

Manual

Mx-5000 Series



***User Manual for  
MX-5100, MX-5200, MX-5400  
Fire Alarm Control Panels***

The operation and functions described in this manual are available from Software Version Mx5000-050-04 onwards.



This page is intentionally blank

# Table of Contents

<b>1</b>	<b>INTRODUCTION</b>	<b>5</b>
1.1	Standards	5
1.2	Cautions and Warnings	6
1.3	General Description	6
1.3.1	<i>Mx-5000 Series</i>	6
1.3.2	<i>Mx-5000N Series</i>	6
<b>2</b>	<b>CONTROLS AND INDICATIONS</b>	<b>7</b>
2.1	Graphical Display	8
2.2	LED Status Indicators	9
2.3	Zone LED Status Indicators	9
2.4	Control Buttons	10
2.5	Navigation Buttons	10
2.6	Number and Letter Buttons	11
2.7	Buzzer	11
<b>3</b>	<b>OPERATION</b>	<b>11</b>
3.1	Access Levels	11
3.1.1	<i>Changing from Access Level 1 to Level 2</i>	12
3.1.1.1	Menu Access	12
3.1.1.2	Control Buttons at Level 1	12
3.1.2	<i>Changing from Access Level 2 to 1</i>	12
3.2	Fire Alarm Condition	13
3.2.1	<i>Detailed Fire Alarm Information</i>	14
3.2.2	<i>Investigation Delays</i>	14
3.3	Fault Condition	15
3.4	Disablement Condition	16
3.4.1	<i>Disabled Inputs</i>	16
3.4.2	<i>Disabled Outputs</i>	17
3.5	Alarm Condition	17
3.6	Supervisory Condition	18
3.7	Multiple Conditions	18
3.8	Menu Functions	19
3.8.1	<i>Using the Buttons to Navigate Menus</i>	20
3.8.1.1	Selecting Menu Options	20
3.8.1.2	Selecting Individual Zone Numbers	20
3.9	Viewing	21
3.9.1	<i>View - Fires</i>	21
3.9.2	<i>View - Faults</i>	21
3.9.3	<i>View - Alarms</i>	21
3.9.4	<i>View - Disabled</i>	21
3.9.5	<i>View - Inputs</i>	22
3.9.6	<i>View - Outputs</i>	22
3.9.7	<i>View - Panel</i>	23
3.9.7.1	Software	23
3.9.7.2	Local Hardware	24
3.9.7.3	Network Hardware	25
3.9.8	<i>View - Log</i>	25
3.9.8.1	Event Log	25
3.9.8.2	Alarm Counter	26
3.9.9	<i>View - Network</i>	26
3.9.10	<i>View - Warnings</i>	26
3.9.11	<i>View - Supervisory</i>	26
3.10	Disabling	27
3.10.1	<i>Disable - Zones and Inputs</i>	27
3.10.2	<i>Disable - Outputs</i>	28
3.10.2.1	All Sounder Outputs	28
3.10.2.2	All Beacon Outputs	28
3.10.2.3	Fire Routing Outputs	28
3.10.2.4	Fire Protection Outputs	28
3.10.2.5	Fault Routing Outputs	28
3.10.2.6	All Other Relay Outputs	29

3.10.2.8	Pager	29
3.10.2.9	Only Selected Outputs	29
3.10.3	<i>Disable - Controls</i>	29
3.10.4	<i>Disable – User ID</i>	30
3.10.5	<i>Disable – Groups</i>	30
3.11	Enabling	31
3.11.1	<i>Enable - Zones and Inputs</i>	31
3.11.2	<i>Enable - Outputs</i>	31
3.11.3	<i>Enable - Groups</i>	31
3.11.4	<i>Enable - Remote</i>	31
3.12	Delays	32
3.12.1	<i>Turn Off Delay Mode</i>	32
3.12.2	<i>Turn On Delay-Mode</i>	32
3.12.2.1	Extend Delays	33
3.12.2.2	Holiday / Inhibit	33
3.13	Testing	34
3.13.1	<i>Test - Zones</i>	34
3.13.2	<i>Test - Display</i>	35
3.13.3	<i>Test - Buzzer</i>	35
3.13.4	<i>Test - Printer</i>	36
3.13.5	<i>Test - Outputs</i>	36
3.14	Tools	37
3.14.1	<i>Printing</i>	37
3.14.1.1	Printer Communications Settings	37
3.14.1.2	Set-up Printer	37
3.14.1.3	Print Inputs	38
3.14.1.4	Print Outputs	38
3.14.1.5	Print Faults	38
3.14.1.6	Print Disabled	39
3.14.1.7	Print - Log	39
3.14.1.8	Print - Feed Paper	39
3.14.2	<i>Change-Time</i>	40

# 1 Introduction

## 1.1 Standards

Advanced Electronics Ltd declare that the products identified below conform to the essential requirements specified in the Construction Products Directive 89/106/EEC:

	<b>0786-CPD-20952</b>
EN54-2: 1997 +A1:2006 Control and indicating equipment for fire detection and fire alarm systems for buildings	
Provided options: <ul style="list-style-type: none"><li>- Outputs to Fire Alarm Devices</li><li>- Output to Fire Routing Equipment</li><li>- Output to Fire Protection Equipment</li><li>- Output to Fault Routing Equipment</li><li>- Investigation Delays to Outputs</li><li>- Dependency on more than one alarm signal</li><li>- Fault Signals from Points</li><li>- Disablement of Points</li><li>- Alarm Counter</li><li>- Test Condition</li><li>- Standardised Input / Output</li></ul>	
EN54-4: 1997 +A1:2002 +A2:2006 Power supply equipment for fire detection and fire alarm systems for buildings	
<b>Mx-5100, Mx-5200, Mx-5400</b> <b>Mx-5100N, Mx-5200N, Mx-5400N</b>	

In addition, the products comply with the following:

Low Voltage Directive 2006/95/EC

BS EN60950-1: 2006                      Safety of information technology equipment

Electromagnetic Compatibility Directive 2004/108/EC

BS EN55022: 1998                      Emissions, Class B

BS EN50130-4: 1996 +A2: 2003      Immunity, Product Family Standard

## 1.2 Cautions and Warnings



Before commencing with installation or operation of the panel, please read this manual carefully. If you are unclear on any point **DO NOT** proceed. Contact the manufacturer or supplier for clarification and guidance.



**Only Trained service personnel should undertake the Installation, Programming and maintenance of this equipment.**



This product has been designed to comply with the requirements of the Low Voltage Safety and the EMC Directives. Failure to follow the installation instructions may compromise its adherence to these standards.



This Fire Alarm Control Panel is compliant with the requirements of EN54 parts 2 and 4 (1998).

Where appropriate, reference is made in this manual to the relevant sections of the EN54 standard for clarification and to ensure that the installation is compliant with the requirements of EN54.

## 1.3 General Description

This manual covers the use and operation of the *Mx-5000* & *Mx-5000N Series* Fire Alarm Control Panels. Refer to the Installation and Commissioning Manual (Document No. 680-165) for details of how to install and program the panel.

### 1.3.1 Mx-5000 Series

The *Mx-5100* is a Single Loop, Analogue Addressable Fire Alarm Control Panel.

The *Mx-5200* is a Two Loop, Analogue Addressable Fire Alarm Control Panel.

The *Mx-5400* is a Multiple Loop, Analogue Addressable Fire Alarm Control Panel with provision for up to four loops.

All above models are designed for use with the Apollo (Discovery, Explorer, XP95 and Series 90), Hochiki (ESP) and Argus (VEGA) fire detection devices.

### 1.3.2 Mx-5000N Series

The *Mx-5100N* is a Single Loop, Analogue Addressable Fire Alarm Control Panel.

The *Mx-5200N* is a Two Loop, Analogue Addressable Fire Alarm Control Panel.

The *Mx-5400N* is a Multiple Loop, Analogue Addressable Fire Alarm Control Panel with provision for up to four loops.

All above models are designed for use with the Nittan Evolution fire detection devices.

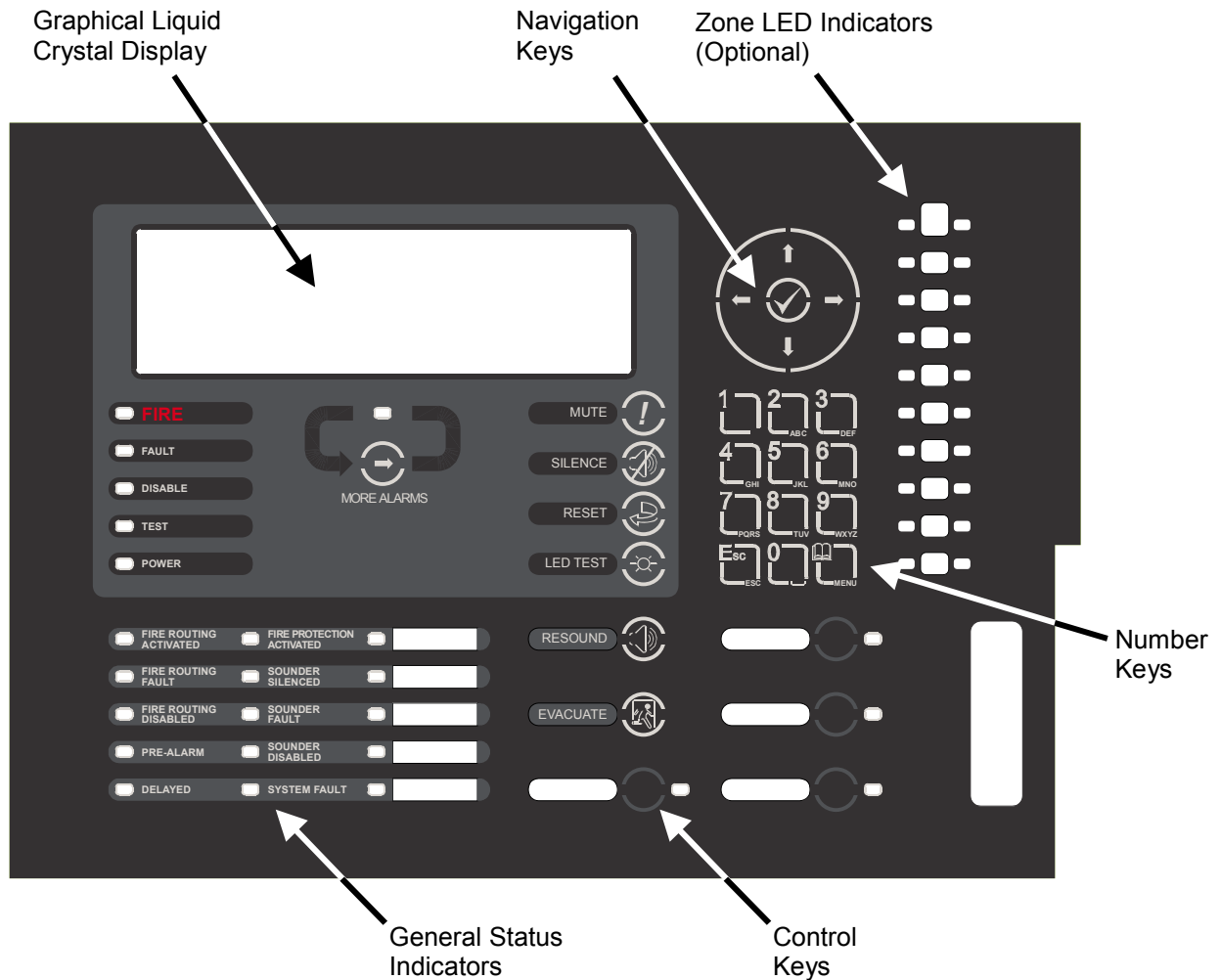
All panel models are available in a range of enclosure sizes and with a range of alternative optional features.

## 2 Controls and Indications

The *Mx-5000* and *Mx-5000N* series are provided with indications and control functions as shown in the diagram below and described in the following text.

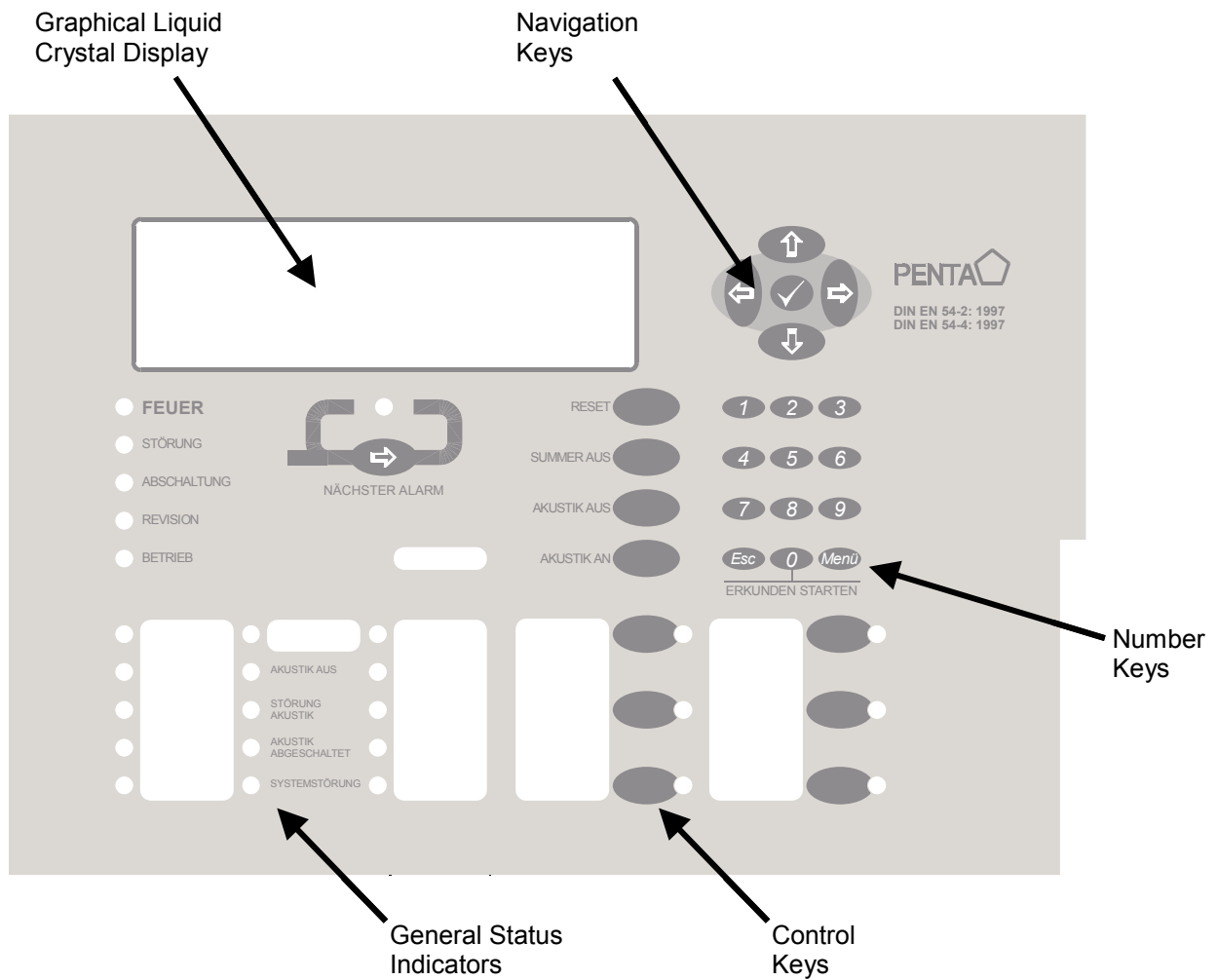
The LED functions and BUTTON functions may be assigned and used differently in specific countries dependent on the market and standards requirements.

The layout shown below is for the UK version.



Slide-in labels are used to annotate Function Indicators and Programmable Control Keys and Indicators.

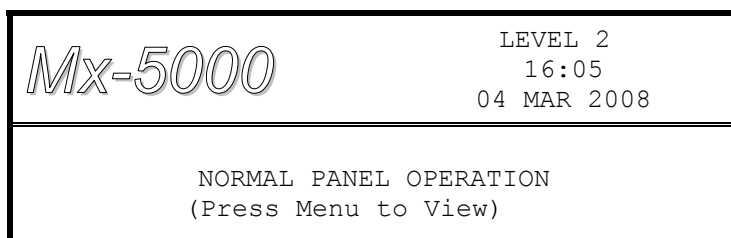
The layout shown below is for the PENTA German version.



Slide-in labels are used to annotate specific General Status Indicators in addition to Function Indicators and Programmable Control Keys and Indicators.

## 2.1 Graphical Display

The graphical display provides detailed information of the source of fire alarms, faults and warnings. It also shows menus for use when inspecting or programming the operation of the panel. Under normal conditions the panel display shows the access level, time, date and status: -





## 2.2 LED Status Indicators

The LED Status Indications show the basic operational state of the panel and whether the panel is in a fire alarm, fault, disabled or test condition.

Function	Colour	Description
FIRE	Red	Indicates that the system has detected a fire alarm condition
MORE ALARMS	Red	Indicates that the system has detected a fire alarm condition (on steady) in more than one zone.
Fault	Yellow	Indicates that the system has detected a fault condition
Disable	Yellow	Indicates that part of the system has been disabled (i.e. isolated)
Test	Yellow	Indicates that part of the system is in a test condition
Power	Green	Indicates the presence of power
Fire Routing Activated	Red	Indicates that the output to call the Fire Brigade has been Activated
Fire Routing Fault	Yellow	Indicates that there is a fault condition in the Fire Brigade signalling equipment.
Fire Routing Disabled	Yellow	Indicates that the output signal to the Fire Brigade is Disabled
Pre-Alarm	Yellow	Indicates that a smoke or heat detector has detected a change in the environment that may develop into a possible fire alarm condition.
Delayed	Yellow	Indicates that one or more output circuits are in a delayed operating condition
Fire Protection Activated	Red	Indicates that the circuit to fire extinguishing or other fire protection equipment has been activated or that the fire protection equipment itself has been activated.
Sounder Silenced	Yellow	Indicates that the sounders have been silenced
Sounder Fault	Yellow	Indicates the presence of a fault in one or more sounder wiring circuits
Sounder Disabled	Yellow	Indicates that one or more sounders have been disabled (i.e. isolated)
System Fault	Yellow	Indicates the presence of a system fault
Function 1	Red	Spare function LED
Function 2	Yellow	Spare function LED
Function 3	Yellow	Spare function LED
Function 4	Yellow	Spare function LED
Function 5	Yellow	Spare function LED

The function LED Indicators are programmable and will have been configured and labelled accordingly during installation and commissioning of the system.

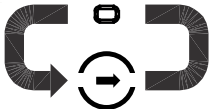





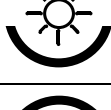
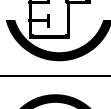

The arrangement and definition of the Status LED Indicators depend on the country and market requirements. The functions described are the same and the most common layout is shown.

## 2.3 Zone LED Status Indicators

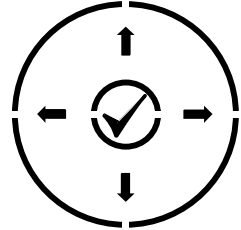

The Zone LED Status Indications can be included on the main display (up to 20 zones – fire alarm indication only) or can be included as plug in modules below the main display. These show the basic operational state of the zone and can indicate whether the zone is in a fire alarm, fault, disabled or test condition depending on the module installed.

## 2.4 Control Buttons

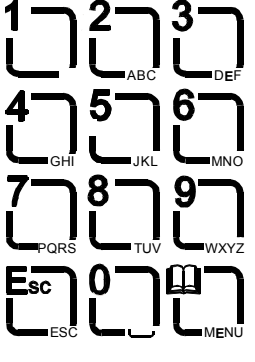
The following table contains a list of all of the control button functions available. The buttons available on each product depend on the country of installation and specific market requirements.

Button	Description	Access Level
	<b>More Alarms</b> Press to scroll through Zones in Alarm. The LED indicator turns on to indicate if more than one zone is in alarm.	Available in both Level 1 and Level 2
	<b>Reset</b> Press to reset the panel from a fire alarm or latched fault condition.	Only available with Level 2 Access.
	<b>Mute</b> Press to mute the internal buzzer.	Available in both Level 1 and Level 2
	<b>Silence</b> Press to silence the sounders.	Only available with Level 2 Access.
	<b>Resound</b> Press to re-activate the sounders.	Only available with Level 2 Access.
	<b>Evacuate</b> Press to initiate a manual evacuation and sound the alarms.	Only available with Level 2 Access.
	<b>LED Test</b> Press to illuminate ALL LED indicators	Available in both Level 1 and Level 2
	<b>Disable</b> Press to disable the zone or device in a fire alarm condition (Australia only).	Only available with Level 2 Access.
	<b>Function Button</b> Programmable function – an associated LED indicator can also be programmed	Depends on Programming

## 2.5 Navigation Buttons

	<b>←↑↓→</b> Press to scroll through Menu Options. Press to display more information. Press to scroll through lists of zones or devices.
	Press to confirm entry of numeric or letter information entry. Press to confirm selection of a menu option. Press to change some of the configuration options.

## 2.6 Number and Letter Buttons

	Used to enter numbers or letters.
Esc	Press to return to a previous menu. Press to exit the menu functions and return to the normal display.
Menu	Press to show or return to Menu Functions.

## 2.7 Buzzer

The buzzer produces two different sounds to differentiate between fire alarm conditions and fault conditions.

Condition	Operation
Fire Alarm	The buzzer operates with a continuous tone.
Fault	The buzzer operates intermittently.

## 3 Operation

### 3.1 Access Levels

The panel operation is protected from inadvertent and erroneous misuse by means of four access levels. These levels are as follows:

- Level 1 Untrained user
- Level 2 Authorised User
- Level 3 Service and Maintenance Engineer
- Level 4 Service and Maintenance Engineer – Special Tools required

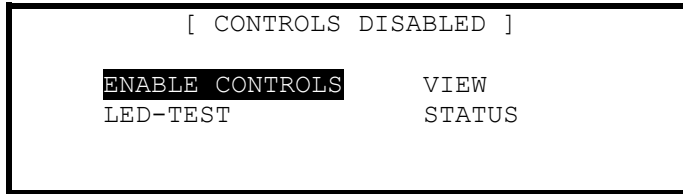
- A Level 1 Untrained User can view the current operational condition of the system and may MUTE the internal buzzer.  
NOTE: Depending on the configuration settings, a Level 1 user may also be permitted to EVACUATE and/or SILENCE and/or RESET the system by pressing the appropriate button and entering a password.
- A Level 2 Authorised User can view the operational condition of the system and may MUTE the internal buzzer. In addition, the EVACUATE, SILENCE and RESET buttons are enabled and access to the Level 2 Menu functions is available.  
NOTE: There are up to 10 User ID codes available, each with its own password, which can be configured with varying permissions to specific menu function options.
- A Level 3 User has access to program and configure the operation of the panel. This is described in detail in the Installation and Commissioning Manual (Part Number 680-165).

### 3.1.1 Changing from Access Level 1 to Level 2

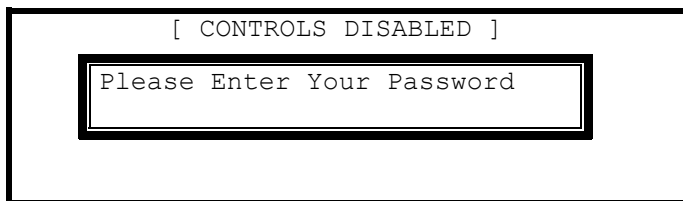
If the panel has an access key switch fitted, use the key in preference to the menu options shown below.

#### 3.1.1.1 Menu Access

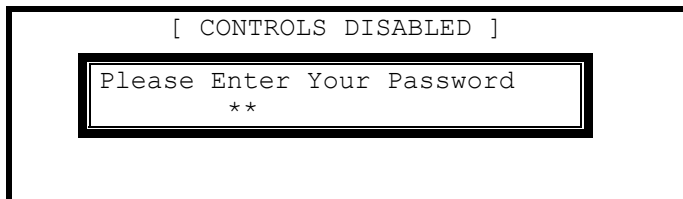
Press the 'MENU' button. The level 1 menu will be displayed as shown below:



To enable the controls, ensure the "Enable Controls" option is highlighted and then press the ✓ button. The display then requests entry of the Level 2 or 3 passwords as follows:

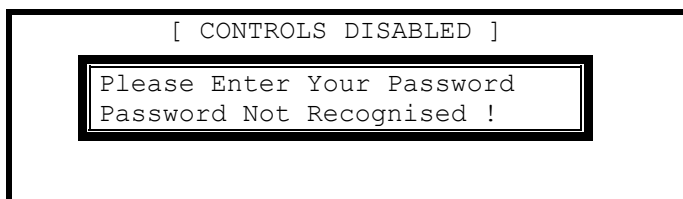


Enter the password using the number buttons and then press the ✓ button. As each number is entered, an asterisk (\*) is shown on the display. For example:



If the password is correct, the Level 2 Menu options will be shown.

If the password is incorrect, the display briefly shows the following message.



#### 3.1.1.2 Control Buttons at Level 1

If any of the control buttons (Reset, Silence / Resound or Evacuate) are pressed, the display automatically prompts for the password. Enter the password as above.

### 3.1.2 Changing from Access Level 2 to 1

If the panel has an access key switch fitted, use the key switch.

Alternatively, if passwords are used, select the "Disabling" menu and then select "Disable/Controls" – see section 3.10.3 for details.

### 3.2 Fire Alarm Condition

When the system registers a fire alarm condition the Red Fire Indicator illuminates, the internal buzzer sounds (continuously) and the display shows the zone in which the fire originated. The sounders, relays and other outputs will be turned on depending on the programming in the panel. An example of the display is shown below: -

FIRE STARTED IN ZONE 1/1	< Header - Zone № / Device № <sup>1</sup>
BASEMENT WEST	< Location Text for First Zone
KITCHEN <CALL POINT >	< Location Text and Type of Device
[ 1 Zone in Fire. Zone 0001]	< No. of Zones in Fire & Last Zone
BASEMENT WEST	< Zone Description for Last Zone

The upper part of the display shows the origin of the fire. The lower part of the display shows the number of zones in a fire alarm condition and the last zone to enter the fire alarm condition.

If more than one fire alarm condition occurs, the total number of zones in an alarm condition and the last zone in an alarm condition will be updated on the display. If the sounders were silenced, they will sound again whenever the fire spreads to a new zone.

FIRE STARTED IN ZONE 1/1	< Header - Zone № / Device №
BASEMENT WEST	< Location Text for First Zone
KITCHEN <CALL POINT >	< Location Text and Type of Device
[ 2 Zones in Fire Last Zone 0005]	< No. of Zones in Fire & Last Zone
BASEMENT EAST	< Zone Description for Last Zone

Press the **'MUTE'** button to silence the internal buzzer (the FIRE LED will change from flashing to steady illumination).

Press the **'MORE ALARMS'** button to view an scroll through a full list of zones in a fire alarm condition.

When the panel is enabled for Level 2 Access or, if configured, by entering a password at Level 1, the following functions are available.

Press the **'SILENCE'** button to silence the sounders.

Press the **'RESOUND'** button again to re-activate the sounders.

Press the **'RESET'** button to clear the alarm condition and restore the panel to normal operation.

Press the **'EVACUATE'** button to initiate a manual evacuation and to activate the sounders. The display will show this fire alarm condition. For example:

FIRE STARTED IN ZONE 100	< Location Text for First Zone
MAIN RECEPTION	< Confirmation of Evacuation
Evacuation Key <SWITCH >	
[ 1 Zone in Fire. Zone 0100]	< No. of Zones in Fire & Last Zone
MAIN RECEPTION	< Zone Description for Last Zone

<sup>1</sup> The Device Number is only shown on products for the German market – this is the number specifically assigned to the device to denote its number within the associated meldegruppe (Mld).

### 3.2.1 Detailed Fire Alarm Information

Press the 'MORE ALARMS' button to view the list of zones in a fire alarm condition. Press the 'MORE ALARMS' button again or use the  $\uparrow\downarrow$  buttons to scroll through the list. Each press highlights the next zone in the list and scrolls the zone list upwards.

Zone	FIRE-LOCATION	Scroll ↓	More>
0001	BASEMENT WEST		
0005	BASEMENT EAST		

< List of Zones in Alarm including  
< Zone No. and location text

If more detail regarding the source of any fires is required, press the 'MORE ALARMS' button or the  $\uparrow\downarrow$  buttons to highlight the required zone in alarm and press the  $\rightarrow$  button to show further information. For example:

[ FIRES IN ZONE 0001]	Scroll ↓	More>
Mld Device Text		
/29 KITCHEN		
/32 Corridor		

< List of devices within the Zone  
< that are in Alarm

This shows that the device(s) in a Fire Alarm condition in the zone. If there are more devices in alarm, these will be shown in the list (as shown above). Press the  $\uparrow\downarrow$  buttons to scroll through the devices. Press the  $\rightarrow$  button to show further information including state, type, value, loop, address, sector and node.

Press the  $\leftarrow$  button or the 'Esc' button to return to the previous display. If no button is pressed within 15-seconds, the display automatically reverts to the main display.

### 3.2.2 Investigation Delays



The Investigation Delay Function can be disabled or enabled as required by EN54: 2. Refer to Section 0.

If the Investigation Delay Function (Stage 1 / Stage 2 Investigation Delay) is enabled, a fire alarm is registered at the panel but does not immediately activate the sounders. On registering the alarm, the display shows:

FIRE STARTED IN ZONE		1/12
BASEMENT WEST		
KITCHEN	<TEMPERATURE>	
OUTPUT DELAY	30 s	(Press 0 to extend)
[ 1 Zone in Fire.		Zone 0001]
BASEMENT WEST		

< Header - Zone № / Device №  
< Location Text for First Zone  
< Location Text and Type of Device  
< Delay Timer (Stage 1)

The Output Delay Timer shows the amount of time left for investigation. If the alarm is not acknowledged before the Stage 1 timer elapses, the panel will enter a full alarm condition and will activate the sounders.

Pressing the '0' button acknowledges the alarm. This extends the time allowed to investigate the source of the fire.

FIRE STARTED IN ZONE		1/12
BASEMENT WEST		
KITCHEN	<TEMPERATURE>	
OUTPUT DELAY	120 s	
[ 1 Zone in Fire.		Zone 0001]
BASEMENT WEST		

< Header - Zone № / Device №  
< Location Text for First Zone  
< Location Text and Type of Device  
< Delay Timer (Stage 2)

The cause of the alarm can now be investigated. If the alarm is a false alarm, pressing the 'RESET' button will clear the alarm condition. This must be done before the Stage 2 timer has elapsed or the panel will enter a full alarm condition and will activate the sounders.

Note: The **EVACUATION** button will terminate the investigation delays and activate all programmed sounders.

### 3.3 Fault Condition

When the system registers a fault condition the Yellow Fault Indicator is illuminated, the internal buzzer sounds intermittently and the display shows the cause of the fault in more detail.

An example of the display is shown below:

ZONE 0001	DEVICE MISSING	
BASEMENT WEST		< Location Text for First Zone
RESTAURANT	(MULTI.SENSOR)	< Location Text and Type of Device
<hr/>		
1 Zone	In Fault	More>
		< No. of Zones in FAULT

If more than one fault condition occurs, these will be shown on the display. If the internal buzzer was muted, it will sound again when a new fault condition is registered.

When the fault condition is corrected, the panel automatically clears the appropriate fault Status Indicators and Display information.

Press the 'MUTE' button to silence the internal buzzer. The display then shows the current time and date and service centre telephone number along with the indication of the fault.

FOR SERVICE CALL	LEVEL 2	
01234 567890	16:05	< Panel access level
	04 MAR 2008	< Service Call Number
		< and Time / Date
<hr/>		
1 Zone	In Fault	More>
		< No. of Zones in FAULT

To obtain more detailed information about the faults, press the → button. The display then presents a list of all of the zones in a fault condition with the first fault highlighted. For example:

[ 2 Zones in Fault]	More>	< Number of zones in fault
ZONE LOCATION		
1 BASEMENT		< Zone #, Location Text for each
100 RECEPTION		< zone

Press the ↑↓ buttons to highlight the required fault and then press the → button to show further information. For example:

[ Faults in Zone 0001 ]	More>	
Mld Device Text		
/32 Room 112		< Device N° (if applicable) &
		device text description

Press the → button to show further information on device state, type, analogue/digital values and loop, address, sector and node, etc.

Press the 'ESC' key to return to the previous display.

If no button is pressed within a minute, the display automatically reverts to the main display.

### 3.4 Disablement Condition

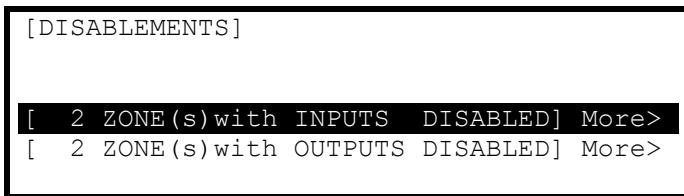
If any zones, input devices or output devices have been disabled, the DISABLE Indicator is illuminated. In addition, the SOUNDER DISABLE Indicator is illuminated if one or more sounder circuits or devices have been disabled. The display indicates the presence of zone disablement conditions in the lower half of the display as follows:



When the disablement conditions are removed, the appropriate indications are cleared from the display and from the Indicators. When all disablement conditions are removed, the DISABLE Indicator is also turned off.

To obtain more detailed information about the disablement conditions, press the → button. The display will then present the disablement conditions in the following sequence:

- ◆ Zone / Individual Inputs.
- ◆ Outputs

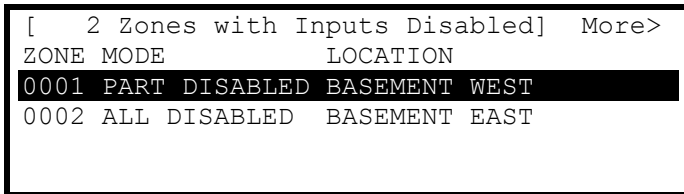


< Zone, disablement condition and  
< location text

Press the ↑↓ buttons to highlight the required option and then press the → button to view further information.

#### 3.4.1 Disabled Inputs

The display presents a list of all of the zones in a disabled condition with the first disablement highlighted. For example:

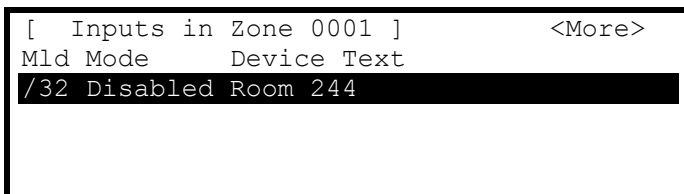


< Zone, disablement condition and  
< location text

The display shows the status as ALL DISABLED if every input device within the zone has been disabled and shows the status as PART DISABLED if there is at least one input device within the zone still active.

Press the ↑↓ buttons to highlight the required zone and then press the → button to view the location text assigned to the zone in full. For example:

Press the → button again to view the inputs within the zone and their status. For example:



The display shows the Device Number, current disablement condition (mode) and the device text. Press the ↑↓ buttons to scroll through the inputs.



Press the → button to show further information on the state, type, analogue/digital values, the detection loop (LP) and address (ADRS), etc.

Press the 'ESC' key to return.

### 3.4.2 Disabled Outputs

The display presents a list of all of the zones in a disabled condition with the first disablement highlighted. For example:

[ 2 Zone(s) with Outputs Disabled] More>		
Zone	Mode	Location
0001	ALL DISABLED	BASEMENT WEST
0100	ALL DISABLED	RECEPTION

< Zones with location text where  
< outputs are disabled

Press the ↑↓ buttons to highlight the required zone and then press the → button to view the individual outputs and their disablement condition. For example:

[ Outputs in Zone 0100] More>	
Mode	Device Text
Disabled	Sounder A
Disabled	Sounder B
Disabled	Sounder C
Disabled	Sounder D

The above example shows that the panel sounder circuits are disabled.

Press the → button to view further information including type, value and state, etc.

[ Outputs in Zone 0100]	
<More>	
Mode	Type
Disabled	SOUNDER
Disabled	SOUNDER
Disabled	SOUNDER
Disabled	SOUNDER

Press the ↑↓ buttons to scroll through the list of individual outputs within the selected zone. Press the 'Esc' button to return to previous views and the main display.

### 3.5 Alarm Condition

When the system registers a pre-alarm or plant alarm condition, the internal buzzer sounds intermittently and the display shows the cause of the fault in more detail. An example of the display is shown below:

ZONE 0001	PRE-ALARM	
BASEMENT WEST		< Location Text for First Zone
RESTAURANT	(MULTI.SENSOR)	< Location Text and Type of Device
-----		
1 Zone	In Alarm	More>

< No. of Zones in Alarm

To obtain more detailed information about the alarms, press the → button. The display then presents a list of all zones in an alarm condition.

### 3.6 Supervisory Condition

When the system registers a supervisory condition, the internal buzzer sounds intermittently and the display shows the cause of the fault in more detail. An example of the display is shown below:

ZONE 0011	SUPERVISORY	< Location Text for First Zone
PLANT ROOM		< Location Text and Type of Device
SPRINKLER SHUT OFF	(INPUT MON)	
1 Zone In Supervisory	More>	< No. of Zones in Supervisory

To obtain more detailed information about the alarms, press the ➔ button. The display then presents a list of all zones in an alarm condition.

Supervisory conditions are typically (although not exclusively) used to indicate the presence of operating conditions that could prevent the operation of sprinkler valves such as; frozen water, valve shut-off, low pressure, etc.

### 3.7 Multiple Conditions

When the system registers alarm, pre-alarm, fault, disablement, warning, security and supervisory conditions simultaneously, the display shows these in the lower half in priority order. The detail of the most recent unacknowledged condition to occur, however, is shown at the top of the display. An example of the display is shown below:

ZONE 0011	SUPERVISORY	< Location Text for First Zone
PLANT ROOM		< Location Text and Type of Device
SPRINKLER SHUT OFF	(INPUT MON)	
1 Zone In Alarm	↓ More>	< No. of Zones in Supervisory
1 Zone In Supervisory	More>	
1 Zone In Fault	More>	

An arrow is shown on the display to indicate the scroll options. ↓ (first row), ↓, ↑ (last row) are shown depending on the row highlighted.

Press the ⬆️⬇️ buttons to scroll through the list to highlight the required condition and then press the ➔ button to view more detail as described for each condition.

If the system registers a fire alarm condition, the display is totally devoted to the indication of the fire alarm. Use the View Menu option to display these other conditions.

### 3.8 Menu Functions

The following Menu Functions are available at Level 2. The display shows the primary Level 2 Menu and the Level 2 User as follows:

[Level 2 Menu]	User 1 Node 1	
<b>VIEW</b>	DISABLE	ENABLE
TEST	DELAY	TOOLS
	STATUS	

The following table gives a list of the Level 2 Menu Functions, the sub-functions available within each main function and a brief description for each function.

Main Menu Option	Sub Menus	Comments	
VIEW	Fires	View Zones and Inputs that are reporting a fire alarm condition.	
	Faults	View Zones and Inputs that are reporting a fault condition.	
	Alarms	View Zones and Inputs that are reporting an alarm condition.	
	Disabled	View Zones, Inputs and Outputs that are disabled.	
	Inputs	View the current state of Inputs.	
	Outputs	View the current operational condition of all output circuits / devices.	
	Log	View the Event Log / Alarm Counter	
	Panel	View the operational state, voltage and current loading of the panel input and output circuits.	
	Network	View Network diagnostics	
	Warnings	View Zones and Inputs that are reporting a warning condition	
	Supervisory	View Zones and Inputs that are reporting a supervisory condition	
DISABLE	Zone / Inputs <sup>2</sup>	Disable a complete zone or an individual input.	
	Outputs <sup>2</sup>	Disable sounder outputs or other devices.	
	Controls <sup>3</sup>	Cancel Level 2 access.	
	User ID <sup>3</sup>	Return Level 2 access to the default User 1	
	Groups	Disable a user-defined disablement group	
ENABLE	Zone / Inputs	Enable a complete zone or an individual input.	
	Outputs	Enable sounder outputs or other devices.	
	Groups	Enable a user-defined disablement group	
	Remote	Permits remote access controls	
TEST	Zones <sup>2</sup>	Configure one or more zones for walk test.	
	Display	Test the Graphics Display, Status Indicators and Keyboard.	
	Buzzer	Test the Internal Buzzer	
	Printer	Test the connection to the Printer	
	Outputs	Test Output Devices	
DELAY	--	Turn ON / OFF Investigation delays	
TOOLS	COMMISSION	Enter the Level 3 Commissioning and Panel Programming Functions	
	PRINT	Inputs	Print the status of inputs
		Outputs	Print the status of outputs
		Faults	Print the fault conditions
		Disabled	Print the disabled conditions
		Log	Print the Event Log. (All Events of Fire Only Events Selectable).
		Feed Paper	Advance the paper in the printer
	Set-up <sup>2</sup>	Configure the printer connection and automatic print options	
CHANGE TIME <sup>2</sup>	Allows authorised level 2 users to change time.		

<sup>2</sup> This option can be configured per Level 2 User ID. User 1 does not have permission to change these options.

<sup>3</sup> Not required if a key switch is fitted to change access levels.

### 3.8.1 Using the Buttons to Navigate Menus

Press the 'Menu' button to bring up the display menu.

#### 3.8.1.1 Selecting Menu Options

The Level 2 Menu is shown below:

[Level 2 Menu]	User 1 Node 1	
<b>VIEW</b>	DISABLE	ENABLE
TEST	DELAY	TOOLS
	STATUS	

Press the  $\leftarrow$  $\uparrow$  $\downarrow$  $\rightarrow$  buttons to highlight the required menu option and then press the  $\checkmark$  button to select it.

For example, press the  $\rightarrow$  button followed by the  $\downarrow$  button to highlight the DELAY option (as shown below) and then press the  $\checkmark$  button to select this option.

[Level 2 Menu]	User 1 Node 1	
VIEW	DISABLE	ENABLE
TEST	<b>DELAY</b>	TOOLS
	STATUS	

Press the 'Esc' button from within a menu option to return to the previous menu.

Press the 'Esc' button from the Main Level 2 Menu (shown above) to return to the normal operating display.

If a button is not pressed for one minute (15-seconds if the panel is in a fire alarm condition) the display will automatically revert to the normal operating display. Press the 'Menu' button to return directly to the Level 2 Menu display previously shown.

#### 3.8.1.2 Selecting Individual Zone Numbers

When the display is showing a list of Zone Numbers, it is possible to select a specific zone number by using the number keys. For example, if the display is showing a list of zones:

[ Inputs]	More>	
Zone	Mode	Location
0001	<b>Enabled</b>	BASEMENT WEST
0002	Enabled	BASEMENT EAST
0008	Enabled	GROUND FLOOR
0009	Enabled	MAIN RECEPTION AREA

To select a particular Zone, move to the zone number column. The existing zone number will then be highlighted.

Enter the required Zone Number using the number buttons, for example 12.

[ Inputs]	More>	
Zone	Mode	Location
<b># 12</b>	Enabled	BASEMENT WEST
0002	Enabled	BASEMENT EAST
0008	Enabled	GROUND FLOOR
0009	Enabled	MAIN RECEPTION AREA

Finally press the  $\checkmark$  button to confirm. The display will then show a new list of Zones with the selected Zone highlighted at the top of the list.

If the number is entered incorrectly, press the 'Esc' button.

### 3.9 Viewing

The View menu is available on two pages. Highlight the “Next Menu” option and pres the ✓ button to select the next page.

[View Menu 1]	User 1	Node 1
<b>FIRES</b>	FAULTS	ALARMS
DISABLED	INPUTS	OUTPUTS
	Next Menu	

[View Menu 2]	User 1	Node 1
<b>PANEL</b>	NETWORK	WARNINGS
SUPERVISORY	LOG	
	Next Menu	

Note that Fires, Faults, Alarms, Disablements and Supervisory conditions are all normally shown without having to select the view menu. If, however, you wish to manually View any of these, they can be selected from this menu as required.

#### 3.9.1 View - Fires

This function shows the Zones and Inputs that are currently in a Fire Alarm condition.

The operation of the panel and the information that can be shown is identical to the views available from the main operating display. Refer to Section 3.2 for further information.

If there are no Zones or Inputs in a Fire Alarm condition, the display automatically reverts to the Main View Menu.

#### 3.9.2 View - Faults

This function shows the Zones, Inputs and Outputs that are currently in a Fault condition.

The operation of the panel and the information that can be shown is identical to the views available from the main operating display. Refer to Section 3.3 for further information.

#### 3.9.3 View - Alarms

This function shows the Zones and Inputs that are currently in an Alarm condition. These may occur if:

- ◆ The Zone or Input is currently in a Fire Test condition and / or
- ◆ Inputs that are configured to generate an alarm or pre-alarm condition when operated are active.

The operation of the panel and the information that can be shown is identical to the views available from the main operating display.

#### 3.9.4 View - Disabled

This function shows only Inputs and Outputs that are currently in a Disabled condition.

The operation of the panel and the information that can be shown is identical to the views available from the main operating display. Refer to Section 3.4 for further information.

If there are both Inputs and Outputs in a Disabled condition, the display presents the inputs first followed by the outputs.

If there are no Inputs or Outputs in a Disabled condition, the display does not change and continues to show the Main View Menu.

### 3.9.5 View - Inputs

This function shows the current operational condition for all Zones and Individual Inputs. The display presents a list of all of the zones containing input devices, with the first zone highlighted. For example:

```
[Inputs] More>
Zone Mode      Location
0001 Enabled   Kitchen
0002 Disabled  Reception
0013 Enabled   Lobby
0014 Enabled   Corridor
```

Press the  $\uparrow\downarrow$  buttons to highlight the required zone and then press the  $\rightarrow$  button to view the individual inputs. For example:

```
[ Inputs in Zone 0001] <More>
Mld Mode      Device text
/ 1 Enabled   Kitchen
/ 2 Disabled  Reception
```

### 3.9.6 View - Outputs

This function shows the current operational condition for all Outputs.

```
[Outputs] More>
Zone Location
0002 Reception
0003 Ground Floor
0013 First Floor Corridor
0014 First Floor
```

Press the  $\uparrow\downarrow$  buttons to highlight the required zone and then press the  $\rightarrow$  button to view the individual outputs. For example:

```
[ Outputs in Zone 0003] <More>
Mld Mode      Device text
  Enabled     Kitchen
  Disabled    Reception
```

Press the  $\rightarrow$  button to view further information on each point, for example:

```
[ Outputs in Zone 0003] <More>
Mld Mode      State      Type
  Enabled     Off        SOUNDER
  Disabled    RELAY
```

A \* symbol preceding the state (e.g. \*On) indicates the device has been configured as an inverted output (e.g. a fault relay that is designed to de-energise when a fault occurs).

The state of an output that is disabled is not shown, as it will inherently be in the off condition.

### 3.9.7 View - Panel

The View Panel Option provides three items to view diagnostic on the panel.

```
[Panel Information]
LOCAL-HARDWARE          SOFTWARE
NETWORK-HARDWARE
```

Press the **←↑↓→** buttons to highlight the required menu option and then press the **✓** button to select it.

- Local hardware provides information on the circuits of this panel.
- Network hardware provides information on the circuits of other panels / nodes on the network.
- Software provides information on the operating software of this panel and its optional interface cards.

#### 3.9.7.1 Software

```
[Software]
PANEL          DISPLAY      LOOP CARDS
NETWORK        PSU          PERIPHERAL
                PRINTER
```

Panel Software:

```
[Software]
PROGRAM ID      : MX5000-050-04
CHECKSUM        : 92879016
```

Other Software:

Select the other options and the display shows the software version incorporated into these circuit cards / functions and the hardware build variant. An number of peripheral modules may be installed (up to 32) – press the **↑↓** buttons to scroll through the list if required.

```
[Software]
ADRS.CARD TYPE      VERSION      BUILD
1 Display Card      1.03         00
```

If there are no devices installed of the type selected, the display shows:

```
[Software]
ADRS.CARD TYPE      VERSION      BUILD
NO DEVICES
```



### 3.9.7.2 Local Hardware

The Local Hardware Option provides a diagnostic readout of the operational condition and readings for the internal panel electronic circuits of this panel. When the option is selected, the display shows a list of the circuits. For example:

[Panel Circuits]		
DESCRIPTION	VALUE	STATE
Sounder A	5.6V	Normal
Sounder B	5.6V	Normal
Sounder A Load	0mA	Normal
Sounder B Load	0mA	Normal

The following table lists the internal panel circuits and indicates the values that can be displayed.

Description	Value Range	Normal	Possible States	
Sounder A	0V – 14V	5.5V	Normal	Open Circuit, Short Circuit
Sounder B <sup>4</sup>				
Sounder A Load	0mA – 1000mA	<sup>5</sup>	Normal	Too High
Sounder B Load <sup>4</sup>				
Battery	0V – 30V	27.6V	Normal	Too High, Too Low
Charger	0V – 30V	28.0V	Normal	Too High, Too Low
Charger Current	0mA – 2000mA	<sup>5</sup>	Normal	
Charger Temp (C)	0C – 50C	<sup>5</sup>	Normal	
Earth Volts	0V – 30V	2.5V / 14.5V <sup>6</sup>	Normal	Too High, Too Low
System Volts	19V – 30V	28.0V	Normal	
Aux Load	0mA – 500mA	<sup>5</sup>	Normal	Too High
1 <sup>st</sup> Loop Load <sup>7</sup>	0mA – 500mA	<sup>5</sup>	Normal	Open Circuit, Too High, Short Circuit
1 <sup>st</sup> Loop V.Out <sup>7</sup>	24V – 32V	<sup>5</sup>	Normal	
1 <sup>st</sup> Loop V.In <sup>7</sup>	24V – 32V	<sup>5</sup>	Normal	
Panel Switch Inputs 1-9	L/H	L	Normal	Programmable inputs
			Normal	
	L/H	L	Normal	
Relay 1	–	–	Normal	
Relay 2	–	–	Normal	
Relay 3 <sup>8</sup>	–	–	Normal	
Relay 4 <sup>8</sup>	–	–	Normal	
Main Supply	–	–	Normal	
Pager	–	–	Normal	

Press the   buttons to scroll through the panel internal circuits. Press the 'Esc' button to return to the main view menu.

NOTE: Additional panel circuits may be shown depending on the system configuration and installed options.

<sup>4</sup> The MX-5400 also displays Sounders C and D.

<sup>5</sup> Depends on the panel configuration, installation and current operating condition (i.e. fire alarm).

<sup>6</sup> Depends on configuration of the panel.

<sup>7</sup> Loop Load, V.Out and V.In displayed for each loop driver (2 on MX-5200, 4 on Mx-5400).

<sup>8</sup> Requires the installation of the 2-Way Relay card option.



### 3.9.7.3 Network Hardware

The Network Hardware Option provides a diagnostic readout of the operational condition and readings for the internal panel electronic circuits of other nodes / panels on the network. When the option is selected, the display shows a list of the nodes indexed by their assigned zone number. For example:

```
[HARDWARE] More>
Zone Location
1700 Ground Floor Panel
1701→ Reception Panel
1702→ First Floor Panel
1703→ Second Floor Panel
```

Press the **↑↓** buttons to scroll through the panels to highlight the required panel.

Press the **→** button to view the individual circuit information for the panel selected. The information includes the circuit text and current value as per the local hardware option. Press the **↑↓** buttons to scroll through the circuits on the selected panel. Additionally, the sector, node, circuit number and address information are also available.

### 3.9.8 View - Log

After selecting to view the log option the display presents a pop-up window to allow selection between a view of all of the event history, a view of only the fire alarms that have occurred or a view of the fire alarm counter.

```
ALL EVENTS
FIRE EVENTS ONLY
ALARM COUNTER
```

Press the **↑↓** buttons to highlight the required menu option and then press the **✓** button to select it. The display then shows the appropriate list of events.

#### 3.9.8.1 Event Log

The display will always show the most recent event to have occurred, e.g.

```
[View Fire Events] Entry 0076 < Number of Highlighted Event
Time/Date Node Lp:Addr Zone < Time, Origin and Zone
10:54:23 1 1:001.0 001 < Date, Event and Analogue Value
14/03/06 FIRE ALARM 64 < Zone Text Description
BASEMENT < Device Location Description
ROOM 10
```

In the above example, the latest fire occurred (Event No. 76) at 10:54 am on March 14, 2006. This fire alarm originated at the device at address 001(Addr) on Loop 1 (Lp) on Panel No. 1 (Panel). The device was in Zone 001. The analogue value registered by the device (64) has also been recorded. The lower two lines show the zone and device location texts descriptions for ease of identification.

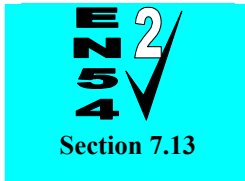
Press the **↑↓** buttons to scroll through the fire alarm events logged in the system. Press the **↑** button to show more recent events and press the **↓** button to show earlier events.

To view the details for a specific Log Entry Number, it is possible to select the record by typing in the required number using the number keys.

Press the **✓** button to confirm. The display will then display the required record.

Press the **'Esc'** button to return to the main view menu.

### 3.9.8.2 Alarm Counter



#### Alarm Counter.

The Panel records the number of times that the fire alarm condition has occurred at the panel.

```
[View Alarm Counter]
0000000033
```

In the above example, the panel has entered the fire alarm condition 33 times since it was installed. The panel increments the count by one each time it changes from the normal condition to indicate a fire alarm condition. Whilst in the fire alarm condition, and until it is reset, further fire alarm events do not increment the counter.

Press the 'Esc' button to return to the main view menu.

### 3.9.9 View - Network

This Option can be used to obtain diagnostic information when a network is used to connect other panels or remote terminals. The access level of all panels on the network can be checked from this display:

```
[NETWORK - Press 0 to Clear] More>
Node Status
1 LOCAL
2 Level-2
3 Level-1
4 -
```

Additional network diagnostics are available by selecting the "More>" option.

For further information, refer to the Ad-Net network manual (Document No. 680-502).

Pressing '0' allows the stored network status information to be cleared.

### 3.9.10 View - Warnings

This Option can be used to obtain information about warning conditions on the panel.

A warning condition is created whenever a detector device reaches its limit drift of compensation. This does not affect the performance or operation of the panel in detecting and responding to fire alarm conditions from the device. It will mean the device is more sensitive and could react to lower levels smoke stimuli resulting in false alarms. This function is normally used by the service engineer to view which devices need to be cleaned and no indication is given of this condition on the normal displays. A fault condition will occur when the device becomes dirty.

### 3.9.11 View - Supervisory

This Option can be used to obtain information about supervisory conditions on the panel.

The operation of the panel and the information that can be shown is identical to the views available from the main operating display. Refer to Section 3.6 for further information.

If there are no Zones or Inputs in a Supervisory condition, the display automatically reverts to the Main View Menu.

### 3.10 Disabling

On selecting the Disable Menu, the display shows five possible options. For example:

```
[Disable] User 1 Node 1
ZONE/INPUTS  OUTPUTS  GROUPS
CONTROLS     USER-ID
```

Press the **←→** buttons to highlight the required menu option and then press the **✓** button to select it.

#### 3.10.1 Disable - Zones and Inputs

This option provides the means to disable a complete zone, disable all input devices except call points or disable individual input devices.

If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

On selecting this option, the display shows a list of the current zones and their current disablement status. For example:

```
[ 0 Zones with Inputs Disabled] More>
Zone  Mode      Location
0001  Enabled     BASEMENT WEST
0002  Enabled     BASEMENT EAST
0008  Enabled     GROUND FLOOR
0009  Enabled     MAIN RECEPTION AREA
```

Press the **↑↓** buttons to scroll through the available zones, or key in a specific zone number.

To disable the entire zone, move over to the Mode column and highlight the existing mode. Press the **✓** button and a pop-up window appears showing the possible options: -

```
ALL INPUTS
SELECTED INPUTS
```

Press the **↑↓** buttons to scroll through and highlight the required option and then press the **✓** button to select it.

If ALL INPUTS is chosen, the pop-up window disappears and the State of the Zone is changed to ALL DISABLED.

If SELECTED INPUTS is chosen, the pop-up window disappears and a list of the input devices within the selected zone is presented. For example:

```
[ Inputs in Zone 0001] More>
Mld Mode      Device Text
/ 1 Enabled    Room 151
/ 2 Disabled   Room 152
/ 3 Enabled    Kitchen
/14 Enabled    Lobby
```

Press the **→** button for more information on the inputs, including full state, type, analogue value etc.

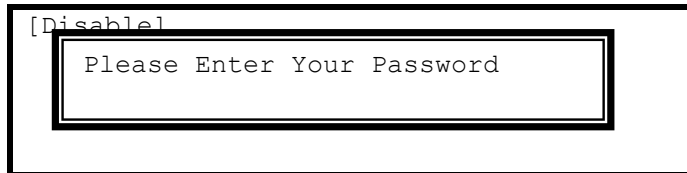
Press the **↑↓** buttons to scroll through and highlight the required input and then press the **✓** button to disable it.

Press the **'Esc'** button to return.

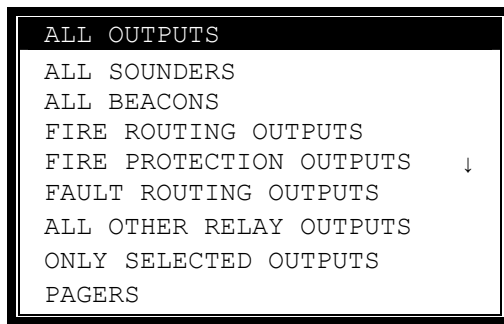
### 3.10.2 Disable - Outputs

The Disable Outputs Option enables the isolation of some or all of the outputs. If disabled, the outputs will not activate in the event of a fire alarm or other programmed event.

If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.



Enter the password as normal. Once a valid password has been entered, a pop-up window is shown on the display to select the type of outputs to disable. Scroll down to view / select the available options. The list below details all of the possible options – the available options will have been configured by the installation engineer.



#### 3.10.2.1 All Sounder Outputs

Press the  $\uparrow\downarrow$  buttons to scroll through and highlight the ALL SOUNDERS Option and then press the  $\checkmark$  button to disable them. The display automatically reverts to the Main Disable Menu.

The 'Sounder Disabled' Indicator will be illuminated.

#### 3.10.2.2 All Beacon Outputs

Press the  $\uparrow\downarrow$  buttons to scroll through and highlight the ALL BEACONS Option and then press the  $\checkmark$  button to disable them. The display automatically reverts to the Main Disable Menu.

NOTE: This only applies to individually addressable beacons. For some combined sounder/beacon devices, the beacon follows the operation of the sounder and it is only possible to disable both the sounder and the beacon together.

#### 3.10.2.3 Fire Routing Outputs

Press the  $\uparrow\downarrow$  buttons to scroll through and highlight the FIRE ROUTING OUTPUT Option and then press the  $\checkmark$  button to disable all fire routing outputs. The display automatically reverts to the Main Disable Menu.

The 'Fire Routing Disabled' Indicator will be illuminated.

#### 3.10.2.4 Fire Protection Outputs

Press the  $\uparrow\downarrow$  buttons to scroll through and highlight the FIRE PROTECTION OUTPUT Option and then press the  $\checkmark$  button to disable all fire protection outputs. The display automatically reverts to the Main Disable Menu.

#### 3.10.2.5 Fault Routing Outputs

Press the  $\uparrow\downarrow$  buttons to scroll through and highlight the FAULT ROUTING OUTPUT Option and then press the  $\checkmark$  button to disable all fault routing outputs. The display automatically reverts to the Main Disable Menu.

### 3.10.2.6 All Other Relay Outputs

Press the **↑↓** buttons to scroll through and highlight the ALL OTHER RELAY OUTPUTS Option and then press the **✓** button to disable them. The display automatically reverts to the Main Disable Menu.

### 3.10.2.8 Pager

Press the **↑↓** buttons to scroll through and highlight the PAGER OUTPUT Option and then press the **✓** button to disable all pager outputs. The display automatically reverts to the Main Disable Menu.

### 3.10.2.9 Only Selected Outputs

Allows selection of a single output.

## 3.10.3 Disable - Controls

Disabling Controls will cancel Level 2 access and return the panel to Level 1 operation.

**If the panel has an access key switch fitted, use the key switch in preference to the menu option shown below.**

```
[Disable]                               User 1 Node 1
ZONE/INPUTS      OUTPUTS      GROUPS
CONTROLS       USER-ID
```

Press the **↔** buttons to highlight the Controls option and then press the **✓** button to select it.

The display then prompts for password entry. Enter the password as normal.

When a valid password has been entered, the control button functions and menu functions are disabled and the level 1 menu display will be shown: -

```
[ CONTROLS DISABLED ]
ENABLE CONTROLS      VIEW
LED-TEST              STATUS
```

The display will automatically revert to the normal operating display after a few seconds.

### 3.10.4 Disable – User ID

This operation will cancel the current User ID and return to the default User 1. User 1 can perform all actions except those defined as programmable (refer to the menu table).

```
[Disable]                               User 5 Node 1
ZONE/INPUTS      OUTPUTS      GROUPS
CONTROLS        USER-ID
```

Press the ←→ buttons to highlight the User-ID option and then press the ✓ button to select it.

```
[Disable]                               User 1 Node 1
ZONE/INPUTS      OUTPUTS      GROUPS
CONTROLS        USER-ID
```

NOTE: If configured to operate with a timeout and if there has been no user activity after the programmable period of time (default “No Timeout”), the panel will automatically cancel a User ID and return the panel to User 1 ID access. This is to ensure that access to restricted options is automatically cancelled.

### 3.10.5 Disable – Groups

Disabling Groups are a means of disabling / enabling custom groups of devices. The commands are command across the network of panels and can be invoked from any panel. The installer will have configured these groups.

If no groups exist, selection of this option will show a NOT CONFIGURED message.

Some typical examples are:

Stage Smoke Detectors

Floor 2 Sounders

ALL Sounders

The display will show, for example:

```
[Disable Group]                         User 5 Node 1
Group Invoke Description
1 - Stage Smoke Detectors
2 - Floor 2 Sounders
3 - ALL Sounders
```

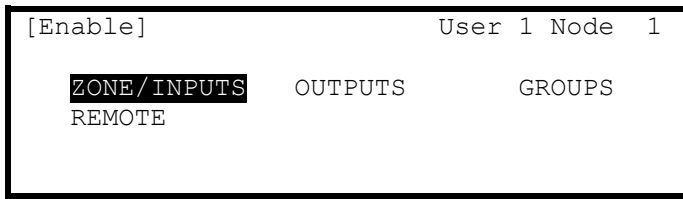
Press the ↑↓ buttons to scroll through and highlight the required option and then press the ✓ button to disable it. The display will show that the command has been invoked (activated).

```
[Disable Group]                         User 5 Node 1
Group Invoke Description
1 ok Stage Smoke Detectors
2 - Floor 2 Sounders
3 - ALL Sounders
```

The GENERAL DISABLE and any specific disable indicators will be illuminated on the panel(s).

### 3.11 Enabling

On selection of the Enable Menu Option, the display shows the available Enable Functions.



Press the **←→** buttons to highlight the required menu option and then press the **✓** button to select it.

#### 3.11.1 Enable - Zones and Inputs

Selecting this option will show a list of zones containing disabled input devices. Either the complete zone, or individual devices within the zone can then be enabled (Display format is virtually identical to the Disable displays).

#### 3.11.2 Enable - Outputs

When this option is selected, a pop-up menu appears asking if you want to enable ALL SOUNDERS, ALL BEACONS, FIRE ROUTING OUTPUTS, FIRE PROTECTION OUTPUTS, FAULT ROUTING OUTPUTS, ALL OTHER RELAY OUTPUTS, ONLY SELECTED OUTPUTS or the PAGER OUTPUT. If ONLY SELECTED OUTPUTS is selected, the display will list only zones containing outputs that have been disabled. The individual outputs within the zone can then be enabled.

(The display format is virtually identical to the Disable displays).

#### 3.11.3 Enable - Groups

This option allows the re-enabling of User-defined Disablement Groups. The display is identical to the disable option.

#### 3.11.4 Enable - Remote

Information on the detectors connected to the panel and on the condition of all zones can be obtained with an ipGateway interface.

In addition, the user can be assisted with operations such as disabling / enabling a detector from external commands over a TCP/IP system. In order to ensure this only happens with the consent of the user the REMOTE option must be enabled by the user.

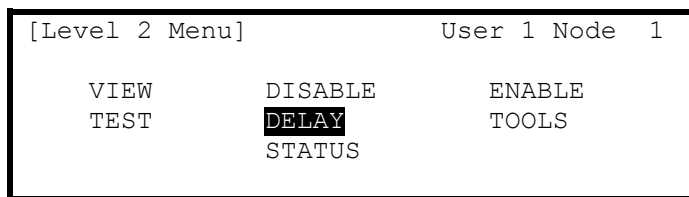
If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

After selecting the option, a selection list is presented on the display as follows:



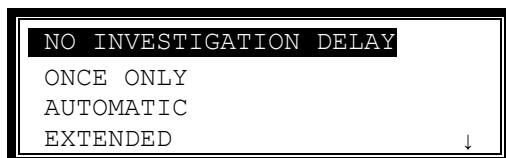
Use the **↑↓** buttons to highlight the required option and then press the **✓** button to confirm.

### 3.12 Delays



Press the **↑↓←→** buttons to highlight the Delay-Mode option and then press the **✓** button to select it. If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

If the delays are configured in the panel, the display shows the following pop-up window when the Delay-Mode Option is selected. (Note: This delay function can only be configured using the PC Programming Tool).



If the delays are not configured in the panel, the display briefly shows “NOT CONFIGURED” before returning to the Disable Menu Options.

#### 3.12.1 Turn Off Delay Mode

This operation will cancel the Investigation Delay mode.

With the option highlighted, press the **✓** button to select **NO INVESTIGATION DELAYS** and disable the operation of the Stage 1 / Stage 2 Investigation Function. Otherwise, press the **ESC** to cancel and keep the investigation delays in operation.

If the investigation delays are in operation then the “Delayed” LED Indicator is illuminated. When the investigation delays are turned off, the “Delayed” LED Indicator is turned off.

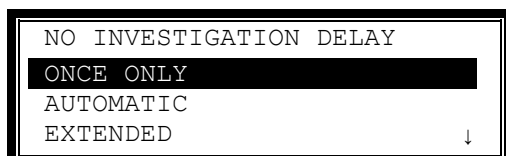
Press ‘**Esc**’ to cancel and make no change to the current operational setting.

#### 3.12.2 Turn On Delay-Mode

This option allows the operation of Investigation Delays and other related functions.

The Investigation Delays can be invoked as manual operation delays (Once Only), Automatic delays (configured to run with a time clock) and Extend delays. A further option is provided to Inhibit delays for holiday periods. The options that appear in the menu depend on the installation configuration programmed by the installer.

On selection of the DELAY option, the display will show a pop-up menu list. For example:



Press the **↑↓** buttons to scroll through and highlight the required option and then press the **✓** button to enable it.

The display will confirm the selection and indicate WORKING whilst it performs the operation. On completion, it reverts to the pop-up menu.

For Extended and Holiday/Inhibit, further menus are presented.



### 3.12.2.1 Extend Delays

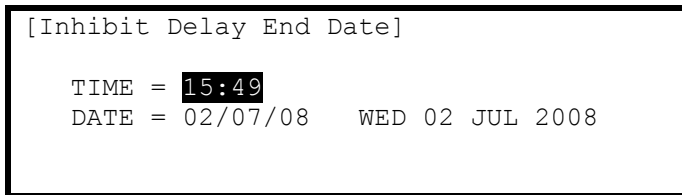
To extend any current automatic delays (for example overtime working).



Use the number keys to enter the required number of hours beyond the current configured end time.

### 3.12.2.2 Holiday / Inhibit

The panel can be enabled to prevent any pre-programmed daily automatic delays from activating during holiday periods. On selection, the display shows:

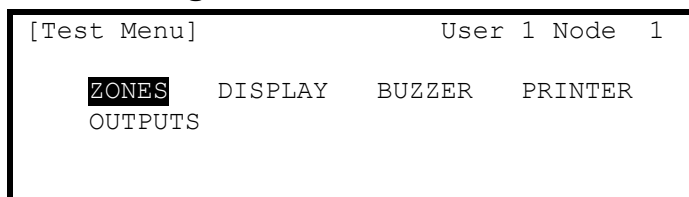


Press the **↑↓** buttons to select the time / date fields. Enter the required time and date using the number buttons.

Any pre-configured automatic delays or manual delays will be immediately suspended and the panel will operate without any investigation delays.

On reaching the time / date programmed, the panel will automatically revert to use any investigation delays as programmed and configured.

### 3.13 Testing



Press the **←→** buttons to highlight the required menu option and then press the **✓** button to select it.

#### 3.13.1 Test - Zones

The Test Zones function provides the means to implement a one-person walk test in order to test specific call points or detectors in one or more zones.

If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

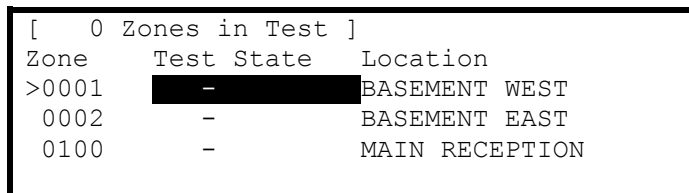
When the Test Zones option is selected, a pop-up window is shown on the display to select whether the sounders will activate (for about 10-seconds) when an input device is activated. For example:



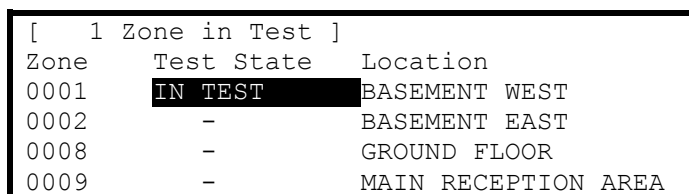
Press the **↑↓** buttons to scroll through and highlight the required option and then press the **✓** button to select it.

Note that the panel will have been programmed during commissioning to define which of the sounders are activated during a test.

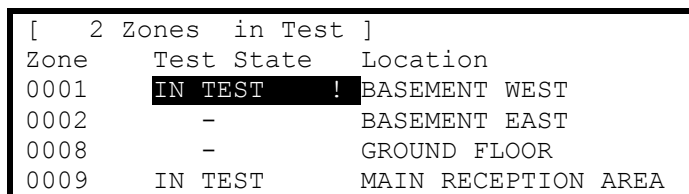
The display then shows a list of the available Zones and their current test status. For example:



Press the **↑↓** buttons to scroll through and highlight the required zone and then press the **✓** button to change the Test State. For example:



When one or more Zones are placed in a Test State, the Test Indicator will be illuminated. When an input device is activated (i.e. break glass test on a call point or introducing test smoke into a smoke detector), the bells will ring (if selected) and the display will indicate that a zone is registering a test condition by showing an exclamation mark (!) on the display.



When the activating test key is removed from the call point or the smoke clears from the detector chamber, the panel will automatically reset and clear the test condition.

As an alternative to scrolling, a specific zone number can be entered by using the **←** button to move to the zone number column, and then typing in the required number, followed by the **✓** button.

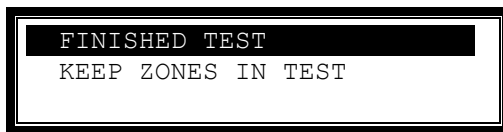
If several consecutive zones are to be tested, an alternative to selecting them all individually is to specify a range of zones as follows: -

Move to the zone number column and highlighting the first zone to test, then

Press the **✓** button – the display will then ask for the last zone to be tested.

Individual zones can then be toggled in or out of test by pressing the **✓** button.

To leave the Zone Test menu, press the **'Esc'** button. If there are still any zones in a test condition a pop-up window with the following options: -



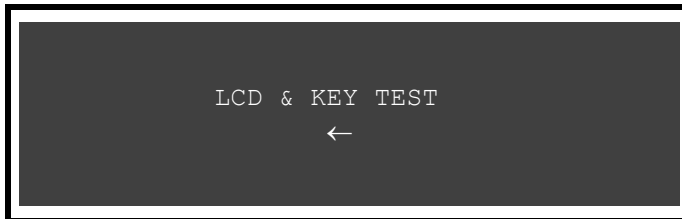
Selecting the FINISHED TEST option will cancel all zone tests. The Test LED will then extinguish.

Alternatively, it is possible to leave the Zone Test Function with one or more Zones still in Test by selecting the KEEP ZONES IN TEST option. This will enable the inspection or use of other menu functions and return the display to the normal operating mode. The Test LED will stay illuminated if this option is selected.

### 3.13.2 Test - Display

The Test Display option checks the operation of all the Indicators and the Graphic Display. All of the Indicators are turned on and the entire display is shown in reverse.

During this test, it is possible to test the operation of the **←,↑,↓,→,✓** and **0-9** buttons. When a button is pressed, it is indicated on the display. For example:



Press the **'Esc'** button to return to the Test Menu. If no button is pressed for 1-minute, the display will automatically revert to the normal operating display.

### 3.13.3 Test - Buzzer



When the Test Buzzer option is selected, the internal buzzer will sound for about five seconds.

### 3.13.4 Test - Printer

To invoke the printing of a test print sequence, highlight the Test Print Option and press the ✓ button to confirm. The panel transmits 16 lines of test characters to the printer. The information sent is echoed on the display.

When the test print is completed, the display automatically reverts to the Test Options Menu.

Press the 'Esc' button at any time to cancel the test print.

### 3.13.5 Test - Outputs

Output devices can be individually tested for operation.

To test an individual output device (sounder or relay), highlight the Test Outputs Option and press the ✓ button to confirm. The display will present a list of the zones that contain output devices.

If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent operation.

```
[Outputs]
Zone   Location
0001  BASEMENT WEST
0002  BASEMENT EAST
0037  EAST PLANT ROOM
0100  MAIN RECEPTION
```

Press the ↑↓ buttons to scroll and highlight the required zone (or key in the required zone number) and then press the → button to show the output devices in that zone. For example:

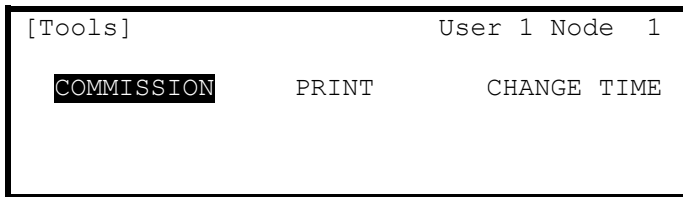
```
[ Outputs in Zone 37] <More>
Mode   Device Text
Enabled Room 151
Enabled Room 152
```

Press the ↑↓ buttons to scroll and highlight the required output and then press the ✓ button to test the output. The display will prompt to confirm the "Test this device". Press the ✓ button again to accept. The output device will turn on and this will be confirmed on the display by the status changing from OFF to ON. Press the → button to show further information on the output.

The general "TEST" LED will illuminate whenever an output is in test. The test is cancelled by either pressing the ESC button or by scrolling to the next / previous device in the list. If the display is left for one minute without pressing any buttons, the output will revert to its quiescent state.

On networked systems, the Test – Outputs option also supports testing of outputs connected to other panels.

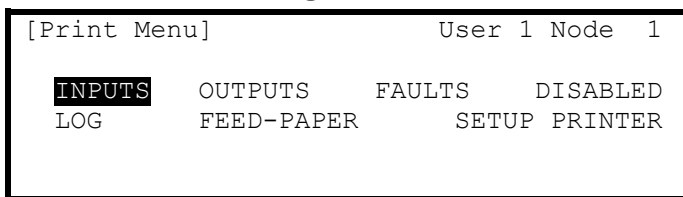
### 3.14 Tools



The TOOLS menu presents three options. Press the  $\leftarrow\rightarrow$  buttons to highlight the required menu option and then press the  $\checkmark$  button to select it.

The COMMISSION Menu is only available to Level 3 Service Users.

#### 3.14.1 Printing



##### 3.14.1.1 Printer Communications Settings

The information is sent to the printer in a serial form. If an external printer is used, ensure that the communications settings in the printer are set as follows:

Interface Type: RS232

Baud Rate: 9600

Parity: None

Data Bits: 8

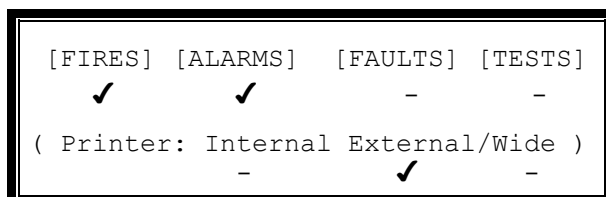
Stop Bits: 1

##### 3.14.1.2 Set-up Printer

To enable or set-up the operating characteristics of the printer, highlight the Set-up Printer Option and press the  $\checkmark$  button to confirm.

If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

Enter the password as normal. The display then shows a pop-up window giving programming options as follows:



The upper line of options determines whether the panel shall automatically print specific events as they occur.

The lower line of options determines whether a printer is connected and its type.

Use the  $\leftarrow$ ,  $\uparrow$ ,  $\downarrow$ ,  $\rightarrow$  and  $\checkmark$  buttons to highlight the required option and change its setting. Pressing the  $\checkmark$  button turns the option on ( $\checkmark$  is shown) or off (- is shown) accordingly.

In the above option, an external printer is selected, with automatic printing of fires and alarms.

Setting the wide option will change the printing from the default 40 characters per line to 80 characters per line.

Note: Only faults registered on this panel are printed.

### 3.14.1.3 Print Inputs

To print information on any input, highlight the Inputs option and press the ✓ button to confirm. The display will show the following:

```
[Inputs]

First Zone : 98
Last Zone  : 98

(Press → to Start Print)
```

The display will prompt the zones in use on this panel. For networked systems, it is possible to select any zones used in the system. Use the arrow (↑↓) buttons to highlight the first and last zone number and use the number keys to change the zone number required.

Press the → key to start printing.

The display will show the following whilst information is sent to the printer and printed.

```
WORKING ...

(Press Esc to Stop)
```

After all information has been printed, the display will automatically revert to the Print Menu. Press the “Esc” key to stop printing if required.

The printout will show all input points for the zones selected. Information printed includes Device Text, Zone Number, Loop and address, current status and analogue value.

### 3.14.1.4 Print Outputs

To print information on any output, highlight the Outputs option and press the ✓ button to confirm. The display will show the following:

```
[Outputs]

First Zone : 98
Last Zone  : 98

(Press → to Start Print)
```

The display will prompt the zones in use on this panel. For networked systems, it is possible to select any zones used in the system. Use the arrow (↑↓) buttons to highlight the first and last zone number and use the number keys to change the zone number required.

Press the → key to start printing.

The printout will show all output points for the zones selected. Information printed includes Device Text, Zone Number, Loop and address, current status and analogue value.

### 3.14.1.5 Print Faults

To print information on any faults, highlight the Faults option and press the ✓ button to confirm. The display will show the following:

```
[ 2 Zones in Fault]

First Zone : 98
Last Zone  : 99

(Press → to Start Print)
```

The panel analyses the network and the display will prompt the zones in a fault condition.

Use the arrow (↑↓) buttons to highlight the first and last zone number and use the number keys to change the zone number as required.

Press the → key to start printing.

The printout will show the location and state of all input and output points in a fault condition for the zones selected.

Note: If no fault conditions are present then selecting this menu option will no effect.

#### 3.14.1.6 Print Disabled

To print information on any disablement, highlight the Disabled option and press the ✓ button to confirm. The display will show the following depending on the disabled conditions present:

If there are zones with inputs disabled:

```
[ 2 Zone(s) with Inputs Disabled]

First Zone : 98
Last Zone  : 99

(Press → to Start Print)
```

If there are zones with outputs disabled:

```
[ 1 Zone(s) with Outputs Disabled]

First Zone : 98
Last Zone  : 98

(Press → to Start Print)
```

The panel analyses the network and the display will prompt the zones in a disabled condition.

Use the arrow (↑↓) buttons to highlight the first and last zone number and use the number keys to change the zone number as required.

Press the → key to start printing.

The printout will show the location and state of all input and output points in a disabled condition for the zones selected.

The display always present the zones with inputs disabled first (if any exist). After printing the inputs the display will present the information on disabled outputs (if any exist).

Note: If there aren't disabled conditions present then selecting this menu option will no effect.

#### 3.14.1.7 Print - Log

To print information from the History Log, highlight the Print Log Option and press the ✓ button to confirm. A pop-up window will be shown asking if all events, or just fires should be printed.

Highlight the required option using the ↑↓ buttons and press the ✓ button to confirm.

When the Log Print is completed, the display automatically reverts to the Print Options Menu.

Press the 'Esc' button at any time to cancel the log print.

Note: The pop-up window also allows selection of the Fire Alarm Counter. On selection, this is shown on the display but is not printed.

#### 3.14.1.8 Print - Feed Paper

Highlight the Feed Paper Option and press the ✓ button to confirm. The display does not change but a command is sent to the printer to advance the paper.

### 3.14.2 Change-Time

Allows the clock time to be changed.

If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

For example:

```
[SET TIME/DATE]

TIME = 15:28
DATE = 05/01/09    MON  5 JAN 2009
```

To change the settings, use the **↑↓** buttons to highlight the required option. Directly enter the new time or date using the **number** buttons. As soon as a **number** button is pressed, the display will clear the current setting and show the new value as it is entered. For example:

```
[SET TIME/DATE]

TIME = 1 -:--
DATE = 05/01/09    MON  5 JAN 2009
```

If this panel is connected to a network, ALL panels on the network will assume this new value.



USER NOTES:

Doc Number	680-166
Revision	03
First Issued	2010-01-19

## Advanced Electronics Limited

34 Moorland Way  
Nelson Park  
Cramlington  
Northumberland  
NE23 1WE

Tel: +44 (0)1670 707 111  
Fax: +44 (0)1670 707 222  
Web: [www.Advel.co.uk](http://www.Advel.co.uk)  
Email: [Sales@Advel.co.uk](mailto:Sales@Advel.co.uk)

