NOTIFIER®
by Honeywell

ID3000

panel configuration manual

997-506-000-3, Issue 3 October 2007

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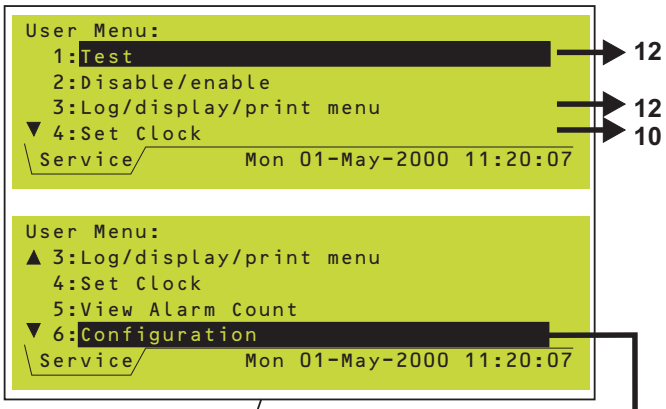

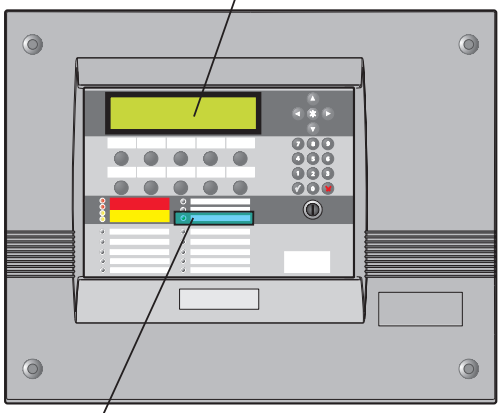

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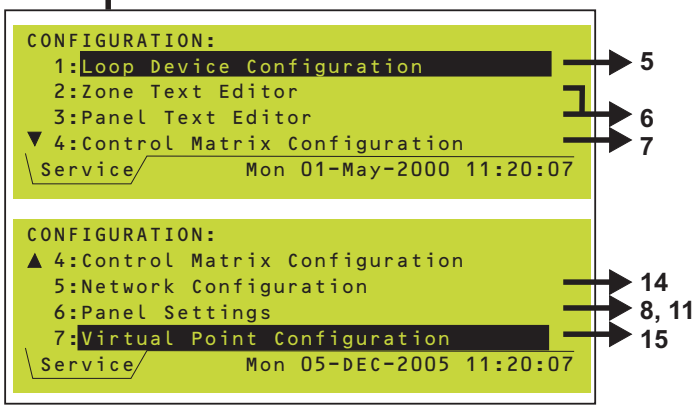

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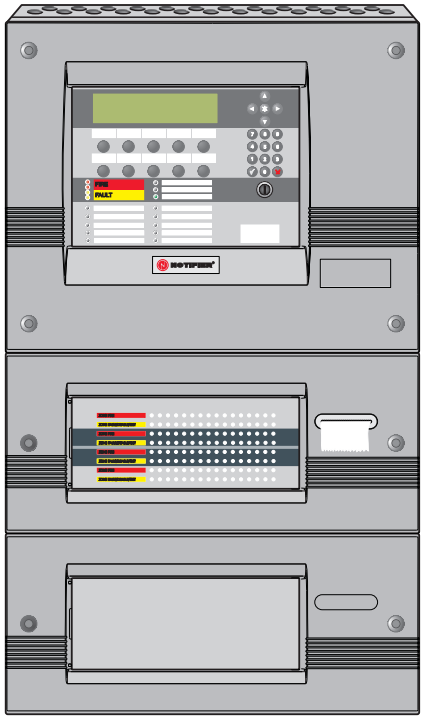


1 Introduction

This manual provides recommended procedures for the successful configuration of a complete NOTIFIER ID3000 Series integrated Fire Control System (including repeater panels). The procedures also apply for ID3000 Series stand-alone Fire Control units.

The ID3000 Series intelligent fire alarm controllers are designed for use with NOTIFIER's range of addressable analogue sensors, control and monitoring modules and addressable call points. A unique signalling protocol is used, with digital address and control signals and analogue pulse width monitoring for the reply data from devices.

The serial communications interface operates under RS485 protocol. It enables the connection between control panels and repeaters.

1.1 Associated Documents

This manual should be read in conjunction with the following documents:

a. ID3000 Series Installation & Commissioning Manual (ref. 997-274-XXX)

b. ID3000 Series Operating Manual (ref. 997-505-XXX)

c. VIEW™ Application Guide (ref. 997-198).

Note: 'XXX' is the country code for the manual (000 for the UK).

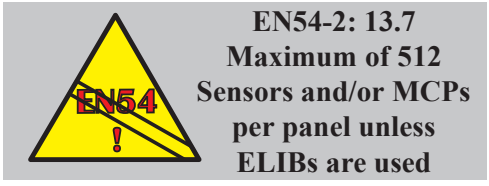
1.2 System Design and Planning

It is assumed that the system, of which the ID3000 Series fire control equipment is a part, has been designed by a competent fire alarm system designer in accordance with the requirements of EN54 Part 14, BS 5839 Part 1: 1988 and any other local codes of practice that are applicable.

Be aware that....

This manual is not intended to be a fire detection system design guide and should only be used by (or under the supervision of) a qualified system design engineer.

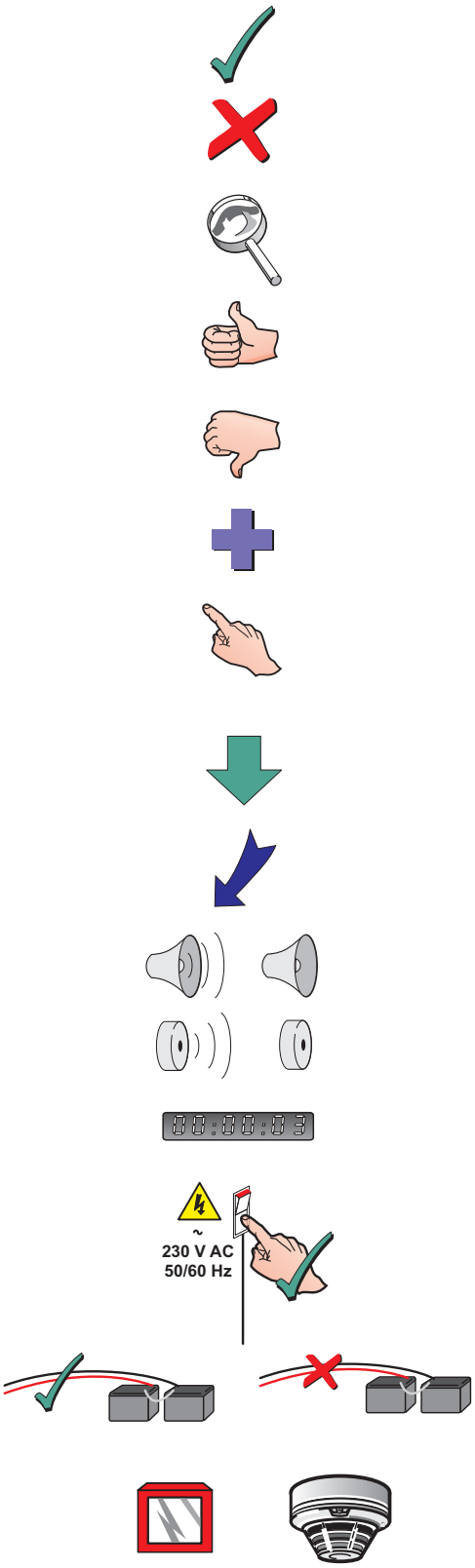
Some features of the ID3000 Series control panel may, if used inappropriately, contravene the requirements of EN54. Where there is a possibility of such an occurrence, a suitable warning is given with brief details of the EN54 requirement. A typical EN54 non-compliance warning is illustrated at left.



1.3 Glossary of Icons

Throughout this manual, and the other related ID3000 Series manuals, a number of icons are used in the illustrations to help clarify, or simplify, particular configuration procedures.

The following icons are used to advise or indicate:



a. DO follow the recommended procedure or method.

b. DO NOT use this procedure or method.

c. Inspection of an item or sub-assembly is required at this point.

d. Following a defined process **meets** the required approval/inspection criteria or standards.

e. Following a defined process **does not meet** the required approval/inspection criteria or standards.

f. Additional items to be considered.

g. This icon placed next to a pushbutton requires you to press it while configuring the panel. Where two or more icons are used, a number may be placed on or near each hand to indicate the order of selection: 1 coming before 2.

h. Activity process step - flow arrow for single action or iterative actions.

i. Leader arrow - used with activity processes.

j. Sounder operating/Sounder not operating or silenced.

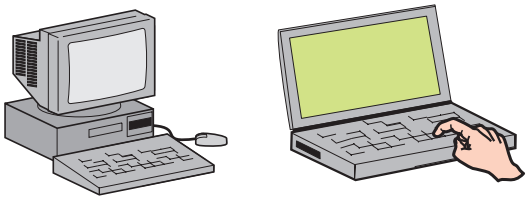
k. Internal buzzer operating/not-operating or silenced.

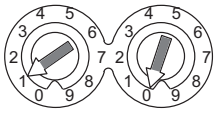
l. Digital clock timer - press and hold the applicable pushbutton for the time indicated.

m. Mains power connected and switched ON.

n. Panel batteries power connected/ disconnected.

o. Manual Call Point (MCP)/Sensor.





p. Access 3A passcode entry requested to continue with selected panel configuration action (access 2 & 3 shown with three asterisks).

q. IBM-compatible Personal Computer (PC)/ laptop.

r. Loop device address switch.

1.4 Very Intelligent Early Warning (VIEW™) Sensors

The ID3000 Series fire control panels can support the VIEW™ sensor. This manual does not attempt to cover all the VIEW™ sensor programming and calibration issues as this is described in some detail in the VIEW™ Application Guide (ref. 997-198), which is available from NOTIFIER's Technical Support Department.

1.5 Software Version Number

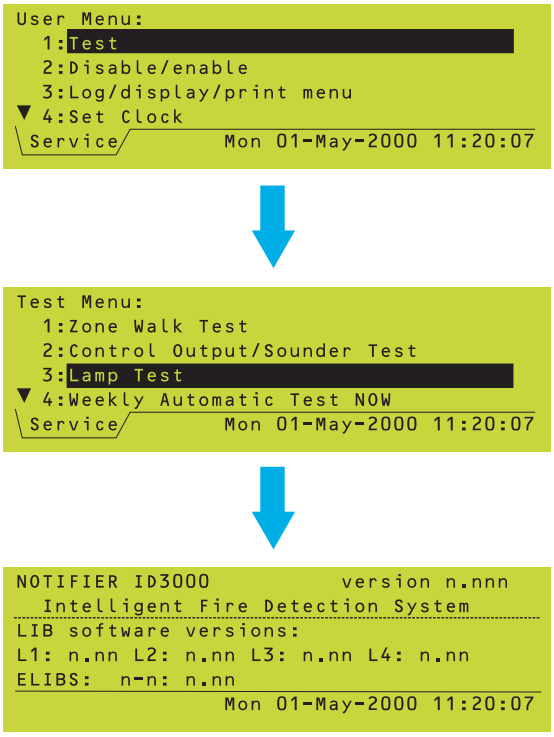
The ID3000 Series control panel software version can be viewed by performing a lamp test function.

Software version numbers are displayed for the following:

a. The panel.

b. The Loop Interface PCB.

c. The Enhanced Loop Interface PCB.



1.6 EN54 Functions

This fire control panel complies with the requirements of EN54-2/4:1997. In addition to the basic requirements of EN54-2, the panel may be configured to conform with the following optional functions - the applicable clauses of EN54-2 are referenced as follows.

Options	Clause
Indications:	
Fault signals from points	8.3
Recording of the numbers of entries into fire alarm condition	7.13
Controls:	
Coincidence detection	7.12
Delay of the actioning of outputs	7.11
Disablement of each address point	9.5
Test condition	10
Outputs:	
Fire alarm devices	7.8
Fire alarm routing equipment	7.9
Fault warning routing equipment	8.9

The following features are provided by the Power Supply Unit (PSU) of the ID3000 Series Fire Control Panel Range to comply with EN 54-4:

Feature of the ID3000 PSU	EN 54-4 Clause
Derive power from the mains supply	5.1
Derive power from a standby battery source	5.2
Charge and monitor the standby battery /batteries	5.3
Detect and signal various PSU faults	5.4

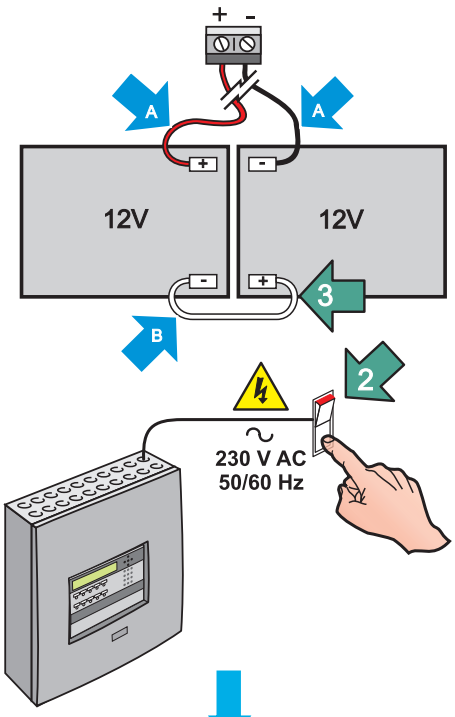
1.7 Ancillary Functions

The following is a list of ancillary functions that are provided by the ID3000 Series Fire Control Panel Range in addition to those required by EN54-2/4. These functions are described in the section of this manual as referenced (except the Sounder volt-free contact option, which is described in the Installation and Commissioning Manual):

Ancillary Function	Manual Section Refs.
Change sensitivity	5.2, 13
Control Matrix:	
Output modes	7.4
Input type filtering	7.6.1.2
Output type filtering	7.6.2.2
Time-of-day filtering	7.6.2.2
Auto disable/enablement	7.7
Networking	14
Time-of-day functions - disablements/configuration	3.11
Self-learn configuration	5.3
VIEW sensors	5.2.1.1
Module supervision options	5.2.2.1
Module silence options	5.2.2.2
Text editing	6
Sensor LED blinking mode	11.1
Sounder pulsing periods	11.4
Signal degraded monitoring period	11.8
Loop start-up boost	11.8
Calendar-based automatic test selection	11.6
Automatic cancellation of disablements	11.7
Mains Fail Fault additional delay	11.13
RS232 Printer Output & PC Interface	11.16
Temporary Configurations	11.1, 11.2
Volt-free contact output option	7.7[1]
Extinguishing system features	7.6.1.6 7.6.2.5 7.8, 11.20

[1]Installation and Commissioning Manual

CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.



2 Power On/Start Up

To power up the system from a completely powered-down condition:

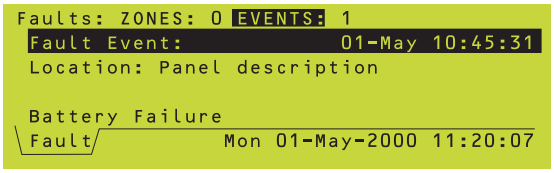
1 Connect the two leads (A) from within the panel to the two 12 V sealed lead-acid batteries and then fit **one end only** of the supplied interlink (B).

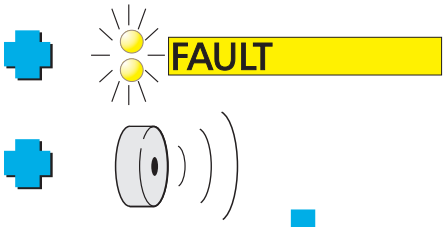
2 Connect and switch on the mains supply.

3 Connect the interlink to the remaining terminal - but see **item a**. below.

After a few seconds the Status: NORMAL display appears, indicating that the panel is now ready to accept panel configuration instructions. If the display is too dark to read, adjust the contrast (see **Section 3.3.2**).

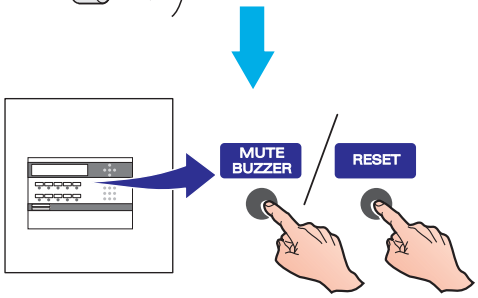
IF BATTERIES ARE NOT CONNECTED WITHIN 60 SECONDS OF POWER-ON:





Be advised that....

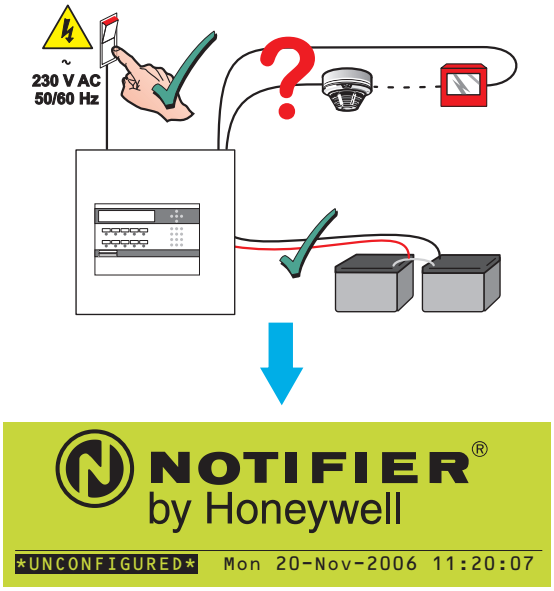
a. If the battery connections are not completed within 60 seconds of the mains supply being switched on, the panel will indicate a charger/battery fault. If this occurs:



1 Press the MUTE BUZZER pushbutton to silence the buzzer (access level 1 or 2, depending upon panel configuration).

2 After all necessary connections are completed, press the RESET pushbutton to clear the fault condition (access level 2).

ALL FAULT INDICATIONS ARE CANCELLED



b. If the panel has not been configured with any sensor or module data, i.e. the normal system status at initial power up, the panel displays '*UNCONFIGURED*' unless it is part of a network, in which case it displays 'NORMAL'.

Powering up a network - special considerations

Master/Slave network

The following is recommended:

i When configuring a panel (either directly or using the Offline Support Tool), first disconnect the panel from the network. When the COMMS FAIL message is displayed (may take up to 2 minutes for a Slave), press MUTE BUZZER to stop the buzzer.

ii When all panels have been configured, remove power from all of them. Connect the Master panel to the network - set the termination link on its RS485 PCB to the 'ON' (lower) position if it is not already so configured (see Section 6 of the ID3000 Series Installation and Commissioning Manual).

iii Power-on just the Master panel. Wait until it reports COMMS FAIL. Use MUTE BUZZER to mute the buzzer. Wait one minute.

iv Connect and power-on each Slave panel and Repeater in turn. There is no time restriction on doing this. When all the panels have been powered-on, wait one minute, then press the RESET pushbutton at the Master panel. The network should stabilise (i.e. no error messages or buzzers).

v If the site arrangement does not require that a termination link be set at the Master (see Section 6 of the ID3000 Series Installation and Commissioning Manual), fit the termination links at the correct panels and then set the link at the Master panel to the 'OFF' (upper) position. This can be done with the system powered-on.

ID²net peer-to-peer network

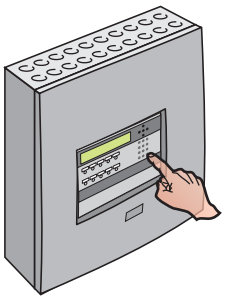
When all panels have been powered-up, allow time for the network to settle. When no new fault messages are being generated, press RESET.

3 Panel Configuration Overview

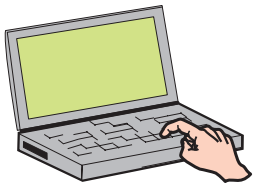
This section gives a brief guide to the methods for configuring the ID3000 Series panels.

3.1 Where to Access the Configuration Actions

The panel can be configured at one of the following:



OR



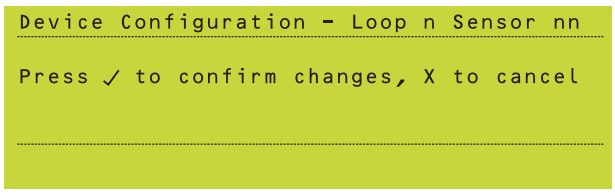
a. The panel, using its controls and indicators. This is the slowest method, so the manufacturer recommends that you only use this method to perform small-scale operational amendments after the panel is fully commissioned. Refer to **Section 3.3**.

b. Off-line, using a Personal Computer (PC, e.g. a laptop) running the Off-line Support Tool. The updated configuration is subsequently uploaded to the panel via its internal RS232 port. Refer to **Section 3.4**.

Access 3

At the start

The Access 3 passcode is required to configure the panel. Refer to **Section 3.5**.



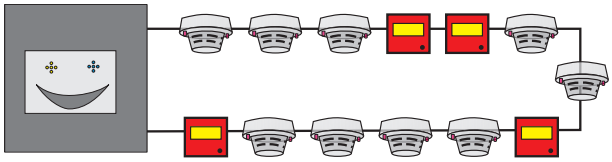
At the finish

A 'Confirm Changes' prompt is displayed. The changes you have made are not permanently stored in the panel's memory unless you press ✓ to select 'confirm'. If you press ✗ to select 'cancel', **the changes are lost**.

3.2 Configuration Actions

The following configuration actions can be performed:

LOOP DEVICE CONFIGURATION - Sections 3.6-3.8



a. An unconfigured panel can scan the loops and learn what devices are installed, either automatically or with manual user intervention. Refer to **Section 3.6**.

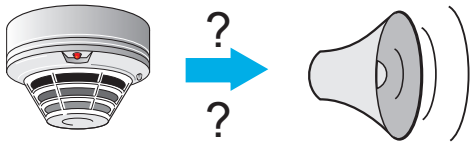
b. Groups of devices on a configured panel can be selected for deletion or change to a different logical type. Refer to **Section 3.7**.

c. Individual devices can be added, removed or changed manually. Refer to **Section 3.8**.

TEXT EDITING - Section 3.9

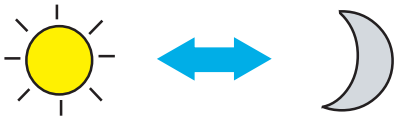
d. The panel zone and device text descriptions can be edited. Refer to **Section 3.9**.

CONTROL MATRIX - Section 3.10



e. The relationship between input devices (e.g. sensors, manual call points) and output devices (e.g. sounders) can be configured. This is done in the Control Matrix, which is a table of inputs, outputs and relationships. Refer to **Section 3.10**.

TIME-OF-DAY - Section 3.11



g. The status of devices (e.g. the sensitivity) can be set to vary depending upon the time of day. Refer to **Section 3.11**.

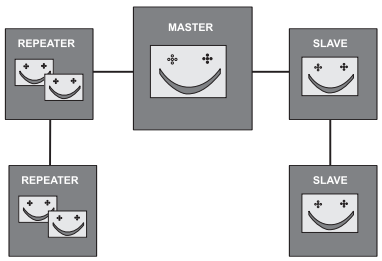
CLOCK SETTINGS - Section 3.12

h. The panel clock can be adjusted. Refer to **Section 3.12**.

PANEL SETTINGS - Section 3.13

i. Various temporary and permanent configuration options can be set. Refer to **Section 3.13**.

NETWORKING - Section 3.14



j. The panel can be configured to be part of a network. Refer to **Section 3.14**.

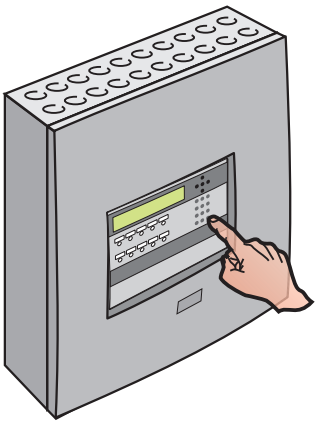
k. Sounders or remote fire outputs can be delayed. Refer to **Section 3.15**.

l. Virtual input and output points can be configured. Refer to **Section 3.16**.

DELAYS - Section 3.15

VIRTUAL POINT CONFIGURATION - Section 3.16

Certain options on non-configuration menus also require the access level 3 or 3A passcodes. These options are described in **Section 12**.

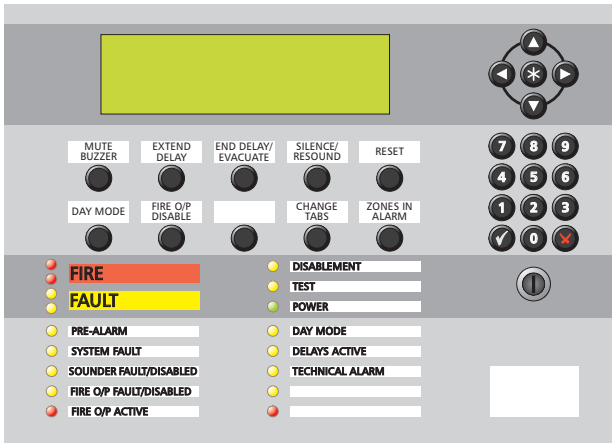


3.3 Using the Panel Controls and Indicators

All of the configuration operations described in this manual can be done using the panel pushbuttons and Liquid Crystal Display (LCD), with no external equipment required.

The panel remains 'on watch' during the configuration sequence, and will therefore respond appropriately to any fire or fault conditions that arise.

The manufacturer recommends that you keep a secure copy of the system configuration on a PC as a backup, in case of difficulties in the configuration sequence.



3.3.1 Pushbuttons

OPERATING PUSHBUTTONS

CHANGE TABS - Scrolls through the tabbed displays. Refer to **Section 4.2** for further information.

RESET - Restores normal operating status when all alarm conditions have been removed.

Note: The other operating pushbuttons are not used during configuration. Their operation is described in the ID3000 Series Operating Manual (997-505-XXX).

CURSOR AND NUMERIC PUSHBUTTONS

◀ ▶ ▲ ▼ - Used to move around the LCD menus. When the panel status is normal, ▼ advances the printer paper.

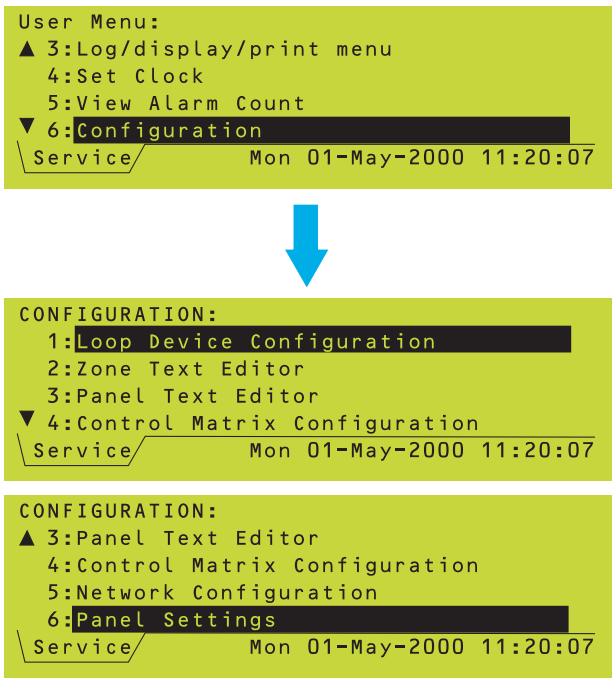
✱ Used to: select menu options, select quick methods of dis/enablement and walk test cancellation, control the event log display, select loop device parameters for edit, display existing time-of-day programs, create a new Control Matrix entry and select characters during text editing.

0 to 9 - Used to select items and enter data on the LCD.

✓ - Used to accept an item or state on the LCD.

✗ - Used to cancel an item or state on the LCD.

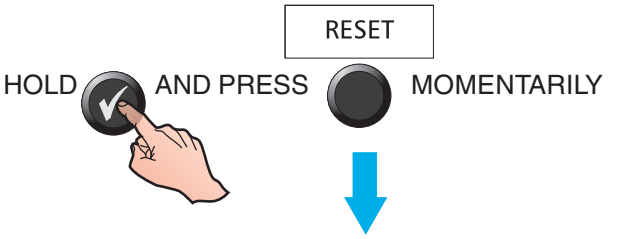
KEYSWITCH - Setting the keyswitch to the right has the same effect as entering an access 2 passcode. Set it to the centre to deselect access 2.



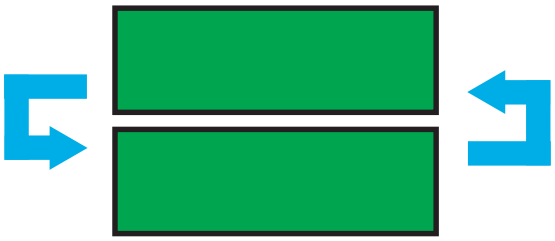
3.3.2 *Liquid Crystal Display*

The 6-line x 40 character display (using 240 x 64 pixels) provides a menu structure for the operation and configuration of the panel. Most of the operations described in this manual are accessed from the Configuration Menu.

Further information about the display is given in **Section 4**.



THE DISPLAY CYCLES BETWEEEN MAXIMUM AND MINIMUM CONTRAST:



WHEN THE REQUIRED CONTRAST IS PRESENT ON THE DISPLAY, RELEASE .

TO FINE-ADJUST, USE:

AND

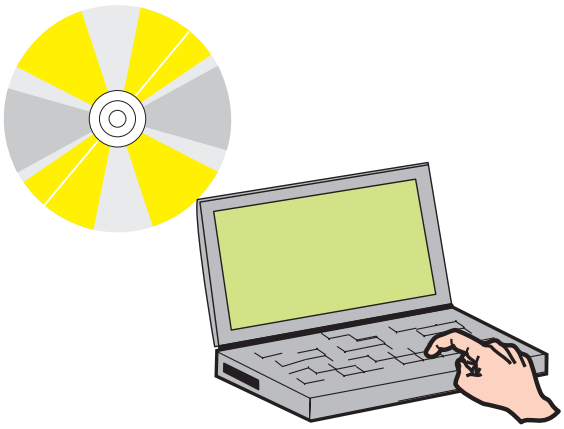
WHEN COMPLETED, PRESS:

TO INVOKE THE SELECTED CONTRAST VALUE.

3.3.2.1 LCD Contrast Adjustment

This adjustment procedure as shown at left is only available within the first two minutes after power is applied to the panel.

To adjust the LCD contrast at other times, select LAMP TEST (refer to the ID3000 Series Operating Manual 997-505-XXX, Section 6.4 Lamp Test) while at access level 3. Hold while the test progresses. The contrast then cycles and the remainder of the procedure is as shown at left.



3.4 Using the Off-line Support Tool

This is a means of preparing the configuration data, using an optionally-supplied software tool which you can use without any connection to the panel:

i. Save the prepared data to your PC hard disk.

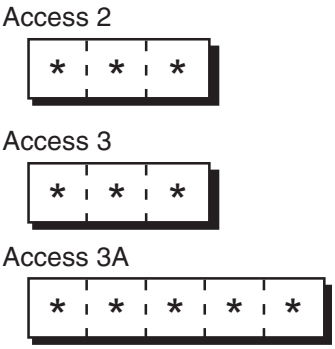
ii. When the panel is ready to accept the configuration data, simply connect it to your PC for the final data transfer to be made.

The ID3000 Off-line Support Tool is a complete package for off-line configuration preparation. It is supplied with all necessary panel configuration instructions, consequently no further details are given here.

This software package is available from NOTIFIER or your supplier (quote Part Number: 020-558 for UK version).

3.5 Passcodes

A passcode is required for all configuration functions. You will be asked for the passcode at the appropriate time (**Sections 4.4.1** and **12.1** give examples). There are three access passcodes:



Access 2 - Permits operation of the panel pushbutton controls and provides access to all menus except the Configuration menu. It can be overridden by the panel keyswitch.

Note: Some menus have options which can only be accessed using an Access 3 or Access 3A passcode; these options are described in **Section 12**.

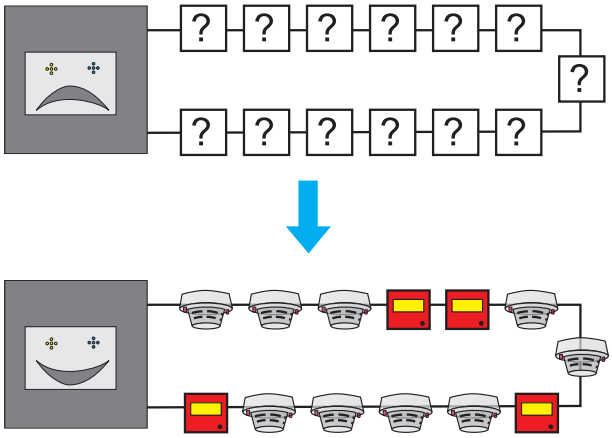
Access 3 - Provides access to the Configuration menu. Most operations described in this manual require this passcode.

Access 3A - Certain operations (changing passcodes, and panel settings) require this passcode.

Default passcodes are supplied with the panel. These can be changed and the manufacturer strongly recommends that you do so once commissioning has been completed (see **Section 8** for default passcodes and the means of changing the passcodes from these defaults).

Passcodes are not required for off-line configuration using a PC, but they are required when uploading or downloading configuration data using this method.

Before configuring your panel, ensure all loop devices are installed and each loop is connected



3.6 Learn Devices on Loops

The panel scans the loops and detects what devices are fitted. This can be done on an unconfigured panel. **Section 5.3** describes how to start, run and end a configuration learn.

There are two learn methods:

a. Auto-Learn. Loop device decisions are made without the need for user intervention. Refer to **Section 5.3.2**.

b. Manual Learn. Prompts the user each time a new or changed device is detected. Refer to **Section 5.3.3**.

Limitations on the Number of Devices

The ID3000 Series Control Panel design allows for the connection of up to 198 loop devices per analogue loop; i.e. up to 99 sensors and 99 modules. The maximum number of devices per panel is:

a. 1584, if the Enhanced Loop Interface Board (ELIB) is used for loops 3 to 8.

b. 512, if the Loop Interface Board (LIB) is used for loops 3 to 8.

To comply with EN54-2 in the event of a system fault, a maximum of 512 sensors and/or MCPs should be connected to the control panel across those analogue loops that are not connected to an ELIB. This number **includes** all conventional zone detectors and/or MCPs connected.

EN54-2: 13.7 Maximum of 512 Sensors and/or MCPs per panel unless ELIBs are used

If the number of sensors and/or MCPs connected to a loop exceeds 32, then isolators MUST be used to segregate parts of the loop. This will ensure that a short or open circuit will not cause the loss of more than 32 sensors or MCPs.

EN54-2: 12.5.2 Maximum of 32 Sensors and/or MCPs between isolators

There may be a further restriction, depending on the types of sensor used, because of drive limitations of the isolators. NOTIFIER provide a PC-based tool to simplify loop loading calculations. Contact NOTIFIER's Technical Support Department or your supplier for further information.

Limitations of the Auto-learn Method

- If the auto-learn method is used on an incomplete system it will give the false impression that the system is fully operational. In such cases, the auto-learnt data MUST be checked carefully against the system specification.
- During the auto-learn procedure, input module logical types are set to defaults. Modules not conforming to the defaults must be re-configured using the Manual Learn or Configure Individual Device procedures.

Caution - a false indication of a fully-functional system is given if the Auto-learn procedure is used on an incomplete system.

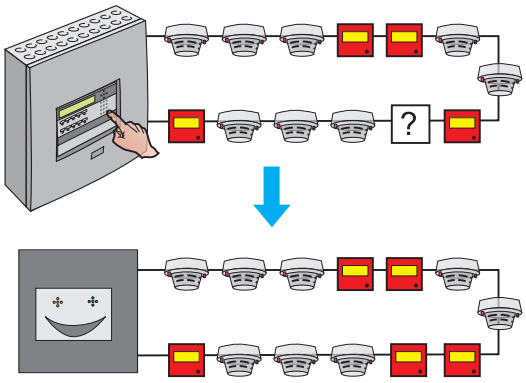
Input module types are set to defaults during the Auto-learn procedure and may require manual re-configuration.

3.7 Configure Group of Devices

On a configured panel, this configuration method allows a group of devices at consecutive addresses to be deleted or all set to the same type.

Refer to **Section 5.2**.

3.8 Configure Individual Device



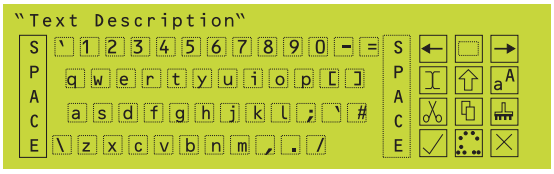
This configuration method requires the user to select each loop device and set all parameters and conditions, e.g. sensitivity, time-of-day, device text, etc. appropriate to it.

It can also be used to add further details to the configuration resulting from the auto-learn method.

Refer to **Section 5.1**.

Note: Sensitivity and alarm verification delay recommendations are given in **Section 13**.

3.9 Text Editing



There are three types of text that can be entered and edited:

a. The panel or site name.

b. The zone description.

c. The device description, which is shown on the display when the system status is not normal (i.e. alarm, test etc.). The device description is also used at the printer, if fitted.

The text is entered and edited from a text editor which uses the LCD and the panel pushbuttons. Refer to **Section 6**.

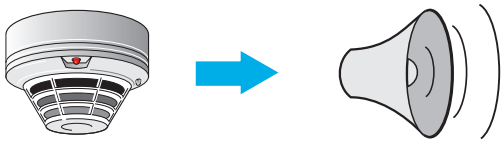
For panel and zone descriptions, the text editor is invoked from dedicated menu options (**Sections 6.4 and 6.3** respectively). For device descriptions it is invoked during the Configure Devices on Loops procedure (**Sections 5.1.2.3 and 5.1.4.3**) or Virtual Point Configuration procedure (**Section 15**).

3.10 Control Matrix

CONTROL MATRIX:

<Entry 1 input>	activates:	<Entry 1 output>
<Entry 2 input>	activates:	<Entry 2 output>
<Entry 3 input> ⇓ ⇓ ⇓ ⇓ ⇓ ⇓ ⇓	activates: ⇓ ⇓ ⇓ ⇓ ⇓	<Entry 3 output> ⇓ ⇓ ⇓ ⇓ ⇓ ⇓ ⇓
<Entry 512 input>	activates:	<Entry 512 output>

E.G.

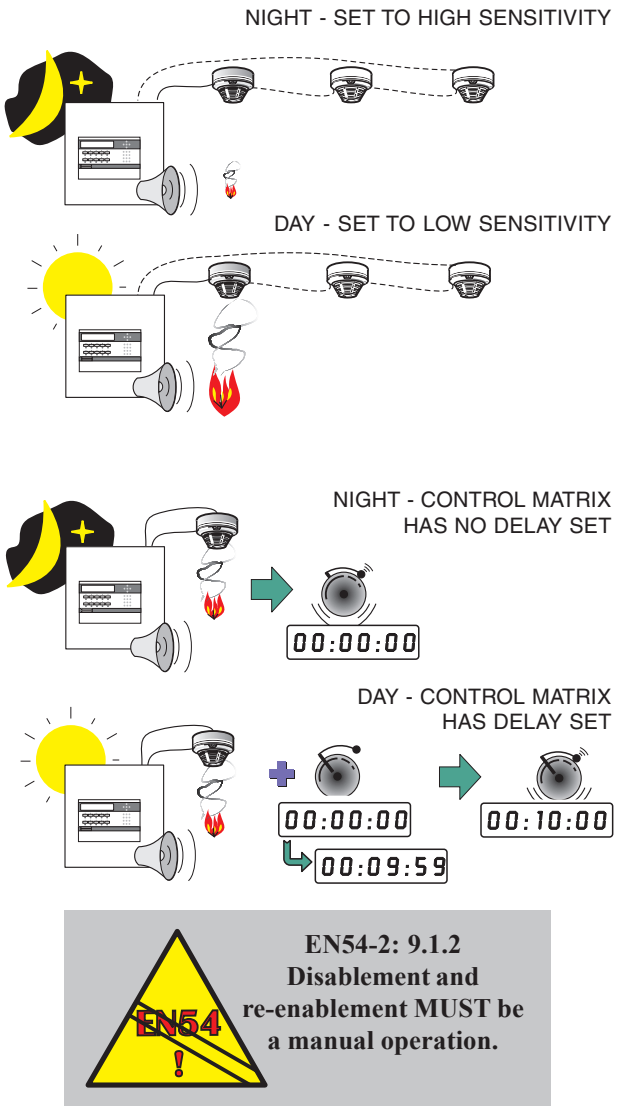


This very versatile system allows you to define exactly which outputs (bells, etc.) are to be activated depending upon which inputs (sensors, etc.) have given a fire indication.

The capacity of the system is 512 matrix entries.

Certain auxiliary functions may be specified using the Control Matrix.

Refer to **Section 7**.



3.11 Time-of-Day

This facility allows panel functions to be modified depending upon the time of day. There are three major applications:

a. Altering the sensitivity of sensors at certain times of day - see **Section 5.1.2.7**.

b. Making some actions in the **Control Matrix** (e.g. a delay) apply only at certain times of day - see **Section 7.6.2.2**.

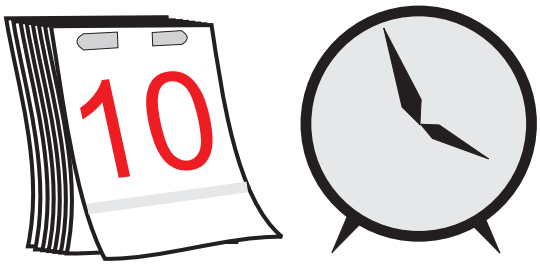
c. Cancelling all disablements on the panel at certain times of day (not EN54-2 compliant) - see **Section 11.7**.

Note: A Control Matrix entry can be used to control disablement and enablement functions, independent of the CANCEL DISABLE function (see **Section 7.7**).

A typical Time-of-day program consists of one or two daily periods specified by start and end times, with an optional alternative for weekends. Up to seven such programs can be in operation in any one panel.

These programs run completely independently of each other. Any particular sensor sensitivity, or Control Matrix entry, may be modified only according to ***one*** of the programs.

Full details on Time-of-day program editing are given in **Section 9**.



3.12 Setting the Clock

This facility allows:

a. The date and time to be adjusted.

b. The clock running speed to be adjusted.

c. The start and end dates of Summer Time to be selected.

Refer to **Section 10**.

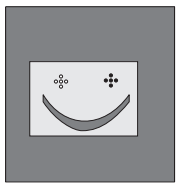
3.13 Panel Settings

For a number of panel functions, various options are available e.g. Pulsing Sounder Modes, Access Level for MUTE BUZZER etc, Relay Circuits SILENCE Option. Some options are temporary, most are permanent.

Refer to **Section 11**.

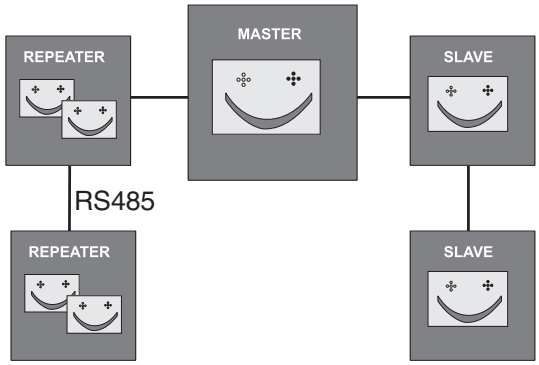
ID3000:

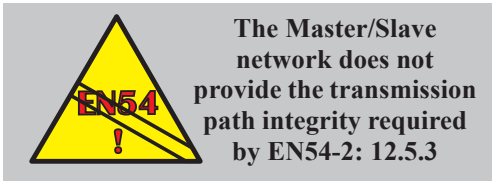
STAND-ALONE



OR

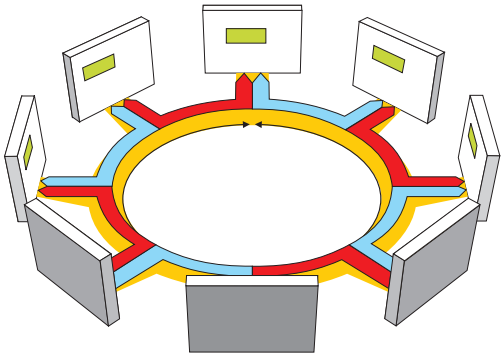
MASTER/SLAVE NETWORK





OR

ID²NET PEER-TO-PEER NETWORK



3.14 System Networking

The ID3000 fire control system is designed so that control panels can work either as stand-alone units or networked with other panels. When networked, each panel supervises its own detection system of up to eight loops of sensors and modules and functions independently of all other panels.

A communication system enables events at any panel to be relayed to other panels. This causes appropriate annunciations and actions at those panels.

Network Programming

The ID3000 Series panel can be used with one of two networks:

a. Master/Slave network. Refer to **Section 14** for further information.

b. ID²net peer-to-peer fault-tolerant network. Refer to **Appendix 3** for further information.

Local Codes of Practice

Master/Slave network: The existence of network communications is not, normally, intended to replace the essential functions of the individual panels (considered as isolated systems) but to supplement and extend the facilities offered. This means that each panel must be configured, independently of the others, to comply with the appropriate Code of Practice in force in the area of the installation (i.e. in respect of the activation of alarm devices in response to an Alarm of Fire). This compliance must be maintained at all times, even when communication with other panels is suspended.

3.15 Delays

Either the sounders or the fire alarm routing equipment (remote fire outputs) which is used to summon the fire brigade can be delayed:

a. To activate sounders immediately but delay the remote fire outputs, use the **Day/Night Modes Configuration Option (Section 11.19)**. The delay may be extended to allow investigation. MCPs are normally configured to override any delay.

b. To delay sounders but activate the remote fire outputs immediately, use the Control Matrix to put an output delay on modules of type BELL (**Section 7.6.2.2**). The delay must then be enabled by the Operator (see **Operator's Manual Section 7.5**). MCPs are normally configured to override any delay.

3.16 Virtual Point Configuration

Up to 64 Virtual Input Points and up to 512 Virtual Output Points can be configured. They are used with external systems (e.g. a Voice Alarm panel) with which they communicate via an RS232 port. They must be placed in a zone; they then become possible inputs to or outputs from the Control Matrix. Further information is given in **Section 15**.

4 The Display - Tabs, Events and Menus

4.1 Introduction

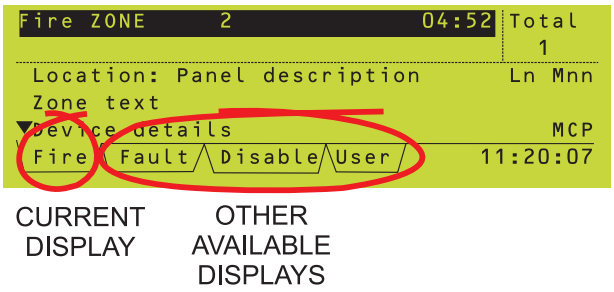
4.1.1 Status: NORMAL

The Status: NORMAL display appears when:

a. No alarm or test conditions exist, and

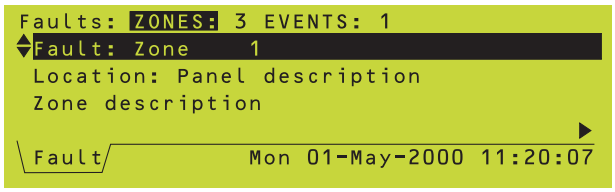
b. No menus are being accessed.

4.1.2 Tabs



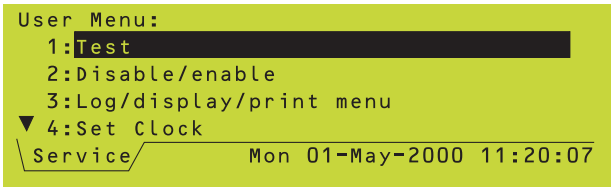
When conditions other than Status: NORMAL exist, the LCD displays event data. More than one type of data may be available for display at any one time (eg, Fire Alarms, Faults, Menus etc.). When this occurs, the types of data available are identified by tabs at the bottom of the display.

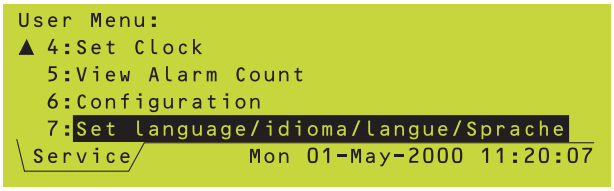
4.1.3 Events



Fire Alarms, Pre-alarms, Faults, Disablements, Tests, Evacuate mode and Auxiliary input activations are shown on Event displays. A Fault event display is shown.

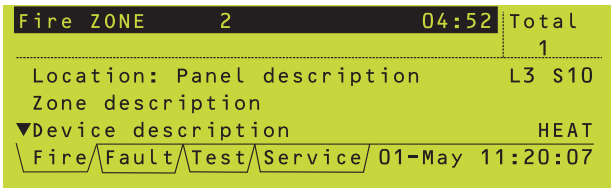
4.1.4 Menus

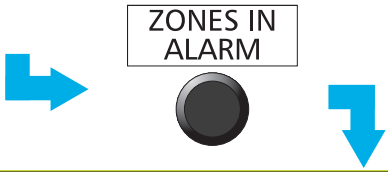


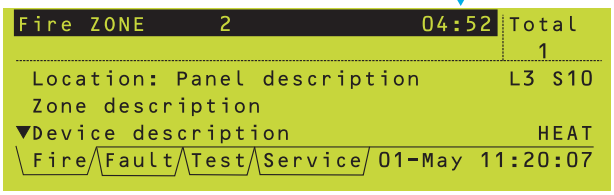


Menus displays are arranged in a heirarchy, the top of which is a User Menu from which other menus are accessed.

4.2 Tabs







When tabs are displayed, use the CHANGE TABS key to scroll through the tabs and thus display the corresponding data.

The tabs are (in descending order of priority):

EXTINGUISHING (*if about to release; otherwise priority is below FIRE*)
FIRE
TECH. ALARM
PRE-ALARM
FAULT
DISABLE
TEST
EVACUATE
AUX
MAINT *(access level 3 only unless Maintenance Urgent)*
USER *(at access level 2)* or
SERVICE *(at access level 3)*

The tabs are displayed in this order from left to right. All the tabs display events except for the USER and SERVICE tabs, which display menus. The current tab is that without a line above it.

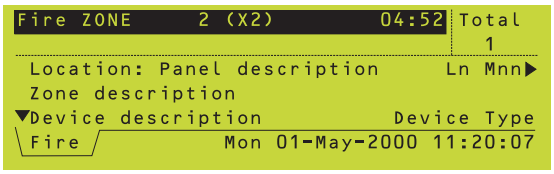
Note: If there is insufficient room to display all the tabs, the ones at the right (those with the lowest priority) are omitted.

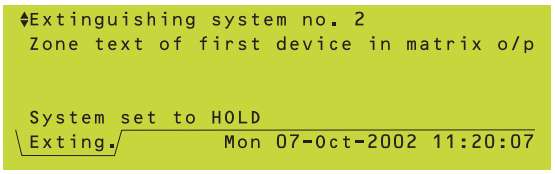
Use ZONES IN ALARM to go directly to the FIRE tab without scrolling through the other tabs. If there is more than one zone in alarm, subsequent operations of the ZONES IN ALARM pushbutton scroll through these zones.

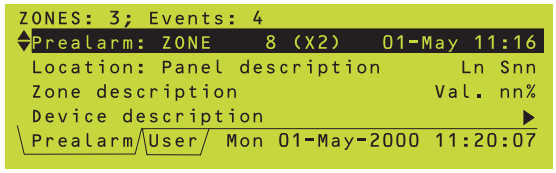
Note: If the FIRE tab is present but not selected, and for 20 seconds none of the panel pushbuttons are pressed, the FIRE tab is then selected automatically.

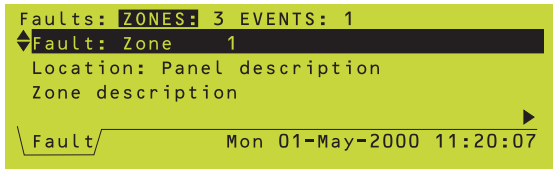
Note: If the SERVICE or USER tab is selected, and for 2 minutes none of the panel pushbuttons are pressed, the tab is deselected automatically and all passcodes are cancelled (except the access level 2 passcode when the keyswitch is set to the horizontal position).

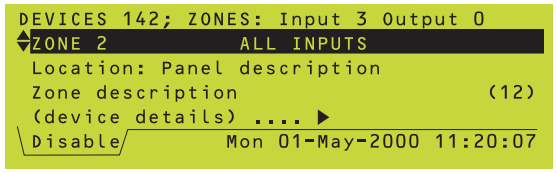
4.3 Event Displays

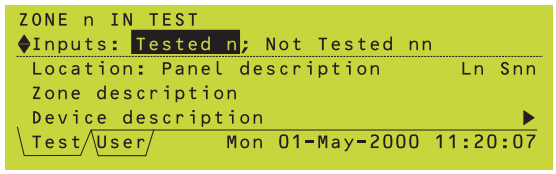


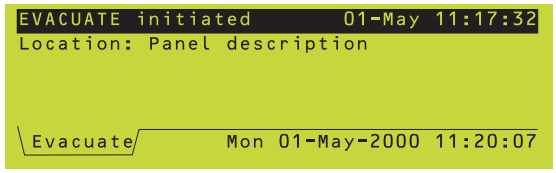


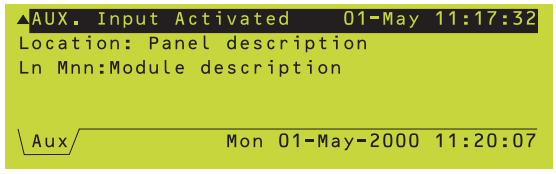


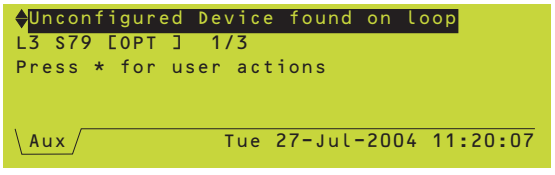












When a fire alarm, pre-alarm, fault, disablement, walk test, evacuation, or auxiliary input activation (if logging is configured) occurs, an event display replaces the Status: NORMAL display.

Note: FIRE, FAULT, DISABLEMENT, or TEST LEDs illuminate (also ZONE LEDs, if fitted) as appropriate.

Example event displays are shown at the left. In general, to move through the displays:

a. If more than one zone is affected by the event, use the ▲ and ▼ arrows to scroll through the zones. For FIRE events these arrows scroll through device data; ZONES IN ALARM scrolls through the zones.

b. If more than one device is affected, use the ◀ and ▶ arrows to scroll through the devices and device descriptions.

If a FIRE event occurs and the CHANGE TABS pushbutton is used to display other data, the display area is reformatted so that the top two lines continue to display fire information.

Further details about the event displays and their operation are given in the ID3000 Series Operating Manual 997-505-XXX.

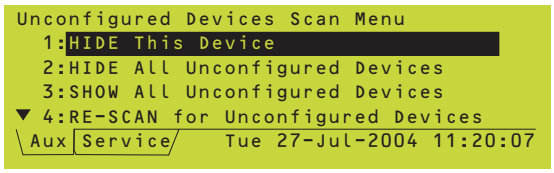
Aux Tab

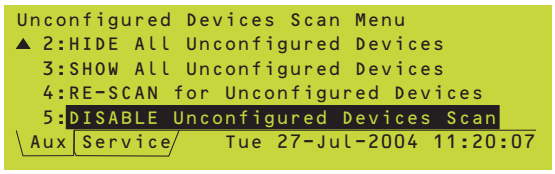
At the end of the list of activated AUX inputs, the AUX tab displays details of unconfigured loop devices, should the panel find any during polling. These are only shown on the panel local to the devices. If multiple devices are found, use the ▲ and ▼ pushbuttons to scroll through the list of unconfigured devices (and through the list of activated AUX inputs). In the example, 1/3 means that 'L3 S79' is the first of a total of three unconfigured devices found (on all loops).

Note: Modules: the only types that may be displayed are MON, CTRL and ZMX.

By default, the panel does not scan for unconfigured devices when the panel is completely unconfigured (i.e. no sensors or modules on any loop), however scanning can be enabled by the user.

There is an optional, configurable upper limit on the number of devices to be scanned. When this number is reached, scanning can be continued if extended by the user. The default upper limit is 50 devices.





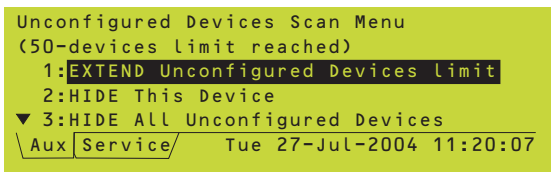
Press the ✱ pushbutton (level 3 access) to display options to hide or show these devices for access level 1 or 2 users, and to disable/enable scanning for unconfigured devices.

a. If there are no devices left to show as a result of HIDE, the AUX tab disappears (assuming there are no AUX inputs active).

b. RE-SCAN causes the panel to clear all indications of unconfigured devices, scan the loops and then store the list of any devices still unconfigured. This allows devices that were present on the loop but have since been removed to be identified. The process takes up to about five minutes.

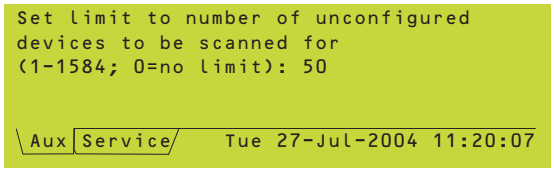
c. DISABLE clears the indicated devices from the AUX tab and prevents the panel from detecting further unconfigured devices. To re-enable the scan, use the Log/Display/Print menu as described in **Section 12.5**.

Note: Entry of access level 3 passcode for any reason (except to display the above menu from the AUX tab) always results in SHOW ALL, unless the scan for unconfigured devices has been disabled. Any loop device configuration operation always leads to a RE-SCAN.



If the configured upper limit is reached, the option to extend the scanning is provided.

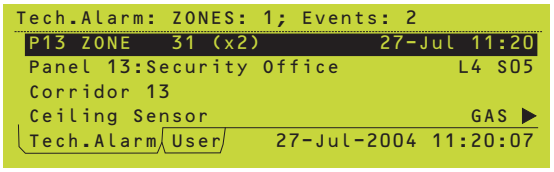
Note: The number of devices listed may be slightly higher than the set limit (because of synchronisation effects).

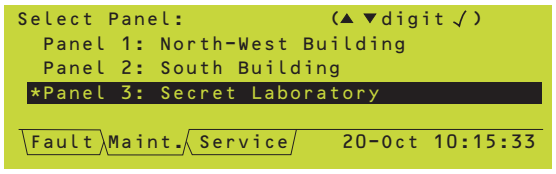


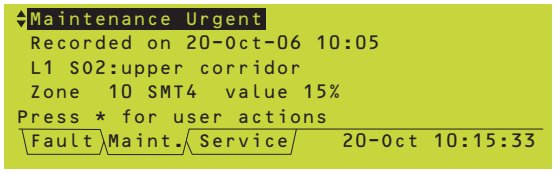
The DISABLE option resets the upper limit to 50 (this is the only method or reimposing a limit if '0', i.e. no limit has been selected).

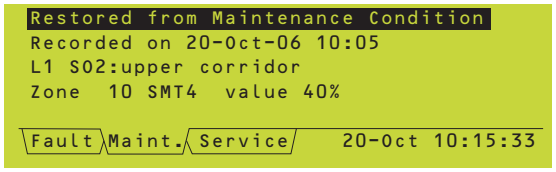
Tech. Alarm Tab

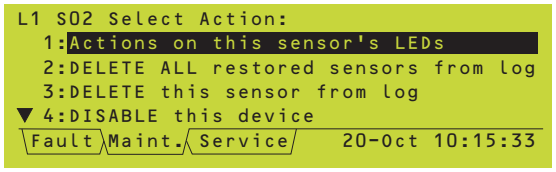
The Tech. Alarm tab is displayed when any Gas Sensor Interface configured as Technical Alarm is activated.

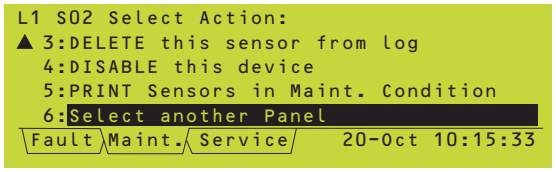












Maint Tab

This displays the maintenance status of any SMART, Optiplex and VIEW sensors installed on the loops (if arrows are displayed then more than one message exists). If the panel is connected to an ID²net network and more than one panel contains sensors requiring maintenance, an option to choose the panel is provided.

There are four status messages:

a. Maintenance Urgent. Indicates drift limit condition and is accompanied by a SENSOR FAULT fault message.

b. Maintenance Alert. Indicates drift limit or continuous IR saturation condition. Maintenance Alert is also displayed in respect of any Optiplex or VIEW sensors.

c. 6 months to cell life expiration (SMART4 only).

d. IR light saturation condition (SMART4 only).

If a sensor returns from a maintenance condition to its normal state, the display is as shown opposite.

From the 'Maint.' tab, when the status of an individual sensor is displayed, press the * pushbutton to display a Select Action menu (the illustrations opposite cover all possible options - in practice not all options may be present, see below for details). The options are:

a. Actions on this sensors's LEDs. The LED can be set to OFF, 1-second pulsing, or ON STEADY. This option is always available.

b. DELETE ALL restored sensors from log. The maintenance status is stored in a log (capacity 100 records per panel). This option delete records from the log for all sensors that are in the 'Restored from Maintenance Condition' state. Available provided at least one sensor is in this state.

Note: Use the Historic & Data Log Tool (supplied with the Windows Support Tool) to access the log.

c. DELETE this sensor from log. Available only if the current sensor is in the 'Restored from Maintenance Condition' state.

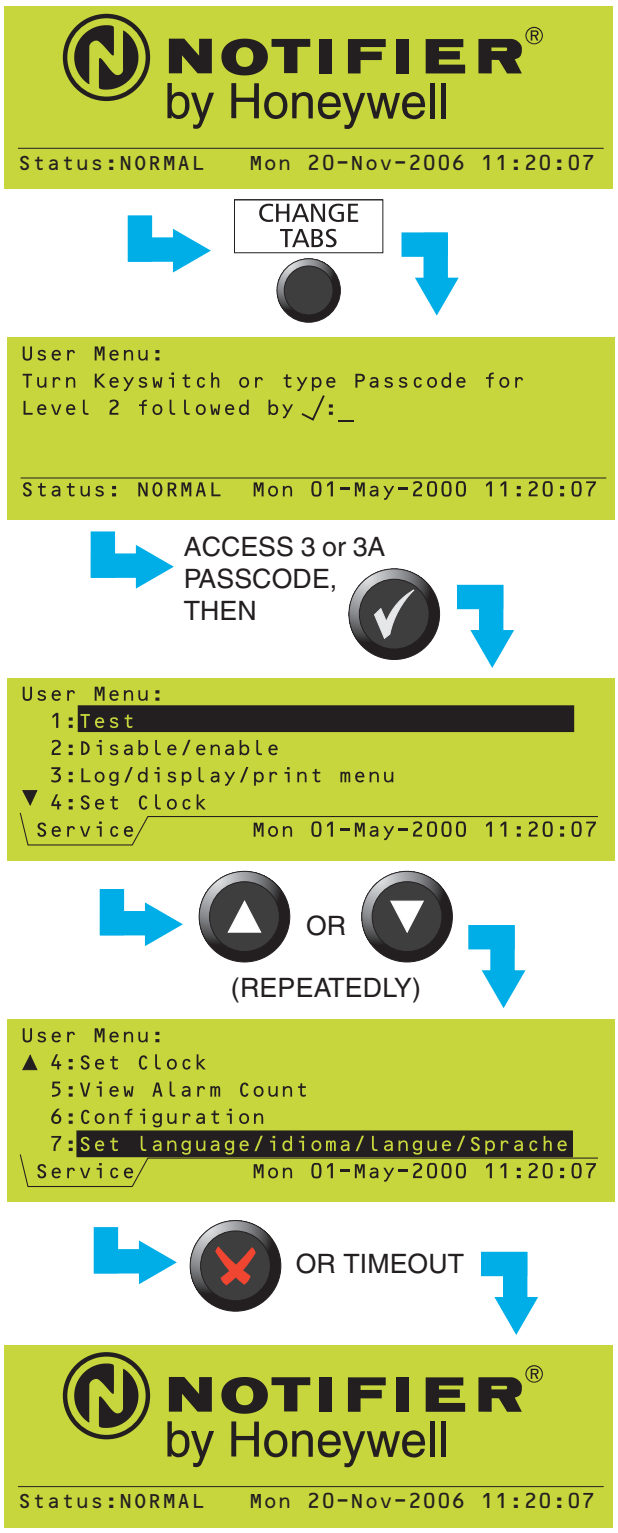
d. DISABLE THIS DEVICE. Always available, may be ENABLE THIS DEVICE depending upon disablement status of current sensor.

e. PRINT Sensors in Maint. condition. Always available.

f. Select another Panel. Displays the Select Panel option. Only available if the panel is connected to an ID²net and more than one panel contains sensors requiring maintenance.

4.4 Menu Displays

4.4.1 To Display the User Menu



To display the User Menu when the system status is Normal, enter the passcode. To use the Configuration menu and to use some options on the other menus an access 3 or 3A passcode must be entered (refer to **Section 8** for further details about passcodes).

Note: If event tabs are displayed, CHANGE TABS first displays these sequentially, then when the last of these has been displayed the passcode prompt is displayed.

Note: An access 2 passcode is also provided, for use by the operator. If this is entered the tab is named USER instead of SERVICE. You can enter the access 3 or 3A passcode at either a prompt for an access 2 passcode or at a prompt for an access 3 passcode.

Note: If no further pushbuttons are pressed the Status: NORMAL display is re-displayed after 2 minutes.

Only the first four options of the User Menu are displayed at this time. The selected option is highlighted. Use the ▲ and ▼ pushbuttons to scroll through the other options.

Use the ✕ pushbutton to return to the Status: NORMAL display.

4.4.2 To Navigate Through the Menus

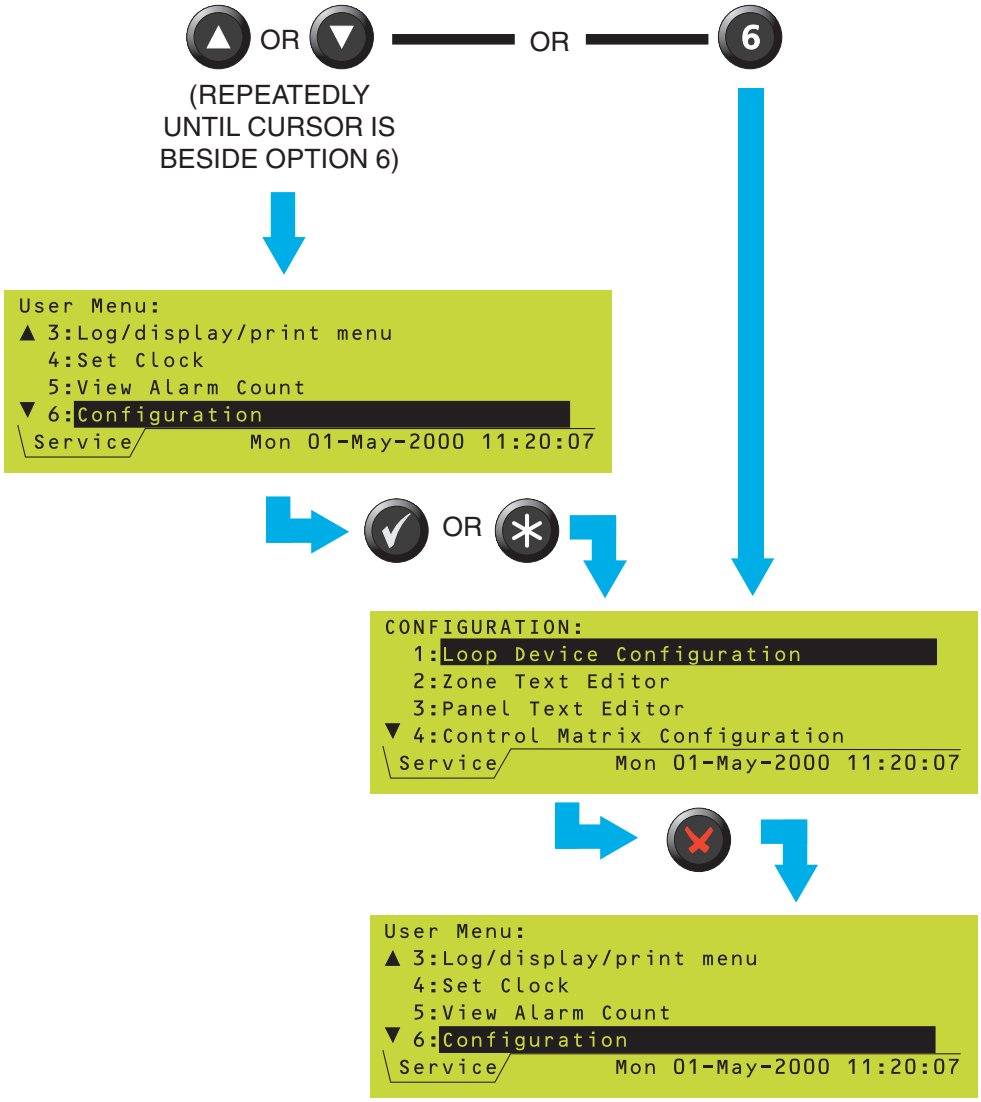
In this example it is desired to display the Configuration Menu, which is option 6 on the User Menu.

With the User Menu displayed, press 6 to go to the Configuration Menu directly.

Alternatively, highlight option 6 on the User Menu and then select the option as shown below.

If there are more than 9 items in the menu, the numeric key highlights a suggested option but does not select it. 1 alternates between '1' and 10'.

Press the ✕ key to exit from the menu.



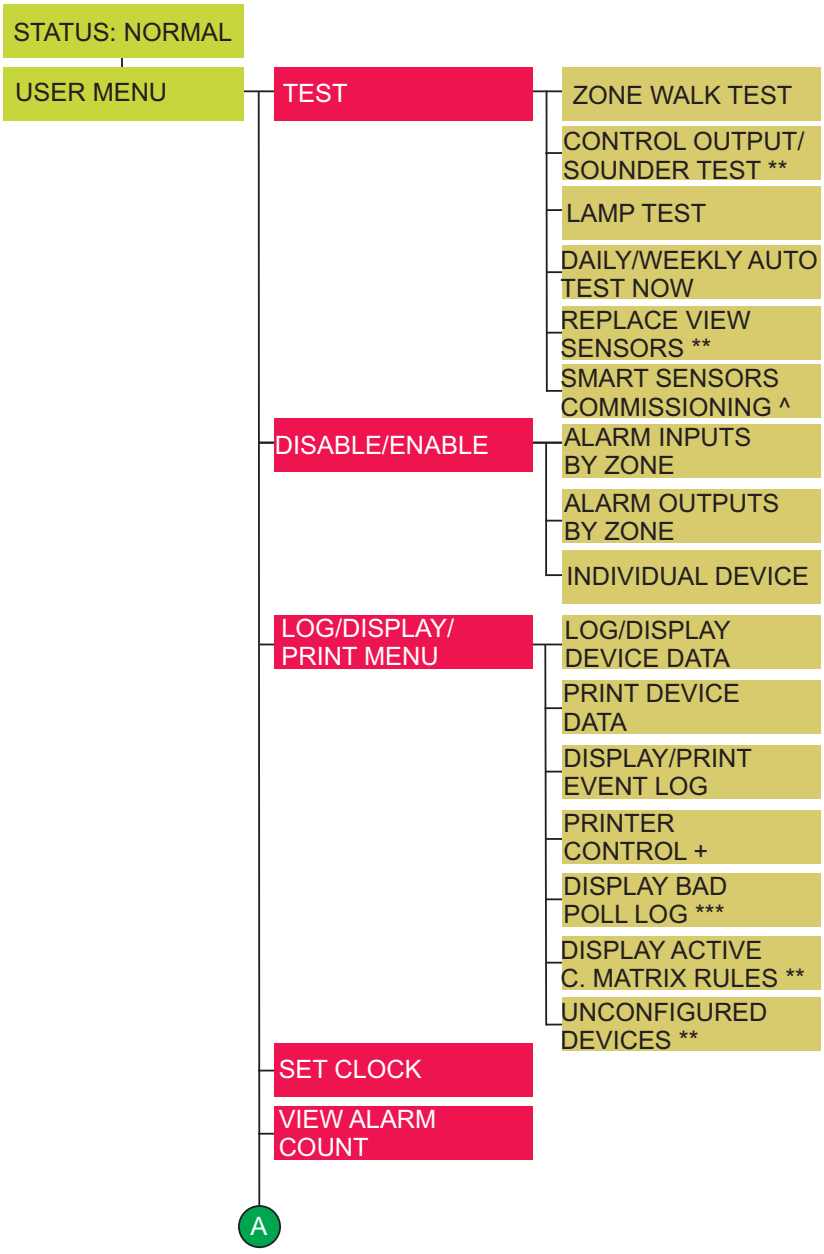
4.4.3 Menu Structure

Note: ** Requires access 3 passcode. The menu primarily used in this manual is the Configuration Menu, therefore its sub-menus are shown in greater detail than is the case for the other menus.

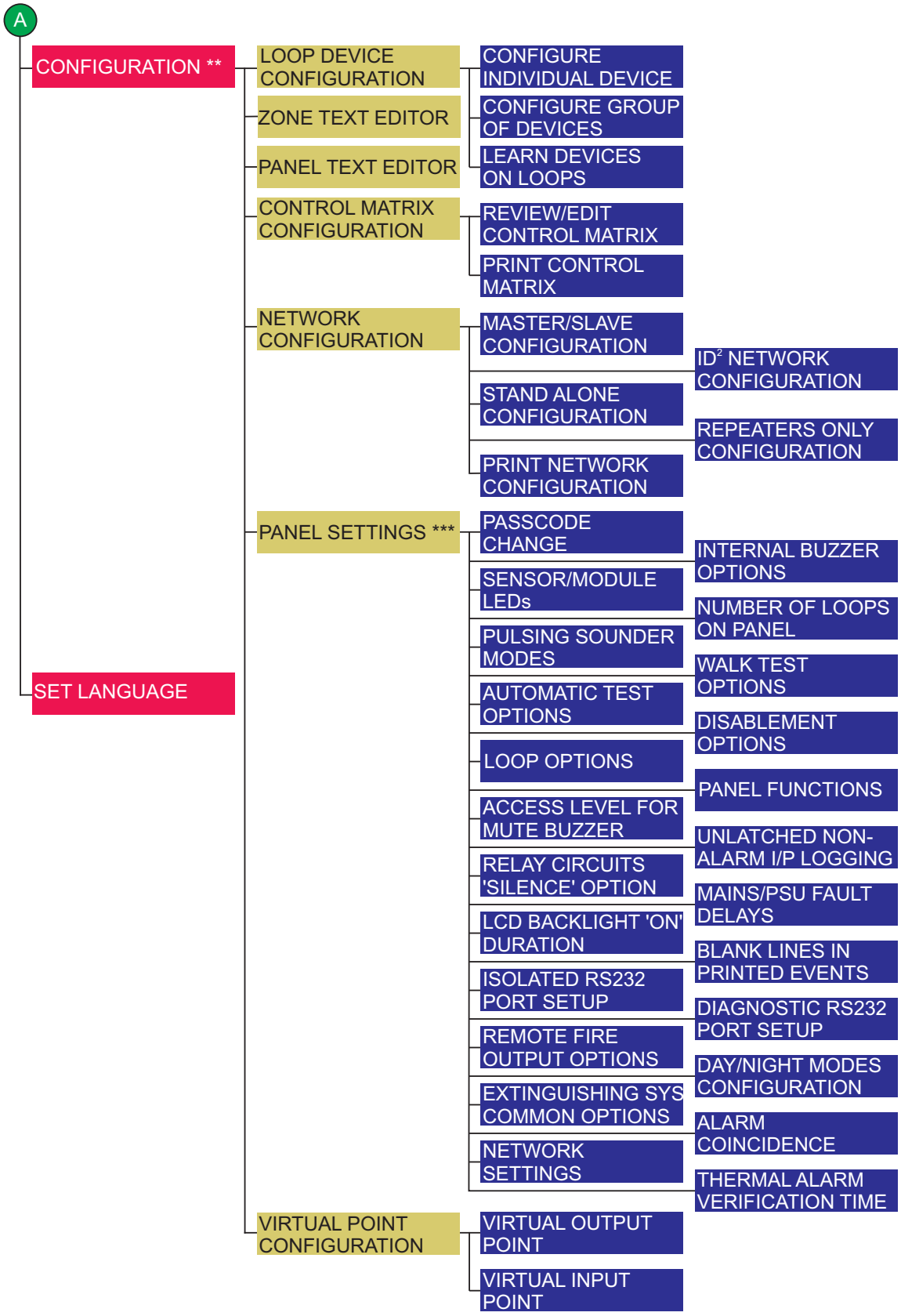
*** Requires access 3A passcode.

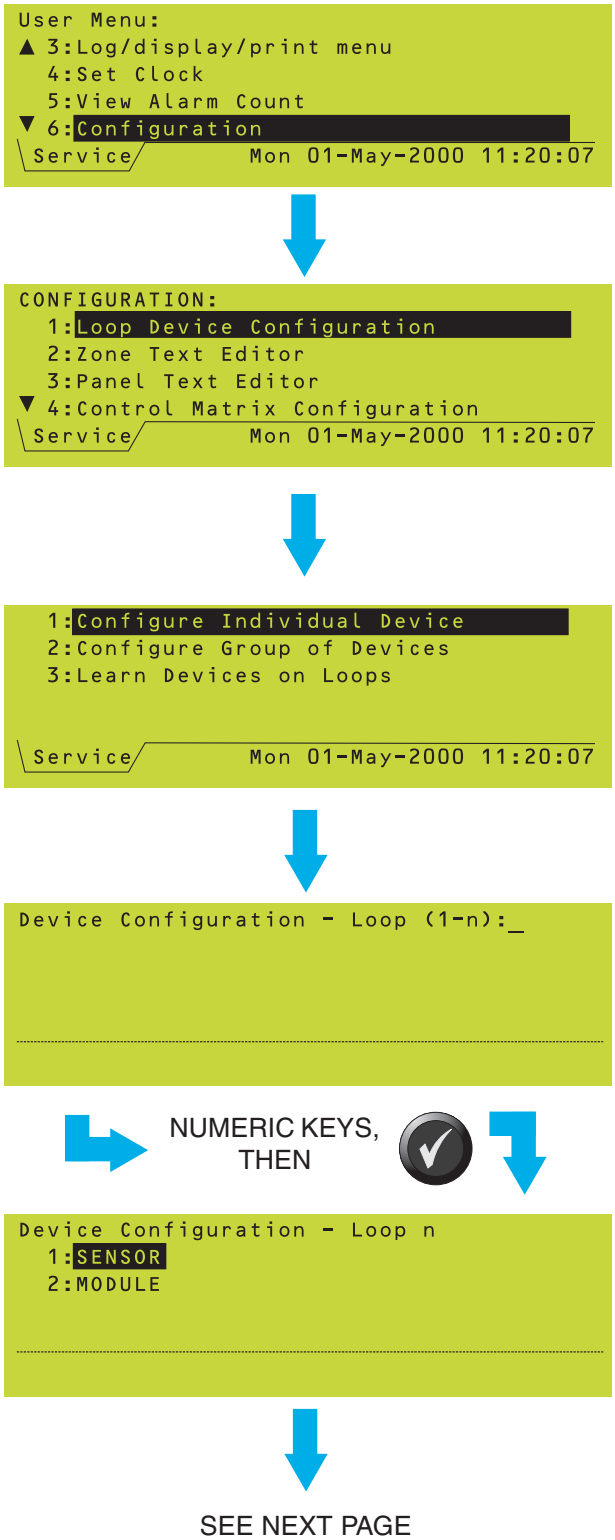
+Only available if a PRN-ID or P40 printer is configured.

^Only available if at least one SMART sensor is configured on the loops.



Note: If access level 2 is entered by use of the keyswitch, no decision has been made by the user to enter a specific access level passcode. In this case the 'CONFIGURATION' menu option is replaced by 'ENTER LEVEL 3 PASSCODE'. When a level 3 passcode is entered, the User Menu is re-displayed so that the level 3 user can select any of the menus available at access level 2 (to access their level 3 options, see **Section 12**), in addition to the 'CONFIGURATION' menu.





5 Loop Device Configuration

You can configure loop devices:

a. Individually (**Section 5.1**).

b. As a group (**Section 5.2**).

c. As a system (**Section 5.3**), learning the loops either automatically or with manual intervention.

5.1 Configure Individual Device

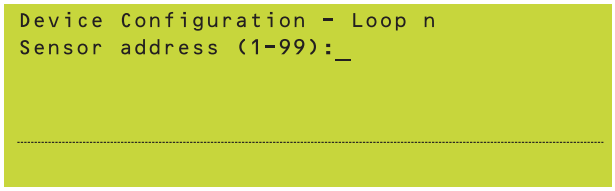
5.1.1 Select a Device

1 From the Loop Device Configuration menu, select the Configure Individual Device option.

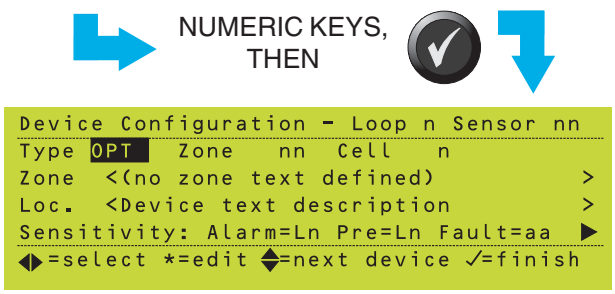
2 Select the number of the loop to which the device is physically wired ('n' is the highest loop number on the panel, e.g. 4, 6 or 8).

3 Select whether the device is a sensor or module (both have device numbers in the range 1-99, so this selection determines the meaning of the device number).

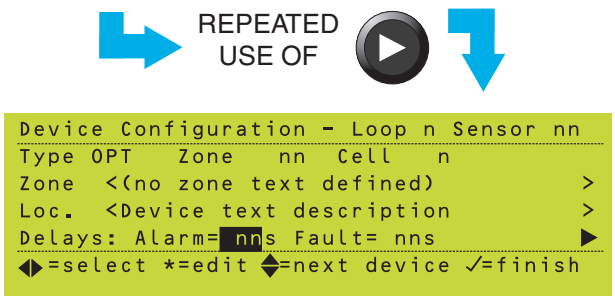
FROM PREVIOUS PAGE



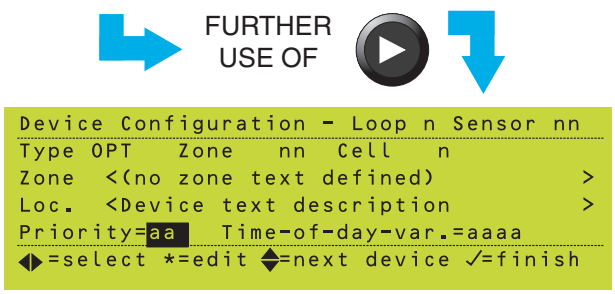
NUMERIC KEYS, THEN



REPEATED USE OF



FURTHER USE OF



4 In this example SENSOR was chosen. The procedure for choosing a MODULE is the same. Enter the device number. Leading zeros are optional.

In this example the device is an optical sensor (type OPT); all other values use 'n' to represent a numeric value and 'a' or a description to represent alphabetic characters.

The ▶ and ◀ pushbuttons step through the parameters that can be edited for the currently-displayed device. Press the * pushbutton to edit the currently-highlighted parameter. The following sections describe the options available for each parameter for a sensor, and then the differences applicable to a control module.

Note: The ▲ and ▼ pushbuttons step through the various devices on the system (all loops).

If the device has not been configured, the display is as shown.

5.1.2 Change Device Configuration - Sensors

The following can be altered for sensors:

a. The device type.

b. The zone or cell in which the device is placed.

c. The device location text. Note that the zone text is displayed but cannot be edited here (it is edited in the Zone Text Editor, see **Section 6.3**).

d. Sensitivity levels (see **Section 13** for recommendations).

e. Verification delay times. See **Section 13** for recommendations.

f. Priority option.

g. Time-of-day sensitivity changes.

5.1.2.1 Edit Device Type

Select the required TYPE. If no sensor exists at the entered number, its type is NONE. Available types are:

	Description	Device Physical Type
NONE	Deleted - no sensor exists at this address	
HEAT	Thermal sensor	FDX
ION	IONisation	CPX
OPT	OPTical	SDX
MULT	MULTI combined heat/ smoke sensor	IPX-751
VIEW	Laser-based smoke sensor	LPX-751
GAS	Gas Sensor Interface	IIG1/IIG4
SMT4	Optical/thermal/infra-red/ carbon monoxide	SMART4

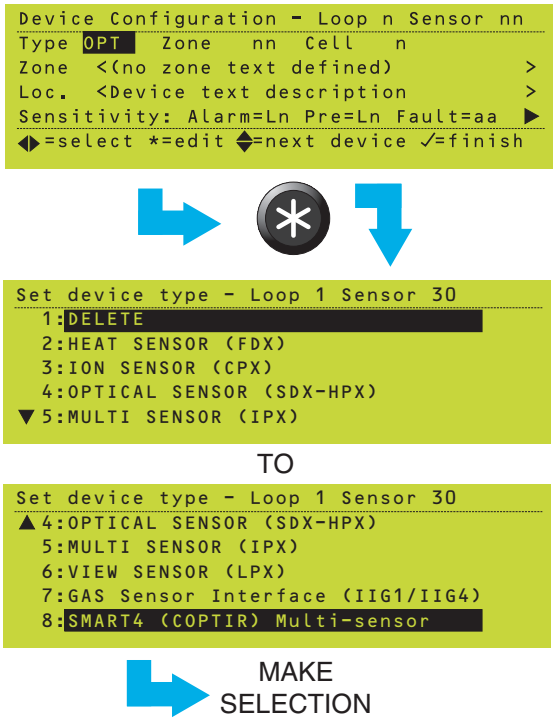
If you change a device type, the other settings (except zone, cell and device text) revert to default.

Gas Sensor Interface

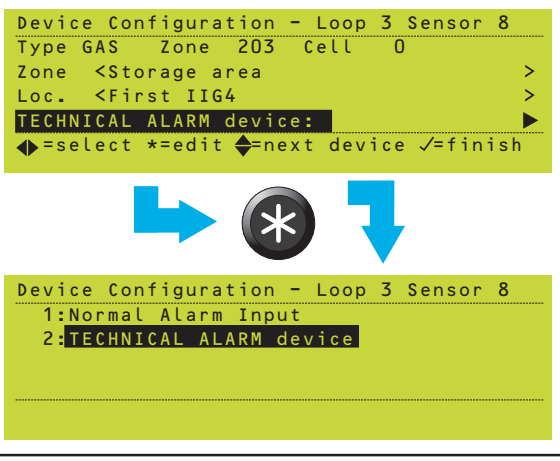
Interface IIG1 requires three consecutive sensor addresses; the lowest is shown as type GAS and the other two as NONE. Interface IIG4 requires up to twelve consecutive addresses (depending upon how many of four possible interfaces are configured at the device), the first, fourth, seventh and tenth are type GAS and the others NONE. The following then applies:

i Attempts to change the type at the addresses shown as 'NONE' display the message 'This address is not available: GAS sensor occupying one of the previous two addresses.'.

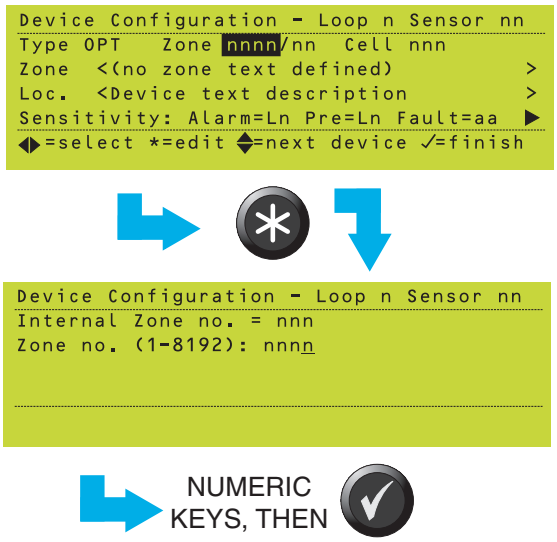
ii Type GAS cannot be configured at an address if either or both of the next two addresses are already occupied (the message 'PLEASE DELETE next two higher-addressed sensors before installing GAS sensor at this address.' is displayed).



GAS SENSOR INTERFACE:
This device produces a Technical Alarm by default, but can be configured as a Fire Alarm by the configuration option shown below. The Control Matrix groups Technical Alarms with Fire Alarms.

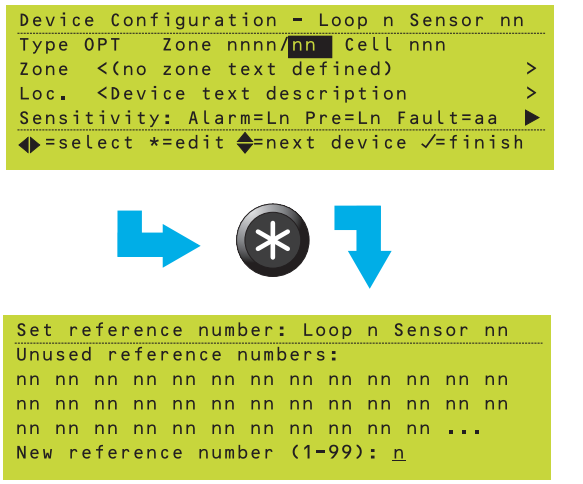


5.1.2.2 Edit Device Zone or Cell



Zone Number

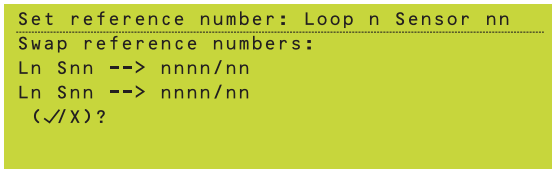
Enter the zone number within the displayed range. RANGE! is displayed if the entered number is out of range. For details of zone ranges, refer to **Section 14.1.2**. The 'Internal Zone no.' is only displayed if network zones are used, also in this case an error message is displayed if you try to configure more than 255 zones on a panel.

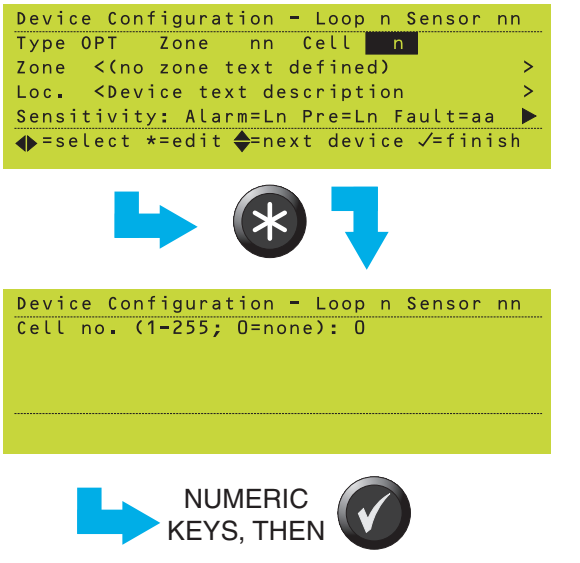


Reference Number

If network zones are used, a maximum of 99 devices can be placed in the zone. Each device is identified by a reference number in the range 1 to 99 (i.e. maximum of 99 devices in a zone). When a device's zone number is configured the device is automatically given the first available reference number by default.

To change this default, either enter one of the unused reference numbers from the display, or a reference number that is already used by a device. If the latter is chosen, the option to swap the number for that device with one of the unused number is provided automatically (see below). If the swap is not accepted then the entered number is rejected.



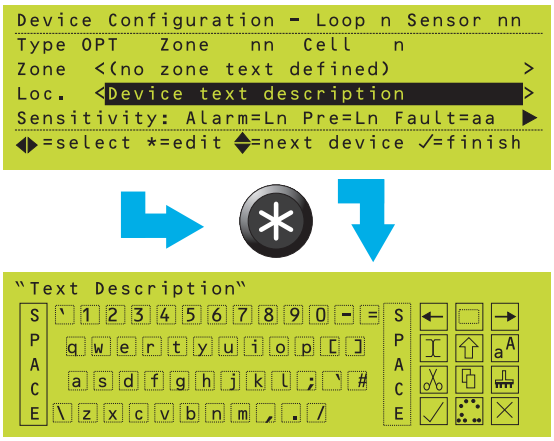


Cell number

Devices can optionally be placed in a cell in addition to a zone. Certain Control Matrix functions can be set to apply to the cell rather than the zone.

Enter the cell number in the range 1 to 255, or select 0 if the device is not to be placed in a cell.

5.1.2.3 Edit Device Location Text



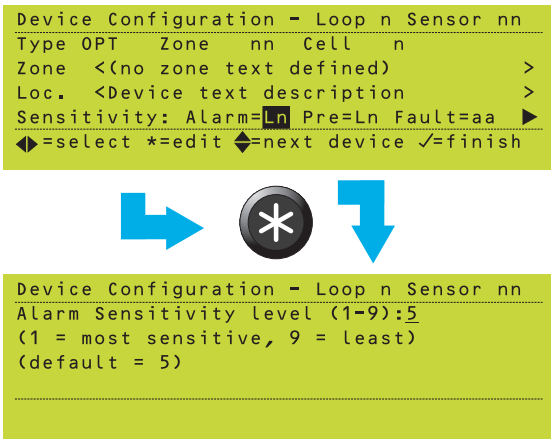
Edit the text description which is used for the various tab displays (e.g. fire, fault) and for printing at the printer. **Section 6** describes how to use the text editor.

5.1.2.4 Edit Sensitivity level and Fault Supervision

The alarm and pre-alarm sensitivities can be configured.

The Gas Sensor Interface Alarm, Pre-alarm and Fault levels are all editable values in the range 4 to 20mA instead of pre-set levels. Details are given in **Section 5.1.3.4**.

ALARM



Alarm

The illustration shows the alarm sensitivity selected for edit. Up to 9 pre-set levels are available for each sensor (except MULTI and SMART); for all sensor types (except MULTI and SMART) the default setting is L5. L1 is most sensitive and L9 is least sensitive. Refer to **Section 13** for recommendations.

Further information about VIEW sensor sensitivity is given in **Section 5.1.3.1.**

Details of MULTI sensor sensitivity are given in **Section 5.1.3.2.**

Further information about SMART sensors sensitivity is given in **Section 5.1.3.3.**

PRE-ALARM

```
Device Configuration - Loop n Sensor nn
Prealarm Sensitivity level (0-9):5
(1 = most sensitive, 9 = least)
(0 = no supervision; default = 5)
```

Pre-alarm

Again the default setting is 5 for all types of sensor except MULTI. The alarm and pre-alarm ranges do not overlap, except for MULTI for which the alarm **must** be set lower than the pre-alarm for pre-alarm supervision to work (set it equal or higher if pre-alarm supervision is not required). For other sensor types the pre-alarm sensitivity range includes '0' which selects no pre-alarm supervision.

Note: The ALARM and PRE-ALARM values are upper thresholds, i.e. an alarm occurs if the sensor reading equals or exceeds the threshold.

```
Device Configuration - Loop 1 Sensor 30
LOCK Pre-alarm level against Time-of-Day
Variation etc.:
  1:NO
  2:YES
```

The option to Lock the Pre-alarm level is then provided:

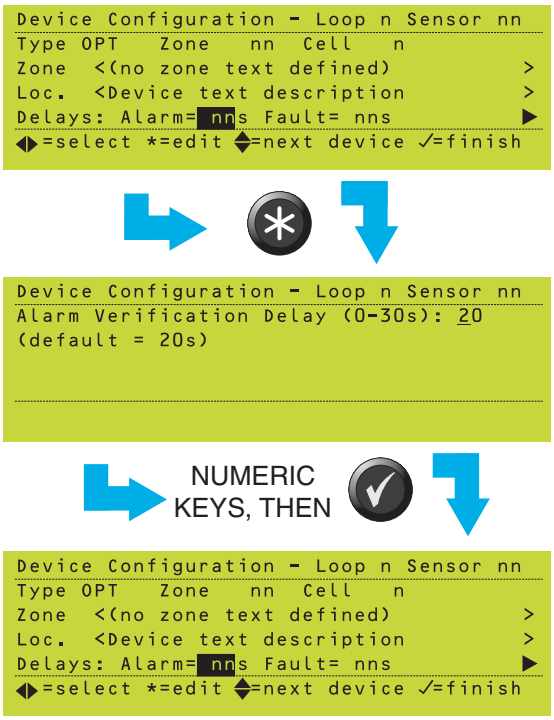
a. If NO (default) is chosen and Time-of-Day is used to vary the alarm sensitivity (Section 5.1.2.7), Pre-alarm sensitivity changes with Time-of-Day by the same amount that is set for Alarm. Also, for MULTI/SMART sensors, Pre-alarm is ignored at those times when Thermal-only mode L6 is in operation for Alarms as a result of a Control Matrix rule or Time-of-Day.

b. If YES is chosen, the Pre-alarm sensitivity remains fixed at the selected level. Also, for MULTI/SMART sensors, Pre-alarm is no longer ignored at those times when Thermal-only mode is in operation for Alarms. A '#' symbol is displayed beside the Pre-alarm value.

Fault

To comply with EN54-2: 8.3, fault supervision is always set to ON.

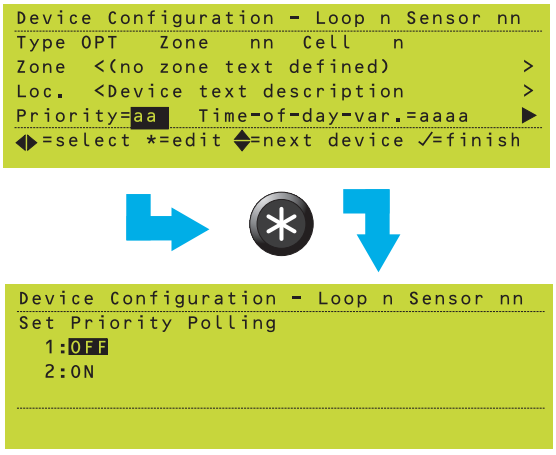
5.1.2.5 Edit Verification Delay



Set the verification delay within the displayed range. RANGE! is displayed if the entered number is out of range. Refer to **Section 13** for recommended verification delays.

The Alarm verification display is shown on the left. The Fault verification display has the same layout.

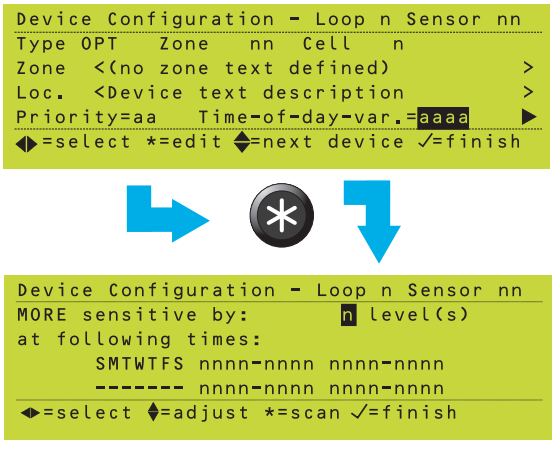
5.1.2.6 Edit Priority Option



Set the priority polling ON of OFF. When ON the device will scan at intervals of less than one second.

A maximum of 43 devices per loop may be designated as priority; however, to obtain the 1-second scan interval do not designate more than 21 devices per loop as priority (as more devices are assigned priority scan status, the scan rate becomes slower for the remaining devices).

5.1.2.7 Time of Day



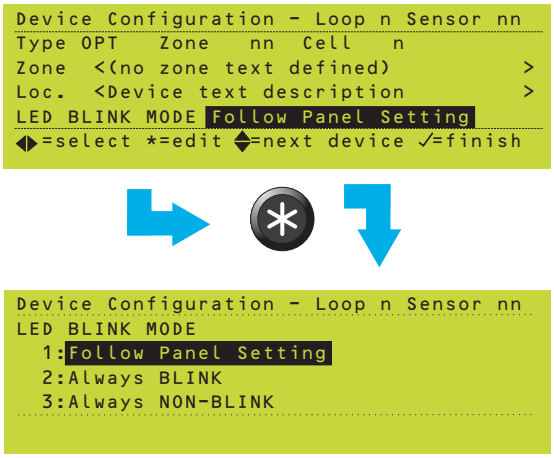
The sensitivity can be varied at different times of day.

Refer to **Section 9** for details of time-of-day programming.

Note: If the device's alarm sensitivity is changed, the time of day variation is cancelled automatically to prevent it going out of range.

5.1.2.8 LED Blink Options

Select whether the device's LEDs follow the panel setting (**Section 11.2**) or are set to blink or not (non-blink).



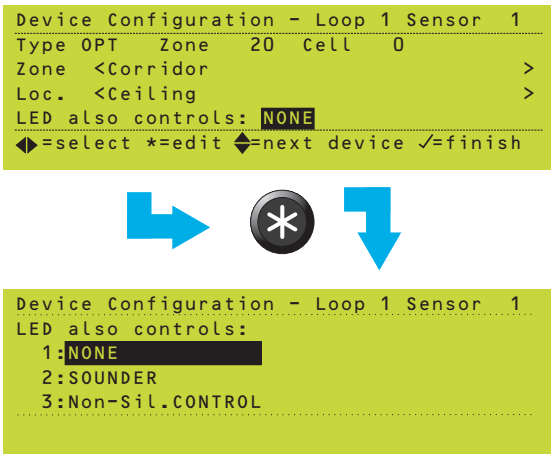
5.1.2.9 LED Also Controls

Select the required option:

a. NONE. There are no additional controls.

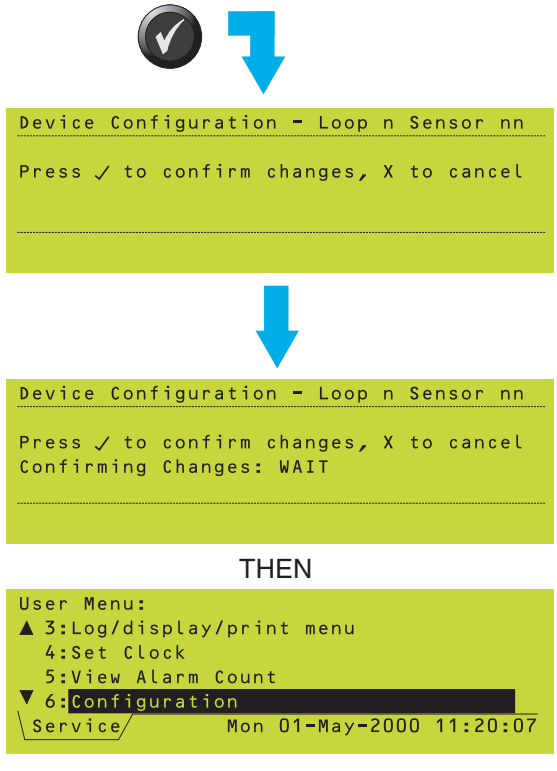
b. SOUNDER. For use with B601BH base with integral sounder; the sounder will be silenced by operation of the panel's SILENCE/RESOUND (to silence) or RESET pushbuttons.

c. Non-Sil. Control. Used when auxiliary equipment is driven in parallel with the sensor LED. Control of this auxiliary equipment is then independent of the SILENCE/RESOUND pushbutton - it is only switched off by operating the RESET pushbutton.

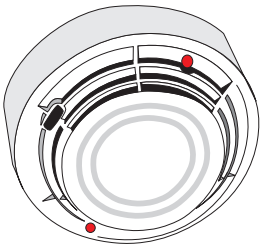


5.1.2.10 End the Editing Session

When all the changes have been made, press ✓ to confirm them. The panel then uses the changed parameters.



THEN

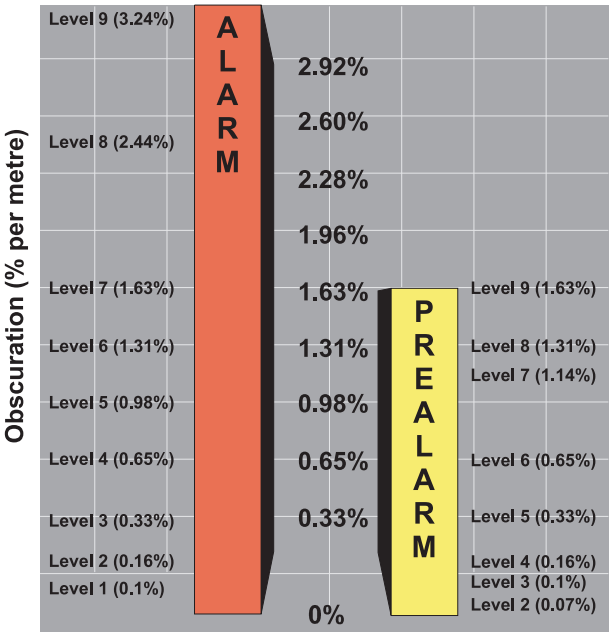


5.1.3 VIEW, MULTI, SMART and Gas Sensor Interface Sensitivities

5.1.3.1 VIEW™ Sensors

VIEW™ sensors are able to detect very small amounts of smoke resulting from an incipient fire, such as smouldering wiring insulation. Because VIEW™ sensors have an enhanced sensitivity and the ability to discriminate between airborne smoke and dust particles, a representatively narrower percentage band, expressed as a 'percentage per metre obscuration', is used to set their sensitivity than is used on other types of sensors.

Note: The term 'percentage per metre obscuration' describes the smoke saturation level per unit volume of air. Normal sensors typically detect a fire condition between 3%/m and 5%/m obscuration.



VIEW™ sensors can be configured, either by the Off-line Configuration program or at the ID3000 Series control panel, using nine sensitivity thresholds for pre-alarm and alarm. Level 1 (L1) is the most sensitive and level 9 (L9) the least sensitive. Pre-alarm can be disabled by selecting level 0 (L0).

The diagram at left shows smoke obscuration for each of the nine level selections. The standard sensitivity is set at 2.44%/m (L8) or less, high or enhanced sensitivity is between 2.44%/m (L8) and 0.98%/m (L5) and very high sensitivity is 0.98%/m (L5) or lower %/m.

Co-operative Multi-sensing

Co-operative sensing is carried out automatically between sensors in the same zone with consecutive addresses and in the same cell, or no cell. An example of VIEW™ sensor co-operative grouping is given below:

Loop	Address	Type	Zone	Cell
2	10	VIEW	3	-
2	11	VIEW	3	-
2	12	VIEW	3	-
2	13	VIEW	3	84
2	14	VIEW	3	84
2	15	VIEW	3	84
2	16	VIEW	3	88
2	17	VIEW	3	88
2	18	VIEW	3	88
2	19	VIEW	3	110
2	20	VIEW	3	110

VIEW™ Sensor Sensitivity
Most local codes of practice require very low levels of alarm sensitivity selection be tested on-site before implemention. Alarm sensitivity level 6 (L6) and below generally require a 90-day test to ensure the sensor environment is suitable for a higher sensitivity setting. This is not required for high levels of pre-alarm sensitivity selection.

Calibration
Each Very Intelligent Early Warning (VIEW) sensor has to be calibrated on first operation with the panel. The procedure is given in **Section 12.2, Replace VIEW Sensors**.

5.1.3.2 MULTI Sensors

Device type MULTI applies to two devices; IPX-751 and SDX-751TEM (the latter, known also as Optiplex, has a Thermal-Only mode, i.e. a mode in which the sensor does not respond to smoke).

Sensitivity (including Optiplex)

When configuring the Alarm and Pre-alarm sensitivity for MULTI sensors, there are five sensitivity levels plus Pre-alarm disable (L0) and (for Optiplex only) the Thermal-Only mode:

Sensitivity Levels	MULTI Sensor Default Settings
L1 (Most)	
L2	For Pre-alarm Threshold
L3	
L4	
L5 (Least)	For Alarm Threshold
L6	Thermal-Only mode (Optiplex)

For Pre-alarm to operate, the Pre-alarm Threshold MUST be set at least one level below the Alarm Threshold. In Thermal-Only mode (L6), Pre-alarm applies to both smoke and heat, unless L6 is linked to Time-of-Day or Day Mode with Lock Pre-alarm monitoring not set, in which case there is NO Pre-alarm in L6 mode.

Thermal Mode by Zone (Optiplex only)

All Optiplex sensors in a zone or range of zones and configured as described below can be set to their Thermal-Only mode by the Control Matrix. To configure an Optiplex sensor for this action, set its device configuration option 'Thermal Mode by Zone' to 'Yes'. Only those Optiplex sensors so configured will be included in the Control Matrix output. The default for this option is 'No'.

Note: Any Optiplex sensor configured as above can also be configured to enter its Thermal-Only mode via a Time-of-Day program or use of the Day Mode pushbutton (**Section 9.4**). However these functions operate irrespective of zone and of the Control Matrix.

```
Device Configuration - Loop n Sensor nn
Alarm Sensitivity level (1-6):6
(1 = most sensitive, 5 = least)
(6 = Thermal-only mode; default = 5)
```

ILLUSTRATION SHOWS OPTIPLEX CONFIGURED IN THERMAL-ONLY MODE FOR ALARM. NORMALLY OPTIPLEX WILL BE CONFIGURED AT L5 FOR ALARM, AND THE THERMAL-ONLY MODE WILL BE INVOKED VIA A TIME-OF-DAY PROGRAM OR VIA THE DAY MODE PUSHBUTTON. SEE **SECTION 9.4**.

Software version 4.33 and above: Default Alarm threshold is L5 for newly installed multi-criteria sensors (was L3 on previous versions; if software is upgraded to 4.33, existing devices retain this default).

Pre-Alarm threshold value MUST be LOWER than the Alarm threshold value to be effective.

```
Device Configuration - Loop n Sensor nn
Type MULT  Zone  nnn  Cell  0
Zone  <(no zone text defined)        >
Loc.  Workshop
Thermal Mode by Zone: YES            ▶
◀▶=select *=edit ▲▼=next device ✓=finish
```

THERMAL MODE BY ZONE OPTION IS ONLY DISPLAYED FOR MULTI SENSORS AND IS ONLY APPLICABLE FOR OPTIPLEX DEVICES. AN OPTIPLEX SENSOR SET TO 'YES' WILL BE INCLUDED IN ANY CONTROL MATRIX ENTRY FOR WHICH THE INPUT IS NON-FIRE OR TRUE AND THE OUTPUT 'SET TO THERMAL-ONLY MODE' INCLUDES THE SENSOR'S ZONE NUMBER. SEE **SECTION 7.6.2.6**.

Section 5.1.3.3 SMART Sensors

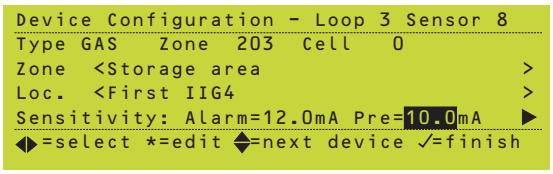
The system supports Self-optimising Multi-criteria Alarm Recognition Technology (SMART) sensors.

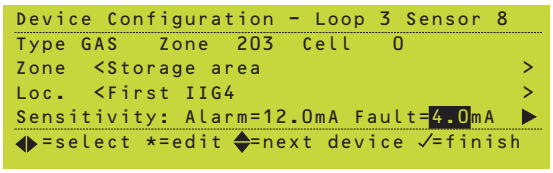
The SMART4 (abbreviated to SMT4) sensor has the capability for carbon monoxide, photoelectronic (optical), infra-red and thermal detection.

This sensor has a thermal-only mode as described on the previous page for Optiplex.

The Alarm and Pre-alarm levels and defaults are as described for Optiplex, and the verification delays are the same as for a MULTI sensor.

Section 5.1.3.4 Gas Sensor Interface



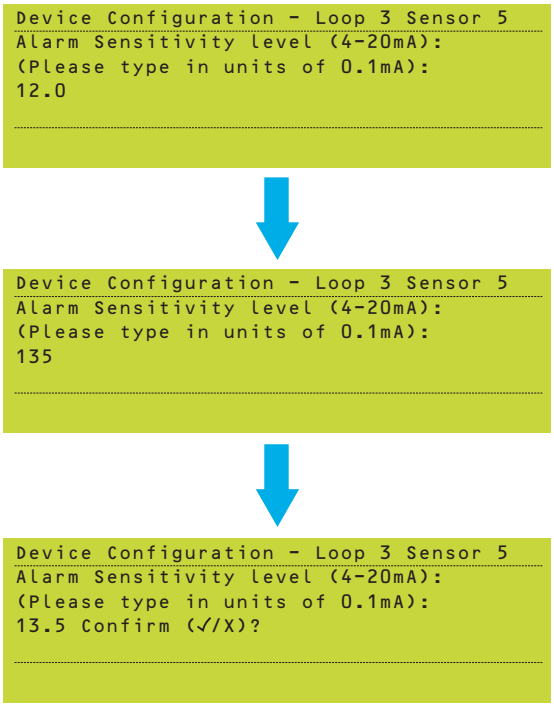


The analogue level output from the Gas Sensor Interface IIG1 or IIG4 is a current in the range 4 to 20mA. The Alarm, Pre-alarm **and** Fault thresholds are editable within this range. Use the ▶ and ◀ pushbuttons to toggle between the Pre-alarm and Fault parameters.

The thresholds are selected for editing in the same manner as for other devices, but the edit procedure is different:

1. Enter the new value in tenths of milliamps. All digits must be entered including the one after the decimal point, even if it is zero.
2. The decimal point is not displayed during the entry. It is redisplayed when the ✓ pushbutton is pressed.

See the example at left, in which the Alarm Sensitivity is changed from 12.0mA to 13.5mA.



5.1.4 Change Device Configuration - Modules

The following can be altered for modules:

a. The device type.

b. The zone or cell in which the device is placed.

c. The device location text. Note that the zone text is displayed but cannot be edited here (it is edited in the Zone Text Editor, see **Section 6.3**).

d. Module supervision options (see **Section 13** for recommendations).

e. Verification delay times. See **Section 13** for recommendations.

f. Priority options.

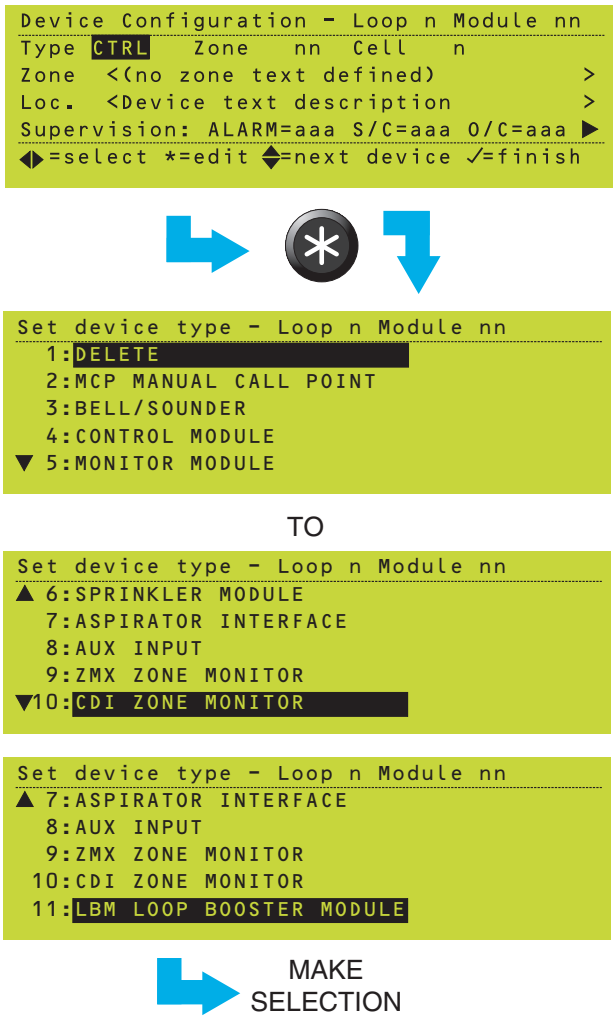
g. Silence and Pulse options.

5.1.4.1 Edit Device Type

Select the required TYPE. If no module exists at the entered number, its type is NONE. Available types are:

	Description	Device Physical Type
NONE	Deleted - no module exists at this address	
MCP	Manual Call Point	MMX
BELL	Bell/sounder circuit or loop-powered sounder	CMX
CTRL	(generalised) Control Function	CMX
MON	(generalised) MONitoring function	MMX
SPRK	Sprinkler Monitor	-
ASPR	Aspirator Interface	LaserStar
AUX.	Auxiliary Module	
ZMX	Low cost version of CDI	ZMX
CDI	Conventional Detector Interface	CDI
LBM	Loop Booster Module	LBM

Note: While sensor types are Physical device types (they are determined by the sensor hardware and must be selected so as to match the actual sensor installed at that address), module types are Logical device types. These refer to one of the physical module types as shown in the table above.



Auxiliary Modules

Any Input (MMX) module can be defined as logical type AUXILIARY.

To make use of several special Control Matrix facilities, certain input modules must be defined as logical type AUXILIARY. Auxiliary modules:

a. Cannot generate an ALARM of FIRE,

b. Are not included in Zone operations,

c. Must be referred to individually (not by zone) in Control Matrix records,

d. Generate non-latching Control Matrix output operation,

e. Are treated in the usual way, if faulty,

f. Cannot have a delayed output.

It is essential that the correct type of Module is used.

Loop Boosters

Only the following parameters can be edited:zone, cell and (network zones) reference numbers, location text, short-circuit supervision option (default ON), fault verification delay, priority polling and LED blink mode. The following cannot be edited: alarm supervision option (always OFF), open-circuit supervision option (always ON) and alarm verification delay.

5.1.4.2 Edit Device Zone or Cell

The procedure for modules is identical to that described for sensors (**Section 5.1.2.2**).

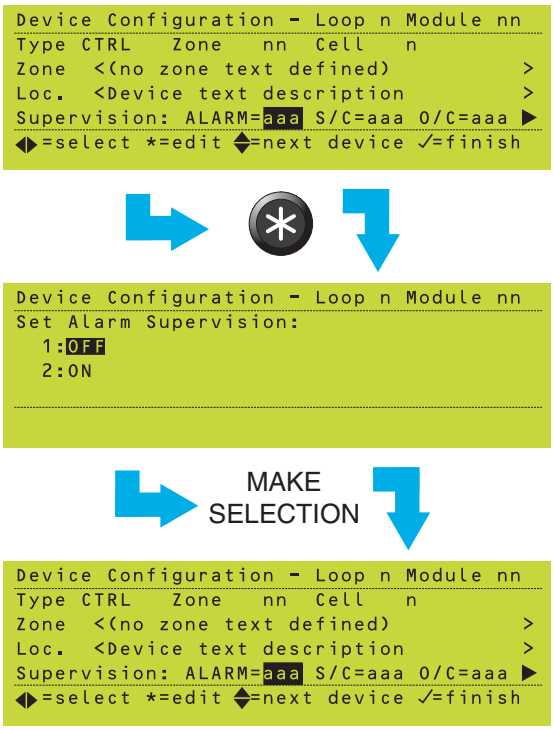
5.1.4.3 Edit Device Location Text

The procedure for modules is identical to that described for sensors (**Section 5.1.2.3**).

5.1.4.4 Edit Module Supervision Options

The alarm, short-circuit and open-circuit supervision options can be configured. They are the means of enabling or disabling supervision of FIRE alarms, short-circuit faults and open-circuit faults and relate to the monitored load. They indicate that standard termination supervision is checked (ON) or ignored (OFF) respectively. See **Section 13** for recommendations.

The ZMX module supervision options are configured as for the CDI and other modules and should be left at their default setting.



Alarm Supervision

Set the alarm supervision ON or OFF.

Note: It is not possible to set Manual Call Points (device type MCP) ALARM threshold to OFF.

Short- and Open-Circuit Supervision

The method of selection is the same as shown for Alarm Supervision.

For CDI and ZMX the S/C supervision option is not supported. It is set to OFF and cannot be changed (a short-circuit in the supervised zone is detected as a fault of open-circuit).

Note: Control Modules CMX used as outputs and with the 'tabs' snapped off, and CMX-10R modules, must have the O/C sensitivity set to OFF, otherwise they will remain in an open circuit fault condition.

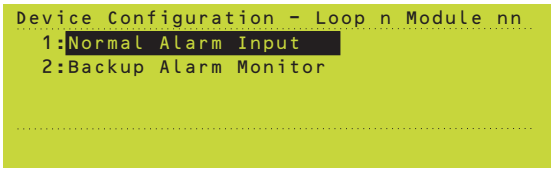
5.1.4.5 Edit Verification Delay

Edit module verification delays in the same manner as described for sensors (see **Section 5.1.2.5**). See **Section 13** for recommendations. The ranges for modules are different from those for sensors.

5.1.4.6 Edit Priority Option

Edit priority polling in the same manner as described for sensors (see **Section 5.1.2.6**). If CDI or ZMX modules are used to connect conventional MCPs: to meet the response time specified in BS5839 Part 1 para. 20.2(b), set these modules to priority and do not exceed 21 priority devices per loop.

5.1.4.7 Backup Alarm

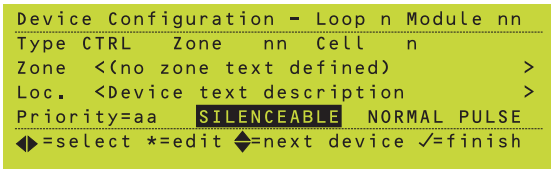


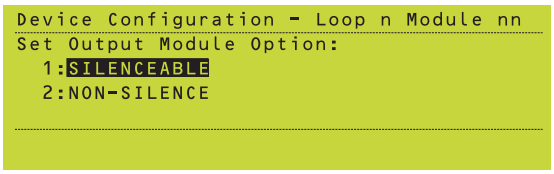
The default is 'Normal Alarm Input'. **Alarm Supervision must be set to ON for the options on this menu to take effect.**

'Backup Alarm monitor' applies only to MON modules on ID²net. Only set this if the device is intended to relay alarm status from a neighbouring panel to provide backup if the ID²net fails. The option ensures that alarms are treated correctly by the panel. Do not include the device in zone-specific or device-specific Control Matrix rules.

5.1.4.8 Bell and CTRL Module Options

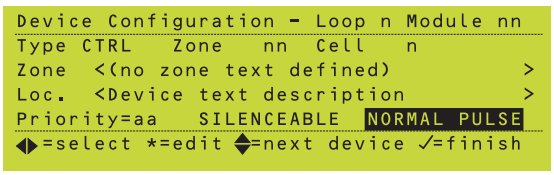
Additional options (SILENCEABLE and NORMAL PULSE) are displayed for CMX modules of types BELL and CTRL.

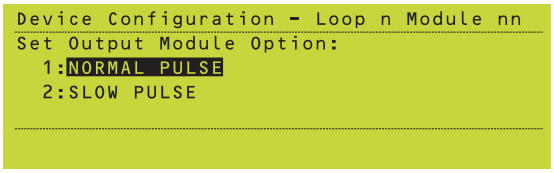




Module SILENCE Options

This option determines whether a Control Output is switched off when the SILENCE/RESOUND pushbutton is operated to silence the sounders.





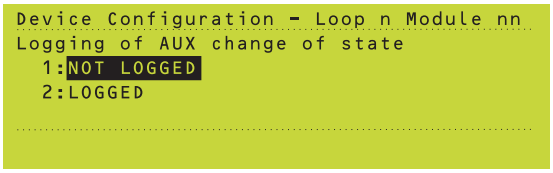
Module PULSE Options

This option also applies to inputs derived from an AUX input module. It determines whether this module, if activated in pulsing mode, will pulse at the standard (default) rate (1 sec ON, 1 sec OFF) or at a slower, user-defined rate and pulse length. This rate and pulse length are defined in the configuration options (**see Section 11.4, Pulsing Sounder Options**).

Note: If the loop is heavily loaded with devices (especially sounders), select SLOW PULSE to ensure adequate synchronisation of sounders.

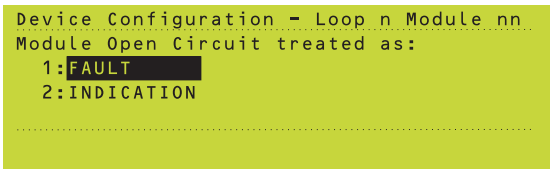
Note: Only one user-defined rate may be set for the system in addition to the standard rate.

5.1.4.9 AUX Module Options



AUX modules can be individually selected as logged or not logged. The former is recommended for fire-critical equipment, while the latter is overridden if the 'Unlatched non-alarm input logging' option is set to 'logged' (see **Section 11.11**, which also gives further information about these settings).

5.1.4.10 ASPR/MCP/MON/SPRK Options



Select the effect of an open circuit - FAULT gives a fault indication, INDICATION displays 'OPEN-CIRCUIT' on the AUX tab.

5.1.4.11 LED Blink Options

See **Section 5.1.2.8**.

5.1.4.12 End the Editing Session

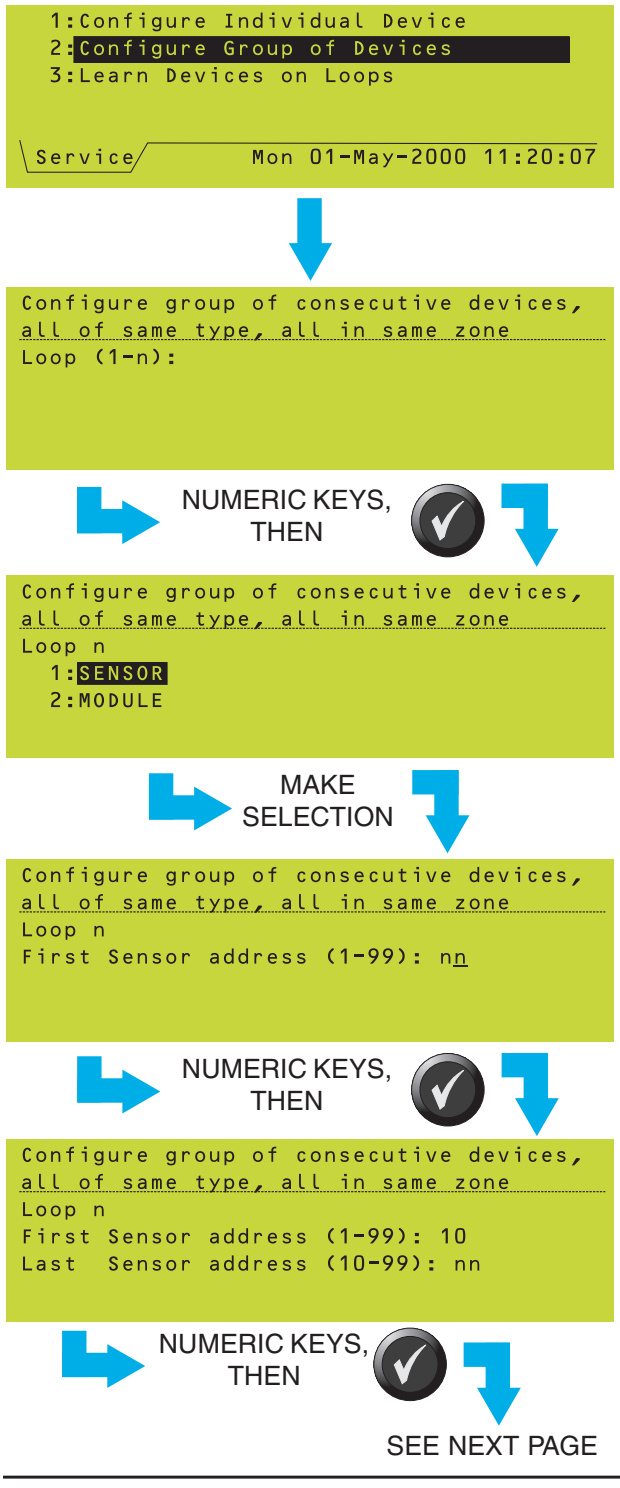
The procedure for modules is identical to that described for sensors (**Section 5.1.2.9**).

5.2 Configure Group of Devices

This option allows a group of devices to be deleted or all set to the same type. The devices must be at consecutive addresses on the same loop and in the same zone, and if being deleted they must be of the same type.

This example shows the procedure for sensors. The procedure for modules is identical. You cannot mix sensors and modules in this procedure.

To start this option:



1 From the Loop Device Configuration menu, select the Configure Group of Devices option.

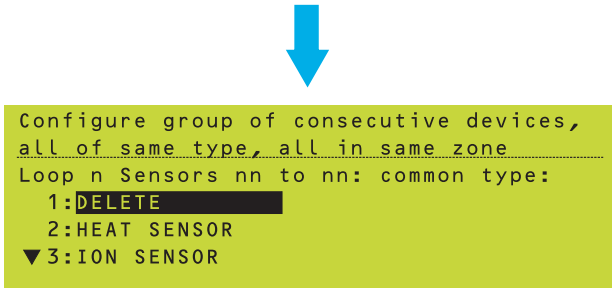
2 Select the loop in which the devices are fitted.

3 Select either sensor or module.

4 Select the address range by entering the first address and then the last address. In this example, 10 is entered as the first address, it therefore becomes the lowest address in the range that can be entered for the last address.

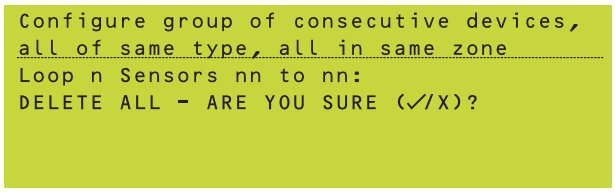
Note: GAS sensors require at least three consecutive sensor addresses. If the selected range has an IIG-1 or IIG-4 device at one of the next two addresses below the range the message 'This address is not available: GAS sensor occupying one of the previous two addresses.' is displayed. It is not possible to configure a group of GAS sensors using the Configure Group of Devices option.

FROM PREVIOUS PAGE



5 Select either DELETE or select the device type to which the group of devices is to be set. Sensor types are defined in **Section 5.1.2.1** and module types are defined in **Section 5.1.4.1**.

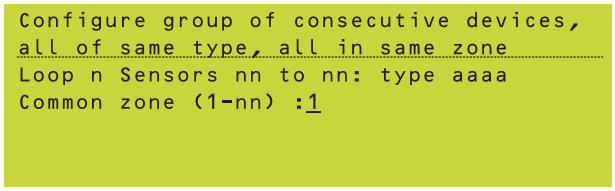
EITHER (IF DELETE)



6 Either:

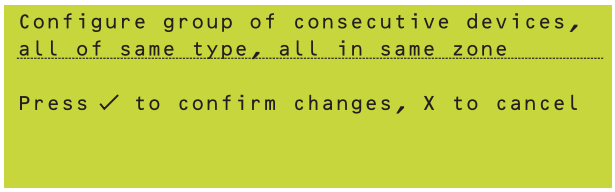
a. Press ✓ to confirm the deletion, or

OR (IF ANY SELECTION EXCEPT DELETE)



b. If a device type is chosen, select the zone into which the devices are to be placed.

IF NOT DELETE, USE NUMERIC KEYS. THEN IN EITHER CASE



7 When all the changes have been made, press ✓ to confirm them. The panel then uses the changed parameters.

PANEL USES THE CHANGED DEVICE CONFIGURATION

5.3 Learn Devices on Loops

Caution - a false indication of a fully-functional system is given if the Auto-learn procedure is used on an incomplete system.

Input module types are set to defaults during the Auto-learn procedure and may require manual re-configuration.

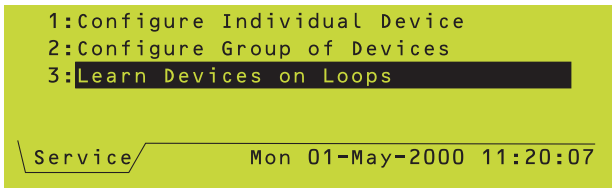
This option allows the panel to detect and automatically configure devices that it finds already connected to the loops. If the panel has already been configured, the panel can amend the details of any installed devices that do not match the configuration.

By default, all sensors on all loops are learnt, then all modules on all loops. Smaller ranges can be selected.

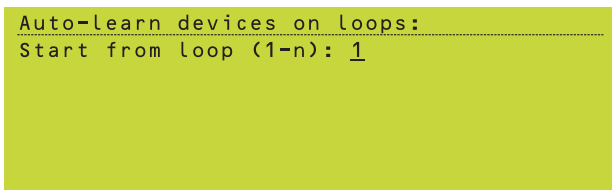
The procedure can be run automatically, or in manual mode (the system pauses on each new learnt device).

5.3.1 Starting the Procedure

To start this option:



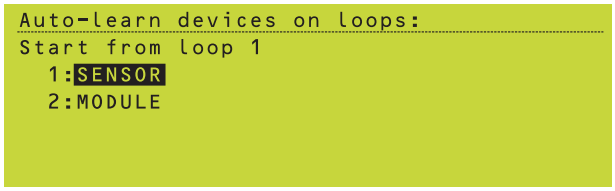
1 From the Loop Device Configuration menu, select the Learn Devices on Loops option.



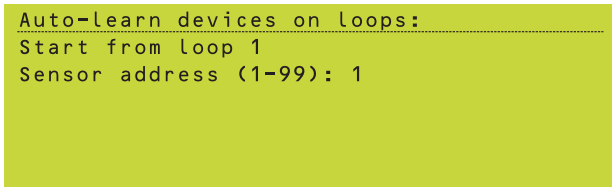
NUMERIC KEYS, THEN

2 Select the loop from which the learn process is to begin. If you want to learn the entire system, this should be set to '1'.

Using the defaults throughout will select the entire system.



3 If you want to learn all the devices on the loop selected in step 2, select SENSOR, otherwise the panel will begin learning from the module addresses on the loop.



NUMERIC KEYS, THEN

4 Select the start address. To learn all the addresses, set this value to '1'.

SEE NEXT PAGE

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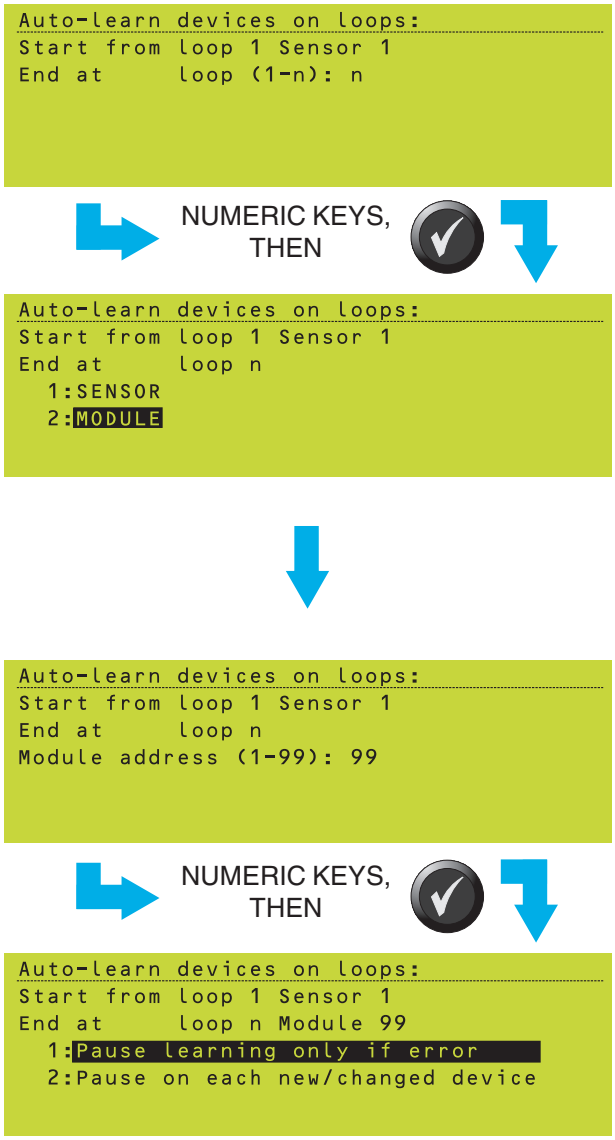


5 Select the loop at which the learn process is to end ('n' represents the highest loop on the system).

6 If you want to learn all the devices on the loop selected in step 5, select MODULE, otherwise the panel will stop learning from the sensor address selected in step 7.

Note: If the loop number selected in step 2 is the same as that selected in step 5, and the type of device selected in step 3 is the same as that selected in step 6, then only that type of device (i.e. SENSORS or MODULES) will be learnt.

7 Select the address of the last device to be learnt.

Note: If the end address is lower than the start address, the learn process occurs in the opposite direction to normal. If the start and end addresses are the same (for a single type of device on a single loop), only one device is learnt.

8 Two options are then available:

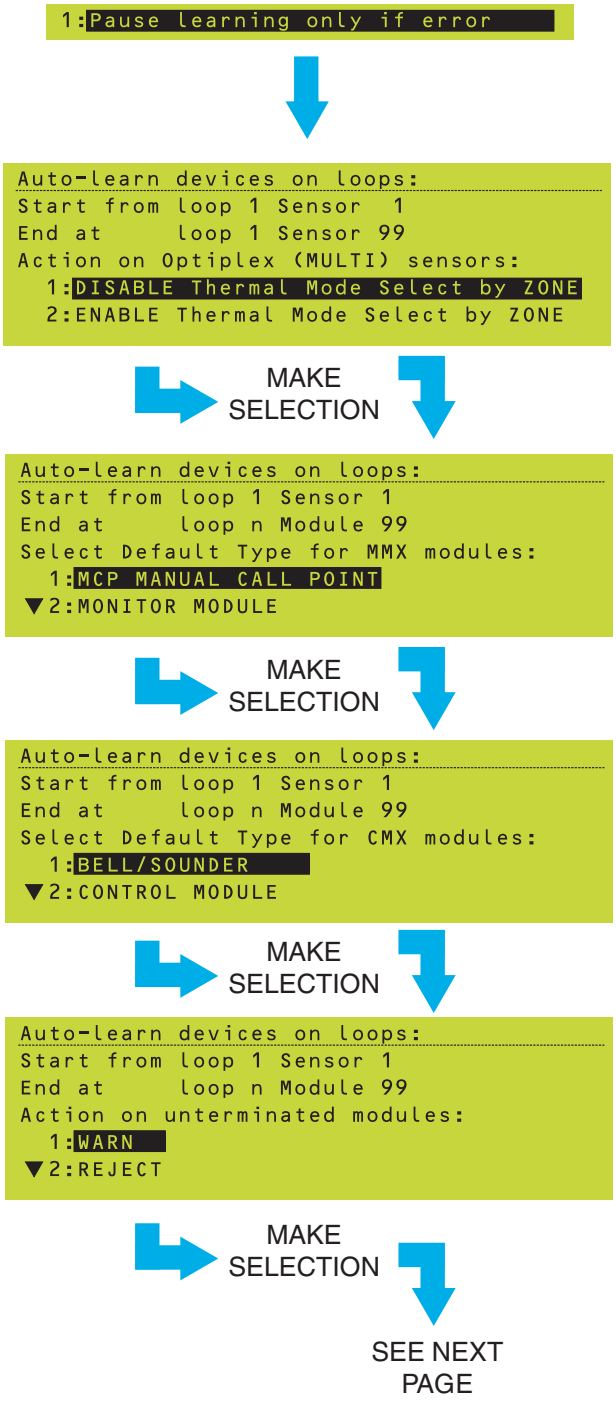
a. Pause learning only if in error. This is AUTO-LEARN. Refer to **Section 5.3.2**.

b. Pause on each new/changed device. This is MANUAL LEARN. Refer to **Section 5.3.3**.

5.3.2 Run in Auto-Learn Mode

If you select this option, then:

Note: Step 1 is omitted if only modules were selected in the procedure of **Section 5.3.1**; similarly, steps 2 to 4 are omitted if only sensors were selected. The choices made in these steps are only used for new or changed modules, not for unchanged modules that have already been configured.



1 Select whether MULTI devices of type SDX-751TEM are automatically configured for Thermal Mode by Zone operation (Section 5.1.3.2) or not. The 'Thermal Mode by Zone' option in the device configuration menu is then set automatically to 'Yes'.

2 Select a logical device type with which any MMX modules found during the learn procedure will be configured.

3 Select a logical device type with which any CMX modules found during the learn procedure will be configured.

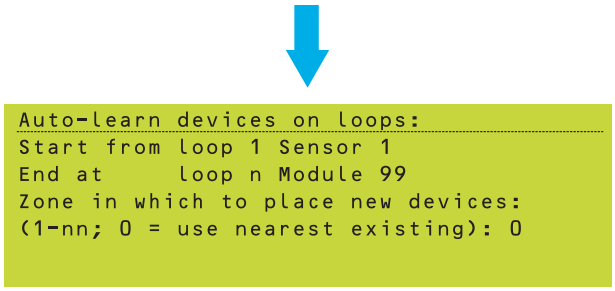
4 Select the action to be taken if an unterminated module (or one with broken tabs) is found during the learn procedure:

a. WARN. The learn procedure halts if an unterminated module is found.

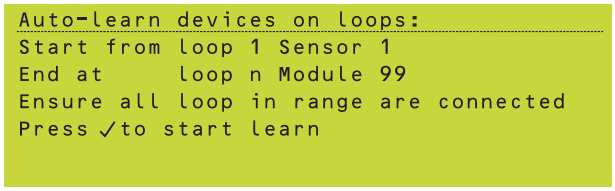
b. REJECT. The module is not learnt.

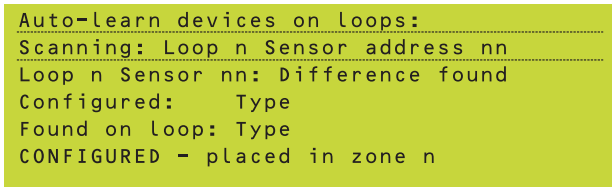
c. ACCEPT. Options are provided to either 'accept, monitor termination' (the module is learnt and is configured with its open-circuit supervision set to ON) or 'accept as unterminated' (module is learnt with open-circuit supervision set to OFF - in this case a warning message is displayed and you must confirm that you want this option).

FROM PREVIOUS PAGE



NUMERIC KEYS, THEN





REFER TO SECTION 5.3.5 FOR DETAILS OF THE END OF THE LEARN PROCESS

5 Set the zone into which new sensors or modules will be placed. If you select the '0' option:

a. If a newly-learnt device replaces an existing device of the wrong type, it is placed in the same zone as the existing device.

b. If the newly-learnt device is at a previously-unconfigured address, it is placed in the same zone as the nearest existing (i.e. before the learn process started) device with an address lower than the new device, or in zone 1 if there is no such device. Addressing is carried over from loop to loop and from modules to sensors.

c. GAS sensors require at least three consecutive sensor addresses. If an IIG-1 or IIG-4 device is found within the address range selected for Auto-learn, the next two addresses are automatically skipped and any devices already found at those addresses are deleted. **This happens even if one or both of the next two addresses is outside the selected range**.

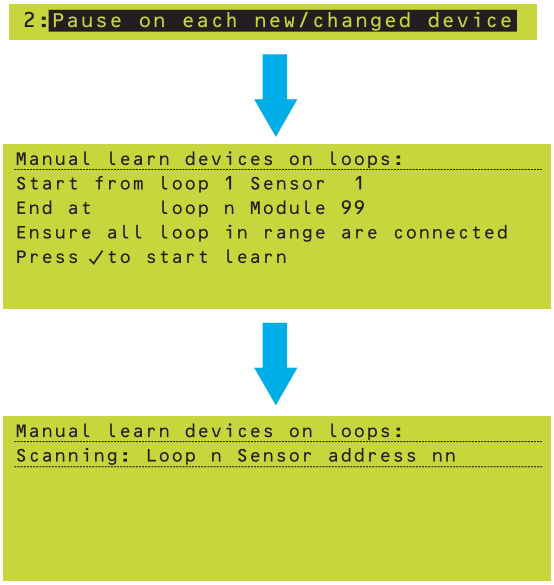
Note: If network zones are being used and the learnt devices need to be split between zones (because max. of 99 devices per network zone), new zones are automatically assigned, numbered upwards and starting with the entered zone number.

6 Press ✓ to begin the auto-learn process.

7 As the learn process progresses, the status is displayed. The top two rows are always displayed. The remaining rows are displayed when a new or changed device is found. If an expected device is not found, the bottom row displays DELETED.

Note: If REJECT was selected in step 4, the message 'Unterminated Module - rejected' is displayed. If WARN was selected, the options to REJECT or ACCEPT are provided. There are two ACCEPT options as described in step 4c.

5.3.3 Run in Manual Learn Mode

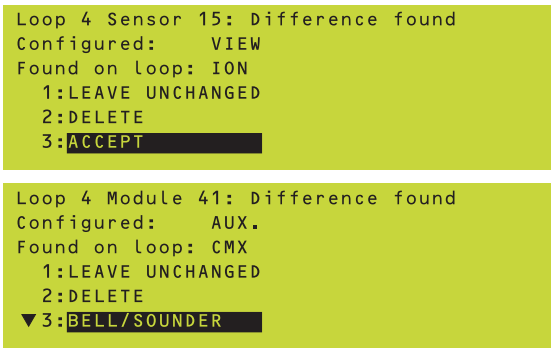


If you select this option, then:

1 Press ✓ to begin the manual learn process.

2 As the learn process progresses, the status is displayed.

EXAMPLE MENUS THAT MAY BE DISPLAYED:

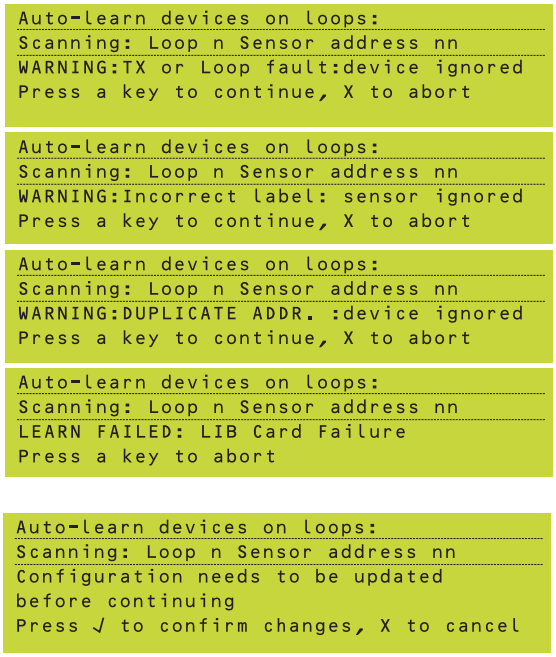


3 If a difference is found, the process halts and a menu is displayed (the menu depends upon the format; two examples are shown left). If you are asked for a device type, then after you have made your selection you will be prompted for a zone number.

REFER TO SECTION 5.3.5 FOR DETAILS OF THE END OF THE LEARN PROCESS

5.3.4 Error Messages

Example messages are shown opposite. The learn process always halts when an error (other than 'unterminated module') occurs.



This indicates a general communication fault or inconsistent results from successive scans. It may be due to a faulty device, or an incorrectly-installed loop.

This indicates that a sensor with the wrong protocol has been installed.

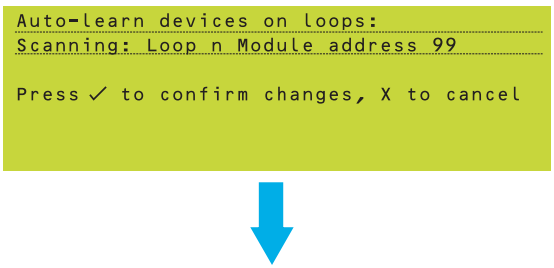
This indicates that two or more devices have been set to the same address.

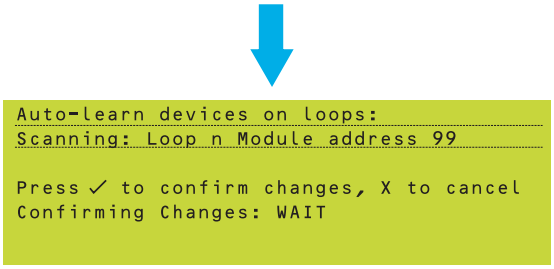
This indicates that the Loop Interface Board (LIB) has stopped responding. If this occurs repeatedly, the panel should be examined by a service engineer.

Additional message (not an error) - if many devices have been learnt, the panel may run out of temporary buffer memory. Press ✓. The panel then continues its learn process.

5.3.5 End of Learn Process

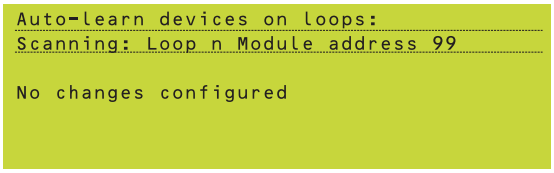
IF THE PANEL HAS FOUND AND CONFIGURED ANY DIFFERENCES:





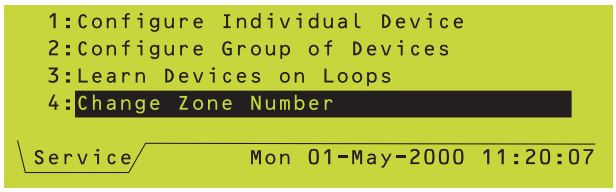
1 Press ✓ to confirm the changes.

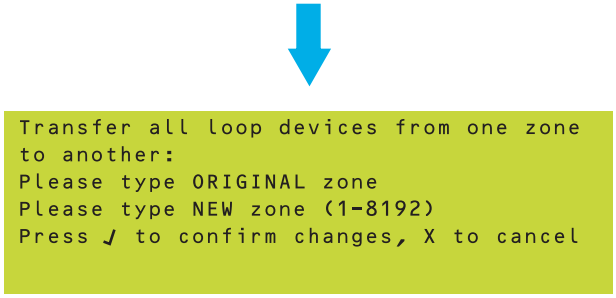
2 The configuration data is written to the panel's memory.



If no changes were made, the message shown at left is displayed for a short time.

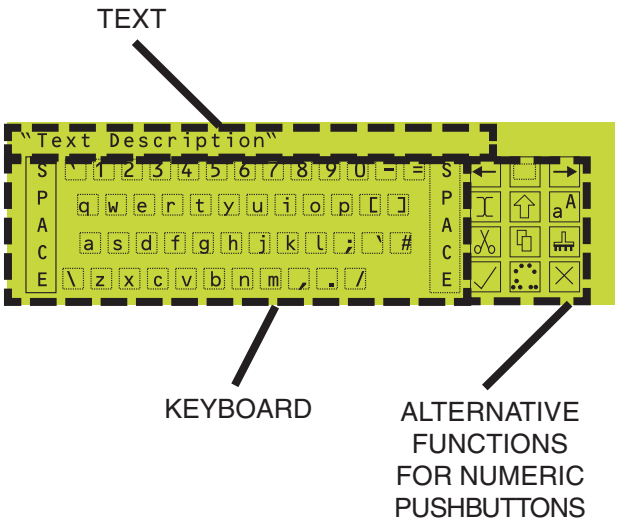
5.4 Change Zone Number





This option is available at access level 3A if network zones are being used. An entire zone can be renumbered (i.e. all devices moved to another, unoccupied zone). It can be used to overcome duplicate network zones.

Note: If the entered NEW device zone already contains devices, 'This zone already in use in this panel' is displayed. Enter the number of an unoccupied zone.



6 Text Editing

6.1 Text Editing Pushbuttons

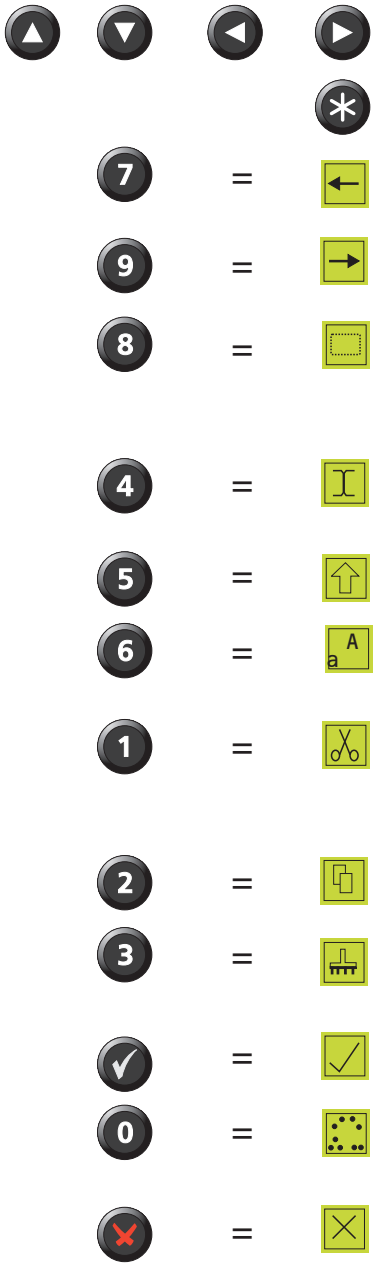
The Configuration menu includes options to edit the panel text and the zone text. Both options use a text editor, which has a display that is divided into three areas:

a. The panel or zone text.

b. A keyboard to edit the text.

c Definitions of edit functions for the panel's numeric pushbuttons.

Text editing is controlled using the panel's arrow, select and numeric pushbuttons, as defined below. The maximum length is 32 characters.



Keyboard cursor keys. Move rectangular cursor around the keyboard.

Select key. Enters the current keyboard character into the text.

7 =

9 =

Text cursor keys. Move the cursor through the text (either inserting or over-typing).

8 = Selects the character to the right of the cursor. Use the cursor keys to extend the selection. Second operation deselects character or selection.

4 = Toggles between insert mode (text cursor is a vertical bar) and overtype mode (text cursor is a highlighted block).

5 = Keyboard shift key (see **Section 6.2**).

6 = Toggles the word in which the cursor is located between leading capital, all capitals, and lower case. Has no effect on accented characters.

1 = Cuts the selected characters from the text and places it on the clipboard. If no character is selected, deletes the text character immediately to the right of the cursor.

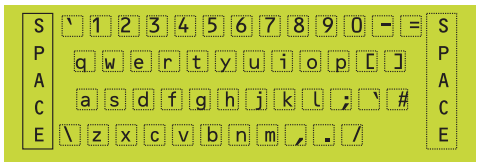
2 = Copies the selected characters from the text to the clipboard.

3 = Pastes cut or copied characters into the text. Data remains on the clipboard even if you exit the text editor and then re-enter it.

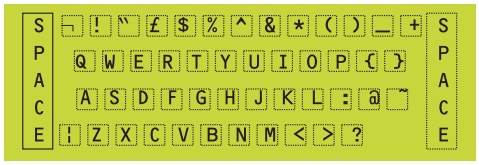
= Exits from the text editor. The option to save changes is displayed.

0 = Repeated operation toggles through accents appropriate to the text character immediately to the right of the cursor (for foreign language use).

= Exits from the text editor display. The option to abandon changes is displayed.



Lower Case



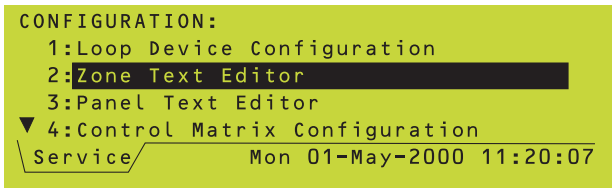
Upper Case

6.2 The Character Set

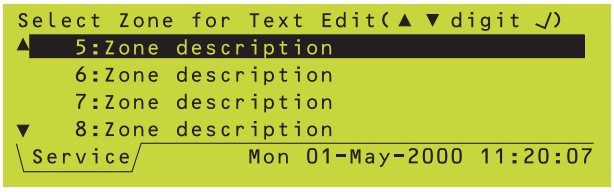
The lower and upper case keyboards are shown opposite.

6.3 Zone Text Editing

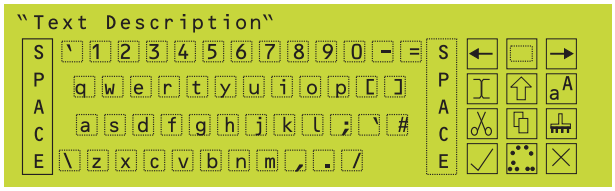
To edit the zone text:



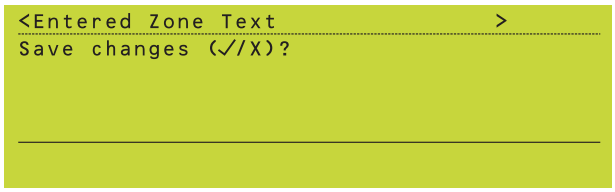
1 From the Configuration menu, select the Zone Text Editor option.



2 Select the zone from the displayed list of occupied zones.



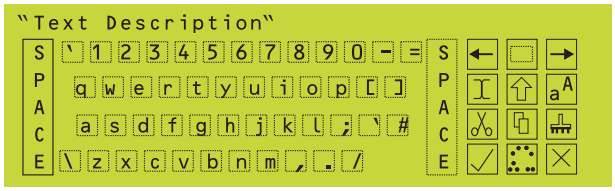
3 Use the keyboard display and the panel pushbuttons to edit the text (see **Section 6.1**). When the edit is complete, press ✓.



Note: If instead you press ✗ when the edit is complete, the prompt is 'Abandon changes'. Press ✓ to abandon the changes and return to the Configuration menu.

4 Press ✓ to save the text. The display returns to the zone list to allow another zone to have its text edited.

THE TEXT CHANGES TAKE EFFECT



6.4 Panel Text Editing

To edit the text for a panel:

1 From the Configuration menu, select the Panel Text Editor option.

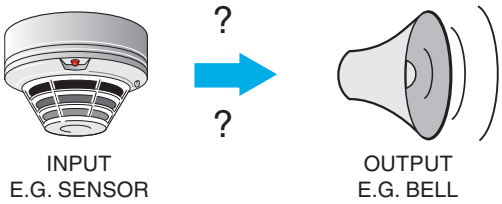
2 If more than one panel exists on a network, or if there are repeaters, select the panel or repeater. The illustration is an example only, the displayed options depend upon the network configuration.

3 Use the keyboard display to edit the text in the same manner as described for zone text editing.

7 Control Matrix

7.1 Introduction

TO DEFINE WHETHER AN OUTPUT IS ACTIVATED BY AN INPUT:



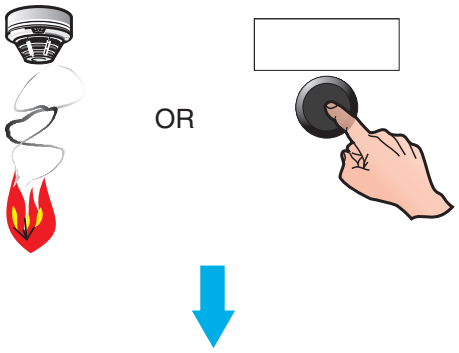
The Control Matrix is a tabular method of defining which inputs that have given a fire indication activate which outputs.

PLACE AN ENTRY IN THE CONTROL MATRIX

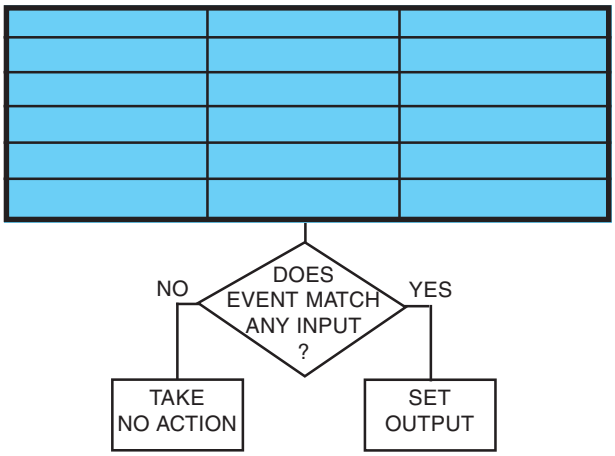
<Entry 1 input>	activates:	<Entry 1 output>
<Entry 2 input>	activates:	<Entry 2 output>
<Entry 3 input> ⇓ ⇓ ⇓ ⇓ ⇓ ⇓ ⇓	activates: ⇓ ⇓ ⇓ ⇓	<Entry 3 output> ⇓ ⇓ ⇓ ⇓ ⇓ ⇓ ⇓
<Entry 512 input>	activates:	<Entry 512 output>

The Control Matrix can have up to 512 entries, one per line.

WHEN AN EVENT OCCURS, EG:



THE SYSTEM EXAMINES THE ENTIRE MATRIX



If the event matches more than one <input> definition, all corresponding <output>s operate in parallel.

Note: Certain rules apply where there may be a decision conflict - see **Section 7.4**.

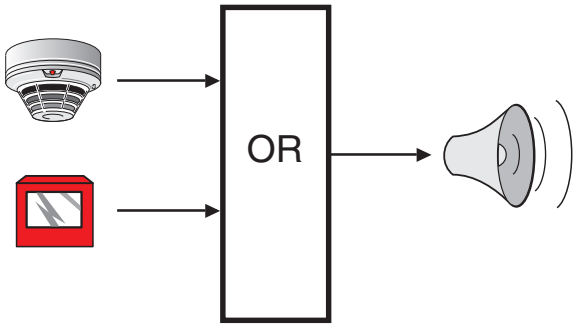
7.1.1 EN54 Requirements

TO ENSURE THAT THE PANEL COMPLIES WITH EN54 REQUIREMENTS REGARDING ACTIVATION OF ALARMS IN EVENT OF FIRE:

<ANY INPUT>	activates:	<ALL BELLS>

IS THE DEFAULT CONTROL MATRIX ENTRY.

I.E.



Every NOTIFIER panel is factory-configured with two default Control Matrix entries.

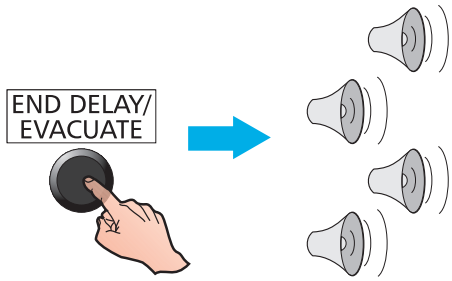
```
Control Matrix Configuration          2
▲INPUT: ALARM:
 ANY ZONE
 OUTPUT:
 ALL ZONES, BELL
✓=edit/delete *=new entry X=cancel
```

Any alarm input anywhere on the system will cause all bell devices, and those internal sounder circuits configured as sounders, to operate immediately in 'steady' mode (i.e. they are switched on to sound continuously).

AN ADDITIONAL ENTRY IS ALSO FACTORY-CONFIGURED:

<EVACUATE PUSHBUTTON>	activates:	<ALL BELLS>

I.E.




```
Control Matrix Configuration          1
 INPUT:
 'EVACUATE' P/Button
 OUTPUT:
▼ALL ZONES, BELL
✓=edit/delete *=new entry X=cancel
```

The EVACUATE function will operate all BELL circuits.

Note: Sounders 3 and 4 will only be activated if they are configured as sounder outputs and not relays.

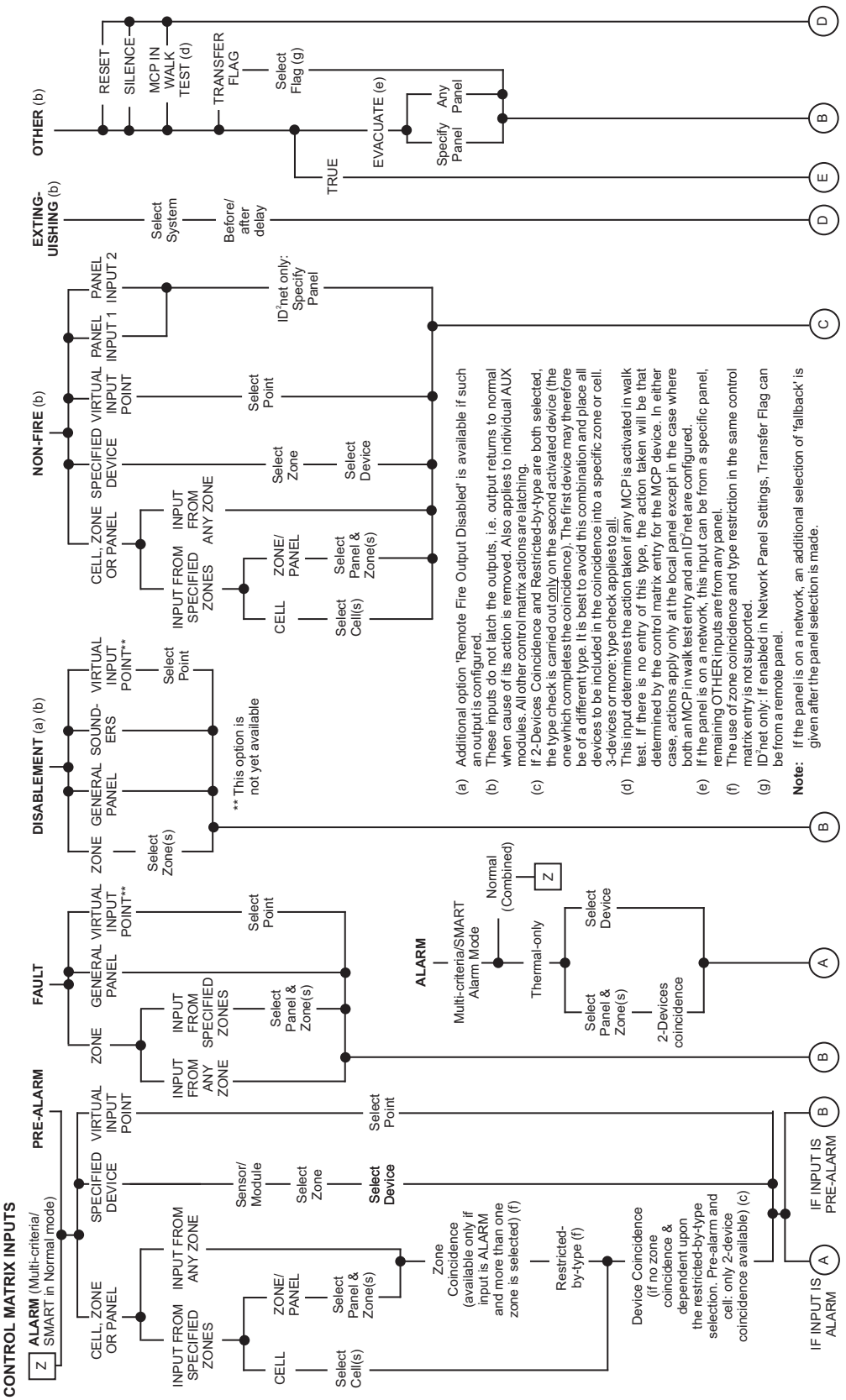
IF YOU DELETE A DEFAULT ENTRY:

IMPORTANT - EN54 COMPLIANCE

The default entries may not be appropriate to your installation. However, if you delete either or both defaults it is then your responsibility to ensure that the installation complies with the requirements of EN54-2.

7.2 Input Categories

Valid inputs are shown below.



(a) Additional option 'Remote Fire Output Disabled' is available if such an output is configured.

(b) These inputs do not latch the outputs, i.e. output returns to normal when cause of its action is removed. Also applies to individual AUX modules. All other control matrix actions are latching.

(c) If 2-Devices Coincidence and Restricted-by-type are both selected, the type check is carried out only on the second activated device (the one which completes the coincidence). The first device may therefore be of a different type. It is best to avoid this combination and place all devices to be included in the coincidence into a specific zone or cell. 3-devices or more: type check applies to all.

(d) This input determines the action taken if any MCP is activated in walk test. If there is no entry of this type, the action taken will be that determined by the control matrix entry for the MCP device. In either case, actions apply only at the local panel except in the case where both an MCP in walk test entry and an ID²net are configured.

(e) If the panel is on a network, this input can be from a specific panel, remaining OTHER inputs are from any panel.

(f) The use of zone coincidence and type restriction in the same control matrix entry is not supported.

(g) ID²net only; If enabled in Network Panel Settings, Transfer Flag can be from a remote panel.

Note: If the panel is on a network, an additional selection of 'fallback' is given after the panel selection is made.

Inputs at a panel on the network

Relationships can be defined between inputs at one panel and outputs at another panel.

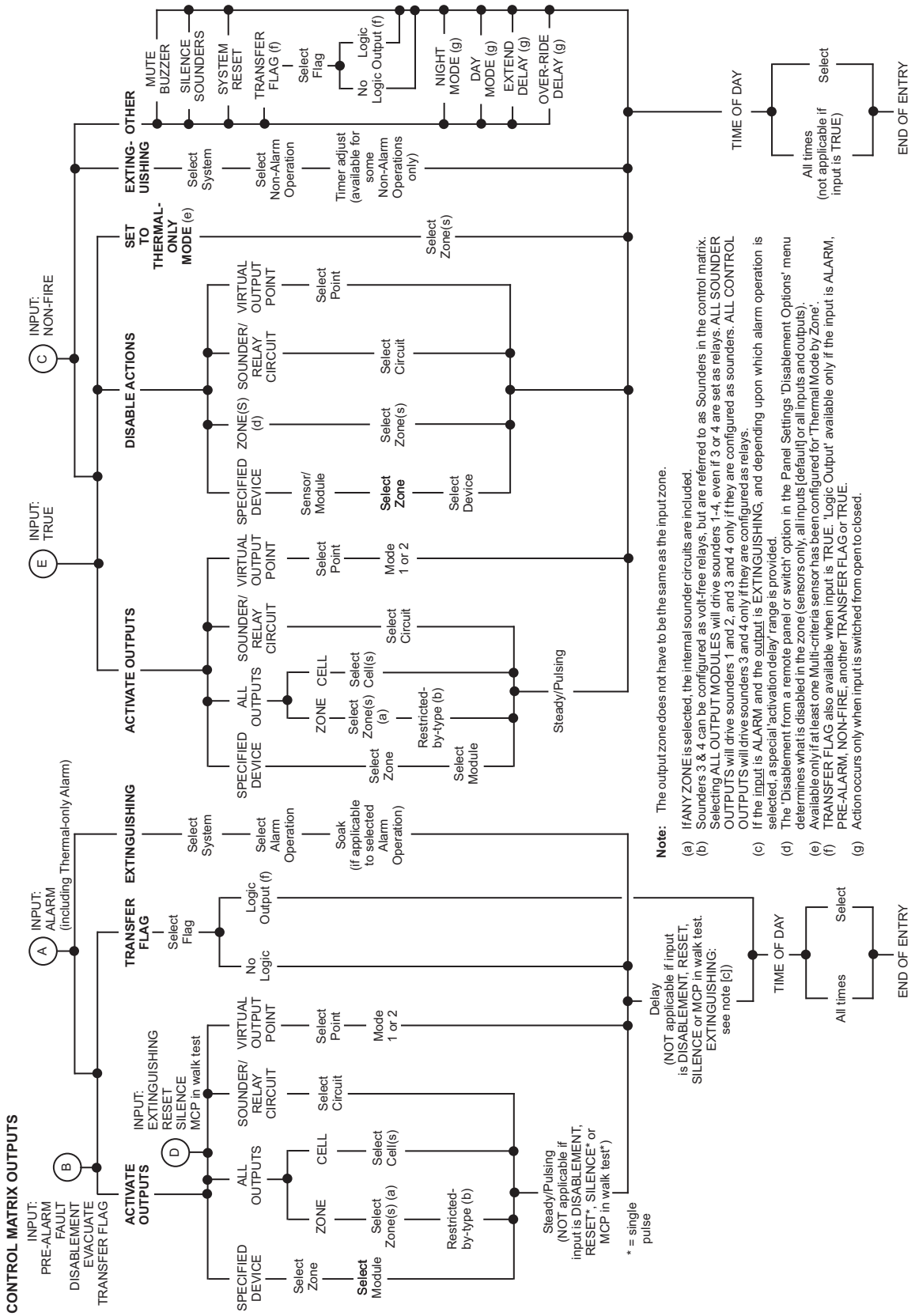
Outputs are applied only at the panel which directly controls them (as stand-alone panels), but inputs may be defined as originating at a different panel. To relate an output operation on a device supervised by one panel to an input originating at another, the Control Matrix must be edited at the panel which supervises the device.

Note: For Network inputs, the definition of 'Device Co-incidence' depends upon the definition of the input:

Input	Device Co-incidence
Specified zone on another panel	Two sensors in alarm in the specified zone
Any zone on any panel	Two sensors in alarm anywhere in the network (including on different panels)

7.3 Output Categories

Possible output devices or categories in a Control Matrix entry are shown below.



7.4 Output Modes

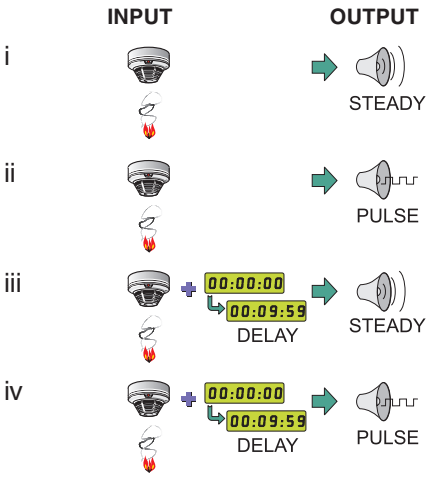
In addition to its category (see **Section 7.3**), you may configure the output to operate in one of four modes. These give combinations of immediate or delayed, steady or pulse operation, where:

Delay is user-programmable up to 10 minutes in 5 second intervals.

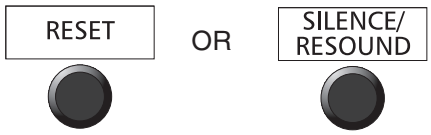
Steady = continuous.

Pulse = alternating periods of either 1 second 'ON', 1 second 'OFF', or the user-defined pulsing periods (see **Section 11.4, Pulsing Sounder Modes**).

OUTPUT MODES:



IF INPUT IS:



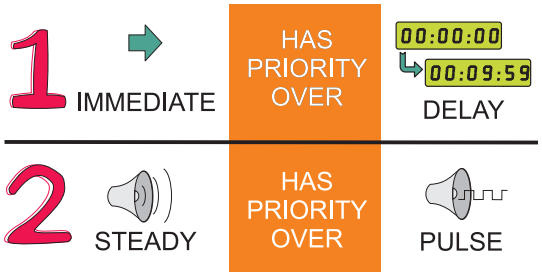
THEN OUTPUT IS ALWAYS:

SINGLE 5-SECOND PULSE, THEN 'OFF'

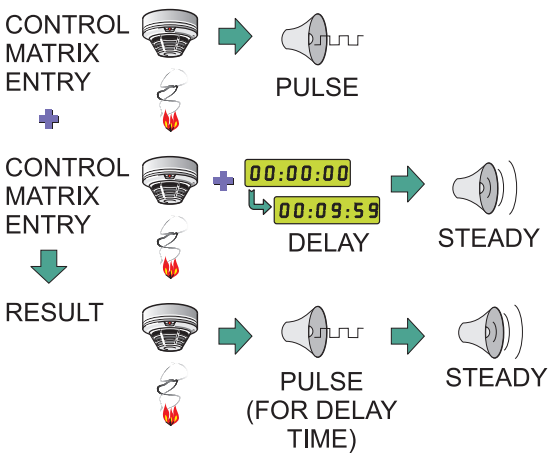
Neither pulse nor delay are applicable for certain categories of input.

For example, the silence/resound action for sounders is pre-defined and need not be programmed.

IF TWO INPUTS TRY TO ACTIVATE THE SAME OUTPUT IN DIFFERENT MODES, THE OUTPUT MODE IS SET ACCORDING TO TWO RULES:



THESE RULES CAN BE USED:



Decision Conflict

Decision Conflict occurs when two Control Matrix entries try to set an output in two different modes at the same time. Precedence rules then apply.

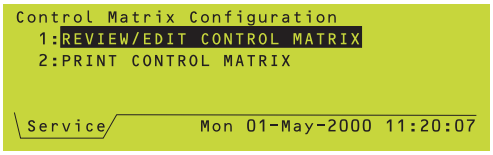
Use of Decision Conflict in Configuration

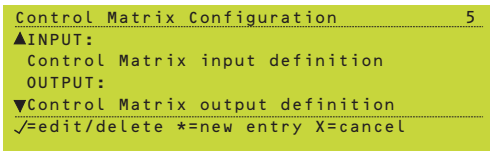
Example: Configure two Control Matrix entries with identical input categories. One output is immediate pulse, the other delayed steady:

a. The pulse mode is **immediate**, so will have priority over the **delayed** steady mode.

b. At the end of the delay, the **steady** mode will have priority over the **pulse** mode.

The output is therefore in pulse mode for the delay time, then it changes to steady mode.





7.5 Review/Edit Control Matrix

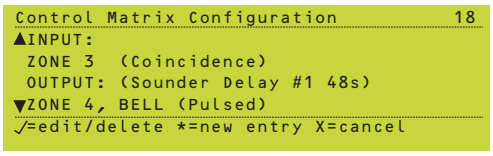
This option allows you to examine the existing Control Matrix entries and amend or delete individual entries.

7.5.1 Review Entries

Use the ▲ and ▼ arrows to step through the entries. Each entry has the format INPUT definition OUTPUT definition. The order in which the entries appear has no significance.

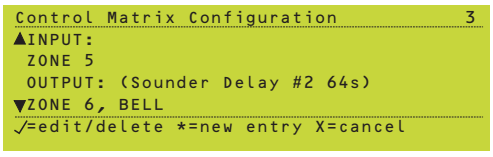
The entry (rule) number is given at top-right.

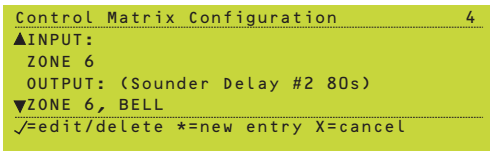
FOR EXAMPLE:



The # number is a delay number, for reference only.

A DELAY MAY BE SHARED:

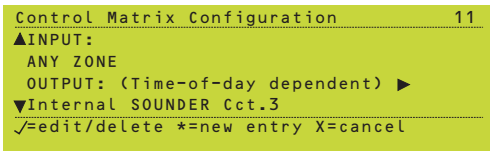


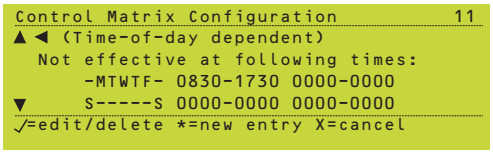


If there are several delayed actions sharing the same delay, they are shown as separate entries. In this example two entries with different inputs and the same output use the same delay but with different periods.

It is also possible for two entries with the same input but different outputs to share a delay, but the periods must be the same.

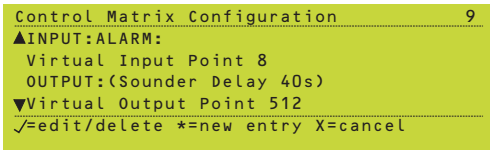
A TIME-OF-DAY PROGRAM MAY EXIST:





If a Control Matrix entry has a time-of-day program configured, press ▶ to view the time-of-day settings, and press ◀ to return to the input and output display.

INPUTS AND/OR OUTPUTS MAY BE VIRTUAL:

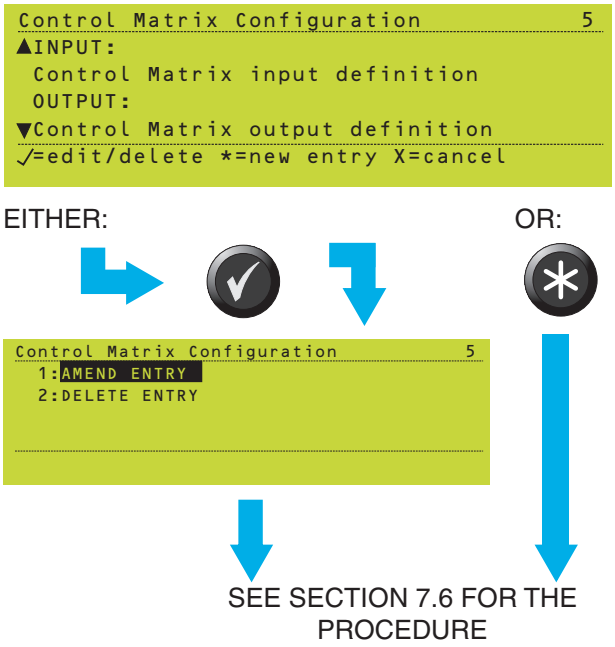


7.5.2 Edit Entries

This option allows existing entries to be edited or new entries to be created, and allows existing entries to be deleted.

7.5.2.1 Amend or Create Entry

FROM THE INPUT/OUTPUT DISPLAY:

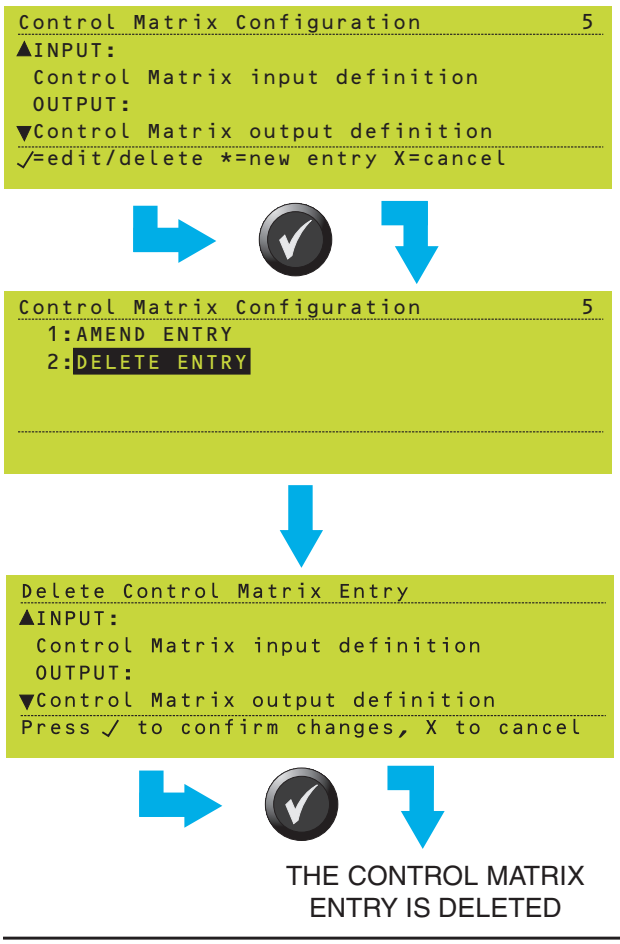


Press ✓ to edit the currently-displayed entry (via the AMEND/DELETE options screen), or * to create a new entry.

YOU WILL NEED TO AMEND OR DELETE THE DEFAULT ENTRIES (**SECTION 7.1.1**), OTHERWISE THEY WILL OVERRIDE ANY CREATED ENTRIES.

The top line of the display changes to either 'Amend Existing Control Matrix Entry' or 'Create New Control Matrix Entry', depending upon the selection made. The examples given in **Section 7.6** all use the latter.

7.5.2.2 Delete Entry



Press ✓ to delete the currently-displayed entry (via the AMEND/DELETE options screen). To delete a delayed entry it is necessary to delete both parts.

Note: When this display is reached the printer logs the deletion. If you subsequently press ✗, the printer prints an EDITED CHANGES CANCELLED message.

7.6 Defining a Control Matrix Entry

There are two stages to amending/creating a Control Matrix entry:

a. Create the input definition.

b. Create the output definition.

When amending an existing entry, at each stage the initially-highlighted item will be that which is closest to the current entry.

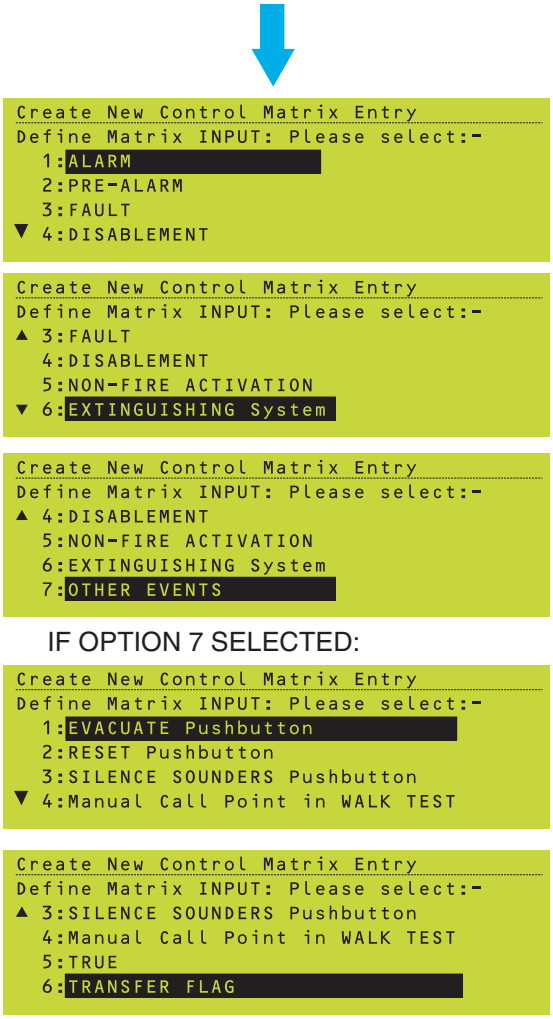
7.6.1 Input Definitions

Select the input from the list. Subsequent steps depend upon which input is selected.

Configure the zone numbering type in the panel settings BEFORE creating any Control Matrix rules (otherwise the rules must be manually checked to ensure that the correct zones are referenced). The panel does not perform any automatic conversion.

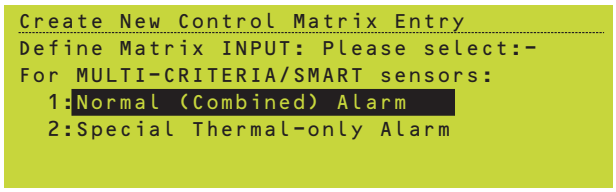
It is possible to cross-reference between network and local zone numbers (see **Section 14.1.2**).

FROM SECTION 7.5.2.1



IF OPTION 7 SELECTED:

IF OPTION 1 (ALARM) IS CHOSEN:



7.6.1.1 ALARM

The first display allows definition of the effect of alarms from Multi-criteria sensors that have a thermal-only mode:

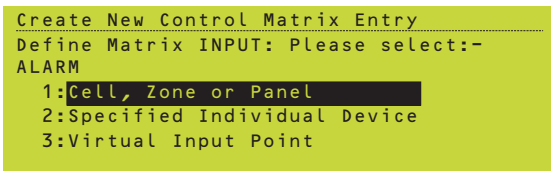
a. If the first option is selected, then the Control Matrix input will be activated by any alarm from the sensor.

b. If the second option is selected, then the Control Matrix input will be activated only by a **thermal** alarm. Any Control Matrix rules for which the input is normal alarm from the device will also be activated. This option applies only to Optiplex and SMART sensors.

To define the ALARM input:

a. For Multi-critera sensors in Normal alarm and for all other types of sensor, follow steps 1 to 12 below.

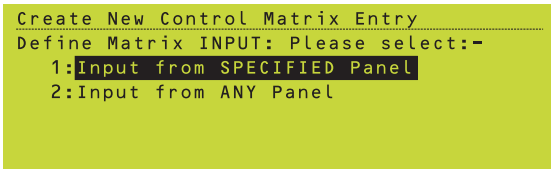
b. For Multi-critera sensors in Thermal-only alarm, refer to the description at the end of this section.



To define the ALARM input, proceed as follows:

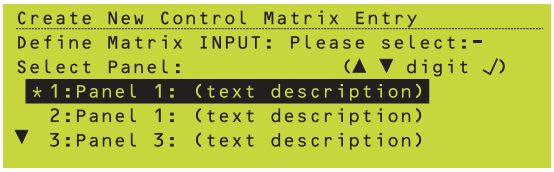
1 Select one of 'Cell, Zone or Panel' (go to step 2), 'Specified Individual Device' (step 7), or 'Virtual Input Point' (step 10).

IF CELL, ZONE OR PANEL:

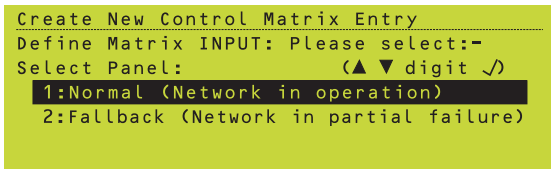


2 If 'Cell, Zone or Panel' is selected, you are then prompted for a specific panel (Step 3) or ANY panel for an input.

IF SPECIFIED PANEL:



3 If 'Input from SPECIFIED Panel' is selected, you are asked to specify a particular panel number. The * and initial cursor position indicate the local panel. The * remains fixed, the cursor is movable. Select a panel from the list.



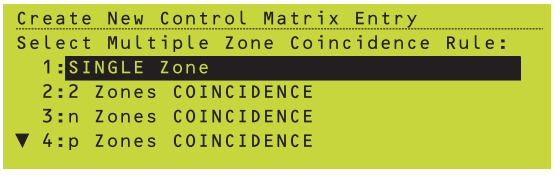
4 If the current panel is selected specify whether the Control matrix rule is to apply for Normal or Fallback network operation.

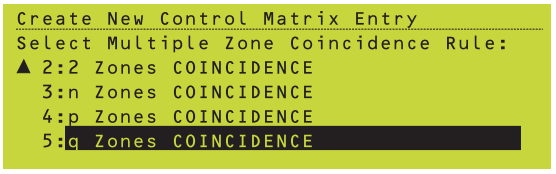
5 Select ZONE or PANEL or CELL.

Note: If no cells are configured (Sections 5.1.2.2/5.1.4.2) the ZONE or PANEL/CELL selection screen is bypassed.

SELECTION OF EITHER NETWORK OPTION AT STEP 4 OR IF 'ANY' WAS SELECTED AT STEP 2, DISPLAYS THE FOLLOWING SCREENS:

Zone Coincidence





6 These options are provided if the input is from Any Zone or from a range of zones. They are intended for use with the Extinguishing System, although are available for any 'Alarm' input. Select the required option. SINGLE Zone and 2 Zones are always available; the remaining options are only displayed if they are configured in the panel settings (**Section 11.21**). In the illustration, 'n', 'p' and 'q' each represent a number in the range 3-99.

Multiple zone coincidence: for the Control Matrix entry to be valid, the number of coincident zones must not exceed the chosen zone range.

The use of zone coincidence and restricted-by-type in the same Control Matrix entry is not supported.

IF CURRENT PANEL:

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Restricted by TYPE?
  1:ANY INPUT DEVICE TYPE
  2:ANY HEAT SENSOR
▼ 3:ANY ION SENSOR
```

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Restricted by TYPE?
▲ 9:SMOKE and HEAT sensor COINCIDENCE
 10:Sensor and MCP COINCIDENCE
 11:VIEW and other sensor COINCIDENCE
```

The use of zone coincidence and restricted-by-type in the same Control Matrix entry is not supported.

If 'ANY Zone' is selected in step 12, then for device coincidence to occur the devices must:
either be in the same panel (or network)
or be in the same zone
depending upon the 'ANY ZONE' panel setting (**Section 11.21**).

```
Create New Control Matrix Entry
Select coincidence Rule:
  1:SINGLE DEVICE
  2:2 Devices COINCIDENCE
  3:n Devices COINCIDENCE
  4:p Devices COINCIDENCE
```

EN54-2: 7.1.4
CAUTION:
Do not include MCPs in a coincidence group.

Restricted by Type

7 Either select ANY INPUT DEVICE TYPE (includes Virtual Input Points) or restrict to one of the types in the list.

Options 9 to 11 are provided for use with the Extinguishing System, although they are available for any 'Alarm' input. Item 10 can be used in the case that a manual release switch configured as an MCP is only to be operable if there is an alarm. The switch must be in the same zone as the sensor (ensure there are no other MCPs in the zone).

Note: There is no 'Type' for Gas Sensors. Gas Sensors which are configured for Technical Alarm are included with Fire Alarms by the Control Matrix. Use the Individual Device, Zone(s) or Cell(s) input selections to specify Gas Sensor(s) and to separate out Control Matrix actions dependent upon Technical Alarms or Fire Alarms.

Device Coincidence

Note: For device coincidence to occur the devices in alarm must normally be in the same zone or cell. However, **for cells only** the devices can be in a range of cells if the panel setting is so configured (see **Section 11.21**).

Note: These options are only displayed if the following are both true: Option 1 (Single Zone) is set in step 6 and the option selected in step 7 is not option 9, 10 or 11 (since these already include a co-incidence).

8 Select the required option. SINGLE DEVICE and 2 Devices are always available; the remaining options are only displayed if they are configured in the panel settings (**Section 11.21**). In the illustration, 'n' and 'p' each represent a number in the range 3-99.

IMPORTANT

To avoid configuring MCPs into the coincidence group you must configure two separate Control Matrix entries:

i The first entry should define the MCP input type (e.g. 'ANY MANUAL CALL POINT') as 'SINGLE DEVICE' (no coincidence).

ii The second entry should define an input type (for example 'ANY ANALOGUE SENSOR', which includes HEAT, ION, OPTICAL, VIEW and MULTI sensors) to which coincidence will apply.

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Individual device from:  (▲ ▼ digit ✓)
 *1:Panel 1: (text description)
  2:Panel 1: (text description)
▼ 3:Panel 3: (text description)
```

9 If the 'Specified Individual Device' option is selected at Step 1 specify the panel and its device.

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
ALARM
  1:Cell, Zone or Panel
  2:Specified Individual Device
  3:Virtual Input Point
```

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
From ZONE                (▲ ▼ digit ✓)
   ANY Zone
```

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Virtual Input Point      (▲▼▶ digit ✓)
  1:Point from External Unit
  2:Interface Box
▼ 60:Another Virtual Input Point
```

10 If the 'Virtual Input Point' option is selected at step 1, use the zone and point numbers to select the required point. The Virtual Input Point text is displayed beside each point; press the ▶ button to display 'Located in Zone n', where 'n' is the point's zone number (if there is no text configured the zone number is always displayed).

Note: Remote panels - enter the point's number. No check is made on whether the point is in a zone.

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Virtual Input no. (1-64): 1
```

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Individual device from:  (▲ ▼ digit ✓)
  1:Normal (Network in operation)
  2:Fallback (Network in partial failure)
```

11a If the local panel is selected, specify whether the Control Matrix rule is to apply for Normal or Fallback network operation.

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Individual device
   1:SENSOR
   2:MODULE
```

11b Selecting ANY panel at Step 9, specify SENSOR or MODULE.

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
From ZONE (0=ANY):       (▲ ▼ digit ✓)
   ANY Zone
    1:Description of zone 1
▼   2:Description of zone 2
```

12 Select device from ANY zone, or from a specific zone, or from a range of up to 32 zones (select first zone and use the ▼ pushbutton to extend the selection; selected zones are shown in inverse text).

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Enter Cell Number for Input
(1-255): n
```

CELL

If you selected CELL instead of ZONE, enter the cell number in the specified range. Device coincidence is available but limited to two devices. No further options are provided; for cells the input device is always ANY INPUT DEVICE TYPE.

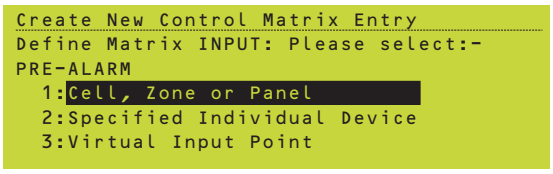
```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
THERMAL ALARM
  1:ZONE or PANEL
  2:Specified Individual Device
```

THERMAL-ONLY ALARM

The Multi-criteria sensors can be selected by zone (Any or specified) or by individual device.

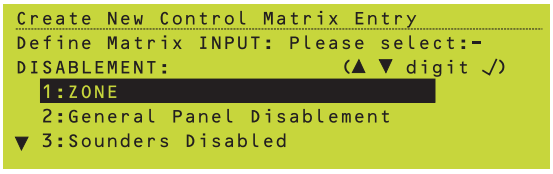
Device coincidence is available BUT ONLY FOR 2 DEVICES. No other options are provided.

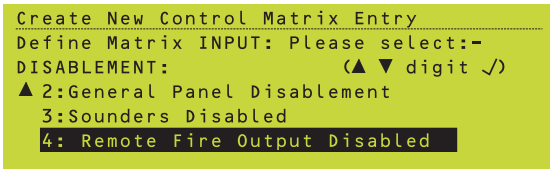
IF OPTION 2 (PRE-ALARM) IS CHOSEN:



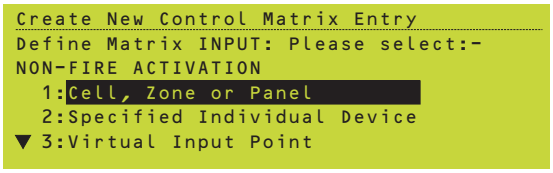
IF OPTION 3 (FAULT) IS CHOSEN:

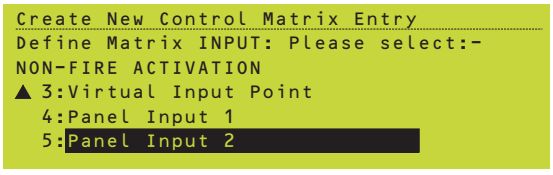
IF OPTION 4 (DISABLEMENT) IS CHOSEN:





IF OPTION 5 (NON-FIRE ACTIVATION) IS CHOSEN:





7.6.1.2 PRE-ALARM

To define the PRE-ALARM input, select option 2 from the Configuration Menu. Follow the procedure as for ALARM. The 'Zone' and 'greater than 2 devices' in co-incidence options are not available for PRE-ALARM.

7.6.1.3 FAULT

ZONE

Select a zone. ANY Zone includes PSU, panel and system faults that are not attributable to a zone.

General Panel Fault

Selects any fault as the input.

Virtual Input Point

Future development.

7.6.1.4 DISABLEMENT

Select ZONE or one of the other disablement options from the menu.

ZONE

Select a specified panel, or any panel, as the input. No further input options are displayed.

General Panel Disablement

Select the required output option.

Note: A general output panel disablement is defined as ANY input OR output that causes the DISABLEMENT LED to light.

Sounders Disabled

Selects a sounder disablement as the input.

Remote Fire Output Disabled

Selects a remote fire output disablement as the input.

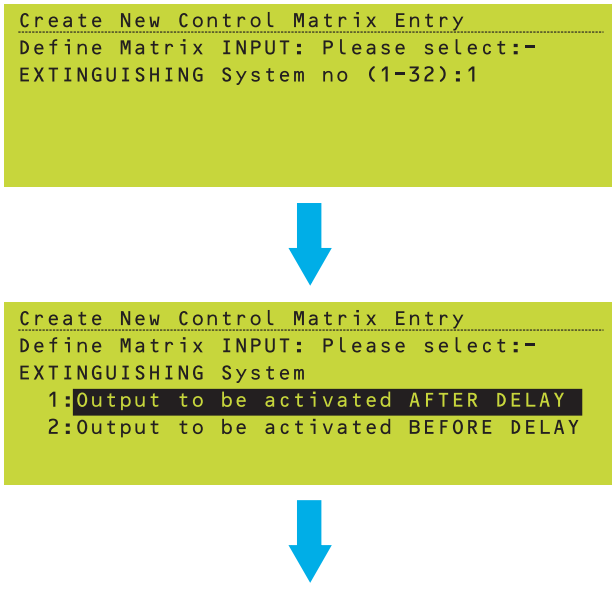
Virtual Input Point

Future development.

7.6.1.5 NON-FIRE ACTIVATION

Follow procedure as for ALARM or PRE-ALARM. The input must be of type AUX. Zone and device co-incidence options are not available. This option also allows panel input 1 or 2 to be selected as the input (on ID²net only, the panel number can be chosen).

IF OPTION 6 (EXTINGUISHING SYSTEM) IS CHOSEN:



SELECT THE OUTPUT DEVICE

7.6.1.6 EXTINGUISHING SYSTEM

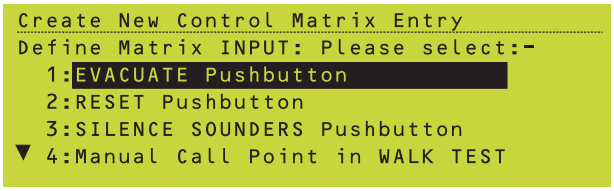
The Extinguishing System input requires a system number to be specified, i.e. the same number as the corresponding Control Matrix output action. Up to 32 Systems can exist on the panel. See **Section 7.8 Extinguishing System Function** for further information.

Select whether the output action is to occur before or after the delay configured in the Control Matrix output statement. BEFORE DELAY does not override the delay; it allows an output to be activated before the timer expires (e.g. use for warning lamps, sounders, and the directional valve). Use AFTER DELAY for the releasing valve.

The only output for this input category is 'Specified Individual Module'.

CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.

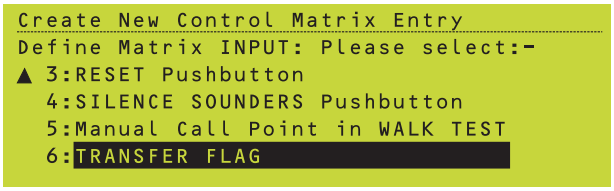
IF OPTION 7 (OTHER EVENTS) IS CHOSEN, SUB-MENU IS DISPLAYED:

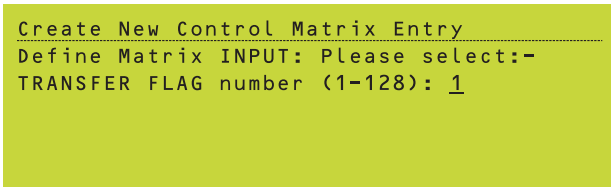


7.6.1.7 OTHER EVENTS

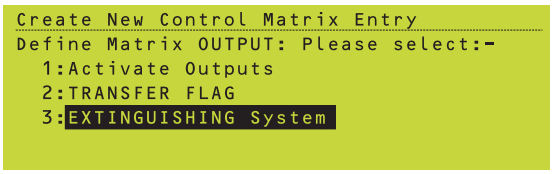
The EVACUATE Pushbutton, RESET Pushbutton, SILENCE SOUNDERS Pushbutton, Manual Call Point in WALK TEST and TRUE input options do not require any further definition (except that EVACUATE can be from 'Any' panel or from a specified panel); when they are selected the next display is the OUTPUT options.

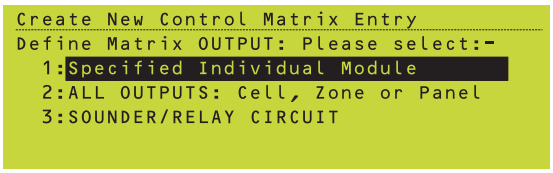
EN54-2: 9.1.2
Use of TRUE to disable is not allowed.

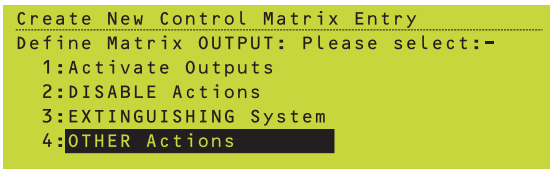


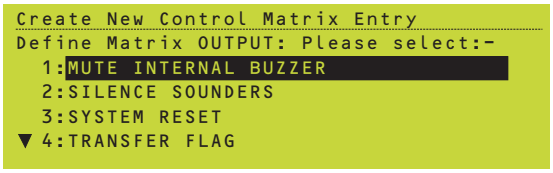


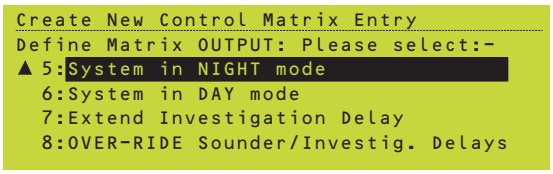
The TRANSFER FLAG input requires a flag number to be specified, i.e. the same number as the corresponding Control Matrix output action.











7.6.2 Output Definitions

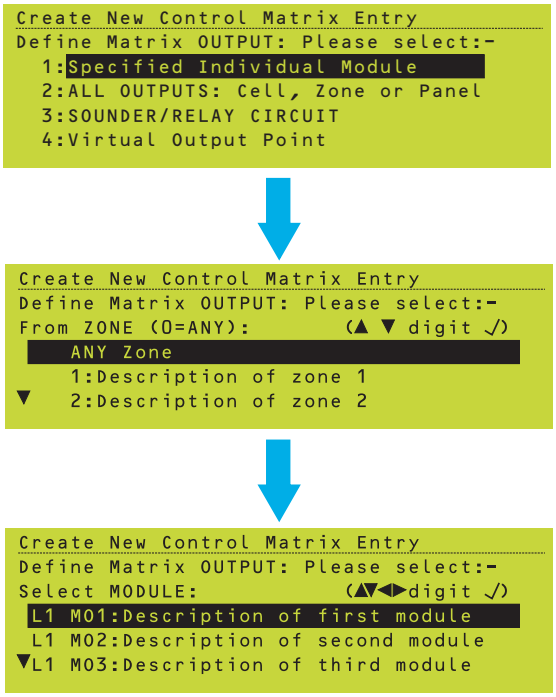
Select Activate Outputs to specify immediate action or TRANSFER FLAG when a delayed action is required (used with a time-of-day function).

If you selected TRANSFER FLAG, enter a number. If Activate Outputs was selected, choose the output from the list. Subsequent steps depend upon which output is selected.

The Extinguishing System output definition is described in Section 7.6.2.4.

'DISABLE Actions' is only available if the INPUT is NON-FIRE ACTIVATION or TRUE. 'Other Actions' is only available if the INPUT is NON-FIRE ACTIVATION. It provides eight output options as shown.

ACTIVATE OUTPUTS:
IF OPTION 1 (INDIVIDUAL MODULE) IS CHOSEN:



7.6.2.1 Specified Individual Module

From the Activate Outputs menu, select option 1 to specify an individual module as the output.

1 Select the zone to display a list of modules in that zone (or ANY Zone if the zone is not known).

2 Select the required module from the list.

Note: If you select an input module (e.g. an MCP) as an output, the Control Matrix action will only be to turn on that module's LED.

Note: A Loop Booster can only be selected as an individual device if the input is NON-FIRE ACTIVE and the output is 'DISABLE Actions'. If the Loop Booster's zone is included in an output the other devices in the zone are activated but the Loop Booster is not, even if the Restricted by Type is ALL OUTPUT MODULES. Operation of the Loop Booster is controlled automatically by the panel and not by the Control Matrix rules.

3 Pulsing, Delay and Time-of-Day options become available (see Section 7.6.2.2) depending upon the Control Matrix input definition (Time-of-Day is always provided).

7.6.2.2 All Outputs: Cell, Zone or Panel

IF OPTION 2 (CELL/ZONE/PANEL) IS CHOSEN:

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
Selection by:
  1:ZONE
  2:CELL
```

(THIS STEP ONLY IF INPUT WAS 'ANY ZONE')

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
  1:OTHER ZONE(S)
  2:SAME ZONE AS INPUT
```

(THIS STEP OMITTED IF SAME ZONE AS INPUT)

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
FIRST Zone for Output:    (▲ ▼ digit ✓)
    ALL Zones
    1:Description of zone 1
▼   2:Description of zone 2
```

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
Restricted by TYPE?
  1:ALL OUTPUT MODULES
  2:ALL SOUNDER MODULES
  3:ALL CONTROL MODULES
```

TO NEXT PAGE

Note: There is an operation limitation in using a module type 'CDI' as an output. For this to work ensure that the ALARM supervision option of the module is set to OFF, which disables its normal function as a CDI input. A standard CMX module should be used for this purpose rather than a CDI or ZMX unit; although the type designation 'CDI' is still used it is not literally true in this case.

Note: If no cells are configured (Sections 5.1.2.2/ 5.1.4.2) the ZONE or CELL selection screen is bypassed.

Select ZONE if a specified zone is to be the output.

Select CELL if a specified cell is to be the output.

ZONE

1 Select whether the output zone is the same as the input zone or not.

Note: If network zones are used and the output zone is the same as the input zone, the selected zone must be local to this panel, irrespective of its zone number.

2 If the output zone is NOT the same as the input zone, select it (or a range up to 32) from the displayed list.

Restricted by Type

3 Either select ALL OUTPUT MODULES or restrict to one type of module. Select the type.

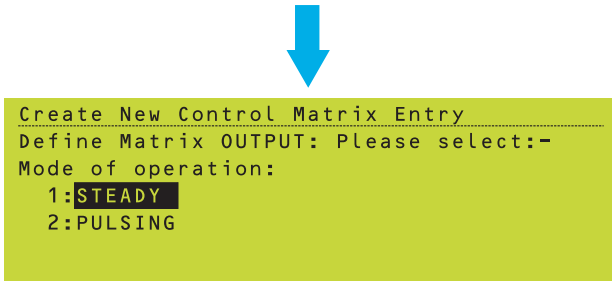
If an output delay is to be imposed, the delayed outputs to sounders must be separated from delayed outputs to other kinds of output. Do not select the type ALL if delays are to be imposed.

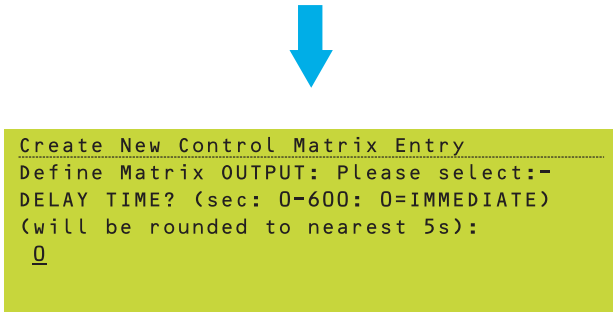
If ALL OUTPUT MODULES or ALL SOUNDER MODULES are selected, the internal sounder circuits are included in the output category.

Virtual Output Points are included with ALL OUTPUT MODULES, and with either ALL SOUNDER MODULES or ALL CONTROL MODULES depending upon their configured type (BELL/SOUNDER or CONTROL MODULE).

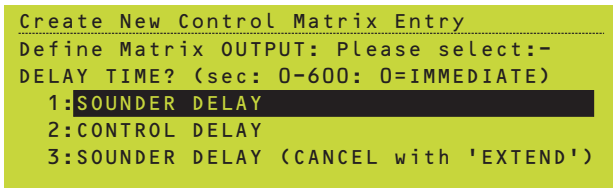
Note: The above configuration should be used if a special operation, not covered by standard CDI configuration, is required. For resetting standard CDI or ZMX units only, there is no need to create specific Control Matrix entries. Instead, designate the modules as type CTRL and then individually link to RESET.

FROM PREVIOUS PAGE





(THIS STEP ONLY IF A DELAY TIME IS SET)



TO NEXT PAGE

Example Sounder Delay (Cancel with 'Extend')

INPUT	OUTPUT	DELAY
Any Zone	All Sounders	Sounder Delay 30s extendable**
Any Zone	All Sounders	Sounder Delay 10 minutes

In this example, if EXTEND DELAY is not pressed within 30 seconds the sounders operate after that time. If EXTEND DELAY is operated within 30 seconds, the sounders operate after 10 minutes. Both rules are cancelled by SILENCE SOUNDERS or RESET. **This is selected by the (CANCEL with 'EXTEND') menu option.

Pulsing Option

This selection is not available for the following inputs: DISABLE, SILENCE, RESET, MCP IN WALK TEST, or TRANSFER FLAG, nor for the following output categories: DISABLE, MUTE BUZZER, SILENCE, RESET, TRANSFER FLAG or EXTINGUISHING SYSTEM.

4 For other input/output configurations, select STEADY for a continuous output or PULSING for a pulsed output - the pulse is then set for each device (**Section 5.1.4.7**) either at 0.5Hz or at a slower, user-defined rate (**Section 11.4**).

Delay Option

This selection is not available for the following inputs: DISABLE, SILENCE, RESET, MCP IN WALK TEST, NON-FIRE, EXTINGUISHING, or TRUE, nor if the output is specified as SAME ZONE AS INPUT.

5 For other input/output configurations, if required set a delay time in the range 5 to 600 seconds (0 selects IMMEDIATE, i.e. no delay).

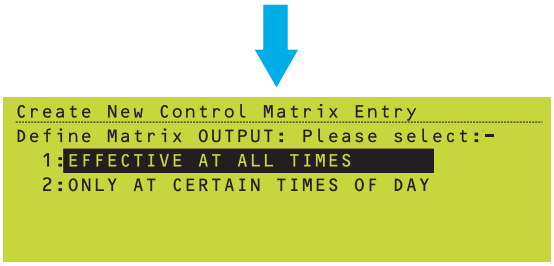
Note: Any Sounder or Sounder/Relay circuits that are configured as Remote Fire Outputs will not be delayed; the Day Mode function (**Section 11.19**) must be used to delay Remote Fire Outputs.

6 If you select a delay time in step 5, select either SOUNDER DELAY for delays that must be turned on by a user action at access level 2 (ID3000 Series Operator's Manual Section 7.5), or CONTROL DELAY for unconditional delays. If SOUNDER DELAY (CANCEL with 'EXTEND') is selected, the Control Matrix entry is cancelled by the panel's EXTEND DELAY pushbutton - see opposite for example usage.

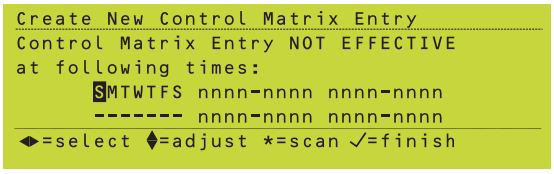
SOUNDER DELAY - further information. Select this option to delay any sounders from operating immediately, even if different sounders are scheduled to operate immediately on the same alarm. Do NOT select delayed sounders if this timer is used only to change the mode of operation of the sounders (i.e. from pulsing to steady) in accordance with the precedence rules as described in **Section 7.4** Use of Decision Conflict in Configuration, use CONTROL DELAY instead.

CAUTION - It is the installer's responsibility to check that the above requirements are complied with. If not, misuse of this option could render the system EN54 non-compliant.

FROM PREVIOUS PAGE



(THIS STEP ONLY IF 'CERTAIN TIMES OF DAY' IS SET)

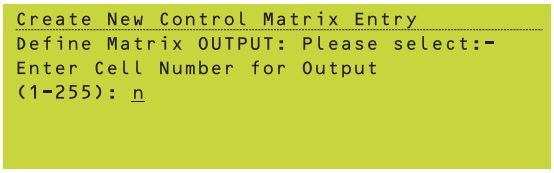


Time-of-day Option

Note: Section 7.7 describes a non-EN54 compliant method of providing a time-of-day option for disabling a zone.

7 If a time-of-day period is required during which the Control Matrix entry does not take effect, then select ONLY AT CERTAIN TIMES OF DAY, otherwise select EFFECTIVE AT ALL TIMES.

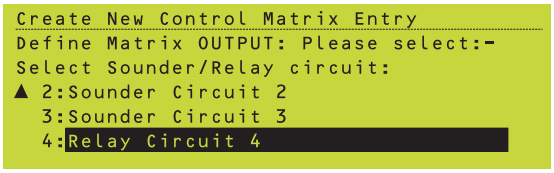
8 Edit the required period as described in **Section 9**.



CELL

If you selected CELL instead of ZONE, enter the cell number in the specified range. No further options are provided; for cells the output is always ALL OUTPUT MODULES. There is no 'SAME CELL AS INPUT' option.

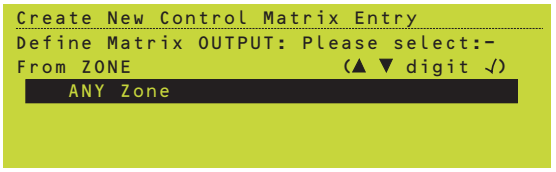
IF OPTION 3 (SOUNDER/RELAY CIRCUIT) IS CHOSEN:

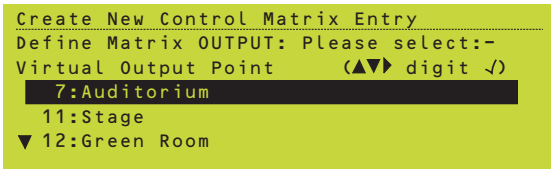


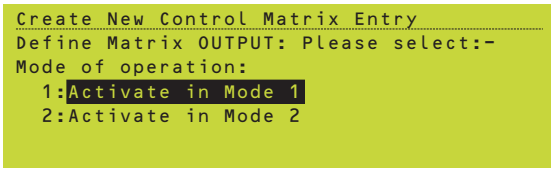
7.6.2.3 Sounder/Relay Circuit

This procedure is the same as that described for ALL OUTPUTS except that a specified sounder or relay circuit (available circuits are dependent upon panel hardware configuration) is selected instead of a zone and device.

IF OPTION 4 (VIRTUAL OUTPUT POINT) IS CHOSEN:







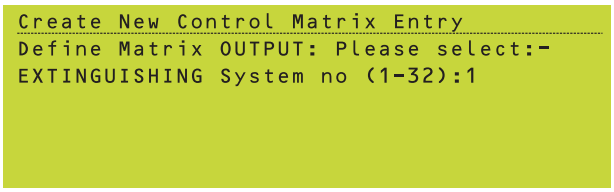
7.6.2.4 Virtual Output Point

1 Use the zone and point numbers to select the required point. The Virtual Output Point text is displayed beside each point; press the ▶ button to display 'Located in Zone n', where 'n' is the point's zone number (if there is no text configured the zone number is always displayed).

2 Select the activation mode. This option is not available if the Virtual Output Point is associated with OUTPUT 'Disable Actions'.

Note: Delays may be available depending upon the INPUT (see **Section 7.3**). Time-of-Day is always available.

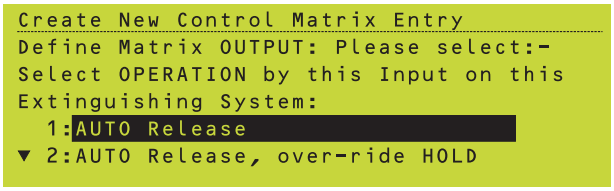
7.6.2.5 Extinguishing System

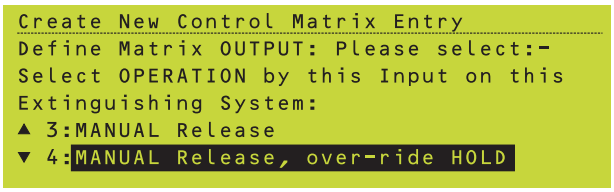


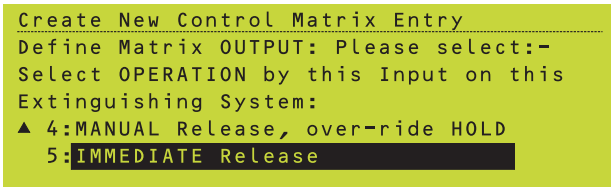
1 Select which Extinguishing System the Control Matrix entry applies to.

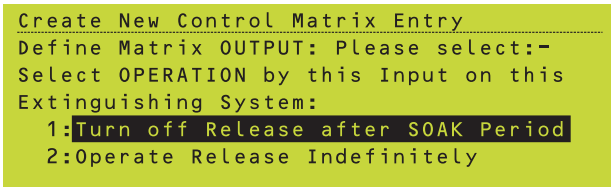
CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.

IF INPUT WAS ALARM:









2a Select the required release mode:

AUTO - release configuration will apply when the sensors signal an alarm (the AUTO/MANUAL/OFF selection is set to AUTO).

MANUAL - release configuration will apply when the Manual Release is operated (the AUTO/MANUAL/OFF selection is set to either AUTO or MANUAL).

IMMEDIATE - release configuration will apply when Immediate Release input is activated (release is immediate and overrides ABORT, OFF and HOLD).

Options 1 and 3 allow the HOLD input to override the release, options 2 and 4 allow the release to override the HOLD input (for use with HOLD mode IRI, **Section 7.8**).

IMMEDIATE RELEASE IS FOR USE DURING SYSTEM COMMISSIONING ONLY AND MUST NEVER BE INSTALLED IN THE MANNED ROOM.

Select whether the release will operate for a soak period, after which it will turn off, or whether it will operate indefinitely (until the panel is reset). The soak period is configured in the Panel Settings menus and is the same for all Extinguishing Systems on the panel.

IF INPUT WAS NON-FIRE:

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
Select OPERATION by this Input on this
Extinguishing System:
  1:ABORT Release (latched until RESET)
▼ 2:Switch System to MANUAL
```

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
Select OPERATION by this Input on this
Extinguishing System:
▲ 3:Switch System to OFF
▼ 4:HOLD mode: RE-START or EXTEND timer
```

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
Select OPERATION by this Input on this
Extinguishing System:
▲ 5:Hold mode: Run timer then PAUSE
▼ 6:Indicate Reserve CO2 Selected
```

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
Select OPERATION by this Input on this
Extinguishing System:
▲ 6:Indicate Reserve CO2 Selected
  7:Indicate Extinguishant Weight Loss
```

2b Select the required non-fire (auxiliary module) action, one of:

a. Aborts the release.

b. Sets system to MANUAL ONLY.

c. Sets system to OFF.

d. Acts as HOLD switch. Timer is either re-started or extended when HOLD is released, depending upon the activation delay setting (step 3). For use with HOLD modes AHJ and NYC (**Section 7.8**).

e. Acts as HOLD switch. Timer is paused when HOLD is operated, and resumes when HOLD is released. For use with HOLD modes ULI and IRI (**Section 7.8**).

f. The LCD displays 'Reserve CO2 Bank Selected' on the Extinguishing tab.

g. The LCD displays 'Extinguishant WEIGHT LOSS Indicated' on the Extinguishing tab.

IF INPUT WAS:
ALARM (EXCEPT IMMEDIATE)

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
DELAY before Activation
(multiples of 5s: 10-600s): 120
```

3a Select the delay before the output is activated. It is not possible to set the delay to zero.

IF INPUT WAS:
NON-FIRE HOLD mode: RESTART or EXTEND timer

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
DELAY before Activation
(include any extension after HOLD)
(multiples of 5s: 10-600s): 120
```

3b Select the delay before the output is activated. If left at the default (which is the value configured in the Panel Settings menu), the HOLD mode is AHJ. If given a greater value, the HOLD mode is NYC. It is not possible to set the delay to zero.

AFTER A TIME OF DAY OPTION, THIS COMPLETES THE OUTPUT DEFINITION

INPUT NON-FIRE ACTIVATION, IF ANY OF THE 'OTHER ACTIONS' OUTPUT OPTIONS 1 TO 8 ARE CHOSEN.

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
TRANSFER FLAG number (1-128): 1
```

```
Create New Control Matrix Entry
Define Matrix OUTPUT: Please select:-
  1:Activate Outputs
  2:DISABLE Actions
  3:Set to THERMAL-ONLY mode
▼ 4:EXTINGUISHING System
```

```
NEW Control Matrix Entry
 INPUT:
 Input statement
 OUTPUT:
 Output statement
Press ✓ to confirm changes,  X to cancel
```

CONTROL MATRIX
ENTRY TAKES EFFECT

7.6.2.6 Other Output Options

For the MUTE INTERNAL BUZZER, SILENCE SOUNDERS, SYSTEM RESET, TRANSFER FLAG, System in NIGHT mode, System in DAY mode, Extend Investigation Delay and OVER-RIDE Sounder/Investig. Delays options, there are no zone or cell selections. The Time-of-Day option is provided.

Further information about the use of TRANSFER FLAGs is given in **Section 7.9**.

Note: Actions occur when input switch goes from open to closed, thus to toggle between Day and Night modes two momentary action input switches are required. An alternative method of achieving this using one switch is described in **Section 11.19** step 3.

7.6.2.7 Set to Thermal-Only Mode

This menu option is only available if the input is NON-FIRE ACTIVATION or TRUE. The only selections are zone or range of zones (not cell[s]) and Time-of-Day. While the input is active, all Multi-criteria sensors so configured (Sections 5.1.3.2 & 5.3.2) and present in the selected zone(s) are set to their L6 Thermal-Only mode.

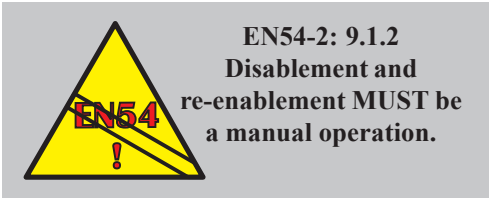
7.6.3 Completion of New Entry

Press ✓ to confirm the new entry.

Note: At this stage, time-of-day options cannot be reviewed and the delay # number is not determined and is shown provisionally as '1'.

If you exceed the maximum number of entries allowed in the Control Matrix (see **Section 7.1**) the message 'ERROR: MEMORY FULL' is displayed.

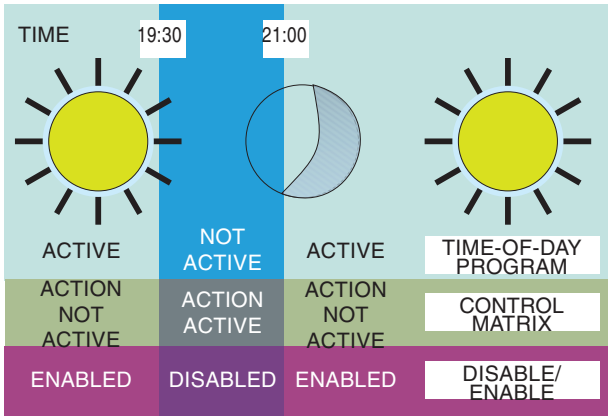
If, after an existing Control Matrix entry is amended, it is identical to the one it replaces, there is no confirmation prompt and the top line displays 'Control Matrix Entry Unchanged'.



7.7 Disablement/Enablement Function

This function allows specified zones to be disabled at certain times of day.

THE DISABLEMENT OCCURS WHEN THE TIME OF DAY PROGRAM IS **NOT** ACTIVE, E.G.:



An example is shown opposite. The stated period (19:30 to 21:00) is the 'NOT effective' phase and it 'wraps around' - this is admissable in any time-of-day program. The effect is the same as if the input were an input module manually activated daily between the specified times.

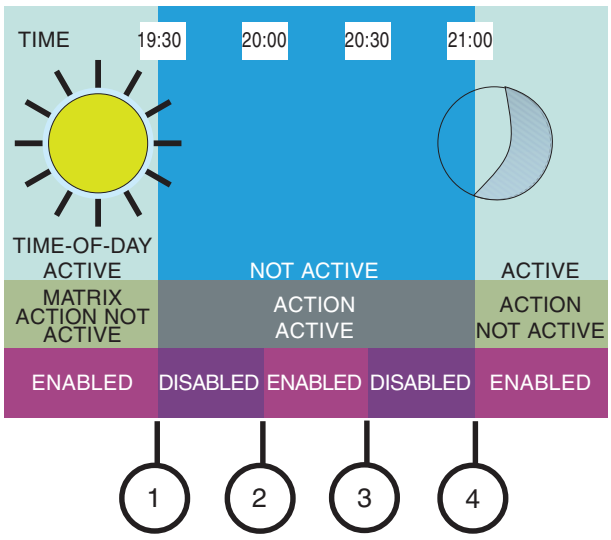
To use this function

You need one Control Matrix entry with TRUE as the input and a time-of-day program and the disablement as the output.

The TRUE option with time-of-day may also be used for outputs other than DISABLE (e.g. for activating a module output).

Note: The minimum duration of a specified time-of-day period is ten minutes, therefore, it is not likely to be of use as a 'class change'.

IF TIME-OF-DAY SETTING IS OVERRIDDEN MANUALLY, THE SETTING IS RE-ASSERTED WHEN ANY OTHER TIME OF DAY MODE CHANGES STATUS:



1 'DISABLED' SET BY TIME-OF-DAY

2 MANUAL 'ENABLED'

3 ANOTHER 'TIME-OF-DAY'-DRIVEN FUNCTION CHANGES STATUS. 'DISABLED' IS SET AGAIN

4 'ENABLED' SET BY TIME-OF-DAY

However ...

Zones may be disabled or enabled by other means (panel pushbuttons, an external AUX input or with the global Cancel Disablement at Set Time/after Timeout facility). The time-of-day-driven setting will then be re-asserted:

a. By any subsequent time-of-day status change (even one used for a completely different purpose). In the example shown, a sensor undergoes a time-of-day change of sensitivity at 20:30.

b. At the beginning and end of the configured period.

CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.

INPUT	OUTPUT	ASSOCIATED PARAMETERS
ALARM (zone or device)	Exting. System No. n	Release mode Delay Soak Time Co-incidence rules
NON-FIRE (device)	Exting. System No. n	Abort/Manual/ Off/Hold (mode)/ CO2 Reserve/ Weight Loss
Exting. System No. n	Individual Device	Before/after delay

7.8 Extinguishing System Function

7.8.1 Types of Control Matrix Entry

There are three types of Extinguishing System Control Matrix entry:

a Alarm, used to initiate the release in response to a device or zone in alarm. Up to 32 separate Extinguishing Systems can be configured on a panel; the **output** of the alarm entry is a reference to one of these.

b. Non-fire, used to configure an Auxiliary module as a device type unique to Extinguishing Systems. The **output** of this entry is a reference to one of the 32 Extinguishing Systems.

c. Extinguishing, used to activate/deactivate a device in response to one or more alarm and non-fire entries. The **input** of this entry is one of the 32 Extinguishing Systems.

The 32 available systems work independently of one another and do not interact. However, it is possible to configure the same input device to influence two or more systems, or (less likely to be used) two or more systems to act on the same output device.

7.8.2 Minimum Configuration

A minimum configuration requires:

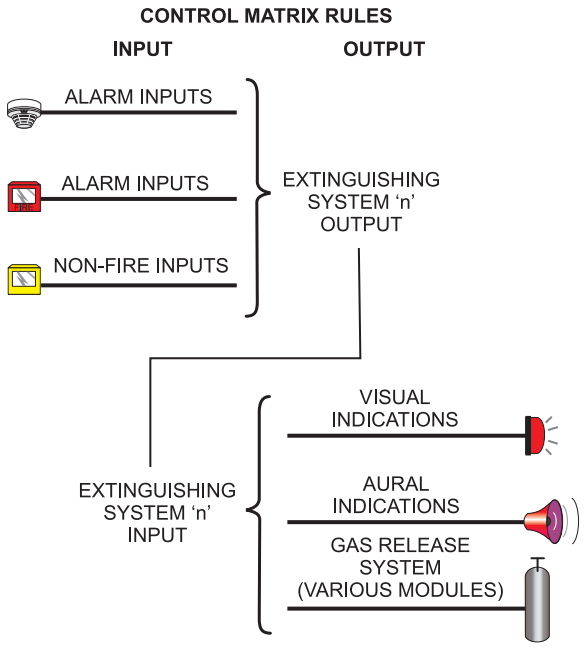
a. At least one Control Matrix alarm entry. If an AUTO/MANUAL ONLY switch is installed, at least two alarm entries will be required (one for the auto + manual case and one for the manual only case). If an IMMEDIATE release switch is provided, an alarm entry is required for this case also.

b. A Non-fire Control Matrix entry to define each Extinguishing System-unique switch on the system (e.g. Abort, Hold etc.).

c. An Extinguishing Control Matrix entry for each module that is activated/deactivated in response to the alarm and non-fire entries (e.g. sounders, strobes, direction valve, release module etc.).

More complex systems may require numerous rules, including alarm rules that do not have an extinguishing system as an output (e.g. a rule to activate sounders when sensors detect an alarm but the extinguishing system is set to OFF).

Use co-incidence rules to prevent non-fire devices activating the release when there is no alarm.



7.8.3 Device Selection

All modules that are required to activate a Non-fire Control Matrix entry must be configured as type AUX.

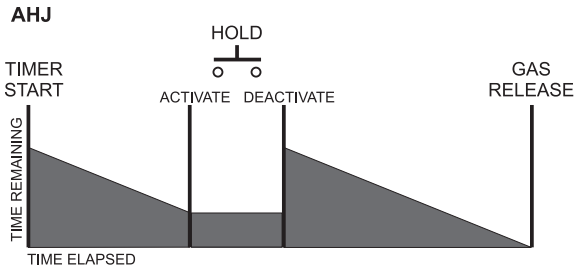
The Immediate release switch should be type MCP or MON.

All modules of type CTRL **must** be set to non-silenceable so that the panel's SILENCE/RESOUND pushbutton does not control the extinguishant release. Set their open-circuit supervision OFF.

Control Modules used to activate the direction valve and the release valve MUST be configured as NON-SILENCEABLE.

7.8.4 HOLD Options

The HOLD switch may have one of four effects on the delay timer. Each effect has a three-character name:

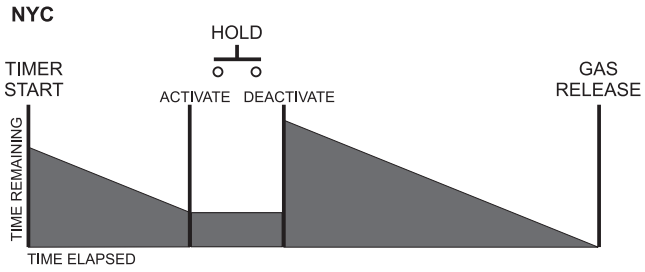


AHJ - When HOLD is deactivated, the timer starts again from its configured value.

To configure on ID3000:

1 Set non-fire to 'HOLD mode: RE-START or EXTEND timer'.

2 Leave activation delay at the panel's default value.

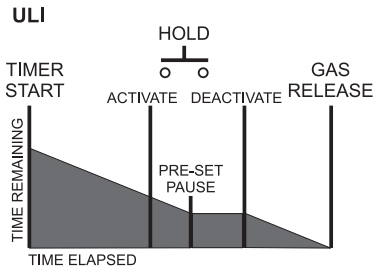


NYC - When HOLD is deactivated, the timer starts again from a length of time longer than its configured value.

To configure on ID3000:

1 Set non-fire to 'HOLD mode: RE-START or EXTEND timer'.

2 Set activation delay to a period longer than the panel's default value.

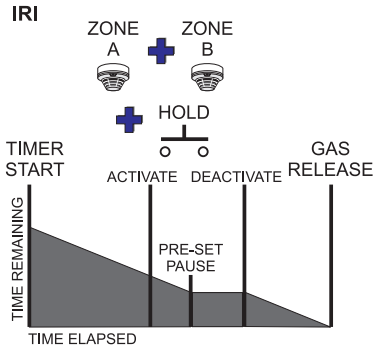


ULI - When HOLD is activated, the timer is paused at a configured number of seconds before release. When HOLD is deactivated the timer restarts from this pause time.

To configure on ID3000:

1 Set non-fire to 'HOLD mode: Run timer then PAUSE'.

2 Ensure the Alarm entries are 'AUTO Release'/'Manual Release'.



IRI - As ULI but HOLD switch activity is ignored if two or more zones are in co-incident alarm.

To configure on ID3000:

1 Set non-fire to 'HOLD mode: Run timer then PAUSE'.

2 Ensure the Alarm entries are 'AUTO Release override HOLD'/'Manual Release override HOLD'.

3 Ensure Alarm entries have the 'Two or more Zones COINCIDENCE' option selected.

7.9 Logic Operation with Transfer Flags

A number of Control Matrix entries can be logically combined by using the same Transfer Flag number (range 1 to 128) in their **output** statement. The input statement must be Alarm, Pre-alarm, Non-fire (AUX), another Transfer Flag or TRUE. Any Control Matrix entries that have the numbered output Transfer Flag in their **input** statement are then activated in accordance with the logic combination. Example entries are given in **Section 7.9.1**.

Note: ID²net only: **input** statement Transfer Flags can be selected from a remote panel, but only if this option is enabled in the Network Panel Settings (**Section 11.22**) on the remote panel.

If an output of the panel (whether referred to explicitly or by its inclusion in a zone, cell or device type) is controlled both by a Control Matrix entry that includes a logical operation and by an entry that does not include a logical operation, the effect is an implied 'OR' between these entries.

The available logic options are shown opposite. 'No logic relationship' means that the transfer flag is used for another purpose, e.g. to link the output of one entry which has a delay to the input of another entry, which also has a delay.

Restrictions on the availablility and use of transfer flags:

a. If a Transfer Flag number has already been used for another purpose, it is not available for logic operations and the Transfer Flag options are not displayed in the Control Matrix entry.

b. If a Transfer Flag number has already been used for a logic operation on another Control Matrix entry, it is not available for another purpose. The 'No Logic Relationship' option is not displayed. The remaining options are displayed as shown opposite.

7.9.1 Example Logic Operations

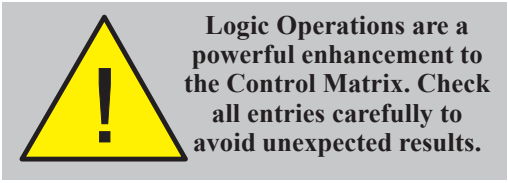
Precedence: All entries which have the 'AND' operator together with the inverse of all entries which have 'AND-NOT' are AND'ed together. The result is then OR'ed with all entries which have the 'OR' operator.

Note: The order in which the entries appear in the Control Matrix has no effect.

If any entries have an AND-NOT operator, there must be at least one entry with an AND operator using the same Transfer Flag.

Example entry in Control Matrix:

```
Control Matrix Configuration
▲INPUT: ALARM:
 Zone 101
 OUTPUT:
▼TRANSFER FLAG no.5 [AND]
✓=edit/delete *=new entry X=cancel
```




```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Select Logic Operation on this Input:
  1:No Logic Relationship
  2:AND
▼ 3:AND-NOT
```

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Select Logic Operation on this Input:
▲ 2:AND
  3:AND-NOT
  4:OR
```

The following message is displayed if a Transfer Flag has been used for a logic operation and the current input is not Alarm, Pre-alarm, Non-fire, another Transfer Flag or TRUE:

INVALID: Please select another FLAG

Press any key to returrn to Transfer Flag number entry.

```
Create New Control Matrix Entry
Define Matrix INPUT: Please select:-
Select Logic Operation on this Input:
  1:AND
  2:AND-NOT
  3:OR
```

Example 1 - Use of logic operations

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [AND]
Zone 2	Flag 26 [AND-NOT]
Zone 3	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Zone 5	Flag 26 [AND]
Flag 26	Activate Zone 20

Example 1 - Outputs in Zone 20 are activated if: Inputs in Zone 3 or Zone 4 are activated, or inputs in both Zone 1 and in Zone 5 are activated (Zone co-incidence) but no inputs in Zone 2 are activated.

The logic statement is:

(Zone 1 **AND** (**NOT** Zone 2) **AND** Zone 5) **OR** Zone 3 **OR** Zone 4 will activate Zone 20.

This example uses Transfer Flag 26.

Example 2 - Use of two Transfer Flags

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [OR]
Zone 3	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Flag 26	Flag 28 [AND]
Zone 2	Flag 28 [AND-NOT]
Zone 5	Flag 28 [AND]
Flag 28	Activate Zone 20

Example 2 shows how to use two Transfer flags so that 'OR' operations are performed before 'AND' operations. Outputs in Zone 20 are activated if any input in Zones 1, 3 or 4 is activated in co-incidence with any input in Zone 5, but no inputs in Zone 2 are activated.

The logic statement is:

(Zone 1 **OR** Zone 3 **OR** Zone 4) **AND** (**NOT** Zone 2) **AND** Zone 5 will activate Zone 20.

Note: This example uses Transfer Flags 26 and 28. The numbering of Transfer Flags has no significance other than to identify them.

Example 3 - Logic operations with delayed output

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [AND]
Zone 2	Flag 26 [AND-NOT]
Zone 3	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Zone 5	Flag 26 [AND]
Flag 26	[Delay 60s] activate Zone 20

Examples 3 and 4 show how to incorporate a delay (delays cannot be included in the same entry as the logical operation).

Example 3 is the same as Example 1 apart from the delay in activating the output, Zone 20.

Example 4 - Logic operations with delayed input

INPUT STATEMENT	OUTPUT STATEMENT
Zone 1	Flag 26 [AND]
Zone 2	Flag 26 [AND-NOT]
Zone 3	[Delay 60s] Flag 31
Flag 31	Flag 26 [OR]
Zone 4	Flag 26 [OR]
Zone 5	Flag 26 [AND]
Flag 26	Activate Zone 20

In Example 4 the delay is on the input, for Zone 3 only.

Example 5 - Input priority

INPUT STATEMENT	OUTPUT STATEMENT
Zone 21	Flag 1 [AND]
Zone 22	Flag 1 [AND-NOT]
Zone 23	Flag 1 [OR]
Flag 1	Flag 2 [AND]
Zone 24	Flag 2 [AND-NOT]
Flag 2	Activate Sounder Circuit 3

Example 6 - Lock-out

RULE	INPUT STATEMENT	OUTPUT STATEMENT
1	Zone 1	Flag 11 [AND]
2	Zone 2	Flag 12 [AND]
3	Zone 3	Flag 13 [AND]
4	Zone 4	Flag 14 [AND]
5	Zone 5	Flag 15 [AND]
6	Flag 11	Flag 11 [OR]
7	Flag 12	Flag 12 [OR]
8	Flag 13	Flag 13 [OR]
9	Flag 14	Flag 14 [OR]
10	Flag 15	Flag 15 [OR]
11	Flag 11	Flag 100 [OR]
12	Flag 12	Flag 100 [OR]
13	Flag 13	Flag 100 [OR]
14	Flag 14	Flag 100 [OR]
15	Flag 15	Flag 100 [OR]
16	Flag 100	Flag 11 [AND-NOT]
17	Flag 100	Flag 12 [AND-NOT]
18	Flag 100	Flag 13 [AND-NOT]
19	Flag 100	Flag 14 [AND-NOT]
20	Flag 100	Flag 15 [AND-NOT]
21*	Flag 11	Activate Control Module 1
22*	Flag 12	Activate Control Module 2
23*	Flag 13	Activate Control Module 3
24*	Flag 14	Activate Control Module 4
25*	Flag 15	Activate Control Module 5

* These rules can be on a different panel from rules 1-20.

Note: The zone numbers, flag numbers and module numbers used in the example are arbitrary, and the rules can be entered into the Control Matrix in any order (rule numbers are given in the example solely so that they can be referred to in the manual).

Example 5 shows how to arrange inputs (in this case zones) in priority:

i An input from Zone 21 activates sounder circuit 3, unless

ii There is an input from Zone 22, in which case the sounder circuit is turned off, unless

iii There is an input from Zone 23, in which case the sounder circuit is turned on, unless

iv There is an input from Zone 24, in which case the sounder circuit is turned off.

Thus Zone 24 has priority over Zone 23, which in turn has priority over Zone 22, which in turn has priority over Zone 21.

The logic statement is:

(Zone 21 **AND** (**NOT** Zone 22)) **OR** Zone 23) **AND** (**NOT** Zone 24) will activate sounder circuit 3.

Example 6 shows how to configure the Control Matrix so that a rule will only operate if certain other rules have not already operated.

In this example there are five zones. An alarm in any zone will operate a specific control module, e.g. an alarm in zone 3 will operate control module 3. After this has occurred, a subsequent alarm in any of the other zones does not result in the corresponding control module operating. The output from zone 3 remains active until the panel is reset.

More than one group of inputs and outputs can be configured to operate in this mutually-exclusive manner, but for each the rules **must** be configured as follows:

1 A single unique transfer flag must be allocated to each input required to operate in the manner described above. These flags must be local to the panel in which these rules are programmed. In this example, flags 11 to 15 correspond to zones 1 to 5. Any input could be used instead of a zone, with additional flags if required e.g. to OR two non-adjacent zones, or zones from different panels.

2 For each of the inputs, a rule of the type 'input sets flag *n* [AND]' must be set. See rules 1 to 5 in the example.

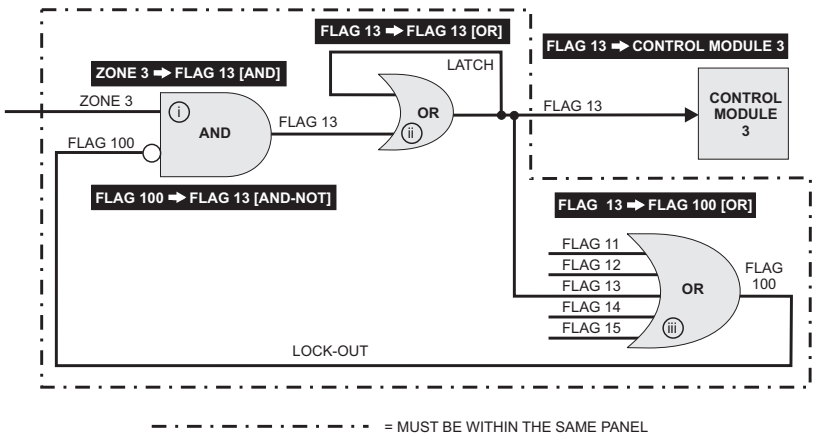
3 A flag must be allocated for lock out (see illustration and subsequent text for definition of lock out) - in this example it is flag 100. This flag must be local to the panel in which these rules are programmed.

4 To implement lock out, each input requires rules of the following types to be configured: 'flag *n* sets flag *n* [OR]' (see rules 6 to 10), 'flag *n* sets lock out flag [OR]' (see rules 11 to 15) and 'lock out flag sets flag *n* [AND-NOT]'. See rules 16 to 20 in the example.

Note: The panel does not implement lock out unless at least one rule of the type 'flag *n* sets flag *n* [OR]' is configured.

5 Configure rules to drive the outputs (additional flags can be used if required). See rules 21 to 25 in the example.

Note: Rules of steps 2 and 4 (Rules 1-20 in the example) must all be in the same panel (it does not have to be the panel at which the inputs or monitored, nor the panel from which the outputs are driven).




```
Control Matrix Configuration
▲INPUT: ALARM:
 ZONE 3
 OUTPUT:
▼TRANSFER FLAG no.13 [AND]
✓=edit/delete *=new entry X=cancel
```

```
Control Matrix Configuration
▲INPUT:
 TRANSFER FLAG no.13
 OUTPUT:
▼TRANSFER FLAG no.13 [OR]
✓=edit/delete *=new entry X=cancel
```

```
Control Matrix Configuration
▲INPUT:
 TRANSFER FLAG no.13
 OUTPUT:
▼TRANSFER FLAG no.100 [OR]
✓=edit/delete *=new entry X=cancel
```

```
Control Matrix Configuration
▲INPUT:
 TRANSFER FLAG no.100
 OUTPUT:
▼TRANSFER FLAG no.13 [AND-NOT]
✓=edit/delete *=new entry X=cancel
```

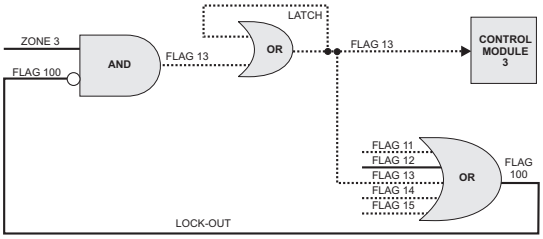
The illustration shows the effect on zone 3 - the corresponding Control Matrix rule for each step is shown in inverse text:

i If zone 3 detects an alarm, flag 13 is subsequently set if, and only if, flag 100 is not already set.

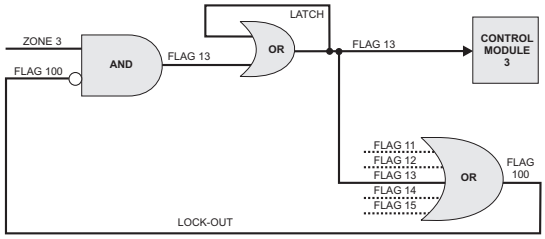
ii If flag 13 is set, then to prevent the Control Matrix from processing inputs associated with zones 1, 2, 4 or 5, flag 13 is latched by an OR logic operation and then used to set flag 100.

(continued)

solid lines = active
dotted line = inactive



a - zone 2 (flag 12) in alarm first



b - zone 3 in alarm first

iii Flag 100 is set if **any** of flags 11 to 15 are set (corresponding to zones 1 to 5). Thus:

a. If zone 1, 2, 4 or 5 is already in alarm, then flag 100 prevents flag 13 from being set and thus control module 3 does not operate.

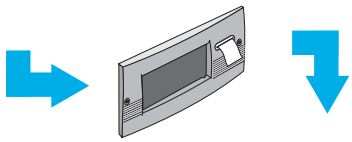
b. If zones 1, 2, 4 or 5 are not in alarm, then flag 100 is not set, allowing flag 13 to be set and control module 3 to operate. Flag 13 then sets flag 100 (see ii above), which then prevents flags 11, 12, 14 and 15 being set.

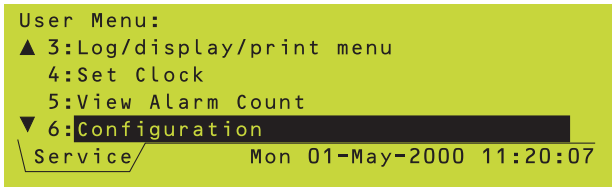
The locked out state is latched until the panel is reset.

To ensure that the panel does not begin processing another input BEFORE the locked out state occurs, the panel will process a number of flag-type rules in sequence, i.e. it is looking to see if a lock-out is configured. The number is pre-set, but can be adjusted if necessary (refer to **Section 11.11**).

7.10 Print Control Matrix

The entire Control Matrix is printed out; there are no further LCD displays, the User Menu is redisplayed.





8 Change Passcode

8.1 Introduction

Three levels of passcode are provided:

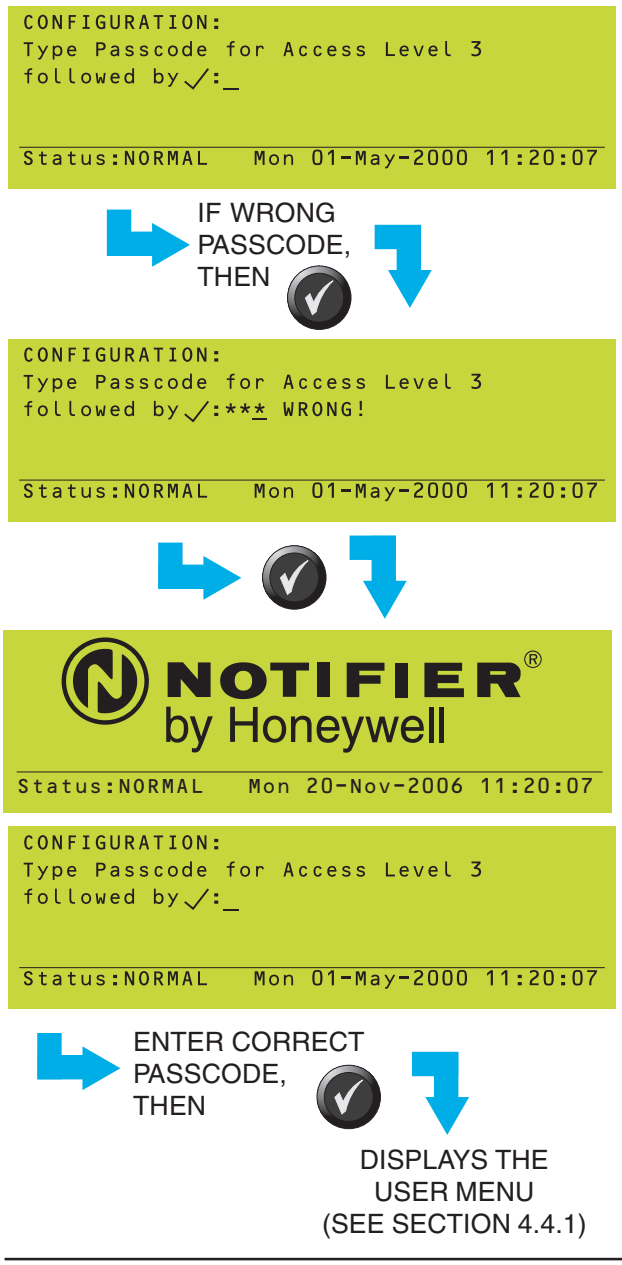
a. **Access 2 passcode.** This passcode permits the panel controls to be used, and provides access to all menus except the Configuration menu and some options on other menus as described in **Section 12**. It can be overridden by the panel keyswitch.

Note: Functions which require use of the access 2 passcode are described in the ID3000 Series Operating Manual (997-505-XXX).

b. **Access 3 passcode.** This passcode provides access to the Configuration menu.

c. **Access 3A passcode.** This passcode provides access to advanced features in the Configuration menu.

Note: Access 3 and 3A passcodes also provide access to some options on other menus, as described in **Section 12**.



Incorrect Passcodes

The appropriate passcode must be entered when prompted. See **Section 4.4.1** for an example.

If the wrong digits (or an incomplete passcode) are entered, the invalid passcode screen is displayed.

From the Status: NORMAL display, repeat the steps that resulted in the passcode prompt being displayed.

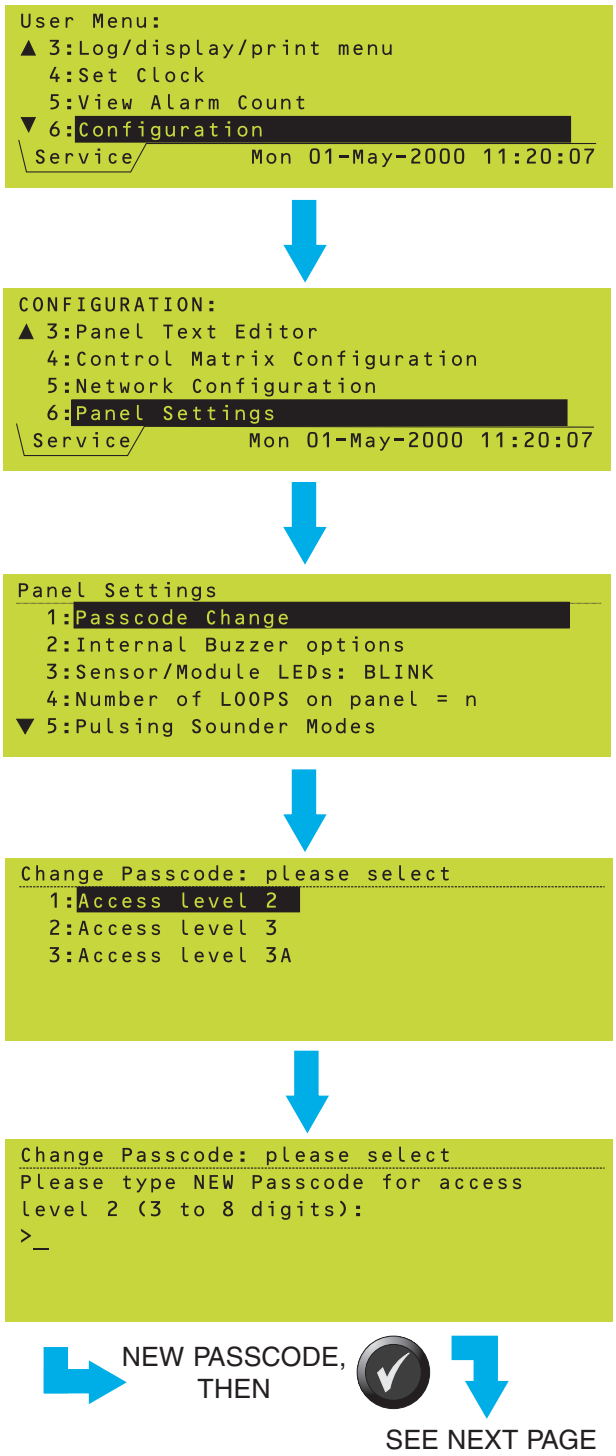
Enter the correct passcode.

	FACTORY DEFAULT
Access 2 * * *	000
Access 3 * * *	111
Access 3A * * * * *	84373

8.2 How to Change a Passcode

The panel is supplied with default passcodes.

The manufacturer strongly recommends that you change the default passcodes after commissioning has been completed.



SEE NEXT PAGE

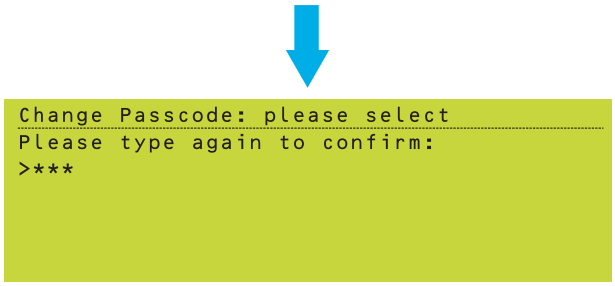
To change the passcode:

1 From the Panel Settings Menu, select the Passcode Change option.

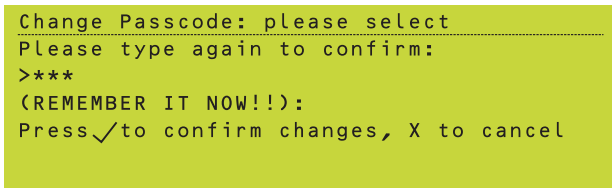
2 Select the passcode to be changed. In this example the access level 2 passcode is selected for change.

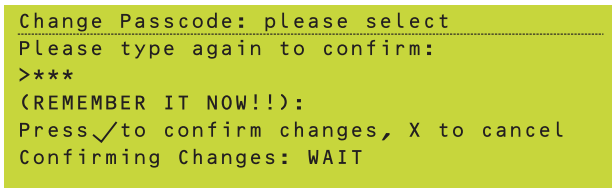
3 Type the new passcode.

FROM PREVIOUS PAGE



REPEAT PASSCODE, THEN

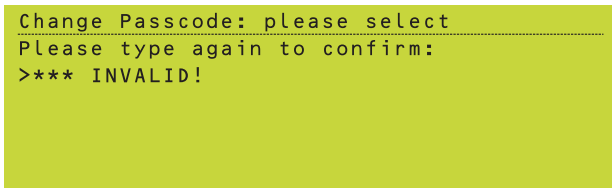




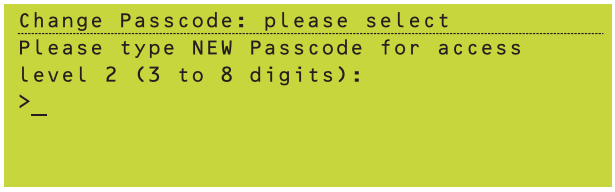
THE NEW PASSCODE TAKES EFFECT

4 Re-type the new passcode.

5 Press ✓. After a short wait, the new passcode replaces the original.



This display indicates that the passcode was re-typed incorrectly in step 4 above. The display of step 3 is then re-displayed. Repeat the procedure from step 3.



9 Time-of-Day Programming

This facility lets you modify the function of the panel at certain times of day. The major time-of-day controlled functions are:

a. Sensor sensitivity (**Section 5.1.2.7**).

b. Control Matrix actions (**Section 7.6.2.2**).

c. Cancelling all disablement conditions on the panel (non EN54-2 compliant) (**Section 11.7**).

This section describes how to edit and use a time-of-day program.

EN54-2: 9.1.2 Disablement and re-enablement MUST be a manual operation.

Note: A Control Matrix entry can be used to control the Disable and Enable functions, independent of the Disablement Panel Settings (see **Section 7.7, Disablement/ Enablement Function**).

Up to seven time-of-day programs can be in operation in any one panel. The programs operate completely independently of each other. Any particular sensor sensitivity or Control Matrix action may be modified according to **one** of the programs.

9.1 Time-of-day Program Editing

The Time-of-day editing procedure is common to all these applications. A typical program consists of one or two daily periods specified by start and end times, with an optional alternative for weekends. For example, this display:

-MTWTF-	**0830-1040**	**1800-0600**
S - - - - -S	**0830-1040**	**1800-0700**

indicates that from Mondays to Fridays the ‘active’ periods of the program are 08:30 to 10:40 inclusive, and 18:00 to 06:00 the following day. On Saturdays and Sundays the periods are 08:30 to 10:40 and 18:00 to 07:00 the following day.

When editing a Time-of-day program that applies to the Disablement Panel Settings (see **Section 11.7**), the ‘start’ times of each period are irrelevant and are omitted from the display, which then looks like this:

-MTWTF-	**1040**	**0600**
S - - - - -S	**1040**	**0700**

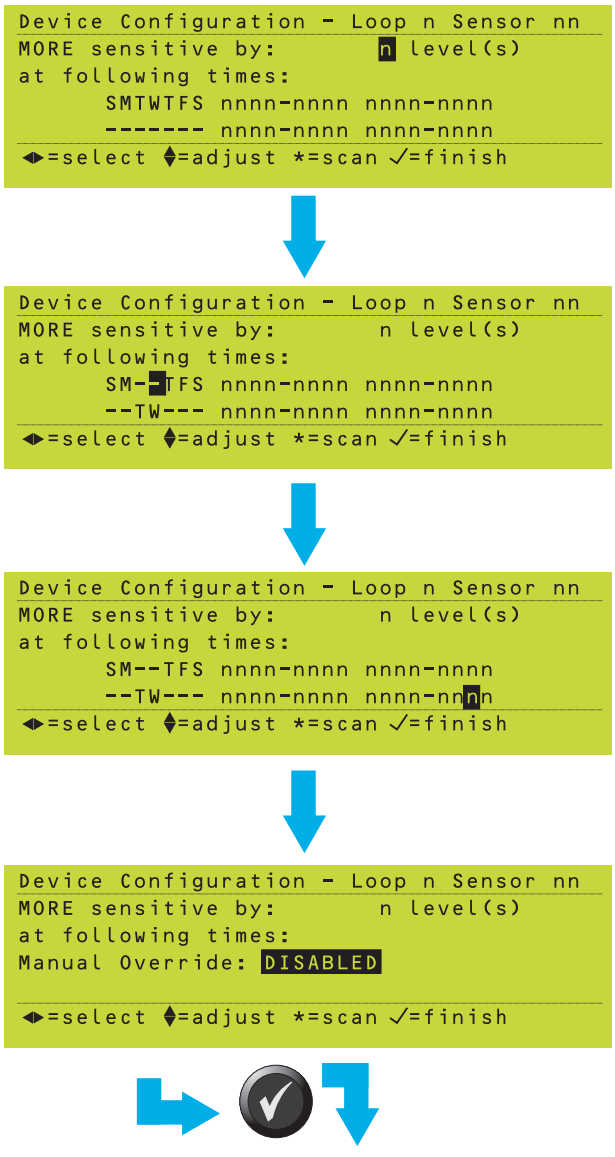
Note: To specify a 'complete' 24 hour period, split the 24 hours into two parts; e.g. one running from 00:00 to 12:00 and the other running from 12:00 to 00:00. These parts combine to provide the required '24 hour' day.

It is possible to have no variation with day of the week: in such cases the first line of the program shows:

SMTWTFS 0830-1040 1800-0600

Also, only one period per day need be specified.

To edit the Time-of-day, use ◀ and ▶ to move through the time-of-day display and ▲ and ▼ to alter each setting:



TIME-OF-DAY EDIT IS COMPLETE

1 If the Time-of-day program applies to a sensor, set the number of levels MORE or LESS that the sensitivity will alter by (the word MORE changes to LESS and vice versa as you pass through zero).

2 Set which days of the week the top row of times will apply to, and which days of the week the bottom row of times will apply to (in this example two consecutive days have been changed; this allows you to re-define the 'weekend').

3 Set the time periods for the top row, and then for the bottom row.

Note: The cursor cannot be positioned in the 'units' column of the 'minutes', because the minutes are set to 10 minute increments.

Note: Inadmissible times (i.e. greater than 23:50) are always adjusted down as you edit.

4 After the last time field, press the ▶ pushbutton to display the manual override option and select manual override either ENABLED or DISABLED (see **Section 9.2**).

5 Press ✓ to complete the edit.

Additional information about time fields

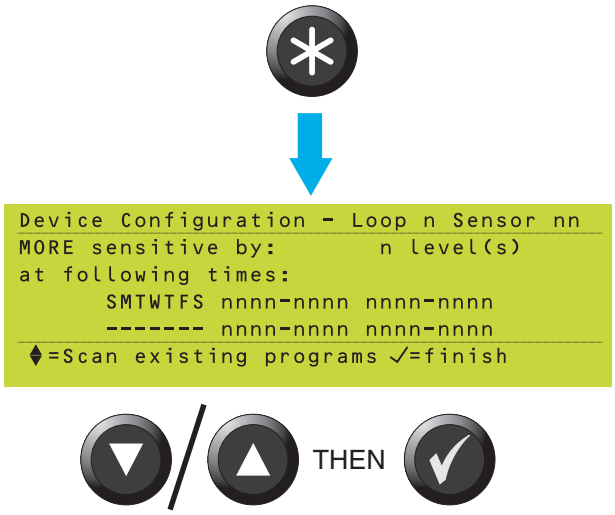
If a 'start time' is earlier than the corresponding 'end time', a 'day' period is assumed; if the 'start time' is later than the 'end time' the period is considered to be a 'night' period. If both start and end times are set to '00:00' the period is regarded as not in use. If both start and end times are the same time, *other than '00:00'*, this is a special program only meaningful in conjunction with 'manual override' (see **Section 9.2, Manual Override**).

Where two daily periods are programmed they may overlap or abut one another without causing the panel to malfunction. However, this practice is not recommended as it may be confusing. Also, if there is an inconsistency between weekdays and weekends, as regards the day and night periods, as in the following example:

-MTWTF-	**0830-1040**	**1800-0600**
S - - - - -S	**0830-1040**	**1800-1900**

the weekday 'overnight' period is deemed to end at midnight on Friday and start again at midnight on Sunday. Again, this type of combination should be avoided.

Using an existing time-of-day program



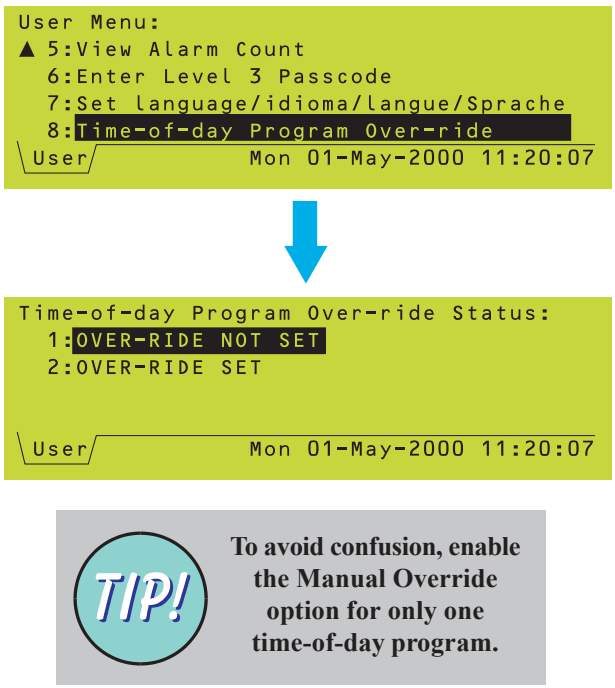
1 When the time-of-day display (but not the Manual Override option) is shown on the LCD, press ✱.

2 Use ▲ and ▼ to step through the existing time-of-day programs, if any. The maximum number of programs is seven.

3 Press ✓ to select the currently-displayed program.

9.2 Manual Override

If Manual Override is set to ENABLED in the time-of-day program, an additional item 'Time-of-day Program Over-ride' appears on the User menu (it is available at access level 2 and above).



If you select OVER-RIDE SET then the current action of the time-of-day program is reversed: i.e. if currently within a time period, the behaviour reverts to that applicable outside the period, and vice versa. The override holds until the next changeover time is reached and, thereafter, the action reverts to that specified in the program.

To cancel the override and revert to the configured options, select OVER-RIDE NOT SET.

There is a special case where you have set up identical start and end times, e.g.:

SMTWTFS 1730-1730

This is particularly useful in installations which require a manual-only switch to day mode, followed by an automatic switch back to night mode. In the absence of any manual override, this program remains permanently disabled - i.e. Control Matrix actions attached to this program are always carried out. However, if Manual Override is enabled and you select it, the program now becomes active and attached Control Matrix actions are suppressed until the time next reaches 17.30 (on the same day or the next).

For example, to set up a particular Day/Night mode switch, program a Control Matrix entry with immediate effect and the above timetable, plus a Control Matrix entry with delayed action and no time-of-day restrictions. Then OVER-RIDE SET may be used to select day mode (when output actions are delayed) and again to revert to night mode; the panel will also revert automatically to night mode at 17.30 in the example.

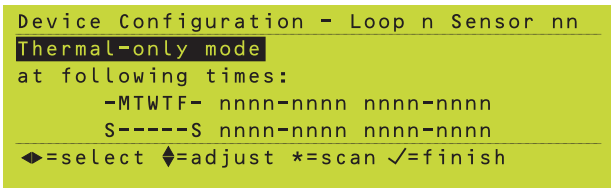
9.3 DISABLEMENT and ENABLEMENT Override

The DISABLEMENT and ENABLEMENT Override allows the use of OVER-RIDE SET to enable a one-shot advance on the next programmed change-over time for DISABLEMENT and ENABLEMENT operations. For example, if a zone is disabled using a time-of-day program set to be active from 21:00 to 19:30 hours and you select OVER-RIDE SET at 20:00 hours, the zone will be enabled and not be disabled again until the following day at 19:30 hours.

9.4 MULTI Thermal-Only Mode

If the thermal-only mode of these sensors is to be used, normally the sensors will be configured to operate as combined smoke/heat sensors during the night/weekend, and thermal-only sensors during the day. This can be done either by a Time-of-Day program or via the panel's Day Mode pushbutton, however both options are configured via the Time-of-Day parameter during loop device configuration.

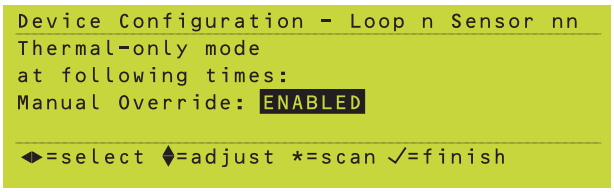
Using Time-of-Day Program



CONTINUE TO SELECT 'LESS SENSITIVE BY' UNTIL THE THERMAL-ONLY MODE DISPLAY APPEARS, THEN SET THE TIMES AT WHICH THIS MODE WILL APPLY.

Set the alarm level required for combined operation (e.g. at the default L3), then enable Time-of-Day editing and continue selecting 'LESS sensitive by' until the 'Thermal-only mode' display appears (see opposite). Edit the days and times at which the Thermal-Only mode L6 is to operate.

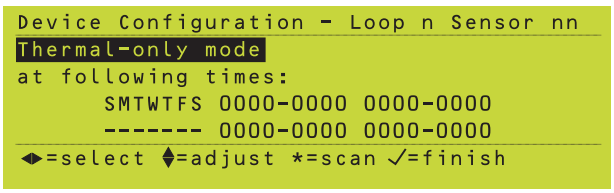
Note: Although it is possible to configure the alarm level at L6 and then use Time-of-Day to set a 'MORE sensitive by' level, this is not recommended because any day/night linkage will operate the wrong way round.

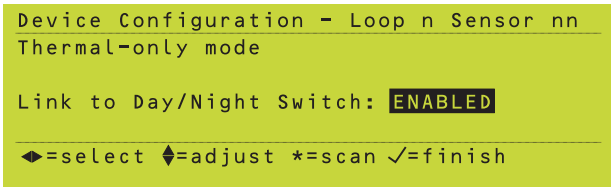


Manual Override can be configured as described in **Section 9.1**. However, if pushbutton control of thermal-only mode is required the Link to Day/Night Switch method described below may be preferred.

9.5 Link to Day/Night Switch

Any sensor can be configured such that a sensitivity lower than its normal alarm setting becomes active (or inactive, if already active) when the panel's Day Mode switch is operated. After configuring the normal alarm setting, select 'Time-of-Day', then select 'LESS sensitive by' to obtain the required day sensitivity. **Leave all the times at zero** and press ✓. The 'Link to Day/Night Switch' option is displayed. Use the ▲ and ▼ pushbuttons to select ENABLED, then confirm by pressing ✓.

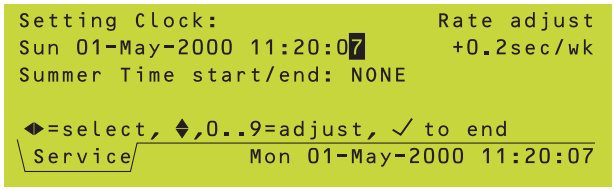


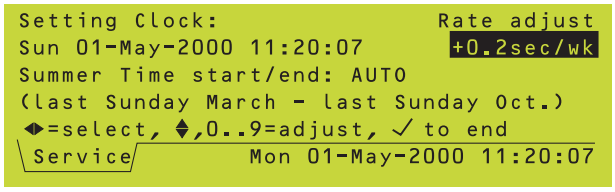


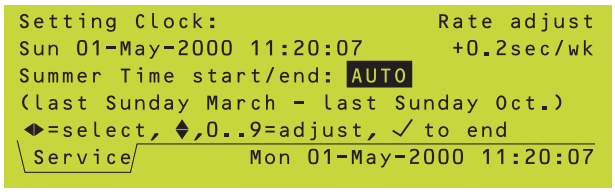
Note: In this case do not set a Time-of-Day program specifically for this device - it would conflict with the Day/Night mode selection process. A Time-of-Day program can be set for Day/Night mode as described in **Section 11.19**.

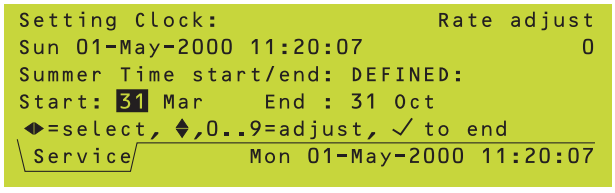
For Multi-criteria sensors this option can also be selected for thermal-only mode (select 'LESS sensitive by' until 'Thermal-only mode' is displayed, see example opposite).

10 Setting the Clock









Use this menu option after any Time Zone change, e.g. start/end of British Summer Time (if not configured for auto-adjust), and after the system has been fully powered-off (in the latter case the system will start-up at midnight on the last date on which it had been operating, or at the time when the clock was last reset, whichever was the later).

To set the clock:

1 Display the Setting Clock screen. The clock display will be 'frozen', with the last digit of the seconds field highlighted.

2 To adjust the date and time, use the ◀ and ▶ pushbuttons to move the cursor over the field to be changed. Use the ▲ and ▼ pushbuttons to adjust the value of the field to give the current date and time.

Note: The date, time and last two digits of the year can also be entered directly using the numeric pushbuttons.

3 If the clock is not keeping good time, adjust its rate - the default value is 0, max. +/-246 then confirm at the prompt. To determine the value to enter, measure the increase or decrease in clock time over the course of a week. This function is not available if Set Clock is accessed via the access 2 passcode.

4 Summer Time - select one of the following:

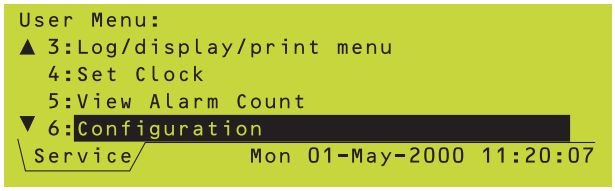
a. NONE. Time changes must be set manually.

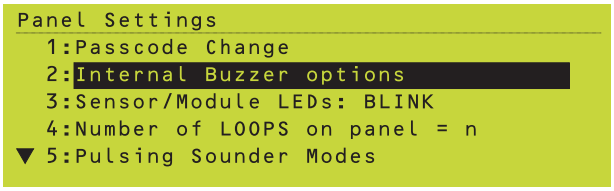
b. AUTO. Time changes automatically at 2am on the days indicated on the screen.

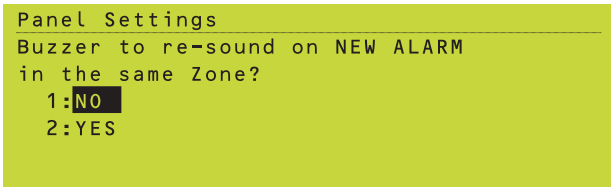
c. DEFINED. Time changes automatically at 2am on user-defined dates. Valid only for the current year (after which the system resets to NONE).

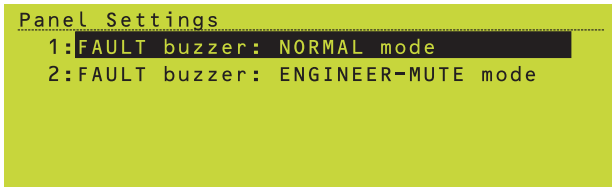
5 After all fields have been adjusted correctly, press ✓ to start the clock running at the precise time shown, or press ✗ to cancel the whole operation and return to the previous clock setting.

11 Panel Settings









EN54-2: 12.10.2
Enabling ENGINEER-MUTE, the audible indication of FAULT will not comply with the requirements.

This section describes temporary and permanent panel settings. These settings are selected from the Panel Settings menu, which is accessed from the Configuration menu. **The access level is 3A**.

All settings are permanent except ENGINEER-MUTE mode (**Section 11.1**) and Temporary BLINK (**Section 11.2**) which both time out.

The prompt 'Press ✓ to confirm changes, X to cancel' is displayed at the end of each change.

Note: The Passcode Change option on this menu is described in **Section 8**.

11.1 Internal Buzzer Options

1 From the Panel Settings menu, select the Internal Buzzer options.

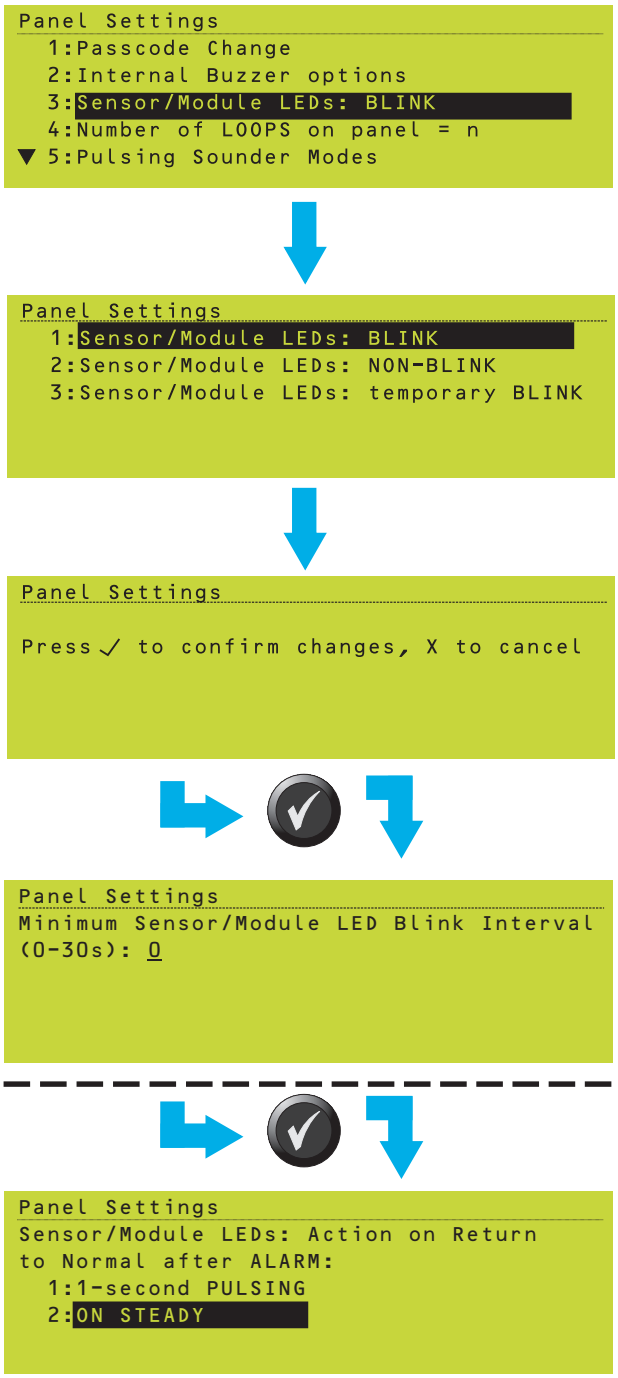
2 Select whether or not the buzzer re-sounds if there is a new alarm **in the same zone** (panel automatically re-sounds buzzer if alarm is from a **different zone**).

3 Select either NORMAL or ENGINEER-MUTE mode (in the latter case the panel status display changes from NORMAL to ENG.-MUTE).

In ENGINEER-MUTE mode, if a fault occurs the fault buzzer sounds at a reduced volume. This **TEMPORARY** mode lasts for two hours, after which time the panel reverts to normal operation. However, if a fault is present on the system at the end of the two hour period, the buzzer will not change to steady operation at this time, but only on the first subsequent fault.

ENGINEER-MUTE applies only to the local panel except if the panel is connected to the ID²net, in which case it applies to all panels on the network.

11.2 LED 'Blinking' Mode



The factory default setting is BLINK. If you select NON-BLINK, the LEDs will not blink during normal scanning but only when the device is in alarm or under test, or under certain fault conditions.

The BLINK and NON-BLINK settings apply to all devices on the system that are individually configured to 'Follow Panel Setting'.

'Temporary BLINK' overrides the individual device configuration. It is provided to identify devices that are installed but not connected to the loop (i.e. these devices will not blink, all others will). Temporary BLINK times out after 2 hours.

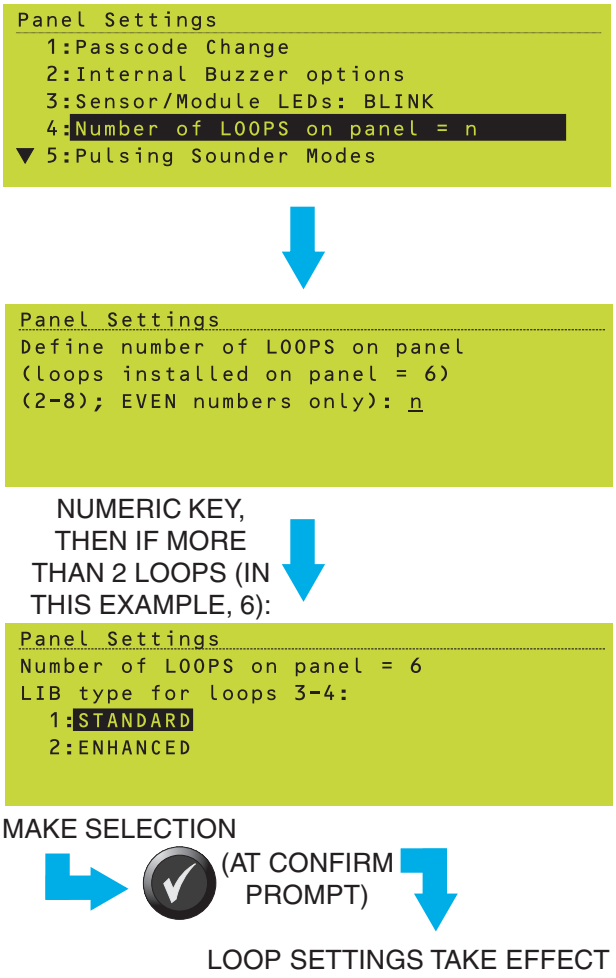
Note: Details of how to configure the LEDs on individual devices to blink, not blink or follow the panel setting are given in **Section 5.1.2.9, LED Blink Options**.

If either BLINK or temporary BLINK is selected, the blink interval option is displayed. This allows the device blink rate to be reduced (0 = normal blink rate, other values introduce a delay between polling cycles). It is intended for use with very lightly-populated loops, on which the device LEDs blink rapidly.

Note: If this option is set to a value other than 0, ensure that priority polling is set OFF for all devices.

If a device indicates an alarm and then the alarm condition is removed, then by default its LEDs pulse. If it is required that the LEDs remain on then select option 2.

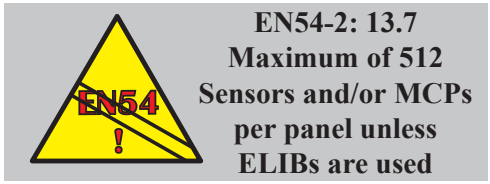
11.3 Number of LOOPS on panel

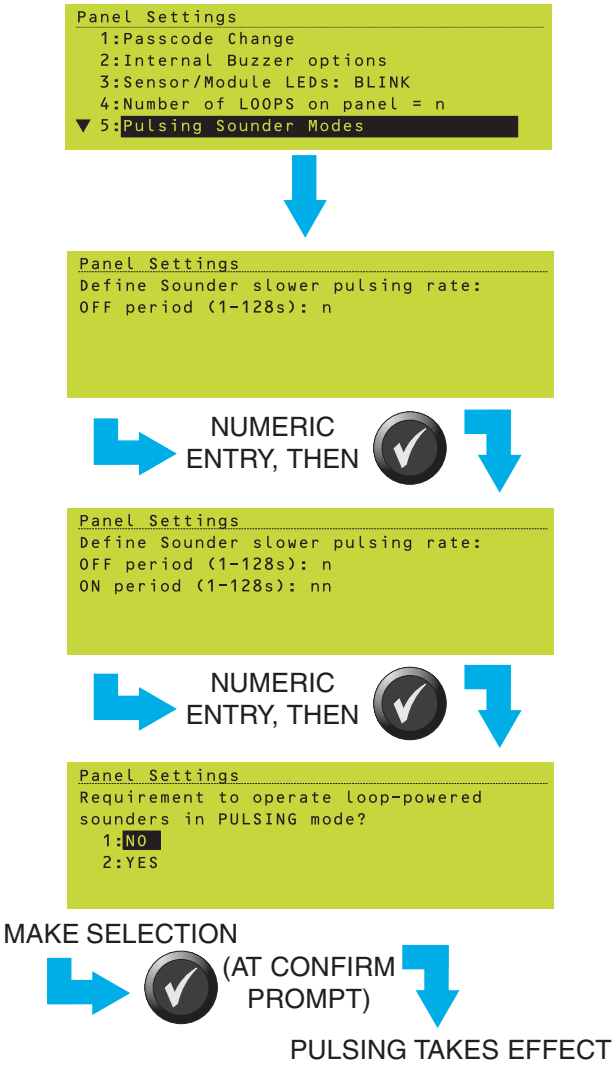


This setting is required only if the panel has had a major reconfiguration or has had a processor card replaced. You may set the number of loops that the panel expects to find to a number different from that automatically determined by the number of loop interface boards currently fitted.

The third line shows how many loops are actually fitted (in this example, 6). If you set the configured number of loops (fourth line) to a number greater than this, the panel will indicate SYSTEM FAULT 17 - Loop n Card Missing.

If you set the number of loops to more than two, for **each loop pair** from 3 upwards select STANDARD if ordinary LIB boards are fitted or ENHANCED if ELIBs are fitted. If there are more than 512 monitored points on the system you must fit ELIBS - in this case select ENHANCED so that the panel will indicate a fault if ordinary LIB boards are fitted. This confirms compliance with EN-54. No fault is indicated if STANDARD is selected with ELIBs fitted.





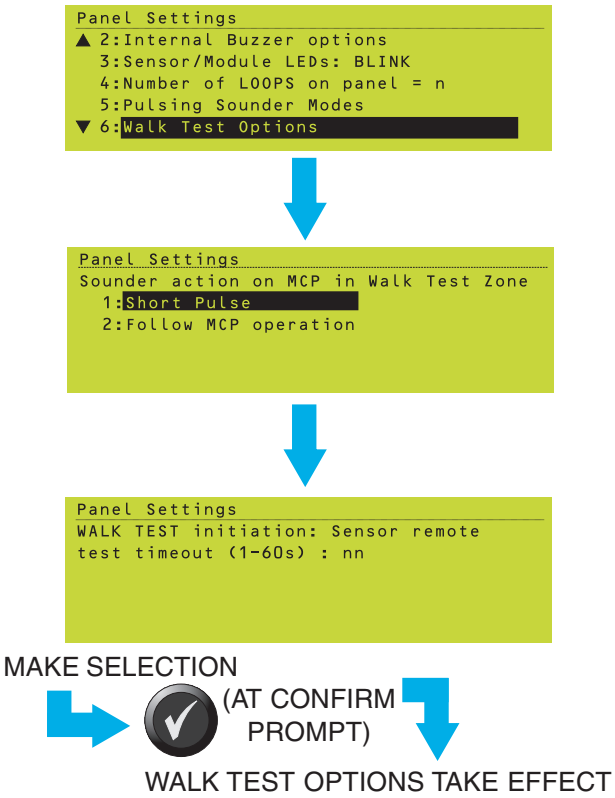
11.4 Pulsing Sounder Modes

This setting is used in conjunction with the Module PULSE Options (**Section 5.1.4.7**) to define the pulsing pattern of those modules for which SLOW PULSE has been selected. To set the pulsing rate:

1 Set the OFF period within the given range.

2 Set the ON period within the given range.

3 Set to YES if some sounders are going to be pulsed - NO if no sounders are to be pulsed or only CMX modules are fitted on the system.



11.5 Walk Test Options (MCP/Sounder)

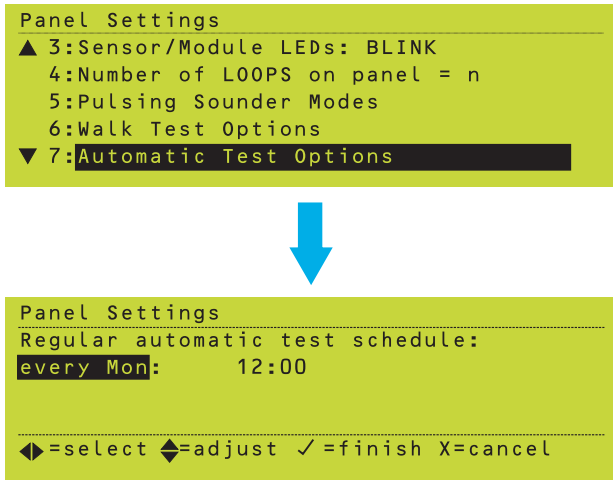
This setting determines what happens when a Manual Call Point (MCP) is set into alarm during a walk test.

Set the MCP to operate the sounders either:

a. For a short pulse, or

b. Continuously while the MCP remains in alarm.

When a Walk Test is inititated, the panel first performs some automatic tests on devices. Dependant upon site conditions, erroneous failures may be indicated. If this occurs, extend the test timeout from its default (20s).



11.6 Automatic Test Options

This setting allows the user to specify the day-of-week and time-of-day at which analogue sensor automatic tests occur:

1 Set the day field to one of:

a. NONE. Automatic tests do not occur. The time field is not shown.

b. DAILY. The Test menu displays DAILY.

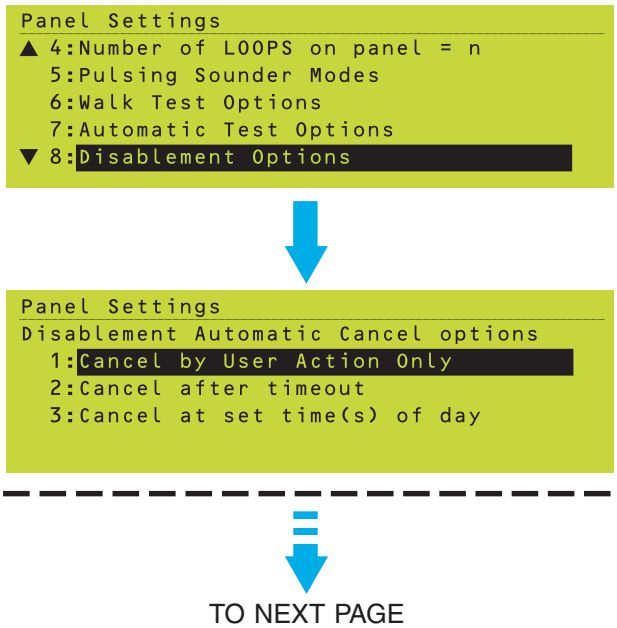
c. A specific day of the week. The Test menu displays WEEKLY.

2 Set the time field, digit by digit, to the time of day at which the test is to occur. Use the ▲ and ▼ pushbuttons, not the numeric pushbuttons.

Note: There is no unattended test facility for modules (including MCPs). These devices can only be tested manually, hence in the majority of installations the Walk Test is still a routine requirement.

No report is generated by the panel unless a sensor fails the test. In the unlikely event that a sensor remains in an Alarm state (possibly due to a real fire) following the cessation of the test, for safety reasons this has to be handled as an Alarm of Fire. Users are therefore recommended to select a day and time when authorised persons are likely to be present and can deal with both a fault report from the panel and the remote risk of a false alarm.

11.7 Disablement Options



This setting determines:

a. The circumstances under which disablements are cancelled.

b. The intermittent buzzer interval for disablement.

c. The access level required to disable the sounders.

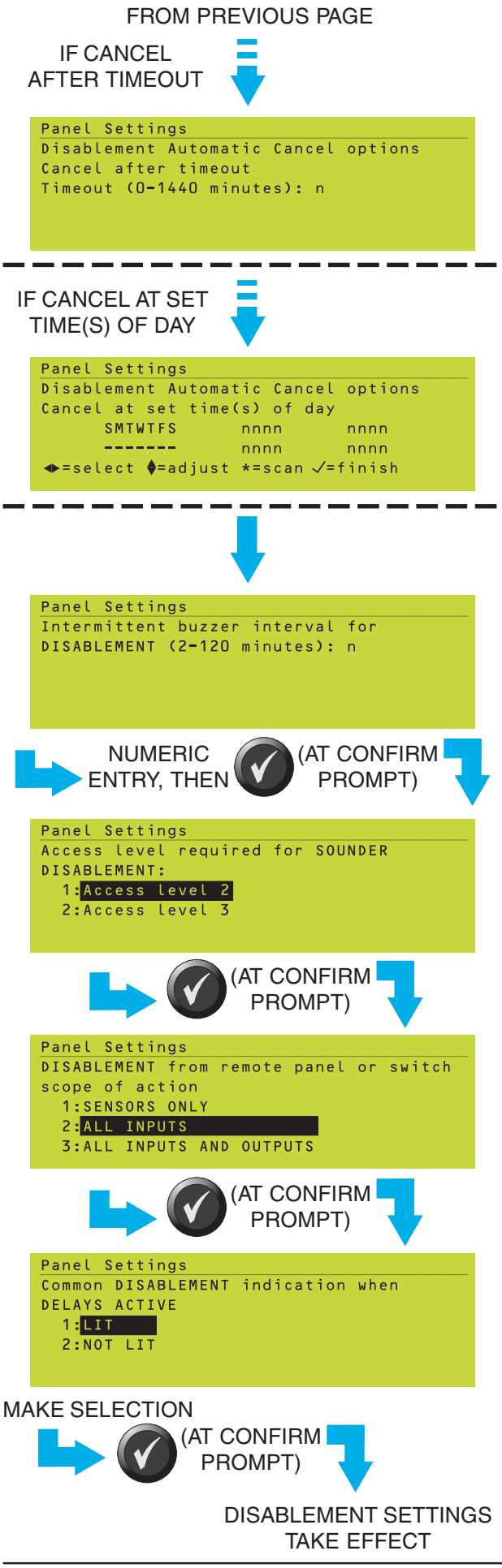
d. What can be disabled from a remote panel or switch.

e. Whether the common DISABLEMENT LED illuminates when the DELAYS ACTIVE LED is lit.

1 Select one of the options for cancellation of disablements:

a. Manual cancellation only.

EN54-2: 9.1.2 Disablement and re-enablement MUST be a manual operation at Access level 2.



b. After a timeout. Numeric entry up to 1440 minutes (24 hours) followed by ✓, then confirm.

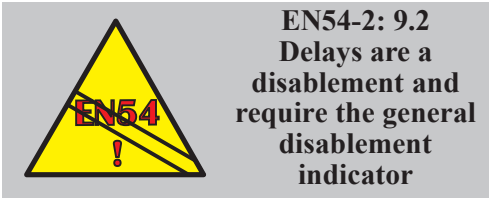
c. At set times of day. Edit this in the same manner as other time-of-day programs (see **Section 9**) - in this case there are only two time fields for each day-of-week set, not a pair of start and end times. Also, there is no 'level' adjustment and no 'Manual Override'. Confirm the changes.

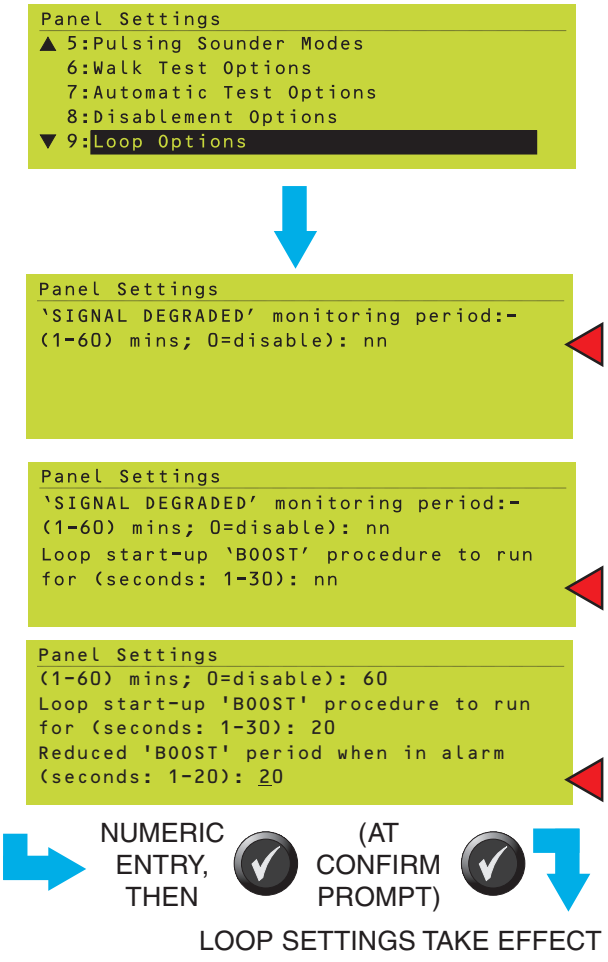
2 Set the required buzzer time interval during disablement, and confirm.

3 Set the SOUNDER DISABLEMENT Access level, then confirm. To comply with EN54-2, level 2 should be selected.

4 Select which disablements can be controlled by a remote panel or switch, then confirm.

5 Set the required disablement indication.





11.8 Loop Options

This setting determines:

a. The signal degraded monitoring period. For each device, the system counts the number of corrupted responses within the time, and issues the 'Signal Degraded' fault message if the number exceeds a pre-determined limit.

b. Loop start-up boost period. During this time the loop is boosted to turn on all isolators.

To set these options:

i Set the signal monitoring period within the given range.

ii Set the loop start-up boost period within the given range.

iii If the panel is on a Master/Slave network and with lightly-loaded loops and non-mechanical isolators, and if disablement or fault network messages are being delivered slowly during alarm, reduce the boost period to reduce the loop break recovery time.

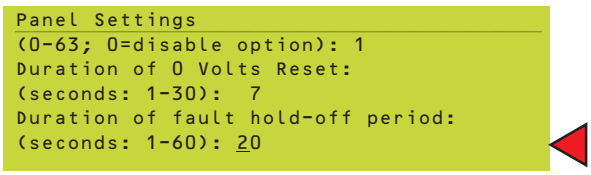
iv Confirm the changes.

1 Module Reset Mode. This allows a number of events to be set, within a 24hr period, whereby power is momentarily removed from the loops to perform a reset of the loop devices. The mode is disabled by default (set to 0). Any value above 0 enables the mode; it is strongly recommended that this option be set to no greater than 4. This option should only be set in consultation with Technical Support.

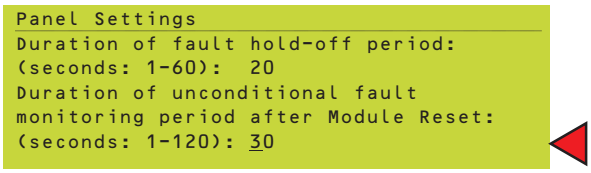
EN54-2: 7.1.3
Setting Module Reset Mode above 0 may result, in exceptional cases, in the time to indication of a fire alarm condition exceeding 10s.

Note: The following options are only displayed if Module Reset Mode is enabled. It is recommended that these settings are not changed from their defaults without first seeking advice from the manufacturer.

2 This defines the length of time that the loop is switched to zero volts when restarting modules.



3 This defines the length of time, following restoration of power to the loop and resumption of polling, that module faults are ignored awaiting recovery of modules.



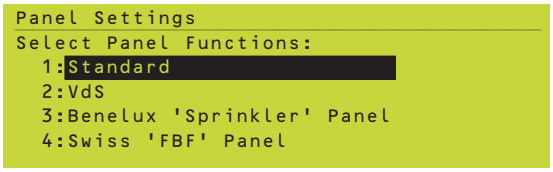
4 This defines the length of time, following the second period, that any observed missing modules are regarded as genuine faults without any second recovery being attempted.

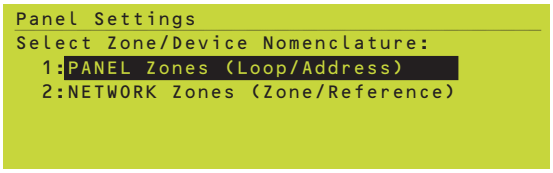
11.9 Panel Functions

This manual describes the panel functions when the Panel Functions option is set to Standard. Ensure that the panel setting is set to the required function.

Select the type of zone numbering to be used; either PANEL (local zones) or NETWORK (network zones).

The number of devices in a network zone is restricted to 99. Each device is given a reference number (range 1 to 99) within its zone. If devices have already been configured using local zones prior to Panel Functions being configured for network zones, the panel provides the option (see below) to automatically configure the reference numbers and re-configure zone numbers if they exceed the restriction.

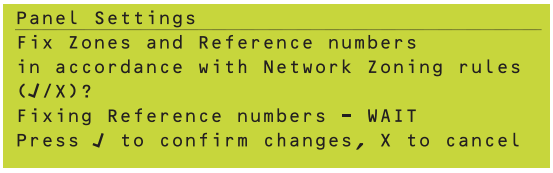




MAKE SELECTION

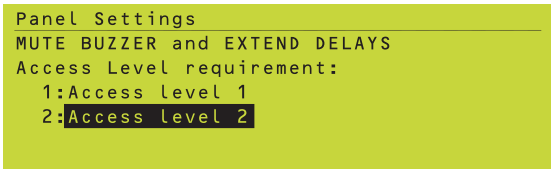
(AT CONFIRM PROMPT)

REGULATORY SETTING TAKES EFFECT



Set the zone numbering type BEFORE creating any Control Matrix rules (otherwise the rules must be manually checked to ensure that the correct zones are referenced. The panel does not perform any automatic conversion).

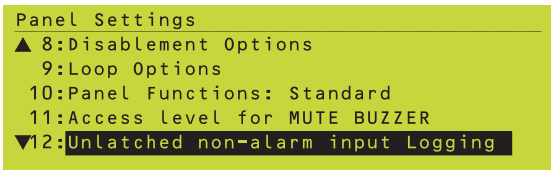
11.10 Access Level for MUTE BUZZER etc.

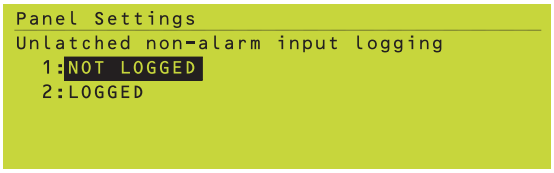


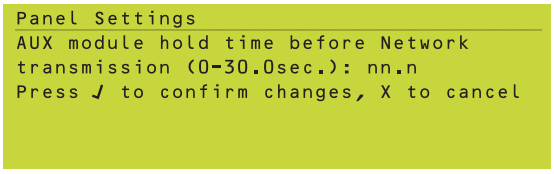
This option sets the access level required for the MUTE BUZZER and EXTEND DELAYS pushbuttons.

Select the required access level (either is acceptable to comply with EN54), then confirm the change.

11.11 Unlatched Non-alarm Input Logging







This setting determines whether changes of state of AUX inputs are recorded in the event log as separate events, and whether the AUX tab is displayed when the input is active.

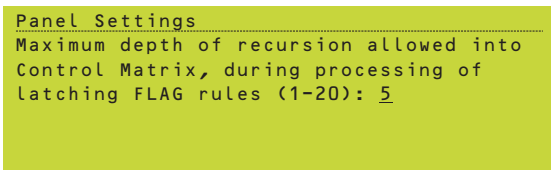
Stand-alone panel - set to NOT LOGGED because the inputs will be linked to other actions via the Control Matrix (e.g. RESET) which will themselves be logged, and logging trivial events such as Class Change will rapidly fill up the event log.

Network - if the Control Matrix rules on network panels use AUX input events on remote panels, those remote panels must have this option set to LOGGED for the AUX event message to be sent over the network.

Select the required option and confirm the change.

Note: 'Logged' overrides any individual AUX module 'Not Logged' setting (Section 5.1.4.8).

If the panel is on an ID²net network, the hold time option is displayed after 'Logged' is confirmed. **This should normally be left at 0.** If the system contains a large number of AUX modules that may be logged at once, there could be network delays if an alarm occurs. To prevent this, several AUX 'logs' can be reported in a single message by setting a time delay (should be as low as possible, consult NOTIFIER Technical Support). These values have a decimal point inserted automatically, i.e. to set 1 second enter '10', to set 1.5 seconds enter '15', to set 10 seconds (unlikely) enter 100.

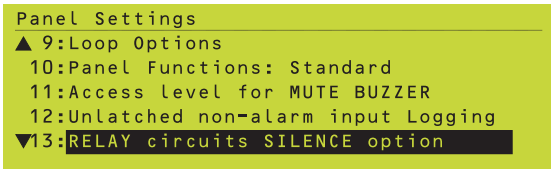


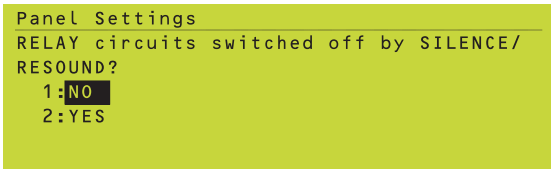
A second option is only available if a Control Matrix rule of the format 'flag *n* sets flag *n* [OR]' exists (see **Section 7.9**). Sets the number of flag-type rules processed in sequence by the panel before it starts processing another input, i.e. the panel is looking to see if a lock-out is configured. This should not normally need changing from its default (5).

(continued)

To determine the optimum setting for this parameter, count the highest possible number of **sequential** steps involving **flag** outputs, in this panel's control matrix, from the initial alarm input **until the lock-out flag** (flag 100 in the example given in **Section 7.9**) has been reached. There is no need to count steps which do not progress towards the lock-out flag. In the example the applicable steps are rule 3 followed by rule 13, thus the parameter need only be set to 2.

It is not harmful to *slightly* over-specify the parameter; leaving it at its default (5) normally gives satisfactory performance. If set too low, the panel may start processing another input before detecting the lock out. If set too high, the panel may perform unnecessary processing of Control Matrix flags, slightly delaying the reporting of subsequent alarms.



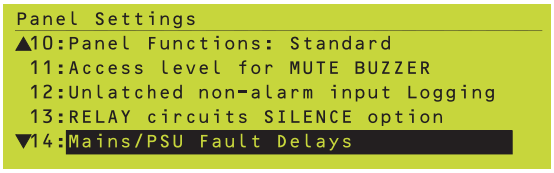


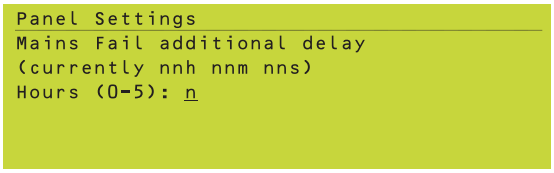
11.12 Relay Circuits SILENCE Option

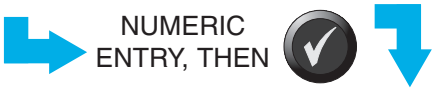
This setting determines whether the internal sounder/relay circuits 3 and 4, if configured in hardware as relay circuits, are switched off when the SILENCE/RESOUND pushbutton is operated to silence the sounders.

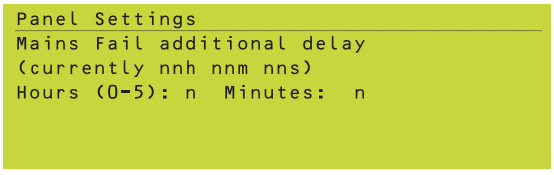
Note: For loop-based modules, refer to the Module SILENCE Options (**Section 5.1.4.8**).

Select the required option and confirm the change.

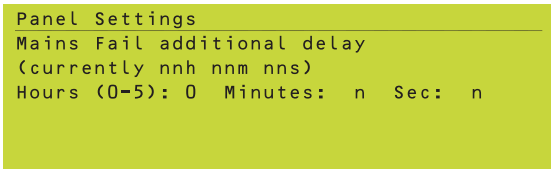








(IF TOTAL IS LESS THAN 5 MINUTES, ENTER THE NUMBER OF SECONDS)



11.13 Mains/PSU Fault Delays

This setting allows the time delay between mains failure and fault indication to be changed (would normally only be altered if the system suffers from frequent mains failures of more than a few seconds).

EN54-4: 5.4
Mains fail delay MUST NOT exceed 30 minutes.

1 Enter the number of hours (max. 5).

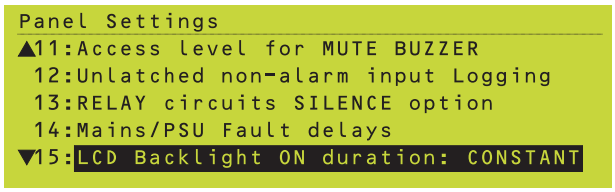
2 Enter the number of minutes.

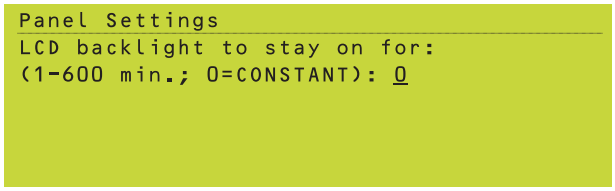
3 If applicable, enter the number of seconds.

Note: A second item 'PSU FAULT additional delay' may be displayed to allow a time delay for fault messages to be set, and thus suppress spurious messages. This item is not available unless the type of power supply fitted requires it.

4 Confirm the changes.

11.14 LCD Backlight 'On' Duration





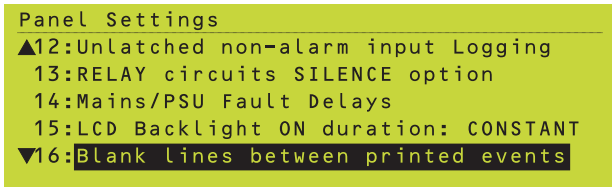
DURATION SETTING TAKES EFFECT

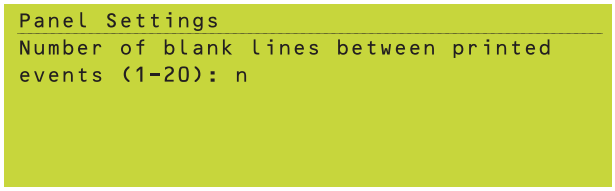
This setting determines the length of time that the backlight remains on (when not in alarm and with the mains supply present) after the last operation of a panel pushbutton (default is CONSTANT, i.e. the backlight is always on).

Note: In alarm, the backlight remains on constantly. If not in alarm and the mains fails, the backlight remains on for one minute only.

Set the required time within the given range and confirm the change.

11.15 Blank Lines Between Printed Events





LINES SETTING TAKES EFFECT

This setting determines how many blank lines there are between the end of one printout and the beginning of the next. The default of '5' enables the last printed line of a printout from the PRN-ID printer to be visible at the paper exit louvre.

Note: If several events are printed in quick succession, the spacing is automatically reduced to '1' to save paper.

Set the required number of lines within the given range and confirm the change.

11.16 Isolated RS232 Port Set-up

An optional Isolated RS232 port (on the Isolated RS232 Interface Board, if fitted) can be configured for:

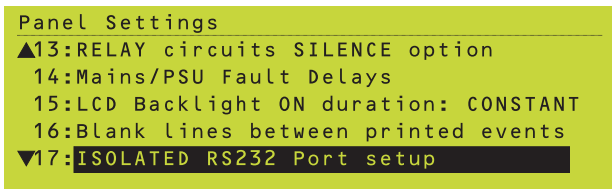
a. 80-column printer.

b. P40 printer.

c. A 3rd party link. This option is used to interface the panel with customised automatic equipment, e.g. a computer. Details of the protocol used are available from NOTIFIER.

Note: The single RS232 port provided on the ID3000 Base Board can be used to drive an 80-column printer or the Support Tool automatically. The integral PRN-ID printer is also supported automatically.

Note: If the Isolated RS232 Board is not fitted, the message 'WARNING: RS232 CARD NOT FITTED' is displayed for a few seconds. If you complete the 3rd party set-up after receiving this message, the set-up will be accepted but the panel will indicate a fault until the Board is fitted.



1 Select the required mode of operation. If P40 is selected, confirm the change.

IF P40 SELECTED:

(AT CONFIRM PROMPT)

AND RS232 SETTINGS TAKE EFFECT.
FOR THE OTHER SELECTIONS:

2 Select the required baud rate (P40 is fixed at 2400 baud so this step is not required for this printer). If 80-column is selected, confirm the change.

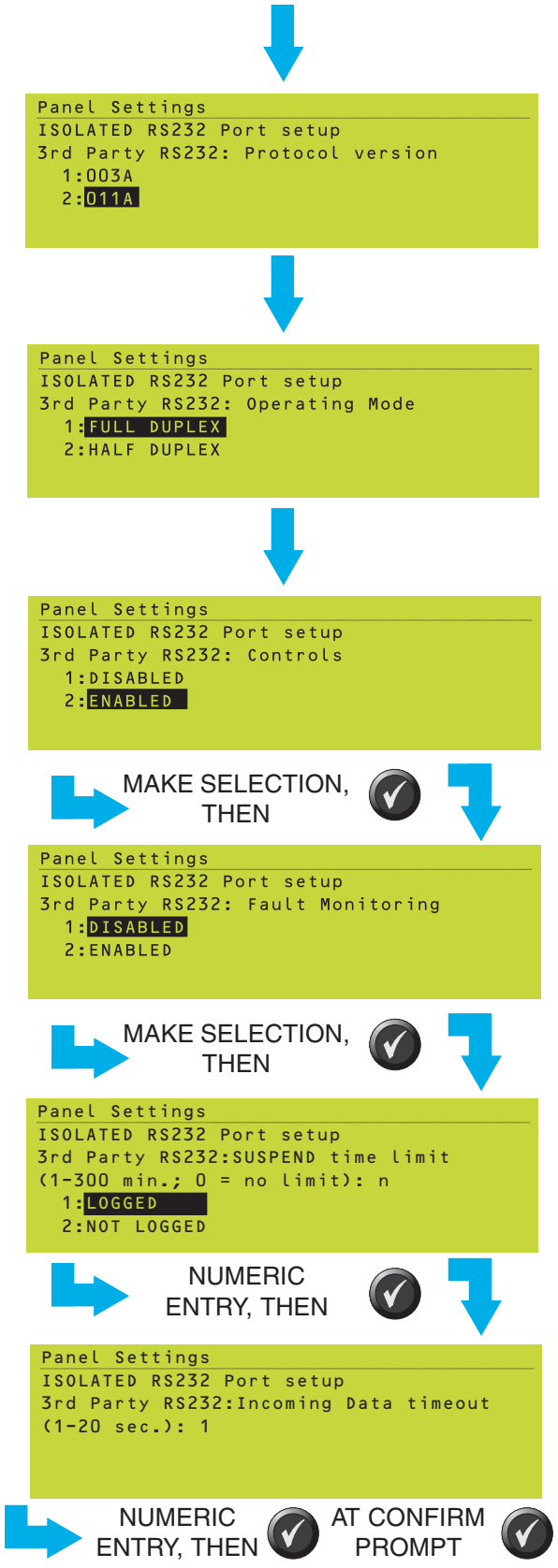
IF 80-COLUMN WAS SELECTED:

(AT CONFIRM PROMPT)

AND RS232 SETTINGS TAKE EFFECT.
FOR THE 3RD PARTY SELECTION ONLY:

TO NEXT PAGE

FROM PREVIOUS PAGE (3RD PARTY OPTION)



3 If 3rd Party is selected, set the protocol version to match your usage.

4 Set the operating mode to match your usage.

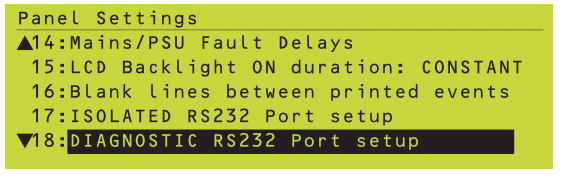
5 If 3rd Party is selected, select whether the panel will accept Mute Buzzer, Evacuate, Silence Sounders, Reset, Test and Disablement signals from the external equipment (Controls ENABLED) or not (Controls DISABLED).

EN54
Do not select ENABLED - some 3rd party signals may contravene EN54

6 Select whether the 3rd party data link is continuously-monitored (Fault Monitoring ENABLED - a fault is reported by the panel if the link fails) or not (Fault Monitoring DISABLED).

7 Select whether a request by the external equipment to suspend communications is subject to a time limit (enter a numeric value in the given range) or not (enter 0). If a time limit is entered and the communications are not restored within that limit, then a fault is reported by the panel. An option to prevent logging of Suspend/Resume events is provided (to reduce ID²net workload).

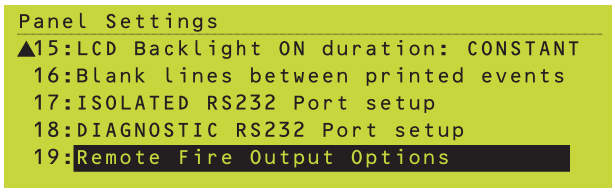
8 If the external equipment has an unusually-slow data delivery rate, it may be necessary to adjust the incoming data timeout (otherwise leave at its 1 second default).

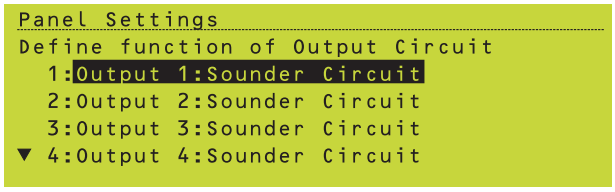


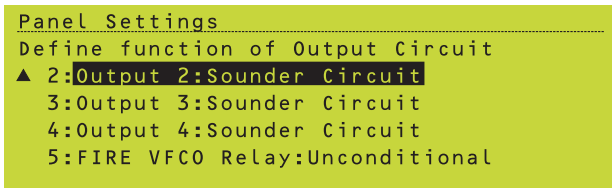
11.17 Diagnostic RS232 Port Set-up

This option is for manufacturer's use only (it requests access passcode 3B).

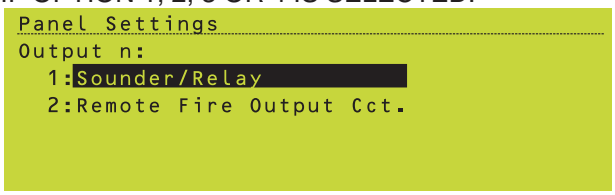
11.18 Remote Fire Output Options



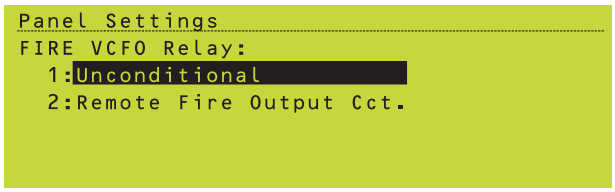


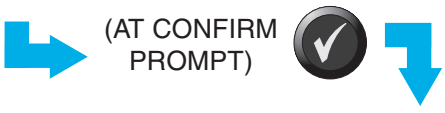


IF OPTION 1, 2, 3 OR 4 IS SELECTED:

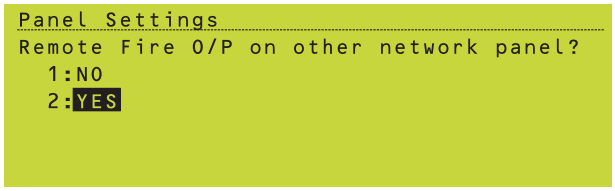


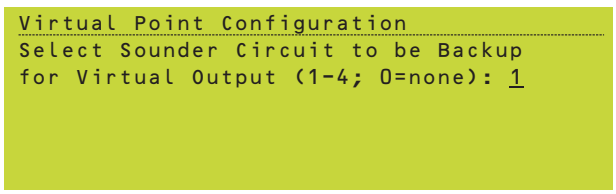
IF OPTION 5 IS SELECTED:





FIRE OUTPUT SETTINGS TAKE EFFECT





These options allow each of the four internal sounder/relay circuits and the Fire VFCO Relay to be configured in software as Remote Fire Outputs.

1 Select the circuit or relay to be configured.

2 Select the required option for the circuit or relay. If any of Outputs 1 to 4 are set to Sounder/Relay, then the Sounder or Relay function is selected by a hardware link as described in the Installation and Commissioning Manual (997-274-XXX).

Note: After a circuit has been configured as a Remote Fire Output it is no longer subject to any configured sounder delays. The Day Mode function (**Section 11.19**) sets delays for Remote Fire Outputs.

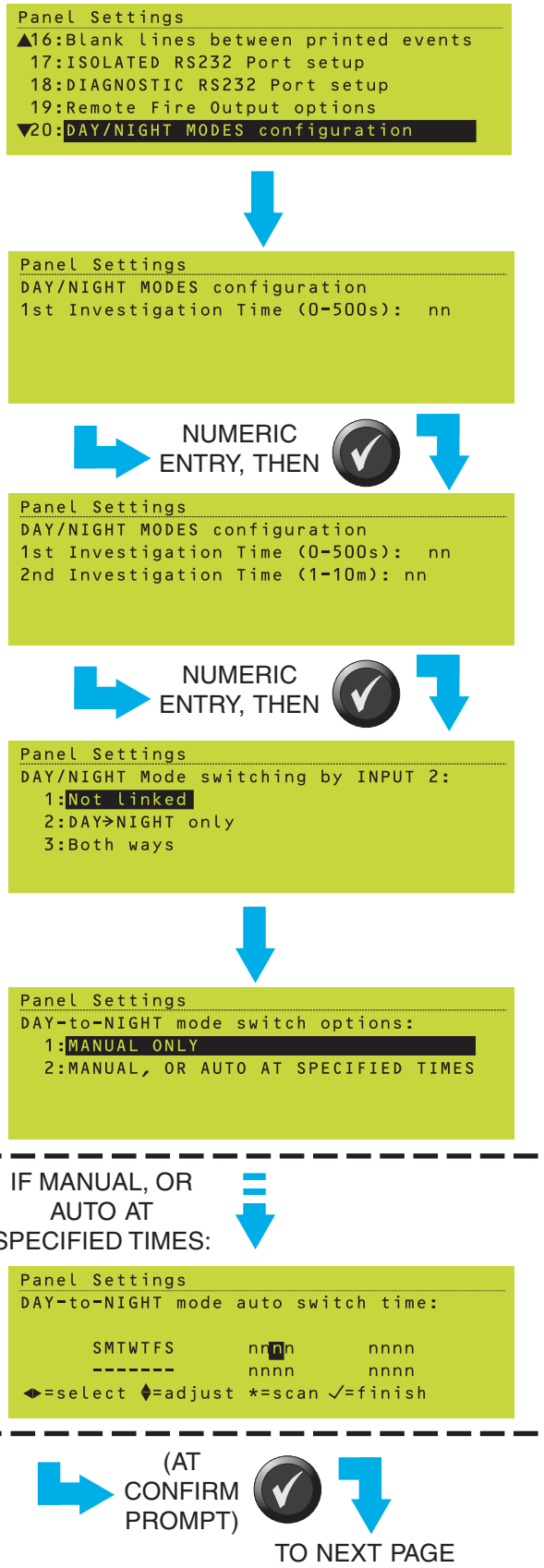
Network systems only - if none of the outputs are set to Remote Fire Outputs, select YES if the Remote Fire Output is on a remote panel. This then allows you to configure Day/Night Modes on the local panel.

Systems on which at least one Virtual Output Point has been configured and assigned to a zone - press from the menu of step 1 above to display the Virtual Output Backup Sounder option (see **Section 15.3**).

11.19 Day/Night Modes Configuration

This menu option is only available if a Fire Output has been configured (see **Section 11.18**). The settings allow configuration of the Day Mode two-stage investigation time, which delays operation of the fire output(s) (does **not** delay sounders, use the Control Matrix to do this). The first-stage time is configured in seconds and is initiated by an alarm while Day Mode is active (set by the DAY MODE pushbutton; Day Mode can also be configured to occur automatically by a time-of-day program). The second-stage time is configured in minutes and is initiated when the EXTEND DELAY pushbutton is pressed while the first-stage time is active; it replaces (is NOT added to) the first-stage time.

Set the Day Mode delays as follows:



1 Enter the required first-stage investigation time.

2 Enter the required second-stage investigation time.

3 Select whether a change of state at Input 2 of the panel results in a change from Day Mode to Night Mode (option 2), or a Day/Night Mode change in either direction (option 3) or has no effect (option 1).

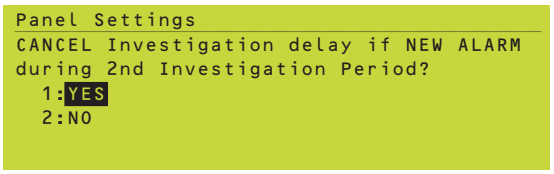
4 Select whether Day Mode can only be set active by the DAY MODE pushbutton, or whether a time-of-day program will set Day Mode at specified times of day.

EN54-2: 9.1.2 Disablement and re-enablement MUST be a manual operation at access level 2.

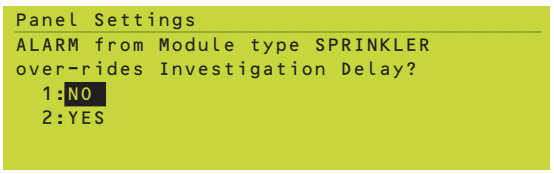
5 If a time-of-day program is to be used, set the required times in the manner described in **Section 9**. In this case there are only two time fields for each day set, not a pair of start and end times. Also, there is no 'level' adjustment and no 'Manual Override'.

6 Confirm the changes.

FROM PREVIOUS PAGE



7 Select the required effect of a new alarm.



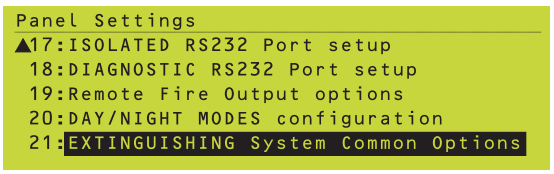
8 Select whether type SPRINKLER acts in the same way as type MCP.

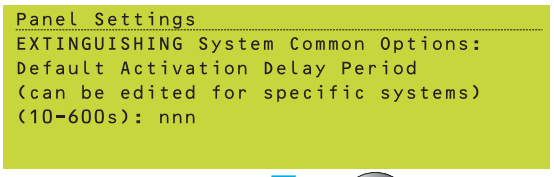
DAY MODE SETTINGS TAKE EFFECT

11.20 Extinguishing System

This option sets various Extinguishing System parameters.

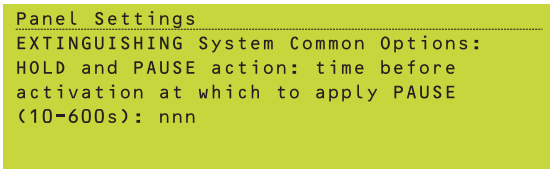
CAUTION:
This product is not compliant with EN 12094-1.
Fire extinguishing installations in Europe are required to be certified as compliant to this standard.





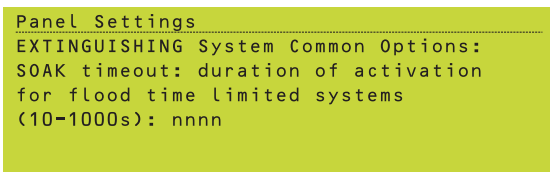
NUMERIC ENTRY

1 Enter the required default activation time delay period. This period can be edited in the Control Matrix, however the default is used to differentiate between the AHJ and NYC HOLD modes (the former uses the default configured here, the latter uses a time longer than the default).



NUMERIC ENTRY

2 Enter the required number of seconds before the release is activated at which the PAUSE occurs in the ULI and IRI HOLD modes.

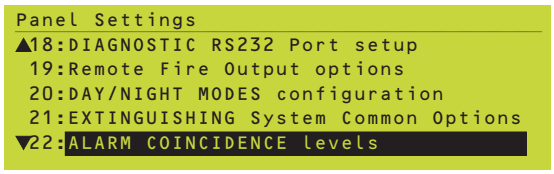


NUMERIC ENTRY

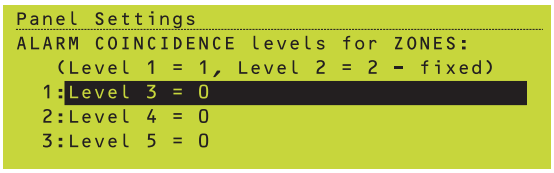
3 Enter the flood duration time. This time is used if the 'Turn off Release after SOAK period' option is selected on an Alarm Control Matrix entry.

EXTINGUISHING SYSTEM SETTINGS TAKE EFFECT

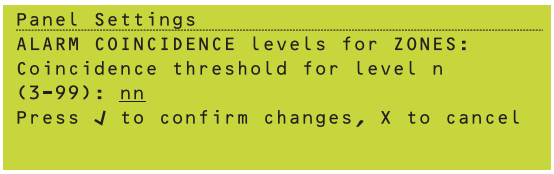
11.21 Alarm Co-incidence



This menu may be Panel Settings option 21 or 22, depending upon whether the Day/Night Modes configuration option is present.

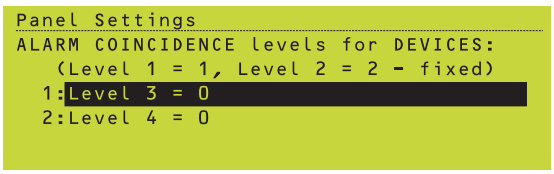


Select the Zones level to be edited (where 'level' indicates the position on the Control Matrix 'Multiple Zone Coincidence Rule' menu).

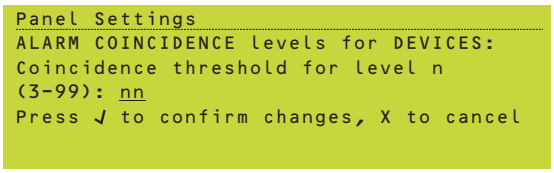


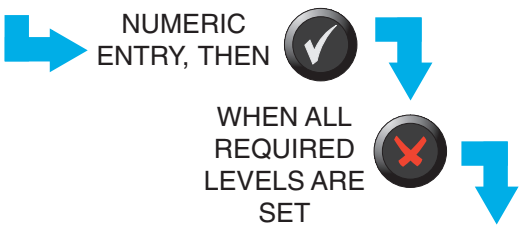
TIP! It is recommended that the co-incidence number increases with the level number.

For the current level, enter the number of zones that must be in alarm at the Control Matrix input. Confirm changes, then repeat this procedure for each level you want to configure; press ✕ to exit the Zones level setting option.



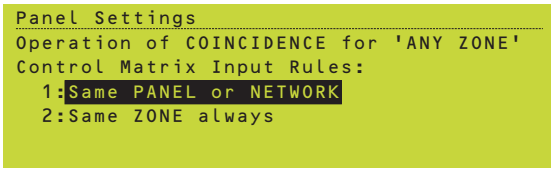
Select the Devices level to be edited (where 'level' indicates the position on the Control Matrix 'Select Coincidence Rule' menu).





TIP! It is recommended that the co-incidence number increases with the level number.

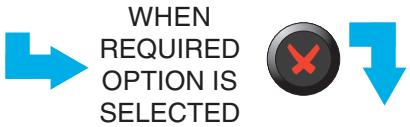
For the current level, enter the number of devices that must be in alarm at the Control Matrix input. Confirm changes, then if required repeat this procedure for the remaining level; press ✕ to exit the Devices level setting option.



Select the scope of Device Coincidence when the Control Matrix input zone selection is ANY ZONE:

a. The devices must be on the same panel, or (networked panels) on any panel of the network. This is the default.

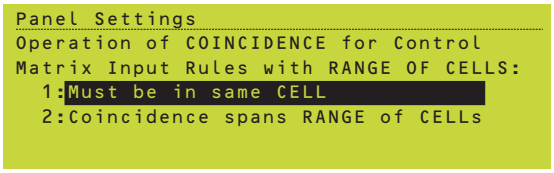
b. The devices must be in the same zone.



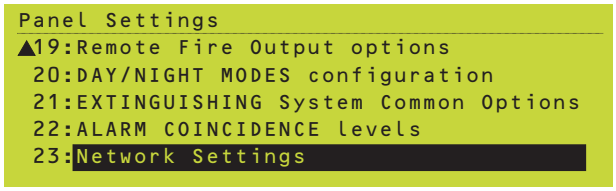
Select the scope of Device Coincidence when the Control Matrix input zone selection is a range of cells:

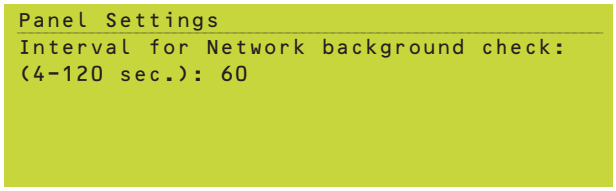
a. Two or more devices in alarm in the same cell. This is the default.

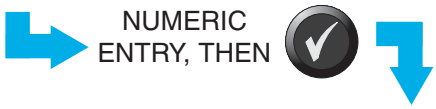
b. Two or more devices in alarm within the selected range of cells.

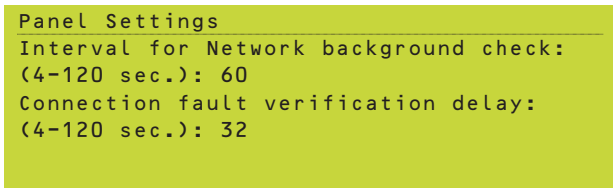


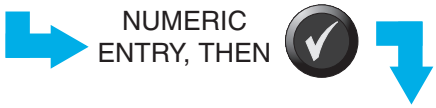
11.22 Network Settings

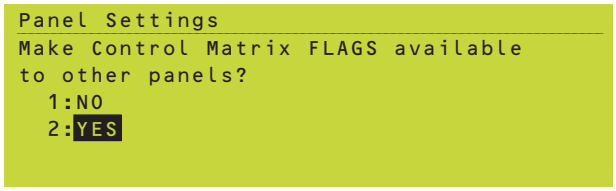












This option sets various parameters associated with the ID²net (the first two are also provided at the end of an ID²net setup procedure described in **Appendix 3**):

1 The interval for network background check is the time between 'I exist' pings being sent by a specific panel onto the ID²net. The ping includes the time period so that other panels know how often to expect the ping, and thus when to report a fault (a suitable delay is added). The interval time should not require altering but could be made longer if there is a lot of network traffic.

2 The connection fault verification delay is the time between a 'link broken' message being received from the ID²net NGM board and the panel reporting the fault. The delay should not require altering but could be changed if there are network setup problems.

3 In a Control Matrix input statement, transfer flags are not normally available from remote panels. To share transfer flags between panels, select YES. **This may adversely load the ID²net bandwidth** and is not required for many systems, thus the default setting is NO.

11.23 Thermal Alarm Verification Time

If a Control Matrix Rule:

INPUT: Alarm
OUTPUT: Remote fire output *n*

is used in conjunction with another Rule:

INPUT: Thermal alarm
OUTPUT: Remote fire output *n*

then the remote fire output is operated after the configured Day Mode delay unless the alarm is thermal, in which case the remote fire output is operated immediately.

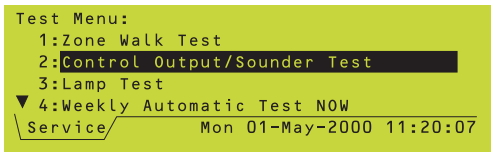
However the thermal alarm remains subject to a verification delay. The verification time panel setting allows this delay to be adjusted from its default (20 seconds) to give the desired activation timing for the above Control Matrix requirement.

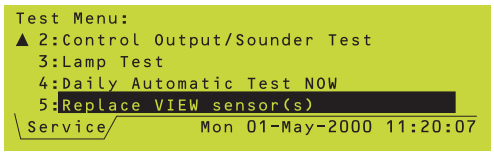
12 User Menu at Level 3 Access

Note: Menu options that can be accessed at level 2 are described in the ID3000 Series Operating Manual 997-505-XXX.

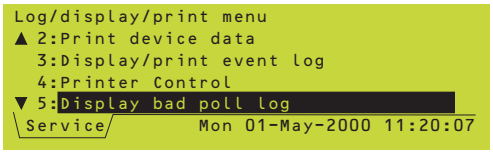
Some of the menus normally available at access level 2 include options that can only be accessed at a higher access level. This section describes these options.

Access 3





Access 3A



12.1 Control Output Tests

These tests let you select an individual Control Output and activate it without putting the whole system into alarm or walk test mode. The following can be tested:

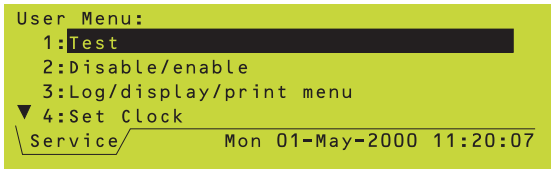
a. CMX modules.

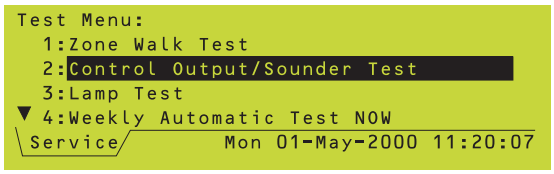
b. Local sounder circuits (1, 2, and also 3 and 4 if so configured in hardware).

c. Local relay circuits (3 and 4, if so configured in hardware).

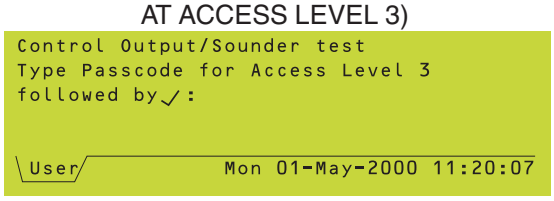
d. Loop sounders and boosters.

From the Test Menu, select the Control Output/ Sounder Test option. If you are not already at access level 3 (i.e. the User tab is displayed instead of the Service tab), you are prompted to enter the access 3 passcode.



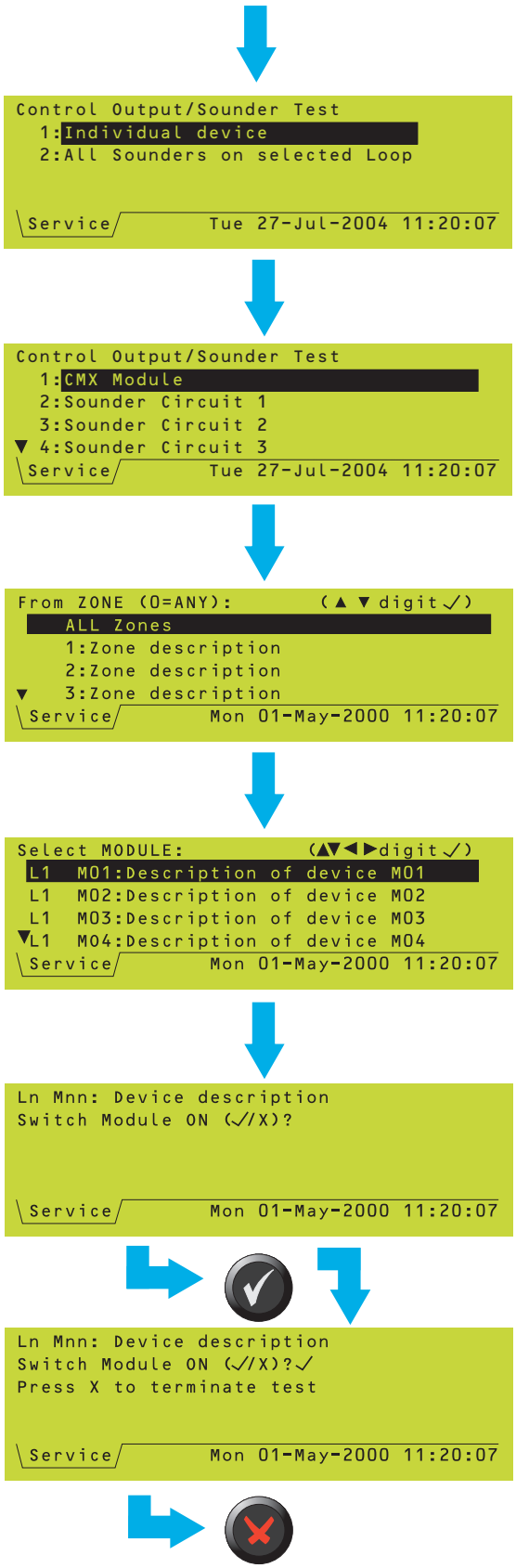


(ONLY DISPLAYED IF YOU ARE NOT ALREADY AT ACCESS LEVEL 3)



SEE NEXT PAGE

FROM PREVIOUS PAGE



12.1.1 CMX Modules

1 Select Individual device.

2 Select CMX module.

3 Select the zone to which the module is allocated to view a list of modules in the zone (or ALL Zones to view details of all modules).

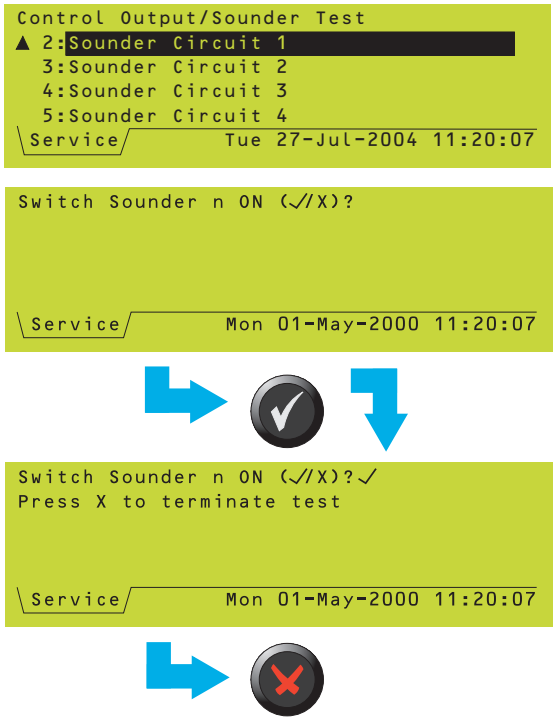
4 A list of modules is displayed. Select the required module. Either move the highlight to the required device or use the numeric keys to enter the loop number and then the device number (the device nearest in number to that entered is then highlighted).

Note: While a device is highlighted, press ▶ to display its type, zone and value (continuously updated). Press ◀ to re-display the device description.

5 The selected circuit operates.

6 The selected circuit stops operating.

12.1.2 Local Sounder Circuits



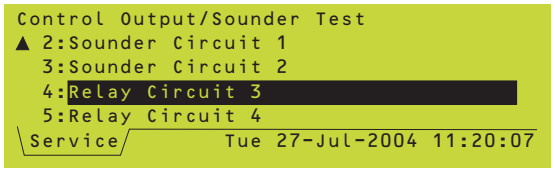
1 Select the required sounder circuit. Circuits 3 and 4 are only available if they are configured as sounders in hardware.

2 The selected circuit operates.

3 The selected circuit stops operating.

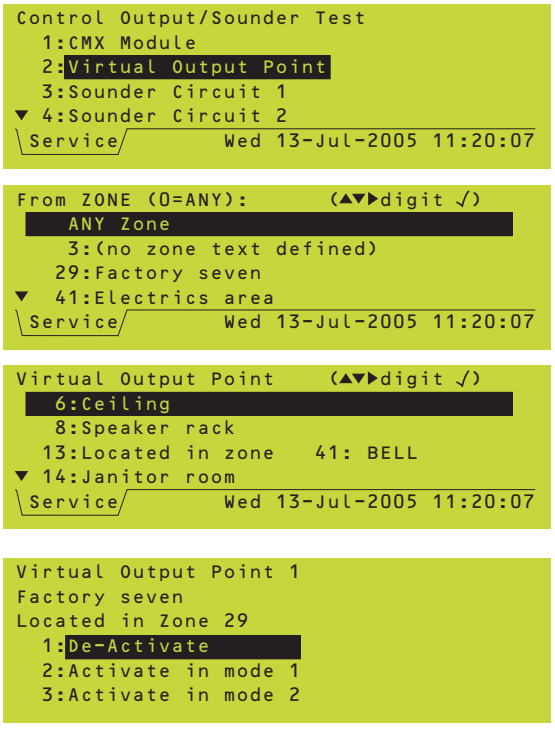
Note: Local sounder circuits are also silenced if the SILENCE/RESOUND pushbutton is operated.

12.1.3 Relay Circuits



If circuits 3 and/or 4 are configured in hardware as relay circuits, the display varies as shown. The method of starting and stopping the test is the same as described for local sounder circuits. The SILENCE/RESOUND pushbutton has no effect.

12.1.4 Virtual Output Points



An additional option to test Virtual Output points is available provided that the points are configured in a zone and that the fire panel is connected to third party equipment in Voice Alarm System mode.

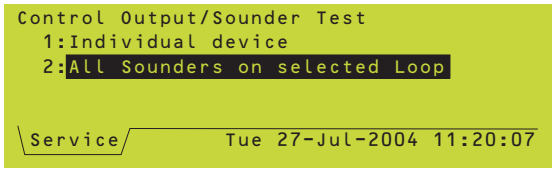
1 Select the required zone and point.

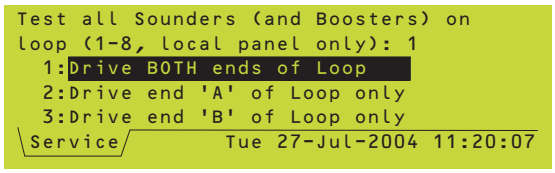
Note: The Virtual Output Point text is displayed beside each point; press the ▶ button to display the zone number (if there is no text configured the zone number is always displayed).

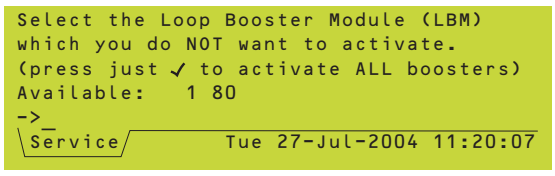
2 Activate the Virtual Output Point in the required mode.

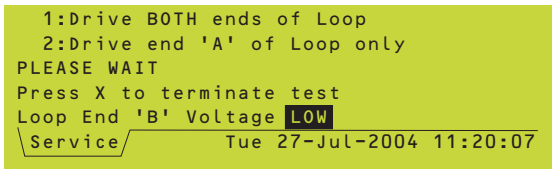
3 When the test is complete, de-activate the Virtual Output Point.

12.1.5 Loop Sounders and Boosters







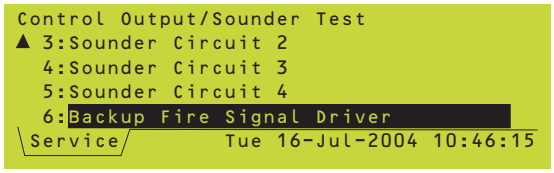


Enter the loop number and then select the required loop drive option. If the loop has Loop Boosters installed, a list is displayed from which individual Boosters can be set to NOT activate (enter the Booster's device number).

Press ✓. The sounders and Boosters on the selected loop then operate until ✗ is pressed, or until the test times out (after 4 hours), or until an alarm, pre-alarm or fault occurs elsewhere on the system.

Note: If "Drive end 'A' only" is chosen, the end 'B' voltage is displayed as either NORMAL or LOW - if the latter there is the risk of insufficient power to drive sounders if a fault occurs (or a double-fault if one a Booster is disabled). There are no equivalent messages for the 'BOTH' or 'end B' options.

12.1.6 Backup Fire Signal Driver Test



This test operates any configured remote fire outputs.

This test is only applicable if the following are all true:

a. The panel is connected to an ID²net by NGM part number 124-366 (i.e. not the previous NGM, 124-312).

b. The panel's processor board has the correct Complex Programmable Logic Device (CPLD) fitted. The test displays the message 'WARNING: Hardware needs updating (CPLD)' if an incompatible processor board is used.

c. The panel software version is at least 4.38.

The backup fire signal is generated in alarm by a secondary processor on the NGM if the primary processor on the NGM fails. This test verifies correct operation of this signal. The following occurs when the test is run:

a. General FIRE LEDs flash.

b. General FAULT LEDs flash.

c. Remote fire outputs operate.

d. The panel's buzzer sounds.

To stop the test, operate the panel's RESET switch.

TO END THE TEST, PRESS:

12.2 Replace VIEW Sensors

Each Very Intelligent Early Warning (VIEW) sensor has to be calibrated on first operation with the panel. This calibration is normally carried out automatically for each sensor at one of the following times:

a. Approximately 90 seconds after the panel is powered on.

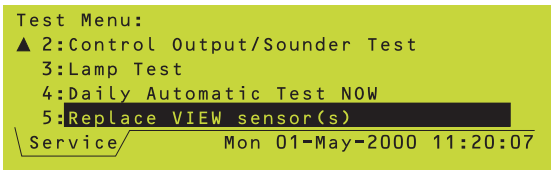
b. 60 seconds after the sensor is installed on a panel which is already operating normally (either by downloading the configuration file or by using the on-line menus).

During this initial period (which is required to allow the VIEW sensor to stabilise) the sensor must not be exposed to smoke or other abnormal conditions, otherwise the panel may report a sensor fault.

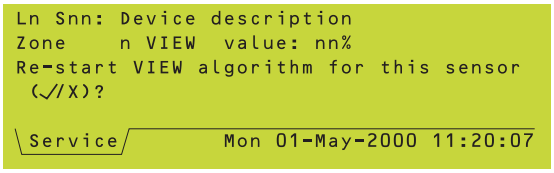
If a VIEW sensor is removed from an existing operational loop, or communication with the panel is broken for a minimum of 30 seconds, recalibration will take place automatically.

Note: If a VIEW sensor is removed and cleaned, or replaced with a new one, wait at least 30 seconds after removal before replacing it.

VIEW sensors can also be calibrated manually, either individually or an entire loop or panel at once.



SELECT REQUIRED DEVICE IN THE MANNER DESCRIBED FOR CMX MODULES (SECTION 12.1.3)

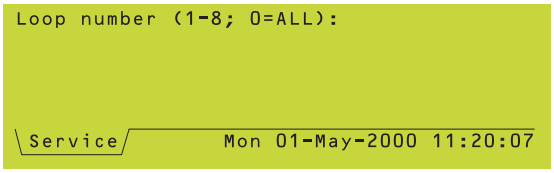


12.2.1 Individual VIEW Sensor

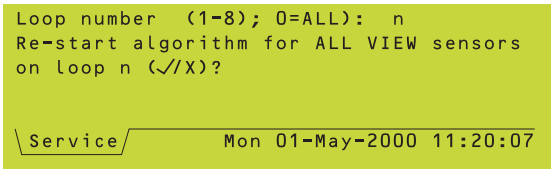
Select the VIEW sensor and then press ✓ (remember that the VIEW sensor will be inoperative for the next 60 seconds after this step). The action is logged and if a printer is installed the message 'sensor replaced' is printed out.

12.2.2 Loop of VIEW Sensors

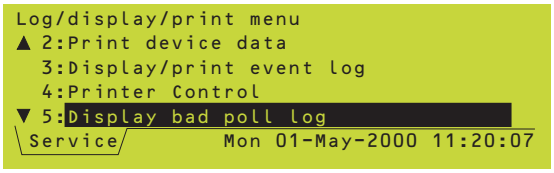
Use the numeric keys to select a loop (or 0 for ALL loops on the panel), then press ✓. Sensors will be inoperative for the next 60 seconds. The action is logged in memory and printed at the printer, if fitted.



(USE NUMERIC KEYS TO SELECT LOOP)

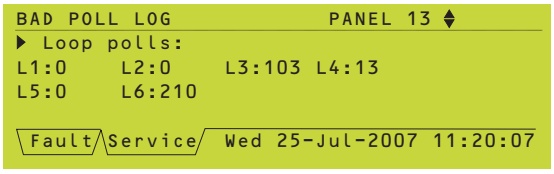


12.3 Bad Poll Log

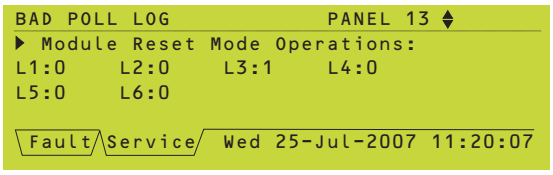


Access level 3A.

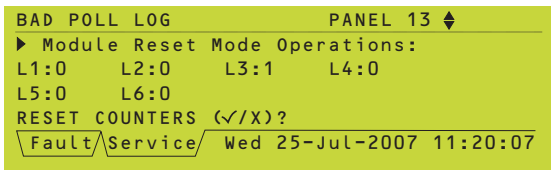
Note: On ID²net network (not Master/Slave) a panel selection menu is first displayed. If the selected panel is off-line, a COMMS LOSS message is displayed.



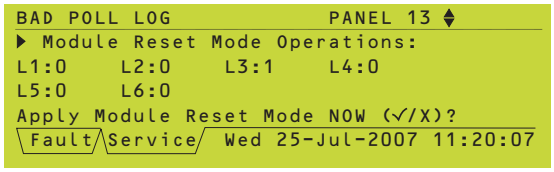
The first display identifies the number of bad polls for each loop. The arrows allow selection of bad poll logs for other panels. If there are no faults, all indications will show '0'.



Press ▶ to display the number of Module Reset Mode (**Section 11.8**) operations per loop since the last time the counters were reset (or the panel was powered on). It does not show the number of times in the current day. If a reset operation is currently in progress, the counter is not incremented until the operation is complete, nor is it incremented if the operation fails (i.e. a missing module remains missing).

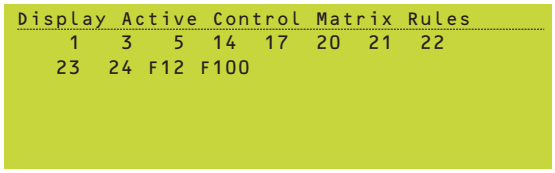


Press ✓ to display the RESET COUNTERS prompt. This option clears the Loop Polls and Module Reset Mode counts.



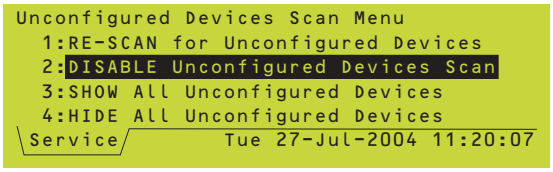
If the Module Reset Mode Operations display is present and NO is chosen in response to the RESET COUNTERS option, **and** if modules remain missing, the option to perform a manual Module Reset Mode operation is provided. This operates only on the selected panel, and on **all** loops of that panel that have missing modules. It is not included in the daily maximum configured in the panel settings, and can be selected even if Module Reset Mode is disabled in these settings.

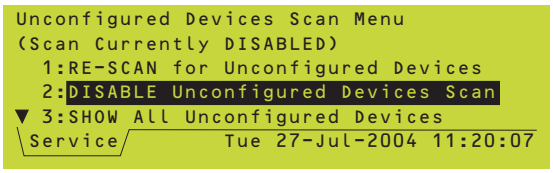
12.4 Display Active Control Matrix Rules



Access level 3. This display shows the rule number(s) (see **Section 7.5.1**) of all currently-active Control Matrix rules. If no rules are active, '(none)' is displayed. This display also shows active transfer flags (F12 and F100 in the example).

12.5 Unconfigured Devices Scan Menu





Access level 3. The Unconfigured Devices Scan menu option is displayed (its option number depends upon the Log/Display/Print menu options, e.g. printer, that are configured).

The menu controls the display (on the AUX tab) of unconfigured loop devices found by the panel during polling. It has the following options:

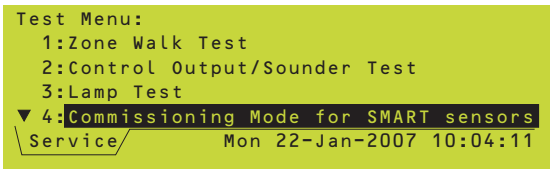
a. RE-SCAN, which causes the panel to clear all indications of unconfigured devices, scan the loops and then store the list of any devices still unconfigured. This allows devices that were present on the loop but have since been removed to be identified. The process takes up to about five minutes. Use RE-SCAN to re-enable scanning if it is currently disabled.

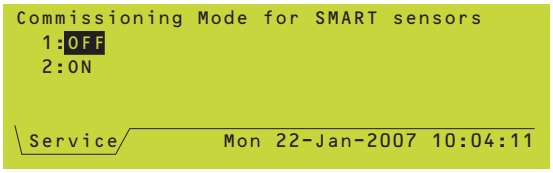
b. DISABLE clears the indicated devices from the AUX tab and prevents the panel from detecting further unconfigured devices.

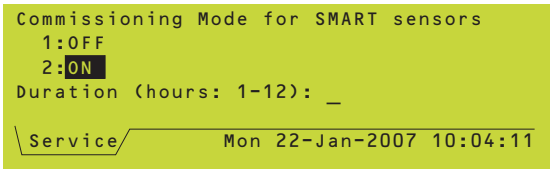
c. SHOW and HIDE, which respectively display or hide the list of unconfigured devices from users at access levels 1 and 2. If there are no devices left to show as a result of HIDE, the AUX tab disappears (assuming there are no AUX inputs active).

Note: If scanning is currently disabled, this is indicated on line 2).

12.6 Commissioning Mode for SMART Sensors



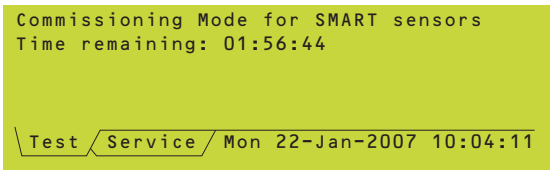




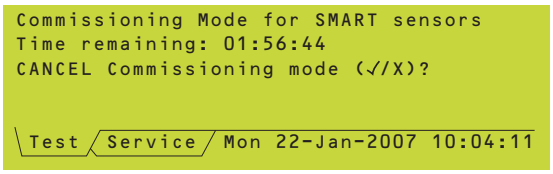
SMART sensors incorporate an internal delay (approx 10 minutes) when they are set to sensitivity level L4 or L5. The latter is the default, thus to enable these sensors to be commissioned a test mode can be invoked which sets them to L3 for a defined time. This option is only available if SMART sensors are configured on the loops. It is accessed at level 3 from the Test menu:

1 Select Commissioning Mode ON.

2 Enter the required time in hours.



The Test tab then displays the time remaining until the end of Commissioning Mode, at which all SMART sensors revert to their programmed Alarm sensitivity level. To end Commissioning Mode before this time, display the Test tab and press  and then confirm the cancellation.



13 Sensitivity & Alarm Delay Recommendations

This section provides guidance in carrying out the procedures described in **Sections 5.1.2.4**, **5.1.2.5** and **5.1.4.5**. It should be consulted in particular when modules are to have their sensitivities and delays adjusted, since the parameters vary according to the application.

13.1 Analogue Sensors Sensitivity

The sensitivity parameters of analogue sensors, except VIEW and MULTI, are factory-set so that, provided the internal calibration of each sensor is correct, the system complies with appropriate standards (in particular EN54 Part 7). They will not normally need adjustment except in special circumstances. The factory settings (common to all types of analogue sensor) are:

Fire Alarm: L5	(above)
Pre-Alarm: L5	(above)

} See note below

Note: If the percentage values listed move in the direction indicated in brackets a Fire/ Pre-alarm condition will exist.

The allowable adjustment ranges are L1 to L9 for Fire Alarm and for Pre-alarm (these ranges do not overlap). MULTI sensors have a different range as given in **Section 5.1.3.2**. SMART sensors are described in **Section 5.1.3.3**.

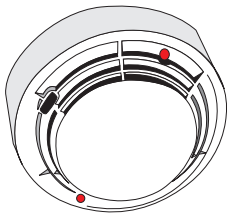
13.2 Analogue Device Verification

To minimise the occurrence of unwanted alarm or fault indications, a verification delay is recommended between signals from the device and the fire/pre-alarm/fault condition.

The device alarm and fault verification delays are factory set as follows (not applicable to VIEW):

Device Type	Alarm Verification Delays	
	Default	Maximum
ION	3	5
OPTICAL	20	30
HEAT	3	5
MULTI & SMART	3	5
Module types:		
MCP, CDI, ZMX	0	2
MONITOR	1	100

Device Type	Pre-Alarm/Fault Verification Delays	
	Default	Maximum
All Sensors	20	100
MONITOR	20	100
SPRINKLER monitor	40	100



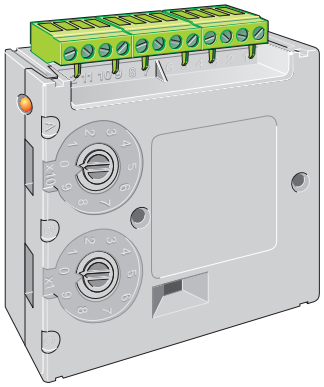
CAUTION!
If the percentage values vary in the direction indicated in brackets a FIRE/PRE-ALARM condition exists.

A lower threshold setting on the FIRE or PRE-ALARM makes the sensor more sensitive, whereas a higher threshold makes it less so.

Note: 'Device Missing' faults are reported immediately, but analogue level faults are delayed as above.

You are advised to retain a delay on Fault and Pre-Alarm events (note that the same parameter is common to both), to allow for sensor 'settling' time, especially after system power-up. A Fire alarm delay should not normally be set unless specific site conditions make this necessary.

If a sensor is walk-tested the corresponding delay is ignored.



If Short-Circuit monitoring is ON, a Fire delay of 1 second is recommended.

13.3 Module Delays

The module alarm and fault delays are factory set as follows:

a. Fire Alarm (where applicable): 0 seconds (immediate)

b. Short-Circuit and Open-Circuit: 20 seconds

If a module is walk-tested the corresponding delay is ignored.

You are advised to retain a delay on the Short Circuit and Open Circuit Fault events (note that the same parameter is common to both) to allow for module 'settling' time, especially after system power-up. The following rules apply to Short-Circuit monitoring:

a. If Short-Circuit monitoring is OFF, a Fire Alarm delay should not normally be set unless the equipment function makes this necessary, and **not** for a manual call point.

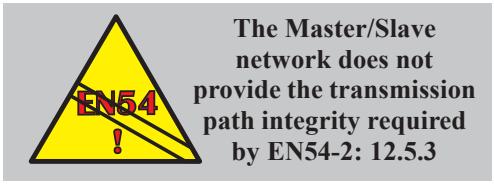
b. If Short-Circuit monitoring is ON, a Fire delay of 1 second is recommended to stop the transition of a short circuit through Fire being reported as a Fire alarm.

14 Master/Slave Network

This section describes how to configure the panel for use with a Master/Slave network only. It does **not** describe the ID²net peer-to-peer network - refer to the **Appendix 3** for information about this alternative network.

A panel cannot simultaneously be attached to both types of network. However, if it is on the ID²net network, the Master/Slave network can still be used for repeaters as described in the ID²net manual.

14.1 Introduction



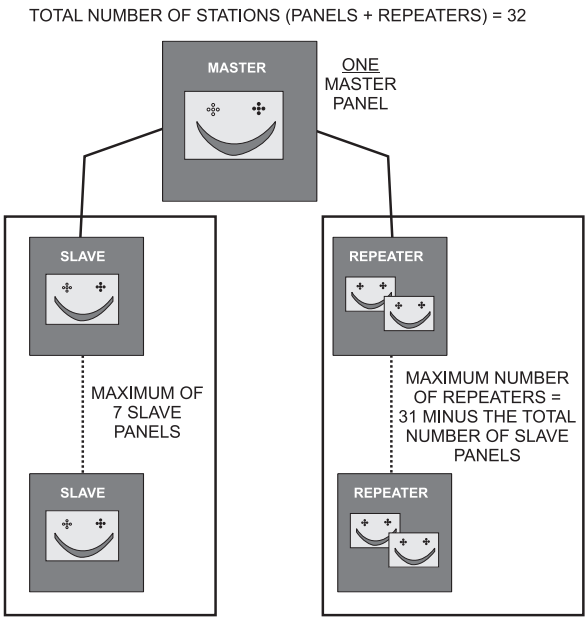
The ID3000 Series control panels can work either as stand-alone units or networked with other control panels and repeaters. When networked, each control panel supervises its own detection system of up to eight loops of sensors and modules. It then functions independently of all other panels.

An RS485 communication system enables events at any panel to be relayed to all other panels and repeaters, causing appropriate annunciations and/or actions at those panels or repeaters.

14.1.1 Number of Stations on Network

The network consists of one Master panel, a number of Slave panels and (optional) a number of Repeaters.

The term 'Station' is used to refer to the Master panel, a Slave panel and a Repeater. The network has a maximum of 32 stations. Restrictions on the number of Slave panels and Repeaters are detailed below.



14.1.1.1 Panels

Each Network must include **one** (and only one) Master panel. This panel has overall control of the network. It receives all networked messages from the Slave panels and its configuration determines how these are acted upon and redistributed.

The network may also include up to **seven** Slave panels. These panels have independent control of their own local loops, and report any local events to the Master panel.

14.1.1.2 Repeaters

The network may include up to 31 Repeaters, but since the total number of stations cannot exceed 32 there will probably be fewer repeaters than this. For example, if there is a Master and three Slaves, then up to 28 Repeaters can be installed; if there is a Master and six Slaves, then up to 25 Repeaters can be installed.

If the network has just one panel and a number of repeaters, the panel's station type is given as 'Standard' instead of 'Master'.

The Repeater can be configured to reproduce either:

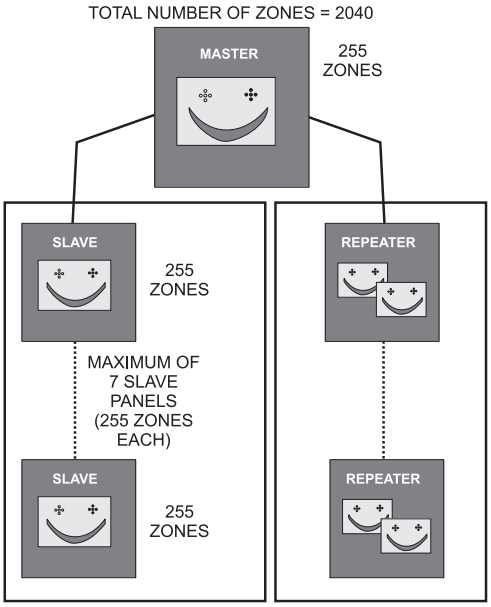
a. The display and pushbutton control functions of the Master panel.

b. The display and pushbutton controls of one of the Slave panels.

See the Repeater manual for a description of how to configure the Repeater.

Repeaters can be associated with panels in any order. For example, two or more Repeaters can be associated with the same Slave panel. These Repeaters need not have consecutive numbers (see **Section 14.2.1**).

14.1.2 Number of Zones on Network



There are two types of zone available (see **Section 11.9** for how to select the type):

a. Local zones.

b. Network zones.

Local Zones

The maximum number of local zones on a Master/Slave network with eight panels is 2040, made up of 255 (zones per panel) x 8 (number of panels). The zones are numbered in the range 1 to 255 for each panel. If zone indicator lamps are fitted, they only indicate the status of that panel's zones.

Network Zones - Master/Slave Network

The maximum number of zones is 2040 as for local zones, but they are numbered in the range 1 to 8192 with each number unique on the network (a Network Zone Duplication Error fault message is displayed if a number is used more than once. Each panel has an internal software table which maps the network zone number to the panel internal zone number (1 to 255).

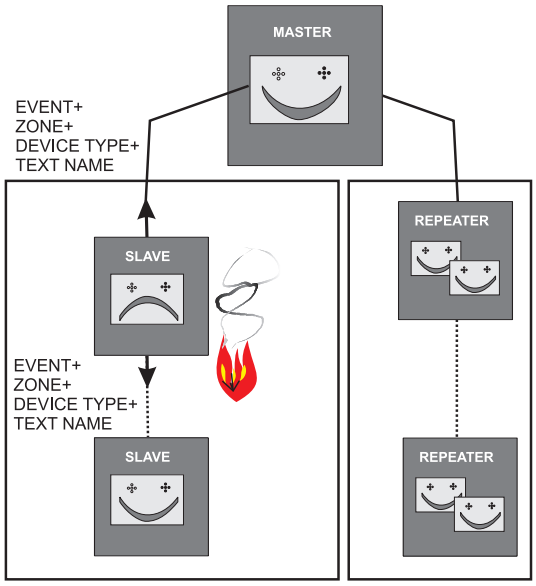
On the Master/Slave network, remote network zones cannot be selected from a menu. When configuring the Control Matrix, the choice 'Zones on this panel only/Zones on all network panels' is given. If the latter option is chosen, the appropriate network zone number must be entered via the panel pushbuttons. To display the local zone number corresponding to a network zone number that is owned by the current panel, press the pushbutton (at access level 2) - second operation re-displays the network zone number.

If zone indicator lamps are fitted, they indicate the status of the network zone numbers up to a maximum of 256; higher numbers cannot be indicated.

Network Zones - ID²net (refer to Appendix 3 for details of ID²net)

The maximum number of zones is 8160 (255 x 32 panels max.) numbered in the range 1 to 8192. Remote network zones can be selected directly from menus. Other information is as described for network zones on the Master/Slave network.

14.1.3 Information Distribution via Network



The protocol for information transfer via the Network is mostly event-driven. When any significant change-of-state occurs in a panel, that panel sends a message to all other panels and repeaters, with a full description of the event. If the event involves a sensor or module, full information about that device, including its zone, device type, and text name (if any), are included in the message. Accordingly, it is not necessary for panels to store configuration details for every device on every other panel, since that information is made available to them if the need arises.

In addition to event-driven communications, time/status checks are broadcast around the Network at regular intervals to assure the correct functioning of all stations and to verify clock synchronisation.

Note: It is not possible for two stations on the Network to display different times on their system clocks.

14.2 Network Configuration Procedures

Each panel on the network must be configured with the following information:

a. A list of all the stations on the network.

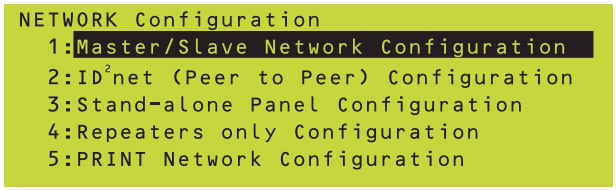
b. Its own identity on the network (this panel).

c. For each repeater, which panel is being repeated.

The list of stations and the repeater associations must be consistent at each panel; i.e., if you have described station 2 as a Slave when configuring the Master, you must also describe it as a Slave when configuring every other panel.

Note: You also need to name each station AT EACH PANEL (see **Section 6.4**).

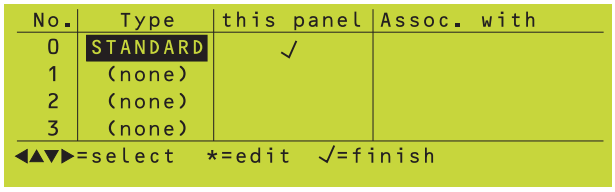
1 From the Configuration menu, display the NETWORK Configuration menu.



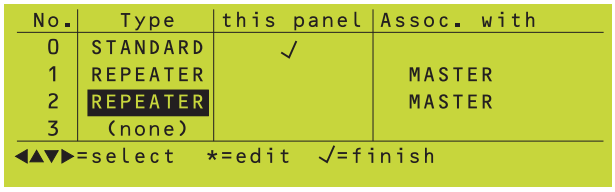
2 Select Master/Slave Network Configuration.

ONE OF:

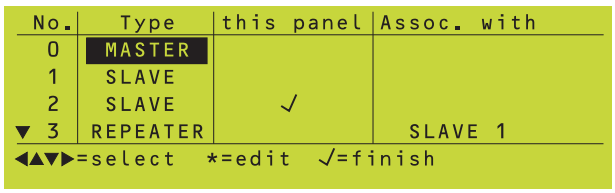
IF NO NETWORK CONFIGURED



IF STAND-ALONE PANEL WITH REPEATERS



IF A NETWORK IS ALREADY CONFIGURED



3 The current network configuration is displayed.

Note: Refer to the Repeater manual for details of how to configure the Repeater.

Note: After a panel has been configured onto the network, and if it is subsequently required to use it as a stand-alone panel, select 'Stand-alone Panel Configuration' (item 3 on the NETWORK Configuration menu). Confirm at the prompt that the panel is to be stand-alone.

14.2.1 Station Type

All Stations in a Network have a number. When setting the station type for that number, follow these rules:

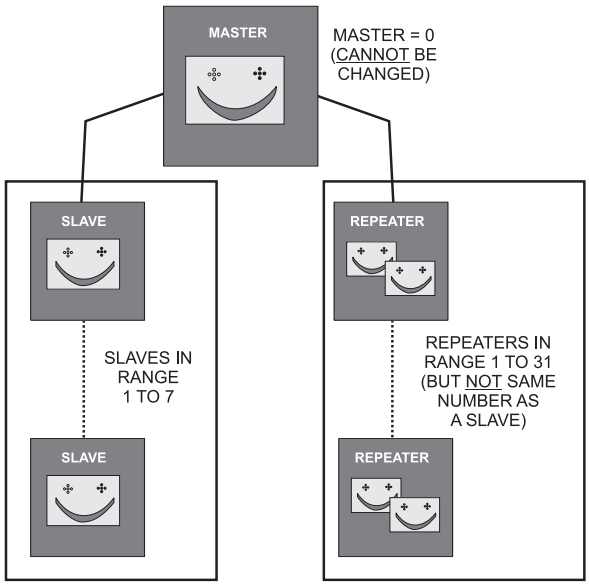
a. Station number zero is always the Master panel - this cannot be changed.

b. Slave panels can only exist at stations numbers 1 to 7.

c. Repeaters can only exist at station numbers 1 to 31.

d. Slave numbers and Repeater numbers may be interleaved.

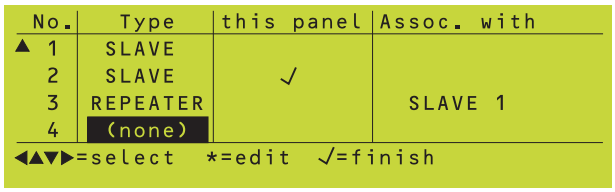
e. The station numbers must be continuous. The network configuration edit display only permits the addition of stations to the network one at a time, in ascending order.



TIP! **It is recommended that the station numbering scheme be kept as rational as possible.**

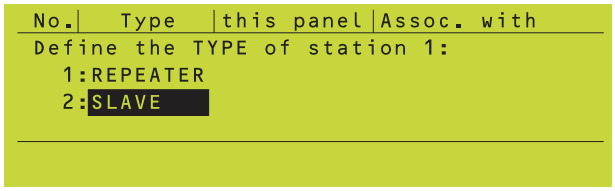
To select the station type:

1 Use the ◀ ▶ ▲ ▼ pushbuttons to move the cursor over the station type to be edited.



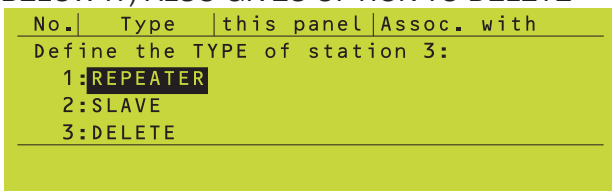
ONE OF:

NORMAL CASE

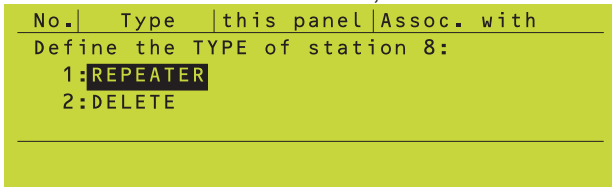


2 Select the required type from the list provided, then press ✓.

LAST CONFIGURED STATION (OR EMPTY SLOT BELOW IT) ALSO GIVES OPTION TO DELETE



STATIONS 8 AND BEYOND CAN ONLY BE CONFIGURED AS REPEATER, NOT SLAVE



TYPICAL ERROR MESSAGE:

```
 No.|   Type   |this panel|Assoc. with
ERROR: Can't change the type of
THIS panel
```

The following error messages may be displayed for a few seconds:

a. 'ERROR - Can't change the type of THIS panel'. You cannot delete the panel which has a tick in the 'this panel' column, or change it to a repeater.

b. 'This station can only be a repeater'. You cannot set stations 8 to 31 to a slave. This message does not appear if the station is the last one, since the type can be edited (the option to delete is available).

c. 'This Panel type is set automatically'. Station 0 is always Master or Stand-alone, as appropriate.

14.2.2 THIS Panel

Note: The procedure to configure the Repeater identity is given in the Repeater manual.

Each panel must be told its own identity:

```
 No.|   Type   |this panel|Assoc. with
  0 |  MASTER  |
  1 |  SLAVE   |
  2 |  SLAVE   |
▼ 3 | REPEATER |          | SLAVE 1
◄▲▼►=select  *=edit  ✓=finish
```

1 Use the ◄ ► ▲ ▼ pushbuttons to move the cursor to the appropriate row in the 'this panel' column.

ONE OF:
STATION 0 ONLY

```
 No.|   Type   |this panel|Assoc. with
 Set this panel to be MASTER PANEL
   1:NO
   2:YES
```

2 Select YES followed by ✓ to confirm the identity of THIS panel.

STATIONS 1 TO 7 ONLY

```
 No.|   Type   |this panel|Assoc. with
 Set this panel to be SLAVE 1
   1:NO
   2:YES
```

```
 No.|   Type   |this panel|Assoc. with
  0 |  MASTER  |    ✓
  1 |  SLAVE   |
  2 |  SLAVE   |
▼ 3 | REPEATER |          | SLAVE 1
◄▲▼►=select  *=edit  ✓=finish
```

The tick moves from its previous position to the current line.

TYPICAL ERROR MESSAGE:

```
 No.|   Type   |this panel|Assoc. with
This panel is already set to be
SLAVE 2
```

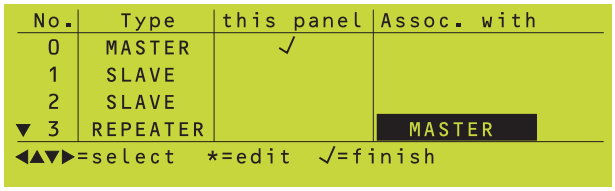
The following error messages may be displayed for a few seconds:

a. 'This panel is already set to be SLAVE n'. There is already a tick on this row.

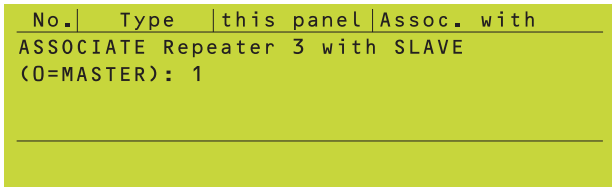
b. 'ERROR: Configuring this panel: Cannot be a REPEATER'. The cursor is on a repeater or a non-existent station.

14.2.3 Associate Repeaters with Panel

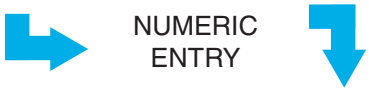
When a station type is selected as Repeater, the Repeater is associated by default with the Master panel. To change the association:

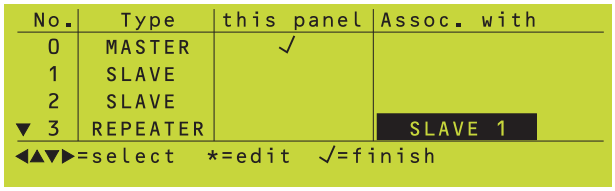


1 Use the ◀ ▶ ▲ ▼ pushbuttons to highlight the panel that the Repeater is currently associated with.



2 Use numeric pushbuttons to enter the panel number (0 for Master, 1 to 7 for Slave) with which the Repeater is to be associated, then press ✓.

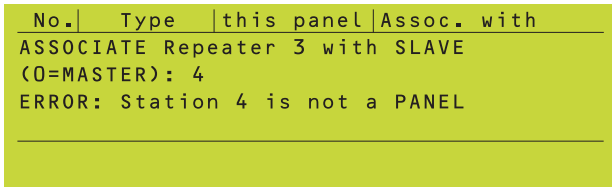




In this example Repeater 3 is associated with the Slave 1 panel.

Note: If a panel is deleted or changed to a repeater, all repeaters associated with it have their association changed automatically to MASTER.

TYPICAL ERROR MESSAGE:

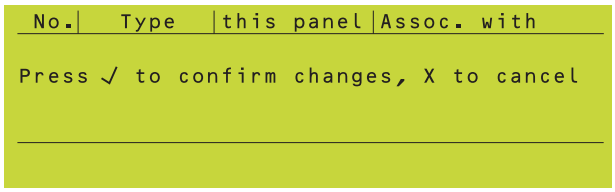


The following error messages may be displayed:

a. 'ERROR: Station n is not a PANEL'. You cannot associate a repeater with another repeater, only with a panel.

b. 'Association only applicable to REPEATER'. You cannot associate a panel with a repeater.

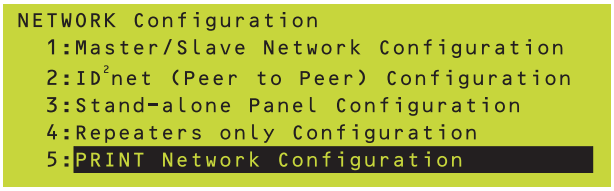
14.2.4 Completion of Network Configuration



When all network configuration edits have been completed for the panel, press ✓. At the prompt, press ✓ again to confirm the changes.

14.3 Print Network Configuration

This option prints the configuration of the network.



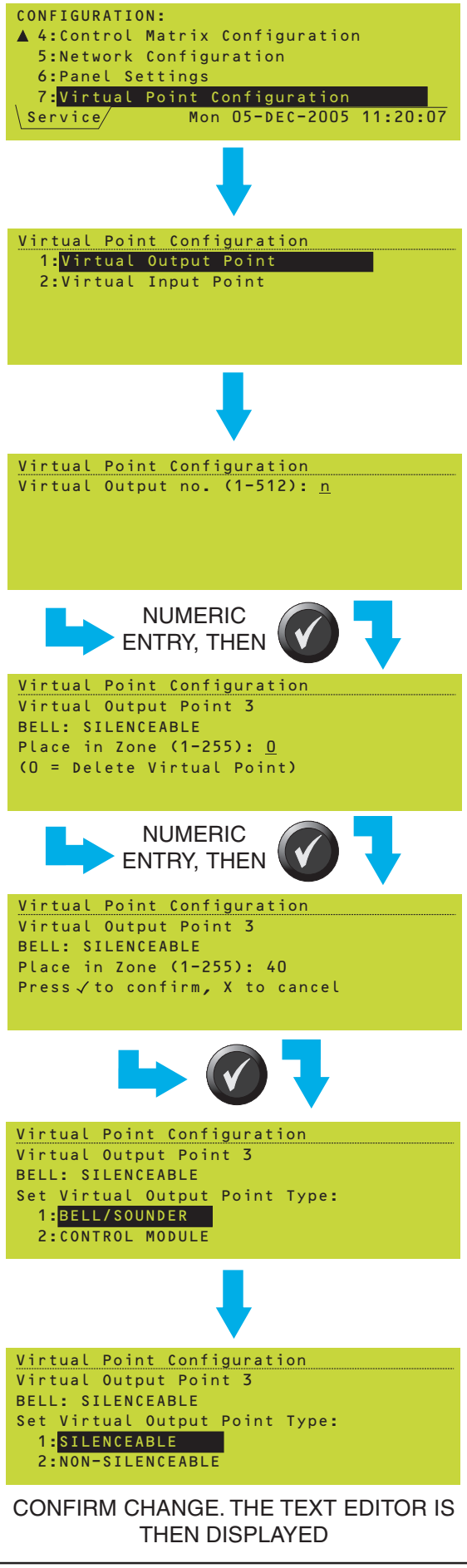
15 Virtual Point Configuration

Virtual Points exist in an external system (e.g. a Voice Alarm Panel). Virtual Points communicate with the Fire Alarm Panel via an RS232 link (i.e. not via the loops) and are used as inputs to or outputs from the Control Matrix. There are two types:

a. Virtual Output Points (VOPs) - a maximum of 512 can be configured.

b. Virtual Input Points (VIPs) - a maximum of 64 can be configured. This option is not available if the panel is a Slave on a Master/ Slave network.

15.1 Virtual Output Points



CONFIRM CHANGE. THE TEXT EDITOR IS THEN DISPLAYED

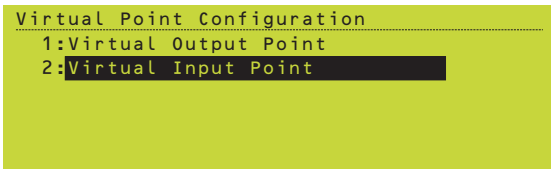
1 Enter the point number.

2 Enter a zone number. Virtual points **must** be allocated to a zone to be useable within the Control Matrix. If the point number entered in step 1 was for an existing point, it can be deleted by entering '0'. 'BELL: SILENCEABLE' shows the existing settings, or the default settings if the point number is new. See step 3 to edit these.

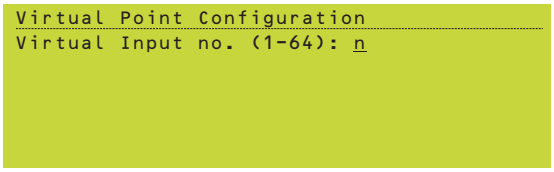
3 Select the point type, either BELL or CONTROL MODULE. The Virtual Output Point will then be activated when the Control Matrix activates devices of the chosen type (or ALL) in the zone.

4 Select whether the Virtual Output Point is switched off when the SILENCE/RESOUND button is operated to silence the sounders. The default is SILENCEABLE if BELL was chosen in step 3, or NON-SILENCEABLE if CONTROL MODULE was chosen. A 'press to confirm' prompt is displayed, see step 2.

5 Use the Text Editor to enter the Virtual Output Point name (see **Section 6.1**). The Virtual Point Configuration options are then redisplayed.

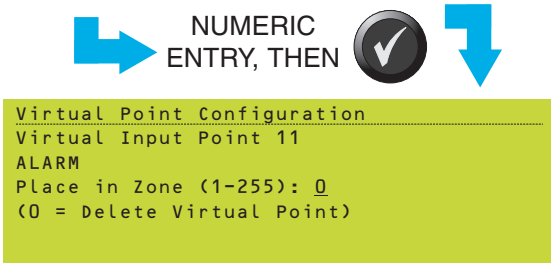


15.2 Virtual Input Points



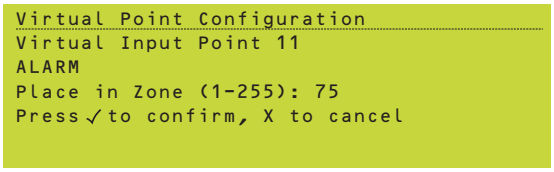
1 Enter the point number.

NUMERIC ENTRY, THEN



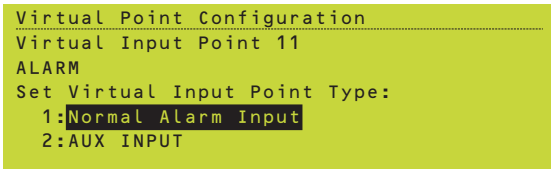
2 Enter a zone number. Virtual points **must** be allocated to a zone to be useable within the Control Matrix. If the point number entered in step 1 was for an existing point, it can be deleted by entering '0'. A 'press to confirm' prompt is displayed.

NUMERIC ENTRY, THEN



3 Select the point type, either ALARM or AUX. This determines whether activation of the point is displayed on the Fire tab or on the Aux tab.

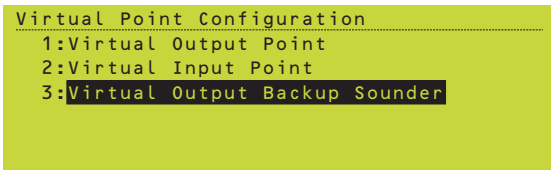
Note: If Virtual Input Points are to be used in the Control Matrix, those to be used as Alarm inputs must be configured as type ALARM, and those to be used as Non-fire Activation inputs must be configured as type AUX.



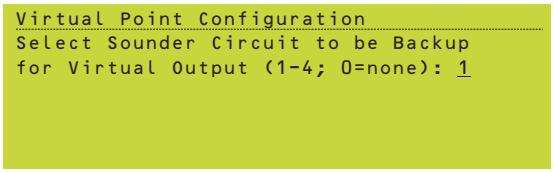
4 Use the Text Editor to enter the Virtual Input Point name (see **Section 6.1**). The Virtual Point Configuration options are then redisplayed.

CONFIRM CHANGE. THE TEXT EDITOR IS THEN DISPLAYED

15.3 Virtual Output Backup Sounder



This option is only displayed if one or more Virtual Output Points has already been configured and assigned to a zone.



Select which sounder circuit is to be used as a backup for the Virtual Output(s), or 0 if none. The Virtual Point Configuration options are then redisplayed.

CONFIRM CHANGE

Appendix 1

Upgrading the Panel Software

1 Introduction

Before attempting to upgrade your panel software, first upload your configuration file.

Upgrading the ID3000 Series control panel software can be achieved relatively simply by following the instructions below. For maximum security of the panel configuration, it is recommended that a computer, with the latest relevant software package version, is first used to upload the configuration file from the control panel before replacing the software and/or hardware.

When upgrading software, the configuration file may need to be converted. If this is not done, the configuration will be wiped!

Where an up-to-date configuration file has been created by a previous version of the Off-line Configuration program and stored on disk, this is acceptable as the later version program will automatically update such files as required.

If the use of a computer is not possible the panel software will be able, in most cases, to update the configuration automatically, if the procedure described below is followed. However, this cannot always be guaranteed as it depends upon the changes within the software.

2 Procedure

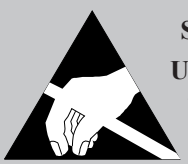
WARNING High Voltage! Take suitable precautions to avoid electric shock.

To upgrade the control panel operating system software:

1 Save the configuration file to disk using any compatible version of the Off-line Configuration program, unless you have an up-to-date configuration file already.

2 Remove all power from the control panel, this includes disconnection of the batteries, and wait approximately ten seconds to allow for the discharge of any residual voltage.

Note: Replacement of the panel EPROM must be carried out in accordance with the recommended procedures described in the ID3000 Series Installation & Commissioning Manual (ref. 997-274-XXX), particularly those associated with accessing the PCBs located within the main chassis.



Static Sensitive Devices!

Use anti-static wrist strap when carrying out this procedure

3 Taking appropriate anti-static precautions, such as wearing a suitably-grounded, anti-static wrist band, remove the EPROM (U2) from the Processor PCB.

4 Replace it with the upgrade version.

5 Re-apply power to the panel - connect the mains supply first, then the batteries!

6 Follow on-screen instructions if presented.

Appendix 2

Available Loop Device Types

1 Device Types

The ID3000 is compatible with the following devices that use the Notifier communication protocol (contact Notifier for full list of current devices):

Analogue sensors:

a. VIEW (laser-based smoke)	LPX-751
b. Optiplex (Combined Heat/smoke)	SDX-751TEM
c. Ionisation Smoke	CPX-751E
d. Optical Smoke	SDX-751EM
e. HAZARD intrinsically-safe Optical	IDX-751
f. HARSH/FILTREX (Optical)	HPX-751E
g. Thermal (type A1)	FDX-551EM
h. Thermal (type BS)	FDX-551HTEM
i. Thermal (type A1R) rate of rise	FDX-551REM

Modules:

a. Manual Call Point (MCP)	M500KACGB
b. Weather-resistant MCP	M500KACW
c. Monitor Module (CDI)	ZMX-1
d. Monitor Module	MMX-1E or M710
e. Monitor Module (Micro)	MMX-102E
f. Monitor Module (10-way)	MMX-10M
g. Monitored Circuit (for bells)	CMX-2E or M701
h. Monitored Circuit (for activating equipment)	PS2-CMX
i. Conventional Detector Interface	CDI
j. Control Module (10-way relay card)	CMX-10R
k. Loop-powered Sounder	Type AB**, AN**
l. Mains relay module	MRM-1
m. DIN rail-mounted Mains Relay Module	MRM-1/DIN

Note: The ZMX-1 is a lower cost alternative to the CDI Control Module. However, the two devices are not interchangeable unless a configuration change is made in the panel.

These modules may be further designated according to the type of equipment which they are supervising. Possible types are:

For input (MMX types):

a. MCP Manual call point

b. MON General monitoring function

c. SPRK Sprinkler switch monitoring

d. AUX Auxiliary non-latching input

For output (CMX types):

a. CTRL General control output

b. BELL Bell, loop-powered sounder or other sounder

c. CDI Conventional Detector Interface.

Isolators

A non-addressable isolator module (type ISO-X, B524IE or B524IEFT)) is also available. It has the capability to isolate sections of the loop in the event of short-circuit.

Sounder Circuits and Relays

The panel has:

a. Two dedicated sounder circuits, Sounder 1 and Sounder 2.

b. Two general purpose relays for the purpose of switching auxiliary equipment. One of these relays is designated FIRE and the other is designated FAULT.

c. Two programmable outputs, which can be used either as Sounder circuits 3 and 4 or as relay circuits. Hardware links must be set according to the instructions given in the ID3000 Series Installation and Commissioning Manual. If used as Sounder circuits, the outputs must be configured in the Control Matrix (**see Section 7**).

Appendix 3

ID²net Intelligent Digital Delivery Network

1 Configuring Panels on the ID²net Network

This procedure is performed at **every** panel on the network.

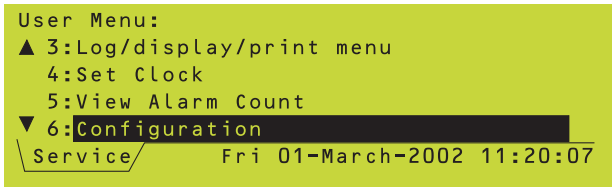
1.1 Off-line Configuration Tool

The ID3000 Fire Panel Configuration Tool (PN: 020-558) is a complete package for off-line configuration preparation which includes networking. This is expected to be the normal method of configuring the network. The instructions in this manual will allow configuration if the support tool is unavailable.

1.2 Assigning Panels to the Network

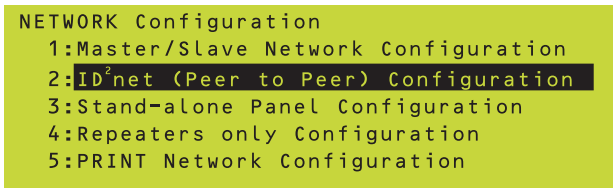
Each panel must have a discrete network node identifier. A 'node' is defined as a point on the network that can be addressed by any other point by its identification number. When the 'ID²net (Peer to Peer) Configuration' menu screen is displayed for the first time, no configuration data will exist for *any* node on the network. Data is entered at each node in turn, until all have been assigned to the network. This does not have to be done in any particular order.

The network setup menus are accessed through the Access Level 3 (Service) Configuration Menu.



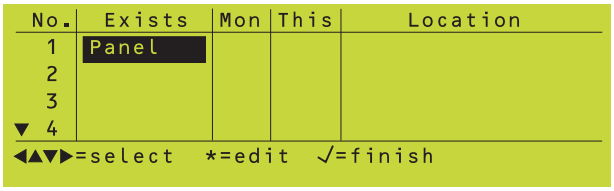
From the Access Level 3 menu, use the ▼ pushbutton to scroll down the menu until item 6 Configuration option is highlighted and press the ✓ pushbutton to select it. Alternatively, press the 6 pushbutton to select the Configuration option.

Use the ▼ pushbutton to scroll down the menu until item 5 is highlighted and press the ✓ pushbutton, or push the 5 pushbutton, to select Network Configuration.

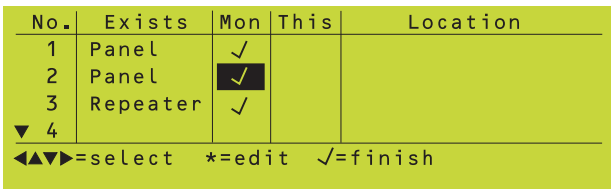


Press the 2 pushbutton (or scroll down until item 2 is highlighted and press the ✓ pushbutton) to select the 'ID²net (Peer to Peer) Configuration' option.

Selection of the ID²net Peer to Peer Configuration option displays a tabular-form screen (see left).

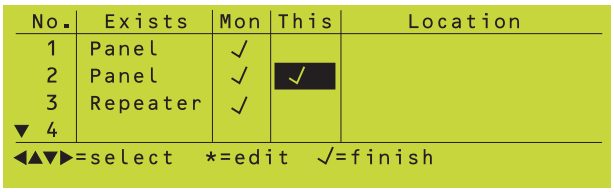


The following procedure has to be carried out at *every* node on the network. To enter details for any node, proceed as follows:



Navigate using the ▼ pushbutton until you have reached the node which is to be first on the network. With the cursor placed in the 'Exists' column, press the ✱ pushbutton until the required type of node is displayed; either 'Panel' (nodes 1 to 32 only) or 'Repeater'. This adds the panel or repeater to the network. Repeat this procedure for every panel on the network until all have been defined. If a panel is added in error, press the ✱ pushbutton until a blank field is displayed.

Note: A tick will be entered into the 'Mon' column (Mon = Monitored).



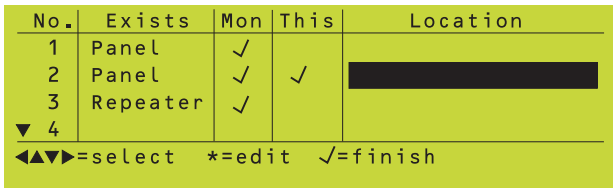
When you reach the node number you wish to assign to the panel you are currently working at, move the cursor to the 'This' column and press the ✱ pushbutton. **This selection must only be done once for each panel**. If you have made an error, move the cursor up or down, using the ▲ and ▼ pushbuttons, to the correct node address and press the ✱ pushbutton; this action will automatically clear the tick from the incorrect position and place it at the new node selection.

Each panel on the network MUST have a different node number.

If you want to define a panel as existing but not yet connected to the network and to suppress the fault messages that would normally be generated for a missing panel, move the cursor to the 'Mon' column and press the ✱ pushbutton to clear the tick from that column.

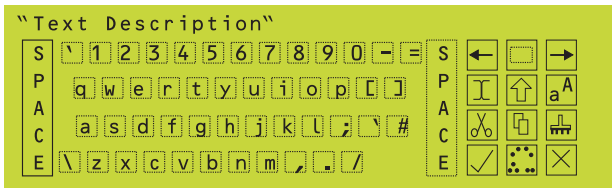
It should be noted, however, that clearing the tick from the 'Mon' column does not suppress alarm or fault messages coming from that panel, only the fault message due to the panel being missing from the network. If alarms or faults from the panel are to be completely suppressed, the make sure the 'Exists' column is blank.

1.2.1 Location Text

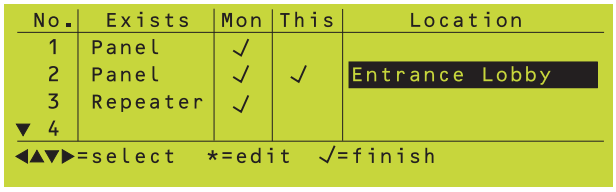


To enter a panel location description, use the ▶ pushbutton to move the cursor to the 'Location' column. Press the ✱ pushbutton to display the text editing screen. Enter the desired text for the panel (up to 32 characters - including spaces - are permissable).

Note: How to use the text editor is described in **Section 6** of this manual.



Press the ✓ pushbutton to save the text entry. The tabular-form screen is re-displayed with the entered text highlighted now in the 'Location' column.



Once all data for that node has been entered, this operation will have to be repeated at ALL other stations on the network.

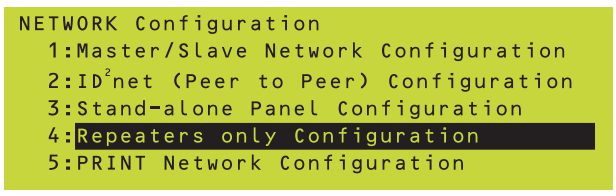
1.2.2 RS485 Repeaters

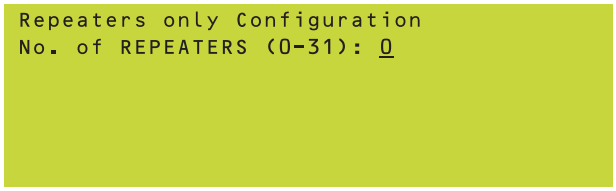
Note: This procedure is described assuming that you are familiar with using the panel control keys to navigate the menus and how to make appropriate option selections. If in doubt, refer to **Section 1.2** of this Appendix.

This option allows the configuration of repeaters on networked panels using the RS485 communications link. Refer to the ID3000 Series Installation & Comissioning Manual (ref. 997-274) for details on fitting the RS485 PCB in the control panel.

To configure repeaters at a panel, proceed as follows:

At the appropriate panel, from the Access level 3 menu (Service) select the Configuration option (item 6). From the CONFIGURATION menu select option 5, Network Configuration to display the 'NETWORK Configuration' menu as shown:





Select option 4, Repeaters only Configuration. Enter the number of repeaters and confirm using the ✓ pushbutton.

Appendix 3

If the RS485 PCB (PN: 020-479) is not fitted in the panel and you try to configure repeaters a fault tab is displayed. Make sure an RS485 PCB is correctly installed in any panel where repeaters are to be configured. To clear the FAULT tab, repeat the procedure by entering a zero quantity for repeaters, confirm and press RESET. Alternatively, fit an RS485 PCB and repeat the procedure, entering the correct number of repeaters.

Note: The RS485 PCB should only be fitted with the panel powered down. Refer to the ID3000 Series Installation & Commissioning Manual (ref. 997-274).

Appendix 3

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