ECO8x

Ness ECO8x ALARM CONTROL PANEL

INSTALLATION & PROGRAMMING MANUAL

A$15.00

Revision 1

Security Products

www.ness.com.au

Quality Endorsed Company
ISO9001
LIC.No. QEC2074
NSW Head Office only

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INSTALLATION

WARNING

Installation and maintenance shall be performed by qualified service personnel only.

CAUTION

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions on the battery.

ESD WARNING

(Electrostatic Discharge).

Once properly installed, Ness control panels are well protected from ESD. However, take note of the following precautions during installation.

The human body can generate static electricity when it is insulated from earth - for instance by walking over carpet.

ESD occurs (and a small shock is sometimes felt) if an earthed metal object is then touched.

The installer should be aware that if he generates static electricity while installing the panel and then discharges this static electricity into the internal components on the main circuit board or the keypad board, then ESD damage may occur.

The circuit board should not be unwrapped until it is actually ready to be installed.

Methods to avoid electrostatic build-up.

1. Use a foot strap, a wrist strap, or a grounding mat. The aim is to connect the body to earth to discharge static before it builds up. The connection is a high resistance for personnel safety.
2. If the above is not available, then it is advisable to wear clothing that will minimise the build-up of static.
3. Handle circuit boards by the edges. Avoid touching any components on the board as the integrated circuits, in particular, are not guaranteed by their manufacturers to be safe from ESD.
4. To minimise the build-up of static, avoid walking around as much as possible while working on the installation.
5. Touch an earthed object to discharge any static before working on the installation.

ADSL NOTICE

ADSL broadband data can interfere with the operation of your alarm dialler.

It is recommended that a quality ADSL filter be installed as per the filter manufacturer's guidelines in all premises with an alarm dialler installed.

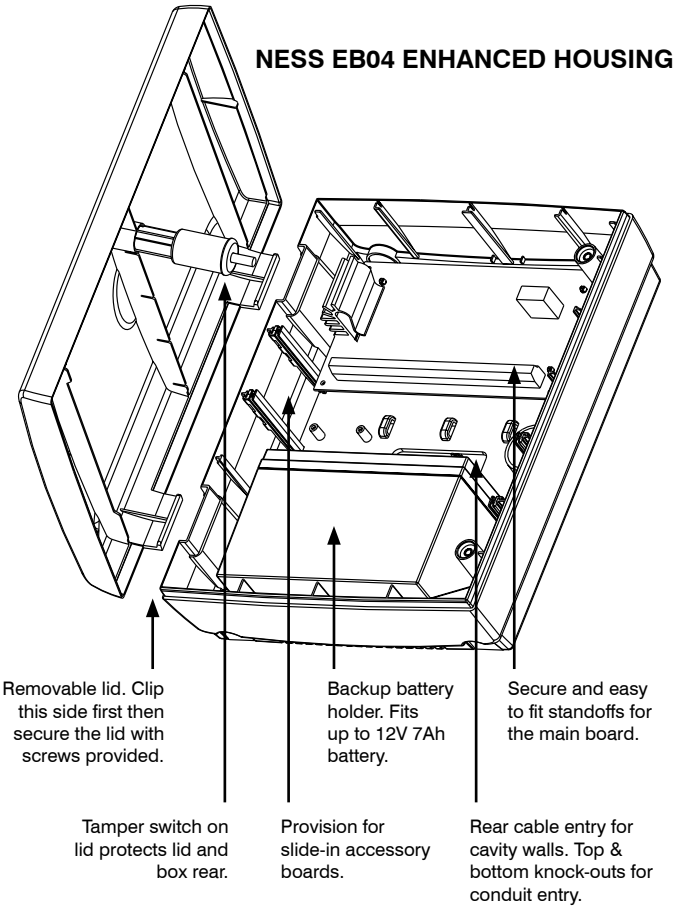
INSTALLATION PROCEDURES

The location of the main panel housing and all keypads should be in an area that is within the protected area of the premises. A linen closet or cupboard are good examples as these are generally located in the centre of the premises.

Positioning of the movement detectors should be considered as the incorrect position may cause unwanted alarms.

1. Remove the housing lid.
2. Remove the battery from the base.
3. Securely mount the rear panel housing to a secure location.
4. Run all cabling needed for the installation.
5. Before removing the circuit board from its protective wrapping.
6. Insert the PCB stand-offs in the panel and then plug the circuit board onto the stand-offs.
7. Wire to the circuit board terminal blocks, as per the wiring instructions shown in this installation manual.
8. Replace the battery.
9. Insert the panel tamper bracket as shown below.
10. Close the lid and program the panel as required.

NESS EB04 ENHANCED HOUSING



INPUTS

MONITORED ZONES

The Ness ECO8x has multiple monitored inputs.

8 fully programmable zone inputs. (Monitored by end of line resistor).
1 x 24 hour Box Tamper input. (Normally Closed input. Resistor is not required).

ZONE INPUTS

Each zone input must be terminated with a 2K2 (2200 ohm) resistor as supplied. All inputs must be sealed with an EOL resistor.

For wiring details of Keypads, Keyswitches, Panic Buttons and Warning devices, see the wiring diagrams in the wiring section of this manual.

AC INPUT TERMINALS

These terminals are for the connection of AC power. The Ness ECO8x requires an AC transformer rating of 1.4 Amps @ 17 V AC minimum. (Ness Part No. 840-029 or POW215)

BATTERY

These terminals are for the connection of a sealed lead-acid rechargeable 12 Volt battery. Charge current is limited to 350mA. The charge voltage is factory preset at 13.8V and does not need changing. Note: A 12 Volt sealed lead acid rechargeable battery must be connected for correct panel operation. Observe correct polarity when connecting the battery.

(Ness Part Number BAT210 12V 7Ah battery)

EARTH

For maximum protection against damage caused by lightning strikes, connect a good earth to this terminal. Alternatively use the Earth lead from the plug pack.

PROG/TAMP – Program Link & Internal Tamper Input

The PROG/TAMP link has two purposes:

1. **To enter Installer Program Mode on initial power up**. Power-up with the PROG link OFF. The PROG link (or Box Tamper lead) must be ON in operating mode.

2. **Box Tamper.** When used with the Internal Tamper Lead (supplied), PROG/TAMP serves as the 24hr tamper input for the panel's internal tamper switch. This circuit should not be wired external to the box.

Replace the PROG Link with the Box Tamper Lead. Connect the Internal Tamper Lead spade terminals directly to the terminals of the internal tamper switch (supplied). An end-of-line resistor is NOT required on this input.

When PROG/TAMP is used for Internal Tamper, powering up with the panel's cover open will enter Installer Program Mode.

OUTPUTS

12 VOLT OUTPUT

A regulated 13.8 VDC output is available to power detectors and other equipment. This output is protected by an Automatic Reset fuse.

A maximum load of 500mA may be connected.

SIREN

The on-board siren driver will drive a maximum of 3 x 8 ohm horn speakers (Ness Part No. NOI110). The output will reset at the end of siren time (P29E) or whenever the panel is reset, whichever comes first.

This output is protected by an Automatic Reset fuse.

STR

A latched 12VDC output for connecting strobe lights.

This output will reset after 72 hours (3 days) or when the panel is disarmed.

A maximum of 2 x 1 Watt Strobes (Ness Part No. NOI300) can be connected to this output.

This output is protected by an Automatic Reset fuse.

RESET

A 12V DC output for connecting Ness sirens, piezo sirens or relays, etc. This output will reset at the end of siren time (P29E) or whenever the panel is reset, whichever comes first.

A maximum of 2 x 12V piezo screamers (Ness Part No. 100-238, 100-004, 100-172) can be connected to this output.

This output is protected by an Automatic Reset fuse.

AUX1

The Aux 1 output is on the main terminal strip. Programmable for Smoke Detector power (default) or Area1 arm output or Radio Key AUX button output, see program option P65E. Max. current draw 200mA.

AUX2

The Aux2 output is a two pin header J3. Aux2 is an open collector output (switches negative). Programmable for various types of outputs, see program option P66E. Max. current draw 100mA.

OUTPUT FUSING. The 12V outputs, Siren, Reset and Strobe outputs are protected by Automatic Reset electronic fuses. These outputs will automatically reset once the overload is removed.

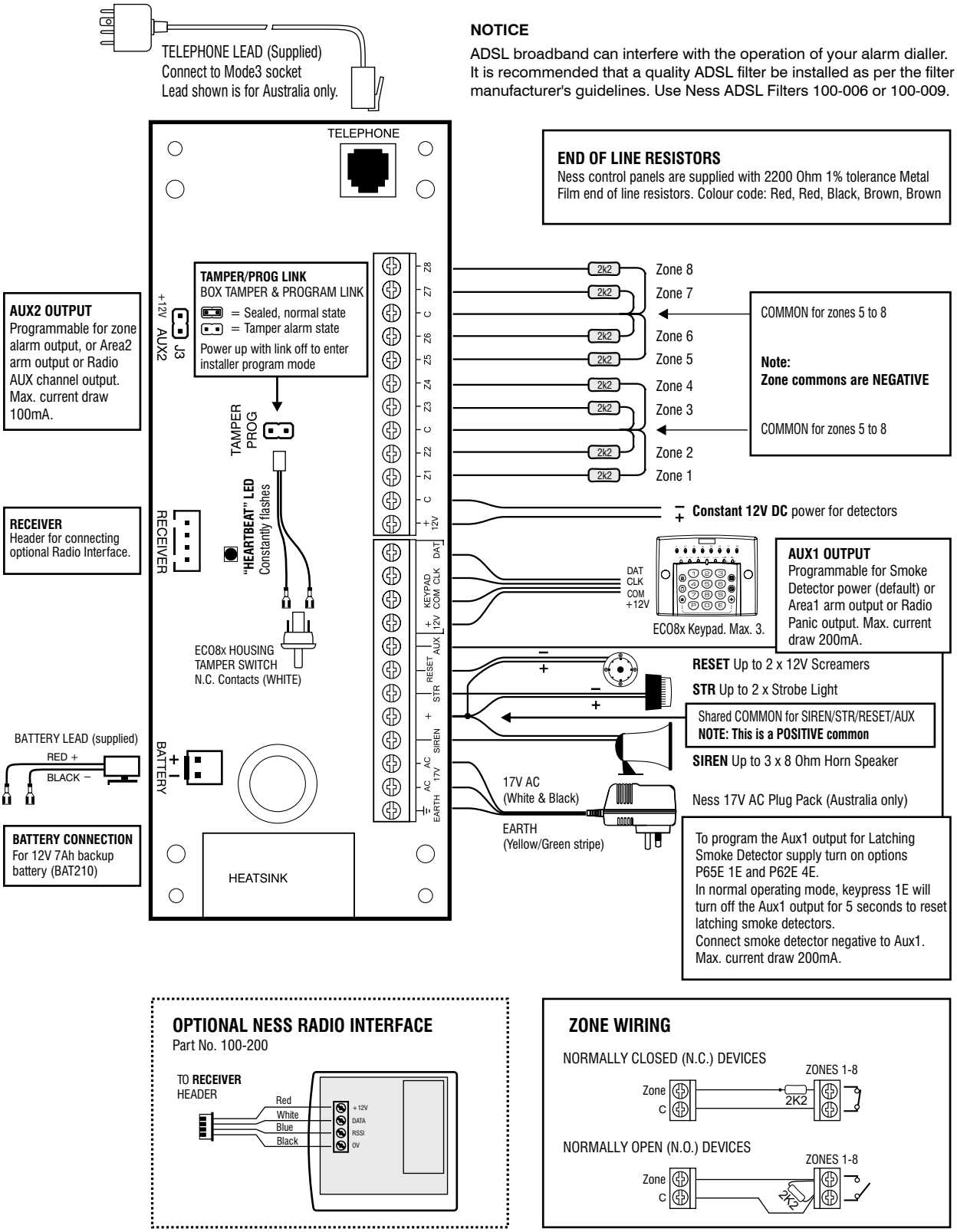
BACKUP BATTERY. A properly charged battery must be installed to ensure the Siren, Strobe and Reset outputs operate correctly.

SIREN LOAD. A maximum output of 2.0A continuous is available from the SIREN and RESET outputs and 200mA from the STR output.

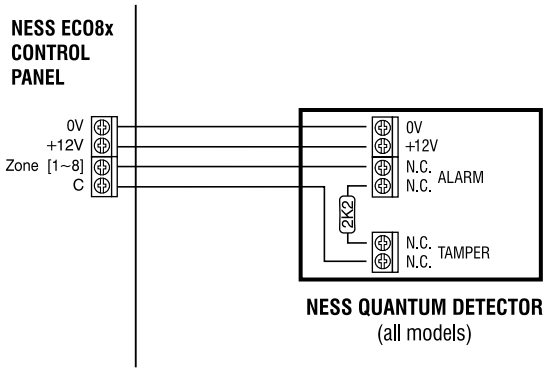
Recommended maximum power load:
3 x Horn speakers (SIREN output)
2 x Strobe lights (STR output)
2 x Ness Internal Sirens (100-172) (RESET output)

Note: *(This assumes no more than 500mA is being drawn from the 12V device outputs).*

ECO8x CONNECTION DIAGRAM

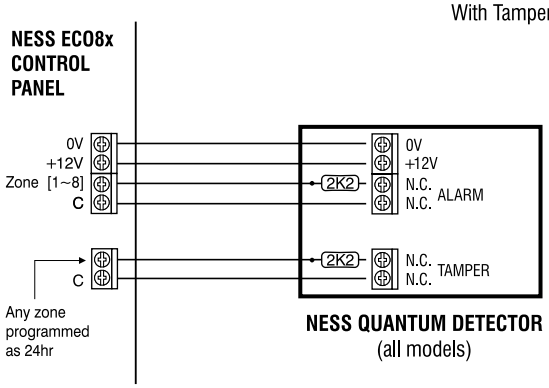


EXAMPLE 1 NESS QUANTUM DETECTORS 4 WIRE CONNECTION

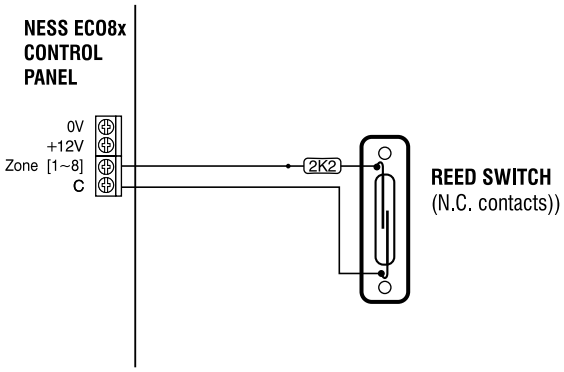


EXAMPLE 2 NESS QUANTUM DETECTORS 6 WIRE CONNECTION

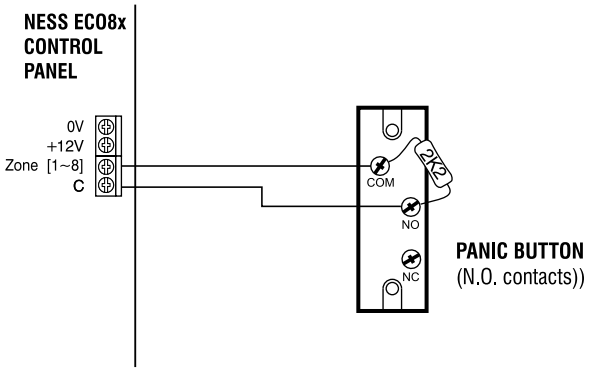
With Tamper



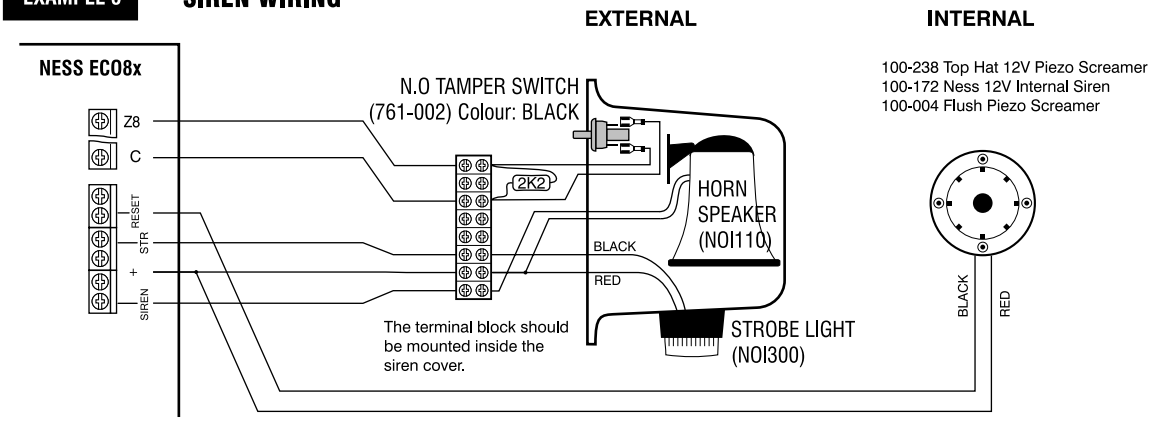
EXAMPLE 3 ANY N.C. DEVICE

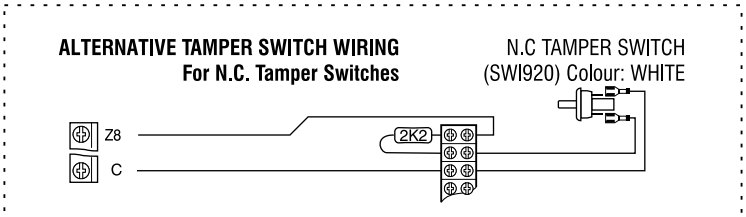


EXAMPLE 4 ANY N.O. DEVICE

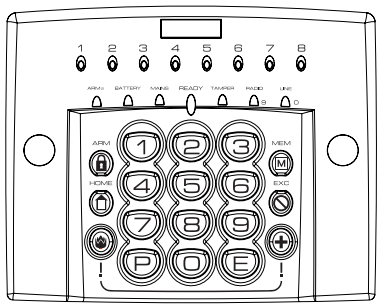


EXAMPLE 5 SIREN WIRING





KEYPAD



The Ness ECO8x keypad provides important visual and audible indication of the system status and is the main interface for controlling the many powerful features of the system.

NUMBER OF KEYPADS

Up to 3 keypads can be connected to the ECO8x panel.

KEYPAD INSTALLATION

Connect the wires to the screw terminals as per the wiring diagram shown in this manual.

The keypad housing can be screwed directly to the wall through the screw holes on the front of the fascia. Cover plugs for the mounting holes are supplied. Left and right hand cover plugs are different, (marked 'L' and 'H' on the inside of the plug).

CABLE LENGTH

The maximum allowable cable length is 100m (total cable length to all keypads).

KEYPAD BEEPS

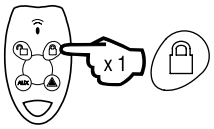
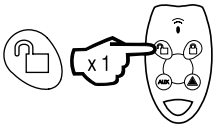
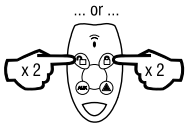
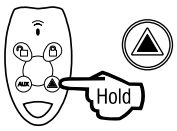
BEEPS	MEANING
♪ 1 BEEP	Any key press
♪♪♪ 3 BEEPS	Valid Command
♪ — ♪ 1 LONG BEEP	Error
♪–10–♪ 10 BEEPS	Mains Power is off or Panel Battery is low or A Radio Device has sent a low battery signal or Telephone Line Fail has been detected

KEYPAD DISPLAY INDICATORS IN OPERATING MODE

KEYPAD LIGHT	OFF	ON	FLASHING
ZONE LIGHTS 1-8	Zone is sealed.	Zone is unsealed.	Zone is in alarm.
ARMED Red Illuminated button	Panel is disarmed.	Panel is armed (or Area 1 is armed if using Areas).	
HOME Yellow Illuminated button	Home Mode is disarmed.	Panel is armed in Home Mode.	Day Mode enabled, (see page 18).
MEMORY Red Illuminated button	Normal.	Memory mode selected.	New alarm/s in memory.
EXCLUDE Red Illuminated button	Normal.		Zone/s are Excluded.
PROGRAM Red Illuminated button	Normal.	User Program Mode.	Installer Program Mode.
ARM2 **ARM2** (Yellow LED)	Area 2 is Disamed.	Area 2 is Armed.	
ARM2 **BATTERY** (Red LED)	Normal.		The backup battery is low.
ARM2 **MAINS** (Red LED)	Normal.		Mains power is off.
READY **READY** (Green LED)	Zone/s are unsealed. or Power is off. or Panel is armed. or phone line fault.	Ready to arm the panel.	
ARM2 TAMPER (Red LED)	Normal.		The Internal Tamper input is in alarm.
ARM2 RADIO (Red LED)	Normal.	Receiving a radio signal. (If radio fitted.)	A Radio Key or other radio device has low battery.
ARM2 LINE (Red LED)	Normal	Dialler is on line.	Phone line fault or failure to communicate.

KEYPAD DISPLAY INDICATORS IN MEMORY MODE

KEYPAD LIGHT	MEMORY EVENT
Zone lights 1–8	Zone alarm
(no lights)	Panel Disarmed
ARMED	Panel Armed (or Area 1 Armed)
ARM2	Area 2 Armed
MAINS	Mains power failure
BATTERY	Low Battery
TAMPER	Tamper alarm
EXCLUDE	Panic alarm
LINE	Telephone line fail
RADIO, EXCLUDE	Radio Key Panic alarm
RADIO, BATTERY, ZONE	Radio Device battery low, (Device number is indicated by zone lights)
RADIO, BATTERY, ARM	Radio Key battery low, (Radio Key number is NOT indicated)
RADIO, TAMPER, ZONE	Radio Device tamper alarm (Device number is indicated by zone lights)

OPERATION	by **KEYPAD**	by **RADIO KEY**
to **ARM** The panel must initially be disarmed.	Press (🔒) + (E) (If the Arming Shortcut is enabled, P62E 5E) or press (🔒) + [USER CODE] + (E) or press [USER CODE] + (E) (If Code Only Arming has been enabled for that user code. Extra Option 4E)	 Press the ON button once.
to **DISARM** To disarm and/or reset alarms.	Press [USER CODE] + (E)	 Press the OFF button once.*
to arm **HOME MODE** Area1 must initially be disarmed. Home Mode can be used if the panel is fully disarmed or if only Area2 is armed, see pages 18-19 for more information.	Press (🏠) + (E) (If the Home Mode Shortcut is enabled, P62E 3E) or press (🏠) + [USER CODE] + (E)	 Press either the OFF button or the ON button twice within 4 seconds. (P69E 5E must be on).
PANIC alarm	Press (🔥) (✚) Fire & Medical keys together (If KEYPAD PANIC is enabled, P64E 6E)	 Press and hold the PANIC button for at least 4 sec.
KEYPAD DURESS Keypad Duress allows the user to send a silent duress report while disarming, (if the system is being monitored by a central station).	Press [5, 6, 8 OR 9] + [USER CODE] + (E) Add one these digits in front of a user code when disarming. This sequence will disarm the panel and send a Duress report by dialler to the central station. (Report Keypad Duress must be enabled, P75E 1E)	
EXCLUDE ZONES EXCLUDE + E can only be used when the panel is disarmed. EXCLUDE + CODE + E can be used anytime.	Press (⊘) + (E) (If the Exclude Shortcut is enabled, P62E 2E) then [ZONE NO.] + (E) [ZONE NO.] + (E) (Enter the zone number/s to be excluded.) then press (E) to exit Exclude mode The Exclude light flashes constantly while zones are excluded. Excluded zones are automatically Included next time the panel is disarmed.	

* If a user code is assigned to a radio key and has Extra Option 4E enabled, (Code Only arming), then pressing OFF toggles the panel arm/disarm state.

TEMPORARY DAY ZONE (TDZ) operation While remaining in normal operating mode, the user can add and remove Temporary Day Zones and enable/disable day zone operation.	
The panel must initially be disarmed. P64E 2E must be on to enable the use of Temporary Day Zones. See page 18 for more information on Temporary Day Zones.	Press (P) + (E) To enter TDZ Selection Mode. then press [ZONE NO.] + (E) To select one or more zone to be Temporary Day Zones. then press (E) To save changes and exit TDZ Selection Mode. Press (O) + (E) To enable/disable TDZ operation. The HOME light flashes continuously when Day Mode is enabled

QUICK START PROGRAMMING

Use one of these programming summaries for fast setup of your Ness ECO8x control panel as a Local, Audible Monitored or Central Station Monitored system.

QUICK START 1 - LOCAL SYSTEM

Quick Start 1 shows you how to change User Code 1 (the Master Code).

QUICK START 1

STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	P 1 2 3 E*	Enters User Program Mode.	Program light will turn on.
2	P 1 1 E	Selects the option for User Code 1.	The existing code will be displayed on the keypad one digit at a time.
3	_ _ _ _ E	Enter your new PIN code followed by E.	Keypad codes can be 3 to 6 digits in length.
4	_ _ _ _ E	Enter your new PIN code again.	The new code will be displayed on the keypad one digit at a time.
5	P E	To exit program mode.	Program light will turn off.

QUICK START 2 - AUDIBLE MONITORING

Quick Start 2 shows you how to change User Code 1 (the Master Code), enable Audible Monitoring and program a telephone number. This will enable the dialler to report alarms to any telephone including mobile phones.

QUICK START 2

STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	P 1 2 3 E*	Enters User Program Mode.	Program light will turn on.
2	P 0 0 0 0 0 0 E*	Enters Installer Program Mode.	Program light will flash.
3	P 1 1 E	Selects the option for User Code 1.	The existing code will be displayed on the keypad one digit at a time.
4	_ _ _ _ E	Enter your new PIN code followed by E.	Keypad codes can be 3 to 6 digits in length.
5	_ _ _ _ E	Enter your new PIN code again.	The new code will be displayed on the keypad one digit at a time.
6	P 8 6 E 4 E	Turns on option P86E 4E	Enables Audible Monitoring.
7	P 7 0 E	Selects the option for Telephone Number 1.	The existing number will be displayed on the keypad one digit at a time.
8	_ _ _ _ _ _ _ _ E	Enter the telephone number followed by E. (max. 30 digits)	The new number will be displayed on the keypad one digit at a time.
9	P E	To exit program mode.	Program light will turn off.

QUICK START 3 - CENTRAL STATION MONITORING

Quick Start 3 shows you how to change User Code 1 (the Master Code), enable Central Station Monitoring and program one telephone number. This will enable the dialler to report alarms to a Central Station.

QUICK START 3

STEP	KEYSTROKES	DESCRIPTION	COMMENT
1	P 1 2 3 E*	Enters User Program Mode.	Program light will turn on.
2	P 0 0 0 0 0 0 E*	Enters Installer Program Mode.	Program light will flash.
3	P 1 1 E	Selects the option for User Code 1.	The existing code will be displayed on the keypad one digit at a time.
4	_ _ _ _ E	Enter your new PIN code followed by E.	Keypad codes can be 3 to 6 digits in length.
5	_ _ _ _ E	Enter your new PIN code again.	The new code will be displayed on the keypad one digit at a time.
6	P 8 6 E 2 E	Turns on option P86E 2E	Enables Contact ID format.
7	P 7 0 E	Selects the option for Telephone Number 1.	The existing number will be displayed on the keypad one digit at a time.
8	_ _ _ _ _ _ _ _ E	Enter the telephone number followed by E. (max. 30 digits)	The new number will be displayed on the keypad one digit at a time.
8	P 7 2 E	Selects the option for the Client Account Number.	The existing number will be displayed on the keypad one digit at a time.
10	_ _ _ _ E	Enter the Account number followed by E. (4 digit account number supplied by your monitroing company.)	The new number will be displayed on the keypad one digit at a time.
11	P E	To exit program mode.	Program light will turn off.

* Default Master Code is: 123
* Default Installer Code is: 000000

FACTORY DEFAULTS

Master Code: 123
Installer Code: 000000

INSTALLER PROGRAM MODE

Installer Program Mode allows access to ALL program options.

Note: The panel will remain in Installer Program Mode indefinitely.

USER PROGRAM MODE

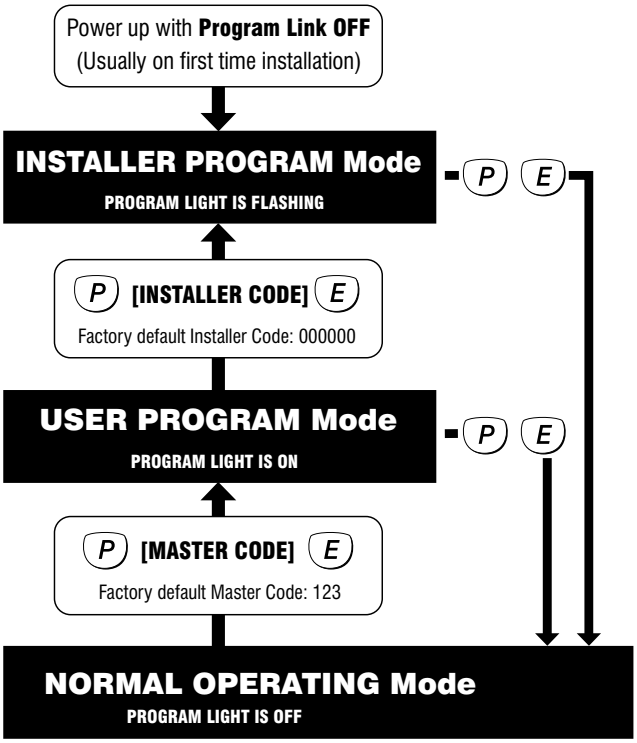
User Program Mode allows the owner to program:

- All User Codes
- Entry Exit Times
- Follow Me Telephone number

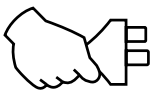
Note:
The panel will automatically exit User Program Mode to Operating Mode if no keypad buttons are pressed for 4 minutes.

PROGRAM MODE LEVELS

TABLE 4. FLOW CHART



HOW TO ENTER PROGRAM MODE



FROM POWER UP

1. Power-up with the PROG link OFF.

(The PROG link (or Box Tamper lead) must be ON in Operating Mode).

... OR

USING THE KEYPAD

The panel must be disarmed.

1. Press (P) + [Master Code] + (E)
   This is User Program Mode (PROGRAM light is ON).
2. Press (P) + [Installer Code] + (E)
   This is Installer Program Mode (PROGRAM light is FLASHING).

HOW TO EXIT PROGRAM MODE

1. Press (P) + (E)
   Exits directly to Operating Mode (PROGRAM light is OFF).

P01E – P08E

RADIO PROGRAMMING See pages 48-49.

P11E – P25E

PROGRAM MODE LEVEL
User, Installer, Remote by PC

FACTORY DEFAULT
User Code 1: 123
All other codes: [blank]

NOTES
1. To clear all codes (except the Installer Code), enter P98E in Installer Program mode. This also defaults user code 1 to 123. See Page 45.

2. Open/Close reports are identified by user number when the control panel is base station monitored.

RELATED OPTIONS
Installer Code. See Page 11, How To Enter Program Mode.

Page 45, Programming The Installer Code.

Installer Code default: 000000

RELATED OPTIONS
Programming Radio Codes, page 49

IMPORTANT NOTES

ⓘ A User Code can be a Keypad Code, Radio Code or Reader Code, but only one type at any one time.

ⓘ Any user codes not assigned to be Radio Codes are automatically Keypad Codes.

ⓘ By factory default all user codes are Keypad Codes.

ⓘ When a user code is selected as a Radio Code, its Keypad Code (if any) is automatically deleted. The same applies to Radio Codes - their codes are auto deleted when the code is changed to any other type.

ⓘ User Code 1 is the Master Code and is always a keypad code and cannot be programmed to be a Radio Code.

USER CODES

The ECO8x control panel has 15 User Codes which are used to operate the panel by a variety of methods – each User Code can be assigned to either a KEYPAD CODE or a RADIO KEY.

KEYPAD (PIN) CODES

Up to 15 Keypad Codes can be used at up to 3 wired keypads for controlling all panel functions including Arming/Disarming, Home Mode, Panic, memory recall and much more.

- Keypad Codes can be 3 to 6 digits in length and can be individually programmed and deleted.
- Keypad Codes can optionally be programmed to be "Arm Only" codes.
- User Code 1 is also the Master Code which is used to enter Client Program mode.
- All User Codes are Keypad Codes by default. User Codes can be programmed to be Radio Codes as required.

NOTES

1. Keypad Codes beginning with 0 (zero) can be programmed but they will not operate the panel. This is an alternative method for disabling user codes. The MEMORY E function is recommended for deleting user codes.

2. All codes must be unique to each other. Codes are rejected if already used. Some codes that are similar to existing codes may also be rejected.

PROGRAMMING KEYPAD CODES

Press P [11–25] E (The existing code is displayed one digit at a time).
Press [NEW CODE] E [NEW CODE AGAIN] E (The new code is displayed).

Example: To program the Master Code to be 1234.

Press **P11E 1234E** (1 beep) **1234E** (3 beeps)

ⓘ *When re-programming an existing keypad code, the new code will overwrite the old code.*

DELETING KEYPAD CODES

To delete a User Code without programming a new code, press the MEMORY key in place of the code.

Example: To delete User Code 2, press **P12E MEMORY E**

ⓘ *A keypad code only needs to be deleted if you're not replacing it with a new code.*

ARM ONLY CODES

'Arm Only' is an extra option for user codes. See next page for further information.

User Codes 2–15 can optionally be programmed as Arm Only Codes, which can Arm but cannot Disarm the panel. (Used for cleaners, temporary staff, etc).

Example: To program User Code 2 to be 1234 and an Arm Only code.

Press P12E EXCLUDE E 3E EXCLUDE E 1234E 1234E
(EXCLUDE E enters Extra Options mode, 3E enables the Arm Only option, then EXCLUDE E toggles back to normal user code program mode.)

When the code is viewed in program mode, the ARMED icon is briefly displayed before the digits of the code.

To disable the Arm Only feature for a keypad code, simply enter the option for that code, press EXCLUDE E to view Extra Options then press 3 E without re-entering a new code. This retains the existing code and toggles off the Arm Only feature.

ⓘ *The Arm Only feature also applies to Radio Keys.*

ⓘ *Arm Only codes can also arm the panel directly from Home Mode. (Normally, user codes can arm the panel only if it is fully disarmed).*

ⓘ *Arm Only codes can also arm Home Mode as normal.*

ⓘ *Radio Keys programmed as an Arm Only can toggle the armed/disarmed state of the panel using the OFF button on the radio key.*

USER CODE OPTIONS TABLE

				EXCLUDE+E toggles the EXTRA OPTIONS MODE. The Exclude light indicates this mode is on/off. (Installer Program mode only)				
USER CODE	**OPTION NO.**	**KEYPAD PIN**	**USER'S NAME (For your record)**	**1E** AREA 1 CODE	**2E** AREA 2 CODE	**3E** ARM ONLY	**4E** "CODE ONLY" ARM	**5E** RADIO CODE
1 (Master)	P11E	123		ON	ON			
2	P12E			ON				
3	P13E			ON				
4	P14E			ON				
5	P15E			ON				
6	P16E			ON				
7	P17E			ON				
8	P18E			ON				
9	P19E			ON				
10	P20E			ON				
11	P21E			ON				
12	P22E			ON				
13	P23E			ON				
14	P24E			ON				
15	P25E			ON				

PROGRAMMING USER CODES

ASSIGNING EXTRA OPTIONS

Each user code has several "extra options" which can be assigned when programming the code or at any time later.

In **NORMAL USER CODE PROGRAMMING mode** (Exclude light is off), you can do the following:

Program Keypad Codes (see page 12).
Program Radio Codes (see page 49).
View radio signal strength (see page 47).

In **EXTRA OPTIONS mode** (Exclude light is on), you can assign several powerful functions to each user code.

To view and program the Extra Options:
1. Select a User Code (P201–P256E). *The Exclude light is OFF.*
2. Press EXCLUDE E. *The Exclude light turns ON.*

This gives access to programming Extra Options for codes:

1E AREA 1 CODES. Assign/remove user codes to Area 1. (By default all user codes are assigned to Area 1.

2E AREA 2 CODES. Assign/remove user codes to Area 2.

ℹ User codes can be assigned to Area 1, Area 2, both areas or no areas.

ℹ An Area will not arm unless it has one or more zones assigned to it (P45E, P46E).

ℹ If a code is not assigned to any Area/s, the code can be used for special functions such as to trigger outputs.

3E ARM ONLY. User Codes 2–56 can be programmed to Arm but not Disarm the panel. (See page 12).

4E "CODE ONLY" ARMING. Enables selected user codes to allow "code only arming". Arming can then be done either with or without the use of the arm key on the keypad.

ℹ In the case of radio codes the radio key OFF button will toggle the armed state of the area assigned to the radio key.

ℹ If the User code is assigned to both AREA 1 and AREA 2. If AREA 1 is already armed, then entering the code will disarm AREA 1 - but arm AREA 2.

If the intention is to either ARM or DISARM both areas using this code then ARM + [code] must be used first to arm both areas. Once both are armed they can be disarmed.

ℹ If in Home mode, then the action is to exit Home mode.

5E RADIO CODE. Enables selected user codes as Radio Codes for operation by Ness Radio Key or Radio Keypad. (Page 49 - how to program Radio Codes).

Option No.	Description	Default	Note
P26E	ENTRY DELAY TIME	20	seconds
P28E	EXIT DELAY TIME	60	seconds
P29E	SIREN RESET TIME	5	minutes

P26E

PROGRAM MODE LEVEL
User, Installer, Remote by PC.

FACTORY DEFAULT
20 (seconds)

NOTES
• Programmable from 1 – 99 seconds.

ENTRY DELAY TIME

The Entry Delay Time is the time given to disarm the panel after an Entry Delay zone is triggered.

The Entry Delay Time setting is from 1 to 99 seconds in 1 second increments.

PROGRAMMING SEQUENCE:

P26E *existing time is displayed one digit at a time*

[ENTER NEW TIME] E *new time is displayed one digit at a time*

EXAMPLE: To program Entry Delay Time to be 30 seconds: P26E 30E

P28E

PROGRAM MODE LEVEL
User, Installer, Remote by PC.

FACTORY DEFAULT
60 (seconds)

NOTES
• Programmable from 1 – 99 seconds

RELATED OPTIONS
P62E 8E Exit Time x10

EXIT DELAY TIME

The Exit Delay Time is the time given to secure and depart the premises after the panel is armed. All zones in the Area being armed (except 24hr zones) are inactive during the Exit Delay time.

The Exit Delay Time setting is from 1 to 99 seconds in 1 second increments.

PROGRAMMING SEQUENCE:

P28E *existing time is displayed one digit at a time*
[ENTER NEW TIME] E *new time is displayed one digit at a time*

EXAMPLE: To program Exit Delay to be 85 seconds:
P28E 85E

P29E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
5 (minutes)

NOTES
• Programmable from 1 – 99 minutes.

• Siren times of longer than 5 minutes are contrary to noise pollution regulations in most areas.

SIREN RESET TIME

The Siren Reset Time sets the duration of the Siren and Reset outputs.

The Siren Reset Time setting is from 1 to 99 minutes in 1 minute increments.

PROGRAMMING SEQUENCE:

P29E *existing time is displayed one digit at a time*
[ENTER NEW TIME] E *new time is displayed one digit at a time*

EXAMPLE: To program Siren Time to be 4 minutes:
P29E 4E

P30E – P36E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
Normal sensitivity.
P30E, all zones = ON.

NOTES
• Sensitivity can be individually programmed for each zone.

• Zones are allocated to one sensitivity level at any one time. Turning a zone ON in a sensitivity level, turns the zone OFF in any other sensitivity level.

• To revert zone sensitivity back to Normal, turn on the required zone/s at P30E.

Sensitivity Level "Extreme" (P31E) is provided as a guide to the upper limit and should **NOT BE USED**.

VIBRATION SENSITIVITY

Each zone has individually adjustable sensitivity for connection of Nessensor Vibration Sensors. Zone sensitivity is adjusted by toggling zones ON in options P30E to P36E.

P30E is Normal Sensitivity, vibration analyser disabled. This is used for normal alarm devices. Zone response time, 200ms.

P31–36E are the options for the 6 levels of vibration sensitivities. P31E is the most sensitive setting.

PROGRAMMING SEQUENCE:

P [30–38] E *zones are displayed* **[Zone No] E**

EXAMPLE: To program zones 2 and 3 to be Medium sensitivity:
P34E 2E 3E *the keypad display will show zone lights 2 & 3 on.*

	Option No.	Description	ZONES 1	2	3	4	5	6	7	8
VIBRATION OPTIONS	**P30E**	**NORMAL**	ON	ON	ON	ON	ON	ON	ON	ON
	P31E	Vibration EXTREME*								
	P32E	Vibration HIGHEST								
	P33E	Vibration HIGH								
	P34E	Vibration MEDIUM								
	P35E	Vibration LOWER								
	P36E	Vibration LOWEST								
	P37E	1 second ZONES								
	P38E	3 second ZONES								

* Extreme sensitivity (P31E) **should not be used**. It is provided as a guide only

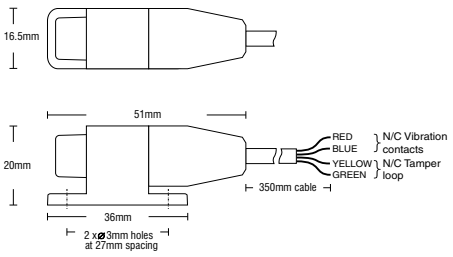
ADJUSTING NESSENSORS

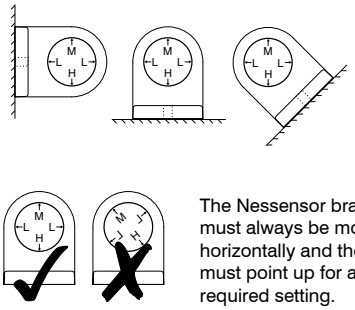
Nessensors are sensitive to high frequencies and insensitive to low frequencies. Therefore it is not necessary to apply much force to the protected structure, rather a very rapid succession of blows.

The sensitivity has been correctly adjusted when a single blow applied with a soft object (e.g. by hand) does not cause an alarm whereas a rapid series of blows (using a metal object such as a screwdriver blade) will cause an alarm.

Ness NESSENSOR™ Vibration Sensor
Part No. VIB100

In addition to zone sensitivity adjustment, the overall sensitivity of the Nesssensor can be adjusted by rotating the body of the Nesssensor within its bracket.





The Nessensor bracket must always be mounted horizontally and the arrow must point up for any required setting.

P37E – P38E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
all off

NOTES
• A Long Response Zone cannot be a Normal Zone or Vibration zone at the same time.

• To convert zone/s back to a Normal Zone, turn on the required zone/s at P30E.

LONG RESPONSE ZONES

Long Response Zones are normal alarm zones with a long reaction time. Individual zones can be programmed to have either a 1 second response (P37E) or 3 second response (P38E).

PROGRAMMING SEQUENCE:

P37E or P38E [Zone No]E *toggles zones ON and OFF*

ZONE DELAY TYPES

Only one option per zone can be selected. For example, a zone cannot be instant and delayed at the same.

Option No.	Description	ZONES 1	2	3	4	5	6	7	8
P39E	DOUBLE TRIGGER zones								
P40E	INSTANT zones			ON	ON	ON	ON	ON	ON
P41E	ENTRY DELAY 1 zones	ON							
P42E	HANDOVER zones		ON						
P44E	LOCKOUT zones (Reset O/P)	ON	ON	ON	ON	ON	ON	ON	ON
P45E	AREA 1 zones	ON	ON	ON	ON	ON	ON	ON	ON
P46E	AREA 2 zones								
P51E	HOME zones								
P52E	24HR zones								
P53E	DAY zones								

P39E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF.

NOTES
Double Trigger is useful for preventing unwanted alarms from zones in harsh environments such as sheds and garages.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

DOUBLE TRIGGER ZONES

Zones programmed to Double Trigger will recognise an alarm condition if:

- The zone has been triggered twice within a 4 minute period.
- If any 2 zones (both programmed for double trigger), each trigger once.
- The zone is left unsealed for longer than 15 seconds.

PROGRAMMING SEQUENCE:

P39E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone is not a Double Trigger zone
[Zone No] ON: The zone is a Double Trigger zone

P40E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
Zones 3–8 are Instant.

NOTES
When a zone is selected for this type, it is automatically deselected from any other delay type.

INSTANT ZONES

Instant Zones operate only in the Armed state. When Armed at the expiry of exit time, Instant Zones will activate assigned outputs immediately when triggered.

P40E [Zone No]E *turns the options ON*

[Zone No] ON: The zone is an Instant Zone
To deselect the option, select a different zone delay type.

P41E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
Zone 1.

NOTES

- The keypad sonalert will beep during Entry Delay as a reminder to disarm the panel. Entry beeps can be disabled by program option P60E 1E.
- When a zone is selected for this type, it is automatically deselected from any other delay type.

ENTRY DELAY1 ZONES

Entry Delay1 zones operate only in the Armed state. When Armed, at the expiry of exit time these zones will activate the Entry Delay Timer1 (P26E) when they are triggered. If the panel is not disarmed before the expiry of the Entry Delay Timer1, the alarm outputs will be activated.

P41E [Zone No]E *turns the options ON*

[Zone No] ON: The zone is an Entry Delay1 zone
To deselect the option, select a different zone delay type.

P42E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
2E ON.

NOTES
• When a zone is selected for this type, it is automatically deselected from any other delay type.

HANDOVER ZONES

Handover zones are delayed only if entry is made through an Entry Delay zone first. If a Handover zone is triggered first, the zone behaves as an instant zone. Normally, the "point of entry" zone should be Delay zone, with any other zones in the entry path programmed as Handover zones.

PROGRAMMING SEQUENCE:

P42E [Zone No]E *turns the options ON*

P42E [Zone No]E ON: The zone is a Handover zone
To deselect the option, select a different zone delay type.

P44E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All ON.

NOTES
• The SIREN output always locks out.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

RELATED OPTIONS
P60E 4E Tamper Reset Lockout.
P78E Multiple alarm reports.

RESET LOCKOUT ZONES

All zones and tamper input can be programmed to Lockout, i.e. cause the RESET OUTPUT to sound only once whilst the panel is armed.

The RESET OUTPUT is then locked out for that alarmed zone until entering a valid code has reset the panel. If using area partitioning, disarming either partition resets the zone lockout for both partitions.

PROGRAMMING SEQUENCE:

P44E [Zone No]E *toggles the options ON and OFF*

P44E [Zone No]E OFF: The zone is not a Lockout zone
P44E [Zone No]E ON: The zone is a Lockout zone

AREA PARTITIONING

ASSIGNING ZONES TO AREAS

Option No.	Description	ZONES 1	2	3	4	5	6	7	8
P45E	AREA 1 ZONES	ON	ON	ON	ON	ON	ON	ON	ON
P46E	AREA 2 ZONES								

P45E, P46E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All zones assigned to Area 1.
No zones assigned to Area 2.

NOTES
• For options P45E and P46E, **[Zone No] E** toggles the selection ON and OFF.

• Zones assigned to BOTH areas become Common zones.

• If no Area operation is required, assign all zones to Area 1. (This is the factory default).

ASSIGNING ZONES TO AREAS

Assign (or remove) zones that will operate in Area 1 and/or Area 2.

PROGRAMMING SEQUENCE:

P45E [Zone No]E *toggles the options ON and OFF for Area1*
[Zone No] OFF: The zone is not in Area1
[Zone No] ON: The zone is in Area1

P46E [Zone No]E *toggles the options ON and OFF for Area2*
[Zone No] OFF: The zone is not in Area2
[Zone No] ON: The zone is in Area2

EXAMPLE:

To program zones 1–4 for Area 1 and zones 1, 5–8 for Area 2.

P45E use the **[Zone No] E** sequence to turn ON only zones 1–4.
P46E use the **[Zone No] E** sequence to turn ON zones 1, 5–8.

In this example, we have assigned zone 1 to both areas, so it becomes a Common Zone.

AREA PARTITIONING

DEFINITION

Area Partitioning allows the control panel zones to be split into two partitions; Area1 and Area2. The panel then effectively operates as two separate systems sharing only the siren outputs and dialler.

COMMON AREA ZONES

Zones assigned to both Areas are armed only when Area1 and Area2 are both armed. This allows the Common Area zone/s to be shared by both Areas.

For example, Office A and Office B operate as separate areas but the entrance foyer used by both offices is assigned to both areas meaning it will automatically arm when both Areas have armed. The Common Area then automatically disarms when either Area1 or Area2 disarms.

USER CODE ASSIGNMENT

A User Code assigned to an Area can arm and disarm only that Area. User Codes assigned to both Areas will operate both Areas simultaneously.

OPERATION

Arming and disarming is carried out as normal from a single keypad or separate keypads installed in both areas or by Radio Key.

Area operation only applies to zones when they are in the armed state. This means that Day zones and 24hr zones are independent of area operations.

AREA PARTITIONING & HOME MODE

The panel can be armed in HOME Mode if Area2 is already armed on these conditions:

1. Area 1 must be OFF.
2. Area 2 must be armed first, and then Home armed – not the reverse.
3. Zones assigned to both Home mode (P51E) and to Area 2 (P46E) will act as Home zones when both Area 2 and Home are armed.
4. Zones must be assigned to P51E to allow Home arm.

Note: Home arming when AREA 2 is armed cannot be done by Radio Key (double OFF button) or by keyswitch.

Note: Home Mode is not available when Area 1 is armed.

HOME MODE

Home Mode allows selected zones to be armed whilst the system is disarmed. For example, this is often used to arm door and windows sensors overnight, while allowing free movement within the house.

- Home Mode will not work if Area 1 is armed.
- Zones which are to be armed in Home Mode are selected using option P51E.
- Home Mode can be armed by:
  Keypad: HOME+[code]+E or HOME+E
  Radio Key: See option P69E 5E
- Audible outputs in Home Mode (set by options P63E 1E-4E) are independent of audible outputs in fully armed mode.
- If dialler reporting is enabled, Home Mode alarms will be reported as normal providing that:

  a/ The zone/s are selected to report alarms by option P74E.

  b/ Option P64E 1E is off. (Brief Home Mode Alarm).
- Home zones can be Instant, Delayed or Handover depending on attributes set by options P40E–P42E.

TEMPORARY DAY ZONES

The Temporary Day Zone feature allows easy and flexible Day Zone selection and operation.

While remaining in normal operating mode, the user can add and remove Temporary Day Zones and enable/disable day zone operation using simple key strokes.

TO ENABLE TEMPORARY DAY ZONES

To enable Temporary Day Zone selection and operation, the Brief Day Alarm feature (installer option P64E 2E) must be ON. If P64E 2E is OFF, the Temporary Day Zone feature will be unavailable but Permanent Day Zones will still operate and will sound the programmed output while the zone is unsealed.

P64E 2E is OFF by default.

USER COMMANDS (In normal Operating Mode).

(P) + (E) Selection Mode. Enter **P** followed by **E** when in operating mode to enter Temporary Day Zone selection mode.

[Zone No.]+(E) Zone Selection. To select or deselect zones to be Temporary Day Zones. The selected zones are indicated by the corresponding zone number.

Permanent Day Zones, (set by installer option P53E), are not displayed in selection mode. Permanent Day Zones can be selected as Temporary Day Zones but this has no effect as those zones are already day zones.

(E) Saves changes and returns to normal operating mode.

(O)+(E) Enables and Disables Day Mode. This enables/disables both Temporary and Permanent Day Zones.

INDICATION

The HOME light flashes continuously when Temporary Day Mode is enabled.

OUTPUTS

When Day Mode is enabled, any unsealed day zone will sound the programmed output for 2 seconds. When Day Mode is disabled, an unsealed day zone will simply be indicated on the keypad as an unsealed zone.

RELATED OPTIONS

P64E 2E, Brief Day Alarm. Turn this option on to enable Temporary Day Zones. Factory default = OFF.

P63E 5E, Day Mode to Reset output.

P63E 6E, Day Mode to Strobe output.

If P64E 2E is ON, then this option sends day alarms to the AUX 2 output.

P63E 7E, Day Mode to Sonalert.

P63E 8E, Day Mode to Siren output.

P53E, Permanent Day Zone selection.

Temporary Day Zone selections will be lost if the panel is powered down or reset, but are not affected by arming/disarming or entering program mode.

P51E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
all OFF.

NOTES
Home zones can be Instant, Delayed or Handover depending on attributes set by options P40E–P42E.

RELATED OPTIONS
P63E 1E-4E Home Mode output mapping.
P64E 1E Brief Home Mode alarm.
P69E 3E Quiet Home Mode siren.
P69E 5E Home Mode by Radio Key ON/OFF buttons.
P69E 7E Home Mode chirps.
P69E 8E Home Mode arm by Radio Key AUX button.

HOME MODE ZONES

Home Mode zones allow you to Arm selected zones while others are ignored. Typically used for perimeter zones such as windows and doors while you are at home.

For example: upstairs zones are Disarmed while downstairs zones are Armed in Home mode.

PROGRAMMING SEQUENCE:

P51E [Zone No]E *toggles the options ON and OFF*

P51E [Zone No]E OFF: The zone is not a Home zone
P51E [Zone No]E ON: The zone is a Home zone

NOTE: Zones selected to Report Zone Alarms (P74E) will by default report alarms in Home Mode, (if the dialler is enabled).

The Brief Home Alarm option P64E 1E, when enabled, prevents Home Mode alarms from reporting.

See page 18 for Home Mode operation.

P52E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF.

NOTES
• When a zone is selected as 24hr it is automatically removed from both Areas.

• When a 24hr zone is assigned to an Area (P45E or P46E) it is no longer a 24hr zone.

24hr ZONES

24hr Zones operate at all times regardless of the mode of panel operation, i.e. Armed, Disarmed or Home Mode. When alarmed, these zones will activate assigned outputs immediately. To reset those alarms a valid user code must be entered.

Selecting a zone as 24hr will override any other zone type setting such as Instant, Delayed or Handover. 24hr zones are independent of Area operation. All other zone types must be assigned to at least one Area to become active.

PROGRAMMING SEQUENCE:

P52E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone is not a 24hr zone
[Zone No] ON: The zone is a 24hr zone

P53E

PROGRAM MODE LEVEL
Installer, Remote by PC

FACTORY DEFAULT
all OFF.

RELATED OPTIONS
P63E 5E-8E Day zone output mapping.
P64E 2E Brief Day Mode alarm.

IDEAS FOR DAY ZONE USE
• Instant alert for a delivery door.
• Doorway alert for a shop.
• Pool gate opened warning.

DAY ZONES

Day Zones operate when the panel is fully disarmed, i.e. when Area 1, Area 2 and Home Mode are all off. When alarmed, these zones will activate their assigned outputs instantly.

The outputs mapped to the Day Zone will turn on while the zone is unsealed. Turn P64E 2E on, to limit Day Zone alarms to 2 seconds.

The Temporary Day Zones feature allows day mode to be easily enabled/disabled and day zones added/removed by the user from any keypad.

PROGRAMMING SEQUENCE:

P53E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone is not a Day zone
[Zone No] ON: The zone is a Day zone

See page 18 for information on TEMPORARY DAY ZONES.

ZONE TO OUTPUT MAPPING

When a zone alarms, it can turn on any or all of these outputs: Sonalert, Strobe, Siren, Reset, AUX2.

The programming is selected with options P54E – P59E. Simply set the zone number to the output to select it. The zone LED will indicate if the zone is selected.

The Tamper Input and the Keypad Panic can be mapped to the Reset, Strobe, Sonalert and Siren by using option P61E.

Zone To Output Mapping applies to zones when the panel is in the Armed or 24hr state.

For HOME MODE and DAY mode Output Mapping – see Option P63E 1E–8E, page 26.

MAPPING ZONES TO OUTPUTS

Option No.	Description	ZONES 1	2	3	4	5	6	7	8
P54E	RESET Zones	ON	ON	ON	ON	ON	ON	ON	ON
P55E	STROBE Zones	ON	ON	ON	ON	ON	ON	ON	ON
P56E	SONALERT Zones	ON	ON	ON	ON	ON	ON	ON	ON
P57E	SIREN Zones	ON	ON	ON	ON	ON	ON	ON	ON
P59E	AUX2 Zones								

P54E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All ON.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

RESET OUTPUT ZONES

Selects the zones to trigger the Reset output.

PROGRAMMING SEQUENCE:

P54E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone will not trigger the Reset output
[Zone No] ON: The zone will trigger the Reset output

P55E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
all ON.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

STROBE OUTPUT ZONES

Selects the zones to trigger the Strobe output.

PROGRAMMING SEQUENCE:

P55E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone will not trigger the Strobe output
[Zone No] ON: The zone will trigger the Strobe output

P56E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All ON.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

KEYPAD SONALERT ZONES

Selects the zones which will sound the Keypad Sonalert (beeper).

PROGRAMMING SEQUENCE:

P56E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone will not trigger the Keypad Sonalert
[Zone No] ON: The zone will trigger the Keypad Sonalert

P57E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All ON.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

SIREN OUTPUT ZONES

Selects the zones to trigger the Siren output.

PROGRAMMING SEQUENCE:

P57E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone will not trigger the Siren output
[Zone No] ON: The zone will trigger the Siren output

P59E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF.

PROGRAMMING SHORTCUTS
Use **0E** to turn all selections OFF.
Use **MEMORY E** to turn all selections ON.

RELATED OPTIONS
P66E 1E Aux2 = Zone Alarm Output.

AUX2 OUTPUT ZONES

Selects the zones to trigger the AUX2 output on the main board. This option selects *which* zones trigger AUX2.

Once turned on by a zone alarm, the output will remain on until the panel is reset/ disarmed.

PROGRAMMING SEQUENCE:

P59E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone will not trigger the AUX2 output
[Zone No] ON: The zone will trigger the AUX2 output

Option No.	Description	1E Entry beeps	2E	3E Keyswitch Arm/Disarm	4E Tamper Siren Lockout	5E	6E Auto Exclude zones	7E Auto off, keypad display	8E
P60E	VARIOUS OPTIONS	ON			ON		ON		

P60E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

NOTES

ENTRY BEEPS

The sonalert will beep during Entry Delay.

PROGRAMMING SEQUENCE:

P60E 1E *toggles the option ON and OFF*

OFF: Entry Beeps OFF
ON: Entry Beeps ON

P60E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
The keyswitch always Arms Area1 only.
The keyswitch always Disarms both Area1 and Area2.

KEYSWITCH OPERATION

An externally fitted, normally open momentary Keyswitch can be used to Arm and Disarm the ECO8x.

The keyswitch is wired to zone 8 (zone 8 is then no longer available as a normal alarm input, but is still available for use as a Radio Zone).

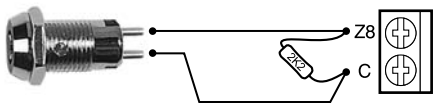
PROGRAMMING SEQUENCE:

P60E 3E *toggles the option ON and OFF*

3E OFF: No keyswitch operation. Zone 8 is a normal alarm input.
3E ON: Zone 8 is the keyswitch input.

KEYSWITCH WIRING

If P60E 3E is enabled, use a momentary action keyswitch with normally open contacts. A momentary closed circuit across the resistor will toggle panels modes. Open circuit the resistor to trigger Panic alarm if required.



KEYSWITCH WIRING.
A momentary or latching keyswitch can be wired as shown.

P60E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P44E Lockout zones.

TAMPER SIREN LOCKOUT

This option programs the Tamper input to Lockout, i.e. cause the Siren & Reset outputs to sound only once whilst the panel is armed.

PROGRAMMING SEQUENCE:

P60E 4E *toggles the option ON and OFF*

OFF: Tamper Reset Lockout disabled
ON: Tamper Reset Lockout enabled

P60E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P62E 7E Siren burst on Auto Exclude.

AUTO EXCLUDE ZONES

If a zone is unsealed at the end of Exit Time the panel can either Exclude (ignore) that zone or immediately alarm.

If option P63E 7E is enabled, the Siren output will give a 2 second burst at the end of Exit Time to indicate that the panel is armed with a zone/s Auto Excluded.

PROGRAMMING SEQUENCE:

P60E 6E *toggles the option ON and OFF*

OFF: Auto Exclude disabled (instant alarm if unsealed at end of Exit Time)
ON: Auto Exclude enabled (zone is excluded if unsealed at end of Exit Time)

P60E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
The display backlighting will turn off but the key backlighting will remain on.

DISABLE THE DISPLAY

The LED indicators on the keypad can be programmed to blank after 4 minutes of no keypad use. Any action that causes a beep will restore the display or press the Ⓔ key to restore the display.

PROGRAMMING SEQUENCE:

P60E 7E *toggles the option ON and OFF*

OFF: Display is always on
ON: Display will blank after 4 minutes

Option No.	Description	Tamper to RESET output 1E	Tamper to STROBE output 2E	Tamper to keypad SONALERT 3E	Tamper to SIREN output 4E	KP Panic to RESET output 5E	KP Panic to STROBE output 6E	KP Panic to keypad SONALERT 7E	KP Panic to SIREN output 8E
P61E	TAMPER & PANIC ALARM MAPPING	ON	ON	ON	ON	ON	ON	ON	ON

P61E 1E–4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
1E–4E, ON.

NOTES
A Tamper Alarm is triggered by removing the PROG/TAMP link on the main board.

TAMPER ALARM / OUTPUT MAPPING

This option selects which outputs will trigger when a Tamper Alarm occurs.

PROGRAMMING SEQUENCE:

P61E 1E–4E *toggles the options ON and OFF*

1E ON: Tamper Alarm to Reset output
2E ON: Tamper Alarm to Strobe output
3E ON: Tamper Alarm to Keypad Sonalert output
4E ON: Tamper Alarm to Siren output

P61E 5E–8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
5E–8E, ON.

NOTES
Press FIRE & MEDICAL keys together for Keypad Panic.

RELATED OPTIONS
P64E 6E Enable Keypad Panic

KEYPAD PANIC ALARM / OUTPUT MAPPING

This option selects which outputs will trigger when a Keypad Panic alarm occurs.

PROGRAMMING SEQUENCE:

P61E 5E–8E *toggles the options ON and OFF*

5E ON: Keypad Panic Alarm to Reset output
6E ON: Keypad Panic Alarm to Strobe output
7E ON: Keypad Panic Alarm to Keypad Sonalert output
8E ON: Keypad Panic Alarm to Siren output

Option No.	Description	Shortcut MEMORY display 1E	Shortcut ZONE EXCLUDE 2E	Shortcut HOME MODE 3E	Shortcut SMOKE RESET AUX1 4E	Shortcut AREA1 ARMING 5E	Shortcut AREA2 ARMING 6E	Siren burst on Auto-Exclude 7E	Exit Time x10 8E
P62E	OPERATION SHORTCUTS ETC	ON	ON	ON		ON		ON	

P62E 1E–6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
1E, ON.
2E, ON.
3E, ON.
4E, OFF.
5E, ON.
6E, OFF.

NOTES
Allocate a user code to Area2 before programming Area2 shortcut arming. If Area2 is armed with the shortcut and a user code is not assigned to Area2 then you will not be able to disarm the panel.

SYSTEM OPERATION SHORTCUTS

Some keypad operations can be programmed to operate with or without a User Code.

PROGRAMMING SEQUENCE:

P62E 1E–6E *toggles the options ON and OFF*

1E ON: Memory Display shortcut
2E ON: Zone Exclude shortcut
3E ON: Home Mode shortcut
4E ON: Shortcut Smoke Output Reset on AUX1. If AUX 1 is set up to be SMOKE DETECTOR power output then it is activated by pressing 1 + E. AUX1 then turns OFF for 5 secs.
5E ON: Area1 Arming shortcut
6E ON: Area2 Arming shortcut

OPERATING EXAMPLES:

Arming without shortcut: 🔒 + [User Code] + E

Arming with shortcut: 🔒 + E

P62E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P60E 6E Auto Exclude zones.

SIREN BURST ON AUTO EXCLUDE

This option enables the 2 second siren burst at the end of Exit Time to indicate that a zone/s has been Auto Excluded. This does not apply to manually excluded zones.

PROGRAMMING SEQUENCE:

P62E 7E *toggles the option ON and OFF*

OFF: Siren burst on Auto Exclude disabled
ON: Siren burst on Auto Exclude enabled

P62E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P28E Exit Time.

EXIT TIME X10

This option multiplies the normal exit time by a factor of 10.

PROGRAMMING SEQUENCE:

P62E 8E *toggles the option ON and OFF*

OFF: Exit Time is the time set by P28E
ON: Exit Time is multiplied by 10

EXAMPLE:
If P28E = 22 seconds then if P62E 8E is ON, the exit time is 22 x 10 = 220 seconds.

Option No.	Description	Home Mode to RESET output 1E	Home Mode to STROBE output 2E	Home Mode to keypad SONALERT 3E	Home Mode to SIREN output 4E	Day Mode to RESET output 5E	Day Mode to STROBE output 6E	Day Mode to keypad SONALERT 7E	Day Mode to SIREN output 8E
P63E	HOME MODE & DAY MODE MAPPING	ON	ON			ON	ON		

P63E 1E–4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
1E, 2E ON.
3E, 4E OFF.

RELATED OPTIONS
P64E 1E Brief Home alarm.

HOME MODE OUTPUT MAPPING

This option selects which outputs are triggered by alarms in Home Mode.

PROGRAMMING SEQUENCE:

P63E 1E–4E *toggles the options ON and OFF*

1E ON: Home Mode to Reset output
2E ON: Home Mode to Strobe output
3E ON: Home Mode to Keypad Sonalert output
4E ON: Home Mode to Siren output

P63E 5E–8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
5E, 6E ON.
7E, 8E OFF.

RELATED OPTIONS
P64E 2E Brief Day alarm.

For ZONE TO OUTPUT MAPPING for armed & 24hr states – see options P54E – P59E, page 20-21.

DAY MODE OUTPUT MAPPING

This option selects which outputs are triggered by alarms in Day Mode.

PROGRAMMING SEQUENCE:

P63E 5E-8E *toggles the options ON and OFF*

5E ON: Day Mode to Reset output
6E ON: Day Mode to Strobe output, (Select this option to activate the STROBE output when a DAY alarm occurs.
Note that if P64E 2E is ON this option will select Aux 2 Output instead of the Strobe Output. This allows a remote warning device to be connected (P66E 1E must also be ON).
7E ON: Day Mode to Keypad Sonalert output
8E ON: Day Mode to Siren output

Option No.	Description	Brief Home Mode alarm 1E	Brief Day alarm 2E	Enable keypad Chime 3E	Radio Key chirp 4E	50Hz mains frequency 5E	Double key Keypad Panic 6E	Keypad Fire Alarm 7E	Keypad Medical Alarm 8E
P64E	MISC. OPTIONS					ON	ON		

P64E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P51E Set Home zones.
P63E 1E–4E Home Mode output mapping

BRIEF HOME MODE ALARM

Alarms in Home Mode can either activate the programmed outputs for Siren Time duration (P29E) or they can activate the outputs for 2 seconds only.

NOTE: If Brief Home alarm is enabled, then Home Mode alarms will not be reported by dialler.

PROGRAMMING SEQUENCE:

P64E 1E *toggles the option ON and OFF*

OFF: Home Mode outputs have normal time as set by P29E
ON: Home Mode outputs are ON for 2 seconds only

P64E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P53E Assign Day zones.
P63E 5E–8E Day Mode output mapping.

BRIEF DAY ALARM

Alarms in Day Mode will activate the programmed outputs while the zone is unsealed or they can activate the outputs for 2 seconds only.

This option also enables the TEMPORARY DAY ZONE feature. See page 18.

PROGRAMMING SEQUENCE:

P64E 2E *toggles the option ON and OFF*

OFF: Brief Day Alarm disabled. Day alarm outputs are ON while the zone is unsealed
ON: Brief Day Alarm Enabled. Day alarm outputs are ON for 2 seconds only

P64E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
Note that not all keypads have the Chime sound.

RELATED OPTIONS
P64E 1E Brief Home Mode Alarm.

KEYPAD CHIME

This option enables the keypad Chime sound for Brief Home Mode Alarm (if P64E 1E is enabled) and for Day Mode sounds. If this option is disabled the normal keypad beep will sound.

PROGRAMMING SEQUENCE:

P64E 3E *toggles the option ON and OFF*

OFF: Keypad Chime disabled.
ON: Keypad Chime enabled.

P64E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P68E 8E Quiet Chirps.
P69E 5E Home Mode arming by Radio Key ON/OFF buttons.
P69E 7E Home Mode by radio key Chirps.

RADIO KEY SIREN CHIRPS

If this option is selected the Siren output will "Chirp" when the panel is armed and disarmed with the Keyswitch input or Radio Keys. This option applies to *siren chirps*, the *strobe* output always flashes when arming/disarming by the above methods.

The siren output will make 1 Chirp on arming, and 3 Chirps on disarming.

Home Mode chirps are enabled separately, see P69E 7E.

PROGRAMMING SEQUENCE:

P64E 4E *toggles the option ON and OFF*

OFF: No Arm/Disarm siren chirps
ON: Siren & Strobe outputs will chirp on arm/disarm

P64E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

50Hz MAINS FREQUENCY

Selects either 50Hz or 60Hz mains power frequency operation. The factory default of 50Hz is for use in Australia and New Zealand. Users in North America should select 60Hz mains frequency.

Required for the accurate timing of dialler test reports (if programmed). It has no effect on other dialler operations.

PROGRAMMING SEQUENCE:

P64E 5E *toggles the option ON and OFF*

OFF: 60Hz mains frequency
ON: 50Hz mains frequency

P64E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P61E 5E-8E Keypad Panic Alarm output mapping.

ENABLE KEYPAD PANIC

This option enables the operation of Keypad Panic. Pressing both the FIRE & MEDICAL keys together activates a Panic alarm.

PROGRAMMING SEQUENCE:

P64E 6E *toggles the option ON and OFF*

OFF: Keypad Panic disabled
ON: Keypad Panic enabled

P64E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P75E 4E Report Fire Alarms.

KEYPAD FIRE ALARM

This option enables the operation of the keypad Fire Alarm. A Fire alarm is activated by pressing the FIRE key followed by E.

The SIREN output changes to the FIRE sound.

If P75E 4E is enabled, the fire alarm is reported by dialler to the central station.

PROGRAMMING SEQUENCE:

P64E 7E *toggles the option ON and OFF*

OFF: No Keypad Fire Alarm
ON: Keypad Fire Alarm enabled

P64E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P75E 2E Report Medical Alarms.

KEYPAD MEDICAL ALARM

This option enables the operation of the keypad Medical Alarm. A Medical alarm is activated by pressing the MEDICAL key followed by E.

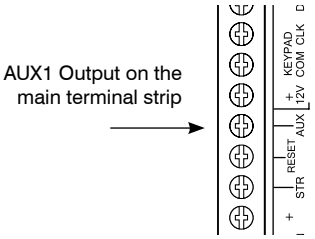
The keypad medical alarm can send a Medical Alarm report by dialler.

The option P75E 2E must be enabled for the Medical alarm to be reported.

PROGRAMMING SEQUENCE:

P64E 8E *toggles the option ON and OFF*

OFF: No Keypad Medical Alarm
ON: Keypad Medical Alarm enabled



Option No.	Description	AUX1 Smoke Detector Power 1E	AUX1 is Area1 armed output 2E	AUX1 toggles on Radio Key AUX 3E	AUX1 pulses on Radio Key AUX 4E	5E	6E	7E	8E
P65E	AUX1 OUTPUT OPTIONS				ON				

Select one output type for AUX1.

P65E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
The AUX1 output can supply 200mA max. An external power supply should be added if the total current draw of equipment connected to AUX1 exceeds 150mA.

AUX1 OUTPUT = SMOKE DETECTOR POWER

When this option is enabled the AUX1 output can be used to provide power for latching smoke detectors which require power interruption to reset.

The AUX1 output is momentarily interrupted for 5 seconds by pressing 1 [User code] E (or just 1E if the short arm P62E 4E option is enabled).

PROGRAMMING SEQUENCE:

P65E 1E *turns the option ON*

The option is toggled off by selecting a different P65E option for Aux1.

P65E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P69E 1E Arm1 output pulses.

AUX1 OUTPUT = AREA1 ARMED OUTPUT

When this option is enabled the AUX1 output turns on when Area1 is armed and turns off when the panel is disarmed. The output can be optionally programmed to output a momentary pulse on arming, see P69E 1E.

PROGRAMMING SEQUENCE:

P65E 2E *turns the option ON*

The option is toggled off by selecting a different P65E option for Aux1.

P65E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
When this option is enabled, the Radio Key/s Panic button will no longer generate a Panic Alarm.

AUX1 OUTPUT = TOGGLE ON RADIO KEY AUX BUTTON

When this option is on, RK4 Radio Key/s AUX button will TOGGLE the AUX1 output.

The output will operate independently of the panel's armed status, ie. disarming does not turn Aux1 off.

PROGRAMMING SEQUENCE:

P65E 3E *turns the option ON*

The option is toggled off by selecting a different P65E option for Aux1.

P65E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

AUX1 OUTPUT = PULSE ON RADIO KEY AUX BUTTON

When this option is on, RK4 Radio Key/s AUX button will PULSE the AUX1 output on for approx. 2 seconds.

PROGRAMMING SEQUENCE:

P65E 4E *turns the option ON*

The option is toggled off by selecting a different P65E option for Aux1.

AUX2 Output is on header J3 on the main board

Option No.	Description	1E AUX2 is Zone Alarm output	2E AUX2 is Area2 armed output	3E AUX2 Toggle on Radio Key PANIC Button	4E AUX2 Pulse on Radio Key PANIC Button	5E AUX2 is Line Fail output	6E AUX2 is Fail To Communicate output	7E	8E
P66E	AUX2 OUTPUT OPTIONS		ON						

Select one output type for AUX2.

P66E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P59E AUX2 Zones.

AUX2 OUTPUT = ZONE ALARM

When this option is on, zones selected in P59E will turn on AUX2 when they go into alarm. The AUX2 output stays on until the panel is disarmed.

PROGRAMMING SEQUENCE:

P66E 1E *turns the option ON*

The option is toggled off by selecting a different P66E option for Aux2.

P66E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P69E 2E Arm2 output pulses.

AUX2 OUTPUT = AREA2 ARMED OUTPUT

When this option is enabled the AUX2 output turns on when Area2 is armed and turns off when the panel is disarmed. The output can be optionally programmed to output a momentary pulse on arming, see P69E 2E.

PROGRAMMING SEQUENCE:

P66E 2E *turns the option ON*

The option is toggled off by selecting a different P66E option for Aux2.

P66E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES. When this option is enabled, the Radio Key/s Panic button will no longer generate a Panic Alarm.

AUX2 OUTPUT = TOGGLE ON RADIO KEY PANIC BUTTON

When this option is on, RK4 Radio Key/s PANIC button will TOGGLE the AUX2 output.

The output will operate independently of the panel's armed status, ie. disarming does not turn Aux2 off.

PROGRAMMING SEQUENCE:

P66E 3E *turns the option ON*

The option is toggled off by selecting a different P66E option for Aux2.

P66E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES When this option is enabled, the Radio Key/s Panic button will no longer generate a Panic Alarm.

AUX2 OUTPUT = PULSE ON RADIO KEY PANIC BUTTON

When this option is on, RK4 Radio Key/s PANIC button will PULSE the AUX2 output on for 2 seconds.

PROGRAMMING SEQUENCE:

P66E 4E *turns the option ON*

The option is toggled off by selecting a different P66E option for Aux2.

P66E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P89E 5E Line Fail Monitor

AUX2 OUTPUT = LINE FAIL OUTPUT

When this option is enabled, a telephone line fault condition will turn on the Aux2 output. Aux 2 will turn off when the telephone line is restored..

P89E 5E must be on to enable the Line Fail Monitor.

PROGRAMMING SEQUENCE:

P66E 5E *turns the option ON*

The option is toggled off by selecting a different P66E option for Aux2.

P66E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

AUX2 OUTPUT = FAIL TO COMMUNICATE OUTPUT

When this option is enabled AUX2 will turn on at the start of the fourth dialout attempt. This can be used as Fail To Communicate output to trigger backup communications devices such as GSM. The AUX2 output is automatically turned off on the next successful communication attempt or when the panel is next disarmed.

PROGRAMMING SEQUENCE:

P66E 6E *turns the option ON*

The option is toggled off by selecting a different P66E option for Aux2.

Option No.	Description	1E	2E (3k3 Zone Resistors)	3E	4E	5E	6E	7E	8E (Quiet Chirps on Arm/disarm)
P68E	MISCELLANEOUS OPTIONS 1								

P68E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• The 3K3 zone resistor option is useful when installing the panel in a site pre-wired with 3K3 resistors.

• If Zone 8 is converted to a keyswitch input then a 2K2 monitoring resistor is always used.

3K3 ZONE RESISTORS

Setting this option ON changes the Zones 1 – 8 monitoring resistor from 2K2 to 3K3.

PROGRAMMING SEQUENCE:

P68E 2E *toggles the option ON and OFF*

OFF: 3K3 zone resistors disabled
ON: 3K3 zone resistors enabled

P68E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P64E 4E Radio Key Chirps.
P69E 5E Home Mode by Radio Key ON/OFF buttons.

QUIET CHIRPS ON ARM/DISARM

When this option is enabled the Keyswitch, Radio Key Arm/Disarm & Radio Key Home mode siren chirps are reduced in volume to a quiet chirp.

(Arm/Disarm or Home Chirps must be enabled).

PROGRAMMING SEQUENCE:

P68E 8E *toggles the option ON and OFF*

OFF: Quiet Chirps disabled
ON: Quiet Chirps enabled

Option No.	Description	ARM1 pulse output 1E	ARM2 pulse output 2E	Quiet Home siren 3E	4E	Radio Key arming of Home Mode 5E	Disable Mains Fail alarm 6E	Home Mode Chirps 7E	Home Arm by Radio Key AUX Button 8E
P69E	MISC. OPTIONS 2								

P69E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

ARM1 PULSE OUTPUT

ARM1 Output will pulse on for 2 seconds whenever arming, disarming or any Area1 valid code is entered and then go OFF again (even when Area1 is armed).

The Pulse output is instead of the normal toggle action for ARM1 when arming/ disarming.

PROGRAMMING SEQUENCE:

P69E 1E *toggles the option ON and OFF*

OFF: ARM1 output toggles
ON: ARM1 output pulses

P69E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

ARM2 PULSE OUTPUT

When this option is enabled the ARM2 output pulses on for 2 seconds when AREA2 is Armed or Disarmed. When this option is disabled the ARM2 output toggles when arming/disarming.

PROGRAMMING SEQUENCE:

P69E 2E *toggles the option ON and OFF*

OFF: ARM2 output toggles
ON: ARM2 output pulses

P69E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
This does not affect the RESET output.

QUIET HOME MODE SIREN

This option selects the Quiet Siren sound in Home Mode. The Quiet Siren sound is a continuous “beep beep beep” sound rather than the normal siren sound.

PROGRAMMING SEQUENCE:

P69E 3E *toggles the option ON and OFF*

OFF: Normal siren sound in Home Mode
ON: Quiet Siren sound in Home Mode

P69E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• Radio Key Home Arming will work only if one or more zones have been programmed as Home Zones (P51E).
• When using a Radio Keypad to Home arm, ensure that the ARM ONLY option is OFF for the USER CODE on the panel. Otherwise further Home E keypresses on the Radio keypad could AREA arm the panel.

RELATED OPTIONS
P51E Program Home zones.
P63E Home Mode output mapping.
P64E 1E Brief Home Mode alarm.
P69E 3E Quiet Home Mode siren.
P69E 7E Home Mode chirps by Radio Key.

HOME MODE ARMING BY RADIO KEY ON/OFF

Setting this option on allows Home Mode arming by Radio Key ON or OFF buttons.

Note: This is independent of Home arming by AUX button if using the RK4 radio key.

PROGRAMMING SEQUENCE:

P69E 5E *toggles the option ON and OFF*

OFF: Radio Key Home Mode Arming disabled
ON: Radio Key Home Mode Arming enabled

OPERATION:

- Press the Radio Key OFF button twice within 5 seconds.
or.... - Press the Radio Key ON button twice within 5 seconds.

See page 18 for Home Mode operation.

P69E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
This does not affect Dialler mains fail reporting or saving to the History memory.

DISABLE MAINS FAIL ALARM

When this option is enabled a Mains Fail alarm is,
• Not displayed on the keypad.
• Does not give warning beeps.
• Is not saved to MEMORY and the MEMORY display does not flash.

PROGRAMMING SEQUENCE:

P69E 6E *toggles the option ON and OFF*

OFF: Mains Fail alarm operates normally
ON: Mains Fail alarm is disabled

P69E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P68E 8E Quiet Chirps.

HOME MODE CHIRPS

Allows 2 siren chirps when Home Mode arming with a Radio Key.

Note that the Siren Chirps can be made quieter with the P68E 8E option.

PROGRAMMING SEQUENCE:

P69E 6E *toggles the option ON and OFF*

OFF: Mains Fail alarm operates normally
ON: Mains Fail alarm is disabled

P69E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P51E Program Home Mode zones.
P63E Home Mode Mode output mapping.
P64E 1E Brief Home Mode alarm.
P64E 4E Radio Key Chirps.
P69E 3E Quiet Home Mode siren.

HOME ARM BY RADIO KEY AUX BUTTON

This option enables the AUX button on a Ness RK4 Radio Key to arm Home Mode.

(This option is independent of P69E 5E, Home Mode arming by radio key ON/OFF buttons).

OFF: Home Mode Arm by Radio Key AUX disabled.
ON: Home Mode Arm by Radio Key AUX enabled.

Option No.	Description	Default
P70E	TELEPHONE NUMBER 1 - PRIMARY	
P71E	TELEPHONE NUMBER 2 - SECONDARY	
P81E	TELEPHONE NUMBER - CALLBACK FOR UPLOAD	
P72E	CLIENT ACCOUNT NUMBER	0000

P70E, P71E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
None.

NOTES
• If telephone number 2 is disabled, all calls are made on telephone number 1 and the setting of P87E 1E has no effect.

• When programming, any keypress will interrupt the telephone number display sequence.

RELATED OPTIONS
P87E 1E Alternate Primary/Secondary telephone numbers.

P86E 1E Disable dialler (still allows remote up/download if programmed).

TELEPHONE NUMBERS 1 & 2

The panel can dial up to 2 phone numbers when an event is to be transmitted to a central monitoring station or other location. Telephone numbers may be up to 30 digits in length.

PROGRAMMING SEQUENCE:

P70E *existing telephone number is displayed one digit at a time*
[ENTER NEW TELEPHONE No] E *new telephone number is displayed one digit at a time*

EXAMPLE: To program Telephone No.1 to be 03 1234 1234:
P 70 E 0312341234 E

TO CLEAR A TELEPHONE NUMBER

To clear a telephone number, enter the MEMORY key in place of the telephone number. Example, to clear a Telephone Number 1 press: P70E MEMORY E

SPECIAL CHARACTERS (Applies to all telephone Numbers)

Pauses, * (star) or # (hash) (VF digits) can be included in the dialling sequence by using the keys in the table below.

SPECIAL CHARACTER	KEY ENTRY	KEYPAD DISPLAY
PAUSE (1.6sec)	ARM Key	12
* (Star)	Home Key	10
# (Hash)	EXCLUDE Key	11

P81E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
None.

RELATED OPTIONS
P90E 8E Enable Callback.

TELEPHONE NUMBER – CALLBACK

This telephone number is used to prevent unauthorised up/download.

The panel will dial the callback telephone number to commence a NessComms™ up/download session.

NessComms™ up/download without callback is allowed by turning off option P90E 8E.

PROGRAMMING SEQUENCE:

P81E *existing telephone number is displayed*
[ENTER NEW TELEPHONE No] E *new Telephone No. is displayed one digit at a time*

P72E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
0000

CLIENT ACCOUNT NUMBER

The Client Account number identifies a monitored system to the central station.

PROGRAMMING SEQUENCE:

P72E *existing account number is displayed one digit at a time*
[ENTER NEW ACCOUNT No] E *new account number is displayed one digit at a time*

EXAMPLE: To program Client Account No. to be 1239: P72E 1239E

HEX CLIENT CODE NOTES

Note 1: The ECO8x keypad does not display the Hex digits. A test report should be sent to the central station to verify th correct account number.

Note 2: Hex digit A is not allowed.

HEX CLIENT CODES

Dialler client codes can now be entered in Hexadecimal. Use the following keys to enter the hex digits B, C, D, E or F.

HEX DIGIT	KEY ENTRY	KEYPAD DISPLAY
B	FIRE Key	11
C	ARM Key	12
D	Home Key	13
E	EXCLUDE Key	14
F	MEMORY key	15

Option No.	Description	ZONES 1	2	3	4	5	6	7	8
P74E	REPORT ZONE ALARMS	ON	ON	ON	ON	ON	ON	ON	ON
P76E	REPORT ZONE RESTORALS	ON	ON	ON	ON	ON	ON	ON	ON
P78E	MULTIPLE ZONE ALARMS								

P74E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All zones report Alarms.

NOTES
• 0E will turn all selections OFF.
MEMORY E will turn all selections ON.

REPORT ZONE ALARMS

This option selects which zone inputs will send Alarm reports to the Central Station.

PROGRAMMING SEQUENCE:

P74E [Zone No]E *toggles the option ON and OFF*

[Zone No]E OFF: Alarm reporting disabled for that zone
[Zone No]E ON: Alarm reporting enabled for that zone

P76E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All zones report Restorals.

NOTES
• 0E will turn all selections OFF.
MEMORY E will turn all selections ON.

RELATED OPTIONS
P82E 1E Send Restoral immediately.
P82E 2E Send Restoral after siren time.
P82E 3E Send Restoral on Disarm & seal.
P82E 4E Send Restoral on Disarm always.

REPORT ZONE RESTORALS

This option selects which zone inputs will send Restoral reports to the Central Station. Only zones that have previously sent an Alarm will send a Restoral.

PROGRAMMING SEQUENCE:

P76E [Zone No]E *toggles the option ON and OFF*

[Zone No]E OFF: Restoral reporting disabled for that zone
[Zone No]E ON: Restoral reporting enabled for that zone

P78E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF. No zones report Multiple Alarms.

NOTES
• 0E will turn all selections OFF.
MEMORY E will turn all selections ON.

RELATED OPTIONS
P89E 4E Swinger shutdown.

REPORT MULTIPLE ZONE ALARMS

Zones selected for Multiple Zone Alarms will report each time the zone alarms and without a restore being sent. The number of reports is a maximum of 15. The number of alarms sent for each Multiple Zone Alarm can be reduced to 3 by using the swinger shutdown option P89E 4E.

Zones not selected report only once, until reset by an opening or a valid code.

PROGRAMMING SEQUENCE:

P78E [Zone No]E *toggles the option ON and OFF*

[Zone No]E OFF: Multiple Zone Alarms disabled for that zone
[Zone No]E ON: Multiple Zone Alarms enabled for that zone

P75E, P92E

REPORT MISCELLANEOUS ALARMS

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
see table

NOTES
• 0E will turn all selections OFF
MEMORY E will turn all selections ON

P77E, P93E

REPORT MISCELLANEOUS RESTORALS

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
see table

	ALARM			RESTORAL		
	Option No.		DEFAULT	Option No.		DEFAULT
Duress	P75E	1E		P77E	1E	ON
Medical	P75E	2E		P77E	2E	ON
KP Panic & KS Panic	P75E	3E	ON	P77E	3E	ON
Fire	P75E	4E		P77E	4E	ON
Panel tamper	P75E	5E	ON	P77E	5E	ON
External tamper	P75E	6E	ON	P77E	6E	ON
Keypad Tamper	P75E	7E	ON	P77E	7E	ON
Exit Installer Mode	P75E	8E		P77E	8E	ON
Radio Tamper	P92E	1E	ON	P93E	1E	ON
Radio Panic	P92E	2E	ON	P93E	2E	ON
Radio Battery	P92E	3E		P93E	3E	ON
Supervision fail	P92E	4E		P93E	4E	ON
Panel battery	P92E	5E	ON	P93E	5E	ON
Mains fail	P92E	6E	ON	P93E	6E	ON
[not used]	P92E	7E		P93E	7E	ON
[not used]	P92E	8E		P93E	8E	ON

REPORT MISCELLANEOUS ALARMS
REPORT MISCELLANEOUS RESTORALS

These options select which Miscellaneous alarms will trigger the dialler to send Alarm reports and Restoral reports to the Central Station.

Alarms (if enabled) are sent on activation. Restorals (if enabled) are sent on Opening. Mains Fail and Low Battery Restorals are sent when the power has been restored.

PROGRAMMING SEQUENCE:

PxxE

1E–8E *toggles the option ON and OFF*

Option No.	Description	1E Send immediately	2E Send after siren time	3E Send after disarm & seal	4E Send after disarm always	5E	6E	7E	8E
P82E	ZONE RESTORAL REPORTING OPTIONS				ON				

P82E 1E–4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
4E, ON.

RELATED OPTIONS
P76E Report zone restorals.

RESTORAL REPORTING OPTIONS

This option selects when the dialler sends zone Restoral reports. Only one of the following options may be selected.

Restoral reporting options also apply to 24hr zones.

PROGRAMMING SEQUENCE:

P82E 1E–4E *toggles the option ON and OFF*

1E ON: Send Restoral immediately
2E ON: Send Restoral after siren time
3E ON: Send Restoral on Disarm & seal
4E ON: Send Restoral on Disarm always

Option No.	Description	Default	Note
P83E	TEST CALL INTERVAL	84	x2 = 168hrs
P84E	TIME BEFORE FIRST TEST CALL	6	x2 = 12hrs

P83E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
84 (=168hrs =7 days).

NOTES
• Enter a value from 1 to 99.

RELATED OPTIONS
P89E 1E Enable Test Calls.
P84E Time Before Next Test Call.

TEST CALL INTERVAL

Test calls to the Central Station can be sent at intervals between 2 and 198 hours in 2 hour increments.

Programmable from 2 to 198 Hours. Enter a value between 1 and 99. (This is automatically multiplied by 2).

Test Calls must be enabled by option P89E 1E.

PROGRAMMING SEQUENCE:

Press P83E (The existing Test Call Interval time will be displayed.)
Press [NEW TIME] E (The new Test Call Interval time will be displayed.)
EXAMPLE: To program daily test calls.
Press P83E12E

P84E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
6 (=12hrs).

NOTES
1. Enter a value from 1 to 99.

2. If Test Calls are to start immediately, then the value is set to 0.

3. The Time Before Next Test Call is constantly updated. When viewed, the current value will be displayed (not the initially entered value).

RELATED OPTIONS
P89E 1E, Enable Test Calls.
P83E, Test Call interval.

TIME BEFORE FIRST TEST CALL

This option sets the time before the first Test Call and is used to set the preferred time for Test Calls. Programmable from 2 to 198 Hours. Enter a value between 1 and 99. (This is automatically multiplied by 2).

EXAMPLES:

A/ New Installation: Set the time before the first test call.
E.g., If you are programming the panel at 5pm and you want test calls to be sent at 1am. Enter P84E 4E (4 x 2 =8hrs. Therefore 5pm + 8hrs =1am).

B/ Existing Installation: To reset the time that test calls are sent.
E.g., Our example panel is sending test calls at 1am and you want to change it to 2am. If you are programming the panel at 6pm, enter P84E 4E (4 x 2 =8hrs. Therefore 6pm + 8hrs =2am).

PROGRAMMING SEQUENCE:

Press P84E (The existing Time Before First Test Call will be displayed. See note 3)
Press [NEW TIME] E (The new Time Before First Test Call will be displayed)

Option No.	Description	1E Auto select	2E PULSE dialling always	3E DTMF dialling always	4E	5E	6E	7E	8E
P85E	DIALLING METHOD			ON					

P85E 1E–3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
3E ON: DTMF Dialling always.

NOTES
• Only one option is allowed to be ON

• THE DECADIC (OR PULSE) DIALLING ON THIS DEVICE IS UNSUITABLE FOR USE ON THE TELECOM NETWORK IN NEW ZEALAND.

DIALLING METHOD

The dialler can be set to dial in PULSE (Decadic) or DTMF dialling or auto select depending on dial tone. Factory default is DTMF dialling.

This option should not be changed for use in Australia, New Zealand or Europe.

PROGRAMMING SEQUENCE:

P85E 1E–3E *turns the option ON*

1E ON: Auto Select Dialling (PULSE or DTMF)
2E ON: Pulse Dialling always
3E ON: DTMF Dialling always

Option No.	Description	1E Disable Dialler	2E Contact ID Format	3E	4E Audible PULSE format	5E	6E	7E	8E
P86E	REPORTING FORMATS		ON						

P86E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF. (Dialler is enabled)

NOTES
• This option is useful for temporary disabling of the dialler without affecting other dialler options.

DISABLE DIALLER

This option disables the dialler even if telephone numbers and other dialler options are programmed.

Up/download or remote telephone access remain enabled.

PROGRAMMING SEQUENCE:

P86E 1E *turns the option ON*

ON: Dialler disabled

P86E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

CONTACT ID FORMAT

This option enables the reporting of alarms to a Central station via telephone numbers 1 & 2 using Contact ID format.

PROGRAMMING SEQUENCE:

P86E 2E *turns the option ON*

ON: Contact ID format enabled

P86E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
See page 53 for full details.

AUDIBLE FORMAT

For audible monitoring to any telephone or mobile phone.

The audible message consists of the warning words ALARM, ALARM, ALARM followed by the alarm message sent as a series of beeps:

The message is repeated for 4 times or until acknowledged by the receiving telephone.

PROGRAMMING SEQUENCE:

P86E 4E *turns the option ON*

ON: Audible PULSE format enabled

Option No.	Description	1E Split dial	2E Check for dial tone	3E	4E 4 dialling attempts	5E	6E	7E	8E
P87E	MISC. DIALLING OPTIONS		ON		ON				

P87E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P87E 4E Number of Dialling attempts.

SPLIT DIAL PRIMARY/SECONDARY PHONE NUMBERS

This option selects the order in which Telephone numbers 1 & 2 are dialled.

PROGRAMMING SEQUENCE:

P87E 1E *toggles the option ON and OFF*

OFF: **Alternate Dial.** Dial Telephone No.1 on the first attempt. If no answer, dial Telephone No.2. Continue alternating until successful.

ON: **Split Dial.** Dial Telephone No.1 for half of the call attempts. If unsuccessful, dial Telephone No.2 for the last half of call attempts.

P87E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

CHECK FOR DIAL TONE

The dialler can be programmed to check for a dial tone before dialling. The dialler will still dial out if a dial tone is not detected , but this means several seconds will have elapsed. Allows use on PABXs with non-standard dial tones.

PROGRAMMING SEQUENCE:

P87E 2E *toggles the option ON and OFF*

OFF: Dial without dial tone
ON: Dial only with dial tone

P87E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

NOTES
Sets the total number of dialling attempts. E.g. If 4 dialling attempts is selected, this means 2 attempts per telephone number.

RELATED OPTIONS
P87E 1E Alternate dialling.

4 DIALLING ATTEMPTS

Sets the number of dialling attempts when sending reports.

OFF: sets a maximum 10 dial attempts before a 5 minute sleep and 10 more re-tries if unsuccessful.

ON: allows a maximum of 4 dial attempts before a 5 minute sleep and 4 more retries if unsuccessful.

If all attempts fail the dialler waits for the next trigger event. The previously unsuccessful report will be included in the new message.

When sending Test Calls, the time between dialling attempts increases to 60 minutes for the second round of dialling. If a Test Call is unsuccessful after the first round of calls are made, another call is made after 5 minutes. If this call fails then subsequent calls are made every hour (up to the maximum number of calls).

PROGRAMMING SEQUENCE:

P87E 4E *toggles the option ON and OFF*

OFF: Maximum 10 dialling attempts
ON: Maximum 4 dialling attempts

Option No.	Description	1E AREA1 open/close report	2E AREA2 open/close report	3E	4E	5E Forced opening report	6E	7E Manual exclude report	8E Auto exclude report
P88E	OPEN/CLOSE REPORTING OPTIONS					ON		ON	ON

P88E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF .

AREA1 OPEN/CLOSE REPORTS

Enables or disables sending of AREA1 Open/Close reports. The User ID of the code used is included in the report. Keyswitch arming is identified as User 16. Shortcut arming is identified as User 17.

PROGRAMMING SEQUENCE:

P88E 1E *toggles the option ON and OFF*

OFF: No AREA1 Open/Close reports
ON: AREA1 Open/Close reports enabled

P88E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

AREA2 OPEN/CLOSE REPORTS

Enables or disables sending of AREA2 Open/Close reports.

PROGRAMMING SEQUENCE:

P88E 2E *toggles the option ON and OFF*

OFF: No AREA2 Open/Close reports
ON: AREA2 Open/Close reports enabled

P88E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

NOTES
This option is used to indicate to the Central Station that an alarm has been reset by a valid user. Usually used in cases where Open/Close reports are normally not sent.

FORCED OPENING REPORT

If Forced Opening Report is selected ON – when an alarm has been reset by a valid User Code (or Radio Key), the dialler will send an Opening report along with a restoral report for the zone or miscellaneous input which caused the alarm.

PROGRAMMING SEQUENCE:

P88E 5E *toggles the option ON and OFF*

OFF: No Forced opening Reports
ON: Forced opening Reports enabled

P88E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P88E 8E Auto Exclude Reports.

MANUAL EXCLUDE REPORT

Enables Manual Exclude Reports for zones. Exclude Reports for 24hr zones are sent on exiting EXCLUDE mode.

PROGRAMMING SEQUENCE:

P88E 7E *toggles the option ON and OFF*

OFF: No Manual Exclude Reports
ON: Manual Exclude Reports enabled

P88E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P88E 7E Manual Exclude Reports.

AUTO EXCLUDE REPORT

Enables Auto Exclude Reports for Zones. Zones not sealed on arming will be reported as Auto Excluded..

PROGRAMMING SEQUENCE:

P88E 8E *toggles the option ON and OFF*

OFF: No Auto Exclude Reports
ON: Auto Exclude Reports enabled

Option No.	Description	1E Enable Test Calls	2E Mains Report Delay	3E Listen-in to dialler	4E Swinger shutdown	5E Line Fault monitor	6E	7E Internal timing	8E
P89E	MISC. REPORTING OPTIONS	ON	ON		ON	ON			

P89E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

RELATED OPTIONS
P83E Test Call Interval.
P84E Time before next Test call.
P87E 4E Number Of Dialling Attempts.

ENABLE TEST CALLS

This option enables the reporting of dialler test calls to the Central station.

PROGRAMMING SEQUENCE:

P89E 1E *toggles the option ON and OFF*

OFF: No Test Calls
ON: Test Calls enabled

P89E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

MAINS REPORT DELAY

This option allows Mains Fail reports to be delayed by one hour if the mains power has been off continuously for that time. This avoids mains fail reports being sent to the Central Station in the event of brief power failures.

PROGRAMMING SEQUENCE:

P89E 2E *toggles the option ON and OFF*

OFF: Mains Fail reports immediately
ON: Mains Fail report is delayed by 1 hour

P89E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

LISTEN-IN TO DIALLER

This is a diagnostic feature to allow the installer to hear the dialler message and other telephone tones through a horn speaker.

To operate, enable option P89E 3E. Listen-In is enabled for a minimum of 4 minutes after exiting Program Mode.

During Listen-In, the dialler message and other telephone tones can be heard through the Siren output (at low volume) while the dialler is sending reports. The 4 minute period is restarted whenever any key on the keypad is pressed.

To turn Listen-In off, go back into Installer Program mode and toggle the option OFF.

PROGRAMMING SEQUENCE:

P89E 3E *toggles the option ON and OFF*

OFF: Listen-In disabled
ON: Listen-In enabled

P89E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

NOTES
This prevents unnecessary multiple alarms reported to the Central station in cases, for example, where a door is 'swinging' in the wind.

This option only applies to zones enabled to Report Multiple Zone Alarms.

RELATED OPTIONS
P78E Report Multiple Zone Alarms.

SWINGER SHUTDOWN

Limits the number of calls made by a zone alarm in any one armed period.

Alarm reports are normally limited to 15 multiple reports per zone.

When Swinger Shutdown is enabled, multiple reports are reduced to 3 multiple reports per zone.

PROGRAMMING SEQUENCE:

P89E 4E *toggles the option ON and OFF*

OFF: Swinger Shutdown is 15 reports per zone)
ON: Swinger Shutdown is 3 reports per zone)

P89E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P66E 5E Aux2 is Line Fail Output

LINE FAIL MONITOR

This option enables the Line Fail monitor which periodically (20secs) tests the telephone line. If the telephone line is not found the Line light starts flashing. If the line fault continues for 2 minutes then the keypad beeps a warning and Aux2 is turned ON if that option is selected.

PROGRAMMING SEQUENCE:

P89E 5E *toggles the option ON and OFF*

OFF: No Line Fail Monitor
ON: Line Fault Monitor enabled

P89E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

INTERNAL TIMING

When set ON, the Test Report Timer uses the panel's onboard crystal oscillator instead of the external mains power supply frequency.

Use this option if the mains frequency is not stable over long periods. (Not necessary in Australia and New Zealand).

PROGRAMMING SEQUENCE:

P89E 7E *toggles the option ON and OFF*

OFF: Clock uses mains frequency timing
ON: Clock uses internal timing

Option No.	Description	1E Remote Access	2E	3E	4E	5E	6E	7E Remote event reporting	8E Callback Mode
P90E	UPLOAD/DOWNLOAD OPTIONS								

P90E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P91E Required Rings.

REMOTE ACCESS

When selected On, this option allows the panel to be remotely upload/downloaded by a remote computer or controlled by a remote telephone.

When the option is Off, the panel will not answer incoming telephone calls, preventing any type of remote access.

PROGRAMMING SEQUENCE:

P90E 1E *toggles the option ON and OFF*

OFF: No Remote Access
ON: Remote Access enabled

P90E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

REMOTE EVENT REPORTING

Enables Remote Event Reporting

PROGRAMMING SEQUENCE:

P90E 7E *toggles the option ON and OFF*

OFF: No Remote Status Reporting
ON: Remote Status Reporting enabled

P90E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

RELATED OPTIONS
P90E 1E Enable Upload/Download.
P81E Telephone Number Callback.

CALLBACK MODE

Enables two methods of connecting by computer for remote upload/download.

NO CALLBACK – Allows remote access by computer as long as the panel's Account Number (P72E) is known. The panel answers on the 2nd incoming call.

WITH CALLBACK – The panel will answer the 2nd call, verify the caller, hang up and then make the Callback using Telephone Number 4.

PROGRAMMING SEQUENCE:

P90E 8E *toggles the option ON and OFF*

OFF: No Callback
ON: Callback Mode enabled

Option No.	Description	Default	Note
P91E	REQUIRED RINGS TO ANSWER	1	1 to 24 rings

P91E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
1

NOTES
The Australian 'double ring' tone is counted as one ring.

RELATED OPTIONS
P90E 1E, 7E, 8E (Remote Access options).

REQUIRED RINGS

Sets the number of rings before an incoming call is answered. This is used for remote access of the panel either by NessComms software or user operation by telephone.

Programmable from 1 to 24 rings. Enter a value between 1 and 24.

PROGRAMMING SEQUENCE:

P91E *existing Required Rings value is displayed one digit at a time*
[ENTER NEW VALUE] E *new Required Rings value is displayed one digit at a time*

These options allow selective restoring of various factory defaults. For example, you can default (clear) all the User Codes, without affecting any other programmed options.

Option No.	Description
P95E	CLEAR RADIO DEVICES
P96E	CLEAR MEMORY
P97E	CLEAR PANEL OPTIONS (RESTORE FACTORY DEFAULTS)
P98E	CLEAR USER CODES
P99E	PROGRAM INSTALLER CODE

P95E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
[not applicable]

CLEAR RADIO DEVICES

This option clears all Radio Devices assigned to zones 1–8.

(This option does not clear User Codes).

PROGRAMMING SEQUENCE:
P95E *Clears Radio Device Codes*

P96E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
[not applicable]

CLEAR MEMORY

Enter P96E when in Installer Program mode to clear all events in the Alarm memory display.

PROGRAMMING SEQUENCE:
P96E *Clears Alarm Memory display*

P97E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
[not applicable]

NOTES

CLEAR PANEL OPTIONS

This option restores panel program options to their factory default values.

Defaults all options except User Codes, Radio Codes & Radio Devices.

PROGRAMMING SEQUENCE:
P97E *Restores Factory Defaults*

P98E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
User Code 1: 123
All other codes: [blank]

NOTES
This option DOES NOT clear the Installer Code.

CLEAR USER CODES

This option clears all User Codes, (includes all Keypad Codes and Radio Keys) and restores User Code 1 to the factory setting of 123.

P11E – P25E are defaulted (User Codes 1–15)

PROGRAMMING SEQUENCE:
P98E *Clears User Codes*

P99E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
000000

PROGRAM THE INSTALLER CODE

Programs the installer code. This code can be 3 to 6 digits long. Factory default installer code is 000000.

PROGRAMMING SEQUENCE:
P99E [Enter new code]**E** [Enter new code again]**E**
(Unlike User Codes, the installer code is not displayed when programming)

For a complete list of factory default values, see the Programming Options Summary on pages 54-55.

SPECIAL INSTALLER FUNCTIONS

SEND DIALLER TEST REPORT

Send a Dialler Test Report to the telephone numer programmed at P70E.
This test operates only in User program mode.

P66666666E *(eight 6's) Triggers dialler and sends test report to Central Station*

SIREN TEST

Turn the Siren, Reset and Strobe Outputs On. Pressing P E will stop the Siren Test (and also exits Program Mode).
This test operates in User and Installer program mode.

P77777777E *(eight 7's) Triggers Siren, Reset, Strobe*

PANEL RESET

This function resets the microprocessor. The effect is the same as powering down and powering up again. Panel Reset operates in User and Installer program mode.

P88888888E *(eight 8's) Panel Reset*

PANEL MODEL & SOFTWARE VERSION

This function displays the panel software version and the model number.
Displayed in decimal format by the zone LEDs.

Example, version 1.0 ECO8x is displayed by flashing 1 0 followed by 0 2. (The model number for the ECO8x is 02.)
This test operates in User and Installer program mode.

P99999999E *(eight 9's) Displays software version*

RADIO DEVICES OPERATION

ALARM: Any Ness radio device can operate on any zone along with the hardwired zone input if necessary. Hardwired zones continue to operate as normal. (This would be the same as wiring two PIRs in series to one zone).

Radio Keys can also operate on radio zones for special purposes, but they should normally be programmed to a user code.

KEYSWITCH INPUT: A Radio Device programmed to Zone 8 will still work as an alarm even if the Zone 8 input operation has been changed to Keyswitch operation. The P60E 3E option only affects the Zone 8 terminal inputs.

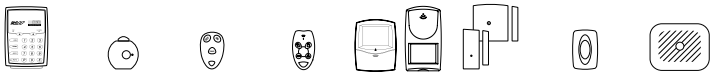
VIBRATION: Radio device zone signals IGNORE the P30E–P38E vibration sensor settings.

TAMPER REPORT: Radio Device Tamper operation depends on the Armed State of the control panel.

RADIO TAMPER: causes the keypad to continuously beep and also to flash the RADIO, TAMPER and the ZONE (identifying the detector) lights. Pressing any key on the keypad or sending a TAMPER RESTORE will clear this warning.

LOW BATTERY REPORT: A low battery gives 10 beeps and flashes the RADIO & the BATTERY light. The ZONE light identifying the radio device is also ON. The flashing lights stop when any key on the keypad is pressed or a detector code with no low battery is received. Low Battery generates HISTORY and DIALLER reports ONCE only (until the low battery is fixed and a restore report is received).

NESS RADIO DEVICES
Radio Events Table



SIGNAL TYPE	RKP RADIO KEYPAD 100-001	RK1 RADIO KEY PENDANT 100-665	RK3 RADIO KEY 3 BUTTON 100-664	RK4 RADIO KEY 4 BUTTON 100-067	R12 RADIO PIR R15 RADIO PIR 100-691/100-663	RR1/RR2 RADIO REED SWITCH 100-662/100-527	RPB RADIO EMERG BUTTON 100-283	RSM RADIO SMOKE DETECTOR 100-203
ARM / DISARM	15 User IDs		ON/OFF buttons	ON/OFF buttons				
ALARM					yes	yes		yes
RESTORAL						yes		
PANIC	* [star buttons]	PANIC button	PANIC button	PANIC button			PANIC button	
AUX	yes			yes				
LOW BATT	yes	yes	yes	yes	yes	yes	yes	yes
TAMPER						yes		
SUPERVISION	yes				yes	yes	yes	

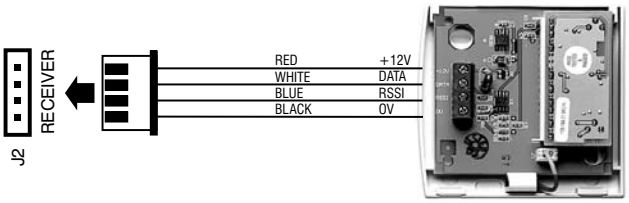
NESS RADIO INTERFACE

The Ness Radio Interface (100–200) is the optional radio receiver required to enable all radio functions. Connection to the control panel is via a 4 wire loom and plug supplied with the Ness Radio Interface.

When the Ness Radio Interface is installed, the keypad will flash the RADIO light ON when any radio signal is detected (from both programmed and non-programmed radio devices).

NESS ECO8X CONTROL PANEL

NESS RADIO INTERFACE
Part No. 100–200



NOTES

- The Ness Radio Interface is normally installed inside the control panel box.
- In cases where the receiver needs to be located closer to the transmitters, the Ness Radio Interface can be installed up to 50 metres away from the control panel. Use 14/0.20 shielded cable or equivalent. The shield can either be connected to the EARTH connection or left unconnected. Leave the shield unconnected at the receiver end.
- If the Radio Interface must be installed inside a metal enclosure, the antenna wire should protrude outside the enclosure.
- For best performance, the antenna wire should be kept straight and not coiled, shortened or extended.
- The optional 100-046 Whip Antenna can be used in cases where radio reception is marginal. The whip antenna may not improve reception in all cases, however its reception pattern may better suit the local radio environment.

RADIO SIGNAL STRENGTH TEST

The Signal Strength Test can be used to test the radio signal from any Ness radio device. The strength of the radio signal received is displayed on the zone lights 1–8 and beeped by the keypad.

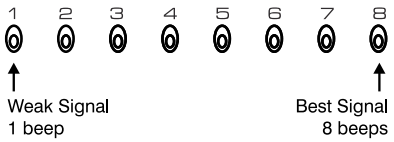
The higher the number displayed (and beeped) the stronger the signal received.

TEST SEQUENCE:

❶ **Enter the option for the radio device to be tested**
For Radio Keys: options P11E–P25E. For Radio Devices, options P01E–P08E.

❷ **Press 3E**

❸ **Trigger the radio device**
- One of zone lights 1 to 8 will turn ON to indicate the signal strength from the transmitter.
- The Signal Strength display remains on until another command is entered.
- To clear the display and re-test the transmitter, simply press 3E again.



NOTES

- Signal strength of Radio Keys can be tested in USER PROGRAM Mode or INSTALLER PROGRAM Mode.
- Signal strength of all other Radio Devices is tested in INSTALLER PROGRAM Mode.
- PRESS **3E** to test the signal strength of the selected transmitter ONLY. (Other devices will be ignored).
- PRESS **4E** to test the signal strength of ANY Ness transmitter (including unprogrammed devices).

P01E – P08E

PROGRAM MODE LEVEL
Installer.

FACTORY DEFAULT
No Radio Devices programmed.

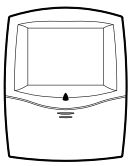
NOTES
- Radio Device programming is done by automatically enrolling the radio code into the control panel.
- Radio Devices can only be deleted by keypad.
- Some Ness Radio Devices send separate Alarm and Restore signals.
- For special purposes, radio zones can be also programmed to accept radio keys. In this case the zone can not also be programmed to accept a radio device.

RADIO DEVICES - OPTION TABLE

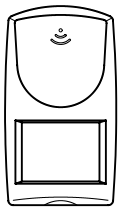
Zone 1	P01E
Zone 2	P02E
Zone 3	P03E
Zone 4	P04E
Zone 5	P05E
Zone 6	P06E
Zone 7	P07E
Zone 8	P08E

TIP: To prevent conflicting radio signals when programming Radio Devices, disable each device once you have finished programming it. (Remove the battery or open the RADIO link).

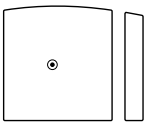
Remember to enable all the devices when programming is completed.



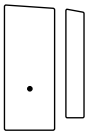
100–691
Ness R12 Radio PIR



100–663
Ness R15 Radio PIR



100–527
Ness Universal Transmitter



100–662
Ness Radio Reed Switch

RADIO DEVICE PROGRAMMING

Each of the zones of the ECO8x can be a radio zone. Once programmed, zones can accept both radio devices and normal zone inputs simultaneously.

The optional 100–200 Ness Radio Interface is required for radio devices to operate.

A radio device is any type of Ness transmitter including Radio PIR, Radio Reed Switches, Radio Smoke Detector.

PROGRAMMING RADIO DEVICES
Up to 8 radio devices can be assigned to the ECO8x, (one per zone).

PROGRAMMING SEQUENCE – NO RESTORALS
Suitable for 100–663 R15 Radio PIR, 100–691 R12 Radio PIR, 100–683 Radio Pendant, 100–203 Radio Smoke Detector.

❶ Select a zone using P01E – P08E
The ARMED light will be ON if a Radio Device is already programmed to the zone. Press 0E to delete.

❷ Press 1E
The READY light will turn ON to indicate that the zone is ready to accept the Radio Device.

❸ Trigger the Radio Device
A. If the Radio Device is accepted, the READY light will turn off, the ARMED light will turn on and 3 beeps will sound.
B. If the READY light stays on and a warning beep sounds, the Radio Device is already assigned to another zone and must be cleared from that zone first.
C. If SUPERVISED SIGNALS have also been successfully recognised, the TAMPER light will turn ON.

EXAMPLE: To program a Radio PIR on zone 1:
P01E 1E Trigger the Radio PIR (or simply connect the battery)

PROGRAMMING SEQUENCE – WITH RESTORALS
Suitable for 100–662 **Radio Reed Switch.**

❶ Alarm the reed switch, ie., move the magnet away from the switch
Leave the reed switch in the alarm condition and wait until radio transmission has stopped.

❷ Select a zone using P01E – P08E
The ARMED light will be ON if a Radio Device is already programmed to the zone. Press 0E to delete.

❸ Press 1E
The READY light will turn ON to indicate that the zone is ready to accept the Radio Device.

❹ Restore the reed switch (place the magnet next to the switch)
A. If the Radio Device is accepted, the READY light will turn off, the ARMED light will turn on and 3 beeps will sound.
B. The MEMORY light will turn on to indicate that this device sends Restorals.
C. If the READY light stays on and a warning beep sounds, the Radio Device is already assigned to another zone and must be cleared from that zone first.
D. If SUPERVISED SIGNALS have also been successfully recognised, the TAMPER light will turn ON.

EXAMPLE: To program a Radio Reed Switch with Restorals on zone 2:
Alarm the reed switch **P02E 1E** Restore the reed switch

DELETING A RADIO DEVICE:

❶ Use P01E to P08E to select the zone

❷ Press 0E to clear the device (3 beeps will sound)

The Ness R12 and R15 Radio PIRs have a TEST link which disables the re-transmit timer, allowing the detector to be walk tested without waiting for the 4 minute re-transmit timer to expire. If the TEST link is left on, the PIR will automatically revert to normal mode after 30 minutes.

TEST mode can be re-started by briefly removing then replacing the battery.

P11E – P25E

PROGRAM MODE LEVEL: Installer.

FACTORY DEFAULT: No Radio Codes, all code are keypad codes.

NOTES

- User Code 1 (Master Code) is always a Keypad Code.
- Radio Codes can be deleted by keypad in the case of a lost Radio Key.
- Radio Keys are assigned to User Codes, so that Open/Close reports are identified by user number when the control panel is base station monitored. (If Open/Close reports are enabled)

RELATED OPTIONS

P01E–P08E Programming Radio Devices.

P64E 4E Radio Key Siren Chirps.

P68E 8E Quiet Chirps on radio arming.

P69E 5E Home arm by radio key ON/OFF buttons.

USER CODE OPTIONS TABLE		EXTRA OPTIONS MODE (Exclude Light is on).
USER CODE	**OPTION NO.**	**5E** RADIO CODE
1 (Master)	P11E	
2	P12E	
3	P13E	
4	P14E	
5	P15E	
6	P16E	
7	P17E	
8	P18E	
9	P19E	
10	P20E	
11	P21E	
12	P22E	
13	P23E	
14	P24E	
15	P25E	

100–664
Ness RK3
Radio Key

100–067
Ness RK4
Radio Key

100–001
Ness RKP
Radio Keypad

RADIO CODES

Each of the 15 User Codes, except for the Master Code, can be programmed to be a Radio Codes. This allows up to 14 Ness Radio Keys to be used for Arming and Disarming of the panel. The Ness RKP Radio Keypad can also be used, see the RKP manual for programming details. The optional 100–200 Ness Radio Interface is required for radio operation.

PROGRAMMING RADIO KEYS

Use the Extra Options programming mode to enable selected user codes as Radio Codes. When a user code is enabled as a Radio Code, its Keypad Code, (if any), is automatically deleted.

PROGRAMMING SEQUENCE:

1. **In Installer Program Mode, enter the option number for the user code which will be become a radio code.** (Example, enter P25E for user code 15).
2. **Press EXCLUDE E to enter Extra Options mode. (The Exclude light is on).**
3. **Press 5E to enable that user code as a Radio Code. (Light 5 is on).**
4. **Press EXCLUDE E to exit Extra Options mode. (The Exclude light is off).**
5. **Press 1E**
   The READY light will turn ON to indicate that the User Code is ready to accept the Radio Key.
   If a code is already programmed the READY light will not turn on and a warning beep will sound. To clear the code, press 0E, then go back to step 5. (0E clears any existing codes).
6. **Press the OFF button on the Radio Key to be programmed**
   If the Radio Key is accepted, the READY light will turn off and 3 beeps will sound.
   If the READY light stays on and a warning beep sounds, the Radio Key is already assigned to another User Code and must be cleared from that User Code first.

EXAMPLE: To enable User Code 15 as a Radio Code and program a Radio Key.

In Installer Program Mode.

Press **P25E EXCLUDE E 5E EXCLUDE E 1E** then press the OFF button on the Radio Key.

TO DELETE A RADIO CODE:

Any Radio Code can be deleted if necessary, (lost radio key or if programming a radio key over an old one). And a Radio Code is automatically deleted when the user code type is changed to keypad code or reader code.

EXAMPLE: To delete Radio Code 15.

In Installer Program Mode: Press **P25E 0E**

Option No.	Description	Default	Note
P130E	REAL TIME CLOCK SET **MINUTES**	00	00–59 minutes
P131E	REAL TIME CLOCK SET **HOURS**	00	00–23 hours (00=midnight)
P132E	REAL TIME CLOCK SET **DAY**	01	01–31 days
P133E	REAL TIME CLOCK SET **MONTH**	01	01–12 months
P134E	REAL TIME CLOCK SET **YEAR**	06	00–63 (2000–2063)
P135E	REAL TIME CLOCK SET **DAY OF WEEK**	1	1–7 (1=Sunday, 7=Saturday)

P130E – P135E

PROGRAM MODE LEVEL
Installer, Remote by PC.

NOTES
These options are dynamically updated. When the program option is entered, the keypad display will show the current value.

REAL TIME CLOCK PROGRAMMING

This is used to record the time and date of events to the Event Memory which can accessed by remote connection using NessComms™ software.

P130E Real Time Clock MINUTES. Enter a value between 00 and 59. Default 00 minutes.

P131E Real Time Clock HOURS. Enter a value between 00 and 23. Default 00 hours.

P132E Real Time Clock DAY OF THE MONTH. Enter a value between 01 and 31. Default 01, (1st day of the month).
Ensure that the setting does not exceed the days in the current month. The panel does not cross check this setting.

P133E Real Time Clock MONTH. Enter a value between 01 and 12. Default 01, (January).

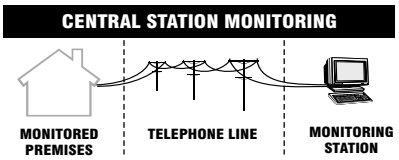
P134E Real Time Clock YEAR. Enter a value between 00 and 63. (2000–2063). Default 06, (2006).

P135E Real Time Clock DAY OF THE WEEK. Enter a value between 1 and 7. (1=Sunday). Default 1, (Sunday).

PROGRAMMING SEQUENCE:

P130E–P135 *existing value is displayed one digit at a time.*

[ENTER NEW VALUE] E *new value is displayed one digit at a time.*



CENTRAL STATION MONITORING

The Ness ECO8x control panel has an on-board digital dialler which can send detailed alarm messages to a central monitoring station.

The digital messages can include information about the zone/s which caused the alarm, tamper alarms, low battery or mains failure reports, and it can also (by user number) identify the users who arm and disarm the system.

Central station monitoring is highly recommended and is the most effective method of monitoring your alarm system.

Installers are welcome to contact Ness for further information about monitoring.

The panel reports alarms to the Central Station using Contact ID dialler format.

The message format is fixed as shown in the Contact ID Codes Table.

THE MESSAGE TAKES THE FORM OF:

SSSS Account Number

Q Event qualifier
1=New Event or Open
3=Restore or Close

XYZ Alarm type

GG Group or Area designation

CCC Alarm number

dd=User ID (1 to 15)

zz = Zone ID (1 to 8)

aa = 01 Area 1

aa = 02 Area 2

aa = 01 Home Mode area

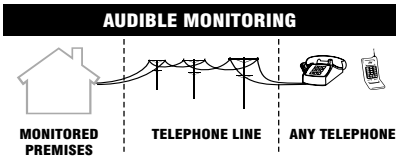
aa = 00 24 Hr Area

K = Checksum (0 to 0f hex)

CONTACT ID REPORTS TABLE

REPORT NAME	SSSS	Q	XYZ	GG	CCC	SUFFIX
Zone 1– Zone 8 Alarm	ssss 18	q	**130**	aa	001–008	k
Duress	ssss 18	1	**121**	01	030	k
Keyswitch Panic	ssss 18	1	**120**	01	031	k
Keypad Panic	ssss 18	1	**120**	01	032	k
Radio Key Panic	ssss 18	1	**120**	01	1dd	k
Medical Alarm	ssss 18	1	**100**	01	033	k
Fire	ssss 18	1	**110**	01	034	k
Exit Install mode	ssss 18	1	**306**	01	035	k
Internal Tamper	ssss 18	q	**137**	01	041	k
Keypad Tamper	ssss 18	q	**137**	01	042	k
Radio Sensor Tamper	ssss 18	q	**383**	01	2zz	k
Radio Sensor Low Battery	ssss 18	q	**384**	01	3zz	k
Mains Fail	ssss 18	q	**301**	01	050	k
Panel Battery Fail	ssss 18	q	**309**	01	051	k
Open	ssss 18	1	**402**	aa	0dd	k
Force Open (Cancel)	ssss 18	1	**406**	aa	0dd	k
Close	ssss 18	3	**402**	aa	0dd	k
Test Report	ssss 18	1	**602**	01	063	k
Zone 1-8 Manual Exclude	ssss 18	q	**573**	aa	001-008	k
Zone 1-8 Auto Exclude	ssss 18	q	**380**	aa	001-008	k

Keyswitch arming is identified as User 16. Shortcut arming is identified as User 17.



AUDIBLE MONITORING

While Central Station Monitoring is recommended, the panel can also send audible alarm reports to any DTMF capable telephone. The types of alarms sent are listed in the Reporting Format Table.

The basic audible message consists of the warning words ALARM, ALARM, ALARM followed by the alarm message sent as a series of beeps:

N [pause] **A** [pause] **B** [pause]

N = The first digit of the Account Number, P72E.
*(**N** can be the digits 1–9. If P72E starts with 0, **N** is not sent).*

A = First digit of the Alarm identifier (See Reporting Format Table).

B = Second digit of the Alarm identifier (See Reporting Format Table).

AUDIBLE MONITORING
REPORTING FORMAT TABLE

Digit A	Digit B	Alarm
1		Zone 1
2		Zone 2
3		Zone 3
4		Zone 4
5		Zone 5
6		Zone 6
7		Zone 7
8		Zone 8
2	1	Duress
2	2	Keyswitch Tamper/Panic
2	3	Keypad Panic
2	4	Radio Panic
2	5	Medical Alarm
2	6	Fire Alarm
2	7	Exit From Installer Program Mode
3	2	Internal Panel Tamper
3	3	Keypad Tamper
3	5	Mains Fail
3	6	Panel Battery Fail
4	1	Radio Battery Fail

MESSAGE EXAMPLE

If the Account Number is 1234 and zone 5 alarm is reported then 1 & 5 are beeped out:
ALARM, ALARM, ALARM, 1 Beep, 5 Beeps

REPORTING SEQUENCE

When triggered by an alarm event (or events) the panel will:

1. Call the Primary Telephone Number (P70E).
2. Wait for 6 seconds. During this time the warning words ALARM, ALARM, ALARM are repeated.
3. Commence the audible message.
4. Repeat the audible message 4 times if not acknowledged by pressing the [*] key after the alarm beeps.
5. After the Acknowledge, the next message is sent - until all are acknowledged.
6. If the alarm is not acknowledged, then the panel will hang up and redial up to the maximum number of dial attempts.
7. If the alarm is not acknowledged after all dial attempts then the keypad LINE light will flash continuously until the panel is next armed.

ACKNOWLEDGE TONE

The person receiving the call can then acknowledge the alarm by pressing the [*] key on their telephone. Press the [*] key for 2 seconds after the alarm beeps.
If the alarm is not acknowledged, the keypad's LINE light will flash continuously until the panel is next armed.

ALARM EVENTS SENT

The Reporting Format Table identifies the alarm events which can be programmed to be sent in Audible Format.

Open/Close reports, Restorals and Exclusions (Isolates) are NOT sent in Audible Format, even if selected on.

PROGRAMMING USER CODES
PIN programming and EXTRA OPTIONS for each user code.

USER CODE TABLE			EXTRA OPTIONS EXCLUDE+E toggles EXTRA OPTIONS mode. (Installer Program mode only)				
			PAGE 12				Pge 49
u USER CODE	OPTION NO.	KEYPAD PIN	1E AREA 1 Code	2E AREA 2 Code	3E ARM ONLY	4E "CODE ONLY" ARM	5E RADIO Code
1 (Master)	P11E	123	ON	ON			
2	P12E		ON				
3	P13E		ON				
4	P14E		ON				
5	P15E		ON				
6	P16E		ON				
7	P17E		ON				
8	P18E		ON				
9	P19E		ON				
10	P20E		ON				
11	P21E		ON				
12	P22E		ON				
13	P23E		ON				
14	P24E		ON				
15	P25E		ON				

PROGRAMMING RADIO KEYS
To program Radio Keys to the panel, assign the required user code/s to be Radio Codes (Extra Options Mode, enable 5E).

Example, to program a Radio key to User Code 15:
Press P25E EXCLUDE E 5E EXCLUDE E 1E then press the OFF button on the radio key.

For full instructions see page 49.

PROGRAMMING RADIO DEVICES
Radio PIRs, Radio Reed Switches, Radio Smoke Detectors.

OPTION	DESCRIPTION	PAGE
P01E	Program radio devices on zone 1	48
P02E	Program radio devices on zone 2	
P03E	Program radio devices on zone 3	
P04E	Program radio devices on zone 4	
P05E	Program radio devices on zone 5	
P06E	Program radio devices on zone 6	
P07E	Program radio devices on zone 7	
P08E	Program radio devices on zone 8	

u

Options marked "u" can be programmed in User Program Mode

u

All options can be programmed in Installer Program Mode

OPTION		DESCRIPTION	DEFAULT	PAGE
P26E	u	ENTRY DELAY Time	20 sec	14
P28E	u	EXIT DELAY Time	60 sec	
P29E	u	SIREN RESET Time	5 min	
P30E		Normal Zone Sensitivity	all zones	15
P31E-36E		Vibration Sensitivity, High-Low	none	
P37E		Long Response Zones - 1 second	none	
P38E		Long Response Zones - 3 seconds	none	
P39E		Double Trigger zones	none	16
P40E		Instant zones	zones 3+	
P41E		ENTRY DELAY zones	Zone 1	
P42E		HANDOVER zones	Zone 2	17
P44E		Lockout zones (RESET output)	All zones	
P45E		AREA 1 zones	All zones	
P46E		AREA 2 zones	none	
P51E		HOME MODE zones	none	19
* See page 18 for information on Area operation, Home mode & Temporary Day Zones				
P52E		24hr zones	none	19
P53E		Day Mode zones	none	
P54E		RESET output zones	All zones	20
P55E		STROBE zones	All zones	
P56E		Keypad Sonalert zones	All zones	
P57E		SIREN zones	All zones	21
P59E		Aux2 zones	none	
P60E	1E	Entry Beeps	ON	22, 23
	3E	Keyswitch Arm/Disarm	OFF	
	4E	Tamper Siren lockout	ON	
	6E	Auto Exclude zones	ON	
	7E	Auto keypad display off	OFF	
P61E	1E	Tamper to RESET output	ON	24
	2E	Tamper to STROBE output	ON	
	3E	Tamper to Keypad Sonalert	ON	
	4E	Tamper to SIREN output	ON	
	5E	Keypad Panic to RESET output	ON	
	6E	Keypad Panic to STROBE output	ON	
	7E	Keypad Panic to Sonalert	ON	
	8E	Keypad Panic to SIREN output	ON	
P62E	1E	Shortcut Memory display	ON	25
	2E	Shortcut Zone Exclude	ON	
	3E	Shortcut Home Mode	ON	
	4E	Shortcut SMOKE RESET	OFF	
	5E	Shortcut Area1 Arming	ON	
	6E	Shortcut Area 2 Arming	OFF	
	7E	Siren Burst on Auto Exclude	ON	
	8E	Exit Time x10	OFF	

OPTION		DESCRIPTION	DEFAULT	PAGE
P63E	1E	Home Mode alarms to RESET output	ON	26
	2E	Home Mode alarms to STROBE	ON	
	3E	Home Mode alarms to SONALERT	OFF	
	4E	Home Mode alarms to SIREN	OFF	
	5E	Day Mode to RESET output	ON	
	6E	Day Mode to STROBE	ON	
	7E	Day Mode to keypad SONALERT	OFF	
	8E	Day Mode to SIREN	OFF	
P64E	1E	Brief Home Mode Alarm	OFF	27, 28
	2E	Brief Day Alarm	OFF	
	3E	Enable Keypad Chime	OFF	
	4E	Radio Key SIREN CHIRPS	OFF	
	5E	50Hz Mains Frequency	ON	
	6E	Enable Keypad Panic	ON	
	7E	Keypad Fire Alarm	OFF	
	8E	Keypad Medical Alarm	OFF	
P65E	1E	Aux1 = Smoke Detector Power	OFF	29
	2E	Aux1 = Area1 armed output	OFF	
	3E	Aux1 = Toggle on Radio AUX button	OFF	
	4E	Aux1 = Pulse on Radio AUX button	ON	
P66E	1E	Aux2 = Zone alarm output	OFF	30
	2E	Aux2 = Area2 armed output	ON	
	3E	Aux2 = Toggle on Radio PANIC button	OFF	
	4E	Aux2 = Pulse on R adio PANIC button	OFF	
	5E	Aux2 = Line Fail output	OFF	
	6E	Aux2 = Fail To Communicate output	OFF	
P68E	2E	3K3 Zone Resistors	OFF	31
	8E	Quiet chirps on radio Arm/Disarm	OFF	
P69E	1E	ARM1 output pulses	OFF	32, 33
	2E	ARM2 output pulses	OFF	
	3E	Quiet Home Mode Siren	OFF	
	5E	Home Mode by Radio Key ON/OFF buttons	OFF	
	6E	Disable Mains Fail Alarm	OFF	
	7E	Home Mode chirps (Radio Key arm)	OFF	
	8E	Home Mode by Radio Key AUX button	OFF	
P70E		TELEPHONE No.1 Primary	NONE	34
P71E		Telephone No.2 Secondary	NONE	
P72E		ACCOUNT No. 1	0000	35
P74E		REPORT ZONE ALARMS	All zones	36
P75E	1E	Report DURESS alarms	OFF	37
Report Misc Alarms 1-8	2E	Report MEDICAL alarms	OFF	
	3E	Report keypad & Keyswitch PANIC	ON	
	4E	Report FIRE alarms	OFF	
	5E	Report PANEL TAMPER alarms	ON	
	6E	Report EXTERNAL TAMPER alarms	ON	
	7E	Report KEYPAD TAMPER alarms	ON	
	8E	Report EXIT FROM INSTALLER mode	OFF	
P76E		Report Zone Restorals	All on	36
P77E		Report Misc. Restorals	All on	37
P78E		Report Multiple Zone alarms	NONE	36
P81E		Telephone No. Callback	NONE	34

OPTION		DESCRIPTION	DEFAULT	PAGE
P82E	1E	Send RESTORAL report immediately	OFF	37
	2E	Send RESTORAL after siren time	OFF	
	3E	Send RESTORAL after Disarm & seal	OFF	
	4E	Send RESTORAL after Disarm always	ON	
P83E		TEST CALL Interval	84 (168hrs)	38
P84E		Time before FIRST TEST CALL	6 (12hrs)	
P85E	1E	Auto Dialling, Pulse & DTMF	OFF	38
	2E	Pulse Dialling (Decadic) always	OFF	
	3E	DTMF Dialling always	ON	
P86E	1E	Disable Dialler	OFF	39
	2E	CONTACT ID FORMAT	ON	
	4E	Audible Format	OFF	
P87E	1E	Split dial Primary/Secondary numbers	OFF	40
	2E	Check for Dial Tone	ON	
	4E	4 Dialling attempts	ON	
P88E	1E	Send AREA 1 OPEN/CLOSE REPORTS	OFF	41
	2E	Send AREA 2 Open/Close reports	OFF	
	5E	Forced Opening report	ON	
	7E	Manual Exclude Reports	ON	
	8E	Auto Exclude Reports	ON	
P89E	1E	ENABLE TEST CALLS	ON	42, 43
	2E	Mains Report Delay (1 hour)	ON	
	3E	Listen-In to Dialler	OFF	
	4E	Swinger shutdown	ON	
	5E	Line Fault Monitor	OFF	
	7E	Use Internal Timing	OFF	
P90E	1E	Enable Remote Access	OFF	44
	7E	Enable Remote Event Report	OFF	
	8E	Enable Callback Mode	OFF	
P91E		Required rings to answer	1	44
P92E	1E	Report RADIO TAMPER	ON	37
Report Misc Alarms 9-14	2E	Report RADIO PANIC by User ID	ON	
	3E	Report RADIO LOW BATTERY by device	OFF	
	4E	Report ZONE SUPERVISION FAIL	OFF	
	5E	Report PANEL LOW BATTERY	ON	
	6E	Report MAINS FAIL	ON	
P93E		Report Misc. Restorals 9-14	All on	

P95E	CLEAR RADIO DEVICES		45
P96E	CLEAR MEMORY		
P97E	CLEAR PANEL OPTIONS (restore Factory Defaults)		
P98E	CLEAR User codes and Radio Keys		
P99E	Program the INSTALLER CODE	000000	45
P130E	Real Time Clock set MINUTES	00	50
P131E	Real Time Clock set HOURS	00	
P132E	Real Time Clock set DAY	01	
P133E	Real Time Clock set MONTH	01	
P134E	Real Time Clock set YEAR	06	
P135E	Real Time Clock set DAY OF WEEK	1	

NESS ECO8x CONTROL PANEL

PACKING LIST

1 ECO8x Main board
1 Housing
1 ECO8x LED keypad
1 17VAC plug pack
1 12V 7Ah battery (optional)
1 Dialler telephone lead
1 User's manual
1 Installation manual
8 End Of Line resistors 2K2
1 Lead assembly for battery
1 Lead assembly for internal tamper
2 Housing cover screws
4 Circuit board standoffs

SPECIFICATIONS

Box dimensions	235w x 300h x 90d mm.
Plug pack	240V AC, output 17V AC@1.4A.
Power supply	13.8V DC @ 800mA.
Quiescent current draw	80mA with 1 keypad.
Operating voltage	9.5V– 14V DC.
Rechargeable battery	12 volt 7.0 Amp/hour Sealed Lead Acid.
Battery charging current	350mA maximum, current limited.
Dynamic battery test	Backup battery is tested under load, hourly and on arming.
Fuses	2 Amp auto resetting / Siren output & Reset output. 500mA auto resetting / 12 volt auxiliary outputs. 200 mA auto resetting / strobe output.

INPUTS

Zones	8 zone inputs. 1 x 24hr tamper input.
End of line resistor	2200 Ohms (2K2).
Maximum keypads	3.
RADIO Header	Multi-pin connector for the Ness Radio Interface (100-200).

OUTPUTS

Siren	On board siren driver with timed output . Maximum 3 x 8 Ohm horn speakers.
Strobe	12V DC timed output. Maximum 2 x 1 Watt strobe lights.
Reset	12V DC timed output. Maximum 2 x 12V piezo screamers.
Equipment power output	13.8V DC output for powering detectors and other equipment. Maximum 500mA.
AUX1 Output	Programmable AUX1 output. Switches negative, max. draw 200mA.
AUX Header	Programmable AUX2 output. Switches negative, max. draw 100mA.

APPROVALS

EMC COMPLIANCE

EN 50130-4:1996 Part 4: Electromagnetic compatability. Electrostatic Discharge, Radiated RF Immunity, Electrical Fast Transient/burst. Surge Immunity, Conducted RF Immunity, Voltage Dips and Interruptions, Mains Supply Variations.

AS/NZ CISPR 22:2002- Class B, Electromagnetic Radiation, Terminal Disturbance Voltage.

EN61000-6-3:2001, Harmonic Current Emissions, Voltage fluctuations and Flicker.

TELECOM

TBR21, EU. PTC200, NEW ZEALAND TELECOM . AS ACIF S002, AUSTRALIA

SAFETY

EN60950:2000 inc Country Deviations, Safety of Information Technology Equipment

AS/NZ3260-1993 incl. AMDTS 1,2,3 &4. TS001-1997 ACA Australian Communications Authority

N55

NESS SECURITY PRODUCTS
Australian Communications Authority
TELECOMMUNICATIONS COMPLIANCE

ECO8x INSTALLATION MANUAL
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For products:
106-030 ECO8x Control Panel

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