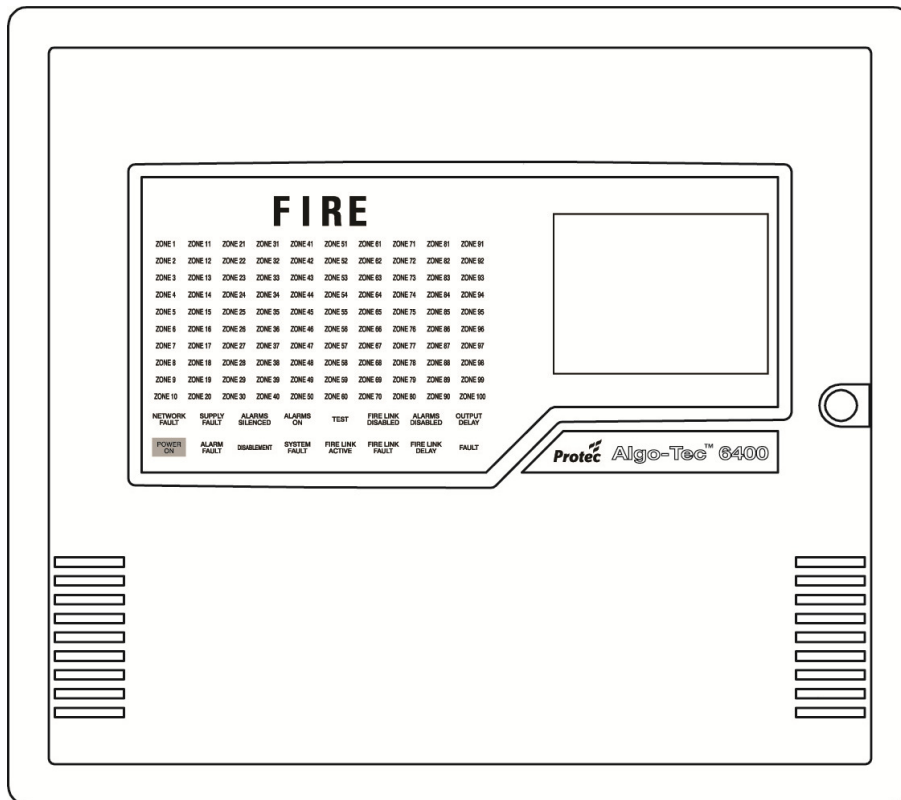


# Algo-Tec™ 6400 INTERACTIVE DIGITAL ADDRESSABLE FIRE CONTROL SYSTEM (1-4 LOOPS)

## OPERATING MANUAL



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# ISSUES

ISSUE	DATE RELEASED	DETAILS OF CHANGE	AUTHOR
4 Rev 3	April 2005	Screen shots updated and other minor changes	K.Z.
4 Rev 4	September 2006	Updated section 4.1 (Advanced Options) Updated section 6.1 (Fire Alarm Count) Updated section 8.2 (DSZ & DSG status) Updated section 10.1 (View / Edit) Updated section 13.3 (Low & high sensitivity) Added section 26 (Loop LCD Panel) Several screen shots updated	PD
4 Rev 5	April 2007	Removed section 1.5 Added section 8.5.2 (Fault Link) Changed 'Device Disabled' led to 'Disablement' Added section 8.7 (Output Delay Disablement) Several screen shots updated	PD
4 Rev 6	April 2009	Page 10, Replaced references to Breakglass Unit with MCP	PD
5	September 2010	Screen shots updated Added information on disabling all the devices within a zone Removed section 8.7 (Output Delay Disablement)	PD

## Notes

- 1) This manual covers 4400, 5400 and 6400 systems. The differences are described in the appropriate sections.
- 2) This manual covers Fire and General Alarm systems. The differences are described in the appropriate sections.

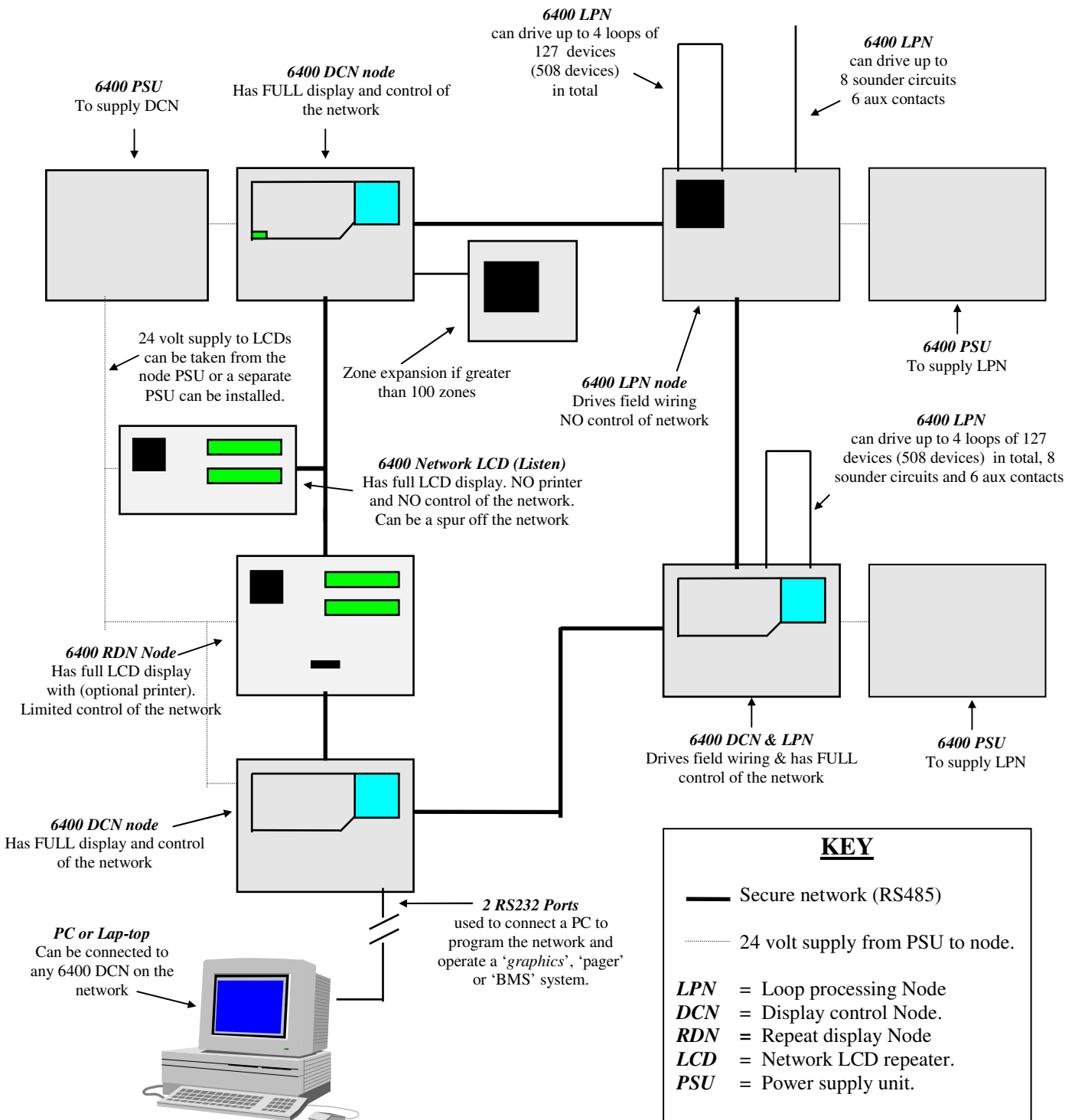
# CONTENTS

OVERVIEW.....	5
1.1 6400 NETWORK OVERVIEW.....	5
1.2 6400 NODE DESCRIPTIONS.....	6
1.3 DCN NODE.....	6
1.4 LPN NODE.....	6
DCN FUNCTIONS.....	7
2.1 NORMAL DISPLAY.....	7
2.2 VIEWING FIRE / ALARM EVENTS.....	8
2.2.1 MULTIPLE DEVICES IN ALARM.....	9
2.2.2 GENERAL ALARM.....	9
2.3 PRINTING FIRE EVENTS.....	10
2.4 SILENCING FIRE EVENTS.....	10
2.5 SOUND ALARMS.....	11
2.6 RESETTING FIRE EVENTS.....	11
2.7 DISPLAY OF FAULT EVENTS.....	11
2.7.1 VIEWING FAULT EVENT DETAILS.....	12
2.7.2 MUTING THE 'FAULT' BUZZER.....	12
2.8 DISPLAY OF DISABLEMENTS.....	13
2.8.1 VIEWING DISABLEMENT DETAILS.....	14
2.8.2 MUTING THE 'DISABLEMENT' BUZZER.....	14
ROUTINE ATTENTION.....	15
3.1 RESPONSIBLE USER.....	15
3.2 ROUTINE TESTS.....	15
USER MENU ACCESS.....	16
4.1 MENU ACCESS.....	16
SET TIME & DATE.....	18
5.1 SET TIME & DATE.....	18
5.2 SETTING THE DATE.....	19
5.3 SETTING THE TIME.....	21
DISPLAY EVENTS.....	22
6.1 DISPLAY EVENTS.....	22
6.2 DISPLAY PAST FIRES.....	23
6.3 DISPLAY PAST FAULTS.....	24
PRINTER MENU.....	25
7.1 PRINTER MENU.....	25
7.2 PRINT CURRENT FAULTS.....	26
7.3 PRINT CURRENT DISABLEMENTS.....	27
7.4 PRINT PAST EVENTS.....	28
7.4.1 PRINT PAST FIRES / ALARMS.....	29
7.4.2 PRINT PAST FAULTS.....	29
7.4.3 PRINT PAST DISABLEMENTS.....	30
7.4.4 PRINT PAST OTHER EVENTS.....	30
7.5 PRINT ANALOGUE VALUES.....	31
7.6 PRINT ADDRESS S/N.....	32
7.7 PRINT HIGH ANALOGUE VALUES.....	33
7.8 CANCEL PRINTING.....	33
DISABLEMENT MENU.....	34
8.1 DISABLEMENT MENU.....	34
8.2 DEVICE DISABLE / NORMALISE.....	35
8.3 DISABLEMENTS TO VIEW.....	39
8.4 ZONE DISABLE / NORMALISE.....	41
8.5 OUTPUT DISABLEMENT MENU.....	43
8.5.1 DISABLE / ENABLE FIRE LINK.....	43
8.5.2 DISABLE / ENABLE FAULT LINK.....	44
8.5.3 DISABLE / ENABLE ALARM OUTPUTS.....	45

8.5.4	DISABLE / ENABLE CONTROL OUTPUTS .....	46
8.6	CHANGE TO ADDRESS DISABLE.....	47
TEST OPTIONS.....		48
9.1	TEST OPTIONS.....	48
9.2	LAMP TEST.....	48
9.3	VIEW ANALOGUE VALUES .....	49
9.4	WALK TEST MENU .....	51
9.4.1	WALK TEST ZONE .....	52
9.5	RVAV (Remote Visual Address Verification) .....	54
9.5.1	RVAV SINGLE.....	54
9.5.2	RVAV DESCRIPTION .....	56
TEXT EDITOR .....		57
10.1	TEXT EDITOR .....	57
10.2	EDIT LOOP DEVICE TEXT .....	58
CLEAR SYSTEM FAULT.....		61
11.1	CLEAR SYSTEM FAULT.....	61
ADVANCED OPTIONS.....		62
12.1	ADVANCED OPTIONS .....	62
12.2	EXCHANGE DEVICES.....	63
12.3	ACCESS CODES .....	68
REFERENCE .....		70
13.1	THRESHOLD LEVELS FOR 6000 SERIES ANALOGUE DEVICES .....	70
13.2	THRESHOLD LEVELS FOR 6000 SERIES DIGITAL DEVICES .....	70
13.3	THRESHOLD LEVELS FOR 5000 SERIES DEVICES .....	71
13.4	THRESHOLD LEVELS FOR 4000 SERIES DEVICES .....	71
13.5	OPERATING MENU FLOWCHART .....	72
NETWORK REPEAT PANELS .....		73
14.1	NETWORK LCD PANEL - (No network controls).....	73
14.2	RDN PANEL – (With network controls).....	73
NETWORK LCD DISPLAY.....		74
15.1	NETWORK LCD DISPLAY.....	74
FUNCTION BUTTONS.....		75
16.1 -	FUNCTION BUTTONS.....	75
MENU OPTIONS.....		76
17.1	MENU OPTIONS.....	76
17.2	MENU VIEWING INSTRUCTIONS .....	76
VIEWING FIRE EVENTS.....		77
18.1	VIEWING FIRES / ALARMS .....	77
18.2	VIEWING MULTIPLE FIRE / ALARMS.....	77
SILENCING FIRE EVENTS .....		79
19.1	SILENCING FIRE EVENTS .....	79
RESETTING A FIRE EVENT .....		80
20.1	RESETTING A FIRE EVENT .....	80
VIEW CURRENT FAULTS .....		81
21.1	VIEW CURRENT FAULTS .....	81
VIEW CURRENT DISABLEMENTS .....		82
22.1	VIEW CURRENT DISABLEMENTS .....	82
PRINTING.....		83
23.1	PRINTING - RDN Only .....	83
LAMPTEST.....		84
24.1	LAMPTEST.....	84
ABORT PRINTOUT.....		84
25.1	ABORT PRINTOUT .....	84
LOOP REPEAT PANEL.....		85
LOOP LCD PANEL .....		85
26.1	NORMAL DISPLAY .....	85
26.2	FAULT DISPLAY.....	86
26.3	FIRE DISPLAY .....	86
26.4	LAMP TEST.....	86

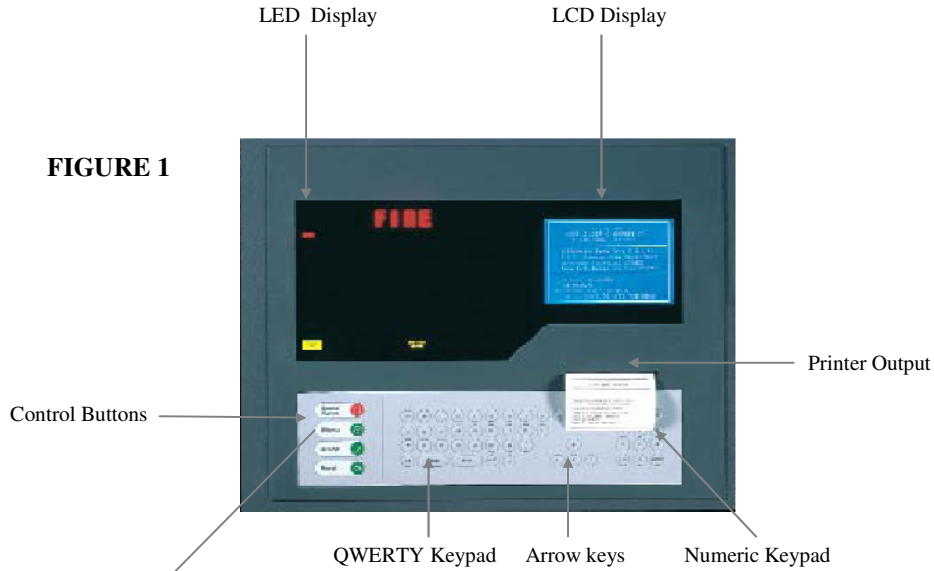
# OVERVIEW

## 1.1 6400 NETWORK OVERVIEW



## 1.2 6400 NODE DESCRIPTIONS

### 1.3 DCN NODE



- **SOUND ALARMS** Pressing this button will operate 'Alarm outputs' on the network as programmed when the system was commissioned.
- **SILENCE** Pressing this button will Silence ALL 'Alarm outputs' on the network.
- **ACCEPT** Pressing this button will accept any fire / fault events , and mute the fault buzzer.
- **RESET** Pressing this button will reset ALL fire indications , and release any 'Control outputs' .

### 1.4 LPN NODE

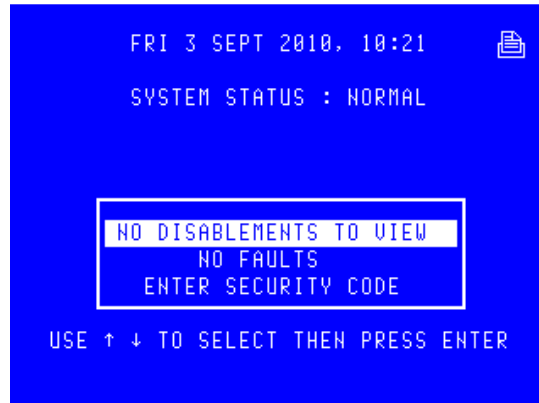


**FIGURE 2 - Loop Processing Node (LPN)**

# DCN FUNCTIONS

## 2.1 NORMAL DISPLAY

The following screen will be displayed when the system is in a 'Normal' condition (ie no fires, faults or disablements) :-



← Print Pending Icon  
(see section 2.3)

- **Logo :** If there are no faults or disablements present then the box and highlight bar shown above are replaced by the logo. Pressing '0' or 'Esc' removes the logo.

## 2.2 VIEWING FIRE / ALARM EVENTS

### FIRE SIGNAL

On hearing the 'FIRE ALARM' signal :-

- Evacuate the premises **IMMEDIATELY**.
- Send for the fire brigade.
- DO NOT** re-enter the premises until authorised by the fire brigade.

In the event of a fire activation occurring, the panel's audible buzzer will fast pip. The 'FIRE' lamp will illuminate constantly and the 'ZONE' location lamp will illuminate intermittently. The panel will also display the location details on the LCD display as follows :-

The LCD display shows the following information:

```

FIRE IN ZONE 1
NODE 6 LOOP 1 ADDRESS 4
3 SEP 2010, 10:26:14
-----
SECOND FLOOR BEDROOM 27
EVACUATE GUESTS TO FRONT CAR
PARK
-----
1 DEVICE IN ALARM
NO FAULTS
NO DISABLEMENTS TO VIEW
PRESS ENTER TO VIEW THE MENU
    
```

Annotations:

- Displays the Node / Loop / address and type of the device in alarm (points to NODE 6 LOOP 1 ADDRESS 4)
- Note - If text has been assigned to the node, then the text will be displayed rather than the node & loop No (points to SECOND FLOOR BEDROOM 27)
- Displays the number of Devices which are currently in an alarm condition (points to 1 DEVICE IN ALARM)
- Displays the 'Zone' number in which the fire has occurred (points to ZONE 1)
- The arrow indicates the sensor that has generated the fire signal. (points to ADDRESS 4)
- Displays the date & time of the activation (points to 3 SEP 2010, 10:26:14)
- Displays the number of fault events currently on the system (points to NO FAULTS)
- Displays the number of disablements currently on the system (points to NO DISABLEMENTS TO VIEW)

- Accept :** Pressing the 'Accept' button will mute the panel buzzer. The buzzer will resound upon a further activation. If a search time has been set up when the system was installed then pressing this button will also start the search time.
- Menus :** Pressing the 'ENTER' button will display the normal menu options, which will allow access to the 'Main menu' or allow the display of any fault or disablements currently on the system as shown below :-

The LCD display shows the following information:

```

FIRE IN ZONE 1
NODE 6 LOOP 1 ADDRESS 4
3 SEP 2010, 11:08:30
-----
SECOND FLOOR BEDROOM 27
-----
NO DISABLEMENTS TO VIEW
NO FAULTS
ENTER SECURITY CODE
-----
USE ↑ ↓ TO SELECT THEN PRESS ENTER
PRESS ESC TO VIEW THE FIRE DISPLAY
    
```

- Exiting option :** To return to the 'FIRE' display, press the 'Esc' key



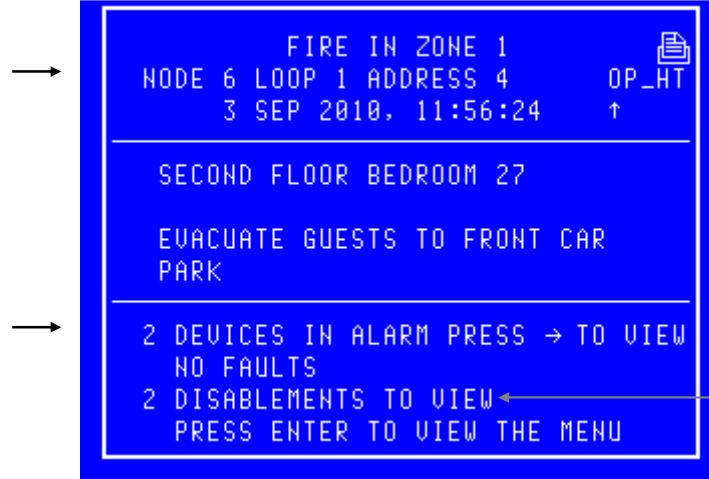
### 2.2.1 MULTIPLE DEVICES IN ALARM

In the event of more than one device producing a fire condition, the display will show the following :-

Displays the Node / Loop / address and type of the device in alarm

**Note** - If text has been assigned to the node, then the text will be displayed rather than the node & loop No

Displays the number of Devices which are currently in an alarm condition



Displays the 'Zone' number in which the fire has occurred

Displays the date & time of the activation

Displays the number of fault events currently on the system

Displays the number of disablements currently on the system

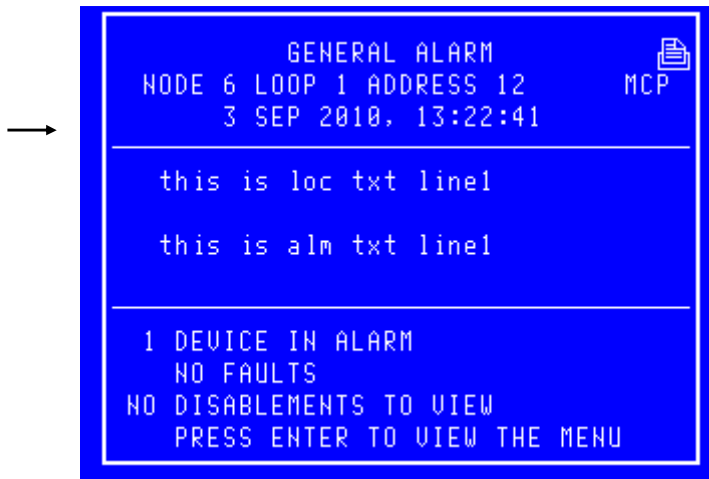
Pressing the → key will scroll the display to show the description of each device in an alarm condition.

### 2.2.2 GENERAL ALARM

The 6400 system is also used to display General Alarms. If the system is a General Alarm one then the 'ALARM' led and the zone led will illuminate but if the system is a Fire Alarm one then these two leds will not illuminate to prevent confusion with a fire signal. The display of a general alarm is shown below :-

Displays the Node / Loop / address and type of the device in alarm

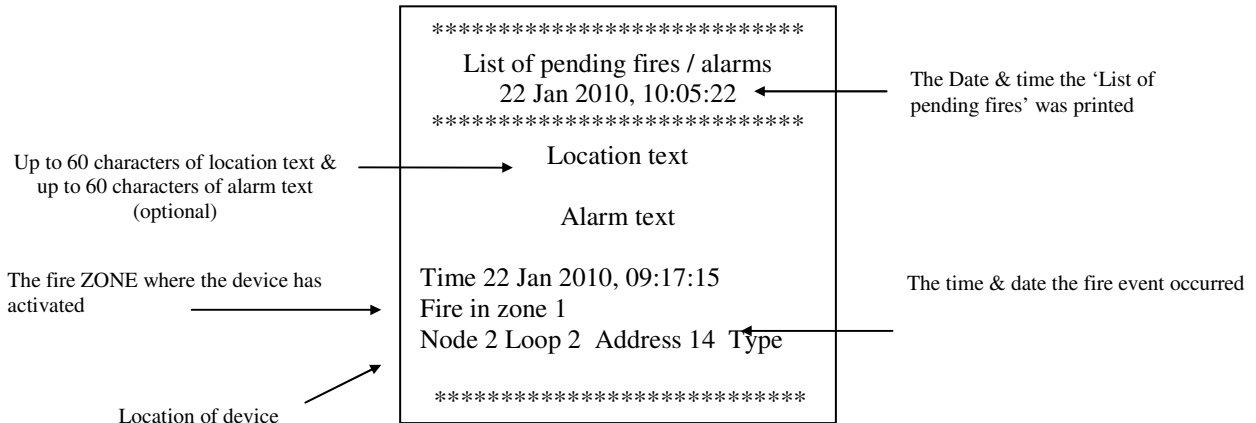
**Note** - If text has been assigned to the node, then the text will be displayed rather than the node & loop No



General Alarm

### 2.3 PRINTING FIRE EVENTS

The 6400 control panel will NOT print 'Fire' events automatically, they are printed on demand. If the panel has any events pending, the *'Print Pending Icon'* will be shown on the top right corner of the LCD Display (see section 2.1). To print these events press and hold the *'Fn'* key and then press the *'p'* key on the QWERTY keypad. This will print any fire events which have occurred in the following format :-



On the completion of printing all the events, the *'PRINT'* Icon will extinguish and the printer will stop printing. To cancel printing at any time, press and hold the *'Fn'* key and then press the *'c'* key on the QWERTY keypad. This will stop the print-out.

### 2.4 SILENCING FIRE EVENTS

Pressing the *'SILENCE'* key after any FIRE event will cause the *'ALARMS SILENCED'* led to illuminate or the Silence logo to appear at the top left of the LCD and the alarms to silence. The fast pip is an indication that the external alarm outputs are activated. **DO NOT** at this stage attempt to *'RESET'* the system until the cause of the fire has been established.



If the Red LED (Light) is illuminated constantly on the smoke sensor, it means that this device has activated.

**SMOKE / HEAT SENSOR  
MANUAL CALL POINT (MCP)**

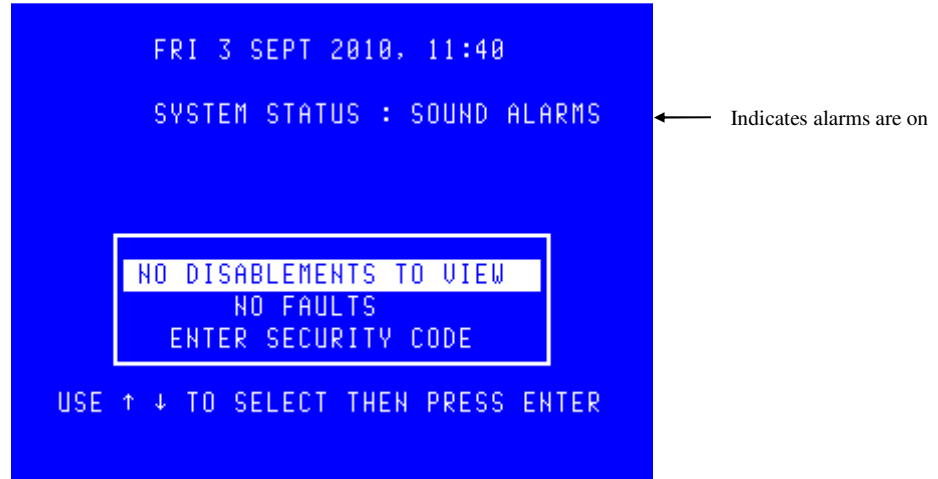


If the Red LED (Light) is illuminated on the MCP, the device has been activated. If it has been activated then reset it in accordance with the instructions supplied with the device.

The Alarms can be resounded at any time by pressing the *'Sound alarms'* button (refer to section 2.5 for details). Manual call points must be physically reset. Automatic sensors must be visually checked to determine the operated sensor. Further fire signals from other addresses will automatically re-sound the alarms (according to the cause & effects of the site).

## 2.5 SOUND ALARMS

Pre-programmed Alarm Outputs may be sounded by pressing the 'Sound alarms' button (red). This will illuminate the 'Alarms On' LED, the buzzer will fast pip and the screen will display the following :-



To silence the alarms, press the 'Silence' control button. This will extinguish the 'Alarms On' LED, stop the sounders and mute the panel buzzer. The display will also return to 'System status : Normal'.

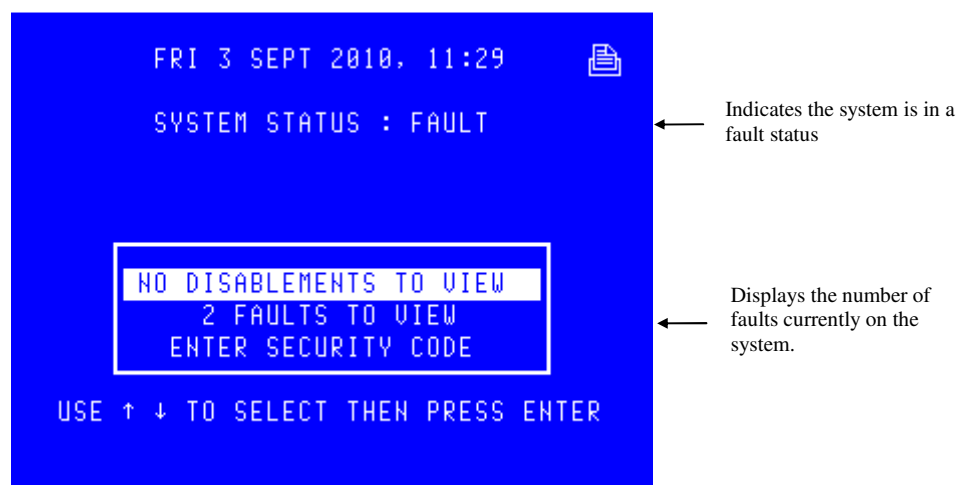
## 2.6 RESETTING FIRE EVENTS

After 'silencing alarms' (Section 2.4) and establishing the cause of the fire :-

- a) Press the 'RESET' button.
- Any fire indications will be extinguished.  
Any plant equipment (control outputs) will be reset.  
The fire condition will re-start if an automatic detector or manual call point remains active.

## 2.7 DISPLAY OF FAULT EVENTS

In the event of a fault appearing on the system the panel buzzer will sound intermittently, and the 'FAULT' LED will illuminate. The LCD will also display the number of faults to view, as shown below :-



### 2.7.1 VIEWING FAULT EVENT DETAILS.

- Selecting option :** To view the current fault events move the highlight bar using the 'arrow keys' onto the 'X faults to view' (as shown in section 2.7 ), and then press the 'ENTER' button, this will then prompt the following display indicating the current fault events on the system :-

Displays the location text of the fault (only displayed for certain events) →

← Indicates the system is in a fault condition

← Displays the fault description

← Displays the date and time when the fault event occurred

- Other faults :** Press ← or → to view other fault events.
- Exiting option :** To EXIT 'viewing the fault events' press the 'ESC' button . This will return to the normal screen options (see section 2.7).

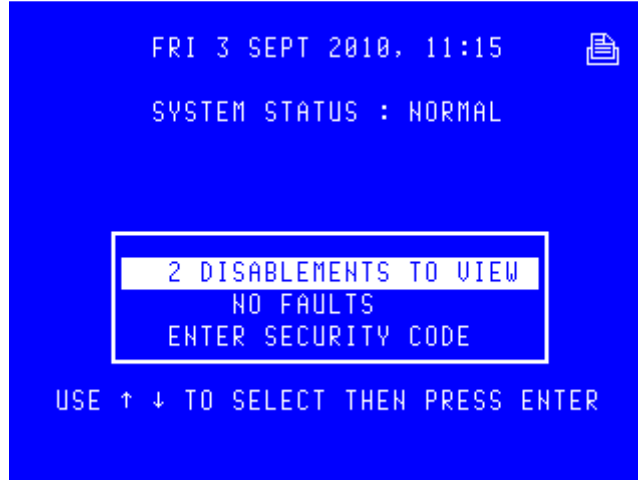
### 2.7.2 MUTING THE 'FAULT' BUZZER

To mute the panel buzzer, press the 'ACCEPT' button. This will mute the panel buzzer. In the event of a further fault occurring, the buzzer will resound and the 'X faults to view' will increment.

## 2.8 DISPLAY OF DISABLEMENTS

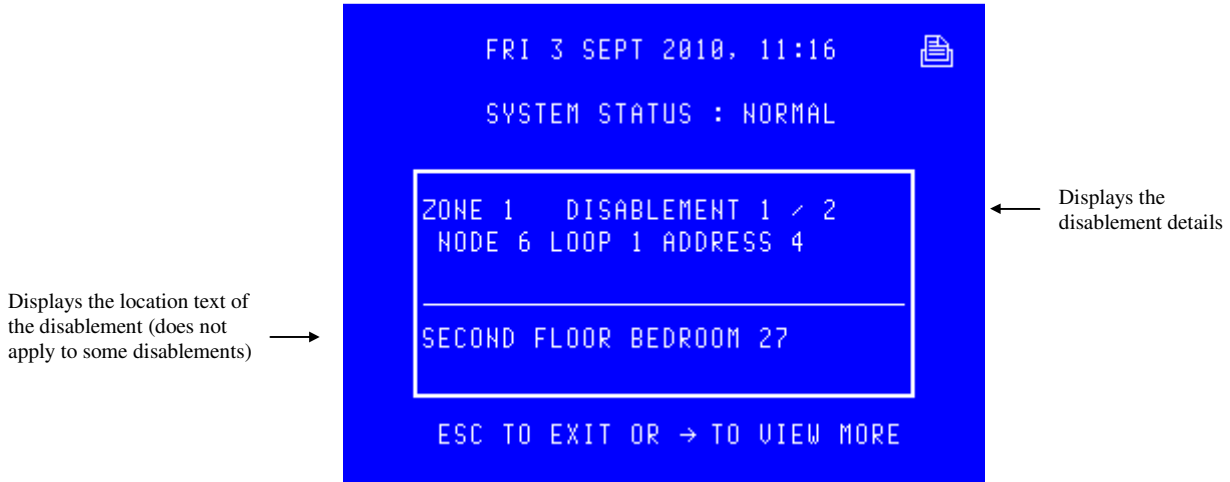
In the event of a device being disabled on the system the panel buzzer will sound intermittently and the 'Disablement' LED will illuminate. The LCD will also display the number of disablements to view :-

Displays the number of disablements currently on the system →



### 2.8.1 VIEWING DISABLEMENT DETAILS

- **Selecting option :** To view the current disablements move the highlight bar using the 'arrow keys' onto the 'X disablements to view' (as shown above), and then press the 'ENTER' button. This will then prompt the following display indicating the current disablements on the system :-



- **Other disablements :** Use the → key to view any other disablements.
- **Exiting option :** To exit 'viewing the disablements' press the 'ESC' button. This will return to the normal screen options (see section 2.8)

### 2.8.2 MUTING THE 'DISABLEMENT' BUZZER

Press the 'ACCEPT' button to mute the panel buzzer. In the event of a further disablement the buzzer will resound and the 'X disablements to view' will increment.

# ROUTINE ATTENTION

## 3.1 RESPONSIBLE USER

British standard BS5839-1: 2002, '*Fire detection and fire alarm systems for buildings*' section 7 details the responsibilities for the fire alarm user. These recommendations should be followed. For guidance on these recommendations, please refer to the organisation that is responsible for servicing your fire alarm system.

These recommendations include :-

1. The fire alarm control and indicating equipment is checked at least once every 24 h to confirm that there are no faults on the system.
2. The system log book is kept up to date and is available for inspection by any authorised person.
3. The routine testing is performed in accordance with the recommendations of BS5839-1 : 2002 section 6.

**The above recommendations are only a selection taken from the standard. For a full list of the recommendations refer to BS5839-1 : 2002.**

## 3.2 ROUTINE TESTS

British standard BS5839-1: 2002, '*Fire detection and fire alarm systems for buildings*' section 6 provides recommendations for routine testing of the fire alarm by the user. These recommendations should be followed. For guidance on these recommendations, please refer to the organisation that is responsible for servicing your fire alarm system.

These recommendations include :-

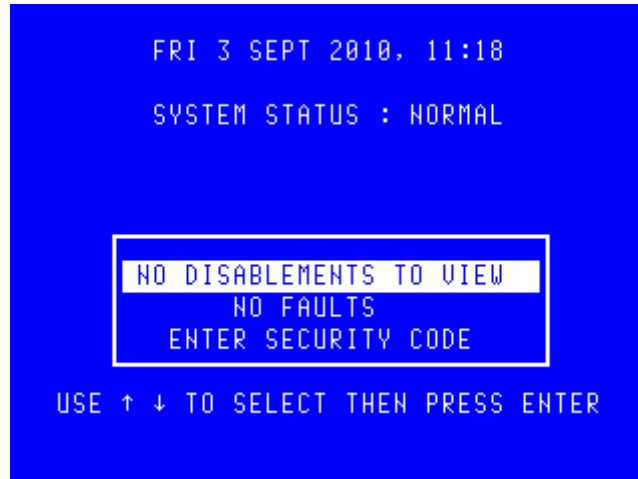
- a) Every week, a manual call point should be operated during normal working hours. It should be confirmed that the control equipment is capable of processing a fire alarm signal and providing an output to fire alarm sounders, and to ensure that the fire alarm signal is correctly received at any alarm receiving centre to which fire alarm signals are transmitted.
- b) In premises in which some employees only work during hours other than that at which the fire alarm system is normally tested, an additional test(s) should be carried out at least once a month to ensure familiarity of these employees with the fire alarm signal(s).
- c) A different manual call point should be used at the time of the weekly test, so that all manual call points in the building are tested in rotation over a prolonged period. There is no maximum limit for this period (eg in a system with 150 manual call points, the user will test each manual call point every 150 weeks). The result of the weekly test and the identity of the manual call point used should be recorded in the system log book.

**The above recommendations are only a selection taken from the standard. For a full list of the recommendations refer to BS5839-1 : 2002.**

# USER MENU ACCESS

## 4.1 MENU ACCESS

Accessing the 'User options' will allow the operator to gain access into the 'Main menu' options.



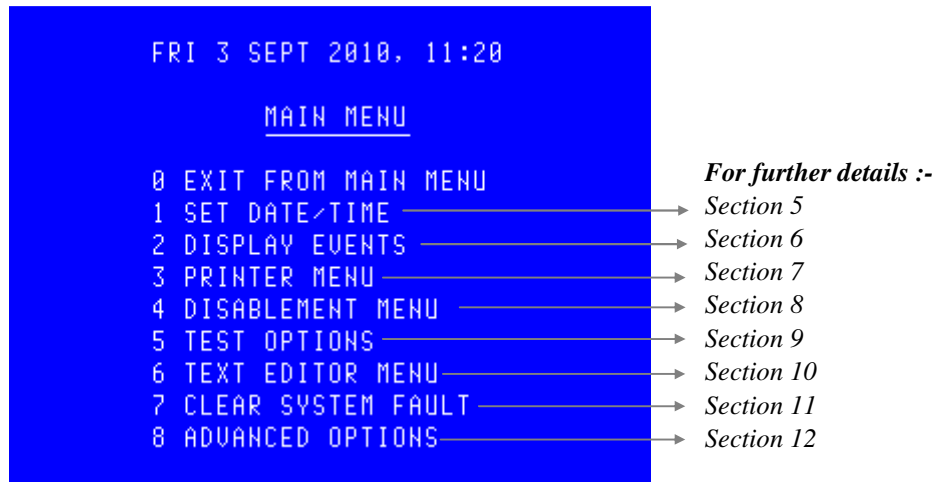
Move the high-light bar using the arrow keys to 'Enter security code' (as shown) , then press the 'ENTER' key.



Enter the user access code, then press the 'ENTER' key. The LCD will display an 'X' for each number entered.



Once the code has been entered correctly, the following menu will be displayed :-

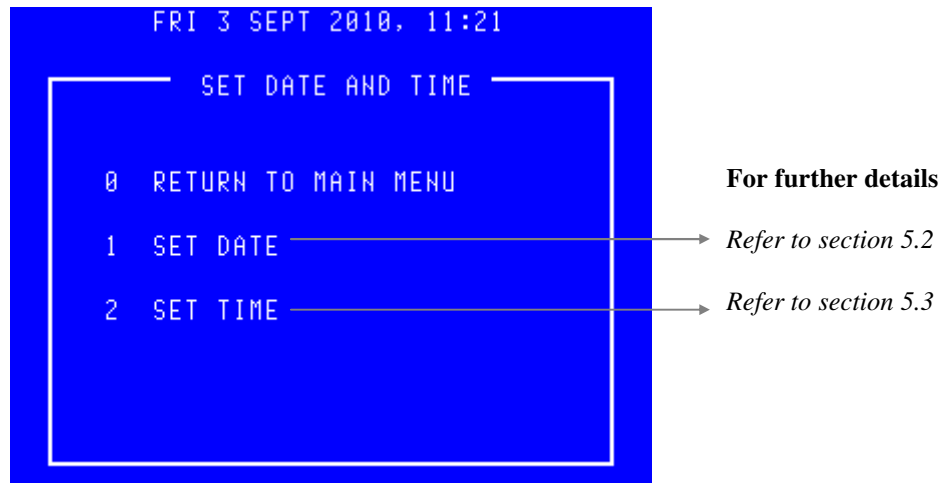


- **Exiting menu :** To **EXIT** the 'Main menu' options and return to the normal screen, press the '0' or 'ESC' key.
- **Advanced Options :** This option is only available when either the 'master' user code is entered or the 'Exchange' user code. This latter code is available to users trained and authorised to make changes to the system configuration.

# SET TIME & DATE

## 5.1 SET TIME & DATE.

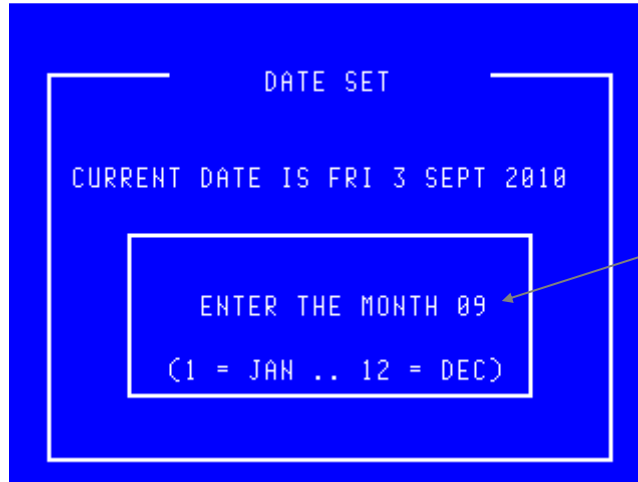
- **Function :** This option allows the '*Time and date*' of the network to be altered.  
*Note* - setting the '*Time and date*' on any DCN will automatically update the '*Time and date*' on ALL the '*Nodes*' on the network.  
*Leap years* - The network will automatically compensate for '*Leap years*'.  
*British summer time* - The network will **NOT** compensate for the changes in '*British summer time*' and will have to be altered manually as defined in section 5.3.
- **Selecting option :** To select this option, press the number '**1**' key from the '*Main menu*' options. Once selected, the LCD will display the following options :-



- **Exiting option :** To EXIT the '*Set time & date*' option and return to the '*Main menu*' options, press the '**0**' key

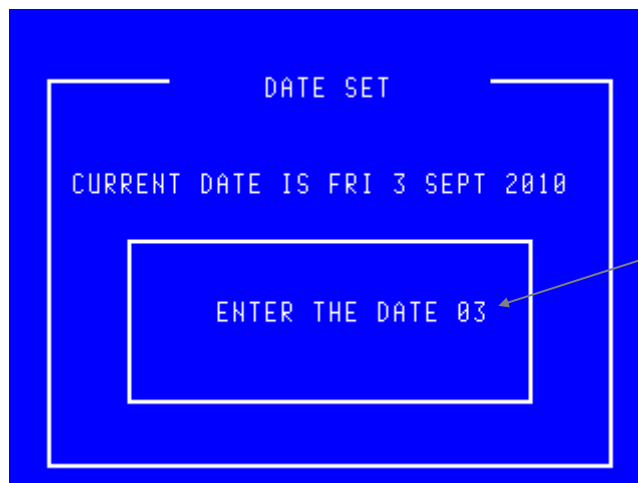
## 5.2 SETTING THE DATE

- **Function :** Allows the network 'DATE' to be altered.
- **Selecting option :** To alter the 'MONTH', press the number '1' key from the 'Set date and time' option. Once selected, the LCD will display the following :-



Use the ← key to delete the old Month.  
Then type the new Month ( 1 ..... 12)

Once the correct 'Month' has been entered, press the 'ENTER' key. This will then prompt for the correct 'Date' to be entered as follows :-



Use the ← key to delete the old date.  
Then type the new date ( 1 ..... 31)

Once the correct 'Date' has been entered, press the '**ENTER**' key. This will then prompt for The correct 'Year' to be entered as follows:-



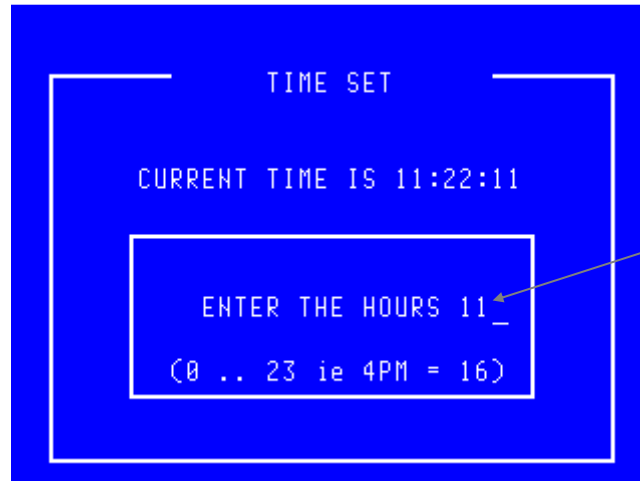
Use the ← key to delete the old year  
Then type the new year ( 00 ..... 99) .

Once the correct 'Year' has been entered, press the '**ENTER**' key. The display will then return to the 'Set date and Time' menu option.

- **Exiting option :** The 'Set date' option can be Exited at any time by pressing the '**ESC**' key. This will return the screen to the 'Set date and time' menu options without updating the date.

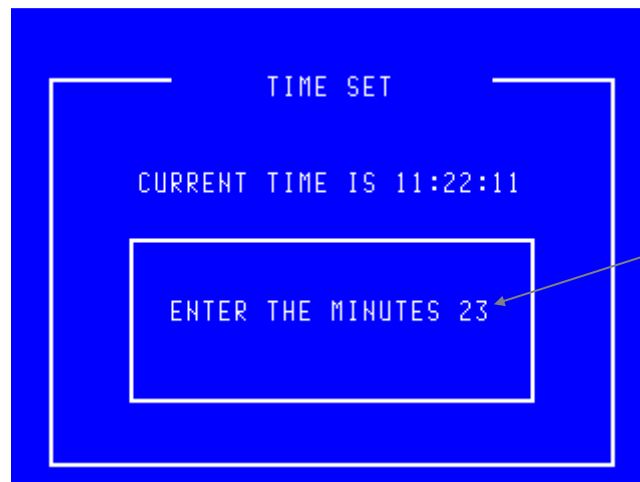
### 5.3 SETTING THE TIME

- **Function :** Allows the network 'TIME' to be altered.
- **Selecting option :** To alter the 'TIME', press the number '2' key from the 'Set date and time' option. Once selected, the LCD will display the following :-



Use the ← key to delete the old Hour.  
Then type the new Hour ( 0 ..... 23)

Once the correct 'Hour' has been entered, press the 'ENTER' key. This will then prompt for the correct 'Minutes' to be entered as follows :-



Use the ← key to delete the old Minutes.  
Then type the new Minutes ( 0 ..... 59)

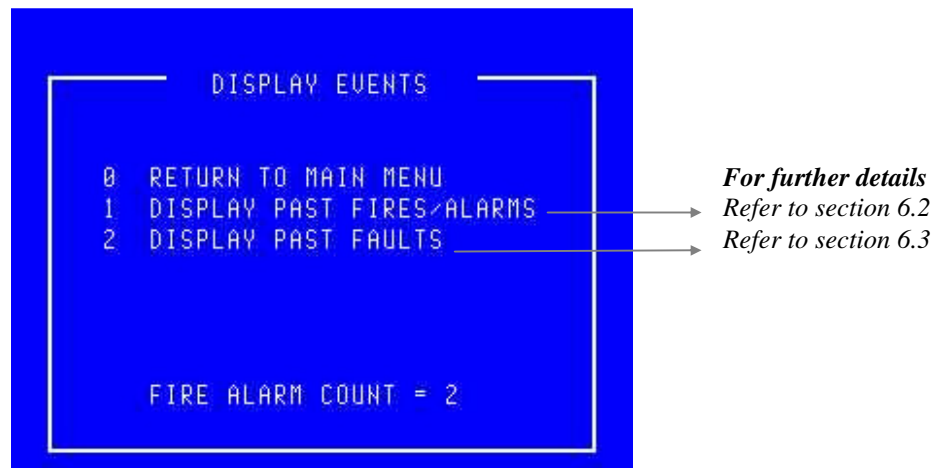
Once the correct 'Minutes' have been entered, press the 'ENTER' key. The display will then return to the 'Set date and time' menu options.

- **Exiting option :** The 'Set Time' option can be exited at any time by pressing the 'ESC' key. This will return the screen to the 'Set date and time' menu options without updating the time.
- **Time Sync :** In order to maintain time synchronisation between the nodes, every seven days the DCN at which the time was last set transmits its current time to all other nodes.

# DISPLAY EVENTS

## 6.1 DISPLAY EVENTS.

- **Function :** This option allows the 'Historic log' of the network to be viewed. This 'Historic log' will hold the last 1000 fire events and the last 1000 non-fire events.
- **Selecting option :** To select this option, press the number '2' key from the 'Main menu' options. Once selected, the LCD will display the following sub-menu options :-



- **Exiting option :** To EXIT the 'Display' options and return to the 'Main menu' options, press the '0' key.
- **Fire Alarm Count:** The Fire Alarm Count is a record of the number of occasions that the panel has entered a fire alarm condition. It is provided to comply with En54-2 : 1997 and assists the responsible user to ensure that the system log book is up to date (refer to section 3.1).

## 6.2 DISPLAY PAST FIRES.

- **Function :** This option allows the last 1000 events from the 'Fire Historic log' to be viewed.
- **Selecting option :** To select this option, press the number '1' key from the 'Display events' menu options. Once selected, the LCD will display the following information :-

The LCD display shows the following information:

```

PAST FIRES/ALARMS
3 SEP 2010, 11:12:18
NODE 6 LOOP 1 ADDR 4 OP_HT
FIRE IN ZONE 1 ↑
SECOND FLOOR BEDROOM 27
EVACUATE GUESTS TO FRONT CAR
PARK
LOG NUMBER 352
ESC TO EXIT OR ← → TO VIEW MORE
  
```

Annotations for the screenshot:

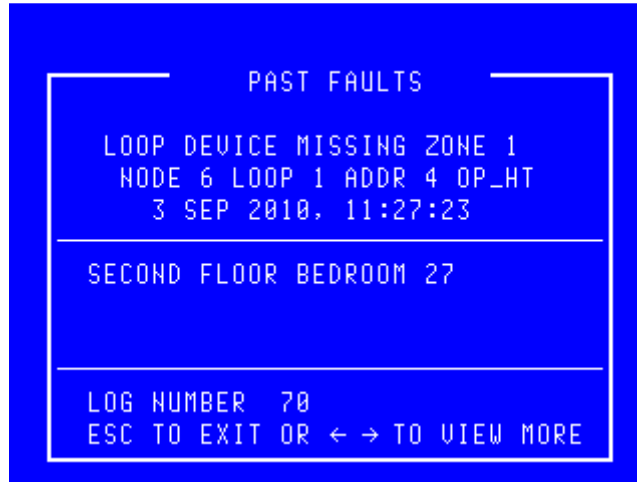
- Displays the Node / Loop / address and type of the device in alarm (points to NODE 6 LOOP 1 ADDR 4 OP\_HT)
- Note - If text has been assigned to the node, then the text will be displayed rather than the node & loop No (points to SECOND FLOOR BEDROOM 27)
- Displays the log number (0 - 999) (points to LOG NUMBER 352)
- Displays the date & time of the activation (points to 3 SEP 2010, 11:12:18)
- Displays the 'Zone' number in which the event occurred (points to FIRE IN ZONE 1)
- Displays the 'Location' and 'alarm' text for the device that has alarmed. This is an option and may NOT be available in some cases. (points to SECOND FLOOR BEDROOM 27 and EVACUATE GUESTS TO FRONT CAR PARK)

- **Viewing events :** When the 'Display past fires' is selected, the most recent event is displayed first. To view events further back in the 'Historic log' use the ← arrow key, each key press will cycle one event at a time through the 'Historic log'. Each time the ← arrow key is pressed the 'Log number' on the bottom left hand side of the screen will change by one digit.
- **Exiting option :** To EXIT the 'Display past fires' options and return to the 'Display' sub-menu options, press the 'ESC' key.

### 6.3 DISPLAY PAST FAULTS.

- **Function :** This option allows the last 1000 events from the 'Faults Historic log' to be viewed.
- **Selecting option :** To select this option, press the number '2' key from the 'Display events' menu options. Once selected, the LCD will display the following information :-

Displays the Node / Loop & address location of the device in alarm  
**Note** - If text has been assigned to the node, then the text will be displayed rather than the node & loop No



Displays the 'Zone' number in which the event occurred

Displays the date & time of the activation

Displays the 'Location' text for the device that has alarmed. This is an option and may NOT be available in some cases.

Displays the log number (0 - 999)

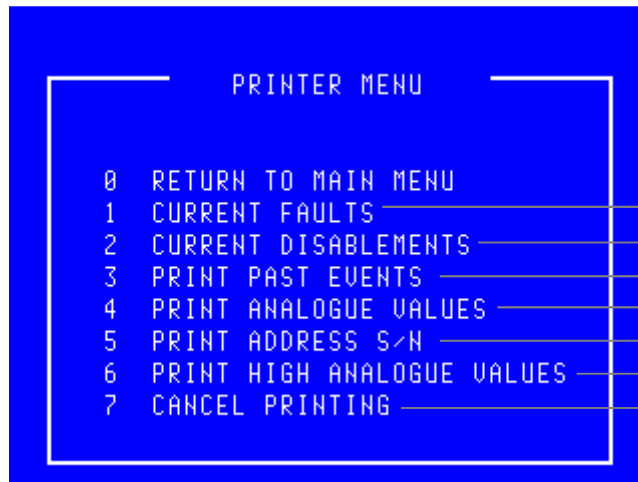
- **Viewing events :** When the 'Display past faults' is selected, the most recent event is displayed first. To view events further back in the 'Historic log' use the ← arrow key, each key press will cycle one event at a time through the 'Historic log'. Each time the ← arrow key is pressed the 'Log number' on the bottom left hand side of the screen will change by one digit.
- **Exiting option :** To EXIT the 'Display past faults' options and return to the 'Display' sub-menu options, press the 'ESC' key.



# PRINTER MENU

## 7.1 PRINTER MENU

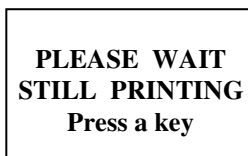
- **Function :** This option allows current events, past events and 'Sensor' contamination levels on the network to be printed.
- **Selecting option :** To select this option, press the number '3' key from the 'Main menu' options. Once selected, the LCD will display the following sub-menu options :-



**For further details**

- Refer to section 7.2
- Refer to section 7.3
- Refer to section 7.4
- Refer to section 7.5
- Refer to section 7.6
- Refer to section 7.7
- Refer to section 7.8

- **Print Address S/N:** This option only applies to 6000 series loops.
- **Selecting 2 options :** Selecting an option while the DCN is already printing will display the following message

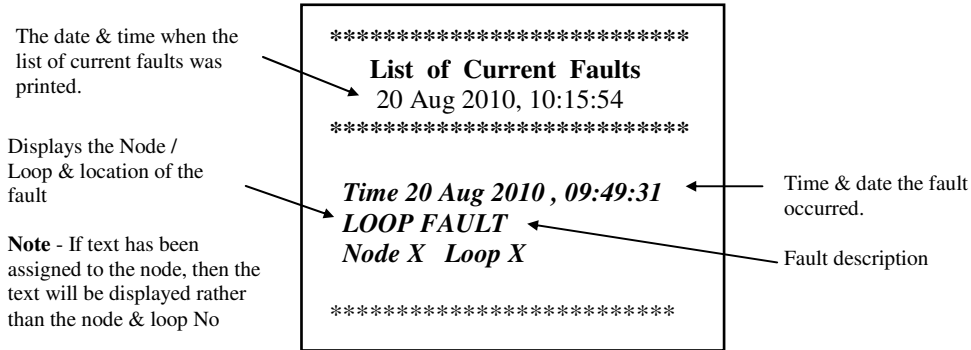


Press any key to return to the 'Printer' menu. Once the printer has completed its current task a new option can then be selected.

- **Exiting Option :** To EXIT the 'Printer' menu and return to the 'Main menu' , press the '0' or 'ESC' .

## 7.2 PRINT CURRENT FAULTS

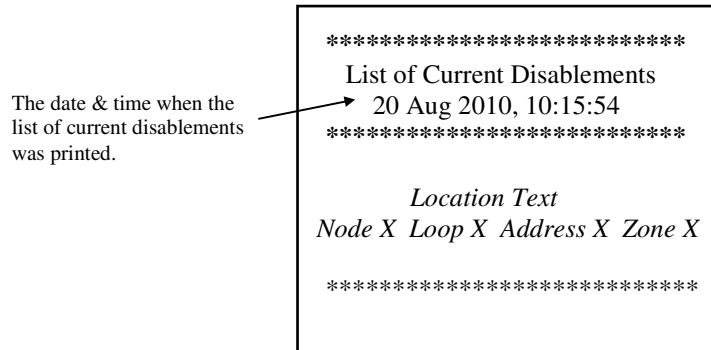
- **Function :** This option allows the user to print any 'Faults' that are currently on the system.
- **Selecting Option :** To select this option , press the number '1' key from the 'Printer menu'.  
Once selected, the printer will print the 'Current Faults' in the following format :-



- **Exiting Option :** Pressing the '0' or 'ESC' key , will EXIT 'Print current faults' and return to the 'Main menu' options. This will **NOT** stop the printer from printing the 'List of current faults'. To stop the printer, select option number '7' from the 'Printer menu'.

### 7.3 PRINT CURRENT DISABLEMENTS

- **Function :** This option allows the user to print any '*Disablements*' that are currently on the system.
- **Selecting Option :** To select this option press the '**2**' key from the '*Printer menu*'. Once selected, the printer will print any '*Current Disablements*' in the following format :-



If there are currently NO disablements on the system, the LCD will indicate the following indication :-



Press any key to return to the '*Print events*' menu.

- **Exiting Option :** Pressing the '**0**' or '**ESC**' key , will EXIT '*Print current disablements*' and return to the '*Main menu*' options. This will **NOT** stop the printer from printing the '*List of current disablements*'. To stop the printer, select option number '**7**' from the '*Printer menu*'.

## 7.4 PRINT PAST EVENTS

- **Function :** This option allows the user to print events from the 1000 event 'Historic log'.
- **Selecting option :** To select this option press the '3' key from the 'Printer' menu. On selecting this option the LCD will display the following sub-menu :-



**For further details**

→ Refer to section 7.4.1

→ Refer to section 7.4.2

→ Refer to section 7.4.3

→ Refer to section 7.4.4

- **Selecting 2 options :** Selecting an option while the DCN is already printing an event will display the following message :-

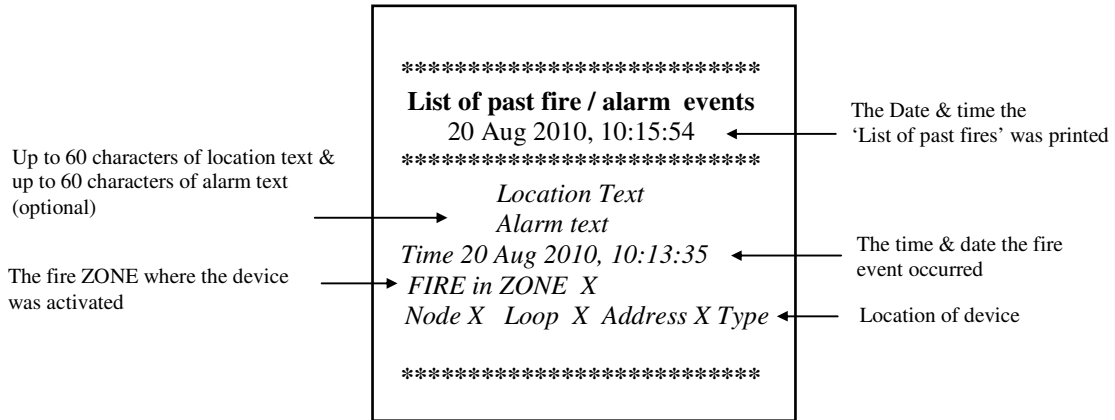
**PLEASE WAIT  
STILL PRINTING  
Press a key**

Press any key to return to the 'Printer' menu. Once the printer has completed printing, a new option can then be selected.

- **Exiting Option :** Pressing the '0' or 'ESC' key , will EXIT 'Past events' menu and return to the 'Printer menu' options.

### 7.4.1 PRINT PAST FIRES / ALARMS

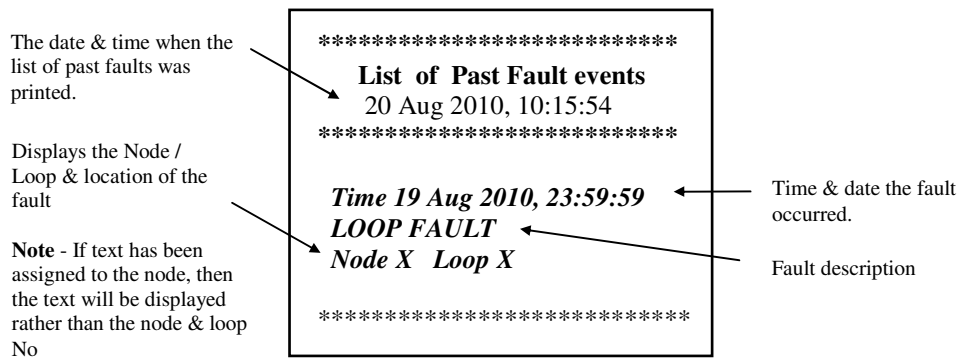
- **Function :** This option allows the user to print fire events from the 1000 event 'Historic log'.
- **Selecting option :** To select this option press the '1' key from the 'Past events' menu. On selecting this option, the Printer will print the 'Past fire events' in the following format :-



- **Exiting Option :** Selecting option '7 Cancel printing' from the 'Printer menu', will abort the print-out of the 'Past fire / alarms'.

### 7.4.2 PRINT PAST FAULTS

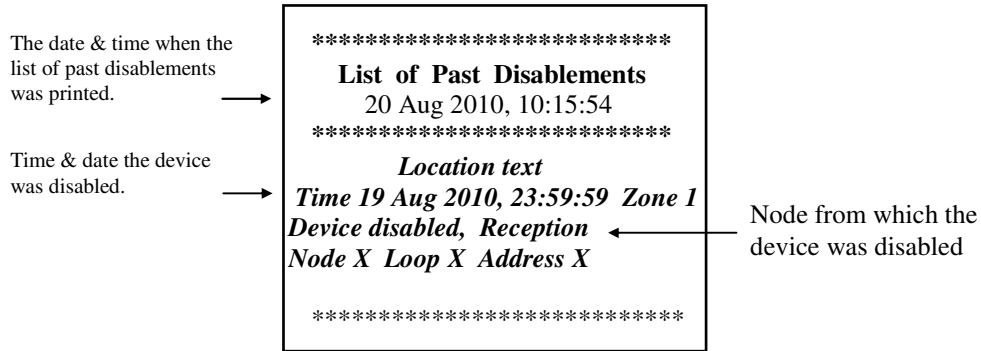
- **Function :** This option allows the user to print past fault events from the 1000 event 'Historic log'.
- **Selecting option :** To select this option press the '2' key from the 'Past events' menu. On selecting this option the Printer will print the 'Past fault events' in the following format :-



- **Exiting Option :** Selecting option '7' Cancel printing' from the 'Printer menu', will abort the print-out of the 'Past fault events'.

### 7.4.3 PRINT PAST DISABLEMENTS

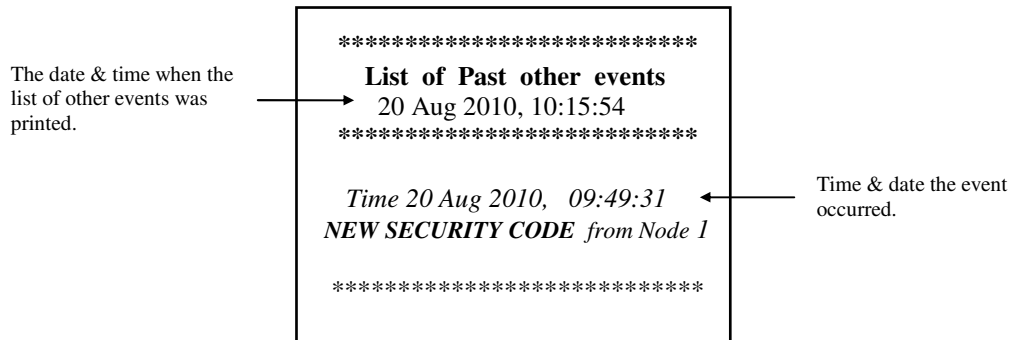
- **Function :** This option allows the user to print past disablement events from the 1000 event 'Historic log'.
- **Selecting option :** To select this option press the '3' key from the 'Past events' menu. On selecting this option the Printer will print the 'Past disablement events' in the following format :-



- **Exiting Option :** Selecting option '7' Cancel printing' from the 'Printer menu', will abort the print-out of the 'Past disablement events'.

### 7.4.4 PRINT PAST OTHER EVENTS

- **Function :** This option allows the user to print other past events from the 1000 event 'Historic log'. The events printed in this option, are all the events which do NOT come under Fire, Fault or disablement events. ie when a security code was entered etc....
- **Selecting option :** To select this option press the '4' key from the 'Past events' menu. On selecting this option the Printer will print the 'Other events' in the following format :-



- **Exiting Option :** Selecting option '7' Cancel printing' from the 'Printer menu', will abort the print-out of the 'Past other events'.

## 7.5 PRINT ANALOGUE VALUES

- **Function :** This option allows the user to print the return 'Analogue data' for any loop device on the network.
- **Selecting option :** To select this option press the '4' key from the 'Printer menu' menu. Once selected, the LCD will display the following 'Select Loop' menu :-

Displays the Node and Loop Number or a text description if the option has been specified.

SELECT LOOP

LOOP	STATUS	DEVICES
First Floor	5400 OK	3
Second Floor	5400 OK	13
Third Floor	5400 OK	1
Restaurant	5400 OK	127
First Floor	6400 OK	8
Second Floor	6400 OK	58
Loop not used	6400 OK	0
Loop not used	6400 OK	0

USE ↑ ↓ THEN PRESS ENTER. ELSE ESC

Displays the number of devices on each loop.

Indicates the Loop status.  
**6400 OK** = Loop healthy.  
**No card** = No loop available.

- **Select Loop :** Use the High-light bar to select the 'Node & Loop' number of the devices to print their analogue data. Once selected, the display will return to the 'Printer menu' and the printer will print-out a list of the analogue data, for the loop selected in the following format :-

The date & time when the list of Analogue values was printed.

Indicates the address number on the specified loop

\*\*\*\*\*

List of Analogue values

20 AUG 2010, 12:59:12

\*\*\*\*\*

Node X Loop X

address 1	MCP	Value = xx
address 2	OPT	Value = xx
address 3	ION	Value = xx
address 4	HEAT	Value = xx

Displays the Current Analogue reading for each device on the loop

*Indicates type of device*  
*MCP = Manual call point or Interface unit*  
*Ion = Ionisation smoke sensor*  
*Opt = Optical smoke sensor*  
*Heat = Temp sensor*

- **Threshold levels** For details on the analogue threshold levels, refer to section '13.1 Analogue values.'
- **Exiting Option** To abort the 'Print analogue values' print-out, select option number '7' Cancel printing' from the 'Printer menu'.

## 7.6 PRINT ADDRESS S/N

- **Function :** This option allows the user to print the address and serial numbers for all devices on any '6000' series loop on the network.
- **Selecting option :** To select this option press the '5' key from the 'Printer menu' menu. Once selected , the LCD will display the following 'Select Loop' menu :-

LOOP	STATUS	DEVICES
First Floor	6400 OK	8
Second Floor	6400 OK	58
Loop not used	6400 OK	0
Loop not used	6400 OK	0

USE ↑ ↓ THEN PRESS ENTER. ELSE ESC

Displays the Node and Loop Number or a text description if the option has been specified.

Displays the number of devices on each loop.

Indicates the Loop status. 6400 ok = Loop healthy. No card = No loop available.

- **Select Loop :** Use the High-light bar to select the 'Node & Loop' number from which to print the address and serial number data. Once selected, the display will return to the 'Printer menu' and the printer will print-out a list of the device serial numbers and address data, for the loop selected in the following format :-

\*\*\*\*\*

**List of device serial numbers**  
20 AUG 2010, 13:43:02  
\*\*\*\*\*

**Node X Loop X**

Add	Ser	Type	Iso	Ver	Sns	DNSns
029	5265C1	HEAT	001	005	OFC	OFC
028	5265C7	HEAT	001	005	OFC	OFC
021	3D0904	ION	002	004	OFC	OFC
002	1E849A	OP_HT	009	006	OFC	HPO

The date & time that the list of serial numbers and addresses was printed.

Indicates the address number on the specified loop

Displays the Current type reading for each device on the loop

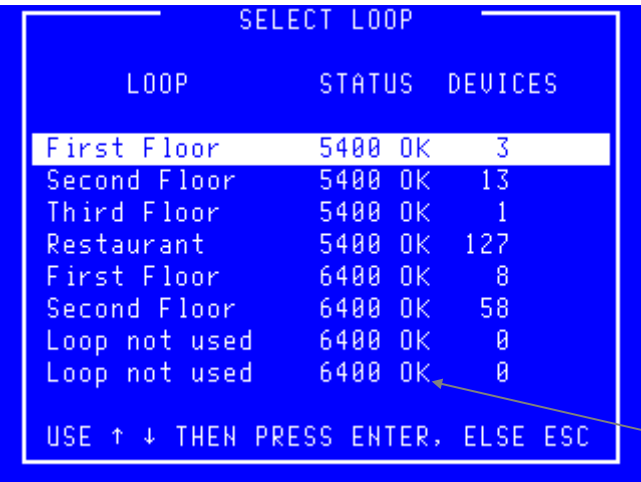
Device serial number

- **Exiting Option** To abort the 'Print address S/N' print-out, select option number '7' *Cancel printing* from the 'Printer menu'.



## 7.7 PRINT HIGH ANALOGUE VALUES

- Function :** This option allows the user to print the 'Analogue values' for any loop device on the network that has a higher value than is considered 'Normal'.
- Selecting option :** To select this option press the '6' key from the 'Printer menu' menu. Once selected, the LCD will display the following 'Select Loop' menu :-



LOOP	STATUS	DEVICES
First Floor	5400 OK	3
Second Floor	5400 OK	13
Third Floor	5400 OK	1
Restaurant	5400 OK	127
First Floor	6400 OK	8
Second Floor	6400 OK	58
Loop not used	6400 OK	0
Loop not used	6400 OK	0

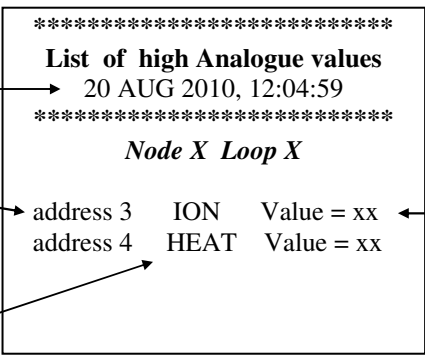
USE ↑ ↓ THEN PRESS ENTER. ELSE ESC

Displays the Node and Loop Number or a text description if the option has been specified.

Displays the number of devices on each loop.

Indicates the Loop status. 6400 OK = Loop healthy. No card = No loop available.

- Select Loop :** Use the High-light bar to select the 'Node & Loop' number of the devices to print their analogue data. Once selected, the display will return to the 'Printer menu' and the printer will print-out a list of the high analogue data, for the loop selected in the following format :-



```

*****
List of high Analogue values
20 AUG 2010, 12:04:59
*****
Node X Loop X
address 3 ION Value = xx
address 4 HEAT Value = xx
  
```

The date & time when the list of high Analogue values was printed.

Indicates the address number on the specified loop

Displays the Current Analogue reading

Indicates type of device  
MCP = Manual call point or Interface unit  
Ion = Ionisation smoke sensor  
Opt = Optical smoke sensor  
Heat = Temp sensor

- Blank printout** It is probable that no devices will be listed for the selected loop since all are considered normal.
- Threshold levels** For details on the analogue threshold levels, refer to section '13.1 Analogue values.'
- Exiting Option** To abort the 'Print high analogue values' print-out, select option number '7' 'Cancel printing' from the 'Printer menu'.

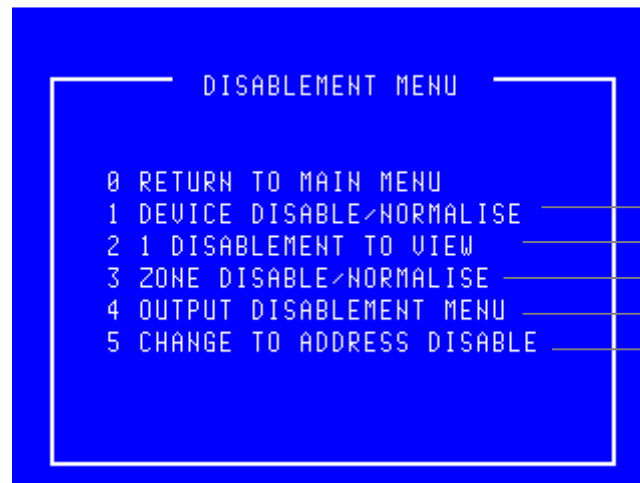
## 7.8 CANCEL PRINTING

- Function :** This option allows the user to stop the printer from printing at any time.
- Selecting option :** Selecting option '7' from the 'Printer menu' will abort any current print-out.

# DISABLEMENT MENU

## 8.1 DISABLEMENT MENU

- **Function :** This option allows the operator to disable devices, zones and outputs.
- **Selecting option :** To select the 'Disablement menu', select the number '4' key from the 'Main menu' options. Once selected the LCD will display the following disablement options :-



*For further details*  
Refer to section 8.2  
Refer to section 8.3  
Refer to section 8.4  
Refer to section 8.5  
Refer to section 8.6

- **Exiting Option :** To EXIT the 'Disablement menu' and return to the 'Main Menu', press the '0' Key.

## 8.2 DEVICE DISABLE / NORMALISE

- Function :** This option allows the disablement / normalisation of any Loop device on the system. When a device is disabled then it is the input that is actually disabled hence it will be prevented from producing a Fire or Fault condition at the control panel. If the device being disabled is an output device or is a detector with a built-in sounder then the device will no longer be able to report a fault however the output is not disabled and will activate if told to do so by the panel. If the device was in fault when it was disabled then the fault is not removed by disabling the device.
- Complete Zone Disablement :** If each input device in a zone is disabled individually then the disablement will be shown as a zone disablement and the individual disablements will be removed. Certain manual devices can be programmed by the engineer to remain active during a zone disablement. If any of these devices have been disabled individually then their disablement will not be removed.
- Selecting option :** To select this option press the '1' key while in the 'Disablement menu'. Once selected the panel will display the 'Select Loop' menu :-

LOOP	STATUS	DEVICES
First Floor	5400 OK	3
Second Floor	5400 OK	13
Third Floor	5400 OK	1
Restaurant	5400 OK	127
First Floor	6400 OK	8
Second Floor	6400 OK	58
Loop not used	6400 OK	0
Loop not used	6400 OK	0

Displays the Node and Loop Number or a text description if the option has been specified.

Displays the number of devices on each loop.

Indicates the Loop status. 6400 OK = Loop healthy. No card = No loop available.

USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

- Selecting Loop :** Use the High-light bar to select the Node & Loop number of the device to be Disabled / Normalised and then press the **ENTER** key.

Once selected the panel will request data from the 'Node' selected. While the data is being requested, the LCD displays the following message :-

**Data Requested  
Please Wait**

Once all the data has been received from the 'Node', the following 'Disable devices' Screen will be displayed :-

**DISABLE DEVICES**

Second Floor STATUS

Device type	Address	Type	Status
	1	OPT	HRM
	2	OPT	DIS
	3	OPT	HRM
	4	OPT	DIS
	5	OPT	HRM
	6	OPHTC	HRM

45 DEVICES : 2 DISABLED  
USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

**Status**  
*NRM - Device is not disabled*  
*DIS - Device has been disabled individually*  
*DSZ - Device is disabled because it is part of a disabled zone*  
*DSG - Device is disabled because it is part of a disabled group*

*It is possible for a device to be disabled for multiple reasons.*

*The number of devices disabled on this Loop.*

*Total number of devices Logged onto the Loop*

*Either Location Text or address numbers for each device on the selected loop. To display either address Number or text location data, this is selected in the 'Disablement menu' Option Number '5' 'Change address / location text' (refer to section 8.6)*

- **Selecting an invalid loop.** If an invalid loop is selected ie) No devices present on the loop, the LCD will display the following message :-

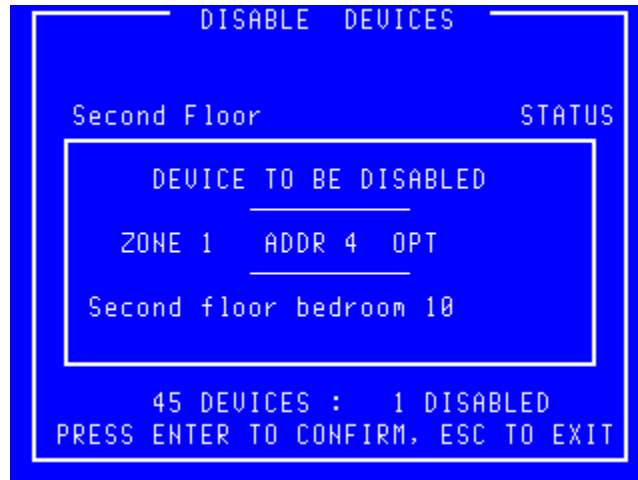
**SELECT LOOP**

LOOP	STATUS	DEVICES
First Floor	5400 OK	3
Second Floor	5400 OK	13
Third Floor	5400 OK	1
Restaurant		127
First Floor	INVALID LOOP	8
Second Flo	PRESS A KEY	58
Loop not u		0
Loop not used	6400 OK	0

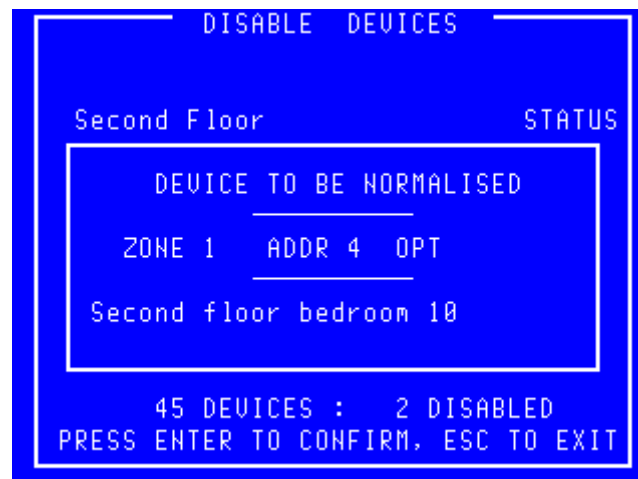
USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

Press any key to return to the 'Disable device' screen , where a valid loop should be selected.

- **Disable a Device :** To disable a device use the High-light bar to select the device for disablement, then press the 'ENTER' key. The display will show :-



- **Exiting Option :** Press 'ESC' to abandon to disablement.
- **Disablement :** Upon pressing the 'ENTER' key, the number of disabled devices will increment (shown at the bottom right of the display). The panel will illuminate the 'Disablement' LED on the control panel and sound the buzzer intermittently. To mute the buzzer, press the 'Accept' button.
- **Normalise a Device :** To normalise a device use the High-light bar to select the Device for Normalisation, and then press the ENTER key. The display will show :-



- **Exiting Option :** Press 'ESC' to abandon to normalisation.
- **Normalisation :** Upon pressing the ENTER key the number of disabled devices will decrement (shown at the bottom right of the display). The panel's 'Disablement' LED will also extinguish.

If a disabled device activated while in an disabled condition, when the device is selected for normalisation the LCD will display the following warning message



- **Exiting Option :** Press 'ESC' then physically inspect the device and check for the cause of the activation. I.e) Manual Call Point activated, dust contamination within a smoke sensor etc. This will return the display to the 'Disablement menu' and the device will remain disabled.
- **Selecting Option :** Once the cause has been rectified, return to this menu and press the '**ENTER**' key to normalise the device. Since the system is aware that this device has been activated it will perform a loop reset.

### 8.3 DISABLEMENTS TO VIEW

- Function :** This option allows the operator to view any devices on the network that have been disabled, and will also allow each of those devices to be normalised .
- Selecting option :** To select this option press the number '2' key while in the 'Disablement Menu' . The 'Disablements to view' option will indicates how many devices can be viewed ie If 5 devices are currently disabled the 'Disablements to view' option will be displayed as the following :-

```
2    5 Disablements to View
```

If NO disablements are on the system, the 'Disablements to view' option will display the following :-

```
2    NO Disablements to View
```

Selecting the 'Disablements to view' option will have NO effect if NO devices are currently disabled on the network.

- Viewing disablements :** Selecting the 'Disablements to view' option will display any devices which are currently disabled in the following format :-

The screenshot shows a blue background with white text. At the top, it says "PRESS ENTER TO REMOVE THE DISABLEMENT". Below this is a white-bordered box containing the following text: "ZONE 1 DISABLEMENT 1 / 2", "Second Floor ADDRESS 2", a horizontal line, and "Second floor bedroom 5". At the bottom of the screen, it says "ESC TO EXIT OR → TO VIEW MORE".

Annotations with arrows point to various parts of the screen:

- Left side: "Details of the disabled device." points to the white-bordered box.
- Left side: "The location text will only be displayed if text has been specified for each device." points to "Second floor bedroom 5".
- Right side: "The option to press enter is not offered for all disablements." points to the top text.
- Right side: "Number of disablements on the network." points to "1 / 2".
- Right side: "Pressing the → key will scroll through each disablement" points to the bottom text.

- **Remove Disablement:** While viewing the disablements , press the **ENTER** key on the device you require normalising when it is being displayed. The display will then show the following :-



Pressing the **ENTER** key will Normalise the device currently being displayed.

If a disabled device activated while being disabled, when the device is selected for normalisation the LCD will display the following warning message :-



- **Exiting Option :** Press 'ESC' then physically inspect the device and check for the cause of the activation. Ie) Manual Call Point activated, dust contamination within a smoke sensor etc. This will return the display to the 'Disablement menu' and the device will remain disabled.
- **Selecting Option :** Once the cause has been rectified, return to this menu and press the '**ENTER**' key to normalise the device. Since the system is aware that this device has been activated it will perform a loop reset.



## 8.4 ZONE DISABLE / NORMALISE

- **Function :** This option allows any zone on the system to be disabled and subsequently normalised.
- **Selecting option :** To select this option press the number '3' key while in the 'Disablement Menu' . The 'Zone disable / normalise' option will be displayed as shown below :-

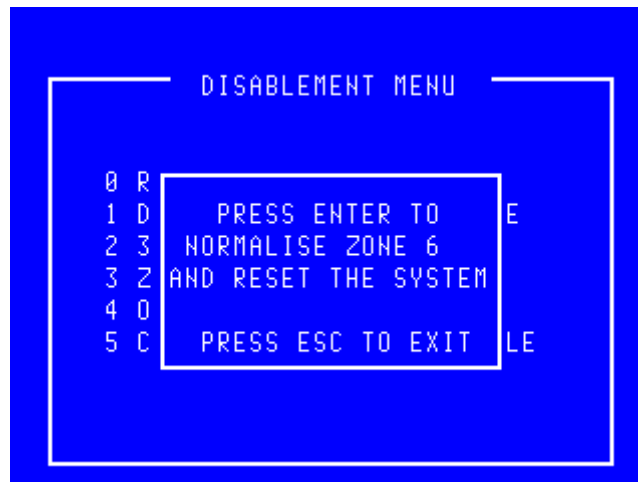


- **Exiting Option :** To EXIT the 'Zone disable / normalise' menu and return to the 'Disablement Menu', press the 'Esc' Key.
- **Manual class :** When the system was installed, the engineer can define certain loop devices as 'Manual Class'. These devices are typically manual call points and when defined as 'Manual Class' will ignore a zone disablement and remain active. For example this option permits sensors that could false alarm due to dust during building work to be disabled whilst maintaining the operation of manual call points should an employee see a fire.

- **Select a Zone :** The menu will accept a zone number between 1 and 800 inclusive. Zones greater than 100 are only used on an expanded system. Once a zone has been selected the system checks whether this zone is already disabled and either offers the opportunity to disable (or normalise) the selected zone as shown below :-



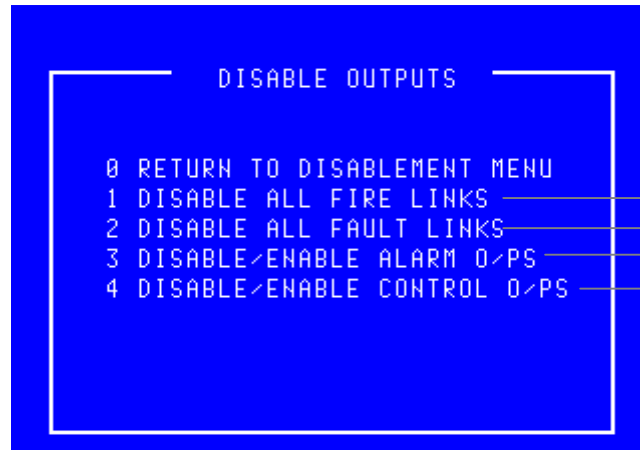
- **Zone disable :** To confirm the disablement press the '*Enter*' key.
- **Exiting Option :** To cancel the zone disablement press the '*Esc*' key.



- **Zone normalise :** Prior to the normalisation the user should visually inspect for broken glass in any disabled MCP. The menu asks for confirmation of the normalisation. To confirm the zone normalisation, press the '*Enter*' key.  
Note that the loop devices will be reset upon the normalisation. However if a device had activated during the disablement period eg manual call point then if that MCP has not been reset prior to the normalisation that device will generate an alarm as soon as it is normalised.
- **Exiting Option :** To cancel the zone normalisation and leave the selected zone disabled, press the '*Esc*' key.

## 8.5 OUTPUT DISABLEMENT MENU

- **Function :** This option allows the operator to disable output devices or the 'fire station link'.
- **Selecting option :** To select the 'Output disablement menu' option , select the number '4' key from the 'Disablement menu'. Once selected the LCD will display the following output disablement options :-



**For further details**

Refer to section 8.5.1

Refer to section 8.5.2

Refer to section 8.5.3

Refer to section 8.5.4

- **Exiting Option :** To EXIT the 'Disable outputs menu' and return to the 'Disablement Menu', press the '0' or 'Esc' key.
- **General Alarm :** A General Alarm panel is not intended to summon the fire brigade therefore option '1' is not relevant to a General Alarm system.

### 8.5.1 DISABLE / ENABLE FIRE LINK

- **Function :** This option allows the disablement and enablement of the Fire brigade link.  
**Note** - This option is able to disable the signal that is sent to the fire brigade via a manned centre only if the signal is connected to the dedicated 'Fire link' output terminals.
- **Selecting Option :** To select this option , press the number '1' key from the 'Disable outputs menu' . When this option is selected, the menu option will toggle between :-

**1 Disable all Fire Links**

and

**1 Enable all Fire Links**

- **Disable all fire Links :** To disable 'All fire links' press '1' while the display is showing 'Disable all fire links' , the panel buzzer will sound intermittently and the following disablement LEDs will illuminate :-

**Disablement**

**Fire Link Disabled**

- **Buzzer mute :** The panel buzzer can be muted by pressing 'Accept'.
- **Enable all fire Links :** To enable 'All fire links' press '1' while the display is showing 'Enable all fire links' . This will extinguish the 'Disablement' & 'Fire link disabled' LEDs.

## 8.5.2 DISABLE / ENABLE FAULT LINK

- **Function :** This option allows the disablement and enablement of the Fault link.  
*Note* - This option is able to disable the signal that is sent to the manned centre only if the signal is connected to the dedicated 'Fault link' output terminals.
- **Selecting Option :** To select this option , press the number '2' key from the 'Disable outputs menu' .  
When this option is selected, the menu option will toggle between :-

**2** *Disable* all Fault Links

and

**2** *Enable* all Fault Links

- **Disable all fire Links :** To disable 'All fault links' press '2' while the display is showing 'Disable all fault links' , the panel buzzer will sound intermittently and the following disablement LED will illuminate :-

**Disablement**

- **Buzzer mute :** The panel buzzer can be muted by pressing 'Accept'.
- **Enable all fault Links :** To enable 'All fault links' press '2' while the display is showing 'Enable all fault links' . This will extinguish the 'Disablement' LED.

### 8.5.3 DISABLE / ENABLE ALARM OUTPUTS

- **Function :** This option allows the disablement & enablement of the alarm outputs at specific nodes on the network.
- **Selecting Option :** To select this option press the '3' key while in the 'Output Disablement menu' .

DISABLE ALARMS		
NODE		STATUS
Reception DCN	(DISPLAY)	HRM
Hotel	(LOOPS 1-4)	HRM
Stores RDN	(REPEAT)	HRM
Main Building	(DISPLAY)	HRM
Hotel Annex	(LOOPS 1-4)	HRM
Annex DCN	(DISPLAY)	HRM

USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

- **Disable Alarm O/Ps :** To disable the alarm outputs on a node, use the arrow keys to select a node then press the 'Enter' key while the status for the selected node is showing 'NRM'.

The status for the selected node will change to 'DIS', the panel buzzer will sound intermittently and the following disablement LEDs will illuminate :-



- **Buzzer mute :** The panel buzzer can be muted by pressing 'Accept'.
- **Enable Alarm O/Ps :** To enable the 'Alarm Outputs' on a node, use the arrow keys to select a node then press the 'Enter' key while the status for the selected node is showing 'DIS'.

The status for the selected node will change to 'NRM'. The 'Outputs disabled' LED will be extinguished if there are no longer any alarm outputs disabled on the system and the 'Disablement' LED extinguished if there are no longer any disablements on the system.

- **Exiting the option :** To exit the 'Disable / Enable Alarm outputs' option and return to the 'Output Disablement menu' press the 'ESC' key.

### 8.5.4 DISABLE / ENABLE CONTROL OUTPUTS

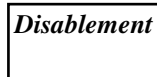
- **Function :** This option allows the disablement & enablement of the control outputs at a specific node on the network.
- **Selecting Option :** To select this option press the '4' key while in the 'Output Disablement menu' .

DISABLE CONTROLS		
NODE		STATUS
Reception DCN	(DISPLAY)	HRM
Hotel	(LOOPS 1-4)	HRM
Stores RDH	(REPEAT)	HRM
Main Building	(DISPLAY)	HRM
Hotel Annex	(LOOPS 1-4)	HRM
Annex DCN	(DISPLAY)	HRM

USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

- **Disable Control O/Ps :** To disable the 'control outputs' on a node, use the arrow keys to select a node then press the 'Enter' key while the status for the selected node is showing 'NRM'.

The status for the selected node will change to 'DIS' and the following LED will illuminate :-



- **Enable Control O/Ps :** To enable the 'Control Outputs' on a node, use the arrow keys to select a node then press the 'Enter' key while the status for the selected node is showing 'DIS'.

The status for the selected node will change to 'NRM'. The 'Disablement' LED will be extinguished if there are no longer any disablements on the system.

- **Exiting the option :** To exit the 'Disable / Enable Control outputs' option and return to the 'Output Disablement menu' press the 'ESC' key.

## 8.6 CHANGE TO ADDRESS DISABLE

- Function :** This option allows the user to alter the display of devices in the 'Disablement menu'. Devices can be displayed by their 'character text' location or by their 'address number'.
- Selecting Option :** To select this option , press the number '5' key while in the 'Disablement menu'. When the option has been selected, the sub-menu display will toggle between :-

5      Change to **Address Disable**

&

5      Change to **Location Disable**

- Device by address :** The following is an example of the display if selected to 'Address' :-

This option also displays the type of each device

MCP = Manual Call point  
OPT = Optical smoke  
ION = Ionisation Smoke  
HEAT = Heat Sensor

Address number

DISABLE DEVICES		
Second Floor		STATUS
1	OPT	HRM
2	OPT	DIS
3	OPT	HRM
4	OPT	DIS
5	OPT	HRM
6	OPHTC	HRM
45 DEVICES : 2 DISABLED		
USE ↑ ↓ THEN PRESS ENTER, ELSE ESC		

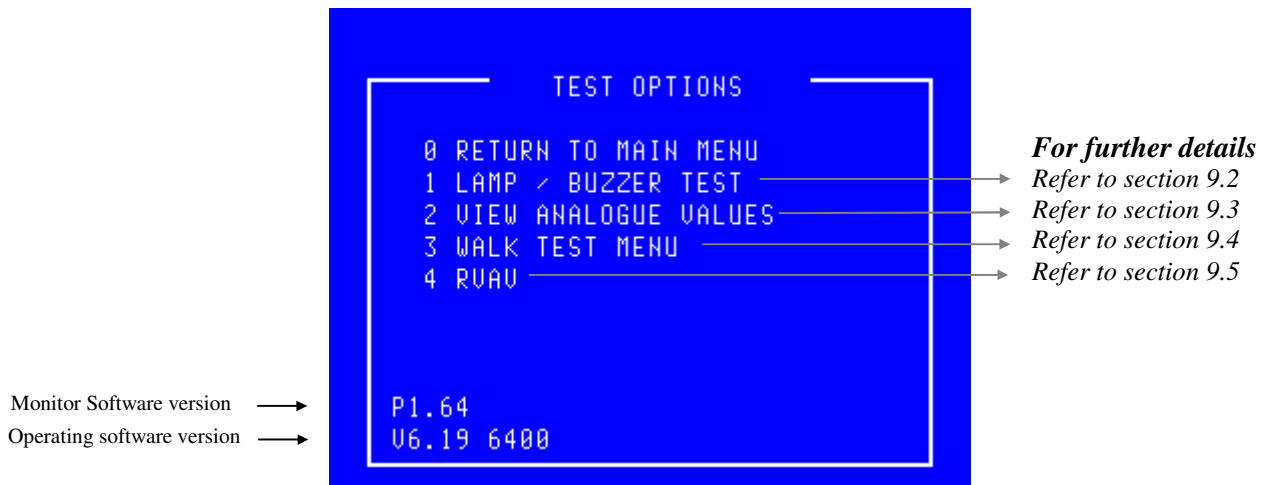
- Device by Location :** The following is an example of the display if selected to 'Location' :-

DISABLE DEVICES	
Second Floor	
	STATUS
Second floor bedroom 4	HRM
Second floor bedroom 5	DIS
Second floor bedroom 7	HRM
Second floor bedroom 10	DIS
Second floor bedroom 11	HRM
Second floor corridor outside	HRM
45 DEVICES : 2 DISABLED	
USE ↑ ↓ THEN PRESS ENTER, ELSE ESC	

# TEST OPTIONS

## 9.1 TEST OPTIONS

- **Function :** This option allows the operator to check the operation of the DCN LED indication (Lamps), inspect the return 'Analogue reading' from any device on the network and operate a one man test option 'Walk test'.
- **Selecting option :** To select the 'Test Options' Menu press number '5' from the 'Main Menu' options. Once selected the display will show the following Menu options on the LCD :-



- **Software versions :** At the bottom left of the 'Test options' menu screen, two numbers are displayed. These two numbers represent the version number of software which the system is currently operating under. An operating system with suffix 'A' implies a General Alarm System.
- **RVAV :** RVAV is only available for '6000' series loops.
- **Exiting option :** To exit the 'Test options' menu and return to the 'Main menu' press the '0' or 'ESC' key .

## 9.2 LAMP TEST

- **Function :** This option allows the operator to test that ALL LED indications on the DCN and that the LCD display functions correctly.  
*Note* - The 'Lamp test' will only be performed on the DCN where the option was selected, ALL other DCN displays will remain untested.
- **Selecting Function :** To select this option press the '1' key while in the 'Test options' menu. Once selected All the LEDs will illuminate horizontally and then vertically one row at a time. The display will show the following indication during the test :-

**WARNING !**  
*Display will be blanked  
for a short interval*

On completion of the 'Lamp test' the LCD will return to the 'Test options' menu.



### 9.3 VIEW ANALOGUE VALUES

- **Function :** This allows the operator to select a specific loop to display the Analogue data for each device currently on the Loop, on the LCD display in the form of a graph.
- **Select Option :** To select this option press the '2' key while in the 'Test options' menu. Once selected the LCD will display the 'Select Loop' sub-menu as shown below :-

LOOP	STATUS	DEVICES
First Floor	5400 OK	3
Second Floor	5400 OK	13
Third Floor	5400 OK	1
Restaurant	5400 OK	127
First Floor	6400 OK	8
Second Floor	6400 OK	58
Loop not used	6400 OK	0
Loop not used	6400 OK	0

USE ↑ ↓ THEN PRESS ENTER. ELSE ESC

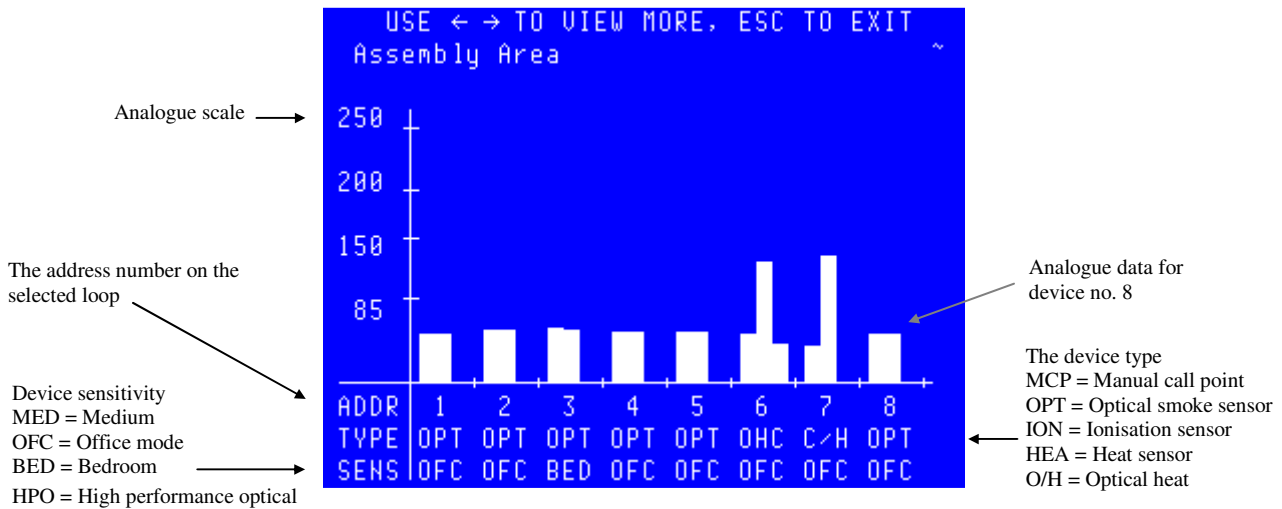
Displays the Node and Loop Number or a text description if the option has been specified.

Displays the number of devices on each loop.

Indicates the Loop status.  
6400 ok = Loop healthy.  
No card = No loop available

- **Selecting Loop :** Use the High-light bar to select the Node & Loop number of the devices to display their 'Analogue data' on the LCD in the form of a graph. Once selected press the 'ENTER' key.

Once all the data has been received from the 'Node', the following 'Graph' is displayed showing the first 8 devices on the selected Loop, in the following format :-



Use the ← → keys to scroll through the next 8 devices on the selected Loop.  
For details regarding the 'Analogue data' thresholds, refer to section 13

- **Exiting Option :** To EXIT the 'View analogue values' option and return to 'Test options' menu press the 'ESC' key.
- **5000/4000 Series :** '5000' and '4000' series loops display a single column. The thresholds for '5000' and '4000' series devices are shown in section 13.3 and 13.4.
- **HEA :** This is a '6000' series Heat device, column one is an average value ( $T_{hist}$ ), column two is a current value ( $T_1$ ). Column three represents a rate of rise indication and only appears when the heat channel is sensing a rising temperature. The fire decision algorithms look for this rising temperature and column two being greater than column one by a set amount.
- **O/H :** This is a '6000' series Optical Heat two channel device, column one is an average value ( $T_{hist}$ ), column two is a current value ( $T_1$ ). Column three represents a rate of rise indication and only appears when the heat channel is sensing a rising temperature. The fire decision algorithms look for this rising temperature and/or column two being greater than column one by a set amount.
- **OHC :** This is a '6000' series Optical Heat CO three channel device, column one represents the Optical value, column two the heat value and column three the CO value.
- **C/H :** This is a '6000 series' CO Heat two channel device, column one represents the CO value, column two the heat value. Column three is not used.
- **6000 Series :** '6000' Series devices not included in the above list show two columns, column one is an average value ( $T_{hist}$ ), column two is a current value ( $T_1$ ). The fire decision algorithms look for column two being greater than column one by a set amount.

## 9.4 WALK TEST MENU

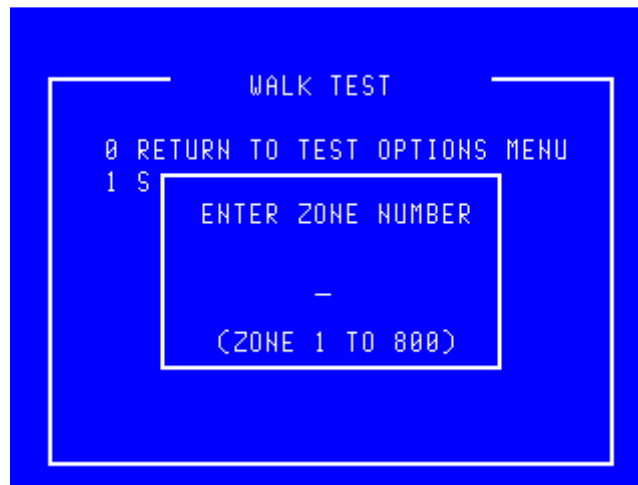
- **Function :** This option allows the operator to test 'Loop devices' without the need to return to the control panel to silence and reset the fire event. When a device is tested the panel activates the 'alarm outputs' that are programmed for the device under test for a predetermined period (set by the Protec engineer during commissioning), then the 'alarm outputs' are turned off.
- **Selecting Option :** To select this option press the '3' key while in the 'Test options' menu.



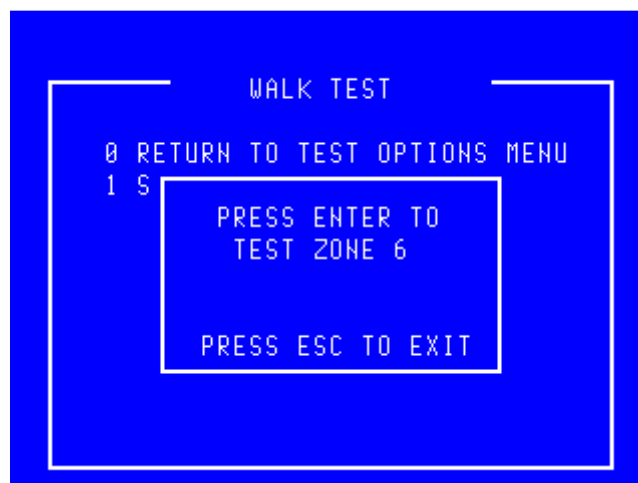
- **Global walk test :** Global walk test is an optional item available if requested by the user when the system is commissioned.
- **Exiting option :** To exit the 'Walk test' menu press the '0' or 'Esc' key.

### 9.4.1 WALK TEST ZONE

- **Function :** This option allows the operator to test the loop devices within a single zone without the need to return to the control panel to silence and reset the fire event. When a device is tested the panel activates the 'alarm outputs' that are programmed for the device under test for a predetermined period (set by the engineer during commissioning), then the 'alarm outputs' are turned off. Note that the rest of the system will continue to operate as a standard fire alarm system.
- **Outputs :** Note that only the alarm outputs on the node on which the device is activated will sound (assuming that the engineer option to disable outputs during test is not in use).
- **Selecting Option :** To select this option press the '1' key while in the 'Walk test' menu.



- **Select a zone :** The menu will accept a zone number between 1 and 800 inclusive. Zones greater than 100 are only used on an expanded system. Once a zone has been selected the system checks whether this zone is already in test mode and either offers the opportunity to test the selected zone as shown below or cancels the zone testing immediately. It can cancel immediately because only one zone at a time is permitted to be tested.



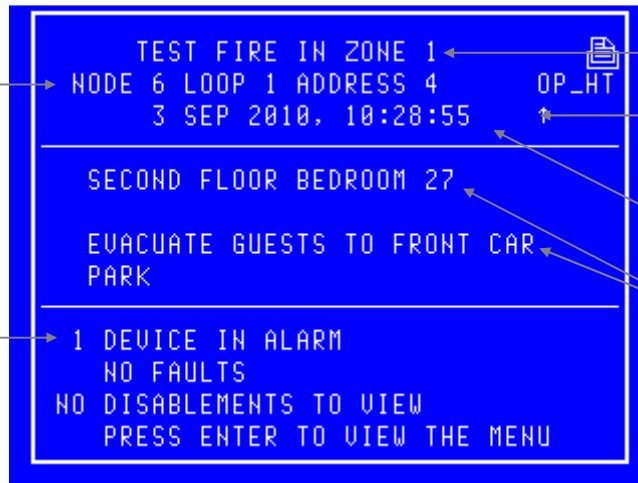
- **Zone walk test :** To confirm the zone test mode press the 'Enter' key.
- **Exiting Option :** To cancel the zone disablement press the 'Esc' key.

- Testing Loop :** Once the 'Zone walk test' has been selected, the Loop devices in that zone can then be tested. When a device is activated, the screen will display the following information and then reset automatically :-

Displays the Node / Loop & address location of the device in alarm

**Note** - If text has been assigned to the node, then the text will be displayed rather than the node & loop No

Displays the number of Devices which are currently in an alarm condition



Displays the 'Zone' number in which the fire has occurred

The arrow indicates the sensor that has generated the fire signal.

Displays the date & time of the activation

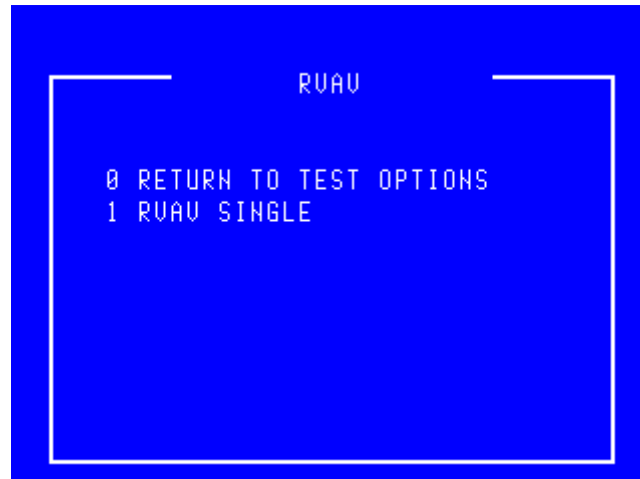
Location of device that has alarmed (only if specified).

Any Alarm Outputs (Programmed) will activate with the exception of those programmed for coincidence (assuming that the engineer option to disable outputs during test is not in use).

After predetermined time ( programmed by the Engineer and displayed in section 9.4 ) all outputs will deactivate and the display will then return to the previous menu.

## 9.5 RVAV (Remote Visual Address Verification)

- **Function :** This option allows the user to visually verify the address of a device on any '6000' series loop.
- **Selecting Option :** To select this option press the '4' key while in the 'Test Options' menu. The following menu will be displayed :-



- **Exiting Option :** To exit the 'RVAV' menu and return to the 'Test Options' menu press the '0' or 'Esc' key.

### 9.5.1 RVAV SINGLE

- **Function :** This option allows the user to visually verify the address of a device on a loop.
- **Selecting Option :** To select this option press the '1' key while in the 'RVAV' menu. The following menu will be displayed.

A screenshot of a terminal window with a blue background and white text. The title is 'SELECT LOOP'. Below the title, there is a table with three columns: 'LOOP', 'STATUS', and 'DEVICES'. The table contains four rows of data. At the bottom of the screen, there is a prompt: 'USE ↑ ↓ THEN PRESS ENTER, ELSE ESC'. Annotations with arrows point to specific parts of the screen: one points to the 'Main Store' row, another to the 'DEVICES' column, and a third to the '6400 OK' status.

LOOP	STATUS	DEVICES
Main Store	6400 OK	8
Assembly Area	6400 OK	58
Loop not in use	6400 OK	0
Loop not in use	6400 OK	0

Displays the Node and Loop Number or a text description if the option has been specified.

Displays No of devices logged onto the loop.

Indicates the Loop status. 6400 ok = Loop healthy.

USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

- Loop Selection :** Use the highlight bar to select the 'Node & Loop' number for which a device is to be visually checked and then press the 'ENTER' key. Note that only '6000' series loops support RVAV. Once selected the panel will display the following menu :-



- Exiting Option :** To EXIT the 'RVAV Single' menu and return to the 'RVAV' menu press the '0' or 'Esc' key.
- Select Address :** Use the highlight bar to select the address to test then press the 'Enter' key. A box will appear on the display as shown below :-



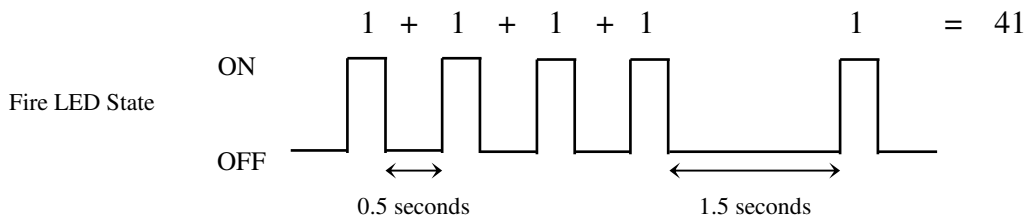
- Exiting Option :** To stop the 'RVAV' and return to the 'Select address' menu press the 'Esc' key.
- Warning :** During RVAV a device cannot generate a fire signal.
- Timeout :** The RVAV will timeout after 10 minutes if 'Esc' has not been pressed.

### 9.5.2 RVAV DESCRIPTION

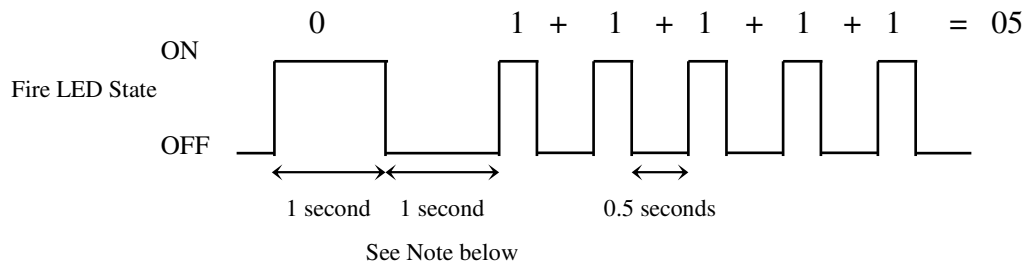
- **Availability :** RVAV is available on loop devices that have a 'Fire LED'.
- **Format :** When the device receives the signal to RVAV, it outputs its address in the following format :-

The address is output as hundreds, tens and units with a one and a half second delay between. If the address is less than 100 then the leading zero for the hundreds is not output. The address is determined by counting the LED flashes. A zero is denoted by a long flash of approximately one second. There is a half second delay (approx) between LED flashes.

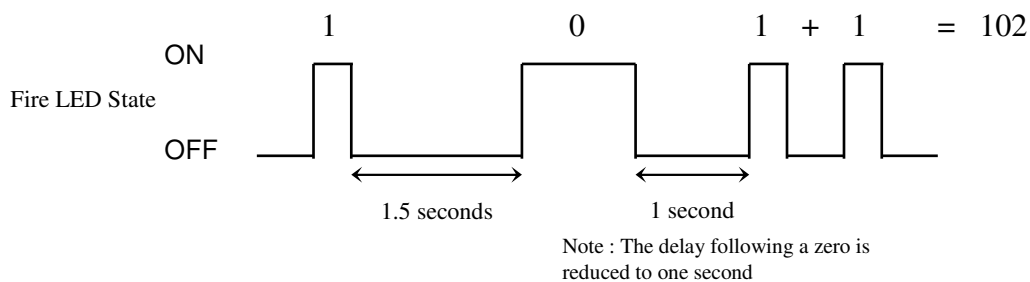
#### Address 41



- **Address 05**



- **Address 102**

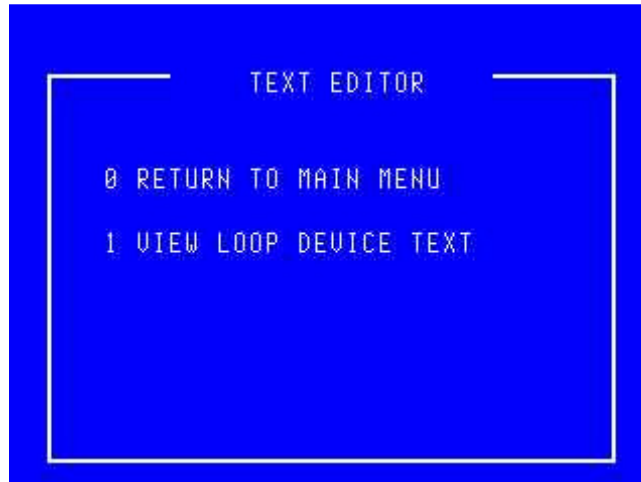




# TEXT EDITOR

## 10.1 TEXT EDITOR

To select the 'Text Editor' Menu, select '6' from the 'Main Menu' options.  
Once selected, the display will show the following :-



→ *For further details  
Refer to section 10.2*

### Note

The standard user access permits viewing of the loop device text but does not permit editing. Users trained and authorised to make changes to the system configuration are supplied with an alternative 'Exchange' code. Use of this alternative code modifies option '1' to read 'EDIT LOOP DEVICE TEXT'.

The following menus assume that the user can edit the text. Users who are not permitted to edit the text will find that the option to make and save changes is not available.

## 10.2 EDIT LOOP DEVICE TEXT

- **Function :** This option allows the user to view or edit the 'Location text' for any loop device on the system.
- **Selecting Option :** To select this option press '1' while in the above text editor menu. Once selected, the LCD will display 'Select Loop' menu :-

LOOP	STATUS	DEVICES
First Floor	5400 OK	3
Second Floor	5400 OK	13
Third Floor	5400 OK	1
Mezzanine	5400 OK	127
Main Store	6400 OK	8
Assembly Area	6400 OK	58
Loop not in use	6400 OK	0
Loop not in use	6400 OK	0

USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

← Displays No of devices logged onto each loop.

- **Select Loop :** Use the High-light bar to select the Node & Loop number of the device to be edited and then press the *ENTER* key. Once selected the panel will request data from the Node, while the data is being requested, the display will show the following message :-



Once all the data has been received from the Node, the following 'Edit device text' screen will be displayed:-



Use the Highlight bar to select the device for editing, and then press **ENTER** key.

Pressing the ENTER key will then display the 'Edit device text' display :-



Use the ← ↑ ↓ → keys to move the cursor and the keyboard to edit the text info.

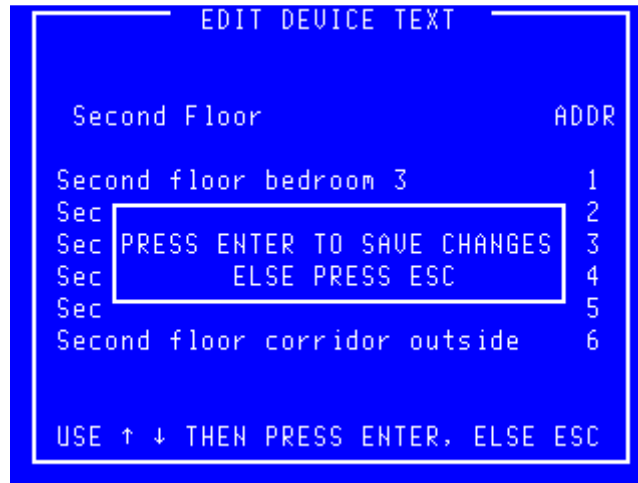
Once the Text has been edited correctly, press the **ENTER** button.

This will then display the 'Edit device text' menu with the **NEW** alterations.

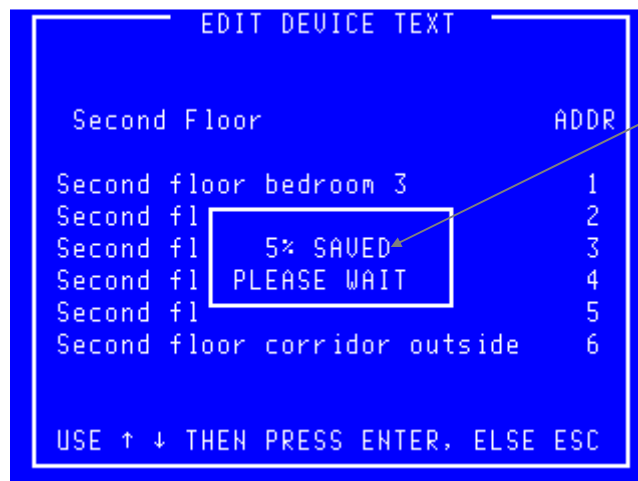


The text alterations will now be displayed

If further alterations are required then move the highlight bar to select a new device and press the **ENTER** key. To exit press the **ESC** button. The display will show :-



- **Exiting Option :** To abandon the changes press the 'Esc' key.
- **Saving Data :** Press the **ENTER** Key to save the above changes to memory. The display will show :-



Indicates the percentage saved to memory. This is approximate

Once all the new alterations have been saved to memory, the LCD returns back to the 'Text Editor Menu' options.

# CLEAR SYSTEM FAULT

## 11.1 CLEAR SYSTEM FAULT

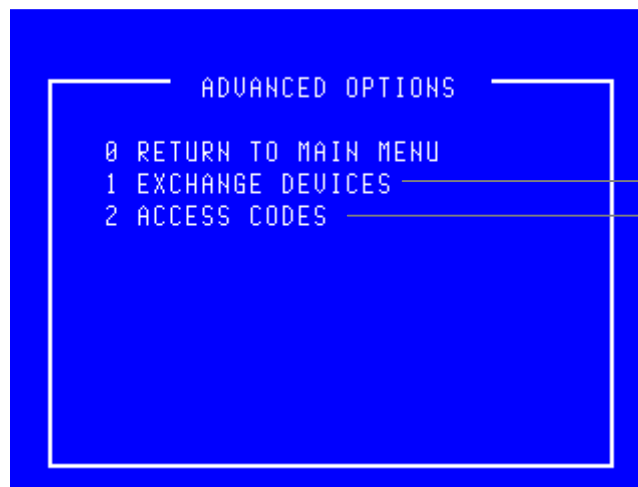
Each DCN on the network has a '*SYSTEM FAULT*' warning lamp. This fault is latching, and will occur after a complete system failure either due to a prolonged or full power down of the panels microprocessor.

Selecting option '*7*' '*Clear system fault*' from the '*Main menu*' options, will extinguish the '*SYSTEM FAULT*' LED on all nodes.

# ADVANCED OPTIONS

## 12.1 ADVANCED OPTIONS

- **Function :** This menu permits the ability to swap loop devices for cleaning and also allows the 'master' user to set up individual codes for other users.
- **Selecting Option :** To select this option press the '8' key while in the 'Main menu'. Once selected, the LCD will display the advanced options menu shown below :-



**For further details**  
Refer to section 12.2  
Refer to section 12.3

- **Exiting option :** To exit the advanced options menu press the '0' or 'Esc' key.
- **Access Codes :** This option is only available when the 'master' user code has been entered.
- **Exchange Devices :** This option is available when the 'Exchange' user code' has been entered. It is only applicable to '6000' series loops. On 6400 systems driving other loop devices 'Access Codes' becomes option '1'.

## 12.2 EXCHANGE DEVICES

- **Function :** This option permits the swapping of up to eight devices (addresses) per loop, typically for cleaning. No device must be exchanged prior to selecting this menu otherwise a fire signal may be generated.
- **Device type :** Each device must be swapped for one of the same type.
- **16 Way Board :** The 16 Way Board occupies 16 addresses therefore this has to be exchanged in stages i.e. no more than 8 addresses at a time. Before exchanging a 16 Way Board make a note of all 16 device serial numbers for the old and the new boards to ensure that the address numbers are exchanged correctly.
- **Selecting Option :** To select this option press the '1' key while in the 'Advanced Options' menu'. Once selected, the LCD will display the exchange devices screen as shown below :-



- **Exiting option :** To exit the 'Exchange devices' menu and return to the 'Advanced options' menu press the 'Esc' key.
- **Exchange rules :** Once the exchange screen is displayed the user may then swap devices.
  - 1) It is important to record the node, loop, address and serial number of the device(s) being removed and those of the device(s) being fitted because this information will need to be referred to later.
  - 2) A disabled device cannot be exchanged because although it will have been removed it will not have recorded by the system as missing.
  - 3) The newly exchanged device will turn its fire led on to signify that the 6400 system has found it.

**Do not proceed beyond this point until the device(s) have been exchanged.**

- **Selecting Option :** To select this option press the **'Enter'** key while the display shows the exchange screen. Once selected, the LCD will display the **'Select Loop'** menu :-

SELECT LOOP		
LOOP	STATUS	DEVICES
Main Store	6400 OK	8
Assembly Area	6400 OK	58
Loop not in use	6400 OK	0
Loop not in use	6400 OK	0

USE ↑ ↓ THEN PRESS ENTER, ELSE ESC

Displays No of devices logged onto each loop.

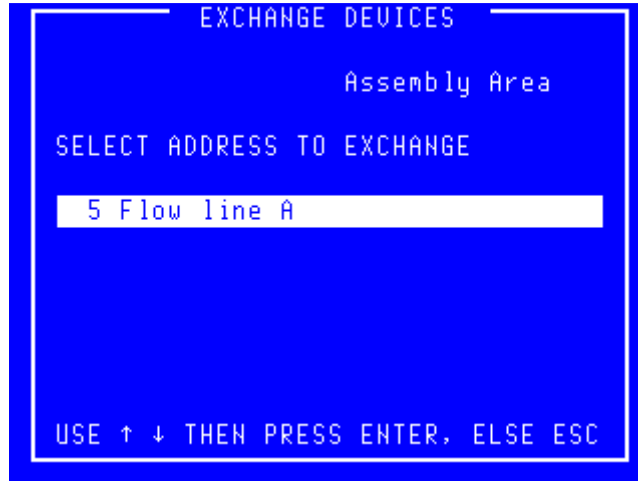
- **Select Loop :** Use the High-light bar to select the Node & Loop number of the device(s) that have been exchanged, then press the **'Enter'** key. Once selected the display will show the following warning message :-

EXCHANGE DEVICES	
Assembly Area	
WARNING INCORRECT EXCHANGE OF DEVICES WILL AFFECT SYSTEM OPERATION PRESS ENTER TO CONTINUE ELSE PRESS ANY OTHER KEY	

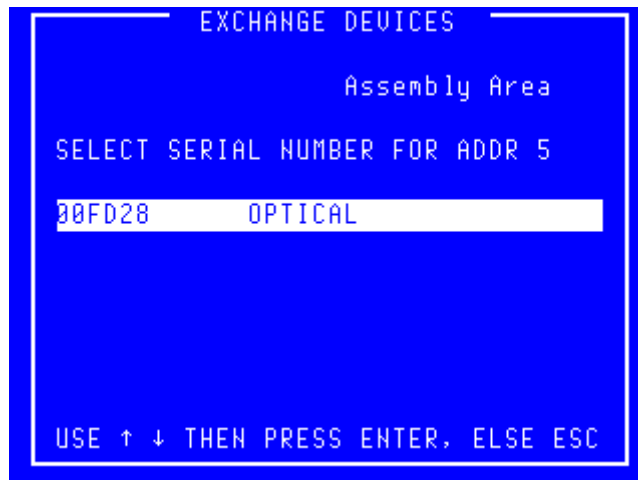
- **Warning :** It is important users appreciate that mistakes made when exchanging could lead to serious problems such as the incorrect location being reported for a fire alarm.



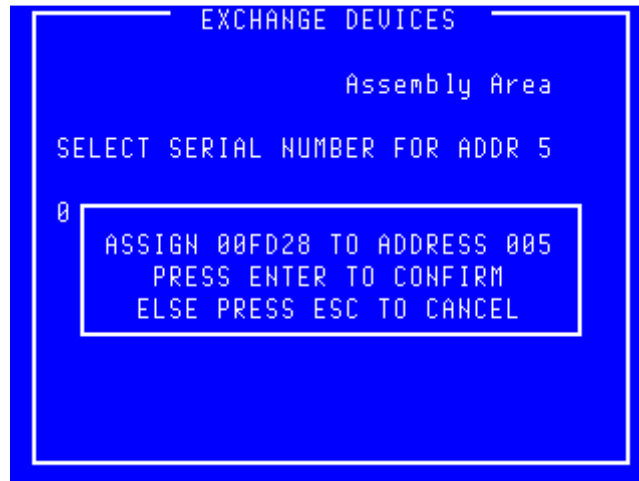
- **Exiting option :** To exit from this menu press the '*Esc*' key.
- **Proceed :** Press 'Enter' to accept the warning and proceed with the exchange. The display will list all the addresses from which a device is missing as shown below :-



- **Exiting option :** To exit from this menu press the '*Esc*' key.
- **Address select :** Use the highlight bar to select one of the addresses then press '*Enter*'.



- **Exiting option :** To exit from this menu press the '*Esc*' key.
- **Device select :** Use the highlight bar to select the serial number of the device that was exchanged at the selected address then press 'Enter'.



- **Exiting option :** To cancel the exchange press the '*Esc*' key.
- **Device select :** Press 'Enter' to confirm the details of the exchange.



- **Exiting option :** To exit from this menu press the '*Esc*' key.



- **Exiting option :** To exit from this menu press the '*Esc*' key.
- **Confirm exchange :** Press '*Enter*' to go ahead and save the new data



Indicates the percentage saved to memory. This figure is approximate

- **Exiting option :** Once the new device data has been saved the menu will automatically exit back to the '*Advanced options*' menu.
- **Device Test :** On completion of the exchange, each exchanged device must be tested to ensure that the newly installed devices are operating correctly.

### 12.3 ACCESS CODES

- **Function :** This option allows the 'master' user to set up to 32 individual codes for other users. This menu option is offered only when the 'chief' user code has been entered.
- **Selecting Option :** To select this option press the '2' key while in the 'Advanced Options' menu'. Once selected, the LCD will display the user code menu as shown below :-

USER	CODE	LEVEL
01	0000	0
02	7564	6
03	0000	0
04	1563	5
05	0000	0
06	0000	0
07	0000	0
08	0000	0

USE ↑ ↓ THEN PRESS ENTER. ELSE ESC

- **Exiting option :** To EXIT the 'User Codes' menu and return to the 'Main menu' press the 'ESC' key.
- **Selecting a code :** Select a code to allocate by moving the highlight bar over the chosen code number and press the Enter key. A box will appear on the display as shown below :-

USER	CODE	LEVEL
01	0000	0
0		
0		
0		
0		
0		
0		
0		

ENTER THE CODE  
0000\_  
USE KEYS 0 TO 9

USE ↑ ↓ THEN PRESS ENTER. ELSE ESC

- **Exiting option :** To abandon the allocation of a code and return to the 'User codes' menu press the Esc key.
- **Allocating a code :** Use the '←' to delete the previous code then enter the new code using the keys '0' to '9'. Press the Enter key when complete and the display will offer the opportunity to set the level. Entering the code '0000' removes an allocated code.

- **Levels :** Individual users can be restricted in their use of the system by allocating a level to their code. A level of '1' implies that only menu option '1' of the 'Main menu' will be offered to that user when the code is input. Level '2' implies menu options '1' and '2' of the 'Main menu' etc. A level of '0' is used when the code is '0000'.
- **Allocating a level :** Use the '←' to delete the previous level then enter the new level using the keys '1' to '7'. Press the Enter key when complete and the display will return to the 'User codes' menu.



- **Exiting option :** To abandon the allocation of a level and to return to the 'User codes' menu press the 'Esc' key.

# REFERENCE

## 13.1 THRESHOLD LEVELS FOR 6000 SERIES ANALOGUE DEVICES

ANALOGUE THRESHOLD LEVELS (T <sub>hist</sub> )	
FAULT	NORMAL
<b>OPTICAL SMOKE SENSOR</b>	
0 – 15, 141 – 255	16 – 140
<b>IONISATION SMOKE SENSOR</b>	
0 – 15, 151 – 255	16 – 150
<b>TEMPERATURE SENSOR</b>	
0 – 25, 250 – 255	26 – 249
<b>OPTICAL HEAT SENSOR – Optical channel</b>	
0 – 15, 141 – 255	16 – 140
<b>OPTICAL HEAT SENSOR – Heat channel</b>	
0 – 25, 250 – 255	26 – 249
<b>CO HEAT SENSOR – CO channel</b>	
0 – 19, 151 – 255	20 – 150
<b>CO HEAT SENSOR – Heat channel</b>	
0 – 24, 251 – 255	25 – 250
<b>OPTICAL HEAT CO SENSOR – Optical channel</b>	
0 – 34, 91 – 255	35 – 90
<b>OPTICAL HEAT CO SENSOR – Heat channel</b>	
0 – 24, 251 – 255	25 – 250
<b>OPTICAL HEAT CO SENSOR – CO channel</b>	
0 – 19, 151 – 255	20 – 150

Notes :-

1. T<sub>hist</sub> is shown on the analogue value graph (see section 9.3).
2. Fire levels are calculated by algorithms within the system (see section 9.3). These fire levels change with the device sensitivity.
3. Each channel of a multi-channel device such as the Optical heat has the same sensitivity.

## 13.2 THRESHOLD LEVELS FOR 6000 SERIES DIGITAL DEVICES

THRESHOLD LEVELS (T <sub>1</sub> )			
SENSITIVITY	FAULT	NORMAL	FIRE
<b>MCP</b>			
N/A	0	85	220
<b>ZONE ALARM INTERFACE</b>			
N/A	17 - 22	85	219 - 220
<b>MICCO</b>			
N/A	17 - 18	85	220
<b>SOUNDERS &amp; OTHER OUTPUT DEVICES</b>			
N/A	0	85	N/A

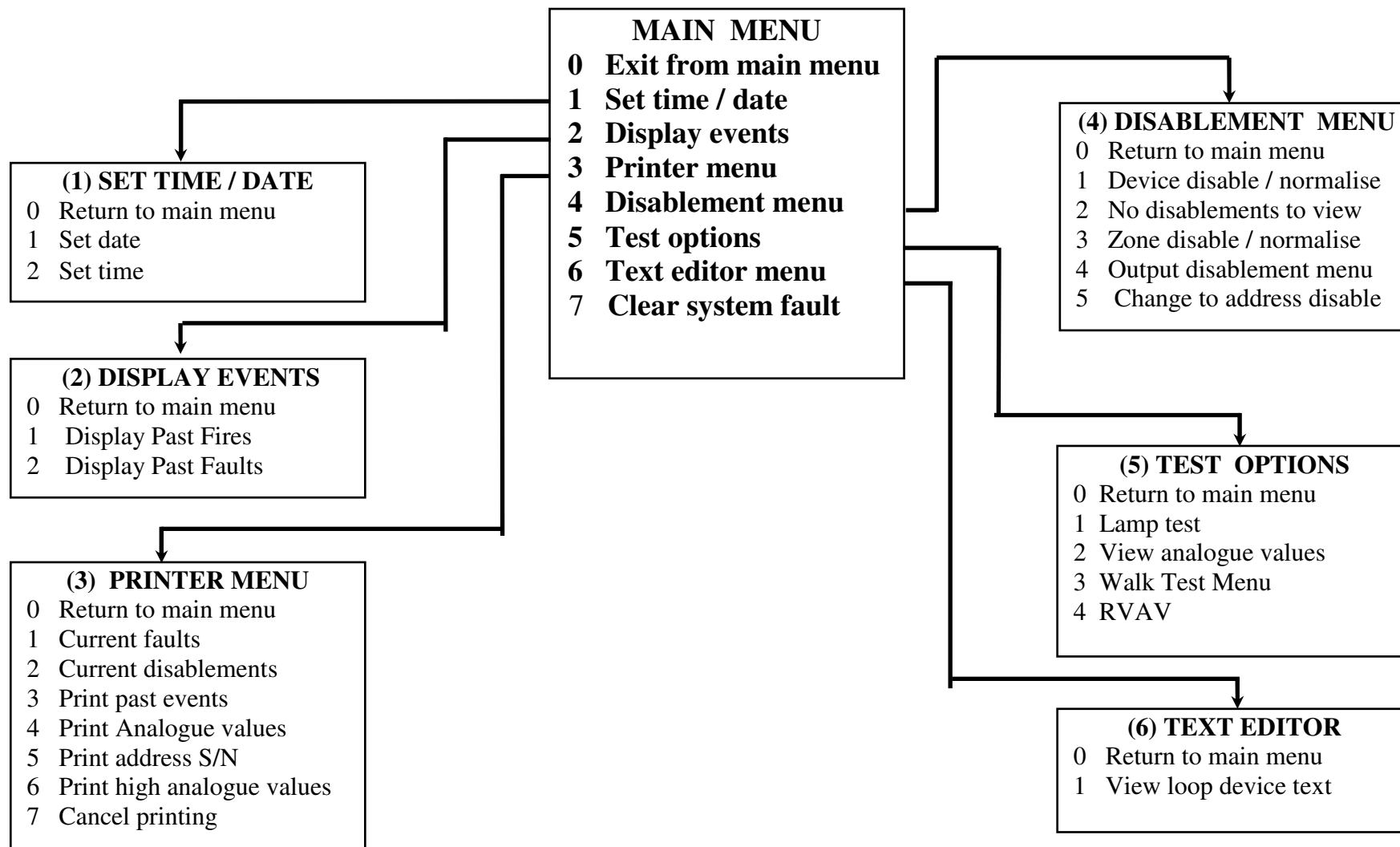
### 13.3 THRESHOLD LEVELS FOR 5000 SERIES DEVICES

ANALOGUE THRESHOLD LEVELS				
SENSITIVITY	FAULT	NORMAL	PRE-ALARM	FIRE
<b>'N/S' TYPE '0' (MCP, SOUNDER or INTERFACE)</b>				
Low	0 - 80	81 - 192	N / A	193 - 255
Medium	0 - 80	81 - 192	N / A	193 - 255
High	0 - 80	81 - 152	153 - 192	193 - 255
<b>'ION' TYPE '1' (IONISATION SMOKE SENSOR)</b>				
Low	0 - 8	9 - 152	153 - 208	209 - 255
Medium	0 - 8	9 - 152	153 - 184	185 - 255
High	0 - 8	9 - 152	N / A	153 - 255
<b>'HEAT' TYPE '2' (TEMPERATURE SENSOR)</b>				
Low	0	1 - 220	N/A	221 - 255
Medium ( 68° )	0	1 - 196	N/A	197 - 255
High	0	1 - 168	N/A	169 - 255
<b>'OPT' TYPE '3' (OPTICAL SENSOR)</b>				
Low	0	1 - 160	161 - 200	201 - 255
Medium	0	1 - 128	129 - 168	169 - 255
High	0	1 - 112	113 - 136	136 - 255

### 13.4 THRESHOLD LEVELS FOR 4000 SERIES DEVICES

ANALOGUE THRESHOLD LEVELS				
SENSITIVITY	FAULT	NORMAL	PRE-ALARM	FIRE
<b>MCP</b>				
Medium	0-15, 17-63	16	N / A	64-127
<b>IONISATION SMOKE SENSOR, TEMPERATURE SENSOR, OPTICAL SENSOR, MULTISENSOR</b>				
Medium	0-9	10-40	41-50	51-127

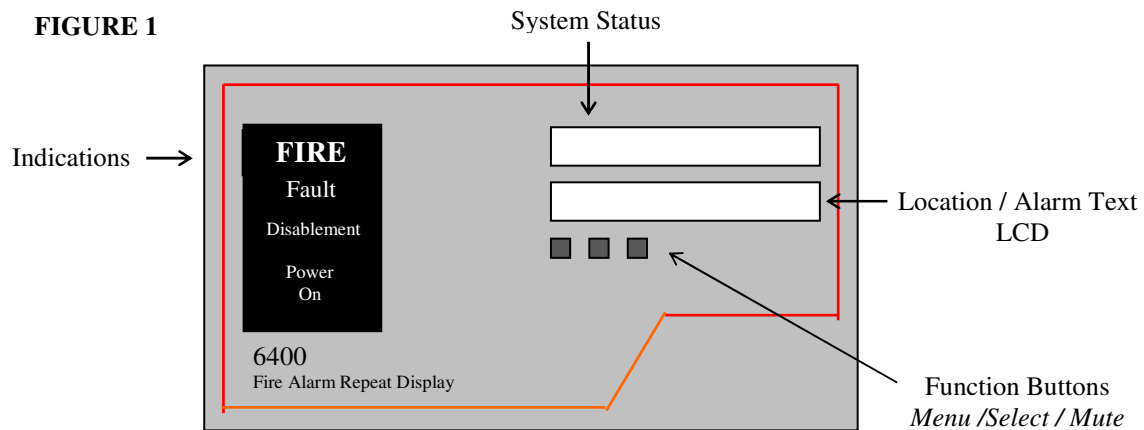
### 13.5 OPERATING MENU FLOWCHART



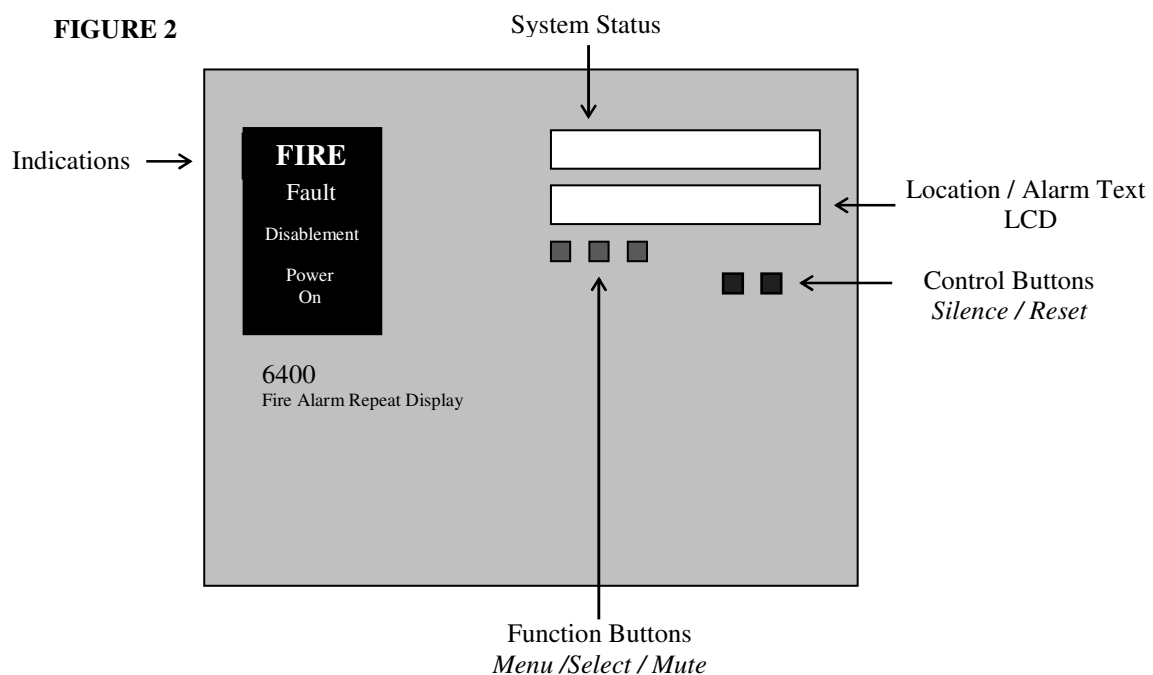


# NETWORK REPEAT PANELS

## 14.1 NETWORK LCD PANEL - (No network controls)



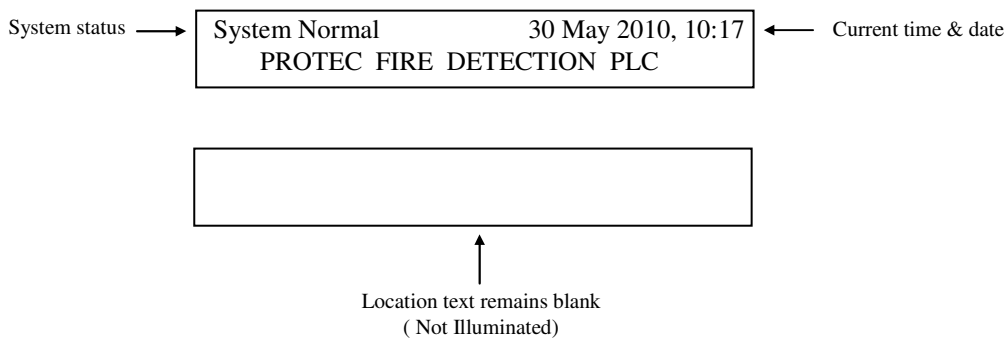
## 14.2 RDN PANEL – (With network controls)



# NETWORK LCD DISPLAY

## 15.1 NETWORK LCD DISPLAY

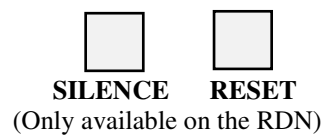
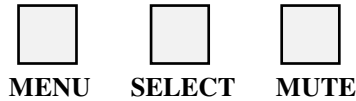
The following will be displayed when the system is in a 'Normal' condition, i.e. no fires or faults: -



# FUNCTION BUTTONS

## 16.1 - FUNCTION BUTTONS

On the front of a repeat panel, there are 5 function buttons (only 3 on the LCD panel) as follows: -

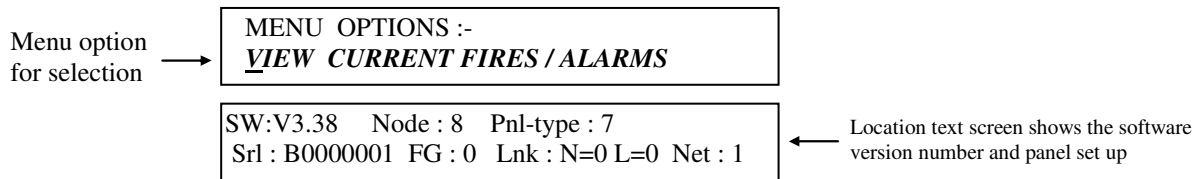


- Menu Button** - Pressing this button allows access to the Repeat panels '*Menu options*' (refer to Section 16.1 for details).
- Select Button** - This button is primarily used when in the '*Menu options*'.
- Mute** - This button will stop the fault / fire buzzer on the Repeat panel only.
- Silence** - Pressing this button will silence any currently active '*ALARMS*'.
- Reset** - Pressing this button will reset any active fire events on the network. This button will only function once the alarms have been silenced

# MENU OPTIONS

## 17.1 MENU OPTIONS

The Repeat Panel has a number of 'Menu options' available to the user. To access these menu options, press the 'MENU' button on the front of the panel. Once selected, the panel will show the following on the displays: -



- **Viewing options** : Pressing the 'MUTE' button will increment through the menu options as listed:-

	For further details refer to
<i>View current fires / alarms</i>	→ Section 18
<i>View current faults*</i>	→ Section 21
<i>View current disablements*</i>	→ Section 22
<i>Print current fires / alarms*</i>	→ Section 23
<i>Print current faults*</i>	→ Section 23
<i>Print current disablements*</i>	→ Section 23
<i>Lamp test</i>	→ Section 24
<i>Abort Printout</i>	→ Section 25

\* Only available if the repeat panel is configured accordingly.

- **Selecting option** : When the option required is shown on the upper LCD, press the 'SELECT' button to choose the option.
- **Exiting option** : To exit the 'Menu options' and return to a normal screen, press the 'MENU' button.

## 17.2 MENU VIEWING INSTRUCTIONS

- Menu Button :** This button is used to enter the menus from the normal display. Once within the menu structure pressing this button moves the user back one level.
- Select Button :** When in menus, this button will select the option currently shown on the upper LCD by a flashing cursor.
- Mute Button :** In menus, pressing this button will cycle through the available menu options.

# VIEWING FIRE EVENTS

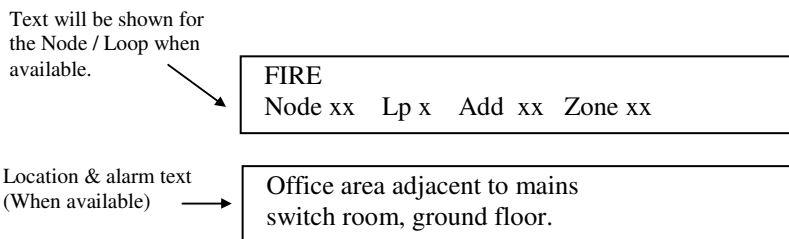
## 18.1 VIEWING FIRES / ALARMS

### FIRE SIGNAL

On hearing the '**FIRE ALARM**' signal :-

- a) Evacuate the premises **IMMEDIATELY**.
- b) Alert the fire brigade.
- c) **DO NOT** re-enter the premises until authorised by the fire brigade.

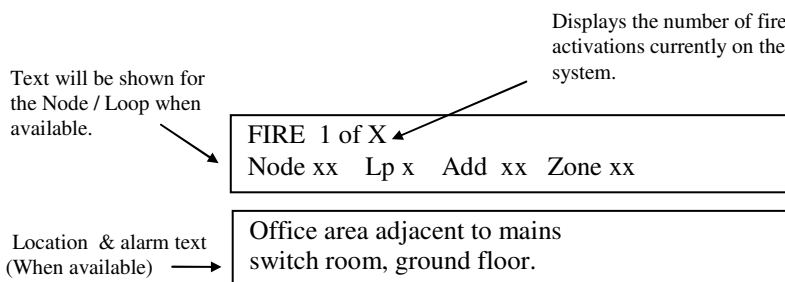
In the event of a fire activation occurring, the repeat panel's buzzer will fast pip and the '**FIRE**' lamp will illuminate. The fire details will be displayed as follows: -



The lower display will fluctuate between the '*Location text*' and the '*Alarm text*' approximately every three seconds

## 18.2 VIEWING MULTIPLE FIRE / ALARMS

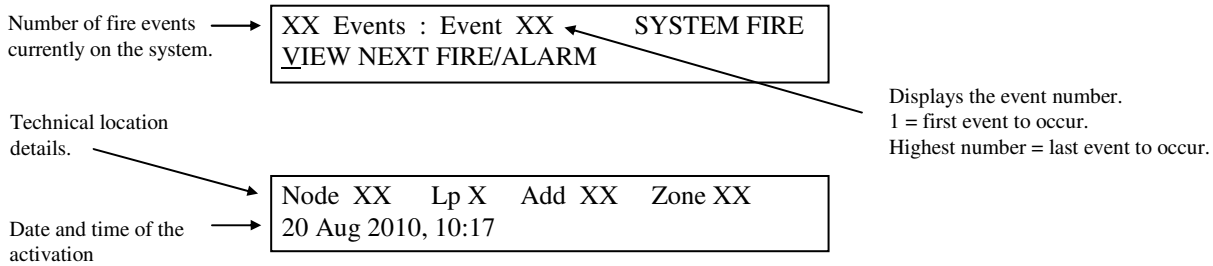
In the case of more than one fire event occurring on the system, the repeat panel will show the number of activations as follows :-



The first activation will remain displayed. To view other fire events press the '**MENU**' button and then using the '**MUTE**' button scroll through the '*Menu options*' until the upper LCD displays: -



When the 'View current fires' is being displayed, press the 'SELECT' button, which will then display the following options:



- **Viewing a fire event** : To scroll through the fire events, press the 'SELECT' button while the cursor is flashing on the 'View next fire / alarm' option. Once pressed, the 'Event' will increment and the lower LCD will display the new event details. Pressing 'Mute' will cycle through the options shown below :-
- **Location text** : To view the location text for fire events, the 'View location text' option should be selected.
- **Alarm text** : To view the alarm text for fire events, the 'View alarm text' option should be selected.
- **Show Details** : To view the Fire details ( Node, Loop, Zone, etc.) for fire events, the 'Show details' option should be selected.
- **20 Fire Events** : The repeat panels can each store a maximum of 20 fire events.
- **Exit option** : To return to the previous menu level, press the 'MENU' button.

**N.B. Refer to Section 17.2 for instructions on how to select menu options.**

# SILENCING FIRE EVENTS

## 19.1 SILENCING FIRE EVENTS

**Note - This function is only available on the RDN (see section 14).**

Pressing the '**SILENCE**' button after any FIRE event will silence the system alarms. The buzzer will silence and the following will be shown on the upper LCD :-

Text will be shown  
for the Node / Loop  
when available. →

<p>FIRE X of X    <b>ALARMS SILENCED</b> ←</p> <p>Node xx   Lp x   Add xx   Zone xx</p>
---

Indicates that ALL  
alarm outputs have  
been silenced.

**DO NOT** at this stage attempt to '**RESET**' the system until the cause of the fire has been established.

If an activation of another fire occurs once the sounders have been silenced, the buzzer will return to fast pip, the sounders will reactivate and the '*Alarms silenced*' indication will be removed.

# RESETTING A FIRE EVENT

## 20.1 RESETTING A FIRE EVENT

*Note* - This function is only available on the RDN (see section 14).

After 'Silencing Alarms' (section 19.1) and establishing the cause of the fire, the **'RESET'** button can be pressed. All current fire activations will be reset and the panel will display the system status as being 'System Normal' as shown previously in section 15.1

Any fire indications will be extinguished.

Any plant equipment (control outputs) will be reset.

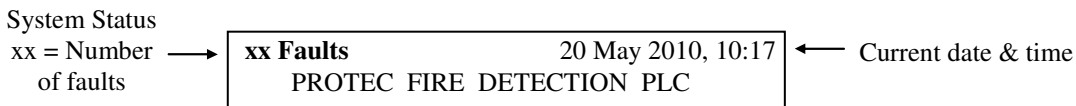


# VIEW CURRENT FAULTS

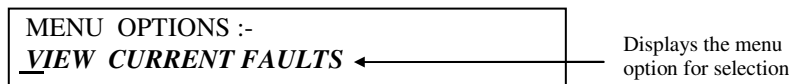
## 21.1 VIEW CURRENT FAULTS

**Note – Fault events can only be viewed if the repeat panel is configured to show faults.**

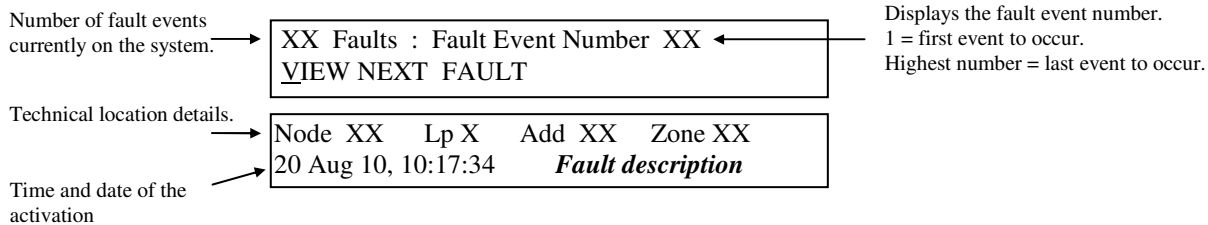
In the event of a fault activation occurring the repeat panel’s audible buzzer will sound (1 second on / 1 second off). The ‘Fault’ lamp will illuminate and the following will be displayed on the upper LCD: -



To view the fault events press the ‘MENU’ button and then using the ‘MUTE’ button scroll through the ‘Menu options’ until the upper LCD displays: -



When the ‘View current faults’ is shown, press the ‘SELECT’ button and the following options will be displayed:-



- **Viewing events** : To scroll through the fault events, press the ‘SELECT’ button while the cursor is flashing on the ‘View next fault’. Once pressed the ‘Fault Event Number’ will increment and the lower LCD will display the new event details. Pressing ‘Mute’ will cycle through the options described below :-
- **Location text** : The location text for the fault events can be displayed (if available), by selecting the ‘View location text’ option when viewing the correct fault event number.
- **Show Details** : The Fault details (Node, Loop, Zone etc) for the fault events can be displayed by selecting the ‘Show details’ option when viewing the required fault event number.
- **30 Faults Events** : The repeat panels can each store a maximum of 30 fault events.
- **Exiting option** : To return to the previous menu level, press the ‘MENU’ button.

**N.B. Refer to Section 17.2 for instructions on how to select menu options.**

# VIEW CURRENT DISABLEMENTS

## 22.1 VIEW CURRENT DISABLEMENTS

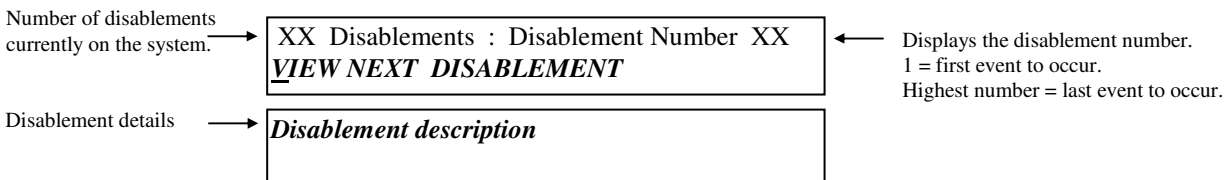
**Note – Disablements can only be viewed if the repeat panel is configured to show disablements.**

In the event of a disablement occurring, the ‘*Disablement*’ lamp will illuminate.

To view the disablements, press the ‘**MENU**’ button and then using the ‘**MUTE**’ button scroll through the ‘*Menu options*’ until the upper LCD displays: -



When ‘*View current disablements*’ is shown, press the ‘**SELECT**’ button and the following will be displayed: -



- **Viewing Disablements** : To scroll through the disablements, press the ‘**SELECT**’ button while the cursor is flashing on ‘*View next Disablement*’. Once pressed the ‘*Disablement Number*’ will increment and the lower LCD will display the new event details. Pressing the ‘**Mute**’ button will cycle through the options described below :-
- **Location text** : The location text for the disablement events can be displayed (if available), by selecting the ‘*View location text*’ option when viewing the correct disablement event number.
- **Show details** : The disablement details can be displayed by selecting the ‘*Show details*’ option when viewing the required disablement event number.
- **30 Disablements** : The repeat panels can each store a maximum of 30 disablement events.
- **Exiting option** : To return to the previous menu level, press the ‘**MENU**’ button.

**N.B. Refer to Section 17.2 for instructions on how to select menu options.**

# PRINTING

## 23.1 PRINTING - RDN Only

**Note – Printing is only available if the repeat panel is configured to be used with a printer.**

On the RDN there is the option of being able to print events. There are three printing options as follows: -

- 1 Print current fires
- 2 Print current faults
- 3 Print current disablements

N.B. The user can only print faults and disablements when the repeat panel has been configured to show faults and disablements respectively. Obviously, the panel needs to have been configured to use a printer also.

To print one of the three options above, the user needs to enter the menus by pressing the ‘MENU’ button. The ‘MUTE’ button should then be pressed to cycle through the available options until the upper LCD shows the required option as shown below: -



When the required option is shown, press the ‘SELECT’ button to commence printing.

Once printing has been started, printing will continue until all the events of the chosen type have been printed. Printing can be cancelled at any time by pressing the ‘SELECT’ button (when outside of the menus).

**N.B. Refer to Section 17.2 for instructions on how to select menu options.**

# LAMPTEST

## 24.1 LAMPTEST

To perform a lampstest, press the 'MENU' button and then using the 'MUTE' button scroll through the 'Menu options' until the upper LCD displays: -

Displays the menu option for selection →

MENU OPTIONS :-  
**LAMPTEST**

When 'Lampstest' is shown, press the 'SELECT' button and the panel will briefly illuminate all LEDs and test the LCDs.

# ABORT PRINTOUT

## 25.1 ABORT PRINTOUT

To abort a printout, press the 'MENU' button and then using the 'MUTE' button scroll through the 'Menu options' until the upper LCD displays: -

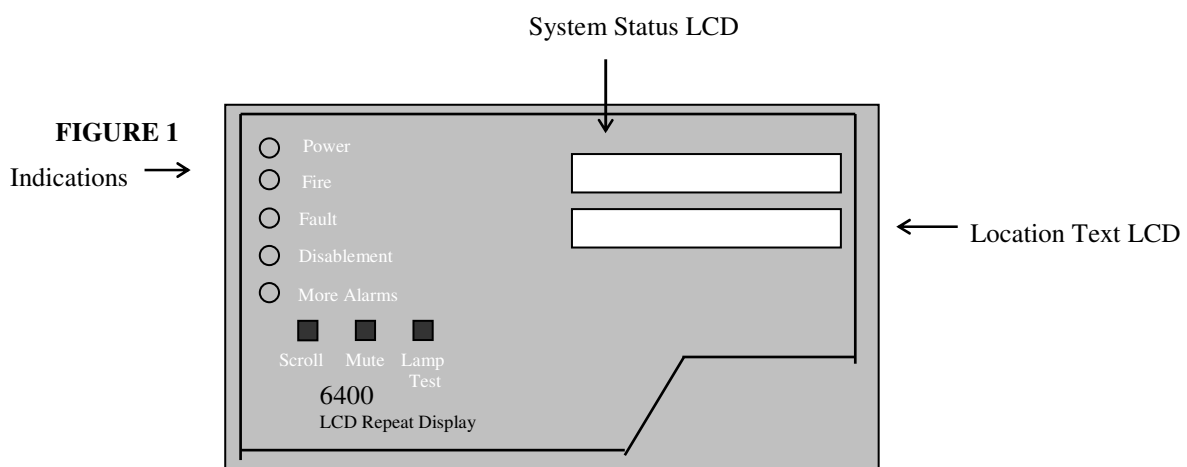
Displays the menu option for selection →

MENU OPTIONS :-  
**ABORT PRINTOUT**

When 'Abort Printout' is shown, press the 'SELECT' button and the panel will cancel the current printout.

# LOOP REPEAT PANEL

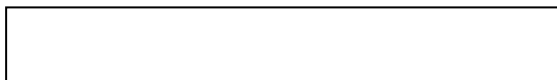
## LOOP LCD PANEL



### 26.1 NORMAL DISPLAY

In normal operation the loop LCD Panel displays :-

SYSTEM NORMAL - 8:59  
PROTEC FIRE DETECTION



- The 'Power' led is lit while there is power on the loop.
- The 'Disablement' led is lit when there are disablements on the 6400 system however the Loop LCD Panel does not display them.
- The LCD backlights are not switched on when the system is in the normal state.

## 26.2 FAULT DISPLAY

If there is a fault on the system then the loop LCD Panel displays it on the upper LCD. If it is a device related fault then the location text is shown on the lower LCD eg :-

DEVICE FAULT	14/09/10 09:02:13
BUILDING 4	ADDRESS 44

DEVICE LOCATION TEXT IS DISPLAYED HERE
---

- The 'Fault' led is lit to indicate that there is a fault to view
- The Loop LCD Panel buzzer will mute if the fault event is accepted at the 6400 panel or it can be muted locally by pressing the 'MUTE' button.
- If there is more than one fault to display then the faults are rotated automatically every three seconds.

## 26.3 FIRE DISPLAY

If there is a fire on the system then the loop LCD Panel displays it on the upper LCD. The device location text is shown on the lower LCD eg :-

FIRE IN ZONE 5	14/09/10 09:06:27
BUILDING 4	ADDRESS 6

DEVICE LOCATION TEXT IS DISPLAYED HERE
---

- The 'Fire' led is lit to indicate the fire alarm event
- The Loop LCD Panel buzzer will mute if the fire event is accepted at the 6400 panel or it can be muted locally by pressing the 'MUTE' button.
- If there is more than one fire to display then the 'More Alarms' led is lit. The additional fires are viewed by pressing the 'Scroll' button or rotated automatically every three seconds depending upon an internal switch. Fire events have a higher priority than fault events therefore it is not possible to view fault events while fire events are present.
- Note that the device 'alarm text' is not displayed by the Loop LCD Panel.

## 26.4 LAMP TEST

Press 'Lamp Test' to test the leds and sound the internal buzzer.