



To download the full installation and user manuals and register your product, please visit: [www.DSC.com/m/29010134](http://www.DSC.com/m/29010134) or scan the QR code to the right.



## PowerSeries Pro Alarm Control Installation Guide

PowerSeries Pro is a feature-rich, scalable alarm system designed for commercial use. It features integrated phone line and Ethernet (IP) communicators, and supports both hardwired and wireless devices. Three models are available: HS3248 (248 zones), HS3128 (128 zones), and HS3032 (32 zones).

### Quick Setup

1	Plan	Plan the installation including all alarm detection devices, zone expanders, keypads and other required modules.
2	Mount	Decide on a location for the alarm panel and secure it to the wall using suitable mounting hardware.
3	Wire	Complete all wiring including modules, zones, bells/sirens, telephone line connections and ground connections. Record module serial numbers on page 24.
4	Power	Connect the battery and power up the system. The battery must be connected.
5	Enroll First Keypad	Hardwired: Wire the keypad to the Corbus, power up the alarm panel then press any button on the keypad. Wireless: Wire the HSM2Host to the Corbus, then power up the alarm panel and a wireless keypad. Press any button on the keypad to enroll it. The HSM2Host is then enrolled on the alarm panel. Alternately, enroll an RF keypad.
6	Enroll modules	[*][8][Installer Code][902] subsection [000]. Press [*] to begin auto-enrollment. Module slots are automatically assigned. Use scroll keys to view slots. Change slot by typing a 2-digit number.
7	Enroll wireless devices	[*][8][Installer Code][804] subsection [000]. Note: An HSM2HOST or RF keypad must be enrolled first.
8	Program	Basic programming: [*][8][installer code] [001]/[002]> Zone Type/Zone Attribute [005]>[001] Partition 1 Timers: – Entry Delay 1 – Entry Delay 2 – Exit Delay [301]>[001] Phone #1 [310]>[000] System Account Code.
9	Test	Test the panel completely to ensure that all features and functions operate as programmed. – [901] Walk Test – [904] [000] Wireless Placement Test.

8 low current output expander:	HSM2208 <sup>UL</sup>	
8-zone expander:	HSM3408 <sup>UL</sup>	
1 A Power supply:	HSM2300 <sup>UL</sup>	
3 A power supply:	HSM3350 <sup>UL</sup>	
4 high current output expander:	HSM2204 <sup>UL</sup>	
Audio verification module:	HSM2955(R) <sup>UL</sup>	
Power supply/relay output/Corbus repeater module:	HSM3204CX <sup>UL</sup>	
USB to WiFi adapter:	HSM3WIFI	
Alternate communicator:	LE9080 <sup>UL</sup>	GS9080
	3G9080-EU	TL880LT <sup>UL</sup>
	3G9080 <sup>UL</sup>	TL8803G <sup>UL</sup>
	3H9080 <sup>UL</sup>	

### Hardwired Devices

2-wire smoke detectors:	FSA-210x <sup>UL</sup>	FSA-210xR <sup>UL</sup>
y= A, B, or C	FSA-210xT <sup>UL</sup>	FSA-210xRT <sup>UL</sup>
A: ULC listed models	FSA-210xs <sup>UL</sup>	FSA-210xRS <sup>UL</sup>
B: UL listed models	FSA-210xST <sup>UL</sup>	FSA-210xRST <sup>UL</sup>
C: European and Australian models	FSA-210xLST <sup>UL</sup>	FSA-210xLRST <sup>UL</sup>
4-wire smoke detectors:	FSA-410x <sup>UL</sup>	FSA-410xR <sup>UL</sup>
y= A, B, or C	FSA-410xT <sup>UL</sup>	FSA-410xRT <sup>UL</sup>
A: ULC listed models	FSA-410xs <sup>UL</sup>	FSA-410xRS <sup>UL</sup>
B: UL listed models	FSA-410xST <sup>UL</sup>	FSA-410xRST <sup>UL</sup>
C: European and Australian models	FSA-410xLST <sup>UL</sup>	FSA-410xLRST <sup>UL</sup>
CO detectors:	CO-12/24 <sup>UL</sup>	FW-CO1224
	12-24SIR <sup>UL</sup>	CO1224
	FW-CO12	

### Wireless Devices

PowerG wireless short range ceiling mount detector with temperature monitoring	PGx862 <sup>UL</sup>
PowerG wireless long range ceiling mount detector with temperature monitoring	PGx872 <sup>UL</sup>
PowerG wireless outdoor curtain PIR	PGx902 <sup>UL</sup>
PowerG wireless PRI motion detector with optional animal resistance	PGx904(P) <sup>UL</sup>
PowerG wireless PIR motion detector with temperature monitoring	PGx914(P) <sup>UL</sup>
PowerG wireless curtain PIR motion detector	PGx924 <sup>UL</sup>
PowerG wireless PIR motion detector with camera	PGx934(P) <sup>UL</sup>
PowerG wireless outdorr PIR motion detector with camera and with anti-masking	PGx944 <sup>UL</sup>
PowerG wireless mirror optic PIR motion detector	PGx974(P) <sup>UL</sup>
PowerG wireless dual technology (PIR and MW) with anti-masking	PGx984(P) <sup>UL</sup>
PowerG wireless outdoor PIR motion detector with anti-masking	PGx994
PowerG wireless recessed door/window contact	PGx307
PowerG wireless outdoor contact with auxiliary input, temperature monitoring, and anti-masking	PGx312 <sup>UL</sup>
PowerG wireless door/window contact with auxiliary input	PGx945 <sup>UL</sup>
PowerG wireless vanishing door/window contact	PGx975 <sup>UL</sup> / PGx303 <sup>UL</sup>
PowerG wireless glassbreak detector	PGx912 / PGx922 <sup>UL</sup>
PowerG wireless shock detector with auxiliary input	PGx935 <sup>UL</sup>
PowerG wireless flood detector	PGx985 <sup>UL</sup>
PowerG wireless temperature detector	PGx905 <sup>UL</sup>
PowerG wireless temperature probe extender (requires PGx905)	PGTEMP-PROBE
PowerG wireless CO detector (US only)	PGx913 <sup>UL</sup>
PowerG wireless CO detector with temperature monitoring	PGx933 <sup>UL</sup>
PowerG wireless smoke and heat detector	PGx916 <sup>UL</sup>
PowerG wireless smoke and heat detector with temperature monitoring	PGx936 <sup>UL</sup>
PowerG wireless smoke detector	PGx926 <sup>UL</sup>
PowerG wireless indoor siren	PGx901 <sup>UL</sup>
PowerG wireless outdoor siren	PGx911 <sup>UL</sup>
PowerG wireless repeater	PGx920 <sup>UL</sup>
PowerG wireless 1-button securtiy panic keyfob	PGx938 <sup>UL</sup>
PowerG wireless 2-button securtiy panic keyfob	PGx949 <sup>UL</sup>

### Compatible Devices

Throughout this document, x in the model number represents the operating frequency of the device as follows: 9 (912-919 MHz), 8 (868 MHz), 4 (433 MHz).

**Note:** Only models operating in the band 912-919 MHz are UL/ULC listed where indicated. For UL/ULC certified installations, use only UL/ULC listed devices. Only models marked with xxx<sup>UL</sup> are UL/ULC listed.

**Table 1-1 Compatible Devices**

#### Modules

Wireless keypads:	HS2LCDWFPROx <sup>UL</sup>	HS2LCDWFVPROx <sup>UL</sup>
Hardwired keypads with PG host	HS2LCDRFPROx <sup>UL</sup>	
Hardwired keypads:	HS2LCDPRO <sup>UL</sup>	
Touchscreen keypad:	HS2TCHPRO(BLK) <sup>UL</sup>	
Note: For ULC-s559 Listed applications the HS2TCHPRO(BLK) touchscreen keypad is for supplementary use only.		
2-way wireless tranceiver:	HSM2HOSTx <sup>UL</sup>	
8-zone expander:	HSM2108 <sup>UL</sup>	



**WARNING:** This manual contains information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer. The entire manual should be carefully read.

**Central Station Receivers**

SG-System I, II, III, IV, 5

**Safety instructions for service personnel**

**Warning:** When using equipment connected to the telephone network, always follow the basic safety instructions provided with this product. Save these instructions for future reference. Inform the end-user of the safety precautions that must be observed when operating this equipment.

**Before installing the equipment**

Ensure your package includes the following items:

- Installation and User manuals, including the safety instructions.
- Read and save these instructions.
- Follow all warnings and instructions specified within this document and/or on the equipment.
- HS3032/HS3128/HS3248 alarm controller
- Power Supply, direct plug-in

**Selecting a suitable location for the alarm controller**

Use the following list as a guide to find a suitable location to install this equipment:

- Locate near a telephone socket and power outlet.
- Select a location free from vibration and shock.
- Place alarm controller on a flat, stable surface and follow the installation instructions.
- Do not locate this product where people may walk on the secondary circuit cable(s).
- Do not connect alarm controller to electrical the same circuit as large appliances.
- Do not select a location that exposes your alarm controller to direct sunlight, excessive heat, moisture, vapors, chemicals or dust.
- Do not install this equipment near water. (e.g., bath tub, kitchen/laundry sink, wet basement, near a swimming pool).
- Do not install this equipment and accessories in areas where risk of explosion exists.
- Do not connect this equipment to electrical outlets controlled by wall switches or automatic timers.
- Avoid interference sources.
- Avoid installing equipment near heaters, air conditioners, ventilators, and refrigerators.
- Avoid locating equipment close to or on top of large metal objects (e.g., wall studs).
- See "Locating detectors and escape plan" on page 26 for information on locating smoke and CO detectors.

**Safety precautions required during installation**

- Never install this equipment and/or telephone wiring during a lightning storm.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Position cables so that accidents can not occur. Connected cables must not be subject to excessive mechanical strain.
- Use only the power supply provided with this equipment. Use of unauthorized power supplies may cause damage.
- For direct plug-in versions, use the power supply module supplied with the device.

**Warning:** This equipment has no mains on/off switch. The plug of the direct plug in versions of this equipment is intended to serve as the disconnecting device. It is imperative that access to the mains plug and associated mains socket/outlet is never obstructed. For permanently connected versions of this equipment the fuse in the connector block is the disconnect device. If the neutral wire cannot be identified, then this equipment must be connected to a mains source that comes from a

disconnect device that simultaneously disconnects both poles (Line and Neutral).

**Important note for international market (EU, Australia, New Zealand)**

This equipment is stationary-fixed and must be installed by Skilled Persons only. Skilled Person is defined as a person with relevant education or experience to enable him or her to identify hazards and to take appropriate actions to reduce the risks of injury to themselves and others.

- It must be installed and used within an environment that provides the pollution degree max 2, over voltages category II, in non-hazardous, indoor locations only.
- Use authorized accessories only with this equipment. Do not place any object on the top of the cabinet of this equipment! Do not spill any liquids on the cabinet.
- Do not touch the equipment and its connected cables during an electrical storm; there may be a risk of electric shock.
- Ensure that cables are positioned so that accidents cannot occur. Connected cables must not be subject to excessive mechanical strain. Do not use the Alarm system to report a gas leak if the system is near a leak.
- These safety instructions should not prevent you from contacting the distributor and/or the manufacturer to obtain any further clarification and/or answers to your concerns.

**Installation****Compatible Enclosures**

The PowerSeries Pro main board can be installed in the following enclosures:

- Model HSC3010C (hinged door) made of 18 Ga steel, painted white, dimensions 372 mm x 412 mm x 114 mm, weight: 9.75 lb or 4.2 kg
- Model HSC3010CR (hinged door) made of 18 Ga steel, painted red, dimensions 372 mm x 412 mm x 114 mm, weight: 10.0 lb or 4.5 kg
- Model HSC3030CAR (hinged door) made of 18 Ga steel (base) and 16 Ga (door), painted white, dimensions 375 mm x 412 mm x 114 mm, weight: 11.45 lb or 5.2 kg
- Model HSC3020C (removable door) made of 18 Ga steel, painted white, dimensions 459 mm x 414 mm x 103 mm, weight: 4.3 kg (no batteries)/12 kg (17 Ah)
- Model HSC3020CP (removable door) made of PC-ABS, color white, dimensions 368 mm x 489 mm x 108 mm, weight: 2.3 kg (no batteries)/7.7 kg (17 Ah)

The equipment enclosure must be secured to the building structure before operation. Use 4 screws (appropriate for the wall material on which it is attached) inserted through the four mounting holes provided in the back of the enclosure base.

For EN50131-1 Grade 2 or Grade 3 compliant installations use only models HSC3020C and HSC3020CP.

All enclosures are UL/ULC listed, except the HSC3020CP. Do not use model HSC3020CP in UL/ULC certified installations.

**Mounting the enclosure**

This section provides basic instructions for wall-mounting the available PowerSeries Pro enclosures. Mount in a dry location, near an unswitched AC power source and Ethernet and phone connections. If mounting on drywall, ensure all four screw holes align with wall studs.

Complete all wiring before applying AC or connecting the battery.

**Note:** The weight of the enclosure and contents cannot be supported by drywall only. Use mounting hardware sufficient to support up to three times the panel weight, including equipment, cables, conduit and hardware

(approximately 210 lbs/ 95 kg). Select hardware suitable for the mounting surface.

Recommended minimum screw size: M4 (#8) x 4, 25.4 mm (1 inch) long, pan head.

To mount the enclosure, complete the following steps:

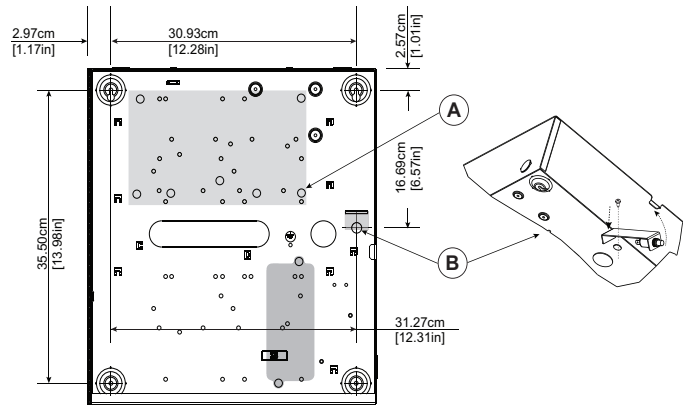
1. Position the enclosure in the mounting location and mark the two top screw holes and the tamper bracket hole.
2. Remove the enclosure, then install the two top screws part way and an anchor for the tamper bracket, if necessary. Do not mount the tamper bracket directly into drywall.
3. Hang the enclosure on the installed screws then mark the two bottom mounting holes.
4. Remove the enclosure from the wall and install the components in the following order:
  - Plastic standoffs for alarm controller and optional modules
  - Tamper switch and bracket
  - Power supply, including GND connection for HSC3010C, HSC3010CR, and HSC3030CAR enclosures (see diagram). Note that the ground nut mounts from the back of the cabinet.
5. Hang the enclosure on the top two screws again then fasten the tamper bracket to the wall.
6. Install the two bottom screws. Ensure that all four screws are securely tightened.
7. Install the alarm controller. For models HSC3010C, HSC3010CR, HSC3030CAR and HSC3020C enclosures, use the supplied metal standoff and screw in bottom-right mounting hole as indicated in figure 2-1.
8. Install optional modules and wire according to the instructions provided with the module.
9. Wire the tamper switch into any available zone. Configure the tamper for normally closed (NC) supervision. Zone must be programmed for 24-hour latching or non-latching tamper.
10. Install the batteries only after the enclosure has been permanently secured to the wall.

The following diagram indicates the mounting location of the alarm controller PCB, power supply module and tamper bracket inside the enclosure.

**Wall mounting HSC3010C/ HSC3010CR/ HSC3030CAR enclosures**

The following diagram indicates the mounting location of the alarm controller PCB, power supply module and tamper bracket inside HSC3010C/ HSC3010CR/ HSC3030CAR enclosures.

**Figure 1-1 HSC3010C, HSC3010CR, HSC3030CAR enclosures**

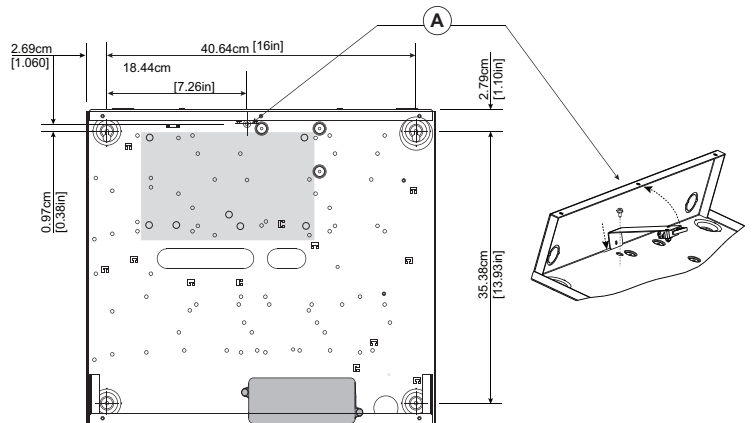


A	Use metal standoff and screw in the position indicated. IMPORTANT! Ensure screw and standoff are tightly secured to establish Earth ground connection for the PCB.
B	Tamper mounting location

**Wall mounting the HSC3020C enclosure**

The following diagram indicates the mounting location of the alarm controller PCB, power supply module and tamper bracket inside the HSC3020C enclosure.

**Figure 1-2 HSC3020C enclosure**



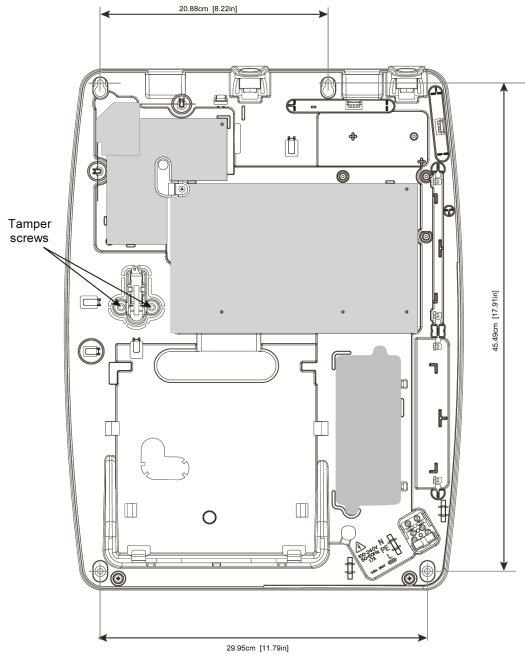
A	Tamper mounting location.
---	---------------------------

**Note:** When power adapter model HS65WPSNA is not mounted inside the enclosure model HSC3010C or HSC3020C, it must be attached to the mounting surface using appropriate screws inserted through the mounting tabs on the module.

**Wall mounting the HSC3020CP enclosure**

The following diagram indicates the mounting location of the alarm controller PCB, wireless receiver, power supply module and tamper bracket inside the HSC3020CP enclosure.

**Figure 1-3 HSC3020CP enclosure**



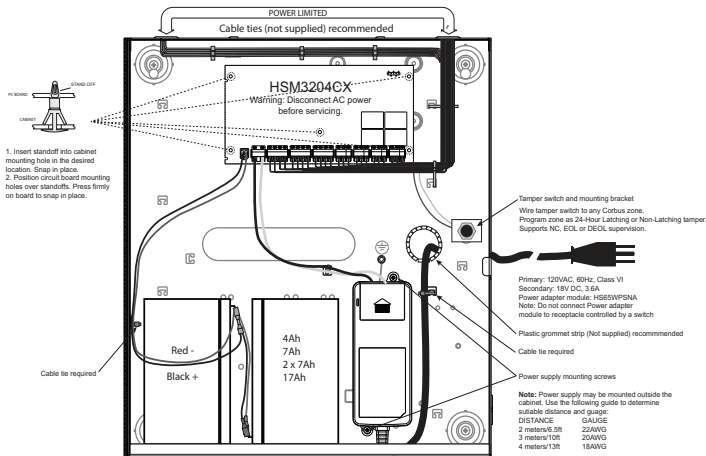
**A** Tamper screws

**Note:** The HSC3020CP is used only for EN50131 and NFA2P certified installations.

**Installing the HSM3204CX in HSC3010C enclosure**

The following diagram indicates the routing of power limited and non-power limited wiring inside the enclosure. Battery leads and AC cord are non-power limited. All other wiring is power limited.

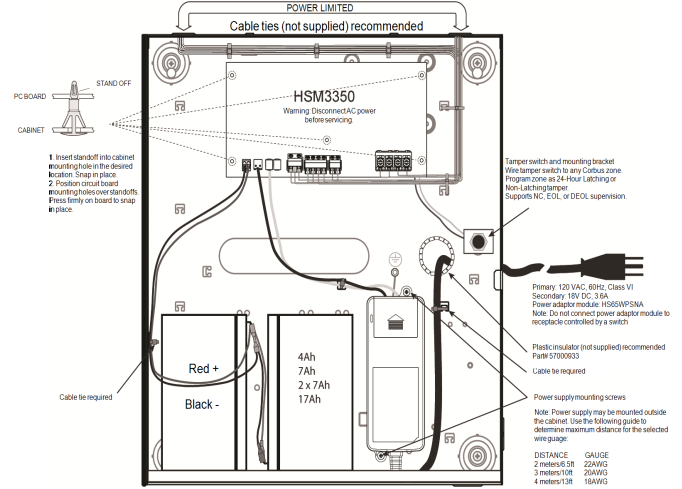
**Figure 1-4 HSM3204CX in HSC3010C enclosure**



**Installing the HSM3350 in the HSC3010C enclosure**

The following diagram indicates the routing of power limited and non-power limited wiring inside the enclosure. Battery leads and AC cord are non-power limited. All other wiring is power limited.

**Figure 1-5 HSM3350 in HSC3010C enclosure**



**Terminal descriptions**

The following terminals are available on the PowerSeries Pro alarm controller.

**Table 1-2 Terminal descriptions**

Terminal	Description
BAT+, BAT-	Battery terminals. Use to provide backup power during a power outage and additional current when system demands exceed the power output of power adapter, short term such as when the system is in alarm.  Do not connect the battery until all other wiring is complete.
DC +, DC -	The HS65WPS power adapter supplies 18 VDC power input to the alarm controller.  <b>Note:</b> For CE/EN certified applications, the name of the power , the name of the power adapter is HS65WPS. For UL/ULC listed applications, the name of the power adapter is HS65WPSNA. For UL Commercial Fire Listed applications and ULC Commercial Burg Security Level 4 applications, the name of the power adapter is HS65WPSNAS.  Connect the battery before connecting the AC. Do not connect the battery or power adapter until all other wiring is complete.
AUX+, AUX-	Auxiliary terminals. Use to power detectors, relays, LEDs, etc. (2 A max). Connect the positive side of device to one of the three AUX+ terminals and the negative side to AUX- or COM.
BELL+, BELL-	Bell/Siren power (700 mA continuous, 2A max short term). Connect the positive side of any alarm warning device to BELL+, the negative side to BELL-.  <b>Note:</b> For EN50131 and UL/ULC listed applications, use maximum 700 mA load on the BELL output.
RED, BLK, YEL, GRN	Corbus terminals. Use to provide power and communication between the alarm controller and connected modules. Each module has four Corbus terminals that must be connected to the Corbus.
PGM1 to PGM4	Programmable output terminals. Use to activate devices such as LEDs, relays, buzzers, etc.  (PGM1, PGM4: 100 mA; PGM2: 300 mA or can be configured for use as a 2-wire smoke detector interface, max loop current 100 mA; PGM3: 300 mA (negative trigger) or 1 A (positive trigger)
Z1 to Z8 COM	Zone input terminals. Ideally, each zone should have one detection device; however, multiple detection devices can be wired to the same zone.
EGND	Earth ground connection
ETHERNET	Ethernet port
TIP, RING, T-1, R-1	Telephone line terminals

\*x= none use for CE/EN certified applications

x= NA use for UL/ULC listed applications

x= NAS use for ULC Commercial Fire Listed applications and ULC Commercial Burg Security Level 4 applications.

### Corbus wiring

The RED and BLK Corbus terminals are used to provide power while YEL and GRN are used for data communications. The 4 Corbus terminals of the alarm controller must be connected to the 4 Corbus terminals or wires of each module.

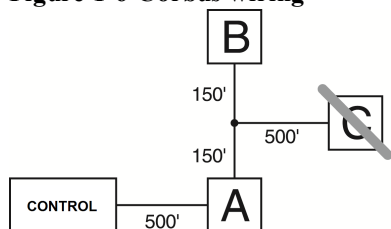
The following conditions apply:

- Corbus should be run with 18 to 22 AWG quad, two pair twisted preferred.
- The modules can be home run to the panel, connected in series or can be T-tapped.
- Do not use shielded wire for Corbus wiring.

**Note:** Any module can be connected anywhere along the Corbus. Separate wire runs for keypads, zone expanders etc. are not necessary.

**Note:** No module can be more than 1000 ft / 305 m (in wire length) from the panel. **Do not use shielded wire for Corbus wiring.**

Figure 1-6 Corbus wiring



Module (A) is wired correctly as it is within 1000 ft / 305 m of the panel, in wire distance. Module (B) is wired correctly as it is within 1000 ft / 305 m of the panel, in wire distance. Module (C) is NOT wired correctly as it is farther than 1000 ft / 305 m from the panel. For models that require more than 1000 ft / 305 m from the main panel, a HSM3204CX power supply/Corbus extender can be used.

### Current ratings

In order for the system to operate properly, the power output of the alarm controller and power supply modules cannot be exceeded. Use the following data to ensure that the available current is not exceeded.

Table 1-3 System output ratings

Device	Output	Rating (12 V DC)
HS3032 HS3128 HS3248	AUX/ Corbus:	2 A. Subtract the listed rating for each keypad, expansion module and accessory connected to AUX or Corbus. At least 100 mA must be reserved for the Corbus.
	BELL:	700 mA continuous rating. 2 A. short term. Available only with standby battery connected. DO NOT exceed the 700 mA load for UL/ULC or EN certified applications.
HSM3350	AUX1: AUX2:	3 A. Subtract the listed rating for each keypad, expansion module and accessory connected to AUX.
HSM3408	AUX:	500 mA. Continuous rating. Subtract for each device connected. Subtract the total load on this terminal from the alarm panel AUX/Corbus output.
HSM3204CX	AUX/ Corbus:	2 A. Continuous rating. Subtract for each device connected.
HSM2208	AUX:	250 mA. Continuous rating. Subtract for each device connected. Subtract the total load on this terminal from the alarm panel AUX/Corbus output.
HSM2108	AUX:	100 mA. Subtract for each device connected. Subtract the total load on this terminal from the panel AUX/Corbus output.

### Alarm Control Panel

AUX - 2000 mA available for devices connected to the AUX and PGM terminals, and modules connected to Corbus terminals. At least 100mA must be reserved for the Corbus.

### Alarm controller current calculation

#### Panel calculation

Maximum (standby or alarm)

AUX (2 A max. including PGMs 1-4)

Corbus (2 A max.)\*\*\*

PCLink+ (200 mA)

USB (500 mA max.)

Cell module (20 mA idle)

Total (must not exceed 2 A)

For UL, ULC and Commercial Listed applications, the total standby and alarm current cannot exceed 2 A.

**Note:** For EN50131, UL, ULC and Commercial Listed applications, the total standby and alarm current cannot exceed the values in Aux Loading and Battery Selection for the applicable type of installation.

### Capacitance limits

An increase in capacitance on the Corbus affects data transmission and causes the system to slow down. Capacitance increases for every foot of wire added to the Corbus. The capacitance rating of the wire used will determine the maximum length of the Corbus.

Table 1-4 Wire capacitance

Wire Capacitance per 1000 ft (300 m)	Total Corbus Wire Length
15 nF	5300 ft/1616 m
20 nF	4000 ft/1220 m
25 nF	3200 ft/976 m
30 nF	2666 ft/810 m
35 nF	2280 ft/693 m
40 nF	2000 ft/608 m

**AC (UL/ULC Listed Installations)**

Power supply: HS65WPSx.

**Note:** Where x = NA for UL/ULC cord connected, NAS for UL/ULC hardwired applications, and none for CE/EN compliant installations.

Primary: 120 V AC, 60 Hz, 1.7 A Energy Efficiency Class VI, LPS.

For model HS65PSNA, when mounted outside the enclosure, use Class 2 wiring between the power supply output and the alarm controller input.

Secondary: 18 V DC, 3.6 A.

**Warning: Do not connect the battery or power supply until all other wiring is complete.**

For ULC S559 Commercial Fire Monitoring and ULC S304 Commercial Burglary applications, the power adaptor HS65WPSNAS must be employed for hardwiring to AC Mains.

**Note:** For UL/ULC installations use only 60 Hz.

**AC (International Installations)**

Primary: 100 V - 240 V AC, 50 Hz, 1.7 A

Secondary: 18 VDC, 3.6 A

**Warning: Do not connect the battery or AC power until all other wiring is complete.**

**Batteries**

Do not connect the battery until all other wiring is complete.

**Note:** A sealed, rechargeable, lead acid battery or gel type battery is required to meet UL requirements for power standby times.

Connect the RED battery lead to the positive battery terminal and the BLACK battery lead to the negative battery terminal.

**Note:** Refer to "Aux loading and battery selection" on page 30.

**Additional Wiring**

**Zone wiring**

Power down the alarm controller and complete all zone wiring.

Zones can be wired to supervise normally open devices (e.g., smoke detectors) or normally closed devices (e.g., door contacts). The alarm panel can also be programmed for single end-of-line, double end-of-line, and triple-end of line resistors.

Zone programming is done using the following programming sections:

- [001] selects zone definition
- [013] Opt [1] for normally closed or EOL; Opt [2] for SEOL or DEOL
- [201 - 208] partition assignment.

Alternately, zones may be individually configured as NC, SEOL, DEOL or TEOL through section [002] Zone Attributes, toggles 9,10, 11 and 15, which will override the option in [013].

Observe the following guidelines when wiring zones:

- For UL listed installations use SEOL or DEOL only
- Minimum 22 AWG wire, maximum 18 AWG
- Do not use shielded wire
- Do not exceed 100 Ω wire resistance. Refer to the following table:

**Table 1-5 Burglary zone wiring chart**

Wire gauge	Maximum length to EOL resistor (ft/-meters)
22	3000 / 914
20	4900 / 1493
19	6200 / 1889

Wire gauge	Maximum length to EOL resistor (ft/-meters)
18	7800 / 2377

Figures are based on maximum wiring resistance of 100Ω.

**Aux Power Wiring**

These terminals provide 2 A max of current (shared with PGM outputs). Connect the positive side of any device to the AUX+ terminal, the negative side to GND. The AUX output is protected; if too much current is drawn from these terminals (wiring short) the output is temporarily shut off until the problem is corrected.

Ratings:

UL/ULC applications: 10.8 V DC - 12.5 V DC

EN applications: 10 V DC - 14 V DC

**PGM wiring**

Min/max operating voltages for devices, sensors and modules is 9.8 V DC - 14 V DC.

PGMs switch to ground when activated from the alarm controller. Connect the positive side of the device to the AUX+ terminal and the negative side to a PGM terminal.

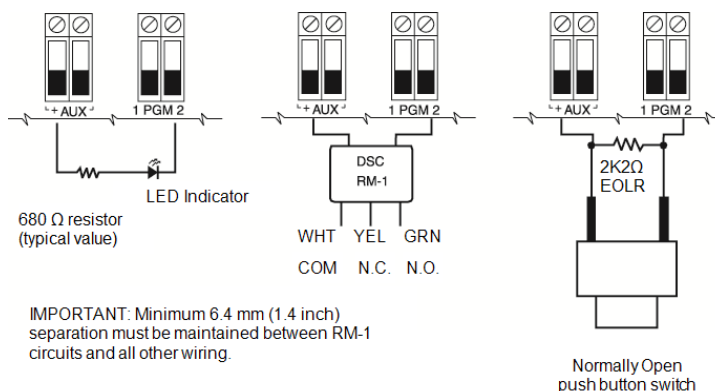
PGM 1, and 4 supply up to 100 mA; PGM 2 and 3 supply up to 300 mA.

A relay is required for current levels that exceed the maximum limits.

PGM2 can also be used for two-wire smoke detectors or 24-hour burglary input alarm.

**Note:** Use only SEOL resistors on Fire zones.

**Figure 1-7 LED output with current limiting resistor and optional relay driver output.**



UL Compatibility ID For FSA-210B Series is: FS200

**Note:** For ULC listed installations, use FSA-210A and FSA-410A series.

**Single end-of-Line (SEOL) resistor**

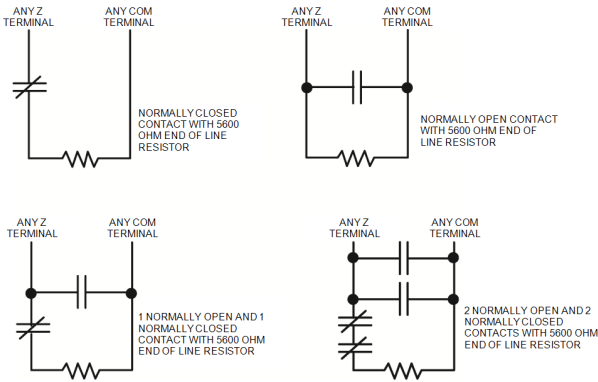
When SEOL resistors are installed at the end of a zone loop, the alarm panel detects if the circuit is secure, open, or shorted. The SEOL resistor must be installed at the end of the loop for proper supervision.

To enable SEOL supervision, program section [013], options [1] and [2] to OFF. To configure SEOL supervision per zone, use programming section [002], bit 10.

**Note:** This option should be selected if either normally closed or normally open detection devices or contacts are used.



**Figure 1-8 SEOL wiring**

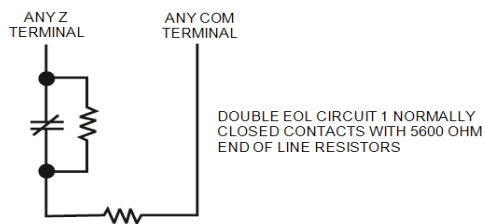


**Double end of Line (DEOL) resistors**

When double end-of-line (DEOL) resistors are installed at the end of a zone loop, the second resistor enables the panel to determine if the zone is in open, closed, tampered or faulted.

**Note:** Any zone programmed for Fire or 24-hr Supervisory must be wired with a SEOL resistor regardless of the type of zone wiring supervision selected for the panel. If you change the zone supervision options from DEOL to SEOL or from NC to DEOL, power the system down completely, then power it back up for correct operation. To enable DEOL supervision per zone, program section [013], option [1] to OFF and option [2] to ON. To configure DEOL supervision per zone, use programming section [002], bit 11.

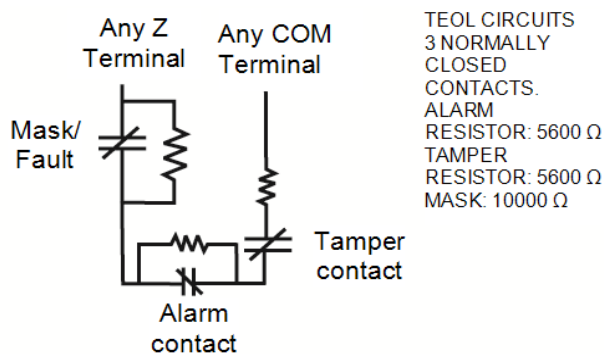
**Figure 1-9 DEOL wiring**



**Triple end-of-line (TEOL) resistor**

The TEOL resistor supervises anti-masking functionality in hardwired motion detectors. To configure TEOL supervision per zone, use programming section [002], bit 15.

**Figure 1-10 TEOL wiring**



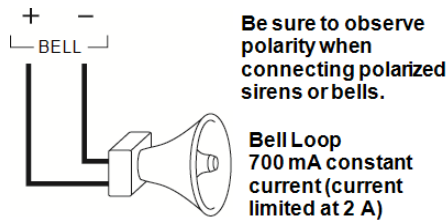
**Note:** Resistor values are configurable in section [004].

**Bell wiring**

These terminals supply 700 mA of current at 10.8 - 12.5 VDC for commercial/ residential installations. To comply with NFPA 72 Temporal

Three Pattern requirements, section [013] Opt [8] must be ON. Note that steady, pulsed alarms are also supported. Temporal 4 cadence for CO alarm notification is also supported.

**Figure 1-11 Bell wiring**

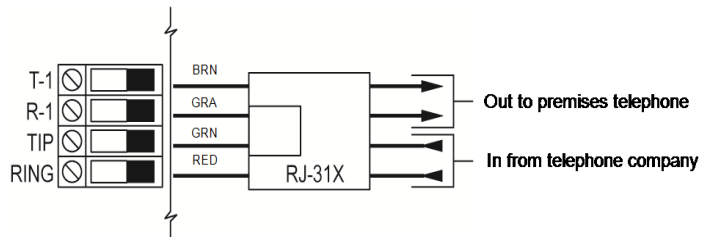


The Bell output is supervised and power limited by 2 A hardware protection. If unused, connect a 1000 Ω resistor across Bell+ and Bell- to prevent the panel from displaying a trouble.

**Telephone line wiring**

Wire the telephone connection terminals (TIP, Ring, T-1, R-1) to an RJ-31x connector as indicated in the following diagram. For connection of multiple devices to the telephone line, wire in the sequence indicated. Use 26 AWG wire minimum for wiring.


**Figure 1-12 Telephone line wiring**



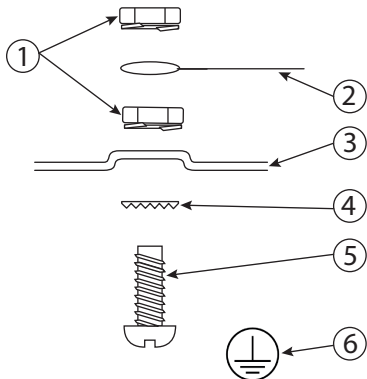
Telephone format is programmed in option [350]. Telephone call directions are programmed in options [311]- [318].

## Earth ground wiring

Using the supplied insulated green wire, connect the earth ground terminal on the HS65WPSx power adapter to the earth ground screw and nut assembly as shown in the diagram.

The earth ground screw and nut assembly must be mounted to the cabinet to one of the designated holes marked with the earth ground symbol .

**Figure 1-13 Earth ground installation**



Item	Description
1	Nut
2	Earth ground connection from building electrical installation. <b>Note:</b> This ground connection goes to HS65WPSNA power adapter EGND connections when this power adapter is mounted in the cabinet.
3	Cabinet
4	Star washer
5	Bolt
6	Earth ground symbol

## Enrollment

All optional modules and devices must be enrolled on the system. During enrollment, the electronic serial number (ESN) of each device is identified to the control panel and zones are assigned. A wireless transceiver HSM2HOST or an RF keypad must be enrolled first before wireless devices can be enrolled.

### Enrolling modules

During automatic and manual enrollment, if an attempt is made to enroll more than the maximum number of modules, an error tone sounds and a message is displayed on LCD keypads.

Modules can be enrolled automatically or manually using section [902] of Installer programming.

To confirm that a module has been successfully enrolled, use Installer programming section [903].

### Enroll wireless devices

Wireless devices are enrolled via the wireless transceiver module and Installer Programming section [804][000].

#### Auto enrollment

To enroll a wireless device using this method, press and hold the Enroll button on the device for 2-5 seconds until the LED lights then release the button. The alarm panel automatically recognizes the device and the keypad displays a confirmation message. The device ID and next available zone number are displayed. Press [\*] to accept or scroll to another available

zone number. Batteries must be installed in the wireless device in order to enroll.

#### Pre-enrollment

Pre-enrollment is a two step process. The first step requires entering each device ID ([804][001]-[716]). Every wireless device has an ID printed on the sticker attached to the device. The format is XXX-YYYY where:

- XXX identifies the type or model of the device
- YYYY is a short encrypted ID used by the system to identify the specific device

Pre-enrollment can be done at a remote location and using DLS/SA. The second step is to press the enrollment button on the device, usually done on location. Installer Programming does not have to be entered at this step. Both steps must be performed in order to complete the enrollment.

## Programming methods

The alarm system can be programmed using the following methods:

**Table 1-6 Programming Methods**

Method	Description	Procedure
Template programming	Use pre-defined templates to quickly apply basic programming and to set up DLS downloading.	Press [899] at the "Enter Section" screen. See Template Programming below for details.
DLS programming	Download and apply programming using DLS 5	For local DLS, use a micro USB cable or a Wi-Fi dongle and laptop with DLS-5 software installed. For remote DLS, use a telephone line, cellular network or the Internet.
Installer programming	Manually program all alarm system and device options.	Press [*][8][installer code] while the system is disarmed.

## Viewing programming

Programming sections can be viewed from any system keypad.

Generally, programming options are accessed in the following way:

1. Enter Installer Programming mode ([\*][8]).
2. Navigate to a specific programming section.
3. Select an option to view or change its programming.

All programming options are numbered and can be accessed by navigating through the menu, or by keying in the program section number. For toggle options, the name of the option is displayed.

Use the keypad numbers to toggle options on or off. Sections requiring data input, such as phone numbers, display the full data in fields up to 32 characters long. To input data, use the scroll keys to select a character then press the keypad button corresponding to the number/letter required. Scroll to the next character and repeat the procedure as needed. Press the [#] key to save changes and exit the program section.

## Minimum Required Programming

Once basic installation of the alarm panel is complete, the following general configuration options can be set.

### Time and Date

Use this section to program the alarm system clock.

Menu: [\*][6][Master Code] > Time and Date

Keypad: [\*][6][Master Code] + 01



Enter time and date using the following format: (HH:MM); (MM-DD-YY). Valid time entries are 00-23 hours, 00-59 minutes. Valid date entries are 01-12 months, 01-31 days.

### [000] Language selection

To select a language:

1. Enter Installer Programming: [\*][8][Installer Code].
2. Enter programming section [000]>[000].
3. Key in the 2-digit number corresponding to the language required. See the following table.

**Table 1-7 Language codes**

01 = English	11 = Swedish	22 = Bulgarian
02 = Spanish	12 = Norwegian	23 = Latvian
03 = Portuguese	13 = Danish	24 = Lithuanian
04 = French	14 = Hebrew	25 = Ukrainian
05 = Italian	15 = Greek	26 = Slovakian
06 = Dutch	16 = Turkish	27 = Serbian
07 = Polish	18 = Croatian	28 = Estonian
08 = Czech	19 = Hungarian	29 = Slovenian
09 = Finnish	20 = Romanian	
10 = German	21 = Russian	

## Setting up a partition

Partitions are added or removed from the system by applying or removing a partition mask via Installer programming section [200]. The number of available partitions depends on the alarm panel model.

### Bell/siren operation

Each partition must have a siren. The system siren connected to the bell output of the alarm controller can be mounted in a central location within hearing range of all partitions. Each partition can also have wireless sirens activated only on the assigned partition.

### Keypad partition setup

Keypads can be configured to control an individual partition or all partitions. In general, a partition keypad controls the partition it is assigned to. A Global keypad controls all partitions. Global keypads should be placed in common areas of the premises, such as points of entry or reception areas, where the ability to arm and disarm more than one partition at a time is required.

Partition keypads can also be temporarily loaned to other partitions.

To select a keypad operating mode:

1. Enter Installer Programming: [\*][8][installer code].
2. Select [861]-[876] to program keypads 1-16.
  - Press [000] for partition assignment.
  - For Global operation, key in 00.
  - To assign a keypad to a partition, key in 01-08 for partition 1-8.
3. Press the [#] key and repeat step 2 for next keypad. When finished programming all keypads, press the [#] key twice to exit programming.

Users are assigned partition access rights via the [\*][5] menu.

### Assign wireless sirens to partitions:

[804]>[000]>[551]-[556]>[000]

### Set up partition account codes:

[310]>[001]-[008]

### Set up partition timers:

- Entry/exit delay, settle delay – [005]>[001]-[008]
- Automatic arming/disarming schedule – [151]-[158]>[001]/[002]
- Auto disarming holiday schedule – [151]-[158]>[003]
- No activity arming – [151]-[158]>[006]
- Automatic clock adjust – [005]>[000], option 6
- Delay between dialing attempts – [377]>[012]

### Assign Zone types

A zone type defines how a zone operates within the system and how it responds when triggered.

000 - Null Zone	040 - 24-Hour Gas
001 - Delay 1	041 - 24-Hour CO
002 - Delay 2	042 - 24-Hour Holdup*
003 - Instant	043 - 24-Hour Panic
004 - Interior	045 - 24-Hour Heat
005 - Interior Stay/Away	046 - 24-Hour Medical*
006 - Delay Stay/Away	047 - 24-Hour Emergency
007 - Delayed 24-Hour Fire	048 - 24-Hour Sprinkler*
008 - Standard 24-Hour Fire	049 - 24-Hour Flood
009 - Instant Stay/Away	051 - 24-Hour Latching Tamper
010 - Interior Delay	052 - 24-Hour Non-Alarm
011 - Day Zone	056 - 24-Hour High Temperature
012 - Night Zone	057 - 24 Hour Low Temperature
016 - Final Door Set	060 - 24-Hour Non-Latching Tamper
017 - 24-Hour Burglary	061 - 24-Hour Anti-Masking
018 - 24-Hour Bell/Buzzer	066 - Momentary Keyswitch Arm
023 - 24-Hour Supervisory	067 - Maintained Keyswitch Arm
024 - 24-Hour Supervisory Buzzer	068 - Momentary Keyswitch Disarm
025 - Auto Verified Fire	069 - Maintained Keyswitch Disarm
027 - Fire Supervisory	071 - Door Bell
	072 - Push to Set
	* Not UL evaluated

### Assign zone attributes:

[002]>[001]-[128]>Select one of the following zone attributes:

- 1 – Bell Audible
- 2 – Bell Steady
- 3 – Chime Function
- 4 – Bypass Enabled
- 5 – Force Arm
- 6 – Swinger Shutdown
- 7 – Transmission Delay
- 8 – Burglary Verification
- 9 – Normally Closed
- 10 – Single EOL
- 11 – Double EOL
- 12 – Fast/Normal Loop Response
- 13 – Zone 2-way Audio Activation
- 14 – Hold Up Verification
- 15 - Triple EOL

### Create labels:

[000]>[001]-[821] 2 x 14 ASCII characters.

### Add access codes:

To program an access code: [006] then one of the following:

[001] – Installer code

[002] – Master code

[003] – Maintenance code

Access codes are either 4, 6 or 8 digits in length, depending on the setting of programming section [041]. Duplicate codes are not valid.

## Communication paths

The path of communication between the alarm panel and the central station must be established through either the alarm panel's on-board Public Switched Telephone Network (PSTN) connection (Ethernet) or through the alternate communicator if equipped.

## Alternate communicator setup

The alternate communicator is an ethernet or optional cellular communications device that can be used as a backup to the PSTN connection or as a primary means of communication between the alarm panel and the central monitoring station. The alternate communicator communicates via 2G, 3G, LTE or Ethernet.

The following configuration steps are required to set up the alternate communicator:

- Install the optional cellular alternate communicator to the alarm panel
- Enroll the alternate cellular communicator with Connect 24 (North America only)
- Set the communication path: [300]
- Enable the alternate communicator: [383] option 3 for Ethernet, and [383] option 4 for cellular.
- The Ethernet or Cellular receivers IP and Port: [851]
- Enable event reporting: [307]/[308]
- Program communication delay timer: [377]
- Program DLS access: [401] option 07

Refer to Section 5: Programming for details.

## [300] Panel/Receiver Communication Paths

This section is used to select the path of communications between the alarm system and the central station.

## Testing the system

### Installer Walk Test

Walk test enables the installer to test the operation of each detector by tripping zones, causing an actual alarm. Enter section [901] to initiate a walk test. When a zone is tripped, all system sirens emit a tone to indicate that the zone is working correctly.

After 15 minutes without zone activity, the walk test terminates automatically. To manually exit walk test mode, enter [901] again.

### Viewing the event buffer

The event buffer contains logs of events that have occurred on the alarm system beginning with the most recent. The capacity of the event buffer is scalable and can hold 500/1000 events (depending on panel model) before rolling over. The buffer displays events according to their time stamp, beginning with the most recent. The event buffer can be uploaded using DLS.

Each event displays the time and date, a description of the event, the zone label, access code number or any other pertinent information. To view the event buffer, press [\*][6][Master Code][\*].

## Troubleshooting

LCD programmable-message keypad:

- Press [\*][2] followed by access code if required to view a trouble condition

- The trouble light flashes and the LCD displays the first trouble condition
- Use the arrow keys to scroll through all trouble conditions present on the system

**Note:** When additional information is available for a specific trouble condition, a [\*] is displayed. Press the [\*] key to view the additional information.

## [\*][2] Trouble Display

This feature is used to view system troubles. If a trouble is present, the keypad Trouble indicator illuminates and an audible indication is emitted (two short beeps every 10 seconds, except while in AC failure). Silence the audible indicator by pressing [#].

Troubles may be viewed while the system is armed or disarmed. The system may be programmed to show all troubles while armed or only fire troubles.

The system can be configured to require a user code to view [\*][2] system troubles. See section [023] option 5.

To view trouble conditions:

- Press [\*][2] to enter the Trouble menu.
- On an LCD keypad, scroll to a trouble type then press [\*] to view the specific trouble. The zone name and trouble condition for each trouble are displayed on the screen.

**Note:** The trouble beeps generated by fire trouble are only silenced after [\*][2]trouble menu is exited. A keypress in the keypad will not silence the fire trouble beeps. For UL installations, set the value in section [023] bit 5 access code required for [\*][2] to enabled.

## Table 1-8 : Trouble Indications

### Trouble 01 – Service Required:

- [01] Bell Circuit Trouble: The bell circuit is open
  - [02] RF Jam: The HSM2HOSTx has detected an RF Jam condition
  - [03] Loss of Clock: System time and date require programming.
  - [04] Output 1 Fault: An HSM2204 module has detected an open condition on output #1.
  - [05] Warm Start: Warm restart has occurred.
  - [06] USB Wi-Fi Connected: USB Wi-Fi adapter is detected
  - [07] Power Unit Failure (System): Failure detected with internal power unit.
  - [08] Failure detected with internal power unit (HSM3204CX Corbus Repeater)
  - [09] Failure detected with internal power unit (HSM3350 3 A Power Supply)
  - [10] Overcurrent Trouble: If the total current of the panel internal components and all outputs exceeds a threshold of 2.1 A for a period longer than 5 minutes, an overcurrent trouble is generated. When the current goes below a 2.0 A threshold, the trouble restores. Do not exceed 2A combined between AUX and Corbus.
- Note:** Total current does not include bell current or battery charging.

### Trouble 02 – Battery Trouble:

- [01] Panel Low Battery Trouble: The battery voltage is low.
- [02] Panel No Battery: No battery connected to alarm controller.
- [04] HSM2204 01 - 04 Low Battery: An HSM2204 has a low battery voltage.
- [05] HSM2204 01 - 04 No Battery: No battery connected to HSM2204.
- [07] HSM2300 01 - 04 Low Battery: An HSM2300 has a low low battery voltage.
- [08] HSM2300 01 - 04 No Battery: No battery connected to HSM2300.
- [10] HSM3204CX Low Battery: A Corbus repeater has a low battery voltage.
- [11] HSM3204CX No Battery: No battery connected to corbus repeater.
- [13] HSM3350 Low Battery 1: A 3 A power supply module has a low battery voltage.
- [14] HSM3350 Low Battery 2: A 3 A power supply module has a low battery voltage.
- [15] HSM3350 No Battery 1: No battery connected to 3A power supply module.
- [16] HSM3350 No Battery 2: No battery connected to 3A power supply module.

**Trouble 03 – Bus Voltage:**

- [01] HSM2HOSTx Bus Low Voltage: The HSM2HOSTx module has measured a low bus voltage.
- [02] Keypad 01 - 16 Bus Low Voltage: A hardwired keypad has a low bus voltage.
- [04] HSM2108 01 - 30 Bus Low Voltage: A zone expander has a low bus voltage.
- [05] HSM2300 01 - 04 Bus Low Voltage: A power supply has a low bus voltage.
- [06] HSM2204 01 - 04 Bus Low Voltage: A high current output module has a low bus voltage.
- [07] Bus Fault (System): Panel Corbus Output voltage is too high or too low.
- [08] HSM2208 01 - 16 Bus Low Voltage: The low current output module has detected a low voltage.
- [09] HSM2955 Bus Low Voltage: The audio module has detected a low bus voltage.
- [10] HSM3408 Bus Low Voltage: The 8 zone expander has detected a low bus voltage.
- [11] HSM3204CX Bus Low Voltage: The corbus repeater has detected a low bus voltage.
- [12] HSM3204CX Bus Fault: The corbus repeater has detected that the corbus output voltage is too high or too low.
- [13] HSM3350 Bus Low Voltage: The 3 A power supply module has detected a low bus voltage.

**Trouble 04 – AC or DC input power trouble:**

- [01] Zone 001 - 248 AC or DC input power trouble.
- [02] Keypad AC or DC input power trouble: A keypad has an AC or DC input power trouble.
- [03] Siren 01 - 16 AC: A siren has an AC or DC input power trouble.
- [04] Repeater 01 - 08 AC: A wireless repeater has an AC or DC input power trouble.
- [05] HSM2300 01 - 04 AC: An HSM2300 has an AC or DC input power trouble.
- [06] HSM2204 01 - 04 AC: An HSM2204 has an AC or DC input power trouble.
- [07] Panel AC: The alarm controller has an AC failure condition.
- [08] HSM3204CX AC: A corbus repeater has an AC or DC input power trouble.
- [09] HSM3350 AC: The 3A power supply has an AC or DC input power trouble.

**Trouble 05 – Device Faults:**

**Note:** Fire trouble is displayed directly under device faults when there is an open loop condition for PGM-2 configured for 2-wire smoke.

- [01] Zone 001 - 248: A zone is in supervisory fault.
- [02] Keypad 01 - 16: A wireless or hardwired keypad is in supervisory fault.
- [03] Siren 01 - 16: A siren is in supervisory fault.
- [04] Repeater 01 - 08: A wireless repeater is in fault (supervisory or loss of AC/DC).
- [06] Device Mask: A detection mechanism on the sensor is masked.
- [07] Gas Trouble: A gas sensor is in fault.
- [08] Heat Trouble: A temperature sensor is in fault or a temperature reaches the high temperature warning threshold.
- [09] CO Trouble: A CO sensor is in fault.
- [10] Freeze Trouble: A temperature sensor falls below the low temperature warning threshold.
- [11] Probe Disconn.: The probe on the flood detector or the temperature detector is disconnected.
- [12] Fire Trouble: A smoke sensor is in fault.

**Trouble 06 – Device Low Battery:**

- [01] Zone 001- 248: Wireless zone has a low battery.
- [02] Keypad 01-16: Keypad has a low battery.
- [03] Siren 01 - 16: Siren has a low battery.
- [04] Repeater 01 - 08: Repeater has a low battery.
- [05] User 01 - 1000: Wireless Key has a low battery.

**Trouble 07 – Device Tamper:**

- [01] Zone 001 - 248 Tamper: A wireless or hardwired zone is in tamper.
- [02] Siren 01 - 16 Tamper: A wireless siren is in tamper.
- [03] Repeater 01 - 08 Tamper: A wireless repeater is in tamper.
- [04] Audio Station 01 - 04 Tamper: An audio station connected to an HSM2955 is in tamper.

**Trouble 08 – RF Delinquency Trouble:**

- [01] Zone 001 - 248 RF Delinquency: No response from a wireless zone for 13 minutes. This trouble prevents arming until acknowledged or cleared using [\*][2].
- [02] Keypad 01 - 16 RF Delinquency: No response from a wireless keypad for 13 minutes.
- [03] Siren 01 - 16 RF Delinquency: No response from a wireless siren for 13 minutes.
- [04] Repeater 01 - 16 RF Delinquency: No response from a wireless repeater for 13 minutes.

**Trouble 09 – Module Supervisory Trouble:**

- [01] HSM2HOSTx not responding.
- [02] Keypad 01 - 16 not responding.
- [04] HSM2108 01 - 30 not responding.
- [05] HSM2300 01 - 04 not responding.
- [06] HSM2204 01 - 04 not responding.
- [08] HSM2208 01 - 16 not responding.
- [09] HSM2955 is not responding.
- [11] HSM3408 is not responding.
- [12] HSM3204CX is not responding.
- [13] HSM3350 is not responding.

**Trouble 10 – Module Tamper:**

- [01] HSM2HOSTx Tamper.
- [02] Keypad 01 - 16 Tamper.
- [04] HSM2108 01 - 30 Tamper.
- [05] HSM2300 01 - 04 Tamper.
- [06] HSM2204 01 - 04 Tamper.
- [08] HSM2208 01 - 16 Tamper.
- [09] HSM2955 Tamper.
- [10] Alt Comm Tamper.
- [11] HSM3408 Tamper.
- [12] HSM3204CX Tamper.
- [13] HSM3350 Tamper.

**Trouble 11 – Communications:**

- [01] TLM: Telephone line disconnected from control panel.
- [02] Receiver 01-04 FTC Trouble: Failure to communicate using programmed receiver paths.
- [04] Alt. Comm Cellular: Radio or SIM card failure, low signal strength detected, or cellular network fault.
- [05] Alt. Comm Ethernet: Ethernet connection unavailable. A valid IP address is either not programmed or the module was unable to get an IP with DHCP.
- [06] Receiver 01-04 Trouble: Alternate communicator unable to initialize a receiver.
- [07] Receiver 01-04 Supervision: Alternate communicator unable to communicate with a receiver.
- [09] Alt. Comm Fault: The alternate communicator has stopped responding.
- [10] Alt Comm FTC Trouble: The alternate communicator has failed to communicate an internal event not generated by the panel.

**Trouble 12 – Not Networked Troubles:**

- [01] Zone 001-248 Not Networked: Generated when a zone becomes out of sync with the wireless network or has not been synchronized with the network after enrollment.
- [02] Keypad 01-16 Not Networked: Generated when a keypad becomes out of sync with the wireless network or has not been synchronized with the network after enrollment.
- [03] Siren 01-16 Not Networked: Generated when a siren becomes out of sync with the wireless network or has not been synchronized with the network after enrollment.
- [04] Repeater 01-08 Not Networked: Generated when a repeater becomes out of sync with the wireless network or has not been synchronized with the network after enrollment.
- [05] User 01 - 1000 Not Networked: Generated when a wireless key becomes out of sync with the wireless network or has not been synchronized with the network after enrollment.

**Trouble 13 – AUX Troubles**

- [05] HSM2300: 1 A power supply AUX output voltage is out of range.
- [06] HSM2204: A high current AUX output module output voltage is out of range.
- [07] System Area: AUX output voltage is out of range.
- [10] HSM3408: The 8 zone expander AUX output voltage is out of range.
- [11] HSM3204CX: The corbus repeater AUX output voltage is out of range.
- [12] HSM3350 AUX 1 Trouble: 3 A power supply AUX output voltage is out of range.
- [13] HSM3350 AUX 2 Trouble: 3 A power supply AUX output voltage is out of range.

**Trouble 14 – Limit exceeded troubles**

- [01] Interactive zone: The number of zones configured in the panel is not supported by ADC firmware (e.g.:>220)
- [02] Interactive partition: The number of partitions configured is not supported by ADC firmware (e.g.:>8)

**IMPORTANT!**

Ensure you have the following information available before contacting Customer Support :

- Alarm controller type and version, (e.g., HS3032, 1.0):

**Note:** Version number can be accessed by entering [\*][Installer Code] [900] on any keypad. This information is also located on a sticker on the printed circuit board.

- List of modules connected to control panel, (e.g., HSM2108, HSM2HOSTx etc.).

**Specifications****Zone Configuration**

- 32, 128 or 248 wireless zones supported and up to 8 hardwired zones available on the controller
- 41 zone types and 15 programmable zone attributes
- Zone configurations available: normally closed, single EOL resistor, DEOL resistor, and TEOL resistor.
- Hardwired zone expansion (fully supervised) available using the model HSM2108 or HSM3408 (eight zone expander module)
- Wireless zone expansion (fully supervised) available using the HSM2Host 2-way wireless integration module operating at 915 MHz (North America), 433 MHz (Europe) and 912-919 MHz (international)

**Access Codes**

- Up to 1003 access codes: 1000 (level 2-EN), one installer code (level 3-EN), one maintenance code, and one guard code.
- Programmable attributes for each user code
- Access codes are either 4, 6 or 8 digits in length, depending on the setting of programming section [041]. Duplicate codes are not valid.

**Note:** For EN50131-1 Grade 2 compliant systems using 100 access codes or less, 6 digit codes must be used. If using more than 100 access codes, 8 digit codes must be used. For EN50131-1 Grade 3 compliant systems 8 digit codes must be used.

**Warning Device Output**

- 2 remote, wireless indoor/outdoor warning devices supported: models PGX901 (indoor), PGX911 (outdoor) (X=4, 8, or 9)
- Programmable as steady, pulsed or temporal three (as per ISO8201) and temporal four (CO alarm) output
- Warning device sounds alarms in the following priority: fire, CO, burg

**Note:** For NFA2P certified systems the delay for operating the warning device shall be set to max. 10 min.

**Memory**

- CMOS EEPROM memory
- Retains programming and system status on AC or battery failure for 20 years min. (not verified by UL)

**Power Supply - North America**

- Power Supply: HS65WPSNA (cord connected) and HS65WPSNAS (hardwired, use in ULC Commercial Burg Security Level IV and ULC Commercial Fire Monitoring applications)
- Primary: 120 VAC, 60 Hz, Energy Efficiency Class VI
- Secondary: 18 V DC, 3.6 A Limited Power Source (LPS)
- Model HS65WPSNA mounted in the same enclosure or outside, cord connected
- Model HS65WPS mounted in the same enclosure, permanently connected

**Power Supply - International**

- Power Supply: HS65WPS
- Primary: 100-240 V AC, 50 Hz, 1.7 A, Energy Efficiency Class VI
- Secondary: 18 Vdc, 3.6A, LPS
- Mounted in the same enclosure, permanently connected

**Note:** For installations using the power supply module mounted inside the cabinet, replace fuse only with the same type (20 mm) rated New fuse rating 250 V/3.15 A Slow Blow.

**Regulated power supply:**

- 3.6 A regulated, supervised
- Type A as per EN50131-6 Standard
- FET protected for Bell, Aux+ and Battery terminals
- Reverse battery detection/protection
- Supervision for input power and low battery
- Normal and high current battery charge options
- Supervised battery charging circuit

**Current draw (control panel board assembly):**

- 120 mA (nominal)

**Bell Output:**

- Ratings:
  - UL/ULC applications: 10.8 V DC - 12.5 V DC
  - EN applications: 10 V DC - 14 V DC
- 700 mA supervised (1 k Ohm) bell output (current limited at 2 amps)
- Steady, Pulsed, Temporal 3 fire, Temporal 4 CO alarm cadences
- Bell open short circuit detection (software + hardware)

**Aux+:**

- Ratings:
  - UL/ULC applications: 10.8 V DC - 12.5 V DC
  - EN applications: 10 V DC - 14 V DC
- Current = 2 A (shared with Corbus R(ed) and PGM outputs)

- Output ripple voltage: 600 mVp-p max.
- Onboard programmable outputs:
  - PGM 1 - 100 mA switched programmable output
  - PGM 2 - 300 mA current-limited switched programmable output. 2-Wire smoke detectors (100 mA current limited) are supported using this PGM
  - PGM 3 - 300 mA switched programmable output
  - PGM 4 - 100 mA switched programmable output
- Hardware PGM over current protection
- The voltage at any independent power output below which the power output fault signal or message is generated: 9.8 V DC
- Over-voltage protection trigger voltage: 15 V DC

### Battery

- 12 V sealed lead acid, rechargeable
- Battery capacity: Refer to table "Aux loading and battery selection" on page 30
- Maximum standby time: Refer to "Aux loading and battery selection" on page 30 for each type of application.
- Recharging time to 80% 72 hours
- Recharging rate: 400 mA (12 hours max.), 700 mA (24 hour backup)
- Backup time: 24 hours (UL)
- Battery lifespan: 3-5 years
- Low battery trouble indication threshold 11.3 VDC
- Battery restore voltage 12.5 V
- Main board current draw (battery only):
  - HS3032/HS3128/HS3248 (no alternate communicator) standby 100 mA DC
  - HS3032/HS3128/HS3248, (including plug-in communicator) standby 120 mA DC
- Self-resetting FETs for short/overcurrent protection on the circuit board
- Internal clock locked to the internal Real Time Clock

The standby battery does not automatically recharge on reconnection of the AC mains (external power supply) if the battery terminal voltage is less than 9.6 VDC.

The minimum energy level of the standby battery in a charged state (as a percentage of the rated capacity for the range of batteries that can be used with the power supply) is 90% for 17 Ah batteries.

### Operating Environmental Conditions

- Temperature range: UL/ULC: 0°C to +49°C (32°F to 120°F), For EN50131 applications: -10°C to +55°C
- Relative humidity: 5% to 93% RH non-condensing

**Note:** The alarm panel is not suitable for use external to the supervised premises.

### Alarm Transmitter Equipment (ATE) Specification

- Digital dialer integral to the main control board
- Supports SIA and Contact ID
- Complies with TS203 021-1, -2, -3 Telecom equipment requirements and EN50136-1, EN50136-2, ATS SP3, DP2 (when used in conjunction with Ethernet and/or Cellular paths).
- The integral Ethernet communication port and optional plug-in cellular module (models 3G9080, 3H9080, LE9080 for UL/ULC and 3G9080-EU, GS9080 for EN50131 applications) can be installed in the same enclosure and configured as primary or backup, with AES 128-bit encryption.
- Compliant with EN50136-1, EN50136-2 ATS configurations SP4, DP3.

### System Supervision Features

The PowerSeries Pro continuously monitors a number of possible trouble conditions and provides audible and visual indication at the keypad.

Trouble conditions include:

- AC power failure
- Zone trouble
- Fire trouble
- Telephone line trouble
- Communicator trouble
- Low battery condition
- RF jam
- AUX power supply fault
- Failure to communicate
- Module fault (supervisory or tamper)
- Power unit failure
- System overcurrent

### Additional Features

- 2-way wireless device support
- Visual verification (images + audio)\*
- Proximity tag support
- PGM scheduling
- Quick arming
- User, partition, module, zone and system labels
- Soak test\*
- Programmable system loop response
- Keypad and panel software versions viewable through keypad
- Doorbell zone type
- Low battery PGM type

\*Feature not evaluated by UL/ULC.

### Additional Notes for EN50131 Compliant Installations

- The alarm system can be set/unset with 6 or 8-digit user access codes, or using compatible wireless keyfobs. During the setting procedure, a setting indication is provided (exit delay annunciation). The setting is prevented if an alarm, trouble, or tamper condition exists. An indication is given if the system fails to set following the initiation of the setting procedure. The option to override a condition that prevents setting for the respective set period is provided. Override is possible using a valid user access code. When the system is set, a 30 second timer begins. The Armed LED on the keypad remains on for 30 seconds. When the system is in the set state, opening the door to the entry/exit route initiates the entry procedure. The system is unset using a valid user access code or an enrolled compatible keyfob.
- The alarm system does not support prioritization for indications.
- Masking signals are processed as intruder signals.

# Programming Directory

This section provides a list of all available programming options in numerical order. To program, access Installer Programming mode by keying in [\*][8][Installer Code]. Use the scroll keys < > to navigate through the menus or jump directly to a specific section by keying in a section number and pressing [\*]. Programming consists of toggling on and off options in each section or by populating data fields. Press [\*] to select options and [#] to exit to the previous menu. For descriptions of all programming options and programming worksheets, refer to the PowerSeries Commercial Reference Manual.

✓ = Default

## Label Programming

### **000 Label Programming**

000 – Language Selection (01)  
001 – Zone Labels  
    001-248 – Zone Labels 1-248  
064 – CO Alarm Message  
065 – Fire Alarm Message  
066 – Fail to Arm Event Message  
067 – Alarm When Armed Event Message  
100 – System Label  
101-108 – Partition 1-8 Labels  
201- 208 – Partition 1-8 Command Output Labels  
    001-004 – Command output 1-4 Labels  
601-604 – Schedule 1- 4 Labels  
801 – Keypad Labels  
    001-016 Keypad 1-16 Labels  
802 – Zone Expander Labels  
    001-030 – Zone Expander 1-30 Labels  
803 – Output Expander Labels  
    001-016 Output Expander 1-16 Labels  
804 – 8 Zone Expansion Label  
    001-015 – 8 Zone Expansion 1-15 Labels  
806 – HSM2HOST Label  
808 – 2-Way Audio Module Label  
809 – Power Supply Label  
    001-004 Power Supply 1-4 Label  
810 – High Current Output Supply Label  
    001-004 High Current Output 1-4 Label  
811 – 3A Power Supply Label  
    001-004 3 A Power Supply 1-4 Label  
812 – Corbus Repeater Label  
    001-008 Corbus Repeater 1-8 Label  
815 – Alternate Communicator Label  
820 – Siren Label  
    001-016 Siren 1-16 Label  
821 – Repeater Label  
    001-008 Repeater 1-8 Label  
999 – Default Labels

### **Zone Type**

#### **001 Zone Type**

001-248 Zone Types (000)  
    000 – Null Zone  
    001 – Delay 1  
    002 – Delay 2  
    003 – Instant  
    004 – Interior  
    005 – Interior Stay/Away

006 – Delay Stay/Away  
007 – Delayed 24-Hour Fire  
008 – Standard 24-Hour Fire  
009 – Instant Stay/Away  
010 – Interior Delay  
011 – Day Zone  
012 – Night Zone  
016 – Final Door Set  
017 – 24-Hour Burglary  
018 – 24-Hour Bell/Buzzer  
023 – 24-Hour Supervisory  
024 – 24-Hour Supervisory Buzzer  
025 – Auto Verify Fire  
027 – Fire Supervisory  
040 – 24-Hour Gas  
041 – 24-Hour CO  
042 – 24-Hour Holdup  
043 – 24-Hour Panic  
045 – 24-Hour Heat  
046 – 24-Hour Medical\*  
047 – 24-Hour Emergency  
048 – 24-Hour Sprinkler  
049 – 24-Hour Flood  
051 – 24-Hour Latching Tamper  
052 – 24-Hour Non-Alarm  
056 – 24-Hour High Temperature  
057 – 24 Hour Low Temperature  
060 – 24-Hour Non-Latching Tamper  
061 – 24-Hour Masking  
066 – Momentary Keyswitch Arm  
067 – Maintained Keyswitch Arm  
068 – Momentary Keyswitch Disarm  
069 – Maintained Keyswitch Disarm  
071 – Doorbell Zone  
072 – Push to Set

#### **002 – Zone Attributes**

001-128 (see PowerSeries Pro reference manual for defaults)  
    1 – Bell Audible  
    2 – Bell Steady  
    3 – Door Chime  
    4 – Bypass Enabled  
    5 – Force Arm  
    6 – Swinger Shutdown  
    7 – Transmission Delay  
    8 – Burglary Verification  
    9 – Normally Closed EOL  
    10 – Single EOL

11 – Double EOL  
12 – Fast Loop/Normal Loop Response  
13 – Zone 2-way Audio Activation  
14 – Holdup Verification  
15 – Triple EOL

#### **004 EOL Resistance**

001 – Single EOL  
002 – Double EOL  
003 – Triple EOL

#### **System Times**

##### **005 System Times**

000 – System Area  
    Bell Cutoff (004 min.)  
    Bell Delay Time (000 min.)  
    Burglary Verification Timer (060 sec.)  
    Holdup Verification Timer (008 sec.)  
    Zone Loop Response (250 ms)  
    Automatic Clock Adjust (060 sec.)  
001 – 008 System Times - Partition 1-8  
    Entry Delay 1 (030 sec.)  
    Entry Delay 2 (045 sec.)  
    Exit Delay (120 sec.)  
    Settle Delay (010 sec.)  
900 – Bell Delay Partition Mask (Y, Y, Y, Y, Y, Y, Y, Y)  
901 – Daylight Savings Begin:  
    Month (003)  
    Week (002)  
    Day (000)  
    Hour (002)  
    Increment (001)  
902 – Daylight Savings End  
    Month (011)  
    Week (001)  
    Day (000)  
    Hour (002)  
    Decrement (001)

#### **Access Codes**

##### **006 Installer Defined Access Codes**

(4/6/8-digit decimal)  
001 – Installer Code (55555555)  
002 – Master Code (12345678)  
003 – Maintenance Code (AAAA0000)  
004 – Guard Code (AAAA0000)  
005 – Code Version (AAAA0000)

#### **PGM Programming**

##### **007 – PGM Programming**

000 – Main Bell Partition Assignment

1 – Partition 1  
2 – Partition 2  
3 – Partition 3  
4 – Partition 4  
5 – Partition 5  
6 – Partition 6  
7 – Partition 7  
8 – Partition 8  
001-324 – PGM 1-324 Partition Assignment (default: partition 1)  
    1-8 – Partition 1-8

##### **008 – PGM Timer Programming**

000 – PGM Timer-Minutes or Seconds (seconds)  
001-324 – PGM 1-324 Timer (005)

##### **009 – PGM Types**

001-324 – PGM 1-164 Type Assignment (default: PGM1=121, PGM2=156, 3-164=101)  
    100 – Null PGM  
    101 – Burg and Fire Bell Follower  
    102 – Delayed Fire and Burg  
    103 – Sensor Reset [\*][7][2]  
    104 – 2-Wire Smoke  
    107 – External Siren  
    109 – Courtesy Pulse  
    111 – Keypad Buzzer Follow  
    114 – Ready To Arm  
    115 – System Armed Status  
    116 – Away Armed Status  
    117 – Stay Armed Status  
    120 – Away Armed with no Zone Bypass Status  
    121 – Command Output 1  
    122 – Command Output 2  
    123 – Command Output 3  
    124 – Command Output 4  
    129 – Partition Status Alarm Memory  
    132 – Holdup Output  
    134 – 24Hr Silent Input  
    135 – 24Hr Audible Input  
    146 – TLM and Alarm  
    147 – Kissoff  
    148 – Ground Start  
    149 – Alternate Communicator  
    155 – System Trouble  
    156 – Latched System Event  
    157 – System Tamper  
    161 – DC Trouble  
    165 – Prox Used  
    166 – Partition Prox Used  
    175 – Bell Status and Programming Access Output  
    176 – Remote Operation

✓ = Default



- 184 – Open After Alarm
  - 200 – Zone Follower
  - 201 – Follower-Zones 1-8
  - 202 – Follower-Zones 9-16
  - 203 – Follower-Zones 17-24
  - 204 – Follower-Zones 25-32
  - 205 – Follower-Zones 33-40
  - 206 – Follower-Zones 41-48
  - 207 – Follower-Zones 49-56
  - 208 – Follower-Zones 57-64
  - 209 – Follower-Zones 65-72
  - 210 – Follower-Zones 73-80
  - 211 – Follower-Zones 81-88
  - 212 – Follower-Zones 89-96
  - 213 – Follower-Zones 97-104
  - 214 – Follower-Zones 105-112
  - 215 – Follower-Zones 113-120
  - 216 – Follower-Zones 120-128
  - 217 – Follower-Zones 129-136
  - 218 – Follower-Zones 137-144
  - 219 – Follower-Zones 145-152
  - 220 – Follower-Zones 153-160
  - 221 – Follower-Zones 161-168
  - 222 – Follower-Zones 169-176
  - 223 – Follower-Zones 177-184
  - 224 – Follower-Zones 185-192
  - 225 – Follower-Zones 193-200
  - 226 – Follower-Zones 201-208
  - 227 – Follower-Zones 209-216
  - 228 – Follower-Zones 217-224
  - 229 – Follower-Zones 225-232
  - 230 – Follower-Zones 233-240
  - 231 – Follower-Zones 241-248
- 010 PGM Attributes**
- 000 – Main Bell Mask
  - Fire Alarm ✓
  - CO Alarm ✓
  - Burglary Alarm ✓
  - 24-Hour Flood Alarm ✓
  - Bell Squawks ✓
  - 001-324 PGM 1-324 Attributes
  - 100 – Null PGM
  - 101 – Fire and Burglary
    - 01 – True Output ✓
  - 102 – Delay Fire and Burglary
    - 01 – True Output ✓
  - 103 – Sensor Reset [\*][7][2]
    - 01 – True Output ✓
    - 02 – Timed Output
    - 03 – Code Required
  - 107 – External Siren
    - 01 – True Output ✓
  - 109 – Courtesy Pulse
    - 01 – True Output ✓
  - 111 – Keypad Buzzer Follow
    - 01 – True Output ✓
    - 02 – Timed Output
    - 09 – Entry Delay ✓
    - 10 – Exit Delay ✓
    - 11 – Door Chime ✓
    - 12 – Keypad Buzzer Zone ✓
    - 13 – Audible Exit Fault ✓
    - 14 – Auto-Arm Pre-Alert ✓
  - 114 – Ready To Arm
    - 01 – True Output ✓
  - 115 – Armed Status
    - 01 – True Output ✓
  - 116 – Armed Away Mode
    - 01 – True Output ✓
  - 117 – Armed Stay Mode
    - 01 – True Output ✓
  - 120 – Away Armed No Bypass
    - 01 – True Output ✓
  - 121 - 124 – Command Output 1-4
    - 01 – True Output ✓
    - 02 – Timed Output ✓
    - 03 – Code Required ✓ (121 only)
  - 129 – Partition Status Alarm
  - Memory
    - 01 – True Output ✓
  - 132 – Holdup Output
    - 01 – True Output ✓
    - 02 – Timed Output
  - 146 – TLM and Alarm
    - 01 – True Output ✓
  - 147 – Kisofoff Output
    - 01 – True Output ✓
  - 148 – Ground Start
    - 01 – True Output ✓
  - 149 – Alternate Communicator
    - 01 – True Output ✓
    - 02 – Timed Output ✓
    - 04 – Fire Alarm
    - 05 – Panic Alarm
    - 06 – Burglary Alarm
    - 07 – Open/Close
    - 08 – Zone Auto Bypass
    - 09 – Medical Alarm
    - 10 – Burglary Verified
    - 11 – Open after Alarm
    - 12 – Emergency Alarm
    - 13 – Duress Alarm
    - 14 – Holdup Verified
  - 155 – System Trouble
    - 01 – True Output ✓
    - 02 – Timed Output
    - 04 – Service Required ✓
    - 05 – Loss of Clock ✓
    - 06 – DC Trouble ✓
    - 07 – Bus Voltage ✓
    - 08 – AC Trouble ✓
    - 09 – Device Fault ✓
    - 10 – Device Battery ✓
    - 11 – Device Tamper ✓
    - 12 – RF Delinquency ✓
    - 13 – Module Supervisory ✓
    - 14 – Module Tamper ✓
    - 15 – Communications ✓
    - 16 – Not Networked ✓
  - 156 – Latched System Event
    - 01 – True Output ✓
    - 02 – Timed Output
    - 04 – Fire Alarm ✓
    - 05 – Panic Alarm ✓
    - 06 – Burglary Alarm ✓
    - 07 – Medical Alarm ✓
    - 08 – Supervisory ✓
    - 09 – Priority Event ✓
    - 10 – Holdup ✓
    - 11 – Duress ✓
    - 12 – Emergency ✓
    - 13 – Fire Supervisory ✓
    - 14 – Fire Trouble ✓
  - 15 – CO Alarm ✓
  - 157 – System Tamper
    - 01 – True Output ✓
    - 02 – Timed Output
    - 09 – Module Tamper ✓
    - 10 – Zone Tamper ✓
  - 161 – DC Trouble
    - 01 – True Output ✓
    - 02 – Timed Output
    - 09 – Battery Low ✓
    - 10 – Battery Absent ✓
  - 165 – Prox Used
    - 01 – True Output ✓
  - 166 – Partition Prox Used
    - 01 – True Output ✓
  - 175 – Bell Prog Access
    - 01 – True Output ✓
  - 176 – Remote Operation
    - 01 – True Output ✓
  - 184 – Open After Alarm
    - 01 – True Output ✓
    - 02 – PGM Timer ✓
  - 200 Zone Follower – Single Zone
    - 01 – True Output ✓
    - 02 – Timed Output
    - 04 – Latching ✓
    - 05 – Follow Alarm
  - 201- 216 Zone Follow Zones 1-128
    - 01 – True Output ✓
    - 02 – Timed Output
    - 04 – Latching ✓
    - 05 – Follow Alarm
    - 09 – Zone Terminal 1 ✓
    - 10 – Zone Terminal 2 ✓
    - 11 – Zone Terminal 3 ✓
    - 12 – Zone Terminal 4 ✓
    - 13 – Zone Terminal 5 ✓
    - 14 – Zone Terminal 6 ✓
    - 15 – Zone Terminal 7 ✓
    - 16 – Zone Terminal 8 ✓
    - 09-016 – Zone Terminal 1-16
- 011 PGM Configuration Options**
- 001-324 – PGM 1-324 Configuration
    - Zone Follower by Zone
    - Proximity Tag Used
    - Command Output Schedules
- 012 System Lockout (attempts/min.)**
- For EN50131 certified installations, the maximum number of attempts is 10. Lockout duration is 90 seconds.
- Keypad Lockout Attempts (000)
  - Keypad Lockout Duration (000)
  - Remote Lockout Attempts (006)
  - Remote Lockout Duration (060)
- System Options**
- 013 System Options 1**
- 1 – NC Loop/EOL
  - 2 – DEOL/SEOL
  - 3 – Show All Troubles when Armed ✓
  - 4 – Tamper/Faults Open Zone
- 5 – Auto-Arm Schedule in [\*][6] ✓
- 6 – Audible Exit Fault ✓
- 7 – Event Buffer Follows Swinger ✓
- 8 – Temporal Three Fire Signaling
- 014 System Options 2**
- 1 – Bell Squawk
  - 2 – Bell Squawk Auto-Arm
  - 3 – Bell Squawk on Exit
  - 4 – Bell Squawk on Entry
  - 5 – Bell Squawk on Trouble
  - 6 – Reserved
  - 7 – Exit Delay Termination
  - 8 – Fire Bell Continues
- 015 System Options 3**
- 1 – [F] Key ✓
  - 2 – [P] Key Annunciation
  - 3 – Quick Exit
  - 4 – Quick Arming/Function Key ✓
  - 5 – Reserved
  - 6 – Master Code Not User Changeable
  - 7 – Telephone Line Monitor Enable ✓
  - 8 – TLM Audible When Armed ✓
- 016 System Options 4**
- 1 – AC Trouble Display ✓
  - 2 – AC Trouble Light Flashes
  - 3 – Keypad Blanking
  - 4 – Keypad Blanking Requires Code
  - 5 – Keypad Backlighting ✓
  - 6 – Power Save Mode
  - 7 – Bypass Display When Armed
  - 8 – Keypad Tamper Enabled
- 017 System Options 5**
- 1 – Chime On Opening ✓
  - 2 – Chime On Closing
  - 3 – RF Jam Audible
  - 4 – Multi-Hit
  - 5 – Late to Close
  - 6 – Daylight Savings Time
  - 7 – Silence Chime During Quick Exit Delay
  - 8 – Bell Squawk on Away Arm/Disarm Only
- 018 System Options 6**
- 1 – Test Transmission Exception
  - 2 – Real-Time Bypass Reporting
  - 3 – Report Bypass for Stay Away Zones
  - 4 – Auto Bypass Report
  - 5 – Keypad Buzzer Alarm
  - 6 – Reserved
  - 7 – Exit Delay Restart
  - 8 – AC Fail Trouble Beeps ✓
- 019 System Options 7**
- 1 – Audible Wireless Zone Fault
  - 2 – Latching Troubles
  - 3 – Reserved
  - 4 – R-Button
  - 5 – Audible Bus Fault
  - 6 – Duress Codes
  - 7 – Temperature in Celsius ✓

✓= Default

- 8 – Reset After Zone Activation
- 020 System Options 8**
  - 1 – Access Code Entry During Entry Delay
  - 2 – EU Entry Procedure
  - 3 – [\*][8] Access While Armed
  - 4 – Remote Reset
  - 5 – Engineer's Reset
  - 6 – Keyswitch Disarming During Entry Delay
  - 7 – Installer Access and DLS
  - 8 – Troubles Inhibits Arming
- 021 System Options 9**
  - 1 – Trouble Display
  - 2 – Keypad Blanking while armed
  - 3 – Reserved
  - 4 – Ready Display
  - 5 – PGM Keypad Blanking
  - 6 – Armed Display
  - 7 – Open Cancels Arming
  - 8 – Audible Exit Delay for Stay Arming
- 022 System Options 10**
  - 1 – [F] Key Option
  - 2 – Reserved
  - 3 – Reserved
  - 4 – Test Transmission Counter in Hours
  - 5 – Away to Stay Toggle
  - 6 – 2-Way Full Duration
  - 7 – Trouble Beeps Are Silent
  - 8 – Keyswitch Arms in Away Mode
- 023 System Options 11**
  - 1 – Ready LED Flash for Force Arm
  - 2 – Access Code Required for [\*][\*]
  - 3 – Tamper/Fault Detection
  - 4 – Access Code Required for [\*][1]
  - 5 – Access Code Required for [\*][2]
  - 6 – Access Code Required for [\*][3]
  - 7 – Access Code Required for [\*][4]
  - 8 – [\*][6] Accessibility
- 024 System Options 12**
  - 1 – Reserved
  - 2 – Reserved
  - 3 – AC/DC Inhibits Arming
  - 4 – Tamper Inhibit Arm
  - 5 – Real Time Clock
  - 6 – Reserved
  - 7 – Reserved
  - 8 – DLS Disconnect
- 025 System Options 13**
  - 1 – European Dial
  - 2 – Force Dial ✓
  - 3 – Test Transmission Counter in Minutes
  - 4 – Warm Start Indication
  - 5 – ID Tone
  - 6 – Tone Generated-2100Hz
  - 7 – DLS Window
  - 8 – FTC Audible Bell
- 040 User Authentication**
  - 01 – User Code or Proximity Tag ✓
  - 02 – User Code and Proximity Tag
- 041 Access Code Digits**
  - 00 – 4-Digit Access Codes ✓
  - 01 – 6-Digit Access Codes
  - 02 – 8-Digit Access Codes
- 042 Event Verification**
  - 01 – Burglary Verified Counter (002)
  - 02 – Holdup Counter (002)
  - 03 – Burglary Verification Selection
    - 001 – Police Code ✓
    - 002 – Cross Zoning
    - 003 – EU Sequential Detection
- 151-158 Partition 1-8 Auto-Arm/Disarm**
  - 001 – Auto-Arming Times (9999)
    - 24-Hour
    - Sunday
    - Monday
    - Tuesday
    - Wednesday
    - Thursday
    - Friday
    - Saturday
  - 002 – Auto-Disarm Times (9999)
    - 24-Hour
    - Sunday
    - Monday
    - Tuesday
    - Wednesday
    - Thursday
    - Friday
    - Saturday
  - 003 – Auto-Disarming Holiday Schedule
    - Holiday 1
    - Holiday 2
    - Holiday 3
    - Holiday 4
  - 004 – Auto-Arming Pre-Alert (004)
  - 005 – Auto-Arming Postpone Timer (000)
  - 006 – No Activity Arming Timer (000)
  - 007 – No Activity Arming Pre-Alert Timer (001)
- 200 Partition Mask**
  - 001 – Partition 1 to 8 Enable Mask
    - 1 – Partition 1 ✓
    - 2 – Partition 2
    - 3 – Partition 3
    - 4 – Partition 4
    - 5 – Partition 5
    - 6 – Partition 6
    - 7 – Partition 7
    - 8 – Partition 8
- 201-208 Partition 1-8 Zone Assignment**
  - 001 – Zone 1-8 ✓
  - 002 – Zn 9-16 ✓
  - 003 – Zn 17-24
  - 004 – Zn 25-32
  - 005 – Zn 33-40
  - 006 – Zn 41-48
  - 007 – Zn 49-56
  - 008 – Zn 57-64
  - 009 – Zn 65-72
  - 010 – Zn 73-80
  - 011 – Zn 81-88
  - 012 – Zn 89-96
  - 013 – Zn 97-104
  - 014 – Zn 105-112
  - 015 – Zn 113-120
  - 016 – Zn 121-128
  - 017 – Zn 129-136
  - 018 – Zn 137-144
  - 019 – Zn 145-152
  - 020 – Zn 153-160
  - 021 – Zn 161-168
  - 022 – Zn 169-176
  - 023 – Zn 177-184
  - 024 – Zn 185-192
  - 025 – Zn 193-200
  - 026 – Zn 201-208
  - 027 – Zn 209-216
  - 028 – Zn 217-224
  - 029 – Zn 225-232
  - 030 – Zn 233-240
  - 031 – Zn 241-248
- 300 Panel/Receiver Communications Path**
  - 001 – 004 Receiver 1-4
    - 01 – Phone Line ✓
    - 02 – Alt Comm Auto Routing
    - 03 – Alt Comm Receiver 1 - Ethernet 1
    - 04 – Alt Comm Receiver 2 - Ethernet 2
    - 05 – Alt Comm Receiver 3 - Cellular 1
    - 06 – Alt Comm Receiver 4 - Cellular 2
- 301 Phone Number Programming**
  - 001 – 004 Phone Number 1 -4 Programming (DFFF...32-digit)
- 304 Call Waiting Cancel String (DB70EF)**
- Event Reporting**
- 307 Zone Reporting**
  - 001-128 Zone Reporting for Zones 1-128
    - 01 – Alarm ✓
    - 02 – Alarm Restore ✓
    - 03 – Tamper ✓
    - 04 – Tamper Restore ✓
    - 05 – Fault ✓
    - 06 – Fault Restore ✓
- 308 Event Reporting**
  - 001 – Miscellaneous Alarm 1
    - 01 – Duress Alarm ✓
    - 02 – Opening After Alarm ✓
    - 03 – Recent Closing Alarm ✓
    - 04 – Zone Expander Supervisory Alarm ✓
  - 05 – Zone Expander Supervisory Alarm Restore ✓
  - 06 – Burglary Verified ✓
  - 07 – Burg Not Verified Alarm ✓
  - 08 – Alarm Cancel ✓
  - 002 – Miscellaneous Alarm 2
    - 01 – Holdup Verified Alarm ✓
  - 011 – Priority Alarms
    - 01 – Keypad Fire Alarm-F Key ✓
    - 02 – Keypad Fire Restore ✓
    - 03 – Keypad Medical Alarm-M Key ✓
    - 04 – Keypad Medical Restore ✓
    - 05 – Keypad Panic Alarm (P) ✓
    - 06 – Keypad Panic Restore ✓
  - 07 – Auxiliary Input Alarm ✓
  - 08 – Aux Input Alarm Restore ✓
  - 021 – Fire Alarms 1
    - 03 – PGM 2 2-Wire Alarm ✓
    - 04 – PGM 2 2-Wire Restore ✓
  - 101 – Tamper Events
    - 03 – Module Tamper ✓
    - 04 – Module Tamper Restore ✓
    - 05 – Keypad Lockout ✓
    - 07 – Remote Lockout ✓
  - 201 – Open/Close Events 1
    - 01 – User Closing ✓
    - 02 – User Opening ✓
    - 03 – Future Use
    - 04 – Future Use
    - 05 – Special Closing ✓
    - 06 – Special Opening ✓
    - 07 – Keyswitch Opening ✓
    - 08 – Keyswitch Closing ✓
  - 202 – Open/Close Events 2
    - 01 – Automatic Closing ✓
    - 02 – Automatic Disarm ✓
    - 03 – Auto Arm Cancellation/Postpone ✓
  - 211 – Miscellaneous Open/Close Events
    - 01 – Late to Close ✓
    - 02 – Late to Open ✓
    - 05 – Exit Fault ✓
  - 221 – Bypass Events
    - 01 – Auto Zone Bypass
    - 02 – Auto Zone Unbypass
    - 03 – Partial Closing ✓
  - 301 – Panel Events 1
    - 01 – Panel AC Fail Trouble ✓
    - 02 – Panel AC Fail Restore ✓
    - 03 – Panel Low Battery ✓

✓ = Default

- 04 – Panel Low Battery Restore ✓
- 05 – Panel Battery Absent ✓
- 06 – Panel Battery Absent Trouble Restore ✓
- 07 – Power Unit Failure ✓
- 08 – Power Unit Failure Restore ✓
- 302 – Panel Events 2
  - 01 – Bell Circuit Trouble ✓
  - 02 – Bell Circuit Restore ✓
  - 03 – Telephone Line Trouble ✓
  - 04 – Telephone Line Trouble Restore ✓
  - 05 – Auxiliary Trouble ✓
  - 06 – Auxiliary Trouble Restore ✓
  - 07 – Overcurrent Trouble ✓
  - 08 – Overcurrent Restore ✓
- 305 – Panel Events 5
  - 03 – PGM 2 2-Wire Trouble ✓
  - 04 – PGM 2 2-Wire Restore ✓
- 311 – Maintenance Events 1
  - 01 – RF Jam Trouble ✓
  - 02 – RF Jam Trouble Restore ✓
  - 03 – Fire Trouble ✓
  - 04 – Fire Trouble Restore ✓
  - 05 – Cold Start ✓
  - 06 – Delinquency ✓
  - 07 – Self Test Trouble ✓
  - 08 – Self Test Trouble Restore ✓
- 312 – Maintenance Events 2
  - 01 – Installer Lead IN ✓
  - 02 – Installer Lead OUT ✓
  - 03 – DLS Lead IN ✓
  - 04 – DLS Lead OUT ✓
  - 05 – SA Lead IN
  - 06 – SA Lead OUT
  - 07 – Event Buffer 75% Full ✓
- 313 – Maintenance Events 3
  - 01 – Firmware Update Begin ✓
  - 02 – Firmware Update Success ✓
  - 03 – Firmware Update Fail ✓
- 314 – Maintenance Events 4
  - 01 – Gas Trouble ✓
  - 02 – Gas Trouble Restore ✓
  - 03 – Heat Trouble ✓
  - 04 – Heat Trouble Restore ✓
  - 05 – Freeze Trouble ✓
  - 06 – Freeze Trouble Restore ✓
  - 07 – Probe Disconnected ✓
  - 08 – Probe Disconnect Restore ✓
- 321 – Receiver Events
  - 02 – Receiver 1 FTC Restore ✓
- 04 – Receiver 2 FTC Restore ✓
- 06 – Receiver 3 FTC Restore ✓
- 08 – Receiver 4 FTC Restore ✓
- 331 – Module Events 1
  - 01 – Module AC Trouble ✓
  - 02 – Module AC Trouble Restore ✓
  - 03 – Module Battery Trouble ✓
  - 04 – Module Battery Trouble Restore ✓
  - 05 – Module Battery Absent ✓
  - 06 – Module Battery Absent Restore ✓
  - 07 – Module Power Unit Failure ✓
  - 08 – Module Power Unit Failure Restore ✓
- 332 – Module Events 2
  - 01 – Module Low Voltage ✓
  - 02 – Module Low Voltage Restore ✓
  - 03 – Module Supervisory ✓
  - 04 – Module Supervisory Restore ✓
  - 05 – Module Aux Trouble ✓
  - 06 – Module Aux Trouble Restore ✓
  - 07 – Module Power Unit Failure ✓
  - 08 – Module Power Unit Restore ✓
- 335 – Module Events 5
  - 01 – Output 1 Fault ✓
  - 02 – Output 1 Fault Restore ✓
- 351 – Alternate Communicator 1
  - 01 – Alt. Comm. Module Comm Fault ✓
  - 02 – Alt. Comm. Module Comm Fault Restore ✓
  - 07 – Alt. Comm. Radio/SIM Failure ✓
  - 08 – Alt. Comm. Radio/SIM Failure ✓ Restore
- 352 – Alternate Communicator 2
  - 01 – Alternate Comm. Network Fault ✓
  - 02 – Alt. Comm. Network Fault Restore ✓
  - 05 – Alt. Comm. Ethernet ✓
  - 06 – Alt. Comm. Ethernet Trouble Restore ✓
- 354 – Alternate Communicator 4
  - 01 – Alt. Comm Receiver 1 ✓
  - 02 – Alt. Comm Receiver 1 Restore ✓
  - 03 – Alt. Comm Receiver 2 ✓
  - 04 – Alt. Comm Receiver 2 Restore ✓
- 05 – Alt. Comm Receiver 3 ✓
- 06 – Alt. Comm Receiver 3 Restore ✓
- 07 – Alt. Comm Receiver 4 ✓
- 08 – Alt. Comm Receiver 4 Restore ✓
- 355 – Alternate Communicator 5
  - 01 – Alt. Comm Receiver 1 Supervision Failure ✓
  - 02 – Alt. Comm Receiver 1 Supervision Failure Restore ✓
  - 03 – Alt. Comm Receiver 2 Supervision Failure ✓
  - 04 – Alt. Comm Receiver 2 Supervision Failure Restore ✓
  - 05 – Alt. Comm Receiver 3 Supervision Failure ✓
  - 06 – Alt. Comm Receiver 3 Supervision Failure Restore ✓
  - 07 – Alt. Comm Receiver 4 Supervision Failure ✓
  - 08 – Alt. Comm Receiver 4 Supervision Failure Restore ✓
- 361 – Wireless Device Events
  - 01 – Device AC Fail ✓
  - 02 – Device AC Restore ✓
  - 03 – Device Low Battery ✓
  - 04 – Device Low Battery Restore ✓
  - 05 – Device Fault ✓
  - 06 – Device Fault Restore ✓
- 401 – System Test Events
  - 01 – Walk Test Start ✓
  - 02 – Walk Test End ✓
  - 03 – Periodic Test Transmission ✓
  - 04 – Periodic Test Transmission with Trouble ✓
  - 05 – System Test ✓
- 2 – Receiver 2
- 3 – Receiver 3
- 4 – Receiver 4
- 002 – Partition Tamper/Restore Call Direction
  - 1 – Receiver 1 ✓
  - 2 – Receiver 2
  - 3 – Receiver 3
  - 4 – Receiver 4
- 003 – Partition Opening/Closing Call Direction
  - 1 – Receiver 1 ✓
  - 2 – Receiver 2
  - 3 – Receiver 3
  - 4 – Receiver 4
- 350 Communicator Formats (04 - SIA)**
  - 001 – Communicator Format - Receiver 1
  - 002 – Communicator Format - Receiver 2
  - 003 – Communicator Format - Receiver 3
  - 004 – Communicator Format - Receiver 4
- 377 Communication Variables**
  - 001 – Swinger Shutdown Attempts
    - Alarms and Restore (003)
    - Tamper and Restore (003)
    - Maintenance and Restore (003)
  - 002 – Communication Delays
    - Zone Delay (000 sec.)
    - AC Failure Communication Delay (030 min./hrs.)
    - TLM Trouble Delay (010 sec. x 3)
    - WLS Zone Low Battery Transmission Delay (007 days)
    - Delinquency Transmission Delay (030 hours/days)
    - Communications Cancel Window (000)
  - 003 – Periodic Test Transmission Cycle (030 hrs./days)
  - 004 – Periodic Test Transmission Time of Day (9999)
  - 011 – Maximum Dialing Attempts (005)
  - 012 – PSTN Delay (003 sec.)
  - 013 – Delay Between Force Attempts (020 sec.)
  - 014 – Post Dial Wait for Handshake (040 sec.)
  - 015 – T-Link Wait for Ack (060 sec.)
  - 016 – IP/Cellular Fault Check Timer (010)
- 380 Communicator Option 1**
  - 1 – Communications Enabled ✓
  - 2 – Restore on Bell Timeout
  - 3 – Pulse Dialing
  - 4 – Pulse Dial After 5th Attempt
  - 5 – Parallel Communications
  - 6 – Alternate Dial ✓

✓= Default

- 7 – Reduced Dialing Attempts
  - 8 – Activity Delinquency
  - 381 Communicator Option 2**
    - 1 – Keypad Ringback
    - 2 – Bell Ringback
    - 4 – Closing Confirmation
    - 8 – Communications Priority
  - 382 Communicator Option 3**
    - 2 – Walk Test Communication
    - 4 – Call Waiting Cancel
    - 5 – ADC Communicator Enable
    - 6 – AC Failure TX in Hours
    - 8 – Tamper Limit
  - 383 Communicator Option 4**
    - 1 – Phone Number Account Code
    - 2 – 6-Digit Account Code
    - 3 – Ethernet Enable
    - 4 – Cellular Enable
    - 5 – Communicate FTC Events
  - 384 Communicator Backup Options**
    - 2 – Backup Options - Receiver 2 ✓
    - 3 – Backup Options - Receiver 3
    - 4 – Backup Options - Receiver 4
  - 385 Audio Module Talk/Listen Mask**
    - 1 – Talk/Listen on Phone Number 1
    - 2 – Talk/Listen on Phone Number 2
    - 3 – Talk/Listen on Phone Number 3
    - 4 – Talk/Listen on Phone Number 4
  - DLS Programming**
  - 401 DLS/SA Options**
    - 1 – Double Call
    - 2 – User Enables DLS ✓
    - 3 – DLS Callback
    - 4 – User Call Up
    - 6 – Panel Call-Up and Baud Rate
    - 7 – Alt. Comm DLS ✓
  - 402 DLS Phone Number Programming (31-digit decimal)**
  - 403 DLS Access Code (212800)**
  - 404 DLS/SA Panel ID (12-digit hex; Default: Integration ID)**
  - 405 PSTN Double Call Timer (060 sec.)**
  - 406 PSTN Number of Rings to Answer On (000)(TIS 008)**
  - 407 SA Access Code (FFFFFF)**
  - 410 Automatic DLS Options**
    - 001 – Automatic DLS Toggle Options
      - 1 – Periodic DLS
      - 3 – DLS on Event Buffer 75% Full
      - 8 – DLS On Programming Change
    - 002 – Periodic DLS Days (000 days)
    - 003 – Periodic DLS Time (0000)
    - 007 – Delay Call Window
      - Delay Call Window Start (0000)
      - Delay Call Window End (0000)
  - 560 Virtual Inputs (000)**
    - 001 – 032 – Virtual Input 1-32
  - Schedule Programming**
    - 101 – Interval 1 Start Time (0000)
    - 102 – Interval 1 End Time (0000)
    - 103 – Interval 1 Days Assignment
      - 01 – Sunday
      - 02 – Monday
      - 03 – Tuesday
      - 04 – Wednesday
      - 05 – Thursday
      - 06 – Friday
      - 07 – Saturday
    - 104 – Interval 1 Holiday Assignment
      - 09 – Holiday 1
      - 10 – Holiday 2
      - 11 – Holiday 3
      - 12 – Holiday 4
    - 201 – Interval 2 Start Time (0000)
    - 202 – Interval 2 End Time (0000)
    - 203 – Interval 2 Days Assignment
      - 01 – Sunday
      - 02 – Monday
      - 03 – Tuesday
      - 04 – Wednesday
      - 05 – Thursday
      - 06 – Friday
      - 07 – Saturday
    - 204 – Interval 2 Holiday Assignment
      - 09 – Holiday 1
      - 10 – Holiday 2
      - 11 – Holiday 3
      - 12 – Holiday 4
    - 301 – Interval 3 Start Time (0000)
    - 302 – Interval 3 End Time (0000)
    - 303 – Interval 3 Days Assignment
      - 01 – Sunday
      - 02 – Monday
      - 03 – Tuesday
      - 04 – Wednesday
      - 05 – Thursday
      - 06 – Friday
      - 07 – Saturday
    - 304 – Interval 3 Holiday Assignment
      - 09 – Holiday 1
      - 10 – Holiday 2
      - 11 – Holiday 3
      - 12 – Holiday 4
    - 401 – Interval 4 Start Time (0000)
    - 402 – Interval 4 End Time (0000)
    - 403 – Interval 4 Days Assignment
      - 01 – Sunday
      - 02 – Monday
      - 03 – Tuesday
      - 04 – Wednesday
      - 05 – Thursday
      - 06 – Friday
      - 07 – Saturday
    - 404 – Interval 4 Holiday Assignment
      - 09 – Holiday 1
      - 10 – Holiday 2
      - 11 – Holiday 3
  - 12 – Holiday 4
  - 711-714 Holiday Group 1-4**
    - 001 – 099 Holiday Group 1-4 Date 1-99 (000000, MMDDYY)
  - Audio Station Programming**
  - 802 Audio Station Assignment**
    - 001 – 128 – Station Assignment 1 - 128 (00)
    - 600 – 2-Way Audio Trigger Option 1
      - 01 – Tamper
      - 03 – [A] Key Alarm ✓
      - 04 – [P] Key Alarm ✓
      - 05 – Duress Alarm ✓
      - 06 – Opening After Alarm ✓
      - 07 – Future Use
      - 08 – Zone Supervision Alarm
    - 603 – 2-Way Audio Control Option 1
      - 01 – Future Use
      - 02 – Listen to all zones / Listen to zones in alarm ✓
      - 03 – Future Use
      - 04 – Siren Active During 2-Way Audio
      - 05 – Hang-Up Auto Detection
      - 06 – User Call-In
      - 07 – Future Use
      - 08 – 2-Way Audio Initiated by CS ✓
    - 605 – Record Options
      - 01 – Audio Capture Enable ✓
      - 02 – Erase on FTC
    - 606 – Audio Station Record Control Option 1
      - 01 – Audio Station 1 Record ✓
      - 02 – Audio Station 2 Record ✓
      - 03 – Audio Station 3 Record ✓
      - 04 – Audio Station 4 Record ✓
    - 610 – Call Back / Recovery Window Duration (05)
    - 611 – Call Back Acknowledge code (999999)
    - 612 – Answering Machine Bypass (00)
    - 613 – Double Call Timer (030)
    - 614 – Number of Rings to Answer (00)
    - 615 – Audio Duration (90 sec.)
    - 616 – Record Time (105 sec.)
    - 617 – Erase Timer (15 min.)
    - 620 – Audio Station Tamper Option 1
      - 01 – Audio Station 1 Tamper
      - 02 – Audio Station 2 Tamper
      - 03 – Audio Station 3 Tamper
      - 04 – Audio Station 4 Tamper
  - Wireless Programming**
  - 804 Wireless Programming**
    - 000 – WLS Device Enrollment Zones (3-digit decimal)
    - Zone Type (2-digit decimal)
  - Partition Assignment
  - Zone Label (LCD only)
  - WLS Keys
  - Partition Assignment
  - User Assignment
  - Sirens
  - Partition Assignment
  - Siren Label (LCD only)
  - Keypads
  - Keypad Assignment
  - Keypad Label (LCD only)
  - Repeaters
  - Repeater Label (LCD only)
  - 001 - 128 – Configure Wireless Zones
- Refer to the installation instructions provided with the HSM2Host for more wireless programming options.
- 850 Cellular Signal Strength**
  - 851 Communicator Programming**
    - 001 – Ethernet IP Address
    - 002 – Ethernet IP Subnet Mask
    - 003 – Ethernet Gateway IP Address
    - 004 – Receiver Supervision Interval
    - 005 – System Toggle Options 1
      - 01 – Receiver 1 Supervised
      - 02 – Receiver 3 Supervised
      - 03 – Heartbeat 1
      - 04 – Cell Primary
      - 05 – Redundant Communications
      - 06 – Remote Firmware Upgrade ✓
      - 07 – Test TX
      - 08 – Low Signal Mask
    - 006 – System Toggle Options 2
      - 01 – Ethernet Receiver 1 Enabled ✓
      - 02 – Ethernet Receiver 2 Enabled ✓
      - 04 – Cellular Receiver 3 Enabled ✓
      - 05 – Cellular Receiver 4 Enabled ✓
      - 06 – Reserved
      - 07 – DLS Over Cellular Enabled ✓
      - 08 – Network Trouble Suppression
    - 007 – DNS Server IP 1
    - 008 – DNS Server IP 2
    - 010 – System Toggle Options 3
      - 01 – 2-Way Audio Over Cellular
      - 02 – Visual Verification Default
      - 03 – Video On Demand
      - 04 – Receiver Group
    - 012 – DLS Incoming Port
    - 013 – DLS Outgoing Port
    - 015 – DLS Call-Up IP
    - 016 – DLS Call-Up Port
    - 018 – Receiver Group Pair

020 – Time Zone	03 – Integration Over Ethernet	693 – Session 3 Notification Control	<b>861-876 Keypad Programming</b>
025 – Radio Activation Restore	04 – Reserved	01 – Alarm and Alarm Restore Notifications ✓	000 – Keypad Partition Mask
026 – Receiver 1 Test Transmission	05 – Integration Protocol	02 – Tamper and Tamper Restore Notifications ✓	00 – Global Keypad
027 – Receiver 2 Test Transmission	06 – Reserved	03 – Arming and Disarming Notifications ✓	01 – Partition 1 ✓
028 – Receiver 3 Test Transmission	07 – Reserved	04 – Trouble and Trouble Restore Notifications ✓	02 – Partition 2
029 – Receiver 4 Test Transmission	08 – Reserved	05 – Test Transmission Notifications ✓	03 – Partition 3
030 – FTC Restore	426 – Session 1 Integration Toggle	06 – Reserved ✓	04 – Partition 4
095 – DLS SA Incoming Local Port	Options 3	07 – Reserved ✓	05 – Partition 5
096 – DLS SA Outgoing Local Port	01 – UDP Polling	08 – Reserved ✓	06 – Partition 6
101 – Receiver 1 Account Code	02 – TCP Polling	694 – Session 4 Notification Control ✓	07 – Partition 7
102 – Receiver 1 DNIS	03 – Real-time Notification	01 – Alarm and Alarm Restore Notifications ✓	08 – Partition 8
103 – Receiver 1 IP Address	04 – Notification Follows Pool	02 – Tamper and Tamper Restore Notifications ✓	001 – Function Key 1 ( )
104 – Receiver 1 UDP Remote Port	05 – Firewall IP	03 – Arming and Disarming Notifications ✓	002 – Function Key 2 ( )
105 – Receiver 1 UDP Local Port	06 – Reserved	04 – Trouble and Trouble Restore Notifications ✓	003 – Function Key 3 (06)
106 – Receiver 1 Domain Name	07 – Reserved	05 – Test Transmission Notifications ✓	004 – Function Key 4 (22)
111 – Receiver 2 Account Code	08 – Reserved	06 – Reserved ✓	005 – Function Key 5 ( )
112 – Receiver 2 DNIS	427 – Session 1 Interactive Polling Interval	07 – Reserved ✓	00 – Null Key
113 – Receiver 2 IP Address	428 – Session 1 Integration Server IP	08 – Reserved ✓	02 – Instant Stay Arm
114 – Receiver 2 UDP Remote Port	429 – Session 1 Integration Notification Port	901 – Receiver Test	03 – Stay Arm
115 – Receiver 2 UDP Local Port	430 – Session 1 Integration Polling Port	01 – Receiver 1	04 – Away Arm
116 – Receiver 2 Domain Name	431 – Session 1 Integration Server DNS	02 – Receiver 2	05 – No Entry Arm
124 – Ethernet Test Transmission Time	432 – Session 1 Integration Outgoing Port	03 – Receiver 3	06 – Chime On/Off
125 – Ethernet Test Transmission Cycle	433 – Session 1 Integration Incoming Port	04 – Receiver 4	07 – System Test
201 – Receiver 3 Account Code	450 – 460 Repeats 423 - 433 for Session 2	976 – Configuration File Version	09 – Night Arm
202 – Receiver 3 DNIS	477 – 487 Repeats 423 - 433 for Session 3	977 – Cellular NetworkProvider - MCC/MNC Code	12 – Global Stay Arm
203 – Receiver 3 IP Address	504 – 514 Repeats 423 - 433 for Session 4	978 – Cellular Network Type	13 – Global Away Arm
204 – Receiver 3 UDP Remote Port	691 – Session 1 Notification Control	979 – Cellular Network CSQ	14 – Global Disarming
205 – Receiver 3 UDP Local Port	01 – Alarm and Alarm Restore Notifications ✓	980 – Radio Reset Codes	15 – Temperature
206 – Receiver 3 Domain Name	02 – Tamper and Tamper Restore Notifications ✓	981 – Radio Type	16 – Quick Exit
211 – Receiver 4 Account Code	03 – Arming and Disarming Notifications ✓	982 – Radio Firmware Version	17 – Arm Interior
212 – Receiver 4 DNIS	04 – Trouble and Trouble Restore Notifications ✓	983 – Firmware Update	21-24 – Command Output 1-4
214 – Receiver 4 UDP Remote Port	05 – Test Transmission Notifications ✓	Diagnosics Section	29 – Bypass Group Recall
215 – Receiver 4 UDP Local Port	06 – Reserved ✓	984 – Communicator Status	31 – Local PGM Activate
216 – Receiver 4 Domain Name	07 – Reserved ✓	985 – Radio Initialization Status	32 – Bypass Mode
221 – Cellular Public Access Point Name	08 – Reserved ✓	986 – System Toggle Options 4	33 – Bypass recall
222 – Cellular Login User Name	692 – Session 2 Notification Control	01 – Remote Shutdown Enable Default	34 – User programming
223 – Cellular Login Password	01 – Alarm and Alarm Restore Notifications ✓	02 – 2-8 Reserved	35 – User Functions
224 – Cellular Test Transmission Time of Day	02 – Tamper and Tamper Restore Notifications ✓	987 – Language Version	37 – Time/Date Programming
225 – Cellular Test Transmission Cycle	03 – Arming and Disarming Notifications ✓	988 – DNS 1 IP Address	39 – Trouble Display
226 – Network Trouble Delay	04 – Trouble and Trouble Restore Notifications ✓	989 – DNS 2 IP Address	40 – Alarm Memory
227 – Voice Call Timeout	05 – Test Transmission Notifications ✓	990 – Boot Loader Version	61-68 – Partition Select 1-8
228 – Voice Call Back Time	06 – Reserved ✓	991 – Firmware Version	<b>011 – Keypad I/O (000)</b>
229 – Voice Call Back Number	07 – Reserved ✓	992 – Ethernet IP Address	<b>012 – Local PGM Output Timer</b>
422 – Integration Identification Number	08 – Reserved ✓	993 – Ethernet Gateway IP Address	Pulse Time (00 minutes)
423 – Session 1 Integration Access Code	301 – Session 1 Notification Control	994 – Cellular IP Address	Pulse Time (05 sec.)
424 – Session 1 SMS Label	01 – Alarm and Alarm Restore Notifications ✓	995 – SIM Number	<b>021 – Keypad Option 1</b>
425 – Session 1 Integration Toggle	02 – Tamper and Tamper Restore Notifications ✓	996 – Cellular Telephone Number	1 – [F] Key Enabled ✓
Options 2	03 – Arming and Disarming Notifications ✓	997 – IMEI Number	2 – [M] Key Enabled ✓
01 – Integration Over USB	04 – Trouble and Trouble Restore Notifications ✓	998 – MAC Address	3 – [P] Key Enabled ✓
02 – Integration Over Cellular	05 – Test Transmission Notifications ✓		4 – Display Code or X's ✓
	06 – Reserved ✓		<b>022 – Keypad Option 2</b>
	07 – Reserved ✓		1 – Local Clock Display ✓
	08 – Reserved ✓		2 – Local Clock Display 24 Hour
			3 – Auto Alarm Scroll ✓
			5 – Power LED Option ✓
			6 – Power LED AC Present ✓
			7 – Alarms Displayed if Armed ✓
			8 – Auto Scroll Open Zones ✓
			<b>023 – Keypad Option 3</b>
			1 – Armed LED Power Save*
			2 – Keypad Show Arm Mode ✓ *
			3 – 5th Terminal is PGM Output/Zone
			4 – Prox Tag Arm/Disarm
			7 – Local Display of Temp.
			8 – Low Temperature Warning

**Keypad Programming**  
**860 Keypad Slot Number**

✓ = Default

030 – LCD Message (16 x 2 hex )

031 – Download LCD Message

Duration (000)

041 – Indoor Temperature Zone

Entry (000)

042 – Outdoor Temperature Zone

Entry (000)

101-228 – Door Chime Sound-Zone  
1-128

00 – Disabled

01 – 6 beeps ✓

02 – "Bing-Bong" Sound

03 – "Ding-Dong" Sound

04 – Alarm Tone

05 – Zone Name

899 Template Programming

– 5-Digit Template Code (5-digit decimal)

– Central Station Telephone Number (32-digit decimal)

– Central Station Account Code (4/6-digit decimal)

– Partition Account Code (4-digit decimal)

– DLS Access Code (6-digit decimal)

– Partition Entry Delay (000-255 sec.)

– Partition Exit Delay (000-255 sec.)

– Installer Code

## System Information and

### Testing

900 System Information

000 – Control Panel Version

001-016 – Keypad 1-16 Version Info

101-130 – 8-HSM2108 1-16

Version Info

201-230 – HSM2208 Version

Information

460 – Alternate Communicator

461 – HSM2HOST Version Info

481 – HSM2955 Version Info

501 – 504 HSM2300 1-4 Version Info

521-524 – HSM2204 1-4 Version Info

551-554 – HSM3350 1-4 Version Info

601-608 – HSM3204CX 1-8 Version Info

901 Installer Walk Test

### Module Programming

902 Add/Remove Modules

000 – Auto-Enroll All Modules

001 – Enroll Modules

002 – Slot Assignment

003 – Edit Module Slot Assignment

101 – Delete Keypads

102 – Delete HSM2108

103 – Delete HSM2208

104 – Delete HSM3408

106 – Delete HSM2HOST

108 – Delete HSM2955

109 – Delete HSM2300

110 – Delete HSM2204

111 – Delete HSM3350

112 – Delete HSM3204CX

903 Confirm Modules

000 – View All Modules

101 – Confirm Keypads

102 – Confirm HSM2108

103 – Confirm HSM2208

104 – Confirm HSM3408

106 – Confirm HSM2HOST

108 – Confirm HSM2955

109 – Confirm HSM2300

110 – Confirm HSM2204

111 – Confirm HSM3350

113 – Confirm HSM3204CX

904 Wireless Placement Test

001-248 – Placement Test Zones 1-248

521-528 – Placement Test

Repeaters 1-8

551-566 – Placement Test Sirens

1-16

601-632 – Placement Test

Wireless Keys 1-32

701-716 – Placement Test

Wireless Keypads 1-16

911 Diagnostics

000 – HSXXXXX Diagnostics

001-016 – Keypad 1-16

101-130 – Zone Expander 1-30

301-330 – 8 I/O Expander 1-30

501-504 – Power Supply 1-4

521-524 – High Current Output

Battery 1-4

551-554 – 3A Power Supply 1-4

601-608 – Corbus repeater 1-8

912 Soak Test

000 – Zone Soak Test Duration

Default: 014

001-016 – Zone Soak Test - Zones

1-16

### Battery Settings

982 Battery Settings

000 – Panel Battery Settings

01 – Panel High Charge

Current

010 – HSM2204 Battery Settings

01 – HSM2204 1 High Charge

Current

02 – HSM2204 2 High Charge

Current

03 – HSM2204 3 High Charge

Current

04 – HSM2204 4 High Charge

Current

020 – HSM2300 Battery Settings

01 – HSM2300 1 Charge

02 – HSM2300 2 Charge

03 – HSM2300 3 Charge

04 – HSM2300 4 Charge

030 – HSM3204CX Battery

Settings

01 – HSM3204CX 1 High

Charge Current

02 – HSM3204CX 2 High

Charge Current

03 – HSM3204CX 3 High

Charge Current

04 – HSM3204CX 4 High

Charge Current

05 – HSM3204CX 5 High

Charge Current

06 – HSM3204CX 6 High

Charge Current

07 – HSM3204CX 7 High

Charge Current

08 – HSM3204CX 8 High

Charge Current

040 – HSM3350 Battery Settings

01-04 – HSM3350 1-4 Battery

Battery 1 High Current

Battery 2 High Current

Enable Battery 2 ✓

### Defaults

989 Default Master Code

990 Installer Lockout Enable/Disable

991 Default Keypads

901-916 – Default Keypad 1-16

999 – Default all Keypads

996 Default HSM2HOST

998 Default HSM2955

999 Default System

\* Wireless keypads only

**IMPORTANT - READ CAREFULLY: DSC Software purchased with or without Products and Components is copyrighted and is purchased under the following license terms:**

This End-User License Agreement ("EULA") is a legal agreement between You (the company, individual or entity who acquired the Software and any related Hardware) and Digital Security Controls, a division of Tyco Safety Products Canada Ltd. ("DSC"), the manufacturer of the integrated security systems and the developer of the software and any related products or components ("HARDWARE") which You acquired.

If the DSC software product ("SOFTWARE PRODUCT" or "SOFTWARE") is intended to be accompanied by HARDWARE, and is NOT accompanied by new HARDWARE, You may not use, copy or install the SOFTWARE PRODUCT. The SOFTWARE PRODUCT includes computer software, and may include associated media, printed materials, and "online" or electronic documentation.

Any software provided along with the SOFTWARE PRODUCT that is associated with a separate end-user license agreement is licensed to You under the terms of that license agreement.

By installing, copying, downloading, storing, accessing or otherwise using the SOFTWARE PRODUCT, You agree unconditionally to be bound by the terms of this EULA, even if this EULA is deemed to be a modification of any previous arrangement or contract. If You do not agree to the terms of this EULA, DSC is unwilling to license the SOFTWARE PRODUCT to You, and You have no right to use it.

#### SOFTWARE PRODUCT LICENSE

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold.

1. GRANT OF LICENSE This EULA grants You the following rights:

(a) Software Installation and Use - For each license You acquire, You may have only one copy of the SOFTWARE PRODUCT installed.

(b) Storage/Network Use - The SOFTWARE PRODUCT may not be installed, accessed, displayed, run, shared or used concurrently on or from different computers, including a workstation, terminal or other digital electronic device ("Device"). In other words, if You have several workstations, You will have to acquire a license for each workstation where the SOFTWARE will be used.

(c) Backup Copy - You may make back-up copies of the SOFTWARE PRODUCT, but You may only have one copy per license installed at any given time. You may use the back-up copy solely for archival purposes. Except as expressly provided in this EULA, You may not otherwise make copies of the SOFTWARE PRODUCT, including the printed materials accompanying the SOFTWARE.

2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS

(a) Limitations on Reverse Engineering, Decompilation and Disassembly - You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation. You may not make any changes or modifications to the Software, without the written permission of an officer of DSC. You may not remove any proprietary notices, marks or labels from the Software Product. You shall institute reasonable measures to ensure compliance with the terms and conditions of this EULA.

(b) Separation of Components - The SOFTWARE PRODUCT is licensed as a single product. Its component parts may not be separated for use on more than one HARDWARE unit.

(c) Single INTEGRATED PRODUCT - If You acquired this SOFTWARE with HARDWARE, then the SOFTWARE PRODUCT is licensed with the HARDWARE as a single integrated product. In this case, the SOFTWARE PRODUCT may only be used with the HARDWARE as set forth in this EULA.

(d) Rental - You may not rent, lease or lend the SOFTWARE PRODUCT. You may not make it available to others or post it on a server or web site.

(e) Software Product Transfer - You may transfer all of Your rights under this EULA only as part of a permanent sale or transfer of the HARDWARE, provided You retain no copies, You transfer all of the SOFTWARE PRODUCT (including all component parts, the media and printed materials, any upgrades and this EULA), and provided the recipient agrees to the terms of this EULA. If the SOFTWARE PRODUCT is an upgrade, any transfer must also include all prior versions of the SOFTWARE PRODUCT.

(f) Termination - Without prejudice to any other rights, DSC may terminate this EULA if You fail to comply with the terms and conditions of this EULA. In such event, You must destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

(g) Trademarks - This EULA does not grant You any rights in connection with any trademarks or service marks of DSC or its suppliers.

3. COPYRIGHT - All title and intellectual property rights in and to the SOFTWARE PRODUCT (including but not limited to any images, photographs, and text incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT, are owned by DSC or its suppliers. You may not copy the printed materials accompanying the SOFTWARE PRODUCT. All title and intellectual property rights in and to the content which may be accessed through use of the SOFTWARE PRODUCT are the property of the respective content owner and may be protected by applicable copyright or other intellectual property laws and treaties. This EULA grants You no rights to use such content. All rights not expressly granted under this EULA are reserved by DSC and its suppliers.

4. EXPORT RESTRICTIONS - You agree that You will not export or re-export the SOFTWARE PRODUCT to any country, person, or entity subject to Canadian export restrictions.

5. CHOICE OF LAW - This Software License Agreement is governed by the laws of the Province of Ontario, Canada.

6. ARBITRATION - All disputes arising in connection with this Agreement shall be determined by final and binding arbitration in accordance with the Arbitration Act, and the parties agree to be bound by the arbitrator's decision. The place of arbitration shall be Toronto, Canada, and the installation manual of the arbitration shall be English.

7. LIMITED WARRANTY

(a) NO WARRANTY - DSC PROVIDES THE SOFTWARE "AS IS" WITHOUT WARRANTY. DSC DOES NOT WARRANT THAT THE SOFTWARE WILL MEET YOUR REQUIREMENTS OR THAT OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE.

(b) CHANGES IN OPERATING ENVIRONMENT - DSC shall not be responsible for problems caused by changes in the operating characteristics of the HARDWARE, or for problems in the interaction of the SOFTWARE PRODUCT with non-DSC-SOFTWARE or HARDWARE PRODUCTS.

(c) LIMITATION OF LIABILITY; WARRANTY REFLECTS ALLOCATION OF RISK - IN ANY EVENT, IF ANY STATUTE IMPLIES WARRANTIES OR CONDITIONS NOT STATED IN THIS LICENSE AGREEMENT, DSC'S ENTIRE LIABILITY UNDER ANY PROVISION OF THIS LICENSE AGREEMENT SHALL BE LIMITED TO THE GREATER OF THE AMOUNT ACTUALLY PAID BY YOU TO LICENSE THE SOFTWARE PRODUCT AND FIVE CANADIAN DOLLARS (CAD\$5.00). BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

(d) DISCLAIMER OF WARRANTIES - THIS WARRANTY CONTAINS THE ENTIRE WARRANTY

✓ = Default



AND SHALL BE IN LIEU OF ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED (INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF DSC. DSC MAKES NO OTHER WARRANTIES. DSC NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON PURPORTING TO ACT ON ITS BEHALF TO MODIFY OR TO CHANGE THIS WARRANTY, NOR TO ASSUME FOR IT ANY OTHER WARRANTY OR LIABILITY CONCERNING THIS SOFTWARE PRODUCT.

(e) EXCLUSIVE REMEDY AND LIMITATION OF WARRANTY - UNDER NO CIRCUMSTANCES SHALL DSC BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY. SUCH DAMAGES INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF PROFITS, LOSS OF THE SOFTWARE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTE OR REPLACEMENT EQUIPMENT, FACILITIES OR SERVICES, DOWN TIME, PURCHASERS TIME, THE CLAIMS OF THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY.

WARNING: DSC recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this SOFTWARE PRODUCT to fail to perform as expected.

**Zone Record**

<b>Zone</b>	<b>Label</b>	<b>Location</b>	<b>Type</b>	<b>Attribute</b>	<b>Zone</b>	<b>Label</b>	<b>Location</b>	<b>Type</b>	<b>Attribute</b>
001					002				
003					004				
005					006				
007					008				
009					010				
011					012				
013					014				
015					016				
017					018				
019					020				
021					022				
023					024				
025					026				
027					028				
029					030				
031					032				
033					034				
035					036				
037					038				
039					040				
041					042				
043					044				
045					046				
047					048				
049					050				
051					052				
053					054				
055					056				
057					058				
059					060				
061					062				
063					064				
065					066				
067					068				
069					070				
071					072				
073					074				
075					076				
077					078				
079					080				
081					082				
083					084				
085					086				
087					088				
089					090				
091					092				
093					094				
095					096				
097					098				

Zone	Label	Location	Type	Attribute	Zone	Label	Location	Type	Attribute
099					100				
101					102				
103					104				
105					106				
107					108				
109					110				
111					112				
113					114				
115					116				
117					118				
119					120				
121					122				
123					124				
125					126				
127					128				
129					130				
131					132				
133					134				
135					136				
137					138				
139					140				
141					142				
143					144				
145					146				
147					148				
149					150				
151					152				
153					154				
155					156				
157					158				
159					160				
161					162				
163					164				
165					166				
167					168				
169					170				
171					172				
173					174				
175					176				
177					178				
179					180				
181					182				
183					184				
185					186				
187					188				
189					190				
191					192				
193					194				
195					196				
197					198				

Zone	Label	Location	Type	Attribute	Zone	Label	Location	Type	Attribute
199					200				
201					202				
203					204				
205					206				
207					208				
209					210				
211					212				
213					214				
215					216				
217					218				
219					220				
221					222				
223					224				
225					226				
227					228				
229					230				
231					232				
233					234				
235					236				
237					238				
239					240				
241					242				
243					244				
245					246				
247					248				

**Module Record**

Module Type	Slot	Serial Number	Module Type	Slot	Serial Number

**Wireless Device Record**

Device Type	Zone	Serial Number	Device Type	Zone	Serial Number

### Installer-Defined Access Codes

001 – Installer Code:	
002 – Master Code:	
003 – Maintenance Code:	

### System Account Code

--

## Locating detectors and escape plan

The following information is for general guidance only and it is recommended that local fire codes and regulations be consulted when locating and installing smoke and CO alarms.

### Smoke Detectors

Research has shown that all hostile fires in homes generate smoke to a greater or lesser extent. Experiments with typical fires in homes indicate that detectable quantities of smoke precede detectable levels of heat in most cases. For these reasons, smoke alarms should be installed outside of each sleeping area and on each storey of the home.

The following information is for general guidance only and it is recommended that local fire codes and regulations be consulted when locating and installing smoke alarms.

It is recommended that additional smoke alarms beyond those required for minimum protection be installed. Additional areas that should be protected include: the basement; bedrooms, especially where smokers sleep; dining rooms; furnace and utility rooms; and any hallways not protected by the required units. On smooth ceilings, detectors may be spaced 9.1m (30 feet) apart as a guide. Other spacing may be required depending on ceiling height, air movement, the presence of joists, uninsulated ceilings, etc. Consult National Fire Alarm Code NFPA 72, CAN/ULC-S553-02 or other appropriate national standards for installation recommendations.

- Do not locate smoke detectors at the top of peaked or gabled ceilings; the dead air space in these locations may prevent the unit from detecting smoke.
- Avoid areas with turbulent air flow, such as near doors, fans or windows. Rapid air movement around the detector may prevent smoke from entering the unit.
- Do not locate detectors in areas of high humidity.
- Do not locate detectors in areas where the temperature rises above 38°C (100°F) or falls below 5°C (41°F).
- Smoke detectors should always be installed in USA in accordance with Chapter 29 of NFPA 72, the National Fire Alarm Code.

Where required by applicable laws, codes, or standards for a specific type of occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

- In all sleeping rooms and guest rooms.
- Outside of each separate dwelling unit sleeping area, within 6.4 m (21 ft) of any door to a sleeping room, the distance measured along a path of travel.
- On every level of a dwelling unit, including basements.
- On every level of a residential board and care occupancy (small facility), including basements and excluding crawl spaces and unfinished attics.
- In the living area(s) of a guest suite.
- In the living area(s) of a residential board and care occupancy (small facility).

Figure 1

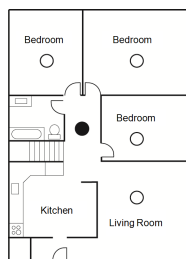


Figure 2

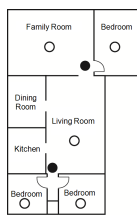


Figure 3

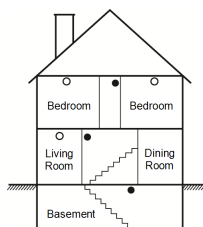


Figure 3a

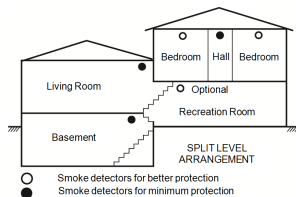
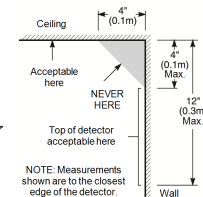


Figure 4



## Fire Escape Planning

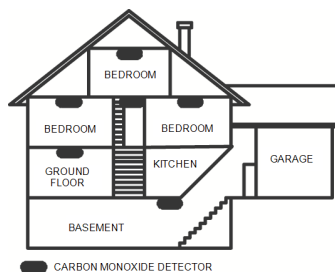
There is often very little time between the detection of a fire and the time it becomes deadly. It is thus very important that a family escape plan be developed and rehearsed.

- Every family member should participate in developing the escape plan.
- Study the possible escape routes from each location within the house. Since many fires occur at night, special attention should be given to the escape routes from sleeping quarters.
- Escape from a bedroom must be possible without opening the interior door.

Consider the following when making your escape plans:

- Make sure that all border doors and windows are easily opened. Ensure that they are not painted shut, and that their locking mechanisms operate smoothly.
- If opening or using the exit is too difficult for children, the elderly or handicapped, plans for rescue should be developed. This includes making sure that those who are to perform the rescue can promptly hear the fire warning signal.
- If the exit is above the ground level, an approved fire ladder or rope should be provided as well as training in its use.
- Exits on the ground level should be kept clear. Be sure to remove snow from exterior patio doors in winter; outdoor furniture or equipment should not block exits.
- Each person should know the predetermined assembly point where everyone can be accounted for (e.g., across the street or at a neighbor's house). Once everyone is out of the building, call the fire department.
- A good plan emphasizes quick escape. Do not investigate or attempt to fight the fire, and do not gather belongings as this can waste valuable time. Once outside, do not re-enter the house. Wait for the fire department.
- Write the fire escape plan down and rehearse it frequently so that should an emergency arise, everyone will know what to do. Revise the plan as conditions change, such as the number of people in the home, or if there are changes to the building's construction.
- Make sure your fire warning system is operational by conducting weekly tests. If you are unsure about system operation, contact your installer.
- We recommend that you contact your local fire department and request further information on fire safety and escape planning. If available, have your local fire prevention officer conduct an in-house fire safety inspection.

Figure 5



## Carbon Monoxide detectors

Carbon monoxide is colorless, odorless, tasteless, and very toxic, it also moves freely in the air. CO detectors can measure the concentration and sound a loud alarm before a potentially harmful level is reached. The human body is most vulnerable to the effects of CO gas during sleeping hours; therefore, CO detectors should be located in or as near as possible to sleeping areas of the home. For maximum protection, a CO alarm should be located outside primary sleeping areas or on each level of your home. Figure 5 indicates the suggested locations in the home.

Do NOT place the CO alarm in the following areas:

- Where the temperature may drop below -10°C or exceed 40°C
- Near paint thinner fumes
- Within 5 feet (1.5m) of open flame appliances such as furnaces, stoves and fireplaces
- In exhaust streams from gas engines, vents, flues or chimneys
- In close proximity to an automobile exhaust pipe; this will damage the detector

PLEASE REFER TO THE CO DETECTOR INSTALLATION AND OPERATING INSTRUCTION SHEET FOR SAFETY INSTRUCTIONS AND EMERGENCY INFORMATION.



## Regulatory Approvals

### FCC COMPLIANCE STATEMENT

**CAUTION:** Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4.

### IMPORTANT INFORMATION

This equipment complies with Part 68 of the FCC Rules, and, if the product was approved July 23, 2001 or later, the requirements adopted by the ACTA. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this number must be provided to the Telephone Company.

HS3032 Product Identifier US:F53AL01AHS3256

HS3128 Product Identifier US:F53AL01AHS3256

HS3248 Product Identifier US:F53AL01AHS3256

USOC Jack: RJ-31X

### Telephone Connection Requirements

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 adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

### Ringer Equivalence Number (REN)

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of 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.

### Incidence of Harm

If this equipment HS3032/HS3128/HS3248 causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

### Changes in Telephone Company Equipment or Facilities

The Telephone Company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

### Equipment Maintenance Facility

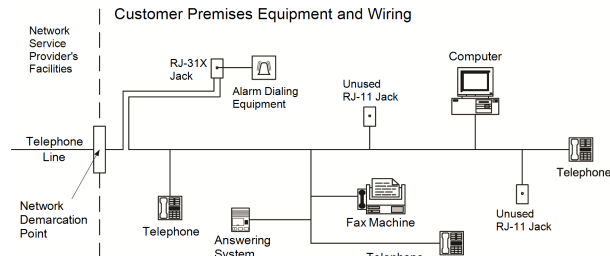
If trouble is experienced with this equipment HS3032/HS3128/HS3248 for repair or warranty information, please contact the facility indicated below. If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is solved. This equipment is of a type that is not intended to be repaired by the end user.

Tyco Atlanta Distribution Center  
2600 West Pointe Dr.  
Lithia Springs, GA 30122

## Additional Information

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Alarm dialling equipment must be able to seize the telephone line and place a call in an emergency situation, even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialling equipment must be connected to a properly installed RJ-31X jack that is electrically in series with and ahead of all other equipment attached to the same telephone line. Proper installation is depicted in the figure below. Consult your telephone company or a qualified installer if you have any questions concerning these instructions or about installing the RJ-31X jack and alarm dialling equipment for you.



## Innovation, Scientific and Economic Development Canada (ISED) Statement

**NOTICE:** This Equipment, HS3032/HS3128/HS3248, meets the applicable ISED Canada Terminal Equipment Technical Specifications. This is confirmed by the registration number. The abbreviation, IC, before the registration number signifies that registration was performed based on a Declaration of Conformity indicating that ISED Canada technical specifications were met. It does not imply that Industry ISED approved the equipment.

**NOTICE:** The Ringer Equivalence Number (REN) for this terminal equipment is 0.1. The REN assigned to each terminal equipment provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all devices does not exceed five.

HS3032 Registration number: IC: 160A-HS3256

HS3128 Registration number IC: 160A-HS3256.

HS3248 Registration number IC: 160A-HS3256.

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

## UL/ULC Installations

This product (HS3032/HS3128/HS3248) has been tested and found in compliance with the following standards:

- UL1610 Central-Station Burglar-Alarm Units
- UL365 Police Station Connected Burglar Alarm Units and Systems
- UL1023 Household Burglar-Alarm System Units
- UL985 Household Fire Warning System Units
- UL1635 Digital Alarm Communicator System Units
- UL1637 Home Health Care Signaling Equipment
- ULC-S304-16 Standard for Control Units, Accessories and Receiving Equipment for Intrusion Alarm Systems
- ULC-S559-13 Equipment for Fire Signal Receiving Centers and Systems
- ULC-S545-02 Residential Fire Warning System Control Units

The subscriber control unit shall provide for the connection of protective wiring, conductors, and attachments in accordance with the Standard for Installation and Classification of Burglar and Holdup Alarm Systems, UL 681.

This product has also been tested and found in compliance with the ANSI/SIA CP-01-2014 Control Panel Standard – Features for False Alarm Reduction.

This product is UL/ULC listed under the following categories:

- AMCX/AMXC Central Stations Alarm Units
- AOTX Local Alarm Units
- APAW Police-station-connected Alarm Units
- DAYRC Central Station Fire Alarm System Units
- UTOU/UTOUC Control Units and Accessories, Household System Type
- NBSX/NBSXC Household Burglar Alarm System Units
- AMTB Control Panels, SIA False Alarm Reduction

The product is labeled with the UL and ULC listing marks along with the SIA CP-01 compliance statement (Also Classified in accordance with SIA-CP-01 Standard) as proof of compliance with the above mentioned standards. For further information on this product's listings please also refer to the official listing guides published at the UL web site ([www.ul.com](http://www.ul.com)) under Online Directions Section.

### UL/ULC Residential Fire and Burglary Installations:

For ULC Installations, refer to the Standard for the Installation of Residential Fire Warning Systems, CAN/ULC-S540.

- Control Unit must be enclosed in model HSC3010C or HSC3020C enclosure.
  - Power supply model SOY-1800360NA (HS65WPSNA) must be employed.
  - 24 h standby power must be provided for fire applications and 4h for burglary only applications (AC trouble must be transmitted to SRC).
  - One DSC Model RM-1 or RM2 end-of-line supervision relay module must be used.
  - Priority of signals needs to be set Fire, CO/ Medical, Burg, Panic, AUX (Flood).
  - All burglary-type zones shall be configured with SEOL or DEOL configuration.
- Use model EOLR-2
- (refer to section [002], bit 10 or 11 shall be ON)
  - Use at least one PG9926/ PG9916/ PG9936 Smoke Detector for Fire Installations (section [001], fire zone shall be programmed as type 025)
  - The entry delay shall not exceed 45 seconds (see section [005])
  - The exit delay shall not exceed 60 seconds (refer to section [005])
  - The minimum Bell Time-out is 4 minutes (refer to section [005])

**Note:** Connect Bell output to a UL/ULC Listed audible device (e.g., UL File S8534, model TS-443S-6), rated to operate over the range of 10.8 to 12.5 VDC and 85dBA minimum. Wireless sirens PG9901 and PG9911 may also be used as audible devices.

**Note:** For ULC Residential Fire installations, minimum bell time-out is 5 min. For UL Home Health Care installations, minimum bell time-out is 5 min. For UL Commercial Burglary installations, minimum bell time-out is 15 min.

- Temporal Three Fire Signal shall be enabled (section [013], opt.8 ON)
- Arm/Disarm Bell Squawk shall be enabled when using wireless key PG4939/PG4929/PG4949 (section [014], option 1 shall be ON)
- A code shall be required for bypassing (section [023], option 4 shall be ON)
- Trouble beeps shall be enabled (section [022], option 7 shall be ON)
- AC trouble indication LED shall be enabled (Keypad Programming, section [022], options 5 and 6 shall be ON)
- DACT Communicator shall be enabled for Supervising Station Monitoring (section [380], option 1 shall be ON)

**Note:** The DACT communicator for this product has no line security.

Telephone Line Monitoring (TLM) shall be enabled (section [015], option 7 shall be ON)

This product is programmed to perform 5 attempts for communication of an event to the supervising station. If unsuccessful, a Fail To Communicate (FTC) trouble is generated.

Test transmission cycle shall be set (refer to section [351]) for monthly transmission for UL residential burglary applications and to 7 days for UL residential fire applications.

**Note:** For ULC Residential/Commercial installations set for daily test transmission.

- Wireless Supervision window shall be set to 4 hours for Fire Installations (Wireless Programming, section [804]>[802] shall be programmed with the value 16)
- Wireless Supervision window shall be set to 24 hours for Burglary Installations only (Wireless Programming, section [804]>[802] shall be programmed with the value 96)
- RF Jam detection shall be enabled (refer to Wireless Programming (section [804] [801], option 00 shall be OFF)
- New Alarms will Disconnect 2-way Audio (section [022], option 6 OFF)

### ULC Commercial Burglary Security Levels I-IV:

The following wireless PowerG devices models are ULC listed under ULC-S304 requirements for use in Commercial Burg applications rated for security level 1.

- |          |           |          |           |
|----------|-----------|----------|-----------|
| • PG9914 | • PG9924  | • PG9939 | • PG9974P |
| • PG9905 | • PG9929  | • PG9944 | • PG9984  |
| • PG9920 | • PG9934P | • PG9945 | • PG9984P |
| • PG9975 | • PG9935  | • PG9949 | • PG9985  |
| • PG9922 | • PG9938  | • PG9974 | • PG9994  |

The wireless supervision window shall be set to 4h for such applications and the tamper detection for removal from mounting location shall be enabled.

### UL Central Station and Police Connect with Standard or Encrypted Line Security Service

- The installation must use the integral Ethernet communicator or the plug-in cellular modules Models LE9080, 3G9080 or 3H9080, which communicates over Cellular Data Network or an Ethernet network 10/100BaseT to the compatible Sur-Gard System I/II/III/IV/5 receiver.
- Polling time shall be 200 seconds and compromise detection time shall be 6 minutes.
- For Encrypted line security applications, the integral Ethernet communicator or the plug-in cellular modules Models LE9080, 3G9080 or 3H9080 shall have the

Encryption Key enabled (AES128 bit encryption algorithm is validated under NIST Certificate No.5371 and 5372.)

- Wireless Supervision window shall be enabled (refer to Wireless Programming, sections [804]>[802].)
- Open/Closing acknowledgment shall be enabled (Not required for Police Station connected systems.)
- Bell test for police station connect.

### UL Local, Central Station and Police Connect with No Line Security Service

- All zones shall be programmed as end-of-line supervised.
- All intrusion zones shall be programmed as audible.
- The installation shall use a Bell UL Listed for Mercantile local alarms (e.g., Honeywell Model AB-12M bell housing). Connections from the control unit to the bell shall be made in conduit. (Optional for central Station).
- The Bell shall be tested daily. Alternate option is to have bell squawk enabled for arming/disarming. The Bell activation cannot be delayed for more than 5 mins.
- The bell timeout shall be programmed for 15 minutes minimum.
- At least one system remote keypad with tamper switch shall be employed
- The integral communicator (DACT/IP) or plug-in cellular module shall be enabled and shall be programmed to provide a low battery transmission.
- The control panel shall be in a separately listed HSC3030CAR attack resistant enclosure.
- The maximum entry delay time shall not exceed 45s (25s for a local) as a result of the attack test. The maximum exit delay time shall not exceed 60 s.
- A tamper switch shall be used to protect the enclosure cover of the control unit. A tamper switch shall also be used on the keypad rear to detect removal from the wall.
- 24 h check in transmission shall be enabled.
- Open/Closing acknowledgement enabled.(Not Police Station).
- The installation shall use the internal communicator (DACT or IP) alone or in conjunction with plug-in cellular modules Models LE9080, 3G9080 or 3H9080, which communicate over Cellular Data Network or an Ethernet network 10/100BaseT to the compatible Sur-Gard System I/II/III/IV/5 receiver.

### UL Home Health Care Signaling Equipment

- There must be at least two keypads, one of the compatible keypads models HS2LCDPRO, HS2LCDRFP90, HS2LCDWFP90, HS2LCDWFV90, HS2TCHPRO(BLK).
- Each system shall be programmed to activate an audible Trouble signal within 90 seconds upon loss of microprocessor memory

### ULC Central Station Fire and Burglary Monitoring Installations

- For installation requirements, levels of security, communication modules and configurations (Refer to the ULC Installation Guide for PowerSeries Pro, P/N #29010346).
- HS2TCHPRO(BLK) touch screen keypad is for supplementary use only with ULC Commercial Fire Monitoring.
- For Commercial Fire monitoring, the primary power failure transmission may be delayed up to 3h and Bell shall be disabled.

**Note:** As per ULC Bulletin 2017-02A, ULC Fire and Security Systems Group is accepting the use of MFVN digital telephone services for connection of digital dialer transmitters ULC listed to be connected to the public switched telephone network communication system. Since the MFVN communication channel technologies available are not provided with 24 hour standby power on the equipment and facilities used between the premises and the signal receiving center, it is required that, for passive communication channels used in monitored protective signaling system installations, the testing time of the passive communication channels should be reduced from the current 24 hours to 6 hours to better ensure that the system and communication channels are operating in their intended manner to reduce the life safety risk. A change in testing frequency for intrusion alarm systems is not required due to the many different levels of line security options available for these system types, which should be applied based on communication supervision needs for each installation.

For PowerSeries Pro panels, the following programming options shall be adjusted to meet the new 6 hour test transmission when used in ULC-S561 compliant installations:

- Section [022] turn option 4 ON for hours.
- Section [377] option [003] set to 006 (for 6 hours).
- Section [309] option [002] enable test transmission for all applicable receivers.

### Programming

The notes in the programming sections of thePowerSeries Pro Reference Manual describing the system configurations for UL/ULC listed installations shall be implemented.

### Control of the Protected Premises

In order to have a UL certificated system, the protected area shall be under the responsibility of one ownership and management (i.e., one business under one name). This may be a group of buildings attached or unattached with different addresses but

under the responsibility of someone having mutual interest. The person of mutual interest is not the alarm-installing company.

**Note:** This does not apply to strip mall applications where each independent business must have their own separate alarm system.

e.g.,1: A commercial partitioned system that has an office and a warehouse area in a building where each area can be armed or disarmed independently. e.g.,2: A residential system partitioned so that the garage area is armed separately from the house.

Each of the above examples is under the sole responsibility of a single owner. The bell and DACT power supply must be in a protected area including partitioned systems. The bell and DACT power supply must be located where it can be heard by the person or persons responsible for maintaining the security system during the daily arming cycle.

### **Bell Location**

The alarm sounding device (bell) shall be located where it can be heard by the person operating the security system during the daily arming and disarming cycle.

### **Protection of the Control Unit**

The local control unit and the local power supply must be protected in one of the following ways:

- The control unit and audible alarm device must be in a protected area which is armed 24 hours a day.
- Each partition must arm the area protecting the control unit and the audible alarm device power supply. This may require duplicate protection armed by each partition. Access to this protected area, without causing an alarm, will require that all partitions be disarmed.
- In all cases described above, the protected area for the control unit must be programmed as not-bypassable.

### **Casual Users**

The installer should caution the user not to give system information (e.g., codes, bypass methods, etc.) to casual users (e.g., service people) and to only give out One-Time Use codes.

### **User Information**

The installer should advise the user and note in the User's Manual:

- Service organization name and telephone number
- The programmed exit and entry time
- Instructions to test system weekly
- Note that the installer code cannot arm or disarm the system

## Aux loading and battery selection

HS3128/HS3032/ HS3248 PCB current draw = 120 mA Alarm current = 700 mA	UL Resi Burg ULC Resi Burg	UL Com Burg	UL Resi Fire UL Home Health Care ULC Resi Fire ULC Com Burg	UL Resi Fire with wired CO Detectors UL985 6th Ed	ULC COM Fire Monitoring	EN50131 Grade 2	EN50131 Grade 3
<b>Standby Time and Alarm Time</b>	4 h + 4 min 4 h + 5 min	4 h + 15 min	24 h + 4 min 24 h + 5 min 24 h + 4 min	24 h + 4 min + 12 h CO alarm	24 h + 30 min	12 h	30 h (AC fail transmission required) 60 h
<b>Enclosure</b>	HSC3010C	HSC3030CAR	HSC3010C	HSC3010C	HSC3010CR	HSC3020C	HSC3020C
<b>Power Supply Adapter</b>	HS65WPSNA	HS65WPSNA	HS65WPSNA HS65WPSNAS (ULC CB Security Level 4) (Require high voltage barrier kit)	HS65WPSNA	HS65WPSNAS	HS65WPS	HS65WPS
<b>Battery capacity /max loading</b>	4 Ah/700 mA 7 Ah/1200 mA 14 Ah/2000 mA 17 Ah/2000 mA	4 Ah/700 mA 7 Ah/1200 mA 14 Ah/2000 mA 17 Ah/2000 mA	7 Ah/250 mA 14 Ah/500 mA 17 Ah/600 mA	14 Ah/330 mA 17 Ah/400 mA	14 Ah/500 mA 17 Ah/600 mA	17 Ah/ 1200 mA	17 Ah/500 mA 17 Ah/250 mA
<b>Recharging current setting</b>	Low (400 mA) for 4 Ah/High (700 mA)	Low (400 mA) for 4Ah/High (700 mA)	High (700 mA)	High (700 mA)	High (700 mA)	Low (400 mA)	High (700mA)

**Note:** For NFA2P 2 shield installations, use 18 Ah batteries and 450 mA load for 36-hour standby. For NFA2P 3 shield installations, use 18 Ah batteries and the same loadings as for EN50131 Grade 3 in the table above.

## EUROPEAN EN50131 COMPLIANCE STATEMENT

This Product (HS3032/HS3128/HS3248) meets the requirements of Grade 3, Class II equipment as per EN50131-1:2006 + A1:2009 + A2:2017 Standards. The Model HS3032, HS3128, HS3248 Control Panel has been certified by Telefication according to EN50131-1: 2006 +A1:2009+A2:2017, EN50131-3:2009 Type B, EN50131-6:2017 Type A, EN50131-10, EN50136-2:2013 ATS SP3 (dialer), SP4 (Ethernet), DP2 (dialer and Ethernet), DP3 (Ethernet and plug-in cellular) when installed in enclosure models HSC3020C or HSC3020CP.

**Note:** The Model HS3032P, HS3128P, HS3248P consisting of Control Panel board assembly HS3032, HS3128, HS3248 with HSM2HOST8 Wireless Transceiver mounted in the HSC3020CP plastic enclosure meets the requirements of Grade 2, Class II equipment as per EN50131-1:2006 + A1:2009 + A2:2017 Standards. The model HS3032P, HS3128P, HS3248P has been certified by Telefication according to EN50131-1: 2006 +A1:2009+A2:2017, EN50131-3:2009 Type B, EN50131-6:2017 Type A, EN50131-10, EN50136-2:2013 Grade 2, Class II, ATS SP3 (dialer), SP4 (Ethernet), DP2 (dialer and Ethernet), DP3 (Ethernet and plug-in cellular) when installed in enclosure models HSC3020CP.

This product is suitable for use in systems with the following notification options:

- A - use of two remotely powered warning devices and one ATS SP3 required (internal dialer or ethernet or plug-in cellular module)
- B - use of one self-powered warning device and one ATS SP3 required (internal dialer or ethernet or plug-in cellular module)
- C - use of dual path ATS DP2 required (any combination of internal dialer and ethernet and/or cellular module)
- D - use of an ATS SP4 required (internal ethernet or plug-in cellular module with encryption enabled)
- E - use of dual path ATS DP3 required (combination of internal ethernet and plug-in cellular module with encryption enabled)

For EN50131 compliant installations, with alarm control panels HS3248, HS3128 and HS3032, only the intrusion portion of the alarm system may be activated.

For EN50131 compliant installations, the following functions must be disabled:

- Fire Alarm
- CO Alarm
- Auxiliary (Medical) Alarm functions
- In Section 861-21, options 1 and 2 must be off.

For EN50131 compliant installations, the following zone types must not be used:

007 – Delayed 24-Hour Fire	041 – 24-Hour CO	049 – 24-Hour Flood
008 – Standard 24-Hour Fire	045 – 24-Hour Heat	052 – 24-Hour Non-Alarm
025 – Auto Verified Fire	046 – 24-Hour Medical	056 – 24-Hour High Temperature
027 – Fire Supervisory	047 – 24-Hour Emergency	057 – 24 Hour Low Temperature
040 – 24-Hour Gas	048 – 24-Hour Sprinkler*	071 – Door Bell

In this configuration, no non-mandatory events are generated in the Event Buffer and compliance with minimum 500 mandatory events storage (Grade 3) is ensured as per Section 8.10.1 in EN50131-3. Compliance labeling should be removed or adjusted if non-compliant configurations are selected.

**Notes for EN50136-1:2012 compliant installations - Applicable to integrated phone line and Ethernet communicator only.**

The communicator operates in pass-through mode and it does acknowledge the alarm to the compatible control panel after an acknowledgement has been received from the compatible alarm receiver.

1. The integrated communicator is monitored by the control panel and is programmed via the menu available from the compatible keypad connected to the alarm control panel HS3248, HS3128, HS3023.
2. The communication path is immune to conducted and radiated RF fields, with levels up to 10V/m as tested per EN50130-4 Standard.
3. The control panel with integrated communication module conforms with radiated emissions levels for Class B equipment as per standards EN61000-6-3/EN55032/CISPR32.
4. The control panel has two integrated communication paths: Phone line dialer and Ethernet (IP) communication path. These can be used in an ATS with the following categories:
  - Single Path mode SP3 (Phone line dialer) or SP4 (IP path), or
  - Dual Path mode DP2 integrated Ethernet (IP) path in conjunction with the compatible control panel HS3248/HS3128/HS3032 integrated PSTN communicator, or
  - Dual Path DP3 integrated Ethernet (IP) path in conjunction with the plug-in cellular module 3G9080-EU or GS9080.
5. The integrated Ethernet (IP) communication path uses sequential authentication for substitution security and encryption AES128 bit for information security. The AES128-bit key is validated by NIST, Certificate No. 5371.
6. The integrated communicators have been tested for compliance in conjunction with the following applicable standards: EN50136-1:2012, EN50136-2:2013, EN50131-10:2014, Grade 3, Class II, ATS configuration: SP3, DP2, DP3. For EN50131-1:2006/A1:2009 /A2:2017 compliant installations, the following programming options must be set as described: Supervision heartbeat set to 180 seconds for SP4 and DP3 configuration, along with the ARC receiver supervision window set to 180 seconds. For DP2 configuration, the supervision must be set to 30 minutes.

This product is in conformity with the Electromagnetic Compatibility Directive 2014/30/EU, the Low Voltage Directive 2014/35/EU, and the RoHS3 Directive (EU) 2015/863.

The product is labelled with the CE mark as proof of compliance with the above mentioned European Directives. Also, a CE declaration of conformity (DoC) for this product can be found at [www.dsc.com](http://www.dsc.com) under the Agency Listings section.

**SIA False Alarm Reduction Installations: Quick Reference**

Minimum required system consists of one Control unit model HS3032, HS3128 or HS3248, and any one of the compatible listed keypads (refer to page 1.).

The following wireless keyfobs can also be used in SIA compatible installations: PG9929, PG9939, PG9949.

**Note:** For models PG9929 and PG9939, the panic/emergency key shall be disabled for SIA compliant installations.

For a list of the default values programmed when the unit is shipped from the factory, and for other programming information, refer to the following table.

The following optional subassembly modules also bear the SIA CP-01-2014 classification and may be used if desired: HSM2108 zone expander, HSM2208 PGM output module, HSM2300 auxiliary power supply, HSM2204 output module, HSM2HOST9 2-way wireless transceiver, PG9901 indoor siren, PG9911 outdoor siren, and LE9080/3G9080/3H9080 cellular and PSDN communication module.

**Caution**

- For SIA FAR installations use only modules/devices that are listed on this page.
- Fire Alarm Verification feature (Auto Verified Fire Zone type [025]) is not supported on 2-wire smoke detectors zones, model FSA-210B(T)(S)(ST)(LST)(R)(RT)(RD)(RST)(LRST). This feature may be enabled for 4-wire smoke detectors only (FSA-410B(T)(S)(ST)(LST)(R)(RT)(RST)(LRST) and wireless detectors PG9916/PG9926). The fire alarm delay is 60s.
- Call Waiting Cancel (Section [382], option 4) on a non-Call Waiting line will prevent successful communication to the supervising station.
- All system smoke detectors must be tested annually by conducting an Installer Walk Test. Prior to exiting Walk Test mode, a sensor reset must be done on the system, [\*][7][2], to reset all latching 4-wire smoke detectors. Refer to the installation instructions supplied with the detector for details.

**Notes**

- Programming at installation may be subordinate to other UL requirements for the intended application.
- Cross zones have the ability to individually protect the intended area (e.g. motion detectors which overlap).
- Cross zoning is not recommended for line security Installations nor is it to be implemented on exit/entry zones.
- This control panel has a communication delay of 30 seconds. It can be removed or increased up to 45 seconds by the end user with installer consultation.
- The system shall be installed with the sounding device activated and the communicator enabled for transmission using SIA or CID format.
- ULC commercial burglary installations require DEOL resistors.

Table 2-1 SIA quick reference

SIA Feature Programming Section	Comments	Range/Default	Requirement
Exit Time [005]>[001], option 3	Access to Entry and Exit delays and Bell Time Out for the system.	Range:45- 255 seconds Default: 60 sec.	Required (programmable)
Exit Delay Restart [018], option 7	Opening a Delay zone door after it has already been opened and closed during an exit delay restarts the exit delay timer.	Default: Enabled	Required
Auto Stay Arm on Un-vacated Premises [001]>[001]-[248] Zone type 05, 06,09	Function key: Forces the system to arm in Stay mode if the occupant does not exit the premises after pressing the Away function key.	If no exit after full arm Default: Enabled	Required
Exit Time and Progress Annunciation/Disable or Remote Arming [861]>[001]-[005], option 4	System times and audible exit beeps can be disabled when using the wireless key to stay arm the system. When away arming, audible exit beeps can not be disabled. For remote arming (using keyfob), it is possible to program the instant stay arm (no exit delay). By default this option is OFF. When arming/disarming with keyfob the bell squawk option shall be enabled. The Bell shall be tested daily. Alternate option is to have bell squawk enabled for arming/disarming	Default: Enabled	Allowed
Entry delay(s) [005]>[001]-[008], options 1 and 2	Access to entry and exit delays and bell time out for the system Note: Combined entry delay and communications delay (abort window) shall not exceed 60s.	Range: 30 sec. to 4 min. Default: 30 sec.	Required (programmable)
Abort Window for Non-Fire zones [002]>[001]-[248], option 7 ON	Access to zone attributes, i.e., swinger shutdown, transmission delay and cross zone. May be disabled by zone or zone type.	Default: Enabled	Required
Abort Window Time - for Non-Fire zones [377]>[002], option 1	Access to the programmable delay before communicating alarms Note: Combined entry delay and communications delay (abort window) shall not exceed 60 seconds.	Range: 00 - 45 sec. Default: 30 sees	Required (programmable)
Abort Annunciation	An audible tone is generated when an alarm is aborted during the abort window.	Hard-coded ON	Required
Duress Feature [*][5]> master code> user 2-95> 5> 2	When this feature is enabled, selected user codes send a duress reporting code to the central station when used to perform any function on the system. Section [019], option [6] must be enabled.	Default: N	Required
Cancel Window [377]>[002], option 6	Access to the communications cancel window. Minimum duration must be 5 minutes.	Range: 005-255 Default: 005	
Cancel Annunciation [308]>[001], option 8	Access to the reporting code for Alarm Canceled.	A Cancel was transmitted Default: Enabled	Required
Cross Zoning [042]>Selection 3, option 002	Enables cross zoning for entire system. Zones can be enabled for cross zoning via zone attribute option 8 in sections [002][101] - [248].	Programming required Default: Disabled	Required
Burglary Verification Timer [005]>[000], option 3	Access to the programmable Cross Zone timer.	Range: 000-255 sec. Default: 60 seconds	Allowed
Swinger Shutdown for Alarms [377]>[001], option 1	Access to the swinger shutdown limit for zone alarms. For all non-fire zones, shut down at 1 to 6 trips.	Default: 2 trips	Required (programmable)
Swinger Shutdown Enable [002]>[001] - [248], option 6 ON	Access to swinger shutdown, transmission delay and cross zone attributes. Zone attribute option 6 (Swinger Shutdown enabled) is ON.	Non-police response zones Default: Enabled	Allowed
24-Hr. Auto-verified Fire [001]>[001]-[248], Zone type 025 ON	Access to 24-Hr. Auto-verified Fire. Activates if Not restored within the specified time.	Must choose zone type for application	Required
Call Waiting Cancel [382], option 4 OFF	Access to the dialing sequence used to disable call waiting. Call waiting string can be programmed in [304].	Depends on user phone line Default: Disabled	Required
System Test: [*][6] Master Code, option 04	The system activates all keypad sounders, bells or sirens for 2 seconds and all keypad lights turn on. Refer to user manual.		
Walk Test Mode: [*][8][Installer code][901]	This mode is used to test each zone on the system for proper functionality.		
Walk Test Communications [382], option 2	Enables communication of zone alarms while walk test is active.	Default: Disabled	
Walk Test Start/ End Reporting Codes [308][401], options 1 and 2	Access to the reporting codes for walk test start and end times.		
Duress Code	Duress codes function the same as user access codes, except they transmit a duress reporting code when used to perform any function on the system. Duress codes cannot be used to access [*][5], [*][6] or [*][8] menus. Duress codes are created by the master user or supervisor users		

### Limited Warranty

Digital Security Controls warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original purchaser must promptly notify Digital Security Controls in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period. There is absolutely no warranty on software and all software products are sold as a user license under the terms of the software license agreement included with the product. The Customer assumes all responsibility for the proper selection, installation, operation and maintenance of any products purchased from DSC. Custom products are only warranted to the extent that they do not function upon delivery. In such cases, DSC can replace or credit at its option.

### International Warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls shall not be responsible for any customs fees, taxes, or VAT that may be due.

### Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

### Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

- damage incurred in shipping or handling;
- damage caused by disaster such as fire, flood, wind, earthquake or lightning;
- damage due to causes beyond the control of Digital Security Controls such as excessive voltage, mechanical shock or water damage;
- damage caused by unauthorized attachment, alterations, modifications or foreign objects;
- damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls Ltd.);
- defects caused by failure to provide a suitable installation environment for the products;
- damage caused by use of the products for purposes other than those for which it was designed;
- damage from improper maintenance;
- damage arising out of any other abuse, mishandling or improper application of the products.

### Items Not Covered by Warranty

In addition to the items which void the Warranty, the following items shall not be covered by Warranty: (i) freight cost to the repair centre; (ii) products which are not identified with DSC's product label and lot number or serial number; (iii) products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection or testing to verify any warranty claim. Access cards or tags returned for

replacement under warranty will be credited or replaced at DSC's option. Products not covered by this warranty, or otherwise out of warranty due to age, misuse, or damage shall be evaluated, and a repair estimate shall be provided. No repair work will be performed until a valid purchase order is received from the Customer and a Return Merchandise Authorization number (RMA) is issued by DSC's Customer Service.

Digital Security Controls Ltd.'s liability for failure to repair the product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property. The laws of some jurisdictions limit or do not allow the disclaimer of consequential damages. If the laws of such a jurisdiction apply to any claim by or against DSC, the limitations and disclaimers contained here shall be to the greatest extent permitted by law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so that the above may not apply to you.

### Disclaimer of Warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) and of all other obligations or liabilities on the part of Digital Security Controls. Digital Security Controls neither assumes responsibility for, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product. This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.

**WARNING:** Digital Security Controls recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

### Out of Warranty Repairs

Digital Security Controls will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls must first obtain an authorization number. Digital Security Controls will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls determines to be repairable will be repaired and returned. A set fee which Digital Security Controls has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

### WARNING - READ CAREFULLY

#### Note to Installers

This warning contains vital information. As the only individual in contact with system users, it is your responsibility to bring each item in this warning to the attention of the users of this system.

#### System Failures

This system has been carefully designed to be as effective as possible. There are circumstances, however, involving fire, burglary, or other types

of emergencies where it may not provide protection. Any alarm system of any type may be compromised deliberately or may fail to operate as expected for a variety of reasons. Some but not all of these reasons may be:

#### **Inadequate Installation**

A security system must be installed properly in order to provide adequate protection. Every installation should be evaluated by a security professional to ensure that all access points and areas are covered. Locks and latches on windows and doors must be secure and operate as intended. Windows, doors, walls, ceilings and other building materials must be of sufficient strength and construction to provide the level of protection expected. A reevaluation must be done during and after any construction activity. An evaluation by the fire and/or police department is highly recommended if this service is available.

#### **Criminal Knowledge**

This system contains security features which were known to be effective at the time of manufacture. It is possible for persons with criminal intent to develop techniques which reduce the effectiveness of these features. It is important that a security system be reviewed periodically to ensure that its features remain effective and that it be updated or replaced if it is found that it does not provide the protection expected.

#### **Access by Intruders**

Intruders may enter through an unprotected access point, circumvent a sensing device, evade detection by moving through an area of insufficient coverage, disconnect a warning device, or interfere with or prevent the proper operation of the system.

#### **Power Failure**

Control units, intrusion detectors, smoke detectors and many other security devices require an adequate power supply for proper operation. If a device operates from batteries, it is possible for the batteries to fail. Even if the batteries have not failed, they must be charged, in good condition and installed correctly. If a device operates only by AC power, any interruption, however brief, will render that device inoperative while it does not have power. Power interruptions of any length are often accompanied by voltage fluctuations which may damage electronic equipment such as a security system. After a power interruption has occurred, immediately conduct a complete system test to ensure that the system operates as intended.

#### **Failure of Replaceable Batteries**

This system's wireless transmitters have been designed to provide several years of battery life under normal conditions. The expected battery life is a function of the device environment, usage and type. Ambient conditions such as high humidity, high or low temperatures, or large temperature fluctuations may reduce the expected battery life. While each transmitting device has a low battery monitor which identifies when the batteries need to be replaced, this monitor may fail to operate as expected. Regular testing and maintenance will keep the system in good operating condition.

#### **Compromise of Radio Frequency (Wireless) Devices**

Signals may not reach the receiver under all circumstances which could include metal objects placed on or near the radio path or deliberate jamming or other inadvertent radio signal interference.

#### **System Users**

A user may not be able to operate a panic or emergency switch possibly due to permanent or temporary physical disability, inability to reach the device in time, or unfamiliarity with the correct operation. It is important that all system users be trained in the correct operation of the alarm system and that they know how to respond when the system indicates an alarm.

#### **Smoke Detectors**

Smoke detectors that are a part of this system may not properly alert occupants of a fire for a number of reasons, some of which follow. The smoke detectors may have been improperly installed or positioned. Smoke may not be able to reach the smoke detectors, such as when the fire is in a chimney, walls or roofs, or on the other side of closed doors. Smoke detectors may not detect smoke from fires on another level of the residence or building.

Every fire is different in the amount of smoke produced and the rate of burning. Smoke detectors cannot sense all types of fires equally well. Smoke detectors may not provide timely warning of fires caused by carelessness or safety hazards such as smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches or arson.

Even if the smoke detector operates as intended, there may be circumstances when there is insufficient warning to allow all occupants to escape in time to avoid injury or death.

#### **Motion Detectors**

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbecues, fireplaces, sunlight, steam vents, lighting and so on.

#### **Warning Devices**

Warning devices such as sirens, bells, horns, or strobes may not warn people or waken someone sleeping if there is an intervening wall or door. If warning devices are located on a different level of the residence or premise, then it is less likely that the occupants will be alerted or awakened. Audible warning devices may be interfered with by other noise sources such as stereos, radios, televisions, air conditioners or other appliances, or passing traffic. Audible warning devices, however loud, may not be heard by a hearing-impaired person.

#### **Telephone Lines**

If telephone lines are used to transmit alarms, they may be out of service or busy for certain periods of time. Also an intruder may cut the telephone line or defeat its operation by more sophisticated means which may be difficult to detect.

#### **Insufficient Time**

There may be circumstances when the system will operate as intended, yet the occupants will not be protected from the emergency due to their inability to respond to the warnings in a timely manner. If the system is monitored, the response may not occur in time to protect the occupants or their belongings.

#### **Component Failure**

Although every effort has been made to make this system as reliable as possible, the system may fail to function as intended due to the failure of a component.



### **Inadequate Testing**

Most problems that would prevent an alarm system from operating as intended can be found by regular testing and maintenance. The complete system should be tested weekly and immediately after a break-in, an attempted break-in, a fire, a storm, an earthquake, an accident, or any kind of construction activity inside or outside the premises. The testing should include all sensing devices, keypads, consoles, alarm indicating devices and any other operational devices that are part of the system.

### **Security and Insurance**

Regardless of its capabilities, an alarm system is not a substitute for property or life insurance. An alarm system also is not a substitute for property owners, renters, or other occupants to act prudently to prevent or minimize the harmful effects of an emergency situation.

The trademarks, logos, and service marks displayed on this document are registered in the United States [or other countries]. Any misuse of the trademarks is strictly prohibited and Tyco will aggressively enforce its intellectual property rights to the fullest extent of the law, including pursuit of criminal prosecution wherever necessary. All trademarks not owned by Tyco are the property of their respective owners, and are used with permission or allowed under applicable laws.

Product offerings and specifications are subject to change without notice. Actual products may vary from photos. Not all products include all features. Availability varies by region; contact your sales representative.

© 2018 Tyco Security Products. All Rights Reserved.

Tech Support: 1-800-387-3630 (Canada & U.S.) or 905-760-3000

[www.dsc.com](http://www.dsc.com)



29010135R003