PowerSeries neo

DSC
A Tyco International Company

HS2016/2032/2064/2128 Alarm Panel

V1.0 User Guide

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.

Table of Contents

1 Quick Reference **3**

2 Understanding your Keypad Display **4**

2.1 Icon and LED Keypad Symbols 4
2.2 Keypad Models 5

3 About your PowerSeries Neo security system **5**

3.1 General System Operation 5
3.3 Monitoring 6
3.4 Maintenance 6

4 Arming the System **6**

4.1 Away Arming the System with the Keypad 6
4.1.1 Exit Delay Time Restart 7
4.1.2 Alarm Cancel Window 7
4.2.1 Arming the system with a 2-way wireless key 8
4.2.2 Arming the system with a Proximity tag 8
4.3 Disarming the system 8
4.3.1 Disarming Error 9

5 Emergency Keys **9**

6 Access Codes **9**

6.1 Adding, Changing and Deleting Access Codes 10
6.2 Cross zoning 11
6.3 Swinger Shutdown 11
6.4 Call waiting 11
6.5 Fire Alarm Verification 11
6.6 System Lockout due to Invalid Attempts 11
6.7 User Labels (LCD keypads only) 11

7 Trouble Conditions **13**

8 Installer Warning **15**

9 Safety Instructions **16**

9.1 Regular Maintenance and Troubleshooting 16
9.1.1 Cleaning 16
9.1.2 Troubleshooting 16

10 EULA **17**

11 System Information **18**

11.1 Service Contact Information 18
11.2 Regular Maintenance And Troubleshooting 18
11.2.1 Cleaning 18

12 Locating Smoke and CO Detectors **22**

12.1 Smoke Detectors 22
12.2 Fire Escape Planning 23
12.3 Carbon Monoxide Detectors 23

13 Regulatory Agency Statements **24**

1 Quick Reference

The PowerSeries Neo Alarm System uses shortcut keys to access options or features on all models of keypads. When using an LCD keypad, the PowerSeries Neo Alarm System additionally uses a menu based navigation system. The scroll < > keys can be used to [Scroll] through the list of options contained within the current menu. For more information on keypads see 2 “Understanding your Keypad Display”.

NOTES: Some features must be enabled by installer.
Bypass Groups are not permitted in UL listed installations.
[*] - If configured by installer

Status Lights		Function Keys		Emergency Keys	
✔	**Ready** - Indicates system normal. Must be on to arm system. All zones must be secured or bypassed and the system disarmed for this light to activate.		Stay Arm		Fire Alarm
	Armed- Indicates system is armed. If the Ready light and the Armed light are both on it indicates an Exit Delay is in progress.		Away Arm		Medical Alarm
	Trouble - On indicates a system malfunction or tamper. Flashing indicates that the keypad has a low battery condition. Follow the instructions displayed or enter [*][2] to view trouble. Correcting the trouble turns off the indicator.		Chime		Panic Alarm
			Reset Sensors		
	AC Power - Indicates AC Power is present. The AC Power light will turn off when AC is absent.		Quick Exit		

Action	Press
Arming and Disarming	
Away Arm	for 2 seconds + [Access Code*]
Stay Arm	for 2 seconds + [Access Code*]
Night Arm	When armed in stay mode * 1 + [Access Code*]
Disarm	[Access Code]
No-Entry Arming	* 9 + [Access Code*]
Quick Arm/Quick Exit	* 0
Abort Arming Sequence	[Access Code]
Bypassing - All bypass commands begin with * 1 + [Access Code*]	
Bypass Individual Zones	[3 Digit Zone #]
Bypass All Open Zones	9 9 8
Recall Last Bypass	9 9 9
Clear Bypass	0 0 0 **OR** [Scroll] Bypass Options + * + [Scroll] Clear Bypasses + *
Program Bypass Group	[3 digit zone #s] + 9 9 5 **OR** [3 digit zone #s] + [Scroll] Bypass Options + * + [Scroll] Prg Bypass Group + *
Load Bypass Group	9 9 1 **OR** [Scroll] Bypass Options + * + [Scroll] Bypass Group + *
Common Functions	
Set Time and Date	* 6 [Master Code] + 0 1
Turn Chime ON/OFF	* 4 + [Access Code*] **OR**
Change Brightness	* 6 [Master Code] + 1 2 + < >
Change Contrast	* 6 [Master Code] + 1 3 + < >
Add/delete User	* 5 + [Master Code] + [Access Code] + 1
Reset Smoke Detectors	**OR** * 7 2
View Troubles	* 2 + [Access Code*] + < >
View Alarms	* 3 + [Access Code*] + < >
Perform System Test	* 6 [Master Code] + 0 4 + < >
Buzzer Volume	* 6 [Master Code] + 1 4 + < >

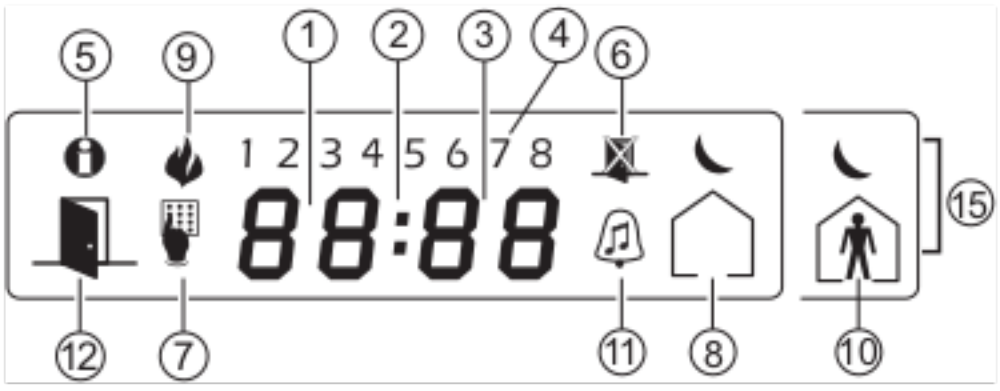
2 Understanding your Keypad Display

The PowerSeries Neo Alarm System supports a variety wireless, hardwired and proximity sensor LCD, LED and Icon keypads. All keypads come equipped with the LED status lights described in 1 "Quick Reference". HS2LCD series keypads display system messages on their LCD screen. HS2ICN series keypads display messages as described in 2.1 “Icon and LED Keypad Symbols”. HS2LED series keypads display messages via a series of numbered LEDs and as described in 2.1 “Icon and LED Keypad Symbols”.

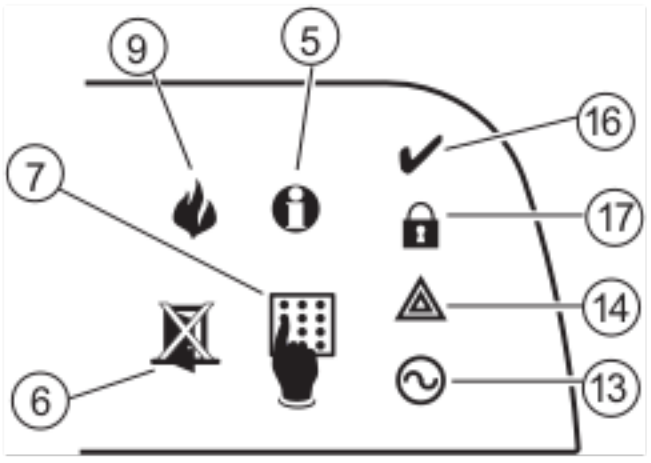
All keypad versions will have a solid blue LED bar that is always on steady except when, if enrolled, a proximity tag is presented to and successfully by the keypad.

2.1 Icon and LED Keypad Symbols

HS2ICN Series



HS2LED Series



1	**Clock Digits 1, 2**	These two 7 segment clock digits indicate the hour digits when the local clock is active, and identify the zone when the OPEN or ALARM icons are active. These two digits scroll one zone per second from the lowest zone number to the highest when scrolling through zones.
2	**: (Colon)**	This icon is the hours/minutes divider and will flash once a second when the local clock is active.
3	**Clock Digits 3, 4**	These two 7 segment displays are the minute digits when the local clock is active.
4	**1 to 8**	These numbers identify troubles when [*] [2] is pressed.
5	**Memory**	Indicates that there are alarms in memory.
6	**Bypass**	Indicates that there are zones bypassed.
7	**Program**	Indicates that the system is in Programming, or the keypad is busy.
8	**Away**	Indicates that the panel is armed in the Away Mode.
9	**Fire**	Indicates that there are fire and/or CO alarms in memory.
10	**Stay**	Indicates that the panel is armed in the Stay Mode.
11	**Chime**	This icon turns on when the Chime function key is pressed to enable Door Chime on the system. It will turn off when the chime function key is pressed again to disable Door Chime.
12	**OPEN**	This icon is used with clock digits 1 and 2 to indicate activated zones (not alarm) on the system. When zones are opened, the OPEN icon will turn on, and 7 segment displays 1 and 2 will scroll through the open zones.
13	**AC**	Indicates that AC is present at the main panel.
14	**System Trouble**	Indicates that a system trouble is present.
15	**Night**	Indicates that the panel is armed in the Night Mode.
16	**Ready Light (green)**	If the Ready light is on, the system is ready for arming.
17	**Armed Light (red)**	If the Armed light is on, the system has been armed successfully.

NOTES: For UL listed installations zones can only be bypassed manually.

2.2 Keypad Models

NOTES: In the following list below if x = 9 (the system operates in 912-919MHz), 4 (the system operates in 433MHz band) or 8 (the system operates in 868MHz band).

Only models operating in 912-919MHz band are UL/ULC listed.

HS2LCD	Alphanumeric LCD keypad
HS2LCDP	Alphanumeric LCD keypad with Prox. Tag support
HS2ICN	Icon keypad
HS2ICNP	Icon keypad with Prox. Tag support
HS2LED	LED keypad
HS2LCDRFx	Alphanumeric LCD keypad with wireless receiver
HS2LCDRFPx	Alphanumeric LCD keypad with wireless receiver and Prox. tag support
HS2ICNRFx	Icon keypad with wireless receiver
HS2ICNRFPx	Icon keypad with wireless receiver and Prox. tag support
HS2LCDWFx	Wireless Alphanumeric LCD keypad
HS2LCDWFPx	Wireless Alphanumeric LCD keypad with Prox. Tag support
HS2LCDWFPVx	Wireless Alphanumeric LCD keypad with Prox. Tag support & Voice Prompting

3 About your PowerSeries Neo security system

Your PowerSeries NEO security system has been designed to provide you with the greatest possible flexibility and convenience. Read this manual carefully and have your installer instruct you on your system's operation and which features have been implemented in your system. All users of this system should be equally instructed in its use. Fill out 11 "System Information" with all of your zone information and access codes and store this manual in a safe place for future reference.

NOTE: The PowerSeries Neo security system includes specific false alarm reduction features and is classified in accordance with ANSI/ SIA CP-01-2010 Control Panel Standard - Features for False Alarm Reduction. Please consult your installer for further information regarding the false alarm reduction features built into your system as all are not covered in this manual.

3.1 General System Operation

Your security system is made up of a PowerSeries Neo control panel, one or more keypads and various sensors and detectors. The control panel will be mounted out of the way in a utility closet or in a basement. The metal cabinet contains the system electronics, fuses and standby battery.

All the keypads have an audible indicator and command entry keys. LED keypads have a group of zone and system status lights. The LCD keypad has an alphanumeric liquid crystal display (LCD). The keypad is used to send commands to the system and to display the current system status. The keypad(s) will be mounted in a convenient location inside the protected premises close to the entry/exit door(s).

The security system has several zones of area protection and each of these zones will be connected to one or more sensors (motion detectors, glassbreak detectors, door contacts, etc.). A sensor in alarm will be indicated by the corresponding zone lights flashing on an LED keypad or by messages on the LCD keypad.

NOTE: Only the installer or service professional shall have access to the control panel.

3.2 Testing your System

Tests all system keypad LED's, keypad sounders, bells and/or sirens.

IMPORTANT

- To insure that your system continues to function as intended, you must test your system weekly.
- For UL HOME HEALTH CARE listed applications the system shall also be tested weekly without AC power. To remove AC from the control unit, remove the screw from the restraining tab of the plug-in adapter and remove the adapter from AC outlet. After completing the test of the unit using only the battery backup source, reconnect the plug-in adapter and attach the screw through the restraining tab so that the adapter is securely attached to the outlet.
- Should your system fail to function properly, contact your installation company immediately.
- All smoke detectors must be tested by your smoke detector installer once a year to ensure proper operation.

To perform a Keypad and Siren Test

LCD Display

1. From the ready state, press (*) (6) and enter the [Master code] to access User Functions.

   `Press (*) for <>`
   `User Functions`

2. Press (0) (4) or use the scroll keys (<)(>) to navigate to System Test and press (*). The system activates all keypad sounders, bells/sirens and keypad LEDs for two seconds.

   `Press (*) for <>`
   `System Test`

3. To go back to the Ready state, press (#).

3.3 Monitoring

This system is capable of transmitting alarms, troubles & emergency information to a central station. If you initiate an alarm by mistake, immediately call the central station to prevent an unnecessary response.

NOTES: For CP-01 systems, the monitoring function must be enabled by the installer before it becomes functional.

There is a communicator delay of 30 seconds in this control panel. It can be removed, or it can be increased up to 45 seconds, at the option of the end-user by consulting with the installer.

3.4 Maintenance

With normal use, the system requires minimum maintenance. Note the following points:

- Do not wash the security equipment with a wet cloth. Light dusting with a slightly moistened cloth should remove normal accumulations of dust.
- Use the system test described in "Testing Your System" to check the battery condition. We recommend, however, that the standby batteries be replaced every 3-5 years.
- For other system devices such as smoke detectors, passive infrared, ultrasonic or microwave motion detectors or glassbreak detectors, consult the manufacturer's literature for testing and maintenance instructions.

4 Arming the System

The PowerSeries Neo system can be armed using a Keypad, a 2-way wireless key or a Proximity tag. For information on more Arming types, see the PowerSeries Neo User Manual (29008365R001).

4.1 Away Arming the System with the Keypad

Away mode activates the complete alarm system by:

- Arming all perimeter sensors.
- Arming all interior sensors.

To Arm the System in Away Mode

LCD Display

1. Ensure all windows and doors are closed and that the Ready ✔ indicator is on.

```
  Date      Time
JAN 02/13  2:06a
```

2. To arm using the Away key, press and hold the **Away key** (⌂) for 2 seconds and, if required, enter your [access code].

   OR

   To Quick Arm the system, press (*) (□).

```
System is
Ready to Arm
```

then

```
Enter Your
Access Code
```

3. If zones have been bypassed, ICN or LED keypads bypass LED will light and the bypassed zones numbers will be shown. On an LCD keypad, a warning appears.

```
* Warning *
Bypass Active
```

4. After successfully initiating the arming sequence the:
   - Armed 🔒 indicator turns on.
   - Ready ✔ indicator remains lit.
   - Exit Delay timer begins counting down.
   - Keypad beeps six times, continues beeping once per second until beeping rapidly in the final ten seconds.

```
Exit Delay in
Progress
```

5. To cancel the arming sequence, enter your [access code].

```
System Disarmed
No Alarm Memory
```

6. Once the exit delay timer expires, thereby arming the system the:
   - Ready ✔ indicator turns off.
   - Armed indicator remains on.
   - Keypad stops sounding.

```
System Armed
in Away Mode
```

NOTE: The installer configures the exit delay timer and whether or not an access code is required for arming the system.

4.1.1 Exit Delay Time Restart

The control panel provides an option where if a entry/exit zone is tripped a second time prior to the end of the exit delay, the exit delay time restarts. The exit delay timer can only be restarted once.

4.1.2 Alarm Cancel Window

The control panel provides a period of time in which the user can cancel the alarm transmission. The minimum duration of this time is five minutes.

If the programmed alarm transmission delay has expired, cancelling an alarm sends a message to the monitoring station. Upon a successful transmission of the cancellation message, the keypad will beep 6 times.

NOTES: Must be enabled and configured by installer.
For CP-01 systems, alarm transmission delay must not exceed 45 seconds.

4.2 Using 2-way Wireless Keys and Proximity Tags

2-way wireless keys allow users in the close proximity of their house the ability to readily arm/disarm their system, and to call for help. For information on enrolling wireless keys see 6.7 "User Labels (LCD keypads only)".

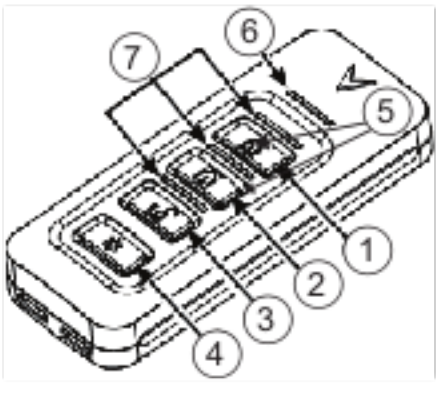


Figure 1-1 PG4929/PG8929/PG9929

1 Away arm

2 Stay arm

3 Disarm

4 Panic

5 Command Output 1

6 Message LED

7 Status LEDs

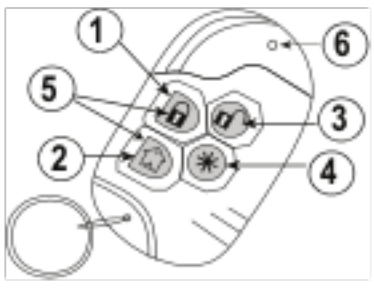


Figure 1-2 PG4939/PG8939/PG9939

1 Away Arm

2 Stay Arm

3 Disarm

4 Panic

5 Command Output 1

6 LED

NOTES: Panic feature has not been evaluated by UL.

All wireless key buttons are programmable. Verify the functions assigned to each key with your installer.

When using compatible wireless keys, there is one bell squawk for arming and two bell squawks for disarming.

4.2.1 Arming the system with a 2-way wireless key

If configured, the PowerSeries Neo system can be armed using the following wireless keys:

- PG4929/PG8929/PG9929
- PG4939/PG8939/PG9939

To Arm the System with a 2-way wireless key

- Press the desired Arming mode button anytime the system Ready ✔ indicator is on.

4.2.2 Arming the system with a Proximity tag

If configured, the PowerSeries Neo system can be armed using an MPT proximity tag.

To Arm the System with a Proximity tag

- Present your Proximity tag to a keypad equipped with a proximity sensor anytime the system Ready ✔ indicator is on.
- If configured by your installer, enter your access code.

4.3 Disarming the system

The PowerSeries Neo system can be disarmed using a Keypad, a 2-way wireless key or a Proximity tag.

To Disarm the System with a Keypad

- Enter your [access code] anytime the system is armed. (Armed 🔒 indicator is on).

To Disarm the System with a Keypad (Continued)

- If you walk through the entry door, the keypad will beep. Enter your code within _____ seconds to avoid an alarm condition.

To Disarm the System with a 2-way wireless key

- Press the disarm button anytime the system is armed. (Armed 🔒 indicator is on).
- If you walk through the entry door, the keypad will beep. Press the disarm button within _____ seconds to avoid an alarm condition.

NOTE: After disarming a system with an HS2LCD keypad using a 2-way wireless key, always check the alarm memory to determine if any alarms have occurred during the armed period.

To Disarm the System with a Proximity Tag

- Present your Proximity Tag to a keypad equipped with a proximity sensor anytime the system is armed (armed 🔒 indicator is on) and if configured as required, enter your access code.
- If you walk through the entry door, the keypad will beep. Present your Proximity Tag within _____ seconds to avoid an alarm condition.

NOTE: Duration of Entry timer is programmed by installer.

4.3.1 Disarming Error

If your code is invalid, the system will not disarm and a 2-second error tone will sound. If this occurs, press (#) and re-enter your access code.

5 Emergency Keys

IMPORTANT:EMERGENCY USE ONLY!

Pressing both the emergency keys generates a Fire, Medical, or Panic Alarm and alerts the monitoring station. For example, to generate a medical alarm press both of the medical alarm keys (✚)(✚) for 2 seconds and the display on an LCD keypad will show "Hold down keys for Med. Alarm".The keypad beeps to indicate that the alarm input has been accepted and sent to the monitoring station.

(🔥)(🔥) Fire Alarm

(✚)(✚) Medical Alarm

(✿)(✿) Panic Alarm

NOTES: Verify with your alarm company that your system is equipped with emergency keys.
Fire keys can be disabled by the installer.
Having an optional audio verification module installed in your system allows the monitoring station to open 2-way communication when notified of an alarm.

---

6 Access Codes

The alarm system provides the following user access code types:

Code	Add User	Delete User	Arm	Disarm	Access Codes	User Functions	Installer
Master	All	All	Yes	Yes	Yes	Yes	No
User	No	No	Yes	Yes	No	No	No
Supervisor	All but Master	All but Master	Yes	Yes	Yes	Yes	No
Duress	No	No	Yes	Yes	No	No	No
One-time user	No	No	Yes	1 per day	No	No	No

The Master code is a system code that can be changed but not deleted. The other codes are user-defined and can be added or deleted as necessary. By default, access codes have the same partition and attribute programming as the code used to program them.

NOTE: When using 6-digit access codes, the minimum number of variations of access codes are 10526.

Master Code — By default the master code can access all partitions and can perform any keypad function. This code can be used to program all access codes, including the supervisor and duress codes. The master code is code # [01].

User Codes — This type of access code is used to arm and disarm assigned partitions and can access the User Functions menu.

Supervisor Codes — Use when you want to allow additional users to manage Access Codes [*5] or User Functions[*6]. Supervisor codes created by the master code will have the same attributes as the master code. Supervisor codes created by another supervisor code will have the same attributes, except the supervisor attribute. Must be assigned manually afterwards. After creation, attributes can be changed for all supervisor codes.

Duress Codes — Use when forced to access your keypad under threat. Duress codes function the same as user access codes, except they transmit a Duress Report to your monitoring station when used to perform any function on the system.
Duress codes cannot be used to access Access Codes[*5], User Functions[*6] or Installer[*8] menus.

One-Time User Code — Use when needing to grant someone one-time access to your home once per day, i.e., a cleaning person or contractor. The ability to disarm the system is reset at midnight or when the one-time user code is keyed in by the master code user.

To open the Access Codes Menu

LCD Display

1. Press (*) (5)

   OR

   press (*) and use the scroll keys (<)(>) to navigate to Access Codes and press (*).

```
Press (*) for <>
User Functions
```

2. Enter [Master or supervisor code].

```
Enter Master
Access Code
```

3. Enter [2 digit user #]

   OR

   (<)(>) scroll through the list of users and press (*). On an LED keypad the user number will begin flashing.

```
Press (*) for <>
{User Label}
```

4. To go back to the Ready state press (#).

6.1 Adding, Changing and Deleting Access Codes

Each configured user is assigned a number from 01-95. Access codes cannot be duplicated.

To Add or Change User Access Codes

LCD Display

1. From the desired user press (*) or (1)

```
Press (*) for <>
Access Code
```

2. Enter a new 4 or 6 digit access code. After entering a new code you will be automatically returned to the previous menu and on an LCD display the flag is changed to P from -. On an ICN or LED keypad the programmed user will have their digits displayed. If a duplicate code is entered the error tone will sound.

```
Enter New Code
XXXXXX
```

then

```
Press (*) for <>
User Code 03 P
```

To Delete a User Access Code

LCD Display

1. From the desired user press (*) or (1)

```
Press (*) for <>
Access Code
```

To Delete a User Access Code

LCD Display

2. Press (*) and the code is deleted, and you are returned to the previous screen. The flag is changed to - from P. On an ICN or LED keypad the programmed user will have their digits cease being displayed.

```
Enter New Code
030516
```

then

```
(*) to Edit <>
User Code 03 -
```

NOTE: Any proximity tags associated with deleted user codes will need to be re-enrolled.

6.2 Cross zoning

The Control Panel includes the cross zone option that requires a trip on two zones within a given time period, to start an Alarm Transmission Sequence.

NOTE: Must be enabled and configured by installer.

6.3 Swinger Shutdown

The control Panel has a swinger shutdown feature that, when enabled for CP-01 installation, a programmable number of trips shall shut down the zone.

NOTE: Must be enabled and configured by installer.

6.4 Call waiting

The control panel includes a programmable option for call waiting to prevent a call waiting line from interfering with the alarm verification process. This option is disabled by default.

NOTE: Must be enabled and configured by installer.

6.5 Fire Alarm Verification

Fire Alarm Verification is an available option for Fire zones. If configured, once the conditions for alarm verification are met the fire alarm will sound and an alarm transmission will be sent to the monitoring station.

NOTE: Must be enabled and configured by installer.

6.6 System Lockout due to Invalid Attempts

If too many invalid access codes are entered, your system can be configured to automatically lock out inputs from all keypads, wireless and proximity keys, and SMS commands for a specified duration. When any keys are pressed, an error tone will sound. FMP keys are still active during Keypad Lockout.

NOTE: Feature and lockout duration must be configured by installer.

6.7 User Labels (LCD keypads only)

Adding or editing labels is accomplished by using a preprogrammed word library. Table 1-1 lists the full library and the associated three digit code.

To Edit a User Label

LCD Display

1. From the desired user press (3) or (<)(>) scroll to User Labels and press (*).

```
Press (*) for <>
User Labels
```

2. Press (*) (*) to enter word library.

```
Program Name
{User 1 Label}
```

3. Use the arrow keys < > to scroll through the list of words or use the [3-digit number] to display the desired word. Press * to select the word.
4. To enter an additional word repeat step 3,

Table 1-1 Word Library

Item #	Text	Item #	Text	Item #	Text	Item #	Text	Item #	Text	Item #	Text
001	Aborted	042	Control	083	Garage	124	Motion	165	Shop	206	E
002	AC	043	Date	084	Gas	125	No	166	Side	207	F
003	Access	044	Daughter's	085	Glass	126	North	167	Siren	208	G
004	Active	045	Degrees	086	Goodbye	127	Not	168	Sliding	209	H
005	Activity	046	Delay	087	Gym	128	Now	169	Smoke	210	I
006	Alarm	047	Den	088	Hallway	129	Number	170	Son's	211	J
007	All	048	Desk	089	Heat	130	Off	171	Sound	212	K
008	AM	049	Detector	090	Hello	131	Office	172	South	213	L
009	Area	050	Dining	091	Help	132	OK	173	Special	214	M
010	Arm	051	Disarmed	092	High	133	On	174	Stairs	215	N
011	Armed	052	Door	093	Home	134	Open	175	Stay	216	O
012	Arming	053	Down	094	House	135	Opening	176	Sun	217	P
013	Attic	054	Download	095	In	136	Panic	177	Supervisory	218	Q
014	Auxiliary	055	Downstairs	096	Install	137	Partition	178	System	219	R
015	Away	056	Drawer	097	Interior	138	Patio	179	Tamper	220	S
016	Baby	057	Driveway	098	Intrusion	139	Pet	180	Temperature	221	T
017	Back	058	Duct	099	Invalid	140	Phone	181	Test	222	U
018	Bar	059	Duress	100	Is	141	Please	182	Time	223	V
019	Basement	060	East	101	Key	142	PM	183	To	224	W
020	Bathroom	061	Energy Saver	102	Kids	143	Police	184	Touchpad	225	X
021	Battery	062	Enter	103	Kitchen	144	Pool	185	Trouble	226	Y
022	Bedroom	063	Entry	104	Latchkey	145	Porch	186	Unbypass	227	Z
023	Bonus	064	Error	105	Laundry	146	Power	187	Unit	228	(Space)
024	Bottom	065	Exercise	106	Left	147	Press	188	Up	229	' (Apostrophe)
025	Breezeway	066	Exit	107	Level	148	Program	189	West	230	- (Dash)
026	Building	067	Exterior	108	Library	149	Progress	190	Window	231	_ (Underscore)
027	Bus	068	Factory	109	Light	150	Quiet	191	Zone	232	*
028	Bypass	069	Failure	110	Lights	151	Rear	192	0	233	#
029	Bypassed	070	Family	111	Living	152	Receiver	193	1	234	:
030	Enclosure	071	Father's	112	Load	153	Report	194	2	235	/
031	Cancelled	072	Feature	113	Loading	154	RF	195	3	236	?
032	Car	073	Fence	114	Low	155	Right	196	4		
033	Carbon	074	Fire	115	Lower	156	Room	197	5		
034	Central	075	First	116	Main	157	Safe	198	6		
035	Chime	076	Floor	117	Master	158	Schedule	199	7		
036	Closed	077	Force	118	Mat	159	Screen	200	8		
037	Closet	078	Foyer	119	Medical	160	Second	201	9		
038	Closing	079	Freeze	120	Memory	161	Sensor	202	A		
039	Code	080	Front	121	Menu	162	Service	203	B		
040	Communi-cator	081	Furnace	122	Monoxide	163	Shed	204	C		
041	Computer	082	Gallery	123	Mother's	164	Shock	205	D		

7 Trouble Conditions

Trouble Conditions (Level 1) are comprised of various of trouble types (Level 2) which may in turn be related to a specific zone, module, device or additional type of system equipment (Level 3). For an explanation of possible trouble conditions and the recommended actions required see Table 1-2.

When the system detects a trouble condition the following occurs:

- The Trouble indicator ⚠ turns on.
- The keypad beeps once every 10 seconds.
- Press the [*] key to silence the keypad beeps.

Examining troubles is done by pressing [*] [2]. When viewing troubles, the trouble indicator ⚠ flashes to identify the level of trouble being viewed. One flash = level 1, two flashes = level 2 etc.

Table 1-2 Trouble Conditions

Trouble Condition	Trouble #	Description	Trouble Types	Trouble #	Trouble Notification
	Level 1			Level 2	Level 3
NOTE: Trouble #s are used to identify the number to view the trouble and depending on the keypad type being used, identifies which LED or digit illuminates to display the trouble. Similarly, Trouble Notification identifies the range that may be displayed on the keypad. When exploring the trouble levels, the Trouble indicator ⚠ will flash to identify which level you are currently viewing.					
Service Required	01	Assorted Trouble types. Time and Date troubles can be resolved by resetting the Time/Date. To set Time/Date press [*] [6] [0] [1]. For all other troubles call for service.	Bell Circuit	01	
			RF Jam	02	
			Auxiliary Supply	03	
			Time and Date	04	
			Output 1 Fault	05	
Battery Trouble	02	The system has detected a battery trouble condition. Call for service.	Low Battery (System Label)	01	n/a
			No Battery service. (System Label)	02	n/a
			High Current Output Low Battery	04	Module 1-4
			High Current Output No Battery	05	Module 1-4
			Power Supply Low Battery	07	Module 1-4
			Power Supply No Battery	08	Module 1-4
Bus Voltage	03	The system has detected a trouble condition. Call for service.	HSM2HOST	01	n/a
			Keypad	02	Keypad 1-16
			Zone Expander	04	Zone expander 1-15
			Power Supply	05	Power supply 1-4
			High Current Output	06	Output terminal 1-4
			Output Expander	08	Output module 1-16
AC Troubles	04	The system is experiencing loss of power. Call for service. If the building and/or neighborhood has lost electrical power, the system will continue to operate on battery for several hours.	Zone	01	Zone label or 001-128
			Siren	03	Siren 1-16
			Repeater	04	Repeater 1-8
			Power Supply	05	Power supply 1-4
			High Current Output	06	Output terminal 1-4
			System Label	07	n/a
Device Faults	05	The system has detected an issue with one or more connected devices. Call for service.	Gas		
			Heat		
			CO		
			Freeze		
			Probe Disconnected		
			Fire		
			Zone	01	Zone label or 001-128
			Keypad	02	Keypad 1-16
			Siren	03	Siren 1-16
			Repeater	04	Repeater 1-8

Table 1-2 Trouble Conditions (Continued)

Trouble Condition	Trouble #	Description	Trouble Types	Trouble #	Trouble Notification
	Level 1			Level 2	Level 3
Device Battery	06	The system has detected an issue with one or more of the device batteries. For Zone, Keypad and Wireless Key battery troubles see the accompanying documentation for how to change the batteries. For all other troubles call for service.	Zone	01	Zone label or 001-128
			Keypad	02	Keypad 1-16
			Siren	03	Siren 1-16
			Repeater	04	Repeater 1-8
			User	05	Wireless key 1-32
Device Tampers	07	The system has detected a tamper condition with one or more devices on the system. Call for service.	Gas		
			Heat		
			CO		
			Freeze		
			Probe Disconnected		
			Fire		
			Zone	01	Zone label or 001-128
			Keypad	02	Keypad 1-16
			Siren	03	Siren 1-16
			Repeater	04	Repeater 1-8
RF Delinquency	08	The system has detected wireless signal interference that is causing improper system operation. Call for service.	Zones	01	Zone label or 001-128
			Keypad	02	Keypad 1-16
			Siren	03	Siren 1-16
			Repeater	04	Repeater 1-8
Module Supervision	09	The system has detected a supervisory trouble condition with one or more modules on the system. Call for service.	HSM2HOST	01	n/a
			Keypad	02	Keypad 1-16
			Zone Expander	04	Zone Expander 1-15
			Power Supply	05	Power supply 1-4
			High Current Output	06	Output terminal 1-4
			Output Expander	08	Output module 1-16
Module Tampers	10	The system has detected a tamper condition with one or more modules on the system. Call for service.	HSM2HOST	01	n/a
			Keypad	02	Keypad 1-16
			Zone Expander	04	Zone Expander 1-15
			Power Supply	05	Power supply 1-4
			High Current Output	06	Output terminal 1-4
			Output Expander	08	Output module 1-16
Communications	11	The system has detected a communication trouble. Call for service.	TLM Trouble	01	n/a
			FTC Trouble	02	Phone Number 1-4
			SIM Lock	03	n/a
			Cellular	04	n/a
			Ethernet	05	n/a
			Receiver	06	Receiver 1-4
			Supervision	07	Supervision 1-4
			Alternate Communicator FTC	10	Receiver 1-4
Not Networked	12		Zone	01	Zone label 001-128
			Keypad	02	Keypad 1-16
			Siren	03	Siren 1-16
			Repeater	04	Repeater 1-8
			User	05	Users 01-95

8 Installer Warning

WARNING Please 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 Install**ation**

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, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

Warning Devices

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

Telephone Lines

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

Insufficient Time

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

Component Failure

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

Inadequate Testing

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

Security and Insurance

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

9 Safety Instructions

WARNING: This equipment has no mains on/off switch. the plug of the direct plug-in power supply is intended to serve as the disconnecting device if the equipment must be quickly disconnected. it is imperative that access to the mains plug and associated mains socket/outlet, is never obstructed.

WARNING: When using equipment connected to the mains and/or to the telecommunication network, there are basic safety instructions that should always be followed. Refer to the safety instructions provided with this product and save them for future reference.To reduce the risk of fire, electric shock and/or injury, observe the following:

- Do not attempt to service this product yourself. Opening or removing the cover may expose you to dangerous voltage or other risk. Refer servicing to qualified service persons. Never open the device yourself.
- Any servicing shall be referred to Service Persons only.
- Dispose the used batteries according to the local rules and regulations.
- Do not leave and/or deposit any object on the top of the equipment cabinet. The cabinet, as installed, is not designed to support any supplementary weight.
- 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.
- Never touch uninsulated wires or terminals unless the Direct Plug In transformer has been disconnected.
- Ensure that cables are positioned so that accidents cannot occur. Connected cables must not be subject to excessive mechanical strain.Do not spill any type of liquid on the equipment.
- Do not use the Alarm system to report a gas leak if the system is near a leak.
- The equipment is stationary/fixed and direct plug-in connected to the mains and shall be installed and serviced by service persons only.

9.1 Regular Maintenance and Troubleshooting

Keep your Alarm Controller in optimal condition by following all the instructions that are included within this manual and/or marked on the product.

9.1.1 Cleaning

- Clean the units by wiping with a damp cloth only.
- Do not use abrasives, thinners, solvents or aerosol cleaners (spray polish) that may enter through holes in the Alarm Controller and cause damage.
- Do not use any water or any other liquid.
- Do not wipe the front cover with alcohol.

9.1.2 Troubleshooting

Occasionally, you may have a problem with your Alarm Controller or telephone line. If this happens, your Alarm Controller will identify the problem and displays an error message. Refer to the provided list when you see an error message on the display. If additional help is required, contact your distributor for service.

NOTE: There are no parts replaceable by the end-user within this equipment, except for the keypad batteries. Dispose of used batteries as per local rules and regulations.

This publication covers the following models x = 9 (912-919MHz UL/ULC systems), 4 (433MHz) or 8 (868MHz).

- HS2016
- HS2128
- HS2032
- HS2064
- HS2LCD
- HS2LCDP
- HS2LCDRFx
- HS2LCDRFPx
- HS2LCDWFx
- HS2LCDWFPx
- HS2LCDWFPVx
- HS2LED
- HS2ICN
- HS2ICNP
- HS2ICNRFx
- HS2ICNRFPx

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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.

Always ensure you obtain the latest version of the User Guide. Updated versions of this User Guide are available by contacting your distributor.

New Zealand Telecom Network

The following is a list of warnings applicable when this equipment is connected to the New Zealand Telecom Network:

General Warning

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

Reverse Numbering (decadic signalling)

Decadic signalling should not be used as it is being progressively phased out of the network. DTMF dialling is 100% available and it should always be used.

Line Grabbing Equipment

This equipment is set up to carry out test calls at pre-determined times. Such test calls will interrupt any other calls that may be set up on the line at the same time. The timing set for such test calls should be discussed with the installer. The timing set for test calls from this equipment may be subject to 'drift'. If this proves to be inconvenient and your calls are interrupted, then the problem of timing should be discussed with the equipment installer. The matter should NOT be reported as a fault to Telecom Faults Service.

D.C. Line Feed to Other Devices

During dialling, this device unit does not provide DC voltage to the series port connection and this may cause loss of memory functions for the terminal devices (local telephone) connected to T-1, R-1.

General Operation (Ringer Sensitivity and Loading).

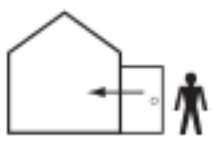
This device only responds to Distinctive Alert cadences DA1 and DA2

11 System Information

Mark if Buttons are Enabled

O **[F]** FIRE O **[A]** AUXILIARY O **[P]** PANIC

The Exit Delay Time is _____ seconds.



The Entry Delay Time is _____ seconds.

11.1 Service Contact Information

Central Station Information

Account#: _____ Telephone#: _____

Installer Information:

Company: _____ Telephone#: _____

Battery Installation / Service Date:

_____

_____

_____

IMPORTANT: If you suspect a false alarm signal has been sent to the central monitoring station, call the station to avoid an unnecessary response.

11.2 Regular Maintenance And Troubleshooting

Keep your Alarm Controller in optimal condition by following all the instructions that are included within this manual and/or marked on the product. Change batteries every 3-5 years.

11.2.1 Cleaning

- Clean the units by wiping with a damp cloth only.
- Do not use abrasives, thinners, solvents or aerosol cleaners (spray polish) that may enter through holes in the Alarm Controller and cause damage.
- Do not use any water or any other liquid.
- Do not wipe the front cover with alcohol.

11.3 Access Code and Sensor / Zone information

Master Code [40] : _____

Table 1-3 Access Code Reference sheet

Code	Access Code	Code	Access Code	Code	Access Code	Code	Access Code
01		13		25		37	
02		14		26		38	
03		15		27		39	
04		16		28		40	
05		17		29		41	
06		18		30		42	
07		19		31		43	
08		20		32		44	
09		21		33		45	
10		22		34		46	
11		23		35		47	
12		24		36		48	
49		55		61		67	
50		56		62		68	
51		57		63		69	
52		58		64		70	
53		59		65		71	
54		60		66		72	
73		79		85		91	
74		80		86		92	
75		81		87		93	
76		82		88		94	
77		83		89		95	
78		84		90			

Table 1-4 Sensor / Zone Information

Sensor	Protected Area	Sensor Type	Sensor	Protected Area	Sensor Type
01			65		
02			66		
03			67		
04			68		
05			69		
06			70		
07			71		
08			72		
09			73		
10			74		
11			75		
12			76		
13			77		
14			78		
15			79		
16			80		
17			81		
18			82		
19			83		
20			84		
21			85		
22			86		
23			87		
24			88		
25			89		
26			90		
27			91		
28			92		
29			93		
30			94		
31			95		
32			96		
33			97		
34			98		

Table 1-4 Sensor / Zone Information

Sensor	Protected Area	Sensor Type	Sensor	Protected Area	Sensor Type
35			99		
36			100		
37			101		
38			102		
39			103		
40			104		
41			105		
42			106		
43			107		
44			108		
45			109		
46			110		
47			111		
48			112		
49			113		
50			114		
51			115		
52			116		
53			117		
54			118		
55			119		
56			120		
57			121		
58			122		
59			123		
60			124		
61			125		
62			126		
63			127		
64			128		

12 Locating Smoke and CO Detectors

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.

12.1 Smoke Detectors

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

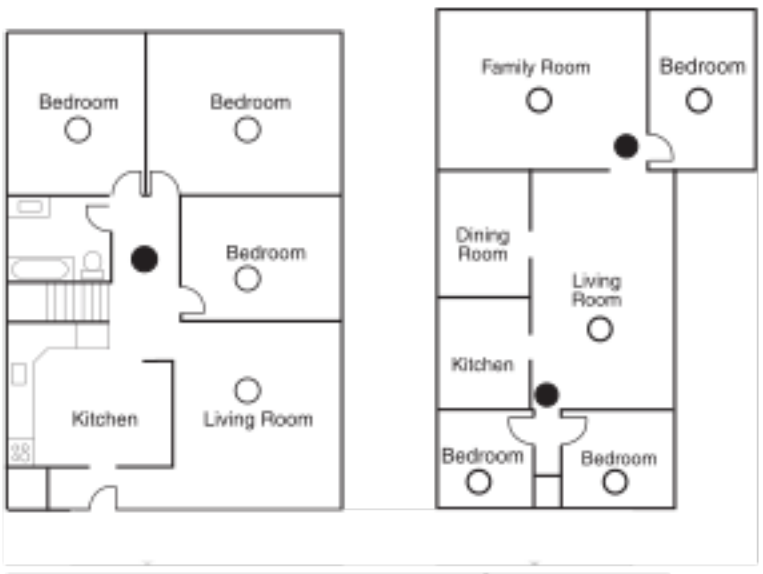
The following information is for general guidance only and it is recommended that local fire codes and regulations be consulted when locating and installing smoke alarms.

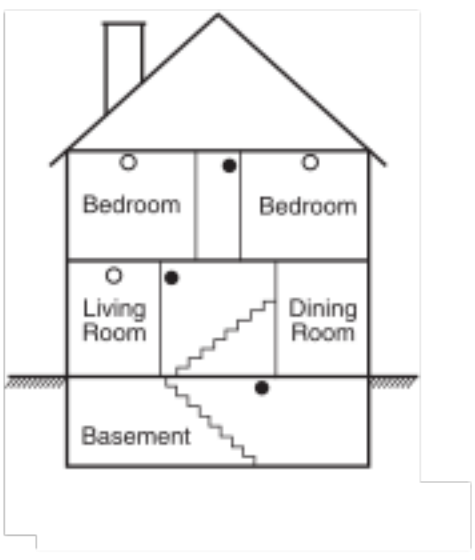
It is recommended that additional smoke alarms beyond those required for minimum protection be installed. Additional areas that should be protected include: the basement; bedrooms, especially where smokers sleep; dining rooms; furnace and utility rooms; and any hallways not protected by the required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

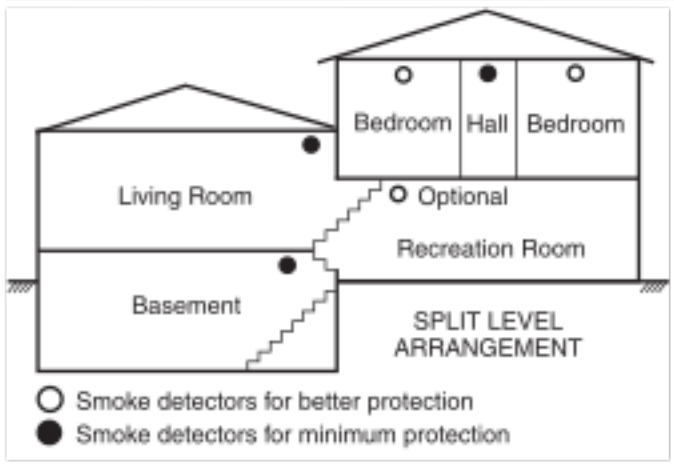
- Do not locate smoke detectors at the top of peaked or gabled ceilings; the dead air space in these locations may prevent the unit from detecting smoke.
- Avoid areas with turbulent air flow, such as near doors, fans or windows. Rapid air movement around the detector may prevent smoke from entering the unit.
- Do not locate detectors in areas of high humidity.
- Do not locate detectors in areas where the temperature rises above 38oC (100oF) or falls below 5oC (41oF).
- Smoke detectors should always be installed in USA in accordance with Chapter 11 of NFPA 72, the National Fire Alarm Code: 11.5.1.1.

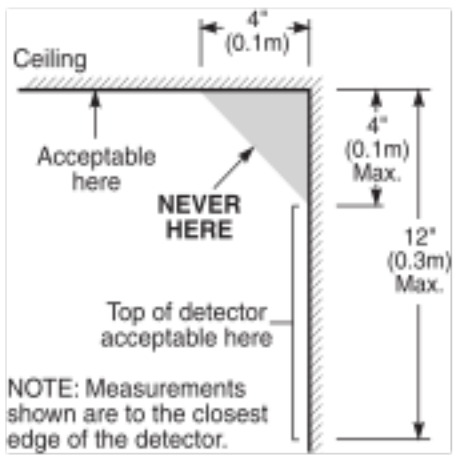
Where required by applicable laws, codes, or standards for a specific type of occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

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).









12.2 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.

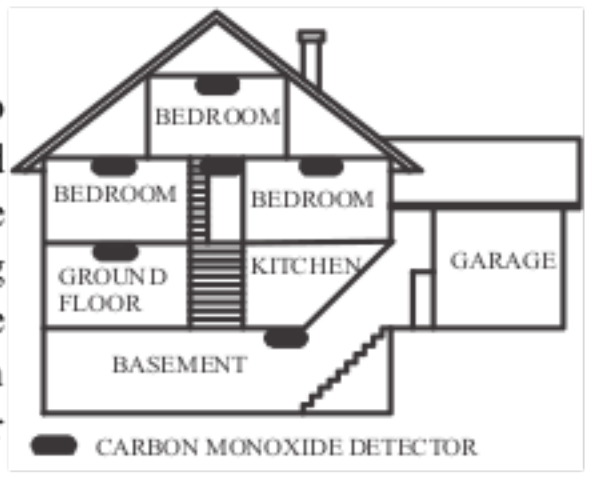
Consider the following when making your escape plans:

- 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.

12.3 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 -10ºC or exceed 40ºC
- 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
- Do not place in close proximity to an automobile exhaust pipe; this will damage the detector

13 Regulatory Agency Statements

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 deter-mined 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 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.

The keypads represented in this manual can be used with the following Control Units: HS2016, HS2032, HS2064, HS2128.

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, a product identifier. If requested, this number must be provided to the Telephone Company.

HS2016 Product Identifier US:F53AL01BHS2128
HS2032 Product Identifier US:F53AL01BHS2128
HS2064 Product Identifier US:F53AL01BHS2128
HS2128 Product Identifier US:F53AL01BHS2128
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 (HS2016, HS2032, HS2064, HS2128) causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the Telephone Company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

Changes in Telephone Company Equipment or Facilities

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

Equipment Maintenance Facility

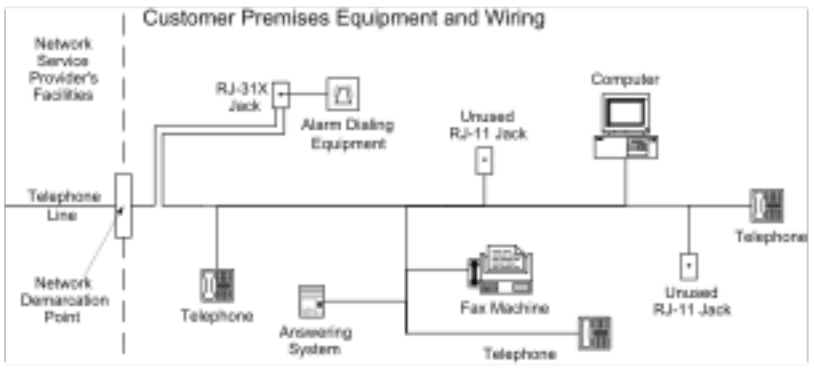
If trouble is experienced with this equipment (HS2016, HS2032, HS2064, HS2128) for repair or warranty information, contact the facility indicated below. If-the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is solved. This equipment is of a type that is not intended to be repaired by the end user.

DSC c/o APL Logistics 757 Douglas Hill Rd, 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 dialing equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialing equipment must be connected to a properly installed 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. If you have any questions concerning these instructions, you should consult your telephone company or a qualified installer about installing the RJ-31X jack and alarm dialing equipment for you.



INDUSTRY CANADA STATEMENT

NOTICE: The models: HS2128, HS2064, HS2032, HS2016 meet the applicable Industry 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 Industry Canada technical specifications were met. It does not imply that Industry Canada 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 5.

HS2016 Registration number IC:160A-HS2128

HS2032 Registration number IC:160A-HS2128

HS2064 Registration number IC:160A-HS2128

HS2128 Registration number IC:160A-HS2128

FCC AND INDUSTRY CANADA STATEMENTS FOR WIRELESS KEYPADS

Models: HS2LCDRF9, HS2LCDRFP9, HS2ICNRF9, HS2ICNRFP9 (operating in 912-919MHz band) are compliant with applicable FCC Part 15.247 and IC RSS-210 rules.

WARNING! To comply with FCC and IC RF exposure compliance requirements, the HS2LCDRF(P)9 or HS2ICNRF(P)9 keypads should be located at a distance of at least 20 cm from all persons during

normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.

This device complies with FCC Rules Part 15 and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2)this device must accept any interference that may be received or that may cause undesired operation.

IC:160A – HS2KRFP9

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

AVERTISSEMENT! Pour répondre aux exigences de conformité de la FCC et d'Industrie Canada sur les limites d'exposition aux radiofréquences (RF), les pavés numériques HS2LCDRF(P)9 ou HS2ICNRF(P)9 doivent être installés à une distance minimale de 20 cm de toute personne lors de leur fonctionnement usuel. Ces derniers ne doivent pas être situés au même endroit, ni être en fonction avec une autre antenne ou un autre transmetteur.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes:

(1)l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes:

(1)l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

The following is a list of warnings applicable when this equipment is connected to the New Zealand Telecom Network.

GENERAL WARNING

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

REVERSE NUMBERING (DECADIC SIGNALLING)

Decadic signaling should not be used as it is being progressively phased out of the network. DTMF dialling is 100% available and it should always be used.

LINE GRABBING EQUIPMENT

This equipment is set up to carry out test calls at pre-determined times. Such test calls will interrupt any other calls that may be set up on the line at the same time. The timing set for such test calls should be discussed with the installer. The timing set for test calls from this equipment may be subject to 'drift'. If this proves to be inconvenient and your calls are interrupted, then the problem of timing should be discussed with the equipment installer. The matter should NOT be reported as a fault to Telecom Faults Service.

D.C. LINE FEED TO OTHER DEVICES

During dialing, this device unit does not provide DC voltage to the series port connection and this may cause loss of memory functions for the terminal devices (local telephone) connected to T-1, R-1.

General operation (ringer sensitivity and loading)

This device only responds to Distinctive Alert cadences DA1 and DA2.

In the event of any problem with this device, it is to be disconnected. A CPE item connected to one of the device's terminal ports may be connected directly in its place. The user should then arrange for the product to be repaired. Should the matter be reported to Telecom as a wiring fault, and the fault is proven to be due to this product, a call-out charge will be incurred.

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