



**NESS SECURITY PRODUCTS**

# Securityguard III Programming Guide

**Please, Please Read Me**

## FEATURES

SGIII will be similar to SGII with Radio Dialler in format, installation and operation. It will include all the features and functions of SGII as well as the following changes and additions:

- 24 supervised and encrypted radio devices (minimum 1 key and 1 detector)
- backwards-compatible with existing non-supervised non-encrypted devices
- contemporary modernised case
- display with 6 characters with visibility comparable to existing display
- voice annunciation on SGIII unit (status, events, user instructions)
- second HOME mode
- variable volume of beeps and voice
- strobe light differentiation for arm and disarm
- doorbell
- fixed panic button (supervised)
- improved event memory (locally accessible)
- full up/downloadable
- two push-buttons on front of main unit providing volume control for voice & internal beeps

## DEVICE CATEGORIES

There are two categories of devices:

### 1. **Keys** (*devices operated by buttons*)

- User key
- Medical key
- Doorbell
- Fixed Panic button

### 2. **Detectors**

- PIR
- Reed switch

## DEVICE ALLOCATION

The allowable number of keys is 1-23, denoted as **KEY 1-23**.

The allowable number of detectors is 1-23, denoted as **SENSOR 1-23**.

The maximum allowable number of keys and detectors is 24, e.g. 4 keys + 20 detectors.

There are a total of 24 device slots. **KEY 1** must be programmed first, with a radio key device. **SENSOR 1** is permanently allocated to the main unit integral PIR. The remaining slots can be programmed with any combination of radio devices.

## OPERATION

### START UP

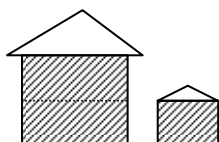
SecurityGuard restarts by either the key switch turning on and powering up the unit, or by a system reset caused by possible electrical interference.

When the unit is restarted it briefly allows entry into PROGRAM mode (refer to section 0). Following this, the unit enters the previous operational mode. If the unit was in ARMED, HOME, or HOME 2 mode, it will show the mode on the display for 30 seconds. During this period triggers from the main PIR are ignored, allowing it time to settle. After this, the unit resumes normal operation in the mode displayed. This process will occur silently, without the usual arming sounds.

### USER MODES

The system can be in one of four user modes, *DISARMED*, *HOME*, *HOME 2* and *ARMED*. From the DISARMED mode, an ON press enters ARMED mode, a second ON press enters HOME mode, and a third ON press enters HOME 2 mode (provided devices are programmed for these modes), as detailed in the following sections.

#### ARMED

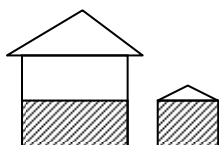


Press ON button once to ARM the system.

<i>Display</i>	<b>ARMED</b>	Display for exit delay duration
<i>OK Light</i>	<b>OFF</b>	
<i>Voice</i>	<b>"Armed"</b>	If V-ARM option enabled
<i>Siren</i>	<b>1 chirp internal at start of exit delay (if V-ARM option disabled), and 1 chirp at end of exit delay</b>  <b>1 chirp external (if enabled) at start of exit delay</b>	
<i>Strobe</i>	<b>flash for 2 seconds</b>	

When the display extinguishes, the system is fully armed. An optional exit delay may be programmed if desired.

#### HOME



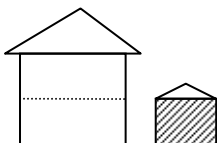
Press ON button two times (less than 4 seconds apart) to enter HOME mode.

When display extinguishes system is armed in HOME mode. HOME mode may only be entered if programmed and SecurityGuard is DISARMED.

<i>Display</i>	<b>HOME</b>	Display for exit delay duration
<i>OK Light</i>	<b>flash once every 2 seconds</b>	Indicates SecurityGuard is in HOME mode
<i>Voice</i>	<b>"Home"</b>	If V-ARM option enabled
<i>Siren</i>	<b>Internal: HOME arming tone</b>	If V-ARM option disabled
<i>Strobe</i>	<b>flash for 5 seconds</b>	



## HOME 2

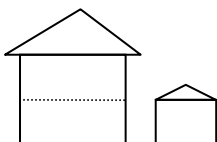


Press ON button three times (successive presses less than 4 seconds apart) to enter HOME 2 mode.

When display extinguishes system is armed in HOME 2 mode. HOME 2 mode may only be entered if programmed and SecurityGuard is DISARMED.

<i>Display</i>	<b>HOME 2</b>	Display for exit delay duration
<i>OK Light</i>	<b>double flash every 2 seconds</b>	Indicates SecurityGuard is in HOME 2 mode
<i>Voice</i>	<b>“Home two”</b>	If V-ARM option enabled
<i>Siren</i>	<b>Internal: HOME 2 arming tone</b>	If V-ARM option disabled
<i>Strobe</i>	<b>flash for 5 seconds</b>	

## DISARMED



Press OFF button once to DISARM or silence an alarm.

<i>Display</i>	<b>OFF</b>	Display for 5 seconds
<i>OK Light</i>	<b>flash once every 5 seconds</b>	Indicates SecurityGuard is functioning normally
<i>Voice</i>	<b>“Disarmed”</b>	If V-ARM option enabled
<i>Siren</i>	<b>3 chirps internal 3 chirps external (if enabled, and only if disarming from ARMED mode)</b>	If alarm has occurred, then disarming from ARM, HOME, or HOME 2 modes gives chirps: <ul style="list-style-type: none"> <li>• Internal: if V-ARM option enabled then warning message after chirps; if V-ARM option disabled then rapid chirps for 5 seconds</li> <li>• External: rapid chirps for 5 seconds even if external chirps disabled</li> </ul>
<i>Strobe</i>	<b>flash for 4 seconds</b>	Note: this is twice the flash interval of ARMED mode for differentiation

An optional entry delay may be programmed if desired.

## KEY TYPES

### USER KEY

- 3-button pendant key
- Program option **KEY** or **DURESS**
- Not supervised
- Disable Panic on Radio Key

### MEDICAL KEY

- Pendant key
- Program option **MEDIC**
- Not supervised

### FIXED PANIC BUTTON

- Fixed single button panic
- Program option **KEY** or **DURESS**
- Supervised



## DOORBELL

- Fixed single button doorbell
- Program option **BELL**
- Not supervised

## PANIC/DURESS OPERATION

Panic/duress alarms may be sent by either a

- User Key PANIC button (button delay)
- Fixed Panic Button (**no** button delay)

The panic alarm described above can be programmed as either:

- **Panic Alarm** - Internal and external sirens sound immediately and the strobe flashes. Panic alarm reported on dialler if fitted. Press OFF to silence
- **Duress Alarm** - Panic alarm reported silently on dialler. Sirens and strobe are not activated

## OK LIGHT

A visual indication of correct functioning of the unit shall be provided as a light on the front panel, with the behaviour shown:

Mode	Behaviour
DISARMED, ARMED, HOME, HOME 2 modes	See section above for description
Battery charging from mains	Inverse of behaviour above, i.e. light ON and flashes OFF briefly (not PROGRAM mode). After 24 hour charging period has expired, light reverts to normal operation even if mains is still connected.
Main PIR trigger	OK light turns on for a few seconds when PIR triggers in: 1. PROGRAM mode when RANGE or PULSE selected 2. DISARMED mode (after triggering in DISARM mode, the main PIR is locked out for 4 minutes to conserve the battery) similar to radio PIR's
Reed switch Check mode programmed	OK light turns on when device is selected in PROGRAM mode and is a reed switch programmed in Check mode.

## FRONT PANEL PUSHBUTTONS

The front panel buttons allow the user to program the options shown below. Press the Left Button to step through each option; press the Right Button to step through the various values for the selected option (the last value selected becomes the new programmed value).

Selected options and values are annunciated as well as displayed. The display extinguishes after a short period of inactivity.

### VOLUME VOICE ANNUNCIATION & BEEP VOLUME (default = 3)

1-4	Volume level (1=quietest)
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### BELL DOORBELL SOUNDS (default = BELL 1)

BELL 1	"ding-dong"
BELL 2	"ding"
BELL 3	"fog horn"

### BELVOL DOORBELL VOLUME (default = 3)

OFF	Doorbell disabled
1-4	Volume level (1=quietest)





## ALARMS

### INTRUDER ALARMS

Following this type of alarm the internal and external sirens sound and strobe flashes. The siren will turn off after the programmed siren time and the strobe will flash for 1 hour or 12 hours while mains power is connected.

The OFF button cancels any alarm and puts the SecurityGuard into the DISARMED state.

When disarming after an alarm, the SecurityGuard will indicate an alarm has occurred. The strobe flashes and siren will beep rapidly for 5 seconds (both internal and external, even if external chirps are disabled).

This warning may indicate that an intruder is still present.

The source of the alarm is then displayed for 5 minutes. Intruder alarms are not indicated when the system is in ARMED, HOME or HOME 2 modes.

A time stamp is appended to each of the following alarm messages displayed when displayed. For example, if the alarm occurred within 24 hours, the time stamp is appended as: ... < **2 HRS < 15 MIN < AGO**; for events older than 24 hours: ... < **1 DAY < 13 HRS < AGO**.

<i>DISPLAY</i>	<i>DESCRIPTION</i>
<b>ALARM &lt; SENSOR &lt; 1</b>	ALARM SecurityGuard integral detector
<b>ALARM &lt; SENSOR &lt; 2-23</b>	ALARM from peripheral radio detector
<b>TAMPER &lt; SIREN &lt; BOX</b>	<p>SIREN TAMPER</p> <p>Tamper is excluded if unsealed when powered up. <b>SIREN &lt; TAMPER &lt; EXCLUD</b> is flashed on the status display and warning beeps sound to indicate tamper is excluded. Arming and then Disarming the system will clear this display and disable the tamper function.</p> <p>When not excluded, a Tamper activation will:</p> <ol style="list-style-type: none"> <li>1. In ARMED mode, sound a full alarm</li> <li>2. In HOME, HOME 2 or DISARMED modes, sound a low-volume warning sound. The warning will sound again for further Tamper deactivation/reactivations</li> </ol> <p>Tamper deactivation will cause an alarm restore, however the Alarm log will only clear after an Arm/Disarm cycle.</p> <p>After Arm/Disarm, if the Tamper is still active, it will remain in the Alarm log. If it is then deactivated, the Alarm log will immediately clear.</p>
<b>TAMPER &lt; SENSOR &lt; 2-23</b>	<p>Sensor has reported a tamper alarm.</p> <p>Tamper activation will:</p> <ol style="list-style-type: none"> <li>1. In ARMED mode, sound a full alarm</li> <li>2. In HOME, HOME 2 or DISARMED modes, sound a low-volume warning sound.</li> </ol> <p>Tamper deactivation will cause an alarm restore and</p>

	re-arm for subsequent Tamper activations. The Alarm log will clear only after an Arm/Disarm cycle, whether or not Tamper deactivation has occurred.
<b>PANIC &lt; KEY (or BUTTON or MEDIC) &lt; 1-23</b>	PANIC ALARM from key or fixed panic button or medical key  On silencing a PANIC alarm (OFF button), the status display indicates which key caused the alarm.
<b>RADIO &lt; JAMMED</b>	Radio jamming signal detected.
<b>RADIO &lt; TAMPER</b>	Radio intentional message substitution detected.

## Event Log

Intruder alarm events are logged in memory and displayed with the time elapsed since the alarm occurred.

In DISARMED mode, press OFF to step through the log. Once all logged alarms have been displayed, pressing OFF will clear the display. Pressing OFF again will redisplay the first event in the log, etc.

To clear the log, enter ARMED, HOME or HOME 2 modes.

The alarm event log will store up to 5 events. If the log is full, logging a new event causes the oldest event to be discarded. Events older than 100 days will be discarded.

## SYSTEM ALARMS

System alarms are listed following, and are indicated by flashing the messages shown on the display for 5 minutes. The siren also chirps for 3 seconds.

System alarms are not indicated when the system is in ARMED, HOME or HOME 2 modes.

See section 0 for details of corresponding voice messages. A time stamp is appended to each of the following alarm messages when displayed (as shown in section 0).

<i>DISPLAY</i>	<i>DESCRIPTION</i>
<b>BATTRY &lt; KEY (or BUTTON or MEDIC or BELL) &lt; 1-23</b>	LOW BATTERY key or fixed panic button or medical key or doorbell  Indicates a low battery condition. Low battery alarms occur when a detector or a key operates with a low battery.
<b>BATTRY &lt; SENSOR &lt; 2-23</b>	LOW BATTERY detector  Indicates a low battery condition. Low battery alarms occur when a detector or a key operates with a low battery.
<b>FAIL &lt; SENSOR &lt; 1- 23</b>	1. Non-supervised detector (existing) A detector has not operated for 20 ARM/OFF cycles. The detector should be checked to ensure it is operating correctly.  2. Supervised detector (new for SGIII) A radio supervisory message has not been received from this detector for 4 hours. The detector should be checked to ensure it is operating correctly  Note: This alarm is only active if the SUPERVISED DETECTORS option is enabled. FIRE detectors are not checked.
<b>OPEN &lt; SENSOR &lt; 2-23</b>	REED SWITCH: open on ARMING  A reed switch detector programmed for Check mode operation was unsealed when entering ARMED, HOME or HOME 2 modes. The detector should be checked to ensure that it has sealed. Sound Warning tone on ARMING (at end of EXIT DELAY).
<b>LOW &lt; MAIN &lt; BATTERY</b>	LOW BATTERY SecurityGuard  The main unit battery is load-tested on SecurityGuard every 24 hours and when the system is disarmed. A low battery condition is cleared immediately when mains power goes from off to on.
<b>DIALER &lt; RADIO &lt; FAIL</b>	DIALLER RADIO FAIL Indicates SecurityGuard was not able to communicate with the dialler over the radio link.
<b>DIALER &lt; POWER &lt; FAIL</b>	DIALLER MAINS FAIL Indicates AC mains to Dialler is not connected or power is off
<b>DIALER &lt; BATTERY &lt; LOW</b>	DIALLER LOW BATTERY Indicates battery on Dialler is missing, low, or unable to hold charge
<b>DIALER &lt;</b>	DIALLER CALL FAIL

<b>CALL &lt; FAIL</b>	Indicates dialler was not able to successfully contact the monitoring station.
<b>DIALER &lt; LINE &lt; FAULT</b>	DIALLER LINE FAULT Indicates minimum telephone line DC voltage was not detected for over 2 minutes.

### Event Log

System alarm events are logged in memory.

In DISARMED mode, press OFF to step through the log. Once all logged alarms have been displayed, pressing OFF will clear the display. Pressing OFF again will redisplay the first event in the log, etc.

Entries in the log will cleared only when the cause of the alarm has been rectified, or when power is turned off using the key switch.

The alarm event log will store up to 5 events. If the log is full, logging a new event causes the oldest event to be discarded. Events older than 100 days will be discarded.

### ENTRY & EXIT DELAY

EXIT DELAY is the time between pressing the ON button to system ARMED, during which detector activations are ignored. The siren will chirp once when the ON button is pressed to indicate EXIT DELAY start and chirp once at exit delay end to indicate ARMED.

Warning tone at the end of EXIT DELAY indicate a reed switch is unsealed, displayed as specified.

ENTRY DELAY is the time between a detector activation to system DISARMED, during which detector activations do not cause an alarm. During ENTRY DELAY the siren will chirp once a second. When the OFF button is pressed the siren chirps 3 times to indicate DISARMED. If the OFF button is not pressed within the ENTRY DELAY, the siren sounds and strobe flashes.

## ABORT DELAY

When an alarm event occurs, the siren sounds when ENTRY DELAY expires. The alarm sent to monitoring station only after ABORT DELAY expires. ABORT DELAY commences immediately after ENTRY DELAY expires. This gives the user time to abort the sending of an accidental alarm by pressing the OFF button within the ABORT DELAY period.

ABORT DELAY is a programmable option. If ABORT DELAY is programmed to 0, then an alarm will be sent at the expiry of ENTRY DELAY, i.e. not user CANCEL can be sent. If the OFF button is pressed before ABORT DELAY expires, a user CANCEL message will be sent. (CANCEL is a non-actionable event for the monitoring station, but it makes the monitoring station aware that the system had been briefly triggered before a user cancel.)

## LOCKOUT

Alarm lockout inhibits multiple activation's of the same alarm (excluding panic), i.e. the external siren will not sound again until the OFF button is pressed (alarm cleared). The internal siren will always sound if the option is OFF.

If the option is ON both the external and internal sirens will be locked out. Required by AS2201.1

## RUNAWAY

Runaway limits the number of times an alarm from a particular device will be sent to the monitoring station. After 3 alarms have been sent, no further alarms for that device will be sent to the central station until the system is DISARMED and ARMED.

This feature prevents a large customer phone bill being incurred if, for example, a door protected by a reed switch is left unlatched and swings open and shut many times. Runaway is permanently enabled.

## PROGRAMMING

SGIII is programmed in a similar way to SGII. The main difference is in the way radio devices are programmed in. SGIII uses a common "LEARN" mode to listen for programming messages from new devices. The installer does not specify a slot number, instead the unit allocates the next available slot when a device is accepted.

## LEARNING NEW DEVICES

1. Using the key switch, turn SecurityGuard off then on.
2. The software revision number is displayed briefly.
3. If unit has no keys programmed, it will display **LEARN / KEY 1** until a key is programmed, otherwise the unit flashes **LEARN** and waits 10 seconds to receive a radio key message:
  - If OFF is pressed on a programmed key, the unit enters PROGRAM mode, displaying the first programmed key.
  - If ON is pressed on a programmed key, the unit enters PROGRAM mode, flashing **READY** and listening for a LEARN message from a new device (key or detector).
  - If a LEARN message is received from an unprogrammed key, the unit will add the key to the next available slot and display the new slot number, then allow the user to configure the new key.
  - If none of the above occur after 10 seconds, the unit enters OPERATE mode. This is only the case if there is at least one radio key programmed in.

4. To cause a device to send a LEARN message:

<b>Device</b>	<b>Mode</b>	<b>Learn Procedure</b>
Key	Unencrypted	Press any button 3 times
	Encrypted	Hold down PANIC button for approx. 8 seconds
Sensor	Unencrypted	Trigger device
	Encrypted	Disconnect & reconnect battery

If the device is successfully programmed, SecurityGuard will give a BEEP, BEEP, BEEP-BEEP. The unit will add the new device to the next available slot, display the new slot number, and allow the user to configure the new device. If the key or device is already programmed an error BBRRRR sound will occur.

This also applies if the method of programming an encrypted key or device is incorrect. eg. If you try programming an encrypted key in by pressing the OFF button three times the error BBRRRR sound will be heard.

Press OFF to return to **LEARN**.

Press ON to flash **READY** and learn another device, or press OFF to step through devices and program options.

## CONFIGURING DEVICES & OPTIONS

In PROGRAM mode, **devices** (programmed keys and detectors) and system **options** (e.g. EXIT TIME) are displayed steady. The current programmed **value** for each of device/option is displayed flashing when viewed. Various beeps (as per SGII) give audible feedback during the programming process.

- Press OFF (on a programmed key) to step through the devices/options.
- Press ON to view the value for that option. The programmed value will be displayed (flashing). Press the ON button to step through alternative values, which will be displayed steady.
- Press the PANIC button to store the displayed value (causing it to flash).
- Press OFF to step to next device/option.

## PROGRAMMING NOTES

Program stepping requires a programmed key.

Each time a programming change is made, the new value will be flashing and is stored immediately in non-volatile memory..

A programmed device can be erased by selecting **ERASE**. The display will then show **LEARN**, giving the user the option of reprogramming a new device into this particular slot. This allows a faulty device to be replaced while keeping the same slot number.

SecurityGuard will flash **FULL** if an attempt is made to program a device when no slot is available. It will allow programmed devices to be viewed in sequence and erased if desired.

A key cannot be used to erase itself. A device cannot be programmed more than once. SecurityGuard will give a long warning beep if either are attempted.

SecurityGuard will automatically exit PROGRAM mode after 10 minutes of inactivity.

## RADIO DIALLER

### Local Programming

1. Ensure Radio Dialler is powered up. Radio Dialler need only to be powered off and on if a different Client Account Number is to be programmed into SGIII.
2. Power up SGIII and press OFF to enter PROGRAM mode.
3. To program Radio Dialler, the SGIII must have at least the **PHONE1** Option set to a value other than the default value of “-”.
4. Finish programming SGIII and exit PROGRAM mode. If **PHONE1** has been programmed, then if data transfer to Radio Dialler has not been successful within a short period of time, SGIII will display a system alarm indicating radio link failure with the Dialler.

After SGIII has been operating continuously for 30 days, then in PROGRAM mode the Options **CLIENT**, **PHONE1**, and **PHONE2** will no longer appear and therefore cannot be changed locally. They may be changed using the Up/download facility at any time, and local programming of them can be re-enabled using Up/download.

### Remote Programming

1. Ensure Radio Dialler is powered up. Radio Dialler does not need to be powered off and on.
2. Power up SGIII and press OFF to enter PROGRAM mode. Radio Dialler will now be ready to answer incoming calls for the next 5 minutes. If the Dialler answers a call but does not verify within 30 seconds it will hang-up. Once a connection is established, the Dialler will unconditionally hang-up after 5 minutes if a hang-up is not requested sooner by the remote end.
3. Once a connection is established, program the SGIII/Radio Dialler system as required.
4. SGIII will exit PROGRAM mode when the Up/down connection is terminated, or when the SGIII PROGRAM mode timer expires, whichever occurs first. If **PHONE1** has been programmed, then if data transfer to Radio Dialler has not been successful within a short period, SGIII will raise a system alarm indicating radio link failure with the Dialler.

### Supervision

SGIII transmits supervision messages to Radio Dialler every hour. A system alarm is raised if the Dialler does not acknowledge the message after the programmed number of hours (Option **SUPVIS** value).

### Alarms

SGIII places alarm events for transmission to the Radio Dialler on a queue. It transmits the next message on the queue, and if no acknowledge is received from the Dialler, SGIII re-transmits the message for a total of 10 attempts. If still unsuccessful, SGIII ceases transmitting until a new event occurs and raises a system alarm.

The oldest messages on the queue is sent first. If the queue is full (10 messages), a new message will overwrite the oldest message.

### Dialler Status

Dialler status is sent to SGIII when a condition changes, and SGIII raises a system as required.

**PROGRAMMING OPTIONS:**

**KEY 1-23      KEY 1-23 (default = KEY)**

<b>KEY</b>	USER KEY	Alarm system user key
<b>DURESS</b>	DURESS	User key with PANIC button programmed for "DURESS" operation
<b>MEDIC</b>	MEDICAL	Medical help key (behaves like Duress alarm)
<b>BELL</b>	DOORBELL	Doorbell
<b>NO PAN</b>	NO PANIC	Stops the Panic button from operating
<b>ERASE</b>	ERASE	Remove previously programmed key

**SENS 1      DETECTOR 1 (main unit detector, permanently allocated; default = ALARM)**

<b>ALARM</b>	ALARM	Active when ARMED, inactive when DISARMED
<b>HOME</b>	HOME	Active when ARMED or HOME modes
<b>HOME 2</b>	HOME 2	Active when ARMED, HOME or HOME 2 modes
<b>FIRE</b>	FIRE	24 hour alarm, always active
<b>CHIME</b>	CHIME	Chime* when DISARMED, inactive when ARMED, HOME or HOME 2 modes
<b>ACHIME</b>	ALARM/CHIME	Alarm when ARMED, chime** when DISARMED, inactive when in HOME or HOME 2 modes
<b>HCHIME</b>	HOME/CHIME	Alarm when ARMED mode, chime** when in HOME or HOME 2 modes, inactive when DISARMED
<b>EXCLUD</b>	EXCLUDE	Detector is excluded

- (\*) Chime tone
- (\*\*) Warning tone

**SENS 2-23      DETECTOR 2-23 (default = ALARM)**

To learn a new detector:

Display shows **LEARN**

*Non-encrypted restoring detector (e.g. reed switch):*

- As per existing (close reed for Check mode, open reed for non-Check mode operation. OK light turns on when Check mode operation successfully programmed)

*Non-encrypted non-restoring detector (e.g. PIR):*

- Activate detector 3 times. SecurityGuard beeps each activation and gives 2 beeps when code accepted and flashes **SENS 2-23**

*Encrypted restoring detector (e.g. reed switch):*

- Power the detector off then on by momentarily disconnecting the battery with close reed for Check mode, open reed for non-Check mode operation. OK light turns on when Check mode operation successfully programmed. SecurityGuard gives 2 beeps when code accepted and flashes **SENS 2-23**

*Encrypted non-restoring detector:*

- Power the detector off then on by momentarily disconnecting the battery. SecurityGuard gives 2 beeps when code accepted and flashes **SENS 2-23**

<b>ALARM</b>	ALARM	Active when ARMED, inactive when DISARMED
<b>HOME</b>	HOME	Active when ARMED or HOME modes
<b>HOME 2</b>	HOME 2	Active when ARMED, HOME or HOME 2 modes
<b>FIRE</b>	FIRE	24 hour alarm, always active.
<b>CHIME</b>	CHIME	Chime* when DISARMED, inactive when ARMED, HOME or HOME 2 modes
<b>ACHIME</b>	ALARM/CHIME	Alarm when ARMED, chime** when DISARMED, inactive when in HOME or HOME 2 modes
<b>HCHIME</b>	HOME/CHIME	Alarm when ARMED mode, chime** when in HOME or HOME 2 modes, inactive when DISARMED
<b>ERASE</b>	ERASE	Detector is erased



(\*) Chime tone  
(\*\*) Warning tone

**RANGEDETECTOR RANGE** (default = **LOW**)

<b>LOW</b>	Low range 8m
<b>HIGH</b>	High range 14m

Note: OK light turns on each time PIR is activated.

**PULSE DETECTOR PULSE COUNT** (default = **3**)

<b>1-4</b>	Number of times (1-4) a detection beam needs to be crossed before an alarm occurs
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Note: OK light turns on each time PIR is activated.

**SIGNAL SIGNAL CHECK:** Check signal strength of radio detectors and keys

SecurityGuard registers the first device received and displays the signal strength (1-9), and beeps a corresponding number of times.

- Press ON to activate Signal Check display shows "SEND DEVICE"
- For a key, press PANIC; for a detector, activate the detector
- Listen to beeps, view display
- Press OFF to exit Signal Check
- Press ON to re-activate Signal Check

<b>--</b>	No detectors received
<b>SENS 2-23</b>	Detector x received
<b>KEY 1-23</b>	Key x received
<b>1-9</b>	Signal strength

Note: OK light indicates main detector trigger

**RADJAM RADIO JAMMING** (default = **OFF**)

In the event of a SecurityGuard sensing a continuous (>30 secs) source of Radio Frequency Interference (RFI), it can generate a CHIME alarm in DISARMED or HOME or HOME 2 modes, and a full alarm in ARMED modes.

<b>ON</b>	Enabled
<b>OFF</b>	Disabled

**RADSUB RADIO INTENTIONAL MESSAGE SUBSTITUTION** (default = **OFF**)

In the event of a SecurityGuard sensing a radio message with a recognised device ID but failing decryption, it can generate a CHIME alarm in DISARMED or HOME or HOME 2 modes, and a full alarm in ARMED modes.

<b>ON</b>	Enabled
<b>OFF</b>	Disabled

**SUPVIS****SUPERVISION STATUS (default = 8)**

**Non-supervised devices:** If enabled, a system alarm will occur if the detector has not triggered for 20 ARM/DISARM operations. The count starts after the device's first transmission following PROGRAM mode exit. If the warning is ignored, the display will come back until the detector transmits and does not trigger again for another 20 ARM/DISARM operations.

**Supervised devices:** If enabled, a system alarm will occur if a valid supervisory message has not been received from the detector within the period set in this option. Supervised devices send a poll message every hour (with a random factor of +- 2min to eliminate collisions) If the main system does not receive a signal for **X** consecutive hours then a warning will be displayed.

<b>1,4,8,16,24</b>	Supervision alarm occurs if no supervisory message is received within set period (in hours)
<b>OFF</b>	Supervision alarms disabled

**LOKOUT****DETECTOR LOCKOUT (default = OFF)**

If DETECTOR LOCKOUT is enabled, all devices will only sound the external siren the first time they alarm. Any subsequent alarms from these detectors will only sound the internal siren and flash the strobe.

<b>ON</b>	Enabled
<b>OFF</b>	Disabled

**ENTRY****ENTRY DELAY TIME (default = 10)**

<b>5-30</b>	Time in seconds; values in 5 second steps
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**EXIT****EXIT DELAY TIME (default = 5)**

<b>5-60</b>	Time in seconds; values in 5 second steps
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**SIREN****SIREN RESET TIME (default = 5)**

<b>1, 2, 5</b>	Reset time in minutes
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**CHIRPS****EXTERNAL SIREN CHIRPS (default = ON)**

External siren chirps on ARM and DISARM. External siren does chirp when activating or deactivating HOME or HOME 2 modes, even when this option is enabled.

<b>ON</b>	Enabled
<b>OFF</b>	Disabled

**V-ARM VOICE ANNUNCIATION ARM/DISARM (default = ON)**

<b>OFF</b>	Armed and disarmed events not annunciated
<b>ON</b>	Armed and disarmed events annunciated

**V-ALRM VOICE ANNUNCIATION ALARM (default = ON)**

<b>OFF</b>	Alarm events not annunciated
<b>ON</b>	Alarm events annunciated

**V-BATT VOICE ANNUNCIATION LOW BATTERY (default = ON)**

<b>OFF</b>	Low battery events not annunciated
<b>ON</b>	Low battery events annunciated

**V-FALT VOICE ANNUNCIATION FAULT (default = ON)**

<b>OFF</b>	System faults not annunciated
<b>ON</b>	System faults annunciated

**V-FAI VOICE ANNUNCIATION FAI (default = OFF)**

<b>OFF</b>	Sales presentation not annunciated
<b>ON</b>	Sales presentation annunciated

**OPEN OPEN/CLOSE REPORTS (default = OFF)**

Open/close reports are messages sent to the monitoring station each time the system is ARMED or DISARMED, including which user (user ID) operated the system.

<b>ON</b>	Enabled
<b>OFF</b>	Disabled

**LOWBAT LOW BATTERY REPORTING (default = NONE)**

- NONE** No low battery reporting
- MAIN** Report low main battery
- SENSOR** Report low detector batteries
- ALL** Report low main and detector batteries

**CLIENT CLIENT ACCOUNT NUMBER (default = 0000)**

After a period of 30 days following PROGRAM mode EXIT, this option can only be reprogrammed via remote Up/download (option hidden in local PROGRAM mode).

- Press ON to view programmed client account number. The first digit will flash.
- Press ON to step through values for the first digit (**0-9**).
- Press PANIC to store the digit. The second digit will now flash.
- Repeat for remaining digits.
- Press PANIC to store last digit, and first digit will flash.
- Repeat programming procedure to make corrections, or press OFF to return to top level

<b>0000-</b>	Client Account number
--------------	-----------------------

9999	
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**PHONE1      PHONE NUMBER 1 (default = -)**

Dialler function is enabled when PHONE1 is programmed (i.e. not '-').

Up to 20 digits can be programmed. After a period of 30 days following PROGRAM mode EXIT, this option can only be reprogrammed via remote Up/download (option hidden in local PROGRAM mode).

- Press ON to view programmed phone number, which will scroll across the display, after which 2 beeps will occur and the first digit will be flashing.
- Press OFF to leave the number unchanged and step to the next option.
- Press ON to step through values for the first digit:
  - **PAUSE**
  - 0-9**        **digits 0-9**
  - \*            **STAR**
  - #            **HASH**
- Press PANIC to store the first digit. The second digit will flash.
- Repeat for each digit (the display will scroll left after the fourth digit is entered).
- Press ON to store the last digit, then press OFF.  
The programmed phone number will scroll across the display, after which 2 beeps will occur and the first digit will be flashing.
- Press OFF to step to next option, or repeat procedure to make corrections.

**PHONE2      PHONE NUMBER 2 (default = -)**

Same as **PHONE NUMBER 1**.

**ABORT      DIALLER ABORT DELAY (default = 15)**

Gives the opportunity to abort sending an alarm message to the monitoring station within the programmed time (i.e. cancel a false alarm).

<b>0-60</b>	Time in seconds, 5 second steps
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**MEDIC      MEDICAL KEY ABORT DELAY (default = 20)**

Gives the opportunity to abort sending a Medical alarm message to the monitoring station within the programmed time (i.e. cancel a false alarm).

<b>0-60</b>	Time in seconds, 5 second steps
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**T-CALL      DIALLER TEST CALL (default = 7)**

If enabled, the first test call is sent 14 hours after PROGRAM mode EXIT.

<b>OFF</b>	Test calls disabled
<b>1,7,14, 30</b>	Test call period in days

## DEFALT      RESET TO FACTORY DEFAULTS

Erase devices and/or default options as required.

**PHONE1**, **PHONE2** and **CLIENT** will only be cleared if programming timeout has not disabled reprogramming of these options. SecurityGuard will jump to the start of PROGRAM mode, displaying **KEY 1**.

<b>ALL</b>	Erases all programmed devices and defaults all options
<b>OPTION</b>	Defaults all option values
<b>KEY</b>	Erases all keys
<b>SENSOR</b>	Erases all detectors; defaults <b>SENSOR 1</b> (main PIR)

## P-EXIT      PROGRAM MODE EXIT/CONTINUE

- Press ON to exit PROGRAM mode.
- Press OFF to step to first program option.
- If the OFF button is pressed, LEARN will be displayed. By then pressing ON, READY will be flash and the unit will be ready to learn a new code (radio key or device)

## DIALLER

The Radio Dialler will allow a correctly configured SecurityGuard to report alarms to a central monitoring station via the telephone line.

It also provides remote programming of SecurityGuard using a PC with "Up/download" software and a modem.

## ALARM REPORTING

This reporting is used to transmit alarms from a customer's site to a central monitoring station via the telephone.

There are 2 phone numbers, a primary number **PHONE1** and a secondary number **PHONE2**. Reports are usually sent on the primary number but if the dialler is unsuccessful in connecting, it will dial the secondary number. Telephone numbers must be programmed into the system.

A client account number is allocated by the monitoring company to identify the customer. The client account number must be programmed into the system.

New alarms initiate a dial out report. Alarms are deemed to be restored when the OFF button on a programmed key is pressed.

The dialler reports alarms to a central monitoring station in Contact ID format (see section □).

- **CONTACT ID REPORTING**

This reporting is used to transmit alarms from a subscriber's site to a central monitoring station via the telephone.

The transmission is done using DTMF tones. An alarm message consists of 15 digits plus error check digit (8 bytes). The format is as follows:

**SSSS 18 Q XYZ GG CCC E**

**SSSS** 4 digit Client Account number

**18** Uniquely identifies this format as Contact ID

**Q** Event qualifier (1 = New alarm or Open; 3 = Restore or Close)

**XYZ** Event code

**GG** Group code. (always 00)

**CCC** Sensor/key ID + offset, or Type number

**E** Error check

## Main Unit

The following events are initiated by the SGIII main unit and sent transparently by Radio Dialler to the monitoring station.



Program Option	Event Code (XYZ)	Offset + device ID, or Type number (CCC)
<b>SENS 1-23 = ALARM</b> <b>SENS 1-23 = HOME</b> <b>SENS 1-23 = HOME 2</b> <b>SENS 1-23 = ACHIME</b> <b>SENS 1-23 = HCHIME</b>	<b>130</b> Burglary	<b>0 + ID</b>
<b>SENS 1-23 = FIRE</b>	<b>133</b> 24 hour	<b>50 + ID</b>
Always enabled (unless auto-excluded at power-up)	<b>137</b> Siren box tamper (Main unit)	<b>106</b>
Always enabled	<b>383</b> Tamper (Sensor)	<b>350 + ID</b>
<b>KEY 1-23 = KEY</b>	<b>120</b> Panic by user	<b>300 + ID</b>
<b>KEY 1-23 = DURESS</b>	<b>121</b> Duress by user	<b>400 + ID</b>
<b>KEY 1-23 = MEDICAL</b>	<b>101</b> Medical pendant	<b>650 + ID</b>
<b>RADJAM = ON</b>	<b>355</b> Radio jamming	<b>105</b>
<b>SUPVIS not = OFF</b>	<b>355</b> Radio supervision poll fail (Device)	<b>200 + ID</b>
<b>LOWBAT = MAIN</b> <b>LOWBAT = ALL</b>	<b>302</b> Main unit low battery	<b>107</b>
<b>LOWBAT = SENSOR</b> <b>LOWBAT = ALL</b>	<b>384</b> Radio device low battery	<b>0 + ID</b>
<b>OPEN = ON</b>	<b>401</b> Open/Close with user ID	<b>0 + ID</b>
<b>T-CALL not = OFF</b>	<b>602</b> Test call	<b>104</b>
Always enabled	<b>406</b> Cancel of alarm message	<b>0 + ID</b>

### Radio Dialler

The following events are initiated by the Radio Dialler.

Program Option	Event Code (XYZ)	Offset + device ID, or Type number (CCC)
Always enabled	<b>355</b> Radio supervision poll fail (Dialler)	<b>103</b>
Always enabled	<b>302</b> Dialler unit battery low	<b>101</b>

Restores are not sent for the following:

- 130** Burglary
- 133** 24 hour
- 355** Radio jamming
- 120** Panic
- 121** Duress

The message **406** Cancel is sent only as a restore (Q=3).

## VOICE MESSAGES & OPTIONS

Voice annunciation can be independently enabled/disabled for each of the following categories. Note that there is no voice annunciation available in PROGRAM mode.

Messages are annunciated at the programmed volume level. Messages are annunciated only when triggered by a user, either by pressing the OFF button, or when the main PIR is triggered (once only, for a new message).

For details of “chirp” responses, and complete list of voice messages, see appropriate sections elsewhere in this document.

<b>Category</b>	<b>When</b>	<b>Chirp and/or Voice response</b>	
		<b>Voice disabled</b>	<b>Voice enabled</b>
<b>1. Status (ARMED, DISARMED etc)</b>	Entering ARMED mode:		
	Start of exit delay	chirp	<b>“Armed”</b>
	End of exit delay	chirp	chirp
	Entering HOME/HOME 2 mode:		
	Start of exit delay	chirp	<b>“HOME [or HOME 2] armed”</b> , no external chirps even if enabled
	End of exit delay	chirp	chirp
	Disarming from ARMED mode	chirp	<b>“Disarmed”</b>
	Disarming from HOME/HOME 2 mode	chirp	<b>“Disarmed”</b> , no external chirps even if enabled
<b>2. Alarm events</b>	During alarm	siren/chirp	siren/chirp
	Disarming system:		
	Sensor alarm	chirp	chirp, followed by <b>“Warning! Intruder may be present! Alarm from sensor two”</b>
	Key (Panic) alarm	chirp	chirp, followed by <b>“Warning! Panic alarm from key one”</b>
	Siren Tamper	chirp	chirp, followed by <b>“Warning! Intruder may be present! Outside siren tamper. Check siren”</b>
	Sensor Tamper	chirp	chirp, followed by <b>“Warning! Sensor two tamper. Check sensor two”</b>

	Radio Jamming	chirp	chirp, followed by <b>“Warning! Radio jamming detected. Check cause of radio interference”</b>
	Radio Message Substitution	chirp	chirp, followed by <b>“Warning! Radio tamper detected. Check cause of radio interference”</b>
	Step through event log entries by pressing OFF button:		
	Sensor alarm	-	<b>“Alarm from sensor two. Check for forced entry”</b>
	Key (Panic) alarm	-	<b>“Panic alarm from key one”</b>
	Siren Tamper	-	<b>“Check outside siren for tamper”</b>
	Sensor Tamper	-	<b>“Check sensor two for tamper”</b>
	Radio Jamming	-	<b>“Radio jamming detected. Check for cause of radio interference”</b>
	Radio Message Substitution	-	<b>“Radio tamper detected. Check for cause of radio interference”</b>
<b>3. Low battery</b>	System in any mode: (all events)	-	-
	Disarming system or step through event log entries by pressing OFF button:		
	Main unit	chirp	chirp, followed by <b>“Low battery in main unit. Plug in battery charger for twenty-four hours”</b>
	Radio Device	chirp	chirp, followed by <b>“Low battery in key [or sensor, doorbell, panic button] one. Replace battery”</b>
	Dialler Battery Low	chirp	chirp, followed by <b>“Low battery in dialler unit. Check power”</b>
<b>4. Fault (“trouble”) events</b>	Event first occurs (i.e. fault is detected)		
	(all events)	chirp	chirp
	Disarming system or step through event log entries by pressing OFF button:		
	Sensor Fail	chirp	chirp, followed by

			<b>“Radio fail from sensor two. Check sensor two”</b>
	Sensor Open	chirp	chirp, followed by <b>“Sensor two open. Close door or window for sensor two”</b>
	Dialler Radio Fail	chirp	chirp, followed by <b>“Radio link to dialler fail. Check dialler”</b>
	Dialler Mains Fail	chirp	chirp, followed by <b>“Dialler power fail. Check dialler power”</b>
	Dialler Call Fail	chirp	chirp, followed by <b>“Dialler could not contact monitoring station. Check for dial tone. Check dialler telephone line plugged in”</b>
	Dialler Line Fault	chirp	chirp, followed by <b>“Dialler telephone line fault. Check for dial tone. Check dialler telephone line plugged in”</b>
<b>5. FAI (sales presentation) mode</b>	TBA	TBA	TBA

## **Important Notes:**

With the introduction of SGIII there are some new methods of programming devices into the SGIII system. The changes are due to the introduction of the Supervised and Encryption models of the Radio PIR, Radio Key, Radio Reeds, Radio Panic\Duress buttons and Radio doorbell.

To place the SGIII into program mode simply power the unit by turning the EOR key to the ON position. The display will show the version number for 0.5 second then flash "LEARN" for 10 seconds. During the 10 seconds the display is flashing "LEARN", press the "ON" button on any programmed key will enable the SGIII to receive signals from radio devices (both keys and devices) "READY" will be flashing on the display.

The SGIII programs the device or key into the next available position. Eg. If there are already 4 sensors programmed the next device will be programmed as sensor 5. If a sensor or key is deleted the next sensor or key will be programmed in the position erased.

## **Programming details:**

- Programming **Supervised / Encrypted PIR's**: Have the SGIII so "READY" is flashing on the display. Connect the 9 volt Lithium battery. The SGIII will respond with "BING - BING - BING BING The display will flash the sensor number programmed. Eg. "SENS 2" If you try to program the sensor into the SGIII by triggering the sensor the SGIII will respond with "BING – BING – BBRRRR" Invalid tone. **NOTE**: The current PIR's Encryption feature is NOT operational at this time. **DO NOT** place a link on the **ENCR** link.
- Programming **Encrypted Radio Keys**: Have the SGIII so "READY" is flashing on the display. Press and HOLD the PANIC button. This sequence takes approx. 8 seconds, The SGIII will respond with a "BING" when the panic message is received then "BING - BING - BING BING. The SGIII will flash the key number programmed. Eg. "KEY 2" If you try to program the key by pressing the "OFF" button three times (like SGII) the SGIII will respond with "BING – BING – BBRRRR" Invalid tone.
- Programming **Supervised / Encrypted Reed switches**: Have the SGIII so "READY" is flashing on the display. Connect the correct Lithium battery. The SGIII will respond with "BING - BING - BING BING The display will flash the sensor number programmed including the Happy light. Eg. "SENS 2" If you try to program the sensor into the SGIII by triggering the reed switch, the SGIII will respond with "BING – BING – BBRRRR" Invalid tone.
- Programming **Supervised Panic Buttons**: Have the SGIII so "READY" is flashing on the display. Connect the correct Lithium battery. The SGIII will respond with "BING - BING - BING BING The display will flash the Key number programmed including the Happy light. Eg. "KEY 6" If you try to program the panic button or door bell into the SGIII by pressing the front button, the SGIII will respond with "BING – BING – BBRRRR" Invalid tone. **NOTE**: Panic buttons are recognised as KEYS.
- Programming **Door Bells**: Have the SGIII so "READY" is flashing on the display. Press and HOLD the BELL button. This sequence takes approx. 6 seconds, The SGIII will respond with a "BING" when the Bell message is received then "BING - BING - BING BING. The SGIII will flash the Door bell number programmed. Eg. "KEY 7" **NOTE**: Door bells are recognised as KEYS.

- Programming the **SGIII Radio Dialler**: Program the CLIENT, PHONE 1 and PHONE 2 options into the SGIII. Once the above is done continue through the program options until P-EXIT is on the display. At this point, power up the radio dialler with both mains and battery. The Radio Link light will double flash. Exit SGIII program mode by pressing "ON" on a programmed radio key. This will drop SGIII out of program mode and download the customer and central station information to the Radio Dialler. The radio dialler will respond by flashing out the signal strength on the indicator lights as well as beeping the signal level. For testing purposes only, place a shorting link on J6 of the radio dialler. This will allow you to hear the dialler call and respond to the central station tones and then hang up after sending the message. Don't forget to remove the link on J6 after testing to the central station. To test SGIII to Radio dialler signal strength from this point on, simply put the SGIII into program mode. Cycle through until P-EXIT is on the display then press the "ON" button on any programmed key to exit program mode and the radio dialler will display and beep out the signal strength.
- You may find sometimes that when you turn OFF the Emergency Override Key and turn it back on that nothing happens. This is due to the high impedance of the circuit and that the capacitors need more time discharge. If you encounter this there are two ways to overcome it: 1) Wait a little longer (10-15 seconds) before turning the EOR key back ON. 2) Turn the EOR key OFF when the display is on. This will discharge the capacitors quicker.