

# Advent™ Commercial Fire System

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**GE Interlogix**

## About This Manual

This manual provides information for planning, installing, programming, and testing an Advent Commercial security or fire system. When necessary, this manual refers you to other documentation included with compatible peripherals.

“Appendix A: System Configuration Worksheets” on page 63 are included for you to record hardware layout and software programming settings.

### About the User Guide

The *User Guide* contains user worksheets that should be filled out during the installation and programming of the system.

## Special Installation Requirements

### Commercial Fire Panel

The commercial fire panel can be used as a fire warning system and an intrusion alarm system. When using the commercial fire panel as both a fire warning and intrusion alarm system, follow the guidelines below:

- All aspects of fire and burglary applications must occur in separate partitions/areas.
- All onboard panel inputs and outputs must be used only for fire or burglary applications. Do not mix fire and burglary applications.
- Bus 1 and Bus 2 headers must be used only for fire or burglary applications. Do not mix fire and burglary applications on inputs and outputs of any bus device.
- Some installations may require configurations dictated by city/state codes, insurance, or Underwriter’s Laboratories (UL). See “*UL Listed Installations*” for various UL component and configuration listings.

## UL Listed Installations

This section describes the minimum requirements for different UL Listed installations.

### Basic System

- Commercial Fire (60-562-03 or 60-562-06) Control Panel
- SuperBus 2000 VFD (60-804-01) or LCD (60-803-01) Alphanumeric Touchpad
- 24 VAC output, 100 VA Class I, 110VAC, 60 Hz (60-830) or 24 VAC output, 100 VA Class II, 110VAC, 60 Hz (60-823) Line Carrier AC Power Transformer
- 17.2 AH or 18.0 AH Backup Battery(s) (60-781)
- Backup Battery Cable Assemblies (49-475 [red] and 49-476 [black])
- UL listed 4 ohm, 15W Speaker
- 2K ohm EOL Resistor(s) (49-467) or (49-454)

### Police Station Connected Burglary Alarm Units and Systems (UL 365)

The system Feature Numbers shall be set as follows in UL 365 listed systems:

**Table 1. UL 365 Listed System Settings**

Feature No.	Feature	Required Setting
xx002	Siren Time Out	16 min. minimum
xx003	Standard Entry Delay	45 sec. maximum
xx004	Exit Delay	60 sec. maximum
yy003	Number of Attempts	5 min. 10 maximum
yy004	Communication Format	0 Contact ID
xx088	Report Partition/Area Events to Central Station	1-On
xx092	Enable Auto Force Arming	0-Off
xx097	Exterior Arming Verification	0-Off
xx098	Audible Verification at Close Report	1-On
xx102	One-Time Reset Enabled	0-Off
xx108	Enable Daily Reporting of Partition Trouble	1-On
17034	Phone Test Interval	1 Day
17036	AC Stable Time	90 sec. maximum
17041	Hours to Delay Before Reporting AC Failure	8 hours (or less)
17049	RF Supervisory Time A	4 hours
17069	No Phone Line Attached	0-Off
17072	Enable RF Jam Detect	1-On
17073	Battery Test Interval	1=4 hours
17076	Commercial or Residential Installation	1-Commercial
17078	Detect Receiver Failure	1-On
17079	Alarm Messages Played at High Volume	1-On (High)
17096	Report System Events	1-On
47004	Zone Attributes (edit zones)	N/A

xx = Two digit partition number.  
yy = Two digit non-pager phone number.

### Local Burglar Alarm Units and Systems (UL 609)

#### System Setup and Programming

The system Feature Numbers shall be set as follows in UL 609 listed systems:

**Table 2. UL 609 Listed System Settings**

Feature No.	Feature	Required Setting
xx002	Siren Time Out	16 min. minimum
yy004	Communication Format	0 Contact ID
xx088	Report Partition/Area Events to Central Station	1-On
xx092	Enable Auto Force Arming	0-Off
xx097	Exterior Arming Verification	0-Off

**Table 2. UL 609 Listed System Settings (Continued)**

Feature No.	Feature	Required Setting
xx102	One-Time Reset Enabled	0-Off
17034	Phone Test Interval	1 Day
17036	AC Stable Time	90 sec. maximum
17041	Hours to Delay Before Reporting AC Failure	8 hours (or less)
17049	RF Supervisory Time A	4 hours
17069	No Phone Line Attached	0-Off
17072	Enable RF Jam Detect	1-On
17073	Battery Test Interval	1=4 hours
17076	Commercial or Residential Installation	1-Commercial
17078	Detect Receiver Failure	1-On
17079	Alarm Messages Played at High Volume	1-On (High)
17096	Report System Events	1-On
47004	Zone Attributes (edit zones)	N/A
xx = Two digit partition number. yy = Two digit non-pager phone number.		

**Control Units for Fire Protective Signaling Devices (UL 864)**

Basic system using:

- Commercial Fire (60-562-03 or 60-562-06) Control Panel
- 24 VAC output, 100 VA Class I, 110 VAC, 60 Hz (60-830) Line Carrier AC Power Transformer

plus:

- SuperBus 2000 Fire Alphanumeric Touchpad (60-810-04)
- SuperBus 2000 Dual Phone Line Module (60-768)
- UL 864 listed 4-8 ohm, 15W Speaker

Hardwire 2-Wire Smoke Detector (Compatibility Identifier #60-562, 20 per loop maximum.):

System Sensor models 2100S, 2100TS, 2100D, 2100TD, 2400, or 2400T added (learned) into

Zone Type 80

Sentrol models 429AT, 521B, or 521BXT added (learned) into Zone Type 80

**Table 3. UL 864 Listed System Settings**

Feature No.	Feature	Required Setting
xx002	Siren Time Out	6 min. minimum
yy004	Comm Format	0 Contact ID
xx081	Disable Siren	1-On
xx083	Tamper Signals from Fire Zones are Alarms	0-off
xx085	Enable Police Panic Keys	1-On
xx086	Enable Auxiliary/Medical Panic Keys	1-On

**Table 3. UL 864 Listed System Settings (Continued)**

Feature No.	Feature	Required Setting
xx087	Enable Fire Panic Keys	0-Off
xx088	Report Partition/Area Events to Central Station	1-On
xx091	Print Partition/Area Events	1-On
xx092	Enable Auto Force Arming	0-Off
xx097	Exterior Arming Verification	0-Off
xx102	One-Time Reset Enabled	0-Off
17034	Phone Test Interval	1 Day
17036	AC Stable Time	90 sec. maximum
17041	Hours to Delay Before Reporting AC Failure	8 hours (or less)
17049	RF Supervisory Time A	4 hours
17069	No Phone Line Attached	0-Off
17072	Enable RF Jam Detect	1-On
17073	Battery Test Interval	1-4 hours
17076	Commercial or Residential Installation	1-Commercial
17078	Detect Receiver Failure	1-On
17079	Alarm Messages Played at High Volume	1-On (High)
17084	First Disarm Silences Fire Alarm and Second Disarm Cancels the Alarm	1-On
17096	Report System Events	1-On
17099	Print System Events	1-On
17111	Time Fire Alarm is Silenced	30 sec. (or less)
17126	Unsilence Alarm after Silencing Period	1-On
47004	Zone Attributes (edit zones)	N/A
xx = Two digit partition number. yy = Two digit non-pager phone number.		

The basic system may also include:

- SuperBus 2000 Commercial RF Transceiver (60-856-95) for use with listed wireless signaling devices
- Wireless Smoke Sensor (60-849-01-95) added (learned) into Zone Type 80
- SuperBus 2000 Printer Automation Module (60-854) for use with a listed printer
- AL602 ITI NAC Power Supply (13-522)
- 24V Smoke Loop SnapCard (60-767)
- Universal Fire Transmitter (UFT) (60-917-95)

Zone Types 11 (Extended Entry/Exit Delay), 12 (Twice Extended Delay), 15 (Instant Interior), 17 (Instant Interior), 18 Instant Interior), 19 (Delayed Interior), 20 (Delayed Interior), 24 (Local Instant Auxiliary), and 25 (Local Special Chime) are not to be used as primary protection circuits in UL 864 listed systems and are for supplementary use only.

Zone Types 27, 28, and 32 (Custom Outputs) may not be used in UL 864 listed systems.

## Household Fire Warning System Units (UL 985)

Basic system, plus:

- Hardwire Smoke Detector (Compatibility Identifier 60-562, 20 per loop maximum):
  - System Sensor models 2100S, 2100TS, 2100D, 2100TD, 2400, or 2400TH added (learned) into Zone Type 80.
  - Sentrol models 429AT, 521B, or 521BXT added (learned) into Zone Type 80.

The basic system may also include:

- SuperBus 2000 RF Transceiver (60-821) for use with listed wireless signaling devices.
- Wireless Smoke Sensor (60-506-319.5 or 60-848-02-95) added (learned into Zone Type 80).
- SuperBus 2000 Printer Automation Module (60-783) for use with a listed printer.
- SuperBus 2000 Dual Phone Line Module (60-768) for expansion to primary and secondary phone line reporting.
- 24V Smoke Loop SnapCard (60-767).

### System Setup and Programming

The system Feature Numbers shall be set as follows in UL 985 listed systems:

**Table 4. UL 985 Listed System Settings**

Feature No.	Feature	Required Setting
xx002	Siren Time Out	4 min. minimum
xx003	Standard Entry Delay	45 sec. maximum
xx004	Exit Delay	60 sec. maximum
yy004	Communication Format	0 Contact ID
xx085	Enable Police Panic Keys	1-On
xx086	Enable Auxiliary/Medical Panic Keys	1-On
xx087	Enable Fire Panic Keys	1-On
xx088	Report Partition/Area Events to Central Station	1-On
xx092	Enable Auto Force Arming	0-Off
xx097	Exterior Arming Verification	0-Off
xx102	One-Time Reset Enabled	0-Off
xx108	Enable Daily Reporting of Partition Trouble	1-On
17036	AC Stable Time	90 sec. maximum
17041	Hours to Delay Before Reporting AC Failure	8 hours (or less)
17049	RF Supervisory Time A	4 hours
17069	No Phone Line Attached	0-Off
17072	Enable RF Jam Detect	1-On
17073	Battery Test Interval	1-4 hours
17076	Commercial or Residential Installation	0-Off Residential
17078	Detect Receiver Failure	1-On

**Table 4. UL 985 Listed System Settings (Continued)**

Feature No.	Feature	Required Setting
17079	Alarm Messages Play at High Volume	1-On High
17096	Report System Events	1-On
47004	Zone Attributes (edit zones)	N/A
xx = Two digit partition number. yy = Two digit non-pager phone number.		

## Household Burglar-Alarm System Units (UL 1023)

Basic system plus:

- Hardwire Magnetic Contact (13-068 or 13-071)

The basic system may also include:

- SuperBus 2000 RF Transceiver (60-821) for use with listed wireless signaling devices.
- Wireless Learn Mode Door/Window Sensor (60-362)
- SuperBus 2000 Printer or Automation Module (60-783) for use with a listed printer.
- SuperBus 2000 Dual Phone Line Module (60-768) for expansion to primary and secondary phone line reporting.

### System Setup and Programming

The system Feature Numbers shall be set as follows in UL 1023 listed systems:

**Table 5. UL 1023 Listed System Settings**

Feature No.	Feature	Required Setting
xx002	Siren Time Out	6 min. minimum
xx003	Standard Entry Delay	45 sec. maximum
xx004	Exit Delay	60 sec. maximum
yy004	Communication Format	0 Contact ID
xx088	Report Partition/Area Events to Central Station	1-On
xx092	Enable Auto Force Arming	0-Off
xx097	Exterior Arming Verification	0-Off
xx102	One-Time Reset Enabled	0-Off
xx108	Enable Daily Reporting of Partition Trouble	1-On
17036	AC Stable Time	90 sec. maximum
17041	Hours to Delay Before Reporting AC Failure	8 hours (or less)
17049	RF Supervisory Time A	4 hours
17069	No Phone Line Attached	0-Off
17072	Enable RF Jam Detect	1-On
17073	Battery Test Interval	1-4 hours
17076	Commercial or Residential Installation	0-Off Residential
17078	Detect Receiver Failure	1-On
17079	Alarm Messages Play at High Volume	1-On High
17096	Report System Events	1-On

**Table 5. UL 1023 Listed System Settings**

Feature No.	Feature	Required Setting
47004	Zone Attributes (edit sensors)	N/A
xx = Two digit partition number. yy = Two digit non-pager phone number.		

**Central Station Burglar-Alarm System Units (UL 1610)**

**System Setup and Programming**

The system Feature Numbers shall be set as follows in UL 1610 listed systems:

**Table 6. UL 1610 Listed System Settings**

Feature No.	Feature	Required Setting
xx002	Siren Time Out	16 min., minimum
xx003	Standard Entry Delay	45 sec., maximum
xx004	Exit Delay	60 sec., maximum
yy004	Communication Format	0 Contact ID
xx088	Report Partition/Area Events to Central Station	1-On
xx092	Enable Auto Force Arming	0-Off
xx097	Exterior Arming Verification	0-Off
xx098	Audible Verification at Close Report	1-On
xx102	One-Time Reset Enabled	0-Off
xx108	Enable Daily Reporting of Partition Trouble	1-On
17034	Phone Test Interval	1 Day
17036	AC Stable Time	90 sec. maximum
17041	Hours to Delay Before Reporting AC Failure	6-12 hours
17049	RF Supervisory Time A	4 hours
17069	No Phone Line Attached	0-Off
17072	Enable RF Jam Detect	1-On
17073	Battery Test Interval	1-4 hours
17076	Commercial or Residential Installation	1-Commercial
17078	Detect Receiver Failure	1-On
17079	Alarm Messages Play at High Volume	1-On High
17096	Report System Events	1-On
47004	Zone Attributes (edit zones)	N/A
xx = Two digit partition number. yy = Two digit non-pager phone number.		

**Digital Alarm Communicator System Units (UL 1635)**

Same as UL 1610 plus:

- A UL Listed Exterior Siren

**Central Station Reporting**

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

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

**CSA Certified Accessories**

**California State Fire Marshall Listed Installations**

The California State Fire Marshall listing has been approved.

- ZONE ATTRIBUTES attribute 4 must be set to off (47004)

**Planning the Installation**

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

**Note**

It is recommended that no more than 250 wireless fire sensors (60-849-01-95 or 60-917-95 only) and a maximum of 132 of all other wireless sensors be used on 250 zone Advent systems. If 2 Advent systems are in close proximity the total number of wireless sensors for all systems must not exceed 250 wireless fire sensors or 132 of all other sensors.

**Panel Types**

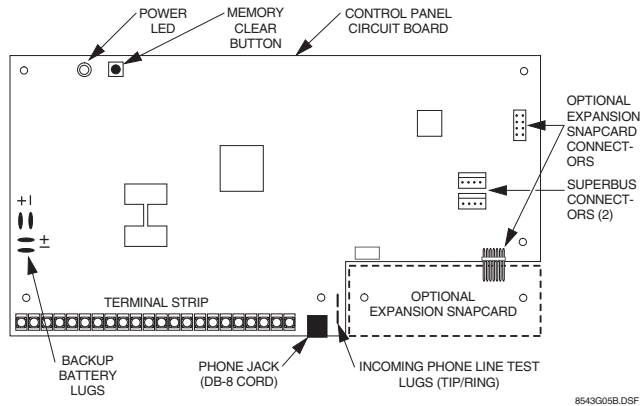
To start planing the installation, find your specific panel type below. The panel type will help determine the system capabilities (dependent upon devices used).

**Table 7. Advent Commercial Panel Types**

Part Number	Description	Partitions/Areas	Users	Input Zones	LEDs
250Z, 60-562-03	Commercial Fire Panel. UL Listings include 864, 365, 609, 985, 1023, 1610, and 1635. Red enclosure.	8	250	250	512
132Z, 60-562-06		4	100	132	256

**Panel Components**

Before installing devices and making wiring connections, familiarize yourself with the main panel components. Figure 1 shows the main component locations for the circuit board.



**Figure 1. Circuit Board Main Components**

### Panel Terminals

Table 8 describes each of the control panel terminals. Typical system wiring diagrams are provided on the last page of this manual.

**Note**

A) Class 2, Class 3, and power-limited fire alarm circuits must be installed using FPL, FPLR, FPLP, or substitute cable permitted by the National Electrical Code ANSI/NFPA 70. Wire that extends beyond the cable jacket must be separated from all other conductors by a minimum of ¼-inch or by a nonconductive barrier.

OR

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

**Table 8. Panel Terminal Strip Connections**

Terminal	Name	Used for
1	24 VAC	24 VAC, 100 VA power transformer connection.
2	24 VAC	24 VAC, 100 VA power transformer connection.
3	GND	Common ground connection for sirens, general purpose outputs 1-6, etc.
4	+12 VDC	Interior bell (+), and misc. DC power supply, 12 VDC @ 5.0A maximum load (includes Bus 1, Bus 2 headers, and SnapCards) Current limited.
5	INT BELL	Negative (-) side of bell connection. 12 VDC @ 150mA (sink) maximum. Positive (+) side to +12 VDC terminal 4. Connect multiple interior bells in parallel. See Note 1
6	EXT SIREN RTN	Negative (-) external siren drive return connection. See Note 1
7	EXT SIREN OUT	Positive (+) external siren drive output connection. 30 VDC @ 2.5A maximum load. See Note 1
8	EXT SIREN IN	Positive (+) external siren drive input connection. 30 VDC @ 2.5A or 70 VAC @ 500 mA maximum. Normally connected to +12 VDC terminal 4 or other siren voltage source. See Note 1

**Table 8. Panel Terminal Strip Connections**

Terminal	Name	Used for
9	VOICE SIREN	One side of voice siren (speaker) connection. Other side to VOICE SIREN terminal 10. See Note 2
10	VOICE SIREN	One side of voice siren (speaker) connection. Other side to VOICE SIREN terminal 9. See Note 2
11	ZONE COM	Common return connection for general purpose inputs 1-7, sensors, etc.
12	GPI/O 1	General purpose hardwire input. GPI/Os 1-6 can be programmed for use as a hardwire contact input (2.0K ohm EOL resistor) or a control relay driver output (200 mA sink at 12 VDC maximum).
13	GPI/O 2	
14	GPI/O 3	
15	GPI/O 4	
16	GPI/O 5	
17	GPI/O 6	
18	INPUT 7	Hardwire input 7.
19	Unused	
20	GND	Common ground
21	+SMOKE (+12V DC SW)	Positive (+) side of 2-wire, 12 VDC smoke loop. (Smoke and heat sensor DC power supply.) Switched 12 VDC @ 100 mA maximum (in alarm).
22	-SMOKE	Negative (-) side of 2-wire, 12 VDC smoke loop.
Backup Battery 1	+RED	Positive (+) side of panel backup battery one. 12V @ 1.6A source maximum. Source current limited.
	-BLACK	Negative (-) side of panel backup battery one.
Backup Battery 2	+RED	Positive (+) side of panel backup battery two. Source current limited.
	-BLACK	Negative (-) side of panel backup battery two.
<b>Note 1</b> For supplementary use only.		
<b>Note 2</b> Four to eight ohm maximum load between terminals 9 and 10.		

### Panel Accessory Kit

The components listed in Table 9 are included in the panel accessory kit.

**Table 9. Panel Accessory Kit**

Part No.	Description	Qty.
01-022	2K-ohm, ¼-watt EOL Resistor	9
17-101	220 MF, 35 V Non-polarized Capacitor	5
31-347	Fast-On Connector for battery cables	4
40-415	Self-tapping screws for mounting modules	18
40-577	Lock and keys for panel cabinet	1
40-582	6-32 x ¼ green self-tapping screw for ground connection on lower-left board	1
40-588	Protective adhesive pads for side-mounted SnapCards	2
49-442	DB-8 phone cord	1
49-462	SuperBus header cable	2

**Table 9. Panel Accessory Kit**

Part No.	Description	Qty.
49-467	2K-ohm EOL resistor assembly for use in UL listed installations	9
49-475	Red battery cable	2
49-475	Black battery cable	2

### BUS Device Headers

Both bus device headers allow you to use SuperBus 2000 touchpads, modules, and devices. Each header can handle up to 31 devices for a total of 62 devices per panel. Table 10 describes the bus device headers. Use Table A.8 on page 67 to record all SuperBus device information.

#### Important !

Use the SuperBus connectors (BUS 1 and BUS 2) headers for either fire or burglary applications. Do not mix fire and burglary bus devices on either header.

All bus device inputs and outputs must be used for either fire or burglary applications. Do not mix fire and burglary applications on inputs and outputs of any bus device.

**Table 10. BUS 1 and BUS 2 Headers**

Pin	Name	Used for
1 (Red)	+12V DC	SuperBus DC power supply. 12 VDC @ 650 mA maximum. Current limited.
2 (Green)	BUS A	SuperBus communication connection.
3 (White)	BUS B	
4 (Black)	GND	SuperBus common ground connection.

### Panel Devices

Devices that you can attach to the panel include SuperBus 2000 modules and SnapCards.

#### SuperBus 2000 Touchpads

The following touchpads provide complete system programming and operational control.

- SuperBus 2000 2x20 LCD Touchpad:** Provides system programming and operation control. Large display shows system messages that prompt users for information when needed and indicates system status. (60-803-01)
- SuperBus 2000 2x20 VFD Touchpad:** Provides system programming and operation control. Large fluorescent display shows system messages that prompt users for information when needed and indicates system status. (60-804-01)
- SuperBus 2000 2x20 VFD Fire Touchpad (Commercial Fire Panels Only):** Provides system programming and operation control. Large fluorescent display shows system messages that prompt users for information when needed and indicates system status. (60-810-04)

#### SuperBus 2000 Modules

The following modules expand the system as described below:

- SuperBus 2000 Commercial RF Transceiver Module:** The transceiver enables the use of wireless zones. When the transceiver is installed you may use a combination of wireless and hardwire zones to reach the panel maximum.

- SuperBus 2000 8Z Input Module (HIM):** Provides eight additional hardwire zone inputs.
- SuperBus 2000 4-Relay Output Module (HOM):** Provides four form C relay outputs that can be set up to activate other signalling devices, based on system events.
- SuperBus 2000 Dual Phone Line Module:** Allows for the use of two phone lines. In the event a primary phone line fails, a secondary line will be used.
- SuperBus 2000 Printer Module:** Allows you to connect a printer to the panel.
- SuperBus 2000 RS-232 Automation Module \* :** The SuperBus 2000 RS-232 Automation module allows you to connect an Advent panel to a compatible automation system. Once connected, the module will enable the automation system to interpret panel system status.
- SuperBus 2000 LED Display Module (LED Driver Board) \* :** Uses LEDs to display system and devices status. Up to 16 SuperBus 2000 LED display or terminal boards may be connected to one driver board.
- Voice Siren 25/70 Volt Converter Card \* :** Adds high voltage siren audio output capability to fire panels.

### SnapCards

The following SnapCards expand the system as described:

- 8Z Input SnapCard<sup>+</sup>:** Provides eight additional hardwire zone inputs, of which two are dedicated for using 2-wire smoke detectors.
- 4 Output SnapCard:** Provides four form C relay outputs that can be set up to activate other signalling devices, based on system events, schedules, or direct control.
- 4Z Input/2 Output Combo SnapCard<sup>+</sup>:** Provides three hardwire zone inputs, one two wire smoke detector loop, and two outputs that can be set up to activate other signalling devices, based on system events, schedules, or direct control.
- 24V Smoke Loop SnapCard:** Adds 24 volt, 2-wire smoke detector capability to the panel.

#### Note

If the 24V Smoke Loop SnapCard is used, the panel and snapcard 2-wire smoke loops are not compatible with the Sentrol (ESL) 429AT smoke detector.

## Installing the System

This section describes how to install the system control panel. Before starting the installation, plan your system layout and programming using the worksheets provided in “Appendix A” on page 63.

Installing the system consists of the following:

- Determining the Panel Location
- Running Wires to the Panel Location
  - System Wire Lengths
- Mounting the Panel (page 8)
- Installing Optional SnapCards (page 8)
- Connecting SuperBus 2000 Modules and Touchpads (page 9)
- Connecting Detection Devices to Panel Zone Inputs (page 12)

\*) Not investigated by UL.

+) Residential use only.



- Connecting Speakers (page 12)
- Connecting Sirens (page 13)
- Connecting Commercial Fire Devices (page 13)
- Installing an RJ-31X Phone Jack (page 13)
- Connecting the Phone Line to the Panel with a DB-8 Cord (page 14)
- Mounting/Connecting an AC Power Transformer (page 14)
- Installing the Backup Battery(s) (page 15)
- Powering Up the Panel (page 15)

## Determining the Panel Location

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

- Centrally locate the panel in relation to detection devices whenever possible to help reduce wire run lengths and labor.
- Avoid running wires parallel with electrical wiring, or fixtures such as fluorescent lighting, to prevent wire runs from picking up electrical noise.
- Locate the panel where the temperature will not exceed 120°F (49°C) or fall below 32°F (0°C).
- If optional wireless transceiver module is used, avoid locations near excessive metal such as 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 to the bottom of the panel, as shown in Figure 2).
- Allow 6.5-inches 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 to panel components.

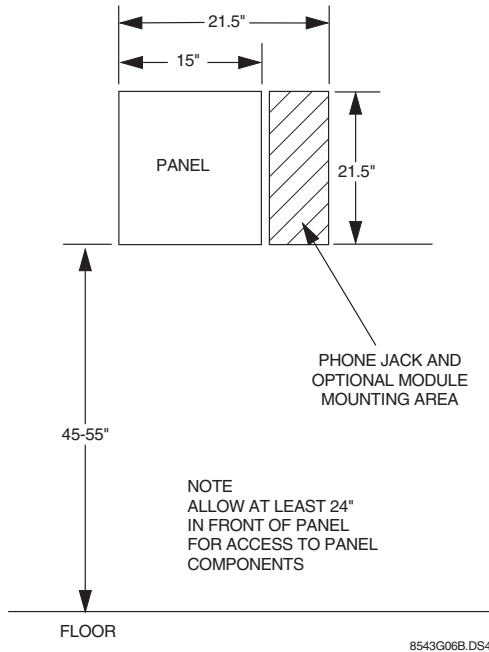


Figure 2. Determining Panel Location

## Running Wires to the Panel Location

Once you have determined the best possible panel location, run any necessary wires for the:

- Power transformer
- Phone line(s)
- Sirens/speakers
- SuperBus 2000 alphanumeric touchpads
- Hardwired zones
- Output devices
- Optional SuperBus 2000 modules (such as Dual Phone Line, Printer Modules, etc.)

## System Wire Lengths

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

- Table 11 describes wiring recommendations for various panel components.

For devices where no recommended wire lengths are stated, or several devices share the same wire runs to the panel, please see Table A.2 on page 64 to determine wire lengths based on current draw and resistance.

- Use 18-gauge wire for all commercial installations.
- Listed auxiliary power supplies may be used to reach the 4000ft maximum wire length. Please see Table A.2 page 64 to determine wire lengths based on the module(s) used.

Table 11. Wire Recommendations

Device	Max. Wire Length to Panel	Wire Type
AC Power Transformer	2-conductor, 18-gauge (located in cabinet)	Solid or Stranded
Earth Ground	Single conductor, 14-gauge, 25 feet maximum	Solid or Stranded
Telephone	Phone grade, 22-gauge	Solid or Stranded
Detection Devices	2- or 4-conductor, 22-gauge, 50-ohms resistance per zone including device	Solid or Stranded
Output Devices	18-gauge, 500 feet maximum	Solid or Stranded
2-Wire Smoke Detectors	25-ohms per zone (including detection device resistance)	Solid or Stranded
Sirens, Piezos, and Speakers	2-conductor, 18-gauge, 500 feet maximum	Solid or Stranded
SuperBus 2000 2x20 LCD Alphanumeric Touchpad	22 ga.—500 ft. 18 ga.—1300 ft.	Solid or Stranded
SuperBus 2000 2x20 VFD Alphanumeric Touchpad	22 ga.—500 ft. 18 ga.—1300 ft.	Solid or Stranded
*) Not investigated by UL.		

**Table 11. Wire Recommendations (Continued)**

Device	Max. Wire Length to Panel	Wire Type
SuperBus 2000 Commercial RF Transceiver	22 ga.—1250 ft. 18 ga.—3000 ft.	Solid or Stranded
SuperBus 2000 8Z Input Module	22 ga.—1750 ft. 18 ga.—4000 ft.	Solid or Stranded
SuperBus 2000 4-Relay Output Module	22 ga.—200 ft. 18 ga.—500 ft.	Solid or Stranded
SuperBus 2000 Dual Phone Line Module	22 ga.—350 ft. 18 ga.—900 ft.	Solid or Stranded
SuperBus 2000 Printer Module	22 ga.—1500 ft. 18 ga.—4000 ft.	Solid or Stranded
SuperBus 2000 RS 232 Automation Module*	22 ga.—1500 ft. 18 ga.—4000 ft.	Solid or Stranded
SuperBus 2000 LED Driver Board*	22 ga.—75 ft. 18 ga.—200 ft.	Solid or Stranded
4 Input/2 Output SnapCard	N/A	N/A
8Z Hardwire Zone Expander SnapCard	N/A	N/A
4 Output SnapCard	N/A	N/A

\*) Not investigated by UL.

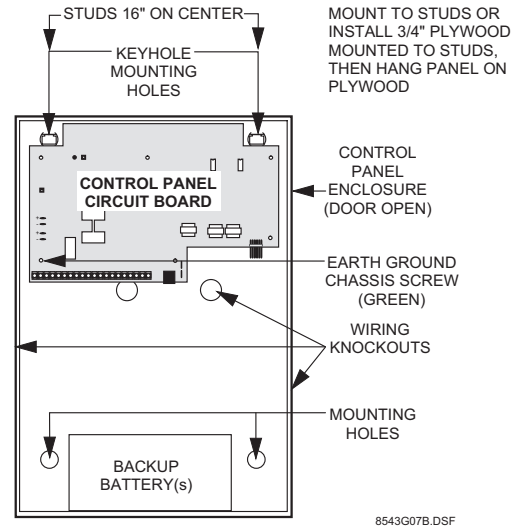
### Mounting the Panel

Use the following procedure to mount the panel to the wall or wall studs using the supplied mounting hardware and the panel mounting holes shown in Figure 3.

**CAUTION**

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

1. Open the panel door and remove the panel circuit board, accessory kit, and packing material.
2. Carefully remove the circuit board from the packing and put it in a safe static free location.
3. Remove the desired panel wiring knockouts.
4. Mount the optional key lock (if used) into the panel door.
5. Place the enclosure in position against the wall. Make sure enclosure is level and mark the locations of the two mounting holes and two keyhole mounting holes. Remember to leave room near the enclosure for any optional modules.
6. Use the appropriate mounting anchors and screws for your application. Partially insert screws into the two anchors at the two top keyhole locations, and then hang the panel chassis on the two screws.
7. Recheck level, insert the two lower screws, and then tighten all four mounting screws.
8. Route all wires to the panel.
9. Install the panel circuit board, using the five supplied board mounting screws.



**Figure 3. Mounting the Panel and Circuit Board**

### Installing Optional Panel Snapcards

- 8Z Input SnapCard (60-757) \*
- 4 Output SnapCard (60-758)
- 4Z Input/2 Output Combo SnapCard (60-756)<sup>+</sup>
- 24V Smoke Loop SnapCard (60-767)

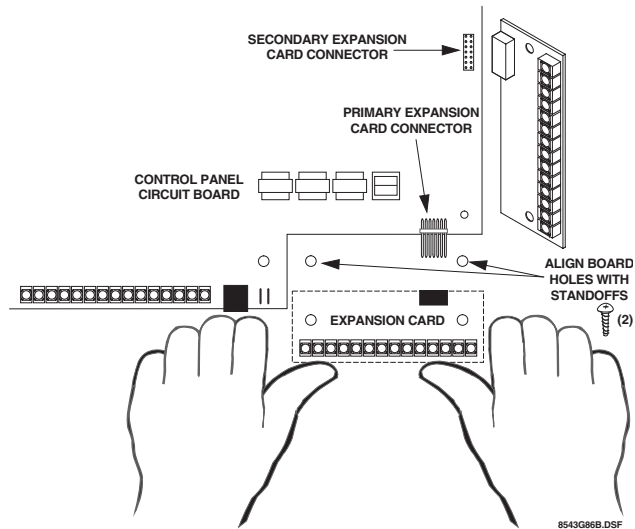
The SnapCard Connectors shown in Figure 4 allow for the installation of two expansion SnapCards.

Carefully install a SnapCard onto the desired SnapCard Connector and secure it in place with the two screws included with the card.

**Note**

If installing 24V Smoke Loop SnapCard in the primary expansion card connector slot, you will not be able to use the panel cabinet knockouts behind and to the right of the card. Whenever possible install this card into the secondary expansion card connector slot.

\*) For Residential Use Only.



**Figure 4. Installing an Expansion SnapCard into one of the two SnapCard Connectors**

Connect all necessary input and/or output wiring using the *Installation Instructions* included with the SnapCard(s).

**Note**

Once the 24V Smoke Loop SnapCard is installed, the panel onboard smoke loop becomes a 24V smoke loop (panel terminals 21 and 22).

If the 24V Smoke Loop SnapCard is used, the panel and snapcard 2-wire smoke loops are not compatible with the Sentrol (ESL) 429AT smoke detector.

**Connecting SuperBus 2000 Modules and Touchpads**

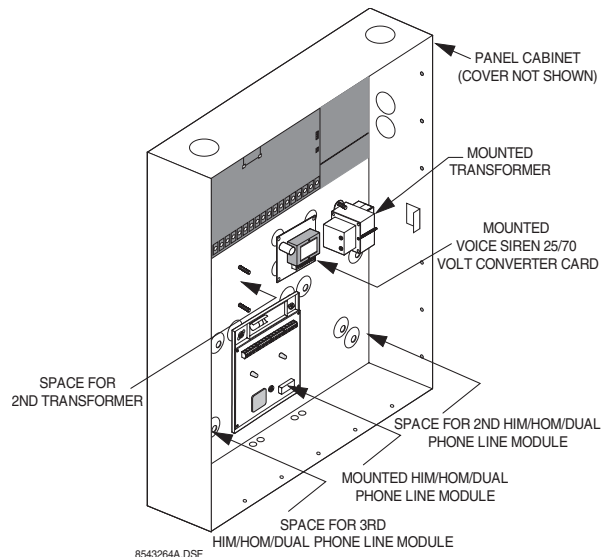
Up to 31 SuperBus 2000 devices (combinations of touchpads and modules) can be used on each of the two SuperBus connectors for a total of up to 62 devices. These modules connect to the panel via a 4-wire digital data bus and may be located inside, next to, or away from the panel cabinet (see Figure 5). The panel cabinet may accommodate up to:

- 3 SuperBus 2000 HIM/HOM modules,
- 1 Voice Siren 25/70 Volt Converter Card,
- and 2 AC Power Transformers.

To wire SuperBus 2000 devices to the SuperBus connectors you must use the Panel SuperBus Wiring Harnesses (49-462) included with the accessory kit. You must splice all SuperBus 2000 module and touchpad wiring to the wires on these harnesses. Both SuperBus connectors are the same, and any combination of SuperBus devices (up to 31) may be wired to either connector. When all of the SuperBus 2000 devices are wired, plug each wiring harness into a SuperBus connector.

**Note**

The +12 VDC (RED) lead on the SuperBus wiring harness is current limited to 650 mA. If the total current draw for all devices on either SuperBus connector exceeds 650 mA, another power source must be used—such as Terminal 4 (+12V) or an external + 12V power supply.



**Figure 5. Mounting Devices in Panel Cabinet**

**Important !**

Use the SuperBus connectors (BUS 1 and BUS 2) headers for either fire or burglary applications. Do not mix fire and burglary bus devices on either header. All bus device inputs and outputs must be used for either fire or burglary applications. Do not mix fire and burglary applications on inputs and outputs of any bus device.

**SuperBus 2000 Touchpads**

- 2x20 LCD Alphanumeric Touchpad (60-803-01)
- 2x20 VFD Alphanumeric Touchpad (60-804-01)
- 2x20 VFD Fire Alphanumeric Touchpad (60-810-04) (Commercial Fire Panels Only)

Connect SuperBus 2000 touchpads to the desired SuperBus connector as shown in Figure 6. For mounting instructions please see the specific touchpad *Installation Instructions*.

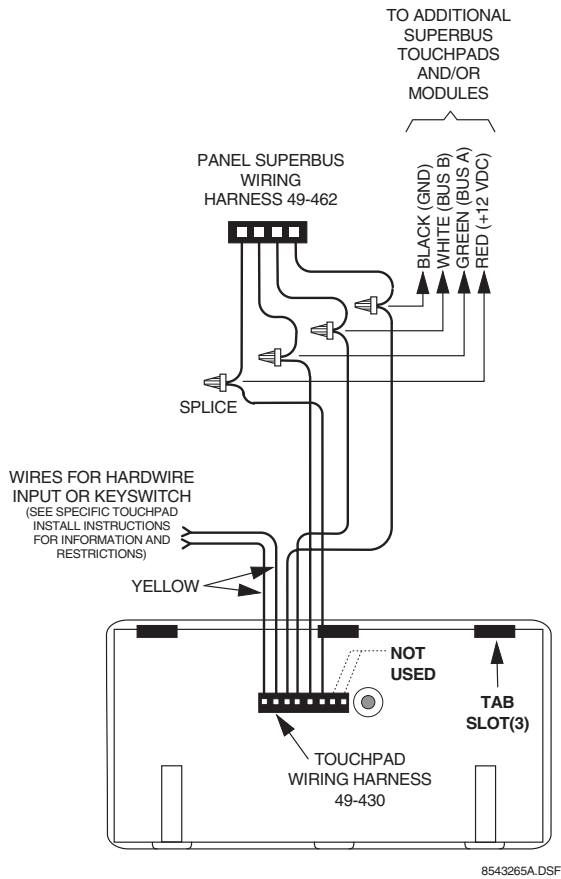


Figure 6. Connecting SuperBus 2000 Alphanumeric touchpads

## SuperBus 2000 Modules

### Commercial RF Transceiver Module

- Commercial RF Transceiver Module in Plastic Case (60-821-95)
- Commercial RF Transceiver Module in Metal Case (60-856-95)

#### Note

For Commercial Fire installations the Commercial Transceiver Module in the Metal Case (60-856-95) must be used.

Connect the transceiver to the panel as shown in Figure 7.

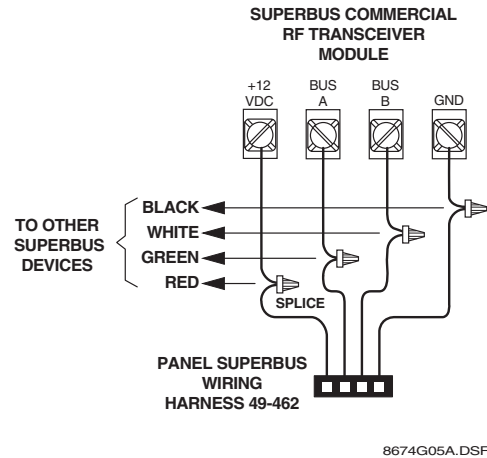


Figure 7. Connecting SuperBus 2000 Commercial RF Transceiver module

### 8Z Input Module (60-774)

Connect the SuperBus 2000 8Z Input Module to the panel as shown in Figure 8. Connect all necessary input wiring using the *Installation Instructions* included with the module.

#### Important !

For proper UL 864 compliance, all 8 inputs (terminals 1 through 12) shall be one of the following:

1. Security intrusion connections or,
2. fire device connections.

Combining security and fire connections on these terminals is not approved for UL 864 by the manufacturer.

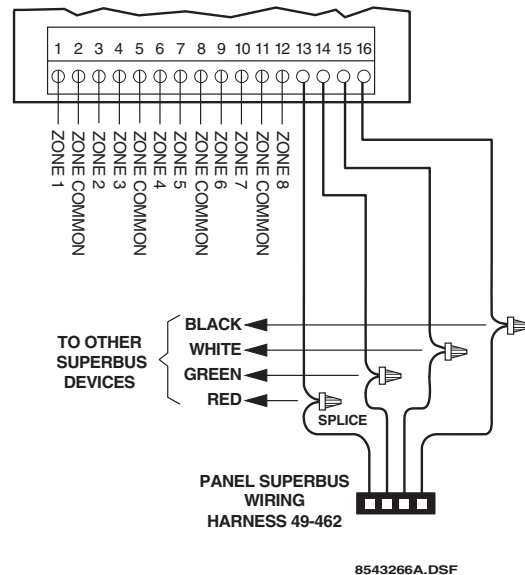


Figure 8. Connecting a SuperBus 2000 8Z Input Module

### 4-Relay Output Module (60-770)

Connect the SuperBus 2000 4-Relay Output Module to the panel as shown in Figure 9. Connect all necessary output

wiring using the *Installation Instructions* included with the module.

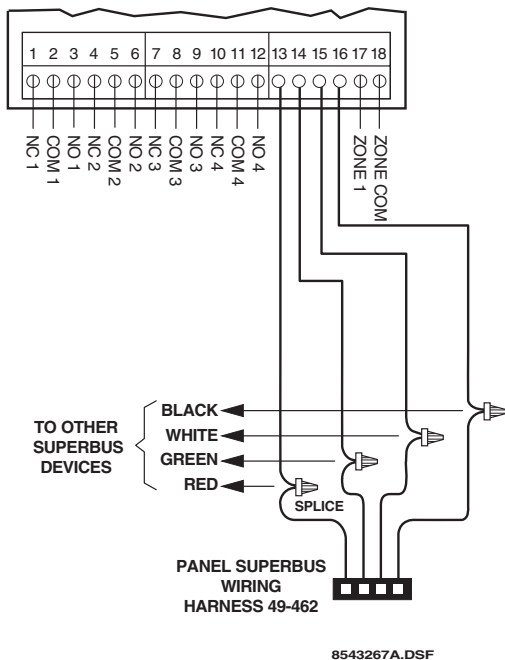


Figure 9. Connecting a 4-Relay Output Module

### Dual Phone Line Module (60-768)

Connect the SuperBus 2000 Dual Phone Line Module to the panel as shown in Figure 10. Connect all other phone wiring using the *Installation Instructions* included with the module.

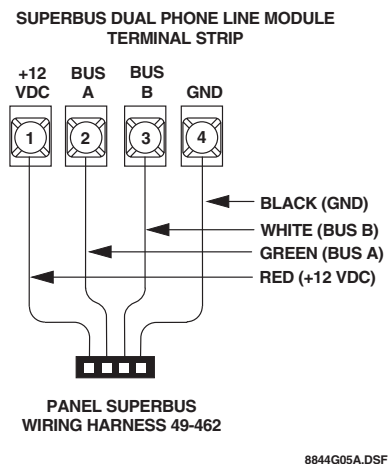


Figure 10. Connecting a SuperBus 2000 Dual Phone Line Module

### Printer Module

- Printer Module in Plastic Case (60-783)
- Printer Module in Metal Case (60-854)

**Note**

For Commercial Fire installations the Printer Module in the Metal Case (60-854) must be used.

Connect the SuperBus 2000 Printer Module to the panel as shown in Figure 11. Connect all other printer wiring using the *Installation Instructions* included with the module.

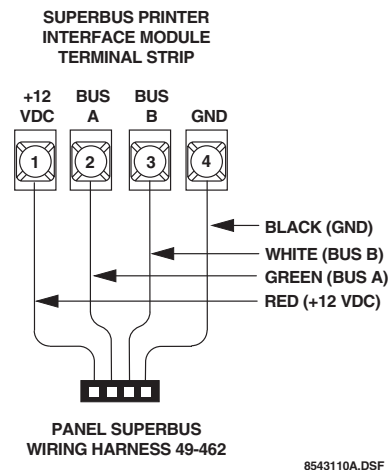


Figure 11. Connecting a SuperBus 2000 Printer Module

### RS-232 Automation Module\* (60-783-02)

Connect the SuperBus 2000 RS-232 Automation Module to the panel as shown in Figure 12. For all other connections please see the module *Installation Instructions*.

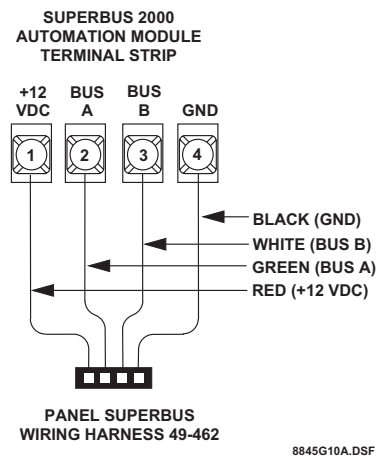


Figure 12. Connecting a RS-232 Automation Module

### LED Module (Driver Board)\* (60-870)

Connect the LED driver board to the panel as shown in Figure 13. For programming instructions please see “Program LED Module” on page 41. For information on connecting display and terminal boards please see the module *Installation Instructions*.

\*) Not investigated by UL.

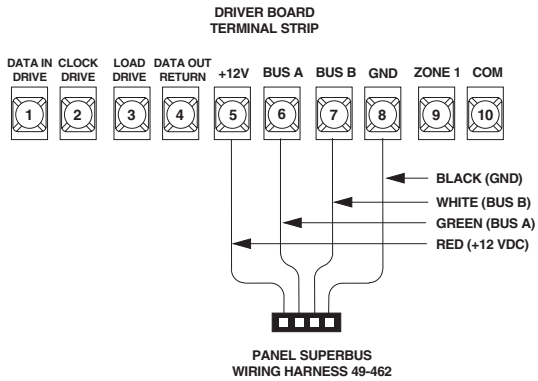


Figure 13. Connecting an LED Module (Driver Board)

### Voice Siren 25/70 Volt Converter Card (60-773)\*

Mount the card in the panel cabinet in the area shown in Figure 5, and as described in the specific *Installation Instructions*. Wire the card to the panel and speakers as shown in Figure 14.

**Note**

70 volt wiring and supervision is shown. For 25 volt wiring, connect speakers to COMMON and 25V terminals, then jump +SUPERVISION to 25V terminal.

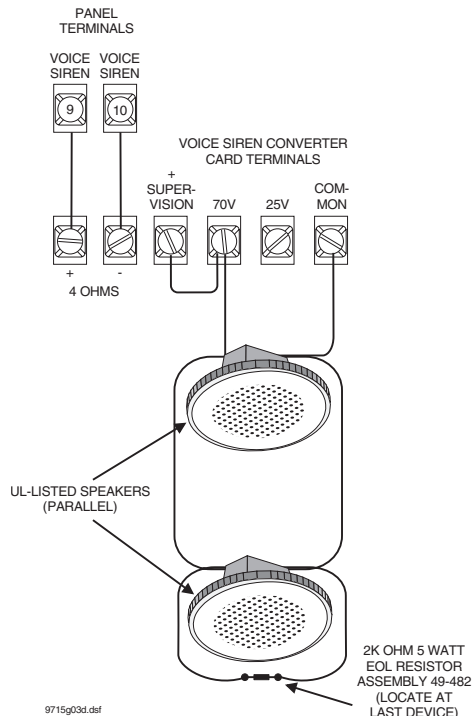


Figure 14. Connecting the Voice Siren 25/70 Volt Converter Card

**Note**

Separate in and out conductors must be used at each speaker. Do not loop a single wire around each terminal.

\*) Not investigated by UL.

## Connecting Detection Devices to Panel Zone Inputs

**Important !**

Use onboard panel inputs and outputs for all fire applications only. Do not mix fire and burglary circuits.

### Connecting 2-Wire Smoke Detectors

Panel terminals 21 and 22 are set up to accept the following 12 VDC 2-wire smoke detectors.

- *System Sensor* models 2100S, 2100TS, 2100D, 2100TD, 2400, or 2400TH.
- *Sentrol (ESL)* models 429AT, 521B, or 521BXT

Panel terminals 21 and 22 can handle up to 20 smoke detectors with 120 uA maximum idle current per detector. Maximum total loop current in alarm condition is 100 mA.

Connect one or more 2-wire smoke detectors to the panel as shown in Figure 15.

**Note**

If the 24V Smoke Loop SnapCard is used, the panel and snapcard 2-wire smoke loops are not compatible with the Sentrol (ESL) 429AT smoke detector.

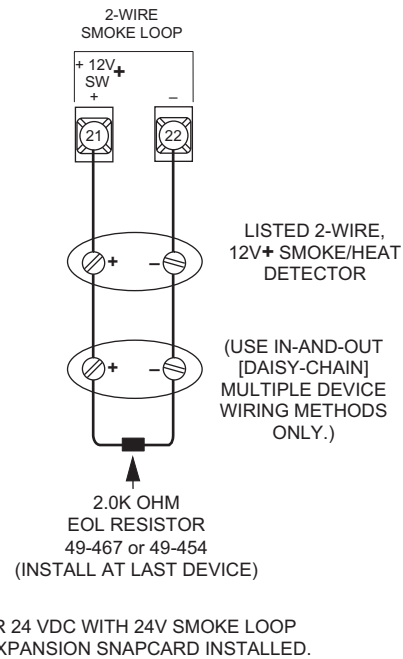


Figure 15. Connecting 2-Wire Smoke Detectors

## Connecting Speakers

The panel provides one speaker driver output for intrusion (steady), fire (temporal 3), and auxiliary (on-off-on-off) alarm sounds.

The output can drive a single 8-ohm speaker or multiple speaker circuit of 4- to 8-ohms (as shown in the following speaker wiring diagrams). Comparable speakers are described below and on the following page.

**CAUTION**

To avoid damage the panel speaker output, do not make speaker connections with the panel powered up.

## UL Listed Speaker

Use a UL listed 4-8 ohm, 30 watt speaker for siren applications such as status and a voice alarm annunciation speaker for voice. When wiring multiple speakers, the total impedance must be between 4 and 8 ohms. Connect the speaker(s) to the panel as shown in Figure 16. For mounting instructions please refer to the *Installation Instructions* included with the speaker.

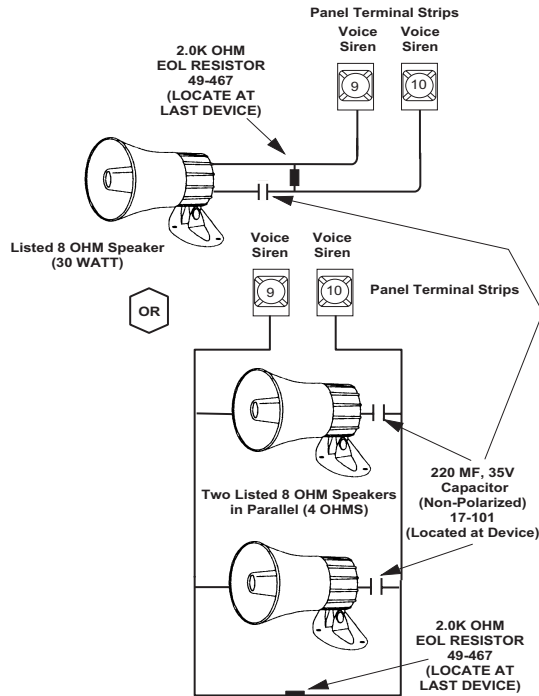


Figure 16. Connecting 15- and 30-Watt Interior Speakers

## Connecting Sirens

Connect a exterior siren to the panel as shown in Figure 17.

### Note

This siren is for supplementary use only.

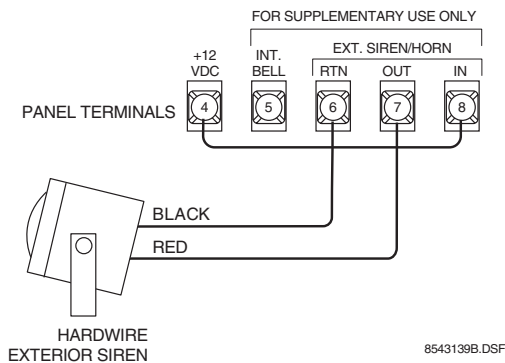


Figure 17. Connecting the Hardwire Exterior siren to the panel.

## Connecting Commercial Fire Devices

For information on connecting commercial fire devices please see Appendix C on page 109.

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

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

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

### Note

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

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

### Note

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

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

1. Run a 4-conductor cable from the TELCO protector block to the jack location (see Figure 18).
2. Connect one end of the cable to the jack.
3. At the TELCO protector block, remove the premises phone lines (lines from phone jacks on premises) from the block and splice them to the black and white (or yellow) wires of the 4-conductor cable.
4. Connect the green and red wires from the 4-conductor cable to the A (+) and B (-) posts on the block (see Figure 18).
5. If desired, add phone jack tamper by splicing the black and yellow phone jack wires to the panel terminals and adding a 2.0K ohm EOL resistor between the blue and orange phone jack terminals as shown in Figure 18.
6. Check the phones on the premises for dial tone and the ability to dial out and make phone calls. If phones do not work correctly, check all wiring and correct where necessary. Proceed to "Troubleshooting" on page 55 if problems persist.

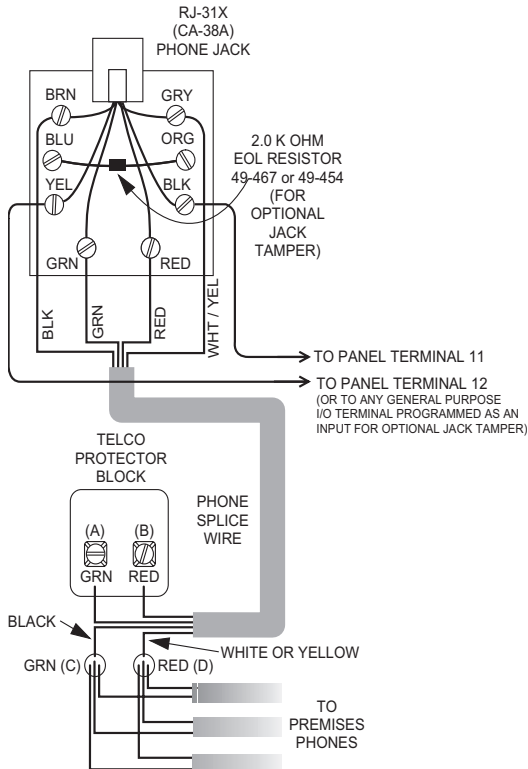


Figure 18. Installing an RJ-31X Phone Jack

## Connecting the Phone Line to the Panel with a DB-8 Cord (49-442)

After installing the RJ-31X jack, you are ready to connect the phone line to the panel.

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

1. Insert one end of the DB-8 cord plug into the RJ-31X (see Figure 19).
2. Insert the other end of the DB-8 cord plug into the phone jack on the Advent panel circuit board (see Figure 19).
3. Check the phones on the premises for dial tone and the ability to dial out and make phone calls. If phones do not work correctly, check all wiring and correct where necessary. Proceed to “Troubleshooting” on page 55 if problems persist.

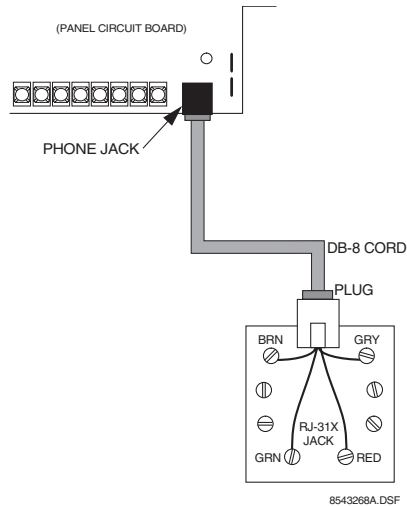


Figure 19. Connecting the DB-8 Cord to the Panel and RJ-31X Jack

## Mounting/Connecting an AC Power Transformer

Use the following AC power transformer with Advent Fire panels:

- 24 VAC output, 100 VA Class I, 110VAC, 60 Hz (60-830)
- 24 VAC output, 100 VA Class II, 110VAC, 60 Hz (60-823) Line Carrier AC Power Transformer

### Note

For UL 864 Advent Fire panel installations the 24 VAC, 100 VA Class I AC transformer is required.

1. Mount the transformer in the cabinet at one of the two locations shown in Figure 5.

### Note

Transformer load (secondary) terminals must face the center of the enclosure.

2. Secure the transformer to the cabinet using the threaded standoffs and supplied hex nuts.
3. Route the AC power transformer cord or wires through one of the knockouts.

### Note

The AC supply is non-power limited. It must be separated from all power limited wiring in the cabinet by at least 0.25” and wired using a separate knockout.



4. Wire the AC power transformer to the panel as shown in Figure 20.

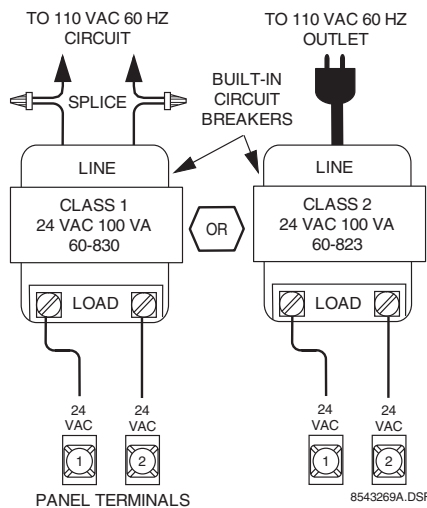


Figure 20. Wiring an AC Power Transformer to the Panel

## Installing Panel Backup Battery(s)

The panel uses from one to three rechargeable, sealed 12V lead-acid backup batteries (60-781).

### Note

When replacing batteries, always replace with the same battery type and size.

### To install (or replace) backup battery(s):

1. Make sure the panel AC power is off or disconnected.



### CAUTION

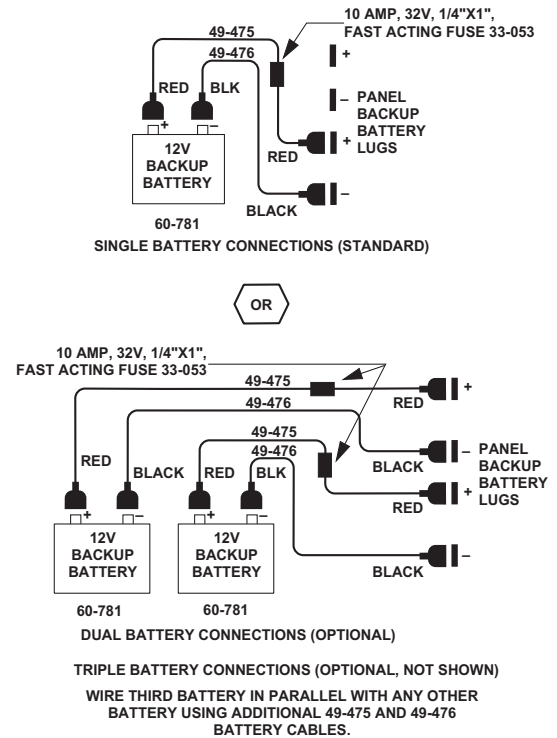
While AC power is applied to the panel, the charging voltage is present at the battery leads.

2. Verify all wiring at the panel and devices for correct terminations.
3. Place the battery in the lower left or right portion of the panel enclosure, with the terminals facing up.
4. Connect the black battery wire(s) from the panel circuit board negative (-) battery spade lug(s) (located on the left side of the board) to the negative (-) battery terminal (Figure 21).
5. Connect the red battery wire(s) from the panel circuit board positive (+) battery spade lug(s) to the positive (+) battery terminal.
6. On three battery installations, wire the third battery in parallel (positive to positive and negative to negative) with either of the two sets of battery spade lugs on the panel.



### WARNING

Never short-circuit or reverse the battery wires. Possible injury to you and/or permanent damage to the panel and battery could result.



8543279A.DSF

Figure 21. Connecting Backup Battery(s)

## Powering Up the Panel

After connecting and wiring all devices to the panel, you are ready to power up the panel.

### To power up the panel:

1. If you have not already done so, connect the backup battery(s).
2. Depending on your transformer,
  - Plug the transformer into an outlet not controlled by a switch,
  - or apply power to the circuit which the transformer is connected to.
3. Wait about 30 seconds and note the following:
  - The green power LED (located on the circuit board) turns and stays on.
  - Alphanumeric touchpads should display “Partition 1 Security is Off.”

### Note

If the power LED is off or flashing, or if touchpads don't display anything, remove panel power, disconnect the backup battery(s) and see “Troubleshooting” on page 55.

## Programming the Panel

The panel can be programmed using downloader software (on site only) or an alphanumeric touchpad connected to the panel. The system interface is menu-driven and self-prompting. It will automatically request access codes and data if required.

## Using the Downloader Software to Program the Panel

With a personal computer, modem, phone cables, and ITI Advent Downloader software, you can quickly and efficiently download previously selected programming to the panel via a phone line connection. You can also upload panel programming to the software for your records or for “copying” to another similar installation.

For details on using the downloader software, refer to the *Advent Downloader User’s Manual* shipped with the software.

For detailed instructions on preparing the panel for downloading, refer to “Remote Downloader Programming” on page 50.

**Note**  
Not investigated by UL for use with Advent Commercial Fire panel (60-562-03 and 60-562-06).

## Using an Alphanumeric Touchpad to Program the Panel

In program mode, touchpad buttons let you navigate through installer programming menus for configuring the system. Table 12 describes the touchpad button functions in program mode.

**Table 12. Touchpad Button Functions**

Button	Programming Function
#	Confirms data entry.
*	Press to undo, cancel data/selection, or return to previous menu.
0 thru 9	Enter numeric values wherever needed.
0 & 1	Select off (0) or on (1) wherever needed.

### Entering/Exiting Program Mode

Entering program mode is done using an installer code. The system can only be placed in program mode when all partitions/areas are disarmed.

#### To enter program mode:

1. Make sure the system is disarmed in all partitions/areas.
2. At a touchpad, press # and the touchpad displays *SYS-TEM MENU*.
3. Press 0 and the touchpad displays *ENTER YOUR CODE*.
4. Enter your **installer access 0000 (0123 is default)** and the touchpad shows *PROGRAM MENU* then *ENTER ITEM NUMBER*. Enter the desired item number.

#### To exit program mode:

- Press \* repeatedly.

### Using Item Numbers

When prompted, entering an Item Number will “jump” you to the setting associated with the number. Once at the set-

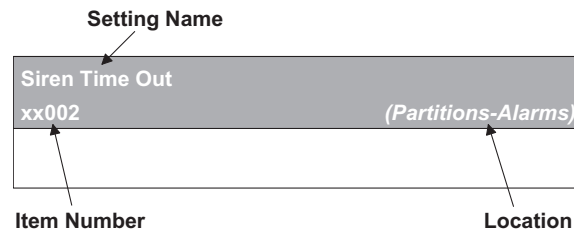
ting you may view or change setting attributes. After changing attributes you may exit programming (\*) or enter another item number.

Table 13 describes the setting type and range/description of all system item numbers.

**Table 13. Item Number Descriptions**

Setting Type	Range and Description
Partition/Area	xx001–xx125 (xx = partition 01–08)
Global/System	17001–17129
Phone Number	yy001–yy005 (yy = phone 19–24) zz001–zz016 (zz = phone/pager 25–40)
Zone Utilities	47001–47008
SuperBus Utilities	48001–48007, 48009–48010
Display Text Utilities	49001–49005
Miscellaneous Utilities	50001–50016

System settings are explained below and on the following pages. They appear as follows:



System settings in this manual appear in the same order as you would see them in Advent Downloader software. This is done to eliminate confusion whether you are programming from a touchpad or the downloader.

If you prefer, Table A.13 on page 77 in Appendix A lists the system settings in numeric order, by item number. Included in the table are the item number, default setting, and page number reference of the setting description.

**Note**  
To keep track of panel programming, it is recommended that you enter item number settings in Table A.13 in Appendix A.

## Special Programming Settings

### Clear Panel Memory

50002

(Default = n/a) It is recommended that you clear memory on all newly installed panels before programming. Clearing memory deletes setup values and resets all values to factory defaults.

#### To Clear Panel Memory:

1. Enter program mode.
2. Enter the installer code.
3. Enter item number 50002.
4. Press 99 and then **#**. Wait about a minute until touchpads return to their default displays.

#### Note

Since all programming information is contained in memory, clearing memory deletes all existing programming information except dealer values (if any).

### Reviewing (List) Settings

00000

(Default = n/a) An easy way of listing all programming settings and their values is provided. You can list *all* settings, or settings starting at a selected item number.

#### To list *all* Settings:

1. Once in program mode enter the item number (00000).
2. Press **#** to start listing settings from the beginning  
*or*  
enter the item number you wish to start at and press **#**. Touchpads will flash each of the item numbers and values (if not protected by dealer password).
3. Press **\*** at any time to exit this menu.

#### Note

Displayed setting values may be viewed but not changed using this procedure.

## Partitions/General Partition Settings

### Partitions Act As Areas

17127

(Partitions-General Partition Settings)

(Default = off) Choose whether or not to treat partitions as areas. If treated as areas:

- Zones, touchpads, schedules, programming options, etc., belong to areas instead of partitions.
- Users may “jump” from one area to another area using an alphanumeric touchpad.
- The word “partition” will be changed to “area” wherever it is spoken, displayed, or printed.

#### To turn Areas On/Off:

Once the item number has been entered, enter **1** for on, or **0** for off. Press **#** to apply the new setting.

### Touchpad Redirect Reset Time

17035

(Partitions-General Partition)

(Default = 10 seconds) This setting allows you to select the length (in seconds) of inactivity (no menu activity) before a “jumped” touchpad returns to its assigned area.

#### To set Touchpad Redirect Reset Time:

1. Once in program mode enter the item number.
2. Enter the desired length (5–60) and press **#**.

### Global Account Reporting

17093

(Partitions-General Partition)

(Default = off) The setting enables the panel to report events as a system.

When set to on:

- The panel will use system account and area numbers when reporting events.
- The panel will only perform one automatic phone test (not one for each partition/area).

#### To turn Global Account Reporting On/Off:

Once the item number has been entered, enter **1** for on, or **0** for off. Press **#** to apply the new setting.

### Partitions Enabled

xx068

(Partitions-General Partition Settings)

(Defaults = Partition/Area 1 - on, all others off) Choose whether or not to enable the partition/area. Partition/Area 1 is always enabled.

#### To turn a Partition/Area On/Off:

Once the item number has been entered, enter **1** for on, or **0** for off. Press **#** to apply the new setting.

**Account Number 1**  
**Account Number 2**  
1: xx116, 2: xx117 (Partitions-General Partition)

(Defaults = 00000000) Enter an 8 digit account number. Each partition/area may have two account numbers. Account number 1 will use the primary phone number to report partition/area events, while account number 2 will use the secondary phone number to report partition/area events.

**Account Number Format:**

- for 0 enter 00
- for 1 enter 01
- for 2 enter 02
- for 3 enter 03
- for 4 enter 04
- for 5 enter 05
- for 6 enter 06
- for 7 enter 07
- for 8 enter 08
- for 9 enter 09
- for A enter 10
- for B enter 11
- for C enter 12
- for D enter 13
- for E enter 14
- for F enter 15

**To enter an Account Number:**

1. Once the desired item number has been entered the current account number will be displayed.
2. Enter the new account number using the list above. For example, if you wanted the account number to be "123456AB," at the keypad you would enter "01, 02, 03, 04, 05, 06, 10, 11."
3. Press **⏏** and the touchpad displays the new account number.

**Note**

Account numbers must equal 8 characters. If you enter less than 8 characters the panel will automatically replace the blank spaces with leading zeros (0).

**Partition/Area Text**  
49004 (Partitions-General Partition Settings)

(Default = none) Use the following guidelines to assign each partition/area a name.

- Use the item numbers that appear in Table B.2 on page 92 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 8 item numbers are allowed for each partition/area name, so plan ahead before programming partition/area text. You may need to abbreviate words to avoid running out of item numbers.

**To program Partition/Area Text:**

1. Once in program mode enter **4****9****0****0****4**. The display shows *ENTER PARTITION NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired partition number and press **⏏**. The display shows *TEXT FOR PARTITION n IS current text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT*.
3. Enter the numbers of the desired characters or words. If you make a mistake press **⏏** to start over.
4. Once all numbers have been entered, press **⏏** to accept. The display shows the new partition/area text.

**To delete Partition/Area Text:**

1. Once in program mode enter **4****9****0****0****4**. The display shows *ENTER PARTITION NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired partition/area number and press **⏏**. The display shows *TEXT FOR PARTITION n IS current text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT*.
3. Enter **0****0****0** and press **⏏**. The display shows *TEXT FOR PARTITION n IS NO TEXT*.

**Partition/Arming Settings**

**Exterior Siren Delay**  
xx113 (Partitions-Arming)

(Default = foothills setting allows you to set the delay (in seconds) before an exterior siren sounds during an alarm. This includes all high level alarms, except for auxiliary alarms, which don't sound exterior sirens. If set to off, exterior sirens sound instantly. If set to on, exterior sirens sound after a 15-second delay.

**To turn Exterior Siren Delay On/Off:**

Once the item number has been entered, enter **1** for on (15-second delay), or **0** for off (no delay). Press **⏏** to apply the new setting.

## Partitions/Alarms

### Daily Trouble Reporting Time

xx001

(Partitions-Alarms)

(Default = 12:00) This is the time of day when the system will announce any existing trouble conditions. For Advent Commercial Fire and Burglary panels, trouble(s) are announced every 4 hours. If the Daily Trouble Reporting time is set at 12:00 pm then the system will announce trouble(s) at 12:00 pm, 4:00 pm, 8:00 pm, 12:00 am, 4:00 am, and 8:00 am.

#### To set the Daily Trouble Reporting Time:

Once the item number has been entered, enter the 4-digit time (00:00–23:59) in 24 hour format and press **#**.

#### Note

The *Enable Daily Reporting of Partition Trouble* setting (xx108) must be set to “on” for this setting to work.

### Enable Daily Reporting of Partition Trouble

xx108

(Partitions-Alarms)

(Default = on) Enables annunciation of all trouble conditions at LTime (

#### To turn Enable Daily Reporting of Partition Trouble on/off:

Once the item number has been entered, enter **1** for on (15-second delay), or **0** for off (no delay). Press **#** to apply the new setting.

### Siren Time Out

xx002

(Partitions-Alarms)

(Default = 16 Minutes) This is the number of minutes that the alarm siren is allowed to sound. The siren will silence when this value is reached.

#### To set Siren Sound Time:

Once the item number has been entered, enter the number of minutes (01–30) you wish the siren to sound and press **#**.

### Generate Alarm for Unarmed Tamper Signals

xx079

(Partitions-Alarms)

(Default = off) This setting determines whether a tamper alarm is generated for a zone that is not armed (applies to non-fire zones only). If on, a zone tamper alarm is generated when a zone tamper is detected in any arming level. If off, an alarm is only generated when the zone is in an active level.

#### To turn Alarm for Unarmed Tamper Signals On/Off:

Once the item number has been entered, enter **1** for on (alarm in all levels), or **0** for off (alarm in active levels). Press **#** to apply the new setting.

### Tamper Signals from Fire Zones are Alarms

xx083

(Partitions-Alarms)

(Default = off) This setting enables the panel to generate a tamper alarm (in addition to a trouble report) when tampering of a fire zone is detected.

#### To set the Fire Tamper Response to On/Off:

Once the item number has been entered, enter **1** for on (alarm is generated) or **0** for off (alarm not generated). Press **#** to apply the new setting.

### Enable Keystroke Violation Alarm

xx076

(Partitions-Alarms)

(Default = off) This setting enables keypad tamper. When on, the panel will generate a police alarm when it detects four or more incorrect access code entry attempts that do not include a valid access code. A tamper report is also sent to the central station.

#### To turn Enable Keystroke Violation Alarm On/Off:

Once the item number has been entered, enter **1** for on (generate alarm and report) or **0** for off. Press **#** to apply the new setting.

### No Activity Tripped After

xx009

(Partitions-Alarms)

(Default = not active) This setting allows you to select the length of time (in hours) the panel will wait after not detecting any activity before initiating a no-activity pre-alarm. Once a no-activity pre-alarm is initiated the panel will wait until the time in the *Delay Between No Activity Trip and Alarm* setting (xx010) expires before generating an alarm.

#### To set the No Activity Tripped After time:

1. Once the item number has been entered, enter the number of hours (1–24) you wish the panel to wait before initiating a no-activity pre-alarm, or **0** for not active.
2. Press **#** to apply the new setting.

### Delay Between No Activity Trip and Alarm

xx010

(Partitions-Alarms)

(Default = 5 Minutes) This setting allows you to select the length of time (in minutes) allowed *after* the *No Activity Tripped After* setting (xx009) time has expired. If no activity is generated during this time the panel sends a report to the central station. If the user(s) generate activity within this delay period no report will be sent.

#### To set the Delay Between No Activity Trip and Alarm:

Once the item number has been entered, enter the number of minutes (1–10) you wish the panel to wait before sending a report. Press **#** to apply the new setting.

#### Note

If the *No Activity Tripped After* setting (xx009) is set to 0 (not active) this setting will have no affect.

**Generate Alarm for Suspicion Trips**  
xx078 *(Partitions-Alarms)*

(Default = on) This setting allows you to enable the panel to generate a suspicion trip alarm. If on, and suspicion zones are tripped, an alarm will be generated after the *Delay Between Suspicion Zone Trip and Alarm Generated* (xx015) expires. If off, the tripping of suspicion zones will not generate an alarm.

**To turn Generate Alarm for Suspicion Trips On/Off:**

Once the item number has been entered, enter  for on or  for off. Press  to apply the new setting.

**Delay Between Suspicion Zone Trip and Alarm Generated**  
xx015 *(Partitions-Alarms)*

(Default = 05 Minutes) Select the length of time in minutes in which an alarm can be avoided after a suspicion zone is tripped. This allows the user time to prevent a false alarm from being generated.

**Programming the Delay Between Suspicion Trip and Alarm Generated:**

Once the item number has been entered, enter the number of minutes (1–15) you wish the panel to wait before going into alarm. Press  to apply the new setting.

**Note**

If the *Generate Alarm for Suspicion Trips* setting (xx078) is set to off, this setting will have no effect.

**First Trip Local Second Trip Event**  
xx080 *(Partitions-Alarms)*

(Default = off) If on, the first zone trip in a two trip zone type (18 or 77) causes a local police alarm. A second zone trip from a different zone, occurring within four minutes of the first zone trip, generates a report. Zones must reside in the same partition/area. If off, the first zone trip starts a timer and the second zone trip causes the alarm and report.

**To turn this setting On/Off:**

Once the item number has been entered, enter  for on or  for off. Press  to apply the new setting.

**Disable Siren**  
xx081 *(Partitions-Alarms)*

(Default = on) Select whether or not you want to disable siren time-out for fire alarms. If disabled, a siren will continue to sound until the system is disarmed.

**Note**

This option is not available in UL-864 version.

**To turn this setting On/Off:**

Once the item number has been entered, enter  for on or  for off. Press  to apply the new setting.

**Agent Release Zone 1**  
**Agent Release Zone 2**  
1: xx122, 2: xx123 *(Partitions-Alarms)*

(Default = Off) This setting allows you to specify which zones, when tripped, cause an output to release an extinguishing agent.

**Note**

All aspects of an agent release should occur in the same partition. All zones, outputs, and devices relating to an agent release should physically reside and be programmed into the same partition.

Select the zone number that, when tripped, causes an agent release.

**Note**

This option is not available in UL-864 version.

**To turn this setting On/Off:**

Once the item number has been entered, enter  for on or  for off. Press  to apply the new setting.

**Manual Agent Release Delays**  
xx125 *(Partitions-Alarms)*

(Default = 0) This setting allows you to specify delay times (0-30 seconds) before an agent is released after an alarm has been triggered. Manual agent release cannot be aborted.

**Note**

This option is not available in UL-864 version.

**To turn this setting On/Off:**

Once the item number has been entered, enter  for on or  for off. Press  to apply the new setting.

**Automatic Agent Release Delays**  
xx124 *(Partitions-Alarms)*

(Default = 30) This setting allows you to set the automatic agent release delay time (0-60 seconds). Automatic agent release may be aborted during the delay.

**Note**

This option is not available in UL-864 version.

**To turn this setting On/Off:**

Once the item number has been entered, enter  for on or  for off. Press  to apply the new setting.

## Partitions/X10

### X10 House Code 1

xx022

(Partitions-X10)

(Default = Partition/Area Number) The house code is a number from 1 to 16 (representing A–P) used to communicate panel signals to line carrier devices such as X10 Lamp, Appliance, and Universal Modules. You can have up to two house codes per partition/area.

Enter the panel house code setting used for the first 16 X10 line carrier devices. The system commands “All Lights On/Off” or “All Units On/Off” control only modules with House Code 1 (within respective partition/area). See Table B.5 on page 97 for information on defaults.

#### Entering House Code 1:

Once the item number has been entered, enter the desired house code (1–16). Press **#** to apply the new setting.

### X10 House Code 2

xx023

(Partitions-X10)

(Default = Partition/Area Number + 8) Enter the panel house code setting used for the last 16 X10 line carrier devices within respective partition/area. See for information on defaults.

#### Entering House Code 2:

Once the item number has been entered, enter the desired house code (1–16). Press **#** to apply the new setting.

Non X10 Output 1 (menu output 33)

Non X10 Output 2 (menu output 34)

Non X10 Output 3 (menu output 35)

Non X10 Output 4 (menu output 36)

Non X10 Output 5 (menu output 37)

Non X10 Output 6 (menu output 38)

Non X10 Output 7 (menu output 39)

Non X10 Output 8 (menu output 40)

1: xx049, 2: xx050, 3: xx051, 4: xx052,

5: xx053, 6: xx054, 7: xx055, 8: xx056 (Partitions-X10)

(Default = none) There are 40 menu outputs per partition/area. The first 32 are X10 outputs, the last 8 are non X10 outputs. All X10 outputs (menu outputs 1-32) are automatically linked to X10 devices. Non X10 outputs (menu outputs 33-40) must be linked to a programmable output in order to control a light or device.

#### Note

All menu outputs must be programmed (learned) into the panel before they will function. See “Fixed Output Settings” on page 42 for more information.

#### Linking Non X10 Outputs:

1. Enter the item number for the desired non X10 output.
2. Enter the desired programmable output number (1–100), then press **#** to confirm the selection.

## Partitions/Reporting

### Light Control

xx069

(Partitions-Reporting)

(Default = off) If on, users must enter a valid access code before controlling lights. If off, an access code is *not* required for light control.

#### To turn Light Code On/Off:

Once the item number has been entered, enter **1** for on (access code required), or **0** for off. Press **#** to apply the new setting.

### Device Control

xx070

(Partitions-Reporting)

(Default = off) If on, users must enter a valid access code before controlling devices. If off, an access code is *not* required for device control.

#### To turn Device Control On/Off:

Once the item number has been entered, enter **1** for on (access code required) or **0** for off. Press **#** to apply the new setting.

### Latchkey Access

xx071

(Partitions-Reporting)

(Default = off) If on, users must enter a valid access code before accessing the Latchkey setting. If off, an access code is *not* required to access the Latchkey setting. For more information on Latchkey, please see the *User’s Manual*.

#### To turn Latchkey Access On/Off:

Once the item number has been entered, enter **1** for on (access code required) or **0** for off. Press **#** to apply the new setting.

### Report Partition Events to Central Station

xx088

(Partitions-Reporting)

(Default = on) If on, the panel will report partition/area events to the central station.

#### To turn Reporting Partition Events to Central Station On/Off:

Once the item number has been entered, enter **1** to turn partition/area event reporting on or **0** turn reporting off. Press **#** to apply the new setting.

### Cancel Event Cancels Report

xx089

(Partitions-Reporting)

(Default = on) If on, the panel will cancel the sending of an alarm report (to central station) if the event is canceled before the delay between generated standard alarm and alarm reporting (xx013) expires.

#### To turn Cancel Event Cancels Report On/Off:

Once the item number has been entered, enter **1** to turn the setting on (canceled event cancels report) or **0** to turn it off. Press **#** to apply the new setting.

**Print Partition/Area Events**  
xx091 *(Partitions-Reporting)*

(Default = on) If on, the panel will print partition/area events on a local printer.

**To Print Partition/Area Events:**

Once the item number has been entered, enter  (on) to enable printing of partition/area events or  (off) to disable printing of partition/area events. Press  to apply the new setting.

**Delay Between Generated Panic Alarm and Alarm Reporting**  
xx012 *(Partitions-Reporting)*

(Default = 05 seconds) This setting allows you to specify the length of time (in seconds) between the time a panic alarm condition is detected, and a panic report is sent to the central station. This allows users time to cancel a false alarm.

**Note**

If *Cancel Event Cancels Report* setting (xx089) is set to off, this setting will have no affect.

**Specifying the Delay Between Generated Panic Alarm and Alarm Reporting:**

Once the item number has been entered, enter the number of seconds (1–120) you wish the panel to wait before sending a panic report. Press  to apply the new setting.

**Delay Between Generated Standard Alarm and Alarm Reporting**  
xx013 *(Partitions-Reporting)*

(Default = 05 seconds) This setting allows you to specify the length of time (in seconds) between the time a non-panic and non-fire alarm condition is detected, and a report is sent to the central station. This allows users time to cancel a false alarm.

**Note**

If *Cancel Event Cancels Report* setting (xx089) is set to off, this setting will have no affect.

**Specifying the Delay Between Generated Standard Alarm and Alarm Reporting:**

Once the item number has been entered, enter the number of seconds (1–120) you wish the panel to wait before sending a report. Press  to apply the new setting.

**Delay Between Generated Fire Alarm and Alarm Reporting**  
xx014 *(Partitions-Reporting)*

(Default = 0 minutes) This setting allows you to specify the length of time (in minutes) between the time a fire alarm condition is detected, and a report is sent to the central station. This allows users time to cancel a false alarm.

**Note**

If *Cancel Event Cancels Report* setting (xx089) is set to off, this setting will have no affect.

**Specifying the Delay Between Generated Fire Alarm and Alarm Reporting:**

Once the item number has been entered, enter the number of minutes (0–15) you wish the panel to wait before sending a report. Press  to apply the new setting.

**Second Fire Alarm Ends Reporting Delay**  
xx090 *(Partitions-Reporting)*

(Default = on) If on, and a fire report delay is in progress, a second fire alarm condition will end the delay between generated fire alarm and alarm reporting (xx014), immediately sending a report to the central station.

**Programming Second Fire Alarm Ends Reporting Delay:**

Once the item number has been entered, enter  to turn the setting on (second alarm ends delay) or  to turn it off. Press  to apply the new setting.

**Second Intrusion Causes Report**  
xx077 *(Partitions-Reporting)*

(Default = off) If on, the first trip of an intrusion zone causes a local police alarm. A second trip (different intrusion zone) within four minutes generates a report. If off, the first trip of an intrusion zone generates both an alarm and report.

**To set the Second Intrusion Causes Report:**

Once the item number has been entered, enter  to turn the setting on or  to turn it off. Press  to apply the new setting.

**Generate Restoral Reports for Reporting Zone Types**  
xx112 *(Partitions-Reporting)*

(Default = off) If on, restoral reports are generated for all reporting zone types (which require restoral). If off, the zone type definition dictates whether on not a restoral report is generated.

**To turn Generate Restoral Reports for Reporting Zone Types On/Off:**

Once the item number has been entered, enter  to turn the setting on or  to turn it off. Press  to apply the new setting.



**Audible Verification at Close Report**  
xx098 *(Partitions-Reporting)*

(Default = off) When on, the panel will locally verify that a closing report has been sent to the central station with an audible signal.

**Note**

In order for this setting to work, *Exterior Arming Verification* setting (xx097) must be set to "on."

**To turn Audible Verification at Close Report On/Off:**

Once the item number has been entered, enter [1] to turn the setting on or [0] to turn it off. Press [#] to apply the new setting.

## Partitions/Arming

**Enable Arming Level 2**  
**Enable Arming Level 3**  
**Enable Arming Level 4**  
**Enable Arming Level 5**

2: xx025, 3: xx026,  
4: xx027, 5: xx028

*(Partitions-Arming)*

(Default = on) If on, the selected arming level will be enabled (level 1 is always enabled) in the selected partition/area. Users will then have access to this arming level. An arming level is the degree of security protection set at the panel.

**To Enable Arming Level:**

Once the item number has been entered, enter [1] to turn the setting on (level enabled) or [0] to turn it off. Press [#] to apply the new setting.

**Default Keyfob Schedule Arming Level**  
xx118 *(Partitions-Arming)*

(Default = 3) This setting allows you to select the arming level (2-5) the panel arms to when armed by a keyfob or schedule (auto arming).

**Specifying Default Keyfob Schedule Arming Level:**

Once the item number has been entered, enter the keyfob/scheduled arming level (2-5). Press [#] to apply the new setting.

**Default Keyswitch Arming Level**  
xx120 *(Partitions-Arming)*

(Default = 3) This setting allows you to select the arming level (2-5) the panel arms to when armed by a keyswitch.

**Specifying Default Keyswitch Arming Level:**

Once the item number has been entered, enter the keyswitch arming level (2-5). Press [#] to apply the new setting.

**Activity Fault Threshold 1**  
**Activity Fault Threshold 2**  
**Activity Fault Threshold 3**  
1: xx018, 2: xx019, 3: xx020 *(Partitions-Arming)*

(Defaults = Threshold 1-10, Threshold 2-30, Threshold 3-50)  
This setting allows you to specify the number of disarms without any activity before zone activity trouble is generated.

**Specifying Activity Fault Thresholds:**

Once the item number has been entered, enter the number of disarms before zone activity trouble is generated (2-255). Press [#] to apply the new setting.

**Enable Scheduled Arming**  
xx094 *(Partitions-Arming)*

(Default = on) This setting allows you to select whether or not to allow the system to arm/disarm according to a schedule.

**To turn Enable Scheduled Arming On/Off:**

Once the item number has been entered, enter [1] to enable scheduled arming or [0] to turn it off. Press [#] to apply the new setting.

**Time Between Arming Notification and Arming**  
xx007 *(Partitions-Arming)*

(Default = 10 minutes) This is the amount of time between the start of arming notification and when the partition/area is armed by a schedule (auto arming). This notifies users that a scheduled arm is about to occur and allows time for users to vacate the premises.

**To set the Time Between Arming Notification and Arming:**

Once the item number has been entered, enter the number of minutes (05-30) that will pass between notification and arming. Press [#] to apply the new setting.

**Extension Time**  
xx008 *(Partitions-Arming)*

(Default = 30 minutes) This is the amount of time by which a scheduled arming period will be suspended during the arming notification period. For example, let's say the extension is entered when there is four minutes left in the delay. Once the extension has expired the system will start counting down the remaining four minutes.

**To set the Extension Time:**

Once the item number has been entered, enter the number of minutes (15-120) users will be able to extend the notification period and press [#].

**Enable Auto Force Arming**  
xx092 (Partitions-Arming)

(Default = on) If on, any protesting zone(s) will be bypassed upon arming. If off, then the partition/area will not arm if *any* zone(s) are protesting.

**To turn Enable Auto Force Arming On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Enable Quick Arming**  
xx093 (Partitions-Arming)

(Default = on) If on, anyone can arm the panel and increase arming levels without an access code. A valid access code is still required to decrease arming levels or disarm the system. Quick arm works as follows:

- Level 3 to 5 = no code
- Level 3 to 4 = code
- Level 4 to 3 = not code
- Level 5 to 3 = code
- Level 1 to 2 = no code
- Level 1 to 3 = no code
- Level 1 to 4 = no code
- Level 1 to 5 = no code

**To turn Enable Quick Arming On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Exterior Arming Verification**  
xx097 (Partitions-Arming)

(Default = off) If on, exterior sirens will produce arming verification sounds notifying users that the system was armed.

**Note**

In order for this setting to work, *Audible Verification at Close Reports* setting (xx098) must be set to "on."

**To turn Exterior Arming Verification On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Number of Zones that can be Bypass**  
xx017 (Partitions-Arming)

(Default = 250) Select the number of zones that may be bypassed at once. See Table B.1 on page 87 for information on which zone types may be bypassed.

**To program the Number of Zones that can be Bypassed:**

Once the item number has been entered, enter the number of zones that may be bypassed at once (0–250). Press **#** to apply the new setting.

**Enable Automatic Unbypass**  
xx096 (Partitions-Arming)

(Default = off) If on, an indirectly bypassed zone will automatically be unbypassed once the door, window, etc., has been closed for 30 seconds. This setting only applies to delayed zones.

**To turn Enable Automatic Unbypass On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Enable Swinger Bypass**  
xx095 (Partitions-Arming)

(Default = on) If on, a zone that exceeds the set swing count (xx021) during a single arming period will automatically be bypassed. Changing the arming level restores all automatically bypassed zones and resets the swing count.

**To turn Enable Swinger Bypass On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Swing Count (Auto Bypass Trips)**  
xx021 (Partitions-Arming)

(Default = 3) Select the maximum number of report attempts that one zone can generate during a single arming period before the panel automatically bypasses that zone.

All automatically bypassed zones, and the swing count, will reset if the system clock reaches midnight or an arming level change occurs.

**To set the Swing Count:**

Once the item number has been entered, enter the desired swing count (1–8) and press **#**.

**Standard Entry Delay**  
xx003 (Partitions-Arming)

(Default = 32 seconds) Enter the length of the standard entry delay (in seconds). This is the number of seconds the user has to disarm the system after tripping a standard delay zone. If the system isn't disarmed within this time period an alarm is generated.

**To set the Standard Entry Delay:**

Once the item number has been entered, enter the number of seconds (24–120) users will have to disarm the system. Press **#** to apply the new setting.

**Exit Delay**  
xx004 *(Partitions-Arming)*

(Default = 32 seconds) Enter the length of the standard exit delay (in seconds). This is the number of seconds the user has to exit the premises through a standard delay door after arming the system. If the user trips a zone after this time period has expired, an alarm is generated.

**To set the Exit Delay:**

Once the item number has been entered, enter the number of seconds (24–120) users will have to exit the premises after arming the system. Press **#** to apply the new setting.

**Extended Delay**  
xx005 *(Partitions-Arming)*

(Default = 2 minutes) Enter the length of the extended delay. The extended delay time determines how much time (in minutes) the user has to enter or exit the premises through an *extended* delay door without causing an alarm.

**To set the Extended Delay:**

Once the item number has been entered, enter the number of minutes (1–10) for the extended delay and press **#**.

**Early Termination Delay**  
xx101 *(Partitions-Arming)*

(Default = off) If on, the system will arm as soon as it detects a delay zone closing. Once a person leaves through an exit delay door and the door closes, the exit delay is terminated and the system is armed.

**Note**  
Cannot be used with *One-Time Reset Enabled* setting (xx102).

**To turn Early Termination Delay On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**One-Time Reset Enabled**  
xx102 *(Partitions-Arming)*

(Default = off) If on, the system will allow a one-time reset of the standard exit delay. If a user leaves through a delay door and the door closes, they may re-enter through the door within the exit delay time period and the system will reset the exit delay.

**Note**  
Cannot be used with *Early Termination Enabled* setting (xx101).

**To turn One-Time Reset Enabled On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Fast Beep Duration**  
xx006 *(Partitions-Arming)*

(Default = 10 seconds) Enter the length of time (in seconds) that fast beeps will sound during the last portion of the exit delay to signal the delay is ending.

**To set the Fast Beep Duration:**

Once the item number has been entered, enter the number of seconds (5–15) fast beeps will sound before the end of the delay and press **#**.

**Fast Beeps at End of Exit Delay Only**  
xx100 *(Partitions-Arming)*

(Default = on) If on, only the fast beeps at the end of the exit delay will sound. If off, slow exit delay beeps will sound followed by the fast beeps at the end of the delay.

**To turn Fast Beeps at End of Exit Delay Only On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

**Beeps During Standard Entry Delay Only**  
xx103 *(Partitions-Arming)*

(Default = off) If on, beeps only sound during the standard entry delay. If off, beeps sound during all segments of an entry delay including standard, extended, and twice extended.

**To turn Beeps During Standard Entry Delay Only On/Off:**

Once the item number has been entered, enter **1** to turn the setting on or **0** to turn it off. Press **#** to apply the new setting.

## Partitions/Zones

### Announce and Display Zone Text with Chime xx110 *(Partitions-Zones)*

(Default = off) If on, zone text will be announced over speakers and displayed on touchpads whenever a chime sounds (the sensor is open or closed).

**Note**

Only partition/area 1 has voice capabilities.

#### To turn Announce and Display Zone Text with Chime On/Off:

Once the item number has been entered, enter  to turn the setting on or  to turn it off. Press  to apply the new setting.

### Chime On Zone Restoral xx111 *(Partitions-Zones)*

(Default = off) If on, a chime will sound whenever a zone is restored.

#### To turn Chime on Zone Restoral On/Off:

Once the item number has been entered, enter  to turn the setting on or  to turn it off. Press  to apply the new setting.

### Key or Code Needed for Special Fire Touchpad Keys xx082 *(Partitions-Zones)*

(Default = on) If on, then a key or code must be used before using the special panic keys (on fire touchpad) to acknowledge an alarm, silence an alarm, or perform a fire alarm drill. If off, then no key or code is required to use the special panic keys.

#### To turn Key or Code Needed for Special Fire Touchpad Keys On/Off:

Once the item number has been entered, enter  to turn the setting on (key or code required) or  to turn it off. Press  to apply the new setting.

### Zone Test Time Out xx011 *(Partitions-Zones)*

(Default = 30 minutes) Enter the length of time (in minutes) after which a zone test automatically times out (ends).

#### To set the Zone Test Time Out:

Once the item number has been entered, enter the number of minutes (5–120) before a zone test ends and press .

### Disarm Key Arm Key Lights Key Star Key Lights/Star Keys Arm Level 2 Arm Level 3 Arm/Star Keys Disarm/Lights Keys xx057, xx058, xx059, xx060, xx061, xx063, xx064, xx065, xx066 *(Partitions-Zones)*

(Defaults = Unlock-4, Lock-9, Lights-15, Star-12, Light/Star-3, Level 2-6, Level 3-5, Arm/Star-16, Disarm/Lights-16) These settings allow you to specify how the system behaves when specific keychain touchpad button or button combinations are pressed.

#### Special Action Assignments:

- 0- not used
- 1- not used
- 2- not used
- 3- auxiliary panic (only used for item no. xx061)
- 4- arm to level 1
- 5- arm to level 2
- 6- arm to level 3
- 7- arm to special level 4
- 8- arm to special level 5
- 9- arm to closed level
- 10- arm to closed level with no delay
- 11- arm to closed level with Latchkey
- 12- increment arming level from 0 to 1, 1 to 2, or 2 to 3 only
- 13- turn all\* lights on
- 14- turn all\* lights off
- 15- toggle all\* lights
- 16- do nothing

\* all lights having the first (of two) house codes in the partition.

#### Specifying Keychain Touchpad Button Action:

1. Once the desired item number has been entered, enter the special action assignment number (3–16) from the above list.
2. Press  to apply the new setting.

### Enable Auxiliary/Medical Panic Keys xx086 *(Partitions-Zones)*

(Default = on) Choose whether or not to enable the Auxiliary panic buttons on non-fire touchpads. If enabled, when a user presses and holds the Auxiliary panic buttons or presses them twice, an auxiliary or medical alarm is generated. See *Auxiliary/Medical Assignments* setting (xx084).

#### Turning Enable Auxiliary/Medical Panic Keys On/Off:

Once the item number has been entered, enter  to turn the setting on (enabled) or  to turn it off. Press  to apply the new setting.

**Enable Police Panic Keys**  
xx085 (Partitions-Zones)

(Default = on) Choose whether or not to enable the Police panic buttons on non-fire touchpads. If enabled, when a user presses and holds the police panic buttons or presses them twice, a police alarm is generated.

**Turning Enable Police Panic Keys On/Off:**

Once the item number has been entered, enter **[1]** to turn the setting on (enabled) or **[0]** to turn it off. Press **[#]** to apply the new setting.

**Enable Fire Panic Keys**  
xx087 (Partitions-Zones)

(Default = on) Choose whether or not to enable the Fire panic buttons on non-fire touchpads. If enabled, when a user presses and holds the fire panic buttons or presses them twice, a fire alarm is generated.

**Turning Enable Fire Panic Keys On/Off:**

Once the item number has been entered, enter **[1]** to turn the setting on (enabled) or **[0]** to turn it off. Press **[#]** to apply the new setting.

**Auxiliary/Medical Assignment**  
xx084 (Partitions-Zones)

(Default = on) Choose whether the Auxiliary/Medical panic buttons are used to produce an auxiliary (on) or medical (off) alarm.

**Note**  
In order for an auxiliary or medical alarm to be produced by the pressing of the panic buttons, they must be enabled. See the *Enable Auxiliary/Medical Panic Keys* setting xx086.

**Selecting the Alarm Type:**

Once the item number has been entered, enter **[1]** to turn the setting on (auxiliary) or **[0]** to turn it off (medical). Press **[#]** to apply the new setting.

**Codes**

The settings below cover only installer programming codes. For information on user access code programming, please refer to the *User's Guide*.

**Dealer Access Code**  
17107 (Codes)

(Default = none) Enter a six-digit Dealer Access code. This code is used to access special programming menus when the panel is in program mode.

**To set the Dealer Access Code:**

- Once the item number has been entered, enter any six-digits (0–9) then press **[#]**.
- When prompted, enter the six-digit code again (for verification), and press **[#]**.
- The touchpad will display *NEW CODE OK*.

**Changing/Deleting the Dealer Access Code:**

- Once the item number has been entered, enter the six-digit dealer code.
- Wait until the touchpad displays *ENTER NEW CODE* then
  - enter a new six-digit dealer code or,
  - enter **[0] + [#]** to delete the dealer access code (no code).
- Enter the new code again.
- The touchpad will display *NEW CODE OK*.

**Downloader Access Code**  
17108 (Codes)

(Default = 12345) Enter a five-digit access code to be used in conjunction with downloader programming.

**Note**  
This code must match (or be left at default) the downloader access code programmed in downloader in order for the two to communicate.

**Changing the Downloader Access Code:**

- Enter the item number.
  - Note**  
If a Dealer Access Code has been programmed, you will be prompted to enter it.
- Once the Dealer Access Code has been entered (if applicable) the touchpad will display the current Downloader Access Code.
- Enter any five-digits (0–9) for the new Downloader Access code, then press **[#]**.

**Access Code Length**  
50013 (Codes)

(Default = 4) Select the required length of *all* installer, primary, and user access codes. If the access code length is changed, then all access codes will automatically be updated to the correct length. Access codes that contained less digits than the new length will be given leading zeros (1234 = 001234). Access codes that contained more digits than the new length will be have the first digit(s) removed (987654 = 7654).

**Changing the Access Code Length:**

1. Enter the item number. The current code length will be displayed.
2. Enter the new code length (4–6) and press **#**.

**Phone Settings**

**Enable DTMF Dialing Line 1**  
**Enable DTMF Dialing Line 2**  
1: 17094, 2: 17095 (Phone)

(Default = on) Select whether or not you want to enable the phone line for DTMF (touch-tone) dialing. If off, the panel will dial using pulse format.

**To set the Dialing format:**

Once the item number has been entered, enter **1** to turn this setting on (DTMF dialing) or **0** to turn it off (pulse dialing). Press **#** to apply the new setting.

**Phone Line 1 Dialing Prefix**  
**Phone Line 2 Dialing Prefix**  
1: 17105, 2: 17106 (Phone)

(Default = none) Enter up to a six-digit phone line dialing prefix. Use this setting to access an outside line, disable call waiting, etc.

Line Dial Prefix Format:

- Enter 00–09 for numbers 0-9
- Enter 10 for \* (star)
- Enter 11 for # (pound)
- Enter 12 for D (1–5 second delay)
- Enter 13 for W (wait for dial tone)

**Setting a Line Dialing Prefix:**

1. Once the desired item number has been entered the current line dial prefix will be displayed.
2. Enter up to a six-digit phone line dialing prefix using the format above and press **#**.

**Deleting a Line Dialing Prefix:**

1. Once the desired item number has been entered the current line dial prefix will be displayed.
2. Enter **0** + **#**. The touchpad will display *NO DATA*.

**Number of Attempts Before Reporting Failure RF Buddy**  
17101 (Phone)

(Default = 5) Set the number of dialing attempts (to central station) before a buddy transmission is generated.

**Note**  
Not investigated by UL.

**To set the number of Attempts:**

Once the item number has been entered, enter the number of buddy dial attempts (0-11)\* and press **#**.

\* 0 = immediate transmit request, 11 = no transmit request.

**No Phone Line Attached**  
17069 (Phone)

(Default = off) Turn this setting on if there is no phone line connected to the panel. When on, the panel will not check for phone line failure.

**Turning No Phone Line Attached On/Off:**

Once the item number has been entered, enter **1** to turn this setting on (no phone line) or **0** to turn it off (phone line). Press **#** to apply the new setting.

**System Account Number 1**  
**System Account Number 2**  
1: 17102, 2: 17103 (Phone)

(Default = 00000000) Enter an 8-digit system account number which will identify the panel to the central station when reporting system events. System Account Number 1 is reported on reporting phone 1 and its backup. System account number 2 is reported on reporting phone 2 and its backup.

Account Number Format:

- for 0 enter 00
- for 1 enter 01
- for 2 enter 02
- for 3 enter 03
- for 4 enter 04
- for 5 enter 05
- for 6 enter 06
- for 7 enter 07
- for 8 enter 08
- for 9 enter 09
- for A enter 10
- for B enter 11
- for C enter 12
- for D enter 13
- for E enter 14
- for F enter 15

**To enter a System Account Number**

1. Once the desired item number has been entered the current system account number will be displayed.

**Note**

If a Dealer Access Code has been programmed, you will be prompted to enter it.

2. Enter the new system account number using the list above. For example, if you wanted the system account number to be "123456AB," at the keypad you would enter "01, 02, 03, 04, 05, 06, 10, 11."
3. Press **#** and the touchpad displays the new system account number.

**Note**

System account numbers must equal 8 characters. If you enter less than 8 characters the panel will automatically replace the blank spaces with leading zeros (0).

**Pager ID**  
17058 (Phone)

(Default = 00000) The Pager ID identifies the panel to pager-holders. Select the ID to be sent with pager reports.

**To set the Pager ID:**

Once the item number has been entered, enter the 5-digit Pager ID (00000–99999) to be sent with pager reports and press **#**.

**Phone Test Interval**  
17034 (Phone)

(Default = 1 day [comm], 7 days [home nav]) Select the number of days between automatic phone test reports to all enable central station phone numbers. Entering 0 will disable automatic phone test.

**To set Phone Test Interval:**

Once the item number has been entered, (17-034) enter the number of days (0–255). Press **#** to apply the new setting.

**Specific Phone Number Settings**

Specific phone number settings allow you to program central monitoring station, downloader, and pager phone numbers.

**Note**

If a Dealer Access Code has been programmed, you will be prompted to enter it when setting/changing specific phone settings.

- Phone numbers 19–22 are central monitoring station reporting phone numbers and function as follows:
  - 19 = phone 1
  - 20 = phone 1 backup
  - 21 = phone 2
  - 22 = phone 2 backup
- Phone numbers 23–24 are downloader phone numbers and function as follows:
  - 23 = downloader
  - 24 = downloader backup

**Note**

Downloader phone numbers are for commercial burglary panels only.

- Phone numbers 25–40 are reporting pager phone numbers 1 through 16.

**Phone Number Enable**  
yy001 (Phone)

(Default = off) Select whether or not to enable the phone number. If on, the panel will use the number when reporting or downloading. If off, the number will be skipped.

**To turn Phone Number Enable On/Off:**

Once the item number has been entered (19001–24001), enter **1** to turn this setting on (call), or **0** to turn it off (no call). Press **#** to apply the new setting.

**Number to Dial**  
yy002 (Phone)

(Default = none) Enter up to a 24-digit phone number for reporting or downloading.

Phone Number Format:

- Enter 00–09 for numbers 0-9
- Enter 10 for \* (star)
- Enter 11 for # (pound)
- Enter 12 for D (1–5 second delay)
- Enter 13 for W (wait for dial tone)

**To enter Number to Dial:**

1. Enter the desired item number (ex. 19002).
2. Enter the phone number using the list above. For example, if you wanted the phone number to be “1235551212,” at the keypad you would enter “01, 02, 03, 05, 05, 05, 01, 02, 01, 02.”
3. Press **#** and the touchpad displays the new phone number.

**Note**

In order for the phone number to be used for reporting events or downloading, it must be enabled. See the *Phone Number Enable* setting (yy001) on page 29.

**To delete a Number to Dial:**

Enter the desired item number. Enter **0** + **#**. The touchpad will display *NO DATA*.

**Number of Attempts**  
yy003 (Phone)

(Default = 5) Set the number of times (attempts) the panel will dial (and report) to the reporting or downloader phone number.

**Note**

19003 for phones 1 and 2, 21003 for phones 3 and 4.

**To set the Number of Dial Attempts:**

Once the item number has been entered, enter the number of dial attempts (5–10) and press **#**.

**Comm Format**  
yy004 (Phone)

(Default = Contact ID) Select the type of communication format the panel will use when reporting events to the central station.

**Note**

Currently only Contact ID format is supported.

**Report Panic Special**  
yy005 (Phone)

(Default = off) Choose how the panel formats touchpad panic alarm reports to the central station. When on, touchpad panic alarms report using the following special 3-digit codes:

- Fire Panic—599
- Police Panic—598
- Auxiliary Panic—597
- Medical Panic—596

When off, panics will report as “500” plus the bus device number. For example, a keypad with bus device number “03” would report as “503.”

**Turning Report Panic Special On/Off:**

Once the item number has been entered, enter **1** to turn this setting on (report panic special), or **0** to turn it off (not special). Press **#** to apply the new setting.

**System Pagers**

**Enabled Pager Phone Number**  
zz001 (Phone-Pagers)

(Default = off) Select whether or not to enable the pager phone number. If on, number will report events to the pager. If off, the number will be skipped when the panel is reporting to pagers.

**To turn Enable Pager Phone Number On/Off:**

Once the item number has been entered (25001–40001), enter **1** to turn this setting on (page), or **0** to turn it off (no page). Press **#** to apply the new setting.

**Pager Number to Dial**  
zz002 (Phone-Pagers)

(Default = none) Enter up to a 24-digit phone number for pager reporting.

Pager Phone Number Format

- Enter 00–09 for numbers 0-9
- Enter 10 for \* (star)
- Enter 11 for # (pound)
- Enter 12 for D (1–5 second delay)
- Enter 13 for W (wait for dial tone)

**To enter a Pager Phone Number:**

1. Enter the desired item number (ex. 25002).
2. Enter the phone number using the list above. For example, if you wanted the pager phone number to be “1235551212,” at the keypad you would enter “01, 02, 03, 05, 05, 05, 01, 02, 01, 02.”
3. Press **#** and the touchpad displays the new pager phone number.

**Note**

In order for the panel to report events to the pager the pager phone number must be enabled. See *Enable Pager Phone Number* setting (zz001).

**To delete a Pager Phone Number:**

Enter the desired item number. Enter **0** + **#**. The touchpad will display *NO DATA*.



**Number of Attempts**  
 zz003 *(Phone-Pagers)*

(Default = 3) Set the number of times (attempts) the panel will try to dial the pager phone number.

**To set the Number of Dial Attempts:**

Once the item number has been entered, enter the number of dial attempts (3–10) and press **#**.

**Comm Format**  
 zz004 *(Phone-Pagers)*

(Default = 1 [TAP at 1200 bps PSK]) Select the type of communication format the panel will use when reporting events to pagers.

Communication Formats:

- Enter 0 for TAP at 300 bps (FSK)
- Enter 1 for TAP at 1200 bps (PSK)

**To set the Communication Format:**

Once the item number has been entered, use the choices above to select a communication format. Press **#** to apply the new setting.

**Character Format**  
 zz005 *(Phone-Pagers)*

(Default = 1 [7/E/1]) Select the character format the panel will use when reporting to pagers.

Character Formats:

- Enter 0 for 8/N/1
- Enter 1 for 7/E/1

**To set the Character Format:**

Once the item number has been entered, press **0** for 8/N/1 character format (off), or **1** for 7/N/1 character format (on). Press **#** to apply the setting.

**Pager System Reports**  
 zz006 *(Phone-Pagers)*

(Default = off) Select whether or not you want system events reported to pager.

**To turn System Pager Report On/Off:**

Once the item number has been entered, enter **1** to turn this setting on (report), or **0** to turn it off (don't report). Press **#** to apply the new setting.

**Partition/Area 1 Pager Reports**  
**Partition/Area 2 Pager Reports**  
**Partition/Area 3 Pager Reports**  
**Partition/Area 4 Pager Reports**  
**Partition/Area 5 Pager Reports**  
**Partition/Area 6 Pager Reports**  
**Partition/Area 7 Pager Reports**  
**Partition/Area 8 Pager Reports**  
 1: zz007, 2: zz008, 3: zz009, 4: zz010,  
 5: zz011, 6: zz012, 7: zz013, 8: zz014 *(Phone-Pagers)*

(Defaults = 0, phone 25-31 = 1) Select whether or not you want partition/area events to report to pager(s).

**To turn Partition/Area Report On/Off:**

Once the item number has been entered, enter **1** to turn this setting on (report), or **0** to turn it off (don't report). Press **#** to apply the new setting.

**Pager PIN #**  
 zz015 *(Phone-Pagers)*

(Default = none) Enter up to a 15-digit pager PIN.

**To enter a Pager PIN:**

1. Enter the desired item number (ex. 25015).
2. Enter up to a 15-digit (0–9) pager PIN.
3. Press **#** and the touchpad displays the pager PIN.

**Pager Max Message Length**  
 zz016 *(Phone-Pagers)*

(Default = 120 characters) Set the maximum character length for pager messages.

**To set the maximum Pager Message Length:**

Once the item number has been entered, enter the maximum pager length (0–255) and press **#**.

## Advanced Settings



### CAUTION

Only qualified persons should make changes to advanced phone settings.

**Maximum Ring Cycle Time**  
 17018 *(Phone-Advanced Dialog Screen)*

(Default = 67 milliseconds) Specify (in milliseconds) the maximum cycle time for a ring signal.

**To set the Maximum Ring Cycle Time:**

Once the item number has been entered, specify the maximum ring cycle time (0–255). Press **#** to apply the new setting.

**DTMF on Time**  
17031 *(Phone-Advanced Dialog Screen)*

(Default = 3 [30 ms]) Specify the minimum duration of a valid DTMF (touch-tone) tone in 10 millisecond increments (1–100 x 10 ms). This is the minimum amount of time that a phone number button must be pressed in order to be valid.

**To set the DTMF on Time:**

Once the item number has been entered, specify the minimum tone duration (1–100). Press **#** to apply the new setting.

**DTMF off Time**  
17032 *(Phone-Advanced Dialog Screen)*

(Default = 5 [50 ms]) Specify the minimum duration of pause between DTMF (touch-tone) tones in 10 millisecond increments (1–100 x 10 ms). This is the minimum amount of time required between two phone number buttons being pressed.

**To set the DTMF off Time:**

Once the item number has been entered, specify the minimum duration between tones (1–100). Press **#** to apply the new setting.

**Minimum Cycles in a Valid Ring**  
17054 *(Phone-Advanced Dialog Screen)*

(Default = 2 cycles) Specify the minimum number of cycles in a valid ring.

**To set the Minimum Cycles in a Valid Ring:**

Once the item number has been entered, specify the minimum number of cycles (0–255). Press **#** to apply the new setting.

**Number of Ringlets Needed for a Valid Ring**  
17055 *(Phone-Advanced Dialog Screen)*

(Default = 1 burst) Specify the number of ring bursts in a valid ring.

**To set the Number of Ringlets Needed for a Valid Ring:**

Once the item number has been entered, specify the number of ring bursts (0–5). Press **#** to apply the new setting.

**Valid Ring at Beginning or End of Cycle**  
17091 *(Phone-Advanced Dialog Screen)*

(Default = off) Select to enable ring valid at beginning or end of cycle.

**To set the Valid Ring at Beginning or End of Cycle:**

Once the item number has been entered, enter **1** to turn this setting on (ring valid), or **0** to turn it off (ring not valid). Press **#** to apply the new setting.

**Maximum Ringlet Burst Duration**  
17020 *(Phone-Advanced Dialog Screen)*

(Default = 250 [2500 ms]) Specify the maximum duration of a valid ring burst in 10 ms increments (3–300 x 10 ms).

**To set the Maximum Ringlet Burst Duration:**

Once the item number has been entered, specify the maximum ring burst duration (3–300). Press **#** to apply the new setting.

**Minimum Ringlet Burst Duration**  
17019 *(Phone-Advanced Dialog Screen)*

(Default = 40 [400 ms]) Specify the minimum duration of a valid ring burst in 10 ms increments (3–300 x 10 ms).

**To set the Minimum Ringlet Burst Duration:**

Once the item number has been entered, specify the minimum ring burst duration (3–300). Press **#** to apply the new setting.

**Maximum Pause Between Ringlets**  
17022 *(Phone-Advanced Dialog Screen)*

(Default = 0) Specify the maximum duration between valid ring bursts in 10 millisecond increments (0–300 x 10 ms).

**To set the Maximum Pause Between Ringlets:**

Once the item number has been entered, specify the maximum duration between ring bursts (0–300). Press **#** to apply the new setting.

**Minimum Pause Between Ringlets**  
17021 *(Phone-Advanced Dialog Screen)*

(Default = 0) Specify the minimum duration between valid ring bursts in 10 millisecond increments (0–300 x 10 ms).

**To set the Minimum Pause Between Ringlets:**

Once the item number has been entered, specify the minimum duration between ring bursts (0–300). Press **#** to apply the new setting.

**Maximum Pause Between Rings**  
17024 *(Phone-Advanced Dialog Screen)*

(Default = 450 [4500 ms]) Specify the maximum amount of time allowed between valid rings in 10 millisecond increments (100–999 x 10 ms).

**To set the Maximum Pause Between Rings:**

Once the item number has been entered, specify the maximum time between rings (100–999). Press **#** to apply the new setting.

**Minimum Pause Between Rings**  
17023 (Phone-Advanced Dialog Screen)

(Default = 200 [2000 ms]) Specify the minimum amount of time allowed between valid rings in 10 millisecond increments (100–999 x 10 ms).

**To set the Minimum Pause Between Rings:**

Once the item number has been entered, specify the minimum time between rings (100–999). Press **#** to apply the new setting.

## Phone Access Settings

### Local Phone Settings

Local phone settings allow you to choose how phones located on the same premises as the panel interact with the system.

**Enable Local Phone Access in Partition/Area 1**  
17085 (Phone Access)

(Default = off) This setting allows you to enable local phone control in partition/area 1. If on, partition/area 1 may be controlled by local on premises phones.

**To turn Enable Local Phone Access in Partition/Area 1 On/Off:**

Once the item number has been entered, enter **1** to turn this setting on, or **0** to turn it off. Press **#** to apply the new setting.

**Local Phone Connect Sequence**  
17056 (Phone Access)

(Default = #\*) Enter up to a 4-digit DTMF (touch-tone) sequence for local control. This is the sequence of numbers the user will have to enter when accessing the panel locally (on-site)

Format:

- Enter 00–09 for numbers 0-9
- Enter 10 for \* (star)
- Enter 11 for # (pound)

**To enter Local Phone Connect Sequence:**

1. Enter the item number.
2. Enter the sequence using the format above. For example, if you wanted the sequence to be “12#\*,” at the keypad you would enter “01, 02, 11, 10.”
3. Press **#** and the touchpad displays the new sequence.

**To delete the Local Phone Connect Sequence:**

1. Enter the item number.
2. Enter **0** + **#**. The touchpad will display *NO DATA*.

**Phone Device Override Sequence**  
17057 (Phone Access)

(Default = \*\*##) Enter up to a 4-digit DTMF (touch-tone) sequence for phone device override. This sequence will instruct the panel to seize the line from the local phone and initiate a remote connection. Users will be able to enter this sequence and bypass any phone devices (answering machines, fax machines, etc.) when calling from a remote phone.

Format:

- Enter 00–09 for numbers 0-9
- Enter 10 for \* (star)
- Enter 11 for # (pound)

**To enter Phone Device Override Sequence:**

1. Enter the item number.
2. Enter the sequence using the format above. For example, if you wanted the sequence to be “12#\*,” at the keypad you would enter “01, 02, 11, 10.”
3. Press **#** and the touchpad displays the new sequence.

**To delete Phone Device Override Sequence:**

1. Enter the item number.
2. Enter **0** + **#**. The touchpad will display *NO DATA*.

**Max Delay Between Phone Panic Sequence**  
17030 (Phone Access)

(Default = 2 seconds) Specify the maximum time allowed (in seconds) between keystrokes in a phone panic sequence. If this delay is exceeded, a panic alarm will not be activated.

**Setting the Max Delay Between Phone Panic Sequence:**

Once the item number has been entered, enter the maximum delay (1–5). Press **#** to apply the new setting.

**Local Phone Connect Time**  
17028 (Phone Access)

(Default = 5 seconds) Specify the maximum time allowed (in seconds) between local phone off-hook and DTMF seize sequence for local phone control. If the maximum time is exceeded, remote phone control will be put on hold.

**Setting the Local Phone Connect Time:**

1. Once the item number has been entered, enter the maximum allowable connect time (0–255 [0 = no max time]).
2. Press **#** to apply the new setting.

**Local Phone Answer Time**  
17029 (Phone Access)

(Default = 8 seconds) Specify the maximum time (in seconds) between a ring signal and local phone off-hook signal to be considered answer of call.

**Setting the Local Phone Answer Time:**

Once the item number has been entered, enter the answer time (0–255). Press **#** to apply the new setting.

**On Hook Hang Up Time**  
17027 (Phone Access)

Default = 4 seconds) Select the amount of time (in seconds) a local telephone must be on-hook before hanging up.

**Setting the On Hook Hang Up Time:**

Once the item number has been entered, enter the hang up time (2–10). Press **#** to apply the new setting.

**Enable Local Phone Police Alarm**  
**Enable Local Phone Auxiliary Alarm**  
**Enable Local Phone Fire Alarm**  
Police: 17080, Auxiliary: 17081,  
Fire: 17082 (Phone Access)

(Default = off) Select whether or not you want to enable the selected phone alarm sequence. If on, users will be able to activate the specific alarm using a local phone (88888 for police, 77777 for auxiliary/medical, and 99999 for fire).

**To turn Enable Local Phone Alarm On/Off:**

Once the desired item number has been entered, enter **1** to turn this setting on, or **0** to turn it off. Press **#** to apply the new setting.

## Remote Phone Settings

Remote phone settings allow you to choose how phones located off premises (different line) interact with the panel.

**Enable Remote Phone Access**  
17086 (Phone Access)

(Default = on) This setting allows you to enable remote phone access. If on, the panel may be controlled using remote off-site phones.

**Note**

Turning this setting to “off” will prevent the panel from receiving future downloader calls.

**Note**

For residential use only.

**To turn Enable Remote Phone Access On/Off:**

Once the item number has been entered, enter **1** to turn this setting on (enabled), or **0** to turn it off. Press **#** to apply the new setting.

**Enable Remote Phone Ring Count**  
17087 (Phone Access)

(Default = on) This setting allows you to tell the panel to count remote phone rings so that it will pick up after a certain number of rings. This setting only works if *Remote Phone Access* setting (above) is set to “on”.

**Note**

For residential use only.

**To turn Enable Remote Phone Ring Count On/Off:**

Once the item number has been entered, enter **1** to turn this setting on, or **0** to turn it off. Press **#** to apply the new setting.

**Answer Phone after XX Rings**  
17052 (Phone Access)

(Default = 12 rings) Specify the number of rings after which the panel will answer an incoming phone call. The *Enable Remote Phone Ring Count* setting (17087) must be set to “on” for this setting to work.

**Note**

For residential use only.

**To set the number of Rings:**

Once the item number has been entered, specify the maximum number of rings (1–12). Press **#** to apply the new setting.

**Enable Toll Saver**  
17090 (Phone Access)

(Default = on) Choose whether or not to enable the panel to answer a remote phone up to 4-rings earlier than normal if an alarm condition or system trouble has occurred. Normal is considered the value in *Answer Phone after XX Rings* setting (17052). The *Enable Remote Phone Ring Count* setting (17087) must be set to “on” for this setting to take effect.

**Note**

For residential use only.

**To turn Toll Saver On/Off:**

Once the item number has been entered, enter **1** to turn this setting on, or **0** to turn it off. Press **#** to apply the new setting.

**Enable Remote Phone Ring-Pause-Ring**  
17088 (Phone Access)

(Default = on) This setting allows you to program the panel to answer remote phone ring-pause-rings. When on, a user can call the panel once, hang up, and call again. The panel will then answer the phone. Use this setting if an answering machine shares a phone line with the panel.

**Note**

The user must not exceed the number of rings in the *Cancel Ring-Pause-Ring after XX Rings setting (17053)* when calling the panel. Additionally, the user must call the panel again between the times programmed in settings 17025 and 17026.

For residential use only.

**To turn Enable Remote Phone Ring-Pause-Ring On/Off:**

Once the item number has been entered, enter  to turn this setting on, or  to turn it off. Press  to apply the new setting.

**Min Time Between Ring-Pause-Ring Calls**  
17025 (Phone Access)

(Default = 10 seconds) Specify the minimum time (in seconds) between ring-pause-ring calls. This is the minimum amount of time that must elapse before the second call in a ring-pause-ring attempt.

**Setting the Min Time Between Ring-Pause-Ring Calls:**

Once the item number has been entered, specify the minimum time (6–20). Press  to apply the new setting.

**Max Time Between Ring-Pause-Ring Calls**  
17026 (Phone Access)

(Default = 30 seconds) Specify the maximum time (in seconds) between ring-pause-ring calls. This is the maximum amount of time that may elapse before the second call in a ring-pause-ring attempt. If this time is exceeded, the current ring-pause-ring attempt will be canceled.

**Setting the Max Time Between Ring-Pause-Ring Calls:**

Once the item number has been entered, specify the maximum time (7–60). Press  to apply the new setting.

**Cancel Ring Pause Ring After XX Rings**  
17053 (Phone Access)

(Default = 3 rings) Specify the number of rings at which ring-pause-ring is aborted. For example, if this setting is set at 3, then (during the first call) at 3 rings, ring-pause-ring will be aborted.

**Setting Cancel Ring Pause Ring After XX Rings:**

Once the item number has been entered, specify the maximum number of rings (2–10). Press  to apply the new setting.

**Enable Remote Phone Override**  
17089 (Phone Access)

(Default = on) If on, users may cut off a local phone call or answering machine to access the panel from a remote phone.

**Note**

For residential use only.

**To turn Enable Remote Phone Override On/Off:**

Once the item number has been entered, enter  to turn this setting on, or  to turn it off. Press  to apply the new setting.

**Allow Remote Phone Zone Test**  
17098 (Phone Access)

(Default = on) If on, users may perform zone tests from remote phones.

**To turn Allow Remote Phone Zone Test On/Off:**

Once the item number has been entered, enter  to turn this setting on, or  to turn it off. Press  to apply the new setting.

## Zone Settings

Use zone settings to add, delete, test, and modify zones.

**Note**

It is recommended that no more than 132 wireless sensors be used in any individual Advent system.

If 2 or more Advent systems are in close proximity to each other, the total number of wireless sensors for *all* systems must not exceed 132.

## Add (Learn) Zones

47001

(Zones)

(Default = none) Use this item number to add (learn) hardware zones and wireless devices into panel memory.

### To learn Zones into panel memory:

1. Once in program mode enter item number **47001**. The display shows *ENTER PARTITION/AREA NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired one-digit partition/area number (1–8) and press **#**. The display shows *ENTER ZONE TYPE OR PRESS \* TO CANCEL*.

#### Note

If the partition/area is not enabled, the display will show *PARTITION/AREA nn INVALID*. See item number xx068 (page 17) to enable partition/area(s).

3. Enter the two-digit zone type number (00–96) and press **#**. Refer to Table B.1 on page 87 for zone type descriptions.

#### Note

If zone type 84 (Enhanced Buddy) is selected please see description of group for information on adding (learning) in buddy zones.

4. The display shows *LEARN ZONE nn ENTER NEW ZONE NUMBER OR PRESS # TO ACCEPT*, where *nn* is the next available zone number. If desired, enter a different zone number. Press **#**.
5. When the display shows *TRIP ZONE n*, use the guidelines below and on this page to force the zone you are adding (learning) into panel memory.
6. The display shows *ZONE nn TYPE nn PARTITION/AREA n OK*.
7. To add another zone to the same zone type and partition/area, go to step 5.

To add zones to another zone type (same partition/area) press **#** and go back to step 2.

To add zones to another zone type and partition/area press **\*** and repeat the above procedure (exits to programming).

#### Note

Make sure wireless touchpads that may be removed from the premises such as portable and keychain touchpads are assigned to an *unsupervised* zone type such as 87. Assign permanently mounted wireless touchpads to supervised zone type 86.

normally open switches are wired in parallel and tripped closed.

## Tripping Learn Mode Wireless Sensors\*

To trip a wireless sensor with an external hardwired contact connected to its screw terminals, check that the external contact is in its alarm state, then activate the sensor tamper.

For high-security installations, always remove both internal reed switches when connecting an external contact to the wireless sensor terminals.

Only the normally closed configuration can be used in UL-listed installations.

Do not attempt to use the built-in magnetic reed switch *and* an external contact on the same wireless sensor.

On hardwired sensors connected to the external contacts of a wireless transmitter, the alarm state is either open or closed, depending on the normal condition of the sensor. Multiple normally closed switches are wired in series and tripped while the loop is open. Multiple normally open switches are wired in parallel and tripped while the loop is closed.

- Fire Pull Station**—Actuate the sensor. Open the sensor cover located inside the fire pull station.
- Glass Guard**—Open sensor cover.
- Rate-of Rise-Heat**—Open sensor cover and press learn switch on circuit board.
- Smoke (System Sensor 2100RF)**—Remove base.
- Smoke (ESL 570 Series)**—Remove base.
- Pressure Switch Sensor**—Hold a magnet next to the sensor cover where indicated (does not require cover removal).
- 2 and 4 Button Keychain Touchpads**—Simultaneously press Lock and Unlock buttons until the touchpad LED flashes (added [learned] in a sensor zone type).
- Handheld**—Press Bypass button.
- HiTech Wall-Mount**—Press Bypass button.
- HiTech Handheld**—Press Bypass button.

## Tripping Hardware Zones

- Hardware Zones**—Start with the zone in its “normal” state, then trip the zone into its alarm state. A normally closed door, for example, should be closed when you begin the Add Zones process. Trip the zone by opening the door.
- Door/Window Sensors with External Contacts**—Place the external contact in the alarm condition, then activate the sensor tamper switch.
- On hardwired zones containing multiple sensors, only one needs to be tripped for the panel to learn the zone.
- The alarm state is either open or closed, depending on the normal condition of the sensor. Multiple normally closed switches are wired in series and tripped open. Multiple

\* ) Refer to the specific sensor/touchpad Installation Instructions for more details on tripping sensors/touchpads.

Delete Zones	(Zones)
47002	
(Default = n/a) Use this item number to delete zones from panel memory. You must delete zones one at a time.	
<p><b>Note</b> Deleting zones does not delete the zone text associated with the deleted zone number. To delete zone text use item number 49001, <i>Zone Text</i>.</p>	
<b>To Delete Zones from panel memory:</b>	
<ol style="list-style-type: none"> <li>Once in program mode enter <b>47002</b>. The display shows <i>ENTER ZONE NUMBER OR PRESS * TO CANCEL</i>.</li> <li>Enter the 3-digit zone number you wish to delete and press <b>#</b>.</li> <li>The display shows <i>ZONE nn DELETED</i>.</li> <li>To delete another zone, repeat the above procedure.</li> </ol>	

List Zones	(Zones)
47003	
(Default = n/a) Use this item number to list information about existing zones. The system will list the zone number, any zone text, zone type number, and the partition/area number.	
<b>To List Zones:</b>	
Once in program mode enter <b>47003</b> . The display will show <i>ZONE nn, any zone text, TYPE nn, PARTITION/AREA n</i> .	
The panel will scroll through and display information about each zone. To skip forward press <b>#</b> . To exit press <b>*</b> . Once the panel lists all the zones it will return to the program menu.	

Zone Text	(Zones)
49001	
(Default = none) Use the following guidelines to “name” zones.	
<ul style="list-style-type: none"> <li><input type="checkbox"/> Use the item numbers that appear in Table B.2 on page 92 for characters and words listed there.</li> <li><input type="checkbox"/> If a desired word does not appear in Table B.2, create it using the characters (custom text).</li> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> 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.</li> <li><input type="checkbox"/> Only 8 item numbers are allowed for each zone name, so plan ahead before programming zone text. You may need to abbreviate words to avoid running out of item numbers.</li> </ul>	
<b>To program Zone Text:</b>	
<ol style="list-style-type: none"> <li>Once in program mode enter <b>49001</b>. The display shows <i>ENTER ZONE NUMBER OR PRESS * TO CANCEL</i>.</li> <li>Enter the desired zone number and press <b>#</b>. The display shows <i>TEXT FOR ZONE n IS current zone text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT</i>.</li> <li>Enter the numbers of the desired characters or words. If you make a mistake press <b>*</b> to start over.</li> <li>Once all numbers have been entered, press <b>#</b> to accept. The display shows the new zone text.</li> </ol>	
<b>To delete Zone Text:</b>	
<ol style="list-style-type: none"> <li>Once in program mode enter <b>49001</b>. The display shows <i>ENTER ZONE NUMBER OR PRESS * TO CANCEL</i>.</li> <li>Enter the desired zone number and press <b>#</b>. The display shows <i>TEXT FOR ZONE n IS current zone text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT</i>.</li> <li>Enter <b>000</b> and press <b>#</b>. The display shows <i>TEXT FOR ZONE n IS NO TEXT</i>.</li> </ol>	

### Zone Attributes (Edit Zones)

47004

(Zones)

(Default = n/a) Use this item number to edit the following zone attributes.

- 1—Critical Security Zone (Default = 0 [Off])  
Enter 0 to turn attribute Off, 1 to turn attribute On. Critical zones require special authority (partition master and full authority codes) in order to be bypassed.
- 2—RF Supervisory Time (Default = A [4 hours])  
Enter 0 for RF Supervisory Time A (17049), 1 for Supervisory Time B (17050).
- 3—Zone Activity Threshold (Default = 0 [None])  
Enter 0 for None, 1 for Threshold 1 (xx018), 2 for Threshold 2 (xx019), 3 for Threshold 3 (xx020).
- 4—Hardwire Smoke Verify (Default = 0 [Off])  
Enter 0 to turn attribute Off, 1 to turn attribute On. If on, when a hardwire smoke detector is tripped, the panel will remove power for 3 seconds to reset the smoke. If a second trip occurs within 120 seconds, an alarm will sound and a report will be sent to the central station.
- 5—Delayed Zone (Default = 0 Off)  
Enter 0 to turn attribute Off, 1 to turn attribute On (see 17117).
- 6—Floor (Default = 0 [None])  
Enter the floor number the zone resides on (1–90 above ground, 91–99 below ground, 0 = None) (see item 17074 on page 46).
- 7—not supported
- 8—not supported
- 9—not supported
- 10—Warning message index (Default = 0 [None])  
Enter the desired warning message (1–5). If learned into zone type 70 it will play the desired warning message.  
1 = Evacuation Message 1  
2 = Evacuation Message 2  
3 = Evacuation Message 3  
4 = Evacuation Message 4  
5 = Weather Warning Message
- 11—Zone Bypass Group (Default = 0 [None])  
Enter the desired bypass group number (0–32). This will allow users to directly bypass and unbypass groups of zones.

#### To Edit Zone Attributes:

1. Once in program mode enter **47004**. The display shows *ENTER ZONE NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired zone number and press **#**. The display shows *ENTER ATTRIBUTE NUMBER OR PRESS \* TO CANCEL*.
3. Enter the attribute number from the list above and press **#**. The display will show the current attribute setting. If desired, change the attribute setting.
4. Press **#** to apply changes. To edit another attribute repeat step 1.

### Test Buddies

47005

(Zones)

(Default = n/a) Use this item number to test zone buddies.

#### To Test Buddies:

Once in program mode enter **47005**. The display will show *BUDDY TEST MODE*. Once the test is complete the display will list buddies (see List Buddies 47006).

### List Buddies

47006

(Zones)

(Default = n/a) Use this item number to list information about existing buddy zones. The system will list the buddy zone number, ID, and latest buddy test results.

#### To List Buddies:

Once in program mode enter **47006**. The display will list all four buddies.

- If the buddy doesn't exist, the panel will display *BUDDY n INVALID*.
- If the buddy failed the latest test (47005), the panel will display *BUDDY n FAILED*.
- If the buddy passed the latest test, the signal strength will be displayed.

The panel will scroll through and display information about each buddy. To skip forward press **#**. To exit press **\***. Once the panel lists all the buddies it will return to the program menu.

### Zone Delay Time

17117

(Zones)

(Default = 10 seconds) Set the time delay (in seconds) between a zone being tripped and the trip being processed by the panel. This allows time for a zone to reset.

#### Note

This setting only applies to zones programmed as delayed.

#### To set Zone Delay Time:

Enter the item number. Enter the delay time (1–250 seconds) and press **#**.

### Smoke Loop Reset Time

17051

(Zones)

(Default = 3 seconds) Select the time (in seconds) for a zone to reset.

#### To set Smoke Loop Reset Time:

Enter the item number. Enter the reset time (3–15 seconds) and press **#**.



## I/O Settings

Use the following item numbers to specify how inputs and outputs behave.

General Input Response Time 1  
General Input Response Time 2  
General Input Response Time 3  
General Input Response Time 4  
General Input Response Time 5  
General Input Response Time 6  
General Input Response Time 7  
1: 17006, 2: 17007, 3: 17008, 4: 17009, 5: 17010,  
6: 17011, 7: 17118 *(Input and Output)*

(Defaults = 32 [0.512 seconds]) Each of the seven onboard inputs has a response time. The panel has to “see” a transition for at least that length of time in order to deem it a trip or restoral. At the panel you enter response times in 16 millisecond increments (actual time = value x 16 ms).

### To program a General Input Response Time:

Enter the desired item number. Enter a response time (8–255) and press **#**.

Expansion Input Response Time 1  
Expansion Input Response Time 2  
Expansion Input Response Time 3  
Expansion Input Response Time 4  
Expansion Input Response Time 5  
Expansion Input Response Time 6  
Expansion Input Response Time 7  
Expansion Input Response Time 8  
1: 17012, 2: 17013, 3: 17014, 4: 17015, 5: 17016, 6: 17017,  
7: 17119, 8: 17120 *(Input and Output)*

(Default = 32 [0.512 seconds]) Each of the eight expansion inputs has a response time. The panel has to “see” a transition for at least that length of time in order to deem it a trip or restoral. At the panel you enter response times in 16 millisecond increments (actual time = value x 16 ms).

#### Note

Response times only apply if the input is *not* a smoke loop. A smoke loop response time is always set to 1 second.

### To program an Expansion Input Response Time:

Enter the desired item number. Enter a response time (8–255) and press **#**.

General Purpose I/O 1 Direction  
General Purpose I/O 2 Direction  
General Purpose I/O 3 Direction  
General Purpose I/O 4 Direction  
General Purpose I/O 5 Direction  
General Purpose I/O 6 Direction  
1: 17063, 2: 17064, 3: 17065, 4: 17066  
5: 17067, 6: 17068 *(Input and Output)*

(Default = 0 [input]) Select the direction of each general purpose input/output.

### To program General Purpose Input/Output direction:

1. Enter the desired item number.
2. Enter **0** to set the direction as an output, or **1** to set it as an input. Press **#** to apply the direction.

Activation Interval One-Shot Time A  
Activation Interval One-Shot Time B  
Activation Interval One-Shot Time C  
Activation Interval One-Shot Time D  
A: 17113, B: 17114, C: 17115,  
D: 17116 *(Input and Output)*

(Default = A: 4 secs, B: 30 secs, C: 180 secs, D: 900 secs) Specify how long (in-seconds) outputs are activated for when the response is set to one-shot.

#### Note

Only those outputs programmed to be one-shot (A, B, C, or D) will be affected by this setting.

### To program One-Shot Time:

Enter the desired item number. Enter the desired one-shot time duration (1–999) and press **#**.

Output Activation Delay  
17112 *(Input and Output)*

(Default = 30 seconds) Specify how long (in-seconds) output activation is delayed.

#### Note

Only those outputs that are programmed to be delayed will be affected by this setting.

### To program the Output Activation Delay:

Enter the desired item number. Enter the desired delay time (1–999) and press **#**.

## Accessory Modules

The items below allow you to add, delete, list, and modify SuperBus 2000 devices and settings.

Add (Learn) Bus Devices	
48001	(Accessory)
(Default = n/a) Use this item number to force the panel to scan for bus devices once they have been correctly connected to the panel.	
<b>Note</b> All SuperBus 2000 devices are added to partition/area 1 initially. Use item number 48004, <i>Bus Device Partition/Area</i> , to assign devices to different partitions/areas once added.	
<b>To force the Panel to Scan for Bus Devices:</b>	
Once in program mode enter <b>[4][8][0][0][1]</b> . The display will show <i>DEVICES ADDED</i> , then it will list the added devices as shown.	
<i>DEVICE nm ID xxxxxxxx PARTITION/AREA z</i>	
Where <i>n</i> is the 2-digit device number (01–62), <i>xxxxxxx</i> is the 8-digit ID number (address), and <i>z</i> is the partition/area number (0–8).	

Delete/Change Bus Device ID	
48002	(Accessory)
(Default = n/a) Use this item number to delete bus devices or change device IDs. If you are deleting bus devices, you must delete them one at a time.	
<b>Note</b> Deleting the device does not delete the bus text associated with the deleted device. To delete device text use item number 49002.	
<b>To Delete/Change Bus Device ID:</b>	
1. Once in program mode enter <b>[4][8][0][0][2]</b> . The display shows <i>ENTER DEVICE ID OR PRESS * TO CANCEL</i> .	
2. Enter the 8-digit device ID of the device you wish to delete/change (located on module) and press <b>[#]</b> .	
3. The display shows <i>ENTER NEW DEVICE ID OR ENTER 0 TO DELETE</i> .	
4. Enter a new device ID or enter <b>[0]</b> .	
5. Press <b>[#]</b> . The panel displays <i>DEVICE ID xxxxxxxx DELETED</i> , or <i>DEVICE CHANGE OK</i> .	
6. To delete/change another device ID, repeat the above procedure.	

Bus Device Text	
49002	(Accessory)
(Default = none) Use the following guidelines to “name” bus devices.	
<input type="checkbox"/> Use the item numbers that appear in Table B.2 on page 92 for characters and words listed there.	
<input type="checkbox"/> If a desired word does not appear in Table B.2, create it using the characters (custom text).	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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.	
<input type="checkbox"/> Only 8 item numbers are allowed for each bus device name, so plan ahead before programming device text. You may need to abbreviate words to avoid running out of item numbers.	
<b>To program Bus Device Text:</b>	
1. Once in program mode enter <b>[4][9][0][0][2]</b> . The display shows <i>ENTER DEVICE ID OR PRESS * TO CANCEL</i> .	
2. Enter the desired device ID (located on module) and press <b>[#]</b> . The display shows <i>TEXT FOR DEVICE xxxxxxxx IS current text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT</i> .	
3. Enter the numbers of the desired characters or words. If you make a mistake press <b>[*]</b> to start over.	
4. Once all numbers have been entered, press <b>[#]</b> to accept. The display shows the new device text.	
<b>To delete Device Text:</b>	
1. Once in program mode enter <b>[4][9][0][0][2]</b> . The display shows <i>ENTER DEVICE ID NUMBER OR PRESS * TO CANCEL</i> .	
2. Enter the desired device ID number and press <b>[#]</b> . The display shows <i>TEXT FOR DEVICE xxxxxxxx IS current text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT</i> .	
3. Enter <b>[0][0][0]</b> and press <b>[#]</b> . The display shows <i>TEXT FOR DEVICE xxxxxxxx IS NO TEXT</i> .	

List Bus Devices	
48003	(Accessory)
(Default = n/a) Use this item number to list information about existing bus devices. The system will list the device address number, device ID number, and the partition/area number.	
<b>To List Bus Devices:</b>	
Once in program mode enter <b>[4][8][0][0][3]</b> . The display will show <i>DEVICE m, ID xxxxxxxx, PARTITION/AREA n</i> .	
The panel will scroll through and display information about each device. To skip forward press <b>[#]</b> . To exit press <b>[*]</b> . Once the panel lists all the bus devices it will return to the program menu.	

**Bus Device Partition/Area**  
48004 *(Accessory)*

(Default = n/a) Use this item number to assign bus devices to partitions/areas.

**Note**  
All bus devices default to partition/area 1.

**To assign Bus Devices to Partition/Area:**

- Once in program mode enter **4|8|0|0|4**. The display shows *ENTER DEVICE ID OR PRESS \* TO CANCEL*.
- Enter the 8-digit device ID and press **#**. The display shows *ENTER PARTITION NUMBER OR PRESS \* TO CANCEL*.
- Enter the partition/area number and press **#**. The display shows *DEVICE xxxxxxxx IS IN PARTITION n*.

**Note**  
If the partition/area is not enabled, the display will show *PARTITION nn INVALID*. See item number xx068 (page 17) to enable partition/area(s).

**Replace/Delete Bus Device ID**  
48007 *(Accessory)*

(Default = n/a) Changes (overwrites) the bus device text with that of another bus device.

**To Replace/Delete Bus Device ID:**

- Once in program mode enter **4|8|0|0|7**. The display shows *ENTER DEVICE ID OR PRESS \* TO CANCEL*.

**Note**  
If the display shows *DEVICE xxxxxxxx INVALID*, there is no device text associated with the device ID you entered.

- Enter the 8-digit device ID of the device you wish to replace/delete (located on module) and press **#**.
- The display shows *ENTER NEW DEVICE ID OR ENTER 0 TO DELETE*.
- Enter the new device ID or enter **0**. Press **#**.

**Change Transmit Bus ID**  
48005 *(Accessory)*

(Default n/a) This item number allows you to change or view the wireless transmitting device ID used to communicate with “buddy” panels and/or wireless 2-way devices.

**To change/view Transmit Bus ID:**

- Once in program mode enter **4|8|0|0|5**. The display shows *RADIO ID IS xxxxxxxx*, then displays *ENTER NEW TRANSMIT ID OR PRESS # TO ACCEPT*.
- Enter the new 8-digit transmit ID or press **#** to accept the existing ID. The touchpad displays *RADIO ID IS xxxxxxxx*.

**Program LED Module**  
48009 *(Programmable Output)*

(Default n/a) Use this item number to program LED modules (driver boards).

**To program LED Modules:**

- Once in program mode enter **4|8|0|0|9**. The display shows *ENTER DEVICE ID OR PRESS \* TO CANCEL*.
- Enter the 8-digit device ID number and press **#**. The display shows *ENTER LED NUMBER OR PRESS \* TO CANCEL*.
- Enter the desired LED number (0–128) and press **#**. The display shows *LED TYPE IS n. ENTER NEW LED TYPE OR PRESS # TO ACCEPT*.
- Enter the desired LED type (0–15) from Table B.10 on page 106 and press **#**. The display shows *LED DATA IS n. ENTER NEW LED DATA OR PRESS # TO ACCEPT*.
- Depending on the LED type, enter the desired LED data (see Table B.10) and press **#**.
- To program another LED group, go back to step 1. To exit back to the program menu, press **\***.

**List Bus Device Text**  
48006 *(Accessory)*

(Default = n/a) Use this item number to list existing bus device ID numbers and display text.

**To List Bus Device Text:**

Once in program mode enter **4|8|0|0|6**. The display will show *ID xxxxxxxx any device text*.

The panel will scroll through and display information about each device. To skip forward press **#**. To exit press **\***. Once the panel lists all the bus devices it will return to the program menu.

**Delete/Replace LED Module**  
48010 (Programmable Outputs-LED Module)

(Default = n/a) Use this item number to delete LED modules or change device IDs. This setting allows you to replace a malfunctioning LED module without having to reprogram LED settings.

**To Delete/Replace LED Module:**

**Note**

Deleting the module does not delete the bus text associated with the deleted device. To delete device text use item number 49002.

1. Once in program mode enter **4****8****0****1****0**. The display shows *ENTER DEVICE ID OR PRESS \* TO CANCEL*.
2. Enter the 8-digit device ID of the device you wish to delete or replace (located on module) and press **#**.
3. The display shows *ENTER NEW DEVICE ID OR ENTER 0 TO DELETE*.
4. Enter a new device ID or enter **0**. Press **#**. The panel displays *DEVICE ID xxxxxxxx DELETED*, or *DEVICE CHANGE OK*.
5. To delete or replace another LED module, repeat the above procedure.

**Keypad Idle Text**  
49005 (Partitions)

(Default = none) Use the following guidelines to add keypad idle text to the panel. This is the custom text displayed when the touchpad is not armed.

- Use the item numbers that appear in Table B.2 on page 92 (2 digit display descriptors) for characters.
- 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 (such as EAST WING) counts as nine item numbers—8 letters and 1 space.
- 63 item numbers are reserved for display text in each partition/area so plan ahead before programming text. You may need to abbreviate words to avoid running out of item numbers.

**To program Keypad Idle Text:**

1. Once in program mode enter **4****9****0****0****5**. The display shows *ENTER PARTITION/AREA NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired partition/area number and press **#**. The display shows *ENTER DISPLAY NUMBERS OR PRESS \* TO CANCEL*.
3. Enter the numbers of the desired characters. If you make a mistake press **\*** to start over.
4. Once all numbers have been entered, press **#**.

**To delete Keypad Idle Text:**

1. Once in program mode enter **4****9****0****0****5**. The display shows *ENTER PARTITION NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired partition/area number and press **#**. The display shows *ENTER DISPLAY NUMBERS OR PRESS \* TO CANCEL*. Press **#**.

## Fixed Output Settings

The following explains the procedure for programming/modifying the fixed siren/strobe outputs. Siren/strobe outputs can be directed to any SnapCard, Bus Module, or Panel Output.

**Output Configuration**  
50005 (Partitions-X10)

(Default = n/a) Use the procedure below for mapping outputs.

**To program an Output:**

1. Once in program mode enter **5****0****0****0****5**. The display shows *ENTER OUTPUT NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired 3-digit output number from the choices below.
  - 501–508, Interior siren outputs (1 per partition/area)
  - 601–608, Exterior siren outputs (1 per partition/area)
  - 701–708, Strobe outputs (1 per partition/area)
3. Press **#**. The display shows *OUTPUT TYPE IS n. ENTER NEW TYPE OR PRESS # TO ACCEPT*.
4. Enter the output type from the choices below:
  - Enter 1 for a Bus Module Output
  - Enter 3 for a SnapCard Output
  - Enter 4 for an Panel Output

Press **#**. The display shows *OUTPUT DATA n IS nnnnnnnn. ENTER OUTPUT DATA n OR PRESS # TO ACCEPT*.

5. Based on the output type, enter the required data from the choices below.

**Bus Module Output**

Enter the 8-digit device ID and press **#**. Enter 1 + **#** for output data 4. Output data 5 shows 00000000. The first 4 places represent outputs 1-4 on a HOM.

Choose which output(s) to activate. For example, entering 10010000 activates outputs 1 and 4 on a HOM.

**SnapCard Output**

Output data 5 shows 00000000. The first 4 places represent an output SnapCard mounted in the lower slot (SnapCard 1). The last 4 places represent an output SnapCard mounted in the side slot (SnapCard 2).

Choose which output(s) to activate. For example, entering 01000010 would activate the second output on SnapCard 1, and the third output on SnapCard 2.

**Panel Output**

Output data 5 shows 00000000. The first 6 places represent general outputs 1–6, 7 represents the panel interior siren output, and 8 represents the panel exterior siren output.

Choose which output(s) to activate. For example, entering 11000000 activates onboard outputs 1 and 2.

## Menu Output Text

49003

(Partitions-X10)

(Default = none) Use the following guidelines to “name” the X10 and non-X10 menu output numbers that appear in the “Lights/Devices” user menus.

- Use the item numbers that appear in Table B.2 on page 92 for characters and words listed there.
- If a desired word does not appear in Table B.2, create it using the characters (custom text).

### Note

Only preprogrammed words from Table B.2 can be spoken by the panel. Silence takes the place of any created words when the panel voice speaks. However, created words are displayed just like preprogrammed words.

- 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 8 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.

### To Program Output Text:

1. Once in program mode enter **4****9****0****0****3**. The display shows *ENTER OUTPUT NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired output number as follows:
  - Partition 1—1 thru 40
  - Partition 2—41 thru 80
  - Partition 3—81 thru 120
  - Partition 4—121 thru 160
  - Partition 5—161 thru 200
  - Partition 6—201 thru 240
  - Partition 7—241 thru 280
  - Partition 8—281 thru 320

### Note

Entering an output number outside the range for a given partition is indicated by an “Invalid” message.)

3. Press **#**. The display shows *TEXT FOR OUTPUT nn IS current text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT*.
4. Enter the numbers of the desired characters or words. If you make a mistake press **\*** to start over.
5. Once all numbers have been entered, press **#** to accept. The display shows the new output text.

### To Delete Output Text:

1. Once in program mode enter **4****9****0****0****3**. The display shows *ENTER OUTPUT NUMBER OR PRESS \* TO CANCEL*.
2. Enter the desired output number and press **#**. The display shows *TEXT FOR OUTPUT nn IS current text. ENTER TEXT NUMBERS OR PRESS # TO ACCEPT*.
3. Enter **0****0****0** and press **#**. The display shows *TEXT FOR OUTPUT nn IS NO TEXT*.

## Alarm Settings

Alarm settings specify how the panel behaves during certain alarm situations. Alarm settings are global.

### Alarm Messages Played at High Volume

17079

(Alarms)

(Default = on) Choose whether or not you want alarm messages (on voice siren) *always* played at high volume. If not, they will be played at normal volume.

### Note

Auxiliary/Medical alarm messages are never sounded at high volume regardless of this setting.

### To set Alarm Message Volume:

Once the item number has been entered, enter **1** for on (high volume), or **0** for off (normal volume). Press **#** to apply the new setting.

### Play Evacuation Messages During Fire Alarm

17083

(Alarms)

(Default = on) Choose whether or not fire alarm evacuation audio messages are played during fire alarms. If off, evacuation messages will not play during fire alarms.

### To turn Play Evacuation Messages During Fire Alarm On/Off:

Once the item number has been entered, enter **1** for on, or **0** for off. Press **#** to apply the new setting.

### Evacuation Message Count

17104

(Alarms)

(Default = 4 messages) Set the number of evacuation messages (0–4) to be played.

- 0 = No Messages
- 1 = English
- 2 = Spanish
- 3 = French
- 4 = Portuguese

Evacuation messages are automatically played until the siren times out, the alarm is silenced, or the alarm is canceled. This setting determines the number of evacuation messages played starting with number 1 and up (then repeated). For example, if set to 2, evacuation messages 1 and 2 will be played and repeated.

### Note

In order for the panel to play evacuation messages during fire alarms, the *Play Evacuation Messages During Fire Alarm* setting (17083) must be set to “on”.

### To set Evacuation Message Count:

Once the item number has been entered, enter the evacuation message count (0–4) and press **#**.

**First Disarm Silences Fire Alarm and Second Disarm Cancels the Alarm**  
17084 (Alarms)

(Default = on) When set to on, the first code entry will silence a fire alarm and the second code entry will cancel the alarm. If off, the first code entry will silence *and* cancel the alarm.

**To turn First Disarm Silences Fire Alarm and Second Disarm Cancels the Alarm On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Unsilence Alarm after Silencing Period**  
17126 (Alarms)

(Default = off) Choose whether or not to enable unsilencing of alarm after silencing period expires. If on, a silenced fire alarm will resound.

**Note**

The silencing period can be set using the *Time Fire Alarm is Silenced* setting (17111) below.

**To turn Unsilence Alarm After Silencing Period On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Time Fire Alarm is Silenced**  
17111 (Alarms)

(Default = 30 seconds) Specify the amount of time (in seconds), for which sirens are silenced during a fire alarm (after a user enters a valid access code).

**Note**

The alarm will not unsilence if *Unsilence Alarm after Silencing Period* setting (17126) is set to off.

**To set Time Fire Alarm is Silenced:**

Once the item number has been entered, specify the silence time (15–999). Press  to apply the new setting.

**Annunciate Earliest Fire Alarm not the Most Recent**  
17128 (Alarms)

(Default = off) If on, the panel will annunciate the earliest active fire alarm instead of the most recent, during a multiple fire alarm situation.

**Note**

This option is intended for panels installed in Canada.

**To turn Annunciate Earliest Fire Alarm not the most Recent On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Fire Alarm in One Partition Sounds In All Partitions**  
17077 (Alarms)

(Default = on) Enable if you want a fire alarm in one partition to sound in all partitions. If not, a fire alarm will only sound in the partition where it occurred.

**Note**

This option is not available in UL-864 version.

**To turn Fire Alarm in One Partition Sounds In All Partitions On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**System Strobe Light Type**  
17062 (Alarms)

(Default = 1 [Amseco]) This setting allows you to choose the strobe manufacturer synchronization type.

Strobe Light Types:

- 1— Amseco
- 2— Wheelock
- 3— System Sensor
- 4— Gentex

**Note**

This option can only be programmed through Advent Downloader.

**Medical Siren Cadence  
Police Siren Cadence  
Auxiliary Siren Cadence**  
17046, 17047, 17048 (Alarms)

(Defaults = Medical: alternate modulated, Police: steady, Auxiliary: fast modulated) Set the siren cadence to the desired sound rhythm.

Sound Rhythms:

(\_ represents 0.125 second sound, \_\_ represents 0.5 second sound)

- 1— Temporal 3 \_ \_ \_ (repeat)
- 2— Modulated \_ \_ \_ \_ (repeat)
- 3— Alternate Modulated \_ \_ \_ \_ (repeat)
- 4— Fast \_ (repeat)
- 5— Steady \_\_\_\_\_ (steady on)
- 6— Programmable Cadence (must program through downloader)

**To set Siren Cadence:**

1. Once in program mode enter the desired item number.
2. Enter the desired sound rhythm (1–6) and press .

**System Settings**

**Note**

Date, time, and day settings affect all partitions/areas.

**System Date**  
17001 *(System)*

(Default = 01 01 00 [1/1/00]) This setting lets you adjust the panel calendar to the correct month, day, and year.

**To set the System Date:**

1. Enter the item number.
2. Enter the correct month (01–12), day (01–31), and year (00–99). For example, enter 090100 for September 1, 2000.
3. Press **⏏**. The display shows the new date.

**System Time**  
17002 *(System)*

(Default = 12 00 00 [12:00:00]) This setting lets you adjust the panel clock to the correct time. The panel uses a 24-hour clock. For example, to set the time to 4:17 PM, enter 1617.

**To set the System Time:**

Enter the item number. Enter the correct time (0000–2359). Press **⏏**. The display shows the new time.

**System Day of Week**  
17003 *(System)*

(Default = 5 [Saturday]) This setting lets you adjust the panel to the current day of week.

Day Format

- 0—Monday
- 1—Tuesday
- 2—Wednesday
- 3—Thursday
- 4—Friday
- 5—Saturday
- 6—Sunday

To set the System Day of Week:

Enter the item number. Enter the day of week using the above format (0–6) and press **⏏**.

**Time Format**  
17100 *(System)*

(Default = off) This setting allows you to choose whether the panel time format is in 12- (AM and PM) or 24-hour format. If on, the panel will announce and display the time in 24-hour format.

**To turn Time Format On/Off:**

Once the item number has been entered, enter **1** for on, or **0** for off. Press **⏏** to apply the new setting.

**Detect Receiver Failure**  
17078 *(System)*

(Default = on) When on, (and a wireless commercial transceiver is installed), the panel will detect and indicate wireless receiver failure.

**To turn Detect Receiver Failure On/Off:**

Once the item number has been entered, enter **1** for on, or **0** for off. Press **⏏** to apply the new setting.

**Panel Calls Back to Downloader**  
17122 *(System)*

(Default = off) Select whether or not to have the panel call back the downloader when the downloader calls out to the panel with a job.

**To turn Panel Calls Back to Downloader On/Off:**

Once the item number has been entered, enter **1** for on, or **0** for off. Press **⏏** to apply the new setting.

**Phone Off-Hook is Activity**  
17092 *(System)*

(Default = on) Select whether or not a phone off-hook condition is considered an activity.

**Note**  
For residential use only.

**To turn Phone Off-Hook is Activity On/Off:**

Once the item number has been entered, enter **1** for on, or **0** for off. Press **⏏** to apply the new setting.

**RF Supervisory Time A  
RF Supervisory Time B**  
A; 17049, B: 17050 *(System)*

(Defaults = A: 4 hours, B: 24 hours) The RF Supervisory Time is the time (in hours) in which the panel must receive a transmission from a wireless zone. If the panel does not receive a transmission within this time window, a trouble report occurs. Advent panels have two RF Supervisory Times (A and B).

**To set RF Supervisory Time:**

Enter the desired item number. Enter the RF Supervisory Time in hours (2–24). Press **⏏** to apply the new setting.

**Battery Test Interval**  
17073 (System)

(Default = 4 hours) Select how (4 or 24 hours) often the panel performs a self-test on its backup battery to ensure that it is adequately charged.

**Note**  
This option is not available in UL-864 version.

**To set Battery Test Interval:**

Once the item number has been entered, enter  for 4 hours, or  for 24 hours. Press  to apply the new setting.

**High Rise Installation**  
17074 (System)

(Default = off) Set to “on” when the panel is installed in a high rise building. This will enable zones to have “floor” attributes. When on, any zone not programmed with a floor attribute will *not* turn on all outputs with a “fire on floor” condition programmed. When off, any zone not programmed with a floor attribute *will* turn on all outputs with a “fire on floor” condition programmed.

**To turn High Rise Installation On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Commercial or Residential Installation**  
17076 (System)

(Default = Commercial: 1, Residential: 0) Select either a commercial or residential installation. If commercial, LTIME is set to every 4 hours instead of 24 hours.

**Note**  
This option is not available in UL-864 version.

**To set Commercial or Residential Installation:**

Once the item number has been entered, enter  for commercial, or  for residential. Press  to apply the new setting.

**Report System Events**  
17096 (System)

(Default = on) This setting determines if system events are reported to the central station.

**To turn Report System Events On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**System Report Time (STIME)**  
17004 (System)

(Default = random) Enter the time of day (in 24-hour format) when an automatic phone test to the central station is performed.

**To set the System Report Time:**

Enter the desired item number. Enter the 4-digit system report time (00:00-23:59) and press .

**Enable RF Jam Detect**  
17072 (System)

(Default = on) Select whether or not the panel will detect an RF jam.

**Note**  
This setting must be set to “on” in commercial fire and burglary systems.

**To turn Enable RF Jam Detect On/Off:**

Once the item number has been entered, enter  for on (jam detection), or  for off (no jam detection). Press  to apply the new setting.

**Enable Long Range Radio**  
17075 (System)

(Default = off) Select whether or not you want to enable long range radio (if connected to panel).

**Note**  
This option can only be programmed through Advent Downloader.

**Percent Full History Buffer Reports**  
17043 (System)

(Default = 80 percent) This setting allows you to specify how full (percent) the history buffer may get before generating trouble. Another trouble is generated when the history buffer overflows.

**To set History Buffer Percent:**

Once in program mode enter the item number. Enter the desired percentage (10–100) and press .

**Percent Full Report Buffer Reports**  
17044 (System)

(Default = 80 percent) This setting allows you to specify how full (percent) the report buffer gets before forcing early reporting of delayed low priority events. No trouble is generated until the report buffer overflows.

**To set Report Buffer Percent:**

- Once in program mode enter the item number.
- Enter the desired percentage (10–100) and press .



**Partition/Area Text Displayed on Touchpads and Spoken Over Speakers**  
17125 (System)

(Default = on) If on, partition/area text (49004) will be displayed on touchpads *and* spoken over speakers. If off, partition/area text will only be displayed on touchpads.

**To turn Partition/Area Text Displayed on Touchpads and Spoken Over Speakers On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Enable Daylight Savings**  
17070 (System)

(Default = on) This setting allows you to select whether or not the panel adjusts to daylight savings time. If on, the clock makes daylight savings adjustments at 2:00 AM on the first Sunday in April and the last Sunday in October. The time will spring ahead from 01:59 to 03:00 or fall back from 01:59 to 01:00.

**To turn Daylight Savings On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Print System Events**  
17099 (System)

(Default = on) This setting allows you to select whether or not to print system events.

**Note**

This setting only enables the printing of *system* events. See *Print Partition/Area Events* setting (xx091) on page 22 to enable partition/area event printing.

**To turn Print System Events On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Print Line Feed after Carriage Return**  
17097 (System)

(Default = on) This setting allows you to select whether or not to print a line feed after a carriage return. This will tell the printer to print a line feed, creating an extra blank line.

Some printers have an auto line feed setting. If the printer adds its own extra line feed, disable this setting so that it doesn't print extra blank lines. Check the printer manual for details.

**To turn Print Line Feed after Carriage Return On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Printer Supports Epson ESC/P Protocol**  
17124 (System)

(Default = on) Turn this setting on if the printer attached to the panel supports ESC/P protocol. Check the printer manual for details.

**To turn Epson ESC/P Protocol On/Off:**

Once the item number has been entered, enter  for on, or  for off. Press  to apply the new setting.

**Hours to Delay Before Reporting AC Failure**  
17041 (System)

(Default = 6 hours) This setting allows you to select the hours to delay (in addition to random 0–30 minute delay) before the panel reports AC power failure to the central station.

**To set Hours to Delay Before Reporting AC Failure:**

Once in program mode enter the item number. Enter the desired delay (0–36) and press .

**Low Battery Trip Voltage**  
17037 (System)

(Default = 180 [10.6V]) This setting allows you to specify the backup battery voltage at which low battery trouble is generated (set in 1/17 volt units).

**To set Low Battery Trip Voltage:**

Once in program mode enter the item number. Enter the desired voltage (172–188 [10.1–11.1V]) and press .

**Battery Restored Voltage**  
17038 (System)

(Default = 196 [11.6V]) This setting allows you to set the voltage at which a low battery trouble restoral is generated (set in 1/17 volt units).

**To set Battery Restoral Voltage:**

Once in program mode enter the item number. Enter the desired voltage (188–204 [11.1–12.0V]) and press .

**Battery Voltage Shutdown is Started**  
17039 (System)

(Default = 159 [9.4V]) This setting allows you to set the backup battery voltage at which a system shutdown (during an AC power failure) is started (set in 1/17 volt units).

**To set Battery Voltage Shutdown is Started:**

Once in program mode enter the item number. Enter the desired voltage (151–167 [8.9–9.8V]) and press .

**Battery Voltage Shutdown is Canceled**  
17040 (System)

(Default = 176 (10.4V)) This setting allows you to set the backup battery voltage at which a system shutdown (during an AC power failure) is canceled (set in 1/17 volt units).

**To set Battery Voltage Shutdown is Canceled:**

Once in program mode enter the item number. Enter the desired voltage (168–184 [9.9–10.8V]) and press **#**.

**AC Stable Time**  
17036 (System)

(Default = 8 seconds) This setting allows you to specify the time (in seconds) that AC power must be lost or restored before a trouble, or trouble restoral is generated. These events are not reported immediately.

**To set AC Report Delay:**

Once in program mode enter the item number. Enter the desired time (0–200) and press **#**.

**AC Frequency**  
17123 (System)

(Default = 0 [60 Hz]) This setting allows you to choose the AC frequency that is powering the panel.

**To set the AC Frequency:**

Once in program mode enter the item number. Enter **1** for 50 Hz (off), or **0** for 60 Hz (on). Press **#** to apply the new setting.

**Panel Latitude**  
17110 (System)

(Default = 0 degrees) This setting allows you to specify the latitude (in degrees) where the panel is located. This information is then used by the panel when automatically adjusting sunrise/sunset schedules.

**To set the Panel Latitude:**

Once in program mode enter the item number. Enter the desired latitude (0–65) and press **#**.

**On Premises Pager ID 1**  
**On Premises Pager ID 2**  
1: 17060, 2: 17061 (System)

(Default = 0000000) This setting allows you to specify 7-digit pager IDs that will identify the 2 different pager groups in a local paging network.

**To specify On Premises Pager IDs:**

Once in program mode enter the item number. Enter the desired 7-digit (0–9) pager ID and press **#**.

## Miscellaneous Settings

**Downloader Account Number**  
17109 (Customer)

(Default = 00000000) The Downloader Account Number is used to identify the panel to Advent Downloader.

**To enter a Downloader Account Number:**

- Once the desired item number has been entered the current account number will be displayed.
- Enter an 8-digit number (0–9) and press **#**.

**Reset Panel**  
50001

(Default = n/a) This setting allows you to clear any errors the panel may have by “rebooting” the system. All settings will remain unchanged.

**To Reset the Panel:**

- Enter the installer code. Enter **500001**.
- Press **99** and then **#**. Wait about a minute for the panel to reset.

**Software/Hardware Version**  
50003

(Default = n/a) This setting allows you to view and identify panel hardware and software version.

**To view System Version:**

- Enter the installer code.
- Enter **500003**. The panel displays *SYSTEM ID nnnnnnnn VERSION n.nn nnn.nnn PANEL TYPE n SNAPCARD n n*.

Panel Type Formats

- 0—Commercial Burg.
- 1—Home Navigator
- 2—Commercial Fire
- 3—Home Navigator High
- 4—Commercial Burg. High
- 5—Commercial Fire High
- 6—not used
- 7—Commercial Burg. Low
- 8—Commercial Fire Low

SnapCard Type Formats

- 0—none
- 1—(not used)
- 2—NAC
- 3—8Z input
- 4—4 relay output
- 5—quad smoke loop
- 6—24V smoke loop
- 7—(not used)
- 8—4Z input, 2 relay output

### Clear History Buffer

50004

(Default = n/a) This setting allows you to clear the history buffer.

#### To Clear History Buffer:

1. Enter the installer code.
2. Enter **50004**. The display shows *HISTORY BUFFER CLEARED*.

### Holiday A List

### Holiday B List

A: 50008, B: 50009

(Holiday)

(Default = n/a) Holiday lists allow you to set up time periods when regular schedule hours vary. a holiday is defined as one day. A separate holiday must be added in order to span over consecutive days. Once set up, users can incorporate holidays into schedules. Each partition/area has 2 lists (A and B) and each list has up to 16 holidays. Document holidays in the *User's Guide*.

#### To add a Holiday:

1. Enter the installer code.
2. Enter the desired item number. The display shows *ENTER PARTITION/AREA NUMBER OR PRESS \* TO CANCEL*.
3. Enter the partition/area number (1–8) and press **#**. The display shows *ENTER HOLIDAY NUMBER OR PRESS \* TO CANCEL*.
4. Enter the desired holiday number (1–8) and press **#**. The panel display shows *HOLIDAY DATA IS current data*.
5. Enter a 2-digit month (01–12), a 2-digit day (01–31), and press **#**. For example, if the holiday fell on July 4, you would enter **0704**.
6. The display shows the new holiday setting.

#### To delete a Holiday:

1. Enter the installer code.
2. Enter the desired item number. The display shows *ENTER PARTITION/AREA NUMBER OR PRESS \* TO CANCEL*.
3. Enter the partition/area number (0–8) and press **#**. The display shows *ENTER HOLIDAY NUMBER OR PRESS \* TO CANCEL*.
4. Enter the desired holiday number (1–8) and press **#**. The panel display shows *HOLIDAY DATA IS current data*.
5. Enter **0 + #**. The display shows *HOLIDAY DATA IS NO DATA*.

### Event Configuration and Alarm Masks

50010

(Event Mask)

(Default = n/a) This setting allows you to specify how you want events reported.

#### Note

Whenever possible, use Advent Downloader to set configuration masks.

Event masks are represented by an eight-digit event mask number where 0 = off and 1 = on. For example, if an event mask reported to phone 1, phone 2, history buffer, and was high priority, it would be represented as "11010001" (see event mask formats below). If you wanted the same event mask to stop reporting to phone 2, you would change the event mask number to "10010001." Notice how the place holder for phone 2 was changed from a 1 (on) to a 0 (off). (From 11010001 to 10010001).

Event Mask Formats:

- 1—Reporting Phone 1
- 2—Reporting Phone 2
- 3—Print
- 4—History Buffer (Store)
- 5—Pager
- 6—Report to Backup
- 7—(not used)
- 8—High Priority

#### To set a Configuration Mask:

1. Enter **50010**. The display shows *ENTER EVENT GENERAL TYPE OR PRESS \* TO CANCEL*.
2. Enter the event general type (1–19) using Table B.8 on page 102, then press **#**. The display shows *ENTER EVENT SPECIFIC TYPE OR PRESS \* TO CANCEL*.
3. Enter the event specific type using Table B.8, and press **#**. The display shows *ENTER PARTITION NUMBER OR PRESS \* TO CANCEL*.
4. Enter the desired partition/area (1–8) and press **#**. The display shows the eight-digit event mask, then *ENTER NEW EVENT MASK OR PRESS # TO ACCEPT*.
5. Enter the desired 8-digit event mask (0 = off, 1 = on, and 2 = unchanged), then press **#**.

### Print Zone & Device Information

50012

(Default = n/a) Sends programmed zone and device information to the printer.

#### To Print Zone and Device Information:

Enter **50012**. Zone and Device information will print.

### Print History Buffer

50016

(Default = n/a) Prints events based on a time range.

#### To Print History Buffer:

1. Enter **50016**. The display shows *ENTER HISTORY START*.
2. Enter the desired start date in mm/dd/yy format. For example, if you wanted to print events starting on September 1, 1999 you would enter 090199. The display shows *ENTER HISTORY STOP*.
3. Enter the desired stop date in mm/dd/yy format. Events occurring within that time frame will print.

### Delete Primary SnapCard Delete Secondary SnapCard

Primary: 50014, Secondary: 50015

(Default = n/a) This setting enables you to delete a SnapCard when it is being replaced with a different type of SnapCard. All inputs/outputs for the new card must be programmed.

#### Note

If you are replacing the SnapCard with the same type of SnapCard you don't have to perform this procedure and can keep the current input/output settings.

#### To Delete SnapCard Information:

1. Enter the installer code.
2. Enter the desired item number. The panel displays *SNAP-CARD DELETED*.

## Remote Downloader Programming

#### Note

Downloader programming must occur on-site when programming an Advent Commercial Fire panel. Please see the Advent Downloader *User's Guide* for more information.

Although most information can be programmed at the panel, some optional information must be programmed remotely from Advent Downloader. Use the information you recorded in Appendix A to inform the downloading operator of the programming requirements for this system.

## Advent Downloader Programming

#### Note

The *Enable Remote Access setting (17086)* must be set to "on" in order for remote downloader programming to be enabled. This setting defaults to "on".

#### To initiate an upload/download session from the panel:

1. Contact your download station and ask the operator to prepare for an upload/download session.
2. Make sure the panel is connected to a phone line and that premises telephones are on hook (hung up).
3. Enter panel programming and verify/enter the following downloader settings:
  - 17107 Dealer Access Code—Must match (in Advent

Downloader *and* at the panel) or be left at default.

- 17108 Downloader Access Code—Must match (in Advent Downloader *and* at the panel) or be left at default.
- 17109 Downloader Account Number—Must match (in Advent Downloader *and* at the panel) or be left at default.
- yy001 (23001 or 24001) Phone Number Enable—Must be "on" for panel to call the downloader.
- yy002 (23002 or 24002) Phone Number—At least one downloader phone number must be programmed. (Programming the phone number automatically enables it.)

4. Enter **0 + 2 + install code (0123)**.
5. For an upload enter **1**, a download press **2**, and a general upload/download press **3**. The session will start and the system will return to the previous arming level.

#### Note

The panel software versions (in Advent Downloader *and* at the panel) must match.

If the panel displays *DOWNLOAD FAILURE* contact the downloader station to verify the downloader phone number and settings.

## Installing Line Carrier Devices

This section describes how to install X10 Lamp, Appliance, and Universal Module line carrier (wireless) line carrier devices.

#### Note

The operation of X10 modules is for supplementary purposes only.

## Programming the Panel House Code

Please see item numbers xx022 and xx023 (page 21) for information on setting house codes.

## Installing X10 Modules

When installing X10 modules:

- Use only incandescent lamps with lamp modules.
- Do not plug X10 modules into outlets controlled by a switch.
- Do not use extension cords to connect several lamps or appliances to one module.



#### CAUTION

Use X10 *Lamp* Modules to control light fixtures – do not use X10 *Appliance* or *Universal* Modules. Appliance and Universal Modules are not controlled during an alarm.

#### To install X10 modules:

1. Plug the lamp or appliance cord into the bottom of the module.
2. Plug the module into a lower AC outlet.
3. Refer to Table B.5 on page 97 for the house code you programmed into the panel, and then find the letter that corresponds to that house code. Each letter setting represents one panel house code. For example, house code 1 corresponds with "A" on the X10 module house dial.

4. Set the house dial on the module to the appropriate letter.
5. Set the unit number dial from 1 to 16 for the desired response as described in Table B.6 on page 97.

## Adding Lights/Devices to Program Memory

### To add lights or devices to program memory:

1. Press **[7]**. The display shows *FEATURES MENU*.
2. Enter **[3]** and the display shows *LEARN LIGHTS AND DEVICES*.
3. Press **[1]** to add a light. The panel displays *ENTER A LIGHT NUMBER THEN PRESS #*.

Press **[4]** to add a device. The panel displays *ENTER A DEVICE NUMBER THEN PRESS #*.

4. Enter the desired light or device number (1–40) and press **[#]**. The display shows *LIGHT/DEVICE nn ADDED*.
5. To add another light or device, enter the desired light or device number and press **[#]**.
6. To exit press **[\*] + [\*]**.

### To delete lights or devices from program memory:

1. Press **[7]**. The display shows *FEATURES MENU*.
2. Enter **[3]** and the display shows *LEARN LIGHTS AND DEVICES*.
3. Press **[2]** to delete a light. The panel displays *ENTER A LIGHT NUMBER THEN PRESS #*.

Press **[5]** to delete a device. The panel displays *ENTER A DEVICE NUMBER THEN PRESS #*.

4. Enter the desired light or device number (1–40) and press **[#]**. The display shows *LIGHT/DEVICE nn DELETED*.
5. To delete another light or device enter the desired light or device number and press **[#]**.
6. To exit press **[\*] + [\*]**.

## Testing the System

### Note

Before testing, it is recommended that you have covers on all modules (mounted outside the cabinet) and the panel cabinet door closed. The *testing* environment should match the system *working* environment.

This section describes how to perform the following test procedures:

- Basic System Commands
- Testing Panel Backup Battery(s)
- Testing Hardwired Zone Inputs
- Testing Wireless Sensors
- Testing Outputs
- Testing Optional Lights and Devices (X10 Modules)

- Testing Phone Communication
- Testing Central Station Communication
- Adjusting Touchpad Contrast

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

Refer “Troubleshooting” on page 55 if correct test results are not achieved.

## Basic System Commands

Table 14 describes basic touchpad operating commands. For complete details on system operation, including user programming, refer to the system *User Guide*.

**Table 14. Basic Touchpad Operating Commands**

Command	System Response
1 + 9	Indicates current system status
1 + 1 + CODE	Disarms system to OFF
1 + 2 + CODE	Arms system to PERIMETER
1 + 3 + CODE	Arms system to FULL
8 + 9 + CODE	Manually reset smoke sensors
1 + 0	Check alarm history
7 + 5	Check event history buffer
7 + 7 + CODE + Area	Area jump
8 + 8	Initiates a battery test
8 + 1 + CODE	Initiates a zone test
0 + 1 + CODE	Initiates a phone test
8 + 7 + CODE	Initiates a fire test

## Testing Panel Backup Battery(s)

The panel can both automatically and manually place a test load on the panel backup battery(s) and measure the voltage output.

### Note

A newly installed battery may require up to eight hours under panel power before an accurate charge indication.

### To manually test the panel backup battery(s):

1. Press **[8]**. The display shows *SYSTEM MENU*.
2. Press **[8]** again to test the battery(s) and display the result. The display will show the battery voltage as *BATTERY TEST: 13.8 V (or similar) TO QUIT PRESS \**.
3. Press **[\*]** to quit. The system will automatically quit the battery test after 15 minutes.

## Testing Hardwire and Wireless Zones/Sensors

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

### Note

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

1. Close and secure the panel door.
  2. Make sure all zones and sensors are in their secured (non-alarm) state.
  3. Press **[8]**. The display shows *SYSTEM MENU*.
  4. Enter **[1] + installer code** to initiate the zone test.
  5. The display shows *ZONE TEST ON - PRESS 11 TO QUIT* and sounds one 0.5 second long beep.
  6. Actuate/trip and restore each zone/sensor one at a time while monitoring the display.
  7. **For hardwire zones** the system will beep and display *[ZONE #] TEST GOOD* in confirmation. If the system does not respond, check the zone/sensor wiring or panel programming.
- For wireless zones** the system will beep, and indicate *[zone #] signal level [##]* to confirm the zone number tested. (Refer to Table 15 for signal level descriptions.) If the system does not respond, or if the sensor does not meet the minimum requirements, refer to the “If a Wireless Sensor Fails the Zone/Sensor Test” section.
8. Press **[8] + [2]** to view tested zones.
  9. Press **[8] + [3]** to list untested zones.
  10. Press **[1] + [1]** to disarm and end testing (if Quik Arm is on). Otherwise, Press 1 and enter your install access code.

**Table 15. Signal Level**

Number	Signal Level
0-9	Weak
10-14	Fair
15-30	Good
31+	Excellent

### If a Wireless Sensor Fails the Zone/Sensor Test

If system does not beep when a sensor is tripped, place an ITI RF Sniffer (60-401) test tool near the wireless sensor when tripping to verify that the sensor is transmitting. Constant beeps from the RF Sniffer indicate a runaway (faulty) wireless sensor. Remove the sensor battery(s) and replace the sensor.

If possible, locate wireless sensors within 500 feet of the panel. While a transmitter may have a range of one mile or more out in the open, the environment at the installation site can have a significant effect on transmitter range.

Sometimes a change in sensor location can help overcome adverse wireless conditions.

### To improve wireless sensor communication, you can

- Reorient the sensor,
- relocate the sensor,
- if necessary, replace the sensor, or
- add additional RF transceivers.

### To reorient a wireless 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 as described below.

### To relocate a wireless sensor:

1. Test the sensor a few inches from the original position.
2. Move the sensor from the original position and retest until an acceptable location is found.
3. Mount the sensor in the new location.
4. If no location is acceptable, replace the sensor as described below.

### To replace a wireless sensor:

1. Test a known good sensor at the same location.
2. If the transmission beeps remain below the minimum level, avoid mounting a sensor at that location.
3. If the replacement sensor functions, contact ITI for repair or replacement of the problem sensor.

### To add RF transceiver(s):

Install and wire the RF transceiver module according to the *Installation Instructions* included with the module and the information provided on page 10 of this manual. You can have up to 5 RF transceivers on an Advent Fire panel.

### Testing Outputs and Sirens

All outputs (onboard, SnapCard, output module, and X10) should be tested to verify configuration programming.

#### CAUTION

Inform the central station of the test *before* activating outputs that trigger from an alarm condition.

1. Contact the central station to inform them you are testing the system.
2. Verify that all wiring at the panel and output devices is correct.
3. Activate the appropriate device to trigger each output as programmed.
4. Verify that each output responds according the programmed configuration. For outputs that trigger sirens, verify that the correct alarm sounds are produced from these sirens. Table 16 describes the system alarm sounds you should hear from each alarm event (based on defaults). Verify that sirens stop when a fire alarm is silenced.
5. If strobes are used, verify that the strobes flash, and continue to flash until a fire alarm is acknowledged (cancelled).

- Contact the central station when you are finished testing.

**Table 16. System Alarm Sounds**

Alarm Type	Alarm Sound
Fire	Repeating series of three beeps (temporal 3)
Police/Intrusion	Continuous tone
Auxiliary	Rapid beeps

## Testing the X10 Modules (menu controlled outputs)

Refer to Table B.5 in Appendix B for X10 lamp, appliance, and universal module response operation.

### Note

Lights and devices must be added (learned) before they can be accessed using the *Lights* or *Devices* menus.

### To test lights and devices:

- Press **4** to test lights or **5** to test devices. The display shows *ENTER A LIGHT/DEVICE NUMBER THEN PRESS #*.
- Enter the desired light or device number to test and press **#**.
- Press **1** to select *Turn [selected light or device] on now*.
- Verify that the light or device is on.
- Press **2** to select *Turn [selected light or device] off now*.
- Verify that the light is off.
- Press **Lights On** or **Lights Off** buttons twice to turn all lights on the first house code on or off at the same time.

### Note

Appliance and universal X10 modules, if any, are all turned off by pressing **Lights Off** but are not turned on by pressing **Lights On**.

- Repeat steps 2–6 for remaining assigned lamp and appliance module unit numbers.
- Press **\*** to return to the main menu.

## Testing Phone Communication

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

### To perform a phone test:

- Contact the central station to inform them that you are testing the system.
- Make sure all premises telephones are on-hook (hung up).
- Press **0**. The display shows *PHONE MENU*.
- Press **1** + **primary access code** + **#**. The display shows *PHONE TEST*.
- Wait for the system to dial and test all programmed telephone numbers.

- The panel indicates *PHONE TEST OK* for each phone number successfully tested.
- Press **\*** to quit the phone test.

### Note

If *NUMBER n TEST FAILURE* is indicated, press **\*** to quit the test and refer to the “Troubleshooting” section.

## Testing Central Station Communication

After performing zone and phone tests, check that the system is reporting alarms successfully to the central station and pager(s).



### CAUTION

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

### To test communication with the central station:

- Call the central station and tell the operator that you will be testing the system.
- Arm the system.
- Test each touchpad, wireless panic button, and trip all of the sensors. Verify that the appropriate system indications and alarms are working correctly.
- Make sure that you test all programmed central station phone numbers.
- When you finish testing the system, call the central station to verify that all of the correct alarms were received. Check pager displays to verify that reports were received.

## Adjusting Touchpad Display Contrast

Touchpad displays can be adjusted for easier viewing to help compensate for lighting conditions in the touchpad location. The contrast adjustment lightens or darkens the text.

### Note

When performing the procedure below you may get a Bus Communication Failure. This is because the panel takes the touchpad off-line when adjusting the contrast.

### To adjust display contrast:

- Enter configuration mode by pressing the **0** and **6** buttons together for at least two seconds. The display shows *DA nnn*.
- Press and release the **1** and **2** buttons together repeatedly, until the desired contrast level is displayed.
- Press **\*** and the display briefly shows *DONE*, then shows the time and date.

### Note

For information on adjusting display backlighting and brightness, please see the specific Advent panel User Guide.

Vacuum fluorescent displays do not have a contrast adjustment.





# Troubleshooting

This section describes what to do if you experience problems with system operation. If after performing the troubleshooting procedures the panel still malfunctions, please call Technical Support at 1-800-777-2624.

Feature	Problem	Solution
<b>Access Codes</b>		
	<i>Invalid Code</i> or <i>Invalid Authority</i> is indicated.	<ol style="list-style-type: none"> <li>1. Check that access code is valid or is within use/time limits.</li> <li>2. Special dealer access code is required for some system programming.</li> </ol>
	Customer cannot remember access code(s).	<ol style="list-style-type: none"> <li>1. Check your records or downloader database to see if you have the customer's access code(s) on file.</li> <li>2. If downloading software is available, read the panel access code(s) using the downloader.</li> </ol>
	Installer cannot remember install code.	<ol style="list-style-type: none"> <li>1. Check your records or downloader database to see if you have the install code on file.</li> <li>2. If downloading software is available, read the panel access code(s) using the downloader.</li> <li>3. If the panel has no access to downloading, clear memory (to defaults) and reprogram the panel locally.</li> </ol> <p><b>Note</b> Dealer access codes are not erased by clearing memory.</p>
	Access code stops working.	<ol style="list-style-type: none"> <li>1. Check for valid access code or that code use/time limits have not expired.</li> <li>2. Check for proper partition/area and code selection.</li> </ol>
<b>Duress Code</b>		
	Optional duress code is not working.	Check for valid code. (See List Access Codes feature.)
<b>Arming/Disarming</b>		
	System won't arm.	<ol style="list-style-type: none"> <li>1. If arming to Perimeter, make sure all monitored perimeter doors and windows are closed or bypassed.</li> <li>2. If arming to Full, make sure all perimeter <i>and interior</i> zone sensors are closed or bypassed.</li> <li>3. Check system status (press 1 + 9) for an indication of the problem.</li> </ol>
	System won't disarm.	<ol style="list-style-type: none"> <li>1. Check for proper access code.</li> <li>2. Check the access code authority setting.</li> </ol>
<b>Batteries</b>		
	<i>Main battery</i> and/or <i>main battery failure</i> is indicated.	Check the panel backup battery(s) and connections and replace if necessary. Also, refer to the Panel - Power LED section in this table.
	<i>Zone [zone #] low battery</i> is indicated.	Replace the indicated sensor battery.
	<i>SnapCard low battery</i> is indicated.	Check the panel 24 VDC Smoke Expansion SnapCard backup battery and connections and replace if necessary.

Feature	Problem	Solution
<b>Bypassing</b>		
<b>Note</b> Fire zones cannot be bypassed.		
	<i>Fail</i> and/or <i>Invalid</i> is indicated when you attempt to bypass a zone.	
		Zone may already be bypassed, or you are trying to bypass a 24-hour zone that cannot be bypassed.
	System won't automatically unbypass closed zones.	
		Check that the Unbypassing feature is enabled in programming.
	System only allows a certain number of zones to be bypassed.	
		Check Bypassing Limit feature programming for desired number.
<b>Central Station Reporting</b>		
	Central station is not receiving reports from panel.	
		<ol style="list-style-type: none"> <li>1. Perform a phone test. If phone test fails, follow the remaining steps</li> <li>2. Check that the DB-8 Cord is plugged into the panel phone jack and into the RJ-31X/CA-38A jack.</li> <li>3. Check for proper RJ-31X/CA-38A jack to phone line wiring.</li> <li>4. Verify with the central station operator that the correct receiver line phone number is programmed into the panel. Reprogram the phone number and retest if necessary.</li> <li>5. Verify that the correct phone reporting format is being used.</li> <li>6. Replace faulty RJ-31X/CA-38A jack.</li> <li>7. Replace faulty DB-8 cord.</li> <li>8. Check that the premises phone line is working.</li> </ol>
<b>Devices</b>		
	(See X-10 Modules, Hardwire Outputs, or 4 Relay Output Module).	
<b>Dual Phone Line Module</b>		
	Module bus status LED stays off.	
		<ol style="list-style-type: none"> <li>1. Check module and panel power (Green LEDs on).</li> <li>2. Check SuperBus wiring and connections.</li> <li>3. Check that the module is programmed (added/learned) into panel memory. Add the module if necessary.</li> </ol>
	Module bus status LED stays on.	
		<ol style="list-style-type: none"> <li>1. Reinitialize panel and module by turning panel power off and back on.</li> <li>2. Module circuit failure. Replace the module.</li> </ol>
	Module bus status LED blinks, but phones don't work.	
		<ol style="list-style-type: none"> <li>1. Check phone wiring and connections.</li> <li>2. Check that the module is programmed (added/learned) into panel memory. Add the module if necessary.</li> </ol>
	Module phone line status LED is on.	
		Check for phone line failure or phone wiring and connections for that line.
	Phones connected to module work intermittently.	
		<ol style="list-style-type: none"> <li>1. Check module and panel (Green LEDs on).</li> <li>2. Check Superbus wire routing and length. (Shielded cable may be required on very long or noisy wire runs.)</li> <li>3. Check panel/module programming.</li> </ol>
	Only one module phone line works.	
		<ol style="list-style-type: none"> <li>1. Check phone/module connections.</li> <li>2. Repair/replace faulty module.</li> <li>3. Check panel/module programming.</li> </ol>

Feature	Problem	Solution
<b>False Alarm</b>		
	Alarm is being sent by mistake.	Enter the access code immediately to cancel the alarm. This command aborts the alarm report if done within 5 seconds (alarm report delay time [xx013]) after alarm activation (Dialer Abort feature must be on). The system will indicate <i>Report Canceled</i> and the report will not be sent to the monitoring station.  <b>Note</b> Some alarms such as Fire alarms will not be aborted.
<b>Hardwire Alphanumeric Touchpad</b>		
	Touchpad displays <i>Touchpad Not Enrolled</i> and does not respond to buttons.	Enter panel programming mode by entering 8 + 0 and the install code at a working touchpad or from a telephone. Enter item number 48001 and enroll the new touchpad into panel memory.
	Touchpad displays ***** and does not respond to button presses.	Check for SuperBus miswiring.
<b>Hardwire Alphanumeric Touchpad (continued)</b>		
	Touchpad appears “dead” (no display or response to buttons).	<ol style="list-style-type: none"> <li>1. Check that the wiring connector is plugged into the back of the touchpad and into the panel bus connector.</li> <li>2. Check SuperBus wiring for opens or shorts.</li> <li>3. Check panel power.</li> </ol>
<b>Hardwire Inputs</b>		
	No inputs detected.	<ol style="list-style-type: none"> <li>1. Check panel programming of all general purpose inputs/outputs.</li> <li>2. Check all input device wiring and connections.</li> </ol>
	One input is never detected.	<ol style="list-style-type: none"> <li>1. Check panel programming of general purpose input/output.</li> <li>2. Check input device operation.</li> <li>3. Check input device wiring and connections.</li> </ol>
	Wrong input is detected.	<ol style="list-style-type: none"> <li>1. Check panel input programming for input.</li> <li>2. Check input device wiring and connections.</li> </ol>
<b>Hardwire Outputs</b>		
	No outputs activate.	<ol style="list-style-type: none"> <li>1. Check panel/module programming.</li> <li>2. Check output wiring and connections.</li> <li>3. Check panel/module power (green LEDs on).</li> <li>4. If used, check the optional external supply powering the output devices.</li> </ol>
	One output never activates.	<ol style="list-style-type: none"> <li>1. Check panel/module programming for that output.</li> <li>2. Check output wiring and connections.</li> <li>3. Check that the output programmed trigger event actually occurs.</li> <li>4. Output relay may have failed or been overloaded. Reprogram to use a different (unused) output or replace the module.</li> </ol>
	Wrong output activates.	<ol style="list-style-type: none"> <li>1. Check panel output programming.</li> <li>2. Check output device wiring and connections.</li> </ol>

Feature	Problem	Solution
<b>Hardwire Sirens/Bells</b>		
	Exterior sirens are not producing alarm sounds.	<ol style="list-style-type: none"> <li>1. Check for 12 VDC between panel terminals 6 and 7 during alarm.</li> <li>2. Check panel main power.</li> <li>3. Check for correct wiring at the siren and panel terminals.</li> </ol>
	Exterior sirens produce status sounds.	<ol style="list-style-type: none"> <li>1. Check for correct wiring at the siren and panel terminals.</li> <li>2. Check exterior siren output programming.</li> </ol>
	Interior bells are not producing sounds.	<ol style="list-style-type: none"> <li>1. Check for 12 VDC between panel terminals 4 and 5 with bell activated.</li> <li>2. Check panel main power.</li> <li>3. Check for correct wiring at the siren and panel terminals.</li> </ol>
<b>Hardwire Speakers (Voice)</b>		
	Speakers are not producing sounds.	<ol style="list-style-type: none"> <li>1. Check for correct wiring (and opens or shorts) at the speaker and panel terminals.</li> <li>2. Check that required capacitor and end of line (EOL) resistor are installed at the speaker.</li> <li>3. Make sure that voice volume is correctly programmed.</li> </ol>
	Speaker volume too high or low.	<ol style="list-style-type: none"> <li>1. Make sure that the voice volume is correctly programmed.</li> <li>2. Check for too many speakers or incorrect speaker impedance.</li> </ol>
<b>Hardwire Zones</b>		
	Panel does not respond to hardwire zone input.	<ol style="list-style-type: none"> <li>1. Check that zones are programmed into panel and add if missing.</li> <li>2. Make sure that zone is set to a restoral-required type or make sure that system is armed to active level before tripping sensor.</li> <li>3. If it is an optional 8 Input Module zone, check that the module bus status LED is blinking to show communication with panel.</li> </ol>
<b>Lights (See also X-10 Modules, Hardwire Outputs, or 4 Relay Output Module)</b>		
	Light fixture using X-10 Lamp Module does not work.	See X-10 Modules feature in this table.
<b>Panel</b>		
	Panel does not power up. Panel LED is off and alphanumeric touchpad display is dark.	<ol style="list-style-type: none"> <li>1. Check the AC circuit breaker to be sure the circuit is live.</li> <li>2. Check that the backup battery is installed correctly, the battery wires are connected, and the AC power transformer is plugged in.</li> <li>3. Check for proper panel and transformer wiring.</li> <li>4. Measure the incoming AC voltage at the panel terminals. The voltage should be about 24 VAC between panel terminals 1 and 2.</li> </ol>
	No incoming AC voltage at panel terminals 1 and 2.	<ol style="list-style-type: none"> <li>1. Check that AC power transformer is not wired into a switched circuit.</li> <li>2. Disconnect the AC power transformer and disconnect the wires from the transformer and the panel.</li> <li>3. Check transformer to panel wire for short or open circuits.</li> <li>4. Connect the transformer and check for about 24 VAC at the transformer unconnected terminals. If zero (0) volts, reset the built-in transformer circuit breaker (if it has one) or replace the transformer.</li> </ol>

Feature	Problem	Solution
<b>Panel (continued)</b>		
	Panel power LED is on constantly, display indicates <i>Main Low Battery</i> or voice sounds <i>Main Low Battery</i> .	<ol style="list-style-type: none"> <li>1. Check that the panel backup battery is installed correctly, the battery wires are connected, and the AC power transformer is connected.</li> <li>2. Measure the incoming AC voltage at the panel terminals. It should read about 24 VAC at panel terminals 1 and 2.</li> <li>3. Remove the panel backup battery power by disconnecting the red (positive) battery wire.</li> <li>4. Check for 13.6 to 14.2 VDC battery charging voltage between panel terminal 3 (GND) and the disconnected red battery wire.</li> <li>5. Check for 11.5 to 13.9 VDC battery voltage between the backup battery spade lugs. If the battery voltage is <i>not</i> within the recommended range, allow the battery time to charge or replace faulty battery.</li> </ol> <p><b>Note</b> When the panel is running a backup battery test, the reading at the connected battery can range from 11.4 to 13.7 VDC. The panel automatically runs a backup battery test once every 4 or 24 hours (programmed test interval) and at STIME.</p> <ol style="list-style-type: none"> <li>6. Restore the backup battery power by reconnecting the red wire from the battery.</li> </ol> <p><b>Note</b> While the AC power transformer is plugged in, the panel automatically charges the battery. While the battery is charging for the first time it is normal for the system to indicate <i>Main Low Battery</i>. This can take a number of hours depending on the initial battery charge. Once the battery reaches full charge as measured while in battery test, trouble indication will stop once cleared by pressing the * button. If the trouble condition persists after 24 hours, replace the backup battery.</p>
	Panel power LED quickly flashes once a second, and after pressing 1 + 9, the touchpad indicates <i>Main Power Failure</i> . (Panel continues to operate from backup battery.)	<ol style="list-style-type: none"> <li>1. Check the AC circuit breaker to be sure the circuit is live.</li> <li>2. Check for proper panel and transformer wiring.</li> <li>3. Check that the AC transformer is wired to a non-switched circuit.</li> <li>4. Check that the transformer is supplying AC to the panel. (Transformer internal breaker or fuse may be blown.)</li> </ol>
	Panel power LED blinks. (Panel power is on and receiving AC power).	<p>Panel internal failure is detected - service is required:</p> <p>3 Blinks - Program memory checksum failure.</p> <p>4 Blinks - Voice memory checksum failure.</p> <p>5 Blinks - EVAC memory checksum failure.</p> <p>7 Blinks - RAM failure.</p>
<b>Partitions/Areas</b>		
	Only partition/area one (1) functions.	<ol style="list-style-type: none"> <li>1. Check that other partitions/areas are enabled.</li> <li>2. Check that devices are correctly added (learned) into the other enabled partitions/areas.</li> </ol>
<b>Phones</b>		
	Loss of dial tone on premises phones after wiring the RJ-31X jack or connecting the DB-8 Cord.	<ol style="list-style-type: none"> <li>1. Wait 2 minutes and try again. The panel may be busy trying to report to the central station receiver.</li> <li>2. Check the RJ-31X jack wiring.</li> <li>3. Check the panel connection to the DB-8 cord.</li> <li>4. Replace the RJ-31X jack.</li> <li>5. Replace the DB-8 cord.</li> <li>6. Perform a phone test after troubleshooting the phone line.</li> </ol>
	Constant dial tone is preventing dial-out on premises phones.	Polarity-sensitive phones exist on the premises. Reverse the phone wires connected to the brown and gray wire terminals on the RJ-31X jack.

Feature	Problem	Solution
<b>Phones (continued)</b>		
	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 okay and the problem is in the wiring.
	System does not respond to remote phone access.	Check that Remote Phone Enable panel feature (17086) is set to "on."
	Noisy or "radio" sounds on phone when system answers.	<ol style="list-style-type: none"> <li>1. Check phone wire routing and connections.</li> <li>2. Check for good panel ground connection.</li> </ol>
<b>Printer or Automation Module</b>		
	Module bus status LED stays off.	<ol style="list-style-type: none"> <li>1. Check module and panel power (green LEDs on).</li> <li>2. Check SuperBus wiring and connections.</li> </ol>
	Module bus status LED stays on.	<ol style="list-style-type: none"> <li>1. Reinitialize panel and module by turning panel power off then on.</li> <li>2. Module circuit failure. Replace the module.</li> </ol>
	Module bus status LED blinks, but no interface operation.	<ol style="list-style-type: none"> <li>1. Panel and module are communicating correctly via the SuperBus.</li> <li>2. Check panel/module programming.</li> <li>3. Check module and device cables and connections.</li> </ol>
<b>RF Transceiver Module (see also, <a href="#">Hardwire Outputs</a>, <a href="#">Wireless Sensors</a>, and <a href="#">Panel</a>)</b>		
	Module bus status LED stays off.	<ol style="list-style-type: none"> <li>1. Check module and panel power (green LEDs on).</li> <li>2. Check SuperBus wiring and connections.</li> <li>3. Check for proper panel/module power-up initialization.</li> </ol>
	Module bus status LED stays on.	<ol style="list-style-type: none"> <li>1. Reinitialize panel and module by turning panel power off and on.</li> <li>2. Module circuit failure. Replace the module.</li> </ol>
	Module bus status LED blinks, but limited or no module wireless operation.	<ol style="list-style-type: none"> <li>1. Panel and module are communicating correctly via the SuperBus.</li> <li>2. Check panel/module programming.</li> <li>3. Check antenna and ground connections.</li> <li>4. Check for too close of proximity to metal obstructions such as ducting or AC wiring.</li> </ol>
	Limited wireless signal range.	<ol style="list-style-type: none"> <li>1. Check Commercial RF Transceiver Module antenna and ground connections. (Never bend or cut wireless radio antennas.)</li> <li>2. Check for too close a proximity to metal obstructions such as ducting or large appliances.</li> <li>3. Check/change transmitting device orientation to module.</li> </ol>
<b>Schedules</b>		
	Wrong clock time, date, or day indication.	<ol style="list-style-type: none"> <li>1. Check panel clock/calendar programming.</li> <li>2. Check panel day of week programming.</li> </ol>
	Schedules don't repeat.	<ol style="list-style-type: none"> <li>1. Check panel schedules programming.</li> <li>2. Check if system clock/calendar has been changed since schedules were programmed.</li> </ol>

Feature	Problem	Solution
<b>Sensors/Zones (see also wireless smoke sensors)</b>		
	Zone # Tamper is indicated.	Replace the zone sensor cover if it is off. Trip and reset the sensor.
	Zone # Supervisory Failure is indicated.	The zone/sensor is not communicating with the panel.
	Zone # Trouble Low Battery is indicated.	Replace the indicated zone sensor battery.
<b>Tamper Indications</b>		
		<ol style="list-style-type: none"> <li>1. Check that wireless sensor covers are in place.</li> <li>2. Check that surface tampered wireless PIRs, Smoke, and Sound sensors are securely mounted.</li> <li>3. Check that hardwired sensor loop end of line (EOL) resistors are installed.</li> <li>4. Check for hardwire sensor loop shorts or opens.</li> <li>5. If panel door is tampered, check that the panel cover is closed.</li> <li>6. If phone jack is tampered, check that phone line cords are plugged in.</li> <li>7. Check that Commercial RF Transceiver antennas are not bent, cut, or missing and that antenna and ground connections are tight.</li> <li>8. Check for multiple incorrect access code entries from touchpad or phone.</li> </ol>
<b>Trouble Beeps (see also Panel)</b>		
		Check system status for an indication of the problem. Troubles must be individually acknowledged to silence the beeps.
<b>Wireless Sensors (also see RF Transceiver Module)</b>		
	The panel does not respond to sensor activity. There are no alarm, chime, or sensor test sounds.	<ol style="list-style-type: none"> <li>1. Check that the wireless sensor battery is installed.</li> <li>2. Check the sensor battery for low voltage. Replace batteries if necessary.</li> <li>3. Use an RF Sniffer tool (60-401) to verify that the sensor is transmitting.</li> <li>4. Check that the sensor is programmed (added/learned) into panel memory. Add the sensor if necessary.</li> <li>5. Verify that both RF Transceiver module antennas are installed and that the connections are tight.</li> </ol>
	The panel responds intermittently to wireless sensor signals.	<ol style="list-style-type: none"> <li>1. Rotate the sensor position from 90 to 180 degrees.</li> <li>2. Mount the sensor in a different location.</li> <li>3. Verify that both RF Transceiver Module antennas are installed and connections tight.</li> </ol>
<b>Wireless Smoke Sensor (see also RF Transceiver Module)</b>		
	Beeps once every minute.	Sensor batteries are low. Replace all of the smoke sensor batteries.
	Zone # Trouble is indicated.	<p>Replace the zone/sensor cover, if it is off. Trip the sensor.</p> <p>Check for blocked dirty sensor screen and clean if necessary.</p>
	Zone # Supervisory Failure is indicated.	The sensor is not communicating with the panel.
	Zone # Trouble Low Battery is indicated.	Replace the indicated sensor battery.
<b>Wireless Touchpads</b>		
	The panel does not respond to wireless touchpad commands.	<ol style="list-style-type: none"> <li>1. Operate touchpads from different locations to locate areas of intermittent operation.</li> <li>2. Check and/or replace wireless touchpad battery.</li> <li>3. Program or reprogram the touchpad(s) into the panel.</li> </ol>

Feature	Problem	Solution
<b>X-10 Lamp/Appliance Modules</b>		
	Lights or devices controlled by the X-10 Modules are not working.	<ol style="list-style-type: none"> <li>1. Check that the light or device is working and the power switch is on.</li> <li>2. Confirm light or device operation at working outlet.</li> <li>3. Check that the lights or devices are plugged into X-10 Modules and that the X-10 Modules are plugged into outlets that are not controlled by a switch. If necessary, relocate modules to nonswitched outlets.</li> <li>4. Check that the HOUSE dial on the X-10 Modules match the house code programmed into the panel.</li> <li>5. Check for correct X-10 module unit settings and panel programming.</li> </ol>
<b>Zones, Loops</b>		
	(See Hardwire Inputs, Sensors.)	



## Appendix A: System Configuration Worksheets

Use Table A.1 to determine maximum and standby current draw based on the devices connected to the panel.

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

Address \_\_\_\_\_

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

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

**Table A.1 System Hardwire Devices**

Part No.	Description	Qty.	Standby Current Draw	Standby Current Subtotal	Maximum Current Draw	Maximum Alarm Current Subtotal
<b>Control Panel</b>						
60-562-06 60-562-03	Control Panel		500 mA	500 mA	530 mA (No speakers connected to terminals 9 and 10)	530 mA (No speakers connected to terminals 9 and 10)
<b>Hardwire Sensors/Detectors</b>						
13-082	PIR Motion Detector		10 mA		10 mA	
13-443	2-Wire Smoke Sensor		100 $\mu$ A		N/A	
13-444	2-Wire Smoke/Heat Sensor		100 $\mu$ A		N/A	
	Fire Pull Station		N/A		N/A	
<b>Hardwire Sirens/Speakers</b>						
13-046	Hardwire Exterior Siren		N/A		145 mA	
13-060	8 Ohm, 15W Speaker		N/A		N/A	
<b>SuperBus 2000 Touchpads and Modules (31 Devices per Bus Header)</b>						
60-768	SuperBus 2000 Dual Phone Line Module		20 mA		60 mA	
60-783 60-854	SuperBus 2000 Printer Module <b>Note</b> Metal enclosure required for commercial applications.		35 mA		40 mA	
60-783-02	SuperBus 2000 RS 232 Automation Module		35 mA		35 mA	
60-803-01	SuperBus 2000 2x20 LCD Alphanumeric Touchpad		75 mA		120 mA	
60-804-01	SuperBus 2000 2x20 VFD Alphanumeric Touchpad		75 mA		120 mA	
60-810-04	SuperBus 2000 2x20 VFD Fire Alphanumeric Touchpad		75 mA		120 mA	
60-821-95 (plastic) 60-856-95 (metal)	SuperBus 2000 RF Commercial Transceiver Module <b>Note</b> Metal enclosure required for commercial applications.		50 mA		50 mA	
60-774	SuperBus 2000 8Z Hardwire Input Module		18 mA		35 mA	
60-770	SuperBus 2000 4-Relay Output Module		25 mA		180 mA	
60-870	SuperBus 2000 LED Driver Board		20 mA		20 mA	
60-871 (display) 60-872 (terminal)	SuperBus 2000 LED Display or Terminal Board		36 mA (1 LED per group)		65 mA (max LEDs lit)	
<b>SnapCards (2 per panel)</b>						

**Table A.1 System Hardwire Devices (Continued)**

Part No.	Description	Qty.	Standby Current Draw	Standby Current Subtotal	Maximum Current Draw	Maximum Alarm Current Subtotal
60-756	4 Input/2 Output SnapCard		10 mA + 2.5 mA per zone used + 7 mA per smoke loop used + 34 mA per relay used		185 mA	
60-757	8Z Hardwire Input SnapCard		10 mA + 2.5 mA per zone used + 7 mA per smoke loop used		230 mA	
60-758	4 Output SnapCard		6 mA + 34 mA per relay used		130 mA	
<b>Total</b>						
To achieve 24-hour backup Total Standby Current Draw must not exceed 650mA with 1 battery, 1350mA with 2 batteries, or 2.0A with 3 batteries for UL systems						
Total Maximum Alarm Current Draw (must not exceed 5.5A)						

**Determining Maximum Panel Wire Length**

**Example:**

Using 22 gauge wire to connect the following devices on one wire run (length of cable):

Device Current Draw (see note)

- 1- Hardwire 2-Line Alpha Touchpad = 120 mA
- 1- RF Transceiver Module = 50 mA
- 1-8Z Hardwire Input Module = 35 mA

Total Device Current Draw = 205 mA

Find the total device current draw in the table and match the wire type used. In this example, the maximum recommended wire length is about 154 feet. For longer lengths, use a larger gauge wire.

**Note**

For self- or remotely-powered devices, the maximum recommended wire length is 4,000 feet using 22 gauge or larger wire.

**Table A.2 Max. Wire Length Recommendations\* (Feet)**

Total Device Current Draw (mA)	22 Gauge (AWG)	18 Gauge (AWG)	16 Gauge (AWG)	14 Gauge (AWG)
100	616	1,562	2,486	3,936
200	308	782	1,244	1,968
300	206	522	830	1314
400	154	392	622	982
500	124	314	500	792
600	104	262	416	653
700	88	224	356	564
800	78	196	312	492

**Table A.2 Max. Wire Length Recommendations\* (Feet)**

Total Device Current Draw (mA)	22 Gauge (AWG)	18 Gauge (AWG)	16 Gauge (AWG)	14 Gauge (AWG)
900	70	174	278	438
1000	61	156	250	394
1100	56	142	226	358
1200	54	130	208	330
1300	48	120	192	304
1400	44	112	178	282
1500	42	104	166	264
1600	40	98	156	246
1700	36	92	146	232
1800	34	88	138	216
1900	32	82	132	208
2000	30	78	126	198
2100	29	74	120	188
2200	28	72	114	180
2300	27	68	108	172
2400	26	66	104	164
2500	25	64	100	158
2600	24	60	96	152
2700	23	58	92	146
2800	22	56	90	140
2900	21	54	86	136
3000	20	52	84	132

\*Two volt maximum loop voltage drop.



## Partition/Area Descriptions

Use Table A.7 to write in information about each partition or area.

**Table A.7 Partition/Area Numbers and Descriptions**

Partition/ Area No.	Description/Location [Display Text]
1	
2	
3	
4	
5	
6	
7	
8	

### SuperBus 2000 Device Information

Use Table A.8 to document information about SuperBus 2000 touchpads and modules. If you need more room, simply copy this page.

**Table A.8 SuperBus Touchpad and SuperBus Module Unit Numbers**

Device Description	Bus Connector (circle one)	Bus Address Number (assigned by panel)	Unique ID Number (From device label)
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
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	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		
	1/2		

## Zone and Sensor Information

Use Table A.9 to record information about zones and sensors.

**Table A.9 Zone and Sensor Assignments**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (NO, NC, Floor No., etc.)	Zone/Sensor Text
01			HW/RF				
02			HW/RF				
03			HW/RF				
04			HW/RF				
05			HW/RF				
06			HW/RF				
07			HW/RF				
08			HW/RF				
09			HW/RF				
10			HW/RF				
11			HW/RF				
12			HW/RF				
13			HW/RF				
14			HW/RF				
15			HW/RF				
16			HW/RF				
17			HW/RF				
18			HW/RF				
19			HW/RF				
20			HW/RF				
21			HW/RF				
22			HW/RF				
23			HW/RF				
24			HW/RF				
25			HW/RF				
26			HW/RF				
27			HW/RF				
28			HW/RF				
29			HW/RF				
30			HW/RF				
31			HW/RF				
32			HW/RF				
33			HW/RF				
34			HW/RF				
35			HW/RF				

**Table A.9 Zone and Sensor Assignments (Continued)**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (NO, NC, Floor No., etc.)	Zone/Sensor Text
36			HW/RF				
37			HW/RF				
38			HW/RF				
39			HW/RF				
40			HW/RF				
41			HW/RF				
42			HW/RF				
43			HW/RF				
44			HW/RF				
45			HW/RF				
46			HW/RF				
47			HW/RF				
48			HW/RF				
49			HW/RF				
50			HW/RF				
51			HW/RF				
52			HW/RF				
53			HW/RF				
54			HW/RF				
55			HW/RF				
56			HW/RF				
57			HW/RF				
58			HW/RF				
59			HW/RF				
60			HW/RF				
61			HW/RF				
62			HW/RF				
63			HW/RF				
64			HW/RF				
65			HW/RF				
66			HW/RF				
67			HW/RF				
68			HW/RF				
69			HW/RF				
70			HW/RF				
71			HW/RF				
72			HW/RF				
73			HW/RF				

**Table A.9 Zone and Sensor Assignments (Continued)**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (N0, NC, Floor No., etc.)	Zone/Sensor Text
74			HW/RF				
75			HW/RF				
76			HW/RF				
77			HW/RF				
78			HW/RF				
79			HW/RF				
80			HW/RF				
81			HW/RF				
82			HW/RF				
83			HW/RF				
84			HW/RF				
85			HW/RF				
86			HW/RF				
87			HW/RF				
88			HW/RF				
89			HW/RF				
90			HW/RF				
91			HW/RF				
92			HW/RF				
93			HW/RF				
94			HW/RF				
95			HW/RF				
96			HW/RF				
97			HW/RF				
98			HW/RF				
99			HW/RF				
100			HW/RF				
101			HW/RF				
102			HW/RF				
103			HW/RF				
104			HW/RF				
105			HW/RF				
106			HW/RF				
107			HW/RF				
108			HW/RF				
109			HW/RF				
110			HW/RF				
111			HW/RF				



**Table A.9 Zone and Sensor Assignments (Continued)**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (NO, NC, Floor No., etc.)	Zone/Sensor Text
112			HW/RF				
113			HW/RF				
114			HW/RF				
115			HW/RF				
116			HW/RF				
117			HW/RF				
118			HW/RF				
119			HW/RF				
120			HW/RF				
121			HW/RF				
122			HW/RF				
123			HW/RF				
124			HW/RF				
125			HW/RF				
126			HW/RF				
127			HW/RF				
128			HW/RF				
129			HW/RF				
130			HW/RF				
131			HW/RF				
132			HW/RF				
133			HW/RF				
134			HW/RF				
135			HW/RF				
136			HW/RF				
137			HW/RF				
138			HW/RF				
139			HW/RF				
140			HW/RF				
141			HW/RF				
142			HW/RF				
143			HW/RF				
144			HW/RF				
145			HW/RF				
146			HW/RF				
147			HW/RF				
148			HW/RF				
149			HW/RF				

**Table A.9 Zone and Sensor Assignments (Continued)**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (NO, NC, Floor No., etc.)	Zone/Sensor Text
150			HW/RF				
151			HW/RF				
152			HW/RF				
153			HW/RF				
154			HW/RF				
155			HW/RF				
156			HW/RF				
157			HW/RF				
158			HW/RF				
159			HW/RF				
160			HW/RF				
161			HW/RF				
162			HW/RF				
163			HW/RF				
164			HW/RF				
165			HW/RF				
166			HW/RF				
167			HW/RF				
168			HW/RF				
169			HW/RF				
170			HW/RF				
171			HW/RF				
172			HW/RF				
173			HW/RF				
174			HW/RF				
175			HW/RF				
176			HW/RF				
177			HW/RF				
178			HW/RF				
179			HW/RF				
180			HW/RF				
181			HW/RF				
182			HW/RF				
183			HW/RF				
184			HW/RF				
185			HW/RF				
186			HW/RF				
187			HW/RF				

**Table A.9 Zone and Sensor Assignments (Continued)**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (NO, NC, Floor No., etc.)	Zone/Sensor Text
188			HW/RF				
189			HW/RF				
190			HW/RF				
191			HW/RF				
192			HW/RF				
193			HW/RF				
194			HW/RF				
195			HW/RF				
196			HW/RF				
197			HW/RF				
198			HW/RF				
199			HW/RF				
200			HW/RF				
201			HW/RF				
202			HW/RF				
203			HW/RF				
204			HW/RF				
205			HW/RF				
206			HW/RF				
207			HW/RF				
208			HW/RF				
209			HW/RF				
210			HW/RF				
211			HW/RF				
212			HW/RF				
213			HW/RF				
214			HW/RF				
215			HW/RF				
216			HW/RF				
217			HW/RF				
218			HW/RF				
219			HW/RF				
220			HW/RF				
221			HW/RF				
222			HW/RF				
223			HW/RF				
224			HW/RF				
225			HW/RF				

**Table A.9 Zone and Sensor Assignments (Continued)**

Zone Number	Partition Number	Zone Type	Zone/Sensor Type (circle one)	Module Bus ID Number	Module Input Number	Attributes (NO, NC, Floor No., etc.)	Zone/Sensor Text
226			HW/RF				
227			HW/RF				
228			HW/RF				
229			HW/RF				
230			HW/RF				
231			HW/RF				
232			HW/RF				
233			HW/RF				
234			HW/RF				
235			HW/RF				
236			HW/RF				
237			HW/RF				
238			HW/RF				
239			HW/RF				
240			HW/RF				
241			HW/RF				
242			HW/RF				
243			HW/RF				
244			HW/RF				
245			HW/RF				
246			HW/RF				
247			HW/RF				
248			HW/RF				
249			HW/RF				
250			HW/RF				

**Menu Outputs**

Use Table A.10 to document information about menu outputs. Room to document 40 menu outputs is provided below. If you need more room, simply copy this page.

**Table A.10 Menu Outputs**

Partition/Area No.	Menu Output No.	Text	Schedule No.



## Access Codes and Authority Level Settings

Table A.11 shows the default access codes and Table A.12 shows default authority level settings. Document any changes in the tables.

**Table A.11 Default Access Codes**

Partition	Default Code	Authority	User #
1	1234	Primary	1
2	2345	Primary	2
3	3456	Primary	3
4	4567	Primary	4
5	5678	Primary	5
6	6789	Primary	6
7	7890	Primary	7
8	8901	Primary	8
Global	2020	Primary	5 or 9*
Installer	0123	Installer	0

\* The primary global access code is user #5 in 4 partition systems, and user #9 in 8 partition systems.

## Authority Level Settings

Table A.12 (right) shows default authority level settings. Document any changes in table.

**Table A.12 Authority Level Settings Programming**

		Setting Description										
		10 Remote Access Allowed	11 Arming to Off Allowed	12 Arming to Home Allowed	13 Arming to Away Allowed	14 Arming to Special Level 4 Allowed	15 Arming to Special Level 5 Allowed	18 Standard Zone Bypassing Allowed	19 Critical Zone Bypassing Allowed	20 Zone Test Allowed	21 Phone Test Allowed	22 Schedule Menu Access Allowed
Programmable Authority Level Setting*	1	√	√	√	√	√	√	√				√
	2	√	√	√	√	√	√	√				
	3		√	√	√	√	√	√				
	4		√	√	√	√	√					
	5		√	√	√	√	√					
	6		√	√	√	√	√					
	7											
	8											

\* Factory defaults shown. Write in actual settings.

Primary (prime) authority - of which there is only one per partition/area is required to assign full and duress authorities. Primary, full and duress authority levels (not shown) are not programmable.

## Item Numbers Index and Record

Use Table A.13 to document settings. Items are in numerical order.

**Table A.13 Item Numbers Index and Record**

Item Number	Setting Reference and Default	Setting
<b>Installer Programming—8 + 0 + Installer/Dealer CODE</b>		
xx001	Daily Trouble Reporting Time (page 19) 12:00	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx002	Siren Time Out (page 19) 16 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx003	Standard Entry Delay (page 24) 32 sec	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx004	Standard Exit Delay (page 25) 32 sec	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx005	Extended Delay (page 25) 2 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx006	Fast Beep Duration (page 25) 10 sec	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx007	Time Between Arming Notification and Arming (page 23) 10 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx008	Extension Time (page 23) 30 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx009	No Activity Tripped After (page 19) 0 (Not Active)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx010	Delay Between No Activity Trip and Alarm (page 19) 5 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx011	Zone Test Time Out (page 26) 30 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx012	Delay Between Generated Panic Alarm and Alarm Reporting (page 22) 5 sec	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx013	Delay Between Generated Standard Alarm and Alarm Reporting (page 22) 5 sec	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx014	Delay Between Generated Fire Alarm and Alarm Reporting (page 22) 0 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx015	Delay Between Suspicion Zone Trip and Alarm Generated (page 20) 5 min.	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx017	Number of Zones that can be Bypassed (page 24) 250 (all)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx018	Activity Fault Threshold 1 (page 23) 10	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx019	Activity Fault Threshold 2 (page 23) 30	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx020	Activity Fault Threshold 3 (page 23) 50	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx021	Swing Count (Auto Bypass Trips) (page 24) 3	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx022	X-10 House Code 1 (page 21) default is partition/area number	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx023	X-10 House Code 2 (page 21) default is partition/area number + 8	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx025	Enable Arming Level 2 (page 23) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx026	Enable Arming Level 3 (page 23) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx027	Enable Arming Level 4 (page 23) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
xx028	Enable Arming Level 5 (page 23) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx049	Non X-10 Output 1 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx050	Non X-10 Output 2 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx051	Non X-10 Output 3 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx052	Non X-10 Output 4 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx053	Non X-10 Output 5 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx054	Non X-10 Output 6 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx055	Non X-10 Output 7 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx056	Non X-10 Output 8 (page 21) None	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx057	Disarm Key (page 26) 4 (arm to level 1)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx058	Arm Key (page 26) 9 (arm to closed level)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx059	Lights Key (page 26) 15 (toggle all lights)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx060	Star Key (page 26) 12 (incremental arming)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx061	Lights/Star Key (page 26) 3 (auxiliary panic)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx063	Arm Level 2 (page 26) 6 (arm to level 3)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx064	Arm Level 3 (page 26) 5 (arm to level 2)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx065	Arm/Star Key (page 26) 16 (do nothing)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx066	Disarm/Lights Key (page 26) 16 (do nothing)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx068	Partition/Area Enable (page 17) Partition 1 On, Partitions 2–8 Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx069	Light Control (page 21) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx070	Device Control (page 21) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx071	Latchkey Access (page 21) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx076	Enable Keystroke Violation Alarm (page 19) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx077	Second Intrusion Causes Report (page 22) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx078	Generate Alarm for Suspicion Trips (page 20) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx079	Generate Alarm for Unarmed Tamper Signals (page 19) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx080	First Trip Local Second Trip Report (page 20) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____



**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
xx082	Key or Code Needed for Special Fire Touchpad Keys (page 26) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx083	Tamper Signals from Fire Zones are Alarms (page 19) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx084	Auxiliary/Medical Assignment (page 27) On (auxiliary alarm)	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx085	Enable Police Panic Keys (page 27) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx086	Enable Auxiliary/Medical Panic Keys (page 26) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx087	Enable Fire Panic Keys (page 27) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx088	Report Partition/Area Event to Central Station (page 21) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx089	Cancel Event Cancels Report (page 21) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx090	Second Fire Alarm Ends Reporting Delay (page 22) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx091	Print Partition/Area Events (page 22) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx092	Enable Auto Force Arming (page 24) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx093	Enable Quick Arming (page 24) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx094	Enable Scheduled Arming (page 23) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx095	Enable Swinger Bypass (page 24) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx096	Enable Automatic Unbypass (page 24) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx097	Exterior Arming Verification (page 24) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx098	Audible Verification at Close Reports (page 23) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx100	Fast Beeps at End of Exit Delay Only (page 25) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx101	Early Termination Delay (page 25) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx102	One-Time Reset Enabled (page 25) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx103	Beeps During Standard Entry Delay Only (page 25) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx108	Enable Daily Reporting of Partition Trouble (page 19) On	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx110	Announce and Display Zone Text with Chime (page 26) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx111	Chime on Zone Restoral (page 26) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx112	Generate Restoral Reports for Reporting Zone Types (page 22) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx113	Exterior Siren Delay (page 18) Off	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx116	Account Number 1 (page 18) 00000000	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
xx117	Account Number 2 (page 18) 00000000	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx118	Default Keyfob Schedule Arming Level (page 23) 3	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
xx120	Default Keyswitch Arming Level (page 23) 3	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
17001	System Date (page 45) 1/1/00	
17002	System Time (page 45) 12:00:00	
17003	System Day of Week (page 45) Saturday	
17004	System Report Time (STIME) (page 46) Random	
17006-17111 17118	General Input Response Times (page 39) 32 sec	I/O 1 _____, I/O 3 _____, I/O 5 _____, I/O 7 _____ I/O 2 _____, I/O 4 _____, I/O 6 _____
17012-17017 17119-17120	Expansion Input Response Times (page 39) 32 sec	1 _____, 3 _____, 5 _____, 7 _____, 2 _____, 4 _____, 6 _____, 8 _____
17018	Max Ring Cycle Time (page 31) 67 ms	
17019	Minimum Ringlet Burst Duration (page 32) 400 ms	
17020	Maximum Ringlet Burst Duration (page 32) 2500 ms	
17021	Minimum Pause Between Ringlets (page 32) 0	
17022	Maximum Pause Between Ringlets (page 32) 0	
17023	Minimum Pause Between Rings (page 33) 2000 ms	
17024	Maximum Pause Between Rings (page 32) 4500 ms	
17025	Minimum Time Between Ring-Pause-Ring (page 35) 10 sec	
17026	Max Time Between Ring-Pause-Ring (page 35) 30 sec	
17027	On Hook Hang Up Time (page 34) 4 sec	
17028	Local Phone Connect Time (page 33) 2 sec	
17029	Local Phone Answer Time (page 34) 8 sec	
17030	Max Delay Between Phone Panic Sequence (page 33) 2 sec	
17031	DTMF On Time (page 32) 30 ms	
17032	DTMF Off Time (page 32) 50 ms	
17034	Phone Test Interval (page 29) 1 day - Commercial, 7 days - Home Navigator	
17035	Touchpad Redirect Reset Time (page 17) 10 sec	
17036	AC Stable Time (page 48) 8 sec	
17037	Low Battery Trip Voltage (page 47) 10.6V	
17038	Battery Restored Voltage (page 47) 11.6V	
17039	Battery Voltage Shutdown is Started (page 47) 9.4V	
17040	Battery Voltage Shutdown is Canceled (page 48) 10.4V	
17041	Hours to Delay Before Reporting AC Failure (page 47) 6 hrs	
17043	Percent Full History Buffer Reports (page 46) 80 percent	

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
17044	Percent Full Report Buffer Reports (page 46) 80 percent	
17046-17048	Siren Cadence (page 44) Medical alternate modulated, Police steady, Auxiliary fast modulated	Medical_____, Police_____, Auxiliary_____
17049-17050	RF Supervisory Times (page 45) A 4 hrs, B 24 hrs	A_____, B_____
17051	Smoke Loop Reset Time (page 38) 3 seconds	
17052	Answer Phone after XX Rings (page 34) 12 Rings	
17053	Cancel Ring-Pause-Ring After XX Rings (page 35) 3 rings	
17054	Minimum Cycles in a Valid Ring (page 32) 2 cycles	
17055	Number of Ringlets Needed for a Valid Ring (page 32) 1 burst	
17056	Local Phone Connect Sequence (page 33) #*	
17057	Phone Device Override Sequence (page 33) **##	
17058	System Pager ID (page 29) 0	
17060-17061	On Premises Pager IDs (page 48) 0000000	1_____, 2_____
17062	System Strobe Light Type (page 44) Amesco	
17063-17068	General Purpose I/O Direction (page 39) 0 (input)	1_____, 3_____, 5_____, 2_____, 4_____, 6_____
17069	No Phone Line Attached (page 28) Off	
17070	Enable Daylight Savings (page 47) On	
17072	Enable RF Jam Detect (page 46) On	
17073	Battery Test Interval (page 46) 4 hours	
17074	High Rise Installation (page 46) Off	
17075	Enable Long Range Radio (page 46) Off	
17076	Commercial or Residential Installation (page 46) Home Navigator Off, Commercial On	
17078	Detect Receiver Failure (page 45) On	
17079	Alarm Messages Played at High Volume (page 43) On	
17080	Enable Local Phone Police Alarm (page 34) Off	
17081	Enable Local Phone Auxiliary Alarm (page 34) Off	
17082	Enable Local Phone Fire Alarm (page 34) Off	
17083	Play Evacuation Message During Fire Alarms (page 43) On	
17084	First Disarm Silences Fire Alarm and Second Disarm Cancels the Alarm (page 44) Commercial Fire On, Commercial Burglary Off	
17085	Enable Local Phone Access in Partition/Area 1 (page 33) Off	
17086	Enable Remote Phone Access (page 34) On	
17087	Enable Remote Phone Ring Count (page 34) On	

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
17088	Enable Remote Phone Ring Pause Ring (page 35) On	
17089	Enable Remote Phone Override (page 35) On	
17090	Enable Toll Saver (page 34) On	
17092	Phone Off Hook is Activity (page 45) On	
17093	Global Account Reporting (page 17) Off	
17094-17095	Enable DTMF Dialing Line 1/2 (page 28) On	1 _____, 2 _____
17096	Report System Events (page 46) On	
17097	Print Line Feed after Carriage Return (page 47) On	
17098	Allow Remote Phone Zone Test (page 35) On	
17099	Print System Events (page 47) On	
17100	Time Format (page 45) Off (12 hr)	
17101	Number of Dial Attempts Before Reporting Failure to RF Buddy (page 28) 5	
17102	System Account Number 1 (page 29) 00000000	
17103	System Account Number 2 (page 29) 00000000	
17104	Evacuation Message Count (page 43) 4 messages	
17105	Line 1 Dial Prefix (page 28) None	
17106	Line 2 Dial Prefix (page 28) None	
17107	Dealer Access Code (page 27) None	
17108	Downloader Access Code (page 27) 12345	
17109	Downloader Account Number (page 48) 00000000	
17110	Panel Latitude (page 48) 0 degrees	
17111	Time Fire Alarm is Silenced (page 44) 30 sec	
17112	Output Activation Delay (page 39) 30 sec	
17113-17116	Activation Interval One-Shot Times (page 39) A 4 sec, B 30 sec, C 180 sec, D 900 sec	A _____, B _____, C _____, D _____
17117	Zone Delay Time (page 38) 10 sec	
17122	Panel Calls Back to Downloader (page 45) Off	
17123	AC Frequency (page 48) 60 Hz	
17124	Printer Supports Epson ESC/P Protocol (page 47) On	
17125	Partition/Area Text Displayed on Touchpads and Spoken Over Speakers (page 47) On	
17126	Unsilence Alarm after Silencing Period (page 44) Off	
17127	Partitions Act as Areas (page 17) Off	
17128	Annunciate Earliest Fire Alarm Not the Most Current (page 44) Off	
yy001	Phone Number Enable (page 29) Off	19001 _____, 20001 _____, 21001 _____, 22001 _____, 23001 _____, 24001 _____
yy002	Number to Dial (page 30) None	19002 _____, 20002 _____, 21002 _____, 22002 _____, 23002 _____, 24002 _____
yy003	Number of Attempts (page 30) 5	19003 _____, 20003 _____, 21003 _____, 22003 _____, 23003 _____, 24003 _____

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
yy004	Comm Format (page 30) 0 (Contact ID)	19004 _____, 20004 _____, 21004 _____, 22004 _____, 23004 _____, 24004 _____
yy005	Report Panic Special (page 30) Off	19005 _____, 20005 _____, 21005 _____, 22005 _____, 23005 _____, 24005 _____
zz001	Enabled Pager Phone Number (page 30) Off	25001 _____, 26001 _____, 27001 _____, 28001 _____, 29001 _____, 30001 _____, 31001 _____, 32001 _____, 33001 _____, 34001 _____, 35001 _____, 36001 _____, 37001 _____, 38001 _____, 39001 _____, 40001 _____
zz002	Pager Number to Dial (page 30) None	25002 _____, 26002 _____, 27002 _____, 28002 _____, 29002 _____, 30002 _____, 31002 _____, 32002 _____, 33002 _____, 34002 _____, 35002 _____, 36002 _____, 37002 _____, 38002 _____, 39002 _____, 40002 _____
zz003	Number of Attempts (page 31) 3	25003 _____, 26003 _____, 27003 _____, 28003 _____, 29003 _____, 30003 _____, 31003 _____, 32003 _____, 33003 _____, 34003 _____, 35003 _____, 36003 _____, 37003 _____, 38003 _____, 39003 _____, 40003 _____
zz004	Comm Format (page 31) 1 (TAP at 1200 bps PSK)	25004 _____, 26004 _____, 27004 _____, 28004 _____, 29004 _____, 30004 _____, 31004 _____, 32004 _____, 33004 _____, 34004 _____, 35004 _____, 36004 _____, 37004 _____, 38004 _____, 39004 _____, 40004 _____
zz005	Character Format (page 31) 1 (7/E/1)	25005 _____, 26005 _____, 27005 _____, 28005 _____, 29005 _____, 30005 _____, 31005 _____, 32005 _____, 33005 _____, 34005 _____, 35005 _____, 36005 _____, 37005 _____, 38005 _____, 39005 _____, 40005 _____
zz006	Pager System Reports (page 31) Off	25006 _____, 26006 _____, 27006 _____, 28006 _____, 29006 _____, 30006 _____, 31006 _____, 32006 _____, 33006 _____, 34006 _____, 35006 _____, 36006 _____, 37006 _____, 38006 _____, 39006 _____, 40006 _____
zz007	Partition/Area 1 Pager Reports (page 31) Off	25007 _____, 26007 _____, 27007 _____, 28007 _____, 29007 _____, 30007 _____, 31007 _____, 32007 _____, 33007 _____, 34007 _____, 35007 _____, 36007 _____, 37007 _____, 38007 _____, 39007 _____, 40007 _____
zz008	Partition/Area 2 Pager Reports (page 31) Off	25008 _____, 26008 _____, 27008 _____, 28008 _____, 29008 _____, 30008 _____, 31008 _____, 32008 _____, 33008 _____, 34008 _____, 35008 _____, 36008 _____, 37008 _____, 38008 _____, 39008 _____, 40008 _____
zz009	Partition/Area 3 Pager Reports (page 31) Off	25009 _____, 26009 _____, 27009 _____, 28009 _____, 29009 _____, 30009 _____, 31009 _____, 32009 _____, 33009 _____, 34009 _____, 35009 _____, 36009 _____, 37009 _____, 38009 _____, 39009 _____, 40009 _____

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
zz010	Partition/Area 4 Pager Reports (page 31) Off	25010 _____, 26010 _____, 27010 _____, 28010 _____, 29010 _____, 30010 _____, 31010 _____, 32010 _____, 33010 _____, 34010 _____, 35010 _____, 36010 _____, 37010 _____, 38010 _____, 39010 _____, 40010 _____
zz011	Partition/Area 5 Pager Reports (page 31) Off	25011 _____, 26011 _____, 27011 _____, 28011 _____, 29011 _____, 30011 _____, 31011 _____, 32011 _____, 33011 _____, 34011 _____, 35011 _____, 36011 _____, 37011 _____, 38011 _____, 39011 _____, 40011 _____
zz012	Partition/Area 6 Pager Reports (page 31) Off	25012 _____, 26012 _____, 27012 _____, 28012 _____, 29012 _____, 30012 _____, 31212 _____, 32012 _____, 33012 _____, 34012 _____, 35012 _____, 36012 _____, 37012 _____, 38012 _____, 39012 _____, 40012 _____
zz013	Partition/Area 7 Pager Reports (page 31) Off	25013 _____, 26013 _____, 27013 _____, 28013 _____, 29013 _____, 30013 _____, 31013 _____, 32013 _____, 33013 _____, 34013 _____, 35013 _____, 36013 _____, 37013 _____, 38013 _____, 39013 _____, 40013 _____
zz014	Partition/Area 8 Pager Reports (page 31) Off	25014 _____, 26014 _____, 27014 _____, 28014 _____, 29014 _____, 30014 _____, 31014 _____, 32014 _____, 33014 _____, 34014 _____, 35014 _____, 36014 _____, 37014 _____, 38014 _____, 39014 _____, 40014 _____
zz015	Pager PIN # (page 31) None	25015 _____, 26015 _____, 27015 _____, 28015 _____, 29015 _____, 30015 _____, 31015 _____, 32015 _____, 33015 _____, 34015 _____, 35015 _____, 36015 _____, 37015 _____, 38015 _____, 39015 _____, 40015 _____
zz016	Pager Max Message Length (page 31) 120 Characters	25016 _____, 26016 _____, 27016 _____, 28016 _____, 29016 _____, 30016 _____, 31016 _____, 32016 _____, 33016 _____, 34016 _____, 35016 _____, 36016 _____, 37016 _____, 38016 _____, 39016 _____, 40016 _____
47001	Add Zones (page 36)	
47002	Delete Zones (page 37)	
47003	List Zones (page 37)	
47004	Zone Attributes (Edit Zones) (page 38)	
47005	Test Buddies (page 38)	
47006	List Buddies (page 38)	
48001	Add (Learn) Bus Devices (page 40)	
48002	Delete/Change Bus Device ID (page 40)	
48003	List Bus Devices (page 40)	
48004	Bus Device Partition/Area (page 41)	
48005	Change Transmit Bus ID (page 41)	
48006	List Bus Device Text (page 41)	
48007	Replace/Delete Bus Device ID (page 41)	
48009	Program LED Module (page 41)	

**Table A.13 Item Numbers Index and Record (Continued)**

Item Number	Setting Reference and Default	Setting
48010	Delete/Replace LED Module (page 42)	
49001	Zone Text (page 37)	
49002	Bus Device Text (page 40)	
49003	Menu Output Text (page 43)	
49004	Partition/Area Text (page 18)	
49005	Keypad Idle Text (page 42)	
50001	Reset Panel (page 48)	
50002	Clear Panel Memory (page 17)	
50003	Software/Hardware Version (page 48)	
50004	Clear History Buffer (page 49)	
50005	Output Configuration (page 42)	
50008-50009	Holiday Lists (page 49)	
50010	Event Configuration and Alarm Masks (page 49)	
50012	Print Zone & Device Information (page 49)	
50013	Access Code Length (page 28) 4	
50014-50015	Delete Primary/Secondary SnapCard (page 50)	
50016	Print History Buffer (page 50)	





## Appendix B: Reference Tables

This appendix contains tables for selecting zone type numbers, system features, X10 Module house, unit codes and responses, SuperBus device unique ID numbers, and text

descriptor numbers. Table notes (if any) appear at the bottom of the last page of the table.

**Note**  
Fire zone types are always active.

**Table B.1 Zone Type Characteristics**

No.	Name	Application	Active Level	Alarm/Siren	Delay	Supervisory	Restoral	CS Alarm Report	CS Cancel Report	Bypassable	Chime	Resets Activity Timer
00	Fixed Panic	24-hour audible fixed emergency buttons.	1, 2, 3, 4, 5	Police/Police	Instant	√		√	√	√		
01	Portable Panic	24-hour audible portable emergency buttons.	1, 2, 3, 4, 5	Police/Police	Instant			√	√	√		
02	Fixed Panic	24-hour silent fixed emergency buttons.	1, 2, 3, 4, 5	Police/Silent	Instant	√		√	√	√		
03	Portable Panic	24-hour silent portable emergency buttons.	1, 2, 3, 4, 5	Police/Silent	Instant			√	√	√		
04	Fixed Auxiliary	24-hour auxiliary sensor, such as Pendant Panic or holdup button.	1, 2, 3, 4, 5	Aux./Aux.	Instant	√		√	√	√		
05	Fixed Auxiliary	24-hour auxiliary emergency buttons. Siren shut-off confirms CS alarm report.	1, 2, 3, 4, 5	Aux./Aux.	Instant	√		√	√	√		
06	Portable Auxiliary	24-hour portable auxiliary alert buttons.	1, 2, 3, 4, 5	Aux./Aux.	Instant			√	√	√		
07	Portable Auxiliary	24-hour portable auxiliary button. Siren shut-off confirms CS alarm report.	1, 2, 3, 4, 5	Aux./Aux.	Instant			√	√	√		
08	Special Intrusion	Special belongings, such as gun cabinets and wall safes.	1, 2, 3, 4, 5	Police/Police	Instant	√	√	√	√	√		
09	Special Intrusion	Special belongings, such as gun cabinets and wall safes.	1, 2, 3, 4, 5	Police/Police	Standard	√	√	√	√	√		
10	Entry/Exit Delay	Entry and exit doors that require a standard delay time.	2, 3, 4, 5	Police/Police	Standard	√	√	√	√	√	√	√
11	Entry/Exit Delay	Garage doors and entrances that require an extended delay time. *	2, 3, 4, 5	Police/Police	Extended	√	√	√	√	√	√	
12	Entry/Exit Delay	Driveway gates and entrances that require a twice extended delay time. *	2, 3, 4, 5	Police/Police	Twice Extended	√	√	√	√	√	√	
13	Instant Perimeter	Exterior doors and windows.	2, 3, 4, 5	Police/Police	Instant	√	√	√	√	√	√	√
14	Instant Interior	Interior doors.	2, 3, 4, 5	Police/Police	Follower	√	√	√	√	√		√
15	Instant Interior	Interior PIR motion sensors. *	2, 3, 4, 5	Police/Police	Follower	√		√	√	√		√
16	Instant Interior	Interior doors.	3, 4, 5	Police/Police	Follower	√	√	√	√	√		√
17	Instant Interior	PIR motion sensors. *	3, 4, 5	Police/Police	Follower	√		√	√	√		√
18	Cross Zone Instant Interior	PIR motion sensors subject to false alarms. * †	3, 4, 5	Police/Police	Follower	√		√	√	√		√
19	Delayed Interior	Interior doors that initiate a delay before going into alarm.*	3, 4, 5	Police/Police	Standard	√	√	√	√	√		√

**Table B.1 Zone Type Characteristics (Continued)**

No.	Name	Application	Active Level	Alarm/Siren	Delay	Supervisory	Restoral	CS Alarm Report	CS Cancel Report	Bypassable	Chime	Resets Activity Timer
20	Delayed Interior	PIR motion sensors that initiate a delay before going into alarm. *	3, 4, 5	Police/Police	Standard	√		√	√	√		√
21	Local Instant Interior	24-hour local alarm zone protecting anything that opens and closes.	1, 2, 3, 4, 5	Police/Police	Instant	√	√			√		√
22	Local Delayed Interior	Same as type 21, plus activation initiates a delay before going into alarm.	1, 2, 3, 4, 5	Police/Police	Standard	√	√			√		√
23	Local Instant Auxiliary	24-hour local alarm zone protecting anything that opens and closes. ‡	1, 2, 3, 4, 5	Aux./Aux.	Instant	√	√			√		
24	Local Instant Auxiliary	24-hour local alarm zone protecting anything that opens and closes. Sirens shut off at restoral. *	1, 2, 3, 4, 5	Aux./Aux.	Instant	√	√			√		
25	Local Special Chime	Notify the user when a door is opened. Sounds emit from a local annunciator. *	1, 2, 3, 4, 5	Special Chime	Instant	√	√			√	√	
26	Fire	24-hour audible fire emergency buttons, rate-of-rise heat, and smoke sensors.	1, 2, 3, 4, 5	Fire/Fire	Instant	√	√	√	√			
27	Custom Output	Output, lamp control, or other customer feature. ‡	1, 2, 3, 4, 5	Silent	Instant	√	√			√		
28	Custom Output	Output, PIR motion sensor, sound sensor, or pressure mat. ‡	1, 2, 3, 4, 5	Silent	Instant	√				√		
29	Environmental	Auxiliary.	1, 2, 3, 4, 5	Environmental/Aux.	Instant	√	√	√	√	√		
30 (A)	Report Police	24-hour audible police alarm in levels 2 and 3.	2, 3, 4, 5	Police/Police	Instant	√	√	√	√	√		
30 (B)	Local Auxiliary	24-hour audible auxiliary alarm in level 1. Siren shut off at restoral.	1	Aux./Aux.	Instant	√	√			√		
32	Custom Output	Output, PIR motion sensor, sound sensor, or pressure mat. ‡	1, 2, 3, 4, 5	Silent	Instant					√		
36 (A)	Report Police	24-hour audible police alarm in levels 2 and 3.	2, 3, 4, 5	Police/Police	Instant	√	√	√	√	√		
36 (B)	Local Auxiliary	24-hour audible auxiliary alarm in level 1.	1	Aux./Aux.	Instant	√	√			√		
50	Local Instant Interior	24-hour local alarm zone protecting anything that opens and closes.	2, 3, 4, 5	Police/Police	Instant	√	√			√		√
51	Local Delayed Interior	24-hour local alarm zone protecting anything that opens and closes.	2, 3, 4, 5	Police/Police	Standard	√	√			√		√
52	Local Indicator	24-hour local auxiliary alarm zone protecting anything that opens and closes. No voice. Sirens shut off at restoral. *	1, 2, 3, 4, 5	Aux./Aux.	Instant	√	√			√		
53	Local Indicator	24-hour local indicator zone protecting anything that opens and closes. Chime only.	1, 2, 3, 4, 5	None	Instant	√	√			√	√	
54	Fixed Medical	24-hour audible fixed medical emergency buttons.	1, 2, 3, 4, 5	Medical/Medical	Instant	√		√	√	√		

**Table B.1 Zone Type Characteristics (Continued)**

No.	Name	Application	Active Level	Alarm/Siren	Delay	Supervisory	Restoral	CS Alarm Report	CS Cancel Report	Bypassable	Chime	Resets Activity Timer
55	Fixed Medical	24-hour audible fixed medical emergency buttons. Sirens shut off when reported.	1, 2, 3, 4, 5	Medical/Medical	Instant	√		√	√	√		
56	Portable Medical	24-hour audible portable medical emergency buttons.	1, 2, 3, 4, 5	Medical/Medical	Instant			√	√	√		
57	Portable Medical	24-hour audible portable medical emergency buttons. Sirens shut off when reported.	1, 2, 3, 4, 5	Medical/Medical	Instant			√	√	√		
58	Suspicion	If not canceled within 1-15 min., alarm may optionally be generated. A second trip within 1-15 min. will cause an alarm.	1, 2, 3, 4, 5	Suspicion/Silent	Instant	√		√	√	√		
59	Fire Keyswitch	Keyswitch used for enabling fire type touchpad.	1, 2, 3, 4, 5	Silent	Instant	√	√					
60 (A)	Police	24-hour audible police emergency buttons.	3, 5	Police/Police	Instant	√	√	√	√	√		
60 (B)	Fire	24-hour audible fire emergency buttons	1, 2, 4,	Fire/Fire	Instant	√	√	√	√	√		
61	Local Indicator/Delay Perimeter	Local beeps only in Level -1.	2, 3, 4, 5	Police/Police	Standard	√	√	√	√	√		√
62	Fire Panic	Fire Panic	1, 2, 3, 4, 5	Fire/Fire	Instant	√	√	√	√			
63	Equipment Tamper	24-hour audible security system panel tamper alarm.	1, 2, 3, 4, 5	Equipment Tamper/Police	Instant	√	√	√	√			
64	Silent Burglary	24-hour silent security system panel burglary alarm.	1, 2, 3, 4, 5	Silent Burglary	Instant	√	√	√	√			
65	Siren Tamper	24-hour audible siren tamper alarm.	1, 2, 3, 4, 5	Siren Tamper/Police	Instant	√	√	√	√			
66	Silent Burglary	24-hour silent burglary alarm.	1, 2, 3, 4, 5	Silent Burglary	Instant	√	√	√	√			
67	Explosive Gas	Explosive Gas Detectors	1, 2, 3, 4, 5	Explosive Gas/Fire	Instant	√	√	√	√			
68	Carbon Monoxide	Carbon Monoxide gas detectors. Note: For residential use only.	1, 2, 3, 4, 5	Carbon Monoxide/Medical	Instant	√	√	√	√			
69	Touchpad disable keyswitch	Keyswitch for disabling touchpad.	1, 2, 3, 4, 5	None/None	Instant	√				√		
70	Warning	Trip plays programmable evacuation message.	1, 2, 3, 4, 5	None/None	Instant	√				√	√	
71	On/Off Keyswitch	Trip causes arm. Restoral causes a disarm.	1, 2, 3, 4, 5	None/None	Instant	√	√					√
72	Momentary Keyswitch	First trip arms, second trip disarms.	1, 2, 3, 4, 5	None/None	Instant	√						√
73	Fixed Holdup	24-hour silent fixed holdup emergency button alarm.	1, 2, 3, 4, 5	Holdup/None	Instant	√		√				
74	Portable Holdup	24-hour silent portable holdup emergency button alarm.	1, 2, 3, 4, 5	Holdup/None	Instant			√				

**Table B.1 Zone Type Characteristics (Continued)**

No.	Name	Application	Active Level	Alarm/Siren	Delay	Supervisory	Restoral	CS Alarm Report	CS Cancel Report	Bypassable	Chime	Resets Activity Timer
75	Night Interior	Disarmed in "night" level.	3, 5	Police/Police	Follower	√	√	√	√	√		√
76	Night Interior	Disarmed in "night" level.	3, 5	Police/Police	Follower	√		√	√	√		√
77	Cross Zone Night Delayed Interior	Disarmed in "night" level. †	3, 5	Police/Police	Follower	√		√	√	√		√
78	Night Delayed Interior	Disarmed in "night" level.	3, 5	Police/Police	Standard	√	√	√	√	√		√
79	Night Delayed Interior	Disarmed in "night" level.	3, 5	Police/Police	Standard	√		√	√	√		√
80	Smoke	24-hour audible smoke/fire alarm.	1, 2, 3, 4, 5	Smoke/Fire	Instant	√	√	√	√			
81	Heat	24-hour audible heat/fire alarm.	1, 2, 3, 4, 5	Heat/Fire	Instant	√	√	√	√			
82	Water Flow	24-hour audible sprinkler/fire alarm.	1, 2, 3, 4, 5	Sprinkler/Fire	Instant	√	√	√	√			
83		Unused.										
84	Enhanced Buddy	Special enhanced "buddy system" function.	1, 2, 3, 4, 5	Buddy/None	Instant	√						
85	Repeater	Wireless signal repeaters	1, 2, 3, 4, 5	None/None	Instant	√						
86	Fixed Wireless Touchpad	Fixed (wall-mount) wireless touchpads	1, 2, 3, 4, 5	None/None	Instant	√						
87	Portable Wireless Touchpad	Portable (hand-held) wireless touchpads. Note: For residential use only.	1, 2, 3, 4, 5	None/None	Instant							
88		Unused.										
89		Unused.										
90	Pump Active	Fire pump is active.	1, 2, 3, 4, 5	Fire/Fire	Instant	√	√	√	√			
91	Pump Failure	Fire pump has failed. §	1, 2, 3, 4, 5	Pump Failure/Trouble	Instant	√	√					
92	Gate Valve Closed	Fire gate valve has been closed. §	1, 2, 3, 4, 5	Gate Valve Closed/Trouble	Instant	√	√					
93	CO2 Pressure	CO2 pressure is low. §	1, 2, 3, 4, 5	CO2 Pressure/Trouble	Instant	√	√					
94	Liquid Pressure	Liquid pressure is low. §	1, 2, 3, 4, 5	Liquid Pressure/Trouble	Instant	√	√					
95	Liquid Level	Liquid level is low. §	1, 2, 3, 4, 5	Liquid Level/Trouble	Instant	√	√					
96	Fire Supervisory	A fire supervisory trouble has been detected. §	1, 2, 3, 4, 5	Fire Supervisory/Trouble	Instant	√	√	√				

**Table B.1 Zone Type Characteristics (Continued)**

No.	Name	Application	Active Level	Alarm/Siren	Delay	Supervisory	Restoral	CS Alarm Report	CS Cancel Report	Bypassable	Chime	Resets Activity Timer
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**Note**  
Check marks (√) represent characteristics present in a type.

\* This type 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 central station Alarm Verification feature is on, type 18 functions like type 17.

‡ This type has not been investigated by UL.

§ Zone trip causes trouble, restoral causes trouble restoral.

**Note**  
Reported to Central Station as "Fire Supervisory."

\*\* Active levels are as follows:

Level #	Name	Description	Attributes
Level 1	OFF	The partition/area is disarmed. Only 24-hour sensors cause an alarm in the OFF level. Cancelling alarms or entry delay automatically disarms to OFF.	- Open - Entry, but no exit delay - Cannot be disabled
Level 2	PERIMETER	The user is on-site and only requires perimeter protection. In addition to 24-hour sensors, perimeter sensors such as those protecting exterior doors and windows cause an alarm in the HOME/PERIMETER level.	- Closed - Entry and exit delay - Can be disabled
Level 3	FULL	The user is away and requires complete protection. 24-hour sensors, perimeter sensors, and interior sensors cause an alarm in the AWAY/FULL level.	Same as Level 2.
Level 4	NIGHT	The user is on-site and perimeter and 24-hour sensors are active. Since users are not moving around, Interior sensors except those in night groups are also active.	Same as Level 2.
Level 5	SILENT	Same as Level 3, but police alarms are silent.	Same as Level 2.

**Table B.2 Three-Digit Text Descriptors**

No.	Text Descriptor
001	0
002	1
003	2
004	3
005	4
006	5
007	6
008	7
009	8
010	9
011	10
012	11
013	12
014	13
015	14
016	15
017	16
018	17
019	18
020	19
021	20
022	30
023	40
024	50
025	60
026	70
027	80
028	90
029	100
030	THOUSAND_
031	ONE_
032	0_
033	1_
034	2_
035	3_
036	4_
037	5_
038	6_
039	7_
040	8_
041	9_
042	10_
043	11_
044	12_

No.	Text Descriptor
765	24_
045	Dash
046	Cursor
047	Space And 125 ms Pause
048	Space
049	Blink Next Token
050	Break Line (Return)
051	Period (Dot)
052	Apostrophe
053	AM_
054	PM_
055	125 ms Pause
056	250 ms Pause
057	500 ms Pause
058	125 ms Beep
059	250 ms Beep
060	500 ms Beep
061	125 ms Low Beep
062	250 ms Low Beep
063	500 ms Low Beep
064	Long Beep
065	Chime Ding
066	Chime Dong
067	A (display only)
068	A
069	A_ (short)
070	ABORT_
071	ABORTED_
072	ABOVE_
766	AC_ (A.C.)
073	ACCEPT_
074	ACCESS_
075	ACKNOWLEDGE_
076	ACKNOWLEDGMENT_
077	ACTIVE_
078	ACTIVITY_
079	ADD_
080	ADDED_
081	ADDRESS_
767	ADDRESSABLE_
082	ADVENT_
083	AGAIN_
084	AGENT_

No.	Text Descriptor
085	AIR_
086	ALARM_
087	ALERT_
088	ALL_
089	ALLEY_
090	AN_
768	ANALOG_
091	AND_
092	ANNEX_
093	ANNUNCIATOR_
094	ANTENNA_
095	APARTMENT_
096	APPLIANCE_
097	APRIL_
098	ARE_
099	AREA_
100	ARM_
101	ARMED_
102	ARMING_
103	ART_
104	AS_
105	ASSEMBLY_
106	ATTIC_
107	ATTRIBUTE_
108	AUDIO_
109	AUGUST_
110	AUTHORITY_
111	AUTO_
112	AUTO ARMING_
113	AUTOMATIC_
114	AUTOMATION_
115	AUXILIARY_
116	AWAY_
117	B (display only)
118	B
119	BABY'S_
120	BACK_
121	BACKUP_
122	BAD_
123	BADGE_
124	BALCONY_
125	BAR_
126	BARN_
127	BASEMENT_

No.	Text Descriptor
128	BATH_
129	BATTERY_
130	BAY_
131	BEDROOM_
769	BELL_
132	BLACK_
133	BLOWER_
134	BLUE_
135	BOAT_
136	BOILER_
137	BOTTOM_
770	BOX_
138	BREAK_
139	BREAKER_
140	BREATHING_
141	BREEZEWAY_
142	BRIGHTEN_
143	BROWN_
144	BUDDY_
145	BUFFER_
146	BUILDING_
147	BUS_
148	BUSINESS_
149	BUSY_
150	BYPASS_
151	BYPASSED_
152	C (display only)
153	C
154	CABIN_
155	CABINET_
156	CAGE_
771	CALL_
157	CALLER ID_
158	CAMERA_
159	CANCEL_
160	CANCELED_
161	CAR_
162	CARBON MONOXIDE_
163	CASH_
164	CCTV_
165	CEILING_
166	CELLAR_
167	CELLULAR_

No.	Text Descriptor
168	CENTER_
169	CENTRAL_
170	CHANGE_
171	CHANGED_
172	CHECK IN_
173	CHECKSUM_
174	CHIME_
772	CIRCUIT_
175	CLASS_
176	CLEAR_
177	CLEARED_
178	CLOSE_
179	CLOSED_
180	CLOSET_
181	CLOSING_
182	CO_
183	CO2_
184	COAT_
185	CODE_
186	CODE'S_
187	CODES_
188	COLLECTION_
189	Colon
190	COMMON_
191	COMMUNICATION_
192	COMMUNICATOR_
193	COMPLETE_
194	COMPUTER_
195	CONFERENCE_
196	CONFIGURATION_
197	CONSERVATORY_
198	CONTACT_
199	CONTINUE_
200	CONTROL_
201	COOLER_
202	CORRIDOR_
203	COTTAGE_
204	COUNT_
205	COUNTER_
206	CPU_
207	CRITICAL_
208	CUSTOM_
209	D (display only)
210	D
211	DAMPER_

No.	Text Descriptor
212	DATA_
213	DAUGHTER'S_
214	DAY_
215	DAYLIGHT_
216	DAYS_
773	DEALER_
217	DECEMBER_
218	DECK_
219	DEGREES_
220	DELAY_
221	DELETE_
222	DELETED_
223	DEN_
224	DESCRIPTORS_
225	DESK_
226	DETECTOR_
227	DEVICE_
228	DEVICES_
229	DIAL_
230	DIFFERENT_
231	DIM_
232	DINING_
233	DIRECT_
234	DISABLE_
235	DISABLED_
236	DISARM_
237	DISARMED_
774	DISPLAY_
238	DO_
775	DOCK_
239	DOES_ (long)
240	DOES_ (short)
241	DOOR_
242	DOWN_
243	DOWNLOAD_
244	DOWNSTAIRS_
245	DRILL_
246	DRIVEWAY_
247	DRUG_
248	DUAL_
249	DUCT_
250	DURESS_
251	E (display only)
252	E
253	EARLY_

No.	Text Descriptor
254	EAST_
255	EIGHTH_
776	ELECTRICAL_
256	ELEVATOR_
257	ELEVENTH_
258	EMERGENCY_
259	EMPLOYEE_
260	ENABLE_
261	ENERGY SAVER_
262	ENERGY SAVERS_
263	ENTER_
264	ENTERED_
265	ENTRANCE_
266	ENTRY_
267	ENVIRONMENTAL_
268	EQUIPMENT_
269	ERROR_
270	EVACUATION_
271	EVENT_
272	EXECUTIVE_
273	EXERCISE_
274	EXIST_
275	EXISTS_
276	EXIT_
277	EXPLOSIVE_
278	EXTEND_
279	EXTENDED_
280	EXTENSION_
281	EXTERIOR_
282	EXTINGUISHER_
283	F (display only)
284	F
285	FACTORY_
286	FAILED_
287	FAILURE_
288	FAMILY_
289	FAN_
290	FATHER'S_
291	FAULT_
292	FEATURE_
293	FEATURES_
294	FEBRUARY_
295	FENCE_
296	FIFTH_
297	FILE_

No.	Text Descriptor
298	FIRE_
299	FIRST_
777	FLAME_
300	FLASH_
301	FLOOD_
302	FLOOR_
303	FLOW_
304	FOR_
305	FORCE_
306	FORMAT_
307	FOURTH_
308	FOYER_
309	FREEZE_
310	FREEZER_
311	FRIDAY_
312	FROM_
313	FRONT_
314	FULL_
315	FURNACE_
316	G (display only)
317	G
318	GALLERY_
319	GAME_
320	GARAGE_
321	GARDEN_
322	GAS_
323	GATE_
324	GENERATOR_
778	GENERAL_
325	GLASS_
326	GLOBAL_
327	GOLD_
328	GOOD_
329	GOODBYE_
330	GRAY_
331	GREEN_
332	GROUND_
333	GROUP_
334	GUARD_
335	GUEST_
336	GUN_
337	H (display only)
338	H
339	HALL_
340	HALLWAY_

No.	Text Descriptor
341	HARDWIRE_
342	HEAD_
343	HEAT_
344	HEATER_
345	HEATING_
346	HELLO_
347	HELP_
348	HIGH_
349	HISTORY_
350	HOLDUP_
351	HOLIDAY_
352	HOME_
779	HORN_
353	HOT TUB_
354	HOUSE_
355	I (display only)
356	I
357	ID_
358	IN_
780	INDICATING_
359	INDIRECT_
360	INDOOR_
361	INFORMATION_
362	INFRARED_
363	INHIBIT_
781	INITIATING_
364	IN PROGRESS_
365	INPUT_
366	IN SERVICE_
367	INSIDE_
368	INSTANT_
369	INTEGRATION_
370	INTERCOM_
371	INTERIOR_
372	INTRUSION_
373	INVALID_
374	IS_
375	ITEM_
376	J (display only)
377	J
378	JACUZZI_
379	JAM_
380	JANITOR_
381	JANUARY_
382	JEWELRY_

No.	Text Descriptor
383	JOFFRE_
384	JULY_
385	JUNE_
386	K (display only)
387	K
782	KEY_
388	KEYFOB_
389	KEYSTROKE_
390	KEYSWITCH_
391	KITCHEN_
392	L (display only)
393	L
394	LADIES'_
395	LAKE_
396	LATCHKEY_
397	LATE_
398	LAUNDRY_
783	LED_ (L.E.D.)
399	LEARN_
400	LEFT_
401	LENGTH_
402	LEVEL_
403	LIBRARY_
404	LIGHT_
405	LIGHTING_
406	LIGHTS_
407	LIMIT_
408	LIMITS_
409	LINE_
410	LIQUID_
411	LIQUOR_
412	LIST_
413	LISTEN_
414	LIVING_
415	LOBBY_
416	LOCAL_
417	LOCKOUT_
418	LOG_
419	LONG_
420	LOOP_
421	LOT_
422	LOUNGE_
423	LOW_
424	LOWER_
425	LTIME_

No.	Text Descriptor
426	M (display only)
427	M
428	MACHINE_
429	MAID'S_
430	MAILBOX_
431	MAIN_
784	MAINTENANCE_
432	MALL_
433	MANAGER'S_
785	MANUAL_
434	MANUFACTURING_
435	MARCH_
786	MASK_
436	MASTER_
437	MAT_
438	MAY_
439	MECHANICAL_
440	MEDIA_
441	MEDICAL_
442	MEDICINE_
443	MEMORY_
444	MEN'S_
445	MENU_
446	MESSAGE_
447	MICROPHONE_
448	MICROWAVE_
449	MIDNIGHT_
450	MINUTES_
451	MODE_
452	MODIFIER_
453	MODIFY_
454	MODULE_
455	MONDAY_
456	MONEY_
457	MOTHER'S_
458	MOTION_
459	MOTOR_
460	N (display only)
461	N
787	NAC_ ("knack")
462	NEGATIVE_
463	NEW_
464	NIGHT_
465	NINTH_
466	NO_

No.	Text Descriptor
788	NON_
467	NON-REPORTING_
468	NOON_
469	NORMAL_
470	NORTH_
471	NOT_
472	NOVA ALERT_
473	NOVEMBER_
474	NOW_
475	NUMBER_
476	NUMBERS_
477	NURSERY_
478	O (display only)
479	O
480	OBSCURITY_
481	O'CLOCK_
482	OCTOBER_
483	OF_
484	OFF_
485	OFFICE_
486	0 (spoken as OH)
487	OK_
488	ON_
489	OPEN_
490	OPENING_
491	OPTION_
492	OR_
493	ORANGE_
494	OUT_
495	OUTDOOR_
496	OUTPUT_
497	OVER_
498	P (display only)
499	P
500	PAGER_
501	PAINTING_
502	PANEL_
503	PANIC_
504	PANTRY_
505	PARENTS'_
506	PARKING_
507	PARTITION_
508	PATH_
509	PATIO_
510	PERIMETER_



No.	Text Descriptor
511	PERIOD_
512	PERMANENT_
513	PHONE_
514	PHOTO_
515	PLACE_
516	PLANT_
517	PLEASE_
518	POLICE_
519	POOL_
789	PORCH
520	POSITIVE_
521	POUND_
522	#_ (spoken as Pound)
523	# (spoken as Pound)
524	POWER_
525	PREARM_
526	PRESS_
527	PRESS_ (on new line)
528	PRESSURE_
529	PRIMARY_
530	PRINTER_
531	PROGRAM_
532	PROGRAMMING_
533	PROTEST_
534	PULL STATION_
535	PUMP_
536	PURPLE_
537	Q (display only)
538	Q
539	QUAD_
540	QUIET_
541	QUIT_
542	R (display only)
543	R
544	RADIO_
545	RAMP_
546	RANGE_
547	READY_
548	REAR_
790	RECALL
549	RECEIVER_
550	RECEIVING_
551	RECEPTION_
552	RECONNECT_
553	RED_

No.	Text Descriptor
554	REDIRECT_
555	RELAY_
556	RELEASE_
557	REMOTE_
558	REMOVE_
559	REMOVED_
560	REPEATER_
561	REPORT_
791	REQUEST
562	RESET_
563	RESTORAL_
564	RESTORED_
565	RETURN_
566	REVIEW_
567	RF_
568	RIGHT_
569	RING_
570	ROOF_
571	ROOM_
572	S (display only)
573	S
574	SAFE_
575	SATURDAY_
576	SAUNA_
577	SCHEDULE_
578	SCHEDULES_
579	SCHOOL_
580	SCREEN_
581	SCRIPT_
582	SCRIPTS_
583	2ND_
584	SECOND_
792	SECONDARY
585	SECONDS_
586	SECTION_
587	SECTOR_
588	SECURE_
589	SECURITY_
590	SELECTION_
793	SENSITIVITY
591	SENSOR_
592	SENSORS_
593	SEPTEMBER_
594	SERVANT_
595	SERVICE_

No.	Text Descriptor
596	SET_
597	SETPOINT_
598	SETUP_
599	SEVENTH_
600	SHACK_
601	SHARED_
602	SHED_
603	SHEEP_
604	SHIPPING_
605	SHOCK_
606	SHOP_
607	SHORT_
794	SHUNT
795	SHUTDOWN
796	SIGNALING
608	SHUT OFF_
609	SIDE_
610	SIGNAL_
611	SILENCE_
612	SILENT_
613	SILVER_
614	SIREN_
615	SITE_
616	SIXTH_
617	SKYLIGHT_
618	SLIDING_
619	SMOKE_
797	SNAPCARD
620	SON'S_
621	SOUND_
622	SOUTH_
623	SPEAKER_
624	SPECIAL_
798	SPECIFIC
625	SPRINKLER_
626	STAIR_
627	STAIRS_
628	STANDARD_
629	*_ (spoken as Star)
630	Flashing * -- do not use
631	*(spoken as Star)
632	START_
633	STARTING_
634	STATION_

No.	Text Descriptor
635	STATUS_
636	STAY_
637	STIME_
638	STOP_
639	STORAGE_
640	STORE_
641	STORY_
642	STRIKE_
643	STRIP_
644	STROBE_
645	STUDY_
646	SUMP_
647	SUPERBUS_
648	SUPERVISORY_
649	SUSPICION_
650	SUNDAY_
651	SWIMMING_
652	SWINGER_
653	SWITCH_
654	SYSTEM_
655	T (display only)
656	T
657	TAMPER_
658	TAMPERED_
659	TANK_
660	TAPE_
661	TELCO_
662	TELLER_
663	TEMPERATURE_
664	TEMPORARY_
665	TENTH_
666	TEST_
667	TESTED_
668	TEXT_
669	THE_ (short)
670	THEATER_
671	THE_ (spoken as short Thee)
672	THEN_
673	THERMOSTAT_
674	THIRD_
675	Dash (spoken as Through)
676	Dash_ (spoken as Through)
677	THURSDAY_

No.	Text Descriptor
678	TIME_
679	TIMED_
680	TIMER_
681	TIMEOUT_
682	TO_
683	TONE_
684	TOOL_
685	TOOLBOX_
686	TOP_
687	TOUCHPAD_
688	TRAILER_
689	TRANSCEIVER_
690	TRANSMIT_
691	TRAP_
692	TRIES_
693	TRIP_
694	TROUBLE_
695	TRUCK_
696	TUESDAY_
697	TURN_
698	TWELFTH_
699	TWICE_
700	TYPE_
701	U (display only)

No.	Text Descriptor
702	U
703	A_ (spoken as Uh)
704	UNBYPASS_
705	UNDER_
706	UNIT_
707	UP_
799	UPLOAD
708	UPSTAIRS_
709	USE_
710	USED_
711	USER_
712	UserTokens -- do not use
713	USES_
714	UTILITY_
715	V (display only)
716	V
717	VALID_
718	VALUE_
719	VALVE_
720	VAULT_
800	VERIFICATION
721	VERSION_
722	VESTIBULE_

No.	Text Descriptor
723	VIBRATION_
724	VIDEO_
725	VIEW_
726	VIOLATION_
727	VOICE_
728	EVAC MESSAGE 1
729	EVAC MESSAGE 2
730	EVAC MESSAGE 3
731	EVAC MESSAGE 4
732	EVAC MESSAGE 5
733	VOLTS_
734	VOLUME_
735	W (display only)
736	W
737	WAIT_
738	WALL_
739	WAREHOUSE_
740	WARNING_
741	WASH_
742	WASHROOM_
743	WATER_
801	WEATHER
744	WEDNESDAY_
745	WEEK_

No.	Text Descriptor
746	WEEKLY_
802	WELL
747	WEST_
748	WHITE_
749	WINDOW_
750	WINE_
751	WING_
752	WORKSHOP_
753	X (display only)
754	X
755	Y (display only)
756	Y
757	YARD_
758	YELLOW_
759	YES_
760	YOUR_
761	Z (display only)
762	Z
763	ZONE_
764	ZONES_

**Table B.3 Two-Digit Display Descriptors**

No.	Token Text
00	0
01	1
02	2
03	3
04	4
05	5
05	6
07	7
08	8
09	9
10	(undefined)
11	(undefined)
12	# (pound)
13	: (colon)
14	/ (slash)

No.	Token Text
29	M
30	N
31	O
32	P
33	Q
34	R
35	S
36	T
37	U
38	V
39	W
40	X
41	Y
42	Z

**Table B.3 Two-Digit Display Descriptors**

No.	Token Text
15	? (question mrk)
16	. (period)
17	A
18	B
19	C
20	D
21	E
22	F
23	G
24	H
25	I
26	J
27	K
28	L

No.	Token Text
43	_ (space)
44	' (apostrophe)
45	-- (dash)
46	__ (underline)
47	* (star)
48	(time)
49	(date)
50	(day and date)
51	_(pseudo space)
52	(return)
53	* (Flashing star) Trouble Indicator

**Table B.4 Panel House Code Defaults/Settings for 4 Partition Panels**

Partition /Area	Panel House Code Defaults (HC1, HC2)	X10 House Dial	House Code	X10 House Dial
1	HC1 = 1	A	_____	_____
	HC2 = 5	E	_____	_____
2	HC1 = 2	B	_____	_____
	HC2 = 6	F	_____	_____
3	HC1 = 3	C	_____	_____
	HC2 = 7	G	_____	_____
4	HC1 = 4	D	_____	_____
	HC2 = 8	H	_____	_____

**Table B.5 Panel House Code Defaults/Settings for 8 Partition Panels**

Partition /Area	Panel House Code Defaults (HC1, HC2)	X10 House Dial	House Code	X10 House Dial
1	HC1 = 1	A	_____	_____
	HC2 = 9	I	_____	_____
2	HC1 = 2	B	_____	_____
	HC2 = 10	J	_____	_____
3	HC1 = 3	C	_____	_____
	HC2 = 11	K	_____	_____
4	HC1 = 4	D	_____	_____
	HC2 = 12	L	_____	_____
5	HC1 (CB, CF) = 5	E	_____	_____
	HC2 (CB, CF) = 13	M	_____	_____
6	HC1 (CB, CF) = 6	F	_____	_____
	HC2 (CB, CF) = 14	N	_____	_____
7	HC1 (CB, CF) = 7	G	_____	_____
	HC2 (CB, CF) = 15	O	_____	_____
8	HC1 (CB, CF) = 8	H	_____	_____
	HC2 (CB, CF) = 16	P	_____	_____

**Table B.6 X10 Module Operation**

Condition	Lamp Module Unit No. 1	Lamp Module Unit Nos. 2–16	Appliance/ Universal Module Unit Nos. 2–16
On entry delay	On for 5 minutes	Unchanged	Unchanged
On Fire Alarm*	On	On	Unchanged
On Police Alarm*	On	On	Unchanged
On Auxiliary Alarm*	On	On	Unchanged
Lights On	On	On	Unchanged
Lights Off	Off	Off	Off

*\* Fire alarms have priority over both police and auxiliary alarms. Police alarms have priority over auxiliary alarms.*

**Table B.7 X10 and Non-X10 Light/Device Numbers by Partition**

Partition 1	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	1
	2	2	2
	3	3	3
	4	4	4
	5	5	5
	6	6	6
	7	7	7
	8	8	8
	9	9	9
	10	10	10
	11	11	11
	12	12	12
	13	13	13
	14	14	14
	15	15	15
	16	16	16
<b>House Code 2</b>			
	1	17	17
	2	18	18
	3	19	19
	4	20	20
	5	21	21
	6	22	22
	7	23	23
	8	24	24
	9	25	25
	10	26	26
	11	27	27
	12	28	28
	13	29	29
	14	30	30
	15	31	31
	16	32	32
<b>Non-X10</b>			
		33	33
		34	34
		35	35
		36	36
		37	37
		38	38
		39	39
		40	40

Partition 2	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	41
	2	2	42
	3	3	43
	4	4	44
	5	5	45
	6	6	46
	7	7	47
	8	8	48
	9	9	49
	10	10	50
	11	11	51
	12	12	52
	13	13	53
	14	14	54
	15	15	55
	16	16	56
<b>House Code 2</b>			
	1	17	57
	2	18	58
	3	19	59
	4	20	60
	5	21	61
	6	22	62
	7	23	63
	8	24	64
	9	25	65
	10	26	66
	11	27	67
	12	28	68
	13	29	69
	14	30	70
	15	31	71
	16	32	72
<b>Non-X10</b>			
		33	73
		34	74
		35	75
		36	76
		37	77
		38	78
		39	79
		40	80

Partition 3	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	81
	2	2	82
	3	3	83
	4	4	84
	5	5	85
	6	6	86
	7	7	87
	8	8	88
	9	9	89
	10	10	90
	11	11	91
	12	12	92
	13	13	93
	14	14	94
	15	15	95
	16	16	96
<b>House Code 2</b>			
	1	17	97
	2	18	98
	3	19	99
	4	20	100
	5	21	101
	6	22	102
	7	23	103
	8	24	104
	9	25	105
	10	26	106
	11	27	107
	12	28	108
	13	29	109
	14	30	110
	15	31	111
	16	32	112
<b>Non-X10</b>			
		33	113
		34	114
		35	115
		36	116
		37	117
		38	118
		39	119
		40	120

Partition 4	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	121
	2	2	122
	3	3	123
	4	4	124
	5	5	125
	6	6	126
	7	7	127
	8	8	128
	9	9	129
	10	10	130
	11	11	131
	12	12	132
	13	13	133
	14	14	134
	15	15	135
	16	16	136
<b>House Code 2</b>			
	1	17	137
	2	18	138
	3	19	139
	4	20	140
	5	21	141
	6	22	142
	7	23	143
	8	24	144
	9	25	145
	10	26	146
	11	27	147
	12	28	148
	13	29	149
	14	30	150
	15	31	151
	16	32	152
<b>Non-X10</b>			
		33	153
		34	154
		35	155
		36	156
		37	157
		38	158
		39	159
		40	160

Partition 5	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	161
	2	2	162
	3	3	163
	4	4	164
	5	5	165
	6	6	166
	7	7	167
	8	8	168
	9	9	169
	10	10	170
	11	11	171
	12	12	172
	13	13	173
	14	14	174
	15	15	175
	16	16	176
<b>House Code 2</b>			
	1	17	177
	2	18	178
	3	19	179
	4	20	180
	5	21	181
	6	22	182
	7	23	183
	8	24	184
	9	25	185
	10	26	186
	11	27	187
	12	28	188
	13	29	189
	14	30	190
	15	31	191
	16	32	192
<b>Non-X10</b>			
		33	193
		34	194
		35	195
		36	196
		37	197
		38	198
		39	199
		40	200

Partition 6	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	201
	2	2	202
	3	3	203
	4	4	204
	5	5	205
	6	6	206
	7	7	207
	8	8	208
	9	9	209
	10	10	210
	11	11	211
	12	12	212
	13	13	213
	14	14	214
	15	15	215
	16	16	216
<b>House Code 2</b>			
	1	17	217
	2	18	218
	3	19	219
	4	20	220
	5	21	221
	6	22	222
	7	23	223
	8	24	224
	9	25	225
	10	26	226
	11	27	227
	12	28	228
	13	29	229
	14	30	230
	15	31	231
	16	32	232
<b>Non-X10</b>			
Non-X10		33	233
		34	234
		35	235
		36	236
		37	237
		38	238
		39	239
		40	240

Partition 7	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	241
	2	2	242
	3	3	243
	4	4	244
	5	5	245
	6	6	246
	7	7	247
	8	8	248
	9	9	249
	10	10	250
	11	11	251
	12	12	252
	13	13	253
	14	14	254
	15	15	255
	16	16	256
<b>House Code 2</b>			
	1	17	257
	2	18	258
	3	19	259
	4	20	260
	5	21	261
	6	22	262
	7	23	263
	8	24	264
	9	25	265
	10	26	266
	11	27	267
	12	28	268
	13	29	269
	14	30	270
	15	31	271
	16	32	272
<b>Non-X10</b>			
		33	273
		34	274
		35	275
		36	276
		37	277
		38	278
		39	279
		40	280

Partition 8	X10 Unit Dial Setting	Light/Device Number	Menu Output Number
<b>House Code 1</b>			
	1	1	281
	2	2	282
	3	3	283
	4	4	284
	5	5	285
	6	6	286
	7	7	287
	8	8	288
	9	9	289
	10	10	290
	11	11	291
	12	12	292
	13	13	293
	14	14	294
	15	15	295
	16	16	296
<b>House Code 2</b>			
	1	17	297
	2	18	298
	3	19	299
	4	20	300
	5	21	301
	6	22	302
	7	23	303
	8	24	304
	9	25	305
	10	26	306
	11	27	307
	12	28	308
	13	29	309
	14	30	310
	15	31	311
	16	32	312
<b>Non-X10</b>			
		33	313
		34	314
		35	315
		36	316
		37	317
		38	318
		39	319
		40	320

## Contact ID Codes and Event Types

Use Table B.8 for determining event types and CID codes.

**Note**

Items in grey are not supported.

**Table B.8 Contact ID Codes**

Description	Specific Type	Contact ID Code	Associated Zone Type
<b>Alarms</b>			
(General Types 1–Alarm, 2–Alarm Cancel, 3–Alarm Restoral)			
<b>Note</b>			
All alarm cancels are reported as CID code 406			
*Advent has a defined level that reports “silent burglary” (CID 146). This will be used in place of the defined event code at the appropriate level.			
Unspecified	0	140	
Fire	1	110	26, 90
Fire Panic	2	115	60(B), 62, Touchpad Panics
Police	3	130	8, 9, 30*, 60(A), 61*, 64*, 75-79*
Police Panic	4	120	0, 1, Touchpad Panics
Medical	5	100	4-7, Touchpad Panics
Medical Panic	6	101	54-57, Touchpad Panics
Auxiliary	7	140	
Auxiliary Panic	8	100	4-7, Touchpad Panics
Tamper	9	144	63*, 65*, 66*, 85, Any Zone
No Activity	10	102	
Suspicion	11	122	2, 3, 58, 73, 74
Buddy	12	140	
Low Temperature Limit	13	159	
High Temperature Limit	14	158	
Keystroke Violation	15	145	
Duress	16	121	
Exit Fault	17	374	
Explosive Gas	18	151	34, 67
Carbon Monoxide	19	162	68
Environmental	20	150	29
Latchkey	21	642	
Equipment Tamper	22	137	
Holdup	23	122	2, 3, 58, 73, 74
Sprinkler	24	113	82
Heat	25	114	81
Siren Tamper	26	137	
Smoke	27	111	80
Repeater	28	144	63*, 65*, 66*, 85, Any Zone

**Table B.8 Contact ID Codes (Continued)**

Description	Specific Type	Contact ID Code	Associated Zone Type
Fire Pump Activated	29	110	26, 90
Fire Pump Failure	30	140	
Fire Gate Valve	31	140	
Low CO2 Pressure	32	140	
Low Liquid Pressure	33	140	
Low Liquid Level	34	140	
Entry Exit Intrusion (Police)	35	134	10-12*
Perimeter Intrusion (Police)	37	131	13*
Interior Intrusion (Police)	38	132	14-20*
<b>Fire Trouble</b>			
(General Types 4–Zone Trouble Fire, 5–Zone Trouble Restoral Fire)			
Unspecified	0	373	
Hardwire Trouble	1	373	
Ground Fault	2	310	
Device Trouble	3	373	
RF Supervisory	4	381	
RF Low Battery	5	384	
Tamper	6	383	
Suspected Sensor Failure	7	373	
Partial Obscurity	8	386	
RF Jam	9	373	
Zone AC Failure	10	373	
Zone Low Battery	11	373	
NAC Trouble	12	373	
Analog Zone Trouble	13	373	
Fire Supervisory Trouble	14	200	96
Pump Failure	15	206	91
Gate Valve Closed	16	203	92
CO2 Pressure	17	202	93
Liquid Pressure	18	201	94
Liquid Level	19	204	95
<b>Non-Fire Trouble</b>			
(General Types 6–Zone Trouble Non Fire, 7–Zone Trouble Restoral Non Fire)			
Unspecified	0	380	
Hardwire Trouble	1	380	
Ground Fault	2	310	
Device Trouble	3	380	
RF Supervisory	4	381	
RF Low Battery	5	384	



**Table B.8 Contact ID Codes (Continued)**

Description	Specific Type	Contact ID Code	Associated Zone Type
Tamper	6	383	
Suspected Sensor Failure	7	391	
Partial Obscurity	8	386	
RF Jam	9	380	
Zone AC Failure	10	380	
Zone Low Battery	11	380	
NAC Trouble	12	380	
Analog Zone Trouble	13	380	
Fire Supervisory Trouble	14	200	96
Pump Failure	15	206	91
Gate Valve Closed	16	203	92
CO2 Pressure	17	202	93
Liquid Pressure	18	201	94
Liquid Level	19	204	95
<b>Bypass and Unbypass</b> (General Types 8–Bypass, 9–Unbypass)			
Direct	0	570	
Indirect	1	570	
Swinger	2	575	
Inhibit	3	570	
<b>Opening</b> (General Type 10–Opening)			
Normal	0	401	
Early	1	451	
Late	2	452	
Fail	3	453	
Exception	4	450	
Extension	5	450	
Keyswitch/Keyfob Disarm	6	409	
Scheduled Disarm	7	403	
Remote	8	407	
<b>Closing</b> (General Type 11–Closing)			
Normal	0	401	
Early	1	451	
Late	2	452	
Fail	3	454	
Exception	4	450	
Extension	5	464	
Keyswitch/Keyfob Disarm	6	409	
Scheduled Disarm	7	403	

**Table B.8 Contact ID Codes (Continued)**

Description	Specific Type	Contact ID Code	Associated Zone Type
Remote	8	407	
<b>Partition/Area Configuration Change</b> (General Type 12–Partition/Area Configuration Change)			
Access Code Added	0	306	
Access Code Deleted	1	306	
Access Code Changed	2	306	
Access Code Expired	3	306	
Code Authority Changed	4	306	
Authority Level Changed	5	306	
Schedule Changed	6	306	
Arm/OC Schedule Changed	7	632	
Zone Added	8	306	
Zone Deleted	9	306	
<b>Partition/Area Event</b> (General Type 13–Partition/Area Event)			
Schedule On	0	None	
Schedule Off	1	None	
Latchkey On	2	None	
Latchkey Off	3	None	
Smoke Loop Reset	4	None	
Access Code Entered	5	462	
Arming Level Change	6	None	
Alarm Reported	7	None	
Agent Release	8	None	
Agent Release Restoral	9	None	
Remote Access	10	410	
Keystroke Violation	11	None	
Manual Force Arm	12	401	
Auto Force Arm	13	457	
Force Arm Failed	14	455	
Protest Start	15	None	
Protest End	16	None	
<b>Partition/Area Test</b> (General Type 14– Partition/Area Test)			
Manual Phone Test	0	601	
Auto Phone Test	1	602	
Off-Normal Auto Phone Test	2	608	
Phone Test Passed	3	None	
Phone Test Failed	4	None	
User Zone Test Started	5	607	
User Zone Test Ended	6	607	

**Table B.8 Contact ID Codes (Continued)**

Description	Specific Type	Contact ID Code	Associated Zone Type
User Zone Test Complete	7	607	
User Zone Test Incomplete	8	607	
User Zone Test Trip	9	611	
Installer Zone Test Started	10	607	
Installer Zone Test Ended	11	607	
Installer Zone Test Complete	12	607	
Installer Zone Test Incomplete	13	607	
Installer Zone Test Trip	14	611	
Fire Drill	15	604	
<b>System Trouble</b> (General Types 15–System Trouble, 16–System Trouble Restoral)			
Receiver Failure	0	355	
Antenna Tamper	1	355	
Main Low Battery	2	302	
SnapCard Low Battery	3	302	
Module Low Battery	4	338	
Main AC Power Failure	5	301	
Snap Card AC Power Failure	6	301	
Module AC Power Failure	7	342	
Auxiliary Power Failure	8	330	
Shutdown	9	308	
Bus Low Power Mode	10	330	
Phone Line #1 Failure (will be reported to phone 2)	11	351	
Phone Line #2 Failure (will be reported to phone 1)	12	352	
Remote Phone Tamper	13	413	
Watchdog Reset	14	305	
RAM Failure	15	303	
Flash Error	16	304	
Printer Trouble	17	336	
History Buffer Full	18	623	
History Buffer Overflow	19	624	
Report Buffer Overflow	20	624	
Bus Device Failure	21	333	
Failure to Communicate	22	354	
Long Range Radio Trouble	23	353	
Module Tamper	24	341	
Unenrolled Module	25	333	
Audio Amplifier Trouble	26	320	33

**Table B.8 Contact ID Codes (Continued)**

Description	Specific Type	Contact ID Code	Associated Zone Type
Analog Module Trouble	27	333	
Cell Module Trouble	28	333	
Buddy #1 Failure	29	334	84, 85
Buddy #2 Failure	30	334	84, 85
Buddy #3 Failure	31	334	84, 85
Buddy #4 Failure	32	334	84, 85
SnapCard Trouble	33	333	
Analog Loop Short	34	332	
Analog Loop Break	35	331	
Analog Head at Address 0	36	333	
Unenrolled Analog Head	37	333	
Duplicate Analog Head	38	333	
Analog Loop Initializing	39	333	
Microphone Switch Trouble	40	333	
Microphone Trouble	41	333	
Microphone Audio Trouble	42	333	
JTech Module Trouble	43	333	
Voice Siren Tamper	44	320	33
Microburst Transmit Fault	45	353	
Microburst Disabled	46	353	
Microburst Module Failure	47	353	
Microburst not is service	48	353	
Automation Module Supervisory	49	353	
<b>System Configuration Change</b> (General Type 17–System Configuration Change)			
Program Mode Entry	0	627	
Program Mode Exit No Change	1	628	
Program Mode Exit With Change	2	306	
Download Started	3	412	
Download Ended No Change	4	416	
Download Ended With Change	5	412	
Download Error	6	413	
Download Denied	7	413	
Date/Time Changed	8	625	
Expansion Module Added	9	531	
Expansion Module Deleted	10	532	
Speech Tokens Changed	11	306	
Program Code Changed	12	306	

**Table B.8 Contact ID Codes (Continued)**

Description	Specific Type	Contact ID Code	Associated Zone Type
First Service -- Cold Reset	13	305	
Back in Service -- Warm Reset	14	308	
Installer Code Changed	15	306	
<b>System Error</b> (General Type 18--System Event)			
Callback Requested	0	411	
Output Activity	1	None	
Buddy Reception	2	None	
Buddy Transmit Request	3	None	
History Buffer Cleared	4	621	
Output On	5	None	
Output Off	6	None	
<b>System Test</b> (General Type 19--System Test)			
Manual Phone Test	0	601	
Auto Phone Test	1	602	
Off-Normal Auto Phone Test	2	608	
Phone Test Passed	3	None	
Phone Test Failed	4	None	

**Additional CID Reporting**

Table B.9 shows additional CID reports.

**Table B.9 Additional CID Reporting**

Type	Number Range	Example
System Reports	00	System low battery would report as 000.
Normal Zones	01–499	Zone number 4 would report as 004.
Bus Devices	500–594	Device number 1 would report as 501.
Touchpad Panic Zones	595–599	Touchpad fire panic would report as 599 Touchpad police panic would report as 598. Touchpad auxiliary panic would report as 597. Touchpad medical panic would report as 596. <b>Note</b> Only if setting yy005 is on.
User	600–849	User number 52 would report as 652.
Local Phone Reports	900	Local phone panic would report as 900.
Remote Phone Reports	901	Remote phone, phone test would report as 901.
Installer Code	999	Alarm cancelled with installer code would report as 999.

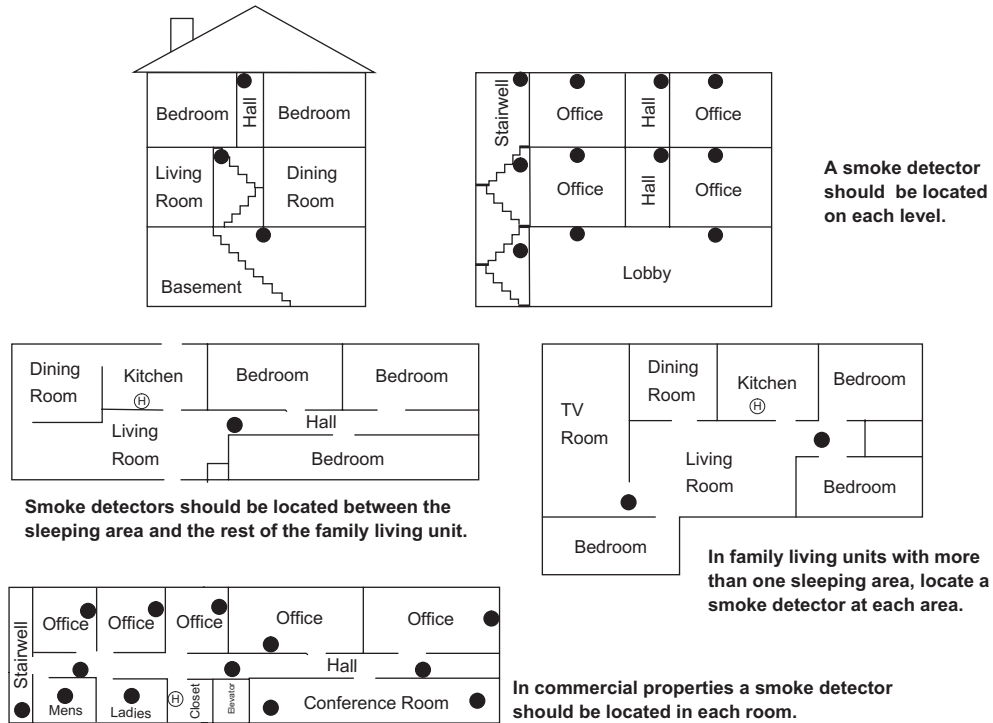
**Table B.10 LED Types and Behaviors**

LED Types			LED Type Behavior		
LED Type	Description	LED Data	When the Green LED is On	When the Yellow LED is On	When the RED LED is On
0	Disable all LED's (default)				
1	Zone status type 1	Zone number	Zone normal	Zone in trouble or bypassed	Zone in alarm
2	Zone status type 2	Zone number	Zone normal	Zone open, in trouble, or bypassed	Zone in alarm
3	Zone status type 3	Zone number	Zone normal	Zone in trouble or bypassed	Zone open (unrestored)
4	Programmable output status type 1	Output number	Output off	Output on	
5	Programmable output status type 2	Output number	Output off		Output on
6	Arming level	Partition/Area	Partition/Area disarmed		Partition/Area armed
7	Alarm/Trouble status	Partition/Area	Partition/Area normal	Partition/Area in trouble	Partition/Area in alarm
8	System trouble		No system trouble	System trouble	
9	Main AC trouble		Main AC on	Main AC off	
10	SnapCard AC trouble		SnapCard AC on	SnapCard AC off	
11	Module AC trouble		Module AC on	Module AC off	
12	Auxiliary power trouble		Auxiliary power OK	Auxiliary power trouble	
13	Main battery trouble		Main battery(s) OK	Main battery(s) low	
14	SnapCard battery trouble		SnapCard battery(s) OK	SnapCard battery(s) low	
15	Module battery trouble		Module battery OK	Module battery(s) low.	

**Note:** If no LEDs are on, either the group is not programmed or the partition/area is not enabled.

## Smoke and Heat Detector Installation

Smoke and heat detector installation must adhere to the following diagram:



**NOTE:** Ceiling-mounted smoke detectors should be located in the center of the room or hall, or not less than 4 inches from the wall. When the detector is mounted on the wall, the top of the detector should be 4 to 12 inches from the ceiling.

**NOTE:** Do not install smoke detectors where normal ambient temperatures are above 100°F or below 40°F. Also, do not locate detectors in front of AC/ Heat registers or other locations where normal air circulation will keep smoke from entering the detector.

**NOTE:** Additional information on household fire warning is available at nominal cost from: The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269. Request Standard No. NFPA74.

● Required smoke detector

Ⓜ Heat detector

Smoke detector is optional if door is not provided between basement and recreation rooms.

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# Appendix C: Commercial Fire Wiring Examples

## Connecting Speakers for Fire Protective Signaling Units

Connect UL-listed speakers for fire protective signaling units as shown in Figure C1.

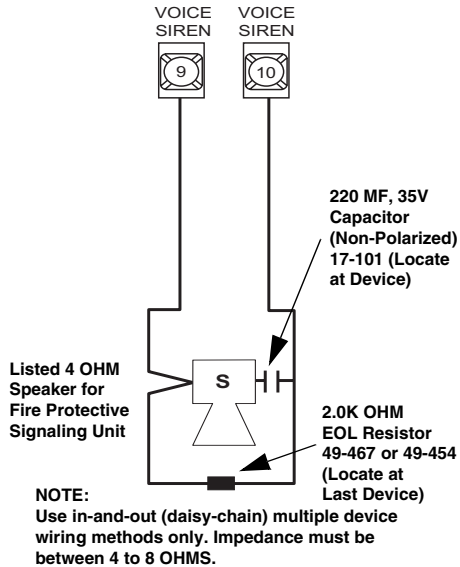


Figure C1. Connecting UL-Listed Speakers.

## Connecting Horns and Strobes

Connect UL-listed DC horns, strobes, and horn/strobe combinations as shown in Figure C2.

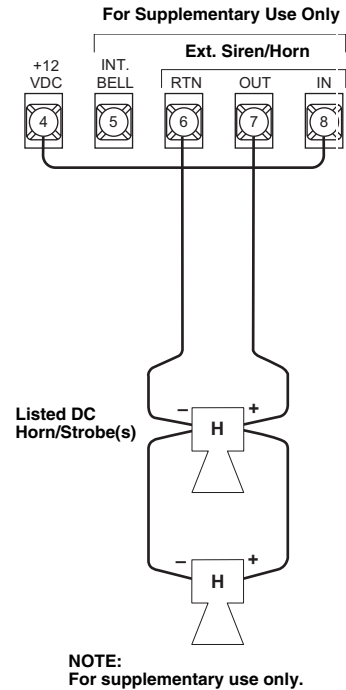


Figure C2. Connecting UL-Listed Horns and Strobes to the Panel

## Connecting Hardwire Full Pulls

Connect one or more hardwire fire pulls as shown in Figure C3.

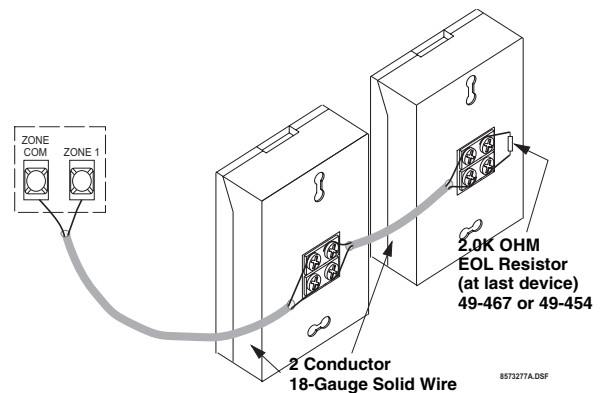


Figure C3. Connecting Hardwire Fire Pulls

## Connecting Water Flow Detection Devices.

Connect one or more water flow detection devices as shown in Figure C4.

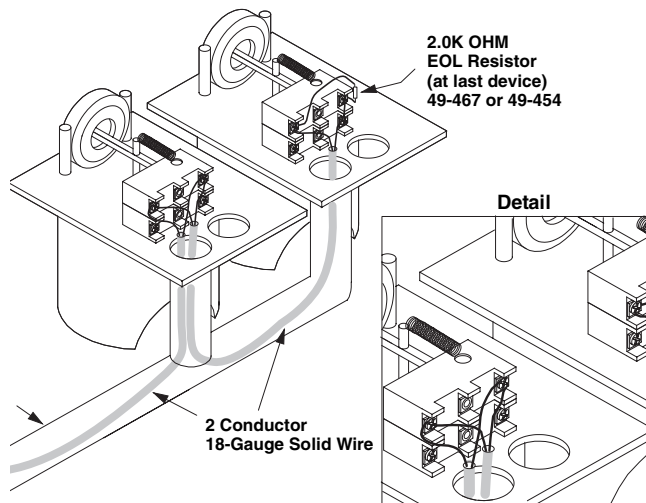


Figure C4. Connecting Water Flow Devices

### Wiring AL602ITI Power Supply

The Advent Fire panel will be configured for a continuous fire alarm output, and an audible fire alarm output. The continuous output is used to control visual alarm appliances (strobes), and is active until a fire alarm is acknowledged (cancelled). The audible output is used to control audible alarm appliances (horns), and is active until a fire alarm is silenced. A trouble indicator output in the AL602ITI activates a relay output for AC power loss, low backup battery or trouble on any of the output circuits. This output is learned in to a fire supervisory input (zone type 96) on the Advent panel.

If additional power or additional outputs are required, up to four AL 602ITI NAC Power Supplies can be controlled from one pair of Advent Fire panel outputs.

**Note**

The AL602ITI must be mounted within 20 feet of the Advent panel enclosure and all wiring between the Advent panel and the AL602ITI must be enclosed in conduit.

**To wire the trouble indicator:**

1. Wire the “AC Fail” and “Battery Fail” outputs to the “Fault” input in the AL602ITI as shown in Figure C5.
2. Wire the N.O. and C terminals of the common trouble output on the AL602ITI to an input zone on the Advent panel as shown in Figure X. This input zone must be learned into the Advent panel as Zone type 96.

**To wire the audible output:**

1. Configure a relay output on a 4 relay output module as an audible (fire alarm-not silent) output (used to control horns), using Advent downloader software on site.
2. Wire this output relay to input 2 on the AL602ITI as shown in Figure C5.

**Note**

The 4 Relay Output Module must be mounted inside the Advent panel enclosure.

**To wire the visual (strobe) output:**

1. Configure a relay output on a 4 relay output module as a continuous fire alarm output (used to control strobes), using Advent downloader software on site.
2. Wire this output relay to input 1 on the AL602ITI as shown in Figure C5.

**Note**

The 4 Relay Output Module must be mounted inside the Advent panel enclosure.

If additional power or outputs are required, up to 3 additional AL602ITI NAC Power Supplies can be added by connecting the “RET” terminals of the first AL602ITI to the corresponding “IN” terminals of the next AL602ITI and so on. See Figure C5 for details.

Set the DIP switches on the AL602ITI as required for the horn/strobes used. Refer to the AL602ITI installation instructions for information on setting the DIP switches and wiring the output circuits.



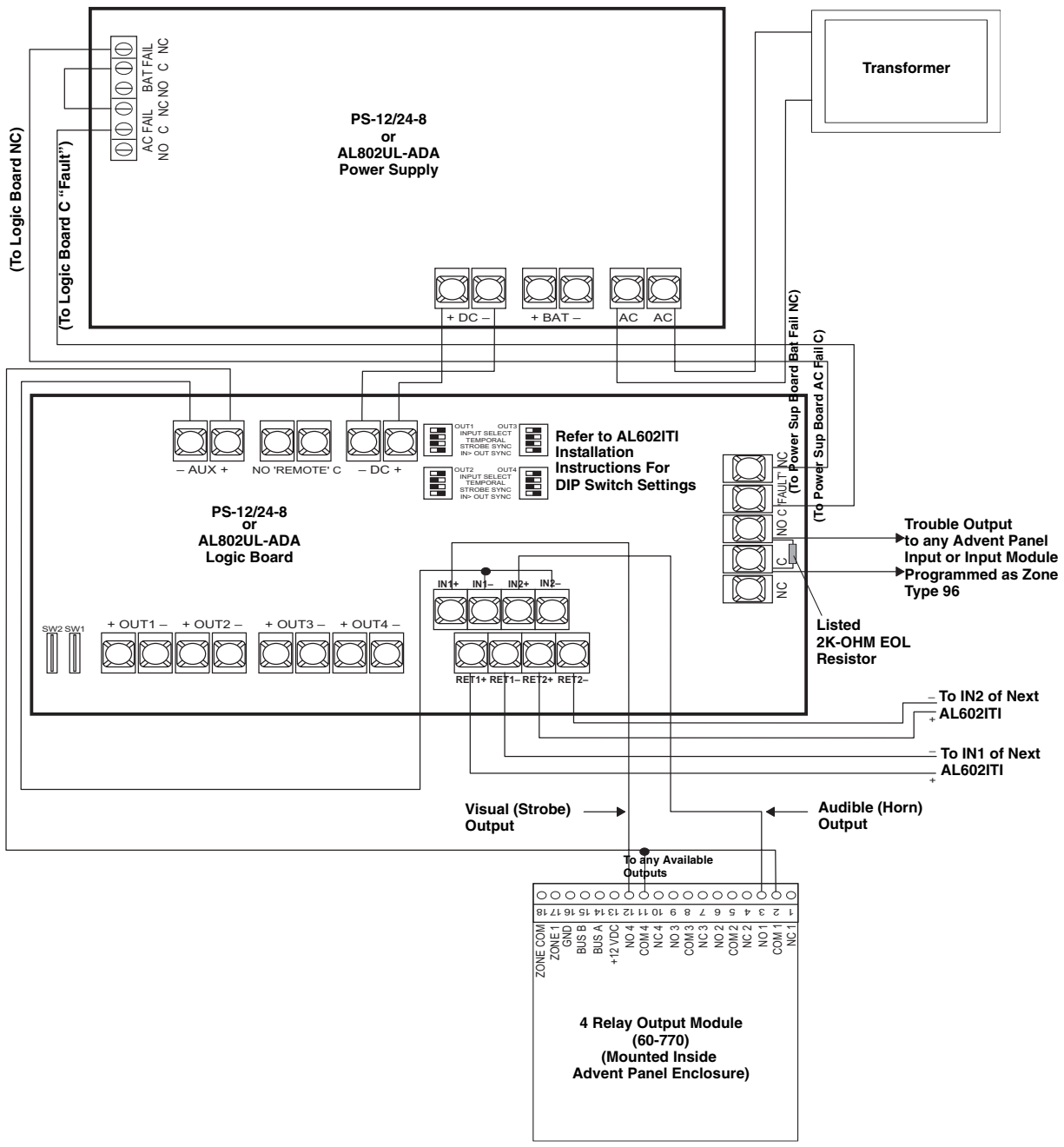


Figure C5. Wiring AL602IT1 Power Supply

# Notices

## FCC Part 15 Information to the User

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

## ACTA Part 68

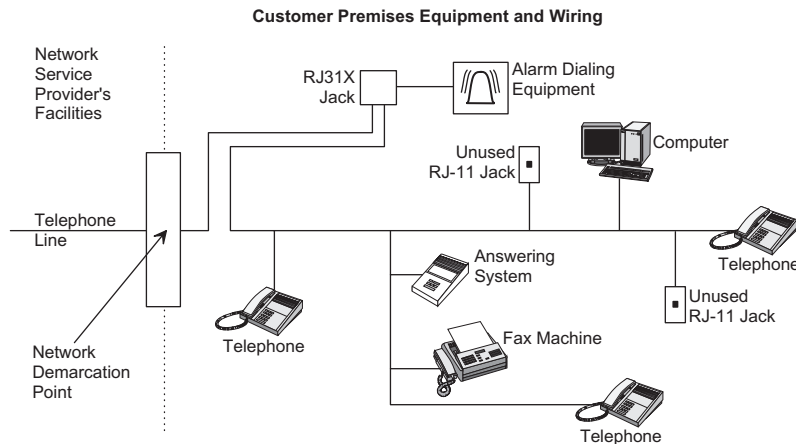
This equipment complies with Part 68 of the FCC Rules. Located on this equipment is a label that contains, among other information, the FCC registration number and the ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

FCC Part 68 Registration No. B4ZUSA-27810-AL-E

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

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

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



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

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

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

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

## Patent Information

This product and the use of this product may be covered by one or more of the following patents: 5,805,063 5,686,896 5,686,885 4,855,713 5,950,110. Except as expressly provided herein, the purchase of this product shall not constitute a license or otherwise provide a right to practice a method covered by any of the identified patents. GE Interlogix hereby grants the purchaser of this product a limited non-exclusive license to practice the methods patented in the identified patents solely with products manufactured, sold or licensed by GE Interlogix. This license grant does not extend to the use of unlicensed third party products with this product.





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2266 Second Street North  
North Saint Paul MN 55109  
Technical Support: 800-777-2624