**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**
   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 Keypad**
   
   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**
   
   Enroll [*][8][Installer Code][804] subsection [000]. Note: An HSM2HOST or RF keypad must be enrolled first.

8. **Program**

9. **Test**
   Test the panel completely to ensure that all features and functions operate as programmed. – [901] Walk Test – [904] [000] Wireless Placement Test.

---

**Hardwired Devices**

- 8 low current output expander:
  - HSM2208UL
- 8-zone expander:
  - HSM3408UL
- 1 A Power supply:
  - HSM2500UL
- 3 A Power supply:
  - HSM3300UL
- 4 high current output expander:
  - HSM2204UL
- Audio verification module:
  - HSM9255(R)UL
- Power supply/relay input/Corbus repeater:
  - HSM3204CXUL

**Wireless Devices**

- PowerG wireless short range ceiling mount detector with temperature monitoring:
  - FW-CO12
- PowerG wireless long range ceiling mount detector with temperature monitoring:
  - FW-CO12
- PowerG wireless outdoor curtain PIR:
  - FW-CO12
- PowerG wireless motion detector with optional animal resistance:
  - FW-CO12
- PowerG wireless PIR motion detector with picture monitoring and anti-masking:
  - FW-CO12
- PowerG wireless outdoor PIR motion detector with auxiliary input, temperature monitoring and anti-masking:
  - FW-CO12
- PowerG wireless outdoor PIR motion detector with auxiliary input, temperature monitoring and anti-masking:
  - FW-CO12
- PowerG wireless temperature detector probe extender (requires PGx095):
  - PGx095
- PowerG wireless CO detector (US only):
  - PGx095
- PowerG wireless CO detector with temperature monitoring:
  - PGx095
- PowerG wireless smoke and heat detector:
  - PGx095
- PowerG wireless smoke and heat detector with temperature monitoring:
  - PGx095
- PowerG wireless smoke detector:
  - PGx095
- PowerG wireless indoor siren:
  - PGx095
- PowerG wireless outdoor siren:
  - PGx095
- PowerG wireless repeater:
  - PGx095
- PowerG wireless 1-button panic keyfob:
  - PGx095
- PowerG wireless 2-button panic keyfob:
  - PGx095

---

**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 xxxUL are UL/ULC listed.

**Table 1-1 Compatible Devices**

<table>
<thead>
<tr>
<th>Modules</th>
<th>Wireless keypads:</th>
<th>Hardwired keypads with PG host</th>
<th>Hardwired keypads:</th>
<th>Touchscreen keypad:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HS2LCDWFPROMUL</td>
<td>HS2LCDWFVRDUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2TCHEPROHUL</td>
</tr>
<tr>
<td></td>
<td>HS2LCDWFVRDUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2TCHEPROHUL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS2LCDWFPROMUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2TCHEPROHUL</td>
</tr>
<tr>
<td></td>
<td>HS2LCDWFVRDUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2TCHEPROHUL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS2LCDWFPROMUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2TCHEPROHUL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HS2LCDWFPROMUL</td>
<td>HS2LCDWFPROMUL</td>
<td>HS2TCHEPROHUL</td>
</tr>
</tbody>
</table>

**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.

www.DSC.com/m/29010134 or scan the QR code to the right.
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., bathtubs, kitchen/launderette 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 cannot 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
PowerSeries Pro Installation Guide

(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 HSC3010C, HSC3010CR, HSC3030CAR enclosures.

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

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

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

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.

Terminal descriptions

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

Table 1-2 Terminal descriptions

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAT+, BAT-</td>
<td>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.</td>
</tr>
<tr>
<td>DC +, DC -</td>
<td>The HS65WPS power adapter supplies 18 VDC power input to the alarm controller. Note: For CE/EN certified applications, 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.</td>
</tr>
<tr>
<td>AUX+, AUX-</td>
<td>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.</td>
</tr>
</tbody>
</table>
| 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-.
Note: 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 | 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**

<table>
<thead>
<tr>
<th>Device</th>
<th>Output</th>
<th>Rating (12 V DC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS3032</td>
<td>AUX/Corbus:</td>
<td>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.</td>
</tr>
<tr>
<td>HS3128</td>
<td>BELL:</td>
<td>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.</td>
</tr>
<tr>
<td>HS3248</td>
<td>AUX1:</td>
<td>3 A. Subtract the listed rating for each keypad, expansion module and accessory connected to AUX.</td>
</tr>
<tr>
<td>HSM3350</td>
<td>AUX2:</td>
<td>3 A. Subtract the listed rating for each keypad, expansion module and accessory connected to AUX.</td>
</tr>
<tr>
<td>HSM3408</td>
<td>AUX:</td>
<td>500 mA. Continuous rating. Subtract for each device connected. Subtract the total load on this terminal from the alarm panel AUX/Corbus output.</td>
</tr>
<tr>
<td>HSM3204CX</td>
<td>AUX/Corbus:</td>
<td>2 A. Continuous rating. Subtract for each device connected.</td>
</tr>
<tr>
<td>HSM2208</td>
<td>AUX:</td>
<td>250 mA. Continuous rating. Subtract for each device connected. Subtract the total load on this terminal from the alarm panel AUX/Corbus output.</td>
</tr>
<tr>
<td>HSM2108</td>
<td>AUX:</td>
<td>100 mA. Subtract for each device connected. Subtract the total load on this terminal from the panel AUX/Corbus output.</td>
</tr>
</tbody>
</table>

**Alarm Control Panel**

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

<table>
<thead>
<tr>
<th>Wire Capacitance per 1000 ft</th>
<th>Total Corbus Wire Length (300 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 nF</td>
<td>5300 ft/1616 m</td>
</tr>
<tr>
<td>20 nF</td>
<td>4000 ft/1220 m</td>
</tr>
<tr>
<td>25 nF</td>
<td>3200 ft/976 m</td>
</tr>
<tr>
<td>30 nF</td>
<td>2666 ft/810 m</td>
</tr>
<tr>
<td>35 nF</td>
<td>2280 ft/693 m</td>
</tr>
<tr>
<td>40 nF</td>
<td>2000 ft/608 m</td>
</tr>
</tbody>
</table>
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 HS65WPSNA, 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
- [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>
<thead>
<tr>
<th>Wire gauge</th>
<th>Maximum length to EOL resistor (ft/meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>3000 / 914</td>
</tr>
<tr>
<td>20</td>
<td>4900 / 1493</td>
</tr>
<tr>
<td>19</td>
<td>6200 / 1889</td>
</tr>
</tbody>
</table>

Table 1-5 Burglary zone wiring chart

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.
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.

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

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

**Bell wiring**

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.

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.

**Telephone format**

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

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
**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**

![Diagram](image)

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

**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][00].

**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**

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template programming</td>
<td>Use pre-defined templates to quickly apply basic programming and to set up DLS downloading.</td>
<td>Press [899] at the “Enter Section” screen. See Template Programming below for details.</td>
</tr>
<tr>
<td>DLS programming</td>
<td>Download and apply programming using DLS 5</td>
<td>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.</td>
</tr>
<tr>
<td>Installer programming</td>
<td>Manually program all alarm system and device options.</td>
<td>Press [*][8][installer code] while the system is disarmed.</td>
</tr>
</tbody>
</table>

**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>
<thead>
<tr>
<th>Code</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>English</td>
</tr>
<tr>
<td>02</td>
<td>Spanish</td>
</tr>
<tr>
<td>03</td>
<td>Portuguese</td>
</tr>
<tr>
<td>04</td>
<td>French</td>
</tr>
<tr>
<td>05</td>
<td>Italian</td>
</tr>
<tr>
<td>06</td>
<td>Dutch</td>
</tr>
<tr>
<td>07</td>
<td>Polish</td>
</tr>
<tr>
<td>08</td>
<td>Czech</td>
</tr>
<tr>
<td>09</td>
<td>Finnish</td>
</tr>
<tr>
<td>10</td>
<td>German</td>
</tr>
<tr>
<td>11</td>
<td>Swedish</td>
</tr>
<tr>
<td>12</td>
<td>Norwegian</td>
</tr>
<tr>
<td>13</td>
<td>Danish</td>
</tr>
<tr>
<td>14</td>
<td>Hebrew</td>
</tr>
<tr>
<td>15</td>
<td>Greek</td>
</tr>
<tr>
<td>16</td>
<td>Turkish</td>
</tr>
<tr>
<td>17</td>
<td>Croatian</td>
</tr>
<tr>
<td>18</td>
<td>Ukrainian</td>
</tr>
<tr>
<td>19</td>
<td>Hungarian</td>
</tr>
<tr>
<td>20</td>
<td>Romanian</td>
</tr>
<tr>
<td>21</td>
<td>Russian</td>
</tr>
<tr>
<td>22</td>
<td>Bulgarian</td>
</tr>
<tr>
<td>23</td>
<td>Latvian</td>
</tr>
<tr>
<td>24</td>
<td>Lithuanian</td>
</tr>
<tr>
<td>25</td>
<td>Ukrainian</td>
</tr>
<tr>
<td>26</td>
<td>Slovakian</td>
</tr>
<tr>
<td>27</td>
<td>Serbian</td>
</tr>
<tr>
<td>28</td>
<td>Estonian</td>
</tr>
<tr>
<td>29</td>
<td>Slovenian</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Code</th>
<th>Zone Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Null Zone</td>
</tr>
<tr>
<td>001</td>
<td>Delay 1</td>
</tr>
<tr>
<td>002</td>
<td>Delay 2</td>
</tr>
<tr>
<td>003</td>
<td>Delay Instant</td>
</tr>
<tr>
<td>004</td>
<td>Delay Interior</td>
</tr>
<tr>
<td>005</td>
<td>Delay Interior Stay/Away</td>
</tr>
<tr>
<td>006</td>
<td>Delay Stay/Away</td>
</tr>
<tr>
<td>007</td>
<td>Delay 24-Hour Fire</td>
</tr>
<tr>
<td>008</td>
<td>Standard 24-Hour Fire</td>
</tr>
<tr>
<td>009</td>
<td>Instant Stay/Away</td>
</tr>
<tr>
<td>010</td>
<td>Delay Interior Delay 0</td>
</tr>
<tr>
<td>011</td>
<td>Delay Night Zone</td>
</tr>
<tr>
<td>012</td>
<td>Delay Final Door Set</td>
</tr>
<tr>
<td>017</td>
<td>Delay 24-Hour Burglary</td>
</tr>
<tr>
<td>018</td>
<td>Delay 24-Hour Bell/Buzzer</td>
</tr>
<tr>
<td>023</td>
<td>Delay Supervisory</td>
</tr>
<tr>
<td>024</td>
<td>Delay Supervisory Buzzier</td>
</tr>
<tr>
<td>025</td>
<td>Auto Verified Fire</td>
</tr>
<tr>
<td>027</td>
<td>Fire Supervisory</td>
</tr>
<tr>
<td>028</td>
<td>Door Bell</td>
</tr>
<tr>
<td>029</td>
<td>Push to Set</td>
</tr>
</tbody>
</table>

**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:
Troubleshooting

Event Buffer, press [*][6][MasterCode][*].

Label, access codenumber or any other pertinent information. To view the event buffer:
- Press [*][6][MasterCode][*]. Each event displays the time and date, a description of the event, and a zone beginning with the most recent. The event buffer can be uploaded using a Testing the system

Alarm System and the central station.

This section is used to select the path of communications between the panel and the central monitoring station. The alternate communicator communicates via 2G, 3G, LTE or Ethernet.

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.

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 timestamp, 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

<table>
<thead>
<tr>
<th>Trouble 01 - Service Required:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[01] Bell Circuit Trouble: The bell circuit is open</td>
</tr>
<tr>
<td>[02] RF Jam: The HSM2HOSTx has detected an RF Jam condition</td>
</tr>
<tr>
<td>[03] Loss of Clock: System time and date require programming</td>
</tr>
<tr>
<td>[04] Output 1 Fault: An HSM2204 module has detected an open condition on output #1</td>
</tr>
<tr>
<td>[05] Warm Start: Warm restart has occurred</td>
</tr>
<tr>
<td>[06] USB Wi-Fi Connected: USB Wi-Fi adapter is detected</td>
</tr>
<tr>
<td>[07] Power Unit Failure (System): Failure detected with internal power unit.</td>
</tr>
<tr>
<td>[08] Failure detected with internal power unit (HSM3204CX Corbus Repeater)</td>
</tr>
<tr>
<td>[09] Failure detected with internal power unit (HSM3350 3 A Power Supply)</td>
</tr>
<tr>
<td>[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.</td>
</tr>
<tr>
<td>Note: Total current does not include bell current or battery charging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trouble 02 – Battery Trouble:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[01] Panel Low Battery Trouble: The battery voltage is low</td>
</tr>
<tr>
<td>[02] Panel No Battery: No battery connected to alarm controller.</td>
</tr>
<tr>
<td>[04] HSM2204 01 - 04 Low Battery: An HSM2204 has a low battery voltage</td>
</tr>
<tr>
<td>[05] HSM2204 01 - 04 No Battery: No battery connected to HSM2204.</td>
</tr>
<tr>
<td>[07] HSM2300 01 - 04 Low Battery: An HSM2300 has a low battery voltage</td>
</tr>
<tr>
<td>[08] HSM2300 01 - 04 No Battery: No battery connected to HSM2300.</td>
</tr>
<tr>
<td>[10] HSM3204CX Low Battery: A Corbus repeater has a low battery voltage</td>
</tr>
<tr>
<td>[11] HSM3204CX No Battery: No battery connected to corbus repeater</td>
</tr>
<tr>
<td>[13] HSM3350 Low Battery 1: A 3 A power supply module has a low battery voltage</td>
</tr>
<tr>
<td>[14] HSM3350 Low Battery 2: A 3 A power supply module has a low battery voltage</td>
</tr>
<tr>
<td>[15] HSM3350 No Battery 1: No battery connected to 3A power supply module</td>
</tr>
<tr>
<td>[16] HSM3350 No Battery 2: No battery connected to 3A power supply module</td>
</tr>
</tbody>
</table>
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.
[03] HSM2108 01 - 30 Bus Low Voltage: A zone expander has a low bus voltage.
[04] HSM2300 01 - 04 Bus Low Voltage: A power supply has a low bus voltage.
[05] HSM2204 01 - 04 Bus Low Voltage: A high current output module has a low bus voltage.
[06] Bus Fault (System): Panel Corbus Output voltage is too high or too low.
[07] HSM2208 01 - 16 Bus Low Voltage: The low current output module has detected a low voltage.
[08] HSM2955 Bus Low Voltage: The audio module has detected a low bus voltage.
[09] HSM3408 Bus Low Voltage: The 8 zone expander has detected a low bus voltage.
[10] HSM3204CX Bus Low Voltage: The corbus repeater has detected a low bus voltage.
[11] HSM3204CX Bus Fault: The corbus repeater has detected that the corbus output voltage is too high or too low.
[12] HSM3350 Bus Low Voltage: The 3A 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 module has a low bus voltage.

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).
[05] Device Mask: A detection mechanism on the sensor is masked.
[06] Gas Trouble: A gas sensor is in fault.
[07] Heat Trouble: A temperature sensor is in fault or a temperature reaches the high temperature warning threshold.
[08] CO Trouble: A CO sensor is in fault.
[09] Freeze Trouble: A temperature sensor falls below the low temperature warning threshold.
[10] Probe Disconn.: The probe on the flood detector or the temperature detector is disconnected.

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.
[03] HSM2108 01 - 30 not responding.
[04] HSM2300 01 - 04 not responding.
[05] HSM2204 01 - 04 not responding.
[06] HSM2208 01 - 16 not responding.
[07] HSM2955 not responding.
[08] HSM3408 not responding.
[09] HSM3204CX not responding.

Trouble 10 – Module Tamper:

[01] HSM2HOSTx Tamper.
[03] HSM2108 01 - 30 Tamper.
[04] HSM2300 01 - 04 Tamper.
[05] HSM2204 01 - 04 Tamper.
[06] HSM2208 01 - 16 Tamper.
[07] HSM2955 Tamper.
[08] Alt Comm Tamper.
[09] HSM3408 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.
[03] Alt. Comm Cellular: Radio or SIM card failure, low signal strength detected, or cellular network fault.
[04] 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.
[05] Receiver 01-04 Trouble: Alternate communicator unable to initialize a receiver.
[06] Receiver 01-04 Supervision: Alternate communicator unable to communicate with a receiver.
[08] 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.

**Note:** Version number can be accessed by entering [*] [InstallerCode] [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.

**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]** HSM2304CX: 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 [*] [InstallerCode] [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.).

**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 VDC, 3.6 A Limited Power Source (LPS)
- Model HS65WPS mounted in the same enclosure or outside, cord connected
- Model HS65WPS mounted in the same enclosure, permanently connected

**Power Supply - International**

- Primary: 100-240 VAC, 50 Hz, 1.7 A, Energy Efficiency Class VI
- Secondary: 18 VDC, 3.6 A, LPS
- Mounted in the same enclosure, permanently connected

**Memory**

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

**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.

**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

**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 overcurrent 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 DC
- 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 V DC.

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, H9080, 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.
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 3A 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 Buzzer
  024 – 24-Hour Supervisory
  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 Keypad Switch Arm
  067 – Maintained Keypad Switch Arm
  068 – Momentary Keypad Switch Disarm
  069 – Maintained Keypad Switch 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
16 – Final Door Set
17 – 24-Hour Burglary
18 – 24-Hour Bell/Buzzer
23 – 24-Hour Supervisory Buzzer
24 – 24-Hour Supervisory
25 – Auto Verify Fire
27 – Fire Supervisory
40 – 24-Hour Gas
41 – 24-Hour CO
42 – 24-Hour Holdup
43 – 24-Hour Panic
45 – 24-Hour Heat
46 – 24-Hour Medical*
47 – 24-Hour Emergency
48 – 24-Hour Sprinkler
49 – 24-Hour Flood
51 – 24-Hour Latching Tamper
52 – 24-Hour Non-Alarm
56 – 24-Hour High Temperature
57 – 24 Hour Low Temperature
60 – 24-Hour Non-Latching Tamper
61 – 24-Hour Masking
66 – Momentary Keypad Switch Arm
67 – Maintained Keypad Switch Arm
68 – Momentary Keypad Switch Disarm
69 – Maintained Keypad Switch Disarm
71 – Doorbell Zone
72 – Push to Set

**PGM Programming**

**001-004 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
1-8 – Partition 1-8

**005 PGM Types**

001-324 – PGM 1-324 Assignment (default: partition 1)
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

**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)

**String**

077 – PGM Programming

000 – Main Bell Partition Assignment
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 Blankling 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
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 – Keystore Disarming During Entry Delay
7 – Installer Access and DLS
8 – Trouble Inhibits Arming

041 Access Code Digits
000 – 4-Digit Access Codes ✔
001 – 6-Digit Access Codes
002 – 8-Digit Access Codes

042 Event Verification
01 – Burglary Verified Counter (002)
02 – Holdup Counter (002)

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

300 Panel/Receiver Communications Path
001 – 004 Receiver 1-4
001 – Phone Line ✔
002 – Alt Comm Auto Routing
003 – Alt Comm Receiver 1 - Ethernet 1
004 – Alt Comm Receiver 2 - Ethernet 2
005 – Alt Comm Receiver 3 - Cellular 1
006 – 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
002 – Opening After Alarm ✔
003 – Recent Closing Alarm ✔
04 – Zone Expander Supervisory Alarm ✔

002 – 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
030 – Zn 241-248

309 Keypad Access
001 – Public Access
002 – User Access
003 – Panic Access
004 – Keyswitch Access
005 – Keypad Entry
006 – Keypad Blank
007 – Keypad Blank

310 Keypad Action
01 – Panel Operation
02 – User Code
03 – Panic Code
04 – Keyswitch Code
05 – Keypad Blank

021 – Fire Alarms 1
03 – PGM 2 2-Wire Alarm ✔
04 – PGM 2 2-Wire Restore ✔

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 ✔

010 – 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 ✔
05 – 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
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 Troublem ✔
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 ✔

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 ✔

333 – 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 – Alternate Comm. Network Fault Restore ✔
05 – Alternate Comm. Ethernet ✔
06 – Alternate 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 ✔

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 ✔

356 – 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 ✔

Communications
309 System Call Direction
001 – Maintenance Events
01 – Receiver 1 ✔
02 – Receiver 2
03 – Receiver 3
04 – Receiver 4

002 – Test Transmission Events
01 – Receiver 1 ✔
02 – Receiver 2
03 – Receiver 3
04 – Receiver 4

310 Account Codes
000 – System Account Code (FFFF)
001-008 – Partition 1-8 Account Code (FFFF)

311-318 Partition 1-8 Call Direction
001 – Partition Burglary Alarm/Restore Call Direction
01 – Receiver 1 ✔

380 Communicator Option 1
01 – Communications Enabled ✔
02 – Restore on Bell Timeout ✔
03 – Pulse Dialing ✔
04 – Pulse Dial After 5th Attempt ✔
05 – Parallel Communications ✔
06 – Alternate Dial ✔

*= Default
### 381 Communicator Option 2
- Keypad Ringback
- Bell Ringback
- Closing Confirmation
- Communications Priority

### 382 Communicator Option 3
- Call Waiting Cancel
- ADC Communicator Enable
- AC Failure TX in Hours
- Tamper Limit

### 383 Communicator Option 4
- Phone Number Account Code
- 6-Digit Account Code
- Ethernet Enable
- Cellular Enable
- Communicate FTC Events

### 384 Communicator Backup Options
- Backup Options - Receiver 2
- Backup Options - Receiver 3
- Backup Options - Receiver 4

### 385 Audio Module Talk/Listen Mask
1. Talk/Listen on Phone Number
2. Talk/Listen on Phone Number
3. Talk/Listen on Phone Number
4. Talk/Listen on Phone Number

### 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 (FFFFF)

#### 410 Automatic DLS Options
- Automatic DLS Toggle Options
1. Periodic DLS
2. DLS on Event Buffer 75%
3. DLS On Programming Change
4. Periodic DLS Days (000 days)
5. Delay Call Window (0000)
6. Delay Call Window Start (0000)
7. 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

#### 711-714 Holiday Group 1-4
001 – 009 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

#### 805 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
- Ethernet IP Address
- Ethernet IP Subnet Mask
- Ethernet Gateway IP Address
- Receiver Supervision Interval
- 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

### System Toggle Options 2
- Ethernet Receiver 1 Enabled
- Ethernet Receiver 2 Enabled
- Cellular Receiver 1 Enabled
- Cellular Receiver 4 Enabled
- Reserved
- DLS Over Cellular Enabled
- Network Trouble Suppression
- DNS Server IP 1
- DNS Server IP 2
- 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

= Default
<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020 – Time Zone</td>
<td>Time Zone Setting</td>
</tr>
<tr>
<td>025 – Radio Activation Restore</td>
<td>Restore Options</td>
</tr>
<tr>
<td>026 – Receiver 1 Test</td>
<td>Receiver 1 Test Parameters</td>
</tr>
<tr>
<td>027 – Receiver 2 Test</td>
<td>Receiver 2 Test Parameters</td>
</tr>
<tr>
<td>028 – Receiver 3 Test</td>
<td>Receiver 3 Test Parameters</td>
</tr>
<tr>
<td>029 – Receiver 4 Test</td>
<td>Receiver 4 Test Parameters</td>
</tr>
<tr>
<td>030 – FTC Restore</td>
<td>FTC Restore Options</td>
</tr>
<tr>
<td>095 – DLS SA Incoming Local Port</td>
<td>DLS SA Incoming Local Port Settings</td>
</tr>
<tr>
<td>096 – DLS SA Outgoing Local Port</td>
<td>DLS SA Outgoing Local Port Settings</td>
</tr>
<tr>
<td>101 – Receiver 1 Account Code</td>
<td>Receiver 1 Account Code Settings</td>
</tr>
<tr>
<td>102 – Receiver 1 DNS</td>
<td>Receiver 1 DNS Settings</td>
</tr>
<tr>
<td>103 – Receiver 1 IP Address</td>
<td>Receiver 1 IP Address Settings</td>
</tr>
<tr>
<td>104 – Receiver 1 UDP Remote Port</td>
<td>Receiver 1 UDP Remote Port Settings</td>
</tr>
<tr>
<td>105 – Receiver 1 UDP Local Port</td>
<td>Receiver 1 UDP Local Port Settings</td>
</tr>
<tr>
<td>106 – Receiver 1 Domain Name</td>
<td>Receiver 1 Domain Name Setting</td>
</tr>
<tr>
<td>111 – Receiver 2 Account Code</td>
<td>Receiver 2 Account Code Settings</td>
</tr>
<tr>
<td>112 – Receiver 2 DNS</td>
<td>Receiver 2 DNS Settings</td>
</tr>
<tr>
<td>113 – Receiver 2 IP Address</td>
<td>Receiver 2 IP Address Settings</td>
</tr>
<tr>
<td>114 – Receiver 2 UDP Remote Port</td>
<td>Receiver 2 UDP Remote Port Settings</td>
</tr>
<tr>
<td>115 – Receiver 2 UDP Local Port</td>
<td>Receiver 2 UDP Local Port Settings</td>
</tr>
<tr>
<td>116 – Receiver 2 Domain Name</td>
<td>Receiver 2 Domain Name Setting</td>
</tr>
<tr>
<td>124 – Ethernet Test Transmission</td>
<td>Ethernet Test Transmission Settings</td>
</tr>
<tr>
<td>125 – Ethernet Test Transmission Cycle</td>
<td>Ethernet Test Transmission Cycle Settings</td>
</tr>
<tr>
<td>201 – Receiver 3 Account Code</td>
<td>Receiver 3 Account Code Settings</td>
</tr>
<tr>
<td>202 – Receiver 3 DNS</td>
<td>Receiver 3 DNS Settings</td>
</tr>
<tr>
<td>203 – Receiver 3 IP Address</td>
<td>Receiver 3 IP Address Settings</td>
</tr>
<tr>
<td>204 – Receiver 3 UDP Remote Port</td>
<td>Receiver 3 UDP Remote Port Settings</td>
</tr>
<tr>
<td>205 – Receiver 3 UDP Local Port</td>
<td>Receiver 3 UDP Local Port Settings</td>
</tr>
<tr>
<td>206 – Receiver 3 Domain Name</td>
<td>Receiver 3 Domain Name Setting</td>
</tr>
<tr>
<td>211 – Receiver 4 Account Code</td>
<td>Receiver 4 Account Code Settings</td>
</tr>
<tr>
<td>212 – Receiver 4 DNS</td>
<td>Receiver 4 DNS Settings</td>
</tr>
<tr>
<td>213 – Receiver 4 IP Address</td>
<td>Receiver 4 IP Address Settings</td>
</tr>
<tr>
<td>214 – Receiver 4 UDP Remote Port</td>
<td>Receiver 4 UDP Remote Port Settings</td>
</tr>
<tr>
<td>215 – Receiver 4 UDP Local Port</td>
<td>Receiver 4 UDP Local Port Settings</td>
</tr>
<tr>
<td>216 – Receiver 4 Domain Name</td>
<td>Receiver 4 Domain Name Setting</td>
</tr>
<tr>
<td>221 – Cellular Public Access Point Name</td>
<td>Cellular Public Access Point Name Settings</td>
</tr>
<tr>
<td>222 – Cellular Login User Name</td>
<td>Cellular Login User Name Settings</td>
</tr>
<tr>
<td>223 – Cellular Login Password</td>
<td>Cellular Login Password Settings</td>
</tr>
<tr>
<td>224 – Cellular Test Transmission Time of Day</td>
<td>Cellular Test Transmission Time of Day Settings</td>
</tr>
<tr>
<td>225 – Cellular Test Transmission Cycle</td>
<td>Cellular Test Transmission Cycle Settings</td>
</tr>
<tr>
<td>226 – Network Trouble Delay</td>
<td>Network Trouble Delay Setting</td>
</tr>
<tr>
<td>227 – Voice Call Timeout</td>
<td>Voice Call Timeout Setting</td>
</tr>
<tr>
<td>228 – Voice Call Back Time</td>
<td>Voice Call Back Time Setting</td>
</tr>
<tr>
<td>229 – Voice Call Back Number</td>
<td>Voice Call Back Number Setting</td>
</tr>
<tr>
<td>422 – Integration Identification Number</td>
<td>Integration Identification Number Settings</td>
</tr>
<tr>
<td>423 – Session 1 Integration Access Code</td>
<td>Session 1 Integration Access Code Settings</td>
</tr>
<tr>
<td>424 – Session 1 SMS Label</td>
<td>Session 1 SMS Label Setting</td>
</tr>
<tr>
<td>425 – Session 1 Integration Toggle Options 2</td>
<td>Session 1 Integration Toggle Options 2 Settings</td>
</tr>
<tr>
<td>693 – Session 3 Notification Control</td>
<td>Session 3 Notification Control Settings</td>
</tr>
<tr>
<td>861-876 Keypad Programming</td>
<td>Keypad Programming Settings</td>
</tr>
</tbody>
</table>
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, PURCHASER'S 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

<table>
<thead>
<tr>
<th>Zone</th>
<th>Label</th>
<th>Location</th>
<th>Type</th>
<th>Attribute</th>
<th>Zone</th>
<th>Label</th>
<th>Location</th>
<th>Type</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>002</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>004</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>006</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>008</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>022</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>023</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>024</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>025</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>026</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>027</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>028</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>029</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>030</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>031</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>032</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>033</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>034</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>035</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>036</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>037</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>038</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>039</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>040</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>042</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>043</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>044</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>045</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>046</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>047</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>048</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>049</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>050</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>051</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>052</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>053</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>054</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>055</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>056</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>057</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>058</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>059</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>060</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>061</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>062</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>063</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>064</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>065</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>067</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>068</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>069</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>070</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>071</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>072</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>073</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>074</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>075</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>076</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>077</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>078</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>079</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>080</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>081</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>082</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>083</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>084</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>085</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>086</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>087</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>088</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>089</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>090</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>091</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>092</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>093</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>094</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>095</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>096</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>097</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>098</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone</td>
<td>Label</td>
<td>Location</td>
<td>Type</td>
<td>Attribute</td>
<td>Zone</td>
<td>Label</td>
<td>Location</td>
<td>Type</td>
<td>Attribute</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>----------</td>
<td>------</td>
<td>-----------</td>
<td>------</td>
<td>-------</td>
<td>----------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>101</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>104</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>106</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>108</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>112</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>116</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>118</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>122</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>023</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>124</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>025</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>126</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>027</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>029</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>031</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>033</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>134</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>035</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>136</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>037</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>138</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>039</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>142</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>043</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>144</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>045</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>146</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>047</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>148</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>049</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>150</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>051</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>152</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>053</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>154</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>055</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>156</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>057</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>158</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>059</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>160</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>061</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>162</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>063</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>164</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>065</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>166</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>067</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>168</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>069</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>071</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>172</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>073</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>174</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>075</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>176</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>077</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>178</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>079</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>180</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>081</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>182</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>083</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>184</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>085</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>186</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>087</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>188</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>089</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>190</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>091</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>192</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>093</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>194</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>095</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>196</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>097</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>198</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone</td>
<td>Label</td>
<td>Location</td>
<td>Type</td>
<td>Attribute</td>
<td>Zone</td>
<td>Label</td>
<td>Location</td>
<td>Type</td>
<td>Attribute</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>----------</td>
<td>------</td>
<td>-----------</td>
<td>------</td>
<td>-------</td>
<td>----------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>199</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>202</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>203</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>204</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>205</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>206</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>207</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>208</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>209</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>210</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>211</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>212</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>213</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>214</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>215</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>216</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>217</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>218</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>219</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>221</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>222</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>223</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>224</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>225</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>226</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>227</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>228</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>229</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>230</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>231</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>232</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>233</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>234</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>235</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>236</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>237</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>238</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>239</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>241</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>242</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>243</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>244</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>245</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>246</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>247</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>248</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Module Record

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Slot</th>
<th>Serial Number</th>
<th>Module Type</th>
<th>Slot</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Wireless Device Record

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Zone</th>
<th>Serial Number</th>
<th>Device Type</th>
<th>Zone</th>
<th>Serial Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Installer-Defined Access Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Installer Code:</td>
</tr>
<tr>
<td>002</td>
<td>Master Code:</td>
</tr>
<tr>
<td>003</td>
<td>Maintenance Code:</td>
</tr>
</tbody>
</table>

### System Account Code

<table>
<thead>
<tr>
<th>Code</th>
</tr>
</thead>
</table>
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 story 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:

1. In all sleeping rooms and guest rooms.
2. 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.
3. On every level of a dwelling unit, including basements.
4. On every level of a residential board and care occupancy (small facility), including basements and excluding crawl spaces and unfinished attics.
5. In the living area(s) of a guest suite.
6. In the living area(s) of a residential board and care occupancy (small facility).

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.

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.

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.

1. Every family member should participate in developing the escape plan.
2. 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.
3. Escape from a bedroom must be possible without opening the interior door.
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 equivalent number (REN) for this equipment. If requested, this number must be provided to the Telephone Company.

HS3032 Product Identifier US:F53AL01AH3256
HS3128 Product Identifier US:F53AL01AH3256
HS3248 Product Identifier US:F53AL01AH3256
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 disconnection 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
- UL-S304-16 Standard for Control Units, Accessories and Receiving Equipment for Intrusion Alarm Systems
- UL-S559-13 Equipment for Fire Signal Receiving Centers and Systems
- UL-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/AMCXC 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) under Online Directions Section.

**UL/ULC Residential Fire and Burglary Installations**

For UL 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-1800360N/A (HS63WPSNA) 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-life supervision relay module must be used.
- Priority of signals needs to be set Fire, CO/ Medical, Burg, Panic, AUX (Flood).
- Ultralow-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 UL 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 UL 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)
- Ultralow-burglary-type 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 UL listed under UL-5304 requirements for use in Commercial Burg applications rated for security level 1.

- PG9914
- PG9920
- PG9922
- PG9926
- PG9929
- PG9935
- PG9938
- PG9941
- PG9942
- PG9945
- PG9947
- PG9948
- PG9954
- 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 forarming/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 acknowledgment enabled.(Not Police Station).

**UL Home Health Care Signaling Equipment**

- There must be at least two keypads, one of the compatible keypads models HS2LDCPF0, HS2LDCPF09, HS2LDWFPF09, HS2LDWVFVP09, HS2TCPFPO(BL). 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 UL Installation Guide for PowerSeries Pro, P/N #29010346).
- For Commercial Fire monitoring, the primary power failure transmission may be delayed up to 3h and Bell shall be disabled.

**Note:** As per UL 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 UL-5561 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 the PowerSeries 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 certified 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

<table>
<thead>
<tr>
<th>HS3128/HS3032/ HS3248 PCB current draw = 120 mA Alarm current = 700 mA</th>
<th>UL Resi Burg ULC Resi Burg</th>
<th>UL Com Burg</th>
<th>UL Resi Fire UL Home Health Care ULC Resi Fire ULC Com Burg</th>
<th>UL Resi Fire with wired CO Detectors ULC985 6th Ed</th>
<th>ULC COM Fire Monitoring</th>
<th>EN50131 Grade 2</th>
<th>EN50131 Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby Time and Alarm Time</td>
<td>4 h + 4 min 4 h + 5 min</td>
<td>4 h + 15 min</td>
<td>24 h + 4 min 24 h + 5 min 24 h + 4 min</td>
<td>24 h + 4 min + 12 h CO alarm 24 h + 30 min</td>
<td>12 h</td>
<td>30 h (AC fail transmission required) 60 h</td>
<td></td>
</tr>
<tr>
<td>Enclosure</td>
<td>HSC3010C HSC3030CAR</td>
<td>HSC3010C</td>
<td>HSC3010C HSC3010C</td>
<td>HSC3020C</td>
<td>HSC3020C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Supply Adapter</td>
<td>HS65WPSNA</td>
<td>HS65WPSNA</td>
<td>HS65WPSNAS (ULC CB Security Level 4) (Require high voltage barrier kit)</td>
<td>HS65WPSNA</td>
<td>HS65WPSNAS</td>
<td>HS65WPS</td>
<td>HS65WPS</td>
</tr>
<tr>
<td>Battery capacity /max loading</td>
<td>4 Ah/700 mA 7 Ah/1200 mA 14 Ah/2000 mA 17 Ah/2000 mA</td>
<td>4 Ah/700 mA 7 Ah/1200 mA 14 Ah/2000 mA 17 Ah/2000 mA</td>
<td>7 Ah/250 mA 14 Ah/500 mA 17 Ah/600 mA</td>
<td>14 Ah/330 mA 17 Ah/400 mA 17 Ah/600 mA</td>
<td>17 Ah/1200 mA 17 Ah/500 mA 17 Ah/250 mA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recharging current setting</td>
<td>Low (400 mA) for 4 Ah/High (700 mA)</td>
<td>Low (400 mA) for 4 Ah/High (700 mA)</td>
<td>High (700 mA)</td>
<td>High (700 mA)</td>
<td>Low (400 mA)</td>
<td>High (700 mA)</td>
<td></td>
</tr>
</tbody>
</table>

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.

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 communicator 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.


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 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>
<thead>
<tr>
<th>Table 2-1 SIA quick reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exit Time</strong>&lt;br&gt; [005]-[001], option 3</td>
</tr>
<tr>
<td><strong>Exit Delay Restart</strong>&lt;br&gt; [018], option 7</td>
</tr>
<tr>
<td><strong>Auto Stay on Un-vacated Premises</strong>&lt;br&gt; [001]-[001]-[248] Zone type 05, 06,09</td>
</tr>
<tr>
<td><strong>Exit Time and Progress Annunciation/Disable</strong>&lt;br&gt; [861]-[001]-[005], option 4</td>
</tr>
<tr>
<td><strong>Entry delay(s)</strong>&lt;br&gt; [005]-[001]-[008], options 1 and 2</td>
</tr>
<tr>
<td><strong>Abort Window for Non-Fire zones</strong>&lt;br&gt; [002]-[001]-[248], option 7 ON</td>
</tr>
<tr>
<td><strong>Abort Window Time - for Non-Fire zones</strong>&lt;br&gt; [377]-[002], option 1</td>
</tr>
<tr>
<td><strong>Abort Annunciation</strong>&lt;br&gt; [005]-[001]-[002], options 1 and 2</td>
</tr>
<tr>
<td><strong>Duress Feature</strong>&lt;br&gt; [*][5]&gt; master code&gt; user 2-95&gt; 5&gt; 2</td>
</tr>
<tr>
<td><strong>Cancel Window</strong>&lt;br&gt; [377]-[002], option 6</td>
</tr>
<tr>
<td><strong>Cancel Annunciation</strong>&lt;br&gt; [308]-[001], option 8</td>
</tr>
<tr>
<td><strong>Cross Zoning</strong>&lt;br&gt; [042]-[Selection 3, option 002</td>
</tr>
<tr>
<td><strong>Burglary Verification Timer</strong>&lt;br&gt; [005]-[000], option 3</td>
</tr>
<tr>
<td><strong>Swinger Shutdown for Alarms</strong>&lt;br&gt; [377]-[001], option 1</td>
</tr>
<tr>
<td><strong>Swinger Shutdown Enable</strong>&lt;br&gt; [002]-[001]-[248], option 6 ON</td>
</tr>
<tr>
<td><strong>24-Hr. Auto-verified Fire</strong>&lt;br&gt; [001]-[001]-[248], Zone type 025 ON</td>
</tr>
<tr>
<td><strong>Call Waiting Cancel</strong>&lt;br&gt; [382], option 4 OFF</td>
</tr>
<tr>
<td><strong>System Test</strong>&lt;br&gt; [*][6] Master Code, option 04</td>
</tr>
<tr>
<td><strong>Walk Test Mode</strong>&lt;br&gt; [*][8][Installer code][901]</td>
</tr>
<tr>
<td><strong>Walk Test Communications</strong>&lt;br&gt; [382], option 2</td>
</tr>
<tr>
<td><strong>Walk Test Start/ End Reporting Codes</strong>&lt;br&gt; [308][401], options 1 and 2</td>
</tr>
<tr>
<td><strong>Duress Code</strong></td>
</tr>
</tbody>
</table>
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 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 awaken 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.