

MxPro⁵

Fire Alarm Panels



User Manual

The operation and functions described in this manual are available from Software Version 5000-050-04 onwards.

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1 Introduction

1.1 Standards

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

| | |
|--|-----------------------|
|  | 0786-CPD-20952 |
| 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">- Outputs to Fire Alarm Devices- Output to Fire Routing Equipment- Output to Fire Protection Equipment- Output to Fault Routing Equipment- Investigation Delays to Outputs- Dependency on more than one alarm signal- Fault Signals from Points- Disablement of Points- Alarm Counter- Test Condition- Standardised Input / Output | |
| EN54-4: 1997 +A1:2002 +A2:2006 Power supply equipment for fire detection and fire alarm systems for buildings | |
| Mx-5100, Mx-5200, Mx-5400, MX-5800 Mx-5100V, Mx-5200V, Mx-5400V, MX-5800V Mx-5100N, Mx-5200N, Mx-5400N, MX-5800N | |

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 INSTALLATION – Refer To the Ratings shown on the label inside the product and to the ‘Specifications Chart’ in this document. 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 equipment is constructed with static sensitive components. Observe anti-static precautions at all times when handling printed circuit boards. Wear an anti-static earth strap connected to panel enclosure earth point. Before installing or removing any printed circuit boards remove all sources of power (mains and battery).

1.3 Description

This manual covers the use and operation of the *5000, 5000V & 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.

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

1.3.1 5000 Series

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

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

The *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) and Hochiki (ESP) fire detection devices.

1.3.2 5000V Series

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

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

The *5400V* 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 Advanced (AV) fire detection devices.

1.3.3 5000N Series

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

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

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

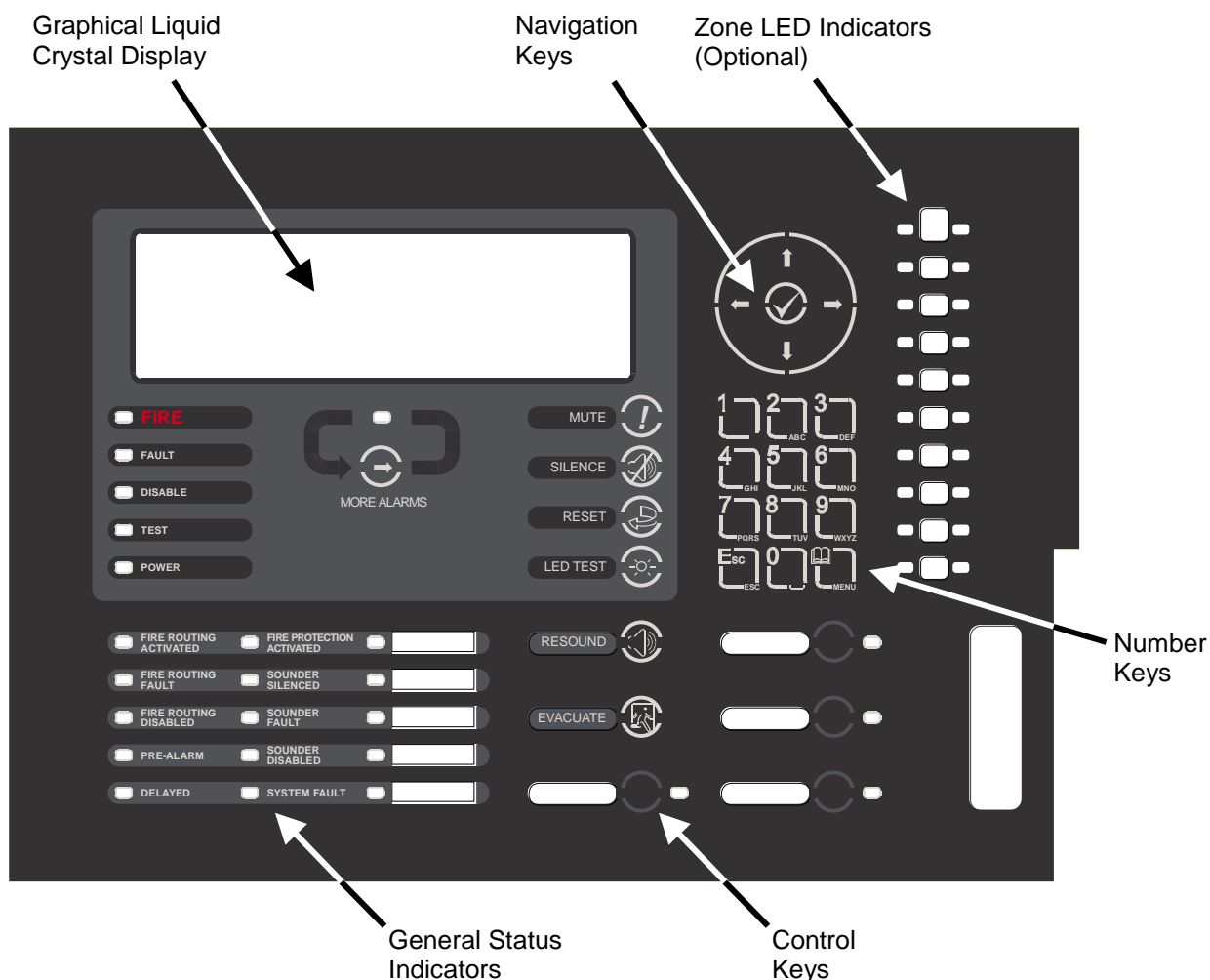
All above models are designed for use with the Nittan Evolution fire detection devices.

2 Controls and Indications

The 5000, 5000V and 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.

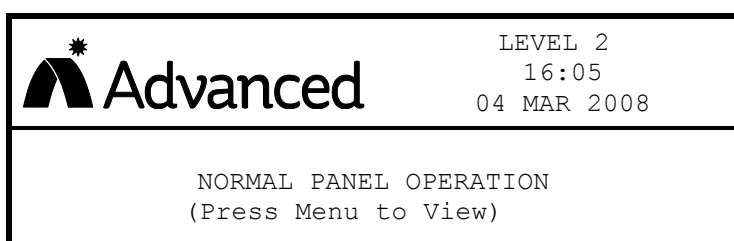


Slide-in labels are used to annotate Function Indicators and Programmable Control Keys and Indicators.

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 disable (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.

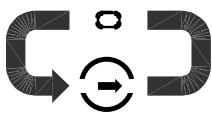








The arrangement and definition of the Status LED Indicators depend on the country and market requirements. The functions described are the same and the most common layout is shown.

2.3 Zone LED Status Indicators

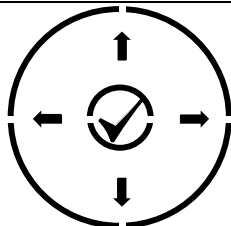

The Zone LED Status Indications can be included on the main display (up to 20 zones – fire alarm indication only) or can be included as plug in modules below the main display. These show the basic operational state of the zone and can indicate whether the zone is in a fire alarm, fault, disabled or test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

2.4 Control Buttons

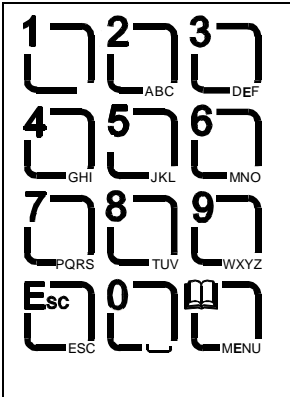
The following table contains a list of all of the control button functions available. The buttons available on each product depend on the country of installation and specific market requirements.

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

2.5 Navigation Buttons

| | |
|---|--|
|  | ←↑↓→ 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

| | |
|--|---|
|  | <p>Used to enter numbers or letters.</p> |
| <p>Esc</p> | <p>Press to return to a previous menu. Press to exit the menu functions and return to the normal display.</p> |
| <p>Menu</p> | <p>Press to show or return to Menu Functions.</p> |

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

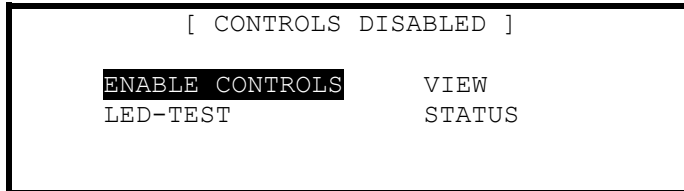
- A Level 1 Untrained User can view the current operational condition of the system and may MUTE the internal buzzer. NOTE: Depending on the configuration settings, a Level 1 user may also be permitted to EVACUATE and/or SILENCE and/or RESET the system by pressing the appropriate button and entering 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 Product (Installation and Commissioning) Manual (Part Number 680-165).

3.1.1 Changing from Access Level 1 to Level 2

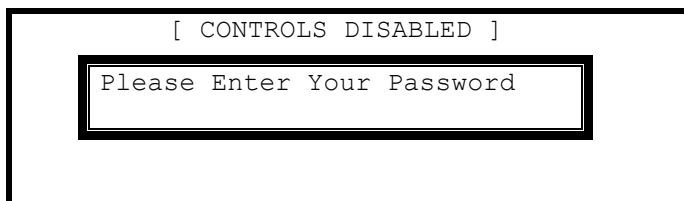
If the panel has an access key switch fitted, use the key in preference to the menu options shown below.

3.1.1.1 Menu Access

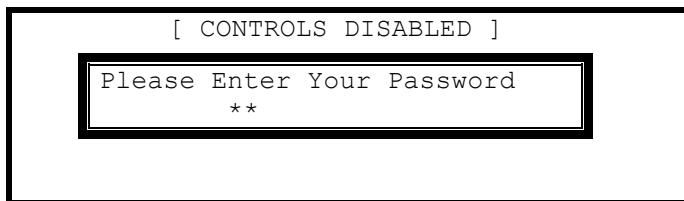
Press the 'MENU' button. The level 1 menu will be displayed as shown below:



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:

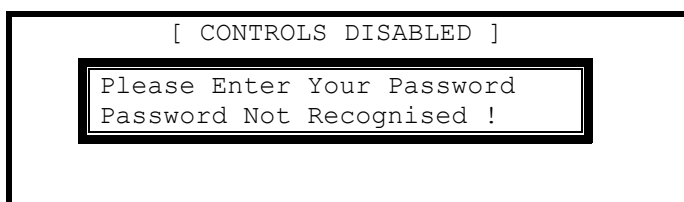


Enter the password using the number buttons and then press the ✓ button. As each number is entered, an asterisk (*) is shown on the display. For example:



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 "Disablement" 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 № ¹ |
| BASEMENT WEST | | < Location Text for First Zone |
| KITCHEN | <CALL POINT > | < Location Text and Type of Device |
| [1 Zone in Fire. | | < No. of Zones in Fire & Last Zone |
| Zone 0001] | | < Zone Description for Last Zone |
| BASEMENT WEST | | |

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 | | < No. of Zones in Fire & Last Zone |
| Last Zone 0005] | | < Zone Description for Last Zone |
| BASEMENT EAST | | |

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. | | < No. of Zones in Fire & Last Zone |
| Zone 0100] | | < Zone Description for Last Zone |
| MAIN RECEPTION | | |

¹ 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 meldergruppe (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 3.12.

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 | < Location Text for First Zone |
| BASEMENT WEST | (MULTI.SENSOR) | < Location Text and Type of Device |
| RESTAURANT | | |
| 1 Zone In Fault | | < No. of Zones in FAULT |
| More> | | |

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

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 | | < Zone #, Location Text for each |
| 1 BASEMENT | | < zone |
| 100 RECEPTION | | |

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 № (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

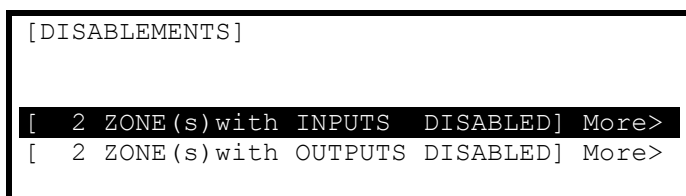
If any zones, input devices or output devices have been disabled, the DISABLE Indicator is illuminated. In addition, the SOUNDER DISABLE Indicator is illuminated if one or more sounder circuits or devices have been disabled. The display indicates the presence of zone disablement conditions in the lower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

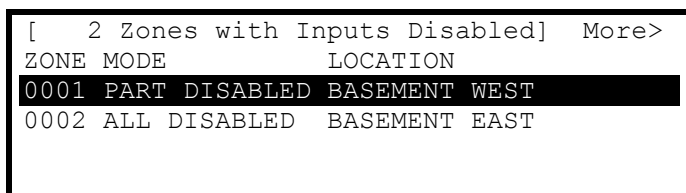


< Zone, disablement condition and
< location text

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:

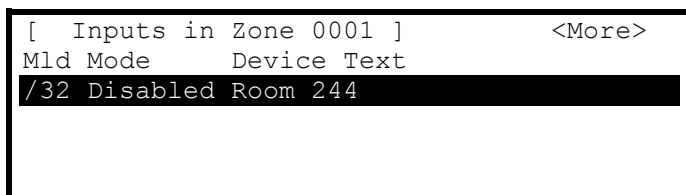


< Zone, disablement condition and
< location text

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 | |
| RESTAURANT | (MULTI.SENSOR) |
| ----- | |
| 1 Zone In Alarm | More> |

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

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 | |
| PLANT ROOM | | < Location Text for First Zone |
| SPRINKLER SHUT OFF | (INPUT MON) | < Location Text and Type of Device |
| 1 Zone In Alarm | | < No. of Zones in Supervisory |
| | | ↓ More> |
| 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 |
| VIEW | 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 ² | Disable a complete zone or an individual input. | |
| | Outputs ² | Disable sounder outputs or other devices. | |
| | Controls ³ | Cancel Level 2 access. | |
| | User ID ³ | 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 ² | 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 ² | Configure the printer connection and automatic print options |
| | CHANGE TIME ² | Allows authorised level 2 users to change time. | |

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

³ 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 | |
| VIEW | DISABLE | ENABLE |
| TEST | DELAY | TOOLS |
| | STATUS | |

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

For example, press the → button followed by the ↓ button to highlight the DELAY option (as shown below) and then press the ✓ button to select this option.

| | | |
|----------------|---------------|--------|
| [Level 2 Menu] | User 1 Node 1 | |
| VIEW | DISABLE | ENABLE |
| TEST | DELAY | 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 | Enabled | 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 |
| # 12 | Enabled | BASEMENT WEST |
| 0002 | Enabled | BASEMENT EAST |
| 0008 | Enabled | GROUND FLOOR |
| 0009 | Enabled | MAIN RECEPTION AREA |

Finally press the ✓ 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 press the ✓ button to select the next page.

| | | |
|---------------|---------------|---------|
| [View Menu 1] | User 1 Node 1 | |
| FIRES | FAULTS | ALARMS |
| DISABLED | INPUTS | OUTPUTS |
| | Next Menu | |

| | | |
|---------------|---------------|----------|
| [View Menu 2] | User 1 Node 1 | |
| PANEL | 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 0 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 **↑↓** buttons to highlight the required zone and then press the **→** 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 **↑↓** buttons to highlight the required zone and then press the **→** button to view the individual outputs. For example:

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

Press the **→** 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. A 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 ⁴ | | | | |
| Sounder A Load | 0mA – 1000mA | ⁵ | Normal | Too High |
| Sounder B Load ⁴ | | | | |
| Battery | 0V – 30V | 27.6V | Normal | Too High, Too Low |
| Charger | 0V – 30V | 28.0V | Normal | Too High, Too Low |
| Charger Current | 0mA – 2000mA | ⁵ | Normal | |
| Charger Temp (C) | 0C – 50C | ⁵ | Normal | |
| Earth Volts | 0V – 30V | 2.5V / 14.5V ⁶ | Normal | Too High, Too Low |
| System Volts | 19V – 30V | 28.0V | Normal | |
| Aux Load | 0mA – 500mA | ⁵ | Normal | Too High |
| 1 st Loop Load ⁷ | 0mA – 500mA | ⁵ | Normal | Open Circuit, Too High, Short Circuit |
| 1 st Loop V.Out ⁷ | 24V – 32V | ⁵ | Normal | |
| 1 st Loop V.In ⁷ | 24V – 32V | ⁵ | 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 ⁸ | – | – | Normal | |
| Relay 4 ⁸ | – | – | 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.

⁴ The 5400 also displays Sounders C and D.

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

⁶ Depends on configuration of the panel.

⁷ Loop Load, V.Out and V.In displayed for each loop driver (2 on 5200, 4 on 5400).

⁸ 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
10:54:23   1    1:001.0    001 < Time, Origin and Zone
14/03/06  FIRE ALARM    64 < Date, Event and Analogue Value
BASEMENT < Zone Text Description
ROOM 10 < Device Location Description
```

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.

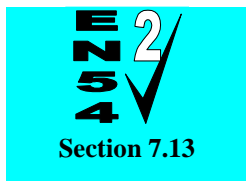
Press the **↑↓** buttons to scroll through the fire alarm events logged in the system. Press the **↑** button to show more recent events and press the **↓** button to show earlier events.

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
ONLY AUTOMATIC DETECTORS
ONLY MANUAL DEVICES
ALL OTHER DEVICES
```

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.

If ONLY AUTOMATIC DETECTORS is chosen, the pop-up window disappears and the State of the Zone is changed to PART DISABLED. Smoke and heat detectors are disabled.

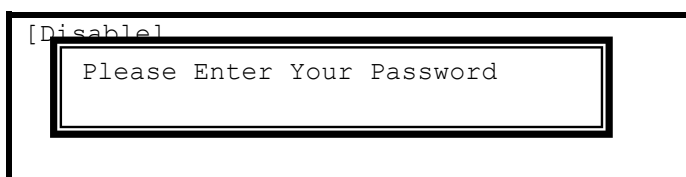
If ONLY MANUAL DEVICES is chosen, the pop-up window disappears and the State of the Zone is changed to PART DISABLED. Manual call points are disabled.

If ALL OTHER DEVICES is chosen, the pop-up window disappears and the State of the Zone is changed to PART DISABLED. Other input devices are disabled.

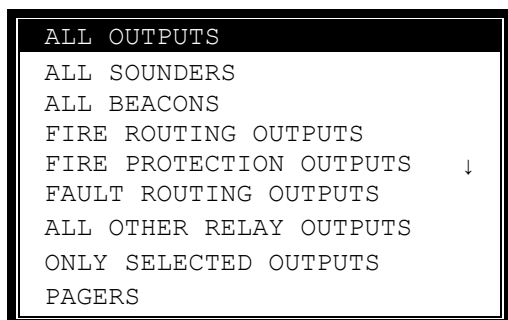
3.10.2 Disable - Outputs

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 **↑↓** buttons to scroll through and highlight the FAULT ROUTING OUTPUT Option and then press the **✓** 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.

3.10.2.7 Selected Outputs

✓

✓ 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

Disablement 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
```

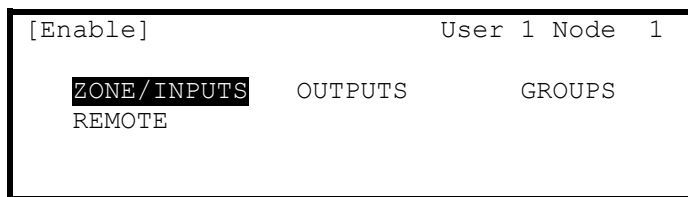
Press the **↑↓** buttons to scroll through and highlight the required option and then press the **✓** button to disable it. The display will show that the command has been invoked (activated).

```
[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. The complete zone, individual devices and other options within the zone can then be enabled (The display format is virtually identical to the equivalent Disable menu).

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 equivalent Disable Menu).

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.

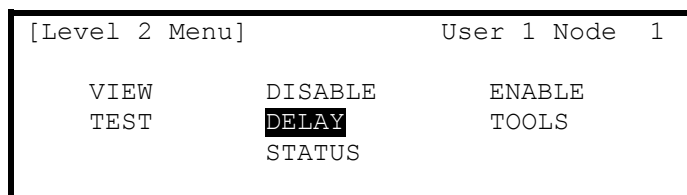
If the current User ID does not have the necessary permission, the display prompts for entry of a password to guard against inadvertent changes.

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



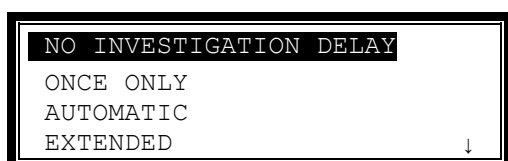
Use the ↑↓ buttons to highlight the required option and then press the ✓ button to confirm.

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.

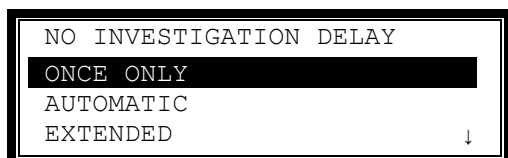
Press **‘Esc’** to cancel and make no change to the current operational setting.

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

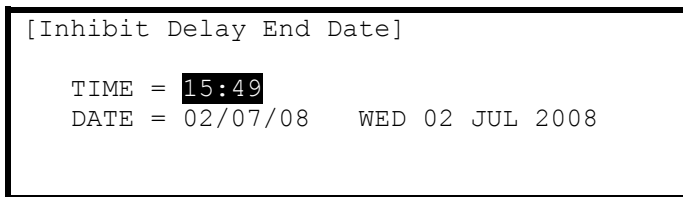
To extend any current automatic delays (for example overtime working).



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:

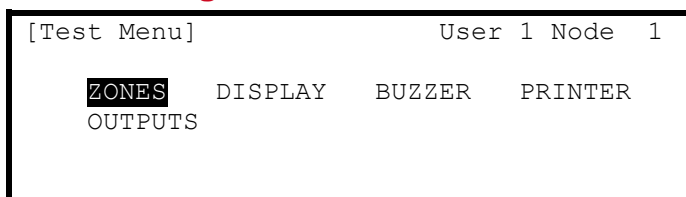


Press the **↑****↓** buttons to select the time / date fields. Enter the required time and date using the number buttons.

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.

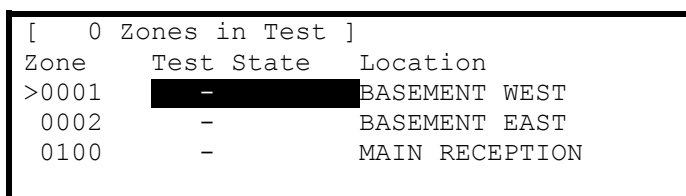
When the Test Zones option is selected, a pop-up window is shown on the display to select whether the sounders will activate (for about 10-seconds) when an input device is activated. For example:



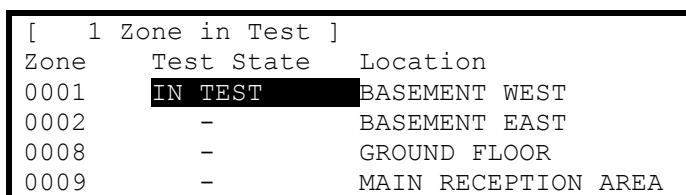
Press the **↑↓** buttons to scroll through and highlight the required option and then press the **✓** button to select it.

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

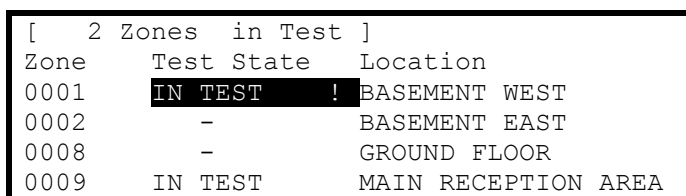
The display then shows a list of the available Zones and their current test status. For example:



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.

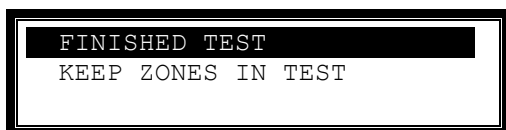
If several consecutive zones are to be tested, an alternative to selecting them all individually is to specify a range of zones as follows: -

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: -



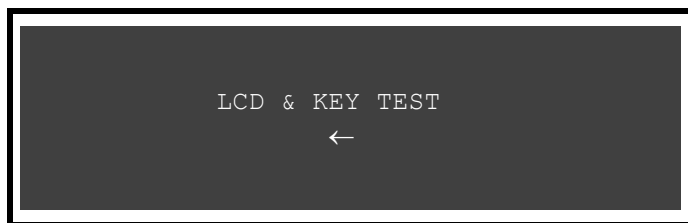
Selecting the FINISHED TEST option will cancel all zone tests. The Test LED will then extinguish.

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:

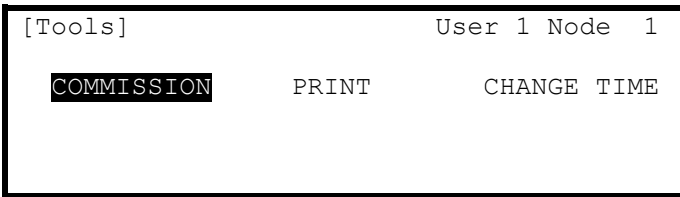
```
[ Outputs in Zone 37]                <More>
Mode    Device Text
Enabled Room 151
Enabled Room 152
```

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.

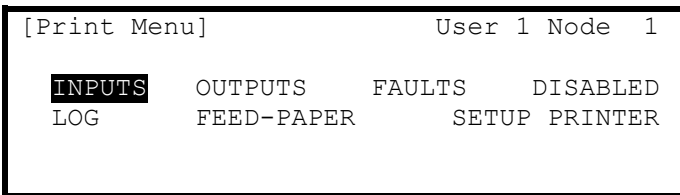
3.14 Tools



The TOOLS menu presents three options. Press the **←→** buttons to highlight the required menu option and then press the **✓** 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

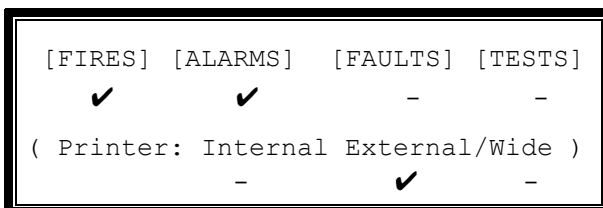
Stop Bits: 1

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 **✓** 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 **←,↑,↓,→** and **✓** buttons to highlight the required option and change its setting. Pressing the **✓** button turns the option on (**✓** 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.

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USER NOTES

