off	
Audio Mode	0901	01, 02, 03	01	
Audio Verify	0900	On/Off	Off	
Auto Phone Test	02001	On/Off	Off	
Auto Stay Arming	0014, 0024	On/Off	On	
Auto Test Reset	02002	On/Off	On	
Auxiliary Panic	0511, 0521	On/Off	On	
(AVM) Access Code	0906	On/Off	Off	
Back in Service	06002	On/Off	Off	
Backup Phone 1	0105	On/Off	On	
Backup Phone 2	0115	On/Off	Off	
Backup Phone 3	0125	On/Off	Off	
Battery Restoral	06005	On/Off	Off	
Beep Delay	0905	0-300 Seconds	02 Seconds	
Buffer Control	06001	On/Off	Off	
Buffer Full Report	06006	On/Off	Off	
Bypass Reports	06003	On/Off	Off	
Call Wait Cancel	02009		None	
Cancel Message	02007	On/Off	On	
Central Station Phone Numbers for 1—3	0100, 0110, 0120	1-24 Digits	None	
Closing Reports Partition 1, Partition 2	06101, 06201	On/Off	Off	
Communication Failure	02003	On/Off	On	
Daylight Saving Time	0306	On/Off	On	
Dealer Code	0002	4-Digits	None	
Delete Sensors	082		None	

System Programming	Shortcut Number	Available Settings	Defaults	Installer Setting
Dial Tone Detect	02010	On/Off	On	
Dialer Abort	02005	On/Off	On	
Dial Abort Delay	02006		30 Seconds	
Disable Trouble Beeps	0701	On/Off	Off	
Downloader Code	0000	4-Digits	12345	
Downloader Phone Number	0180		None	
DTMF Dialing	02004	On/Off	On	
Duress Code Partition 1, Partition 2	0017, 0027	4-Digits	None	
Duress Option Partition 1, Partition 2	06104, 06204	On/Off	Off	
Edit Sensors	083		None	
Entry Delay Partition 1, Partition 2	0310, 0320	32-240 Seconds	32 Seconds	
Entry Lights Partition 1, Partition 2	0400, 0410	Numbers 2-9	None	
Exception Reports, Pagers 1—5	0133, 0143, 0153, 0163, 0173	On/Off	Off	
Exception Reports, Phones 1—3	0103, 0113, 0123	On/Off	Off	
Exit Delay Partition 1, Partition 2	0311, 0321	48-184 Seconds	64 Seconds	
Exit Extension				
Extended Delay Partition 1, Partition 2	0312, 0322	01-08 Minutes	04 Minutes	
Fire Panic Partition 1, Partition 2	0510, 0520	On/Off	On	
Fire Shutdown	0902	On/Off	Off	
Forced Armed Partition 1, Partition 2	06105, 06205	On/Off	Off	
Freeze Alarm Partition 1, Partition 2	06107, 06207	On/Off	Off	
Global Fire	0704	On/Off	Off	
High Level Reports Pagers 1—5	0131, 0141, 0151, 0161, 0171	On/Off	On	
High Level Reports Phones 1—3	0101, 0111, 0121	On/Off	On, Off, Off	
House Code Partition 1, Partition 2	0401, 0411	1-255	01-B, 02-C	
Immediate Trouble Beeps	0700	On/Off	Off	
Installer Code	0001	4-Digits	4321	
Keychain TP Arm Partition 1, Partition 2	0513, 0523	On/Off	Off	
Keyswitch Sensor	0015, 0025	On/Off	Off	
Keyswitch Style	0016, 0026			
Latchkey Format Partition 1, Partition 2	06106, 06206	On/Off	Off	
Latchkey Reports Pagers 1—5	0135, 0145, 0155, 0165, 0175	On/Off	On	
Latchkey Zones	0500		None	
Learn Sensors	080		1-8 HW	
Line Fail Delay	0213			
Local Phone Control	0210, 0220			
Low CPU Battery	06004	On/Off	On	
Low Level Reports Pagers 1—5	0132, 0142, 0152, 0162, 0172	On/Off	Off	

System Programming	Shortcut Number	Available Settings	Defaults	Installer Setting
Low Level Reports Phones 1—3	0102, 0112, 0122	On/Off	On, Off, Off	
Manual Phone Test	02000	On/Off	On	
Next Phone Test	0303	001-255 Days	7 Days	
No Activity Report Partition 1, Partition 2	06103, 06203	On/Off	Off	
Onboard Outputs 1, 2	11101, 11111		Any audible alarm, Status & alarm tones	
Open/Close Reports Pagers 1—5	0134, 0144, 0154, 0164, 0174	On/Off	Off	
Open/Close Reports Phones 1—3	0104, 0114, 0124	On/Off	Off	
Opening Report Partition 1, Partition 2	06100, 06200	On/Off	Off	
Output Trip Time	0304	1-12 Seconds	4 Seconds	
Pager Delay	02008	0-30 Seconds	15 Seconds	
Pager Phone Numbers 1—5	0130, 0140, 0150, 0160, 0170	1-24 Digits Long	None	
Partition Assignment Pagers 1—5	0137, 0147, 0157, 0167, 0177	1 or 2	1	
Phone Access Key Partition 1, Partition 2	0216, 0226	1 for *, 2 for #	2	
Phone Panic Partition 1, Partition 2	0215, 0225	On/Off	Off	
Phone Test	02000	On/Off	On	
Phone Test Frequency	0302	1-255 Days	7 Days	
Police Panic Partition1, Partition 2	0512, 0522			
Program Reporting	06015	On/Off	Off	
Quick Arm Partition 1, Partition 2	0011, 0021	On/Off	Off	
Quick Exit Partition 1, Partition 2	0012, 0022	On/Off	On	
Receiver Failure	06011	On/Off	Off	
Recent Closings Partition 1, Partition 2	06102, 06202	On/Off	On	
Remote Access Partition 1, Partition 2	0211, 0221	On/Off	On	
Reporting Format	0106, 0116, 0126	SIA/CID	CID	
RF Low Battery Report Weekly/Daily	06012	1 for Daily, 2 for Weekly	2	
RF Supervisory Reports Weekly/Daily	06013	1 for Daily, 2 for Weekly	2	
RF TX Timeout	0301	02 -24 Hours	12 Hours	
Ring/Hang/Ring Partition 1, Partition 2	0212, 0222	On/Off	On	
Sensor Text	081		None	
Silent Talkback	0903	On/Off	Off	
Siren Timeout Partition 1, Partition 2	0313, 0323	1-30 Minutes	4 Minutes	
Siren Verify	0710	On/Off	Off	
Smoke Verify	1100	On/Off	Off	
Star is No Delay Partition 1, Partition 2	0514, 0524	On/Off	Off	
Streamlining Pagers 1—5	0136, 0146, 0156, 0166, 0176	On/Off	On	
Supervisory Time	0300	Enter Time of Day	00:00	
Swinger Limit	06014			

System Programming	Shortcut Number	Available Settings	Defaults	Installer Setting
SWS Supervisor Code	0703	1-255	003	
System Tamper Partition 1, Partition 2	06109, 06209	On/Off	Off	
Toll Saver Partition 1, Partition 2	0214, 0224	On/Off	On	
TouchPad Panic RPT FMT	06009	On/Off	Off	
Two Trip Error	06008	On/Off	Off	
Two Wire Smoke Loop	1101	On/Off	Off	
UL 98 Options	0702	On/Off	Off	
Zone Restoral Report	06007	On/Off	Off	

Programming Defaults and Definitions

24-HOUR TAMPER (06000) — 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).

NOTE
For U.L. Commercial Listed installations, this feature must be on.

Turning On or Off

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 *24-HOUR TAMPER OFF/ON (new setting)*.

AC FAILURE (06010) — DEFAULT = OFF

This setting determines whether the panel reports to the central station after AC power to the panel is out for 15 minutes.

Turning On or Off

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 *AC FAILURE OFF/ON (new setting)*.

ACCESS TIMEOUT (0904) — DEFAULT = 90 SECONDS

This setting determines how much time (30 - 300 seconds, in 2-second increments) the central station operator has to enter the AVM access code, after the panel is accessed for an audio session (instant mode only).

Programming

With the display showing *AUDIO VERIFICATION,* press #. The display shows *PARTITION 1*. Press # again and the display shows *AUDIO VERIFY OFF/ON (current setting)*. Press **B** until the display shows *ACCESS TIMEOUT nnn SECS*.
Enter the desired time, the press #.
The display flashes the entered setting, then stops after pressing # and displays *ACCESS TIMEOUT nnn SECS (new setting)*

ACCOUNT NUMBER (0010—PARTITION 1, 0020—PARTITION 2) — 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 digits long.

Programming

With the display showing *SECURITY,* press #. The display shows *GLOBAL*.
Press **B** to select partition 1 or 2, then press #. The display shows *ACCOUNT NUMBER nnnnn (current setting)*.
Enter the desired account number, then press #. The display shows *ACCOUNT NUMBER nnnnn (new setting)*

NOTE
If the account number requires alphabetical characters from A-F, press and hold the appropriate number (1-A, 2-B, etc.) for three seconds.

ACTIVITY TIMEOUT (0305) — DEFAULT = 24 HOURS

This setting determines how long the system goes (01 - 42 hours) without user interaction and device activation before sending a 'no activity' report to the central station.

Programming

With the display showing *ACTIVITY TIMEOUT nn HOURS (current setting)* enter the desired 2-digit time value (01 - 42), then press #.
The display flashes the entered setting, then stops after pressing # and displays *ACTIVITY TIMEOUT nn HOURS (new setting)*.

ALARM VERIFY (06108—PARTITION 1, 06208—PARTITION 2) DEFAULT = OFF

This setting determines whether the panel goes into alarm and reports after a single sensor/zone trip (off) or waits for a second trip signal (on).

NOTE
This setting applies only to sensors/zones learned into groups 10 - 20. If Alarm Verify is set to on, group 18 responds the same as group 17.

Turning On or Off

With the desired partition selected, press #. The display shows *OPENING REPORTS OFF/ON (current settting)*. Press B until the display shows *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 *ALARM VERIFY OFF/ON (new setting)*.

AUDIO MODE (0901) DEFAULT = 1

This setting determines how the Interrogator 200 Audio Verification Module operates. Choose one of the following:

(1) Instant—Allows the central station operator instant access for an audio session by entering the AVM code or by pressing * (if an AVM access code is not programmed), upon completion of panel alarm report.

(2) Callback—allows the central station operator to contact persons on the premises after one ring and verify the alarm report. Operator must press * or enter the AVM access code within 20 seconds after ring. The panel does not report any alarms during the AVM session, except for fire alarms.

(3) Callback Silent—same as Callback except premise phones do not ring.

Programming

With the display showing *AUDIO VERIFY OFF/ON*, press B until the display shows *AUDIO MODE n (current setting)*.
Enter the desired mode number (1 - 3), then press #.
The display flashes the entered setting, then stops after pressing # and displays *AUDIO MODE n (new setting)*.

AUDIO VERIFY (0900) DEFAULT = OFF

This setting determines whether the system can be accessed by phone for alarm verification, using an Interrogator 200 Audio Verification Module.

NOTE
Audio Verification has not been verified by U.L.

Turning On or Off

With the display showing *AUDIO VERIFICATION*, press #. The display shows *PARTITION 1*.
Press # again and the display shows *AUDIO 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 *AUDIO VERIFY OFF/ON (new setting)*.

AUTO PHONE TEST (02001) DEFAULT = OFF

This setting determines if the panel sends a phone test automatically to the central station or a pager on a predetermined schedule. (Refer to the “Phone Test Freq.” and “Next Phone Test” settings found under *TIMERS—GLOBAL*).

Turning On or Off

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 *AUTO PHONE TEST OFF/ON (new setting)*.

AUTO STAY ARMING (0014—PARTITION 1, 0024—PARTITION 2) DEFAULT = ON

This setting determines whether or not the system automatically arms to STAY (level 2) if the user arms the system to AWAY (level 3) without exiting the premises. This can help prevent accidental alarms by deactivating interior motion sensors during occupied arming periods.

When this feature is on and the system is armed to AWAY, touchpads (and other status sounders) emit one exit delay beep every four seconds, then one every second during the last 10 seconds. If the exit delay time expires with no standard delay sensor activation, the system automatically arms to STAY.

NOTE
Arming the system to "AWAY with No Delay" overrides the Auto Stay Arming feature.

Turning On or Off

With the display showing *AUTO STAY ARMING OFF/ON (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting.

AUTO TEST RESET (02002) DEFAULT = ON

This setting determines whether or not the Auto Phone Test interval is reset after any successful report to the central monitoring station. (Refer to the "Phone Test Freq." and "Next Phone Test" settings found under *TIMERS—GLOBAL*).

When this feature is on, the panel considers any successful report to the central monitoring station to be a successful phone test. Thus, any panel report resets the Next Phone Test setting to the Phone Test Freq. value. The panel only conducts an Auto Phone Test if no other reports have been made during the Phone Test Freq. time period.

When this feature is off, an Auto Phone Test is always conducted according to the schedule of the Phone Test Freq. setting, even if the panel makes other reports to the central monitoring station during that time period.

NOTE
PHONE TEST FREQ must be set to 2 or higher for this feature to work.

Turning On or Off

With the display showing *AUTO TEST RESET OFF/ON (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting.

AUXILIARY PANIC (0511—PARTITION 1, 0521—PARTITION 2) DEFAULT = ON

This setting determines whether the auxiliary panic buttons are enabled (on) or disabled (off) on touchpads for a selected partition.

Programming

With the desired partition selected, press #. The display shows *FIRE PANIC OFF/ON (current setting)*. Press B until the display shows *AUXILIARY PANIC OFF/ON (current setting)*.
Press 1 (off) or 2 (on), then press #. The display flashes the entered setting, then stops after pressing # and displays *AUXILIARY PANIC OFF/ON (new setting)*.

AVM ACCESS CODE (0906) DEFAULT = NONE

This setting determines the code required to access the Interrogator 200 Audio Verification Module to start an audio session. If no code is programmed, pressing * starts an audio session.

Programming

With the display showing *AUDIO VERIFY OFF/ON*, press B until the display shows *ACCESS CODE nnnn (current code)*. Enter the desired 4-digit access code, then press #. The display flashes the entered code, then stops after pressing # and displays *ACCESS CODE nnnn (new code)*.

BACK IN SERVICE (06002) **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.

Turning On or Off

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 *BACK IN SERVICE OFF/ON (new setting)*.

BACKUP (0105-CS PHONE 1, 0115-CS PHONE 2, 0125-CS PHONE 3) **DEFAULTS: CS PHONE 1 = ON**
CS PHONE 2 = OFF
CS PHONE 3 = 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 and 3 are 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.

Turning On or Off

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 *BACKUP OFF/ON (new setting)*.

BATTERY RESTORAL (06005) **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.

Turning On or Off

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

BEEP DELAY (0905) **DEFAULT = 02 SECONDS**

This setting determines how long AVM access beeps are delayed (0 - 300 seconds, in 2-second intervals) at the beginning of a 2-way audio session.

Programming

With the display showing *AUDIO VERIFY OFF/ON*, press **B** until the display shows *BEEP DELAY n SECS (current setting)*.
Enter the desired time, then press #.
The display flashes the entered setting, then stops after pressing # and displays *BEEP DELAY n SECS (new setting)*.

BUFFER CONTROL (06001) **DEFAULT = OFF**

This setting determines whether all system events are logged in the buffer (off) or if only opening and closing reports are logged in the buffer (on).

Turning On or Off

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 *BUFFER CONTROL OFF/ON (new setting)*.

BUFFER FULL REPORT (06006) — 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.

Turning On or Off

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

BYPASS REPORTS (06003) — DEFAULT = OFF

When this setting is on, the panel reports to the central station whenever sensors or zones are bypassed.

Turning On or Off

With the display showing *BYPASS REPORTS OFF/ON (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting.

CALL WAIT CANCEL (02009) — DEFAULT = NONE

This feature lets you set up a dialing prefix to disable the call waiting feature before the panel makes its first dialing attempt to any programmed central monitoring station or downloader phone number. The prefix can be up to eight digits.

To enter pauses, press **C**.
To enter *, press and hold **7** for two seconds.
To enter #, press and hold **9** for two seconds.

Turning On or Off

With the display showing *CALL WAIT CANCEL __ (or current setting)*, enter the desired prefix. The display flashes the entered setting. Press # and the display shows the new setting.
To delete, with the display showing *CALL WAIT CANCEL __ (or current* setting), press **D**.

CANCEL MESSAGE (02007) — DEFAULT = ON

This setting determines whether or not the panel displays a cancel message after the user disarms the system to clear an alarm condition.

Turning On or Off

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

CENTRAL STATION PHONE NUMBER (0100-CS PHONE 1, 0110-CS PHONE 2, 0120-CS PHONE 3) — 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. To enter pauses, press **C**.

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.

Programming

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 *PHONE NUMBER (new number)*.

Deleting

With the display showing *PHONE NUMBER (current number)*, press **D**.
The display shows *PHONE NUMBER _*.

CENTRAL STATION REPORTING FORMAT (0106-CS PHONE 1, 0116-CS PHONE 2, 0126-CS PHONE 3) — DEFAULTS: ALL CID

This setting determines whether the panel uses SIA or CID (Contact ID) reporting format for central station communication.

Programming

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 *REPORTING FORMAT SIA/CID (new setting)*.

CLOSING REPORTS (06101—PARTITION 1, 06201—PARTITION 2) — DEFAULT = OFF

This setting determines whether the panel sends a closing report to the central station or pager, after the partition is armed.

Turning On or Off

With the desired partition selected, press #. Press **B** until the display shows *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 *CLOSING REPORTS OFF/ON (new setting)*.

COMMUNICATION FAILURE (02003) — DEFAULT = ON

This setting determines whether the panel activates trouble beeps to alert users on the premises that communication to the central station failed. Failure notification occurs after the third unsuccessful reporting attempt to the central station/pager.

If a Phone Supervision Card (60-789) is installed, failure notification can occur immediately if inadequate phone line voltage is detected upon the initial dialing attempt.

NOTE
For UL Listed installations, Communication Failure must be turned on.

Turning On or Off

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 *COMM FAILURE OFF/ON (new setting)*.

DAYLIGHT SAVING TIME(0306) — DEFAULT = ON

This setting determines whether the panel clock automatically adjusts for daylight saving time changes in spring and fall.

Turning On or Off

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

DEALER CODE (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.)

Programming

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

Deleting

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. If you don't remember your Dealer Code, call Technical Services for assistance.

DELETE SENSORS (082) — DEFAULT = NONE

The following describes how to remove a hardwire zone or a wireless sensor numbers from the 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.

Programming

To Delete Sensors from panel memory:

- With the display showing *LEARN SENSORS*, press **B** until the display shows *DELETE SENSORS*.
- Press # and the display shows *DELETE SENSOR N (lowest zone/sensor number in panel memory)*.
- Press **A** or **B** to scroll through the sensors/zones.
- 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 N DONE*.

  Repeat steps until all desired sensors are deleted.

DIAL TONE DETECT (02010) — DEFAULT = ON

When this setting is on, the panel does not begin dialing until it detects a dial tone.

When this feature is off, the panel begins dialing a few seconds after seizing the phone line.

Turning On or Off

With the display showing *DIAL TONE DETECT OFF/ON (current setting)*, press **1** (off) or **2** (on). The display flashes the entered setting. Press # and the display shows the new setting.

DIALER ABORT (02005) — DEFAULT = ON

This setting determines whether users can stop the panel from reporting an intrusion or auxiliary alarm condition to the central station. If dialer abort is on and the user accidently causes an alarm condition, entering **1 + CODE** within 30 seconds stops the panel from reporting the alarm, preventing a false dispatch. Fire alarm reports to the central station cannot be aborted.

NOTE
The Dialer Abort feature applies only to CS PHONE 1. The 30-second time setting can only be changed using ITI ToolBox.

Turning On or Off

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 *DIALER ABORT OFF/ON (new setting)*.

DIAL ABORT DELAY (02006) — DEFAULT = 30 SECONDS

This setting determines how much time the user has to abort a panel report.

Programming

With the display showing *DIAL ABORT DELAY nn SECS (current setting)*, enter the desired time (15–120 seconds). The display flashes the entered setting. Press # and the display shows the new setting.

DISABLE TROUBLE BEEPS (0701) — DEFAULT = OFF

This setting determines whether the panel activates trouble beeps when a wireless sensor supervisory condition is detected.

NOTE
For UL Listed installations, this feature must be off.

Turning On or Off

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 *DISABLE TR BEEPS OFF/ON (new setting)*.

DOWNLOADER CODE (0000) — DEFAULT = 12345

The 5-digit downloader code is used in conjunction with downloader programming. The downloader operator must have the panel account number and downloader code to perform any programming.

Programming

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.

DOWNLOADER PHONE NUMBER (0180) — 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. To enter pauses, press **C**.

Programming

With the display showing *PHONE NUMBER* ___, enter the desired phone number + #.
The display flashes the entered number, then stops after pressing # and displays *PHONE NUMBER NNN*.

DTMF DIALING (02004) — DEFAULT = ON

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

Turning On or Off

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 *DTMF DIALING OFF/ON (new setting)*.

DURESS CODE (0017—PARTITION 1, 0027—PARTITION 2) — 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. Each partition can be programmed with a different duress code.

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 200 Audio Verification Module is highly recommended to reduce false alarms and accidental dispatches.

- With the desired partition selected, press #. Press **B** until the display shows *DURESS CODE* ****.
- Enter the desired 4-digit duress code, then press #.
- The display flashes the entered setting, then stops after pressing # and displays *DURESS CODE nnnn (new code)*.

DURESS OPTION (06104—PARTITION 1, 06204—PARTITION 2) — DEFAULT = OFF

This setting determines whether the selected partition can be controlled using a programmed duress code (see *SECURITY—PARTITION ½—DURESS CODE*).

CAUTION

Because user-code entry errors often result in false alarms, it is strongly recommended not to program any duress codes. If a duress code is absolutely necessary, their use with an Interrogator 200 Audio Verification Module is highly recommended to reduce false alarms and accidental dispatches.

Turning On or Off

With the desired partition selected, press #. Press **B** until the display shows *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 *DURESS OPTION OFF/ON (new setting)*.

EDIT SENSORS (083) **DEFAULT = NONE**

This setting lets you view and change the assignments for each learned zone/sensor. For example, the display shows:

S1 P1 G13 RF
BACK DOOR

where S1 = zone/sensor number P1 = partition 1, G13 = sensor group 13, NO = normally open, NC = normally closed, RF = wireless zone, TP = touchpad, HW = hardwired, and BACK DOOR = the programmed text name.

Programming

With the display showing *LEARN SENSORS*, press **B** until the display shows *EDIT SENSORS*.
Press # and the display shows the lowest sensor number zone/sensor assignments.
Press **A** or **B** to scroll through all learned zone/sensor number assignments.

ENTRY DELAY (0310—PARTITION 1, 0320—PARTITION 2) **DEFAULT = 032 SECONDS**

This setting determines how much time (32 - 240 seconds) the user has to disarm the system after entering the 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.

Programming

With the desired partition selected, press #. Press **B** until the display shows *ENTRY DELAY nnnSECONDS (current setting)*.
Enter the desired time value, then press #.
The display flashes the entered setting, then stops after pressing # and displays *ENTRY DELAY nn SECONDS (new setting)*.

ENTRY LIGHTS (0400—PARTITION 1, 0410—PARTITION 2) **DEFAULT = NONE**

This setting determines whether X-10 controlled lights set to numbers 2 - 9 turn on during entry and exit delays.

NOTE
X-10 Lamp Modules set to 1 always turn on during the entry and exit delays. X-10 Lamp Modules set to 2 always flash the arming level when arming the system. For example, lights flash two times when arming to STAY (level 2); three times when arming to AWAY (level 3).

NOTE
Lamp Modules set to 2 should not be set up as entry lights, since this setting flashes the arming level immediately after arming.

Programming

With the desired partition selected, press #. The display shows *ENTRY LIGHTS nnnnnnnn (current setting)*.
Enter the desired light numbers (2 - 9 based on the UNIT dial setting on each X-10 Lamp Module), then press #.
The display shows *ENTRY LIGHTS nnnnnnnn (new setting)*.

Deleting

Enter any light number that appears on the display, then press #. The number disappears from the display.

EXCEPTION REPORTS (0133-PAGER 1, 0143-PAGER 2, 0153-PAGER 3, 0163-PAGER 4, 0173-PAGER 5) **DEFAULT = OFF**

This setting determines whether the panel reports to a pager if the system is not armed or disarmed at the specified schedule times, if open/close reports are turned on.

Turning On or Off

With the display showing *EXCEPTION 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 *EXCEPTION RPTS OFF/ON (new setting)*.

EXCEPTION REPORTS (0103-CS PHONE 1, 0113-CS PHONE 2, 0123-CS PHONE 3) **DEFAULTS: ALL OFF**

This setting determines whether the panel reports to the central station if the system is not armed or disarmed at the specified schedule times, if open/close reports are turned on.

Turning On or Off

With the display showing *EXCEPTION 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 *EXCEPTION RPTS OFF/ON (new setting)*.

EXIT DELAY (0311—PARTITION 1, 0321—PARTITION 2) **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.

NOTE
For UL Listed residential installations, the Exit Delay must be set to 60 seconds, or less.

Programming

With the desired partition selected, press #. Press B until the display shows *EXIT DELAY nn SECONDS (current setting)*.
Enter the desired time value, then press #.
The display flashes the entered setting, then stops after pressing # and displays *EXIT DELAY nn SECONDS (new setting)*.

EXIT EXTENSTION (0013—PARTITION 1, 0023—PARTITION 2) **DEFAULT = ON**

This setting determines whether or not the user can re-enter and exit again through an entry or exit delay door (without disarming and re-arming the system). This helps prevent exit faults and false alarms by allowing users to re-enter the premises for a forgotten item.

When Exit Extension is on, the panel restarts the exit delay timer if the user re-enters the premises through a standard delay door before the standard exit delay time expires.

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

Turning On or Off

To turn Exit Extension off or on:
With the display showing *EXIT EXTENSION OFF/ON (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting.

EXTENDED DELAY (0312—PARTITION 1, 0322—PARTITION 2) **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.

Programming

With the desired partition selected, press #. Press B until the display shows *EXTENDED DELAY n MINUTES (current setting)*. Enter the desired time value, then press #.
The display flashes the entered setting, then stops after pressing # and displays *EXTENDED DELAY n MINUTES (new setting)*.

FIRE PANIC (0510—PARTITION 1, 0520—PARTITION 2) **DEFAULT = ON**

This setting determines whether the fire panic buttons are enabled (on) or disabled (off) on touchpads for a selected partition.

Programming

With the desired partition selected, press #. The display shows *FIRE PANIC OFF/ON (current setting)*.
Press 1 (off) or 2 (on), then press #. The display flashes the entered setting, then stops after pressing # and displays *FIRE PANIC OFF/ON (new setting)*.

FIRE SHUTDOWN (0902) **DEFAULT = OFF**

This setting determines whether system sirens turn off during a fire alarm audio session.

Turning On or Off

With the display showing *AUDIO VERIFY OFF/ON*, press #. Press **B** until the display shows *FIRE SHUTDOWN OFF/ON (current setting)*.

Press **1** (off) or **2** (on), then press #.

The display flashes the entered setting, then stops after pressing # and displays *FIRE SHUTDOWN OFF/ON* (new setting).

FORCE ARMED (06105—PARTITION 1, 06205—PARTITION 2) **DEFAULT = OFF**

This setting determines whether the panel reports to the central monitoring station when a sensor/zone is bypassed, directly or indirectly.

NOTE
Auto Force Armed (when the panel arms itself) always reports to the central monitoring station. For UL Listed installations, Force Armed must be turned off.

Turning On or Off

With the desired partition selected, press #. Press **B** until the display shows *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 *FORCE ARMED OFF/ON (new setting)*.

FREEZE ALARM (06107—PARTITION 1, 06207—PARTITION 2) **DEFAULT = OFF**

This setting determines whether the panel reports a freeze alarm to the central station or pager, when the selected partition's energy saver module detects a temperature that matches a predetermined setting (see *BUS DEVICES—UNIT TYPE nn ESM—PARTITION 1/2—FREEZE TEMP*).

Turning On or Off

With the desired partition selected, press **B** until the display shows *FREEZE ALARM OFF/ON (current setting)*.

Press **1** (off) or **2** (on), then press #.

The display flashes the entered setting, then stops after pressing # and displays *FREEZE ALARM OFF/ON (new setting)*.

GLOBAL FIRE (0704) **DEFAULT = OFF**

This setting determines whether sirens in both partitions sound (on) if either partition activates a fire alarm.

Turning On or Off

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

The display flashes the entered setting, then stops after pressing # and displays *GLOBAL FIRE OFF/ON (new setting)*.

HIGH LEVEL REPORTS (0131-PAGER 1, 0141-PAGER 2, 0151-PAGER 3, 0161-PAGER 4, 0171-PAGER 5) **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), and System Tamper (40 incorrect key presses or touchpad supervisory).

Turning On or Off

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 *HIGH LEVEL RPTS OFF/ON (new setting)*.

HIGH LEVEL REPORTS (0101-CS PHONE 1, 0111-CS PHONE 2, 0121-CS PHONE 3)

DEFAULTS: CS PHONE 1 = ON
CS PHONE 2 = OFF
CS PHONE 3 = 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), and System Tamper (40 incorrect key presses or touchpad supervisory).

Turning On or Off

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 *HIGH LEVEL RPTS OFF/ON (new setting)*.

HOUSE CODE (0401—PARTITION 1, 0411—PARTITION 2)

DEFAULTS: PARTITION 1 = 01-B
PARTITION 2 = 02-C

This setting determines which Supervised Wireless Sirens and X-10 controlled lights work in a selected partition. The letter that appears after the house code number indicates the necessary HOUSE dial setting for X-10 modules in that partition.

NOTE
You must set the partition House Code and the SWS Supv Code (see the *SIREN OPTIONS* menu) *before* plugging in Supervised Wireless Sirens.

Programming

With the desired partition selected, press #. Press B until the display shows *HOUSE CODE xx (current setting)*.
Enter the desired number (1 - 255), then press #.
The display flashes the entered setting, then stops after pressing # and displays *HOUSE CODE xx (new setting)*.

IMMEDIATE BEEPS (0700)

DEFAULT = OFF

This setting determines when the panel activates trouble beeps , once a wireless sensor supervisory condition is detected. When set to off, trouble beeps sound within 4 hours for fire (group 26) sensors and within 10 hours for all other sensors.

NOTE
For UL Listed installations, this feature must be on.

Turning On or Off

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 *IMMEDIATE BEEPS OFF/ON (new setting)*.

INSTALLER CODE (0001)

DEFAULT = 4321

The 4-digit installer code is used for entering program mode and changing system settings. If a dealer code (see dealer code) is programmed, only those settings not associated with phone numbers can be changed.

Programming

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.

KEYCHAIN TOUCHPAD ARM (0513—PARTITION 1, 0523—PARTITION 2)

DEFAULT = OFF

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

Programming

With the desired partition selected, press #. Press B until the display shows *KEYCHAIN TP 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 *KEYCHAIN TP ARM OFF/ON (new setting)*.

KEYSWITCH SENSOR (0015—PARTITION 1, 0025—PARTITION 2 DEFAULT = NONE

This feature lets users arm and disarm the system using either a keyswitch wired to a hardwire zone input or a wireless door/window sensor.

For example, if sensor 1 is designated as the keyswitch sensor and the system is disarmed, then tripping sensor 1 could arm the system to AWAY. If the system is armed to STAY or AWAY, then tripping the sensor could disarm the system.

The panel reports opening, closing, and force armed reports (if turned on) to the central monitoring station.

NOTE
A bypassed keyswitch sensor cannot arm or disarm the system.

During an audible alarm, keyswitch sensors can disarm the system (which sends a cancel report to the central monitoring station), but cannot arm the system. The system can be armed only after the siren timeout expires.

Keyswitch sensors test the same as any other sensor and do not arm or disarm the system during a sensor test.

Programming

With the display showing *KEYSWITCH SENSOR n (current sensor number)*, enter the desired sensor number (01–76). The display flashes the entered sensor number. Press # and the display shows the new number.

Turning On or Off

To delete a Keyswitch Sensor: with the display showing *KEYSWITCH SENSOR n (current sensor number)*, press **D** to erase the keyswitch sensor attribute.

KEYSWITCH STYLE (0016—PARTITION 1, 0026—PARTITION 2) DEFAULT = TRANSITION

This feature allows users to select how they want the system to behave when armed/disarmed by a keyswitch sensor. The choices are as follows:

Transition: If keyswitch style is set to transition and the keyswitch sensor is tripped (opened) when the system is disarmed (level 1), the panel will automatically arm to AWAY (level 3). If the sensor is tripped (opened) when the system is armed to AWAY (level 3) or STAY (level 2), the panel will automatically disarm.

State: If keyswitch style is set to state, when the keyswitch sensor is tripped (opened) the panel arms to AWAY (level 3). If the sensor is restored (closed) the panel disarms.

Opening, closing, and force arming reports (if turned on) are reported to the central station for both keyswitch styles.

Programming

With the display showing *KEYSWITCH STYLE TRANSITION/STATE (current setting),* press 1 + # to set the type to Transition. Press 2 + # to set the type to State.

LATCHKEY FORMAT (06106—PARTITION 1, 06206—PARTITION 2) DEFAULT = OFF

This setting determines whether the selected partition is set up for basic (off) or advanced (on) latchkey opening report operation.

Basic Programming

a). If the partition is armed by entering 2 (or 3) + CODE, *disarming using a designated latchkey user code within an assigned time schedule* sends a page.
b). If the partition is armed by entering 2 (or 3) + CODE + 6 (LATCHKEY), *disarming using a designated latchkey user code inside or outside of an assigned time schedule* sends a page.

Advanced Programming

If the partition is armed by entering 2 (or 3) + CODE + 6 (LATCHKEY), *disarming using a designated latchkey user code within an assigned time schedule* sends a page.

Turning On or Off

With the desired partition selected, press **B** until the display shows *LATCHKEY FORMAT OFF/ON (current setting)*.
Press 1 (off—basic) or 2 (on—advanced), then press #.
The display flashes the entered setting, then stops after pressing # and displays *LATCHKEY FORMAT OFF/ON (new setting)*.

LATCHKEY REPORTS (0135-PAGER 1, 0145-PAGER 2, 0155-PAGER 3, 0165-PAGER 4, 0175-PAGER 5) — DEFAULT = ON

This setting determines whether the panel reports to a pager when the system is armed or disarmed, according to latchkey time scheduling.

Turning On or Off

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 *LATCHKEY REPORTS OFF/ON (new setting)*.

LATCHKEY ZONES (0500) — DEFAULT = NONE

This setting defines the range of keychain touchpads that will function as a latchkey user. The value entered in this section can be any valid zone number. When a zone number is entered, all zones *at* or *below* that zone number will function as a latchkey user. For example, if 5 is entered, any keychain touchpads learned into zones 1–5 will be latchkey users and all others (6–76) will not.

Programming

- With the display showing *LATCHKEY ZONES ___ (current setting)*, enter the desired number of latchkey zones (**1–76**). The display flashes the entered setting.
- Press # and the display shows the new setting.

Deleting

With the display showing *LATCHKEY ZONES nn (current setting)*, press D.

LEARN SENSORS (080) — DEFAULT = NONE

The following describes how to learn hardwire zones and wireless sensors into the panel memory.

Programming

- With the display showing *SENSORS*, press # and the display shows *LEARN SENSORS*.
- Press # and the display shows *SENSOR PTN 1*.
- Press # to select partition 1 or press **2** + # to select partition 2. The display should show *SENSOR GROUP 0*. Enter the desired 2-digit sensor group + # (see page 4-44 for a description of all sensor group characteristics). The display shows *TRIP SENSOR n*, where n is the displayed (next available) sensor number.
- To change the displayed sensor number, enter the desired 2-digit sensor number, then press #.
- With the desired sensor number displayed, trip the sensor or zone as follows:
  - **Hardwire Zones**—trip the zone into the alarm state.
  - **Wireless Sensors**—follow the instructions included with each sensor.
    Wireless Door/Window Sensors with External Contacts—place the external contact in the alarm condition, then activate the sensor's tamper switch.
  - **Supervised Wireless Sirens**—see installation instructions for the appropriate programming directions.

NOTE
Before learning Supervised Wireless Sirens, you must first program a partition house code (see *LIGHT CONTROL* menu) and the SWS house code (see *SIREN OPTIONS* menu).

- Continue tripping sensors to learn them into the selected sensor group and partition. To stop learning sensors into this group and partition, press * twice and start again from step 2 (*LEARN SENSORS*) to learn sensors into another group and partition.

LINE FAIL DELAY (0213) **DEFAULT = NONE**

This setting determines the amount of time partition1 phone line voltage must be absent before the panel indicates a phone failure trouble condition. If a delay is *not* programmed (default), the panel will not monitor the phone line voltage.

NOTE
LINE FAIL DELAY **is not available for partition 2 at this time.**
A Phone Supervision Card must be installed to use this feature.

Programming

- With partition 1 selected, press #. Press A or B until the display shows *LINE FAIL DELAY __ SECS (current setting)*.
- Enter the desired time value (10–240 seconds). The display flashes the entered setting. Press # and the display shows the new setting.

Deleting

With partition 1 selected, press #. Press A or B until the display shows *LINE FAIL DELAY nn SECS (current setting)*. Press D to delete the current line fail delay time.

LOCAL PHONE CONTROL (0210—PARTITION 1, 0220—PARTITION) **DEFAULT = ON**

When this feature is on, the panel can be accessed from a phone on the premises.

NOTE
A phone Interface/Voice Module is required for this feature to operate

Programming

With the display showing *LOCAL PHONE CTRL OFF/ON (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting.

LOW CPU BATTERY (06004) **DEFAULT = ON**

This setting determines whether the panel reports a low CPU battery to the central station or pager, before shutting down.

Turning On or Off

With the display showing *LOW CPU BATTERY 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 CPU BATTERY OFF/ON (new setting)*.

LOW LEVEL REPORTS (0132-PAGER 1, 0142-PAGER 2, 0152-PAGER 3, 0162-PAGER 4, 0172-PAGER 5) **DEFAULT = OFF**

This setting determines whether the following non-alarm conditions report to a pager:

Force Armed, Hardwire Zone Trouble (open or short), Supervisory (wireless sensors), or a Low Battery condition (wireless sensors and touchpads).

Turning On or Off

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)*.

LOW LEVEL REPORTS (0102-CS PHONE 1, 0112-CS PHONE 2, 0122-CS PHONE 3) **DEFAULTS: CS PHONE 1 = ON**
CS PHONE 2 = OFF
CS PHONE 3 = OFF

This setting determines whether the following conditions report to the central station:

Force Armed, Hardwire Zone Trouble (open or short), Supervisory (wireless sensors), Low Battery condition(wireless sensors and touchpads).

Turning On or Off

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)*.

MANUAL PHONE TEST (02000) — DEFAULT = ON

This setting determines if the user can, at any time, test the communication from the panel to the central station or a pager by entering 8 + CODE + 2 (# + 8 + CODE + 2 from a touch-tone phone).

Turning On or Off

With the display showing *PHONE TEST OFF/ON (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting.

NEXT PHONE TEST (0303) — DEFAULT = 7 DAYS

This setting determines how many days (1 - 255) until the next automatic phone test occurs.

Programming

When setting up Phone Test Frequency, 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. For U.L. Commercial Listed installations, this feature must be set to 1.

With the display showing *NEXT PHONE TEST n DAYS (current setting)*, enter the value (1 - 255), then press #. The display flashes the entered setting, then stops after pressing # and displays *NEXT PHONE TEST n DAYS (new setting)*.

NO ACTIVITY (06103—PARTITION 1, 06203—PARTITION 2) — 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*).

Turning On or Off

With the desired partition selected, press #. Press B until the display shows *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 *NO ACTIVITY OFF/ON (new setting)*.

ONBOARD OUTPUT (11101—OUTPUT 1, 11111—OUTPUT 2)

This setting lets you assign the partition and the 5-digit configuration number, for the two onboard outputs.

The configuration number determines which system event activates the selected output, and the duration or time the output is activated.

The first three digits represent the trigger number of an event (such as triggering an alarm, opening a sensor, or arming the system). The last two digits represent how the output responds (such as momentary switching, maintained (or latched) switching, or switching for a preset time).

NOTE
If you want to configure an output for user Output Control you must use the Output Text feature to name the output. If no Output Text is programmed, Output Control will not function for that output.

Programming

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*.
- Press # and the display shows *PARTITION ASSIGN n (current setting)*.
- Press 1 or 2 to assign the output to the desired partition, then press #. The display shows *PARTITION ASSIGN (new setting)*.
- Press B and the display shows *CONFIGURATION tttrr* (current setting).
- Enter the desired configuration number. The display flashes the entered number. Press # and the display shows the new setting.
- Press * and repeat steps 2 through 6 until all outputs are programmed

OPEN/CLOSE REPORTS (0134-PAGER 1, 0144-PAGER 2, 0154-PAGER 3, 0164-PAGER 4, 0174-PAGER 5) **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 for that partition.

Turning On or Off

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 *OPEN/CLOSE RPTS OFF/ON (current setting)*.

OPEN/CLOSE REPORTS (0104-CS PHONE 1, 0114-CS PHONE 2, 0124-CS PHONE 3) **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 for that partition.

Turning On or Off

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 *OPEN/CLOSE RPTS OFF/ON (new setting)*.

OPENING REPORT (06100—PARTITION 1, 06200—PARTITION 2) **DEFAULT = OFF**

This setting determines whether the panel sends an opening report to the central station or pager, after the partition is disarmed.

NOTE
To use this feature, the *OPEN/CLOSE REPORTS* settings under the *PHONES—CS PHONE 1-3* and/or *PHONES—PAGER PHONE 1-5* menus must be turned on for the specific CS Phone or Pager Phone number.

Turning On or Off

With the desired partition selected, press #. The display shows *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 *OPENING REPORTS OFF/ON (new setting)*.

OUTPUT TEXT **DEFAULT = NONE**

Entering text for an output allows the user to control it directly or by schedule. Use the following guidelines to "name" SnapCard outputs:

Programming

- Use the item numbers that appear in "Appendix B, Table B.2" for characters and words listed there.
- If a desired word does not appear in Table B.2, create it using the characters (custom text).
- When using words from Table B.2, spaces between them appear automatically. When using characters from Table B.2 to create words, you must reserve an item number for a 'space' after the word.
- Each character or word uses up one item number. For example, a word from the list counts as one item number. A created word (such as BOY'S) counts as six item numbers—4 letters, 1 apostrophe, and 1 space.
- Only 16 item numbers are allowed for each output name, so plan ahead before programming output text. You may need to abbreviate words to avoid running out of item numbers.

NOTE

If you desire an output for User Output Control you must use the Output Text feature to name the output. If no Output Text is programmed, the user will not have access to the output.

Programming

1.With the display showing *SNAPCARDS*, press #, then A or B until the display shows *OUTPUT TEXT*.

2.Press # and the display shows *OUTPUT 1*.

3.Press A or B until the desired output number is displayed.

4.Press # and the display shows:

OUTPUT n ITEM 0
0 -

where *ITEM 0* is the first character/word location and *0* is the character/word number.

5.Enter the number of the desired character or word, or scroll through the numbers by pressing B (forward) or A (backward). If you make a mistake, simply enter the correct number or continue scrolling through choices.

6.Press # to accept the displayed choice and the display shows:

OUTPUT n ITEM 1
0 -

7.Repeat steps 4 and 5 as needed to complete the output name.

8.Press * after entering the last character or word number. The display shows the complete text name. For example:

OUTPUT 1
GARAGE DOOR

OUTPUT TRIP TIME (0304) **DEFAULT = 4 SECONDS**

This setting determines how long onboard, SnapCard, and HOM outputs are activated, when configured for a momentary trip.

Programming

With the display showing *OUTPUT TRIP TIME n SECONDS (current setting)*, enter the desired time (1 - 12), then press #.
The display flashes the entered setting, then stops after pressing # and displays *OUTPUT TRIP TIME n SECONDS (new setting)*.

PAGER DELAY (02008) **DEFAULT = 15 SECONDS**

This setting determines how long a report is delayed to a pager (0 - 30 seconds), after the panel dials the pager number.

NOTE
The Pager Delay time should not be set below 5 seconds, unless absolutely necessary.

Programming

With the display showing *PAGER DELAY nn (current setting)*, enter a two digit time (0 - 30), then press #.
The display flashes the entered setting, then stops after pressing # and displays *PAGER DELAY nn (new setting)*.

PAGER PHONE NUMBER (0130-PAGER 1, 0140-PAGER 2, 0150-PAGER 3, 0160-PAGER 4, 0170-PAGER 5) **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, skylink number, and PIN numbers.

NOTE
Phone numbers that disable call-waiting (*70) must be programmed using ITI ToolBox.

Programming

With the display showing *PHONE NUMBER _ (or current number)*, enter the desired pager phone number including pauses (press **C** for 3-second pause), then press #.
The display flashes the entered number, then stops after pressing # and displays *PHONE NUMBER (new number)*.

Deleting

With the display showing *PHONE NUMBER (current number)*, press **D**.
The display shows *PHONE NUMBER _*.

PAGER PARTITION ASSIGNMENT (0137-PAGER 1, 0147-PAGER 2, 0157-PAGER 3, 0167-PAGER 4, 0177-PAGER 5) **DEFAULT = 1**

This setting determines the partition that reports to a pager. Both partitions can be assigned to report to a single pager.

Programming

With the display showing *PTN ASSIGNMENT 1/2/12 (current setting)*, press **1** or **2** to select partition 1 or 2 or press **1** *and* **2** to select both, then press #.
The display flashes the entered setting, then stops after pressing # and displays *PTN ASSIGNMENT 1/2/12 (new setting)*.

PHONE ACCESS KEY (0216—PARTITION 1, 0226—PARTITION 2) **DEFAULT = #**

This setting determines which touch-tone phone button is used for system access and control (only if a Phone Interface/ Voice module is installed). To access the system, the user picks up the phone and within five seconds presses #.
The panel seizes the phone line and waits for the user to enter security system commands. Phone access can be changed from # to *.

NOTE
To keep conflicts between the security system and other phone devices and services to a minimum, it is strongly recommended not to change the phone access to *. Since many phone devices (answering machines, computer modems, fax machines) and services (call-waiting, call-forwarding, banking transactions) require * to initiate their operation, # is set as the default to help reduce conflicts.

Programming

With the desired partition selected under *PHONE OPTIONS*, press **B** until the display shows *PHONE ACCESS #/* (current setting)*. Press **1** (for *) or **2** (for #), then press #.
The display flashes the entered setting, then stops after pressing # and displays *PHONE ACCESS #/* (new setting)*.

PHONE PANIC (0215—PARTITION 1, 0225—PARTITION 2) **DEFAULT = OFF**

This setting determines whether a police panic alarm can be activated from a touch-tone phone. When turned on, pressing # + ***** activates a police panic alarm.

Turning On or Off

With the desired partition selected, press **B** until the display shows *PHONE PANIC OFF/ON (current setting)*.
Press **1** (off) or **2** (on), then press #.
The display flashes the entered setting, then stops after pressing # and displays *PHONE PANIC OFF/ON (new setting)*.

PHONE TEST (02000) — DEFAULT = ON

This setting determines if the user can, at any time, test the communication from the panel to the central station or a pager by entering 8 + CODE + 2 (# + 8 + CODE + 2 from a touch-tone phone).

NOTE
For U.L. Commercial Listed installations (UL 1610), this feature must be on.

Turning On or Off

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 *PHONE TEST OFF/ON (new setting)*.

PHONE TEST FREQUENCY (0302) — 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.

NOTE
For U.L. Commercial Listed installations, this feature must be set to 1.

Programming

With the display showing *PHONE TEST FREQ nnn DAYS (current setting)*, enter the 3-digit value (001 - 255), then press #.
The display flashes the entered setting, then stops after pressing # and displays *PHONE TEST FREQ nnn DAYS (new setting)*.

POLICE PANIC (0512—PARTITION 1, 0522—PARTITION 2) — DEFAULT = ON

Programming

This setting determines whether the police panic buttons are enabled (on) or disabled (off) on touchpads for a selected partition.
With the desired partition selected under *TOUCHPAD OPTIONS*, press B until the display shows *POLICE PANIC OFF/ON (current setting)*. Press 1 (off) or 2 (on), then press #. The display flashes the entered setting, then stops after pressing # and displays *POLICE PANIC OFF/ON (new setting)*.

PROGRAM REPORTING (06015) — DEFAULT = OFF

When this setting is on, the panel sends a report to the central station when someone enters or exits installer programming.

Turning On or Off

With the display showing *PROGRAM REPORT ON/OFF (current setting)*, press 1 (off) or 2 (on). The display flashes the entered setting. Press # and the display shows the new setting

QUICK ARM (0011—PARTITION 1, 0021—PARTITION 2) — 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.

Turning On or Off

With the desired partition selected, press B until the display shows *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 *QUICK ARM OFF/ON (new setting)*.

QUICK EXIT (0012—PARTITION 1, 0022—PARTITION2) DEFAULT = ON

This setting determines whether or not users can open and close a standard entry/exit door without causing an alarm (while the system is armed).

This feature would be useful if the user wants to go out to get the morning paper while the system is armed. This feature also allows the user to leave the armed premises without having to disarm and re-arm the system.

When Quick Exit is on, pressing **D** on a touchpad (while the system is armed) starts a 2-minute timer that allows one standard entry/exit door (sensor groups 10 and 19 only) to be activated once (opened, then closed).

When this feature is turned off, the system must be disarmed before any protected door is opened.

NOTE
For UL Listed installations, this feature must be set to off.

Turning On or Off

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

RECEIVER FAILURE (06011) 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.

Turning On or Off

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 *RECEIVER FAILURE OFF/ON (new setting)*.

RECENT CLOSINGS (06102—PARTITION 1, 06202—PARTITION 2) DEFAULT = ON

When this setting is on, the panel sends a recent closing report to the central station if an alarm occurs within two minutes *after* the exit delay time expires. Such a report is used to identify a possible exit fault.

Turning On or Off

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

REMOTE ACCESS (0211—PARTITION 1, 0221—PARTITION 2) DEFAULT = ON

This setting determines whether users can access and control the system from an off-site phone.

NOTE
Must have a SuperBus Phone Interface/Voice Module.

Turning On or Off

With the desired partition selected, press #.

Press **B** until the display shows *REMOTE ACCESS OFF/ON*.

Press **1** (off) or **2** (on), then press #.

The display flashes the entered setting, then stops after pressing # and displays *REMOTE ACCESS OFF/ON (new setting)*.

RF LOW BATTERY REPORT (06012) — DEFAULT = WEEKLY

This setting determines whether the panel reports to the central monitoring station or pager daily or weekly, when a wireless sensor or touchpad reports a low battery condition to the panel.

Programming

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 *RF LOW BAT RPT DAILY/WEEKLY (new setting)*.

RF SUPERVISORY REPORTS WEEKLY/DAILY (06013) — 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 sensor supervisory condition.

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 *RF SUPV REPORT DAILY/WEEKLY (new setting)*.

RF TX TIMEOUT (0301) — DEFAULT = 12 HOURS

This setting determines how many hours (2 - 24) the panel has to receive at least one signal from a wireless sensor (learned into a supervised group). If the panel does not receive a signal from any supervised wireless sensor within the set time, the panel reports a supervisory condition to the central station.

NOTE
For U.L. Listed commercial installations, the RF Tx Timeout must be set to 4 hours. For U.L. Listed residential installations, the RF Tx Timeout must be set to 24 hours.

Programming

With the display showing *RF TX TIMEOUT nn HOURS (current setting)*, enter the desired 2-digit timeout value (02 - 24), then press #.
The display flashes the entered setting, then stops after pressing # and displays *RF TX TIMEOUT nn HOURS (new setting)*.

RING/HANG/RING (0212—PARTITION 1, 0222—PARTITION 2) — DEFAULT = ON

This setting determines how the panel picks up (seizes) the phone line for remote access. When turned on, the user calls the premises, listens for one or two full rings, hangs up, then calls the premises again within 10-40 seconds of hanging up. The system answers after the first ring. The “on” setting is recommended if an answering machine shares the phone line with the panel.

When turned off, the user calls the premises and listens 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.

NOTE
The system must have a SuperBus Phone Interface/Voice Module.

Turning On or Off

With the desired partition selected, press B until the display shows *RING/HANG/RING OFF/ON (current setting)*.
Press 1 (off) or 2 (on), then press #.
The display begins flashing the entered selection, then stops and displays *RING/HANG/RING OFF/ON (new setting)*.

SENSOR TEXT (081) **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 on the next page.

NOTE
The panel will only speak words with a SuperBus Phone Interface/Voice Module.

- If a desired word does not appear in the list, create it using characters (custom text). *However, custom text is not spoken by the panel. Instead, a pause in speech occurs in the voice message.*
- 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.

Programming

- With the display showing *LEARN SENSORS*, press **B** until the display shows *SENSOR TEXT*.
  Press # and the display shows *TEXT FOR SN 01*.
  Press # and the display shows:
  Sn 01 ITEM 0
  Z -
  where *X* = sensor/zone number, 0 = item number (Range: 0-15), Z = current item number - press # to enter, **A** or **B** to scroll through the item numbers, or enter the item number you wish to program.
- Press # to accept the displayed choice and the display shows:
  Sn 01 ITEM 1
  Z -
- Repeat the above steps as needed to complete the zone/sensor name.
- Press * after entering the last 3-digit item number.

NOTE
The item number is not entered until # is pressed. If the item number is flashing, it has not been entered.

- The display shows the complete text name. For example:
  TEXT FOR SN 1
  FRONT ENTRY DOOR

SILENT TALKBACK (0903) **DEFAULT = OFF**

This setting determines whether the central station operator can speak to persons on the premises (on) or only listen (off) during a silent or duress alarm audio session.

Turning On or Off

With the display showing *AUDIO VERIFICATION OFF/ON*, press **B** until the display shows *SILENT TALKBACK OFF/ON (current setting)*.
Press **1** (off) or **2** (on), then press #.
The display flashes the entered setting, then stops after pressing # and displays *SILENT TALKBACK OFF/ON (new setting)*.

SIREN TIMEOUT (0313—PARTITION 1, 0323—PARTITION 2) **DEFAULT = 04 MINUTES**

This setting determines how long sirens sound (01 - 30 minutes) if no one is present to disarm the system.

Programming

With the display showing *TIMERS*, press #. The display shows GLOBAL. Using the A or B key, select the desired partition then press #.

Press B until the display shows *SIREN TIMEOUT nn MINUTES (current setting)*.

SIREN VERIFY (0710) **DEFAULT = OFF**

This setting determines whether the panel monitors speakers connected to panel terminals 7 and 8.

NOTE
For UL Listed installations, this feature must be on.

Turning On or Off

With the display showing *SIREN 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 *SIREN VERIFY OFF/ON (new setting)*.

SMOKE VERIFY (1100) **DEFAULT = OFF**

This setting determines whether the panel requires two alarm signals within five minutes (on) from 2- or 4-wire smoke detectors connected to panel zone input 8 and/or SnapCard zone inputs, before activating system sirens and reporting to a central station or pager.

NOTE
For California State Fire Marshall Listed installations, this feature must be off.

Turning On or Off

With the display showing *ONBOARD OPTIONS*, press #. With the display showing INPUTS, press #. The display shows *SMOKE VERIFY OFF/ON (current setting)*.Press 1 (off) or 2 (on), then press #.

The display flashes the entered number, then stops after pressing # and shows *SMOKE VERIFY OFF/ON (new setting)*.

STAR IS NO DELAY (0514—PARTITION 1, 0524—PARTITION 2) **DEFAULT = OFF**

This setting determines whether the keychain touchpad star button controls a hardwire output (off) or the NO DELAY feature (on).

Programming

With the desired partition selected, press #. Press B until the display shows *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 *STAR IS NO DELAY OFF/ON (new setting)*.

STREAMLINING (0136-PAGER 1, 0146-PAGER 2, 0156-PAGER 3, 0166-PAGER 4, 0176-PAGER 5) **DEFAULT = ON**

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

Turning On or Off

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 *STREAMLINING OFF/ON (new setting)*.

SUPERVISORY TIME (0300) **DEFAULT = RANDOM FROM 01:00 TO 05:00**

This setting determines what time of day the panel reports supervisory and low battery reports to the central station. The setting is based on a 24-hour timer so a.m. and p.m. settings are not needed.

NOTE
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.

Programming

With the display showing *SUPERVISORY TIME HH:MM (current setting)*, enter the desired 4-digit time value (for example, enter 0130 to set the supervisory time for 1:30 a.m.), then press #.
The display flashes the entered setting, then stops after pressing # and displays *SUPERVISORY TIME (new setting)*.

SWINGER LIMIT (06014) **DEFAULT = 1**

This setting determines the maximum number of times (1–2) a sensor or zone can go into alarm (during a single arming period) before the panel automatically bypasses that sensor or zone. This feature only applies to sensors or zones in groups 00–20, 29, or 34.

When set to 1, the panel automatically bypasses a sensor or zone after it causes an alarm. When set to 2, the panel waits until a sensor or zone has caused a second alarm (during the same arming period) before bypassing it. At any setting, the automatic bypass is logged into the event buffer.

A bypassed sensor or zone will be cleared (automatically unbypassed) if the system receives no further activations from that sensor or zone over the next 48–50 hours.

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

Programming

With the display showing *SWINGER LIMIT n (current setting)*, press the desired **number (1–2)**. The display flashes the entered setting. Press # and the display shows the new setting.

SWS SUPERVISORY CODE (0703) **DEFAULT = 003**

This setting determines the system house code number used for supervising wireless sirens.

NOTE
To supervise wireless sirens, Concord hardwire panels must include a SuperBus RF Receiver. For all Concord panels, the siren must be learned into sensor group 33 for the system to process radio signals from wireless sirens.

Supervised Wireless Sirens receive signals from the panel through the existing electrical wiring. If sirens fail to receive or process these signals, the siren transmits a wireless signal to the panel/ receiver.

NOTE
You must set SWS Supv Code and the partition House Code (see the *LIGHT CONTROL* menu) *before* plugging in Supervised Wireless Sirens.

Programming

With the display showing *SWS SUPV CODE nnn (current code)*, enter the desired code (1 - 255), then press #.
The display flashes the entered code, then stops after pressing # and displays *SWS SUPV CODE nnn (new code)*.

SYSTEM TAMPER (06109—PARTITION 1, 06209—PARTITION 2) **DEFAULT = OFF**

This setting determines whether the armed partition goes into alarm after 40 consecutive incorrect keystrokes. This setting also determines whether the panel reports to the central station if a bus device stops communicating with the panel.

NOTE
For U.L. Commercial Listed installations, this feature must be on.

Programming

With the desired partition selected, press #. Press **B** until the display shows *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 *FIRE PANIC OFF/ON (new setting)*.

TOLL SAVER (0214—PARTITION 1, 0224—PARTITION 2) DEFAULT = ON

This setting determines whether the panel answers off-site access on the eighth ring (on) or twelfth ring (off), if a trouble condition exists.

NOTE
Must have a SuperBus Phone Interface/Voice module.

Turning On or Off

With the desired partition selected, press #. Press **B** until the display shows *TOLL SAVER OFF/ON (current setting)*. Press **1** (off) or **2** (on), then press #.
The display flashes the entered setting, then stops after pressing # and displays *TOLL SAVER OFF/ON (new setting)*.

TOUCHPAD PANIC RPT FMT (06009) DEFAULT = OFF

This setting determines how the panel formats touchpad panic alarm reports to the central station.

When this feature is turned on, touchpad panic alarms report using the following 3-digit codes:
Auxiliary—597, Police—598, Fire—599

When turned off, touchpad panic alarms report using a 3-digit code from 500 to 515, with the last 2-digits identifying the touchpad device number.

Turning On or Off

With the display showing *TP PANIC RPT FMT OFF/ON (current setting)*, press **1** (off) or **2** (on). The display flashes the entered setting. Press # and the display shows the new setting.

TWO-TRIP ERROR (06008) DEFAULT = OFF

This setting works with the ALARM VERIFY setting (see "ALARM VERIFY" in this section). If ALARM VERIFY is on, then the panel waits for a second sensor/zone trip before sending an alarm.

If TWO TRIP ERROR is also on and a second sensor trip *does not occur* within a 4-minute time period, then the panel sends an error report to the central monitoring station.

NOTE
For UL Listed installations, the Two Trip Error feature must be set to off.

Turning On or Off

With the display showing *TWO TRIP ERROR OFF/ON (current setting)*, press **1** (off) or **2** (on). The display flashes the entered setting. Press # and the display shows the new setting.

TWO WIRE SMOKE LOOP (1101) DEFAULT = OFF

This setting determines whether panel zone input 8 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 8, this setting must be turned on *before* entering the LEARN SENSORS menu.

Turning On or Off

With the display showing *ONBOARD OPTIONS*, press #. The display shows Inputs, press #. Press B until 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 *TWO WIRE SMOKE OFF/ON (new setting)*.

UL 98 OPTIONS (0702) — DEFAULT = OFF

This setting determines whether the panel complies with UL 98 requirements (4-hour trouble beep restart, 4-hour backup battery test, 4-hour smoke (group 26) supervisory zone).

NOTE
For UL Listed installations, this feature must be on.

Turning On or Off

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 *UL 98 OPTIONS OFF/ON (new setting)*.

ZONE RESTORALS (06007) — 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.

NOTE
As with all ITI panels, hardwire smoke detectors connected to Concord or SnapCard hardwire zones do not send restorals.

Turning On or Off

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

Learning Sensors

This task illustrates *learning* wireless and hardwired sensors for the Concord system.

1. Choose the group for each sensor. Use the questions below and the chart on page 4-44 to decide which group.
   - Does the sensor need a delay?
   - Should the sensor be supervised?
   - At what level should the sensor be active?
2. Enter program mode.
3. If necessary, press **A** until the system displays:

SYSTEM PROGRAMMING

4. Press #. The system displays:

SECURITY

NOTE
Press 08 + # to go directly to the Sensors Menu.

5. Press **B** until the system displays:

SENSORS

6. With the system displaying **SENSORS**, press #.

   The system displays:

LEARN SENSORS

7. Press # and the system displays:

SENSOR PTN 1

8. Press # to select partition 1 or press **2** + # to select partition 2.

   The system displays

   ```
   SENSOR GROUP
         0
   ```

NOTE
See page 4-44 for a description of all sensor group characteristics.

9. Enter the desired 2-digit sensor group + #.

   The system displays:

   ```
   TRIP SENSOR NN
   ```

NOTE
***nn* is the displayed (next available) sensor number.**

10. To change the displayed sensor number, enter the desired 2-digit sensor number, then press #.

11. With the desired sensor number displayed, trip the sensor or zone as follows:

    - **Hardwire Zones:** trip the zone into the alarm state.
    - **Wireless Sensors:** follow the instructions included with each sensor or see page 4-46 for a list of common wireless sensors and how to trip them.
    - **Wireless Door/Window Sensors with External Contacts:** place the external contact in the alarm condition, then activate the sensor's tamper switch.

12. Continue tripping sensors to learn them into the selected sensor group and partition. To stop learning sensors into this group and partition, press * twice and start again from step 5 (**LEARN SENSORS**) to learn sensors into another group or partition.

Student Notes

Sensor Group Characteristics Table

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

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. ǂ	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. ǂ	Silent	Instant	✓	✓			1, 2, 3
28	Output Module	HOM, PIR motion sensor, sound sensor, or pressure mat. ǂ	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. ǂ	Silent	Instant					1, 2, 3
33	Siren	Wireless Siren Supervision. ǂ	Silent	Instant		✓	✓		1, 2, 3
34	Gas	Carbon monoxide (CO) Gas Detectors ǂ	Auxiliary	Instant	✓	✓	✓		1, 2, 3
35	Local Instant Police	Local alarm in levels 1 and 2. Report to CS in level 3	Police	Instant	✓	✓	✓ (level 3 only)	✓	1, 2, 3

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

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

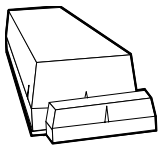
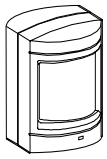
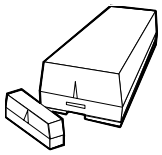
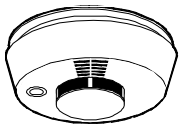
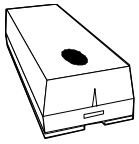
† Sounds instant police siren if two or more sensors are tripped within 4 minutes. Otherwise sensors are followers to delayed sensors. If Alarm Verification is on, group 18 functions like group 17.

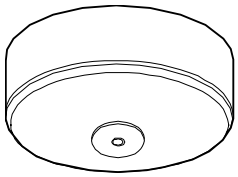
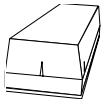
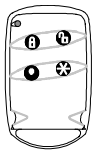
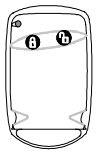
ǂ This group has not been investigated by UL.

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

Tripping Learn Mode Wireless Sensors

This task illustrates tripping the most common wireless sensors.

Sensor	Do This to Trip the Sensor
Crystal Door Window 	Remove the sensor cover.
SAW Door/Window	Remove the sensor cover and press the *Press to Program* button.
PIR Motion 	Remove the sensor cover.
Shock 	Remove the sensor cover.
System Smoke 	Twist and remove from the base.
Freeze 	Remove the sensor cover.

Sensor	Do This to Trip the Sensor
Rate-of-rise Heat Detector 	Press the Learn switch.
Glass Guard 	Remove the sensor cover
Emergency Panics	Press and hold the appropriate panic button(s) for 3 full seconds.
Key Chain Touchpads  	Press and hold the lock and unlock key simultaneously.
NOTE **Refer to the particular sensor installation instructions for more details on tripping Learn Mode wireless sensors.**	

Edit Sensor Information

This task illustrates edit sensor information about the sensors that have already been added to the system. Use this procedure to find the following information about each sensor:

- Sensor number
- Partition the sensor is in
- Group the sensor is assigned
- Normally open or normally closed
- Hardwired/wireless/touchpad
- Sensor text (if any)
- Change sensor group assignment
- Change partition

1. Enter program mode.
2. Press **A** until the system displays:

SYSTEM PROGRAMMING

3. Press #. The system displays:

SECURITY

NOTE
Press 08 + # to go directly to the Sensors Menu.

4. Press **B** until the system displays:

SENSORS

5. With the system displaying **SENSORS**, press #.

   The system displays:

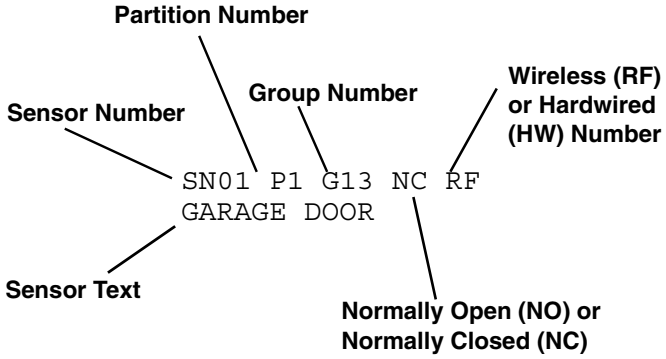
LEARN SENSORS

6. Press **B** until the system displays:

EDIT SENSORS

7. Press #.

   The system displays the first sensor's information. For example:



   NOTE
   Press B to see the next sensor's information or enter the sensor number as a shortcut.

8. Press #.
9. The display shows **SENSOR PTN 1** or **2**. To change the sensor partition assignment, press **1** or **2** then press #.
10. Press #

Verifying the Bus Device Unit Numbers

This task illustrates displaying the unit numbers for each bus device connected to the Concord panel.

Each bus device must have a different unit number set on the device before programming. Concord will automatically scan all bus devices connected to the panel at power up. Then Concord will assign each device a unique ID number.

1. Enter program mode.
2. Press **A** until the system displays:

SYSTEM PROGRAMMING

3. Press #. The system displays:

SECURITY

NOTE
Press 10 + # to go directly to the Accessory Modules Menu.

4. Press **B** until the system displays:

ACCESSORY MODULES

5. Press # and the system displays:

BUS DEVICES

NOTE
XXXXXXXX represents the unique ID number of the Bus Device.

6. Press # and the system displays:

UNIT - TYPE 0 - XXXXXXXX

NOTE
X represents partition assignment (1 or 2)

7. Press **A** or **B** to display the other bus devices that are assigned. For example:

UNIT - TYPE 3 - XXXXXXXX

8. To change the Bus Device partition assignment, press # and the display shows **CHANGE ID**. Press B and the display show **DEVICE PTN**. Press #.
   The display shows **PARTITION ASSIGN X**. Press 1 or 2 then # to assign the new partition.
9. Press * three times to exit the Bus Device menu item.

Deleting a Bus Device Unit Number

This task illustrates deleting a Bus Device from a Concord CPU.

1. Enter program mode.
2. Press **A** until the system displays:

SYSTEM PROGRAMMING

3. Press #. The system displays:

SECURITY

4. Press **B** until the system displays:

ACCESSORY MODULES

5. Press #. The system displays:

BUS DEVICES

6. Press #. The system displays:

UNIT – TYPE 0 – XXXXXXXX

7. Use the **A** or **B** button to scroll to the device that is to be deleted.

UNIT – TYPE 7 – XXXXXXXX

8. Press **D**. The system displays:

UNIT – TYPE 7 – NONE

9. Press * three timesto exit the Bus Device Menu item.

System Configuration Worksheets

TABLE 4-2. Sensor Text/Item Numbers

001—Aborted	047—Detector	093—Interior	139—Pool	185—0
002—AC	048—Dining	094—Intrusion	140—Porch	186—1
003—Access	049—Disarmed	095—Invalid	141—Power	187—2
004—Active	050—Door	096—Is	142—Press	188—3
005—Activity	051—Down	097—Key	143—Program	189—4
006—Alarm	052—Download	098—Kids	144—Progress	190—5
007—All	053—Downstairs	099—Kitchen	145—Quiet	191—6
008—AM	054—Drawer	100—Latchkey	146—Rear	192—7
009—Area	055—Driveway	101—Laundry	147—Receiver	193—8
010—Arm	056—Duct	102—Left	148—Report	194—9
011—Armed	057—Duress	103—Level	149—RF	195—A
012—Arming	058—East	104—Library	150—Right	196—B
013—Attic	059—Energy Saver	105—Light	151—Room	197—C
014—Auxiliary	060—Enter	106—Lights	152—Safe	198—D
015—Away	061—Entry	107—Living	153—Schedule	199—E
016—Baby	062—Error	108—Load	154—Screen	200—F
017—Back	063—Exit	109—Loading	155—Second	201—G
018—Bar	064—Exterior	110—Low	156—Sensor	202—H
019—Basement	065—Factory	111—Lower	157—Service	203—I
020—Bathroom	066—Failure	112—Main	158—Shed	204—J
021—Battery	067—Family	113—Master	159—Shock	205—K
022—Bedroom	068—Father's	114—Mat	160—Side	206—L
023—Bottom	069—Feature	115—Medical	161—Siren	207—M
024—Breezeway	070—Fence	116—Memory	162—Sliding	208—N
025—Building	071—Fire	117—Menu	163—Smoke	209—O
026—Bus	072—First	118—Mother's	164—Son's	210—P
027—Bypass	073—Floor	119—Motion	165—Sound	211—Q
028—Bypassed	074—Force	120—No	166—South	212—R
029—Cabinet	075—Foyer	121—North	167—Special	213—S
030—Canceled	076—Freeze	122—Not	168—Stairs	214—T
031—Car	077—Front	123—Now	169—Stay	215—U
032—Carbon Monoxide	078—Furnace	124—Number	170—Supervisory	216—V
033—Central	079—Gallery	125—Off	171—System	217—W
034—Chime	080—Garage	126—Office	172—Tamper	218—X
035—Closed	081—Gas	127—OK	173—Temperature	219—Y
036—Closet	082—Glass	128—On	174—Test	220—Z
037—Closing	083—Goodbye	129—Open	175—Time	221— (space)
038—Code	084—Hallway	130—Opening	176—To	222—'(apostrophe)
039—Computer	085—Heat	131—Panic	177—Touchpad	223— - (dash)
040—Control	086—Hello	132—Partition	178—Trouble	224— _ (underscore)
041—Date	087—Help	133—Patio	179—Unbypass	225— *
042—Daughter's	088—High	134—Pet	180—Unit	226— #
043—Degrees	089—Home	135—Phone	181—Up	227— :
044—Delay	090—House	136—Please	182—West	228— /
045—Den	091—In	137—PM	183—Window	229— ?
046—Desk	092—Install	138—Police	184—Zone	

TABLE 4-3. 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 (fail-to-communicate 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
Partition 2 AVM Trip	013
Keychain Touchpad Star Button- Press	014
Smoke Power (when hardwire smokes need to be reset)	015

TABLE 4-4. Sensor Group Event Trigger Numbers.

Sensor Group	Trigger No.	Sensor Group	Trigger No.
Group 00 in alarm	064	Group 15 in alarm	079
Group 01 in alarm	065	Group 16 in alarm	080
Group 02 in alarm	066	Group 17 in alarm	081
Group 03 in alarm	067	Group 18 in alarm	082
Group 04 in alarm	068	Group 19 in alarm	083
Group 05 in alarm	069	Group 20 in Alarm	084
Group 06 in alarm	070	Group 21 in Alarm	085
Group 07 in alarm	071	Group 22 in alarm	086
Group 08 in alarm	072	Group 23 in alarm	087
Group 09 in alarm	073	Group 24 in alarm	088
Group 10 in alarm	074	Group 25 in alarm	089
Group 11 in alarm	075	Group 26 in alarm	090
Group 12 in alarm	076	Group 27 in alarm	091
Group 13 in alarm	077	Group 28 in alarm	092
Group 14 in alarm	078	Group 32 in alarm	096

TABLE 4-5. Sensor Number Event Trigger Numbers .

Sensor Number	State	Trigger Number	State	Trigger Number
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
Sensor 25	in alarm	153	open	253
Sensor 26	in alarm	154	open	254
Sensor 27	in alarm	155	open	255
Sensor 28	in alarm	156	open	256
Sensor 29	in alarm	157	open	257
Sensor 30	in alarm	158	open	258
Sensor 31	in alarm	159	open	259
Sensor 32	in alarm	160	open	260
Sensor 33	in alarm	161	open	261
Sensor 34	in alarm	162	open	262
Sensor 35	in alarm	163	open	263
Sensor 36	in alarm	164	open	264
Sensor 37	in alarm	165	open	265
Sensor 38	in alarm	166	open	266
Sensor 39	in alarm	167	open	267

TABLE 4-5. Sensor Number Event Trigger Numbers (Continued).

Sensor Number	State	Trigger Number	State	Trigger Number
Sensor 40	in alarm	168	open	268
Sensor 41	in alarm	169	open	269
Sensor 42	in alarm	170	open	270
Sensor 43	in alarm	171	open	271
Sensor 44	in alarm	172	open	272
Sensor 45	in alarm	173	open	273
Sensor 46	in alarm	174	open	274
Sensor 47	in alarm	175	open	275
Sensor 48	in alarm	176	open	276
Sensor 49	in alarm	177	open	277
Sensor 50	in alarm	178	open	278
Sensor 51	in alarm	179	open	279
Sensor 52	in alarm	180	open	280
Sensor 53	in alarm	181	open	281
Sensor 54	in alarm	182	open	282
Sensor 55	in alarm	183	open	283
Sensor 56	in alarm	184	open	284
Sensor 57	in alarm	185	open	285
Sensor 58	in alarm	186	open	286
Sensor 59	in alarm	187	open	287
Sensor 60	in alarm	188	open	288
Sensor 61	in alarm	189	open	289
Sensor 62	in alarm	190	open	290
Sensor 63	in alarm	191	open	291
Sensor 64	in alarm	192	open	292
Sensor 65	in alarm	193	open	293
Sensor 66	in alarm	194	open	294
Sensor 67	in alarm	195	open	295
Sensor 68	in alarm	196	open	296
Sensor 69	in alarm	197	open	297
Sensor 70	in alarm	198	open	298
Sensor 71	in alarm	199	open	299
Sensor 72	in alarm	200	open	300
Sensor 73	in alarm	201	open	301
Sensor 74	in alarm	202	open	302
Sensor 75	in alarm	203	open	303
Sensor 76	in alarm	204	open	304

TABLE 4-6. Response Numbers.

Feature	State	Trigger Number	Feature	State	Trigger Number
Phone Test	In Alarm	205	No Activity	In Alarm	216
RF Touchpad Reports	In Alarm	206	Fire Panic	In Alarm	217
AC Failure	In Alarm	207	Police Panic	In Alarm	218
CPU Failure	In Alarm	208	Auxiliary Panic	In Alarm	219
Auto Phone Test	In Alarm	209	Opening Report	In Alarm	220
Receiver Failure	In Alarm	210	Closing Report	In Alarm	221
Back in Service	In Alarm	211	Latchkey Report	In Alarm	222
Phone Failure	In Alarm	212	Duress	In Alarm	223
Buffer Full	In Alarm	213	Forced Armed Report	In Alarm	224
System Tamper	In Alarm	214	Fire in Partition	In Alarm	225
Freeze	In Alarm	215			

TABLE 4-7. Response Numbers.

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

Notes for 4-7, Response Number

1. If an event doesn't 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 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. However, HOM outputs won't be synchronized with panel or SnapCards outputs or the panel speaker output.
2. If an event doesn't trigger siren response times the outputs activates only if sirens are active for another reason.
3. If an alarm event doesn't 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 a trip delay, the delay and output activation can be cancelled by triggering the event restoral.
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 response time expires, enter program mode or remove panel power.
   Activated outputs set up for a momentary or 3-minute response time restart if the same trigger occurs again.

Module 5-Testing the System

Introduction

This module teaches the installer how to test the Concord system after installation and programming.

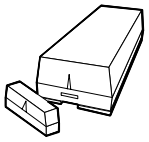
You should also test the system after any change in environment, equipment, or programming.

What's in This Module

Testing Sensors

This task illustrates testing wireless sensors, hardwire zones, and touchpad panics after installation and programming is complete.

Perform this test after you finish programming or whenever a sensor-related problem is suspected.



1. Place all zones/sensors in their secured (non-alarm) state.

2. At an alphanumeric touchpad, enter the sensor test mode by pressing **8** + **Installer CODE** + **3**.

   The touchpad sounds one beep and displays:

   ```
   *SENSOR TEST
   ```

   The system stays in sensor test for 15 minutes. After 15 minutes the panel disarms automatically.

3. Trip each zone/sensor and touchpad panic one at a time and listen for hardwire touchpads and Supervised Wireless Interior Sirens to sound one long beep.

   The display shows the sensor/zone name and OK. For example:

   ```
   FRONT DOOR OK
   ```

   If you have a speaker with phone interface/voice module installed, you will hear beeps, and:

    "SENSOR NAME, *OK*."

4. Press the **STATUS** button on the alphanumeric touchpad or press **#** + ***** on an on-premises phone when you believe all sensors/zones and panics have been tested.

5. The system announces any untested sensor numbers. For example, "*Sensor test is on, sensor xx test, sensor xx test*." Sensor xx test indicates which sensor(s) have not been tested. On the alphanumeric touchpad, the display will scroll through the untested sensors, for example:

   ```
   15 TEST GARAGE DOOR
   81 TEST POLICE PANIC
   ```

6. Test all untested sensors as above.

7. If all sensors have been tested, you will hear,

    **"***SENSOR TEST IS ON. ALL SENSOR TEST IS OK.***"**

8. If you need more time, enter **8 + Installer CODE + 3** at the alphanumeric touchpad while the system is still in sensor test.

   This causes the system to stay in sensor test mode for another 15 minutes, preserving the list of untested sensors. After 15 minutes, the panel disarms.

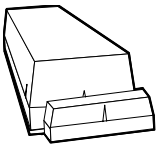
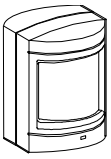
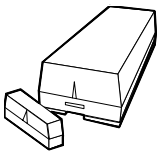
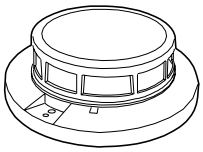
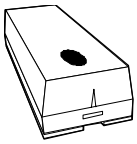
9. To exit the sensor test, enter **1 + System Master CODE** or **Partition Master CODE** at the alphanumeric touchpad.

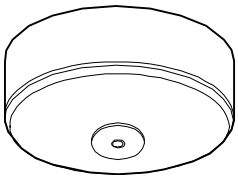
10. The system disarms to level 1, and you will hear,

     *"SYSTEM IS DISARMED"*

Tripping Learn Mode Wireless Sensors

This task illustrates tripping the most common wireless sensors.

Sensor	Do This to Trip the Sensor
Door/Window 	Open the secured door or window.
PIR Motion 	Avoid the motion detector's view for 5 minutes, then enter its view.
Shock 	Tap the glass twice, away from the sensor. Wait at least 30 seconds before testing again.
System Smoke 	Must use "can smoke" to trip the sensor.
Freeze 	Apply ice to the sensor. Do not allow the sensor to get wet.

Sensor	Do This to Trip the Sensor
Rate-of-rise Heat Detector 	Rub your hands together until warm, then place one hand on the detector for 30 seconds.
Glass Guard 	Tap the glass 3 or 4 inches from the sensor.
Emergency Panic	Press and hold the appropriate panic button(s) for 3 full seconds.
NOTE Refer to the particular sensor installation instructions for more details on tripping Learn Mode wireless sensors.	

Correcting a Failed Sensor

This task outlines how to correct a sensor when it fails the sensor test.

Use an RF Sniffer

If touchpads and/or Supervised Wireless Interior Sirens do not beep when a sensor is tripped, use an ITI RF Sniffer (60-401) test tool to verify that the sensor is transmitting.

Constant beeps from the sniffer indicate a runaway (faulty) sensor. Remove the sensor's battery and replace the sensor.

Reposition the Sensor

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

Relocate the Sensor

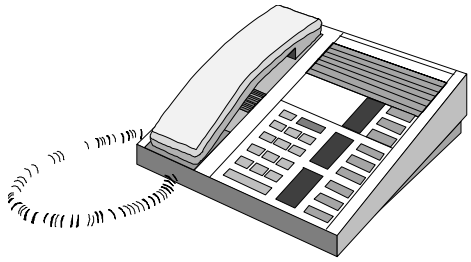
1. If possible, locate sensors within 150 feet of the panel. While a transmitter may have a range of 1,500 feet or more in the open, the environment at the installation site (for example, near wiring or metal objects) can have a significant effect on range.
2. Test the sensor a few inches from the original position.
3. Increase the distance from the original position and retest until you find an acceptable location.
4. Mount the sensor in the new location.
5. Replace the sensor if no location is acceptable.

Replace the Sensor

1. Using a sensor that you know works, test it at the same location.
2. If transmission problems continue, avoid mounting a sensor at that location.
3. If the replacement sensor functions, contact ITI for repair or replacement of the problem sensor.

Testing Telephone Communications

This task illustrates testing phone communication between the panel and the central station (CS).



1. Inform the central station that you will be testing phone communications between the site and the CS.

2. Press **8** + **System** or **Partition Master CODE** + **2**.

   The touchpad sounds one beep and the display shows:

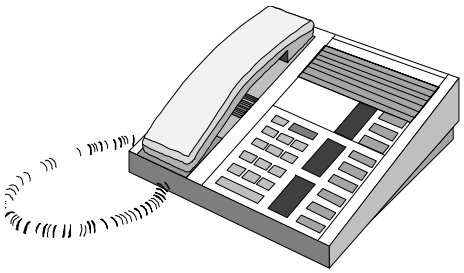
PHONE TEST

   When the panel completes the test, the system automatically returns to the previous arming level.

3. If the display shows PHONE TEST for 1½ minutes or more, enter **1** + **System** or **Partition Master CODE** and refer to the Troubleshooting section.

Testing Central Station/Pager Communication

This task illustrates ensuring the Concord panel is correctly reporting alarms to the central station.



1. Make sure that all on-premises telephones are hung up (on hook).
2. Inform the central station operator that you'll be testing the communications between the Concord panel and the CS.
3. Arm the system.
4. Test each of the touchpad and wireless panic buttons and trip at least one sensor of each type (fire, intrusion, etc.).

   The CS operator can listen-in and talk to you through the AVM200, if one is installed.

5. Check the pager(s) to see if they received the correct report.

   Pagers display an event code, sensor number, and account number when they receive a message from the Concord panel.

   For example:

   999-02 56789

Pager Event Code Descriptions

111 System has been disarmed
222 System has been armed to STAY
333 System has been armed to AWAY
118 Trouble condition has been cleared
119 Alarm has been canceled
555 Phone test started
888 System has a trouble condition
999 System is in alarm

6. When you finish testing the system, call the CS operator again to verify that the alarms were received correctly.

Testing Outputs

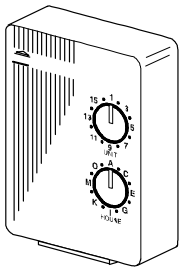
This task illustrates testing the system's outputs (onboard outputs, SnapCards, and the HOM).

1. Inform the central station (CS) operator that you will be testing the system.
2. Make sure that all on-premises telephones are hung up (on hook).
3. Activate each programmed item.

   Remember to arm the system to the correct level for devices that only work in a certain level.
4. Call the CS operator again to verify that the correct alarm was received at the CS.

Testing the Light Control

This task illustrates testing the X-10 lamp modules to verify the house code and light number settings.



X-10 POWERHOUSE LAMP MODULE 13-204

1. Press **0 + 0** on the touchpad to turn all lights on and off together.
2. Press **0 + 1** on the touchpad to turn light 1 on and off.
3. Repeat step 2 for the remaining assigned lamp and appliance module unit numbers.
4. Press **3 + CODE** on the touchpad to arm the system to Level 3-Away. Verify 1 amp modules set to unit 2 flash three times.
5. Press **1 + CODE** on the touchpad to disarm the system. Verify 1 amp modules set to unit 2 flash three times.

NOTE

Unit 2 light should blink to indicate the arming Level 1-Off. All remaining lights should be unaffected. Lights should turn on and remain on during fire and auxiliary alarms and flash during a police or an intrusion alarm.

Testing the Energy Saver Module

This task illustrates testing the Energy Saver Module (ESM) and ensuring it overrides the thermostat as programmed.

NOTE

The system must have the high- and low-temperature limits set to test the ESM.

1. Press **STATUS** + **STATUS** on any touchpad.

   The system will tell whether the Energy Saver is on or off. For example:

   ```
   ENERGY SAVER OFF
   TEMPERATURE 78
   ```

   The temperature displayed should match the house thermostat. If the temperatures do not match, recalibrate the ESM temperature.

2. Press **7** + **2** to turn on the ESM. The display shows:

   ```
   ENERGY SAVER ON
   ```

   And the ESM will click once.

3. Press **7** + **2** again to turn the ESM off. The display shows:

   ```
   ENERGY SAVER OFF
   ```

Testing Exercise

Now it's your turn to practice what you've learned. Using a Concord system provided, test the following components that you installed in the Installation and Programming Exercise.

Test the Following Items:

- Both touchpads
- The wireless sensor on the front door
- The wireless smoke sensor in the hallway
- The hardwire interior speaker.

Module 6-Troubleshooting

Introduction

This module teaches the installer how to troubleshoot the Concord system.

What's in This Module

Basic Troubleshooting

This task illustrates the basics of troubleshooting. Troubleshooting can help you eliminate system problems by methodically isolating and eliminating them.

Troubleshooting Equipment

- Voltmeter
- Butt Set
- RF Sniffer (ITI part number 60-401)
- Alphanumeric Keypad
- Appropriate Technical and Reference Manuals

NOTE

ITI Technical Support recommends that you use 22-gauge wire for Concord wiring.

Power Troubles

This troubleshooting section presents:

- Tips for preventing power troubles
- Power problems and solutions

Power Tips

- Make sure that the system is using the correct transformer.
- Make sure the transformer is not plugged into a switched outlet.
- For panel power problems, use a voltmeter to check the power between terminals 1 and 2. It should read 24 VAC.

Power Problems	Solutions
Panel does not power up. Touchpads don't display or respond	1. Check that panel transformer is plugged into an unswitched outlet. 2. Check the AC circuit breaker to be sure the circuit is live. 3. Check that the backup battery is installed correctly and the AC power transformer is plugged in. 4. Check for proper panel and transformer wiring. 5. Measure the incoming AC voltage at panel terminals 1 and 2. It should read at least 24 VAC. 6. Check for proper installation of the Power Line Carrier Card. If the PLC card is not being used, verify the jumpers remain in place.
No incoming AC voltage at panel terminals 1 and 2	1. Unplug the AC power transformer and disconnect the wires from the transformer and the panel. 2. Check the transformer-to-panel wire for short or open circuits. 3. Plug in the transformer and check for 24 VAC at the unconnected terminals of the transformer. If zero (0) volts, replace the transformer.

Power Problems	Solutions
Touchpad displays *System Low Battery* or voice sounds *"System low battery."*	1. Check that the backup battery is installed correctly and the AC power transformer is plugged in. 2. Measure the incoming AC voltage at the panel terminals 1 and 2. It should read 24 VAC. **NOTE** **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 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).** **NOTE** **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 *System battery failure*. 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.**
After pressing **STATUS** the touchpad indicates *AC Power Failure*. (Panel continues to operate from backup battery.)	1. Check the AC circuit breaker to be sure the circuit is live. 2. Check for proper panel and transformer wiring. 3. Check that the transformer is plugged into an unswitched outlet and secured with the provided screw. 4. Check that the transformer is supplying AC to the panel. (Transformer internal fuse may be blown.) **⚠ WARNING** **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.**
Touchpad displays, "Sensor # trouble and/or Sensor # low battery."	Replace the sensor battery.

Phone Troubles

- Tips for preventing phone troubles
- Phone problems and solutions

Phone Tips

Tips

- Review the wiring diagram.
- Make sure the panel is wired ahead of the other telephones on the line.
- Sometimes fax machines, modems and similar devices affect communication with the central monitoring station.
- Voice mail and roll-over lines also affect remote access. If one of these features exist, isolate the phone line so the panel is the only equipment using it and test communications.

Phone Problems

Solutions

Phone Problems	Solutions
System does not seize phone line	Check the wiring.
Phone voltage won't clear	Check the line voltage. It should be 42.75 to 53.0 volts **on hook** and about 10 volts **off hook**.
System not sending signals to Central Station	Make sure the Central Station phone number is programmed correctly.
Loss of dial tone on premises phones after wiring the RJ-31X/CA-38A (phone) Jack or connecting the DB-8 (phone) Cord	1. Wait 2 minutes and try again. The panel may be busy trying to report to the central station. 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. 3. Check RJ-31X jack wiring and TELCO block wiring. Replace RJ- 31X jack if necessary. 4. Check DB-8 cord connections at the panel and RJ-31X jack. Replace cord if necessary. 5. Perform a phone test after troubleshooting the phone line.
Constant dial tone, preventing dial-out on premises phones	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.
Phone does not work.	Disconnect the panel DB-8 Cord from the RJ-31 Jack. If the phone still doesn't work, the system is OK and the problem is in the phone wiring.

Programming Troubles

- Tips for preventing programming troubles
- Programming problems and solutions

Programming Tips

Tips

- Review the programming module.
- Test the panel before installing it.
- Bring an alphanumeric keypad to the site.

Programming Problems

Solutions

Programming Problems	Solutions
Wireless sensors and devices won't respond	If the Concord panel is the Hybrid, a SuperBus Wireless Receiver must be properly installed. Check the wiring.
Alphanumeric touchpad won't respond.	1. Alphanumeric touchpads must be part numbers 60-746-01, 60-803-04, or 60-804-04 2. Repeat the procedures for adding the touchpads. See the *Concord Security System Reference Manual* or See Concord Programming Training Module - Verifying Alphanumeric Touchpad Unit Numbers.

Wireless Device Troubles

- Tips for preventing wireless device troubles
- Wireless device problems and solutions

Wireless Device Tips

- Conduct a sensor test (**8** + **access code** + **3**, then trip the sensors).
- Sensor Conditions
  - Supervisory
  - Trouble
  - Failure
  - Open
- If a sensor does not check in during the dealer sensor test, check the sensor battery or you may need a repeater.
- Duct work, concrete, and steel may interfere with control panel-reception of a wireless devices.
- Repositioning wireless devices may improve reception.

Wireless Device Problems	Solutions
Not checking in	1. Make sure the environment around the sensor isn't interfering with the signal. See the sensor's installation instructions for tips about placement of the sensor. 2. Make sure the sensor is programmed into the proper group.
Won't Bypass Sensor(s)	1. Sensor is already bypassed. 2. Attempting to bypass a 24-hour sensor that cannot be bypassed (group 26 fire sensors). 3. Sensor that is not active in the current arming level. 4. Review the procedures for bypassing a sensor. 5. See Bypassing Window or Door Sensors in the Concord System Operation Training Module or see the bypassing instructions in the Concord Security and Home Automation Owner's Manual.

Alarm for no reason	• Smoke sensors - Check for dirty chamber • Motion detectors: - Direct sunlight can cause false alarms - Heating/AC vents can cause false alarms - Plants and curtains that move cause false alarms. • Door/Window Sensor - Check the magnet spacing and for loose doors or windows at all door/window sensor locations.
Smoke sensor beeps once every minute	Batteries are low. Replace all of the smoke sensor batteries.
Difficulty learning wireless sensor with HW contact	The contact must be in the alarm state (open if normally closed, closed if normally open). If this isn't set up correctly, the sensor will be learned in backwards.
Grouping issues and explanations	• For more information on sensor groups, see the following references: - Appendix C of the Concord Security System Installation Manual - Concord Programming Training Module
Hardwired sensors showing open state	The sensor may be learned in backwards. The contact must be in the alarm state. (open if normally closed, closed if normally open).
Difficulties learning in hardwire devices	**CAUTION** **Remove wiring for hardwire loop.** Wire a 2k ohm resistor across the terminals. Complete the procedure for learning sensors (See Learning Sensors in the Concord Programming Training Module or see Adding Hardwire Sensors in the Concord Security System Reference Manual. **Normally Open Sensors** Follow the procedure and when you are prompted to trip sensors – short across terminals. **Normally Closed Sensors** Follow the procedure and when you are prompted to trip sensors – pull one leg of resistor out of terminal. Rewire hardwire sensor (include one 2k ohm resistor).

Hardwire Smoke Sensor **NOTE** **This "double disarm" procedure restores the hardwired smoke sensors to their normal condition.**	1. Enter access **1 + CODE** to disarm panel. 2. Enter **1 + CODE** again to temporarily cut power to hardwired smoke sensors.
Receiver failure	Check the wiring from the panel to the receiver.
Runaway Wireless Sensor - Sensor continuously transmitting - Sensor blocks transmissions from other sensors - Panel won't respond - All other sensors send supervisory reports to monitoring company	Use an RF sniffer to determine if the sensor is continuously transmitting.
Panel doesn't respond to sensor activity (no alarm, chime, or sensor test sounds)	• Check that the wireless sensor battery is installed. • Check the sensor battery for low voltage. Replace batteries, if necessary. • Use an RF Sniffer (60-401) to verify that sensor is transmitting. • Check that the sensor is programmed (learned) into panel memory. Learn the sensor, if necessary. • Verify panel/receiver antennas are installed and connections tight.
Panel doesn't respond to wireless touchpad commands	• Operate touchpads from different locations to locate areas of intermittent operation. • Check and/or replace wireless touchpad batteries. • Program or reprogram the touchpad(s) into the panel.

Hardwired Device Troubles

- Tips for preventing hardwired device troubles
- Hardwired device problems and solutions

Hardwired Problems	Solutions
Hardwired Device Tips	• Review the wiring diagram. • Avoid running wires parallel to electrical lines or near fluorescent lights. • Check for hardwired zone problems, use a voltmeter to check the power between terminals **zone** and **ground**: power on - 5 VDC, power off - 0 VDC.
Panel does not respond to hardwire zone input **NOTE** **Panel hardwire zones are ignored for 1 minute following power-up (HIM zones are not ignored for this period).**	• Check that zones are programmed into panel and add if missing. • Make sure that zone is in a restoral-required group or make sure that system is armed to active level before tripping sensor. • If optional HIM zone, check that the HIM LED is blinking to show communication with panel.
Touchpad displays, “Sensor [sensor #] trouble” and/or “Sensor [sensor #] trouble,” is heard. **NOTE** **Panel zones use a 2K ohm resistor. Snapcards use a 2K ohm resistor. HIM zones use 4.7K ohm resistors.**	• Check that the end-of-line resistor is correctly installed in the zone loop circuit. - Normally open (N/O - parallel) zone circuit for a short in the wires. - Normally closed (N/C - series) zone circuit for an open (break) in the wires.
Hardwire zones will not learn into the panel	• Verify wiring on zone 8. If the two-wire smoke loop option is off, zone 8 will be connected to terminals 20 and 22. It the two-wire smoke loop is on, zone 8 will be connected to terminals 22 and 23. • Verify the HIM LED is blinking to indicate Bus communication. • Verify the proper resistor is being used.

Line Carrier Troubles

- Tips for preventing line carrier troubles
- Line carrier problems and solutions

Line Carrier Tips

- Most line carrier troubles involve incorrect settings of the X-10 module or the Supervised Wireless Interior Siren (SWIS).
- Noise (spikes) on AC lines is often caused by appliances on the line (examples: refrigerators, microwaves, TV, etc.) When someone turns on one of those appliances, the line carrier device may sound.
- Review the device's installation instructions.

Line Carrier Problems	Solutions
Line Carrier sounds intermittently	Noise on an AC line may cause a line carrier device to sound without reason. Relocate the device or the appliance to another circuit.
SWIS won't stop sounding when disarmed	You may need to disarm the system more than once to quiet the SWIS.
SWIS chirps	The backup battery is low, replace it.
SWIS doesn't work correctly	See Installing the SWIS in Chapter 2-Installing the System of the Concord Security System Reference Manual.
X-10 doesn't work	Make sure the Power Line Carrier Card is installed correctly. See the Concord Security System Reference Manual
X-10 doesn't work correctly	Make sure the correct unit number is set.
Light fixtures controlled by the X-10 Lamp Module are not working	• Check that the lamp has a working bulb and that the lamp switch is on. • Confirm the lamp's operation at a working outlet. • Check that the lamp is plugged into the X-10 Lamp Module and the X-10 Lamp Module is plugged into an outlet that is not controlled by a switch. Relocate to a non-switched outlet, if necessary. • Check that the panel is powered by the special two-wire Class II Line Carrier Power Transformer. • Make sure the panel has the Power Line Carrier (PLC) card installed. • Check that the HOUSE dial on the X-10 Lamp Module matches the house code programmed into the panel.

Normal Operation Troubles

- Tips for preventing normal operation troubles
- Normal operation problems and solutions

Normal Operation Tips

- Review the device's installation instructions.

Normal Operation Problems	Solutions
System won't arm	• Wrong access code was used. • If arming to level 2, make sure all monitored perimeter doors and windows are closed. • If arming to level 3, make sure all perimeter and interior sensors are closed. • Press **STATUS** for an indication of the problem.
Duress code isn't working	• Make sure the code is correct. • Make sure that the duress option is on.
Trouble beeps from panel	• Press **STATUS** for an indication of the problem.

Module 7–System Operation

Introduction

This module teaches the installer how to use the basic features of the Concord system after it is installed and programmed.

What's in This Module

Basic System Commands

These tables include the most commonly used system commands for quick reference.

TABLE 7-1. Touchpad Commands.

System Response	Command
Indicates system's current status	*** (STATUS)**
Disarms partition to OFF	**1 + CODE**
Arms partition to STAY	**2 + CODE**
Arms partition to AWAY	**3 + CODE**
Arms partition to STAY	**2** (quick arm on)
Arms partition to AWAY	**3** (quick arm on)
Makes partition entry/exit doors instant (4 must be pressed within five seconds of arming)	**2** or **3** + **CODE** + **4** or **2** or **3** + **4**
Arms partition silently (no arming status beeps)	**5** + **2** or **3** + **CODE** or **5** + **2** or **3**
Arms partition with Latchkey feature enabled	**2** or **3** + **CODE** + **6** or **2** or **3** + **6**
Turns chime feature on and off	**7** + **1**
Turns energy saver on and off	**7** + **2**
Identifies alarms in memory	**7** + **6**
Initiates a phone test	**8** + **CODE** + **2**
Initiates a sensor test	**8** + **CODE** + **3**
Initiates a dealer sensor test	**8** + **installer CODE** + **3**
Turns all lights on and off	**0** + **0**
Turns selected light on and off	**0** + **n** (1 through 9)

TABLE 7-2. Touchtone Phone Commands.

System Response	Command
Indicates system's current status	# + *
Disarms partition to OFF	# + **1** + **CODE**
Arms partition to STAY	# + **2** + **CODE**
Arms partition to AWAY	# + **3** + **CODE**
Arms partition to STAY	# + **2** (quick arm on)
Arms partition to AWAY	# + **3** (quick arm on)
Makes partition entry/exit doors instant (4 must be pressed within five seconds of arming)	# + **2** or **3** + **CODE** + **4** or # + **2** or **3** + **4**
Arms partition silently (no arming status beeps)	# + **5** + **2** or **3** + **CODE** or # + **5** + **2** or **3**
Arms partition with Latchkey feature enabled	# + **2** or **3** + **CODE** + **6** or # + **2** or **3** + **6**
Turns chime feature on and off	# + **7** + **1**
Turns energy saver on and off	# + **7** + **2**
Disables system access from on-site phones	# + **7** + **3**
Identifies alarms in memory	# + **7** + **6**
Initiates a phone test	# + **8** + **CODE** + **2**
Initiates a sensor test	# + **8** + **CODE** + **3**
Initiates a dealer sensor test	# + **8** + **installer CODE** + **3**
Turns all lights on and off	# + **0** + **0**
Turns selected light on and off	# + **0** + **n** (1 through 9)

Arming the System

This task illustrates arming the system to levels two and three from a touchpad, a telephone, and a keychain touchpad.

Arming the System: Touchpad

Arming to Level 2 - Stay or 3 - Away

Use **Level 2 - Stay** when the homeowner is in the home and wants security turned on.

Use **Level 3 - Away** when the homeowner will be off the premises.

NOTE

If the Quick Arm feature is turned on by the programmer, the user can choose the arming level without entering the code.

1. Enter **2** *for stay,* or **3** *for away.*

ENTER CODE

2. Enter **the access code**.

   The touchpad will display:

ARMED TO STAY

   or

ARMED TO AWAY

3. You will hear:

   TWO OR THREE SHORT BEEPS.

   During the delay period you will hear three series of beeps.

   During the first series, you will hear one beep every 4 or 5 seconds (how long this lasts depends on the entry/exit delay setting).

   The second series of beeps contains 10 quick beeps at the end of the delay period.

   Finally, you'll hear two or three fast beeps confirming that the system is in Stay (2) or Away (3).

NOTE

If an alarm sounds, cancel it by entering the 1 + access code.

4. Additional options:

   - To cancel the exit delay, press **4** within 5 seconds.

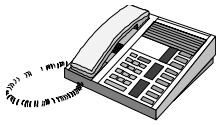
   The touchpad will display:

ARMED TO STAY NO DELAY

   or

ARMED TO AWAY NO DELAY

Arming the System: On-Site Telephone



NOTE

Concord uses # as the lead character for telephone access. It can be programmed to use * as the lead character.

Arming to Level 2 - Stay or 3 - Away

Use **Level 2 - Stay** when the homeowner is in the home and wants security turned on.

Use **Level 3 - Away** when the homeowner will be off the premises.

1. Enter **# + (2** *or* **3)** *+* **your access code**.

   (If dialing from an off-site location, dial the phone number before entering **# + your access code**.)

   You will hear:

    TWO OR THREE SHORT BEEPS, THEN "*SYSTEM IS ARMED TO (STAY* OR *AWAY)*."

2. Additional options:

   - To cancel the exit delay, press **4** within 5 seconds.

3. If entering or exiting, do so during the delay period or an alarm will sound.

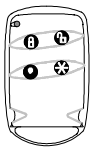
   During the delay period you will hear three series of beeps.

   During the first series, you will hear one beep every 4 or 5 seconds (how long this lasts depends on the entry/exit delay setting).

   The second series of beeps contains 10 quick beeps at the end of the delay period.

   Finally, you'll hear two or three fast beeps confirming that the system is in Stay (2) or Away (3).

Arming the System: Keychain Touchpad



Arming to Level 2 or 3

This procedure tells how to arm the system to level 2 or 3 depending on how it was programmed.

1. Press and hold the **Lock** button until the keychain light blinks.

2. If anyone is exiting, do so during the exit delay period. An alarm will sound if you exit after the delay period is over.

   You will hear one beep every 4 seconds for most of the delay, then one beep every second for the last 10 seconds of the delay.

   Two short beeps indicate the end of the exit delay.

3. If the keychain is programmed to do so, you can cancel the delay by pressing the **Star** button until the keychain entry/exit light blinks.

Disarming the System

This task illustrates disarming the system from a touchpad, telephone, and keychain touchpad.

Disarming the System: Touchpad

Disarming the system places it in **Level 1 - Off**. That means that protection to doors, windows, and motion devices is turned off.

However, smoke detectors and police, fire, and auxiliary panic alarms are still on.

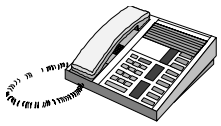
1. Enter **1 + the access code**.

   The touchpad will display the date and time

2. You will hear:

   
   ONE LONG BEEP.

Disarming the System: Telephone



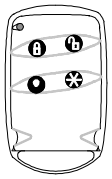
Disarming the system places it in **Level 1 - Off**. That means that protection to doors, windows, and motion devices is turned off.

However, smoke detectors and police, fire, and auxiliary panic alarms are still on.

1. Enter **# + 1 + your access code**.

   (If dialing from an off-site location, dial the phone number before entering **# + your access code**.)

Disarming the System: Keychain Touchpad



Disarming the system places it in **Level 1 - Off**. That means that protection to doors, windows, and motion devices is turned off.

However, smoke detectors and police, fire, and auxiliary panic alarms are still on.

Press and hold the **Unlock** button until the keychain light blinks.

Bypassing Window or Door Sensors

This task illustrates two ways to arm the Concord system and make it ignore certain sensors. For example, use this task when you want to arm the system while a window is open (indirect) or when you want to arm the system, then use a certain door without tripping an alarm (direct).

You can only bypass sensors using the touchpad or a telephone. The keychain touchpad cannot directly bypass sensors, but it can be used to indirectly bypass sensors.

Directly Bypassing a Sensor: Touchpad

NOTE

When you directly bypass a sensor, you must use the primary access code only. Indirect bypassing allows you to use any access code.

NOTE

In this procedure, *nn* represents the sensor number being bypassed.

Example: Use the *direct* method when the system is armed and you want to open a specific window while the system stays armed.

With the system armed, enter **BYPASS + access code + nn**.

The touchpad will display:

SENSOR nn BYPASSED

OR

BACKDOOR BYPASSED

Indirectly Bypassing a Sensor: Touchpad

NOTE

In this procedure, *nn* represents the sensor number being bypassed.

Example: Use the *indirect* method when the system is unarmed, you already have an upstairs window open, and you want to arm the system.

1. With the door or window(s) open that you want to bypass, enter **2 or 3 + access code**.

   (Enter 2 to arm to Level 2 - Stay or 3 to arm to Level 3 - Away.)

2. Press **BYPASS**.

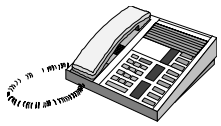
   The touchpad will display:

SENSOR nn BYPASSED

OR

BACKDOOR BYPASSED

Directly Bypassing a Sensor: Telephone



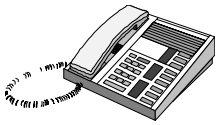
NOTE

In this procedure, *nn* represents the sensor number being bypassed.

Example: Use the *direct* method when the system is armed and you want to open a specific window.

With the system armed, enter **# + the access code + 6 + nn**.

Indirectly Bypassing a Sensor: Telephone



NOTE

Use the indirect method when the door or window you want to bypass is already open.

1. Enter **# + 2** or **3** + the **access code**.

   (Enter 2 to arm to Level 2 - Stay or 3 to arm to Level 3 - Away.)

2. You will hear:

   PROTEST BEEPS.

3. Press the **# + #** buttons.

   You will hear:

   "*SENSOR NN BYPASSED.*"

Sending Panic Alarms

This task illustrates sending a panic alarm using a touchpad, telephone, or a keychain touchpad. Use a panic alarm to alert the central monitoring station to an emergency.

The system can send one of three panic alarms: *police*, *fire*, or *auxiliary*.

The *police* panic is a steady siren sound. The *fire* panic sounds a temporal 3. An *auxiliary* panic is a fast on-off siren sound.

Sending a Panic: Touchpad

Press the appropriate panic button: **POLICE**, **FIRE**, or **AUXILIARY** for 2 full seconds.

The touchpad will display:

POLICE ALARM

or

FIRE ALARM

or

AUXILIARY ALARM

Canceling a Panic

1. Within 15 seconds of activating a police or auxiliary alarm, enter the **1 + access code** (No call is sent to the central monitoring station.)

   The touchpad will display:

1-OFF ALARM CANCELED

   You will hear:

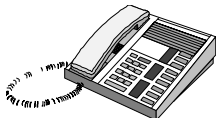
   
   ONE LONG BEEP, THEN "*ALARM SYSTEM IS OFF*." IF CANCELED, "*ALARM BYPASSED*."

2. If 15 seconds have already passed or **if the alarm was a fire alarm**, call the central monitoring station to cancel the alarm.

NOTE

Entering the 1 + access code after a fire alarm only turns off the sirens. It does not cancel the alarm.

Sending a Police Panic: Telephone



1. Press **#** 6 times.
2. You will hear a steady alarm sound.

NOTE

The telephone can only send a police panic. It cannot send a fire or auxiliary panic.
When sending a panic alarm, don't wait more than 1 second between key presses.

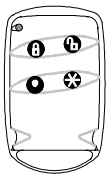
Canceling a Police Panic

Within 15 seconds of activating a police panic, enter **# + 1 + the access code**. (No call is sent to the central monitoring station.)

You will hear:

"*ALARM SYSTEM IS OFF.***" IF CANCELED, "***ALARM BYPASSED.***"**

Sending a Police Panic: Keychain Touchpad



1. Using a 2- button or 4-button keychain touchpad, press and hold the **Unlock** and **Lock** buttons together until the light blinks.
2. If within range of a speaker, you will hear:

A LOUD STEADY ALARM.

Sending an Auxiliary Panic from a 4-Button Keychain

1. Press and hold the **Star** and **Lights** buttons together until the light blinks.
2. If within range of a speaker, you will hear:

A LOUD RAPIDLY BEEPING ALARM.

Canceling a Police or Auxiliary Panic

1. Within 15 seconds of activating a police or auxiliary alarm, enter the **Unlock** button. (No call is sent to the central monitoring station.)

   If within range of a speaker, you will hear:

ONE LONG BEEP, THEN "*ALARM SYSTEM IS OFF*." IF CANCELED, "*ALARM BYPASSED*."

2. If 15 seconds have already passed call the central monitoring station to cancel the alarm.

Checking System Status

This task illustrates performing a short system status check. To perform a sensor test, see Module 5 – Testing the System.

Checking System Status: Touchpad

Press the **STATUS** button.

The touchpad will display:

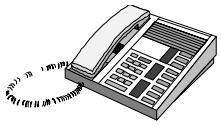
SYSTEM IS OK

or any system troubles, or any recent alarms.

You will hear:

ONE, TWO, OR THREE SHORT BEEPS INDICATING THE CURRENT ARMING LEVEL.

Checking System Status: Telephone



Short Status Check

Press **# + #**.

You will hear:

THE ARMING LEVEL (1-OFF, 2-STAY, OR 3-AWAY) AND ANY SYSTEM TROUBLES

or

Any recent alarms.

Understanding Access Codes

This task provides a brief overview of the Concord system access codes. The system uses three types of codes: **System Master Code, Partition Master Codes, and Regular User Codes** The primary access code is the main code for the system. Use it to control all functions and user programming of the system.

The System Master Code:

The system master code allows you to:

- Change or delete the partition master codes
- Add, change, and delete regular user codes

Partition Master Codes

The partition master code allows you to:

- Perform user functions, including: arming and disarming within a partition
- Change the partition master code in the authorized partition
- Add, change, and delete regular user codes

Regular User Codes

The system allows up to 60 regular user codes. Delete additional codes when they are no longer needed.

Adding or Changing an Access Code

This task illustrates adding or changing a regular user access code, a partition master code, or the system master code (if you are authorized).

1. Enter user programming by pressing **9** + **System** or **Partition Master CODE**.
2. Press **B** until the touchpad displays.

USER CODES

3. Press **#**.
4. Press **B** until the touchpad displays the type of code you want to change.
5. Press **#**.
6. Press **B** to scroll to the code you want to program.
7. Press **#**.
8. Enter the new code and press **#**.

NOTE

The system will not accept the same code for more than one user.

Deleting a Regular User Access Code

This task illustrates deleting a regular user access code. You cannot delete a partition or system master code. Instead, change it to a new code when necessary.

When a code is deleted, it appears as four asterisks on alphanumeric touchpads.

1. Enter user programming by pressing **9** + **System** or **Partition Master CODE**.
2. Press **B** until the touchpad displays.

USER CODES

3. Press **#**.
4. Press **B** until the touchpad displays the type of code you want to remove.
5. Press **#**.
6. Press **B** to scroll to the code you want to delete.
7. Press **#**.
8. Enter the system master or partition code and press **#**.

   The touchpad displays:

USER 01 -- * * * *

Module 8-End-User Training

Introduction

This module teaches the installer how to teach the homeowner to use the Concord system.

Rehearse the script with a coworker before you use it to teach a customer. That way, you'll be familiar with the script.

Read and follow the script that applies to the customer. For example, if the customer doesn't have a keychain touchpad, don't use that part of the script.

The script is shown in two columns: **Read This** and **Do This**. Read the script in the **Read This** column to the customer. Perform the steps in the **Do This** column.

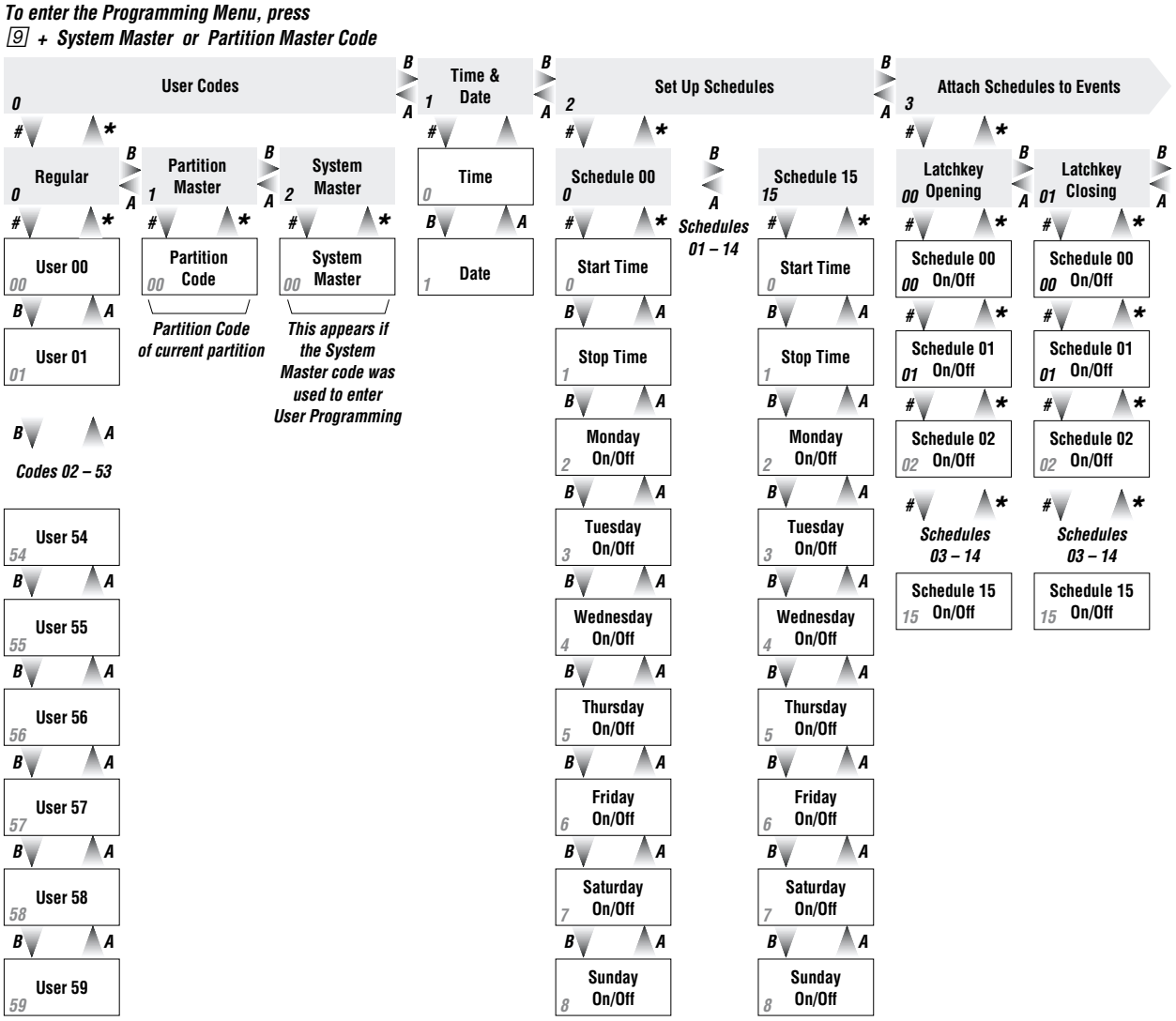
The tasks are in a "demonstration and practice" style. Demonstration and practice is one of the best ways to teach people.

Each task begins with you demonstrating the steps to the customer and ends with you helping the customer perform the steps by themselves.

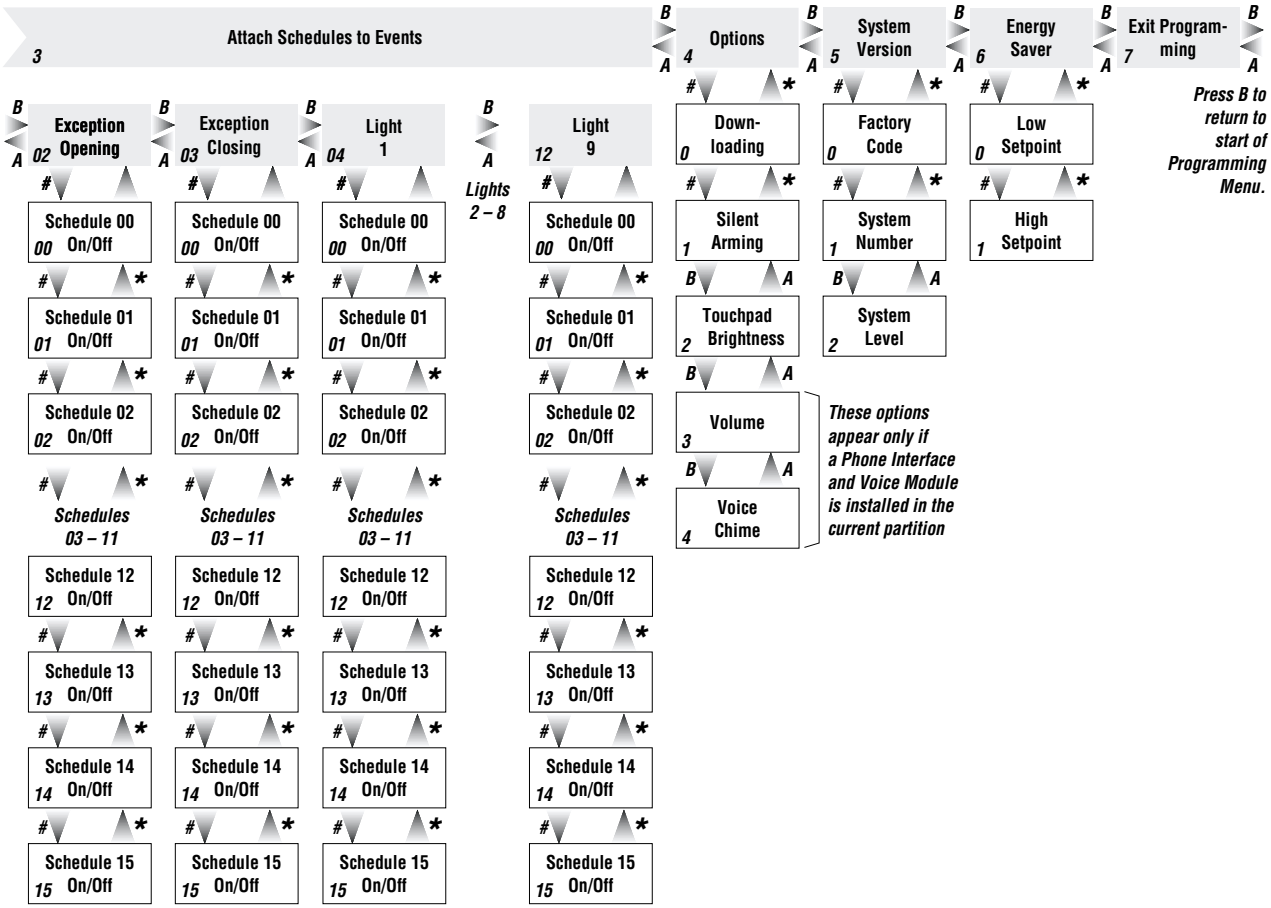
What You Need to Know to Operate Your System

User Programming Menu

The figure below illustrates the User Programming menu, which you might find useful as you navigating through the menu. Shortcut numbers appear for each item.



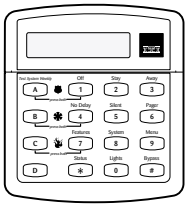
User Programming Menu – Continued



Arming and Disarming the System

This task guides you through teaching the end user how to arm and disarm the system from a touchpad, telephone, and a keychain touchpad to Level 2 or 3.

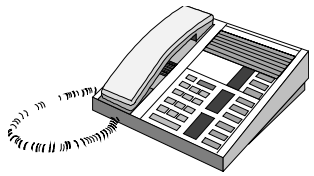
Touchpad: Arming and Disarming the System



Read This	Do This
"I'm going to show you how to arm your Concord security system using a **touchpad**." "First, I'll arm the system to Level 2 - Stay." "Use Level 2 when the homeowner is in the home and wants security turned on."	1. Tell the customer what you are entering as you enter the **2 + access code**.
"Notice that the touchpad displays, 'ARMED TO STAY' and the speaker gives two short beeps and says, 'SYSTEM IS ARMED TO STAY'"	2. Show the customer the display.
"If you want to turn off lights, press **0** within 5 seconds."	3. Tell the customer what you are doing as you press **0** within 5 seconds.
"Now, I'll show you how to disarm the system." "Disarming the system places it in Level 1 - Off. That means that protection to doors, windows, and motion devices is turned off." "This is also how you turn off the system if you accidentally set off the alarm." "However, smoke detectors and police, fire, and auxiliary panic alarms are still on."	4. Tell the customer what you are entering as you enter the **1 + access code**.
"The touchpad displays 'DAY AND TIME'" "The speaker gives one long beep, then says, 'SYSTEM IS DISARMED.'"	5. Show the customer the display.

"Now it's your turn to arm the system. I'm going to tell you how to arm the system to Level 3 - Away while you push the buttons." "Use Level 3 - Away, when you will be out of the house." "Press 3 and enter your access code."	6. Watch and assist the customer.
"Notice that the display showed, 'ARMED TO AWAY' and the speaker sounded three beeps." "You must enter and exit during the exit delay or the alarm will sound." "You'll hear one beep every 4 seconds for most of the delay, then one beep every second for the last 10 seconds of the delay." "If you want to cancel the exit delay, press **4** within 5 seconds after entering the alarm level." "If you do, the display will show, 'ARMED TO AWAY NO DELAY' and the speaker will say, 'SYSTEM IS ARMED TO AWAY NO DELAY'"	7. Show the display to the customer.
"If an alarm sounds, you can cancel it by entering your **1 + access code**."	8. Watch and assist the customer.
"Note the display shows the date and time and you hear one long beep."	9. Show the display to the customer.
"Remember that disarming the system places it in Level 1 - Off. Protection to doors, windows, and motion devices is turned off." "Smoke detectors and police, fire, and auxiliary panic alarms are still on."	

Telephone: Arming and Disarming the System



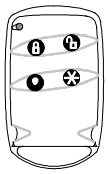
NOTE

Use the phone to control the system only if a Phone Interface/Voice Module is installed.

Read This	Do This
"I'm going to show you how to arm your Concord security system using a **telephone**." "First, I'll arm the system to Level 2 - Stay." "Use Level 2 when the you are in the home and want security turned on."	
"The telephone says, 'System is armed to STAY' and you'll hear two short beeps." "Also notice that I press the # button first. That tells the system that you're going to enter a command for the security system instead of dialing a phone call."	1. Allow the customer to listen if possible using speaker phone. Enter **#** + **1** + the **access code**.
"If you want to turn off the lights, press **0** within 5 seconds."	2. Tell the customer what you are entering as you press **0** within 5 seconds.
"Now, I'll show you how to disarm the system using the telephone." "Disarming the system places it in Level 1 - Off. That means that protection to doors, windows, and motion devices is turned off." "This is also how you turn off the system if you accidentally set off the alarm." "However, smoke detectors and police, fire, and auxiliary panic alarms are still on."	3. Tell the customer what you are doing as you enter **#** + **1** + the **access code**.
"The telephone says, 'SYSTEM IS DISARMED.'"	4. Allow the customer to listen, if possible, using speaker phone.

"Now it's your turn to arm the system. I'm going to tell you how to arm the system to Level 3 - Away while you push the buttons." "Use Level 3 - Away, when you will be out of the house." "Press 3 and your access code to arm to the away mode."	5. Watch and assist the customer.
"Notice that the phone said, 'SYSTEM IS ARMED TO AWAY.'" "If you want to cancel the exit delay, press **4** within 5 seconds." "If you do, the telephone will say, 'SYSTEM IS ARMED TO AWAY NO DELAY'" "You must enter and exit during the entry/ exit delay or the alarm will sound." "If you are near a speaker, you'll hear one beep every 4 seconds for most of the delay, then one beep every second for the last 10 seconds of the delay." "If an alarm sounds, you can cancel it by entering your **# + 1 + your access code**." "Now I'll tell you how to disarm the system." "Press **#** + **1** + your **access code**."	6. Watch and assist the customer.
"Notice that the telephone says, 'SYSTEM IS DISARMED." "Remember that disarming the system places it in Level 1 - Off. Protection to doors, windows, and motion devices is turned off." "Smoke detectors and police, fire, and auxiliary panic alarms are still on."	

Keychain Touchpad: Arming and Disarming the System



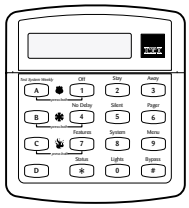
Read This	Do This
"I'm going to show you how to arm your Concord security system using a **keychain touchpad**." "First, I'll arm the system"	1. Show and tell the customer what you are entering as you press and hold the **Lock** button until the keychain light blinks.
"If you are within range of a speaker, you will hear two or three short beeps, then the system will announce, 'System is armed to (STAY or AWAY).'" "If you want to turn off lights, press the **Lights** button."	2. Show and tell the customer as you press the **Lights** button.
"Now, I'll show you how to disarm the system using the keychain touchpad." "Disarming the system places it in Level 1 - Off. Therefore, protection to doors, windows, and motion devices is turned off." "This is also how you turn off the system if you accidentally set off the alarm." "However, smoke detectors and police, fire, and auxiliary panic alarms are still on."	3. Tell the customer what you are doing as you press and hold the **Unlock** button until the light on the keychain blinks.
"If you are within range of a speaker, you will hear one beep that means the system is disarmed to level one.'" "Now it's your turn to arm the system. I'm going to tell you how." "Press and hold the **Lock** button until the light on the keychain blinks."	4. Point to the **Lock** button, if necessary.
"If you are within range of a speaker, it will announce, 'System is armed to (STAY or AWAY).'" "Now, I'll tell you how to disarm the system." "Press and hold the **Unlock** button until the light on the keychain blinks."	5. Watch and assist the customer.

Bypassing Window or Door Sensors

This task guides you through teaching the end user how to arm the Concord system and make it ignore certain sensors. Use this task when you want to arm the system with a window or door open.

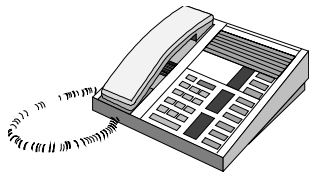
You can only bypass sensors using the touchpad or a telephone. The keychain touchpad cannot bypass sensors.

Touchpad: Bypass Window or Door Sensors



Read This	Do This
"I'm going to show you how to bypass a door or window sensor on your Concord security system using a **touchpad**." "With the system off, open the door or window that you want to bypass."	1. Open a door or window (it must be one that has a working sensor installed.)
"Now, I'll arm the system and bypass the open window."	2. Show and tell the customer what you are doing as you enter the **2 or 3** + the **access code**.
"Notice that the touchpad displays the number of the sensor that we left open." "It also tells you the arming level." "The speaker announces the arming level and which sensor we bypassed."	3. Press **BYPASS** + the **access code**.
"Go ahead and disarm the system now. Then it's your turn to bypass a sensor."	4. Assist the customer in disarming the system if necessary (press **1** + the **access code**).
"I'm going to talk you through bypassing a sensor." "Arm the system to level 2 and press the BYPASS button. This will bypass any open sensors."	5. Assist the customer as needed.
"Notice the phone announced that a sensor is open." "Do you have any questions or do you want to try it again?"	

Telephone: Bypass Window or Door Sensors

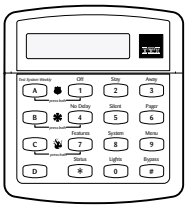


Read This	Do This
"I'm going to show you how to bypass a door or window sensor on your Concord security system using a **telephone**." "With the system off, open the door or window that you want to bypass."	1. Open a door or window (it must be one that has a working sensor installed.)
"Now, I'll arm the system."	2. Show and tell the customer what you are doing as you enter **# + 2** or **3** + the **access code**.
"Notice that the system sounds protest beeps telling you that a sensor is open."	3. Show and tell the customer what you are doing as you press **# + #** to bypass the open sensor.
"Go ahead and disarm the system now. Then it's your turn to bypass a sensor."	4. Assist the customer in disarming the system if necessary (press the **# + 1** + the **access code**.
"I'm going to talk you through bypassing a sensor." "Arm the system to level 2, wait for the protest beeps, and press the pound sign (**#**) twice. This will bypass any open sensors."	5. Assist the customer as needed.
"Notice that the phone announced that a sensor is open." "Do you have any questions or do you want to try it again?"	

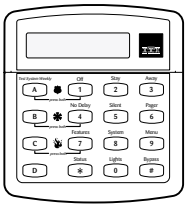
Checking the System Status

This task guides you through teaching the end user how to check the status of the Concord system.

Touchpad: Checking the System Status



Read This	Do This
"I'm going to show you how to check the status of your Concord system." "There are two ways to check the system status: a **short status** check and a **full status** check." "I'll show you how to make a short status check first."	1. Show and tell the customer as you press the **STATUS** button.
"Watch the touchpad display." "If your system is OK, that is, everything is right, it will display, 'SYSTEM IS OK.'" "If there are any system troubles, it will display the problem area."	
"It will also tell you if there were any recent alarms." "The speaker will give one, two, or three short beeps. This tells you the arming level." "Now, it's your turn to do a full status check."	
"Press the **STATUS** button twice. *(The second press should follow the first within 5 seconds.)*	2. Watch and assist the customer as necessary.
"What problems did the system report?"	



Full Status Check

Press the **STATUS** button twice. *(The second press should follow the first within 5 seconds.)*

The touchpad will display:

SYSTEM IS OK

or

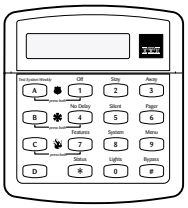
Any system troubles and the temperature if the ESM is installed.

or

Any recent alarms

You will hear:

ONE, TWO, OR THREE SHORT BEEPS INDICATING THE CURRENT ARMING LEVEL.



Recent Alarm Check

Enter **7** + **6**.

The touchpad will display:

ALARM MEMORY IS OK

or

Any recent alarms

You will hear:

ONE, TWO, OR THREE SHORT BEEPS INDICATING THE CURRENT ARMING LEVEL OR "*ALARM MEMORY IS OK*."

End-User Training Exercise

This exercise will familiarize you with teaching an end user how to use the Concord system.

Find a partner and take turns teaching each other how to perform the following user tasks. Use the script provided in this training module.

Tasks:

- How to arm and disarm the system from the wall-mounted touchpad
- How to bypass a sensor from the wall-mount touchpad
- How to check the system status from a touchpad

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