GUARDIAN-4G

MADE IN AUSTRALIA

WIRELESS MEDICAL ALERT & SECURITY CONTROLLER

INSTALLATION MANUAL

Document 890-513 Rev1.1

CORPORATION

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Quality
ISO 9001
NSW Head Office only

NESS GUARDIAN-4G INSTALLER MANUAL

Document Part No: 890-513
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For use with Ness 106-349 Guardian Security & Medical Alert System

WARNINGS & NOTICES

Ness Corporation manufacturing processes are accredited to ISO9001 quality standards and all possible care and diligence has been applied during manufacture to ensure the reliable operation of this product. However there are various external factors that may impede or restrict the operation of this product in accordance with the product's specification.

These factors include, but are not limited to:

1. Erratic or reduced radio range (if radio accessories are installed). Ness radio products are sophisticated low power devices, however the presence of in-band radio signals, high power transmissions or interference caused by electrical appliances such as Mains Inverters, Wireless Routers, Cordless Phones, Computers, TVs and other electronic devices may reduce radio range performance. While such occurrences are unusual, they are possible. In this case it may be necessary to either increase the physical separation between the Ness receiver and other devices or if possible change the radio frequency or channel of the other devices.
2. Unauthorised tampering, physical damage, electrical interruptions such as mains failure, electrical spikes or lightning.
3. Solar power inverters are a known source of electrical interference. Please ensure that this product and all associated cabling is installed at least 3 metres away from a solar power inverter and its cabling.
4. While SMS reporting is a powerful and useful feature it is dependent on the integrity and availability of the cellular network. As with any SMS message it is possible that SMS monitoring reports may be delayed or fail to be delivered. Such failures are a function of the cellular network/s and beyond the control of Ness Corporation. Ness recommends central station monitoring as your primary monitoring path.

WARNING: Installation and maintenance to be performed only by qualified service personnel.

CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries in accordance with local regulations.

Contents

OVERVIEW

Ness Guardian-4G is Australian designed and made by NESS and draws on over 50 years' award winning manufacturing experience.

Guardian-4G is both an advanced medical alert device and security alarm controller suitable for a wide range of applications.

MEDICAL ALERT FEATURES

- One waterproof Medical Alert Pendant included
  Inc wrist-band and neck-chain
- Add up to eight (8) Ness Two Way Radio PIRs programmed as Inactivity alert
- Central Station Monitoring via IP (ArmorIP or CSV-IP)
- Self monitoring by Voice Call
- Self monitoring by SMS
- Call back the unit after an event for a two-way voice call
- Pill Reminder

SECURITY FEATURES

- Add up to eight (8) Ness Two Way Radio Keys
- Add up to eight (8) Ness Two Way Radio PIRs, Reed Switches and other devices
- Arm/Disarm/Panic by Radio Key
- Wireless zones programmable as Inactivity or Security mode
- Central Station Monitoring via IP (ArmorIP or CSV-IP)
- Self monitoring by Voice Call
- Self monitoring by SMS
- Call back the unit after an event for a two-way voice call

OPTIONAL TWR WIRELESS DEVICES

106-380 Single Button Pendant TWR (1pc supplied with Guardian)

106-110 RK5 TWR 5 Button Pendant

106-341 SmartFall Pendant, Intelligent medical alert and fall detector

106-223 Vibrating pendant provides vibrating tactile feedback for the sight impaired

106-186 Wall-mount plate for TWR pendant

106-111 Micro Reed Switch TWR

106-381 LUX TWR Radio PIR

Ness TWR Radio Siren (with strobe output)

NESS SIM ACTIVATION

Activate the SIM to enjoy the advantages of remote access and monitoring via the cellular network.*

Ness SIM benefits:

- Easy online activation & simple billing
- Competitive Retail & Trade SIM plans
- No lock-in contracts - opt out anytime
- Trade customers can take advantage of seamless billing on your Ness Trade Account.

To activate the SIM scan the QR code or go to **activate.ness.com.au**

SIM enquiries, email to:
simactivation@ness.com.au

* Monthly network access charges apply once activated.
Access charges do not include central station monitoring which is a separate service.

THIS PRODUCT IS SIM LOCKED

- Do not remove the factory-fitted SIM card - the SIM will not work in a different device.
- The SIM must be activated for the device to operate.
- Do not install another SIM card.
- Third party SIMs may appear to work but will not send reports.

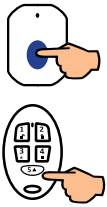
QUICK START GUIDE - MEDICAL ALERT

Setup and Programming

Minimum setup requirements to get your Guardian-4G running as a Medical Alert Controller:

1. A valid SIM card is installed and ACTIVATED (supplied with the unit).
2. n 1 At least one Phone Number or Server IP address and port is programmed.
3. CA One Client Account Number is programmed.
4. One (1) Single Button Pendant is supplied and is pre-enrolled.*

Operation

ACTION or STATE	DISPLAY	VOICE or BEEP
Normal state	Blank	
To SUMMON HELP Using the front panel  Using a Pendant 	CL	Once pressed, the red HELP button will flash rapidly and beep for 10 seconds. The alarm will then be transmitted (if it has not been cancelled during the pre-alarm period). "Your call is now being connected."
 **To CANCEL** Cancellation is only possible during the pre-alarm period.	Blank	

* 1 x 106-380 Single Button TWR pendant is supplied.
Optional RK5 Radio keys and other TWR radio devices are sold separately

QUICK START GUIDE - SECURITY CONTROLLER

Setup and Programming

Minimum setup requirements to get your Guardian-4G running as a Security Controller reporting to a central station via IP monitoring:

1. A valid SIM card is installed and ACTIVATED (supplied with the unit).
2. At least one Phone Number or Server IP address and port is programmed.
3. One Client Account Number is programmed.
4. At least one RK5 Radio Key (5 button) is enrolled as Sc [Security].*
5. At least one TWR Radio PIR or other device is enrolled as AL [Alarm].*

Operation

ACTION or STATE	DISPLAY	VOICE or BEEP
DISARMED state	Blank	
To ARM  ARM Button #2 1 Press	 FLASHING	*"UNIT ARMED"* 'A' flashes during Exit delay. One beep at the end of Exit Delay.
System is ARMED	 STEADY	
To DISARM  DISARM Button #1 1 Press	Blank	*"UNIT DISARMED"*
 ENTRY DELAY START	 STEADY	Rapid Beeps
 ALARM TRIGGERED	 DEVICE No.	Siren sound

FACTORY DEFAULTS

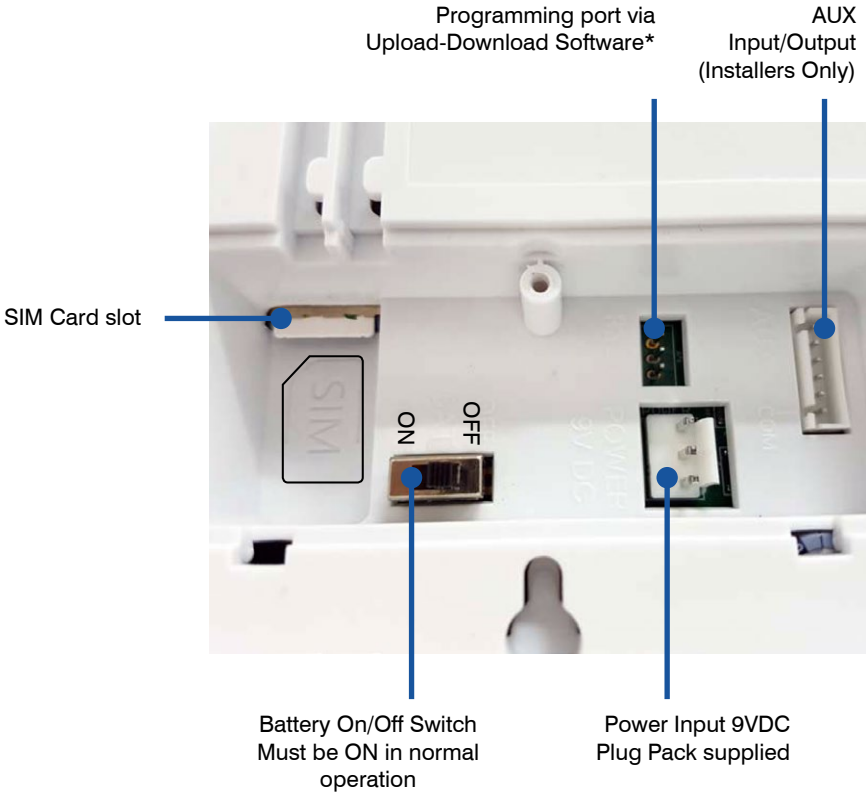
Exit Delay: 60 seconds

Entry Delay: 10 seconds

Entry/Exit Zones: all zones have entry/exit delay as the device is designed to be armed and disarmed from outside the protected area via radio key.

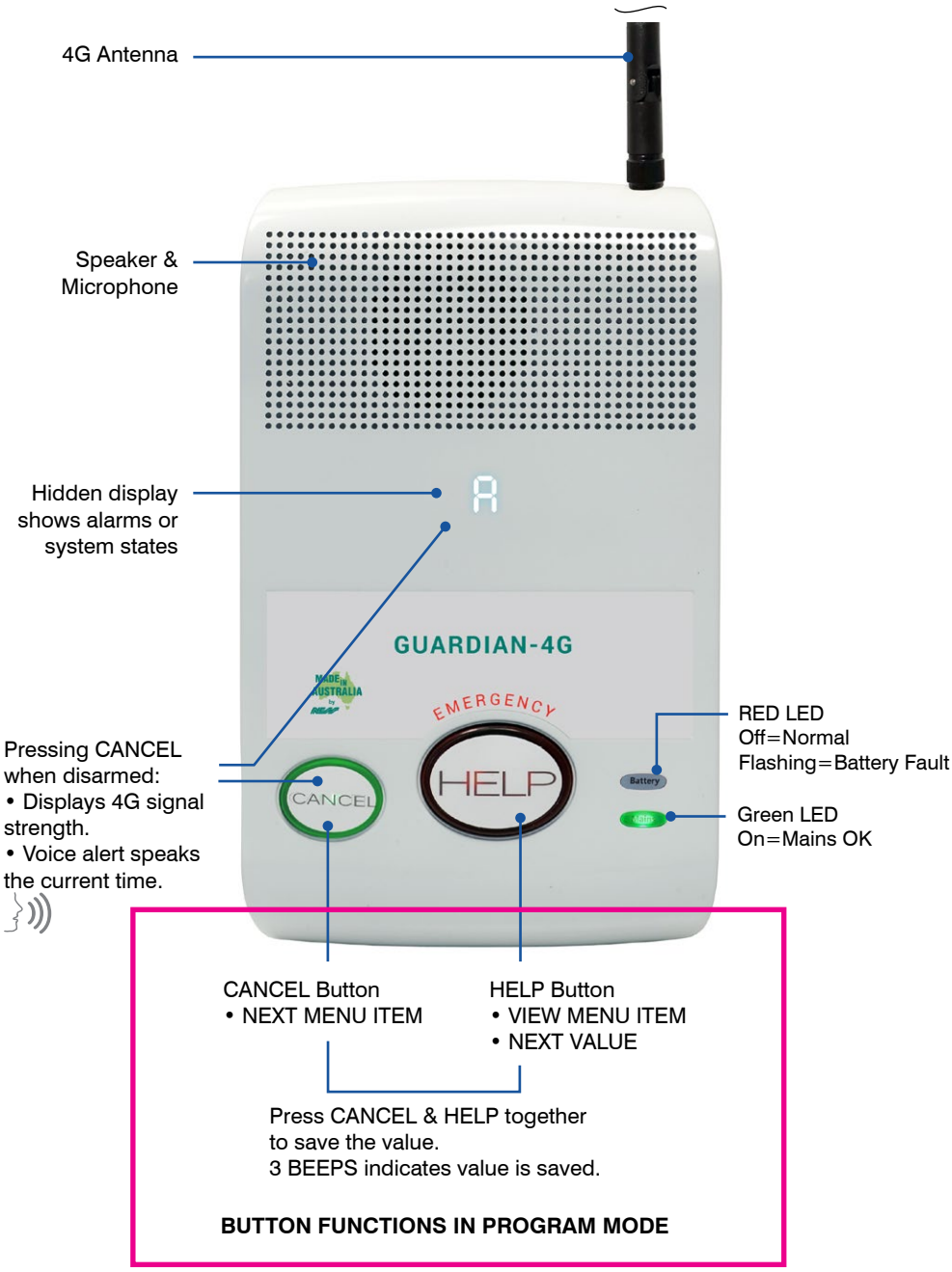
* RK5 Radio keys and other TWR radio devices are sold separately

Guardian-4G Rear Panel



*Upload-Download Software available on request.
Requires optional serial lead, Ness 450-185

Guardian-4G Front Panel



Displays & Warnings

DISPLAY	DESCRIPTION	INFORMATION
A or H	System is Armed or Home mode, in Exit delay	
 MAINS OK  MAINS FAIL	Green MAINS LED is on. Green MAINS LED flashing.	Mains power is on. Check that the plug pack is plugged in and turned on at the power point.
 Lb	Red BATTERY LED & LB flashing.	Check that the battery switch on the rear of the unit is turned on.
rF	Guardian-4G failed to send an Alarm.	Check that the antenna and SIM Card are plugged in.
cF Beep for 25 seconds	CELLULAR network failure.	Make sure that the antenna is fitted and check that you have cellular network access.
S1 Beep for 25 seconds	SIM Card failure.	Make sure that a valid SIM card is fitted.
CL or HP	The red HELP button is also flashing	The red HELP button has been pressed
H1 to H8 Your Guardian-4G may display H, C, A or S depending on setup	The red HELP button is also flashing	A Pendant help button has been pressed (The pendant number is displayed)
b1 to b8	Pendant Low Battery	A Pendant has a low battery. (The pendant number is displayed)
d1 to d8	Detector Low Battery	A detector has a low battery. (The detector number is displayed)

Cellular Signal Strength Display & Speak The Current Time

0 to 9 Cellular Signal strength is displayed for 2 seconds VOICE ALERT *"two, zero six"*	 If using RK5 radio keys, you can also press Disarm to speak the current time.	To check cellular signal strength press the CANCEL button while in normal operating mode. 0 to 1 = Weak Signal 2 to 6 = Good Signal (Industry average) 7 to 9 = Very Strong Signal

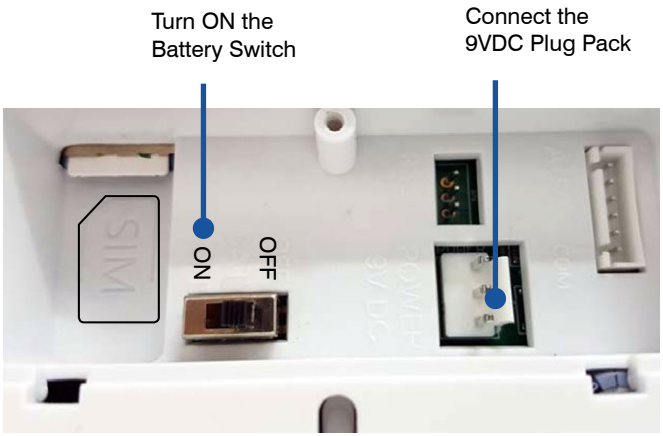
Program Mode

TO ENTER PROGRAM MODE

Guardian-4G enters program mode on power up.

- Program Mode is indicated by P E display.
- Guardian-4G will remain in program mode indefinitely if there is no Phone Number or Account Number programmed. In this state, Guardian-4G will give one beep every minute.
- If at least one Phone Number and Account Number exists, Guardian-4G will drop out of program mode after 5 minutes of inactivity.

To power up and enter Program Mode



TO EXIT PROGRAM MODE

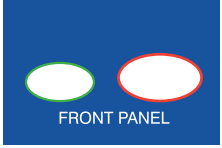
To allow exit from program mode, ensure that:

- A valid SIM card is installed (as supplied with the unit).
- At least one Phone Number or Server IP address and port is programmed.
- One Client Account Number is programmed.

If these above conditions are met, Guardian-4G will automatically drop out of program mode after 5 minutes of inactivity.

- Or, when the display shows P E press CANCEL and HELP to exit program mode.

VOICE ALERT "Unit Disarmed"



Programming - Client Account Number

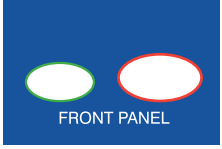
Programming the Client Account Number using the front panel buttons.

_A	Top level menu option - ACCOUNT NUMBER
CA	Client Account Number. Default = 9997, 4 digits required

STEP-BY-STEP - Programming the Account Number

STEP	ACTION	PRESS	DISPLAY	PRESS
1	Cycle power to enter program mode (Turn on the battery switch)		PE	
2	Press CANCEL to reach the Client Account Number programming menu option.	CANCEL	_A	
3	Press HELP to select the option.	HELP	CA	
4	Press HELP to display the current Account Number	HELP	- Dash = no account number	
5	Press HELP to step through the digits 0 to 9. Stop at the first required digit.	HELP	1	CANCEL + HELP Both * Saves the digit (3 beeps)
6	Press HELP to step through the digits 0 to 9. Stop at the next required digit.	HELP	12	CANCEL + HELP Both Saves the digit (3 beeps)
7	Press HELP to step through the digits 0 to 9. Stop at the next required digit.	HELP	23	CANCEL + HELP Both Saves the digit (3 beeps)
8	Press HELP to step through the digits 0 to 9. Stop at the next required digit.	HELP	34	CANCEL + HELP Both Saves the digit (3 beeps)
9	Press CANCEL then HELP to view the Account Number.	CANCEL Then HELP		
	NOTES: • If you make a mistake when entering a digit, just return to Step 2 and start again. • Guardian-4G will not exit program mode unless the account number and at least one phone number are programmed.			

* PRO TIP: Pressing CANCEL & HELP with two thumbs helps ensure simultaneous press.



Programming - Telephone Numbers

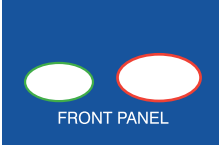
Programming a Phone Number using the front panel buttons.

_n	Top level menu option - PHONE NUMBERS

n1,n2	**Phone Numbers 1 & 2** If option _r->SE = then n1 & n2 report to Central Station (default) If option _r->SE = 1 then n1 & n2 report in SMS format
n3,n4	**Phone Numbers 3 & 4** Numbers n3 and n4 always report in Voice format regardless of settings.
dF	Defaults all Phone Numbers

STEP-BY-STEP - Programming Phone Numbers
This example, program phone number n1

STEP	ACTION	PRESS	DISPLAY	PRESS
1	Cycle power to enter program mode (or skip this step).		PE	
2	Press CANCEL to reach the Phone Numbers menu option.	CANCEL	_n	
3	Press HELP to select the sub-menu.	HELP	n1	
5	Press HELP to step through the digits 0 to 9. Stop at the first required digit and save it. *(At this step, any existing phone number will displayed)*	HELP	0	CANCEL + HELP = Both Saves the digit (3 beeps)
6	Repeat step 5 for all digits of the phone number.	HELP	04	CANCEL + HELP = Both Saves the digit (3 beeps)
7	Press CANCEL twice to return to the menu.	CANCEL	_n	
8	TO EXIT PROGRAM MODE Press CANCEL to reach PE	CANCEL	PE	CANCEL + HELP = Both Saves the digit (3 beeps)
	NOTES: • Guardian-4G will not exit program mode unless the account number and at least one phone number are programmed. • To erase all phone numbers select dF at step 4 and Save.			



Programming - Server Addresses

Programming Server numbers for central station reporting via IP protocols.

_ n	Top level menu option - SERVER ADDRESS	
S1	SERVER ADDRESS 1, reports **ArmorIP** format via **UDP**	Default, none
P1	SERVER 1 PORT	
S2	SERVER ADDRESS 2, reports **ArmorIP** format via **UDP**	
P2	SERVER 2 PORT	
S3	SERVER ADDRESS 3, reports **CSV-IP** format via **TCP**	
P3	SERVER 3 PORT	
S4	SERVER ADDRESS 4, reports **CSV-IP** format via **TCP**	
P4	SERVER 4 PORT	
dF	Defaults all	

STEP-BY-STEP - Programming Server Addresses
This example, program Server Address 1 and Port1.

STEP	ACTION	PRESS	DISPLAY	PRESS
1	Cycle power to enter program mode (or skip this step).		PE	
2	Press CANCEL to reach the Server Address menu option.	CANCEL	_ n	
3	Press HELP to reach S1.	HELP	S1	
4	Press HELP to step through the digits 0 to 9. Stop at the first required digit or dot character and save it.	HELP	Example 101.223 .100.001	CANCEL + HELP = Both. Saves the digit (3 beeps)
5	Press CANCEL to reach P1 to program Port 1	CANCEL	P1	
6	Press HELP to step through the digits 0 to 9. Stop at the first required digit or dot character and save it.	HELP	Example .24	CANCEL + HELP = Both. Saves the digit (3 beeps)
7	TO EXIT PROGRAM MODE Press CANCEL to reach PE	CANCEL	PE	CANCEL + HELP = Both. Saves the digit (3 beeps)

Programming - Pendants

Guardian-4G supports up to eight individual Radio Keys / Pendants.

106-380
Single Button TWR pendant

1pc supplied **PRE-PROGRAMMED**

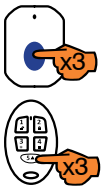
106-110 RK5 TWR pendants

Optional

- U	Top level menu option - PENDANTS
u1 to u8	Pendants (User 1 to User 8), Default: u1 pendant is programmed

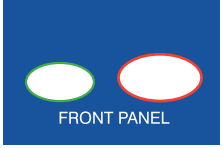
See page 23 for parameters available per pendant.

STEP-BY-STEP - Programming an additional Pendant

STEP	ACTION	PRESS	DISPLAY
1	Cycle power to enter program mode		PE
2	Press CANCEL to reach the PENDANTS programming menu.	CANCEL	- U
3	Press HELP to select User 2. (If adding an additional pendant)	HELP	u2
4	Press HELP to enter learn mode.	HELP	- Dash = Ready to receive
5	Press the help (Panic) button 3 times on a compatible pendant. (Press and wait for the LED to turn off, press again.) *1 beep on each signal, 3 beeps confirms enrolment. Long beep = detector is already programmed in a different slot.*		HP = Successfully programmed **RK5 Pendants** must be programmed as 5c [Security] parameter.

Step 6 is optional

6	The pendant is automatically programmed as a Help pendant. To delete the pendant choose ER and save.	HELP	See the options table
7	Press CANCEL and HELP together to save.	CANCEL + HELP (Both) To Save (3 beeps)	



Programming - Detectors

Guardian-4G supports up to eight individual Ness TWR Radio Devices (PIR, Reed Switch, Radio Siren and other).

_d	Top level menu option - DETECTORS
d1 to d8	Detectors 1 to 8, Default: no detectors programmed

See page 24 for parameters available per detector.

STEP-BY-STEP - Programming Detectors

STEP	ACTION	PRESS	DISPLAY
1	Cycle power to enter program mode		PE
2	Press CANCEL to reach the DETECTORS programming menu.	CANCEL	_d
3	Press HELP to select Detector 1.	HELP	d1
4	Press HELP to enter learn mode.	HELP	- Dash = Ready to receive
5	Insert the battery to send the learn signal. *1 beep on each signal, 2 beeps confirms enrolment. Long beep = detector is already programmed in a different slot.*	Fi = successfully programmed (Fi is the default alarm type for detectors. Next, go to Step 6).	
6	Press HELP to select a different parameter for the detector, eg. AL to select ALARM parameter.	HELP	AL
7	Press CANCEL and HELP together to save.	CANCEL + HELP (Both) To Save (3 beeps)	

Programming by SMS Messaging

Guardian-4G can also be programmed by SMS commands from any smartphone with the SMS message sent in the format:

[Account Number]: [main menu] -> [sub menu] -> [sub sub menu] = option

Of course you need to know the Guardian-4G's SIM card phone number and the Account Number.

Note that the SMS commands are case sensitive.

To program the Account Number

Note: The default Account Number is 9997 and must be changed for central station monitoring (optional if self-monitoring by SMS).

SMS SENT TO GUARDIAN-4G	GUARDIAN-4G REPLY
9997: _A->CA=1234 Example, program the Account Number to be 1234	_A(ACCOUNT)->CA(Account) = 1234 [0-9 (4 digits)]

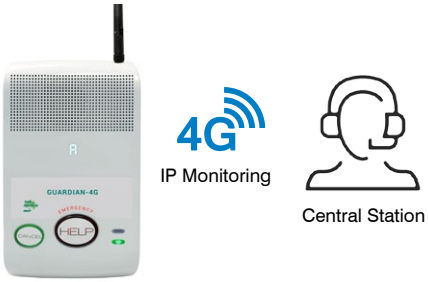
To program a Telephone Number (n1~n6)

SMS SENT TO GUARDIAN-4G	GUARDIAN-4G REPLY
1234: _n->n1=0418123456 Example, program Phone Number 1 to be 0418 123 456	_n(PHONE)-> n1(Primary1) = 0418123456 [0-9 (8 digits)]

To delete or check a Telephone Number (n1~n6)

SMS SENT TO GUARDIAN-4G	GUARDIAN-4G REPLY
1234: _n->n1= Example, to delete phone number 1, send the programming SMS with a blank phone number.	_n(PHONE).->n1(Primary1) = [0-9 (8 digits)] The response shows that the programmed phone number is blank.
1234: _n->n1 Example, to check phone number 1, send the programming SMS without the '=' sign	_n(PHONE)->n1(Primary1) = 0418123456 [0-9 (8 digits)] The response includes the programmed phone number, if any.

Central Station IP Monitoring



IP MONITORING VIA ARMOR-IP or CSV-IP

Guardian-4G supports central station monitoring via IP Monitoring protocols.

IP Monitoring is the reporting format of choice providing reliable digital data transmission over 4G and does not rely on analogue or analogue-to-digital transmission.

Supported protocols:
ArmorIP (UDP)
CSV-IP (TCP)

If your monitoring company provides Telephone numbers, See page 13
If your monitoring company provides Server and Port Addresses see page 14

Programming Quick Start for IP Reporting

1. Program option _r -> SE to be 0 (default)
2. Program a Client Account number
3. Program central station phone number/s in n1 and/or n2
   or program Server and Port S1/P1 etc , see page 14

Available combinations of Monitoring formats:

Report to a Central Station in IP format **and** to private number/s in Voice format.
(If programming option _r -> SE = 0)
or
Report via SMS **and** to private number/s in Voice format.
(If programming option _r -> SE = 1)

Self Monitoring via SMS

SMS Help alerts to a mobile phone

Two Way Voice Call

SELF-MONITORING

Guardian-4G has in-built 'Self-Monitoring' capabilities for Help alerts to be sent by SMS messaging or by voice reporting as set up by the installer.

Once an SMS alert or Voice call has been received the recipient can initiate Guardian-4G's powerful Two-Way Voice Call feature to communicate with the patient.

The user will be able to hear you and talk back hands-free using Guardian-4G's built-in speaker and microphone. More information on page 22.

Requires an active SIM card.

Programming Quick Start for SMS Reporting

1. Program option _r -> SE to be 1 (this enables SMS via n1, n2)
2. Program a Client Account number (a default Acc number exists)
3. Program mobile phone numbers in n1 and/or n2

SMS reporting is dependent on the availability of the cellular network.

As with any SMS message it is possible that SMS monitoring reports may be delayed or fail to be delivered. Such failures are a function of the cellular network/s and beyond the control of Ness Corporation.

SMS Reporting Format

If enabled for SMS reporting, Guardian-4G sends alarm reports by SMS to phone numbers 1~2 (n1, n2) in the format:

->[Date][Time][Message]Guardian

Example of a Help alarm message

```
-> 7-5-19 9:22:21 Help/Alarm,
Guardian
Call back and Press #
```

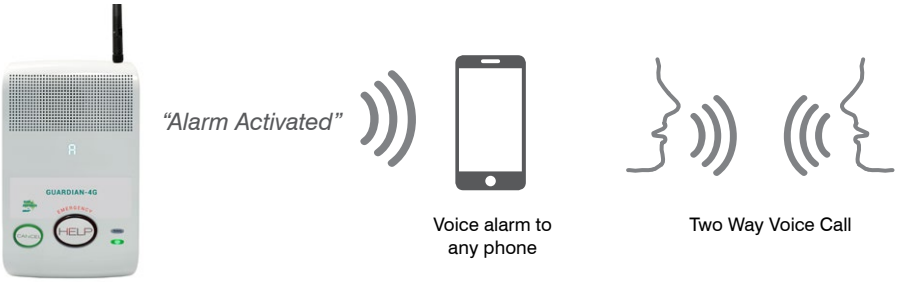
Example of a Restoral message. (The cancel button on Guardian-4G sends a Restoral.)

```
-> 7-5-19 9:24:18 Restore,
Guardian
```

Once Guardian-4G has sent an SMS alarm message it enters CallBack mode during which time it will answer any incoming call for a pre-programmed time. (CallBack Mode default time = 6 minutes). See page 22 for a description of Two Way Voice operation.

Note: If any VOICE phone numbers (n3, n4) are programmed, Guardian-4G will also send voice alarm reports to those numbers.

Self Monitoring via Voice Report



Guardian-4G sends alarm reports by voice to phone numbers 3 and 4 (n3,n4).

When a help alarm is activated, Guardian-4G dials the phone numbers programmed in n3 and n4 and repeats the audible alert message "Alarm Activated" for 30 seconds.

At this stage the recipient can press # on their phone to start a two-way voice session with Guardian-4G and talk to the user to find out the nature of the help call. To terminate the call just hang up the phone.

If the called party takes no action Guardian-4G hangs up and calls the next phone number.

See page 22 for a description of Two Way Voice operation.

Programming Quick Start for Voice Reporting

1. Program phone number/s n3 and/or n4

2. Program a Client Account number (a default Acc number exists)

There are no additional program options to enable, if phone numbers n3 and n4 exist then alarm reports are sent to those numbers in Voice format.

Two Way Voice Calls

Guardian-4G has a built-in speaker and microphone for hands-free communication with the user. Two Way voice calls are initiated by an SMS alert message or a voice alarm report.

To start a Two Way Voice call...
WHEN YOU HAVE RECEIVED AN SMS ALERT

1. A Guardian-4G HELP alarm has been generated (HELP button or pendant pressed).

2. Guardian-4G sends alert SMS to the programmed mobile phone numbers. Guardian-4G is now in Answer Mode for 6 minutes and will answer any incoming phone call.

3. The SMS recipient calls the Guardian-4G phone number.

4. When Guardian-4G answers the call, the caller dials # to open the two-way voice channel. The Guardian-4G user can talk to you hands-free as long as they are in range of Guardian-4G's microphone and speaker.

5. To terminate the call just hang up the phone.

To start a Two Way Voice call...
WHEN YOU HAVE RECEIVED A VOICE ALARM REPORT

1. A Guardian-4G HELP alarm has been generated (HELP button or pendant pressed).

2. Guardian-4G dials one or both of the programmed voice alarm numbers.

3. As the recipient of the call you will hear the voice message "Alarm Activated".

4. Press # on your phone to open the two-way voice channel. The Guardian-4G user can talk to you hands-free as long as they are in range of Guardian-4G's microphone and speaker.

5. To terminate the call just hang up the phone. The user can also terminate the call by pressing Cancel button on their Guardian-4G.

Programming Options Summary

		DEFAULT
_ A	CLIENT ACCOUNT NUMBER	9997
_ n	PHONE NUMBERS 1~4	*30 digits max.*
	(n1~n4) PHONE NUMBERS	
	If _r ->SE (SMSTx) = 0 (Default)	
	n1 Phone Number 1 - reports monitoring station format	
	n2 Phone Number 2 - reports monitoring station format	
	n3 Phone Number 3 - reports voice format	
	n4 Phone Number 4 - reports voice format	
	If _r ->SE (SMSTx) = 1 (Ness header format)	
	n1 Phone Number 1 - reports SMS format	
	n2 Phone Number 2 - reports SMS format	
	n3 Phone Number 3 - reports voice format	
	n4 Phone Number 4 - reports voice format	
_ S	SERVER & PORT ADDRESSES	
	(1~4) SERVER & PORT ADDRESSES	
	S1 Server 1 Address - reports **ArmorIP** format via UDP	
	P1 Server 1 Port	
	S2 Server 2 Address - reports **ArmorIP** format via UDP	
	P2 Server 2 Port	
	S3 Server 3 Address - reports **CSV** format via TCP	
	P3 Server 3 Port	
	S4 Server 4 Address - reports **CSV** format via TCP	
	P4 Server 4 Port	
_ U	ENROL RADIO KEYS / PENDANTS	
	(U1~U8) ENROL UP TO 8 RADIO KEYS	
	HP [Medical] Pendant	Default
	CL [Call] Pendant (ON-Call, OFF-Call, ALARM-Call)	
	HC [Help/Call] Pendant (ON-Help, OFF-Restore, ALARM-Call)	
	CH [Call/Help] Pendant (ON-Call, OFF-Restore, ALARM-Help)	
	Sc [Security] 5 button pendant (Arm, Disarm, Panic)	

Programming Options Summary

		DEFAULT
	An [Answer]1 button pendant (ALARM-help or answers phone call)	
	dE [Dementia] 3 button pendant (ie. ALARM-activate)	
	b1 [Doorbell1] 1 button pendant (ie. ALARM-doorbell tune 1)	
	b2 [Doorbell2] 1 button pendant (ie. ALARM-doorbell tune 2)	
	b3 [Doorbell3] 1 button pendant (ie. ALARM-doorbell tune 3)	
	Er [Erase]	
_ d	ENROL WIRELESS DEVICES (PIRS, REEDS)	
	(d1~d8) ENROL UP TO 8 DETECTORS	
Fi	[Fire] 24 hr alarm	Default
AL	[Alarm] active when ARMED	
Ho	[Home] active when ARMED and HOME mode	
In	[Inactivity] always active, alarms when not active	
b1	[Doorbell1] active when Armed otherwise doorbell tune 1	
b2	[Doorbell2] active when Armed otherwise doorbell tune 2	
b3	[Doorbell3] active when Armed otherwise doorbell tune 3	
er	[Erase]	
_ I	HARDWIRED INPUTS	
i1	Input No. 1 d: Disabled, E:Enabled	d
i2	Input No. 2 d: Disabled, E:Enabled	d
_ O	(o1~o3) AUXILIARY OUTPUTS	
d	[disable]	d
1 to 9	Output on timer (minutes)	
t	[toggles] with event	
rd	(rd) AUXILIARY OUTPUTS - ALLOW RADIO PROGRAMMING	
d	[disable]	Default
e	[enable]	

TOP LEVEL MENU OPTION
SUB MENU
PROGRAMMABLE PARAMETERS FOR EACH OPTION

Programming Options Summary

		DEFAULT
_ P	PREFERENCES	Default
un	Function of main unit buttons CL: Call HP: Help	HP
uC	Main unit buttons channel 1 ~ 8	6
El	Exit Delay 10, 20, 30, 40, 50, 60 seconds	60 sec
En	Entry Delay 10, 20, 30, 40, 50, 60 seconds	-
PA	Pre-Alarm. Time before alarm is reported 0, 10, 20, 30, 40, 50, 60 seconds	10 sec
Lc	Lockout. Lockout any detector with more than 4 alarms per arming d: Disabled, E:Enabled	E
Su	Supervision d: Disabled, 0 - 24 hrs	0
In	Inactivity Timer d: Disabled, 0 - 24 hrs	0
Ir	Inactivity Restoral d: Disabled, E:Enabled	d
SH	Quiet. Quiet enabled before 7am and after 10pm, other times disabled d: Disabled, E:Enabled	d
Ph	Phone Priority. Priority given to monitoring phone numbers 0, 1	0
Ac	Answer call. Guardian asnswers a call xx minutes after an alarm report 3, 6, 9 minutes	6
cu	Callback Main Unit. Allow call back for alarms on main unit d: Disabled, E:Enabled	E
cP	Callback Pendant. Allow call back for alarms on pendants d: Disabled, E:Enabled	E
cd	Callback Detectors. Allow call back for alarms on detectors d: Disabled, E:Enabled	E
ci	Callback Input. Allow call back for alarms on inputs d: Disabled, E:Enabled	E
Pb	PABX tones. Allow PABX tone detection during reporting d: Disabled, E:Enabled	E
rd	Ring detection. Number of rings before Guardian answers 2 ~ 9 rings	2
co	Country Dial. Choose the country 1:AU, 2:NZ, 3:USA/Singapore/Canada, 4:UK-EU	1

Programming Options Summary

		DEFAULT
ud	Remote Access. Allow Guardian to be accessed from remote location 1: Enabled with DTMF 2: Enabled in program Mode with DTMF 3: Enabled without DTMF 0: Enabled in program Mode without DTMF	1
_ 5	SYSTEMS	
Lb	Light Dim 1 to 2	2
LP	Listen Pin d: Disabled, E:Enabled	E
uP	Microphone Sensitivity 0, 1, 2, 3	0
SP	Speaker Volume 0, 1, 2, 3	2
na	Line Tx Levels 0 ~ 7	5
rL	Line Rx Levels 0 ~ 10	5
r2	RS232 Baud Rate 0: Disabled, 1: 9600, 2: 19200, 3: 38400, 4: 57600, 5: 115200	5
rP	Phone report pre time 0 to 255 x 10msec	10
rt	Phone report tone time 0 to 255 x 10msec	7
rq	Phone report quiet time 0 to 255 x 10msec	5
rb	Phone report between time 0 to 255 x 10msec	100
rr	Radio Repeater d: Disabled, E:Enabled	d

Programming Options Summary

		DEFAULT
_ C	CELLULAR	
SA	Cellular APN provided by the SIM service provider	Automatic
Nu	Networrk User	Automatic
NP	Network Password	Automatic
dr	Cellular Daily Reset. Guardian resets the cellular module daily at 3am with added delay based on the Account Number 0 disable, every 1 day, 2 days to 14 days	1
pt	Cellular Poll Time 0: No polling, 1 to 255 minutes	60
The following options are provided for reference only. No programming required.		
cr	Cellular module audio mode 0 ~ 6	
tL	Cellular Transmit Level 0 ~ 255	
rL	Cellular Receive Level	
SG	Cellular multiplication factor for sidetone gain 0 ~ 255	
NA	Cellular Network AMR (ie. Adaptive Multi Rate) d: Disabled, E:Enabled	
Nr	Network Rate	
nS	Noise suppression	
EC	Echo cancellation	
4G	4G Band	
3G	3G Band (obsolete)	
_ L	DAYLIGHT	
lo	DLS Begin - select between a fixed date or day in a month	
Lo	DLS End - select between a fixed date or day in a month	

Programming Options Summary

		DEFAULT
_ t	TIMERS	
Sd1	System Call 1 - announcement requesting user to press their red/ alarm button	Disabled
Sd2	System Call 2	Disabled
Sd3	System Call 3	Disabled
Sd4	System Call 4	Disabled
Sr	System Repeat - number of repeats	3
Si	System Interval - number of seconds delay between repeats	30
SA	System Away - System call announcements are not performed in System Away Mode	Disabled
td	Test Call - test call is reported with account number delay 0: disable, Day (weeks to miss), Hour, Minute	0
od	Overdue / Pill Reminder - green led flashes until green/cancel button pressed Day (weeks to miss), Hour, Minute	Disabled
NC	Network Clock - 0 uses onboard RTC chip 1 uses cellular network local time + local zone offset when date is the same 2 uses cellular network UTC time + local zone offset when date is the same 3 uses cellular network local time + local zone offset 4 uses cellular network UTC time + local zone offset	3
At	Sunrise Hour	7
AP	Sunset Hour	19
_ r	REPORTS	
rS	Report mode. Select a mode to report an event 0:GSM only 1:GPRS only 2:GPRS&GSM 3:GSM&GPRS	0
CS	Manual Test d:Disabled GSM only 2:G	0
rE	Restoral Reports 0: disable 1:enable 2:enable all restores except HELP/CALL/ALARM	1
OC	Open / Close d: Disabled, E:Enabled	d
Pd	Mains Fail Reporting Delay 0 ~ 3 hrs	3

Programming Options Summary

		DEFAULT
Pr	Mains Fail Repeat. Mains fail reports will be repeated at intervals 0 ~ 24 hrs	0
bu	Low Battery Report, Main Unit 0:Disabled 1:Report Low Battery ONCE 2:Report Low Battery DAILY	1
br	Low Battery Report, Radio Pendants & Radio Detectors d:Disabled E:Enabled	1
PE	RS232 Type	2
SE	SMS TX 0:Disabled 1:Ness header format Change this option to **1** to send SMS messages via ph numbers N1/N2	0
Sr	SMS response d:Disabled E:Enabled	E
CA	CSV IP Authentication d:Disabled E:Enabled	d
Pi	Camera snapshot URL	
_ b	DOORBELL TUNES	
P1	Doorbell 1 duration 0:Disabled 1~255 x10mSec	50
t1	Doorbell 1 Tune	75629026759
P2	Doorbell 2 duration 0:Disabled 1~255 x10mSec	40
t2	Doorbell 2 Tune	39199039199
P3	Doorbell 3 duration 0:Disabled 1~255 x10mSec	40
t3	Doorbell 3 Tune	59391990 5939199
Pr	Doorbell Ring Duration 0:Disabled 1~255 x10mSec	0
tr	Ring Tune	00000707
P C	EXIT PROGRAM MODE	

Frequently Asked Questions

Q. How do I program Guardian?

A. Guardian can be easily programmed using the front panel buttons, or by SMS, or by direct serial connection and SL UpDownload Software (ask your Ness branch for details).

Q. How do I activate the SIM card?

A. Go to www.activate.ness.com.au and select Trade or Retail activation

Q. Guardian-4G beeps once a minute and displays _ A

A. You have not programmed a Client Account Number. See page 12

Q. Guardian-4G beeps once a minute and displays _ n

A. You have not programmed a Phone Number. or Server & Port address See page 13 or 14.

Q. Can I use my own SIM card?

A. No, Guardian-4G is locked to the Ness SIM supplied. However the Ness SIM plans are highly competitive with calls and SMS included with no hidden extras.
Go to www.activate.ness.com.au to check the rates and activate.

Q. Guardian-4G displays CL and the red HELP button is flashing.

A. This means a help alarm has been activated. Press the CANCEL button to restore the alarm.

Product Inclusions

Guardian-4G controller

Ness SIM Card INCLUDED

4G Antenna

9V DC Plug Pack

Pendant Transmitter including neckchain and wrist strap PRE-ENROLLED TO THE UNIT

Specifications

DATA COMMUNICATIONS	4G/ LTE Module (supports VoLTE)
WIRELESS PERIPHERALS	Ness Two Way Radio protocol
WIRELESS RANGE	100~300m in open air, subject to environmental conditions
SIM TYPE	Standard SIM (Supplied, locked to the unit)
POWER REQUIREMENTS	9VDC 300mA Plug Pack supplied
BACKUP BATTERY	4.8V 1.6Ah onboard battery provides >40 hours backup
DIMENSIONS / WEIGHT	130(W) x 210(H) x 35(D) mm / 590g
CONFORMING STANDARDS	ISO9001 International Quality manufacturing Standards AS4607 Personal Response Systems AS4268.2017 Radio Equipment & Antenna Systems – Short Range devices AS/NZS CISPR32 EN61000-6-1