D·8 DIALLER SECURITY ALARM PANEL

D·16 DIALLER SECURITY ALARM PANEL

Ness D8x / D16x ALARM CONTROL PANEL

INSTALLATION & PROGRAMMING MANUAL

A$15.00

Revision 5.5
Covering D8x/D16x
firmware versions up to v5.5

Security Products

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

www.ness.com.au

"Australia's largest designer and manufacturer of high quality security products"

Head Office:
Ness Security Products Pty Ltd
ABN 28 069 984 372
4 / 167 Prospect Hwy
Seven Hills NSW 2147 Australia
Ph +61 2 8825 9222
Admin Fax +61 2 9838 8508
ness@ness.com.au

SYDNEY
4 / 167 Prospect Highway
Seven Hills NSW 2147
Ph 02 8825 9222
Fax 02 9674 2520
sales@ness.com.au

MELBOURNE
24 Terracotta Drive
Blackburn VIC 3130
Ph 03 9875 6400
Fax 03 9875 6422
nessmelb@ness.com.au

BRISBANE
Unit 3, 471 Lytton Road
Morningside QLD 4170
Ph 07 3399 4910
Fax 07 3217 9711
nessbris@ness.com.au

PERTH
Unit 1, 567 Newcastle Street
West Perth WA 6005
Ph 08 9328 2511
Fax 08 9227 7073
nessper@ness.com.au

ADELAIDE
13 Weaver Street
Edwardstown SA 5039
Ph 08 8277 7255
Fax 08 8276 3028
adelaide@ness.com.au

D8x/D16x INSTALLER MANUAL
This revision November 2005
Document revision 5.5 covers D8x/D16x firmware versions up to v5.5

Document Part Number: 890-007

For products:
106-000 D8x Control Panel with LED keypad
106-001 D8x Control Panel with LCD keypad
106-004 D16x Control Panel with LCD keypad

CE

N55

NESS SECURITY PRODUCTS
Australian Communications Authority
TELECOMMUNICATIONS COMPLIANCE

CONTENTS

FEATURES

- 8 or 16 alarm zones.
- Supports up to 3 remote LCD or LED keypads.
- 56 user codes can be programmed to operate by keypad PIN, radio key or access card.
- Optional Ness Radio Interface for fully integrated wireless security.
- Programmable 2 Area partitioning can split the panel into two independent areas plus a common area.
- Monitor Mode allows partial arming, (eg, permieter security overnight).
- Day Mode feature allows daytime monitoring of fire doors, coolrooms etc.
- Temporary Day Zone feature allows easy enabling/disabling of Day Mode.
- Keypad Panic feature.
- Keypad Duress feature.
- Two button arming feature.
- Fire Alarm feature with different siren tones.
- Highly flexible zone to output mapping.
- Onboard Vibration Sensor Analyser with programmable sensitivity. Use with Nessensor™ vibration sensors.
- Siren chirp and strobe flash on arming with radio key.
- Quiet chirps option on arm/disarm by radio key.
- True Dynamic Battery Test actively tests the battery under load every hour.
- 4 programmable auxiliary outputs.
- Automatic reset fuses.
- Programmable siren/reset lockout.
- 30 event memory from keypad.
- Standard defaults to suit most applications.
- Easy programming by keypad or NessComms™ software.
- All programming data is permanently stored in a non-volatile memory.
- All inputs and outputs are heavily protected against lightning and high voltage supply transients.
- Optional output expander.

DIALLER

- Full remote upload/download by PC and modem using NessComms™ software.
- Remote control of outputs via telephone.
- Contact ID Format - Two 14 digit phone numbers plus one “follow me” number.
- Audible format feature.
- Phone line monitoring (activates output).
- Dialler ‘Listen in’ option for installers.
- Auto Test calls.
- Pulse or DTMF dialling.
- True dial tone detection.
- Hex programmable client codes.

RELEASE NOTES

D8x / D16x v5.5 November 2005

- Telephone numbers can now be up to 30 digits in length, (previously 15 digits).
- New option P124E 5E enables AUX4 as 'Fail To Communicate" output to trigger backup communications devices such as GSM.

D8x / D16x v5.3 & v5.4 September 2005

- REX User Codes. Enabling a user code to Code Only Arm allows the code to be used as a Request To Exit code for access control.
- P64E 4E Radio Key Siren Chirps will now also chirp siren on Monitor disarm.
- P301E 8E, new option to enable/disable strobe flash on arming/disarming by access control Reader. previously this function was always on.
- Memory+E or 0+E will now delete codes in User Program Mode. This previously functioned only in Installer Program Mode.
- Changed operation of event memory. Normal Arming/Disarming events are not repeated in memory to prevent memory being filled with identical arm/disarm events.

D8x / D16x v5.2 June 2005

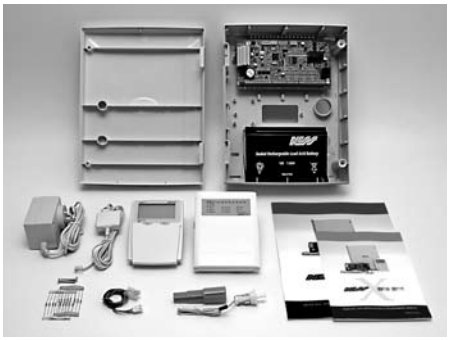
- All user codes are now allocated to Area 1 by default. User codes can be allocated to Area 2 as required.
- Area 2 only User codes do not turn off Monitor mode. Previously any user code would disarm Monitor mode. This allows Area 2 to be armed/disarmed without affecting Monitor arming.
- New option P66E 5E enables Wired Zone Supervision. Useful as an "Inactivity Monitor". See page 33.
- Radio zones will reseal in the presence of high frequency radio interference.

D8x / D16x v5 November 2004

- The number of User Codes has been increased to 56.
- New method of programming user codes for easier assignment of options to user codes.

  Each user code can be assigned to: Area1, Area2, Code Only Arming, Arm Only, Keypad Code, Radio Code, Access Code Reader1, 2 or 3.
- Automatic Memory Mode exit after 4 minutes without a keypress. (Same as User Program mode and Exclude mode).
- Monitor Mode can now be armed when Area2 is armed. (Monitor Mode is still unavailable when Area1 is armed).
- The Keyswitch input can now use a latching, (2 position), keyswitch or momentary action keyswitch.
- Keyswitch input can also be programmed to Arm Only or Disarm Only.
- Siren can be enabled to chirp when Monitor arming with a Radio Key, (as well as chirp when full arming with a Radio Key).
- Arming of Monitor Mode with the AUX button on a RK4 Radio Key.
- Monitor Mode alarms are mapped to RESET and STROBE outputs by default.
- Real Time Clock onboard with programmable Minutes, Hours, Day, Month, Year, Day Of Week.
- Any zone can be a Long Response Zone with an input delay of 1sec or 3sec. (Replaces vibration sensitivities 7 & 8).
- Vibration sensitivity settings are now 6 levels per zone, previously 8.
- New "Enable Hardwire Zones" option allows zone inputs to be disabled if unused.
- The Ness Output Expander is now also an option for the D8 control panel. (Previously D16 only).
- The D16 now has 16 physical zone inputs using 2K2 resistors. Zone Split is still available as a programmable option. If Zone Split is enabled, all 16 zones wire into physical inputs 1-8 using 2K2 and 4K7 resistors and physical zone inputs are 9-16 are no longer used.
- New Aux output functions. Aux1, 2, 3 and 4 can be individually programmed to perform one of many functions such as zone alarm output, zone supervision alarm output, radio key output (pulse or toggle), telephone remote control and access control output.
- New SERIAL port for connection to future accessories.
- Fast up/download from PC by direct connect to the panel's serial port. (In Installer Program mode).
- Option to allow the panel to answer incoming phone calls in either First Call or Second Call modes.
- New access control features including a Reader input for connection of up to 3 access control proximity Weigand readers, (Part No. 106-015).
- Each access control reader's output can be programmed to any Aux output for powering of electric door locks and other accessories .
- Zones 5, 6 & 7 can be converted into Request To Exit (REX) inputs for access control purposes.
- Up to 55 user codes can be programmed as access codes to allow arming and disarming using proximity access cards or fobs.
- New LISTEN pins on the main board allows the installer to listen-in to dialler tones for diagnostic purposes. (Dialler Listen-in via the Siren output is also available).
- New main board design using a faster new microprocessor with Flash Memory and enhanced RAM and EEPROM capacity.
- New Nesscomms™ software for easier remote programming with fast up/download.
- Even more events saved in memory for access by NessComms™.
- New polycarbonate housing with ample provision for the main board, slide-in accessory boards and backup battery.
- New “slide fit" accessory boards with removable terminal blocks:
  106-011 Output Expander provides multiple outputs for various alarms & user codes.
  106-012 Reader Interface Board provides for connection of up to 3 weigand readers.
  106-013 Relay Output Board provides 4 x C/O relays for door strikes etc.
- Combined installation and user manuals for both D8x and D16x models.

NESS D8 AND D16 CONTROL PANELS



PACKING LIST
1 D8 or D16 Main board
1 Housing
1 Ness LED keypad (100-192) or Ness LCD keypad (100-667)
1 17VAC plug pack
1 12V 7Ah battery (optional)
1 Dialler telephone lead
1 User manual
1 Installer manual
9 or 17 End Of Line resistors 2K2 (D8/D16)
1 Lead assembly for battery
1 Lead assembly for internal tamper
1 Zone list label
2 Housing cover screws
4 Circuit board standoffs

106-000 D8x Panel with LED keypad
106-001 D8x Panel with LCD keypad
106-004 D16x Panel with LCD keypad

Ness D8x
Ness D16x

CONTROL PANELS

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 or 16 zone inputs. 2 x 24hr tamper inputs.
End of line resistor	2200 Ohms (2K2), (Also see Zone Split option for the D16).
Maximum keypads	3.
RADIO Header	Multi-pin connector for the Ness Radio Interface (100-200).
SERIAL Header	Serial data port for direct connect programming using NessComms™ software.
READER Header	Multi-pin port for connecting up to 3 Ness proximity access card readers.
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 3 x 12V piezo screamers.
Equipment power output	13.8V DC output for powering detectors and other equipment. Maximum 500mA.
AUX Header	Multi-pin connector provides outputs Aux1, Aux2, Aux3, Aux4, 12V DC.

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

WARNING

THIS EQUIPMENT MUST ONLY BE INSTALLED AND MAINTAINED BY SERVICE PERSONNEL.

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 D8/D16 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.

RADIO RECEPTION

In cases where radio reception needs to be improved, the optional 100-200 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 terminal or left unconnected. Leave the shield unconnected at the receiver end.

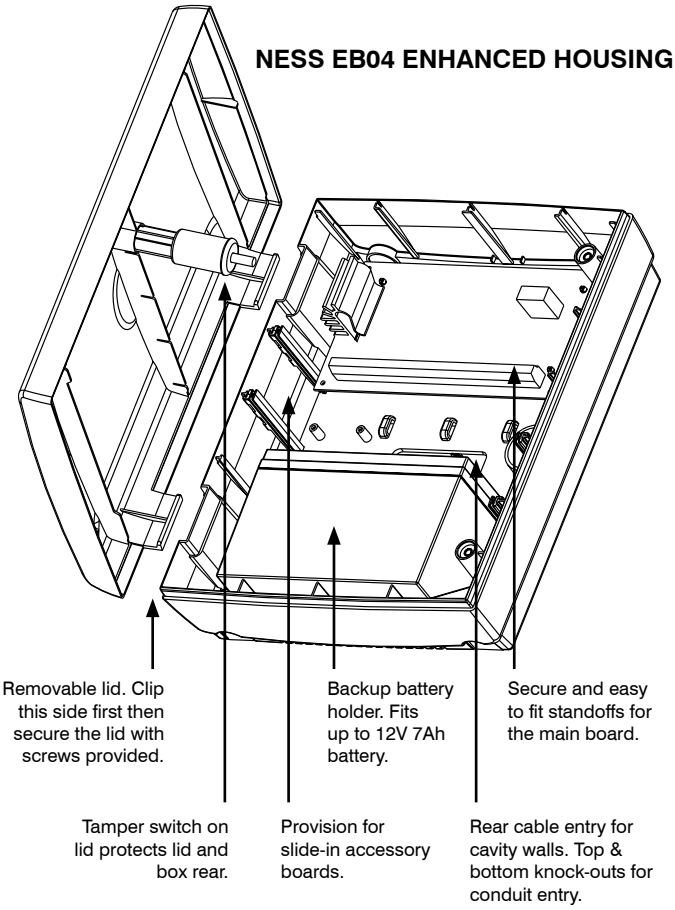
INSTALLATION PROCEDURES

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 D8/D16 has multiple monitored inputs.

8 or 16 fully programmable zone inputs. (Monitored by end of line resistor).
1 x 24 hour External TAMP input. (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 or 2K2 and 4K7 (D16) as supplied. All inputs must be sealed with an EOL resistor unless disabled by option P125E.

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

TAMP – Tamper Input
The TAMP input must also be sealed with a 2K2 end of line resistor. This input is always a 24hr input.

AC INPUT TERMINALS
These terminals are for the connection of the Ness plugpack. The Ness D8/D16 requires an AC transformer rating of 1.4 Amps @ 17 V AC minimum. (Ness Part No. POW215)

BATTERY
These terminals are for the connection of a sealed lead-acid rechargeable 12Volt 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 appears on the two pin J1 header.

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.

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 available from two sets of terminals marked +12V and 0V. This output is protected by an Automatic Reset fuse.

A maximum load of 500mA may be connected to these terminals.

SIREN
The on-board siren driver will drive a maximum of 3 x 8 ohm horn speakers (Ness Part No. NOI110 or 100-171 Internal Siren). 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. (D8/D16 versions prior to V4.5 allow indefinite strobe operation, until the panel is reset).

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 3 x 12V piezo screamers (Ness Part No. 100-238, 100-004) or 2 X Ness Piezo (Part No 100-172) can be connected to this output.

This output is protected by an Automatic Reset fuse.

AUX HEADER
The Aux outputs are open collector outputs (switch negative) which can supply a maximum of 100mA. Each Aux output can be programmed to perform one of several different functions.

Aux1: Programmed by option P121E 1E–8E.

Aux2: Programmed by option P122E 1E–8E.

Aux3: Programmed by option P123E 1E–8E.

Aux4: Programmed by option P124E 1E–8E.

12V: 12V DC output. Maximum current draw 100mA.

0V: 12V ground.

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.

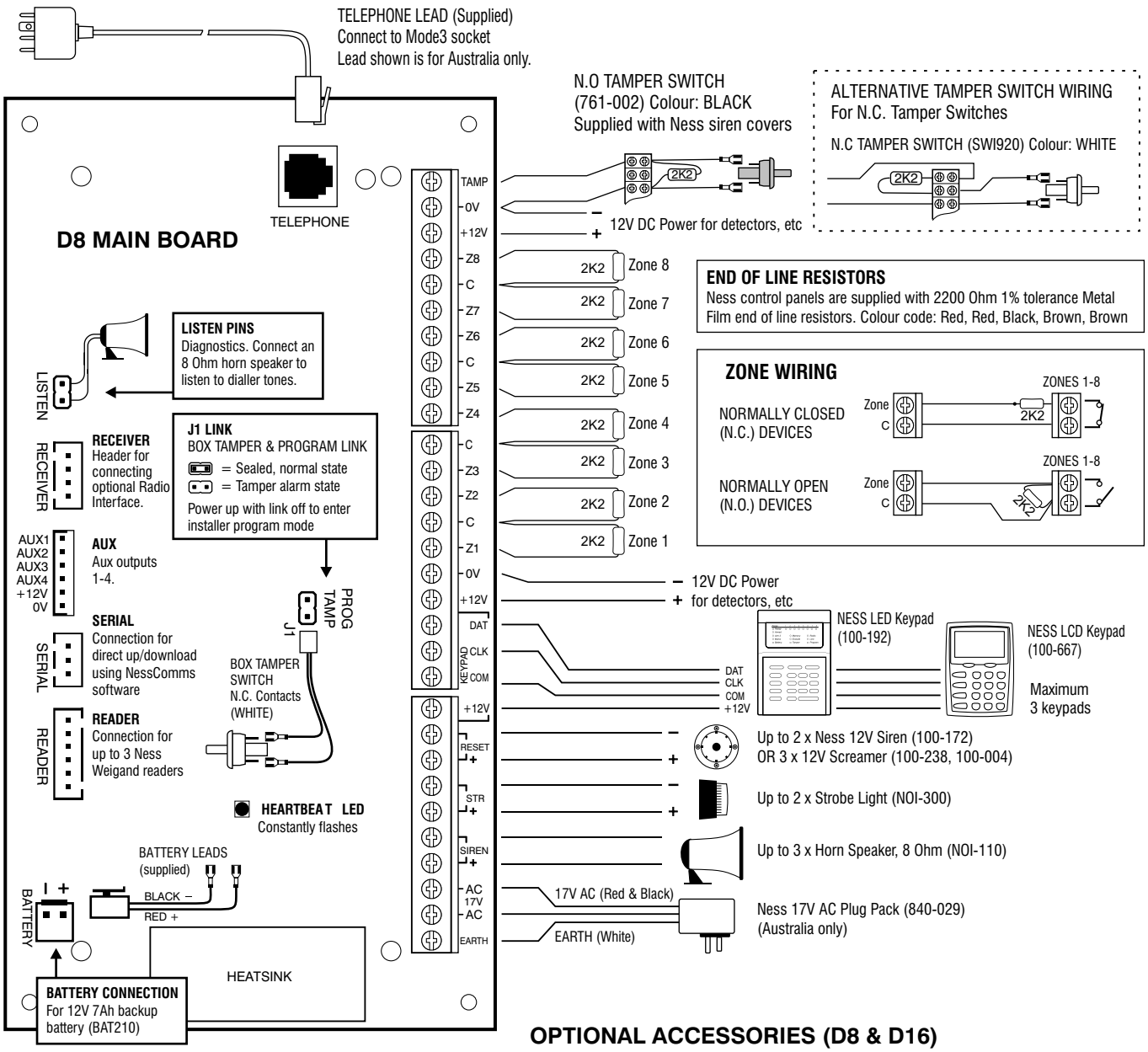
Recommended maximum power load:
3 x Horn speakers (SIREN output)
2 x Strobe lights (STR output)
2 x Ness Internal Sirens (100-172) (RESET output)

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

Security Products

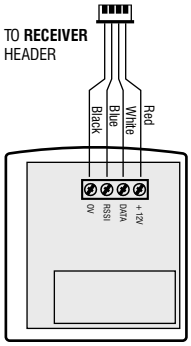
D·8 DIALLER SECURITY ALARM PANEL

NESS D8 CONNECTION DIAGRAM



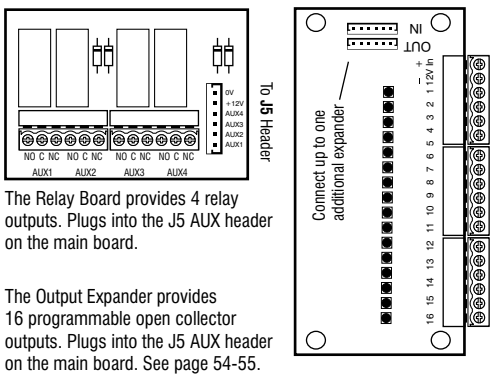
OPTIONAL ACCESSORIES (D8 & D16)

NESS RADIO INTERFACE
Part No. 100-200



NESS RELAY BOARD
Part No. 106-013

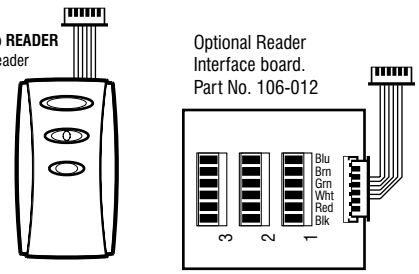
OUTPUT EXPANDER
Part No. 106-011



The Relay Board provides 4 relay outputs. Plugs into the J5 AUX header on the main board.

The Output Expander provides 16 programmable open collector outputs. Plugs into the J5 AUX header on the main board. See page 54-55.

ACCESS CONTROL WEIGAND READERS



One non-addressable Weigand reader can be plugged directly into the READER header on the panel main board.

Up to 3 addressable Weigand readers, (Ness 101-014), can connect via the optional 3 way Reader Interface.

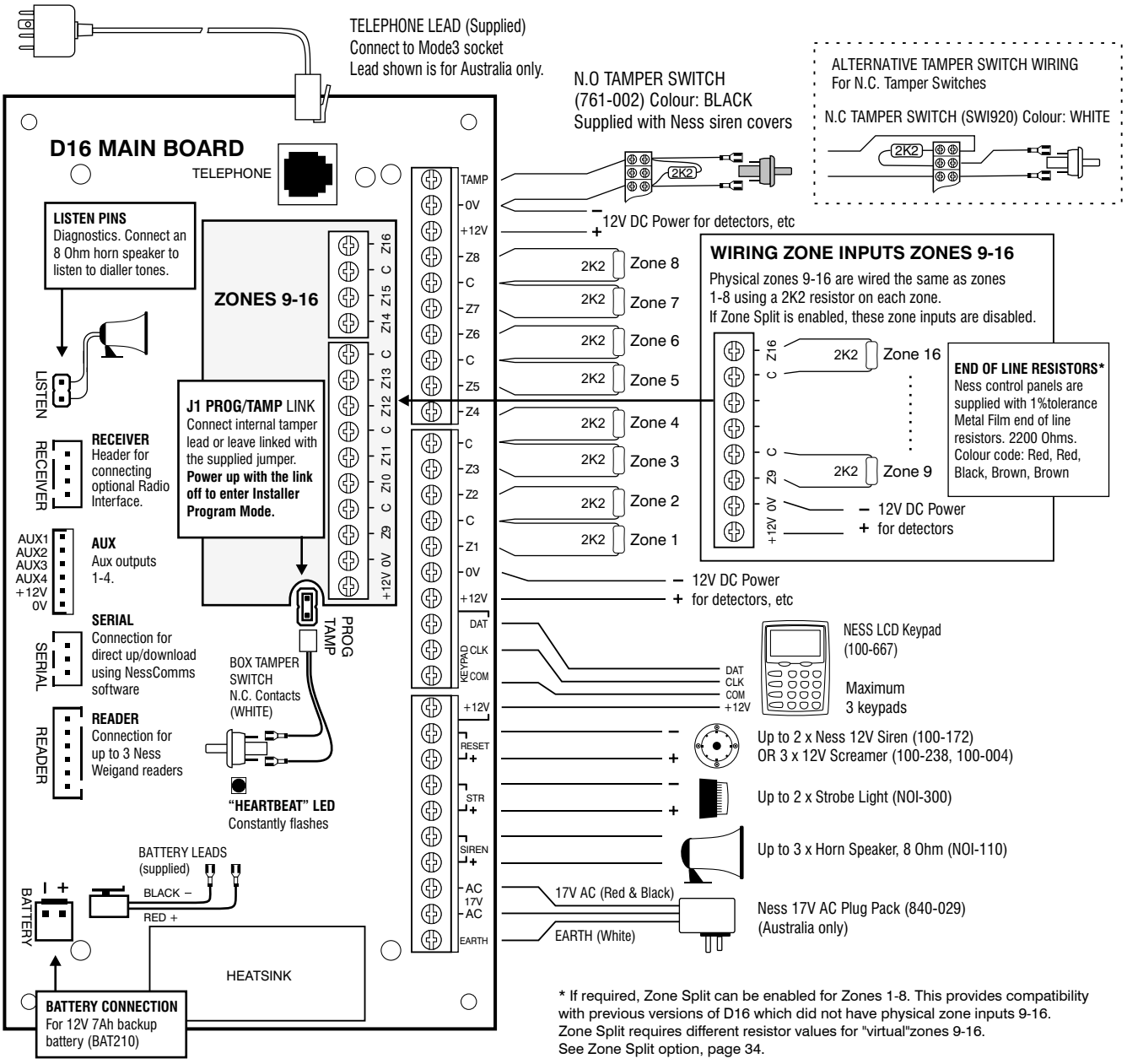
FULL CONNECTION DIAGRAM ON PAGE 69.

The Relay Board and the Output Expander Board connect to the J5 header on the D8/D16 main board but you cannot connect both at the same time. If required, the Relay Board can be driven by outputs from the Output Expander.

Security Products

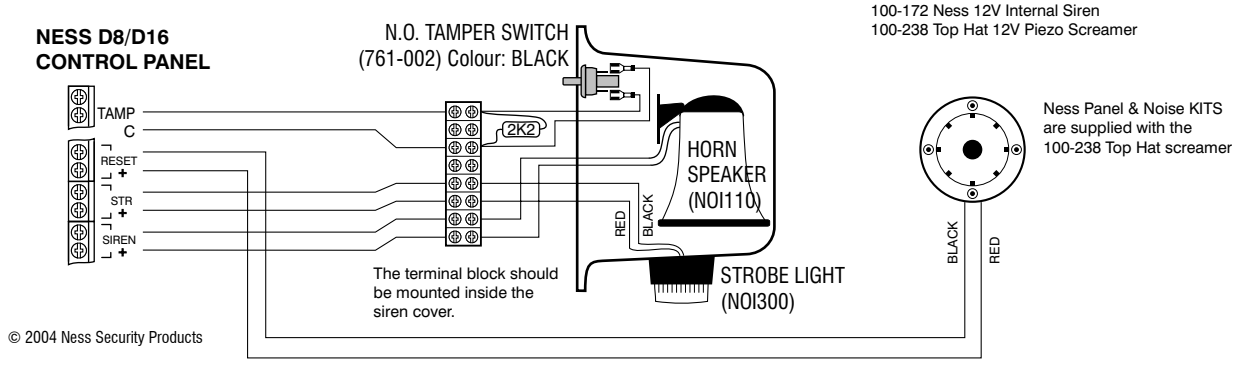
D•16 DIALLER SECURITY ALARM PANEL

NESS D16 CONNECTION DIAGRAM



* If required, Zone Split can be enabled for Zones 1-8. This provides compatibility with previous versions of D16 which did not have physical zone inputs 9-16. Zone Split requires different resistor values for "virtual"zones 9-16. See Zone Split option, page 34.

SIREN WIRING (D8 & D16)



KEYPAD

D8 & D16 KEYPADS

The Ness LED or LCD 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.

DISPLAY TEST (LCD KEYPAD ONLY)

To display all the keypad icons press and hold the (E) button for at least 2 seconds. All the icons will be on whilst the (E) button is held down.

Display Test can be activated at any time either in operating mode or any program mode.

NUMBER OF KEYPADS

Up to 3 LED and/or LCD keypads can be connected to the D8 panel.

Up to 3 LCD keypads can be connected to the D16 panel.

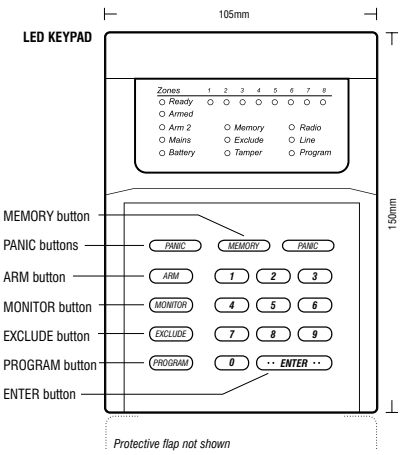
CABLE LENGTH

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

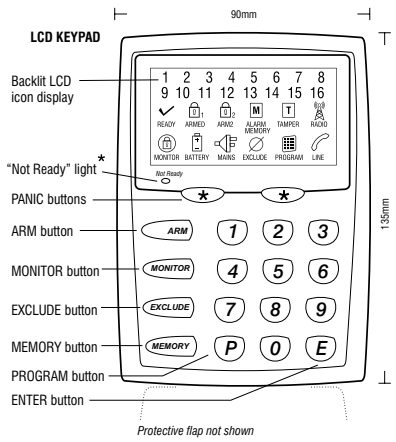
KEYPAD INSTALLATION

- Unclip the top half of the keypad housing by pushing the top clips down with a small screwdriver and pulling the housing forward.
- Screw the base of the keypad housing to the wall using the 4 mounting holes provided.
- Bring the 4 connecting wires to the terminal block on the PCB on the rear of the keypad housing.
- Connect the wires to the screw terminals as per the wiring diagram shown in this manual.
- Clip the top half onto the base by first engaging the bottom clips and swinging the top closed. Push hard to ensure the clips engage.
- Attach the Zone list label on the inside of the lid.

NESS LED KEYPAD (100-192)
D8 PANEL ONLY



NESS D816 LCD KEYPAD (100-667)
D8 OR D16 PANEL

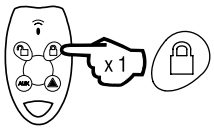
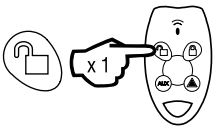
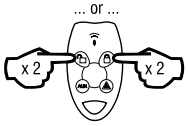
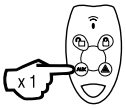
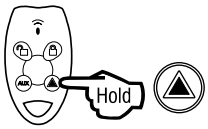


* *The "Not Ready" light is on when the panel is not ready to Arm. i.e, a zone is unsealed, there may still be movement in the premises or a door or window left open*

KEYPAD ICON DISPLAY	KEYPAD ICON STATUS		
	● OFF	○ ON	☼ FLASHING
ZONES 1-16	Zone is sealed	Zone is unsealed	Zone alarm
✓ READY	Zone is unsealed, or Power fault or System is Armed, or phone line fault	Ready to Arm	
1 ARMED	Disarmed	Armed (AREA 1)	Monitor Mode (LED Keypad only)
2 ARM2	Disarmed	Armed (AREA 2)	
MONITOR	Disarmed	Monitor Mode	
MAINS	Normal		Mains Power is off
BATTERY	Normal		The panel's backup battery is low
M ALARM MEMORY	Normal	Memory Mode selected	New alarms in memory
EXCLUDE	Normal		Zones are excluded
T TAMPER	Normal		Tamper alarm
RADIO	Normal	Receiving radio signal	Indicates that a Radio Key or other radio device has a low battery
LINE	Normal	Dialler is on line	Phone line fault or failure to communicate
PROGRAM	Normal	User Program Mode	Installer Program Mode
Not Ready ○	Ready to Arm	Not ready to Arm	

MEMORY MODE - EVENTS INDICATED BY KEYPAD LIGHTS

LIGHT	MEMORY EVENT
Zone lights 1–8 or 1–16	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 (Siren cover, panel etc)
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)
RADIO, MONITOR, ZONE	Radio Supervision alarm (Device number is indicated by zone lights)
MONITOR, ZONE	Wired Zone Supervision alarm (Zone number is indicated by zone lights)

OPERATION	by **KEYPAD**	by **RADIO KEY**	by **ACCESS CARD** or **FOB**
to ARM The panel must initially be disarmed.	Press (ARM) + (E) (If the ARMING SHORTCUT is enabled, P62E 5E)	 Press the ON button once.	 Present a Card or Fob twice. (if P301E 2E is on).  Or, present a Card or Fob once + press button. (if P301E 3E is on).
	or press (ARM) + [USER CODE] + (E)		
	or press [USER CODE] + (E) (If CODE ONLY ARMING has been enabled for that user code. Extra Option 4E)		
to DISARM To disarm and/or reset alarms.	Press [USER CODE] + (E)	 Press the OFF button once.*	 Present a Card or Fob once. (if P301E 4E is on).
to arm MONITOR MODE Area1 must initially be disarmed. Monitor Mode can be used if the panel is fully disarmed or if only Area2 is armed, see page 20 for more information.	Press (MONITOR) + (E) (If the MONITOR SHORTCUT is enabled, P62E 3E)	 Press either the OFF button or the ON button twice within 4 seconds. (P69E 5E must be on).	 Or press the AUX button once. (If P120E 3E is on). RK4 radio key only.
	or press (MONITOR) + [USER CODE] + (E)	Radio Key Monitor Arm chirps can be enabled by option P120E 2E, (off by default).	
PANIC alarm	Press (*) (*) star keys together	 Press and hold the PANIC button for at least 4 sec.	
	or press (*) + [USER CODE] + (E)		
	or press (*) + (E) (If KEYPAD PANIC SHORTCUT is enabled, P62E 4E)		
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 (EXCLUDE) + (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 20 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 (0) + (E) To enable/disable TDZ operation. Note: The keypad does not indicate if TDZ is enabled or disabled.

QUICK START PROGRAMMING

Use one of these programming summaries for fast setup of your Ness D8 or D16 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 2 0 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 2 0 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.	
8	_ _ _ _ _ _ _ _ E	Enter the telephone number followed by E.	30 digits maximum.
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

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 2 0 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.	
8	_ _ _ _ _ _ _ _ E	Enter the telephone number followed by E.	30 digits maximum.
8	P 7 2 E	Selects the option for Account Number 1.	
10	_ _ _ _ E	Enter the Account number followed by E.	4 digits maximum. The account number is supplied by your central monitoring station.
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.

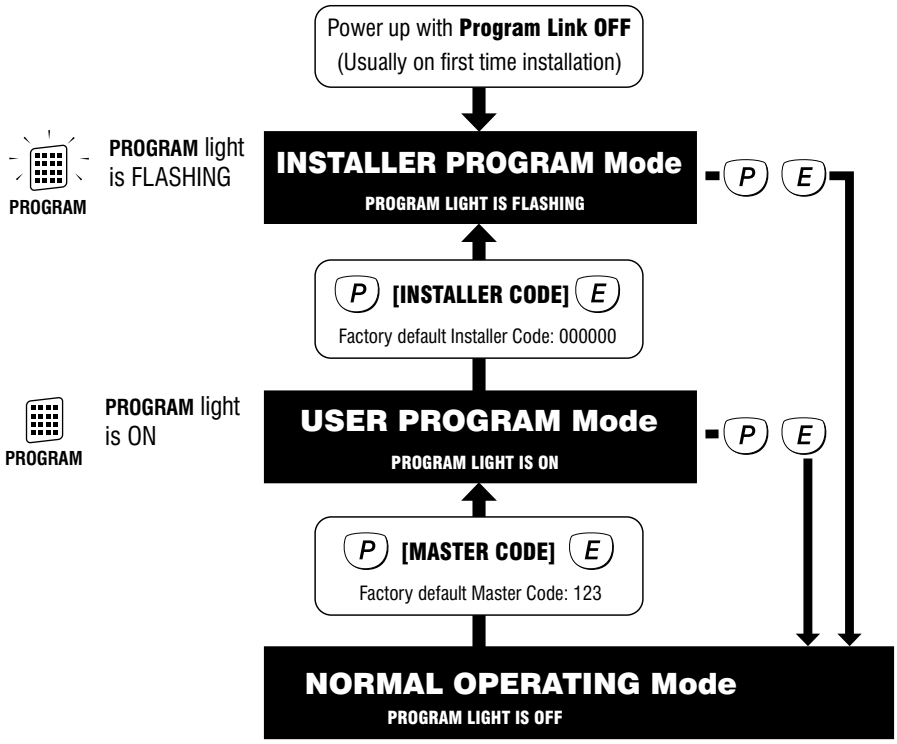
Note: The panel will remain in Installer Program Mode indefinitely.

USER PROGRAM MODE

User Program Mode allows the owner to program:

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

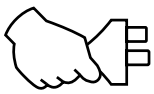
Note: The panel will automatically drop out of User Program Mode to Operating Mode if no keypad buttons are pressed for 4 minutes.



PROGRAM MODE LEVELS

TABLE 4. FLOW CHART

HOW TO ENTER PROGRAM MODE



METHOD 1. FIRST TIME PROGRAMMING – FROM POWER UP

1. Power-up with the PROG link OFF.
(The PROG link (or Box Tamper lead) must be ON in Operating Mode).

METHOD 2. USING THE KEYPAD TO ENTER PROGRAM MODE

The panel must be Disarmed.

1. Press P **[MASTER CODE]** E The keypad will respond with 3 beeps♩♩♩
This is User Program Mode (PROGRAM light is ON).
2. Press P **[INSTALLER CODE]** E The keypad will respond with 3 beeps♩♩♩
This is Installer Program Mode (PROGRAM light is FLASHING).

HOW TO EXIT PROGRAM MODE

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

P101E – P116E

P201E – P256E

PROGRAM MODE LEVEL
User, Installer, Remote by PC (except radio keys and access cards).

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 51.

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

RELATED OPTIONS
Installer Code. See Page 13, How To Enter Program Mode.

Page 53, Programming The Installer Code.

Installer Code default: 000000

RELATED OPTIONS
Programming Radio Codes, page 62

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 or Reader Codes are automatically Keypad Codes.

ⓘ By factory default all user codes are Keypad Codes.

ⓘ When a user code is selected as a Radio Code or Reader Code, its Keypad Code (if any) is automatically deleted. The same applies to Radio Codes and Reader 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 or Reader Code.

TIP: The Ness D8x/D16x has 56 user codes which are programmed using a new set of options as per this table. Experienced users can still use option numbers P11E – P25E, but only for programming user codes 1–15.

RADIO PROGRAMMING **See pages 62, 63.**

USER CODES

D8x and D16x version 5 and later have 56 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 or an ACCESS CARD.

KEYPAD (PIN) CODES

Up to 56 Keypad Codes can be used at up to 3 wired keypads for controlling all panel functions including Arming/Disarming, Monitor 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 56 User Codes are Keypad Codes by default. User Codes can be programmed to be Radio Codes or Access Cards 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 [201–256] 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 P201E 1234E (1 beep) **1234E** (3 beeps)

ⓘ *When re-programming a Keypad Code, the old code does not need to be deleted first. 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 **P202E 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 2–56 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 P202E 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 and Access Cards.*

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

ⓘ *Arm Only codes can also arm Monitor 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 EXTRA OPTIONS MODE. The Exclude light indicates this mode is on/off. (Installer Program mode only)							
USER CODE	**OPTION NO.**	**KEYPAD PIN**	**1E** AREA 1 CODE	**2E** AREA 2 CODE	**3E** ARM ONLY	**4E** "CODE ONLY" ARM (REX CODE)	**5E** RADIO CODE	**6E** Reader Code 1	**7E** Reader Code 2	**8E** Reader Code 3
1 (Master)	P201E	123	ON	ON						
2	P202E		ON							
3	P203E		ON							
4	P204E		ON							
5	P205E		ON							
6	P206E		ON							
7	P207E		ON							
8	P208E		ON							
9	P209E		ON							
10	P210E		ON							
11	P211E		ON							
12	P212E		ON							
13	P213E		ON							
14	P214E		ON							
15	P215E		ON							
16	P216E		ON							
17	P217E		ON							
18	P218E		ON							
19	P219E		ON							
20	P220E		ON							
21	P221E		ON							
22	P222E		ON							
23	P223E		ON							
24	P224E		ON							
25	P225E		ON							
26	P226E		ON							
27	P227E		ON							
28	P228E		ON							
29	P229E		ON							
30	P230E		ON							
31	P231E		ON							
32	P232E		ON							
33	P233E		ON							
34	P234E		ON							
35	P235E		ON							
36	P236E		ON							
37	P237E		ON							
38	P238E		ON							
39	P239E		ON							
40	P240E		ON							
41	P241E		ON							
42	P242E		ON							
43	P243E		ON							
44	P244E		ON							
45	P245E		ON							
46	P246E		ON							
47	P247E		ON							
48	P248E		ON							
49	P249E		ON							
50	P250E		ON							
51	P251E		ON							
52	P252E		ON							
53	P253E		ON							
54	P254E		ON							
55	P255E		ON							
56	P256E		ON							

You can use this table as a programming record.

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 14).
Program Radio Codes (see page 63).
Program Access cards (see page 65).
View radio signal strength (see page 60).

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

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.*
The following Extra Options can now be changed:

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.

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

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

ⓘ 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 14).

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.

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

ⓘ 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.

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

ⓘ Codes selected for Code Only Arming and not assigned to any areas are automatically REX codes. See page 69.

5E RADIO CODE. Enables selected user codes as Radio Codes for operation by Ness Radio Key or Radio Keypad. (Page 63 - how to program Radio Codes).

6E READER CODE 1. Enables user codes as Access Control codes assigned to Reader 1. (Page 65 - Access Cards).

7E READER CODE 2. Enables user codes as Access Control codes assigned to Reader 2. (Page 65 - Access Cards).

8E READER CODE 3. Enables user codes as Access Control codes assigned to Reader 3. (Page 65 - Access Cards).

ⓘ *A user code can be assigned to any one, two or all three access control readers.*

Option No.	Description	Default	Note
P26E	ENTRY DELAY TIME 1	20	seconds
P27E	ENTRY DELAY TIME 2	6	x10 = 60seconds
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 TIME1

The Entry Delay Time 1 is the time given to Disarm the Panel after a Entry Delay 1 zone is unsecured.

The Entry Delay Time1 setting is from 1 to 99 seconds.

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 Time1 to be 30 seconds: P26E 30E

P27E

PROGRAM MODE LEVEL
User, Installer, Remote by PC.

FACTORY DEFAULT
60 (seconds)

NOTES
• Programmable from 10 – 990 seconds.

ENTRY DELAY TIME2

The Entry Delay Time2 is the time given to Disarm the panel after an Entry Delay2 zone is unsecured.

The Entry Delay Time2 setting is from 10 to 990 seconds (1 – 99).

Note: The Entry Delay Time2 is set in 10 second increments so that a value setting of 6 means a 60 seconds delay.

PROGRAMMING SEQUENCE:

P27E *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 Time2 to be 600 seconds:
P27E 60E

P28E

PROGRAM MODE LEVEL
User, Installer, Remote by PC.

FACTORY DEFAULT
6 (=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 (except 24hr zones) are inactive during the Exit Delay time.

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

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.

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.

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

i For compatibility with existing installations, the sensitivity levels P31E to P36E are identical to previous versions of D8/D16.

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 1–8 (D8 & D16) 1	2	3	4	5	6	7	8	ZONES 9–16 (D16) 9	10	11	12	13	14	15	16
	P30E	**NORMAL**	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
VIBRATION OPTIONS	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

i

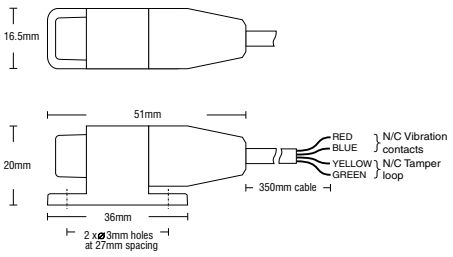
ADJUSTING NESSENSORS

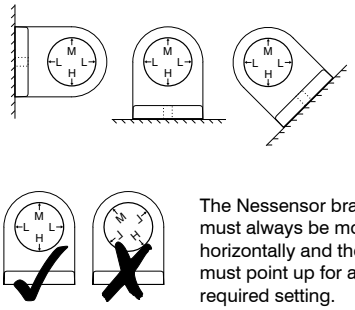
Nessensors are sensitive to high frequencies and insensitive to low frequencies. Therefore it is not necessary to apply much force to the protected structure, rather a very rapid succession of blows.

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.

RELATED OPTIONS
P301E 5E-7E Request To Exit (REX)

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).

This is useful where zones 5, 6 or 7 have been programmed as REX inputs for access control purposes, (P301E 5E-7E). To prevent accidental door opening, the REX button then must be pressed and held for 1sec or 3sec, as programmed.

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 1–8 (D8 & D16) 1	2	3	4	5	6	7	8	ZONES 9–16 (D16) 9	10	11	12	13	14	15	16
P39E	DOUBLE TRIGGER zones																
P40E	INSTANT zones			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P41E	ENTRY DELAY 1 zones	ON															
P42E	HANDOVER zones		ON														
P43E	ENTRY DELAY 2 zones																
P44E	LOCKOUT zones (Reset O/P)	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P45E	AREA 1 zones	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P46E	AREA 2 zones																
P51E	MONITOR zones																
P52E	24HR zones																
P53E	DAY zones																

P39E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No Double Trigger zones.

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

• **0E** will turn all selections OFF. **MEMORY E** will 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
D8, 3E–8E ON: Zones 3–8 are Instant.
D16, 3E–16E ON: Zones 3–16 are Instant.

NOTES
• When a zone is selected for this type, it is automatically deselected from any other zone type in the DELAY GROUP.

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 type in the DELAY GROUP.

P41E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
1E ON: Zone 1 has Entry Delay1.

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 zone type in the DELAY GROUP.

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 type in the DELAY GROUP.

P42E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
2E ON: Zone 2 is a Handover zone.

NOTES
• When a zone is selected for this type, it is automatically deselected from any other zone type in the DELAY GROUP.

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 type in the DELAY GROUP.

P43E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No zones have Entry Delay2.

NOTES

ENTRY DELAY2 ZONES

When an Entry Delay2 zone is triggered, it has entry delay as set by the Entry Delay Time2 (P27E).

PROGRAMMING SEQUENCE:

P43E [Zone No]E *turns the options ON*

P43E [Zone No]E ON: The zone is an Entry Delay2 zone
To deselect the option, select a different zone type in the DELAY GROUP.

P44E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All ON: All zones are Lockout zones.

NOTES
• The SIREN output always locks out.

• **0E** will turn all selections OFF.
MEMORY E will 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		ZONES 1–8 **(D8 & D16)**								ZONES 9–16 **(D16)**							
Option No.	Description	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P45E	AREA 1 ZONES	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P46E	AREA 2 ZONES																

P45E, P46E

PROGRAM MODE LEVEL
Installer, Remote by PC.

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

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

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 & MONITOR MODE

The panel can be armed in MONITOR mode if Area2 is already armed on these conditions:

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

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

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

MONITOR MODE

Monitor Mode, (or 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.

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

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

  b/ Options P64E 1E & 3E are off. (Brief Monitor Alarm, Monitor Entry Delay2).
- Zones selected to be Entry Delay1 zones also have entry delay in Monitor Mode.
- If Monitor Zones Entry Delay2 (P64E 3E) is enabled, then *all* Monitor zones will have entry delay as set by P27E.
- Monitor Mode will not arm if there are no Monitor zones programmed, (P51E).

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.

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

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. (Note: The keypad does not indicate if Day Mode is enabled or disabled).

AUX 2 OPTION

When the Temporary Day Zone feature is enabled, the installer option P63E 6E selects Aux 2 output instead of the strobe output. This allows a remote warning device such as a buzzer to be connected for day zone warning. This may be needed if an additional audible day zone warning is needed, although the keypad sonalert, (P63E 7E), is more than adequate in most cases.

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.

P47E, P48E, P49E, P50E

See page 14, 15 programming User Codes.

ASSIGNING USER CODES TO AREAS

Options P201E–P256E are now used for assigning user codes to areas.

(Experienced users can still use options P47E–P50E for this function, but only up to user code 15).

P51E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
all OFF: No Monitor zones.

NOTES
By default, all Monitor zones have Entry Delay2, see P64E 3E. If this option is off Monitor zones have normal entry delay attributes set by options P40E–P42E.

RELATED OPTIONS
P63E Monitor Mode output mapping.
P64E 1E Brief Monitor alarm.
P64E 3E Monitor zones have Entry Delay2.
P69E 3E Quiet Monitor siren.
P69E 5E Radio Key ON or OFF button arms Monitor Mode.
P120E 2E Monitor arm chirps by radio key.
P120E 3E Radio Key AUX button arms monitor mode.
P120E 6E Smart Beeps for Monitor and Day zones.

MONITOR ZONES

Monitor 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 Monitor mode.

PROGRAMMING SEQUENCE:

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

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

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

The Brief Monitor Alarm option P64E 1E, when enabled, prevents monitor alarms from reporting.

See page 20 for Monitor operation.

P52E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No 24hr zones.

NOTES
• The Tamper input is always a 24hr zone.

• For silent 24hr zones, deselect the zone/s from options P54E-P57E (Reset, Strobe, Sonalert & Siren).

• To change a 24hr zone to any other zone type, the zone must also be re-assigned to an AREA (P45E or P46E).

24hr ZONES

24hr Zones operate at all times regardless of the mode of panel operation, i.e. Armed, Disarmed or Monitor. 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: No Day zones

RELATED OPTIONS
P63E 5E-8E Day zone output mapping.
P64E 2E Brief Day Mode alarm.
P120E 6E Smart Beeps for Monitor and Day zones.

TYPICAL USES FOR DAY ZONES: Instant alert when a delivery door is opened, doorway alert for a shop.

DAY ZONES

Day Zones operate when the panel is fully disarmed, i.e. when Area 1, Area 2 and Monitor 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 20 for information on TEMPORARY DAY ZONES.

ZONE TO OUTPUT MAPPING

When a zone alarms, it can turn on any or all of the following 6 outputs: Sonalert, Strobe, Siren, Reset, AUX1, 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 programmed to turn on 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 MONITOR and DAY mode Output Mapping – see Option P63E 1E–8E, page 28.

MAPPING ZONES TO OUTPUTS

Option No.	Description	ZONES 1–8 **(D8 & D16)**								ZONES 9–16 **(D16)**							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P54E	RESET Zones	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P55E	STROBE Zones	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P56E	SONALERT Zones	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P57E	SIREN Zones	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P58E	AUX1 Zones																
P59E	AUX2 Zones																

P54E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All ON: All zones trigger Reset output.

NOTES
• **0E** will turn all selections OFF.
MEMORY E will 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: All zones trigger Strobe output.

NOTES
• **0E** will turn all selections OFF.
MEMORY E will 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: All zones sound the Keypad Sonalert.

NOTES
• **0E** will turn all selections OFF.
MEMORY E will 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: All zones trigger Siren output.

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

P58E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No zones trigger AUX1.

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

RELATED OPTIONS
P121E 5E-8E Day zone output mapping.

AUX1 OUTPUT ZONES

Selects the zones to trigger the AUX1 output on the main board. This option selects *which* zones trigger AUX1. Use P121E to enable the ouput.

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

PROGRAMMING SEQUENCE:

P58E [Zone No]E *toggles the options ON and OFF*

[Zone No] OFF: The zone will not trigger the AUX1 output
[Zone No] ON: The zone will trigger the AUX1 output

P59E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No zones trigger AUX2.

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

AUX2 OUTPUT ZONES

Selects the zones to trigger the AUX2 output on the main board. This option selects *which* zones trigger AUX2. Use P122E to enable the ouput.

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	Entry beeps 1E	Keyswitch Monitor/Disarm 2E	Keyswitch Arm/Disarm 3E	Tamper Siren Lockout 4E	Duress to RESET output 5E	Auto Exclude zones 6E	Auto off, keypad display 7E	Delay Area1,2 outputs 8E
P60E	VARIOUS OPTIONS	ON			ON		ON		

P60E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
Entry Beeps 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 2E, 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
No keyswitch enabled.
P60E 3E, 4E off.
P120E 1E off.

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

RELATED OPTIONS
P120E 1E Latched Keyswitch.
P120E 4E Keyswitch Disarms only.
P120E 5E Keyswitch Arms only.

KEYSWITCH OPERATION

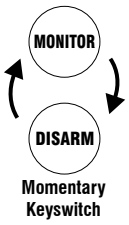
An externally fitted, normally open momentary Keyswitch can be used to Arm, Disarm or arm the Monitor mode.

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).

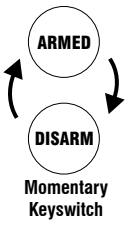
PROGRAMMING SEQUENCE:

P60E 2E or 3E *toggles the option ON and OFF*

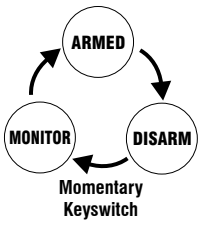
2E & 3E OFF: No keyswitch operation. Zone 8 is a normal alarm input.
2E ON: Keyswitch cycles between Monitor and Disarm.
3E ON: Keyswitch cycles between Arm and Disarm.
2E & 3E ON: Keyswitch cycles between Arm, Monitor and Disarm.



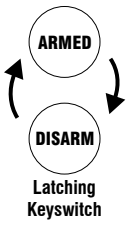
P60E 2E is ON



P60E 3E is ON



P60E 2E is ON
P60E 3E is ON

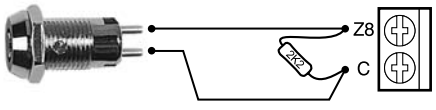


P120E 1E is ON

KEYSWITCH WIRING

If P60E 3E or 4E are 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 if required. (Panic on this input is disabled if P120E 1E is enabled).

If P120E 1E is enabled, use a latching keyswitch. When the resistor is sealed, panel is disarmed. If the resistor is unsealed, (either by open circuit or short circuit), the panel will arm Area1, (Area2 will be ignored).



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

P60E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON Tamper Reset Lockout enabled.

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 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF No Reset output on Duress alarm.

RELATED OPTIONS
P75E 1E Enable reporting of Duress.

DURESS TO RESET OUTPUT

Keypad Duress is normally a silent alarm. This option makes the Duress alarm trigger the Reset output. To Disarm with Duress, add any of the digits 5,6,8 or 9 in front of the user code when Disarming.

PROGRAMMING SEQUENCE:

P60E 5E *toggles the option ON and OFF*

OFF: No Reset output on Duress alarm
ON: Duress alarm triggers Reset output

P60E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON Auto Exclude enabled.

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.

The panel will give a 2 second Siren burst at the end of Exit Time to indicate that the panel is armed with a zone/s Auto Excluded. The 2 sec Siren burst can be disabled by option P62E 7E.

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: Display is always ON.

NOTES
• The LCD keypad display and display backlighting will turn off but the keys backlighting will remain on. The keypad flap can be closed to reduce stray light from the keys.

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 (Use the (E) button preferably).

PROGRAMMING SEQUENCE:

P60E 7E *toggles the option ON and OFF*

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

P60E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: AUX3 & AUX4 outputs are instant.

RELATED OPTIONS
P123E 1E, AUX3 output when Area1 armed.
P124E 1E, AUX4 output when Area2 armed.

DELAYED AUX3 & AUX4 OUTPUTS

The AUX3 and AUX4 outputs can be programmed to turn on when Areas 1 and 2 are armed. These outputs can be programmed to turn on instantly or at the end of Exit Time.

This option only applies when AUX3 and AUX4 outputs are enabled as Arm1 and Arm2 outputs, (P123E 1E on and P124E 1E on).

PROGRAMMING SEQUENCE:

P60E 8E *toggles the option ON and OFF*

OFF: AUX3 & AUX4 outputs turn on instantly, (Default).
ON: AUX3 & AUX4 outputs turn on at the end of exit time.

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: Tamper alarm triggers all outputs.

NOTES
• A Tamper Alarm can be caused by the TAMP input or by removing the the J1 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: Panic alarm triggers all outputs.

NOTES
• A Keypad Panic Alarm can be caused by the PANIC keys on the keypad (* E or ** together, depending on Option P64E6E).

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 MONITOR MODE 3E	Shortcut KEYPAD PANIC 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: Memory Display shortcut enabled.
2E, ON: Zone Exclude shortcut enabled.
3E, ON: Monitor Mode shortcut enabled.
4E, OFF: Keypad Panic disabled.
5E, ON: Area1 Arming shortcut enabled.
6E, OFF: Area2 Arming shortcut disabled.

NOTES
• A Tamper Alarm can be caused by the TAMP input or the J1 link.

• Allocate a User Code to Area2 before programming Area2 shortcut arming. If Area 2 is shortcut armed then it will always remain armed. This will bar entry into program mode until Area 2 is disarmed.

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: Monitor Mode shortcut
4E ON: Keypad Panic shortcut
5E ON: Area1 Arming shortcut
6E ON: Area2 Arming shortcut

OPERATING EXAMPLES:

Arming without shortcut: ARM **[User Code]** E
Arming with shortcut: ARM E
Keypad Panic without shortcut: * **[User Code]** E
Keypad Panic with shortcut: * E

P62E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON: Siren burst on Auto Exclude enabled.

RELATED OPTIONS
P60E 6E Auto Exclude zones.

SIREN BURST ON AUTO EXCLUDE

This option allows the disabling of the 2 second siren burst at the end of Exit Time which indicates a zone/s has been Auto Excluded.

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: Exit Time x10 disabled.

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	Monitor to RESET output 1E	Monitor to STROBE output 2E	Monitor to keypad SONALERT 3E	Monitor 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	MONITOR & 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 Monitor alarm.

MONITOR MODE OUTPUT MAPPING

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

PROGRAMMING SEQUENCE:

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

1E ON: Monitor Mode to Reset output
2E ON: Monitor Mode to Strobe output
3E ON: Monitor Mode to Keypad Sonalert output
4E ON: Monitor 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.

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, (If Brief Day Alarm is enabled, (P64E 2E), then this option sends day alarms to the AUX2 output).
7E ON: Day Mode to Keypad Sonalert output
8E ON: Day Mode to Siren output

For ZONE TO OUTPUT MAPPING for armed & 24hr states – see options P54E – P59E, page 22-23.

Option No.	Description	1E Brief Monitor alarm	2E Brief Day alarm	3E Monitor zones have Entry Delay2	4E Radio Key chirp	5E 50Hz mains frequency	6E Double key Keypad Panic	7E Keypad Fire Alarm	8E Keypad Medical Alarm
P64E	MISC. OPTIONS			ON		ON	ON		

P64E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Brief Monitor Alarm disabled.

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

BRIEF MONITOR MODE ALARM

Alarms in Monitor 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 Monitor alarm is enabled, then Monitor alarms will not be reported by dialler.

PROGRAMMING SEQUENCE:

P64E 1E *toggles the option ON and OFF*

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

P64E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Brief Day Alarm disabled.

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 20.

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
ON: Monitor zones all have Entry Delay 2.

RELATED OPTIONS
P27E Entry Delay Time 2.
P51E Assign Monitor zones.
P63E 1E–4E Monitor Mode output mapping.

MONITOR ZONES ENTRY DELAY 2

Monitor zones can either have the delay types set by options P40E–P43E or they can all be assigned to have Entry Delay 2. This allows all Monitor zones to be programmed with the same entry delay time.

PROGRAMMING SEQUENCE:

P64E 3E *toggles the option ON and OFF*

OFF: Monitor zones behave as programmed by P40E–P43E
ON: Monitor zones all have Entry Delay 2

P64E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No siren chirps.

RELATED OPTIONS
P68E 8E Quiet Chirps.
P69E 5E Monitor Arm by Radio Key.
P120E 2E Monitor Arm chirps.
P120E 3E Radio Key AUX button arms Monitor Mode.

ARM/DISARM CHIRPS

If this option is selected the Siren output will "Chirp" when the panel is armed and disarmed with the Keyswitch input, prox cards or Radio Keys. This option applies to *siren chirps*, the *strobe* output always flashes when arming/disarming by the above methods. (Monitor arming chirps are enabled separately by option P120E 2E).

The siren output will make 1 Chirp on Arming, and 3 Chirps on Disarming.

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.

NOTES

50Hz MAINS FREQUENCY

Selects either 50Hz or 60Hz mains power frequency operation. Leave the factory default 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 local or 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: Double key Keypad Panic enabled.

NOTES
The Ness LCD keypad has two buttons labelled (*)

RELATED OPTIONS
P62E 4E Shortcut Keypad Panic

DOUBLE KEY KEYPAD PANIC

This option allows the Keypad Panic alarm to be triggered by pressing both (*) Panic buttons together.

NOTE: (*) **[User Code]** (E) always triggers Keypad Panic

PROGRAMMING SEQUENCE:

P64E 6E *toggles the option ON and OFF*

OFF: No double key Keypad Panic
ON: Double key Keypad Panic enabled

P64E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Keypad Fire Alarm.

RELATED OPTIONS
P68E 6E Fire Siren sound.
P75E 4E Report Fire Alarms.

KEYPAD FIRE ALARM

This option enables the Keypad Fire Alarm. Pressing (3) and then (E) triggers the siren using the “Fire Alarm” siren 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: No Keypad Medical Alarm.

RELATED OPTIONS
P75E 2E Report Medical Alarms.

KEYPAD MEDICAL ALARM

This option enables the Keypad Medical Alarm. Pressing (2) and then (E) activates the dialler and reports a Medical Alarm.

If 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	ZONES 1–8 (D8 & D16) 1	2	3	4	5	6	7	8	ZONES 9–16 (D16) 9	10	11	12	13	14	15	16
P65E	SUPERVISED ZONES																

P65E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
all OFF: No Supervision zones.

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

RELATED OPTIONS
P66E 1E–4E Supervision Alerts.
P66E 5E Wired Zone Supervision.
P67E Zone Supervision Time.
P92E 4E (D8) Report Supervision.
P75E 12E (D16) Report Supervision.

SUPERVISED ZONES

Any zone 1-8 or 1-16 can be a Supervised Zone.

In operation, a Supervised Zone is subject to the Supervision Time (P67E). If the zone/s has not sealed or unsealed during the Supervision Time, then the programmed alerts will turn on (as programmed by P66E 1E-4E, P92E 4E or P75E 12E). Zone Supervision can be used as an "inactivity monitor" to sound an alert or send a dialler report if a zone has had no activity during a set period of time. (For example, to monitor an aged person's home).

• A zone which is permanently in a sealed or unsealed state for the duration of Supervision Time will be treated as a Supervision alarm.

• If P66E 5E is on, Zone Supervision acts on wired zones. If P66E 5E is off, Zone Supervision acts on radio zones.

• Each Supervised zone has its own supervision timer.

• Zone Supervision is independent of the armed state of the panel.

• Zone Supervision can be temporarily disabled by Excluding the zone/s.

• The zone which caused the Supervision alarm flashes on the keypad. Entering a valid code + E will reset Supervision alarms.

• If Radio Supervision is enabled (P66E 5E off), then radio zones are supervised for the absence of a supervision signal as opposed to inactivity of a zone in Wired Supervision mode (P66E 5E on).

PROGRAMMING SEQUENCE:

P65E [Zone No]E *toggles the options ON and OFF*

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

P66E 1E–8E

ZONE SUPERVISION ALERTS, SUPERVISION TIME SPEEDUP

See pages 32–33.

P67E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
24 hours or 24 minutes.

NOTES
• A setting of less than 3 hours for radio supervision is not recommended.

• Supervision time must be 2 minutes or greater for correct operation.

• The Supervision timer is reset on exit from Installer Program Mode and on Arm or Disarm.

RELATED OPTIONS
P65E Supervised Zones.
P66E 1E–4E Supervision Alerts.
P66E 7E–8E Supervision Time Speed-up.

SUPERVISION TIME

SUPERVISION TIME sets the time interval before an inactive Supervised Zone triggers a Supervision alarm.

The SUPERVISION TIME setting is from 01 to 24 hours.

For timing up to 24 minutes, set P66E 7E 7 8E on.
For timing up to 24 hours, set P66E 7E 7 8E off.

PROGRAMMING SEQUENCE:

P67E *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 SUPERVISION TIME to be 4 hours:
P67E 04E

RADIO SUPERVISION OPERATION

The purpose of Radio Supervision is to verify the correct operation of Ness Radio PIRs. The Supervision signal from the Radio PIR tells the panel that the device has not been removed from radio range and is in working order.

A non-SUPERVISION enabled Radio PIR will transmit signals to the panel only when it has detected an event. Obviously, there is no guaranteed signal period.

Option No.	Description	Supervision alarms to RESET output 1E	Supervision alarms to STROBE output 2E	Supervision alarms to SONALERT output 3E	Supervision alarms to SIREN output 4E	5E	6E	Supervision speedup x6 7E	Supervision speedup x10 8E
P66E	ZONE SUPERVISION ALERTS								

P66E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Supervision Reset output disabled.

RELATED OPTIONS
P65E Supervised Zones.

ZONE SUPERVISION ALERTS – RESET OUTPUT

Setting this option turns the Reset output ON when a SUPERVISED ZONE alert occurs. The Reset output will remain ON for the duration of the ALARM TIME (Set by Option P29E).

PROGRAMMING SEQUENCE:

P66E 1E *toggles the option ON and OFF*

OFF: Supervision Reset output disabled
ON: Supervision Reset output enabled

P66E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Supervision Strobe output disabled.

RELATED OPTIONS
P65E Supervised Zones.

ZONE SUPERVISION ALERTS – STROBE OUTPUT

Setting this option turns the Strobe output ON when a SUPERVISED ZONE alert occurs. The Strobe output will remain ON until the panel is disarmed.

PROGRAMMING SEQUENCE:

P66E 2E *toggles the option ON and OFF*

OFF: Supervision Strobe output disabled
ON: Supervision Strobe output enabled

P66E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Supervision Keypad Sonalert disabled.

NOTES
• When this option is turned ON, it delays the operation of all other selected Supervision outputs by one minute.

RELATED OPTIONS
P65E Supervised Zones.

ZONE SUPERVISION ALERTS – KEYPAD SONALERT

Setting this option turns the Keypad Sonalert ON when a SUPERVISED ZONE alert occurs. The Keypad Sonalert remains ON until *any* keypad key is pressed.

Also, turning this option ON makes all Supervision outputs delayed by one minute.

PROGRAMMING SEQUENCE:

P66E 3E *toggles the option ON and OFF*

OFF: Supervision Keypad Sonalert disabled and all Supervision outputs trigger instantly
ON: Supervision Keypad Sonalert enabled and all Supervision outputs are delayed by 1 minute

P66E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Supervision Siren output disabled.

RELATED OPTIONS
P65E Supervised Zones.

ZONE SUPERVISION ALERTS – SIREN OUTPUT

Setting this option turns the Siren output ON when a SUPERVISED ZONE alert occurs. The Siren output will remain ON for the duration of the ALARM TIME (Set by Option P29E).

PROGRAMMING SEQUENCE:

P66E 4E *toggles the option ON and OFF*

OFF: Supervision Siren output disabled
ON: Supervision Siren output enabled

P66E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Radio Zone Supervision enabled.

RELATED OPTIONS
P65E Supervised Zones.
P66E 1E–4E Supervision Alerts.
P66E 5E Wired Zone Supervision.
P67E Zone Supervision Time.
P92E 4E (D8) Report Supervision.
P75E 12E (D16) Report Supervision.

THIS OPTION IS AVAILABLE IN D8X/D16X V5.2 AND LATER

ENABLE WIRED ZONE SUPERVISION

This option enables Wired Zone Supervision or Radio Zone Supervision.

PROGRAMMING SEQUENCE:

P66E 5E *toggles the option ON and OFF*

OFF: Radio Zone Supervision enabled
ON: Wired Zone Supervision enabled

P66E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Supervision Time normal.

RELATED OPTIONS
P67E Supervision Time.
P66E 8E Supervision Time speedup x10.

SUPERVISION TIME SPEEDUP X6

Setting this option speeds up the Supervision Time by 6. For instance if P67E is set to 1 hour (60 minutes), then this option will reduce it to 10 minutes. (i.e., 60 divided by 6).

PROGRAMMING SEQUENCE:

P66E 7E *toggles the option ON and OFF*

OFF: Supervision Time normal as set by P67E
ON: Supervision Time speedup x6

P66E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Supervision Time normal.

RELATED OPTIONS
P67E Supervision Time.
P66E 7E Supervision Time speedup x6.

SUPERVISION TIME SPEEDUP X10

Setting this option speeds up the Supervision Time by 10. For instance if P67E is set to 1 hour (60 minutes), then this option will reduce it to 6 minutes. (i.e., 60 divided by 10).

PROGRAMMING SEQUENCE:

P66E 8E *toggles the option ON and OFF*

OFF: Supervision Time normal as set by P67E
ON: Supervision Time speedup x10

> NOTE: If both P66E 7E and 8E are both ON then the Supervision time is sped up by 60. For instance if P67E is set to 1 hour (60 minutes), then this option will reduce it to 1 minute. (i.e., 60 divided by 60).

P67E

SUPERVISION TIME, page 31.

P68E 1E

PROGRAM MODE LEVEL:
Installer, Remote by PC.

FACTORY DEFAULT:
OFF: No zone split.

NOTES:

- Zone Split is required when zones 9-16 are used as hardwire zones.
- Zone Split does not have to be enabled to use zones 9-16 as RADIO zones.
- If Zone 8 is converted to a Keyswitch Input, then a 2K2 monitoring resistor is always used and Zone Splitting is not available on the Z8 input (no Zone8, Zone16). Zone8, Zone16 are still available as RADIO ZONES however. See Keyswitch Operation, page 24.
- N.O. contacts can be used only on zones 1 to 8.

END OF LINE RESISTOR NOTES:

- NESS supplies 1% tolerance metal film resistors for the end of line termination. These are accurate value resistors and they stay accurate long term.
- Avoid using carbon film or 5% tolerance resistors, especially when zone splitting. Problems may not become evident until some time after the installation, due to resistor aging, moisture or dust build up.
- If a particular zone will not seal, then check the resistance of BOTH the low zone and high zone cabling (i.e. if zone 1 will not seal then also check zone 9 wiring). The resistance checks should be done after removing the cabling from the D16 terminals and separating into their individual wires.
- A 2K2 monitored line should measure between 2100 Ohms minimum and 2400 Ohms maximum.
- A 4K7 monitored line should measure between 4600 Ohms minimum and 4950 Ohms maximum.

INPUT TABLE

INPUT	ZONE	ZONE
1	1	9
2	2	10
3	3	11
4	4	12
5	5	13
6	6	14
7	7	15
8	8	16

ZONE SPLIT IS ONLY AVAILABLE ON D16 CONTROL PANELS.

NOTE 1

The D16 panel has 16 physical zone inputs, so Zone Split is usually not required, although you may want to use Zone Split in cases where:

- Retro-fitting an existing D16 installation where 4K7 resistors have been used on zones 9–16.
- It may be more convenient to use Zone Split to avoid running extra cables for zones 9–16. (Zone Split allows 2 zones to work on 1 zone input.

NOTE 2

If Zone Split is enabled, physical zone 9–16 inputs cannot be used. They will become inactive.

ZONE SPLIT

This option splits zone inputs 1–8 into 16 zones using pairs of zones so that there are 16 wired zones available.

When Zone Split is enabled, the physical zone inputs 9–16 are ignored by the panel.

Zones 1-8 use 2K2 end of line resistors on the Z1-Z8 inputs.

Zones 9-16 use 4K7 end of line resistors on the Z1-Z8 inputs (with Zone 9 connected to the Z1 input etc).

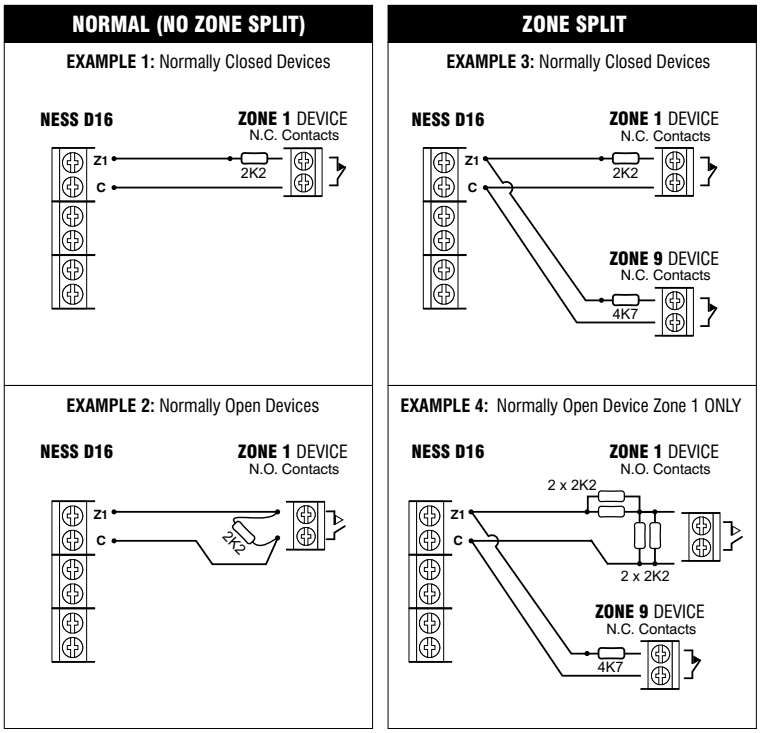
The monitoring resistors must be wired in parallel, making this zone splitting arrangement suitable for Normal Closed (N.C.) detectors.

PROGRAMMING SEQUENCE:

P68E 1E *toggles the option ON and OFF*

OFF: No Zone Split
ON: Zone split enabled

CONNECTION DIAGRAMS



Normally Open (N.O.) wiring is possible only on Zones 1 to 8. This is done by splitting the 2K2 resistor into 2x 1K1 resistors, joining them in series, and then placing the N.O. contact across one of the 1K1 resistors. (Make a 1K1 resistor by wiring 2x 2K2 resistors in parallel).

Option No.	Description	ZONE SPLIT (D16 only) 1E	3K3 resistors 2E	3E	4E	Radio Key arming unsealed warning 5E	24hr zone FIRE SIREN sound 6E	7E	QUIET CHIRPS on arm/disarm 8E
P68E	MISC. OPTIONS								

P68E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No 3K3 zone resistors.

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. (External Tamper input always uses a 2K2 resistor).

PROGRAMMING SEQUENCE:

P68E 2E *toggles the option ON and OFF*

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

P68E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Radio Key siren warning disabled.

RADIO KEY ARMING, UNSEALED ZONE WARNING

Setting this option ON allows a 2 second SIREN warning if there is an unsealed zone in an Area Armed by a Radio Key.

PROGRAMMING SEQUENCE:

P68E 5E *toggles the option ON and OFF*

OFF: Radio Key arming, siren warning disabled
ON: Radio Key arming, siren warning enabled

P68E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No 24hr Fire siren sound.

NOTES
• The keypad key sequence for FIRE (3 E) always outputs the FIRE siren sound.

24HR ZONE FIRE SIREN SOUND

This option changes the siren sound when a 24hr zone is triggered.

PROGRAMMING SEQUENCE:

P68E 6E *toggles the option ON and OFF*

OFF: Fire siren sound disabled
ON: Fire siren sound enabled

P68E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Quiet Chirps disabled.

RELATED OPTIONS
P64E 4E Radio Key Chirps.
P69E 5E Monitor Arm by Radio Key.
P120E 2E Monitor Arm chirps.
P120E 3E Radio Key AUX button arms Monitor Mode.

QUIET CHIRPS ON ARM/DISARM

This quietens the siren chirps that are made whenever keyswitch or radio key Arming or Disarming is used.

(Arm/Disarm Chirps must be enabled at P64E 4E).

PROGRAMMING SEQUENCE:

P68E 8E *toggles the option ON and OFF*

OFF: Quiet Chirps disabled
ON: Quiet Chirps enabled

Option No.	Description	1E ARM1 pulse output	2E ARM2 pulse output	3E Quiet Monitor siren	4E 6 beeps on arming	5E Radio Key arming of Monitor Mode	6E Disable Mains Fail alarm	7E	8E
P69E	MISC. OPTIONS 2								

P69E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: ARM1 output toggles.

NOTES
• This is useful as a Smoke Detector reset output with an optional external relay.

RELATED OPTIONS
P60E 8E Delay ARM1/ARM2 outputs
P123E 1E, AUX3 output when Area1 armed.

AUX3 (ARM1) PULSE OUTPUT

This option selects the AUX3 output to pulse on for 2 seconds whenever arming or disarming of Area1. (The AUX3 output normally toggles when arming/disarming).

Note also that when Arming with the P60E 8E option selected that the pulse will occur at the end of Exit Time.

This option only applies when AUX3 output is enabled as Arm1 output, (P123E 1E on).

PROGRAMMING SEQUENCE:

P69E 1E *toggles the option ON and OFF*

OFF: AUX3 output toggles
ON: AUX3 output pulses

P69E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: ARM2 output toggles.

NOTES
• This is useful as a Smoke Detector reset output with an optional external relay.

RELATED OPTIONS
P60E 8E Delay ARM1/ARM2 outputs
P124E 1E, AUX4 output when Area2 armed.

AUX4 (ARM2) PULSE OUTPUT

This option selects the AUX4 output to pulse on for 2 seconds whenever Arming or Disarming of Area2.

(The AUX4 output normally toggles when arming/disarming).

Note also that when arming with the P60E 8E option selected that the pulse will occur at the end of Exit Time.

This option only applies when AUX4 output is enabled as Arm2 output, (P124E 1E on).

PROGRAMMING SEQUENCE:

P69E 2E *toggles the option ON and OFF*

OFF: AUX4 output toggles
ON: AUX4 output pulses

P69E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Normal siren sound in Monitor Mode.

NOTES
• This does not affect the RESET output.

QUIET MONITOR SIREN

This option selects the 'Quiet Siren' sound in Monitor 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 Monitor Mode
ON: Quiet Siren sound in Monitor Mode

P69E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Keypad gives 3 beeps on Arming.

NOTES
• The keypad beeps on Arm/Disarm when Arming/Disarming by keypad, keyswitch or by Radio Key.

6 BEEPS ON ARMING

Normally the keypad/s onboard SONALERT gives 3 beeps when the panel is armed. Turning this option ON will give 6 keypad beeps when Arming.

PROGRAMMING SEQUENCE:

P69E 4E *toggles the option ON and OFF*

OFF: Keypad gives 3 beeps on Arming
ON: Keypad gives 6 beeps on Arming

P69E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Radio Keys cannot Arm Monitor Mode.

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

RELATED OPTIONS
P51E Program Monitor zones.
P63E Monitor Mode output mapping.
P64E 1E Brief Monitor alarm.
P64E 3E Monitor zones have Entry Delay2.
P64E 4E Radio Key Chirps.
P69E 3E Quiet Monitor siren.
P69E 5E Monitor Arm by Radio Key.
P120E 2E Monitor arm chirps by radio key.
P120E 3E Radio Key AUX button arms monitor mode.
P120E 6E Smart Beeps for Monitor and Day zones.

MONITOR ARMING BY RADIO KEY ON/OFF BUTTONS

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

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

PROGRAMMING SEQUENCE:

P69E 5E *toggles the option ON and OFF*

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

OPERATION:

Panel version 4

Press the Radio Key OFF button twice within 4 seconds.

Panel version 4.5 and later

- Press the Radio Key OFF button twice within 4 seconds.
or.... - Press the Radio Key ON button twice within 5 seconds.

See page 20 for Monitor operation.

P69E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Mains Fail alarm normal.

NOTES
This does not affect Dialler mains fail reporting or saving to the History memory or operation of the Mains Fail output on the Output Expander.

DISABLE MAINS FAIL ALARM

When set ON, a Mains Fail alarm is: 1. Not displayed on the keypad, 2. Does not give warning beeps, 3. 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

Option No.	Description	Default
P70E	TELEPHONE NUMBER 1 - PRIMARY	
P71E	TELEPHONE NUMBER 2 - SECONDARY	
P80E	TELEPHONE NUMBER 3 - TEST CALLS	
P81E	TELEPHONE NUMBER 4 - CALLBACK FOR UPLOAD	
P00E	FOLLOW-ME TELEPHONE NUMBER - For audible dialling	
P72E	ACCOUNT NUMBER 1	0000
P73E	ACCOUNT NUMBER 2	0000

P70E, P71E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
No telephone numbers.

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

• If telephone number 3 is disabled, all test calls are made on telephone number 1&2

• Any keypress will stop 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

SPECIAL FUNCTIONS FOR ALL TELEPHONE NUMBERS

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	DISPLAYED ON LCD DISPLAY
PAUSE (1.6sec)	ARM Key	12
* (Star)	MONITOR Key	10
# (Hash)	EXCLUDE Key	11

P72E, P73E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
P72E Account No.1: 0000
P73E Account No.2: 0000

RELATED OPTIONS
P79E Account No.2 zones
Also see page 39, Hex Client Codes.

ACCOUNT NUMBER 1 & 2

Account numbers for identifying the panel to the Central Station. Area 1 Open/Close reports will report on Account No.1 and Area 2 Open/Close reports will report on Account No.2.

Zone Alarms can be assigned to report on either Account Number as set by Option P79E.

All miscellaneous events (eg. Tampers, Mains Fail) will report on Account No. 1.

PROGRAMMING SEQUENCE:

P72E (or P73E) *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 Account No.1 to be 1239:
P72E1239E

HEX CLIENT CODE NOTES

Note 1: If using the Ness LED keypad for programming, the Hex digits will not be displayed but are still programmed.

Note 2: Hex digit A is not allowed.

Note 3: Entering Hex digits by keypad applies to D16 V4.6 and later. Previous D16 versions by using NessComms Up/download software V4.62 or later.

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	DISPLAYED ON LCD DISPLAY
B	* Key	11
C	ARM Key	12
D	MONITOR Key	13
E	EXCLUDE Key	14
F	MEMORY key	15

P80E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
No telephone numbers.

RELATED OPTIONS
P89E 1E Enable test calls.
P83E Test call interval.
P84E Test call start delay.

TELEPHONE NUMBER 3
TEST CALLS

Phone Number 3 is used to send Test Calls. If it is not programmed then Test Calls are sent using Telephone No 1 & 2.

PROGRAMMING SEQUENCE:

P80E *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.3 to be 03 2468 1234:
P80E0324681234E

P81E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
No telephone numbers.

RELATED OPTIONS
P90E 8E Enable Callback.

TELEPHONE NUMBER 4 – CALLBACK

Phone Number 4 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.4 is displayed one digit at a time*

P00E

PROGRAM MODE LEVEL
User, Installer, Remote by PC.

FACTORY DEFAULT
No telephone numbers.

NOTES
• If the Follow Me telephone number is disabled, all audible format calls are made on telephone numbers 1 & 2.

RELATED OPTIONS
P86E 3E Audible DTMF format.
P86E 4E Audible Pulse format.
P86E 5E Contact ID + Audible DTMF.
P86E 6E Contact ID + Audible Pulse.

FOLLOW ME TELEPHONE NUMBER

The Follow Me telephone number is only used in Audible Dialling mode. (If P86E 3E, 4E, 5E or 6E are on).

The Follow Me telephone number can be programmed in User Program Mode. If the Follow Me number is programmed, then the primary & secondary numbers are ignored.

IF P86E 3E or 4E ARE ENABLED (AUDIBLE MONITORING)
If the Follow Me number is programmed, the primary & secondary numbers are ignored.

IF P86E 5E or 6E ARE ENABLED (CONTACT ID + AUDIBLE)
The telephone numbers programmed at P70E & P71E will be used to send the mesage to the central station. The message is also repeated in audible format to the telephone number (if any) programmed at P00E.

PROGRAMMING SEQUENCE:

P00E *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*

Option No.	Description	ZONES 1–8 (D8 & D16) 1	2	3	4	5	6	7	8	ZONES 9–16 (D16) 9	10	11	12	13	14	15	16
P74E	REPORT ZONE ALARMS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P76E	REPORT ZONE RESTORALS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
P78E	MULTIPLE ZONE ALARMS																
P79E	ACCOUNT NUMBER 2 ZONES																

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
No zones report Multiple Alarms.

NOTES
• Only zones that have previously sent an Alarm will send a Restoral.

• **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

P79E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
none

ACCOUNT NO.2 ZONES

Zones selected to be Account No.2 zones will report their Alarms, Restorals and Excludes on Client code 2.

PROGRAMMING SEQUENCE:

P79E [Zone No]E *toggles the option ON and OFF*

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 DEFAULT	RESTORAL DEFAULT	D8		D16	
			ALARM	RESTORAL	ALARM	RESTORAL
Duress		ON	P75E 1E	P77E 1E	P75E 1E	P77E 1E
Medical		ON	P75E 2E	P77E 2E	P75E 2E	P77E 2E
KP Panic & KS Panic	ON	ON	P75E 3E	P77E 3E	P75E 3E	P77E 3E
Fire		ON	P75E 4E	P77E 4E	P75E 4E	P77E 4E
Panel tamper	ON	ON	P75E 5E	P77E 5E	P75E 5E	P77E 5E
External tamper	ON	ON	P75E 6E	P77E 6E	P75E 6E	P77E 6E
Keypad Tamper	ON	ON	P75E 7E	P77E 7E	P75E 7E	P77E 7E
Exit Installer Mode		ON	P75E 8E	P77E 8E	P75E 8E	P77E 8E
Radio Tamper	ON	ON	P92E 1E	P93E 1E	P75E 9E	P77E 9E
Radio Panic	ON	ON	P92E 2E	P93E 2E	P75E 10E	P77E 10E
Radio Battery		ON	P92E 3E	P93E 3E	P75E 11E	P77E 11E
Supervision fail		ON	P92E 4E	P93E 4E	P75E 12E	P77E 12E
Panel battery		ON	P92E 5E	P93E 5E	P75E 13E	P77E 13E
Mains fail		ON	P92E 6E	P93E 6E	P75E 14E	P77E 14E
[not used]		ON	P92E 7E	P93E 7E	P75E 15E	P77E 15E
[not used]		ON	P92E 8E	P93E 8E	P75E 16E	P77E 16E

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.

Note the different program option numbers for the D8 and D16.

PROGRAMMING SEQUENCE:

PxxE

1E–8E or 1E–16E *toggles the option ON and OFF*

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

P82E 1E–4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
4E, ON: Always send Restoral on Disarm.

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 selct 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	Disable Dialler 1E	Contact ID Format 2E	Audible DTMF format 3E	Audible PULSE format 4E	Contact ID + Audible DTMF 5E	Contact ID + Audible DTMF 6E	7E	8E
P86E	REPORTING FORMATS		ON						

P86E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
Off: dialler enabled.

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

• Only one option in the range P86E 1E–6E is allowed to be ON.

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 enabled.

NOTES
• Only one option in the range P86E 1E–6E is allowed to be 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 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• Only one option in the range P86E 1E–6E is allowed to be ON.

AUDIBLE DTMF FORMAT

For Audible Monitoring to any telephone or mobile phone. The last digit of the Account number and the zone alarm are sent in Audible DTMF format.

The message is repeated for 45 seconds or until kissed-off by the receiving telephone.

PROGRAMMING SEQUENCE:

P86E 3E *turns the option ON*

ON: Audible DTMF format enabled

P86E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• Only one option in the range P86E 1E–6E is allowed to be ON.

• This is the best option to select for Audible Monitoring.

AUDIBLE PULSE FORMAT

For Audible Monitoring to any telephone or mobile phone. The last digit of the Account number and the zone alarm are sent in Audible PULSE format.

The message is repeated for 45 seconds or until kissed-off by the receiving telephone.

PROGRAMMING SEQUENCE:

P86E 4E *turns the option ON*

ON: Audible PULSE format enabled

P86E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• Only one option in the range P86E 1E–6E is allowed to be ON.

CONTACT ID + AUDIBLE DTMF FORMAT

For simultaneous Central Station and Audible Monitoring.

The alarm message will be sent to the Central Station on the Primary telephone number and then in audible DTMF format to the Follow Me telephone number.

PROGRAMMING SEQUENCE:

P86E 5E *turns the option ON*

ON: Contact ID + Audible DTMF format enabled

P86E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• Only one option in the range P86E 1E–6E is allowed to be ON.

CONTACT ID + AUDIBLE PULSE FORMAT

For simultaneous Central Station and Audible Monitoring.

The alarm message will be sent to the Central Station on the Primary telephone number and then in audible PULSE format to the Follow Me telephone number.

PROGRAMMING SEQUENCE:

P86E 6E *turns the option ON*

ON: Contact ID + Audible PULSE format enabled

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 56)

zz = Zone ID (1 to 16)

aa = 01 Area 1

aa = 02 Area 2

aa = 01 Monitor 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 16 Alarm	ssss 18	q	**130**	aa	001–016	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
External Tamper	ssss 18	q	**137**	01	040	k
Internal Tamper	ssss 18	q	**137**	01	041	k
Keypad Tamper	ssss 18	q	**137**	01	042	k
Radio Sensor Supervision	ssss 18	q	**381**	01	4zz	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 1-16 Manual Exclude	ssss 18	q	**573**	aa	001-016	k
Zone 1-16 Auto Exclude	ssss 18	q	**380**	aa	001-016	k

Keyswitch arming is identified as User 57. Shortcut arming is identified as User 58.

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: Alternate Dial.

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: Dial only with dial tone.

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: 4 dialling attempts.

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.

NUMBER OF 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	AREA1 open/close report 1E	AREA2 open/close report 2E	Chirp siren on kiss-off 3E	Flash strobe on kiss-off 4E	Forced opening report 5E	Delay closing report 6E	Manual exclude report 7E	Auto exclude report 8E
P88E	OPEN/CLOSE REPORTING OPTIONS					ON		ON	ON

P88E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No AREA1 Open/Close reports.

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 57. Shortcut arming is identified as User 58.

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: No AREA2 Open/Close.

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 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Siren Chirp on kiss-off.

RELATED OPTIONS
P88E 4E Flash Strobe on kiss-off.

SIREN CHIRP ON KISS-OFF

Selects a 2 Second Siren burst on a successful Closing report. This is used to give audible indication that the dialler has successfully sent the Arming report.

PROGRAMMING SEQUENCE:

P88E 3E *toggles the option ON and OFF*

OFF: No Siren Chirp on kiss-off
ON: Siren Chirp on kiss-off enabled

P88E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Strobe Flash on kiss-off.

RELATED OPTIONS
P88E 3E Siren Chirp on kiss-off.

STROBE FLASH ON KISS-OFF

Selects a 2 Second Strobe on a successful Closing report. This is used to give visual indication that the dialler has successfully sent the Arming report.

PROGRAMMING SEQUENCE:

P88E 4E *toggles the option ON and OFF*

OFF: No Strobe Flash on kiss-off
ON: Strobe Flash on kiss-off enabled

P88E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON: Forced opening Reports enabled

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 selected OFF.

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 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Closing Reports sent on Arming.

RELATED OPTIONS
P88E 1E AREA1 Open/Close reports.
P88E 2E AREA2 Open/Close reports.

DELAY CLOSING REPORT

If selected ON, Closing reports (if enabled) are sent at the end of Exit Time. Normally, Closing reports are sent immediately on arming.

PROGRAMMING SEQUENCE:

P88E 6E *toggles the option ON and OFF*

OFF: Closing Reports sent on Arming
ON: Closing Reports sent at end of Exit Time

P88E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON: Manual Exclude Reports enabled.

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: Auto Exclude Reports enabled.

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	Enable Test Calls 1E	Mains Report Delay 2E	Listen-in to dialler 3E	Swinger shutdown 4E	Line Fault monitor 5E	6E	Internal timing 7E	8E
P89E	MISC. REPORTING OPTIONS	ON	ON		ON				

P89E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON: Test Calls enabled.

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 Fail report is delayed.

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: No Listen–In.

NOTES
Use METHOD 1 if you already have the panel box open and have a spare horn speaker on hand.

Use METHOD 2 if the box is closed and you need to quickly listen in to the dialler. Keep in mind that the dialler tones will be heard via any horn speaker/s connected to the Siren output.

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.

There are 2 methods of listening to the dialler.

METHOD 1: Temporarily connect a horn speaker to the LISTEN pins on the main board. This method required no programming options to be set - the LISTEN pins are always active.

METHOD 2: This method requires option P89E 3E to be turned on. Listen-In is enabled for a minimum of 4 minutes after exiting Program Mode.

During Method 2 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: Method 2 Listen-In disabled
ON: Method 2 Listen-In enabled

P89E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON: Swinger Shutdown enabled.

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

SWINGER SHUTDOWN

Limits the number of calls made by a zone alarm when Multiple Zone Alarms are enabled for that zone.

If enabled, multiple reports are limited to three per zone.

PROGRAMMING SEQUENCE:

P89E 4E *toggles the option ON and OFF*

OFF: No Swinger Shutdown (unlimited multiple reports)
ON: Swinger Shutdown enabled (maximum 3 reports per zone)

P89E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Line Fault Monitor.

RELATED OPTIONS
P122E 5E Line Fault to AUX2.

LINE FAULT MONITOR

When this option is enabled, the telephone line is regularly tested. If the telephone line is not found, the Line light will commence flashing.

PROGRAMMING SEQUENCE:

P89E 5E *toggles the option ON and OFF*

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

P89E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Clock uses mains frequency timing.

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 Enable First Call Mode	3E Remote Arming	4E Remote Disarming	5E Remote AUX control	6E Remote status reporting	7E Remote event reporting	8E Callback Mode
P90E	UPLOAD/DOWNLOAD OPTIONS								

P90E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Remote Access.

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 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: Second Call Mode enabled.

NOTES
If Callback is enabled (P90E 8E is on), then First Call mode is disabled.

RELATED OPTIONS
P91E Required Rings.

ENABLE "FIRST CALL" MODE

For remote access the panel can answer incoming telephone calls on either the First or Second Call.

First Call Mode: The panel answers a telephone call after the number of Rings set by P91E. Used if the panel has the telephone line exclusively or distinctive telephone ring signal is being used.

Second Call Mode: The panel answers on the second telephone call. The first telephone call must ring for at least the number of rings set by P91E. The second call to the panel must be made after a wait of between 10 and 50 seconds. Second Call mode is used to stop other equipment such as fax machines from answering the call.

PROGRAMMING SEQUENCE:

P90E 2E *toggles the option ON and OFF*

OFF: Second Call Mode enabled
ON: First Call Mode enabled

P90E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Remote Arming.

NOTES
• Remote Access must also be enabled.

RELATED OPTIONS
P90E 1E Enable Upload/Download.
See page 71 for details on Remote Operation by telephone.

REMOTE ARMING

Allows the remote Arming of the control panel using a standard DTMF telephone (or mobile phone) from anywhere in the world.

PROGRAMMING SEQUENCE:

P90E 3E *toggles the option ON and OFF*

OFF: No Remote Arming
ON: Remote Arming enabled

P90E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Remote Disarming.

REMOTE DISARMING

Allows the remote Disarming of the control panel using a standard DTMF telephone (or mobile phone) from anywhere in the world.

PROGRAMMING SEQUENCE:

P90E 4E *toggles the option ON and OFF*

OFF: No Remote Disarming
ON: Remote Disarming enabled

P90E 5E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Remote AUX control.

REMOTE AUX CONTROL

Enables the remote turn ON/OFF of the AUX1, 2, 3 and 4 outputs using a standard DTMF telephone (or mobile phone) from anywhere in the world.

PROGRAMMING SEQUENCE:

P90E 5E *toggles the option ON and OFF*

OFF: No Remote AUX control
ON: Remote AUX control enabled

P90E 6E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Remote Status Reporting.

REMOTE STATUS REPORTING

Enables Remote Status Reporting

PROGRAMMING SEQUENCE:

P90E 6E *toggles the option ON and OFF*

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

P90E 7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Remote Event Reporting.

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: No Callback.

RELATED OPTIONS
P90E 1E Enable Upload/Download.
P81E Telephone Number 4, 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 to 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.

Remote Access can work in First Call or Second Call modes, see option P90E 2E.

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*

		ZONES 1–8 **(D8 & D16)**								ZONES 9–16 **(D16)**							
Option No.	Description	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P94E	"NO MEMORY WARNING"ZONES																

P94E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
no zones selected.

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

NO MEMORY WARNING ZONES

Select zones that do not flash the Memory indicator on the keypad/s. The alarm still goes into memory and can be seen when reviewing.

PROGRAMMING SEQUENCE:

P94E 1E-16E *toggles the option ON and OFF*

[Zone No]E OFF: Memory Warning operates normally for that zone
[Zone No]E ON: Memory Warning is disabled for that zone

SPECIAL 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 SOFTWARE VERSION

This function displays the panel software version when in program mode. Displayed in decimal format by the zone LEDs.
Example, version 5.4 is displayed by flashing 5 followed by 4.
This test operates in User and Installer program mode.

P999999999E *(eight 9's) Displays software version*

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 or 1–16.

(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 the options P00E, P26E–P94E, P99E, P117E–P125E, P130E–P135E, P281E–P287E, P301E, P303E, P304E, P305E, P311–P319E, P321E–P329E, P331–P339E. (This includes 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, (this means all Keypad Codes, Radio Keys and Access cards) and restores User Code 1 to the factory setting of 123.

P201E – P256E are defaulted (User Codes 1–56)

PROGRAMMING SEQUENCE:
P98E *Clears User Codes*

P99E

PROGRAM MODE LEVEL
Installer, Remote by PC.

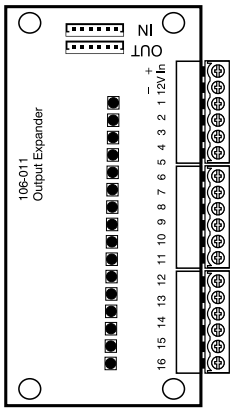
FACTORY DEFAULT
000000

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 72–74.



Option No.	Description	1E Enable Output Expander	2E Alternate Format	3E Day Zone follower	4E Output Exclude	5E	6E	7E	8E
P117E	OUTPUT EXPANDER OPTIONS								

P117E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Output Expander.

NOTES
• Up to 2 Output Expander boards can be used per D8 or D16 panel.

ENABLE OUTPUT EXPANDER

Selecting this option enables the optional 106-011 Output Expander.

When this option is enabled, the J5 connector on the main board will only drive the Output Expander. All AUX outputs are available on the Output Expander.

See the table below for a description of each output.

PROGRAMMING SEQUENCE:

P117E 1E *toggles the option ON and OFF*

OFF: No Output Expander
ON: Output Expander enabled

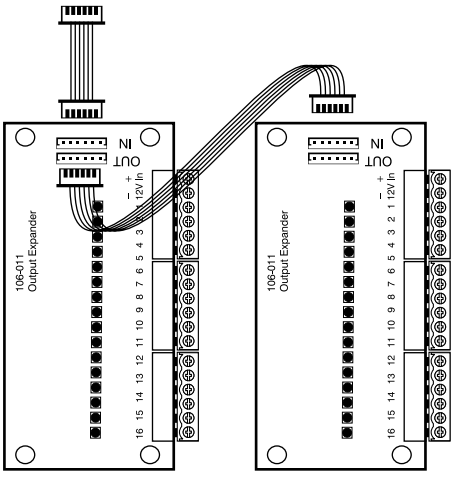
P117E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Alternate Format.

NOTES
• The 2nd Expander plugs into the 6-way header on the 1st Expander. This 6-way header on the Expander cannot be used for any other purpose.

• IF ALL 16 ZONES (D16) and the AUX outputs are required then 2 Expanders are needed - in which case select this option so that it best suits the installation wiring.



ALTERNATE EXPANDER FORMAT

Selecting this option changes the alarms on the 1st and 2nd Output Expander.

With the option OFF: Zone 1 to Zone 16 are on the 1st Expander. The AUX, ARM and other outputs are on the 2nd Expander. Use this option when only Zone outputs are required and only one Expander is used.

With the option ON: Zones 1 to Zone 8 are on the 1st Expander. The AUX, ARM and other outputs are on the first Expander. Zones 9 to Zone 16 are on the 2nd Expander. Use this option when a variety of outputs are needed using only one Expander.

PROGRAMMING SEQUENCE:

P117E 2E *toggles the option ON and OFF*

OFF: No Alternate Format
ON: Alternate Format enabled

Alternate format disabled P117E 2E = OFF		
OUTPUT	**EXPANDER 1** (Or if only using one expander)	**EXPANDER 2**
1	Zone 1	User Code 9
2	Zone 2	User Code 10
3	Zone 3	User Code 11
4	Zone 4	User Code 12
5	Zone 5	User Code 13
6	Zone 6	User Code 14
7	Zone 7	User Code 15
8	Zone 8	Tel. Line Fail
9	Zone 9	Aux 3
10	Zone 10	Aux 4
11	Zone 11	Aux 1
12	Zone 12	Aux 2
13	Zone 13	Arm Monitor
14	Zone 14	Mains Fail
15	Zone 15	Battery Fail
16	Zone 16	Ext. Tamper

Alternate format enabled P117E 2E = ON		
OUTPUT	**EXPANDER 1** (Or if only using one expander)	**EXPANDER 2**
1	Zone 1	User Code 9
2	Zone 2	User Code 10
3	Zone 3	User Code 11
4	Zone 4	User Code 12
5	Zone 5	User Code 13
6	Zone 6	User Code 14
7	Zone 7	User Code 15
8	Zone 8	Tel. Line Fail
9	Arm Area 1	Zone 9
10	Arm Area 2	Zone 10
11	Aux 1	Zone 11
12	Aux 2	Zone 12
13	Arm Monitor	Zone 13
14	Mains Fail	Zone 14
15	Battery Fail	Zone 15
16	Ext. Tamper	Zone 16

P117E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Day Zone Follower.

NOTES
• Day zone outputs are turned off when the D16 is in Monitor or Area modes.

DAY ZONE FOLLOWER

This option allows Day zones to appear on the Zone Outputs.

In Day mode the Zone Output will follow the state of any active Day zone. This occurs independently of the Program Zone selections P118E (Output Expander Zone Follower) and P119E (Output Expander Zone Latch).

PROGRAMMING SEQUENCE:

P117E 3E *toggles the option ON and OFF*

OFF: No Day Zone Follower
ON: Day Zone Follower enabled

P117E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Output Exclude.

OUTPUT EXCLUDE

This allows zones selected for Manual Exclusion (not Auto Exclusion) to also Exclude the Expander Zone outputs. With this option ON, and if a zone has been manually excluded then it will not signal an alarm on the Expander.

PROGRAMMING SEQUENCE:

P117E 4E *toggles the option ON and OFF*

OFF: No Output Exclude
ON: Output Exclude enabled

		ZONES 1–8 **(D8 & D16)**								ZONES 9–16 **(D16)**							
Option No.	Description	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P118E	OUTPUT EXPANDER ZONES																
P119E	OUTPUT EXPANDER ALARM ZONES																

P118E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No Output Expander zones.

NOTES
• Selecting a zone in both P118 & P119 options effectively gives pulsed outputs whenever that zone alarms.

OUTPUT EXPANDER ZONES

This selects the zones that will be output whenever the zone is unsealed. When the zone reseals the output automatically goes off.

Additionally if a zone is also selected in P119 (to zone latch) then an output will only occur whenever a zone is in alarm and is also unsealed. In this case when the zone reseals the output automatically goes off again. A further zone unseal will turn the zone Expander output On again.

PROGRAMMING SEQUENCE:

P118E 1E-16E *toggles the options ON and OFF*

[Zone No]E OFF: Output Expander disabled for that zone
[Zone No]E ON: Output Expander enabled for that zone

P119E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF: No Output Expander zone latch.

OUTPUT EXPANDER ALARM ZONES

This selects the zones that will be output whenever the zone is latched into alarm. The output goes off only when the alarm system is reset.

Additionally if a zone is also selected in P118 (to zone follow) then an output will only occur whenever a zone is in alarm and is also unsealed. (See P118 above).

PROGRAMMING SEQUENCE:

P119E 1E-16E *toggles the option ON and OFF*

[Zone No]E OFF: Output Expander zone alarm disabled for that zone
[Zone No]E ON: Output Expander zone alarm enabled for that zone

Option No.	Description	Latched keyswitch input 1E	Monitor Arm chirps 2E	Radio Key AUX arms Monitor 3E	Keyswitch ARM only 4E	Keyswitch DISARM only 5E	Smart Beep 6E	7E	8E
P120E	OTHER OPTIONS								

PROGRAM MODE LEVEL
Installer, Remote by PC.

PROGRAMMING SEQUENCE:

P120E [1E–6E] *Turns options on or off.*

P120E 1E

RELATED OPTIONS
P60E 2E, 3E Keyswitch options.

LATCHED KEYSWITCH

This option enables the use of a latched, (2 position on/off), keyswitch. Keyswitch operation must first be enabled using options P60E 2E, 3E, page 24.

NOTE: ENABLING LATCHED KEYSWITCH DISABLES ALL OTHER METHODS OF ARMING AND DISARMING (KEYPAD, RADIO KEY, CARD).

OFF: No Latched Keyswitch. (Factory default).
ON: Latched Keyswitch enabled.

P120E 2E

NOTE. This option enables Radio Key Monitor Arming chirps regardless of the state of P64E 4E (Radio Key siren chirps).

MONITOR ARM CHIRPS BY RADIO KEY

This option enables siren chirps when arming and disarming Monitor Mode with a Radio Key.

OFF: No Monitor Arm chirps. (Factory default).
ON: Monitor Arm chirps enabled.

P120E 3E

NOTE
This option enables Radio Key Monitor Arming chirps regardless of the state of P64E 4E (Radio Key siren chirps).

RELATED OPTIONS
P69E 5E Radio key Monitor arm by ON/OFF buttons.

RADIO AUX BUTTON ARMS MONITOR MODE

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

When this option is enabled, options P122E 3E & 4E will be disabled, (AUX button to Aux2 options. See page 58).

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

OFF: No AUX button Monitor Arm. (Factory default).
ON: AUX button Monitor Arm enabled.

P120E 4E

RELATED OPTIONS
P120E 1E Latched Keyswitch.
P60E 2E, 3E Keyswitch options.

KEYSWITCH DISARM ONLY

Converts the use of keyswitch operation using P60E 2E and 3E to only DISARM either from Area or Monitor mode. Keyswitch operation must first be enabled using options P60E 2E, 3E, page 22.

OFF: Keyswitch arms and disarms. (Factory default).
ON: Keyswitch disarms only.

P120E 5E

RELATED OPTIONS
P120E 1E Latched Keyswitch.
P60E 2E, 3E Keyswitch options.

KEYSWITCH ARM ONLY

Converts the use of keyswitch operation using P60E 2E and 3E to only ARM either from Area or Monitor mode.

Keyswitch operation must first be enabled using options P60E 2E, 3E, page 24 .

OFF: Keyswitch arms and disarms. (Factory default).
ON: Keyswitch arms only.

P120E 6E

NOTES
• The zone causing the event is saved and can be identified by viewing MEMORY. Only one of the same consecutive zone warnings is saved, although the MEMORY display will flash each time (unless disabled by P94E option).

• Smart Beeps work in addition to any other outputs mapped to Monitor and Day alarms, as programmed by options P63E 1E–8E.

• Smart Beeps work in conjunction with any other Monitor and Day mode outputs, (as set by options P63E 1E–8E).

SMART BEEPS

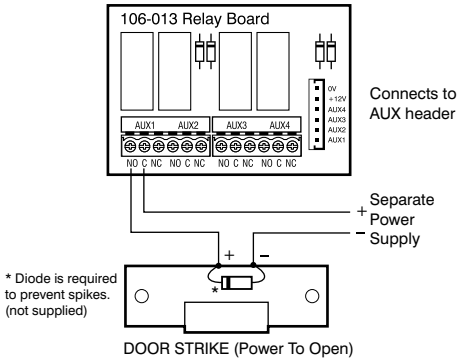
Smart Beeps are available in Brief Monitor or Brief Day mode to identify zones by keypad beeps.

When a Monitor zone or Day zone is triggered, the zone number is slowly beeped out, followed by 2 seconds of silence. This is repeated 3 times and can be stopped by another beep (such as keypress).

If the zone has entry delay you will hear the Smart Beeps sequence once when the zone is triggered and again at the end of entry delay. If Entry Beeps are disabled (P60E 1E), Smart Beeps will only be heard at the end of entry delay.

Smart Beeps use the keypad/s onboard sonalert, so option P63E 3E and/or 7E must be on to enable the sonalert output for Monitor alarms and Day alarms.

OFF: Smart Beeps disabled. (Factory default).
ON: Smart Beeps enabled.



Recommended wiring of an electric door strike using a relay and separate power supply.

AUX1 OUTPUT OPTIONS
Sets the behaviour of the Aux1 output.
Only one option can be selected.

Option No.	Description	1E Zone alarms to Aux1	2E Zone Supervision alarms to Aux1	3E Radio Key Panic TOGGLES Aux 1	4E Radio Key Panic PULSES Aux1	5E	6E Enable phone control of Aux1	7E DOTL alerts to Aux1	8E Reader output pulses Aux1
P121E	AUX1 OUTPUT OPTIONS	ON							

PROGRAM MODE LEVEL
Installer, Remote by PC.

PROGRAMMING SEQUENCE:

P121E [1E–8E] *Turns an option on. Only one option can be on.*

P121E 1E

RELATED OPTIONS
P58E Aux1 zones.

ZONE ALARMS TO AUX1

With this option ON, zones selected in P58E will turn on Aux1 when they go into alarm. The Aux1 output turns off when the panel is disarmed/reset.

1E OFF: Zone Alarms do not turn on Aux1.
1E ON: Zone Alarms turn on Aux1. (Factory default).

P121E 2E

RELATED OPTIONS
P65E, P66E, P67E Radio Supervision.

ZONE SUPERVISION ALARMS TO AUX1

Setting this option turns the AUX1 output ON when a SUPERVISED RADIO alarm is triggered. The Aux1 output turns off when the panel is disarmed/reset.

2E OFF: Zone Supervision Alarms do not turn on Aux1. (Factory default).
2E ON: Zone Supervision Alarms turn on Aux1

P121E 3E

NOTES
When this option is enabled, the Radio Key/s Panic button will no longer sound alarms or report to the dialler.

RADIO KEY PANIC TOGGLE

When this option is on, Radio Key/s Panic button will TOGGLE the Aux1 output. The Aux1 output will operate independently of the panel's armed status, ie. disarming does not turn Aux1 off.

3E OFF: Radio Key Panic does not Toggle Aux1. (Factory default).
3E ON: Radio Key Panic Toggles Aux1.

P121E 4E

NOTES
When this option is enabled, the Radio Key/s Panic button will no longer sound alarms or report to the dialler.

RADIO KEY PANIC PULSE

When this option is on, Radio Key/s Panic button will PULSE the Aux1 output, (on for 2 sec).

4E OFF: Radio Key Panic does not Pulse Aux1. (Factory default).
4E ON: Radio Key Panic Pulses Aux1.

P121E 6E

RELATED OPTIONS
P90E 5E, Enable remote Aux control.

ENABLE TELEPHONE REMOTE CONTROL OF AUX1

Enables Aux1 output to be controlled by telephone remote control. P90E 5E must also be enabled. After establishing telephone control of the panel, use telephone key "3" to toggle the output on and off.

6E OFF: Aux1 cannot be controlled by telephone. (Factory default).
6E ON: Aux1 can be controlled by telephone.

P121E 7E

RELATED OPTIONS
P303E DOTL zones.
P304E DOTL timer.

DOOR OPEN TOO LONG (DOTL) ALERTS TO AUX1

This option enables DOTL zones (P303E) to turn on Aux1 when the DOTL Time (P304E) expires.

7E OFF: DOTL alert does not turn on Aux1. (Factory default).
7E ON: DOTL alert turns on Aux1.

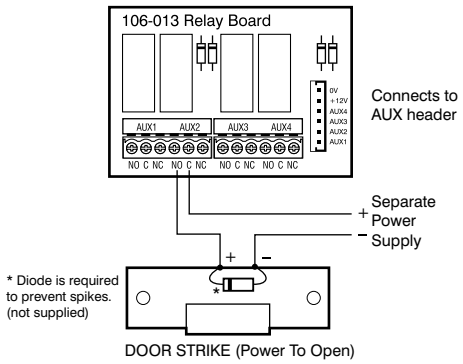
P121E 8E

RELATED OPTIONS
P318E, P328E, P338E, P319E, P329E, P339E.

READER OUTPUT TO AUX1

This option enables an access control reader to pulse Aux1 when a valid access card is presented. Set the reader using P318E, P328E or P338E

8E OFF: No reader output to Aux1. (Factory default).
8E ON: Reader output to Aux1.



Recommended wiring of an electric door strike using a relay and separate power supply.

AUX2 OUTPUT OPTIONS
Sets the behaviour of the Aux2 output.
Only one option can be selected.

Option No.	Description	1E Zone alarms to Aux2	2E Zone Supervision alarms to Aux2	3E Radio Key AUX button TOGGLES Aux2	4E Radio Key AUX button PULSES Aux2	5E Phone line fail to Aux2	6E Enable phone control of Aux2	7E DOTL alerts to Aux2	8E Reader output pulses Aux2
P122E	AUX2 OUTPUT OPTIONS	ON							

PROGRAM MODE LEVEL
Installer, Remote by PC.

PROGRAMMING SEQUENCE:

P122E [1E–8E] *Turns an option on. Only one option can be on.*

P122E 1E

RELATED OPTIONS
P59E Aux2 zones.

ZONE ALARMS TO AUX2

With this option ON, zones selected in P59E will turn on Aux2 when they go into alarm. The Aux2 output turns off when the panel is disarmed/reset.

1E OFF: Zone Alarms do not turn on Aux2.
1E ON: Zone Alarms turn on Aux2. (Factory default).

P122E 2E

RELATED OPTIONS
P65E, P66E, P67E Radio Supervision.

ZONE SUPERVISION ALARMS TO AUX2

Setting this option turns the AUX2 output ON when a SUPERVISED RADIO alarm is triggered. The Aux2 output turns off when the panel is disarmed/reset.

2E OFF: Zone Supervision Alarms do not turn on Aux2. (Factory default).
2E ON: Zone Supervision Alarms turn on Aux2.

P122E 3E

RADIO KEY AUX BUTTON TOGGLE

When this option is on, Radio Key/s AUX button will TOGGLE the Aux2 output. The Aux2 output will operate independently of the panel's armed status, ie. disarming does not turn Aux2 off.

3E OFF: Zone Supervision Alarms do not turn on Aux2. (Factory default).
3E ON: Zone Supervision Alarms turn on Aux2.

P122E 4E

RADIO KEY AUX BUTTON PULSE

When this option is on, Radio Key/s AUX button button will PULSE, (on for 2 sec), the Aux2 output.

4E OFF: Radio Key AUX button does not Pulse Aux2. (Factory default).
4E ON: Radio Key AUX button Pulses Aux2.

P122E 5E

TELEPHONE LINE FAULT TO AUX2

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.

5E OFF: No telephone line fault to Aux2. (Factory default).
5E ON: Telephone line fault to Aux2.

P122E 6E

RELATED OPTIONS
P90E 5E, Enable remote Aux control.

ENABLE TELEPHONE REMOTE CONTROL OF AUX2

Enables Aux2 output to be controlled by telephone remote control. P90E 5E must also be enabled. After establishing telephone control of the panel, use telephone key "4" to toggle the output on and off.

6E OFF: Aux2 cannot be controlled by telephone. (Factory default).
6E ON: Aux2 can be controlled by telephone.

P122E 7E

RELATED OPTIONS
P303E DOTL zones.
P304E DOTL timer.

DOOR OPEN TOO LONG (DOTL) ALERTS TO AUX2

This option enables DOTL zones (P303E) to turn on Aux2 when the DOTL Time (P304E) expires.

7E OFF: DOTL alert does not turn on Aux2. (Factory default).
7E ON: DOTL alert turns on Aux2.

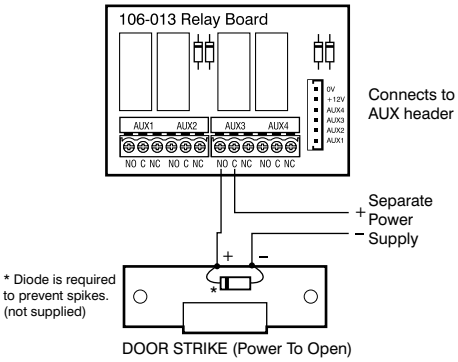
P122E 8E

RELATED OPTIONS
P318E, P328E, P338E, P319E, P329E, P339E

READER OUTPUT TO AUX2

This option enables an access control reader to pulse Aux2 when a valid access card is presented. Set the reader using P318E, P328E or P338E

8E OFF: No reader output to Aux2. (Factory default).
8E ON: Reader output to Aux2.



Recommended wiring of an electric door strike using a relay and separate power supply.

AUX3 OUTPUT OPTIONS
Sets the behaviour of the Aux3 output.
Only one option can be selected.

Option No.	Description	Area1 arm output to Aux3 1E	2E	3E	4E	5E	Enable phone control of Aux3 6E	7E	Reader output pulses Aux3 8E
P123E	AUX3 OUTPUT OPTIONS	ON							

PROGRAMMING SEQUENCE:

P123E [1E–8E] *Turns an option on. Only one option can be on.*

PROGRAM MODE LEVEL
Installer, Remote by PC.

P123E 1E

NOTES
This option makes Aux3 act like the Arm1 output on previous versions of D8/D16.

AREA1 ARMED OUTPUT TO AUX3

When this option is enabled, Aux3 will turn on and off when Area1 is armed and disarmed.

1E OFF: Area1 armed output does not turn on Aux3.
1E ON: Area1 armed output turns on Aux3. (Factory default).

P123E 6E

RELATED OPTIONS
P90E 5E, Enable remote Aux control.

ENABLE TELEPHONE REMOTE CONTROL OF AUX3

Enables Aux3 output to be controlled by telephone remote control. P90E 5E must also be enabled. After establishing telephone control of the panel, use telephone key "5" to toggle the output on and off.

6E OFF: Aux3 cannot be controlled by telephone. (Factory default).
6E ON: Aux3 can be controlled by telephone.

P123E 8E

RELATED OPTIONS
P318E, P328E, P338E, P319E, P329E, P339E.

READER OUTPUT TO AUX3

This option enables an access control reader to pulse Aux3 when a valid access card is presented. Set the reader using P318E, P328E or P338E

8E OFF: No reader output to Aux3. (Factory default).
8E ON: Reader output to Aux3.

AUX4 OUTPUT OPTIONS
Sets the behaviour of the Aux4 output.
Only one option can be selected.

Option No.	Description	Area2 arm output to Aux4 1E	Extension sonalert 2E	3E	4E	5E	Enable phone control of Aux4 6E	7E	Reader output pulses Aux4 8E
P124E	AUX4 OUTPUT OPTIONS	ON							

PROGRAM MODE LEVEL
Installer, Remote by PC

P124E 1E

NOTES
This option makes Aux4 act like the Arm2 output on previous versions of D8/D16.

AREA2 ARMED OUTPUT TO AUX4

When this option is enabled, Aux4 will turn on and off when Area2 is armed and disarmed.

1E OFF: Area2 armed output does not turn on Aux4.
1E ON: Area2 armed output turns on Aux4. (Factory default).

P124E 2E

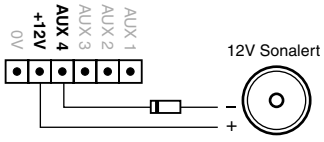
NOTES

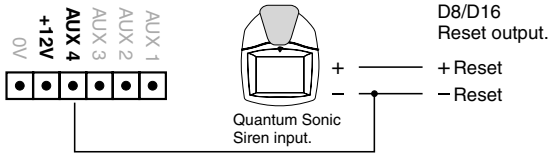
The extension beeper can either be a standard 12V sonalert or wire directly to the Ness Quantum Sonic as shown. Keypad beeps will be heard at low volume from the Quantum Sonic's onboard siren. (Normal siren sound is unaffected).

ENABLE EXTENSION SONALERT

Enables the Aux4 output to duplicate all keypad beeps including keypress beeps. This is useful in cases where, for example, entry beeps or other keypad beeps need to be heard in more than one location on the premises. (Adding an additional keypad would achieve the same effect).

2E OFF: Extension sonalert disabled. (Factory default).
2E ON: Extension sonalert enabled.





P124E 5E

NOTES
P87E 4E should be OFF to enable 10 dialling attempts. This will allow the dialler to communicate via the alternative pathway on the 5th dialling attempt. (Assuming AUX4 has already triggered the backup communications device).

THIS OPTION IS AVAILABLE IN D8X/D16X V5.5 AND LATER

FAIL TO COMMUNICATE OUTPUT

When this option is enabled AUX4 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 AUX4 output is automatically turned off on the next successful communication attempt or when the panel is next disarmed.

5E OFF: Aux4 is not a FAIL TO COMMUNICATE output. (Factory default).
5E ON: Aux4 is a FAIL TO COMMUNICATE output.

P124E 6E

RELATED OPTIONS
P90E 5E, Enable remote Aux control.

ENABLE TELEPHONE REMOTE CONTROL OF AUX4

Enables Aux4 output to be controlled by telephone remote control. P90E 5E must also be enabled. After establishing telephone control of the panel, use telephone key "6" to toggle the output on and off.

6E OFF: Aux4 cannot be controlled by telephone. (Factory default).
6E ON: Aux4 can be controlled by telephone.

P124E 8E

RELATED OPTIONS
P318E, P328E, P338E, P319E, P329E, P339E.

READER OUTPUT TO AUX4

This option enables an access control reader to pulse Aux4 when a valid access card is presented. Set the reader using P318E, P328E or P338E

8E OFF: No reader output to Aux4. (Factory default).
8E ON: Reader output to Aux4.

		ZONES 1–8 **(D8 & D16)**								ZONES 9–16 **(D16)**							
Option No.	Description	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P125E	ENABLE HARDWIRED ZONES	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

P125E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All on.

NOTES
• THIS OPTION APPLIES ONLY TO WIRED ZONES AND HAS NO EFFECT ON RADIO ZONES.

ENABLE HARDWIRED ZONES

This option allows hardwired zone inputs to be enabled or disabled.

Disabled zones are ignored and do not need to be terminated with end of line resistors.

This option has no effect on radio zones.

PROGRAMMING SEQUENCE:

P125E 1E-16E *toggles the options ON and OFF*

[Zone No]E OFF: Output Expander disabled for that zone
[Zone No]E ON: Output Expander enabled for that zone

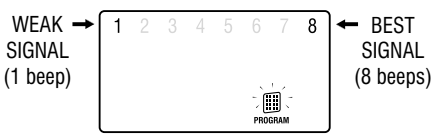
NESS RADIO

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).



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 P201E–P256E. For Radio Devices, options P101E–P116E.

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 (or 4E to test any other transmitter).

RADIO DEVICES OPERATION

ALARM: Any Ness radio device can operate on any zone. Hardwired zones continue to operate in parallel.

Radio Keys can also operate on radio zones for special purposes, but they should normally be used as Radio Codes.

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 2E and 3E options only affect 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).

SUPERVISION: If a zone has the P65E option ON and a radio code has been programmed for that zone, then the supervision is active. This means that the radio detector does not need to have its SUPER enabled (via header link) for the SUPERVISED timeout to occur. (Useful as an inactivity alarm). A zone supervision failure always flashes the identifying ZONE light and the RADIO light.

RADIO SUPERVISION

The purpose of Radio Supervision is to verify the correct operation of Ness Radio PIRs. The Supervision signal from the Radio PIR tells the panel that the device has not been removed from radio range and is in working order.

Non-SUPERVISION Radio PIRs can also be programmed and used with the SUPERVISION TIMERS.

A non-SUPERVISION enabled Radio PIR will transmit signals to the panel only when it has detected an event. Obviously, there is no guaranteed signal period.

In either case, when the allowed time limit is exceeded then a WARNING is first given (if programmed by P66E 3E), and then after 1 minute, the programmed RADIO SUPERVISION ALERTS are generated by the panel.

NOTE: Manually Excluding a Supervised Zone will also disable Radio Supervision for that zone.

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	

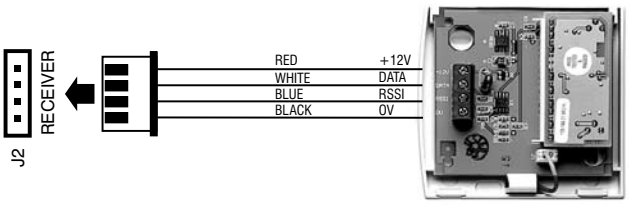
NESS RADIO INTERFACE

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.

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

NESS D8 OR D16 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 radio reception needs to be improved, the optional 100-200 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.

P101E – P116E

PROGRAM MODE LEVEL
Installer.

FACTORY DEFAULT
No Radio Devices programmed.

NOTES

- Radio Device programming is done by 'learning' the code by radio.
- Radio Devices codes 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.
- Late model Ness Radio PIRs (100–663) and Radio Reed Switches (100–662) send Supervision signals.

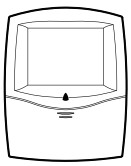
SUPERVISION RELATED OPTIONS
P65E Supervised Radio Zones.
P66E Radio Supervision Alerts.
P67E Radio Supervision Time.
P75E 12E Radio Supervision Fail Report.

RADIO DEVICES - OPTION TABLE

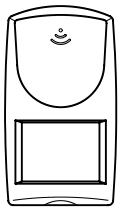
D8 & D16	Zone 1	P101E
	Zone 2	P102E
	Zone 3	P103E
	Zone 4	P104E
	Zone 5	P105E
	Zone 6	P106E
	Zone 7	P107E
	Zone 8	P108E
D16	Zone 9	P109E
	Zone 10	P110E
	Zone 11	P111E
	Zone 12	P112E
	Zone 13	P113E
	Zone 14	P114E
	Zone 15	P115E
	Zone 16	P116E

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).

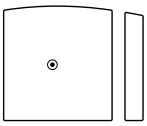
Remember to enable all the devices when programming is completed.



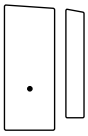
100–691
Ness R12 Radio PIR



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 D8 or D16 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 or 16 radio devices can be assigned to the D8 and D16, (one per zone).

PROGRAMMING SEQUENCE – NO RESTORALS
Suitable for 100–663 R15 Radio PIR, 100–691 R12 Radio PIR, 100–665 Radio Pendant, 100–203 Radio Smoke Detector.

❶ Select a zone using P101E – P116E (options P109E–P116E apply to D16 only).
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:
P101E 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 P101E – P116E
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 **P102E 1E** Restore the reed switch

DELETING A RADIO DEVICE:

❶ Use P101E to P116E 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.

USER CODE OPTIONS TABLE		EXTRA OPTIONS MODE (Exclude Light is on).
USER CODE	**OPTION NO.**	**5E** RADIO CODE
1 (Master)	P201E	
2	P202E	
3	P203E	
4	P204E	
5	P205E	
6	P206E	
7	P207E	
8	P208E	
9	P209E	
10	P210E	
11	P211E	
12	P212E	
13	P213E	
14	P214E	
15	P215E	
16	P216E	
17	P217E	
18	P218E	
19	P219E	
20	P220E	
21	P221E	
22	P222E	
23	P223E	
24	P224E	
25	P225E	
26	P226E	
27	P227E	
28	P228E	
29	P229E	
30	P230E	
31	P231E	
32	P232E	
33	P233E	
34	P234E	
35	P235E	
36	P236E	
37	P237E	
38	P238E	
39	P239E	
40	P240E	
41	P241E	
42	P242E	
43	P243E	
44	P244E	
45	P245E	
46	P246E	
47	P247E	
48	P248E	
49	P249E	
50	P250E	
51	P251E	
52	P252E	
53	P253E	
54	P254E	
55	P255E	
56	P256E	

100–664
Ness RK3
Radio Key

100–067
Ness RK4
Radio Key

100–001
Ness RKP
Radio Keypad

RADIO CODES

Each of the 56 User Codes, except for the Master Code, can be programmed to be Radio Codes. This allows up to 55 Ness Radio Keys to be used for Arming and Disarming of the panel. The Ness RKP Radio Keypad can also be used with the D8/D16, (see the RKP installer manual). 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. (P202E–P256E).**
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 56 as a Radio Code and program a Radio Key.

In Installer Program Mode.

Press **P256E EXCLUDE E 5E EXCLUDE E 1E** then press the OFF button on the Radio Key.

P201E – P256E

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

P101E–P116E Programming Radio Devices.

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 56.

In Installer Program Mode: Press **P256E 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**	04	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

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 04, (2004).

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.*

P300E

PROGRAM MODE LEVEL
Installer.

Option No.	Description
P300E	DEFAULT ALL ACCESS CONTROL OPTIONS

DEFAULT ALL ACCESS CONTROL OPTIONS

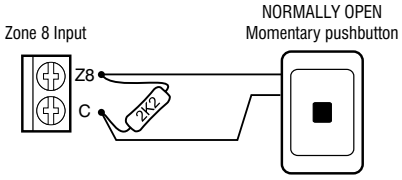
Enter P300E in Installer program mode to return all access control programs to factory default values.

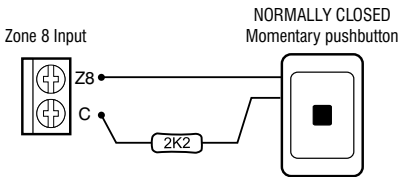
If connecting multiple readers, the option to enable multiple readers (P301E 1E) should be turned on *before* programming any access cards.

(Enabling P301E 1E erases existing card programming).

If P301E 3E is enabled, a momentary push button can be wired to zone 8 as shown.

For example, this option allows the reader output to operate a door lock during the day by presenting your card. Then at the end of the day press the push button within 5 seconds of presenting the card and the panel will arm.





PROGRAMMING ACCESS CARDS

If the panel has 1, 2 or 3 Weigand proximity readers connected up to 55 of the panel's user codes can be programmed as Reader Codes. This allows arming/disarming by access card and operation of AUX outputs to open electric door strikes.

Use the Extra Options programming mode to enable selected user codes to Readers 1, 2 or 3. When a user code is enabled as a Reader Code, its Keypad Code, (if any), is automatically deleted. A user code enabled as a Reader Code cannot also be a Keypad Code or Radio Code.

PROGRAMMING SEQUENCE:

1. **In Installer Program Mode, enter the option number for the user code to be programmed. (P202E–P256E).**
2. **Press EXCLUDE E to enter Extra Options mode. (Exclude light turns on).**
3. **Press 6E, 7E or 8E to assign the user code to Reader 1, 2 or 3. (Keypad light 6, 7 or 8 will turn on).**
4. **Press EXCLUDE E to exit Extra Options mode. (Exclude light turns off).**
5. **Press 1E**
   The keypad READY light will turn ON to indicate that the user code is ready to accept an access card.
   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. **Present a valid access card to the reader.**
   If the access card is of the correct type, the reader's orange light will turn on.
   If the access card is accepted, the keypad READY light will turn off and 3 beeps will sound.
   If the READY light stays on and a warning beep sounds, the access card is already assigned to another user code and must be cleared from that user code first.

Once a card is programmed to a user code it can be used to:

ARM THE PANEL.
To allow arming with a double read, enable option P301E 2E.
To allow arming with a single read and pushbutton, enable option P301E 3E.
(Both methods can be enabled at once).

DISARM THE PANEL.

To allow disarming, (single read), enable option P301E 4E.
(This option can be enabled if necessary. A user may be allowed to arm by access card but not disarm, or vice-versa).

OPERATE AUX OUTPUT/S.

To allow the operation of panel AUX outputs by access card, the reader to which the card is assigned must be programmed to operate one of the four AUX outputs.
• First, enable one or more AUX outputs to be a Reader output, (P121E 8E, P122E 8E, P123E 8E and P124E 8E).
• Next, assign which reader will trigger which AUX output.

Option No.	Description	Use Reader addresses 1E	Arm with double read 2E	Arm with single read & pushbutton 3E	Disarm 4E
P301E	ACCESS CONTROL OPTIONS				ON

P301E 1E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF (Use one reader).

NOTES
When using multiple readers, this option must be enabled before programming any access cards, (to avoid losing card programming when the option is enabled).

USE READER ADDRESSES

If ON then all readers connected to the D8x/D16x must have set addresses of 1, 2 or 3. The data is then sent in an extended format that includes the reader address. (Use up to three Ness prox readers). The reader's address is determined the connection of the violet wire. See the wiring diagram on page 69).

If this option is off, one standard Weigand 26bit reader can be used. The reader's actions are determined by the P318E, P319E Reader 1 options.

PROGRAMMING SEQUENCE:

P301E 1E *toggles the option ON and OFF*

OFF: Do not use Reader addresses **ON**: Use Reader addresses

P301E 2E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

ARM WITH DOUBLE READ

When this option is enabled the panel will arm if *the same* valid access card is presented to a reader twice within 5 seconds.

PROGRAMMING SEQUENCE:

P301E 2E *toggles the option ON and OFF*

OFF: Do not Arm With Double Read **ON**: Arm With Double Read

P301E 3E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• When this option is enabled, zone 8 is automatically disabled as an alarm zone.

ARM WITH SINGLE READ AND PUSHBUTTON

When this option is enabled the panel will arm if a valid access card is presented to a reader once and zone 8 is unsealed momentarily within 5 seconds.

This option can be used to prevent accidental arming or disarming by access card.

PROGRAMMING SEQUENCE:

P301E 3E *toggles the option ON and OFF*

OFF: Do not Arm With Single Read and Pushbutton **ON**: Arm With Single Read and Pushbutton

P301E 4E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

DISARM WITH ACCESS CARD

When this option is enabled a valid access card will disarm the panel. (It will perform the same function as a keypad code + E or a radio key off button).

PROGRAMMING SEQUENCE:

P301E 4E *toggles the option ON and OFF*

OFF: Do not Disarm with access card **ON**: Disarm with access card

P301E 5E–7E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
OFF.

NOTES
• When one of these options is enabled, that zone is automatically disabled as an alarm zone.

• The zone must reseal before another Request To Exit can occur. i.e, If the zone is left unsealed, the door will not be left unlocked.

RELATED OPTIONS
P37E, P38E Long Response Zones

P318E, P328E, P338E, P121E–P124E Programming of Readers to Aux outputs.

REQUEST TO EXIT (REX) INPUTS

These options convert zones 5, 6 and 7 into Request To Exit (REX) inputs for access control, allowing for push button door exit. Connect a N/C or N/O pushbutton to either open circuit or short circuit the zone resistor.

The REX zones can also be programmed as Long Response Zones (P37E, P38E) to prevent accidental door opening, the REX button must be pressed and held for 1sec or 3sec, as programmed.

P301E 5E enables Zone 5 to trigger the AUX outputs assigned to Reader1.

P301E 6E enables Zone 6 to trigger the AUX outputs assigned to Reader2.

P301E 7E enables Zone 7 to trigger the AUX outputs assigned to Reader3.

PROGRAMMING SEQUENCE:

P301E 5E, 6E or 7E *toggles the option ON and OFF*

OFF: The zone is a normal alarm zone
ON: The zone is a REX input

P301E 8E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
ON.

THIS OPTION IS AVAILABLE IN D8X/D16X V5.3 AND LATER

STROBE FLASH ON ARM/DISARM BY READER

This option enables strobe flash when arming and disarming by Reader. (D8x/D16x versions prior to V5.4 had strobe flash permanently enabled).

PROGRAMMING SEQUENCE:

P301E 8E *toggles the option ON and OFF*

OFF: Strobe flash disabled **ON**: Strobe flash enabled

		ZONES 1–8 **(D8 & D16)**								ZONES 9–16 **(D16)**							
Option No.	Description	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
P303E	DOTL ZONES																

P303E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
All OFF: No DOTL zones.

NOTES
Zones can be assigned as DOTL zones in addition to normal alarm functions. Therefore, DOTL zones can operate as alarm zones when armed and DOTL zones when disarmed. (Day Zone programming still applies).

DOOR OPEN TOO LONG (DOTL) ZONES

This selects the zones that will generate a DOTL alert if the zone is unsealed for longer than the time set by P304E.

The types of alerts are set by P121E 7E, P122E 7E and P305E.

PROGRAMMING SEQUENCE:

P303E 1E–16E *toggles the options ON and OFF*

OFF: DOTL is disabled for that zone
ON: DOTL is enabled for that zone

Option No.	Description	Default	Note
P304E	DOTL TIME	20	01–99 seconds

P304E

PROGRAM MODE LEVEL
Installer, Remote by PC.

FACTORY DEFAULT
20 seconds.

DOTL TIME

Sets the delay time in seconds before a DOTL zone generates a DOTL alert. Enter a value between 01 and 99.

PROGRAMMING SEQUENCE:

P304E *existing DOTL time is displayed one digit at a time*
[ENTER NEW VALUE] E *new value is displayed one digit at a time*

Option No.	Description	DOTL output LATCHES **1E**	DOTL outputs to Output Expander **2E**	**3E**	**4E**	DOTL outputs flashes on keypad **5E**	**6E**	**7E**	**8E**
P305E	DOTL ALERTS								

PROGRAM MODE LEVEL
Installer, Remote by PC.

PROGRAMMING SEQUENCE:

P305E [1E–8E] *toggles the options ON and OFF*

P305E 1E

RELATED OPTIONS
P121E 7E DOTL Alerts to Aux1.
P122E 7E DOTL Alerts to Aux2.

DOTL OUTPUT LATCHES

With this option on, DOTL alerts will either follow the sealed/unsealed state of DOTL zones or latch the Aux output/s which have been programmed for DOTL alerts.

1E OFF: DOTL Outputs follow the state of DOTL zones set by P303E. (Factory default).
1E ON: DOTL Outputs latch on until reset by disarming the panel.

P305E 2E

RELATED OPTIONS
P117E 1E Enable Output Expander.

DOTL ALERTS TO OUTPUT EXPANDER

With this option on, DOTL alerts will be sent to the optional Output Expander on the same output number as the DOTL zone number. P305E 1E settings apply.

2E OFF: No DOTL Alerts to the Output Expander. (Factory default).
2E ON: DOTL Alerts sent to the Output Expander.

P305E 5E

DOTL ALERTS TO KEYPAD

With this option on, DOTL alerts will SLOWLY Flash the corresponding zone light on the keypad. P305E 1E settings apply.

5E OFF: No DOTL Alerts to the Keypad. (Factory default).
5E ON: DOTL Alerts slow flash zone lights on the Keypad..

Option No.	Description	READER 1 to **Aux1** 1E	READER 1 to **Aux2** 2E	READER 1 to **Aux3** 3E	READER 1 to **Aux4** 4E
P318E	READER 1 TO AUX OUTPUTS				

Option No.	Description	READER 2 to **Aux1** 1E	READER 2 to **Aux2** 2E	READER 2 to **Aux3** 3E	READER 2 to **Aux4** 4E
P328E	READER 2 TO AUX OUTPUTS				

Option No.	Description	READER 3 to **Aux1** 1E	READER 3 to **Aux2** 2E	READER 3 to **Aux3** 3E	READER 3 to **Aux4** 4E
P338E	READER 3 TO AUX OUTPUTS				

Option No.	Description	Default	Note
P319E	READER 1 OUTPUT TIME	5	01–24 sec
P329E	READER 2 OUTPUT TIME	5	01–24 sec
P339E	READER 3 OUTPUT TIME	5	01–24 sec

PROGRAM MODE LEVEL
Installer, Remote by PC.

PROGRAMMING SEQUENCE:

P338E [1E–4E] *toggles the options ON and OFF.*

READERS 1–3 to AUX OUTPUTS 1–4

These options give the flexiblity of assigning any access reader to any Aux output for operating door strikes, magnetic locks, etc. Readers can be assigned to multiple outputs. Always use an external relay board (100-719) on each Aux output if connecting devices which draw more than 100mA.

P318E 1E–4E

RELATED OPTIONS
P121E 8E, P122E 8E, P123E 8E, P124E 8E, P319E, P329E, P339E.

P318E [1E–4E] *Toggles the options.*

1E ON: Reader 1 output to **Aux1** (P121E 8E must also be on).
2E ON: Reader 1 output to **Aux2** (P122E 8E must also be on).
3E ON: Reader 1 output to **Aux3** (P123E 8E must also be on).
4E ON: Reader 1 output to **Aux4** (P124E 8E must also be on).

P328E 1E–4E

RELATED OPTIONS
P121E 8E, P122E 8E, P123E 8E, P124E 8E, P319E, P329E, P339E.

P328E [1E–4E] *Toggles the options.*

1E ON: Reader 2 output to **Aux1** (P121E 8E must also be on).
2E ON: Reader 2 output to **Aux2** (P122E 8E must also be on).
3E ON: Reader 2 output to **Aux3** (P123E 8E must also be on).
4E ON: Reader 2 output to **Aux4** (P124E 8E must also be on).

P338E 1E–4E

RELATED OPTIONS
P121E 8E, P122E 8E, P123E 8E, P124E 8E, P319E, P329E, P339E.

P338E [1E–4E] *Toggles the options.*

1E ON: Reader 3 output to **Aux1** (P121E 8E must also be on).
2E ON: Reader 3 output to **Aux2** (P122E 8E must also be on).
3E ON: Reader 3 output to **Aux3** (P123E 8E must also be on).
4E ON: Reader 3 output to **Aux4** (P124E 8E must also be on).

P319E, P329E, P339E

PROGRAM MODE LEVEL
Installer, Remote by PC.

RELATED OPTIONS
P318E, P328E, P338E.

READERS 1–3 OUTPUT TIME

This sets the time that the outputs selected by P318E, P328E and P338E are ON. Range 1-24 seconds.

PROGRAMMING SEQUENCE:

P319E, P329E or **P339E** *existing Reader Output Time is displayed one digit at a time*
[ENTER NEW VALUE] E *new value is displayed one digit at a time*

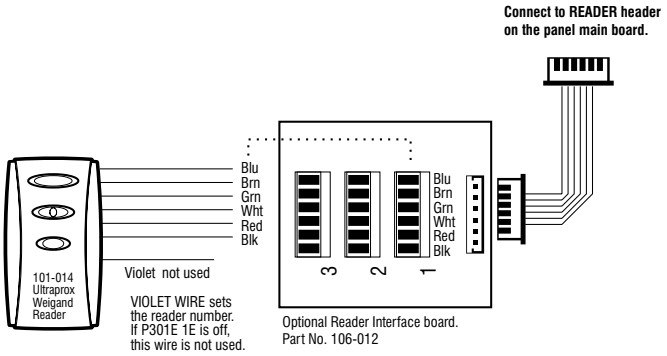
WIRING A SINGLE READER

P301E 1E is OFF (Reader addresses not used)

Connect only 1 reader.

In this mode the panel is compatible with the 101-091 Ness IDTeck Fingerprint Reader or the 101-014 Ness Ultraprox Weigand Reader.

For longer cable runs use twisted 3 pair shielded cable with only one end of the shield connected to ground.
For cable runs exceeding 75m use the Ness Weigand data repeater.

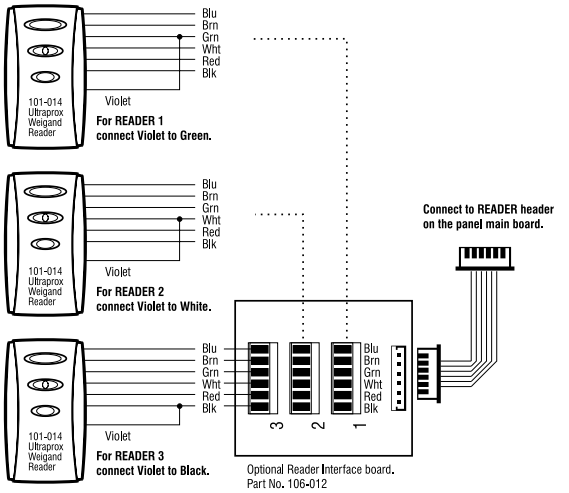


WIRING MULTIPLE READERS

P301E 1E is ON (Use Reader addresses)

When multiple readers are used, the panel needs to identify the individual readers.

The 101-014 Ness Ultraprox Weigand Readers can be addressed as Reader 1, 2 or 3 by connecting the Violet wire to an appropriate terminal.



If using multiple Weigand readers, they must be either ALL addressable or ALL non-addressable.

That is, use either three Ness 101-014 addressable Weigand readers or three generic Weigand readers.

REQUEST TO EXIT (REX) USING A KEYPAD CODE

Codes selected for Code Only Arming can be used as REX codes for access control functions. That is, the code can operate an output instead of arming/disarming the panel.

There are two conditions needed to make the code operate as a REX code - It is assigned to CODE ONLY ARM and it is not assigned to either Area 1 or Area 2.

The first digit of the user code determines which AUX output is operated by the REX code. That is, a REX code in the format 1xxx operates AUX1, 2xxx operates AUX2 and 3xxx operates AUX3.

Notes:

1. Reader 1 can also use codes starting with 4-9 if only one exit point is used.
2. Set P318E, P328E, P338E options to select appropriate AUX outputs.
3. Set corresponding P121E, P122E, P123E, P124E options to 8E.

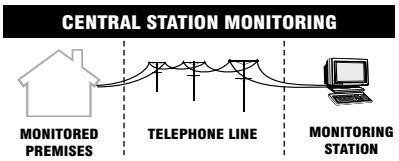
Setup Example:

- User Codes 1555, 2555, 3555 are programmed to be Code Only Arm and are not assigned to Area 1 or Area 2.
- P318E 1E, P328 2E, P338 3E are programmed to set reader output to selected Aux output.
- P121E 8E, P122E 8E, P123E 8E are programmed to set AUX outputs to reader.

Operation Example:

- Code 1555 activates door associated with AUX 1 (READER 1).
- Code 2555 activates door associated with AUX2 (READER 2).
- Code 3555 activates door associated with AUX3 (READER 3).

CENTRAL STATION MONITORING

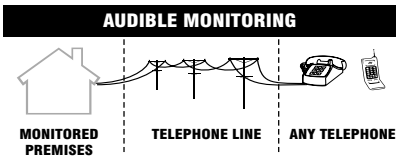


The Ness D8 and D16 control panels have an on-board digital dialler which can send detailed alarm messages to a central monitoring station.

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.



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 takes the form of:

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
9	-	Zone 9
1	0	Zone 10
1	1	Zone 11
1	2	Zone 12
1	3	Zone 13
1	4	Zone 14
1	5	Zone 15
1	6	Zone 16
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	1	External Tamper
3	2	Internal Panel Tamper
3	3	Keypad Tamper
3	4	Radio Tamper
3	5	Mains Fail
3	6	Panel Battery Fail
4	1	RADIO Battery Fail
4	2	RADIO Supervision Fail

MESSAGE EXAMPLE (AUDIBLE PULSE FORMAT P86E 4E)

If the Account Number is 1234 and zone 5 alarm is reported:

beep [pause] **beep beep beep beep beep**

1 Beep = 1st digit of the account number

5 Beeps = zone 5

REPORTING SEQUENCE

When triggered by an alarm event the panel will call the Primary Telephone Number (or the Follow Me Telephone Number, if programmed) and at the end of the dialling of the last digit, it will wait for 5 seconds and then commence the audible message, the audible message will continue to repeat for 45 seconds or until it is kissed off by a DTMF tone.

If there is more than one alarm message to transmit then after it has received the Kiss-off/ Acknowledge tone it will commence transmission of the next message. The panel will continue to do this until all alarm messages are transmitted and Kissed-off.

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 during pauses in the audible message.

(On mobile phones, press the [#] key in short bursts. Many mobile phones enter sub-menus if the [#] key is pressed continuously).

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.

OPERATING THE PANEL BY TELEPHONE

AUDIBLE FEEDBACK

3 beeps	• The User Code is valid • Successful Arming or Disarming • An Auxiliary output has been turned ON.
1 long beep	• Panel is already Armed • Invalid code. Try again.
1 short beep	• An Auxiliary output has been turned OFF.

SUMMARY OF TELEPHONE COMMANDS

[0]	Prepare to receive commands
[1] [#]	Arm Areas
[2] [#]	Disarm Areas
[3] [#]	Turn Aux 1 Output ON or OFF
[4] [#]	Turn Aux 2 Output ON or OFF
[5] [#]	Turn Aux 3 Output ON or OFF
[6] [#]	Turn Aux 4 Output ON or OFF
[*] [#]	Finished – hang up

The D8/D16 will allow a user to call in to the panel, using a standard DTMF telephone, and remotely Arm or Disarm all areas and also turn on or off Aux outputs 1, 2, 3 or 4.

To maintain panel security, remote operations can only be activated after entering a valid user code.

To operate the panel by telephone, you need a DTMF capable telephone, a valid user code and you must know the telephone number of the line to which the panel is connected.

NOTES

• If the panel does not receive commands for periods longer than 10 seconds it will assume that the call is finished and it will hang up.

• If an alarm occurs which requires the panel to dial out while attempting remote control, the Panel will treat the alarm as a priority, give a constant tone as a warning and then hang up.

• When all remote control commands are finished press [*] [#] to force the panel to hang up.

SEQUENCE OF OPERATION.

1. Phone the panel telephone number and listen for the required number of rings (ring ring...ring ring) and then hang up.
2. Wait 10 seconds and then call the number again within 50 seconds.
3. The panel will answer the second call immediately, sound a beep for 2 seconds then, after a pause, it will sound a lower frequency tone. The panel is now ready to receive telephone commands.
4. Press the [0] button on the telephone. This tells the panel that telephone commands will follow. The panel will respond with either 3 beeps if all OK (One long beep means try again).
5. Now enter a valid User Code (that is normally used for Arming or Disarming the panel) followed by the [#] button.

   The panel will respond with 3 beeps if it recognises the code or 1 long beep to signal the code was invalid and to try again.
6. Enter the required command. See: Summary Of Telephone Commands.
7. Press [*] [#] to finish. This tells the panel to hang up. Also hang up your telephone.

USER CODE OPTIONS TABLE

USER CODE	OPTION NO. u	KEYPAD PIN	EXCLUDE+E toggles Extra Options mode. (Installer Program mode only) PAGE 14, 15: 1E AREA 1 Code	2E AREA 2 Code	3E ARM ONLY	4E "CODE ONLY" ARM (REX CODE)	Pge 63: 5E RADIO Code	Page 65: 6E Reader Code 1	7E Reader Code 2	8E Reader Code 3
1 (Master)	P201E	123	ON	ON						
2	P202E		ON							
3	P203E		ON							
4	P204E		ON							
5	P205E		ON							
6	P206E		ON							
7	P207E		ON							
8	P208E		ON							
9	P209E		ON							
10	P210E		ON							
11	P211E		ON							
12	P212E		ON							
13	P213E		ON							
14	P214E		ON							
15	P215E		ON							
16	P216E		ON							
17	P217E		ON							
18	P218E		ON							
19	P219E		ON							
20	P220E		ON							
21	P221E		ON							
22	P222E		ON							
23	P223E		ON							
24	P224E		ON							
25	P225E		ON							
26	P226E		ON							
27	P227E		ON							
28	P228E		ON							
29	P229E		ON							
30	P230E		ON							
31	P231E		ON							
32	P232E		ON							
33	P233E		ON							
34	P234E		ON							
35	P235E		ON							
36	P236E		ON							
37	P237E		ON							
38	P238E		ON							
39	P239E		ON							
40	P240E		ON							
41	P241E		ON							
42	P242E		ON							
43	P243E		ON							
44	P244E		ON							
45	P245E		ON							
46	P246E		ON							
47	P247E		ON							
48	P248E		ON							
49	P249E		ON							
50	P250E		ON							
51	P251E		ON							
52	P252E		ON							
53	P253E		ON							
54	P254E		ON							
55	P255E		ON							
56	P256E		ON							

OPTION		DESCRIPTION	DEFAULT	PAGE
P00E u		Follow Me Telephone Number.	none	39
P26E u		ENTRY DELAY Time 1	20 sec	16
P27E u		Entry Delay Time 2	6=60 sec	
P28E u		EXIT DELAY Time	60 sec	
P29E		SIREN RESET Time	5 min	
P30E		Normal Zone Sensitivity	all zones	17
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	18
P40E		Instant zones	zones 3+	
P41E		ENTRY DELAY 1 zones	Zone 1	
P42E		HANDOVER zones	Zone 2	19
P43E		Entry Delay 2 zones	none	
P44E		Lockout zones (RESET output)	All zones	
P45E		AREA 1 zones	All zones	19
P46E		AREA 2 zones	none	
P51E		MONITOR MODE zones	none	21
* See page 20 for information on Area operation, Monitor mode & Temporary Day Zones				20
P52E		24hr zones	none	21
P53E		Day Mode zones	none	
P54E		RESET output zones	All zones	22
P55E		STROBE zones	All zones	
P56E		Keypad Sonalert zones	All zones	
P57E		SIREN zones	All zones	23
P58E		Aux1 zones	none	
P59E		Aux2 zones	none	
P60E	1E	Entry Beeps	ON	24, 25
	2E	Keyswitch Monitor/Disarm	OFF	
	3E	Keyswitch Arm/Disarm	OFF	
	4E	Tamper Siren lockout	ON	
	5E	Duress to RESET output	OFF	
	6E	Auto Exclude zones	ON	
	7E	Auto keypad display off	OFF	
	8E	Delayed Aux3, Aux4 outputs	OFF	
P61E	1E	Tamper to RESET output	ON	26
	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	

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
P62E	1E	Shortcut Memory display	ON	27
	2E	Shortcut Zone Exclude	ON	
	3E	Shortcut Monitor Mode	ON	
	4E	Shortcut Keypad Panic	OFF	
	5E	S hortcut Area1 Arming	ON	
	6E	Shortcut Area 2 Arming	OFF	
	7E	Brief warning on Auto Exclude	ON	
	8E	Exit Time x10	OFF	
P63E	1E	Monitor alarms to RESET output	ON	28
	2E	Monitor alarms to STROBE	ON	
	3E	Monitor alarms to SONALERT	OFF	
	4E	Monitor 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 Monitor Alarm	OFF	29, 30
	2E	Brief Day Alarm	OFF	
	3E	Monitor zones Entry Delay2	ON	
	4E	Radio Key SIREN CHIRPS	OFF	
	5E	50Hz Mains Frequency	ON	
	6E	Double Key Keypad Panic	ON	
	7E	Keypad Fire Alarm	OFF	
	8E	Keypad Medical Alarm	OFF	
P65E		Supervised zones	NONE	31
P66E	1E	Zone Supervision alarm to RESET o/p	OFF	32, 33
	2E	Zone Supervision alarm to STROBE	OFF	
	3E	Zone Supervision alarm to SONALERT	OFF	
	4E	Zone Supervision alarm to SIREN	OFF	
	5E	Enable WIRED ZONE supervision	OFF	
	6E	[not used]	OFF	
	7E	Zone Supervision speedup x 6	OFF	
	8E	Zone Supervision speedup x10	OFF	
P67E		Zone Supervision Time	24 (hours)	31
P68E	1E	Enable Zone Split (D16 only)	OFF	34
	2E	3K3 Zone Resistors	OFF	35
	3E	[not used]	OFF	
	4E	[not used]	OFF	
	5E	Radio Arming “unsealed” warning	OFF	
	6E	24hr Zone Fire Siren sound	OFF	
	7E	[not used]	OFF	
	8E	Quiet chirps on radio Arm/Disarm	OFF	
P69E	1E	ARM1 output pulses	OFF	36, 37
	2E	ARM2 output pulses	OFF	
	3E	Quiet Monitor Siren	OFF	
	4E	6 beeps on Arming	OFF	
	5E	Monitor arm by radio key ON/OFF buttons	OFF	
	6E	Disable Mains Fail Alarm	OFF	
	7E	[not used]	OFF	
	8E	[not used]	OFF	

OPTION		DESCRIPTION	DEFAULT	PAGE
P70E		TELEPHONE NO.1 Primary	NONE	38
P71E		Telephone No.2 Secondary	NONE	
P72E		ACCOUNT NO. 1	0000	
P73E		Account No. 2	0000	
P74E		REPORT ZONE ALARMS	All zones	40
P75E	1E	Report DURESS alarms	OFF	41
D8 & D16	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	
D8, P92E **1E** **D16**, P75E **9E**		Report RADIO TAMPER	ON	
D8, P92E **2E** **D16**, P75E **10E**		Report RADIO PANIC by User ID	ON	
D8, P92E **3E** **D16**, P75E **11E**		Report RADIO LOW BATTERY by device	OFF	
D8, P92E **4E** **D16**, P75E **12E**		Report ZONE SUPERVISION FAIL	OFF	
D8, P92E **5E** **D16**, P75E **13E**		Report PANEL LOW BATTERY	ON	
D8, P92E **6E** **D16**, P75E **14E**		Report MAINS FAIL	ON	
P76E		Report Zone Restorals	All on	40
P77E		Report Misc. Restorals	All on	41
P78E		Report Multiple Zone alarms	NONE	40
P79E		Account No.2 zones	NONE	40
P80E		Tel No. 3 for Test Calls	NONE	39
P81E		Tel No.4 Callback	NONE	
P82E	1E	Send RESTORAL report immediately	OFF	41
	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)	42
P84E		Time before FIRST TEST CALL	6 (12hrs)	
P85E	1E	Auto Dialling, Pulse & DTMF	OFF	42
	2E	DTMF Dialling (Decadic) always	OFF	
	3E	DTMF Dialling always	ON	
P86E	1E	Disable Dialler	OFF	43, 44
	2E	CONTACT ID FORMAT	ON	
	3E	Audible DTMF format	OFF	
	4E	Audible PULSE Format	OFF	
	5E	Contact ID + Audible DTMF	OFF	
	6E	Contact ID + Audible PULSE	OFF	
P87E	1E	Split dial Primary/Secondary numbers	OFF	45
	2E	Check for Dial Tone	ON	
	3E	[not used]	OFF	
	4E	4 Dialling attempts	ON	
P88E	1E	Send AREA 1 OPEN/CLOSE REPORTS	OFF	46, 47
	2E	Send AREA 2 Open/Close reports	OFF	
	3E	Siren Chirp on Kiss-off	OFF	
	4E	Flash Strobe on Kiss-off	OFF	
	5E	Forced Opening report	ON	
	6E	Delayed Closing Reports	OFF	
	7E	Manual Exclude Reports	ON	
	8E	Auto Exclude Reports	ON	

OPTION		DESCRIPTION	DEFAULT	PAGE
P89E	1E	ENABLE TEST CALLS	ON	48, 49
	2E	Mains Report Delay (1 hour)	ON	
	3E	Listen-In to Dialler	OFF	
	4E	Swinger shutdown	ON	
	5E	Line Fault Monitor	OFF	
	6E	[not used]		
	7E	Use Internal Timing	OFF	
	8E	[not used]		
P90E	1E	Enable Remote Access	OFF	50, 51
	2E	Enable First Call Mode	OFF	
	3E	Enable Remote Arming	OFF	
	4E	Enable Remote Disarming	OFF	
	5E	Enable Remote AUX control	OFF	
	6E	Enable Remote Status report	OFF	
	7E	Enable Remote Event Report	OFF	
	8E	Enable Callback Mode	OFF	
P91E		Required rings to answer	1	52
P92E		Report Misc. Alarms 9-14 (D8 only)	1, 2 on	41
P93E		Report Misc. Restorals 9-14 (D8 only)	All on	
P94E		"No Memory Warning" zones	none	52

P95E		CLEAR RADIO DEVICES		53
P96E		CLEAR MEMORY		
P97E		CLEAR PANEL OPTIONS (restore Factory Defaults)		
P98E		CLEAR User codes, Radio Keys, Access Cards		
P99E		Program the INSTALLER CODE	000000	53
P101E-P116E		PROGRAM RADIO DEVICES 1–8 or 1–16	none	62
P117E	1E	Enable Output Expander	OFF	54, 55
	2E	Alternate Expander Format	OFF	
	3E	Day Zone Follower	OFF	
	4E	Output Exclude	OFF	
P118E		Output Expander zones	none	
P119E		Output Expander alarm zones	none	
P120E	1E	Latched keyswitch input	OFF	56
	2E	Monitor Arm Chirps	OFF	
	3E	Radio Key AUX arms Monitor mode	OFF	
	4E	Keyswitch DISARM ONLY	OFF	
	5E	Keyswitch ARM ONLY	OFF	
	6E	Smart Beeps (Brief Monitor & Day modes)	OFF	
P121E	1E	Zone alarms to AUX1 (P58E selects zones)	ON	57
	2E	Zone Supervision alarms to AUX1	OFF	
	3E	Radio key Panic TOGGLE	OFF	
	4E	Radio key Panic PULSE	OFF	
	5E	[not used]	OFF	
	6E	Enable telephone remote control of AUX1	OFF	
	7E	Door Open Too Long (DOTL) alarm to AUX1	OFF	
	8E	Reader [x] output pulses AUX1	OFF	
P122E	1E	Zone alarms to AUX2 (P59E selects zones)	ON	58
	2E	Zone Supervision alarms to AUX2	OFF	
	3E	Radio key Aux Button TOGGLE	OFF	
	4E	Radio key Aux Button PULSE	OFF	
	5E	Telephone Line fault to AUX2	OFF	
	6E	Enable phone remote control of AUX2	OFF	
	7E	Door Open Too Long (DOTL) alarm to AUX2	OFF	
	8E	Reader [x] output pulses AUX2	OFF	

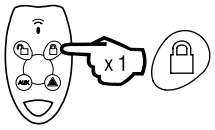
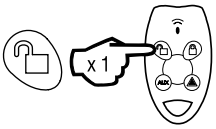
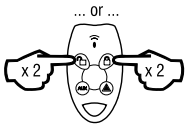
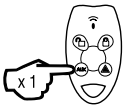
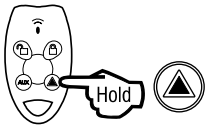
OPTION		DESCRIPTION	DEFAULT	PAGE
P123E	1E	Area 1 armed output to AUX3	ON	59
	6E	Enable telephone remote control of AUX3	OFF	
	8E	Reader [x] output pulses AUX3	OFF	
P124E	1E	Area 2 armed output to AUX4	ON	59, 60
	2E	Enable Extension Sonalert		
	5E	Enable AUX4 as Fail To Communicate o/p	OFF	
	6E	Enable telephone remote control of AUX4	OFF	
	8E	Reader [x] output pulses AUX4	OFF	
P125E		Enable hardwired zones	All on	60
P130E		Real Time Clock set MINUTES	00	64
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	04	
P135E		Real Time Clock set DAY OF WEEK	1	

ACCESS CONTROL OPTIONS

P300E		DEFAULT ALL ACCESS CONTROL OPTIONS		65
P301E	1E	Use reader addresses	OFF	66
	2E	Arm with double read	OFF	
	3E	Arm with single read and pushbutton	OFF	
	4E	Disarm with access card	ON	
	5E	REX Input 1 (Zone 5 input)	OFF	
	6E	REX Input 2 (Zone 6 input)	OFF	
	7E	REX Input 3 (Zone 7 input)	OFF	
	8E	Strobe Flash on Arm/Disarm by Reader	ON	
P303E		DOTL zones	none	67
P304E		DOTL time	20 sec	
P305E	1E	DOTL output LATCHES	OFF	
	2E	DOTL outputs to Output Expander	OFF	
	3E	[not used]		
	4E	[not used]		
	5E	DOTL zone flashes on keypad	OFF	

AUX OUTPUTS

P318E	1E	Ultraprox Reader1 to AUX1	OFF	68
	2E	Ultraprox Reader1 to AUX2	OFF	
	3E	Ultraprox Reader1 to AUX3	OFF	
	4E	Ultraprox Reader1 to AUX4	OFF	
P319E		Ultraprox Reader1 output TIME	5 sec	
P328E	1E	Ultraprox Reader2 to AUX1	OFF	
	2E	Ultraprox Reader2 to AUX2	OFF	
	3E	Ultraprox Reader2 to AUX3	OFF	
	4E	Ultraprox Reader2 to AUX4	OFF	
P329E		Ultraprox Reader2 output TIME	5 sec	
P338E	1E	Ultraprox Reader3 to AUX1	OFF	
	2E	Ultraprox Reader3 to AUX2	OFF	
	3E	Ultraprox Reader3 to AUX3	OFF	
	4E	Ultraprox Reader3 to AUX4	OFF	
P339E		Ultraprox Reader3 output TIME	5 sec	

OPERATION	by **KEYPAD**	by **RADIO KEY**	by **ACCESS CARD** or **FOB**
to **ARM** The panel must initially be disarmed.	Press ARM + E (If the ARMING SHORTCUT is enabled, P62E 5E)	 Press the ON button once.	 Present a Card or Fob twice. (if P301E 2E is on).  Or, present a Card or Fob once + press button. (if P301E 3E is on).
	or press ARM + [USER CODE] + E		
	or press [USER CODE] + E (If CODE ONLY ARMING has been enabled for that user code. Extra Option 4E)		
to **DISARM** To disarm and/or reset alarms.	Press [USER CODE] + E	 Press the OFF button once.*	 Present a Card or Fob once. (if P301E 4E is on).
to arm **MONITOR MODE** The panel must initially be disarmed. See page 20 for more information on arming Monitor Mode.	Press MONITOR + E (If the MONITOR SHORTCUT is enabled, P62E 3E)	 Press either the OFF button or the ON button twice within 4 seconds. (P69E 5E must be on).	 Or press the AUX button once. (If P120E 3E is on). RK4 radio key only.
	or press MONITOR + [USER CODE] + E	Radio Key Monitor Arm chirps can be enabled by option P120E 2E, (off by default).	
PANIC alarm	Press * * star keys together	 Press and hold the PANIC button for at least 4 sec.	
	or press * + [USER CODE] + E		
	or press * + E (If KEYPAD PANIC SHORTCUT is enabled, P62E 4E)		
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 EXCLUDE + 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 20 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 0 + E To enable/disable TDZ operation. Note: The keypad does not indicate if TDZ is enabled or disabled.

INSTALLATION RECORD

D•8 DIALLER SECURITY ALARM PANEL D•16 DIALLER SECURITY ALARM PANEL

☐ NESS D8 ALARM CONTROL PANEL

☐ NESS D16 ALARM CONTROL PANEL

DATE PURCHASED:	DATE INSTALLED:
INSTALLATION COMPANY:	
TELEPHONE:	
MONITORING COMPANY:	
TELEPHONE:	

P26E ENTRY DELAY TIME 1		Seconds
P27E ENTRY DELAY TIME 2		Seconds
P28E EXIT DELAY TIME		Seconds
P29E SIREN RESET TIME		Minutes

ZONES		DEVICE TYPE PIR, Reed switch, etc	DESCRIPTION Entrance, bedroom1, etc	ZONE ASSIGNMENT												
				P41E ENTRY DELAY 1	**P43E** ENTRY DELAY 2	**P42E** HANDOVER	**P40E** INSTANT	**P45E** AREA 1	**P46E** AREA 2	**P51E** MONITOR	**P52E** 24 HOUR	**P54E** RESET OUTPUT	**P55E** STROBE OUTPUT	**P56E** SONALERT OUTPUT	**P57E** SIREN OUTPUT	**P74E** Report (dialler)
D8 & D16	1															
	2															
	3															
	4															
	5															
	6															
	7															
	8															
D16	9															
	10															
	11															
	12															
	13															
	14															
	15															
	16															

USER CODE	OPTION No	Extra Options Assigned E.g. Radio Code, Arm Only, etc.
1 Master Code	P201E	
2	P202E	
3	P203E	
4	P204E	
5	P205E	
6	P206E	
7	P207E	
8	P208E	
9	P209E	
10	P210E	
11	P211E	
12	P212E	
13	P213E	
14	P214E	
15	P215E	
16	P216E	
17	P217E	
18	P218E	
19	P219E	

USER CODE	OPTION No	Extra Options Assigned E.g. Radio Code, Arm Only, etc.
20	P220E	
21	P221E	
22	P222E	
23	P223E	
24	P224E	
25	P225E	
26	P226E	
27	P227E	
28	P228E	
29	P229E	
30	P230E	
31	P231E	
32	P232E	
33	P233E	
34	P234E	
35	P235E	
36	P236E	
37	P237E	
38	P238E	

USER CODE	OPTION No	Extra Options Assigned E.g. Radio Code, Arm Only, etc.
39	P239E	
40	P240E	
41	P241E	
42	P242E	
43	P243E	
44	P244E	
45	P245E	
46	P246E	
47	P247E	
48	P248E	
49	P249E	
50	P250E	
51	P251E	
52	P252E	
53	P253E	
54	P254E	
55	P255E	
56	P256E	