L-8

CONTROL PANEL

		1	2	3	4	5	6	7	8
Zones		●	●	●	●	●	●	●	●

- ● Arm 1
- ● Arm 2
- ● Mains
- ● Battery

- ● Memory
- ● Exclude
- ● Tamper

- ● Program
- ● Line

INSTALLATION MANUAL

NESS SECURITY PRODUCTS

PAGE	INDEX

INTRODUCTION

The **NESS L-8** is **Australian Designed and Manufactured** product of Ness Security Products Pty Ltd, Australia's largest manufacture of quality Electronic Security Products. Ness Security Products Pty Ltd is a Quality Accredited Company to ISO 9001.

The Ness L-8 local alarm has been designed to provide you, the installer, with all your most requested features including, ease of installation, ease of programming and user friendly operation in a package which is functional and attractive. The Ness L-8 has been designed and built at an affordable price without compromising quality or features.

The High-Impact 3 mm polycarbonate housing (equivalent to 1.2 mm mild steel) not only offers strength but is aesthetically pleasing and therefore easily marketable. Both the main board and the lid are removable which allows you to easily install the system.

This manual will tell you all you need to know about installing and programming the Ness L-8. For information about operating instructions refer to the Ness L-8 User's Manual.

FEATURES

- 8 Fully programmable zones.

- PLUS 1 additional 24 Hour Tamper input.

- Remote Backlit Keypads (Max 3).

- Inbuilt Vibration Sensor Analyser.

- Fully Programmable via the systems keypad.

- Area Partitionable (2 Areas). Any Zone can be programmed to any area, as well as common areas.

- Monitor Mode (Home Mode).

- Day Mode and Door Chime feature.

- 8 Event Memory.

- 15 User Codes.

- Programmable Inputs to activate selectable Outputs.

- Forced Arming Feature.

- Ultra-Modern and Impact resistant Housing.

- Single or Double Trigger Zones.

- Fully programmable via the systems Keypad -Eliminates the need for expensive programmers or Proms.

- All programming data is permanently stored in a non-volatile EEPROM- more secure than battery backed-up memory.

- True Dynamic Battery Test every time the Panel is armed / disarmed and every hour.

- Comes complete with an AC plug pack and supports a 12V DC 6.5 AH battery to maintain systems security under all power supply conditions.

- Outputs are separately fused.

- Zone inputs can be split with two end-of-line resistors so that two detection devices (ie reed switches) can both be monitored to provide maximum security.

- All inputs and Outputs are heavily protected against lightning and high voltage supply transients. An earth terminal is provided for extra protection.

- Automatic Resettable Fuses.

- Designed utilising the latest SMD Technology.

- Simple to Program and Use.

- Can be set back to the factory defaults.

INTRODUCTION

The **NESS L-8** is **Australian Designed and Manufactured** product of Ness Security Products Pty Ltd, Australia's largest manufacture of quality Electronic Security Products. Ness Security Products Pty Ltd is a Quality Accredited Company to ISO 9001.

The Ness L-8 local alarm has been designed to provide you, the installer, with all your most requested features including, ease of installation, ease of programming and user friendly operation in a package which is functional and attractive. The Ness L-8 has been designed and built at an affordable price without compromising quality or features.

The High-Impact 3 mm polycarbonate housing (equivalent to 1.2 mm mild steel) not only offers strength but is aesthetically pleasing and therefore easily marketable. Both the main board and the lid are removable which allows you to easily install the system.

This manual will tell you all you need to know about installing and programming the Ness L-8. For information about operating instructions refer to the Ness L-8 User's Manual.

FEATURES

- 8 Fully programmable zones.

- PLUS 1 additional 24 Hour Tamper input.

- Remote Backlit Keypads (Max 3).

- Inbuilt Vibration Sensor Analyser.

- Fully Programmable via the systems keypad.

- Area Partitionable (2 Areas). Any Zone can be programmed to any area, as well as common areas.

- Monitor Mode (Home Mode).

- Day Mode and Door Chime feature.

- 8 Event Memory.

- 15 User Codes.

- Programmable Inputs to activate selectable Outputs.

- Forced Arming Feature.

- Ultra-Modern and Impact resistant Housing.

- Single or Double Trigger Zones.

- Fully programmable via the systems Keypad -Eliminates the need for expensive programmers or Proms.

- All programming data is permanently stored in a non-volatile EEPROM- more secure than battery backed-up memory.

- True Dynamic Battery Test every time the Panel is armed / disarmed and every hour.

- Comes complete with an AC plug pack and supports a 12V DC 6.5 AH battery to maintain systems security under all power supply conditions.

- Outputs are separately fused.

- Zone inputs can be split with two end-of-line resistors so that two detection devices (ie reed switches) can both be monitored to provide maximum security.

- All inputs and Outputs are heavily protected against lightning and high voltage supply transients. An earth terminal is provided for extra protection.

- Automatic Resettable Fuses.

- Designed utilising the latest SMD Technology.

- Simple to Program and Use.

- Can be set back to the factory defaults.

PACKAGE CONTENTS

UNPACKING

The L-8 package contains the following;

Contents	Quantity
L-8 Control Panel	1
L-8 Backlit LED Keypad	1
L-8 Zone List	1
17 Volt A.C. Plugpack	1
12 Volt 6.5 A/H Back Up battery	1 (Optional)
2K2 End of Line Resistors	9
Housing cover screws	2
L-8 Users Manual	1
Programming Summary Sheet	1
Standoffs	4

INSTALLATION PROCEDURES

For ease of installation it is recommended that the following procedure be followed:

1. Unclip the lid by pushing in the directions of the arrows 1 and 2 as shown below.
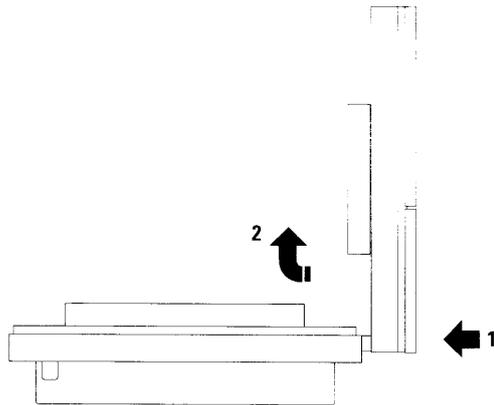
2. Remove the Battery.

Standoffs
to plug in
as shown

Base
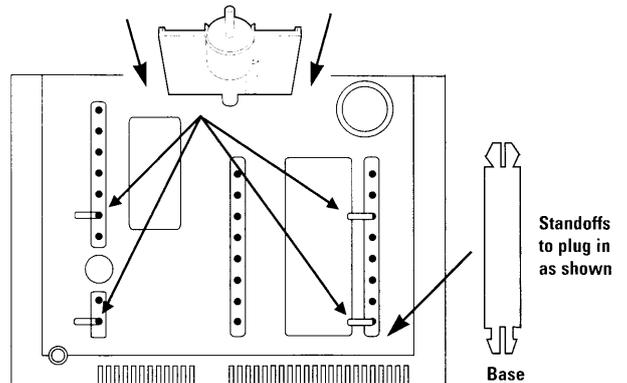
3. Mount the rear panel housing to a secure location.

4. The PCB Standoffs have a wider section on one end. Insert this end into the panel.

5. Wire to the circuit board terminal blocks, as per the wiring instructions shown in this installation manual.

6. Replace the Battery.

7. Insert the panel tamper bracket as shown below.

9. Program Installation options (refer pages 16 - 36)

10. Perform the power-up check and carry out test procedures. (refer Page 37)

INPUTS

Monitored Zones:

The Ness L-8 has 9 separate monitored inputs.
- **8 x Fully programmable Zone inputs**
- **1 x 24 hour Tamper input.**

Each input must be terminated with a 2K2 (2,200 ohm) end-of-line resistor as supplied. These inputs must be sealed with this EOL resistor regardless if they are being used as detection inputs or not.
If there are two detection loops being used for any single zone input, then cable security may be provided on both loops as shown in the series Zone diagram below.
Note: Each pair of zones share a common terminal.

Ordinary Zone Connection

R = 2K2
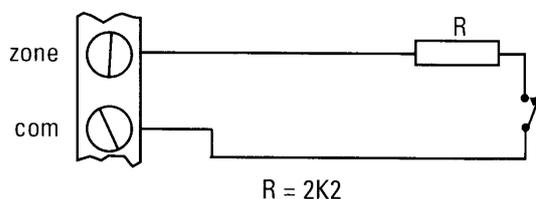
Series Zone Connection

R = 1K or 1K2
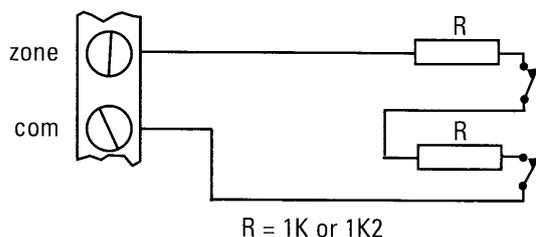
The Tamper input is wired in an identical manner to the Zones. It MUST be fitted with a 2K2 end-of-line resistor. If you have 2 external siren covers, each cover can be individually monitored by wiring as described in the series zone diagram.

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

AC Input Terminals:
For connection of the Ness plug-pack. The Ness L-8 requires an AC transformer rating of 1.4 Amps @ 17 Vac minimum.

Battery:
For connection of a sealed lead-acid rechargeable 12 Volt battery, with a minimum rating of 3.2 Ah. Charge current is limited to 350mA. The charge voltage is factory preset at 13.8 V. Note: A 12 Volt sealed lead acid rechargeable battery must be connected for correct panel operation. Observe correct Polarity when connecting the 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.

Program:
Keep the Link on these Pins except when entering Install Program Mode on Power up. Leaving the Link off will cause a tamper alarm on exit from Program Mode.

OUTPUTS

The Ness L-8 control Panel contains the following outputs:

NOTES:

1: Output Fusing.
Power outputs on the L-8 are protected by Resettable electronic fuses. Resetting a fuse that has opened is automatic once the overload is removed.

2: Battery Operation.
A properly charged battery **MUST** be installed to ensure the Siren, Strobe and Reset outputs operate correctly.

12 Volt Output:
A regulated 13.8 V dc output is available to power detectors etc. This output is available from two sets of terminals marked +12V and 0V. It has a Resettable fuse. A maximum load of 300mA may be connected to these terminals. (APPROX 20 PIR DETECTORS)

Siren:
This output is for connecting to horn speakers. The Ness L-8 has an on-board siren driver, therefore only horn speakers need to be connected to this output. A maximum of 3 x 8 Ohm horn speakers (Ness Part No. NOI 110 or 100-171 Internal Siren) can be connected to this output. This output will reset at the end of siren time or whenever the panel is reset, whichever comes first. This has an internal Resettable fuse.

Strobe:
A latched 12V DC voltage output for connecting strobes. This output will latch on in the event of an alarm condition and stay on until the panel is reset. A maximum of 2 x 1 Watt Strobes (Ness Part No. NOI 300) can be connected to this Output. This output has a Resettable fuse.

Reset:
A non-latched 12V DC voltage output controlled by the Siren Timer, (P29E), for connecting NESS SIRENS (Part 100-172), piezo sirens or relays etc.

A maximum of 3 x 12 Volt piezo Sirens (Ness Part No. NOI 240, NOI 230) or 2 x Ness electronic sirens Part no. 100-172 can be connected to this output.

NOTE: A maximum output of 2.0A continuous is available in total from the Reset and Siren Outputs. (ie a Total of 4 siren devices being a combination of 12 Volt Piezo Sirens (connected to the Reset Output) AND 8 Ohm Horn Speakers (connected to the Siren Output) can be connected in total to the System.)

Area 1 Arming:
This output is an open collector (switch negative) which can supply a maximum 1mA. It switches negative when Area 1 is on and is used with the Ness Single Channel Radio Receiver so that the receiver knows the Area 1 arming state. This allows correct operation of the Arm & Disarm buttons of the radio pendants.

WIRING DIAGRAM

Main Control Panel:

TAMP
0V
+12V
Z8
C
Z7
Z6
C
Z5
Z4
C
Z3
Z2
C
Z1
0V
+12
C
KEY
SON
DAT
RES
RES+
STR
STR+
SIREN
SIREN
AV
AV
EARTH

AREA 1   PROGRAM

Ext Tamper

12v Output
Aux Power

2K2   NC

Optional
Keyswitch

NO   NC
NO   NC
2K2

2K2

NO   NC
NO   NC
2K2

Zone Inputs

2K2
NO   NC
NO   NC

NO   NC

2K2

Detectors

Zones 1 2 3 4 5 6 7 8

Arm 1
Arm 2   Memory   Program
Mains   Exclude   Line
Battery   Tamper   NESS

Keypad

Piezo Siren

Strobe

Horn
Speaker

240 V

Plug Pack

Connect to a
good Earth

Lead
12V   Acid
Battery

8

WIRING DIAGRAM

Sample Wiring of Movement Detectors:

Sample Wiring of Ness Monement Detector to Ness Control Panels

Ness Control Panel

Z6
C
Z5
Z4
C
Z3
Z2
C
Z1
0V
+12V

Note:

ALL Spare Zones Must be sealed with 2K2 Ohm End of Line resistor

2K2 Ohm Resistor

| Tamper N/C | Alarm N/C | +12 Volts | 0 Volts |

Ness Quantum Movement Detector

2K2 Ohm Resistor

| Tamper N/C | Alarm N/C | +12 Volts | 0 Volts |

Ness Quantum Movement Detector

Note: It is suggested that a terminal block be used for connection of power wires if more than 2 detectors are to be connected to any 12 Volt power supply output.

WIRING DIAGRAM

Sample Wiring of Reed Detectors:

Sample Wiring of Reed Switch and Nessensor Wiring to Ness Control Panel

Ness Control Panel

Z6
C
Z5
Z4
C
Z3
Z2
C
Z1
0V
+12V

Note:

ALL Spare Zones Must be sealed with 2K2 Ohm End of Line resistor

Other Two Wires are Looped and are for NC Tamper

Red Wire
Blue Wire

Ness Vibration Nessensor

E.O.L. Resistor

E.O.L. Resistor

MAGNET

E.O.L. Resistor

MAGNET

MAGNET
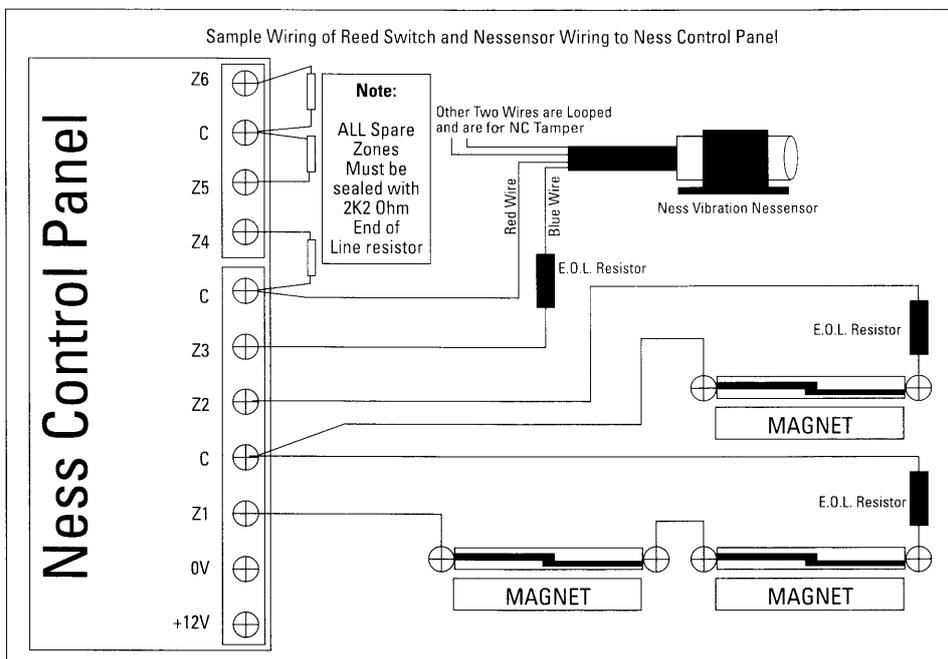
WIRING DIAGRAM

Sample Wiring of Warning Detectors:

Sample Wiring of Warning Devices to Ness Control Panel

Ness Control Panel

Tamp
0V
+12V
Z8
Reset
Reset +
STR
STR +
Siren
Siren +

E.O.L. Resistor

Tamper Switch

HORN Speaker

RED   BLK

STROBE

BLK   RED

Piezo Siren
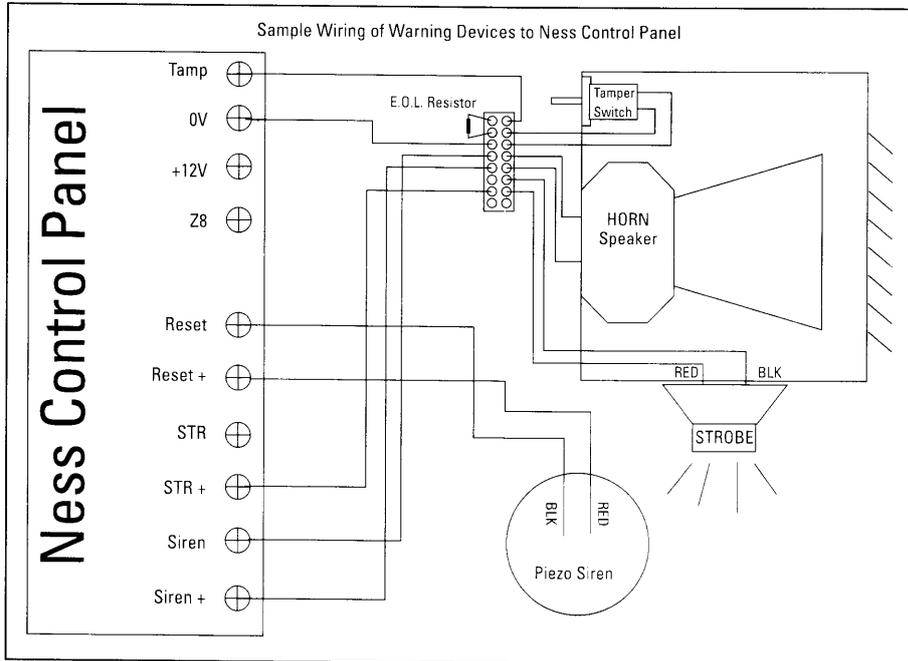
WIRING DIAGRAM

Wiring of L-8 Keypads:

Sample Wiring of Ness L- 8 Keypad to Ness L-8 Control Panel

Ness Control Panel

Z1
0V
+12V
C
KEY
SON
DAT
Reset
Reset +
STR
STR +

Ness L-8 Remote Keypad

C
KEY
SON
DAT

The L-8 Keypad connects to the L-8 Control Panel via a 4 wire connection. A maximum of 3 keypads can be connected, each wired in Parallel.
The maximum cable run is 100M using 14/.20mm cable. If the cable is shared, then divide 100M by the number of keypads to be connected. eg. 2 keypads on the cable reduces the maximum run to 50M.

CONTROLS AND INDICATIONS

Ness L-8 Keypad

The Ness L-8 LED Keypad consists of a Backlit 18 button rubber keypad, 17 status lights and an internal beeper, contained in a modern white plastic housing. The housing has a hinged front lid to protect the rubber buttons when not in use.

Audible Indications

Every time a button is pressed the panel responds with a very brief beep in acknowledgment.

The beeper is also used to indicate whether the entry was valid or invalid. For example whenever the "Enter" button is pressed, all the buttons pressed before it are checked, to see whether they are valid. If they are valid, the response will be 3 short beeps.

♪♪♪

If they are invalid (or incorrect) the response will be 1 long beep and they will be ignored.

♪___♪

At other times, the beeper will indicate various warnings such as 10 beeps for loss of Mains Power, or Low Battery.

♪___10___♪

Installation of Keypad

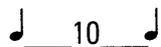• Unclip the top half of the housing by pushing the top clips down with a small screwdriver and pulling the housing forward.

• 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 that is mounted on the lid 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.

• Stick the Zone list to the inside hinged lid.

Keypad Wiring

The L-8 Keypad connects to the L-8 Control Panel via a 4 wire connection. A Maximum of 3 keypads can be connected, each wired in parallel.

The maximum cable run is 100M using 14/0.20mm cable. If the cable is shared, then divide 100m by the number of keypads to be connected. eg. 2 keypads on the cable reduces the maximum run to 50m.

VISUAL INDICATIONS

```
         1  2  3  4  5  6  7  8
Zones    ●  ●  ●  ●  ●  ●  ●  ●

●  Arm 1
●  Arm 2     ●  Memory    ●  Program
●  Mains     ●  Exclude   ●  Line
●  Battery   ●  Tamper
                              NESS
```

LIGHT	○ OFF	● ON	☀ FLASH
ZONEs 1 - 8	○ Zone Sealed	● Zone Unsealed	☀ Zone Alarm
ARM 1	○ Day / Disarm	● Panel is Armed	☀ Monitor Mode
ARM 2	○ Day / Disarm	● Panel is Armed	☀ Monitor Mode
MAINS		● Normal	☀ Mains Fail
BATTERY		● Normal	☀ Battery Low
MEMORY	○ Normal	● Memory Mode Selected	☀ Alarm in Memory
EXCLUDE	○ Normal	● Exclude Mode Selected	☀ Zones Excluded
TAMPER	○ Normal		☀ Tamper Alarm
PROGRAM	○ Normal	● Client Mode Selected	☀ Install Program Mode selected
LINE	○ Normal	● Panic Alarm has been activated. Only displayed in Memory.	

CONTROLS AND INDICATIONS

Ness L-8 Keypad

The Ness L-8 LED Keypad consists of a Backlit 18 button rubber keypad, 17 status lights and an internal beeper, contained in a modern white plastic housing. The housing has a hinged front lid to protect the rubber buttons when not in use.

Audible Indications

Every time a button is pressed the panel responds with a very brief beep in acknowledgment.

The beeper is also used to indicate whether the entry was valid or invalid. For example whenever the "Enter" button is pressed, all the buttons pressed before it are checked, to see whether they are valid. If they are valid, the response will be 3 short beeps.

♩♩♩

If they are invalid (or incorrect) the response will be 1 long beep and they will be ignored.

♩__♩

At other times, the beeper will indicate various warnings such as 10 beeps for loss of Mains Power, or Low Battery.

♩__10__♩

Installation of Keypad

• Unclip the top half of the 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 that is mounted on the lid 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.
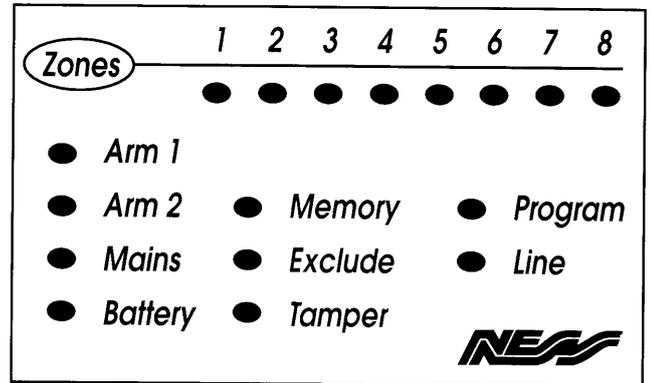
• Stick the Zone list to the inside hinged lid.

Keypad Wiring

The L-8 Keypad connects to the L-8 Control Panel via a 4 wire connection. A Maximum of 3 keypads can be connected, each wired in parallel.

The maximum cable run is 100M using 14/0.20mm cable. If the cable is shared, then divide 100m by the number of keypads to be connected. eg. 2 keypads on the cable reduces the maximum run to 50m.

ACCESS TO THE INSTALLATION PROGRAM MODE
There are two programming modes within the Ness-L8 Control Panel.

1) Installation Program Mode -
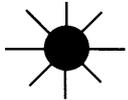
Program Light Flashes

In Installation Program Mode all programming options can be changed. This mode is used by the installer to set up the entire system. **The Program light on the Systems Keypad flashes** while in Installation Program mode

2) Client Program Mode -

Program Light On steady

In Client Program Mode only the 15 User Codes and Entry / Exit Time can be changed. **The Program light on the Systems Keypad is on Steady** while in Client Program mode.

The Installer Program Mode is entered whenever programming options are changed by the installer. It can be accessed in two ways.

A.) Access To Installation Program Mode from Initial Power Up

Whenever *Mains Power* is applied for the first time , and the **PROGRAM Pins** are opened (ie by removing the Link across them) , the panel will enter **Installation Program Mode.**

The keypad will respond with 3 Beeps ♪♪♪ and the Program light will start to flash ✹

You are now in Installer Program Mode. All programming options can be programmed from this programming mode.

NOTE : Replace the Link once the Ness L 8 is in Install Program mode otherwise a tamper alarm will occur when leaving program mode.

B.) Access To Installation Program Mode from Operating Mode

The Panel must be fully disarmed (including monitor mode) before you can access Program Mode.
You can access **installation program mode** from normal operating mode by pressing the following keypad sequence.

| ● Program | <Master Code> | ..*Enter*.. |

The keypad will respond with 3 Beeps ♪♪♪ , all lights will go out and the Program light will come on steady. You are now in **CLIENT Program Mode.** The only programming options that can be accessed from this Mode are the 15 User codes and Entry / Exit Times.

To enter Installer program Mode from here press;

| ● Program | <Installer Code> | ..*Enter*.. |

(Note : The Installer code is factory set at 000000)

The keypad will respond with 3 Beeps ♪♪♪ , and the Program light will start flashing.

You are now in Installer Program Mode. All programming options can be programmed from this mode.

HOW TO PROGRAM

Programming the NESS L-8 Control Panel is achieved via the remote keypad. Every time a button is pressed the keypad responds with a very brief beep in acknowledgment.

The **PROGRAM**, or **P** button, (as we will call it in this manual) is used to begin any programming sequence.

The **ENTER**, or **E** button, (as we will call it in this manual) is used in all cases to signify the end of the button sequence just entered.

| ● Program | **or** | P | As we will call it in this manual |

| ..Enter.. | **or** | E | As we will call it in this manual |

The Numeric keys are used to enter :

a) **Programming options**
b) **Programmed Values.**

Visual feedback of the value programmed is achieved by illuminating the Zone (1-8), Mains (0) and Battery (9) lights. The particular type of indications are described for each option in the following pages.

Installation Programming Options can be carried out in any sequence.

The program sequence always follows the pattern shown below.

Select your option and view the current Value				Enter new value/s		
● Program	2 Digit Option	..Enter..	♪♪♪	Value	..Enter..	♪♪♪
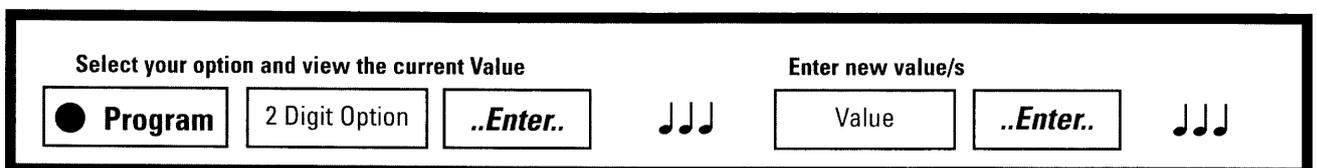
EXAMPLE
Eg. To change the 'Entry Time' (which is programmed by programming option 26) from the factory default setting of 20 seconds to 15 seconds, press the following keypad sequence.
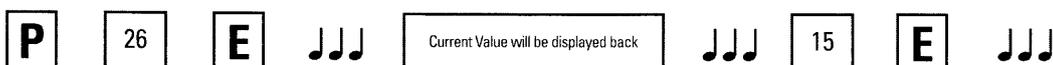
| P | 26 | E | ♪♪♪ | Current Value will be displayed back | ♪♪♪ | 15 | E | ♪♪♪ |

Note: - Every time you press ENTER the keypad will beep in acknowledgment.
Three quick beeps ♪♪♪ will acknowledge all is OK and accepted and one long beep ♪ .... ♪ indicates an invalid entry.

P11 E - P25 E   USER CODES (ACCESS CODES)
There are two programming modes within the Ness-L8 Control Panel.

A user code is a code the client uses to operate the panel.

The **Ness -L-8** has a total of 15 user / access codes, plus one code which is the Installer access code (as set by Option P 99 E) and is used only for access to Installer Program Mode. The remaining 14 codes are used for arming/disarming etc. These codes are assigned user numbers 1 to 15 (Options P 11 E - P 25 E)

Option P 11 E = User code 1 is the master code. The master code is the only code which can access Client Program Mode , as well as operating the panel.

Options P 12 E - P 25 E = User codes 2 - 15 can only operate the panel.

Note: **1)** Codes can be 3 to 6 digits in length.
   2) User codes cannot start with "0".
   3) All codes must be unique to each other.
   4) When entering codes you must enter it
          twice for verification.

To clear an existing code you must re-program that code with a number that starts with "0".

Example: To program a Master Code Press;

| P | 11 | E | ♪♪♪ | Code | E | ♪ | Code | E | ♪♪♪ |

Example: To program a Master Code to be 2468 Press;

| P | 11 | E | ♪♪♪ | 2468 | E | ♪ | 2468 | E | ♪♪♪ |

Example: To program Code 2 to be 6789 Press;

| P | 12 | E | ♪♪♪ | 6789 | E | ♪ | 6789 | E | ♪♪♪ |

Example: To Delete CODE 2 , create a code and start it with a 0;

| P | 12 | E | ♪♪♪ | 06518 | E | ♪ | 06518 | E | ♪♪♪ |

To Delete ALL CODES (Including the Master Code and Installation Code) Press ;

| P | 98 | E | ♪♪♪ |

P26 E   SETTING ENTRY TIME 1

The 'Entry Delay Time 1' is the time the Control Panel gives you to disarm the Panel after an 'Entry 1 Delay Zone 'is unsecured.

The Entry Delay Time 1 can be set to a minimum of 1 second up to a maximum of 99 seconds.

To view the current Entry Time 1 enter : **P 26 E**
The value programmed will be displayed via the zone (1-8) , battery (9) and mains (0) lights.

To change the current value to say, 10 seconds enter **10 E** Zone 1 light will flash on for 1 second followed by the mains light (0) to indicate the new value.

The factory pre-set value = 20 Seconds

SUMMARY

To VIEW the current 'Entry 1 Time'..ENTER..

Enter New Value if required and Press ENTER

| P | 26 | E | ♪♪♪ | Current Value will be displayed back | ♪♪♪ | Value | E | ♪♪♪ |

Note: - Every time you press ENTER the keypad will "beep" in acknowledgment.
Three quick beeps ♪♪♪ will acknowledge all is OK and accepted and one long beep ♪___♪ indicates an invalid entry.

P27 E   SETTING ENTRY TIME 2

The 'Entry Delay Time 2' is the time the control Panel gives you to disarm the Panel after an 'Entry 2 Delay Zone' is unsecured.

NOTE: The Entry Delay Time 2 is set in **10 second increments** instead of 1 second increments. Eg Value set at 6 = 60 Seconds

The 'Entry Delay Time 2' can be set to a minimum of 10 seconds, up to a maximum of 990 seconds (1-99)

The displaying of the current value , and setting of the new value is done in the same way as Entry 1 Time..

The factory pre-set value = 60 Seconds

SUMMARY

To VIEW the current 'Entry 2 Time'..ENTER..

..Enter New Value if required to be changed and Press ENTER

| P | 26 | E | ♪♪♪ | Current Value will be displayed back | ♪♪♪ | Value | E | ♪♪♪ |

P28 E   SETTING EXIT TIME

The 'Exit Delay Time' is the time the control panel gives you to secure and depart the premises after the Panel is Armed.

The 'Exit Delay Time' can be set to a minimum of 1 second up to 99 seconds.

To view the current Exit Delay Time enter : **P 28 E**
The value programmed will be displayed via the zone (1-8) , battery (9) and mains (0) lights.

To change the current value to say, 30 seconds enter **30 E**

Zone 3 light will flash on for 1 second followed by the mains light (0) to indicate the new value.

The factory pre-set value = 60 Seconds

SUMMARY

To VIEW the current 'Exit Time'..ENTER..   Enter New Value and Press ENTER

| P | 28 | E | ♪♪♪ | Current Value will be displayed back | ♪♪♪ | Value | E | ♪♪♪ |

PROGRAM MODES

As previously mentioned , the Ness L-8 Control Panel consists of two modes of programming.
1) **'Installation'** Program Mode
2) **'Client'** Program Mode
The Programming Options **P 11 E** through to **P 28 E** can be accessed in **BOTH** modes of programming.
(Excluding P 98 E and P 99 E)
The following programming Options can only be accessed in Installation Program Mode.

P29 E   SETTING RESET TIME

The 'siren reset time' sets the Audible Alarm's operating time. This is fixed for both the 'siren' output and the 'resetting' output.
The siren reset time can be set to a minimum of 1 minute up to 99 minutes.

To view the current Siren Reset Time enter :   **P 29 E**
The value programmed will be displayed via the zone (1-8) , battery (9) and mains (0) lights.
To change the current value to say, 5 minutes Enter **5 E**

Zone 5 light will flash on for 1 second to indicate the new value.
The factory pre-set value = 10 Minutes
Note: Check the Local Gov't By-Laws before increasing this value.

SUMMARY

To VIEW the current 'Siren Reset Time'..ENTER.. ..Enter   New Value if required to be changed and Press ENTER

| P | 29 | E | ♪♪♪ | Current Value will be displayed back | ♪♪♪ | Value | E | ♪♪♪ |

P30E - P38E   VIBRATION SENSITIVITY ZONES

When using vibration sensors , such as the Nessensor , any of the 8 zones can be programmed with individual sensitivities.

There are 8 sensitivities.
P 31 E = High Sensitivity
through to
P 38 E = Low Sensitivity

P 30 E is for **normal zones** that do not use vibration sensors. Sensitivity 1 and 8 (ie Programming address P31E and P38E) should not normally be used , they are provided as a guide to the upper and lower limits only.

Example: To set , say zone 5 to be used with a Nessensor Vibration Sensor and set to a Medium sensitivity, enter,
P 34 E 5 E

The factory Pre-set value = No Zone set Vibration. (ie. all zones set to normal P 30 E, all zone lights On)

SUMMARY

To VIEW the current 'Vibration Setting'..ENTER..   ..Enter Zone if required to be changed and Press ENTER

| P | 30 to 38 | E | ♪♪♪ | Current Zone will be displayed back | ♪♪♪ | Value | E | ♪♪♪ |
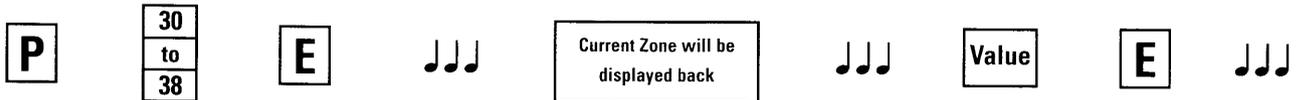
NOTE

Nessensors are very 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 instead.

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

P 39 E — DOUBLE TRIGGER ZONES

Zones selected as Double Trigger Zones will be triggered as an alarm only if:
1) The zone has triggered twice in a 4 Minute period.
2) Any 2 zones (both programmed to be double trigger), each alarm once.
3) The zone is left unsealed for longer than 15 Seconds.

Example: To set , say , zone 3 and zone 6 to be double trigger zones , enter : **P 39 E 3 E 6 E**

When you select this option the zone lights will indicate what zones are set to double trigger.

Factory Pre-set = ALL ZONES SET TO SINGLE TRIGGER (All zone lights off)

SUMMARY

To VIEW the Zones Set to Double Trigger Zones..ENTER..   Enter Zone required to be set as a Double Trigger Zone and Press ENTER

| P | 39 | E | Zones Currently set as double Trigger Zones will be displayed. | ♪♪♪ | Value | E | ♪♪♪ |

ZONE ASSIGNMENT

The Ness L-8 can operate in 3 different modes. Arm Mode (when the Panel is Armed), Monitor Mode, or Disarm mode (when the panel is Disarmed). All zones can be programmed to operate in any combination of these 3 Panel Modes. The Panel can also be broken into 2 Areas. Area 1 and Area 2. Zones can be programmed to be one of 4 types: Instant, Handover, Entry Delay 1 and Entry Delay 2. Armed Zone alarms can only be reset by a code assigned to the Area that the zone alarm occurred in.

24 Hour Zones work independently of Arm, Monitor, and Disarm. Therefore, a zone selected as 24 Hour will be removed from **Arm, Monitor** and **Disarm.** Similarly, selecting a zone as Arm, Monitor or Disarm will remove it from 24 Hour. 24 Hour Zones are always Instant and turn on the same outputs regardless of the Panel Mode.

ZONE TYPE DESCRIPTION

P 40 E — SETTING ZONES TO BE INSTANT

An Instant Zone triggers an alarm the moment the zone is unsecured. This can only occur when the panel is Armed and the Exit Time (as set by P 28 E) has expired. **Example:** To set , say, Zone 1 and Zone 2 to be Instant, Enter ; **P 40 E 1 E 2 E**

Factory Pre-set = Zones 3 to 8 Instant (Zone lights 3-8 on)

SUMMARY

To VIEW the Zones Set as Instant Zones..ENTER..   Enter Zone required to be set as an Instant Zone and Press ENTER

| P | 40 | E | Zones Currently set as Instant Zones will be displayed. | ♪♪♪ | Value | E | ♪♪♪ |

P 41 E   ENTRY DELAY 1 ZONES

After expiry of the Exit Time (as set by P 28 E) a 'Delay 1' Zone becoming unsecured , will cause an alarm at the end of the Entry 1 Time (as set by P 26 E) if the Panel has not been Disarmed.

Example: To set , say, Zone 4 and Zone 7 to be Delay, Enter ; **P 41 E 4 E 7 E**

Factory Pre-set = Zone 1 set to Delay 1 timer (Zone light 1 on)

SUMMARY

To VIEW the Zones Set as Entry 1 Zones..ENTER..   Enter Zone required to be set as an Entry 1 Zone and Press ENTER

| P | | 41 | | E | | Zones Currently Set as Entry 1 Zones will br displayed. | ♪♪♪ | Zone | | E | | ♪♪♪ |

P 42 E   HANDOVER ZONES

A Handover Zone is a combination of a Delay zone and an Instant Zone. After Arming , the Handover Zone is delayed for the Exit Delay time (as set by P 28 E). It then automatically reverts to an Instant Zone to provide greater security for detectors on the delay path. If a normal entry is made through a delay zone , then all Handover zones revert to delayed operation again to enable time to enter and Disarm the Panel without triggering an alarm.

Handover should not be selected for the actual "point of entry" zones (eg. front door)

Example: To set, say, zone 4 and zone 5 to be Handover Zones, enter :   **P 42 E 4 E 5 E**

Factory Pre-set = Zone 2 set to Handover (Zone 2 light on)

SUMMARY

To VIEW the Zones Set as Handover Zones..ENTER....   Enter Zone required to be set as an Handover Zone and Press ENTER

| P | | 42 | | E | | Zones Currently set as Handover Zones will be displayed. | ♪♪♪ | Zone | | E | | ♪♪♪ |

P 43 E   ENTRY 2 DELAY ZONES

After expiry of the Exit Time (as set by P 28 E) a delay 2 Zone becoming unsecured , will cause an alarm at the end of the Entry 2 Time (as set by P 27 E) if the Panel has not been Disarmed.

Example: To set, say Zone 3 to be a Delay 2 zone Enter; **P 43 E 3 E**

Factory Pre-set = No Zones set to Delay 2 Timer (No Zone lights off)

SUMMARY

To VIEW the Zones Set as Entry 2 Zones..ENTER..   Enter Zone required to be set as an Entry 2 Zone and Press ENTER

| P | | 43 | | E | | Zones Currently set as Entry 2 Zones will be displayed. | ♪♪♪ | Zone | | E | | ♪♪♪ |

P 44 E   SIREN LOCKOUT ZONES

All 8 Zones can be programmed to lockout , ie. cause the external siren to sound only once whilst the panel is armed. The siren is "locked out" for that zone until the panel has been reset by entering a valid code.

NOTE: Only the Zone that caused an alarm will be locked-out .Only the siren output will lockout. The resetting output will re-trigger.
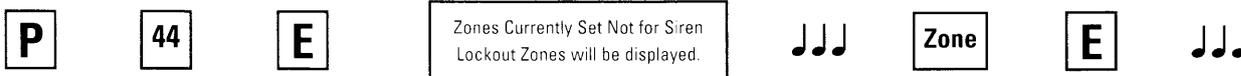
Example: To set , say Zone 1 and Zone 2 to lockout Enter ;
P 44 E 1 E 2 E

Factory Pre-set = ALL Zones set to LOCKOUT
(All Zone lights off)

SUMMARY

To VIEW the Zones Set for Siren Lockout Zones..ENTER..

Enter Zone required to be set to Lockout Sirens after alarming then Press ENTER

| P | 44 | E | Zones Currently Set Not for Siren Lockout Zones will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

Note: Zones set to Siren Lockout will not light. ie zones lit are set to retrigger.

AREA OPERATION

The NESS L-8 Control Panel allows for the 8 Zones to be split into two groups, known as Area 1 and Area 2 . The two Areas can be assigned access codes so that a user may have access to either Area 1, Area 2 or both Areas. This allows for partial Arming of the premises or protecting two separate premises with one NESS L-8 (Eg. Petrol Station and Workshop / House and Granny Flat etc.) Any Zone may be allocated to any Area , and zones may be included into both Areas to make those zones "Common Area" Zones. If Zones are allocated to both Areas, then both Areas must be Armed before those Zones are Armed. Area operation only applies when they are in the Armed state. This means that Day, 24 hour and Monitor zones are independent of area operation. Refer Programming Options P45E - P50E for assigning zones and codes to Areas.

NOTE: If no Area operation is required, assign all Zones to Area 1 Only.

P 45 E   ASSIGNING AREA 1 ZONES

To Assign Zones to Area 1 Enter **P 45 E Zone E**
Example : To set , say Zone 1, 2, 3, 4 and 6 to Area 1
Enter **P 45 E 1 E 2 E 3 E 4 E 6 E**

Factory Pre-set = All Zones are set to be Area 1
(All Zone lights on)

Note : To UN-assign a zone from being an Area 1 Zone use the same method as above to switch the Zone light off (ie P 45 E 1 E Selects Zone 1, 1 E again de-selects the Zone.

SUMMARY

To VIEW the Zones Set as Area 1 Zones..ENTER..

Enter Zone required to be set as Area 1 Zones then Press ENTER

| P | 45 | E | Zones Currently Set As Area 1 Zones will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

P 46 E   ASSIGNING AREA 2 ZONES

To Assign Zones to Area 2, enter **P 46 E Zone E**

Example : To set , say Zone 1,5,7 and 8 to Area 2, enter
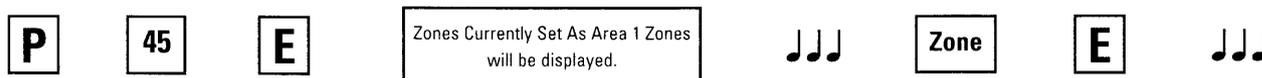**P 46 E 1 E 5 E 7 E 8**

Factory Pre-set = No Zones are set to be Area 2
(All Zone lights off)

Note : To UN-assign a zone from being an Area 2 Zone use the exact same method above to switch the Zone light off (ie P 46 E 1 E Selects Zone 1, 1 E again de-selects the Zone

SUMMARY

To VIEW the Zones Set as Area 2 Zones..ENTER..

Enter Zone required to be set as Area 2 Zones then Press ENTER

P	46	E	Zones Currently Set As Area 2 Zones will be displayed.	♩♩♩	Zone	E	♩♩♩
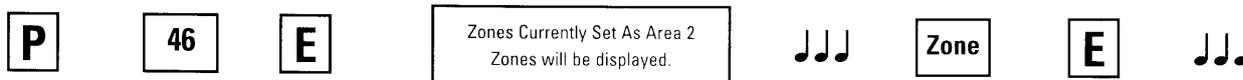
P 47 E - P 48 E   ASSIGN USER CODES TO AREA 1

The Ness L-8 has 15 User codes, of which any can be selected to operate any of the 2 Areas or both if required.
Option **P 47 E** Selects which of the **User codes 1 to 8** can Arm and Disarm **Area 1.**
Option **P 48 E** Selects which of the **User codes 9 to 15** can Arm and Disarm **Area 1.**
Example: To set , say, Users 1 , 2 , 6 , 9 ,11 and 15 to operate Area 1, enter ;
P 47 E 1 E 2 E 6 E
P 48 E 1 E 3 E 7 E

The 8 Zone lights will display what Users have been selected for Area 1.
Factory Pre-set = All Users are set to be Area 1   (All Zone lights on)

SUMMARY

To VIEW the User codes 1-8 Set as Area 1 Codes..ENTER..

Enter Code required as Area 1 Codes then Press ENTER

P	47	E	User codes 1-8 Set As Area 1 Codes will be displayed.	♩♩♩	Value	E	♩♩♩

To VIEW the User codes 9-15 Set as Area 1 Codes..ENTER..
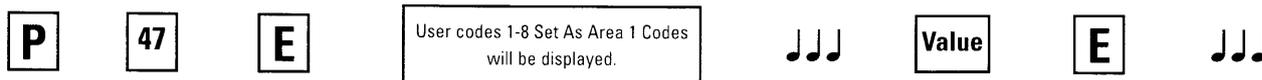
Enter Code required as Area 1 Codes then Press ENTER

P	48	E	User codes 9-15 Set As Area 1 Codes will be displayed.	♩♩♩	Value	E	♩♩♩
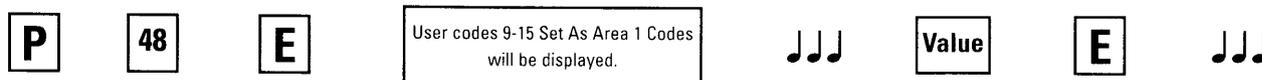
(Note Zone 1 will display User Code 9 - Zone 7 will display User code 15.)

P 49 E-P 50 E   ASSIGN USER CODES TO AREA 2

The Ness L-8 has 15 User codes of which any can be selected to operate any of the 2 Areas or both if required.

Option **P 49 E** Selects which of the **User codes 1 to 8** can Arm and Disarm Area 2.

Option **P 50 E** Selects which of the **User codes 9 to 15** can Arm and Disarm Area 2.

Example : To set , say Users 1 , 3 , 10 ,12 to operate Area 2 enter ;

P 47 E 1 E 3 E
P 48 E 2 E 4 E

The 8 Zone lights will display what Users have been selected for the Area 2

Factory Pre-set = Users Code 1 Only set to be an Area 2 code   (Zone 1 lights on)

SUMMARY

To VIEW the User codes 1-8 Set as Area 2 Codes..ENTER..

Enter Code required as Area 2 Codes then Press   ENTER

| P | 49 | E | User codes 1-8 Set As Area 2 Codes will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

To VIEW the User codes 9-15 Set as Area 2 Codes..ENTER..

Enter Code required as Area 2 Codes then Press   ENTER

| P | 50 | E | User codes 9-15 Set As Area 2 Codes will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

(Note: Zone 1 will display User Code 9 - Zone 7 will display User code 15.)

P 51 E   SELECTING MONITOR ZONES

Monitor Zones allow you to ARM selected zones while others are ignored. Typically Perimeter zones (doors and windows) can be Monitored while you are at home.

The Zones selected to be Monitor Zones will be Armed when the panel is put into "Monitor Mode" as well as when the panel is fully Armed. Monitor Mode allows a User to Arm those zones with a simple Keypad operation. Monitor Zones will operate when the Panel is in Monitor Mode. ie. both Arm 1 and Arm 2 LED's on the keypad are flashing.

There are 2 different ways to use Monitor Mode.
1. If Programming option P64E 1 E (refer below) is selected: Monitor Zones will turn on the outputs assigned by Programming option P63E (refer below) for 2 Seconds.

2. If Programming option P64E 1 E is not selected: Monitor Zones will turn on the outputs assigned to the zones as set by Programming option P54E-P59 E (refer below) and the outputs will behave as normal. (Note: in this case P64E 3E must not be selected..Refer below)

To also have **pre alarm warning in Monitor** (even on Instant Zones) :
If Programming option P64E 3 E is selected : Monitor Zones will all behave as Entry / Exit zones. This allows the user to have a Sonalert pre-warning of a monitor alarm.
If Programming option P64 E 3 E is not selected : Monitor Zones will behave as programmed for the zone types (as per P40E - P43E)

Example : To set , say, Zones 1 , 3 and 7 to be Monitor Mode Zones , Enter ; **P 51 E 1 E 3 E 7 E**

The factory Pre-Set Monitor Zones = No Zones   (All Zone Lights off)

SUMMARY

To VIEW the Zones Set to activate in Monitor Mode..ENTER..

Enter Zone required as Monitor Zone then Press   ENTER

| P | 51 | E | Zones set to be active during Monitor Mode will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |
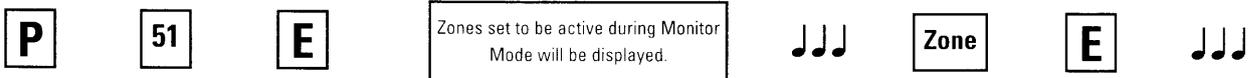
P 52 E   SELECTING 24 HOUR ZONES

24 Hour Zones are Armed at all times regardless of the mode of the panel operation , ie. Armed , Disarmed or Monitor. When alarmed, these zones will activate assigned outputs immediately.

Example: To set ,say, zone 6 to be a 24 Hour zone , Enter
P 52 E 6 E

Factory Pre-Set 24 Hour Zones = No Zones
(No Zone Lights On.)
24 Hour Zones work independently of Armed, Monitor, and Disarmed. Therefore, a zone selected as 24 Hour will be removed from Night, Monitor and Day. Similarly, selecting a zone as Night, Monitor or Day will remove it from 24 Hour. 24 Hour Zones are always Instant and turn on the same outputs regardless of the Panel Mode.

SUMMARY

To VIEW the Zones Set as 24 Hour Zones..enter..

Enter Zone required as a 24 Hour Zone then Press ..ENTER

| P | 52 | E | Zones set as 24 Hour Zones will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |
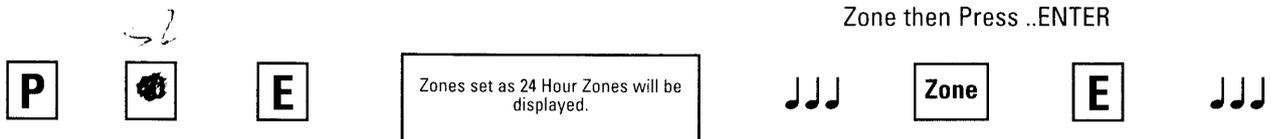
P 53 E   SELECTING DAY ZONES

Day Zones operate when the panel is in a totally disarmed state, ie. When Area 1, Area 2 and Monitor Mode are all off.

When alarmed, these Zones will activate the assigned outputs instantly.
There are 2 different ways to use Day Zones.

1. If Programming option P64E 2 E (refer below) is selected: Day Zones will turn on the outputs assigned by Programming option P63E (refer below) for 2 Seconds. This is useful for daytime doorway monitoring.

2. If Programming option P64E 2 E is not selected: Day Zones will turn on the outputs assigned to the zones as set by Programming option P54E-P59 E (refer below) and the outputs will behave as normal.

Example : To set, say, zone 5 to be a 'Day Zone', enter ;
P 53 E 5 E

Factory Pre-Set 'Day Zones' = NO Zones
(No Zone Lights On)

SUMMARY

To VIEW the Zones Set as Day Zones..ENTER..

Enter Zone required as a Day Zone then Press ..ENTER

| P | 53 | E | Zones set as Day Zones will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

INPUT TO OUTPUT MAPPING

When a zone alarms, it can turn on any, or all of the following 4 outputs ; Reset, Strobe, Keypad Sonalert and Siren.
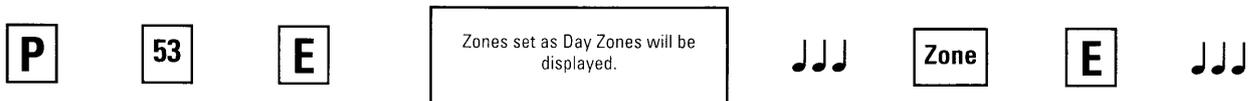
The NESS L-8 allows for each zone input to be selected as to what outputs they will activate.

Programming options **P 54 E - P 59 E** select which Zones will activate these outputs. The Tamper input and Keypad Panic can be programmed to select which of the above 4 outputs will turn on when they are activated. This is achieved by programming option P 61 E.

Monitor and Day Zones can be assigned to switch these Outputs as well using Option P 63 E. Note: these are only active when programmed with Programming option P64 E (refer below). Tamper and Monitor outputs are displayed on Zones 1-4, while Panic and Day outputs are displayed on zone LED's 5-8. The following table shows a summary of these programming options and how the panel is programmed as default from the factory.

Option	Option	ZONES								OPTION P 61 E		OPTION P 63 E	
		1	2	3	4	5	6	7	8	Tamper	Panic	Monitor	Day
P 54 E	Reset	x	x	x	x	x	x	x	x	1x	5x	1x	5x
P 55 E	Strobe	x	x	x	x	x	x	x	x	2x	6x	2x	6x
P 56 E	Son'lrt	x	x	x	x	x	x	x	x	3x	7x	3x	7x
P 57 E	Siren	x	x	x	x	x	x	x	x	4x	8x	4x	8x

x= Factory Pre-set
Note: The Reset and Siren output will turn on for the duration of the alarm timer (P 29 E) or until it is reset via a valid code. The Strobe outputs latches until reset by a valid code.

P 54 E   SELECTING RESET OUTPUTS ZONES

This option selects which Zones will activate the 'Reset' Output.
To view what zones are set to activate the Reset Output enter   **P 54 E**

Zones set to activate the Reset Output will be lit.
To De-Select zones from activating the Reset Output enter Zone E . To select it again enter the Zone then E again.

The Factory Pre-Set = ALL Zones set to Reset O/P   (All Zone Lights On).

SUMMARY

To VIEW the Zones that will activate the reset output..ENTER..

Enter Zone required to activate the reset output then Press ..ENTER

| P | 54 | E | Zones set to activate the reset output will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

P 55 E   SELECTING STROBE OUTPUTS ZONES

This option selects which Zones will activate the 'Strobe' Output.
To View what Zones are set to activate the Strobe Output Enter **P 55 E**

Zones set to activate the Strobe Output will be lit.
To De-Select zones from activating the Strobe Output enter Zone E, to select it again enter the Zone E again.

The Factory Pre-Set = ALL Zones set to Strobe O/P (All Zone Lights On).

SUMMARY

To VIEW the Zones that will activate the Strobe output..ENTER..

Enter Zone required to activate the Strobe output then Press ..ENTER

| P | 55 | E | Zones set to activate the Strobe output will be displayed. | ♪♪♪ | Zone | E | ♪♪♪ |

P 56 E   SELECTING KEYPAD SONALERT OUTPUTS ZONES

This option selects which Zones will activate the 'Keypad Sonalert' Output.
To View what Zones are set to activate the Sonalert Output Enter **P 56 E**

Zones set to activate the Sonalert Output will be lit.
To De-Select zones from activating the Sonalert Output enter Zone E . To select it again Enter the Zone then E again.

Factory Pre-Set = ALL Zones set to Sonalert O/P (All Zone Lights On)

SUMMARY

To VIEW the Zones that will activate the Sonalert output..ENTER..

Enter Zone required to activate the Sonalert output then Press ..ENTER

P	56	E	Zones set to activate the Sonalert output will be displayed.	♪♪♪	Zone	E	♪♪♪
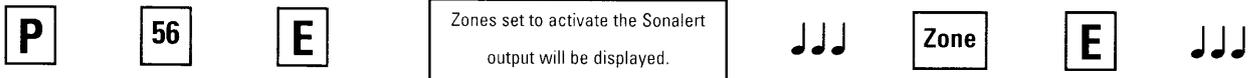
P 57 E   SELECTING SIREN OUTPUTS ZONES

This option selects which Zones will activate the 'Siren' Output.
To View what Zones are set to activate the Siren Output enter **P 57 E**

Zones set to activate the Siren Output will be lit.
To De-Select zones from activating the Siren Output enter Zone E . To select it again enter the Zone then E again.

The Factory Pre-Set = ALL Zones set to Siren O/P (All Zone Lights On)

SUMMARY

To VIEW the Zones that will activate the Siren output..ENTER..

Enter Zone required to activate the Siren output then Press ..ENTER

P	57	E	Zones set to activate the Siren output will be displayed.	♪♪♪	Zone	E	♪♪♪
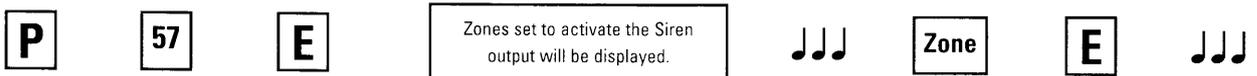
MISCELLANEOUS OPTIONS

P 60 E 1E   ENTRY WARNING BEEPS

Whenever a 'Delay Zone' is unsecured when the panel is Armed and 'Entry Time' begins , the Keypad Sonalert begins to Beep

To Disable Entry Warning Beeps Enter **P 60 E 1 E.**

With Zone 1 LED On , Entry Warning Beeps will be Enabled , and with Zone 1 LED Off , the Entry Warning Beeps are Disabled.

Factory Pre-Set = Entry Beeps Enabled
(ie. Zone LED 1 On)

P 60 E 2E 3 E   KEYSWITCH OPERATION

A normally-open momentary Keyswitch can be used to Arm , Disarm or put the panel to Monitor Mode.

If a Keyswitch is required it is wired to Zone 8. A short on the Zone input will operate the panel as a Keyswitch activation. An Open Circuit will generate a 24 Hour Keyswitch Panic alarm.

When **P 60 E 2 E** is selected , the Panel will change to Monitor or Disarming only , on each momentary Keyswitch shorting of the Zone 8 input.
When **P 60 E 3 E** is selected , the Panel will change from Arming and Disarming only , on each shorting of the Zone 8 Input.
When **P 60 E 2 E 3 E** (ie. Both options selected) the Panel will cycle through all three operating modes on each shorting of the Zone 8 Input.

```
              ┌──────────┐
        ──────▶│   ARM    │──────▶
              └──────────┘       
 ┌──────────┐            ┌──────────┐
 │ MONITOR  │◀───────────│  DISARM  │
 └──────────┘            └──────────┘
```
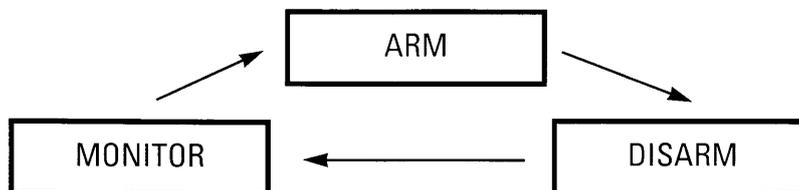
P 60 E 4E   SIREN LOCKOUT ON TAMPER

This option when selected will lockout the 'Siren' output and only allowing the 'Sirens' to sound once if multiple Tamper Alarms occur.

The 'Siren' outputs become active again once the Panel has been reset by the use of an Authorised Access Code.

To de-select enter **P 60 E 4 E .**

Zone LED 4 will be on when this option is selected and off when it is disabled.

Factory Pre-Set = Tamper Lockout On.
(ie. Zone LED 4 ON)

P 60 E 5E   DURESS ALARM TO ACTIVATE 'RESET' OUTPUT

A Duress Alarm can be activated by Adding a 5, 6, 8 or 9 digit before your Access code.
(ie. If you access code is 3 6 2 2 , then adding a 5, 6, 8, or 9 before the code eg. code 9 3 6 2 2 will disarm the panel and generate a Duress alarm.)
This option ,when selected, will activate the Reset output whenever a Duress Code is used.

To Select this option Enter   **P 60 E 5 E .**
Zone LED 5 will be on when this option is selected and off when it is disabled.

Factory Pre-Set = No Reset Output Selected on Duress Alarm. (ie. Zone LED 5 Off)

P 60 E 6E   AUTO EXCLUDING OF ZONES

If a Zone is unsealed at the end of Exit Time (as set by P 28 E) the Ness L-8 will provide a 2 Second Siren Burst and the Zone unsealed will be automatically excluded (not cause an Alarm) from the System until it is sealed again or until the panel is disarmed.
The 2 second Siren Burst can be disabled when Auto-excluding by Selecting P 62 E 7 E
This option will Disable the auto-Exclude function. When disabled, a Zone unsealed at the end of exit time will

cause the panel to go into Alarm and not automatically Exclude the Zone.

To Disable this Auto Exclude function, enter; **P 60 E 6 E**
The Zone 6 LED will indicate if the option is selected. With Zone 6 LED On , The Auto Exclude function is Enabled and with the Zone 6 LED Off the Auto Exclude function is disabled.
Factory Pre-Set = Auto Exclude Enabled
(ie. Zone 6 LED On)

P 60 E 7E   DISABLE THE DISPLAY

This option , when selected , will turn off all LED indicators on the Remote Keypad if no keypresses have occurred within 4 minutes (useful to stop annoying lights in a bedroom).

Any activation of the keypad via Beeps or pressing of any key will restore the LED's.

To Enable this Display Disable function, enter; **P 60 E 7 E**
The Zone 7 LED will indicate if the option is selected. With Zone 7 LED On , The Display Disable function is Enabled and with the Zone 7 LED Off the Display Disable is disabled.
Factory Pre-Set = No Disabling of LED's
(ie. Zone 7 LED Off)

P 60 E 8E   AREA 1 OUTPUT ON AFTER EXIT TIME

The output marked Area 1 turns on immediately Area 1 is Armed.

This programming option, when selected , will turn Area 1 output on only after exit time has expired.

To Enable these outputs to activate only after Exit time, enter; **P 60 E 8 E**

The Zone 8 LED will indicate if this option is selected. With Zone 8 LED On, The Area 1 Output will active at the end of Exit time when the Area is Armed, and with the Zone 8 LED Off , the Output will activate immediately the Area is Armed.

Factory Pre-Set = Outputs Activate Immediately Area is Armed. (ie. Zone 8 LED Off)

P61E 1 E-4E   SELECTING TAMPER ALARMS TO ACTIVATE OUTPUTS

This option selects which Outputs will be activated if a Tamper Alarm occurs.

Options **P 61 E 1 E to P 61 E 4 E** selects outputs to activate as follows

P 61 E 1 E Selects the **'Reset'** Output.

P 61 E 2 E Selects the **'Strobe'** Output.

P 61 E 3 E Selects the **'Keypad Sonalert'** Output.

P 61 E 4 E Selects the **'Siren'** Output.

To View what Outputs will activate on a Tamper Alarm

P 61 E

The Zone 1-4 LED's will light to indicate which of the 4 options are set to activate on a Tamper Alarm.
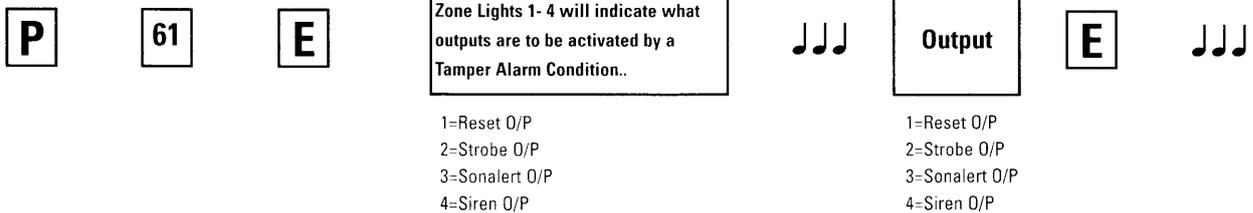
To De-Select Outputs from activating on a Tamper Alarm enter the option (ie 1 to 4) then "ENTER" . To select it again enter the option then "ENTER" again.

The Factory Pre-Set = ALL Outputs to Activate on Tamper Alarm. (Zone Lights 1 to 4 On)

SUMMARY

To VIEW what outputs will activate on a Tamper Alarm, enter..

Enter Output required to activate on a Tamper Alarm then Press ..ENTER

| P | | 61 | | E | | Zone Lights 1- 4 will indicate what outputs are to be activated by a Tamper Alarm Condition.. | ♪♪♪ | Output | E | ♪♪♪ |

1=Reset O/P
2=Strobe O/P
3=Sonalert O/P
4=Siren O/P

1=Reset O/P
2=Strobe O/P
3=Sonalert O/P
4=Siren O/P

P61E 5 E-8E   SELECTING PANIC ALARMS TO ACTIVATE OUTPUTS

This option selects which Outputs will be activated if a Panic Alarm occurs.

Options **P 61 E 5 E to P 61 E 8 E** selects outputs to activate as follows

P 61 E 5 E Selects the **'Reset'** Output.

P 61 E 6 E Selects the **'Strobe'** Output.

P 61 E 7 E Selects the **'Keypad Sonalert'** Output.

P 61 E 8 E Selects the **'Siren'** Output.

To View what Outputs will activate on a Panic Alarm **P 61 E**
The Zone 5 - 8 LED's will light to indicate which of the 4 options are set to activate on a Panic Alarm.

To De-Select Outputs from activating on a Panic Alarm enter the option (ie 5 to 8) then "ENTER" . To select it again enter the option then "ENTER" again.

The Factory Pre-Set = ALL Outputs to Activate on Panic Alarm. (Zone Lights 5 to 8 On)

SUMMARY

To VIEW what outputs will activate on a Panic Alarm.ENTER..

Enter Output required to activate on a Panic Alarm then Press ..ENTER

| P | | 61 | | E | | Zone Lights 5- 8 will indicate what outputs are to be activated by a Panic Alarm Condition.. | ♪♪♪ | Output | E | ♪♪♪ |

5=Reset O/P
6=Strobe O/P
7=Sonalert O/P
8=Siren O/P

5=Reset O/P
6=Strobe O/P
7=Sonalert O/P
8=Siren O/P
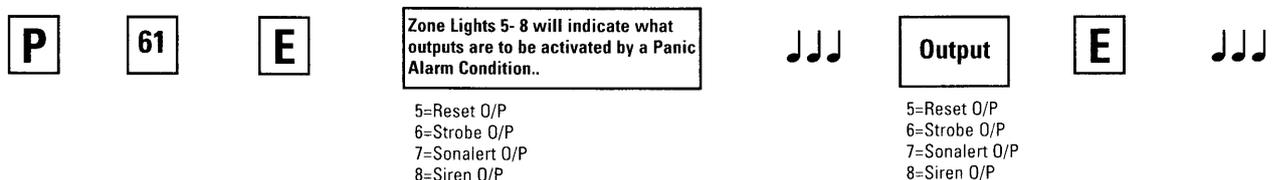
P 62 E   SYSTEM OPERATING SHORTCUTS

Options P 62 E 1 E to P 62 E 6 E selects how you wish certain functions within the system to operate.

Keypad operations can be programmed to operate with or without a User Code. If you Select the operation to operate without a user code this is known as "Shortcut".

The operations available for use as shortcuts are as follows;

P 62 E 1 E = Memory Display Shortcut.

P 62 E 2 E = Zone Exclude Shortcut.

P 62 E 3 E = Monitor Mode Shortcut.

P 62 E 4 E = Enable Medical & Fire Alarms.

P 62 E 5 E = Area 1 Arming Shortcut.

P 62 E 6 E = Area 2 Arming Shortcut.

Note: Do not select option 5 & 6 together as the panel does not allow short cutarming for both areas.

With the option selected (ie. Zone LED's 1 to 6 On to show Options 1 - 6 Selected or not.) When shortcut operation is selected a User Code is not required to access that function.

Example: With P 62 E 2 E (Exclude Shortcut) selected , to access exclude mode you only need press the "EXCLUDE" key followed by "ENTER" key. If shortcut is not selected then to access Exclude Mode, you would need to press "EXCLUDE" then an authorised "USER CODE" followed by "ENTER"

If User I.D. reporting is required back at the control room, then the client must Arm the System using a Code.

Therefore Arming Shortcut must be disabled.
ie. P 62 E 5 E for Area 1 or P 62 E 6 E for Area 2 must be disabled.

To View which Shortcuts have been selected Enter; **P 62 E**

Zone 1 to 6 LED's will light to indicate what options have their Shortcuts enabled.

Factory Pre-Set = Options 1 to 5 Shortcuts Enabled Option 6 Disabled. (Zone Lights 1 - 5 on 6 Off)

P 62 E 7 E   2 SECOND SIREN ON AUTO EXCLUDES

If a zone is unsealed at the end of Exit Time and Auto Excluding of Zones is selected as per programming option P 60 E 6 E, the system can supply a 2 second Siren Burst as a warning that a zone has been Automatically Excluded.

This option provides an means of disabling the 2 second Siren Warning when a Zone is Auto Excluded. To View if the 2 Second Warning is enabled, enter **P 62 E 7 E**

Zone 7 LED will indicate the selection of this option. When lit it will indicate the 2 Second Warning and when not lit, it will indicate no warning.

Factory Pre-set = 2 Second Warning Enabled.
(ie. Zone 7 LED On)

P 62 E 8 E   EXIT TIME X 10

If you require a longer than normal exit time you can select this option, which will multiply your Exit Time (as set by P 28 E) by 10.

EG. If the Exit Time (P 28 E) is set as 22 seconds and this **P 62 E 8 E** option is selected then the Exit Time will now be 220 seconds. (22 x 10 = 220)

To View if the this option is selected Enter **P 62 E 8 E**

Zone 8 LED will indicate the selection of this option. When lit it will indicate the Exit Time will be increased by 10 and when not lit it will indicate it is as set exactly to the time in P 28 E..

Factory Pre-Set = No Increased.. (ie. Zone 8 LED Off)

P63E 1 E-84   MONITOR MODE OUTPUTS

This option selects which Outputs will be activated when the Panel is in Monitor Mode and an Alarm occurs. These outputs will activate for 2 Seconds if set with programming Option P 64 1 E is set on.

Options **P 63 E 1 E to P 63 E 4 E** selects outputs to activate when a Monitor Zone Alarm occurs are as follows

P 63 E 1 E Selects the 'Reset' Output.
P 63 E 2 E Selects the 'Strobe' Output.
P 63 E 3 E Selects the 'Keypad Sonalert' Output.
P 63 E 4 E Selects the 'Siren' Output.

To View what Outputs will activate when in Monitor Mode enter; **P 63 E**

The Zone 1-4 LED's will light to indicate which of the 4 options are set to activate in Monitor Mode..

The Factory Pre-Set = ALL Outputs to Activate by Monitor Zone. (Zone Lights 1 to 4 On)
(Note: refer programming option P 64 E for more information about activating these Outputs.

SUMMARY

To VIEW what outputs will activate when a Monitor Zone goes into Alarms.ENTER..

Enter Output required to activate when a Monitor Zone Alarms then Press ..ENTER

| P | 63 | E | Zone Lights 1- 4 will indicate what outputs are to be activated when a Monitor Zone Alarms in Monitor Mode. | ♪♪♪ | Output | E | ♪♪♪ |

1=Reset O/P
2=Strobe O/P
3=Sonalert O/P
4=Siren O/P

1=Reset O/P
2=Strobe O/P
3=Sonalert O/P
4=Siren O/P

P 62 E 8 E   EXIT TIME X 10

If you require a longer than normal exit time you can select this option, which will multiply your Exit Time (as set by P 28 E) by 10.

EG. If the Exit Time (P 28 E) is set as 22 seconds and this **P 62 E 8 E** option is selected then the Exit Time will now be 220 seconds. (22 x 10 = 220)

To View if the this option is selected Enter **P 62 E 8 E**

Zone 8 LED will indicate the selection of this option. When lit it will indicate the Exit Time will be increased by 10 and when not lit it will indicate it is as set exactly to the time in P 28 E..

Factory Pre-Set = No Increased.. (ie. Zone 8 LED Off)

P63E 1 E-84   MONITOR MODE OUTPUTS

This option selects which Outputs will be activated when the Panel is in Monitor Mode and an Alarm occurs. These outputs will activate for 2 Seconds if set with programming Option P 64 1 E is set on.

Options **P 63 E 1 E to P 63 E 4 E** selects outputs to activate when a Monitor Zone Alarm occurs are as follows

P 63 E 1 E Selects the 'Reset' Output.
P 63 E 2 E Selects the 'Strobe' Output.
P 63 E 3 E Selects the 'Keypad Sonalert' Output.
P 63 E 4 E Selects the 'Siren' Output.

To View what Outputs will activate when in Monitor Mode enter; **P 63 E**

The Zone 1-4 LED's will light to indicate which of the 4 options are set to activate in Monitor Mode..

The Factory Pre-Set = ALL Outputs to Activate by Monitor Zone. (Zone Lights 1 to 4 On)
(Note: refer programming option P 64 E for more information about activating these Outputs.

SUMMARY

To VIEW what outputs will activate when a Monitor Zone goes into Alarms.ENTER..

Enter Output required to activate when a Monitor Zone Alarms then Press ..ENTER

P	63	E	Zone Lights 1- 4 will indicate what outputs are to be activated when a Monitor Zone Alarms in Monitor Mode.

1=Reset O/P
2=Strobe O/P
3=Sonalert O/P
4=Siren O/P

♪♪♪ | Output | E ♪♪♪

1=Reset O/P
2=Strobe O/P
3=Sonalert O/P
4=Siren O/P

P63E 5 E-8 E   DAY MODE OUTPUTS

This option selects which Outputs will be activated when the Panel is in Day Mode (ie Disarmed) and an Alarm occurs. These outputs will activate for 2 Seconds if set with Option P 64 1 E On.

Options **P 63 E 5 E to P 63 E 8 E** selects outputs to activate when a Day Zone Alarm occurs are as follows:
P 63 E 5 E Selects the 'Reset' Output.
P 63 E 6 E Selects the 'Strobe' Output.
P 63 E 7 E Selects the 'Keypad Sonalert' Output.
P 63 E 8 E Selects the 'Siren' Output.

To View what Outputs will activate when in Monitor Mode enter; **P 63 E**

The Zone 5 - 8 LED's will light to indicate which of the 4 options are set to activate in Day Mode

The Factory Pre-Set = Reset & Strobe Outputs to Activate only by Day Zone. (Zone Lights 5 & 6 Only On)

Note: Refer option P 64 E for more information about activating these outputs.

SUMMARY

To VIEW what outputs will activate when a
Day Zone Alarms.ENTER..

Enter Output required to activate when a
Day Zone Alarms then Press ..ENTER

P	63	E

Zone Lights 5- 8 will indicate what outputs are to be activated when a Day Alarm Activates..

5=Reset O/P
6=Strobe O/P
7=Sonalert O/P
8=Siren O/P

♪♪♪ | Output | | E | ♪♪♪

5=Reset O/P
6=Strobe O/P
7=Sonalert O/P
8=Siren O/P

P64E 1 E   2 SECOND MONITOR ALARM

Monitor Zones as set-up in programming Option P 51 E can activate outputs as set-up in Options P 54 E to P 59 E for the 'Siren Reset Time', as set-up in programming Option P 29 E, or can activate outputs as set-up in P 63 E for 2 Seconds Only.

This Option selects which Outputs you wish to activate.

If **P 64 E 1 E** is Selected then the Monitor Zones (as set-up by programming Option P 51 E) will turn on the outputs assigned by programming Option P 63 E for 2 Seconds.

If **P 64 E 1 E is not Selected** then the Monitor Zones (as set-up by programming Option P 51 E) will turn on the outputs to the Zones assigned by programming Option P 54 E to P 59 E for the Reset Siren Time.

The Factory Pre-Set = Off. (Zone 1 LED off)

P64E 2 E   2 SECOND DAY ALARM

Day Zones as set-up in Option P 53 E can activate outputs as set-up in Options P 54 E to P 59 E for the 'Siren Reset Time', as set-up in Option P 29 E, or can activate outputs as set-up in P 63 E for 2 Seconds Only.

This Option selects which Outputs you wish to activate.

If **P 64 E 2 E** is Selected then the Day Zones (as set-up by programming Option P 53 E) will turn on the outputs assigned by programming Option P 63 E for 2 Seconds.

If P 64 E 2 E is not Selected then the Day Zones (as set-up by programming Option P 53 E) will turn on the outputs to the Zones assigned by programming Option P 54 E to P 59 E for the Reset Siren Time

The Factory Pre-Set = On. (Zone 2 LED On)

P64E 3 E   PRE-ALARM MONITOR WARNING

If this programming **Option P 64 E 3 E is selected** then the Monitor Zones will all behave as Entry / Exit Zones. Therefore all zones will provide 'Exit Delay' (as set by programming Option P 28 E) and all will provide Entry Delay (as set by programming Option P 26 E) with entry Warning Beeps even if the Zone is normally an Instant Zone.

If **Option P 64 E 3 E is Not Selected** then the Monitor Zones (as set by programming Option P 51 E) will behave as programmed for the Zone types as set in programming Options P 40 E to P 43 E (ie. Instant, Entry Delay or Handover)

The Factory Pre-Set = On. (Zone 3 LED On)

P64E 4 E   KEYSWITCH ARM / DISARM CHIRPS

If Zone 8 is programmed as a Keyswitch Input as programmed by option P 60 E 3 E, it is possible to provide an Audible warning to the client via the Reset output. This is very useful when using Radio control to remote Arm and Disarm the Ness L-8 panel.

If this option is selected the Reset Output will "Chirp" when the panel is Armed / Disarmed with this Keyswitch input. (Note these Chirps will only occur when the Keyswitch Input is used and not with the Keypad.)

The Panel will provide 1 Chirp for Arming and 3 Chirps on Disarming.

The Factory Pre-Set = Off. (Zone 4 LED Off)

PROGRAMMING OPTION DESCRIPTIONS

P97E   DEFAULT PANEL

This Option when entered returns ALL programming options back to factory Default settings.

The Factory Pre-Set = Refer the Summary Page for a Summary of all factory Default Values.

P98E   CLEAR ACCESS CODES 1-15

This Option when entered deletes the 15 user codes.

The Factory Pre-Set = No Codes .

P99E   INSTALLATION ACCESS CODE

The Installation access code is the code required to access Installation Program Mode from Client Program Mode. This option allows you to set your own access code. The following rules apply to setting the Installation Code.

Example: To program an Installation Code to be 9876 Press;

1) The Installer Codes can be 3 to 6 digits in length.
2) The Code cannot start with "0" (except if you are returning it to factory default which is 000000).
3) The Installation Code cannot be the same as a User code (as set by P11E- P25 E).
4) When entering codes you must **enter it twice for verification.**

| P | 99 | E | ♪♪♪ | 9876 | E | ♪ | 9876 | E | ♪♪♪ |

CHECKS BEFORE EXITING PROGRAM MODE

All 24 Hr. inputs are active immediately you exit Program Mode. Therefore, after installation programming has been completed, there are some basic checks that should be performed in order to save frustration and possible embarrassment.

1) Check that the External and Panel Tamper inputs are properly terminated with a 2K2 resistor.
2) If you have enabled Zone 8 as a Keyswitch/Panic input, make sure it is also terminated with a 2K2 resistor.

3) Ensure rear Panel Tamper is secured.
4) Ensure any zones set as a 24 Hour Zone are sealed with a 2K2 resistor.
5) Make sure the Program Link is connected.
FAILURE TO COMPLETE THESE TASKS WILL RESULT IN THE CONTROL PANEL GOING INTO ALARM AS SOON AS INSTALLATION PROGRAM MODE IS EXITED.

You are now ready to exit Program Mode. This is done by entering: **P E**

PE   EXITING PROGRAM MODE

To exit program mode you must enter PROGRAM followed by ENTER

| P | E |

35

TESTING AND TROUBLESHOOTING

TESTING

To ensure reliable operation of any system, correct testing procedures should be carried out
prior to handing the completed installation over to the customer.

Using a digital multimeter, the following procedures are recommended for testing a Ness L-8 control system.

VOLTAGES
All zone inputs, and the tamper input should be terminated with a 2K2 ohm end of line resistor (supplied with the Panel).
When correctly secured, the voltage reading across each zone input should be 6.8V + or - 0.32V DC

If the voltage reading is above or below this reading check your detector wiring and cabling.
Check that the DC output to the detectors is 13.4 to 13.8 Volts DC.
When checking any input for the above voltages ensure that the zone is sealed and secure.

TROUBLESHOOTING

SYMPTOM	CAUSE	REMEDY
Keypad not working correctly.	Keypad wired incorrectly or excessive cable resistance.	Check keypad wiring for polarity and resistance.
User code not being accepted.	Code already programmed for another user or code forms a subset of another code.	Select another user code.Note the restrictions of code sub-sets in the user manual.
User code is programmed successfully but not accepted in normal mode.	Code programmed to begin with a 0.	Reprogram the code. User codes beginning with 0 are used to clear codes.
Cannot Access Client Program Mode	Code being used to Access Client Program Mode is not the Master Code (as set by P 11 E). Area 1 or Area 2 is armed.	Use the Master Code as programmed under Option P 11 E Disarm all Areas.
Cannot Access installation program Mode.	Installation Code entered in run mode instead of User program mode. Installation Code lost	Enter user program mode first using the Master code then enter the install code. Power down the system fully - then power up in Program Mode.
Control Panel not starting up when AC Power is applied.	Excess load connected to the Power Supply. Current limit protection operating	Check for short circuits and excessive load on the power supply outputs.
The Heat Sink is warm to touch.	Normal Operation.	This is normal operation.
Sirens, Strobes or Detectors not working.	Resettable Fuse tripped.	Check for short circuits on the outputs and replace blown fuse.
The Internal and External sirens sound for 2 seconds at the end of siren time.	The Panel has been Armed with a zone unsecured.	Disarm the Panel , secure the unsecured zone and then Re- Arm.

MECHANICAL.

Construction	3 mm Polycarbonate (equivalent to 1.2 mm mild steel)
Dimensions	233 wide x 300 high x 85 deep
Weight	3.3 kg (inc battery)

POWER.

Plugpack	Input 240 Vac 50Hz
	Output 17Vac @ 1.4A
Power Supply	13.8Vdc @ 850mA (current limited)
Quiescent Current	140mA with I Keypad - 20mA per additional keypad
Operating Voltage	11.5V - 14V DC
Rechargeable Battery	12V 3.2 to 6.5AH Lead Acid
Batt. Charge Voltage	13.4 - 13.8V float
Batt. Charge Current	350mA max. current limited
Dynamic Battery Test	Every hour and when the panel is armed and disarmed
Dynamic Battery Test	10.75V with 5A load
Fuses: 1. Power outputs	2A resettable
2. Aux 12v Power	500mA resettable
3. Strobe	500mA resettable
Power Output for Optional Equipment	300mA @ 12V

INPUTS.

Zone Input	End of Line Resistor 2,200 ohm (+1,200, -900 ohm)
Tamper Input	End of Line Resistor 2,200 ohm (+1,200, -900 ohm)
Remote Keypad Input	Proprietary
Maximum Keypads	3

OUTPUTS.

Siren Outputs	Open Collector 500Hz - 2700Hz
Maximum Sirens	3 X 8 ohm
Strobe Output	Open Collector Fused 300mA 12v
Reset Output	Open Collector Fused 1A
Area I Signal Output	Open Collector 1 mA @ 12V

IMPORTANT TEST POINTS AND VOLTAGES.

12 V Output Terminals	13.2 - 13.8V DC (load connected)
Battery Terminals -	13.4 - 13.8V DC (no battery connected)
Zone & Tamper Inputs	6.8V +- 0.32V DC
Siren +, Reset +,	13.2 V - 13.8V DC
Strobe	13.2 V - 13.8V DC
A.C. Terminals	17VAC + or -10%

Option	Factory Pre-Set Value
Zone 1	Delayed
Zone 2	Handover
Zones 3-8	Instant
Exit Delay	60 Seconds
Entry Delay 1	20 Seconds
Siren Time	10 Minutes
Entry Warning	Beeps Enabled
Alarm Outputs	All Outputs active on an Alarm Condition
Shortcuts	Arm Shortcut enabled (ie. ARM - ENTER to Arm the Panel.)

1. Upon completing the installation of the Panel, take link off the PROGRAM pins and power up the with Mains Power.

2. The Program light will start to flash, indicating the Panel is in **"Installer Program Mode".**

3. Program in the **Master Code** by Entering
P 11 E Code E Code E .

4. The System is Factory Pre-Set as follows. Any program option can be changed easily following the instructions as described in this manual.

5. Replace the Link onto the PROGRAM Pins and make sure the Panel Lid is now on , sealing up the Panel Tamper switch.

6. Press the [P] then the [E] keys..

7. The system now operates using the basic program.

Access To Program Mode from Operating Mode to make any program Changes

The Panel must be fully disarmed (including monitor mode) before you can access Program Mode.
You can access **installation program mode** from normal operating mode by pressing the following keypad sequence.

[P] <Master Code> [E]

The keypad will respond with 3 Beeps , (♪♪♪) all lights will go out and the Program light will come on steady. You are now in **CLIENT Program Mode**. The only programming options that can be accessed from this Mode are the 15 User codes and Entry / Exit Times.

To enter Installer Program Mode from here press ;

[P] <Installer Code> [E]

(Note : The installer code is factory set at 000000)

The keypad will respond with 3 Beeps , (♪♪♪) all lights will go out and the Program light will flash. You are now in **Installer Program Mode**. The only programming options that can be done from this Mode is the 15 User codes and Entry / Exit Times.
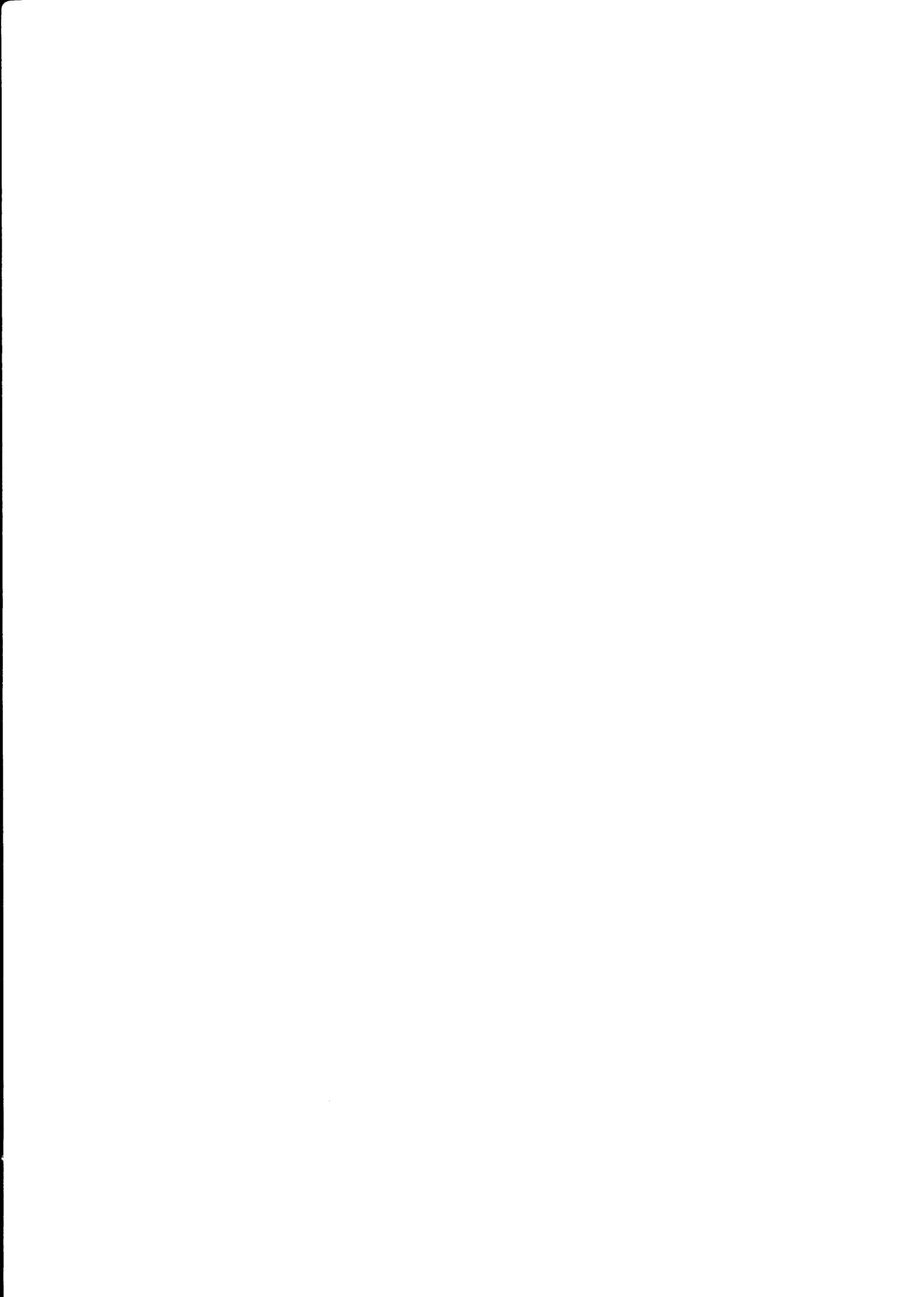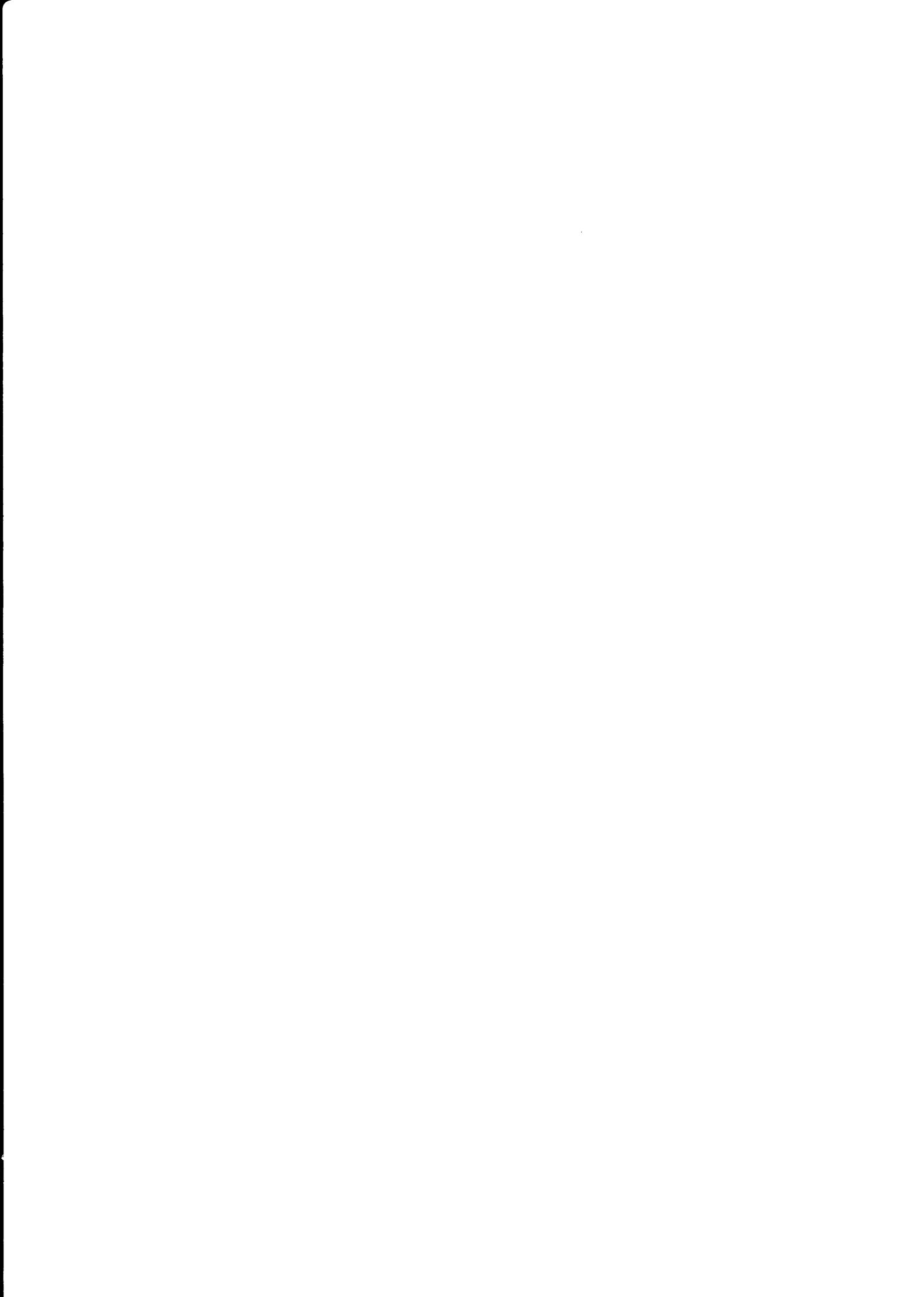
Option	Description	Factory Set	Refer Page
P 11 E Code E Code E	Program Access Code 1 (This is also the Master Code)	None	16
P 12 E Code E Code E	Program Access Code 2	None	16
P 13 E Code E Code E	Program Access Code 3	None	16
P 14 E Code E Code E	Program Access Code 4	None	16
P 15 E Code E Code E	Program Access Code 5	None	16
P 16 E Code E Code E	Program Access Code 6	None	16
P 17 E Code E Code E	Program Access Code 7	None	16
P 18 E Code E Code E	Program Access Code 8	None	16
P 19 E Code E Code E	Program Access Code 9	None	16
P 20 E Code E Code E	Program Access Code 10	None	16
P 21 E Code E Code E	Program Access Code 11	None	16
P 22 E Code E Code E	Program Access Code 12	None	16
P 23 E Code E Code E	Program Access Code 13	None	16
P 24 E Code E Code E	Program Access Code 14	None	16
P 25 E Code E Code E	Program Access Code 15	None	16
P 26 E Time E	Program in Entry Time 1 required (1-99 Sec)	20 Seconds	17
P 27 E Time E	Program in Entry Time 2 required (Prog. in 10 Sec Increments, (10-990 seconds))	60 Seconds	17
P 28 E Time E	Program in Exit Time required	60 Seconds	18

Above options can be programmed in Installation and Client Program Mode. The Following options can only be Programmed in Installation Program Mode.

Option	Description	Factory Set	Refer Page
P 29 E Time E	Enter Alarm Siren Time required	10 Minutes	18
P 30 E Zone E	Set Zones as Normal Sensitivity Zones (ie. Zones not used with Ness Vibration sensors.)	All Zones	19
P 31 E Zone E	Set Vibration Sensor Zone Sensitivity to High	None	19
P 32 E Zone E	Set Vibration Sensor Zone Sensitivity	None	19
P 33 E Zone E	Set Vibration Sensor Zone Sensitivity	None	19
P 34 E Zone E	Set Vibration Sensor Zone Sensitivity	None	19
P 35 E Zone E	Set Vibration Sensor Zone Sensitivity	None	19
P 36 E Zone E	Set Vibration Sensor Zone Sensitivity	None	19
P 37 E Zone E	Set Vibration Sensor Zone Sensitivity	None	19
P 38 E Zone E	Set Vibration Sensor Zone Sensitivity to Low	None	19
P 39 E Zone E	Set Zones required to be Double Trigger Zones	None	20
P 40 E Zone E	Set Zones required to be Instant on Entry	Zones 3-8	20
P 41 E Zone E	Set Zones required to have a Delay as set by Entry Time 1 Timer (P 26 E)	Zone 1	21
P 42 E Zone E	Set Zones required to be Handover Zones. (ie Zones that will be Delayed only if a Delay (P41E) zone is activated first.	Zone 2	21
P 43 E Zone E	Set Zones required to have a Delay as set by Entry 2 Timer (P27E)	No Zones	21
P 44 E Zone E	Set Zones to be Lockout Zones (ie Zones not selected will be full Lockout zones (ieZones not lit up on display), will activate the alarm only once before the Panel needs to be reset.)	All Zones	22
P 45 E Zone E	Assign Zones to be in Area 1	All Zones	22
P 46 E Zone E	Assign Zones to be in Area 2	No Zones	23
P 47 E Code E	Set Codes 1-8 that are required to access Area 1	All Codes	23
P 48 E Code E	Set Codes 9-15 that are required to access Area 1	All Codes	23
P 49 E Code E	Set Codes 1-8 that are required to access Area 2	Code 1	24
P 50 E Code E	Set Codes 9-15 that are required to access Area 2	No Codes	24
P 51 E Zone E	Select Zones required to be active when the panel is put into Monitor Mode.	No Zones	25
P 52 E Zone E	Select Zones required to be active 24 Hours a Day (ie Zones active regardless of the Panel being Armed or Disarmed.)	No Zones	25
P 53 E Zone E	Select Zones required to be active when panel is Disarmed (ie Day Zones)	No Zones	26

Option	Description	Factory Set	Refer Page
P 54 E Zone E	Set Zones required to activate the RESET Output on an Alarm.	All Zones	27
P 55 E Zone E	Set Zones required to activate the STROBE Output on an Alarm.	All Zones	27
P 56 E Zone E	Set Zones required to activate the Keypad Sonalert Output on an Alarm.	All Zones	27
P 57 E Zone E	Set Zones required to activate the SIREN Output on an Alarm.	All Zones	28
P 60 E 1 E	Select if Entry Warning Beeps are required	On	29
P 60 E 2 E	Select if Keyswitch input is required to put the Panel into Monitor Mode	Off	29
P 60 E 3 E	Select if Keyswitch input is required and if so is to ARM the Panel	Off	29
P 60 E 4 E	Select if the Tamper Alarm is to be Lockout.	On	29
P 60 E 5 E	Select if a Duress Alarm is to Activate the Reset Output	Off	30
P 60 E 6 E	Select if you require unsealed Zones to Auto Exclude.	On	30
P 60 E 7 E	Select if you wish the Keypad Lights to go off if no keypresses have occurred within 4 minutes	Off	30
P 60 E 8 E	Select if you wish Area 1 output to activate only after exit time rather than instantly the Area 1 is armed.	Off	30
P 61 E 1 E	Set a Tamper Alarm to activate the Reset Output.	On	31
P 61 E 2 E	Set a Tamper Alarm to activate the Strobe Output.	On	31
P 61 E 3 E	Set a Tamper Alarm to activate the Keypad Sonalert	On	31
P 61 E 4 E	Set a Tamper Alarm to activate the Siren Output.	On	31
P 61 E 5 E	Set a Panic Alarm to activate the Reset Output.	On	31
P 61 E 6 E	Set a Panic Alarm to activate the Strobe Output.	On	31
P 61 E 7 E	Set a Panic Alarm to activate the Keypad Sonalert	On	31
P 61 E 8 E	Set a Panic Alarm to activate the Siren Output.	On	31
P 62 E 1 E	Select if you require Shortcut Access into the Systems memory (ie no Access code required to view the 8 even Memory.)	On	32
P 62 E 2 E	Select if you require Shortcut into the Systems Exclude Mode	On	32
P 62 E 3 E	Select if you require Shortcut Access into switching the Panel into Monitor Mode.	On	32
P 62 E 4 E	Select if you require Fire / Medical options enabled	Off	32
P 62 E 5 E	Select if you require Shortcut Access for Arming of Area 1	On	32
P 62 E 6 E	Select if you require Shortcut Access for Arming of Area 2	Off	32
P 62 E 7 E	Select if you want a 2 seconds warning if the System is to Auto Exclude an unsealed Zone at the end of Exit Time.	Off	32
P 62 E 8 E	Select if Exit Time as set by P 28 E is to be multiplied by 10.	Off	33
P 63 E 1 E	Set a Monitor Zone to activate the Reset Output.(Also refer P64E)	On	33
P 63 E 2 E	Set a Monitor Zone to activate the Strobe Output. (Also refer P64E)	On	33
P 63 E 3 E	Set a Monitor Zone to activate the Keypad Sonalert(Also refer P64E)	On	33
P 63 E 4 E	Set a Monitor Zone to activate the Siren Output. (Also refer P64E)	On	33
P 63 E 5 E	Set a Day Zone to activate the Reset Output. (Also refer P64E)	Off	34
P 63 E 6 E	Set a Day Zone to activate the Strobe Output. (Also refer P64E)	On	34
P 63 E 7 E	Set a Day Zone to activate the Keypad Sonalert(Also refer P64E)	On	34
P 63 E 8 E	Set a Day Zone to activate the Siren Output. (Also refer P64E)	On	34
P 64 E 1 E	Set if Monitor Mode Zones are to activate Outputs as per P 63 E 1-4 above are to switch for 2 seconds only.	Off	34
P 64 E 2 E	Set if Day Zones are to activate Outputs as set by P 63 E 5-8 E above for 2 seconds only.	On	35
P 64 E 3 E	Select if Monitor Mode Pre Warning Is required	On	35
P 64 E 4 E	Select if the Reset and Strobe Outputs are to "chirp" on Arming / Disarming when the Keyswitch Input is used.	Off	35
P 97 E	Enter to Return ALL programming options to Factory Settings. (Including all User Codes & Installer Access code)	Nil	36
P 98 E	Enter to Delete ALL User Codes Only from the System	Nil	36
P99ECodeECodeE	Set the Installer Access Code that will allow access from Client Program Mode to Installer program Mode.	000000	36

NOTES

PART NO. 890-130