GE Interlogix

ARITECH

FP/FR1200/2000 Series

Analogue Addressable Fire Panels, Repeaters and Emulators

Reference Guide

Revision 8-0 / April 2005

For panel firmware v8.0 and higher

TRADEMARK ACKNOWLEDGEMENT

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SAFETY

To ensure safe operation and to keep the product safe, the information, cautions and warnings in this manual must be heeded. Failure to comply with the precautions or with specific warnings elsewhere in this manual violates the safety standard of design, manufacture and intended use of this product. The manufacturer assumes no liability for the customer's failure to comply with these requirements.

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CONTENTS

1 INTRODUCTION

The purpose of this manual is to provide assistance during the installation and commissioning of the FP/FR1200/2000 Series fire panels.

This manual is intended as a guide only and is not to be used to replace any local building and/or wiring codes.

Other manuals available are:

FP/FR1200/2000 Installation and Commissioning Manual
Series 950 Installation Guide
2000 Series Sensors Installation Guide
FP2000 Series Network Configuration Guide
FP/FR1200/2000 End User Instruction Manual

2 PANEL DEFINITION

2.1 Description

The FP1200/2000 series of analogue addressable fire panels revolutionises fire detection using state of the art electronic technology.

Designed to meet the European Standard EN54 Parts 2 and 4, and tested to the requirements of IEC801 Part 1-4, the FP1200/2000 series provides one of the most versatile and flexible systems available.

Special emphasis is placed on the design of the FP1200/2000 in terms of aesthetics and ergonomics, as well as technical features.

2.2 Special features

- False alarm checking on smoke and heat detectors.
- Fast scan algorithms for manual call points and pre-alarm.
- Memory allocation of the system is configurable to suit individual applications.
- Powerful I/O programming including Boolean functions.
- Service/commission mode switch.
- Day/night zone operation.
- Zone on/off operation (for security applications).
- Selectable alarm level per device as well as automatic contamination adjustment.
- Event buffer to store up to 1999 events.
- Extensive error checking.
- Coincidence mode for zones and areas.

2.3 User friendliness

The system is designed for ease of installation, operation and maintenance. A fully implemented EN54 display and control lexan panel is provided. The display is an 8-line x 40-character (backlit on FP2000) LCD display. Up to 2-lines of 40-character text is provided for field devices and 1-line of 40 characters of text for zones, areas and I/O.

2.4 Powerful maintenance features

Extensive facilities are provided to help with the general use and maintenance of the system.

- Separate ID codes to access maintenance menus.
- One-man-walk test for up to four zones simultaneously.
- Statistics per device:
  - Maximum and minimum value with date and time
  - Average value
  - Number of alarms
  - Communication quality

- Graphics screen for zones and individual sensors
  - Actual value
  - Average value
  - Test values
  - Maximum and minimum values
  - Contamination levels
  - Communication quality
- Self-test and sensor test
- Soak test per device
- Reporting to printer or modem
- Print screen facility

2.5 Networking

The FP2000 offers, as an option, unsurpassed networking capabilities with Arcnet using RS485 for rugged, reliable and peerless operation. Devices can be added and removed from the network, which allows for easy expansion of a system.

- RS485 nodes are available from the network for connection to building management systems
- Remote maintenance
- Inter-panel I/O
- Remote upload/download capability

2.6 General features

The system is modular and offers:

- Front end processor with separate host computer for high level functions
- 2, 4, 6 or 8 loops (Class A)
- 4 or 8 loops (Class B)
- 16/64, 32/128 48/192 or 64/255 zones indicating fire and fault

Each two-wire loop is capable of addressing up to 128 addressable devices. System configuration is easily achievable using menus, the RS232 ports, or by means of an optional network. A default configuration is provided for instant programming.

2.7 Standard I/O facilities

- Rugged loop driver optimised for
  - EMC/EMI regulations
  - Operation in worst-case conditions of high capacitance and resistance that makes it ideal for retrofit market.
- 4x Programmable inputs and 4x Supervised inputs
- 4x Programmable relays
- Monitored alarm bell, fire brigade, fire protection and fault routing
- Dual RS232 ports assigned to text, graphics, external printer or modem.
- LON bus loop to drive up to 32 LON devices.

2.8 Mechanical data

Dimensions	H	W	D
16/64 Zone Cabinet	609	441	109
64/255 Zone Cabinet	804	441	109

Mass (without batteries)

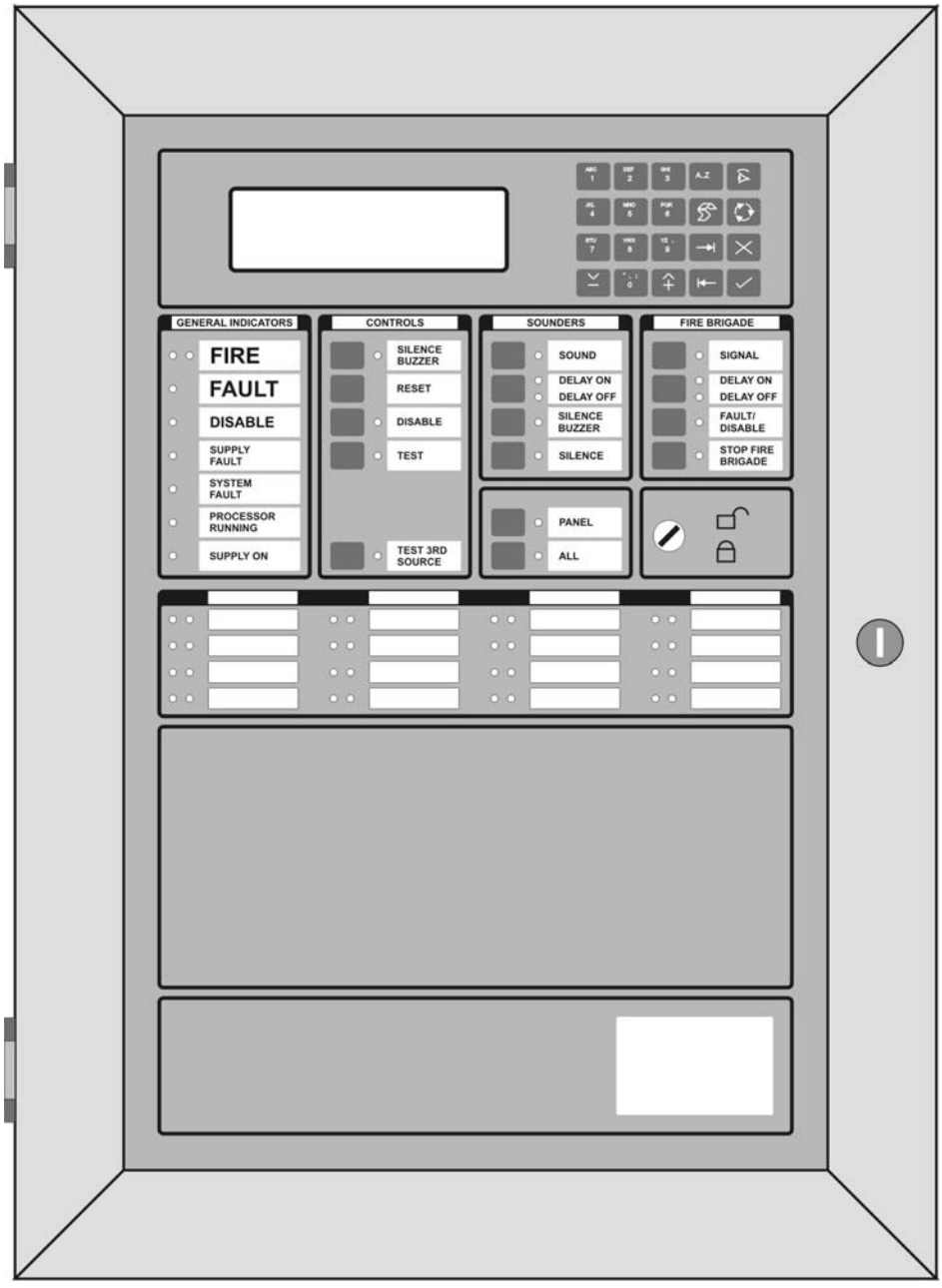
16/64 Zone Cabinet 11 kg

64/255 Zone Cabinet 15 kg

3 PANEL OPERATION

A view of the front of a typical FP2000 Series Fire panel is shown in Figure 1 below.

Figure 1: Fire Panel Front View



In order to describe the operation of a FP1200/2000 series fire panel, the front panel has been divided into two sections, these being:

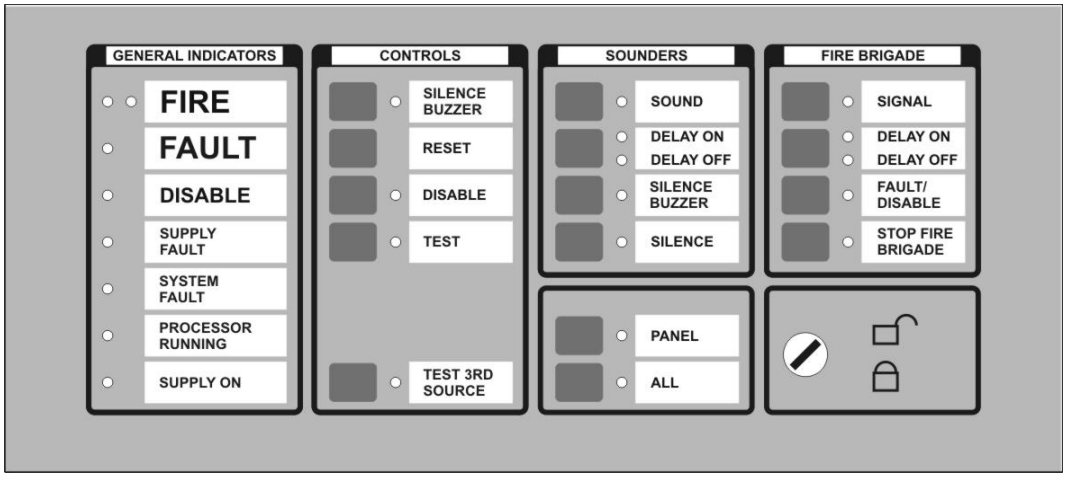
- LED indicators and controls
- LCD and keypad

3.1 LED indications and controls

The LED Indications and controls can further be broken down into:

- General indicators
- Controls
- Sounders
- Fire Brigade
- Enable/Disable key switch
- Zone indicators

Figure 2: General Indications and Controls



3.2 General indicators

COMMON FIRE

Two red LED's indicate that a fire has been detected.

COMMON FAULT

One or more of the following may cause a common fault:

- Zone fault
- Supply fault
- Processor fault
- Sounder fault
- Fire Brigade fault
- Any test mode
- Any disable mode

COMMON DISABLE

A yellow LED indicates that one or more of the following have been disabled:

- Devices on the loop
- Zone
- Sounders
- Fire Brigade

SUPPLY FAULT

A yellow LED will illuminate for:

- Mains failure
- Battery disconnect or not charging

SYSTEM FAULT

A yellow LED indicates that a system fault has occurred. A system failure can be one or more of the following:

- Tamper switch
- Service switch
- Logic error
- Memory lock
- No checksums calculated
- Hardware test fault
- Fireman's panel down
- Repeater down
- Panel down
- Global repeater down
- Input fault
- Output fault
- Configuration fault
- Checksum fault
- Protected memory overwritten
- Time date wrong
- Access fault
- FEP fault
- Watchdog time-out

PROCESSOR RUNNING

A flashing green LED indicates normal operation.

SUPPLY ON

A green LED indicates that the system is receiving 24V power.

3.3 Controls

SILENCE BUZZER (Key switch Enabled or Disabled)

The internal panel buzzer is activated for any new condition. The buzzer is ON continuously for a fire alarm condition, intermittent for a fault warning and slow intermittent for a condition warning.

Pressing the Silence Buzzer key silences the buzzer. The yellow silence buzzer LED will illuminate to indicate that the buzzer has been silenced.

RESET (Key switch Enabled)

This pushbutton will reset the fire panel.

DISABLE (Key switch Enabled)

This pushbutton calls up the Disable Menu *(see Page 212)*. The yellow LED will indicate if anything is disabled.

TEST (Key switch Enabled)

This pushbutton calls up the Test Menu (*see Page 199*). The yellow LED under General Indicators will illuminate if the panel is put into a test mode.

3.4 Sounders

SOUND

The functionality depends on the operation mode selected by bits 5 and 6 of the DIP switch on the HOST Power Supply board on the FP2000 (s*ee the FP1200/2000 Installation and Commissioning Manual)* or the mode of operation selected in the System Setup screen for the FP1200. (Refer to page 65.)

A red LED indicates that the sounders have been activated.

DELAY ON/OFF

The programmed Sounder Delay (*see Output Delays, Page 81)* may be toggled ON or OFF. Two LEDs indicate the state.

FAULT/DISABLE (Key switch Enabled)

The Sounder Fault/Disable pushbutton allows the sounders to be disabled. The associated LED indicates that the sounders have been disabled (LED on) or that a sounder fault is present (LED blinking).

A sounder fault can be:

- Sounder circuit open circuit
- Sounder circuit short circuit

SILENCE (Key switch Enabled)

A yellow LED indicates that the sounders have been silenced.

3.5 Fire brigade

SIGNAL (Key switch Enabled)

A red LED will indicate that the signal has been activated.

DELAY ON/OFF

The programmed Fire Brigade Signal Delay (*see Output Delays, Page 81*) may be toggled ON or OFF. Two LEDs indicate the state.

FAULT/DISABLE (Key switch Enabled)

The fire brigade output may be disabled using this pushbutton. When the signal is disabled, then the disable LED is illuminated.

The Fire Brigade circuit is supervised. The Fire Brigade fault LED will flash when a fault is detected in the circuit.

STOP FIRE BRIGADE (Key switch Enabled)

A yellow LED will indicate that the Fire Brigade signal has been deactivated.

ENABLE/DISABLE KEY SWITCH

An Enable/Disable key switch is provided to either allow or prevent operation of the fire panel controls. The Silence Buzzer, Test and Delay OFF keys will operate with the key switch in any position.

Level 1 for Disable and level 2 for Enable must not be confused with access levels 1 and 2. There is no relation between the Enable/Disable key switch and the allocated access levels.

3.6 Other

PANEL

This button is used by global and local repeaters for panel emulation. Emulation mode is activated with a global repeater by pressing the '***Panel***' key, then entering the number of the panel to be emulated, and Enter (☑).

To stop emulation, the Panel key is pressed and then "0" and Enter (☑).

When a global repeater is emulating a panel, it is not necessary to stop emulation before emulating another panel. The global repeater will automatically stop the emulation before trying to emulate another panel.

With a local repeater, pressing the Panel key will start emulation of the panel. If the panel is already emulated, pressing the Panel key will stop emulation.

The yellow LED indicates whether a panel is emulated or not.

ALL

This is used by a Global Repeater to send a command to all the panels this global repeater is communicating with. The yellow LED indicates that the key was pressed, meaning that the following command button to be pressed is sent to all the relevant panels.

THIRD SOURCE TEST

This key tests the third source battery when the panel is powered. Pressing the key will sound the buzzer.

3.7 Zone indicators

Each zone has two indicators. A red LED indicates a fire and a yellow LED indicates a fault, disablement or test. The zone fault LED will flash for a fault condition and be steady on for disablement or test. The zones are numbered from the top left, from left to right.

Figure 3: 16 Zone Fire and Fault Indication

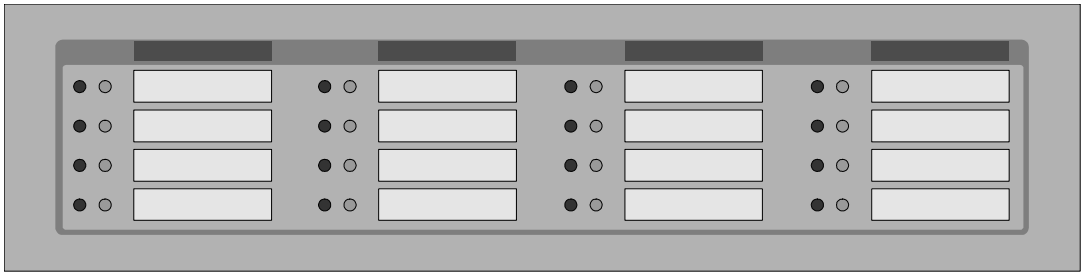
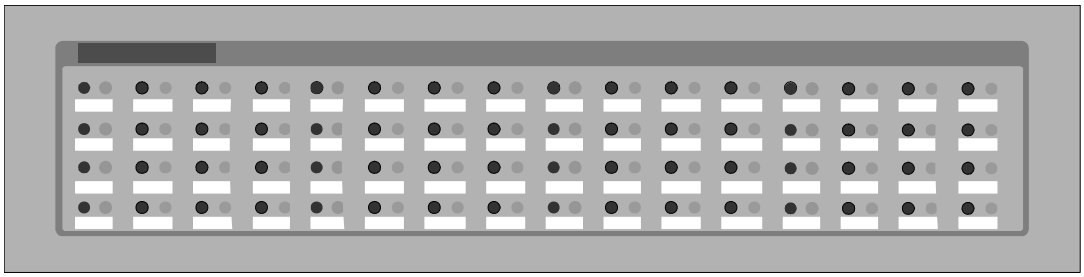


Figure 4: 64 Zone Fire and Fault Indication

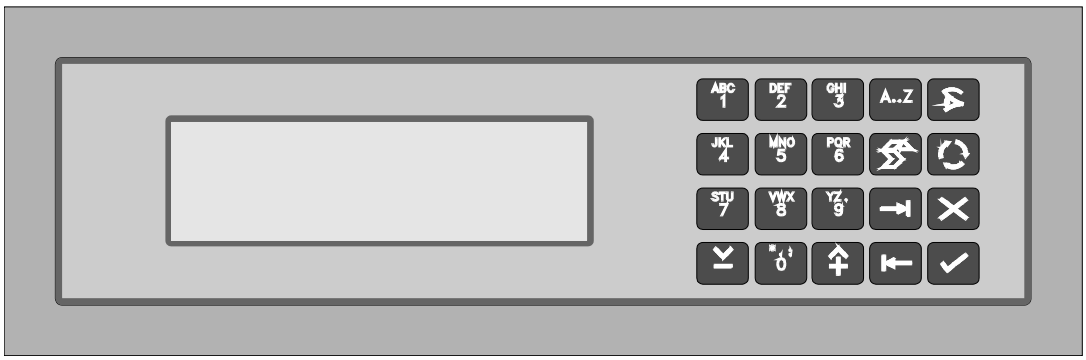


A red fire LED blinking indicates the first zone detected in fire. A red LED burning constantly indicates a zone in fire.

Only the first zone in fire's LED will flash. LEDs indicating zones in fire can only be cleared by resetting the panel.

3.8 LCD and keypad

Figure 5: LCD and Keypad



The operation of the display is detailed in Chapter 3.

KEYPAD

The keypad consists of 20 keys, 10 of which are alphanumeric keys. The remaining 10 are assigned various functions as detailed below:

A..Z	Alphabetic selection when using any of the 10 alphanumeric keys.
	Used to display the latest alarm at any time.
	Print screen function to print any screen to the internal or external printers.
	Scroll key used to move between Alarm, Fault and Conditions, as well as to view additional information when the "MORE" prompt appears on the LCD.
	Exit to previous menu
	Enter or confirm
	Move to the next field in the display
	Move to the previous field in the display
	Increment
	Decrement

3.9 Software features of the FP1200

Not all the programming options for the FP2000 are supported by the FP1200. The options not supported with reference to the FP2000 are as listed below:

Item	FP1200 Software Feature	Reference page(s)
1	Day/Night Mode	Pages 86 & 87
2	Zone On/Off Mode	Pages 84 & 85
3	ID of Panel is limited to 1/0 or x/1	Page 36
4	Networking to other Fire Panels	Page 43
5	Access Level setting: Field Access	Page 70
6	Zone Graphics	Page 117
7	Device Graphics	Page 120

Also, unique screens exist for the FP1200 panels.

Item	FP1200 Software Feature	Reference page(s)
1	Language, Operation and Protocol selection	Page 65
2	Battery On/Off selection	Page 191
3	Battery fault and Earth fault masking	Page 191

4 LCD SCREEN OPERATION

4.1 Start-up screens

When switching the panel on, the version of software currently installed on the host is displayed. The system also checks for the version of software in the FEP chip and compatibility between these two are checked. If the two software versions are not compatible the message “Incompatible FEP software!” is displayed and the panel seizes to operate. (*See the FP2000 Compatibility Guide for a list of compatible host and FEP software*).

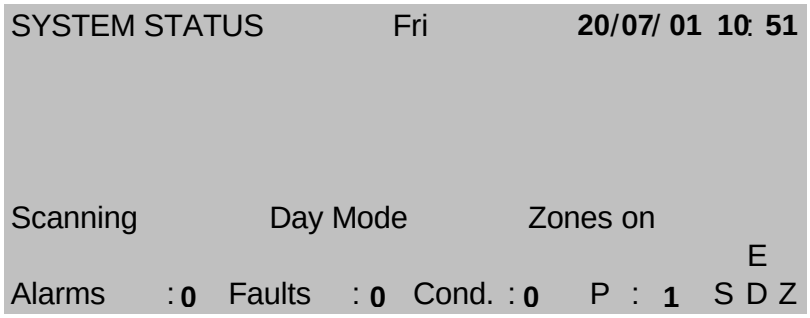
If a panel has already been configured and a module inside the panel is removed or added, when the panel is restarted with the memory lock in the closed position, a warning message is displayed. If, for example the Sounder board is removed from a FP2000, the screen below is displayed. It shows that the Sounder board has been removed or that the board is not making contact with the loop card it is connected to.

```
Checking Hardware Configuration (FEP)
bus0  new      LPB  ...  ...  ...  ...  ...  ...  ...
      old      LPB  VdS  ...  ...  ...  ...  ...  ...



INCOMPATIBLE FEP HARDWARE CONFIGURATION
Open memory lock
```

If the memory lock is opened or was already in the open position, the panel will continue with its start-up. All site data will be cleared.

4.2 Alarm line

EN54 Part 2 requires that the number of alarms, faults and conditions be displayed at all times on the LCD screen. In the Aritech addressable product range this is accomplished by means of the bottom line of the LCD Screen (called the ALARM LINE) as highlighted below. The system status and mode is also summarised in the bottom right hand corner of the alarm line.



The explanation of the initials used for this is as follows:

System Status		**System Mode**	
Idle	I	Day Mode	D
Power-up	P	Night Mode	N
Scanning	S	Security Zones On	Z
Autosetup	A	Security Zones Off	O
Sensor test	T		

For example

SDZ - Scanning, Day Mode, Zones On
SDO - Scanning, Day Mode, Zones Off
SNZ - Scanning, Night Mode, Zones On
etc.

If the panel is assigned a number, the number is displayed as part of the alarm line:

P - Fire panel
G - Global repeater or master panel
L - Local repeater panel

For example

P: 1 - Fire panel number 1
G: 1 - Global repeater panel number 1
L: 1/1 - Local repeater panel number 1 of fire panel 1

4.3 Valid entries line

The second line from the bottom displays the valid keypad entries for the displayed menu, as well as messages for the operator.

The following table describes these characters and messages and their relation to the keypad:

MENU DISPLAY	KEYPAD	DESCRIPTION
<	⇤	Move backward between fields
>	⇥	Move forward between fields
^	⇞	I) Select available options – forward ii) Increment numeric field values iii) Move forward within a text line
v	⇟	I) Select available options – backward ii) Decrement numeric field values iii) Move backward within a text line
E	✓	i) Start entry into FP1200/2000 menu system - from the SYSTEM STATUS Menu (highest level menu) ii) Confirm selection iii) Confirm field entry
X	✕	I) Return to higher level menu ii) Cancel changed field values
0..9	0..9	I) Selection of sub-menus ii) Changing of numeric field value
A..z	0..9 a..z A...Z other[1]	Changing of test line (string) text - numeric characters 0 to 9, small capital letters of alphabet and other ASCII characters[1].
Numeric	A..Z	Indicates the keypad mode - pressing the [A...Z] key toggles between numeric and alpha characters.
Alpha	A..Z	Indicates the keypad mode - pressing the [A...Z] key toggles between numeric and alpha characters.
More	↻	Toggle between different screens of a particular menu.
Invalid Key	-	The pressed key has no meaning with regard to the displayed menu.
Memory Locked	-	The Memory Lock Switch on the Host PCB must be in the OPEN position for the change to be accepted.
Open Memory Lock	-	Place the Memory Lock Switch on the Host PCB in the OPEN position.
Not in Service Mode	-	The Service Switch on the Host PCB must be in the OPEN position for the operation to be executed.
No Access	-	I) A higher access level is needed to enter the selected menu II) While in the menu system, in other words access was granted, access is disabled via a communication port. This is typically caused by the up-/download software via a serial port (SER1/2).

[1] *Keypad characters: 0 to 9*
a to z
A to Z
.=,~#$%^&`{}[]()<>:"/ - Depending on language group*
Space

4.4 Status line

The status line is the third line from the bottom (see highlighted line) and the system status, as summarised in the alarm line, is displayed in full.

The system status line is not present in all menus:

SYSTEM STATUS			Fri			**20**/**07**/ **01** **10**: **51**						
Scanning			Day Mode			Zones on						
											E	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P	:	**1**	S	D	Z	

4.5 System status menu

Under normal operating conditions, the LCD Screen shows the System Status Menu as given below:

SYSTEM STATUS			Fri			**20** /**07**/ **01** **10**: **51**						
Scanning			Day Mode			Zones on						
											E	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P	:	**1**	S	D	Z	

5 PROGRAMMING MENUS

5.1 Access to main menu

Main Menu obtained from the System Status Screen after entering an access code.

If the fire panel is currently displaying alarms, faults, or conditions on the screen, then press ✕ to obtain the System Status Screen.

```
SYSTEM STATUS          Fri          20/07/01  10:51



Scanning          Day Mode          Zones on
                                                   E
Alarms    : 0   Faults   : 0   Cond. : 0   P : 1   S D Z
```

Press ✓ to obtain the access code prompt.

```

Enter Access Code        :  _



                                     0..9,  <>,  E,  X
Alarms    : 0   Faults   : 0   Cond. : 0   P : 1   S D Z
```

Enter a one to four digit code and press ✓.

The Main Menu will be displayed, provided one of six correct codes has been entered. Different codes may have different **access levels**. This means that some facilities may not be available to users with a code of lower access level.

See Access Menu, Page 70

5.1.1 Main menu

(SYSTEM STATUS, ☑ , CORRECT CODE, ☑)

```
MAIN MENU

   1 System                2 Devices
   3 Input/Output          4 Events
   5 Maintenance           6 Test/Disable

                                    0..9, <>, E, X
Alarms     : 0   Faults    : 0   Cond. : 0    P : 1   S D Z
```

Select number or use ⇤ ⇥ and press ☑

☒ Return to System Status Page 23

1 System Menus Page 26

2 Device Menus Page 89

3 Input, Output and Logic Page 125

4 Event Log Page 173

5 Maintenance Menus Page 179

6 Test and Disable Functions Page 199 (Test menu)
Page 212 (Disable Menu)

All data of the fire panel may be viewed and/or changed by persons authorised to do so. In order to **view** any screen, requires the correct access code(s). In order to **change** data, the user requires both the correct access code and the memory must be unlocked. The memory lock switch is located on the Host CPU board and thus access is required within the cabinet in order to change data.

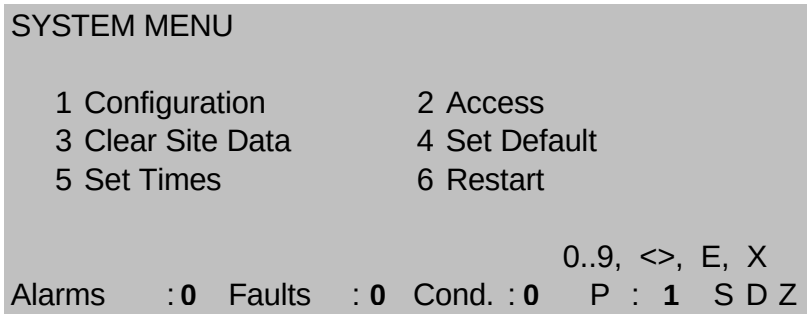
The Main Menu provides a logical subdivision of the fire panel data and facilities.

- System - the viewing/programming of the fire panel **internal** system. Items such as the serial ports, RAM memory, operation, date/time and timings are accessed.
- Devices - the viewing/programming of all facilities of the **devices** connected to the **loops** of the fire panel. This includes the zoning and statistics of each device as well as graphic screens.
- Input/Output - the definition of inputs and outputs, as well as the **logic** defining the operation of the fire panel according to input/output. Inputs and outputs are derived from the internal system, I/O devices on the loop, and the network.
- Events - the examination and selective printing of the event log. The event log is also cleared in this menu.
- Maintenance - the facilities provided in order to completely maintain the fire panel system and the devices on the loop. This includes a host of reporting facilities.

- Test/Disable - Zones and individual devices can be selectively tested and disabled. Test features include one-man test of zones and soak test of individual devices. The Test and Disable Menus are not directly available from the Main Menu, but are accessed by using the Test and Disable keys on the front panel. These menus do not require any access code, but do require that the enable/disable key switch be enabled. Selecting Test/Disable from the Main Menu causes a prompt to operate the desired key switch.

5.1.2 System menu

(MAIN MENU, 1, ☑)



☒ Return to Main Menu Page 24

Select number or use ⇤ ⇥ and press ☑

The System Menus are used to configure and display the internal operation of the fire panel. That is, all parameters other than the loop devices and input output programming.

The menu selections are:

1 Configuration Page 27
Hardware configuration
Memory allocation
Panel ID
Communication including port, serial, printer and network set-ups

2 Access Page 70
Set user access codes
Set access levels of the menus

3 Clear Site Data Page 73
Clear the site programmable data

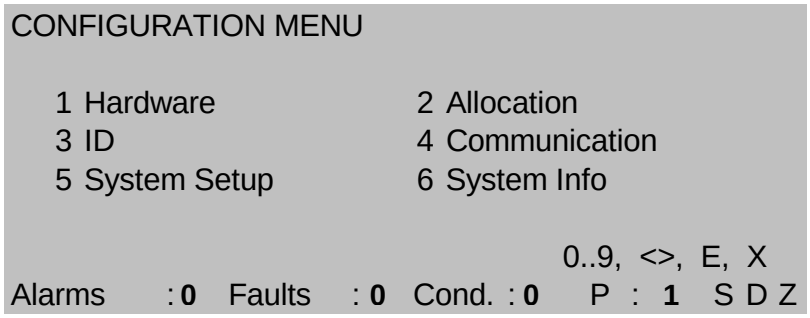
4 Set Default Page 76
Set the site programmable data to default values

5 Set Times Page 80
Fire panel date and time
Sounder and Fire Brigade Delay
Sounder and Fire Brigade Delay on/off times
Zone on and off times
Day/night mode times

6 Restart Page 88
The fire panel will perform a cold start as if it had been switched off and then on.

5.1.3 Configuration menu

(SYSTEM MENU, 1, ☑)



☒ Return to System Menu Page 26

Select number or use ⇤ ⇥ and press ☑

1 Hardware Page 28

View the fire panel internal configuration, software version, site data version, ports and PCB's.

2 Allocation Page 34

Memory allocation for Inputs/Outputs and logic, event buffer and field devices text

3 Panel ID Page 36

Set the ID number of the fire panel

4 Communication Page 39

Port Setup
Network
Modem
Pagers
LON Devices

5 System Setup

Configuration of externally connected interfaces: Fire Brigade (Hauptmelder), FSK Heater and FBF (Bedienfeld). Page 64

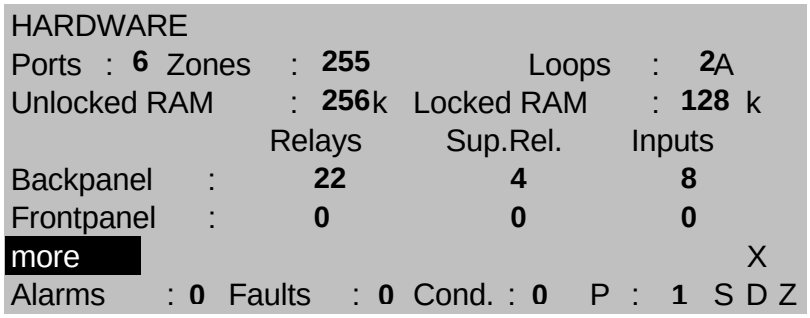
Language, protocol and mode of operation settings. (Only for the FP1100, FP12xx and FR2000) Page 65

6 System Info(rmation) Page 69

Allocation
Panels
L-Repeaters
G-Repeaters
System
Stack
Special Characters
Text Debugging
FEP
SER
Modem
ARC1
ARC2
LON
LON Characters

5.1.4 Hardware configuration 1

(CONFIGURATION, 1, ☑)



☒ Return to Configuration Menu Page 27

Press [More ⏲] to view Version Page 30

This display and the Hardware Configuration 2, 3 and 4 displays show the hardware configuration of the fire panel. The particular configuration is determined by the model number of the FP1200/2000 as well as any optional boards that may have been installed.

The screen will show:

Ports -
The number of ports installed.

The standard ports are:

FEP Port (not accessible to the user)
Ser1 RS232 Serial port 1
Ser2 RS232 Serial port 2
ARC 1 Arcnet port 1
(COM)mon port
LON port

Zones -
The number of displayable zones equipped.

Loops -
The number of loops equipped and whether the loop driver boards are connected in Class A or Class B configuration. Each loop board accommodates two Class-A loops or four Class-B loops.

Unlocked RAM -
The amount of RAM installed that is not controlled by the memory lock switch.

Locked RAM -
The amount of RAM installed that is controlled by the memory lock switch. Locked RAM is used for site data.

See Memory Allocation, Page 33 for more information relating to memory size.

Back panel and Front panel Input and Output Equipped -
The FP1200/2000 contains, as standard, relays and input ports. The back panel refers to the boards plugged into the FEP section in the base of the fire panel. The front panel refers to the boards plugged into the HOST section in the door of the fire panel. The HOST section contains two layers of board plug-in positions.

The standard equipped I/O is:

- Four Inputs IN1 - IN4 located on the FEP board.
  These inputs are freely programmable by the user.
- Sounder board:

  - Four supervised relays (OUT1 - OUT4)
  - Four non-supervised relays (OUT5 - OUT8)

The supervised relays have dedicated functions:

OUT1 - Sounder
OUT2 - Fire Brigade
OUT3 - Fire Protection
OUT4 - Fault Routing

- Four supervised, general programmable inputs (IN5 - IN8)

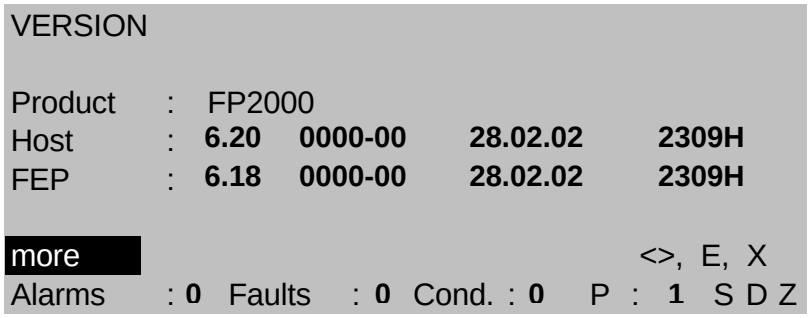
All non-supervised relays are programmable by means of the I/O programming menus.

Any additional optional I/O that is equipped within the FP1200/2000 will be shown on this screen.

See I/O Menus, Page 125 for the programming of Inputs and Outputs.

5.1.5 Version

(CONFIGURATION 1, ⟲)



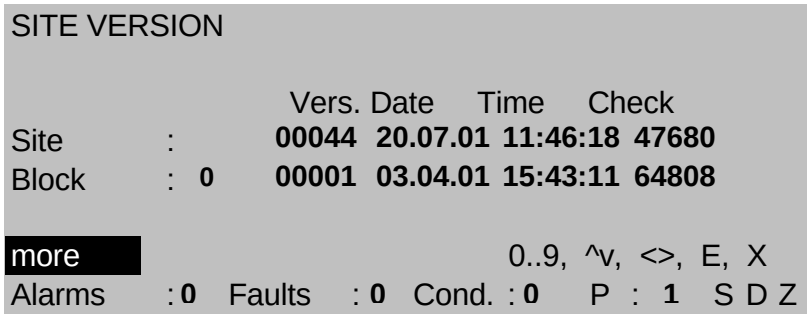
⊠ Return to Configuration Menu Page 27

Press [More ⟲] to view Site Version Page 31

This menu is used to display the version number and the compilation date of the installed HOST and FEP software as well as their checksums in hex format.

5.1.6 Site Version

(CONFIGURATION 1, ,)



Return to Configuration Menu Page 27

Press [More] to view Hardware Configuration 2 Page 32

This menu displays the self-diagnostic data of the FP1200/2000 system.

Site -

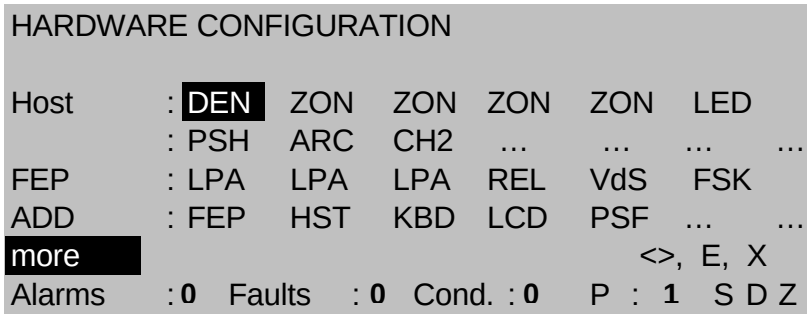
The site refers to the panel itself. ‘Vers.’ (versions) refer to the number of times that the data has been changed since the last time the event buffer was cleared. The date and the time refer to when last the data on the fire panel was changed. The check column refers to the checksum that was calculated after the last time the panel was changed.

Block –

Each function of the fire panel has data that is stored in different blocks in the memory. There are 23 of these blocks, which are handled just as the site information except that each individual block is tracked independently.

5.1.7 Hardware configuration 2

(CONFIGURATION 1, [ ], [ ], [ ])



[ ] Return to Configuration Menu Page 27

[ ] [ ] Select the PC Board code using the cursor

[ ] View additional details of the selected PC Board

Press [More [ ]] to view Hardware Configuration 1 Page 28

This menu is used to display the details of the printed circuit boards (PC Boards) installed in the FP1200/2000 system. The PC Board summary is shown in three sections:

1 Addressable boards located in the Host CPU (front panel) section.
2 Addressable boards located in the FEP (back panel) section.
3 Additional non-addressable boards located in both the Host and FEP system

The board description and typical address in a 2- loop, 16-zone FP2000 panel is given below:

PC Board	Description	Address
DEN	Common Display (EN Type)	0
ZON	16 Way Zone Board	1
PSH	Host Power Supply	8
CH2	FP1200 power supply	8
LPA	2 Loop Class A Driver	16
VDS	Common Input/Output	18
FSK	VDS2000 with FSK capabilities	18
FEP	Front End Processor	24
HST	Host CPU	25
KBD	Keypad	26
LCD	Liquid Crystal Display	27
PSF	FEP Power Supply	28
LON	LON2000	29

5.1.8 Board information

(HARDWARE CONFIGURATION 2, ⇤ or, ⇥ , ✓)

BOARD INFORMATION

Addr.	: **18**	Sup1	: passive	Inp5	: short
ID	: **7**	Sup2	: active	Inp6	: open
Type	: VdS	Sup3	: open	Inp7	: active
		Sup4	: short	Inp8	: passive

X

Alarms : **0** Faults : **0** Cond. : **0** P : **1** S D Z

✕ Return to Hardware Configuration 2 Page 32

This includes:

- Board description
- Actual board address
  The board address is used in certain I/O programming

Board addresses are changed automatically when additional PC boards are added or removed.

When more than one loop driver or zone board is present in a system, then each one of these boards assumes a unique address.

Some PCB's in the system have additional technical data for a support engineer:

- PSH/CH2: This selection gives the supervision details for power supply to the panel for the FP2000 and FP1200 panel respectively. The descriptions are:

FP2000 PSH2000		**FP1200 CH2**	
Inp1	Battery Low	Inp1	Earth Fault to Ground (0V)
Inp2	Charger Fault	Inp2	Earth Fault to +24V
Inp3	Earth Fault	Inp3	Mains Fault
Inp4	Battery Test	Inp4	Charger Fault
Inp5	Mains Disconnected	Inp5	Battery Low
Inp6	Batteries Disconnected	Inp6	Battery Test
Inp7	Not Used	Inp7	Auxiliary Supply Fault
Inp8	Not Used	Inp8	Third Source Fault

- VDS: This selection gives the supervision details of the supervised outputs, Sup1 to Sup4, as well as the supervised inputs, Inp5 to Inp8 normally present on the SD2000 PCB.
- FEP: This selection gives the input details of the inputs available on the FEP2000 PCB, Inp1 to Inp4.

5.1.9 Memory allocation 1

(CONFIGURATION, 2, ☑)

MEMORY ALLOCATION			Free unlocked	:	**90106**
			Free locked	:	**71988**
Logic	:	**600**	Input Text	:	**40**
Inputs	:	**150**	Output Text	:	**40**
Outputs	:	**150**	Zone Text	:	**40**
Events	:	**999**	Area Text	:	**40**
more			0..9, ^v, <>, E, X		
Alarms	: **0**	Faults : **0**	Cond. : **0**	P : **1**	S D Z

☒ Return to Configuration Menu Page 27

⇤ ⇥ Select item to be changed

⇧ ⇩ or 0..9 change data in item (Unlock memory!)

☑ Confirm change

Press [More ⏲] to view Memory Allocation 2 Page 35

Changing memory allocation will clear all existing programmed data from memory! The user must reprogram all site data after changing any items in memory allocation.

The random access memory (RAM) of the fire panel is partitioned for different types of data. Some of this data is contained within locked memory; other data is in unlocked memory.

The default memory allocation for the FP1200/2000 is shown. Further information is obtained by using [More ⏲] (*Page 35*). The default memory allocation should be correct for most applications and should only be changed if the user has particular requirements that exceed the parameters given.

The amount of free locked and unlocked memory is dynamically displayed on the screen as allocations are increased or decreased.

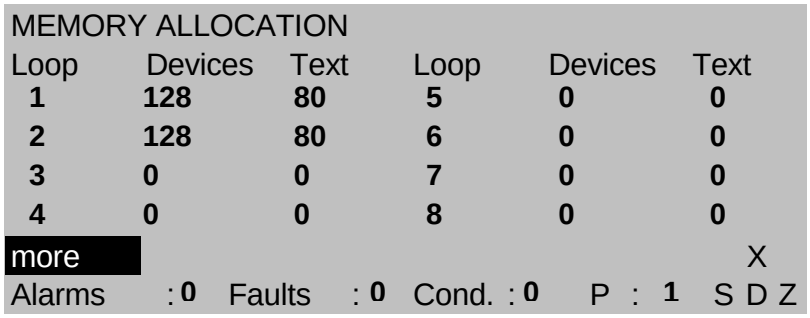
When exiting from this menu, the user is prompted as to whether the allocation is to be saved or not. This prompt will occur even if no parameters have been changed. If the allocation is saved then all RAM is cleared and the fire panel must be reprogrammed.

Press ☒ to exit without saving

Press ⇧ for YES and then ☑ in order to save the allocation (Unlock memory!)

5.1.10 Memory allocation 2

(CONFIGURATION, 2, ✓, ↻)



✕ Return to Configuration Menu Page 27

Press [More ↻] to view Memory Allocation 1 Page 33

The amount of RAM memory allocated to field devices on the loops is viewed with this screen. Provision is made for 80 characters of user text for each device. It is not possible to change the amount of memory allocated. Allowance is always made for 126 or 128 devices per loop irrespective of the number of devices actually installed. The amount of memory used is dependent only on the number of loops equipped within the fire panel.

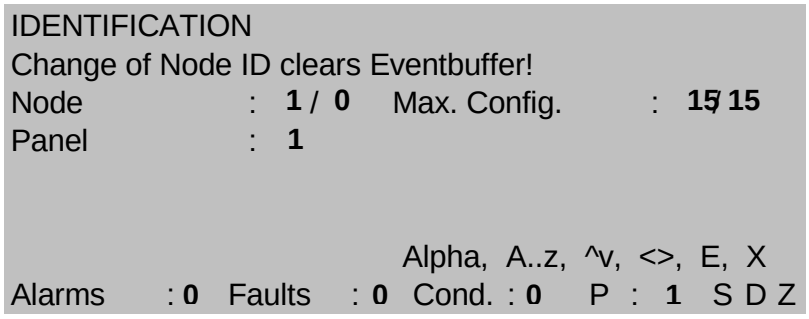
When exiting from this menu, the user is prompted as to whether the allocation is to be saved or not. This prompt will occur even if no parameters have been changed. If the allocation is saved then all RAM is cleared and the fire panel must be reprogrammed.

Press ✕ to exit without saving

Press ↕ for YES and then ✓ in order to save the allocation (Unlock memory!)

5.1.11 Panel ID

(CONFIGURATION, 3, ☑)



☒ Return to Configuration Menu Page 27
⇤ ⇥ Select item to be changed
⇞ ⇟ or 0..9 change data in item (Unlock memory!)
☑ Confirm change

For Panel ID Text Fields (2 lines x 40 characters):

Use ⇤ ⇥ to obtain the text line to be changed
Press ☑ (Unlock memory!)
Use A..Z to toggle between alpha and numeric text
Press the alpha/numeric button required
Use ⇞ ⇟ to move the cursor within the line
Press ☑ when completed

Default:

ID: 1/0
Panel: 1
Max. Config.: 15/15

Each FP1200/2000 fire panel, as well as global repeaters, global zone repeaters and local repeaters in a network system can be uniquely identified by means of the panel ID. The panel ID is used for the upload/download of data via the serial ports, as well as information transfer on the network. In addition to the panel ID, two lines of user text can be assigned to each fire panel or repeater. The user text is displayed on the System Status Screen and is used for the logging of all system (general) fault warnings of the panel.

The Panel ID consists of two digits i.e. fire panel number/repeater number (p/r).

For fire panels the repeater number is always 0 (zero)
e.g.: 0/0 - fire panel 0
12/0 - fire panel 12

The field "Panel" confirms the fire panel number. The panel ID is also shown on line 8 of the display: P:p.

For Global Repeaters the word "Panel" becomes "Gx-Repeater" and line 8 displays G:r.
For Local Repeaters the display is "L-Repeater" and L:p/r is displayed on line 8.

5.1.12 Global Repeater ID

(CONFIGURATION, 3, ☑)

IDENTIFICATION
Change of Node ID clears Eventbuffer!
Node : **0** / **1** Max. Config. : **15**/**15**
GP-Repeater : **1** un-n : **0** / **0** un-m : **0**/ **0**

^v, <>, X
Alarms : **0** Faults : **0** Cond. : **0** G : **1**

☒ Return to Configuration Menu Page 27
⇤ ⇥ Select item to be changed
⇞ ⇟ or 0..9 change data in item (Unlock memory!)
☑ Confirm change

For global repeaters or global zone repeaters (network systems only) the fire panel number is zero, and the repeater number determines the global repeater's address.
E.g.: 0/1 - global repeater number 1
0/3 - global repeater number 3

The field Max. Config. : Panel/repeater show the maximum number of panels and repeaters, local or global that can be configured. The options are: 7/31
15/15
31/7

When transferring data from a computer to the fire panel, the fire panel ID of the data file must match the fire panel ID.

When set up as a Global Repeater, additional Universal Node settings are possible:

un-n for a Universal Node on the Setup/NET1/NET2 Port
un-m for a Universal Node on the Modem Port

- If set to 0/0, the Universal Node ID will automatically assume the ID of the connected PC or Panel.

If set to 0/x (x = valid repeater number) then the Universal Node functions will only work if the connected PC or Panel will have the same ID.

5.1.13 Local Repeater ID

(CONFIGURATION, 3, ☑)

```
IDENTIFICATION
Change of Node ID clears Eventbuffer!
Node            :  1 /  1    Max. Config.      :  15/15
L-Repeater      :  1

                                                 ^v, <>, X
Alarms     : 0   Faults   : 0   Cond. : 0   L  :  1/ 1 S D Z
```

☒ Return to Configuration Menu Page 27

⇤ ⇥ Select item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

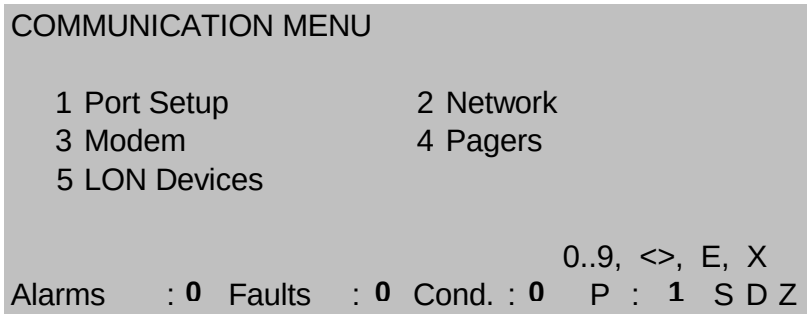
☑ Confirm change

For local repeaters attached to a particular fire panel on the network, the fire panel number and the repeater number defines the repeater

e.g.: 1/3 - repeater 3 of fire panel 1
3/1 - repeater 1 of fire panel 3

5.1.14 Communication menu

(CONFIGURATION, 4, ☑)



☒ Return to Configuration Menu Page 27

Select number or use ⇤ ⇥ and press ☑

1 Port Setup Page 40
Set the communication ports to the functions required.

2 Network Page 43
Panels
Local Repeaters
Global Repeaters

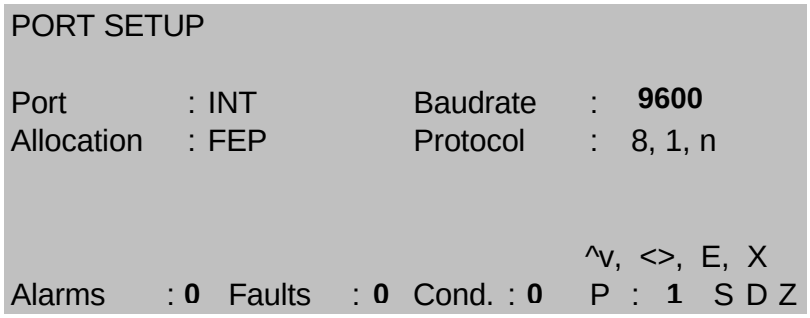
3 Modem Page 47
Alarm Report
Maintenance
Setup

4 Pagers Page 54
Set up the pager details.

5 LON Devices Page 55
Installation of LON devices.

5.1.15 Port Setup

(COMMUNICATION, 1, ✓)



✕ Return to Communication Menu Page 39

⇤ ⇥ Select item to be changed

⇞ ⇟ Change data in the item (Unlock memory!)

✓ Confirm change

This menu is used to set the **function** and, if applicable, the data rate (Baud rate) of the physical communication ports.

1. Select the required port *(only installed ports can be selected)*:

⇟	INT	Not available to the user.
	SER1 SER2	The standard serial ports provided on the FP2000 fire panel. On the FP1200 only SER1 is provided.
	ARC1	Arcnet network board 1 (optional).
	LON	LON network board (optional). This port will only be visible to the user when a LON board is installed in the panel.
⇞	COM	Network report printer.

2. Select the **function** to be assigned to the port using the allocation field:

⇟	None	The selected port has no function. This is the **default** setting to all ports with the exception of the INT (Internal) and SER1 (Serial 1) ports that have predefined functions.
	NET1	The FP2000 will support two networks simultaneously. All communication assigned to NET1 (see Network Menu, Page 43) will be sent to the ports allocated to the NET1 function.
	NET2	All communication assigned to NET2 will be sent via the NET2 port. Generally the ARC1 port will be set to NET1. In the case of a **graphic** system connected to the serial port (SER1, say) the SER1 port is assigned the function NET1. ARC1, SER1-2 are the only ports that support NET1 and NET2.
	Ev.pri	Set the selected port as an **event printer**. All events of

		the fire panel are sent to the port when they occur. Any information that is manually sent to Ev.Pri by the user will also be printed. The fire panel will give a fault if the device connected to the event printer port is not connected or not ready (e.g. paper out).
	Rp.Pri	Set the selected port as a **report printe**r. The report printer port is used to manually sent report to a device such as a printer or laptop computer. It is primarily used for selected printing of the event buffer, test reports and such. No fault is given if a report printer is off line or not plugged in. Thus, a report printer can be removed at any time. Reports are held in a buffer when the device connected to the port is not on-line. The type of printer (e.g. internal) can be defined. When the COM port is enabled, only the Rp.Pri can be selected. When selected the node to which the report must be send must be added. This node can be any other panel on the network. E.g. when a node ID of 16/1 is given, the report from the current panel is printed on the internal printer of panel 16's local repeater. The local repeater will still be able print its own report on the same internal printer.
	VDU	This function operates in the same manner as Rp.Pri above, except that the report is halted every 20 lines (one VDU screen). Pressing any character on the VDU device will allow the report to be continued for a further 20 lines. This function is particularly useful for viewing reports on the screen of a laptop computer. Only the serial ports support VDU.
	EMU	The port is set to emulation mode. Only the serial ports support EMU. This allows the fire panel to be operated remotely by means of a computer. The entire fire panel front panel keyboard and display is accessible via the serial port in this mode.
	Pager	This function assigns one of the serial ports as an interface to an ESPA unit.
	Setup	Allows remote upload and download of site via the serial port. This function is used to program site data into the fire panel. Upload/download software is required at the computer. Only the serial ports support Setup.
	FEP	The FEP function is used for the INT (Internal) port only.
	Modem	This function assigns one of the serial ports as an interface to a modem.
	CMSI	Allows communication to a French CMSI panel. Although both serial ports can be set up to communicate to a CMSI panel, a PE2485 CMSI interface card can only be connected to SER2. SER1 will need an external interface. When the CMSI function is selected the SDI addresses can be configured. Up to a maximum of 15 fire panels can be connected to a CMSI panel. Two different SDI addresses can be configured per fire panel so that one panel can be seen by the CMSI panel at two different SDI's. If both SDI's are set up for a 255-zone panel, SDI-A is assigned to zones 1-127 and SDI-B zones 128-254. Only the first 45 zones in fire per SDI will be displayed by the CMSI. The baud rate for the CMSI is fixed at 4800 baud.

3. Select the baud rate for the serial ports (default 9600)

300	
600	
1200	
2400	
4800	*Default for CMSI*
9600	*Default*
19200	
38400	

Select the mode of operation for the ARCNET ports:

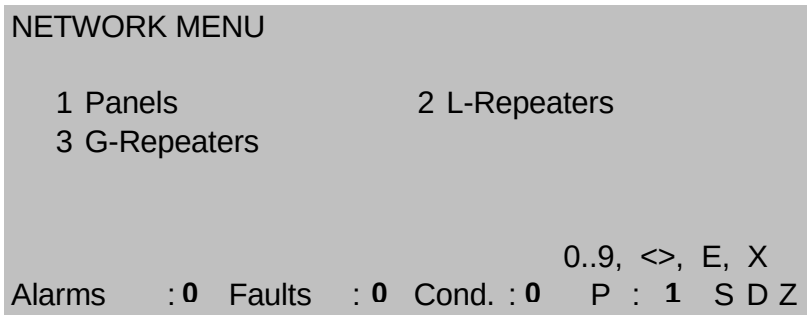
Bus	Only option for CE-FP-344-x
Dual Bus	
Ring Half Duplex	
Ring Half Duplex (Master)	
Ring Full Duplex	

4. The protocol of the serial ports is fixed: Eight data bits, one stop bit, and no parity. For the CMSI port it is seven data bits, one stop bit and even parity.

Example:
To activate the built-in printer as an event printer: Ser2 must be allocated to Ev.Pri.

5.1.16 Network menu

(COMMUNICATION, 2, ☑)



☒ Return to Communication Menu Page 39

Select number or use ⇤ ⇥ and press ☑

1 Panels Page 44
Define **other fire panels** on the **network** that will communicate with this fire panel.

2 L-Repeaters Page 45
Define local repeaters on the network that will communicate with this fire panel.

3 G-Repeaters Page 46
Define the **global repeaters** that will communicate with the fire panel on the **network**.

5.1.17 Panels

(NETWORK, 1, ☑)

```
PANELS

Panel No.          : 1
Status             : dis
Start              : 0
End                : 0
                                        0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0    G :  1   S D Z
```

☒ Return to Network Menu Page 43

↕ ☑ or 0..9 to select panel number

⇥ Move to status field

↕ Toggle dis/NET1 check/NET2 check/ NET1 no check/NET2 no check (Unlock memory!)

☑ Confirm entry

The fire panels that will communicate with this FP2000 fire panel on the network must be assigned.

Fire panels that are assigned to the network will be checked for communication on the system. If a panel is assigned to '*NETx_check*', a fault warning is displayed in the event of a failure. If fire panels are assigned to "NET1/2 no check", the failure will only be an action logged in the event buffer.

Each fire panel on the system must have the correct ID set (see Page 36).

The fire panel that is being programmed must be set at disable, i.e. a fire panel does not check itself: assign only **other** fire panels.

5.1.18 Local repeaters

(NETWORK, 2, ☑)

```
LOCAL REPEATERS

L-Repeater No.      : 1
Status              : NET1 check



                                        0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0    P  :  1   S D Z
```

☒ Return to Network Menu Page 43

↕ ☑ or 0..9 to select repeater number

⇥ Move to status field

↕ Toggle dis/NET1 check/NET2 check/NET1 no check/NET2 no check (Unlock memory!)

☑ Confirm entry

The local repeater that will communicate with this FP1200/2000 panel on the network, must be assigned.

Local repeaters that are assigned to the network will be checked for communication on the system. If a local repeater is assigned to "NET1/2 check", a fault warning is displayed in the event of a failure. If a Local Repeater is assigned to "NET1/2 no check", the failure will only be an action logged in the event buffer.

5.1.19 Global repeaters

(NETWORK, 3, ☑)

```
GLOBAL REPEATERS

G-Repeater No.      : 1
Status              : NET1 no check



                                        0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

☒ Return to Network Menu Page 43

↕ ☑ or 0..9 to select master number

⇥ Move to status field

↕ Toggle NET1 check/NET2 check/NET1 no check/NET2 no check (Unlock memory!)

☑ Confirm entry

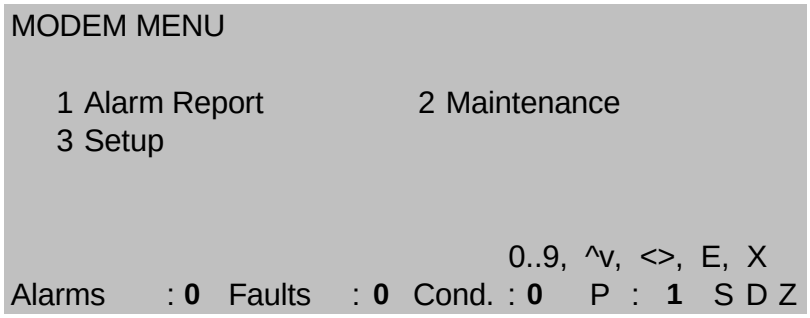
The global repeaters and global zone repeaters that will communicate with this FP1200/2000 panel on the network, must be assigned.

Global repeaters that are assigned to the network will be checked for communication on the system. If a global repeater is assigned to "NET1/2 check", a fault warning is displayed in case of a failure. If a Global Repeater is assigned to "NET1/2 no check", the failure will only be an action logged in the event buffer.

If the functionality is set to global zone repeater, each panel has a start and an end zone assigned. Zone ranges of the different panels cannot be overlapping.

5.1.20 Modem menu

(COMMUNICATION, 3, ☑)



☒ Return to Communication Menu Page 39

Select number or use ⇤ ⇥ and press ☑

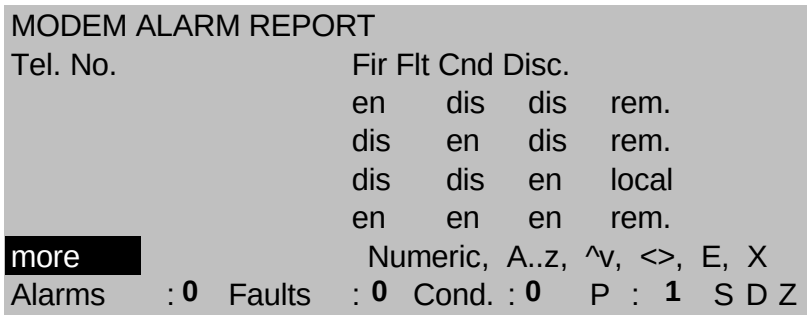
1 Alarm Report Page 48
Set up the conditions for alarm reporting and the destination telephone numbers.

2 Maintenance Page 50
Enable or disable of remote maintenance.

3 Setup Page 51
Modem setup commands.

5.1.21 Modem alarm report 1

(MODEM, 1, ✓)



✕ Return to Modem Menu Page 47

⇤ ⇥ Select the field to be changed

⇕ Select to change selection (Unlock memory!)

✓ Confirm entry

For telephone numbers:

Use ⇤ ⇥ to move to the required telephone number line

Use A..z to toggle between alpha and numeric text when necessary and press the required button

Use ⇤ ⇥ to move the cursor within the line

Press ✓ when complete (Unlock memory!)

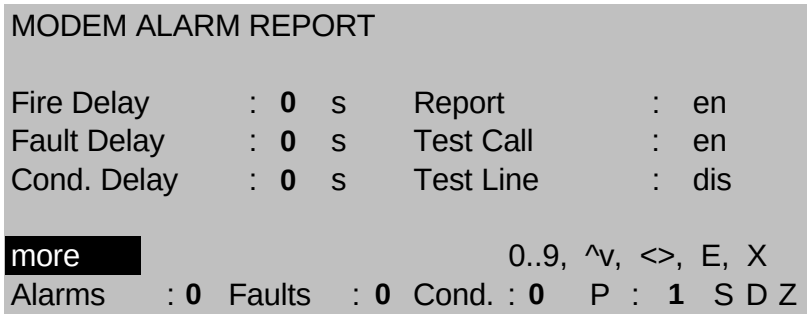
Press ↻ to go to Modem Alarm Report 2 Page 49

The telephone numbers to which alarm reports must be sent and the conditions that cause the reports to be sent, are set up with this menu.
The device that has to disconnect can be selected in the last column:

rem: The "remote device" (PC) has to disconnect.
local: The panel/global repeater will disconnect automatically when the message has been broadcasted.

5.1.22 Modem alarm report 2

(MODEM ALARM REPORT 1, ⟲)



✕ Return to Modem Menu Page 47

⇤ ⇥ Select the field to be changed

⇞ ⇟ To change selection (Unlock memory!)

✓ Confirm entry

Press ⟲ to go back to Modem Alarm Report 1 Page 48

Fire, Fault and Condition Delay:

Delays reporting to control station. If the panel is reset before the delay has elapsed, no alarm/fault condition will be reported. The shortest delay will start the reporting to the central station and will report all pending alarms/faults/conditions.

Report:

Instead of report disabling by using the previous menu (Modem Alarm Report 1), this menu supplies a quick disable mechanism. Disabling reports on this menu will disable all reports regardless of the setup on the previous menu (Modem Alarm Report 1).

Test Call:

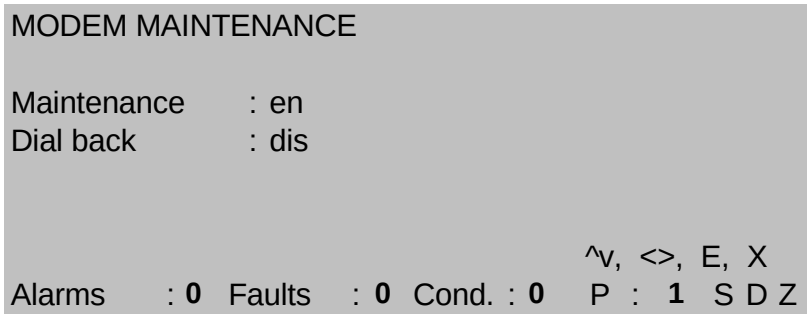
This menu enables a test call at every maintenance time.

Test Line:

This menu enables a line test with hardware test, manually or every hour automatically.

5.1.23 Modem maintenance

(MODEM, 2, ☑)



☒ Return to Modem Menu Page 47

☐ ☐ To change selection (Unlock memory!)

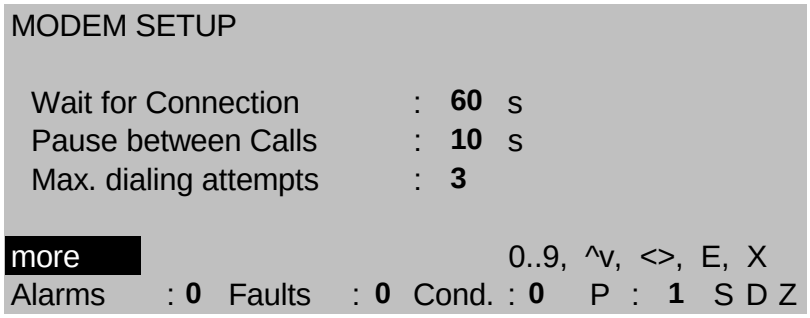
☑ Confirm entry

Remote maintenance via the modem can be disabled while the modem interface is operational.

When Dial Back is disabled, the dial back command from the remote location (PC) will be ignored.

5.1.24 Modem setup 1

(MODEM, 3, ✓)



✕ Return to Modem Menu Page 47

⇤ ⇥ Select the field to be changed

⇞ ⇟ To change selection (Unlock memory!)

Use 0..9 or ⇞ ⇟ To change field values

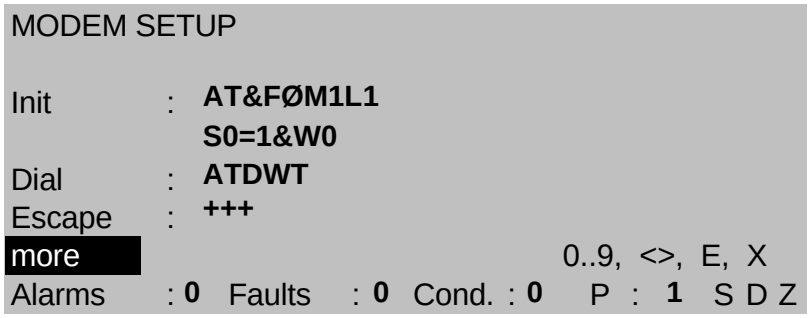
✓ Confirm entry

Press ⟲ to go to Modem Setup 2 Page 52

Set the modem time-outs and the maximum dialling attempts.

5.1.25 Modem setup 2

(MODEM SETUP 1, ⟲)



✕ Return to Modem Menu Page 47

⇤ ⇥ Select the field to be changed

Use ⇤ ⇥ to toggle between alpha and numeric text when necessary and press the required button

Press ✓ to confirm (Unlock memory!)

Press ⟲ to go to Modem Setup 3 Page 53

Set up the modem command strings.

Refer to your Modem manual for detailed description of the commands:

Init:	Initialisation string for modem
US Robotics:	AT&F1M1L1 S0=1&W0
Fast link:	AT&F1M1L1 S0=1&W0
DataSystems:	AT&F0M1L1 S0=1&W0
Bausch:	AT&F1M1L1 S0=1&W0
Dial:	Dial prefix for modem
Escape:	Escape sequence for modem

5.1.26 Modem setup 3

(MODEM SETUP 2, ⟲)

✕ Return to Modem Menu Page 47

⇤ ⇥ Select the field to be changed

Use ⇤ ⇥ to toggle between alpha and numeric text when necessary and press the required button

Press ✓ to confirm (Unlock memory!)

Press ⟲ to go to Modem Setup 1 Page 51

Set up the modem command strings

Hangup: Puts the modem on hook
Test: Test string for line test
ID: A String to identify the modem to the maintenance programs.

5.1.27 Pager Configuration

(COMMUNICATION MENU, 4, ☑)

PAGER CONFIGURATION				Rem
Pager	: **1**	Beep Code	: **0**	
Address	:	Call Type	: **3**	
Group ID	:	Msg.Type	: Fire/Fault	
Displ.Char	: **128**	No.Transm	: **2**	
			0..9, ^v, <>, E, X	
Alarms : **0**	Faults : **0**	Cond. : **0**	P : **1**	S D Z

☒ Return to Communication Menu Page 39

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change panel field

⇞ ⇟ Select mode

☑ Confirm entry (Unlock memory!)

Press ⟲ to go to Pager Configuration 2 Page 55

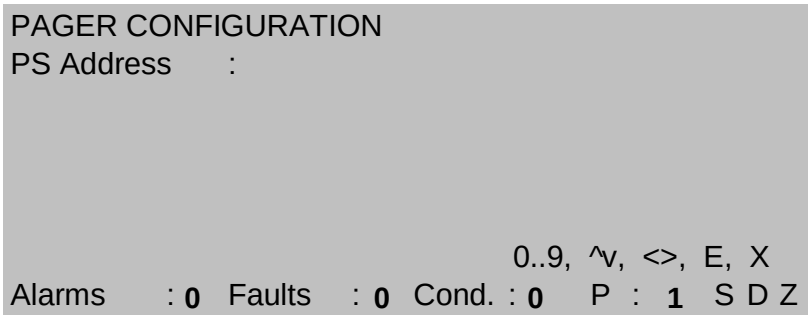
A pager unit may be connected to a serial port when the serial port-allocation is set to pagers. In this case, all fire or fault events will send event-specific text messages to all pagers that are configured to receive either one or both the event classes. The details of up to 255 pagers may be setup up.

Hardware keys are available to enable the pager protocol (ESPA) on the fire panels. This key may be connected at the end of the one of the host-board busses.

Pager:	List index 1…255
Address:	Pager address 7-character text
Group ID:	7-character text
Display.Char:	Pager LCD-screen size in chars
Beep Code:	0, 9: siren 1: 1 beep 2: 2 beep 3: 3-tone chime 5..8: external ring
Call Type:	1: reset call 2: speech call 3: standard 4: alarm
Msg.Type:	Either fire messages, fault messages, or both
No.Transm:	The maximum number of times that the same message can be sent

5.1.28 Pager Configuration 2

(PAGER CONFIGURATION, ⟲)



✕ Return to Communication Menu Page 39

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change panel field

⇞ ⇟ Select mode

✓ Confirm entry (Unlock memory!)

Press ⟲ to go to Pager Configuration 1 Page 54

PS address: 7-character text (pager unit address)

5.1.29 LON Devices

The LON device set-up screens consist of four screens. The first screen is the 'LON Devices Set-up' and displays the non-volatile memory. Any information stored in the non-volatile memory can only be cleared if the memory lock is unlocked. The sequence in which the data is displayed on this screen is the sequence used by the panel. The second screen is the 'Service Pin List' and is used to set-up the sequence in which the LON devices must be added to the non-volatile memory. The third screen is the 'LON Node Map' and displays all devices connected to the LON bus whether they belong to the own domain or a foreign domain. The fourth screen, 'LON Fault Status', is a debugging tool and shows the status of all inputs and/or outputs of a LON device installed on the device. Any FP700 module (from host version 7.xx) or FBP700 based product can be connected to a LON port of the FP1200/2000. Of these, 32 modules or devices can be uniquely identified by means of their Neuron ID.

For all LON device set-up screens the following abbreviations apply:

Type, FldType	**Type of device connected to that node e.g. FBP700. (Fld = Field)**
ID, FldID	Displays the node ID assigned to it
NID, FldNID	Unique Neuron ID of the LON device. (If the service pin on a connected LON device is pressed the 'NID' field of that node will be highlighted)
Ver., FldVer.	The version of software in the device
Mode	The current mode of operation the device is configured as: Zone, Area, Device of i/o where applicable
ProdCode, FldProdCode	Extra information regarding the type of device connected to the panel and is mainly an extra debugging tool.
H/W Rev., FldH/W Rev.	Extra information regarding the type of device connected to the panel and is mainly an extra debugging tool.
OEM, FldOEM	Extra information regarding the type of device connected to the panel and is mainly an extra debugging tool.
FldSeq	The current position in the sequence of the selected device. The sequence is specified as a position out of the total number of LON devices selected. A number of 3/19 means that the current selected device is number 3 out of 19 devices.

5.1.30 LON Devices Setup 1

(COMMUNICATION MENU, 5, ✓)

LON DEVICES SETUP				Add Rem - All		Led
Node	: **1**	Stat :	dis	Mode	: None	
Type	: None			ProdCode	: **0**	
ID	: **000**			H/W Rev.	: **0**	
NID	: **000000000000**			OEM	: **000**	
Ver	: **0.00**			Loc.	: **00** / **00** / **00**	
more				0..9, ^v, <>, E, X		
Alarms	: **0**	Faults	: **0**	Cond. : **0**	P : **1**	S D Z

✕ Return to Communication Menu Page 39

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change node field

⇞ ⇟ Select mode

✓ Confirm entry (Unlock memory!)

Press ↻ to go to LON Devices Setup 2 Page 59

The basic installation sequence of a LON device is as follows:

- Start on LON device set-up 3 (page 60) and acquire all connected LON devices. All un-configured devices can be added to the system. If there are devices belonging to a foreign domain, the user has to un-configure them first.
- On LON device set-up 2 (page 59) set the sequence in which the LON devices are to be displayed by pressing the service pin on the LON devices in the required sequence. If no specific sequence is required, all devices can be added directly by pressing ‘Add All’ on LON device set-up 3.
- On LON device set-up 1 (page 57) transfer the sequence, as set up in the previous point, to the non-volatile memory.
- There is an alternative to the above installation methods, a quick installation can be done by pressing the service-pin button on the LON2000 module while the memory is unlocked and the service-switch is active. The sequence of tasks is as follow: first all nodes on the Lon-bus are un-configured and the none-volatile memory is cleared, then the all nodes are mapped and the node-ids of all the controller-nodes on the Lon-bus are resolved. Lastly all nodes are added in the sequence they appear on the map.

Refer to page 63 for a step-by-step installation example of a LON device

By using the ⇤, ⇥ & ✓ keys the function required can be selected. If ‘Add’ is selected, the device displayed on the second or third screen is stored in non-volatile memory. If 'Rem' (remove) is selected the data of the selected device is removed from the non-volatile memory. When 'All' (Remove -all) is selected, all non-volatile data is cleared. When ‘LED’ is selected, the service led of the selected device is toggled on and off. For any FBP700 based product, the word ‘Active’ or ‘Passive’ is displayed on its LCD screen. When ‘Add-All’ is selected, on the second screen, all devices where previously the service switches have been pressed will be added to the non-volatile memory. When ‘Add-All’ is selected, on the third screen, all un-configured devices will be added to the

non-volatile memory. If ‘Clr’ (Clear) is selected on the second screen, all nodes on the service pin list are cleared.

The status of any of the 32 nodes can be set to either ‘en’ (enable) or ‘dis’ (disable). If a node is set to disable and a module was assigned to that node previously; the panel will indicate a condition.

The following types of devices can be connected the LON port:

FC700:	FP700 Front CPU card
FCD700:	FP700 Front CPU card with display
SD700:	FP700 Sounder card
ZE708:	FP700 Zone Indicating Module
ZI708:	FP700 Zone Input Module
PS700:	FP700 Power Supply
SIB716:	FP700 Supervised Input board
OCB724:	FP700 Open Collector board
SOB708:	FP700 Supervised Output board
FM740:	Fireman’s Panel
FBP700:	Repeater Panel (For older versions of the FBP700)
FBP700-D:	Dutch Repeater Panel
FRP700-S:	Scandinavian Repeater Panel
FRL700:	Local LCD Repeater
FRD700:	Fire Brigade Delay Panel
RB700:	FP700 Relay card
NC771:	Network Card

If a FP700 module is configured on the LON port, the location (LOC) of the board can be saved here to make future reference easier.

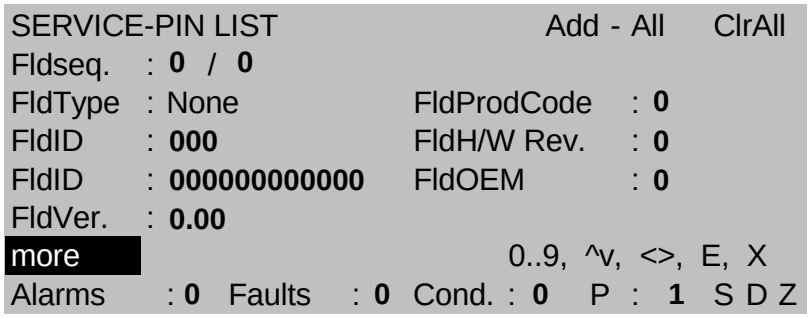
LOC: 04/02/03

04 - Refers to the enclosure the module is located
02 - Refers to the bucket in the enclosure
03 - Refers to the slot in the bucket

Note: When the redundant bits on a NC771 module are reset and the module is connected to a redundant network the whole LON-network freezes until the one side of the network is opened. When the FP2000 panel un-configures a NC771 module it sets the redundant bits by default, but the module can be un-configured by another system and then the redundant bits may not be set.

5.1.31 LON Devices Setup 2

(LON DEVICE SETUP 1, ⟲)



✕ Return to Communication Menu Page 39

⇤ ⇥ Select the field to be changed

✓ Confirm entry (Unlock memory!)

Press ⟲ to go to LON Devices Setup 3 Page 60

This screen is used to set up the sequence in which the LON devices are to be installed. Pressing the service pins on all the LON devices in the sequence desired sets the sequence.

By using the ⇤ , ⇥ & ✓ keys the function required can be selected.

‘Add’ stores the selected node to the selected position in the non-volatile memory on the first screen. If that position is already used the next free position will be used.

'All' (Add-all) stores all nodes in the service-pin list in the sequence they have been acquired starting in the first free position in the non-volatile memory.

‘ClrAll’ (Clear all) clears the service pin list.

To install the devices in a certain sequence the following must be done:

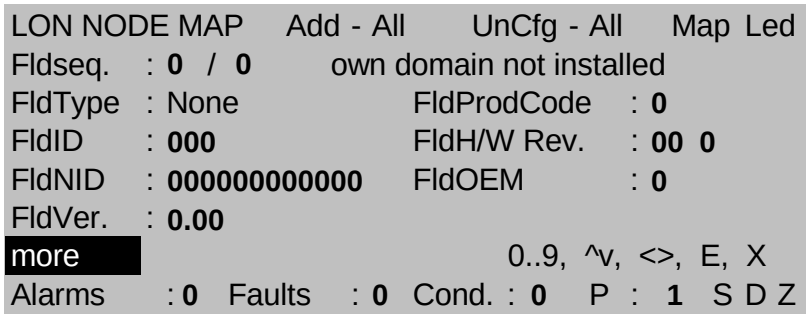
- On LON device set-up 3 (page 60) the data of all connected LON devices must be read into the volatile memory. All devices marked ‘no domain’ are ready to be added to non-volatile memory. All devices marked configured own domain are already added to the non-volatile memory. Configured ‘foreign’ indicates that, a different panel uses the device. If such a device has to be added, it has to be un-configured first.

- Press the service buttons on the LON devices in the sequence they are required.

- By using the ⇤ , ⇥ keys select ‘Add’ or ‘All’ (Add-All) to add the devices a described above.

5.1.32 LON Devices Setup 3

(LON DEVICE SETUP 2,)



Return to Communication Menu Page 39

Select the field to be changed

Confirm entry (Unlock memory!)

Press to go to LON Devices Setup 4 Page 61

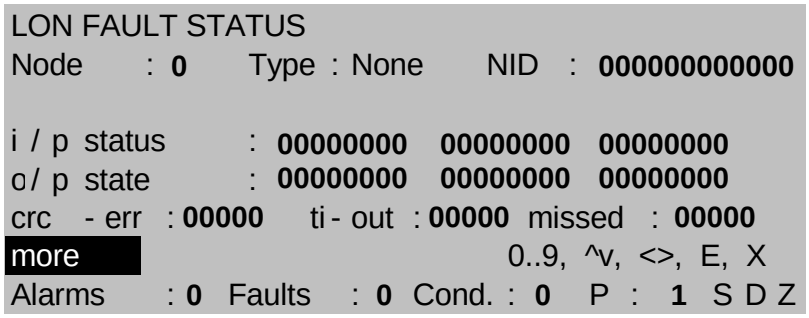
The LON node map screen is used to retrieve all the data from the connected LON devices and to put it in a list. A screen displays all type, branding as set-up data of a single node.

By using the , & keys the function required can be selected. If ‘Add’ is selected a node is added to the next unused id on the non-volatile block. If 'All' (Add-all) is selected all un-configured nodes are transferred to non-volatile memory. If ‘UnCfg’ (Un-configure) is selected it changes the node to a ‘no domain’ state. ‘All’ (Un-configure-All) is selected all nodes are changed to ‘no domain’ states. By selecting ‘Map’, all nodes are remapped and controller node ambiguities are resolved. Selecting ‘LED’ will toggle the status LED of the displayed node on and off.

When a node is configured as ‘own domain installed’ using the ‘UnCfg’ function will remove the data from the non-volatile memory.

5.1.33 LON Devices Setup 4

(LON DEVICE SETUP 3,)



Return to Communication Menu Page 39

Select the field to be changed

Confirm entry (Unlock memory!)

Press to go to LON Devices Setup 1 Page 59

This screen can be used as a system-debugging tool and shows the states of all inputs and outputs on the connected LON devices.

Depending on the type of LON device connected to the panel a various amount of inputs and/or outputs are available to the user. All inputs and outputs are directly controllable via the Input- and Output Logic (see page 125).

The following input (i/p) and output (o/p) statuses and states are shown:

N - Normal

O – Open

P – Passive

A – Active

S – Short

F – Fault (SI716 only)

F – Fire (ZI708/ZI708N only)

V – Overload (OCB724 only)

0 – Off / Low

1 – On / High

“crc-err”, “ti-out” and “missed” are registers for that node. During installation, these registers count the errors on the LON network. If all are zero communication is normal.

PS700 status-bits

0	0	0	0	0	0	0	0	
							1	Auxiliary fault
						1		Third source fault
					1			Battery fault
				-				Not used
			1					Charger fault
		1						Earth fault
	1							Mains fault
1								Battery test fail

NC771 status-bits

0	0	0	0	0	0	0	0	
							1	Channel A redundancy fault
						1		Channel B redundancy fault
					-			Not used
				-				Not used
			1					24V power supply voltage low
		1						24V power supply off
	-							Not used
-								Not used

5.1.34 Step-by-step LON device installation walkthrough

Any LON device or -module can be connected to a FP1200/2000 fire panel via a LON2000 module. Here is a step-by-step installation example for the FBP700:

1. Connect the FBP700 to the FP1200/2000 (24V to supply, communication to LON2000)

2. Enable the LON port (Enabled as a default if a LON2000 is detected)

   Entry Code / 1-System / 1-Configuration / 4-Communication / 1-Port Setup

   Toggle Port to LON

   Toggle Allocation to LON

3. Install the FBP700

   Entry Code / 1-System / 1-Configuration / 4-Communication / 5-LON Devices

   Press “MORE” to go to the third screen of the LON Devices Setup

   Select Add

4. Press the service switch on FBP700

   Fldseq: 1/1

   FldType: FBP700

   FldId: 001

   FldNID: 48-bit ID number unique to a node.

   Ver: 1.09 (Depending on which version of firmware is in the module)

5. If the information appears as in ‘4’ above, press “MORE” to go to the second screen of the LON Devices Setup.

   Select Add

   Press Enter.

   The information in (4) moves to the first screen of the LON devices set-up

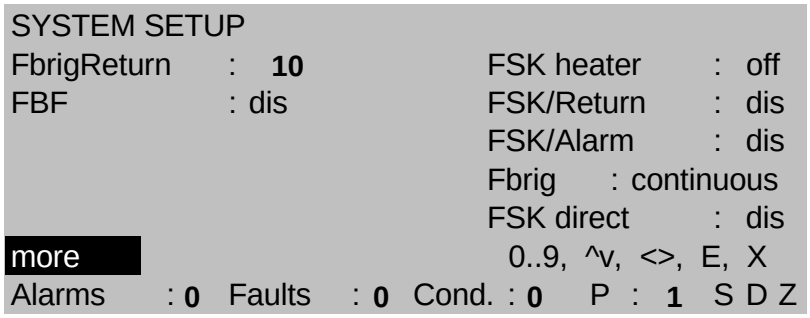
Note: If the selected node on the first screen shows "type: none", then the FBP is installed there. If that node is already in use the FBP is installed in the next un-used node.

6. Reset the panel

7. The FBP700 is installed.

5.1.35 System Setup (FP2000 only)

(SYSTEM MENU, 5, ☑)



☒ Return to Configuration Menu Page 27

⇤ ⇥ Select the field to be changed

⇞ ⇟ Select mode

☑ Confirm entry (Unlock memory!)

Press ⟲ to go to System Setup 2 Page 66

FbrigReturn:

The fire brigade return function can only be assigned to a fire panel in VdS mode. The return delay time is adjustable between 10 and 180 seconds.

FBF:

The FBF function can only be assigned to a fire panel in VdS mode. It enables or disables the Bedienfeld. The following "Bedienfeld"s are supported:

FBF800 Bedienfeld
FBF800B Berlin Bedienfeld
DIN2000-00 Bedienfeld

FSK:

The FSK Heater, Return and Alarm functions can only be assigned to a fire panel with a VdS2000 German Sounder board with a FSK Heater connected to it. The types of FSK heaters that may be connected are:

FSK700 (Note: Needs to be adapted to work from 24V)
FSK800

Fbrig:

The fire brigade output can be set to give a continuous output level or just a pulse. It must be set to the same hardware settings as on the VdS-board.

FSK Direct:

When enabled no return from the "hauptmelder" is required for activation.

5.1.36 System Setup (FP1200 only)

(SYSTEM MENU, 5, ☑)

SYSTEM SETUP			
FbrigReturn	: **10**	FSK heater	: off
FBF	: dis	FSK/Return	: dis
Operation	: EN	FSK/Alarm	: dis
Protocol	: ARITECH 2000	Fbrig	: continuous
Language	: English	FSK direct	: dis
more		0..9, ^v, <>, E, X	
Alarms : **0**	Faults : **0**	Cond. : **0**	P : **1** S D Z

☒ Return to Configuration Menu Page 27

⇤ ⇥ Select the field to be changed

⇞ ⇟ Select mode

☑ Confirm entry (Unlock memory!)

Press ⟲ to go to System Setup 2 Page 66

For the options on the menu items Fbrig, FBF and FSK, please refer to page 64

Operation:

The mode of operation of the fire panel is set here. This applies the FP1200 range of products, as well as to the FR2000. (*See Appendix A of the FP1200/2000 Installation and Commissioning Manual for the different modes of operation*.)

Protocol:

The protocol used by the fire panel is set here. This applies the FP1200 range of products, as well as to the FR2000. (*See Appendix A of the FP1200/2000 Installation and Commissioning Manual for the types of protocol*.)

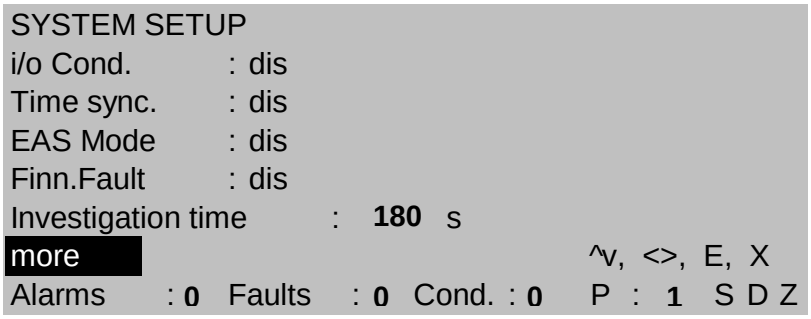
Language:

The permanent operating language of the fire panel is set here. This applies to the FP1200 range of products, as well as to the FR2000.

*The language group depends on software installed in fire panel. (*See Appendix A of the FP1200/2000 Installation and Commissioning Manual for the languages supported in each language group*.)*

5.1.37 System Setup 2 (FP1200 only)

(SYSTEM MENU, 5, ✔ , ⟲)



✖ Return to Configuration Menu Page 27

⇤ ⇥ Select the field to be changed

⇞ ⇟ Select mode

✔ Confirm entry (Unlock memory!)

Press ⟲ to go to System Setup 3 Page 68

I/O Cond.:

A requirement exists to display switched inputs and/or outputs. The panel will now display 4 categories of events: alarm, fault, condition and I/O conditions. When “Display I/O Conditions“ is enabled, inputs or outputs will be logged as a condition. A global repeater also supports this feature. The I/O conditioning can be set to either enabled or disabled (en/dis).

Time sync:

Synchronises the time on all panels on the network to the time of the panel where this feature is enabled. This happens at 00:00 everyday. The time synchronization can be set to either enabled (en) or disabled (dis).

EAS Mode:

Each ZMU, automatic device (except MCP) and I/O units set to automatic can have this function enabled by enabling EAS (Enable with Alarm Storage) mode. The EAS mode can be set to either enabled or disabled (en/dis) in the ‘System Setup Menu’.

EAS mode becomes active when the global EAS-enable is ON and the fire brigade delay is active. Special LON panels, like the FRD700, may be used in cases where a device set to EAS mode goes into fire, to extend the fire brigade delay by a pre-programmed investigation time. The investigation time is set in the ‘System Setup Menu’ from 3 to 10 minutes.

During the fire brigade delay a button on an FRD700 may be pressed to extend the delay. The fire brigade is called when either the investigation time expires or a MCP is pressed during that time. For more detail refer to the FRD700 user manuals.

Finnish Fault:

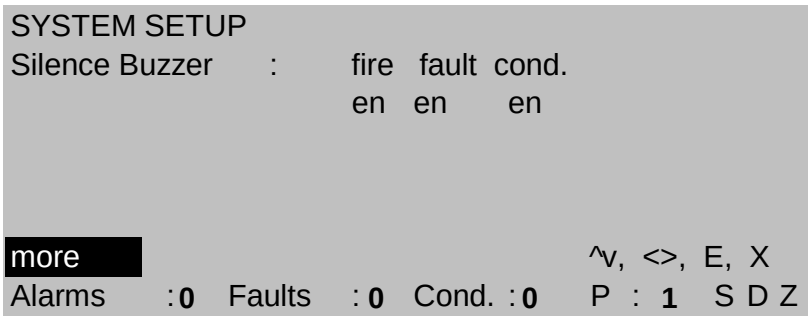
If enabled no fault event will be logged if the mains fail, only a condition.

Investigation time (mode):

The investigation time extends the Fire Brigade delay by a programmable time. It only works if the Fire Brigade delay is enabled and a value is set. The investigation time can be set to any value between 180 seconds and 600 seconds. This gives the user a predetermined time delay to investigate the alarm. When the time delay has expired all normal fire reporting is initiated.

5.1.38 System Setup 3

(SYSTEM MENU, 5, [✓], [↻], [↻])



[✕] Return to Configuration Menu Page 27

[⇤] [⇥] Select the field to be changed

[↑] [↓] Select mode

[✓] Confirm entry (Unlock memory!)

Press [↻] to go to System Setup 1 Page 64

The fire panel buzzer can be disabled individually for fire, fault or condition. Enabled is the default position for all. The buzzers on the FCD700, FRL700 and FM740 will also be affected by the settings.

5.1.39 System information

(SYSTEM MENU, 6, ☑)

```
SYSTEM INFORMATION

   1 Allocation              2 Panels
   3 L-Repeaters             4 G-Repeaters
   5 System                  6 Stack
   7 SpecialCharacters       8 Text Debugging
more                                  0..9, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

☒ Return to Configuration Menu Page 27

Select number or use ⇤ ⇥ and press ☑

Press [More ⟳] to view System information 2 Page 69

5.1.40 System information 2

(SYSTEM MENU, 6, ☑ , ⟳)

```
SYSTEM INFORMATION

   1 FEP                     2 SER
   3 Modem                   4 ARC1
   5 ARC2                    6 LON
   7 LON Characters
more                                  0..9, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

☒ Return to Configuration Menu Page 27

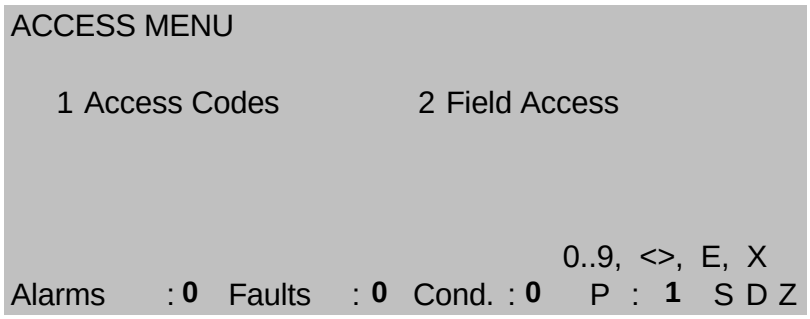
Select number or use ⇤ ⇥ and press ☑

Press [More ⟳] to view System information Page 69

The information used in these two sets of menus is used for programming verification only and has no user defined functions. All information in these menus can change at any time and without prior notification to the end user.

5.1.41 Access menu

(SYSTEM MENU, 2, ☑)



☒ Return to System Menu Page 26

Select number or use ⇤ ⇥ and press ☑

1 Access Codes Page 71

Examine or change user access codes and the access level of any these codes.

2 Field Access (FP2000 only) Page 72

Set the access level of individual menus. This allows selected menus to be excluded from access codes that have lower access levels.

5.1.42 Access codes

(ACCESS MENU, 1, ☑)

```
ACCESS CODES

Access No.          :  1
Access Code         :  1
Access Level        :  2


                                    0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0    P  :  1   S D Z
```

☒ Return to Access Menu Page 70

⇤ ⇥ Select item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

☑ Confirm entry

See also Page 72

Six access codes are allowed in order to use the menu screens viz. Access No 1 to Access No 6. Each of these access numbers can be assigned a numeric code of 1-4 digits. Each access number (1-6) is also allocated an access level: 1-Low level; 2-High level; 0-No access.

The access number of the entry code used to gain access to the menus is logged in the event buffer. After three unsuccessful attempts to gain access, an '*Access Fault*' message is given.

Each menu screen of the FP1200/2000 fire panel has an access level. Access numbers that have an access level 1 cannot use any menus that are set to level 2. In addition, access codes of level 1 cannot view the access codes of level 2 in this menu (Access Codes). The message "NO ACCESS" is given in this case.

The default codes and levels are:

Access Number	Access Code	Access Level
1	1	2
2	2	1
3	3	1
4	4	1
5	5	1
6	6	1

5.1.43 Field access (FP2000 only)

(ACCESS MENU, 2, [✓])

FIELD ACCESS					
Field Number : **0**					
Access Level : **1**					
			0..9, ^v, <>, E, X		
Alarms : **0**	Faults : **0**	Cond. : **0**	P : **1**	S D Z	

[X] Return to Access Menu Page 70

[⇤] [⇥] Select item to be changed

[⇞] [⇟] 0..9 change data in item (Unlock memory!)

[✓] Confirm entry

See also Page 71

Each menu can be assigned an access level: 1-Low level; 2-High level. Entry codes that have an access level of 1 cannot use any menu that has an access level of 2. Menus that are set to access level 1 can be used by all entry codes.

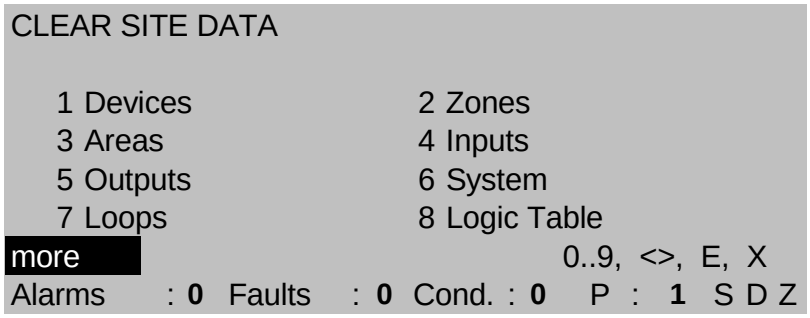
The default of all menus is 1 **except** for this menu (Field Access), Set Times and Allocation. Thus, as default, an access code of level 2 is required to change the level of any menu. (The access levels of the mentioned menus can be changed to 1.)

A field number defines each menu of the FP1200/2000. (**Refer to* Appendix A *for the field number of each menu.*)

The access level is set by first entering the field access number of the menu, and then changing the access level number.

5.1.44 Clear site data 1

(SYSTEM MENU, 3, ☑)



Select number or use ⇤ ⇥ and press ☑ (Unlock memory!)

When prompted for confirmation:

For Devices select loop number or use ⇡ ⇣ and press ☑
All other selections use ⇡ for YES and press ☑
☑ Return to System Menu Page 26

See also Set Default, Page 76

All or parts of the RAM memory can be cleared of data. Certain data is also pre-set as shown below. The data blocks that can be cleared (initialised) are:

1 Devices – Select the loop number (for all loops)
The devices of the selected loop(s) are set to:

Status:	Disabled
Type:	None
Zone:	Ø
Day level:	3
Night level:	2 (1 for MUL)
Soak test:	Disabled
Test value:	Ø
Contamination:	Ø
Statistics:	Cleared

2 Zones – All zones are set to:

Status:	Enabled
Mode:	Normal
Area:	0
Safe Zone:	Disabled
On/Off:	Disabled
Day/Night:	Disabled
Sounder Delay:	Enabled
Fire Brigade Delay:	Enabled

3 Areas – All areas are set to:

Status:	Enabled
Coincidence:	Unlogged
Adjacent area 1-5:	Ø

4 Inputs – All inputs are set to:

Type: None

5 Outputs – All outputs are set to:

Type: None

6 System

Panel ID:	1/0 (for all Panels), 0/5 for the UN2011		
Port:	INT	-	set to FEP; Baud rate 9600
	SER1	-	set to Setup; Baud rate 9600
	SER2	-	set to None; Baud rate 9600
Other ports - function:	None		
Network:	Panels disabled		
	Repeaters disabled		
	Masters disabled		
Access codes:	See Page 71		
Field access:	All menus have access level 1 except Field Access, Set Times and Allocation that have access level 2		
Sounder/Fire Brigade Delay:	0 s		
All times:	00h00		
Sounder off time, Zones on time and day mode time:	Linked to none		

7 Loops

Loop data set to: Enabled

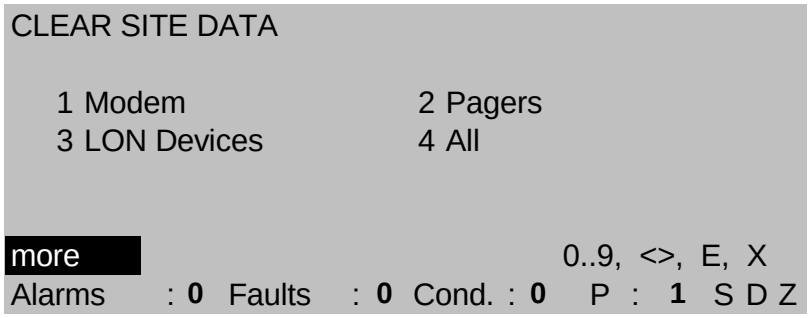
8 Logic table

All logic instructions are cleared and an “END” is placed in line 1.

If any site data has been cleared, exiting the Site Data Screen will restart the panel.

5.1.45 Clear site data 2

(CLEAR SITE DATA 1, ⟲)



Select number or use ⇤ ⇥ and press ✓ (Unlock memory!)

When prompted for confirmation:

For Devices select loop number or use ⇡ ⇣ and press ✓
All other selections use ⇡ for YES and press ✓
✕ Return to System Menu Page 26

See also Set Default, Page 76

1 Modem
All times to Ø
Clear all telephone numbers
Clear all modem command strings

2 Pagers
Clears all Pager data

3 LON Devices
Clear all LON devices and LON device data

4 All
All of the above selections (1-8 of the first menu and 1-2 of the second menu) cleared simultaneously.

5.1.46 Set default

(SYSTEM MENU, 4, ✓)

```
SET DEFAULT

   1 Devices                  2 Zones
   3 Areas                    4 System
   5 Loops                    6 Configuration
   7 Logic Table              8 Modem
                                        0..9, <>, E, X
Alarms     : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

Select number or use ⇤ ⇥ and press ✓ (Unlock memory!)

When prompted for confirmation:

For Devices select loop number or use ⇡ ⇣ and press ✓
All other selections use ⇡ for YES and press ✓
✕ Return to System Menu Page 26

See also Clear Site Data, Page 73

Certain parameters of the site data can be set to default (predetermined) values. This is a means of quick-programming the FP1200/2000 fire panel. It is also useful to set default values to various groups and then selectively change the items that do not correspond to the default values. Default will only overwrite selected items and will **not** clear data that is not affected by the default setting.

It is advisable to first clear the selected block using Clear Site Data, and then set that block to default values.

Default Configuration (see 6 below) will clear all site data from memory and then partition the memory. This should be done (if required) before any other default operation. (See Memory Allocation, Page 33.)

The default blocks and their settings are:

1 Devices - Select loop number (Ø for all loops)
Default will only affect devices that are being addressed on the loop(s) at that time
Status: Enabled
Type: Field type
Test value: 255

2 Zones

The total number of zones equipped on the FP1200/2000 fire panel is proportioned amongst the total number of devices that can be addressed by the fire panel.

E.g.: 16 zone 2 loop fire panel
maximum number of devices = 2 x 128 = 256
zone distribution = 256 / 16 = 16

Loop 1/1	to	Loop 1/16 is assigned zone 1
Loop 1/17	to	Loop 1/32 is assigned zone 2 etc.
Loop 2/1	to	Loop 2/16 is assigned zone 9 etc.
Loop 2/113	to	Loop 2/128 is assigned zone 16

64 zone 4 loops (devices = 512)
zone distribution = 8 devices/zone

3 Areas

The sixteen areas are equally distributed amongst the zones that are equipped on the FP1200/2000 fire panel.

E.g.: 16 zone fire panel

Zone 1	=	Area 1
Zone 2	=	Area 2, etc.

64-zone fire panel

Zone 1-4	=	Area 1
Zone 5-8	=	Area 2, etc.

4 System

Reserved

5 Loops

Enabled

6 Configuration

The memory is partitioned to the default configuration *(see Memory Allocation, Page 33)*.

7 Logic

The logic table is set to a standard equation:

Input 1	=	Output 1
Input 2	=	Output 2, etc.

This equation is extended to the lower number of:

- halve (*see note*) of the maximum number of logic lines allowed by the memory allocation for logic
- the maximum number of inputs
- the maximum numbers of outputs

One equation comprises of two logic lines. An allocation for logic of 300 lines would allow the equation to be extended to: Input 150 = Output 150, provided that the number of inputs and outputs are 150 or more.

8 Modem: Select Modem Manufacturer

Fire Delay	=	60s
Fault Delay	=	60s
Condition Delay	=	60s
Wait for connection	=	60s
Pause between calls	=	60s
Max. dial-in attempts	=	3

Init. string:	None:	-
		-
US Robotics:	AT&F1M1L1	
	S0=1&W0	
Fast link:	AT&F1M1L1	
	S0=1&W0	
DataSystems:	AT&F0M1L1	
	S0=1&W0	
Bausch:	AT&F1M1L1	
	S0=1&W0	

Dial:	ATDTW
Escape:	+++
Hangup:	ATH0
Test:	ATDTW,

5.1.47 Set times menu

(SYSTEM MENU, 5, ☑)

```
SET TIMES MENU

   1 Date & Time              2 Output Delays
   3 Fbrig Delay off          4 Sounder Delay off
   5 Zones off                6 Zones on
   7 Day Mode                 8 Night Mode
                                        0..9, <>, E, X
Alarms     : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

☒ Return to System Menu Page 26

Select number or use ⇤ ⇥ and press ☑

1 Fire Panel Date and Time Page 80
Set the system date and time

2 System Output Delay Times Page 81
Set the delays required for the Sounder, Fire Brigade, Fault Routing and Fire Protection outputs

3 Fire Brigade Delay Off Page 82
Set the times that the Fire Brigade delay is switched from ON to OFF

4 Sounder Delay Off Page 83
Set the times that the Sounder Delay is switched from ON to OFF and set the Sounder Delay off link

5 Zones Off (FP2000 Only) Page 84
Set the times that zones enabled for on/off mode are switched off

6 Zones On (FP2000 Only) Page 85
Set the times that zones enabled for on/off mode are switched on and set the zones on link

7 Day Mode (FP2000 Only) Page 86
Set the times that zones enabled for day/night operation will use the Day Alarm level and set the Day Mode link

8 Night Mode (FP2000 Only) Page 87
Set the times that zones enabled for day/night operation will use the Night Alarm level

5.1.48 Set date and time

(SET TIMES MENU, 1, ☑)

```
SET DATE AND TIME                    Mon 23/ 07/ 01 14: 45: 02

Current Date          :  23 /  07 /  01    (dd/mm/yy)
Current Time          :  14 :  50 :  34    (hh/mm/ss)
Summer Time           :  00 /  00 00 / 00  (dd/mm)
Advance               :  0 h
                                        0..9, ^v, <>, E, X
Alarms     : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

☒ Return to Set Times Menu Page 79

⇤ ⇥ Select the item to be changed

⇞ ⇟ or 0..9 change the data

☑ Confirm change

The fire panel date and time is set with this menu. Time is in 24-hour format (00h00-23h59)

The date and time is used for event reporting, switching of selected zones on/off and changing day/night mode, and is also used as an input for logic operations.

The date/time change will be logged into the event buffer as the following entries:
Old Time
New Time

The summer time and advance are used where summer and winter times differ. The start and end dates (day and month) of summer and the advance time can be set.

This function executes at 03h00.

5.1.49 Output delays

(SET TIMES MENU, 2, ✓)

```
OUTPUT DELAYS

Sounder  :  00  s          Delay  :  off
Fbrig    :  00  s          Delay  :  on
Fltrt    :  00  s          Delay  :  off
Fprot    :  00  s          Delay  :  off
                                    0..9, ^v, <>, E, X
Alarms    : 0   Faults   : 0  Cond. : 0    P  :  1   S D Z
```

✕ Return to Set Times Menu Page 79

⇤ ⇥ Select item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

✓ Confirm change

This menu allows the setting of the delay before activation of the Sounder, Fire Brigade, Fire Protection and Fault Routing output relays.

The Sounder and Fire Brigade Delays are enabled from the front panel of the FP1200/2000 fire panel. Switching the Sounder or Fire Brigade Delay OFF during the delay time will cancel the delay and operate the required output immediately.

The delays can be set from 0 to 600 seconds.

Fire protection and Fault routing delays are fixed at zero (0) seconds.

5.1.50 Fire brigade delay off times

(SET TIMES MENU, 3, ☑)

FBRIG DELAY OFF				Mon **23/ 07/ 01 14: 45: 02**
Monday	: **00: 00**	Friday	: **00: 00**	
Tuesday	: **00: 00**	Saturday	: **00: 00**	
Wednesday	: **00: 00**	Sunday	: **00: 00**	
Thursday	: **00: 00**			
			0..9, ^v, <>, E, X	
Alarms : **0**	Faults : **0**	Cond. : **0**	P : **1**	S D Z

☒ Return to Set Times Menu Page 79

⇤ ⇥ Select the item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

☑ Confirm change

The time each day that the Fire Brigade Delay is automatically switched from ON to OFF is set in this menu. The time for each day of the week can be allocated.

The switching of the delay from OFF to ON is a manual only operation using the Fire Brigade Delay ON/OFF pushbutton with the key switch enabled.

If no automatic delay off operation is required, then the time 00h00 must be used, it is ignored by the FP1200/2000 fire panel. The Fire Brigade Delay can also be manually switched off at any time using the front panel delay ON/OFF pushbutton.

See Output Delays, Page 81

5.1.51 Sounder delay off times

(SET TIMES MENU, 4, ☑)

SOUNDER DELAY OFF				Mon	**23/07/01 14:45**
Monday	: **00:00**		Friday	:	**00:00**
Tuesday	: **00:00**		Saturday	:	**00:00**
Wednesday	: **00:00**		Sunday	:	**00:00**
Thursday	: **00:00**		Lnk	:	none
					0..9, ^v, <>, E, X
Alarms	: **0**	Faults : **0**	Cond. : **0**	P : **1**	S D Z

☒ Return to Set Times Menu Page 79

⇤ ⇥ Select the item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

☑ Confirm change

The time of every day that the Sounder Delay is automatically switched from ON to OFF is set in this menu if the link is set to "None". The time for each day of the week can be allocated.

The switching of the delay from OFF to ON is a manual only operation using the Sounder Delay ON/OFF pushbutton with the key switch enabled.

If no automatic delay off operation is required, then the time 00h00 must be used, it is ignored by the FP1200/2000 fire panel. The Sounder Delay can also be manually switched off at any time using the front panel delay ON/OFF pushbutton.

Link: If the link is set to Fire Brigade, then the Sounder Off times are set to 00h00 and the Fire Brigade Off Times (*Page 82*) are used to control the Sounder Delay. This means that one time set is used if both the Sounder and Fire Brigade Delays are to be switched off at the same time. Link must be set to none in order to use the Sounder Off Times.

See Output Delays, Page 81

5.1.52 Zone off times (FP2000 Only)

(SET TIMES MENU, 5, ☑)

ZONES OFF				Mon	**23/ 07/ 01 14: 45: 02**
Monday	:	**00: 00**		Friday	: **00: 00**
Tuesday	:	**00: 00**		Saturday	: **00: 00**
Wednesday	:	**00: 00**		Sunday	: **00: 00**
Thursday	:	**00: 00**			
					0..9, ^v, <>, E, X
Alarms	: **0**	Faults	: **0**	Cond.	: **0** P : **1** S D Z

☒ Return to Set Times Menu Page 79

⇤ ⇥ Select the item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

☑ Confirm change

See also Zone On Times, Page 85

Zones that are **enabled** for ON/OFF mode (*see Page 109*) will be switched OFF at the times set in this menu. A separate time for each day of the week is allowed. A time setting of 00h00 causes no action.

5.1.53 Zone on times (FP2000 Only)

(SET TIMES MENU, 6, ☑)

ZONES ON				Mon	**23/ 07/ 01**	**14: 45: 02**
Monday	:	**00: 00**		Friday	:	**00: 00**
Tuesday	:	**00: 00**		Saturday	:	**00: 00**
Wednesday	:	**00: 00**		Sunday	:	**00: 00**
Thursday	:	**00: 00**		Lnk	:	none
					0..9, ^v, <>, E, X	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1** S D Z

☒ Return to Set Times Menu Page 79

⇤ ⇥ Select the item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

☑ Confirm change

See also Zone Off Times, Page 84

Zones that are **enabled** for ON/OFF mode (*see Page 109*) will be switched ON at the times set in this menu if the link is set to "None". A separate time for each day of the week is allowed. A time setting of 00h00 causes no action.

Link: If the link is set to external (Ext.), the Zone On Times is set to 00h00 and the zones are controlled by the Zones On output. Link must be set to "None" in order to use the "Zone On" times

5.1.54 Day mode times (FP2000 Only)

(SET TIMES MENU, 7,)

```
DAY MODE                        Mon   23 07 01 14 45: 02

Monday     : 00:00              Friday      : 00: 00
Tuesday    : 00:00              Saturday    : 00: 00
Wednesday  : 00:00              Sunday      : 00: 00
Thursday   : 00:00              Lnk         :   none
                                     0..9, ^v, <>, E, X
Alarms   : 0  Faults   : 0      Cond. : 0   P : 1   S D Z
```

Return to Set Times Menu Page 79

Select the item to be changed

or 0..9 change data in item (Unlock memory!)

Confirm change

See also Night Mode Times, Page 87

Zones that are **enabled** for Day/Night operation (*see Page 109)* will be switched to DAY Mode at the times indicated, provided Link is switched to None. A separate time for each day of the week is allowed. A time setting of 00h00 causes no action.

Link: If 'Link' is set to Fire Brigade, the Day Mode times are set to 00h00 and the times set in the Fire Brigade Off Times *(Page 82)* is used. If 'Link' is set to external (EXT.), the Day Mode Times are controlled by the Day Mode Output. Link must be set to "None" in order to use the Day Mode Times.

Day Mode uses the Day level alarm threshold set in the Device Setup Menus.

5.1.55 Night mode times (FP2000 Only)

(SET TIMES MENU, 8, ☑)

NIGHT MODE				Mon		**23/ 07 0114 45**	
Monday	:	**00**: **00**		Friday	:	**00**: **00**	
Tuesday	:	**00**: **00**		Saturday	:	**00**: **00**	
Wednesday	:	**00**: **00**		Sunday	:	**00**: **00**	
Thursday	:	**00**: **00**					
						0..9, ^v, <>, E, X	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1**	S D Z

☒ Return to Set Times Menu Page 79

⇤ ⇥ Select the item to be changed

⇞ ⇟ or 0..9 change data in item (Unlock memory!)

☑ Confirm change

See also Day Mode Times, Page 86

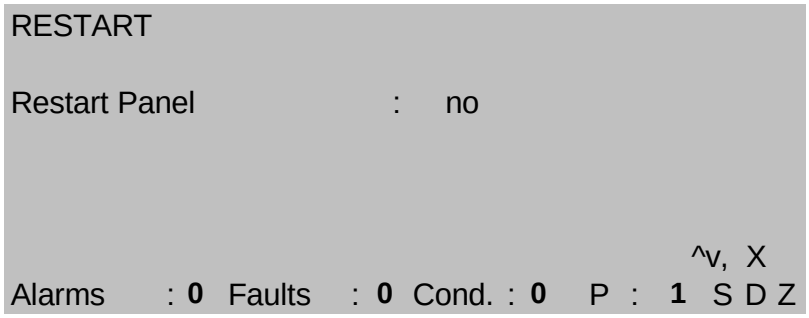
Zones that are enabled for Day/Night operation (*see Page 109)* will be switched to NIGHT mode (more sensitive) at the times set. Times can be set for each day of the week.

A setting of 00h00 causes no action.

The Night mode alarm threshold is set to the Night Level set in the Device Setup Menus.

5.1.56 Restart menu

(SYSTEM MENU, 6, ☑)



☒ Returns to System Menu Page 26

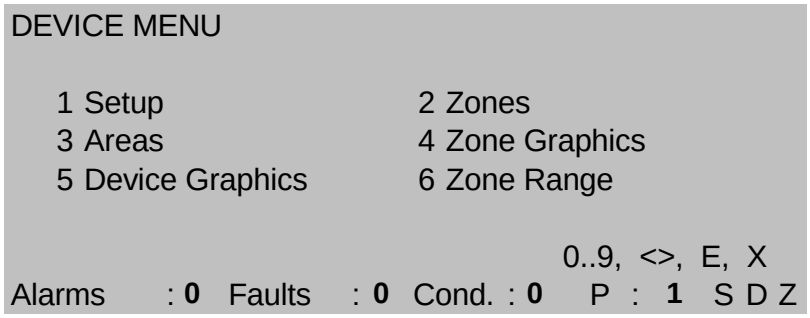
↕ ☑ To select ENABLE

☑ Confirm (Unlock memory!)

Restarting the panel is as if it had been switched off and then on again.

5.1.57 Device menu

(MAIN MENU, 2, ☑)



Enter number or use ⇤ ⇥ and press ☑

☒ Return to Main Menu Page 24

1 Setup

Setup individual device parameters and view device statistics

2 Zones Page 110

Assign individual zone operating conditions — Enable/Disable, Mode, Area, On/Off Day/Night Mode, Sounder Delay, and Fire Brigade Delay.

3 Areas Page 115

Define adjacent areas to an area, logged or unlogged coincidence, and enable or disable the area.

4 Zone Graphics (FP2000 only) Page 117

View a **bar** graph of the monitoring sensors in a zone.

5 Device Graphics (FP2000 only) Page 120

View a **line** graph of an individual sensor with time.

6 Zone Range Page 124

Enables configuration of zone offset.

5.1.58 General setup and view (all types)

(DEVICE MENU, 1, ✓)

SCREEN 1

DEVICE SETUP					Prot	: X95	LED	
Address	: **1 / 1**	Status	:	en	State	:	NML	
Zone	: **1**	Type	:	OPT	Value	:	**50**	
Day Lvl	: **3**	PreLvl	:	**90**	AlarmLvl	:	**110**	
more				0..9, ^v, <>, E, X				
Alarms	: **0**	Faults	: **0**	Cond. : **0**	P	:	**1**	S D Z

✕ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change the data (Unlock memory!)

✓ Confirm entry

Press [More] to view additional device data (Screen 2)

See Page 89 for the particular device type

For Device Text Fields (2 lines x 40 characters):

Use ⇤ ⇥ to obtain the text line to be changed

Press ✓ (Unlock memory!)

Use A..Z to toggle between alpha and numeric text Press the alpha/numeric button required

Use ⇤ ⇥ to move the cursor within the line

Press ✓ ✓ when completed

See Page 73 to CLEAR device data

See Page 76 for DEFAULT device setup

The parameters set by the user are:

- Address: loop/address — Select the device to be viewed.
- Status: enable/disable/soak/EAS — Determines if the device is currently active or not. When a device is in "soak", no alarm condition or outputs is triggered when the device comes into alarm — it will only be reported as an event. For EAS mode refer to Page 66.
- Zone: 1—255 — Devices are allocated to zones.
- Type: user type — The particular device type that the user **requires** at the selected loop/address. This is compared to the **field type** (Screen

2) which is the **actual** device type responding to the fire panel at that loop/address. A mismatch between the Type and Field type will cause one of three fault warnings:

Type	Field Type	Fault
Any type	None	Communication fault
None	Any type	Device disabled
Any type	Different type	Wrong type

The field type recognised by the fire panel is one of the following types. These types are further expanded by the user to define the particular type. The particular user type defines Screen 2, and in some cases the operation, for that device.

Type	Field Type	Description
1I	1I	Single channel input unit
1O[1	I/O	Single channel output unit
1I/O[1	I/O	Single channel input single channel output unit
2I/O[2	2I2O	2 channel input 2 channel output unit
2I1O[1	I/O	2 channel input 1 channel output unit
3I/O[1	I/O	Three channel I/O unit
4I/O[2	4I4O	4 channel input 4 channel output unit
4I[2	4I	4 channel input unit
ADD	ADD	Aspiration disable device
ASP1	ASP1	Aspiration unit where both outputs activate one zone (one zone unit)
ASP2	ASP2	Aspiration unit where the two outputs activate two consecutive zones (two zone unit)
CUM[1	MON	Control monitor unit
GCU1[1	I/O	I/O section of gas unit
GCU2[1	MCP	Gas unit manual call point
ICC[2	ICC	Indicating circuit controller
ION	ION	Ionisation smoke monitor
LCC	LCC	Loop-powered circuit controller
MCP	MCP	Manual call point
MCPM	MCP	Manual call point monitor
MCPW	MCP	Manual call point warning
MUL[1	MUL	Multi-Sensor (Optical/Heat detector)
OPT	OPT	Optical smoke monitor
SMI[1	MCP	Switch monitor unit with interrupt
SMU [1	MON	Switch monitor unit
SMU+[1	MON	Switch monitor unit plus

Type	Field Type	Description
SIM[2	SIM	Single Input Module
SND[1	SND	Sounder circuit controller
TEMP	TEMP	Heat detector
ZMU[1	MON	Zone monitor unit
ZMU[2	ZMU	Zone monitor unit
CO	CO	Carbon monoxide monitor

The gas control unit occupies two consecutive addresses. The first (even) address is an I/O unit and must be set to GCU1. The second (odd) address is a MCP and must be set to GCU2.

Depending on the communication protocol, not all of these types are available.

[1 Aritech Series 900 only
See the Gas Control Unit Manual (GC900 Operating Manual) for further details

[2 Aritech Series 2000 only

- Day Level: 1 — 5 - Default 3 (Smoke, heat and multi-criteria detectors only). The fire alarm and precondition threshold for smoke and heat detectors are set. The level entered (1-5) results in an **initial** alarm level. Values received from the monitoring device are compared to its current alarm level. When the alarm level is exceeded, a fire alarm occurs. This level also defines a precondition threshold — *See table below*. The alarm level is further modified by the compensation applied to the device. Where zones are enabled for day/night operation, the night level is always one less than the day level except when the day level is set to one. Day level 3 is the recommended EN54 threshold for ionisation and optical smoke detectors.
- Night Level: 1 — 5 - Default 2 (1 for Multi-criteria). This level is used during the night period.

	SMOKE DETECTORS				HEAT DETECTORS	
	0% Compensation		Maximum Compensation		°C	
Level	Fire Alarm	Precondition	Fire Alarm	Precondition	Fire Alarm	Precondition
1	80	60	170	150	40	30
2	95	75	170	150	47.5	37.5
3	110	90	170	150	55	45
4	125	105	170	150	62.5	52.5
5	140	120	170	150	70	60

- Device Text: - Up to 80 characters (2 lines of 40 characters each) of user definable alphanumeric text can be assigned to **each** device. In the case of I/O devices, the text in these menus will be used for the fault warning of those devices. The **actual** inputs and outputs of each I/O unit can have further text defined in the I/O Programming Menus (*see Page 105)*. It is strongly recommended that the upload/download program be used for text. The keypad is generally used to modify text that has already been downloaded.

- State: - The alarm or fault state of the device can be viewed. The state is **latched** when it occurs and is only cleared upon reset. The state that a device can be is:

  NML - normal
  COMM - communication fault
  FLT - fault
  DIS - disabled
  WTY - wrong type
  DBL - double address
  PRE - pre-(alarm) condition
  MNT - maintenance condition
  NTY - no type

5.1.59 Smoke and Heat detectors

(DEVICE MENU, 1, ☑ , ⏲)

SCREEN 2

DEVICE STATUS						ClrStat	LED
Address	:**2** / **1**	Status	: en	State	: NML		
CommQlt	:**100**%	FldType	: OPT	FldDt	: **50**	S90	
TestVal	:**255**	FldAvg	: **49**	Obsc.	: **0.5**	%/m	
Alarms	:**1**	High	: **133**	**12** / **02**	**17**: **41**		
Contam.	:**0** %	Low	: **23**	**16** / **01**	**03**: **15**		
more				0..9, ^v, <>, E, X			
Alarms	: **0**	Faults	: **0**	Cond. : **0**	P : **1**	S D Z	

☒ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇧ ⇩ to change data

☑ Confirm entry

Press [More ⏲] to view Screen 1 of the device

The above screen is produced for ionisation, optical and heat detectors in order to view the device status and statistics.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device's LED between on and off

See Clear Device Statistics, Page 184 to clear all devices in a loop.

The parameters that can be viewed are:

Status:	Enabled/Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device *(Page 90)*.
State:	The latched alarm or fault state of the device. *See Screen 1 (Page 90)*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device, since the last update. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.
FldType:	Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.
FldDt:	The value (of smoke or heat) being returned by the device. This value (0-255) is used to determine fire alarms or faults (*see Day Level, Page 92*). The value of a smoke detector is related to the smoke obscuration (measured in percentage/meter) for

ionisation and optical detectors, and °C for heat detectors. The protocol being used to communicate to this device is also displayed. They are:

ARI	-	Aritech Series 2000
DSC	-	Aritech Series 990
S90	-	Aritech Series 900
X95	-	Aritech Series 930/950/970

TestVal: The value returned during Device Self-Test. A value that is less than the alarm threshold will result in a maintenance condition.

FldAvg: The average value of the device measured over a 20-minute period.

Obsc: Percentage Obscuration (Smoke Detectors): An estimate of the smoke obscuration expressed as %/meter. This is calculated from the value returned by the device and is given for information purposes only. The fire panel uses the **value** for alarm and fault determination.

Temp: Temperature °C (Heat Detectors): An estimate of the heat in °C. This is calculated from the value returned by the device and is given for information purposes only. The fire panel uses the **value** for alarm and fault determination.

Alarms: The number of fire alarms produced by the device since the last '*Clear Statistics'* operation.

High: The highest value achieved by the device and the date (dd/mm) and time (hh:mm) that this occurred.

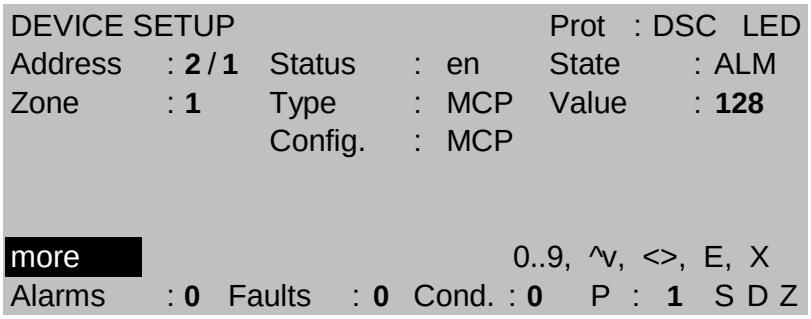
Low: The lowest value achieved by the device and the date (dd/mm) and time (hh:mm) that this occurred.

Contam: Contamination: The amount of contamination is calculated from the long-term drift of the detector, and indicates the cleanliness of the detector. The long-term drift is generally caused by **contamination**, but is also affected by day/night effects especially where a zone is occupied during the day and empty at night. *See Day Level, Page 92*.

5.1.60 Manual Call Point

(DEVICE MENU, 1, ✓)

SCREEN 1



✕ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇧ ⇩ to change the data (Unlock memory!)

✓ Confirm entry

Press [More ⟲] to view additional device data (Screen 2)

MCP config

MCP	MCP fire
MCPW	MCP warning in NEN mode (60s F/B delay)
Fast	Fast input
HMO	HMO-button for user response.

MCP modes

MCP	Normal MCP
MCPW	MCP with warning (60s Fire-brigade-delay) in NEN mode.
FAST	Single fast input.
HMO	HMO-button (see HMO mode, section 5.1.70).

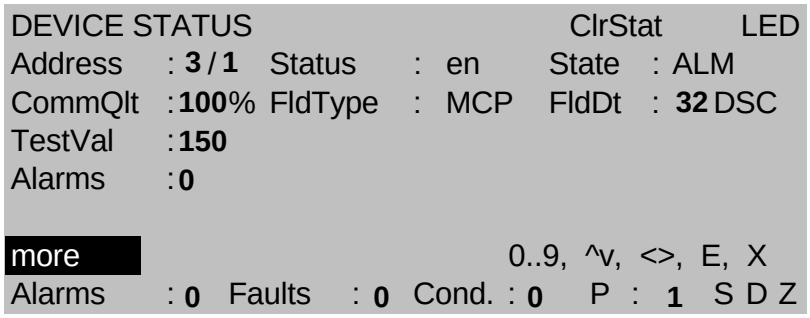
Day / Night Level

Two added screens show the day-level only (with a default night-level setting of day-level minus 1, and the day / night level setting).

5.1.61 Manual Call Point 2

(DEVICE MENU, 1, ✓, ⏲)

SCREEN 2



✕ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇧ ⇩ to change data

✓ Confirm entry

Press [More ⏲] to view Screen 1 of the device

The above screen is produced for manual call points, call point warning, call point monitors, gas unit call points, as well as Mini Switch Monitoring Units with Interrupt in order to view the device status and statistics.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device's LED between on and off

See Clear Device Statistics, Page 184 to clear all devices on a loop.

The parameters that can be viewed are:

Status:	Enabled, Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device (*Page 90*).
State:	The latched alarm or fault state of the device. *See Screen 1 (Page 90).*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.
FldType:	Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.
FldDt:	The value returned by a manual call point is one of three: 16 - Fault

32 - Normal
128 - Fire Alarm

The protocol being used to communicate to this device is also displayed. They are:
ARI - Aritech Series 2000
S90 - Aritech Series 900
X95 - Aritech Series 930/950/970
DSC - Aritech Series 990

TestVal: The value returned during Device Self-Test. A value that is less than the alarm threshold will result in a maintenance condition.

Alarms: The number of fire alarms produced by the device since the last 'C*lear Statistics'* operation.

5.1.62 Sounder

(DEVICE MENU, 1, ,)*

SCREEN 2

```
DEVICE STATUS                          ClrStat      LED
Address    :2 / 1  Status   :  en     State  : NML
CommQlt    :100%  FldType   :  SND    FldDt  : 117X95
Mode       : Alarm pls.


more                                      <>,  E,  X
Alarms     : 0  Faults   : 0  Cond. : 0    P :  1  S D Z
```

Return to Device Menu Page 89

Select the field to be changed

Enter number 0..9 or to change data Confirm entry

Press [More] to view Screen 1 of the device

The above screen is produced for sounder circuit controllers in order to view the device status and statistics.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device's LED between on and off

See Clear Device Statistics, Page 184 to clear all devices in a loop.

The parameters that can be viewed are:

Status:	Enabled, Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device *(Page 90)*.
State:	The latched alarm or fault state of the device. *See Screen 1 (Page 90).*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.
FldType:	Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.
FldDt:	One of two values is returned: 16 - Fault 32 - Normal

The protocol being used to communicate to this device is also displayed. They are:

S90	-	Aritech Series 900
X95	-	Aritech Series 950

Mode: The current state of the sounder. The sounder can be in one of three states:

off	-	sounder off
Warning Pls.	-	sounder operating intermittently
Alarm Pls.	-	sounder operating intermittently
Alarm cont.	-	the sounder is continuously operating

Depending on the communication protocol, this device is not always available.

5.1.63 Indicating circuit controller

(DEVICE MENU, 1, ,)*

SCREEN 2

```
DEVICE STATUS                              ClrStat      LED
Address     : 2 / 1  Status    :  en      State  : NML
CommQlt     :100%  FldType     :  ICC     FldDt  :  0  ARI
Mode        : Alarm pls.


more                                    0..9,  ^v,  <>,  E,  X
Alarms      : 0  Faults     : 0  Cond. : 0    P  :   1  S D Z
```

Return to Device Menu Page 89

Select the field to be changed

Enter number 0..9 or to change data Confirm entry

Press [More] to view Screen 1 of the device

The above screen is produced for sounder circuit controllers in order to view the device status and statistics.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device's LED

See Clear Device Statistics, Page 184 to clear all devices in a loop.

The parameters that can be viewed are:

Status:	Enabled, Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device *(Page 90)*.
State:	The latched alarm or fault state of the device. *See Screen 1 (Page 90).*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.
FldType:	Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.
FldDt:	The following values may be returned: 0 - Normal working 1 - Power up fault 2 - Supervised line open 3 - Supervised line short

4-16 - Circuitry fault

The protocol being used to communicate to this device is also displayed. ARI - Aritech Series 2000

Mode: The current state of the sounder. The sounder can be in one of three states:

off	-	ICC off
Warning Pls.	-	ICC operating intermittently
Alarm Pls.	-	ICC operating intermittently
Alarm cont.	-	the ICC is continuously operating

5.1.64 Monitor units

(DEVICE MENU, 1, ✓, ⟳)

SCREEN 2

```
DEVICE STATUS                          ClrStat    LED
Address   :2 / 1  Status    :  en      State  : NML
CommQlt   :100%   FldType   :  MON     FldDt  :  0  S90
TestVal   :255
Alarms    :1

more                                          <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1  S D Z
```

✕ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇧ ⇩ to change data ✓ Confirm entry

Press [More ⟳] to view Screen 1 of the device

The above screen is produced for Series 900 zone monitor units, control unit monitors, Switch Monitor and the Switch Monitor Plus in order to view the device status and statistics.

The field type can be either "MON" or "ZMU", depending on the communication protocol.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device's LED between on and off

See Clear Device Statistics Page 184 to clear all devices in a loop.

The parameters that can be viewed are:

Status:	Enabled, Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device (*Page 90)*.
State:	The latched alarm or fault state of the device. *See Screen 1 (Page 90).*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.
FldType:	Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.

FldDt: The value returned by a manual call point is one of three:

16 - Fault
32 - Normal
128 - Fire Alarm

The protocol being used to communicate to this device is also displayed. They are: S90 - Aritech Series 900
X95 - Aritech Series 950

TestVal: The value returned during Device Self-Test. A value that is less than the alarm threshold will result in a maintenance condition.

Alarms: The number of fire alarms produced by the device since the last 'C*lear Statistics'* operation.

5.1.65 Input/Output units

(DEVICE MENU, 1,)

SCREEN 1

DEVICE SETUP								LED
Address	: **4 / 1**	Status	:	en	State	:	NML	
Zone	: **1**	Type	:	4I/O	Value	:	**16**	
Fault	: **1** : dis	**2** : dis		**3** : dis		**4** : dis		
more				0..9, ^v, <>, E, X				
Alarms	: **0**	Faults	: **0**	Cond. : **0**	P :	**1**	S D Z	

Return to Device Menu Page 89

Select the field to be changed

Enter number 0..9 or to change the data (Unlock memory!)

Confirm entry

Press [More] to view additional device data (Screen 2)

The above screen shows an I/O unit with 4 inputs and 4 outputs.

Address: Loop/address - Select a different device

Status: Enable / disable device

Zone: Select a zone within the panels zone range

LED: Toggles the selected device's fault LED between on and off

Fault: The fault reporting for each input can be set to:

No fault reporting

Abnormal fault (Short- or open circuit)

Short circuit input

Open circuit input

5.1.66 Input/Output units 2

(DEVICE MENU, 1, [✓], [↻])

SCREEN 2

DEVICE STATUS						ClrStat	LED
Address	:**2** / **1**	Status	: en	State	: NML		
CommQlt	:**100**%	FldType	: 4I/O	FldDt	: **0** ARI		
Channel	: **1**	**2**	**3**	**4**			
Inputs	: passive	active	open	short			
Outputs	: on	off	off	on			
more			0..9, ^v, <>, E, X				
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1**	S D Z

[✕] Return to Device Menu Page 89

[⇤] [⇥] Select the field to be changed

Enter number 0..9 or [↑] [↓] to change data [✓] Confirm entry

Press [More [↻]] to view Screen 1 of the device

The above screen is produced for all input/output (I/O) units, in order to view the device status and statistics.

The field type indicated can be one of the following (depending on the communication protocol): SIM, 1O, I/O, 2I1O, 2I/O, 4I, 4I/O

For an overview of the devices supported by the FP1200/2000 in a specific protocol, please refer to the appropriate Detector Installation & Commissioning Manual.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device's LED between on and off

See Clear Device Statistics, Page 184 to clear all devices in a loop.

The parameters that can be viewed are:

Status:	Enabled, Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device (*Page 90)*.
State:	The latched alarm or fault sate of the device. *See Screen 1 (Page 90).*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.

FldType: Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.

FldDt: The value returned by an I/O unit depends on the state of the input.

The protocol being used to communicate to this device is also displayed. They are: ARI - Aritech Series 2000
S90 - Aritech Series 900
X95 - Aritech Series 930/950

Channel: The status of the input channels and output channels is shown

Inputs: The input status can be Active or Passive, Open or Short. “Open" & "Short" are valid statements only for units with supervised inputs.

Outputs: The output status can be either On or Off.

When units with supervised inputs are being used, Screen 1 will slightly change.

SCREEN 1

```
DEVICE SETUP                                        LED
Address   :2 / 1  Status    : en      State    : NML
Zone      :100     Type      : 4I/O    Value    : 0
Fault     :1 : dis    2 : dis    3 : dis    4 : dis


more                                  0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1  S D Z
```

The last line determines if a fault will be reported automatically or not. Every supervised input can be programmed as follows:

dis: no automatic fault reporting for that specific input.
abn: a device fault is reported if the input is open or short circuit (abnormal).
open: a device fault is reported if the input is open circuit.
short: a device fault is reported if the input is short circuit.

Units that do not distinguish between open and short circuit, can only be set to abn. (abnormal)

If fault reporting is disabled, every fault condition must be programmed through I/O Logic.

5.1.67 Gas unit I/O (GCU1)

(DEVICE MENU, 1, ,) *

SCREEN 2

```
DEVICE STATUS                              ClrStat        LED
Address    :2 / 1   Status     :  en        State  :  NML
CommQlt    :100%    FldType    :  I/O       FldDt  :  0  S90
Fire1      : off    Isol.      :  normal
Fire2      : off    Mode       :  automatic
                    Gas        :  normal
more                                              <>,  E,  X
Alarms     : 0  Faults   : 0  Cond. : 0    P  :   1  S D Z
```

Return to Device Menu Page 89

Select the field to be changed

Enter number 0..9 or to change data Confirm entry

Press [More] to view Screen 1 of the device

See Manual Call Point (GCU2), Page 96
See Gas Control Unit Manual

The above screen is produced for the Input/Output Section of a Gas Control Unit in order to view the device status and statistics.

Only two parameters can be changed on this screen:

Address:	Loop/address - Select a different device
ClrStat:	Clear the statistics of **this** device.
LED:	Toggles the selected device’s LED between on and off

See Clear Device Statistics, Page 184 to clear all devices in a loop.

The parameters that can be viewed are:

Status:	Enabled, Disabled or Soak: Shows if the device is currently active or not. This can be changed on Screen 1 of the device *(Page 90)*.
State:	The latched alarm or fault sate of the device. *See Screen 1 (Page 90).*
CommQlt:	Communication Quality: The number of correct replies from the device as a percentage of the total number of polls to the device. Communication quality is updated every 20 minutes except when the device is being **viewed**, in which case it is updated once per minute.
FldType:	Field Type: The device type as seen by the fire panel. *See Page 90 for field type descriptions*.
FldDt:	The value returned depends on the state of Isolation Mode and Gas Discharge.

The protocol being used to communicate to this device is also displayed. This is: S90 - Aritech Series 900

The screen will also show the status of the gas control unit.

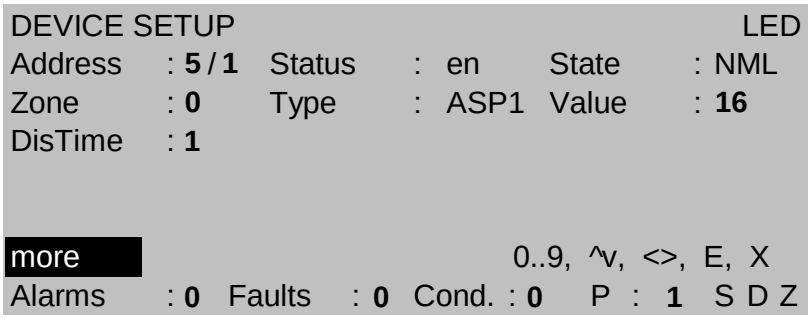
Fire 1, Fire 2	-	Fire zones allocated to the unit by means of I/O programming OFF or ON
Isol	-	Isolated key normal or isolated
Mode	-	Automatic or manual
Gas	-	Normal or discharged

Depending on the communication protocol, this device is not always available.

5.1.68 Input/Output units (ASP1)

(DEVICE MENU, 1, [✓])

SCREEN 1



[✕] Return to Device Menu Page 89

[⇤] [⇥] Select the field to be changed

Enter number 0..9 or [⇞] [⇟] to change the data (Unlock memory!)

[✓] Confirm entry

Press [More [↻]] to view additional device data (Screen 2)

See Page 89 for the particular device type

An aspiration unit with two zone outputs may be connected to a 4I/O device. One output is used to control the aspiration unit and three inputs are used to indicate fire and fault conditions. The type of a 4I/O device can be changed to either a sub-type ASP1 or ASP2.

If ASP1 is selected, then both the aspiration units will activate the same zone on the panel.

ASP1: The two alarm outputs of the Aspiration unit activate the same zone, which is selected in Zone:

DisTime: Aspiration unit disable time selection when an ADD-button is pressed – options: 1, 2, 4, 8, 12 or 24 hours.

5.1.69 Input/Output units (ASP2)

(DEVICE MENU, 1, ☑)

SCREEN 1

DEVICE SETUP								LED
Address	: **6 / 1**	Status	:	en	State	:	NML	
Zone	: **0**	Type	:	ASP2	Value	:	**16**	
DisTime	: **1**							
more					0..9, ^v, <>, E, X			
Alarms	: **0**	Faults	: **0**	Cond. : **0**	P : **1**		S D Z	

☒ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇧ ⇩ to change the data (Unlock memory!)

☑ Confirm entry

Press [More ↻] to view additional device data (Screen 2)

See Page 89 for the particular device type

An aspiration unit with two zone outputs may be connected to a 4I/O device. One output is used to control the aspiration unit and three inputs are used to indicate fire and fault conditions. The type of a 4I/O device can be changed to either a sub-type ASP1 or ASP2.

If ASP2 is selected then zone and zone+1 are activated by the two aspiration unit outputs. The third input will indicate a fault status on the aspiration unit. In addition, any MCP set to a zone that is used for an aspiration unit can be changed to an ADD sub-type and then assumes a different function to that of a normal fire MCP. An ADD type will be used as a disable-button for the aspiration unit in that zone. The aspiration unit disable period can be set on the ASP device-setup menu to 1h, 2h, 4h, 8h, 12h or 24-hours.

ASP2: the two alarm outputs of the Aspiration unit activate two different zones, the one that is selected in Zone: - for output 1, and the next consecutive one for output 2.

DisTime: Aspiration unit disable time selection when an ADD-button is pressed – options: 1, 2, 4, 8, 12 or 24 hours.

A fault condition on the Aspiration unit will be indicated by both zones.

5.1.70 Zone menu

(DEVICE MENU, 2, ☑)

ZONE			I.S. Zone	:	dis
Zone	: **2**		on/off	:	dis
Status	: en		Day/Night	:	dis
Mode	: Normal		Sounder Delay	:	dis
Area	: **1**		Fbrig Delay	:	dis
					0..9, ^v, <>, E, X
Alarms	: **2**	Faults : **0**	Cond. : **0**	P : **1**	S D Z

☒ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change data (Unlock memory!)

☑ Confirm entry

For Zone Text Field (1 line x 40 characters):

Use ⇤ ⇥ to obtain the text line to be changed

Press ☑ (Unlock memory!)

Use A..Z to toggle between alpha and numeric text

Press the alpha/numeric button required

Use ⇤ ⇥ to move the cursor within the line

Press ☑ when completed

The operation of each zone can be viewed and modified using this menu.

The functions of the screen are:

- Zone: 1—255 - Select the zone to be viewed or modified.
- Status: enable/disable - Zones can be enabled or disabled. When disabled, the zone fault LED remains steady on. In addition, the common disable LED is active. Fires and faults occurring in a disabled zone are not reported. If fires or faults exist at the time of disabling, the panel must be reset to clear these conditions.

*All devices in the disabled zone **remain electrically active** and can still be viewed in the Device Menus.* (See Page 89).

Zones can also be disabled using the DISABLE function key. *(See Page 212)*

A report of disabled zones can be obtained. *(See Page 218)*

- Mode: - Determines the operation of a fire zone
  - : normal – a single device in alarm causes a fire in the zone
  - : confirmed – an alarm is raised only if the fire is present for more than 60s. The same applies for coincidence.
  - : two devices – When the first fire is detected, the panel goes into pre-alarm. A fire alarm is raised only when the second fire alarm is detected. The same applies for coincidence.
  - : HMO – Sets the zone to HMO functionality (See description below)

— *In normal mode, a coincidence condition is logged in the event buffer when two or more fire monitoring devices of the zone are in alarm. A coincidence condition can also be used as an input for I/O logic switching. When viewing the display alarm screen, the abbreviation "COI" is displayed next to the status of devices contributing to the coincidence condition of the zone. When viewing this zone menu, the word 'COINCIDENCE blinks if the zone currently has a coincidence condition.*

- Area: 1—99 - The selected zone can be assigned to any one of 99 areas. An area (being a group of zones) can be used for I/O switching and evacuation control. *(See Page 115)*.
- On/Off: disable/enable - Zones that have on/off enabled are switched on and off each day according to the times set in the Set Times Menu *(see Page 79)*. This feature is intended for security type applications (Door and I/O monitoring) and **not** for fire zones. Any fire monitoring device or sounder output unit that exists in a zone that is switched off in this manner, will cause a zone disablement.
- Day/Night: disable/enable - Zones that are enabled for day/night operation will switch between Day Mode and Night Mode according to the times set in the Set Times Menu *(see Page 79)*. The devices in these zones operate at one level more sensitive during Night Mode than the level set for Day Mode. *(See Page 86)*.
- Text: 40 chars - Each zone can have 40 characters of user text assigned. This text is used in the reporting of zone faults and conditions.
- Sounder Delay: enable/disable - Enables/disables the Sounder Delay (*see Output Delays Menu and Front Panel Keys*) for each individual zone.

  This selection must be Enabled and the front panel *Sounder Delay* key ON for the delay to be enabled.
- Fire Brigade Delay: enable/disable - Enables/disables the Fire Brigade Delay *(see Output Delays Menu and Front Panel Keys)* for each individual zone.

This selection must be Enabled and the front panel Fire Brigade Delay key ON for the delay to be enabled.

- I.S. Zone*****: enable/disable - Enables/disables an intrinsically safe zone. (The number of device LED's for this zone is limited to 2).
- Coincidence: - Indicates that two or more devices have triggered a fire alarm.

255 Zones are provided for control purposes.

Depending on the configuration, 16/64 (only configuration option available for FP1200), 32/128, 48/192 or 64/255 zones can be displayed on the FP2000 front panel. *It might happen that devices are allocated to zones outside the "visible" range of the fire panel, and no zone LED will illuminate when these devices go into alarm! Therefore, these zones should not be used for fire sensors, unless remote zone indicators are used.*

*Depending on the communications protocol, this option is not always available.

HMO Mode:

When a block of flats has one fire panel, zones may be set to normal or HMO. Each zone that has the mode set to HMO, covers one flat only. When the zone-mode is set to HMO, all the optical-detectors, loop-sounders and an MCP that are assigned to that HMO-zone will work as follows:

A HMO zone can be in one of the following states: idle, pre-warning, vent and fire. The fire state is the normal panel fire event. A MCP in a HMO-zone can either be set up as an MCP (normal functionality) or as an HMO-button (see section 96) Setting the sub type to ”HMO” defines that the MCP has a different role.

When a sensor goes into alarm, the zone state changes to pre-alarm for 1 minute and the zone-sounders will be set to two-tone. If the HMO-button is not activated during that period, the zone will go into fire. If, on the other hand, the HMO-button is pressed before the time has elapsed, the zone changes into the vent state, which lasts for 2 minutes, and the detectors are disabled during that period. After the time has elapsed, the cycle counter is incremented, the zone state changes to idle again and the detectors are enabled again. The described cycle can be repeated three times for the same zone after which the zone state changes from idle directly into fire. If less then four cycles occur in a 20-minute period, everything in that zone is reset automatically.

The LED on a HMO-button indicates the pre-warning state. The HMO-button has no function during the other states. Repeated activation also has no further effect.

5.1.71 Area menu

(DEVICE MENU, 3, ☑)

```
AREAS          Coincidence
Area           : 2             Adj 2          :  0
Status         : en            Adj 3          :  0
Coincidence    : unlogged      Adj 4          :  0
Adj 1          : 0             Adj 5          :  0

                                          0..9, ^v, <>, E, X
Alarms    : 2  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

☒ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change data (Unlock memory!)

☑ Confirm entry

For Area Text Field (1 line x 40 characters):

Use ⇤ ⇥ to obtain the text line to be changed

Press ☑ (Unlock memory!)

Use A..Z to toggle between alpha and numeric text
Press the alpha/numeric button required

Use ⇤ ⇥ to move the cursor within the line

Press ☑ when completed

An area is defined as a group of zones. Ninety-nine areas are provided. Zones are assigned to areas using the Zone Menu Screen *(see Page 109)*.

An area will be in a fire alarm or fault warning state if any of the zones assigned to the area are in a fire alarm or a fault warning state. The Area status can be used as an input for I/O switching and is particularly useful for evacuation type operation. Area fire and fault status is not logged in the event buffer. Area coincidence, if enabled, will be logged when the condition occurs.

Each Area can have five adjacent areas assigned to it. Output switching can be programmed for adjacent areas of the area in fire or fault. For example: An evacuation signal can be sent to an Area in fire and a warning signal can be sent to the Adjacent Areas.

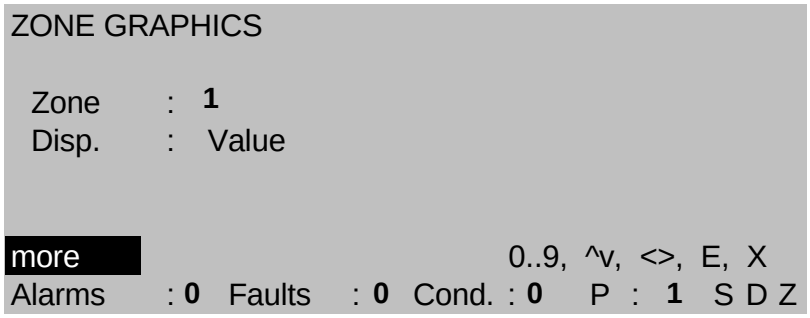
The functions of the screen are:

- Area: 1—99 - Select the area to be viewed or modified
- Status: enable/disable - An area disabled will cause no action in the I/O logic, event buffer, and adjacent area operation.

• Coincidence:	logged/unlogged	- Area coincidence occurs if two or more zones assigned to the area have a fire alarm. The area coincidence can be used as an input for I/O switching. When viewing this menu, the word COINCIDENCE will flash if the area is in a coincidence state. When logged, the coincidence is reported in the event buffer.
• Adj1 - Adj5:	0—99	- Up to five other areas can be defined as being adjacent to the area.
• Text:	40 Chars	- Each area can have 40 characters of user text assigned. This text is used with any reports or logs generated.

5.1.72 Zone graphics (FP2000 only)

(DEVICE MENU, 4, ✓)



✕ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇡ ⇣ to change data ✓ Confirm entry

Press [More ⟲] to view Graphic Screen Page 118

The state of smoke and heat detectors in a zone can be viewed in bar graph form. This assists in obtaining an overall view of the condition of a zone.

The statistics of a particular smoke or heat detector in the zone can be obtained by selecting the device from the graphic screen.

Zone: Select zone to be viewed

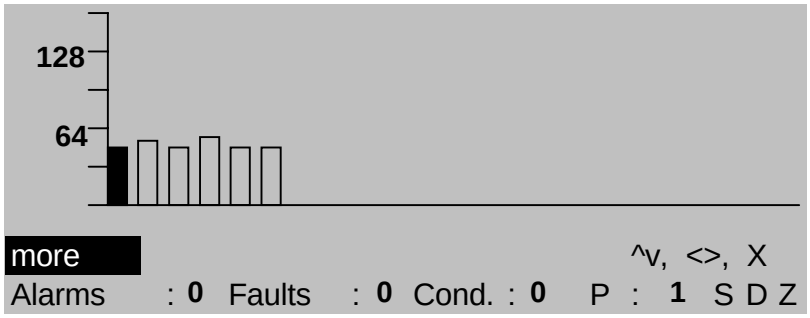
Disp: Select the parameter to be viewed on the bar graph

⇡	Value	-	The current values of the devices
	Average	-	The average value of the devices
	Test Val	-	The device test values
	High	-	Highest value achieved by each device
	Low	-	Lowest value achieved by each device
	Contam	-	% Contamination of each device
⇣	CommQlt	-	% Communication quality of each device

See Page 94, Device Statistics

5.1.73 Zone graphic screen

(ZONE GRAPHICS, [More])



[Return to Device Menu] Page 89

[Select bar in bar graph]

[Select scale of bar graph]

Press [More] to view statistics of selected bar Page 119

Press [More], [More] to return to the Zone Graphics Screen Page 118

A bar graph of the smoke and heat detectors is displayed for the zone and parameter selected. The bar graph is dynamically updated once per loop scan.

The statistics of a device can be viewed by selecting the bar of the device and pressing [More]. The selected bar is displayed with the bar "coloured in".

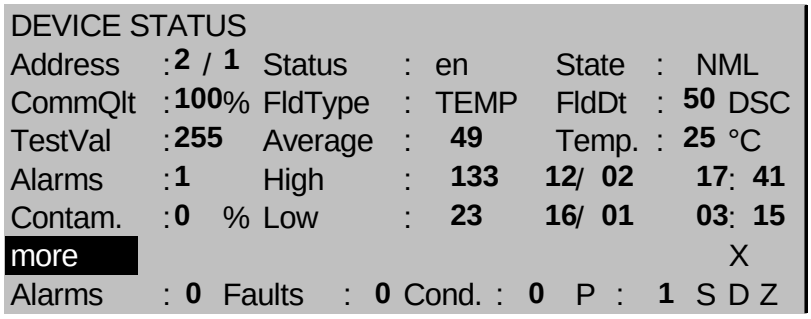
The scale of the graph for compensation and communication quality is fixed at 0-100%.

The scale for other values can be selected by pressing [↑] or [↓]:

0	-	128
0	-	64
32	-	64

5.1.74 Graphic device statistics

(ZONE GRAPHIC SCREEN, [More])



[Return to Device Menu] Page 89

Press [More] to return to Zone Graphics Page 117

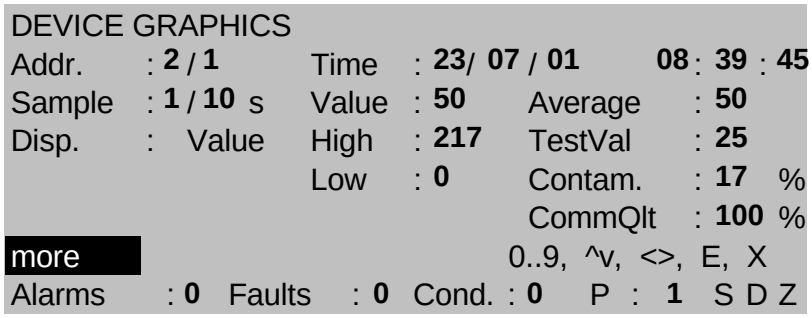
Press [More], [More] to return to Zone Graphic Screen Page 118

The statistics of the device selected in the Zone Graphic Screen is displayed.

This screen is identical to the screen obtained in Device Setup for smoke and heat detectors. *See Page 94* for information about device statistics.

5.1.75 Device graphics (FP2000 only)

(DEVICE MENU, 5, ☑)



☒ Return to Device Menu Page 89

⇤ ⇥ Select the field to be changed

Enter number 0..9 or ⇞ ⇟ to change data ☑ Confirm entry

Press [More ⟲] to view the Device Graphic Screen Page 122

A line graph plotting a value with time can be obtained for any smoke or heat device. The Y-axis of the graph can be selected for any of the device statistics listed below. The X-axis time scale is determined by the sample rate chosen.

Once the device, display type, and sample rate is set, a recording is begun. This recording is updated continuously at the sample rate set — **even when the user is not in the Device Graphics Menu**. Changing any of the above three parameters requires the current recording to be cleared, and a new recording to begin. The user is prompted for confirmation that the recording is to be cleared. Toggle to Y (yes) and press ☑ to confirm the change.

Statistics of the device as well as date and time is displayed. The date and time is determined by the cursor position selected in the Device Graphic Screen *(Page 122)*. This facility allows the user to view the statistics of the device at a particular time on the graph.

- Addr: loop/address - Select the device to be recorded. Only smoke and heat detectors that are enabled may be selected.
- Sample: - Select the sample rate (time scale) required *(See note below)*

  ⇞ 1/10 second
  1/min
  1/20 min
  ⇟ 1/day - at maintenance time set in the maintenance menu (maintenance time must not be 00:00)

- Disp: Select the type of data that must be recorded for the device

Value	- The current values of the device
FldAvg	- The average value of the device
Test Val	- The device test value
High	- Highest value achieved by the device
Low	- Lowest value achieved by the device
Contam	- % Contamination of the device
CommQlt	- % Communication quality of the device

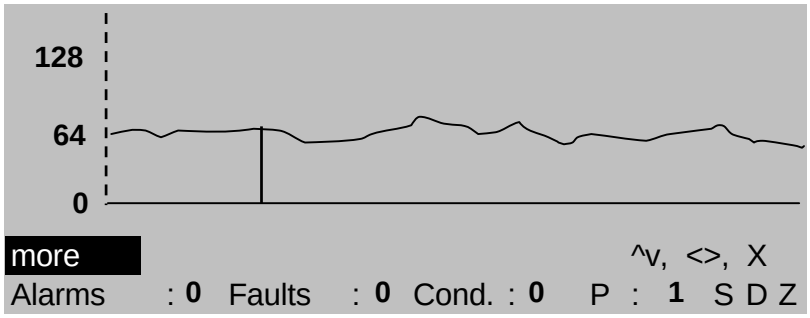
See Page 94, Device Statistics

The device value is the only parameter that is scanned by the panel at a fast rate. All other statistics are updated once every 20 minutes. It is therefore pointless to sample any statistic other than the device value at a rate faster than 1/20 min.

When 1/day is selected, then the time that the sample is taken is that set in the Test Times of the Maintenance Menu (Page 179).

5.1.76 Device graphic screen

(DEVICE GRAPHICS, [⏲])



[✕] Return to Device Menu Page 89

[⇤] [⇥] Select a time position in the graph

[⇞] [⇟] Select the scale of the graph

Press [More [⏲]] to view statistics of the selected device Page 119

Press [More [⏲]], [More [⏲]] to return to the Device Graphic Screen Page 122

A line graph of the selected device recording is displayed. *(See Page 120)*.

The graph is drawn from left to right. Once the screen is full, the graph line is "rolled" from right to left. Thus, the right most point of the graph represents the present time and each point to the left is one sample time previous. The graph will display 217 time samples.

The time window for the various sample rates is thus:

1/10 second:	36 minutes
1/min:	3.6 hours
1/20 min:	72 hours
1/day:	217 days

A cursor is used to select a particular time in the graph. The device statistics *at that time* is displayed on the Device Graphics Screen *(Page 122)* by pressing [⏲] , [⏲] .

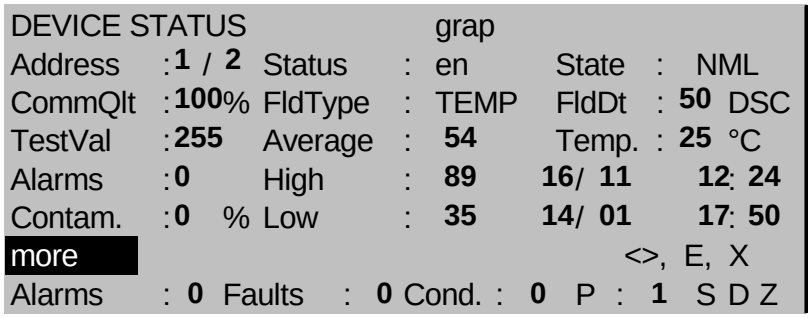
The scale of the graph for compensation and communication quality is fixed at 0-100%.

The scale for other values can be selected by pressing [⇞] or [⇟] :

0 - 128
0 - 64
32 - 64

5.1.77 Graphic device setup

(DEVICE GRAPHIC SCREEN, [⟲])



[✕] Return to Device Menu Page 89

Press [More [⟲]] to return to Device Graphics Page 119

Press [More [⟲]], [More [⟲]] to return to the Device Graphic Screen Page 122

The statistics of the device selected in the Device Graphic screen is displayed.

This screen is identical to the screen obtained in Device Setup for smoke and heat detectors. *See Page 94* for information about device statistics.

5.1.78 Zone range

(DEVICE MENU, 6, ☑)

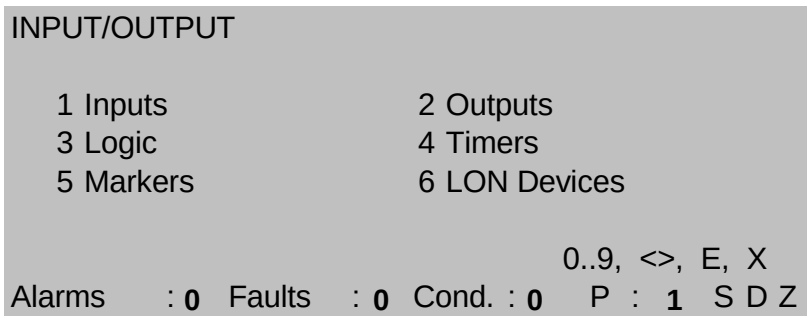
```
ZONE RANGE

Start       :  1
End         :  255
Changing the zone range will clear all
zone related setup and the CMSI port!
                                        0..9,  ^v,  <>,  E,  X
Alarms      : 0   Faults    : 0   Cond. : 0     P  :  1    S D Z
```

☒ Return to Device Menu Page 89

If connected to a global zone repeater, the zone ranges of the different panels must not overlap!

5.2 Input/Output

(MAIN MENU, 3, ☑)



Select number or use ⇤ ⇥ and press ☑

☒ Return to Main Menu Page 24

1 Inputs

View and Define System Inputs

2 Outputs

View and Define System Outputs

3 Logic

View and define the logic programming that determines the switching of outputs according inputs and expressions. Page 162

4 Timers

Monitoring of Timer status. Page 166

5 Markers

Monitoring of Marker status. Page 167

6 LON Devices

View and define the LON devices inputs and outputs. Page 168

5.2.1 Common facilities – all input types

* See Input Description in the Serial Communication Format

Input: *number*

Enter number or use ⇧ ⇩ to view/change the existing defined inputs, or create a new input. Each input required for the I/O logic system must be defined by a unique input number.

Unused inputs have type "None". The maximum number of inputs (default 100) may be set in Memory Allocation (Page 33).

Type: *type*

Inputs can be set true or false by the following types and functions that are specifically described in the following pages.

None	no input defined (default)
General	Page 130
Zone	Page 132
Area	Page 133
Adjacent Area	Page 134
Internal	Page 135
Time	Page 136
Device Input	Page 138
Device	Page 139
Network	Page 140
Action	Page 141
Current Loop Device (not supported in v8 and higher)	
Date	Page 142
LON Input	Page 143
Supervised LON Input	Page 144

Fct: *function*

The functions available depend on the input type selected. Refer to the page of the specific function for further details.

State: *true/false*

This view field shows the state of the input. The input state is the **physical** input (on or off) conditioned by the Trigger and Mode of the input definition.

Trig: *latched/unlatched*

Latched
The input state, once switched true, will remain true until the fire panel is **reset,** even though the input conditions may become false before the reset.

Unlatched
The input state will become true or false according to the physical input state and the mode.

Mode: *passive/active/open/short/active2/abnormal*

The meaning of the above options is related to the current flow and voltage level of the specific input.

A very low current corresponds to "open"; as the current increases it changes to "passive", and at higher currents it changes to "active2", and then to "active". A low voltage level corresponds to "short". "Abnormal" is a combination of "open" and "short" (low current and voltage).

Continuous/pulse

- Continuous
  The input is true/false according to the continuous state of the input function as conditioned by latched and unlatched trigger.
- Pulse
  The input is set true or false by means of the input function pulsing (a rising edge followed by a falling edge). If the input trigger is latched, then the input will remain true until the fire panel is reset. If the input trigger is unlatched, then the input will switch between true and false each time a pulse occurs.

Event: *unlogged/logged/fire/fault/condition*

- Unlogged
  No record is kept of the input switching true.
- Logged
  An event is recorded in the event log each time the input switches. In the case of a latched input, the input switching true is logged. The input remains true until reset. In the case of an unlatched input an event is recorded each time the input changes state. Thus an event occurs for both true and false transitions.
- Logged as fire
  (latched trigger only)
  The input will be logged as described above and will, in addition, cause a common fire alarm. The input event is displayed as fire on the alarm screen.
- Logged as fault
  The input will be logged as described above and also cause a common fault warning. This input event is displayed as a fault on the alarm screen.

Unlatched inputs will remove the fault automatically when the input goes false.

- Logged as condition
  The input will be logged as described above and will, in addition, cause a common condition.

Input Text: *text*

One line (40 characters) of user text can be assigned to each input. The text is viewed on the input definition screens and is used for logging and reporting.

Input text is only allowed for inputs that are able to use the ‘logged’ facility.

The procedure for entering text is as follows:

Use   or  to obtain the text line

 Toggle for alpha or numeric characters

0..9 For alpha characters press key repeatedly until desired upper or lower case character or key is obtained.

 Advance cursor to next position

 Mover cursor back one position

 Confirm end of text input

5.2.2 Input definition – type General

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:		
Input	:	**1**		Trig.	:	unlatched	
Type	:	General		Mode	:	active	
Fct.	:				:	continuous	
Common Fire				Event	:	unlogged	
						0..9, ^v, <>, E, X	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: GENERAL and press ☑ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Input Types, Page 127 for description of Input, State and Text

General inputs refer to conditions derived from within the internal (system) of the FP1200/2000. The function description is assigned to an Input number.

List of Functions:

Common Fire
Common Fault *See Note 1*
Supply Fault
System Fault
Common Condition *See Note 1*
Disabled *See Note 2*
Test *See Note 2*
Coincidence
Ext. Fire
Ext. Fault
Sounder Fault
Fire Brigade Fault
Fault Routing Fault (Fltrt)
Fire Protection Fault (Fprot)
Memory Unlocked
Tamper Switch
Service Switch On
Access Fault
Printer Disconnected
Emulation Disconnected
VDU Disconnected
Global Repeater Fault
Panel Fault
Local Repeater Fault

Modem Fault
Mains Disconnected
Battery Disconnected
Battery Test Failed

Low Battery
Charger Fault
Earth Fault
External Supply Fault
Hardware Fault
Sounder Disabled
Fire Brigade Disabled
Fault Routing Disabled
Fire Protection Disabled
Soak Test
Zone Test
Sounder Test
Fire Brigade Test
Fault Routing Test
Fire Protection Test
Maintenance
BFS Disabled
Pre Warning
LON Device Fault

Common Fault/Condition is active (ON) if any Fault/Condition exists. If the originating Fault(s)/Condition(s) is/are latched, the Common Fault/Condition will be latched, if it is unlatched and is cleared before reset, the Common Fault/Condition will be cleared.

Common Test and Disable are manual operations and remain active until manually cleared. They are not cleared by reset.

Trigger Latched:	Latched/Unlatched
Mode:	Passive/Active Always continuous
Event:	Always unlogged
Text:	Not applicable

**See Input Description in the Serial Communication Format*

5.2.3 Input definition – type Zone

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:		
Input	:	**1**		Trig.	:	unlatched	
Type	:	Zone		Mode	:	active	
Zone	:	**20**			:	continuous	
Fct.	:	Fire		Event	:	unlogged	
						0..9, ^v, <>, E, X	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: ZONE and press ☑ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event and Text.

Inputs can be activated by zones for the following functions. For this type of input the zone number must also be specified.

List of Functions:

Fire
Fault
Coincidence
Condition
Disable
Pre Warning

Trigger: Latched/Unlatched

Mode: Passive/Active
Always continuous

Event: Always unlogged

Text: Not applicable

5.2.4 Input definition – type Area

(INPUT/OUTPUT, 1, ✓)

```
INPUT DEFINITION                 State   :
Input     : 1                    Trig.   :  unlatched
Type      : Area                 Mode    :  active
Area      : 20                           :  continuous
Fct.      : Fire                 Event   :  unlogged

                                    0..9,  ^v,  <>,  E,  X
Alarms    : 0   Faults   : 0   Cond. : 0    P  :  1   S D Z
```

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: AREA and press ✓ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event and Text

An area is defined as a group of zones *(see Page 115)*. An input can be assigned to an area by specifying the area number and the function.

List of Functions:

Fire
Fault
Coincidence
Condition
Disable
Pre Warning

An area coincidence is two or more zones allocated to the area in a fire alarm condition. It is independent of zones in coincidence. See Page 115

Trigger:	Latched/Unlatched
Mode:	Passive/Active Always continuous
Event:	Always unlogged
Text:	Not applicable

5.2.5 Input definition – type Adjacent Area

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION			State	:	
Input	: **1**		Trig.	:	unlatched
Type	: Adj. Area		Mode	:	active
Area	: **20**			:	continuous
Fct.	: Fire		Event	:	unlogged
					0..9, ^v, <>, E, X
Alarms	: **0**	Faults : **0**	Cond. : **0**	P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: ADJ AREA and press ☑ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event and Text

Adjacent areas are assigned to areas using the Area Setup Menu, *Page 115*. An input can be activated by an adjacent area by specifying the area number and function. Adjacent areas have significance in PA evacuation systems where an area in fire is evacuated and the adjacent areas have warning alarms.

List of Functions:

Fire
Fault
Coincidence
Condition
Disable
Pre Warning

The adjacent areas of the specified area will activate the input.

Trigger: Latched/Unlatched

Mode: Passive/Active
Always continuous

Event: Always unlogged

Text: Not applicable

5.2.6 Input definition – type Internal

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:	**false**
Input	:	**1**		Trig.	:	latched
Type	:	Internal		Mode	:	active
Board	:	**24**	: FEP		:	continuous
Input	:	**10**		Event	:	unlogged
						0..9, ^v, <>, E, X
Alarms	:	**0**	Faults : **0**	Cond.	:	**0** P : **1** S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: INTERNAL and press ☑ (Unlock memory!)

Use number 0..9 or ⇞ ⇟ to select PC Board address and press ☑

Use number 0..9 or ⇞ ⇟ to select PC Board input number and press ☑

See Common Facilities - All Input Types, Page 127 for a description of Input, State, Trigger, Mode, Event and Text

The input number selected is assigned to a physical electrical input provided on a printed circuit board within the FP1200/2000 fire panel. In order to assign a physical input, the PC Board **address** (*see Page 33 for board addressing*) as well as the input number on that board must be defined. *For example:* the FP2000 provides four inputs on the FEP board (address 24) as standard.

This screen confirms the PC Board type when the board address is entered.

Trigger: Latched/Unlatched

Mode: Passive/Active/Open/Short/Active2/Abnormal
Continuous/Pulse

Event: Unlogged/Logged/Fire/Fault/Condition

Text: Allowed

5.2.7 Input definition – type Time

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:		
Input	:	**1**		Trig.	:	latched	
Type	:	Time		Mode	:	active	
Time	:	**16** : **00**			:	continuous	
Day	:	Every Day		Event	:	unlogged	
						0..9, ^v, <>, E, X	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: TIME and press ☑ (Unlock memory!)

Use number 0..9 or ⇞ ⇟ to set time and press ☑ (Unlock memory!)

⇞ ⇟ to select Day and press ☑

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event, and Test

Inputs may be activated at a specified time on any day of the week or every day of the week.

The time function may be considered as a contact that closes at the specified time and day and remains closed for one minute. The input can be made to latch or pulse by selecting different trigger and mode. Using the set and reset functions of LOGIC with two or more time inputs can create more complex time waveforms.

Time: hh:mm — Time of day in 24-hour format:
hh 0-23 mm 0-59
The input will switch at the selected hour (hh) and minute (mm)

Time 00h00 has no action

Day:
- Every day
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

Trigger: Latched/Unlatched
If the trigger condition is latched and the mode is set to continuous, the state will change once on the set time and day and will remain so until the panel is reset. If the mode is set to pulse, the state will change on the set time and day, i.e. if it was true, it will change to false and vice versa.

If the trigger condition is unlatched, the state will change for one minute on the set day and time.

Mode: Passive/Active
Continuous/Pulse

Event: Unlogged/Logged/Fire/Fault/Condition

Text: Allowed

5.2.8 Input definition – type Device Input

(INPUT/OUTPUT, 1, ✓)

INPUT DEFINITION				State	:	
Input	:	**1**		Trig.	:	latched
Type	:	Device Input		Mode	:	active
Addr.	:	**1** / **70**	: 1I/O		:	continuous
Chan.	:	**1**		Event	:	unlogged
						0..9, ^v, <>, E, X
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1** S D Z

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: DEVICE INPUT and press ✓ (Unlock memory!)

Use number or ⇞ ⇟ and press ✓ to select the device loop/address and input channel number

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event, and Test

The selected input number is controlled by the input of a field (loop) device of the **I/O type**. The device is defined by its loop/address as well as the input channel number of the device. The device type is confirmed on the screen when the loop/address is entered.

The pre-assigned inputs of a Gas Control Unit (type GCU1) can also be used in this menu. See Gas Control Unit Manual

Trigger: Latched/Unlatched

Mode: Passive/Active/Open/Short/Active2/Abnormal
Always continuous

Event: Unlogged/Logged/Fire/Fault/Condition

Text: Allowed

5.2.9 Input definition – type Device

(INPUT/OUTPUT, 1, ✓)

INPUT DEFINITION				State	:	
Input	:	**1**		Trig.	:	latched
Type	:	Device		Mode	:	active
Addr.	:	**1** / **70**	: OPT		:	continuous
Fct.	:	Fire		Event	:	unlogged
						0..9, ^v, <>, E, X
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1** S D Z

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: DEVICE and press ✓ (Unlock memory!)

Use number or ⇞ ⇟ and press ✓ to select the function and input channel number

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event, and Test

The selected input number is activated by a field (loop) device fire, fault or condition. A fire function is only valid for devices that would normally create a fire alarm (e.g. smoke detector, manual call point or zone monitor unit).

The device is defined by its loop/address as well as the function (fire, fault or condition). The device type is confirmed on the screen when the loop/address is entered.

List of Functions:

Fire
Fault
Condition

Trigger: Latched/Unlatched

Mode: Passive/Active
Always continuous

Event: Unlogged

Text: Not applicable

5.2.10 Input definition – type Network

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:	**false**	
Input	:	**1**		Trig.	:	latched	
Type	:	Network		Mode	:	active	
Node	:	**7**/ **0**			:	continuous	
Output	:	**40**		Event	:	unlogged	
						0..9, ^v, <>, E, X	
Alarms	:	**0**	Faults : **0**	Cond. : **0**		P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: NET and press ☑ (Unlock memory!)

⇞ ⇟ Select the function

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode, Event, and Test

This input definition is used for inter-panel input on the network. The input will be switched by the output of another node (panel) connected on the network.

Node: The node ID from which input is received

Output: The output number setup in the output definition of the selected node.

Trigger: Latched/Unlatched

Mode: Passive/Active
Always continuous

Event: Unlogged/Logged/Fire/Fault/Condition

Text: Allowed

5.2.11 Input definition – type Action

(INPUT/OUTPUT, 1, ✓)

INPUT DEFINITION				State	:	
Input	:	**1**		Trig.	:	latched
Type	:	Action		Mode	:	active
Fct.	:				:	continuous
Day Mode				Event	:	unlogged
						0..9, ^v, <>, E, X
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1** S D Z

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: ACTION and press ✓ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Input Types, Page 127 for description of Input, State and Test

Inputs are set according to actions performed by either the user or by the panel itself. The type of actions is defined by the function set and is described below. Since all actions are logged in their own right, the log and text are not available in this menu.

The action functions available are:
Day Mode
Zones ON
School Bells On
Silence Buzzer
Key switch unlocked
Sounder On
Sounder Silenced
Sounder Delay On
Fire Brigade Signalled
Fire Brigade Stopped
Fire Brigade Delay On
Fault Routing On
Fault Routing Delay On
Fire Protection On
Fire Protection Delay On
Restart
Reset
Access Enabled
Event Log Full
Event Log Cleared
Maintenance Reminder

Trigger:	Latched/Unlatched
Mode:	Passive/Active Always continuous
Event:	Unlogged
Text:	Not applicable

5.2.12 Input definition – type Date

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:	**false**	
Input	:	**1**		Trig.	:	latched	
Type	:	Date		Mode	:	active	
Date	:	**27** : **07**: **02**			:	continuous	
				Event	:	unlogged	
						0..9, ^v, <>, E, X	
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: DATE and press ☑ (Unlock memory!)

⇞ ⇟ Select function

5.2.13 Input definition – type LON Input

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:	**false**	
Input	:	**1**		Trig.	:	latched	
Type	:	LON Input		Mode	:	active	
LON Nr	:	**1**	None		:	continuous	
Input	:	**1**		Event	:	unlogged	
						0..9, ^v, <>, E, X	
Alarms	:	**0**	Faults : **0**	Cond. : **0**		P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: LON INPUT and press ☑ (Unlock memory!)

⇞ ⇟ Select function

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode and Event

This input definition is used for direct control of any device on the LON network that has an unsupervised input. Currently only the FM740 has unsupervised inputs. Furthermore the other functions available are:

LON nr.: The sequence position in which the LON device was set-up as specified in the LON devices set-up. (See Page 57)

Input: All inputs and outputs of connectable LON devices have a number assigned to them. The input reference here refers to the position of the input on the selected LON device.

Trigger: Latched/Unlatched

Mode: Passive/Active
Always continuous

Event: Unlogged/Logged/Fire/Fault/Condition

5.2.14 Input definition – type Supervised LON Input

(INPUT/OUTPUT, 1, ☑)

INPUT DEFINITION				State	:	**false**
Input	:	**1**		Trig.	:	latched
Type	:	Sup LON Input		Mode	:	active
LON Nr	:	**1**	None		:	continuous
Input	:	**1**		Event	:	unlogged
						0..9, ^v, <>, E, X
Alarms	:	**0**	Faults : **0**	Cond. : **0**	P :	**1** S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: SUPERVISED LON INPUT and press ☑ (Unlock memory!)

⇞ ⇟ Select function

See Common Facilities - All Input Types, Page 127 for description of Input, State, Trigger, Mode and Event

This input definition is used for direct control of any device on the LON network that has a supervised input. The following devices have supervised inputs:

SIB716: Supervised input board
SD700: Sounder board
ZI700: Zone input board (mode set to I/O)

LON nr.: The position in which the LON device was set-up as specified in the LON devices set-up. (See Page 57)

Input: All inputs and outputs of connectable LON devices have a number assigned to them. The input reference here refers to the position of the input on the selected LON device.

Trigger: Latched/Unlatched

Mode: Passive/Active
Always continuous

Event: Unlogged/Logged/Fire/Fault/Condition

5.2.15 Common facilities – all output types

* See Output Description in the Serial Communication Format

Output: *number*

Enter number or use  to view/change the existing defined outputs, or create a new output. Each output required for the I/O logic system must be defined by a unique output number. **Unused** outputs have type None. The maximum number of outputs (default 100) may be set in Memory Allocation (Page 33).

Type: *type*

Output numbers are set true or false by logic. The action of the output number is defined in the following types.

None	no output defined (default)
General	Page 148
Zone	Page 149
Area	Page 150
Internal	Page 151
Device Output	Page 152
Supervised Internal	Page 153
Supervised Device Output	Page 154
Network	Page 155
Current Loop Device (not supported in v8 and higher)	
Supervised Current Loop Device (not supported in v8 and higher)	
Event	Page 156
Action	Page 157
LON Output	Page 158
Supervised LON Output	Page 159

Fct: *function*

The functions available depend on the output type selected. Refer to the page of the specific function for further details.

State: *true/false*

This view field shows the state of the output. The output state is set by logic and conditioned by the Trigger and Mode of the output definition. The state of the output is not changed by the linking of the equipment.

Trig: *latched/unlatched*

Latched
The output state, once switched true, will remain true until the fire panel is **reset** even though the output conditions may become false before the reset.

Mode: *normal/inverted*

- Normal
  The output device is active when the output state is true.
- Inverted
  The output device is active when the output state is false.

continuous/pulse/pulsing

- Continuous
  The output device is true/false according to the continuous state of the output as conditioned by latched and unlatched trigger.
- Pulse
  The output device will operate for one second each time the output state is set true.
- Pulsing
  The output device will operate in a pulsing mode, continuously while the output state is true. (This function is only supported on Internal Outputs and Supervised Device Outputs)

Event: *unlogged/logged/fire/fault/condition*

- Unlogged
  No record is kept of the output switching true.
- Logged
  An event is recorded in the event log each time the output switches. In the case of a latched output, the output switching true is logged.

  In the case of an unlatched output an event is recorded each time the output changes state. Thus an event occurs for both true and false transitions.
- Logged as fire
  (Event Type only)
  The output will be logged as described above and will, in addition, cause a common fire alarm. The output event is displayed as fire on the alarm screen.
- Logged as fault
  (Event Type only)
  The output will be logged as described above and also cause a common fault warning. This output is displayed on the fault-warning screen.

Unlatched outputs will remove the fault automatically when the output goes false.

- Logged as condition
  (Event Type only)
  The output will cause a condition to occur as well as being logged as described above. Conditions are automatically removed by unlatched outputs when those outputs go false.

Output Text: *text*

One line (40 characters) of user text can be assigned to each output. The text is viewed on the output definition screens and is used for logging and reporting.

Output text is only allowed for outputs that are able to use the logged facility.

The procedure for entering text is as follows:

Use ⇤ ⇥ or ✓ to obtain the text line

A..Z Toggle for alpha or numeric characters

0..9 For alpha characters press key repeatedly until desired upper or lower case character or key is obtained.

↑ Advance cursor to next position

↓ Mover cursor back one position

✓ Confirm end of text input

5.2.16 Output definition – type General

(INPUT/OUTPUT, 2, ✓)

```
OUTPUT DEFINITION          State    :
Output  :  1               Trig.    :  unlatched
Type    :  General         Mode     :  normal
Fct.    :                             continuous
Common Fire                           unlogged

                                   0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1  S D Z
```

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

↑ ↓ Select Type: GENERAL and press ✓ (Unlock memory!)

↑ ↓ Select the Function

See Common Facilities - All Output Types, Page 145 for description of Output, State and Text

General outputs cause the selected function to occur within the internal (system) of the FP1200/2000. The function description is assigned to an Output number.

The general functions provided are:
Common Fire
Common Fault
Common Condition
(Ext)ernal Fire
(Ext)ernal Fault
(Ext)ernal Supply Fault
Tamper Switch
Service Switch On
Sounder Disabled
Fire Brigade Disabled
Fault Routing Disabled
Fire Protection Disabled
Sounder Test
Fire Brigade Test
Fault Routing Test
Fire Protection Test

Trigger: Latched or unlatched

Mode: Normal only
Continuous only
Unlogged only

Text: Not applicable

* *See Output Description in the Serial Communication Format*

5.2.17 Output definition – type Zone

(INPUT/OUTPUT, 2, ☑)

OUTPUT DEFINITION				State	:	
Output	:	**1**		Trig.	:	unlatched
Type	:	Zone		Mode	:	normal
Zone	:	**27**				continuous
Fct.	:	Fire MCP				unlogged
						0..9, ^v, <>, E, X
Alarms	:	**0**	Faults : **0**	Cond.	:	**0** P : **1** S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: ZONE and press ☑ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Output Types, Page 145 for description of Output, State, Trigger, Mode, Event and Text

Outputs can activate zones for the following functions. For this type of output the zone number must also be specified.

List of Functions:
Fire MCP (manual call point)
Fire Auto
Fault
Coincidence
Condition
Disable

Trigger: Latched/unlatched

Mode: Normal only
Continuous only
Unlogged only

Text: Not applicable

See Output Description in the Serial Communication Format

5.2.18 Output definition – type Area

(INPUT/OUTPUT, 2, ☑)

OUTPUT DEFINITION				State	:	
Output	:	**1**		Trig.	:	unlatched
Type	:	Area		Mode	:	normal
Area	:	**51**				continuous
Fct.	:	Fire				unlogged
						0..9, ^v, <>, E, X
Alarms	:	**0**	Faults : **0**	Cond.	:	**0** P : **1** S D Z

☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇡ ⇣ Select Type: AREA and press ☑ (Unlock memory!)

⇡ ⇣ Select the Function

See Common Facilities - All Output Types, Page 145 for description of Output, State, Trigger, Mode, Event and Text

An area is defined as a group of zones *(see Page 115)*. An output can activate a condition in an area by specifying the area number 1-99, and the function. Area functions could be latched or unlatched, but not reported as an event.

List of Functions:
Fire
Fault
Coincidence
Condition
Disable

An area coincidence is two or more zones allocated to the area in a fire alarm condition. It is independent of zones in coincidence. See Page 115

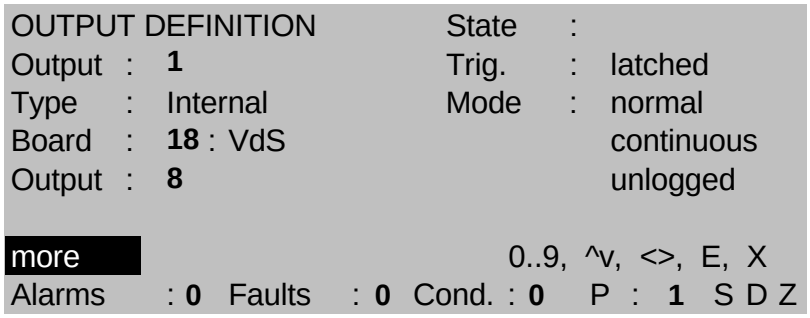
Trigger: Latched/unlatched

Mode: Normal only
Continuous only
Unlogged only

Text: Not applicable

5.2.19 Output definition – type Internal

(INPUT/OUTPUT, 2, ☑)



☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: INTERNAL and press ☑ (Unlock memory!)

Use number 0..9 or ⇞ ⇟ to select PC Board address and press ☑

Use number 0..9 or ⇞ ⇟ to select PC Board input number and press ☑

Press [More ⟲] to view Screen 2 of the outputs. Page 160

See Common Facilities - All Output Types, Page 145 for a description of Output, State, Trigger, Mode, Event and Text

The output number selects the relay provided on a printed circuit board within the FP1200/2000 fire panel. In order to assign a physical relay, the PC Board **address** (*see Page 33 for board addressing*) as well as the relay number on that board must be defined.

The FP2000 provides four programmable relays on the Sounder board (address 17) as standard. *See Hardware Configuration (Page 28) for installed PCB addresses.*

This screen confirms the PC Board type when the board address is entered.

Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous/pulse/pulsing
Unlogged/Logged

Text: Allowed

5.2.20 Output definition – type Device Output

(INPUT/OUTPUT, 2, ✓)

```
OUTPUT DEFINITION          State   :
Output  :  1               Trig.   :  latched
Type    :  Device Output   Mode    :  normal
Addr.   :  1  /  8 : 1I/O             continuous
Chan.   :  4                          unlogged

more                                  0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0    P  :  1   S D Z
```

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

↑ ↓ Select Type: DEVICE OUTPUT and press ✓ (Unlock memory!)

0..9 or ↑ ↓ and press ✓ to select the device loop/address and output channel number

Press [More ⟳] to view Screen 2 of the outputs. Page 160

See Common Facilities - All Output Types, Page 145 for description of Output, State, Trigger, Mode, Event, and Test

The selected output number will switch the output of a field (loop) device of the **I/O type**. The device is defined by its loop/address as well as the output channel number of the device. The device type is confirmed on the screen when the loop/address is entered.

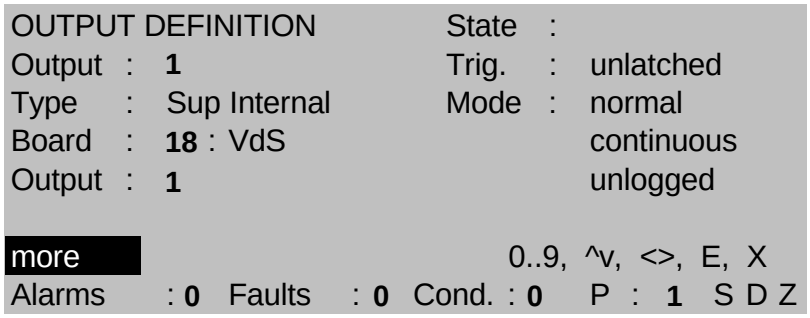
Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous/pulse/pulsing (Pulsing mode is not supported for Standard Device Outputs)
Unlogged/Logged

Text: Allowed

5.2.21 Output definition – type Supervised Internal

(INPUT/OUTPUT, 2, ✓)



✗ Return to Input/Output Menu Page 125

↑ ↓ Select Type: SUP INTERNAL and press ✓

0..9 or ↑ ↓ Select board address and press ✓

0..9 or ↑ ↓ Select relay number and press ✓

Press [More ↻] to view Screen 2 of the outputs. Page 160

The selected relay is operated by the logic that assigns the output true or false.

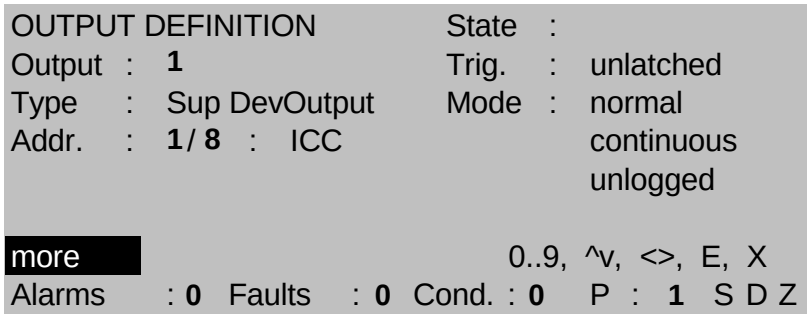
Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous/pulse/pulsing
Unlogged/Logged

Text: Allowed

5.2.22 Output definition – type Supervised Device Output

(INPUT/OUTPUT, 2, ☑)



☒ Return to Input/Output Menu Page 125

↕ Select Type: SUP DEV OUTPUT and press ☑

0..9 or ↕ Select loop/address of sounder unit and press ☑

Press [More ⟳] to view Screen 2 of the outputs. Page 160

The selected output number will switch the output of a field (loop) device of the **ICC-SND type**. The device is defined by its loop/address as well as the output channel number of the device. The device type is confirmed on the screen when the loop/address is entered.

The selected device is operated by the logic that assigns the output true or false. In addition the device is further controlled by:

Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous/pulse/pulsing
Unlogged/Logged

Text: Allowed

5.2.23 Output definition – type Network

(INPUT/OUTPUT, 2, ☑)

OUTPUT DEFINITION				State	:		
Output	:	**1**		Trig.	:	unlatched	
Type	:	Network		Mode	:	active	
Node	:	**2 / 1**				continuous	
Input	:	**15**				unlogged	
						0..9, ^v, <>, E, X	
Alarms	:	**0**	Faults : **0**	Cond.	:	**0** P : **1**	S D Z

☒ Return to Input/Output Menu Page 125

⇕ Select Type: NETWORK and press ☑

Use number or 0..9 ⇕ to select Panel address that the output is sent to

Use number or 0..9 ⇕ to select the Input on that panel that the output must activate

The output will switch the input of another node (panel) connected on the network.

Node: The node ID of whereto the output is sent

Input: The input number setup in the input definition of the selected (receiving) node.

Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous only
Unlogged/logged

Text: Allowed

Please refer to the Network Configuration Guide for the exact way of operation.

5.2.24 Output definition – type Event

(INPUTOUTPUT, 2, ✓)

```
OUTPUT DEFINITION              State   :  false
Output  :  1                   Trig.   :  latched
Type    :  Event               Mode    :  active
                                          continuous
                                          unlogged

                                   0..9,  ^v,  <>,  E,  X
Alarms     : 0  Faults    : 0  Cond. : 0   P  :  1  S D Z
```

✕ Return to Input/Output Menu Page 125

⇑ ⇓ Select Type: EVENT and press ✓

Enter text

⇑ ⇓ Select Trigger and Event

The output, when switched true by logic is logged to the event buffer.

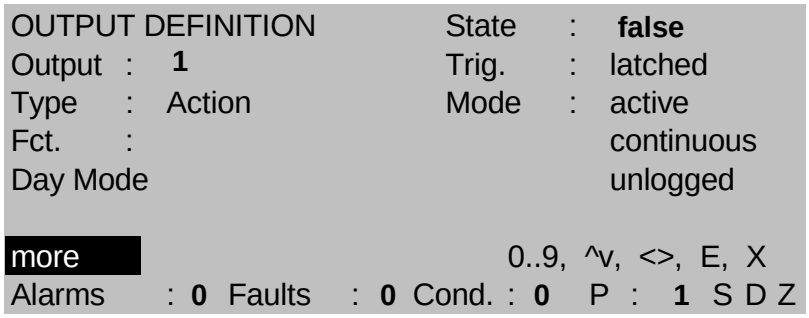
In addition, logged as fire will create a common fire alarm; logged as fault will create a common fault warning; logged as condition will create a common condition.

Logged as fire, fault or condition causes the Output event to be displayed in the alarm screens.

Trigger:	Latched/unlatched
Mode:	Normal only Continuous only Unlogged/logged/fire/fault/condition
Text:	Allowed

5.2.25 Output definition – type Action

(INPUT/OUTPUT, 2, ☑)



☒ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor at TYPE

⇞ ⇟ Select Type: ACTION and press ☑ (Unlock memory!)

⇞ ⇟ Select the Function

See Common Facilities - All Output Types, Page 145 for description of Output, State and Text

The output will cause the action to be performed. The type of action is defined by the function set and is described below. Since all actions are logged in their own right, the log option and text are not available in this menu.

The Action Functions Available Are:
Day mode
Zones ON
School Bells On
Silence Buzzer
Key switch unlocked
Sounder On
Sounder Silenced
Sounder Delay On
Fire Brigade Signalled
Fire Brigade Stopped
Fire Brigade Delay On
Fault Routing On
Fault Routing Off
Fault Routing Delay On
Fire Protection On
Fire Protection Off
Fire Protection Delay On
Restart
Reset
Time Sync.
Call on line x

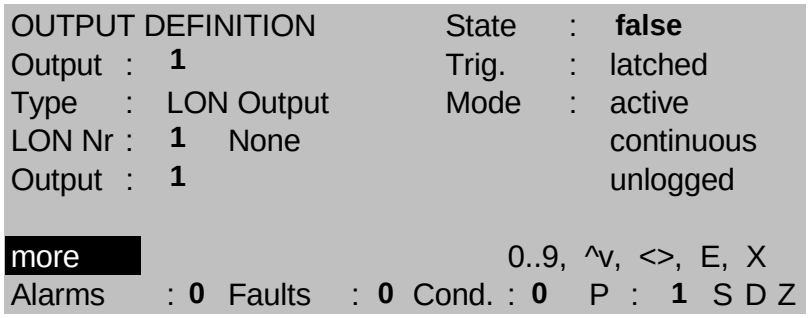
Trigger: Latched/Unlatched

Mode: Normal only
Continuous only
Unlogged only

Text: Not applicable

5.2.26 Output definition – type LON Output

(INPUT/OUTPUT, 2, ☑)



☒ Return to Input/Output Menu Page 125

↑ ↓ Select Type: LON OUTPUT and press ☑

1..32 or ↑ ↓ Select board address and press ☑

0..24 or ↑ ↓ Select output number, depending on module type and press ☑

Press [More ↻] to view Screen 2 of the outputs. Page 160

See Common Facilities - All Output Types, Page 145 for description of Output, State and Text

The selected output number will switch the unsupervised output of a connected LON device. The following devices can be configured as unsupervised LON outputs:

OCB724
RB700
FM740

The selected device is operated by the logic that assigns the output true or false. In addition the device is further controlled by:

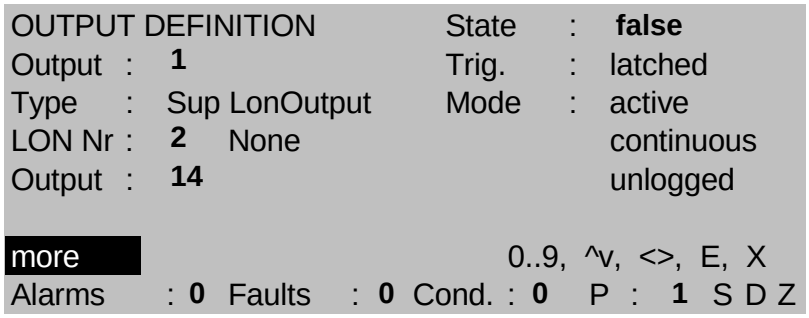
Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous/pulse/pulsing
Unlogged/Logged

Text: Allowed

5.2.27 Output definition – type Supervised LON Output

(INPUT/OUTPUT, 2, ☑)



☒ Return to Input/Output Menu Page 125

↑ ↓ Select Type: Sup LonOutput and press ☑

0..9 or ↑ ↓ Select board address and press ☑

0..9 or ↑ ↓ Select relay number and press ☑

Press [More ↻] to view Screen 2 of the outputs. Page 160

See Common Facilities - All Output Types, Page 145 for description of Output, State and Text

The selected output number will switch the unsupervised output of a connected LON device. The following devices can be configured as unsupervised LON outputs:

SOB708

The selected device is operated by the logic that assigns the output true or false. In addition the device is further controlled by:

Trigger: Latched/unlatched

Mode: Normal/inverted
Continuous/pulse/pulsing
Unlogged/Logged

Text: Allowed

5.2.28 Output definition – link to equipment

(INPUT/OUTPUT, , ,)

```
OUTPUT DEFINITION
Output  :  1
linked  :  SND
Mode    :  Zone
Zone    :  23

more                              0..9,  ^v,  <>,  E,  X
Alarms    : 0  Faults   : 0  Cond. : 0   P :  1  S D Z
```

Return to Input/Output Menu Page 125

Select Link: (SND, Fbrig, Fprot, Fltrt, Logic)

and press (Unlock memory!) Enter Mode: (Zone/Area)

Select Zone or Area

Press [More] to view Screen 1

The output can be linked to the Logic Table or to the standard output equipment (Sounders [SND], Fire Brigade [Fbrig], Fire Protection [Fprot], Fault Routing [Fltrt])

When linked for logic, none of the equipment operations will affect the output. If the output is linked to any of the above equipment, it will operate together with the standard equipment outputs provided.

Delay ON/OFF, Disable ON/OFF, Silence, Sound, Signal for a particular standard equipment output (keys on FP1200/2000 front panel) will affect these outputs. Evacuation (Sound, Signal) is also affected by the mode of operation! (EN, NEN, EP and VdS).

Example 1

Output: **1**
Link: **SND**
Mode: **None**

This is a common Sounder Output.

SOUND	:	In EP mode the output switches ON. In EN/NEN/VdS mode the output switches ON only if it was silenced before.
DISABLE	:	The output is disabled.
DELAY ON/OFF	:	The output is only switched after the Sounder Delay has elapsed.
FIRE	:	The output switches ON.
SILENCE	:	The output switches OFF.
TEST	:	The output switches to Test Mode.

Example 2

Output: **1**
Link: **SND**
Mode: **Zone**
Zone: **11**

This is a zone Sounder Output.

SOUND	:	In EP mode the output switches ON. In EN/NEN/VdS mode the output switches ON only if it was silenced before.
DISABLE	:	The output is disabled.
DELAY ON/OFF	:	The output is only switched after the Sounder Delay has elapsed.
FIRE IN ZONE 11	:	The output switches ON.
SILENCE	:	The output switches OFF.
TEST	:	The output switches to Test Mode.

5.2.29 Logic

(INPUT/OUTPUT, 3, ✓)

```
LOGIC TABLE
  599
  600
  1    (              Input
  2    ) =            Output
  3    end
                                    0..9, ^v, <>, E, X
Alarms     : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

✕ Return to Input/Output Menu Page 125

⇤ ⇥ Place cursor over field to be changed and press ✓ (Unlock memory!)

Either: ⇞ ⇟ Select the function and press ✓

or: 0..9 or ⇞ ⇟ select a number and press ✓

Logic sets outputs assigned in the Output Table true or false according to expressions. An expression in general will contain inputs, outputs, markers and timers connected by Boolean operators.

All expressions in the logic table are evaluated once per second and the true/false state is transferred to the assigned output, marker or timer. Logic is the link between the inputs defined in the Input Table and the outputs defined in the Output Table.

The simplest logic statement requires two steps in the logic table. Expressions that are more complex require more steps depending on the number of terms in the expression. The maximum size of the logic table (default 300 steps) can be set in Memory Allocation 1 (*see Page 33)*. The logic table entered by the user should have an END statement as the last step. The END statement terminates evaluation of the table at that point. Any statements after the END statement will never be evaluated.

The logic steps are evaluated sequentially from step 1 to the END step. This means that outputs, markers or timers set in previous steps may be used as part of expressions in later steps. The true/false value used will be the state that exists at the time of evaluating the expression. *The physical outputs are only set at the END of the table. Thus if an output is set at the beginning of the table, and then reset later in the table, no physical output will occur.*

The logic table menu contains limited editing features. An INSERT and DELETE function is provided and NULL statements are allowed. The user is advised to make use of the PCC2000 Up/Download Program to construct lengthy logic tables. A default logic table linking inputs to outputs can be used. *(See Set Default, Page 76)*. Thus simple I/O operations can be performed without any logic programming. The default mode is described below.

The general form of a logic statement is:

field 1	field 2	field 3	field 4	field 5
Step m	(	Term	xx	
Step m+1	Operator	Term	xx	
	|	|	|	
	|	|	|	
Step m+n	)=	Assignment	xx	yy

xx = term/assignment number
yy is used for timer assignment only

Expressions may contain any number of terms separated by operators, but only up to nested expressions. Each term is separated by either an "(" or operator or operator ")".

Assignment can be Output, Marker or Timer.

The operators available are:

END
Delete*
Insert*
NULL
)=
) set-s
) reset-s
) set-e
) reset-e
AND
AND NOT
AND (
AND NOT (
OR
OR NOT
OR (
OR NOT (
(
NOT (
)

*INSERT and DELETE are editing functions and are used at the time of entering.

The Term/Assignments available are:

Input	xx	
Output	xx	
Marker	xx	
Timer	xx	yy
not Input	xx	
not Output	xx	
not Marker	xx	
not Timer	xx	yy

xx - parameter of term

Input	xx	=	1 to maximum Input Table
Output	xx	=	1 to maximum Output Table
Marker	xx	=	1 to 250
Timer	xx	=	1 to 250

yy time of timer = 1 to 32767 seconds

When timer is used as an assignment, then the time yy is specified. When the timer is used as a term in an expression, then the true/false state of the timer is used.

The simplest logic statement (which is also the default statement) is:

```
Step m      ( Input n
Step m+1    ) = Output n
```

Output n will be set true or false if Input n is true or false.

An example of a multiple term statement not using nesting is:

```
Step    1    ( Input 1
        2    AND Input 2
        3    OR Input 3
        4    AND not Input 100
        5    OR Timer 2
        6    AND Marker 3
        7    ) = Output 7
```

An example of multiple term nested expressions (Nesting = 4) is:

```
Step    1    ( Input 1
        2    AND ( Input 2
        3    OR ( Marker 100
        4    AND NOT ( Timer 2
        5    )
        6    )
        7    )
        8    ) = OUTPUT 6
```

Using Markers

A marker is an internal memory bit that can be assigned true or false. Unlike Outputs, markers can never be physically output from the panel. Markers are generally used to hold intermediate values that will be reused in an expression.

Using Timers

(expression) = Timer xx yy

When expression is true then Timer xx will begin timing. The value of Timer xx is false. As long as expression remains true, then timer xx will go true after time yy. If expression goes false before time yy then the timer is stopped. If expression goes false after time yy then the timer is reset to false and stopped. If expression true again the timer is restarted and times out as long as expression remains true. The timer will restart each time expression goes false and then true.

Special operators:

)Set-e	Set on leading edge of input trigger pulse
)reset-e	Reset on leading edge of input trigger pulse
)Set-s	Set on state of input trigger pulse
)reset-s	Reset on state of input trigger pulse

Outputs, Markers and timers can be set and reset by two independent expressions.

Set-e	Sets the output or marker or starts a timer. The output will remain set even if the expression returns to false. A timer will continue timing.

reset-e	Resets the output or stops the timer.
Set-s	Sets the output or marker or starts a timer. The output will remain set even if the expression returns to false. A timer will continue timing.
reset-s	Resets the output or stops the timer.

Editing

INSERT	- Selecting Insert and pressing ☑ in the operator field will insert a blank line above the current line.
DELETE	- Deletes the current line.

5.2.30 Timers

(INPUT/OUTPUT, MENU, 4, ☑)

```
TIMERS

Timer          :    1
Time           :    10
Status         :    passive

                                          0..9, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0    P  :  1   S D Z
```

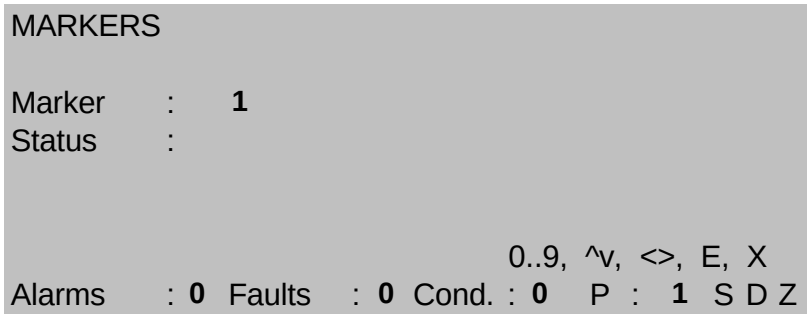
☒ Return to Input/Output Menu Page 125

Enter number 0..250 or ⇧ ⇩ to select appropriate timer

☑ To confirm entry

5.2.31 Markers

(INPUT/OUTPUT, MENU, 5, ☑)



☒ Return to Input/Output Menu Page 125

Enter number 0..250 or ⇧ ⇩ to select appropriate marker

☑ To confirm entry

5.2.32 LON Device Mode

The mode of the LON devices can be set to Input/Output, Zone repeater, Areas repeater or Device repeater. The LON modules support the following modes:

Module	Outputs				Inputs		Text repeater	Common Indications
	Outputs	Zone repeater	Devices repeater	Areas repeater	Inputs	Zones		
SD700	Yes	-	-	-	Yes	-	-	-
SOB700	Yes	Yes	Yes	Yes	-	-	-	-
OCB724	Yes	Yes	Yes	Yes	-	-	-	-
RB708	Yes	Yes	Yes	Yes	-	-	-	-
ZI708	-	-	-	-	Yes	Yes	-	-
ZI708N	-	-	-	-	Yes	Yes	-	-
SIB716	-	-	-	-	Yes		-	-
FM700	Yes	Yes	Yes	Yes	Yes		-	Yes
FBP700	-	-	-	-	-	-	Yes	Yes
FRL700	-	-	-	-	-	-	Yes	Yes
FRD700	-	-	-	-	-	-	Yes	Yes
FCD	-	Yes	-	-	-	-	-	Yes
FR708	-	Yes	-	-	-	-	-	Yes
FR740	-	Yes	-	-	-	-	-	Yes
FR716LED	-	Yes	-	-	-	-	-	Yes
FR748LED	-	Yes	-	-	-	-	-	Yes
RP732LED	-	Yes	-	-	-	-	-	-
RP764LED	-	Yes	-	-	-	-	-	-
RP724LED	-	Yes	-	-	-	-	-	-
RP772LED	-	Yes	-	-	-	-	-	-
RP796LED	-	Yes	-	-	-	-	-	-
RP7192LED	-	Yes	-	-	-	-	-	-
FR724LED	-	Yes	-	-	-	-	-	-
FR756LED	-	Yes	-	-	-	-	-	-
FR772LED	-	Yes	-	-	-	-	-	-
FR7168LED	-	Yes	-	-	-	-	-	-

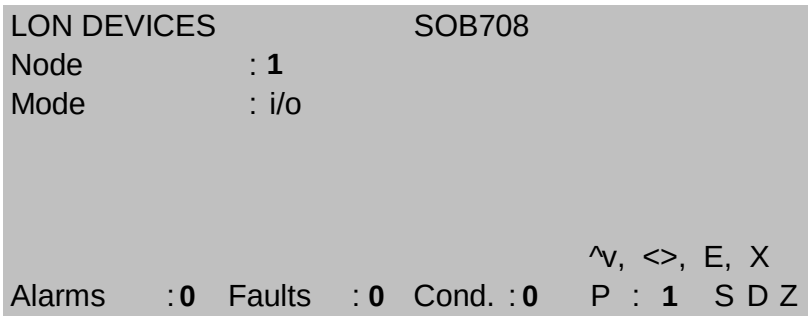
Variations of existing panels are called FCD700 devices. FCD700 modules are manufactured with various standard configurations regarding the position and number of control and indicating sub-modules. The sub-modules include the following: General (GE700), Control (CI700, CI700LED), Equipment (CB700) and Zone (ZE708, ZE724).

Repeater/ LON Config		Slot1	Slot2	Slot3	Slot4	Slot5	Slot6	Slot7	Slot8
FR708	0	GE700	CI700	CB700	ZE708	-	-	-	-
FR740	1	GE700	CI700	CB700	ZE708	ZE708	ZE708	ZE708	ZE708
RP732LED	2	ZE708	ZE708	ZE708	ZE708	-	-	-	-
RP764LED	3	ZE708	ZE708	ZE708	ZE708	ZE708	ZE708	ZE708	ZE708
RP724LED	4	ZE708	ZE708	ZE708	-	-	-	-	-
RP772LED	5	ZE724	ZE724	ZE724	-	-	-	-	-
FR716LED	6	CI700LED	ZE708	ZE708	-	-	-	-	-
FR748LED	7	CI700LED	ZE724	ZE724	-	-	-	-	-
RP796LED	8	ZE724	ZE724	ZE724	ZE724	-	-	-	-
RP7192LED	9	ZE724	ZE724	ZE724	ZE724	ZE724	ZE724	ZE724	ZE724
FR724LED	10	CI700LED	ZE708	ZE708	ZE708	-	-	-	-
FR756LED	11	CI700LED	ZE708	ZE708	ZE708	ZE708	ZE708	ZE708	ZE708
FR772LED	12	CI700LED	ZE724	ZE724	ZE724	-	-	-	-
FR7168LED	13	CI700LED	ZE724	ZE724	ZE724	ZE724	ZE724	ZE724	ZE724

If the connected LON device is a FCD700 device the ‘Config’ field must be set to the coinciding number next to the type of configuration. Furthermore the amount of zones the FCD700 device has must be specified. The ‘Fault’ field can be set to either ‘Zones’ or ‘Common Fault’. If ‘Zones’ is selected only faults on assigned zones will be shown. If ‘Common Fault’ is selected all faults on the general system will be repeated.

5.2.33 LON Devices – Mode I/O

(INPUT/OUTPUT, MENU, 6, ☑)



☒ Return to Input/Output Menu Page 125

Enter number 0..32 or ⇧ ⇩ to select appropriate Node

☑ To confirm entry

⇤ ⇥ Select the field to be changed or

⇧ ⇩ to select I/O mode

☑ To confirm entry

If a LON device is specified as an I/O device it is directly programmable via the panel's internal logic. All inputs and outputs on the connected LON devices can be addressed as such.

If the connected LON device is a FM740 there is the extra option to enable or disable (en/dis) the 'Common' function. By enabling the common option all common faults on the FM740 will be transmitted to the panel, not only zone faults.

I/O - All points used as outputs

5.2.34 LON Devices – Mode Zone 1

(INPUT/OUTPUT, MENU, 6, ☑)

LON DEVICES				OCB724					
Node	: **1**			Start	: **1**				
Mode	: zone			Zones	: **8**				
i/o	: **0**								
				fire	fault	cond.	test	iso	
Outputs	:			**1**	**9**	**17**	**0**	**0**	
						0..9,	^v,	<>,	E, X
Alarms	: **0**	Faults	: **0**	Cond.	: **0**	P	: **1**	S D Z	

☒ Return to Input/Output Menu Page 125

Enter number 0..32 or ⇞ ⇟ to select appropriate Node

☑ To confirm entry

⇤ ⇥ Select the field to be changed or

⇞ ⇟ to select zone mode

☑ To confirm entry

Enter number 0..255 or ⇞ ⇟ to select appropriate zone-offset

☑ To confirm entry

Enter number 0..255 or ⇞ ⇟ to select range of zones to display

☑ To confirm entry

Enter number 0..127 or ⇞ ⇟ to select I/O offset

☑ To confirm entry

The I/O offset is used if the connected device needs to be allocated partially to a zone range as well as be logically programmable. The zone range and I/O set-off may not overlap.

If the connected LON device is an output device, the same set-up of zone offsets, zone ranges and I/O configuration applies. The outputs can be set-up to be activated if a fire, fault, condition, test or isolation occurs in the zone range assigned to that function. If an output device is to display 4 zones, the outputs can be set in groupings of 4 to switch for ‘Fire’, ‘Fault’, ‘Condition’, Test’ and ‘Isolated’. If the ‘Fire’ field is set to 1, outputs 1-4 will switch if a fire occurs. If the ‘Fault’ field set to 5, outputs 5-8 will switch if there is a fault. Overlapping fields will cause that particular output to switch if any of the assigned conditions is present on the system. If a field is set to 0 it is ignored.

Zones may be used to indicate fires, faults, conditions, tests or isolations. If a OCB724 is used to indicate 8 zones, and “fire” is made 1, then outputs 1 to 8 will indicate zone fires. If “fault” is made 9, outputs 9 to 16 will indicate zone faults. When “cond.” is made 17, outputs 18 to 24 will indicate zone conditions.

“fire” may also be made 1 (outputs 1 to 8 will indicate zone fires) and the other 16 outputs (outputs 9 to 24) used as programmable outputs when “i/o” is set to 16 – if set 0, the 16 outputs are unused.

5.2.35 LON Devices – Mode Zone 2

(INPUT/OUTPUT, MENU, 6, [✓])

```
LON DEVICES                 ZI708
Node        : 1             Start   : 1
Mode        : zone          Zones   : 8
i/o         : 0
Outputs     : 1    2    3    4    5    6    7    8
Mode        : mcp  aut  aut  aut  aut  aut  mcp  aut
                                  0..9, ^v, <>, E, X
Alarms   : 0  Faults   : 0  Cond. : 0   P  :  1  S D Z
```

[X] Return to Input/Output Menu Page 125

Enter number 0..32 or [↑] [↓] to select appropriate Node

[✓] To confirm entry

[⇤] [⇥] Select the field to be changed or

[↑] [↓] to select zone mode

[✓] To confirm entry

Enter number 0..255 or [↑] [↓] to select appropriate zone-offset

[✓] To confirm entry

Enter number 0..255 or [↑] [↓] to select range of zones to display

[✓] To confirm entry

Enter number 0..127 or [↑] [↓] to select I/O offset

[✓] To confirm entry

The I/O offset is used if the connected device needs to be allocated partially to a zone range as well as be logically programmable. The zone range and I/O set-off may not overlap.

When the connected LON device is a ZI708 unit, 8 zone inputs can each be selected and configured as either a ‘MCP’ (Manual call point) or ‘AUT’ (Automatic). When a zone input is set to manual call point the Fire Brigade Delay is overridden if a fire occurs. If the input is configured as automatic the input will function as a standard zone with devices connected. Since a zone input has only 8 inputs the zones can not be set to a range greater than 8. The panel will display an error message if this is done. If it is required, for example, that a ZI708 module must monitor zones 100 to 104 and the last three inputs be logic programmable, the ‘Start’ zone will be specified as 100, the ‘Zones’ as 5 and the ‘I/O’ as 6. Setting a zone input to either ‘MCP’ or ‘AUT’ when it is specified as an ‘I/O’ device will be ignored by the system.

The inputs of the ZI708 can be used as zone or programmable inputs or mixed with the zones being used on the lower inputs and the upper ones programmable. The zones can be configured as “mcp” or “auto fires”. The SIB716 has programmable inputs only.

5.2.36 LON Devices – Mode Area

(INPUT/OUTPUT, MENU, 6,)

```
LON DEVICES                 OCB724
Node          : 1           Start    : 1
Mode          : area        Areas    : 8
i/o           : 0
                            fire  fault  cond.  test  iso
Outputs       :             1     9      17     0     0
                                   0..9,  ^v,  <>,  E,  X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

Return to Input/Output Menu Page 125

Enter number 0..32 or to select appropriate Node

To confirm entry

Select the field to be changed or

to select zone mode

To confirm entry

Enter number 0..99 or to select appropriate area-offset

To confirm entry

Enter number 0..99 or to select range of area to display

To confirm entry

Enter number 0..127 or to select I/O offset

To confirm entry

The Area mode's functionality and settings are identical to that of the Zone mode. The maximum amount of areas is restricted to 99.

5.2.37 LON Devices – Mode Device

(INPUT/OUTPUT, MENU, 6, [✓])

```
LON DEVICES              SOB708
Node       : 1           Group1   :12- 1 / 090 #  Dev  : 4
Mode       : device      Group2   :01- 2 / 001 #  Dev  : 2
i/o        : 0           Group3   :07- 4 / 110 #  Dev  : 2
                         fire fault cond test iso
Outputs    :              1    0    0    0    0
                                             ^v,  <>,  E,  X
Alarms    : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

[✕] Return to Input/Output Menu Page 125

Enter number 0..32 or [⇞] [⇟] to select appropriate Node

[✓] To confirm entry

[⇤] [⇥] Select the field to be changed or

[⇞] [⇟] to select device mode

[✓] To confirm entry

Enter number 0..127 or [⇞] [⇟] to select appropriate i/o offset

[✓] To confirm entry

Use [⇤] [⇥], [⇞] [⇟] keys to select device location and number of devices

[✓] To confirm entry

An output LON device can be configured to monitor a specific ranges of detectors on a predetermined panels and loops. The outputs of the LON device can be configured to switch according to the output configuration (see page 170). The number of detectors monitored cannot exceed the number of outputs, since each detector monitored is assigned to one of the outputs.

If a RB708 device must check devices 80-84 on panel 9's second loop and devices 1-3 on panel 2's first loop the Group set-up will be as follow:

Group 1: 09-2/080 #Dev: 5
Group 2: 02-1/001 #Dev: 3

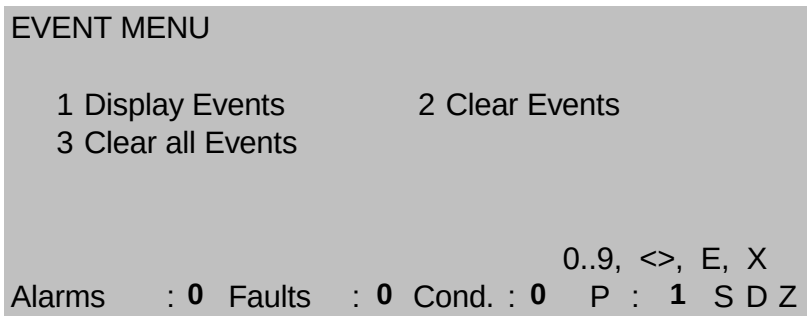
Device three groups of sensors can be used, the selections are:

panel-loop/sensor (first sensor) and #Dev number of consecutive sensors.

Outputs may be used to indicate fires, faults, conditions, tests or isolations. If the SOB708 above is used to indicate 8 outputs, and "fire" is made 1, then outputs 1 to 8 will indicate fires for the 8 devices selected in the order that they have been configured.

5.3 Event menu

(MAIN MENU, 4, ☑)



Enter number or use ⇤ ⇥ and press ☑

☒ Return to Main Menu Page 24

1 Display Events Page 175

Selectively display or print the event buffer to the specified device.

2 Clear Events Page 177

Clear the event buffer.

3 Clear All Events Page 178

Clears own event buffer and additionally:

- If the Node ID is set to represent a Global Repeater the event buffers of all connected Panels and the Local Repeaters will be cleared.
- If the Node ID is set to represent a Panel, the event buffers of all connected Local Repeaters will be cleared.

5.3.1 Display events

(EVENT MENU, 1, ✓)

```
DISPLAY EVENTS
                    Execute
Destination      :  LCD
Event Type       :  All              All
Latest Events    :  999
After            :  24/07/ 00        00: 00
                                          <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

✕ Return to Event Menu Page 173

⇤ ⇥ Select item to be altered

↑ ↓ or 0..9 enter data

✓ Confirm entry

After setting up data, use ⇥ to place cursor over "EXECUTE".

Press ✓ to display/print the event buffer.

All events that occur within the FP1200/2000 fire panel are stored in the event log. The size of the event log (default: 999 events) can be set in the Memory Allocation *(Page 33)*.

All events are given a unique event number 1-9999 that, with the date and time, serves as a reference. Should the event log be filled, an "EVENT LOG FULL" fault will be raised. All events are then "rolled" in the event log such that the latest events are always stored.

The destination to which the fire panel will report events is:

↑ LCD screen
Report printer
Event printer

↓ None

In the case of LCD screen, the events are scrolled using the ↑ ↓ keys.

Events can be selectively reported by specifying the event class and type:

- Event Class:

↑ All types
Fire alarms
Fault warnings
Conditions - e.g.: coincidence, maintenance, etc.

↓ Actions - e.g.: reset, memory locked, etc.

- Event Type:

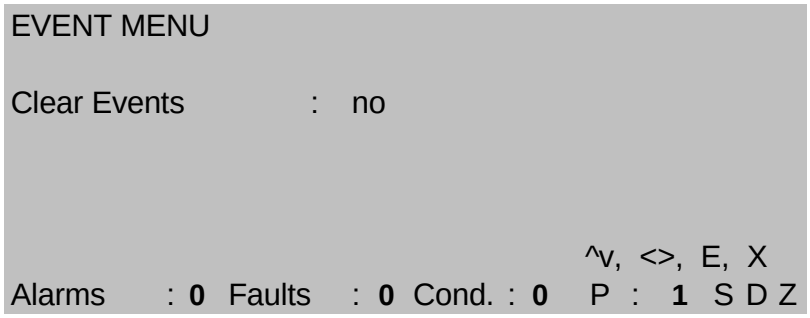

All types
Soak
Area
Zone
Device
General
Output
Input
Action
Loop


Input and Output

The number of events to be displayed is controlled by "Latest Events" after the specified date and time.

5.3.2 Clear event menu

(EVENT MENU, 2, ☑)



☒ Return to Event Menu Page 173

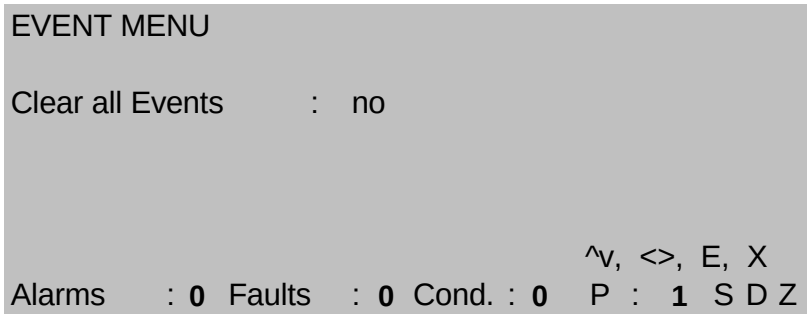
☒ ☒ toggle YES/NO

☑ Confirm entry

The event buffer is cleared. The event buffer may only be cleared if the system is in a **normal** state.

5.3.3 Clear all events menu

(EVENT MENU, 3, ☑)



☒ Return to Event Menu Page 173

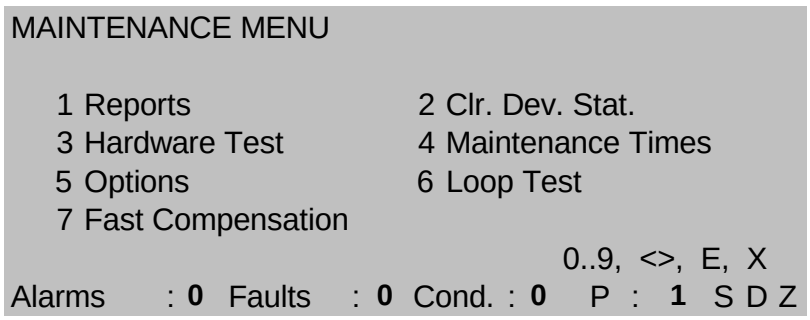
↕ ☑ toggle YES/NO

☑ Confirm entry

This function is normally used on a Global Repeater. The event buffer of all the panels connected to the global repeater is cleared. The event buffer may only be cleared if the system is in a **normal** state.

5.4 Maintenance menu

(MAIN MENU, 5, ☑)



Enter number or use ⇤ ⇥ and press ☑

☒ Return to Main Menu Page 24

1 Reports Page 180
Generate maintenance reports

2 Clear Device Statistics Page 184
Clear all device statistics

3 Hardware Test Page 185
Manually perform the hardware tests

4 Maintenance Times Page 186
Set the times that hardware tests will automatically be performed as well as the next maintenance date.

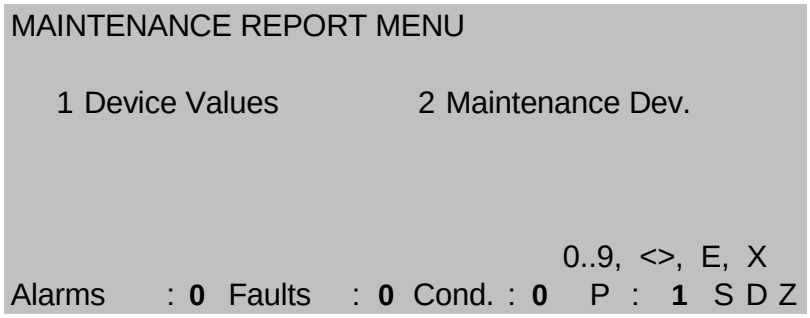
5 Options Page 187
View and/or temporarily set:
- System language
- Operation
- Device protocol

6 Loop Test Page 192
General
Overload
All devices on A side
All devices on B side
All devices on A+B sides
Single device on A side
Single device on B side
Single device on A+B sides
Power on A side
Power on B side
Power on A+B sides

7 Fast Compensation Page 197
Allow the panel to compensate devices on their current values.

5.4.1 Maintenance report menu

(MAINTENANCE MENU, 1, ✓)



Enter number or use ⇤ ⇥ and press ✓

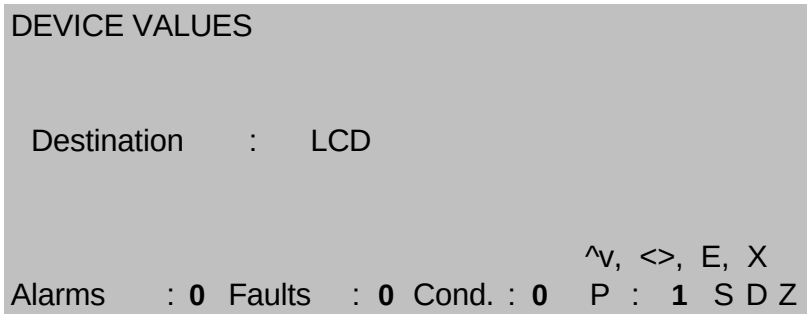
✗ To return to Maintenance Menu Page 179

1 Device Values Page 181
Report the device statistics

2 Maintenance Device Page 183
List the devices that have a maintenance condition

5.4.2 Device values

(MAINTENANCE REPORT MENU, 2, ☑)



☒ Return to Maintenance Report Menu Page 180

↕ Select the report destination

☑ Confirm entry

The statistics of the devices on the loop are reported to the selected destinations.

↑ LCD Screen
Report printer
Event printer

↓ None

The format of the report is shown on *Page 182*. Devices are listed by zone, loop and address.

The report contains only devices that are enabled. Disabled devices are listed in the Disable Menu *(Page 212)*. When the report is sent to the LCD screen, then the user can view the report by zone and scroll the screen by address.

5.4.3 Device values [LCD]

(DEVICE VALUES, LCD, ☑)

```
DEVICE VALUES          Zone  1        20/ 09 / 01    14 59
Addr  Type Val Avg Low  Hi Tst Cont Obsc
2/1   TEMP 50  49  40   62 255  0 %  25
2/2   ION   8  37  27   78 255  0 %  0.7
2/7   ION  46  38  60   70 255  0 %  0.2
3/1   OPT  65  64  51   97 255  0 %  1.1
                                  0..9, ^v, <>, E, X
Alarms     : 0  Faults    : 0  Cond. :  0   P  :  1  S D Z
```

☒ Return to Maintenance Report Menu Page 180

⇤ ⇥ Select zone/address

Zone selected:

Enter number 0..9, ☑ or use ⇞ ⇟ to select zone

Address selected:

⇞ Scroll screen up

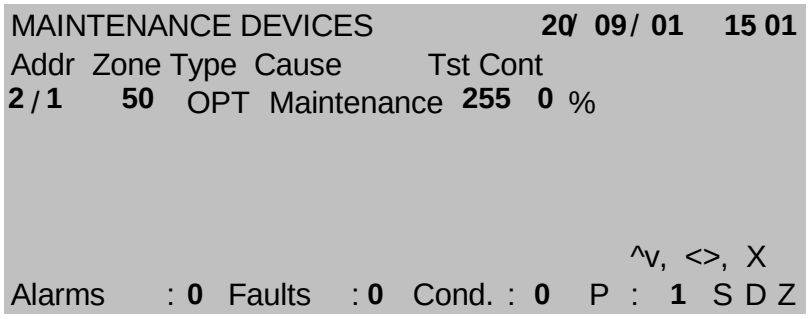
⇟ Scroll screen down

The Device Value report is listed in order of zone and loop/address. The cursor will toggle between zone and address. The screen can be scrolled when Addr. is selected with the cursor.

See Device Statistics, Page 94

5.4.4 Maintenance device

(MAINTENANCE REPORT MENU, 2, ✓)



✕ Return to Maintenance Report Menu Page 180

↕ Select the report destination

✓ Confirm entry

A list of loop devices that have a maintenance condition is produced to the destination-reporting device.

↕ LCD screen
report printer
event printer

↕ none

The Maintenance Device Report is listed in order of zone and loop/address. The cursor will toggle between zone and address. The screen can be scrolled when ‘Addr.’ is selected with the cursor.

See Compensation, Page 90

5.4.5 Clear device statistics

(MAINTENANCE MENU, 2, ✓)

```
CLEAR DEVICE STATISTICS

  Enter Zone No. (0 for all)        :  1



                                         0..9,  ^v,  <>,  E,  X
Alarms      : 0  Faults    : 0  Cond. :  0   P  :   1  S D Z
```

✕ Return to Maintenance Menu Page 179

Enter 0..9 or ⇞ ⇟ to select zone. 0 selects all zones

✓ Confirm entry

See Device Statistics, Page 94
To clear an individual device, see Page 94

The statistics of the devices on a zone will be cleared and set to default values. Selecting zone Ø will clear all devices.

The values that are affected are:

FldAvg:	set to 50
Alarms:	set to 0
High:	set to 0
Low:	set to 255
Contam:	set to 0
Communication Quality:	set to 0

The test value of the device is not affected.

5.4.6 Hardware test

(MAINTENANCE MENU, 3, ☑)

The FP1200/2000 performs system tests once per hour. These tests check the memory integrity of the host CPU system including the locked site data memory, as well as the FEP memory system.

Invoking the hardware test from the maintenance menu causes a system test to be immediately performed.

Any failure during the automatic tests or manual test will be reported as a hardware fault identifying the problem area.

A checksum fault indicates that the memory block is corrupted or faulty. The block should be cleared using "Clear Site Data" *(see Page 73)* and the data reloaded. If the fault persists it is probable that the memory is faulty. Note carefully the faults reported by the panel and contact your supplier.

5.4.7 Maintenance times menu

(MAINTENANCE MENU, 4, ✓)

```
REPORT TIMES                       Mon   23/07/01 17:54
Next Date   :  29.02.04
Monday      :  00:00        Friday     :  00:00
Tuesday     :  00:00        Saturday   :  00:00
Wednesday   :  00:00        Sunday     :  00:00
Thursday    :  00:00        Report     :  yes
                                  0..9, ^v, <>, E, X
Alarms    : 0  Faults    : 0  Cond. : 0  P : 1  S D Z
```

Return to Maintenance Menu Page 179

Select item to be changed

or 0..9 change data in item (Unlock memory!)

Confirm change

The day of the week and the time that loop tests are performed are set in this menu. This allows the reporting of certain loop faults at pre-determined times as chosen by the user.

In addition to the date that the system will produce, a "Maintenance Reminder" condition can be entered in the "Next Date" field. This condition serves as a reminder to the user for routine maintenance tests.

If report is set to "Yes", any maintenance alarm will only be given on the specified time and not at the actual time the alarm is detected.

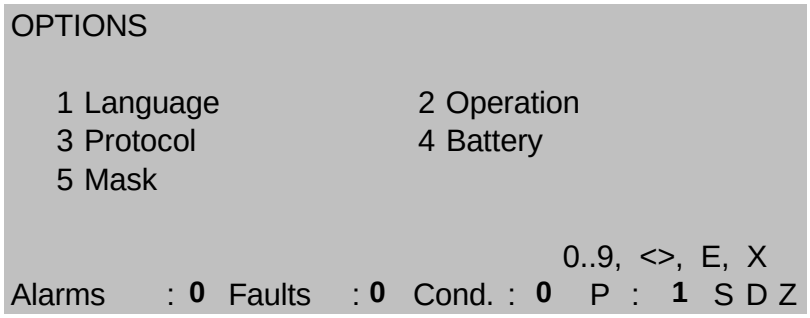
The following tests are performed at the times and days specified:

- The active loop driver is swapped from A to B or B to A in order to drive the loop from the opposite direction.
- The devices on the loop are placed in self-test mode and the test value is updated. The test value achieved is displayed in the Device Setup Menu *(see Page 90)*.

Setting a time of 00h00 will inhibit the test being performed on that particular day.

5.4.8 Options menu

(MAINTENANCE MENU, 5, ☑)



Enter number or use ⇤ ⇥ and press ☑

☒ Return to Maintenance Menu Page 179

1 Language Page 188
View the language of operation and temporarily change this language.

2 Operation Page 189
View the operation mode and temporarily change this operation.

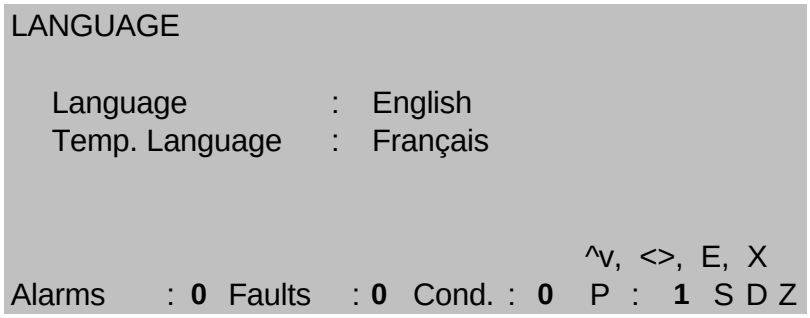
3 Protocol Page 190
View the device protocol set.

4 Battery On/Off Selection (FP1200 Only) Page 191
Set the battery to ON or OFF.

5 Fault Masks (FP1200 Only) Page 191
Set the panel to ignore faults caused by the Battery or the Earth connection.

5.4.9 Language menu

(OPTIONS, 1, ☑)



☒ Return to the Options Menu Page 187

↕ Select temporary language

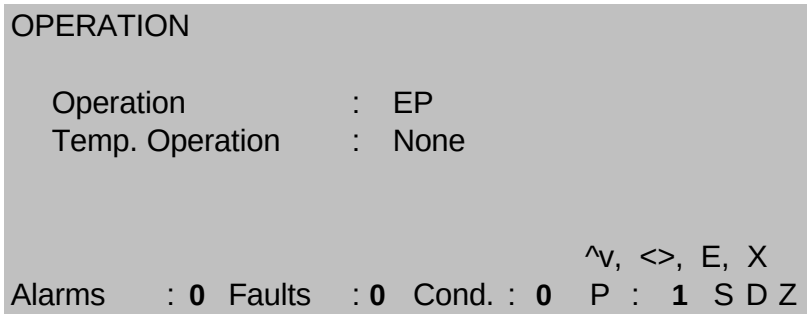
☑ Confirm entry

The language used by the FP1200/2000 is displayed. The FP2000 language is set by the dip switch situated on the host power supply (*See Appendix A of the FP1200/2000 Installation and Commissioning Manual*).

The switch is read at restart, and cannot be changed during operation. A **temporary** language change can be set by means of the Language Menu. The temporary language will operate for 72 hours if not cancelled by the operator.

5.4.10 Operation menu

(OPTIONS, 2, ☑)



☒ Return to Options Menu Page 187

↕ Select the temporary operation

☑ Confirm entry

The operating options of the FP2000 is set by means of the dip switch situated on the host power supply (*See Appendix A of the FP1200/2000 Installation and Commissioning Manual*).

The switch is read at restart, and cannot be changed during operation.

A temporary operation "DEMO" can be set. The DEMO mode has the following effect:

1 Buzzer is disabled.
2 Tamper switch is ignored.
3 Memory Unlock switch is ignored.

The "DEMO" mode will operate for 72 hours if not cancelled by the operator. A restart also clears the "DEMO" mode.

5.4.11 Device protocol

(OPTIONS, 3, ☑)

```
DEVICE PROTOCOL

  Protocol      :  ARITECH 2000
  Loop          :  1
  LED`s/Loop    :  128
  LED Mode      :  blinking
                                          0..9, ^v, <>, E, X
Alarms     : 0  Faults    : 0  Cond. :  0    P  :   1   S D Z
```

☒ Return to Options Menu Page 187

The device protocol used by the FP1200/2000 can be viewed. The FP2000 protocol is set by the dip switch situated on the host power supply. (*See Appendix A of the FP1200/2000 Installation and Commissioning Manual)*

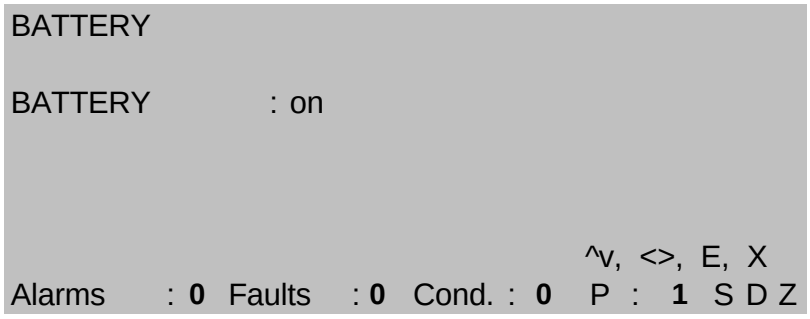
The Aritech 2000 protocol has a second line indicating a working mode; *please refer to the appropriate Detector Installation Manual*. The working mode can be on/off/blinking, relating to the 7-segment display on some Aritech Series 2000 detector models.

The Aritech 900 protocol has extra provisions for intrinsically safe devices.

LED's/Loop limits the number of LED's that can be simultaneously switched ON on a particular loop.

5.4.12 Battery On/Off selection (FP1200 Only)

(OPTIONS, 4, ☑)



☒ Return to Options Menu Page 187

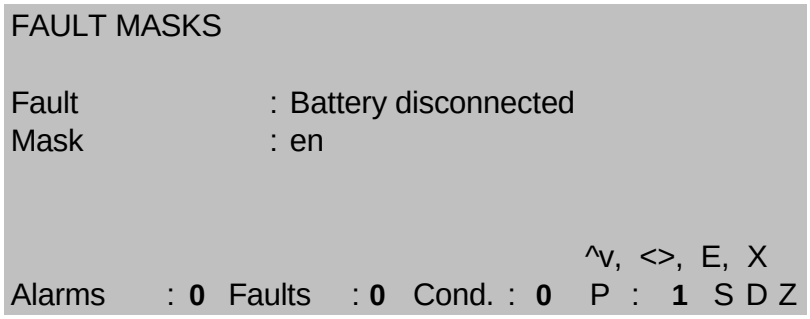
↕ Select Battery mode

☑ Confirm Battery ON / OFF (Unlock memory!)

By setting the Battery selection to OFF the panel ignores any battery connected to the FP1200 panel.

5.4.13 Fault Mask (FP1200 Only)

(OPTIONS, 5, ☑)



☒ Return to Options Menu Page 187

↕ Select Fault to mask

☑ Confirm fault

↕ Select Masking EN/DIS (enable/disable)

☑ Confirm masking (Unlock memory!)

The faults that can be masked are the Battery disconnected Fault and the Earth Fault.

Setting the Battery disconnected fault mask to EN, will set the panel to ignore any alarms generated by the supervised battery connection going down.

Setting the Earth Fault mask to EN, will set the panel to ignore any faults raised by the Earth connection.

5.4.14 Loop test 1

(MAINTENANCE MENU, 6, ☑)

```
LOOP TEST

Loop Test    :   General Loop Test
Start Test

                                          ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. :  0   P  :  1  S D Z
```

☒ Return to Maintenance Menu Page 179
⇤ ⇥ Move to required field
⇞ ⇟ Select test to be performed
☑ Confirm entry

5.4.15 Loop test 2

(MAINTENANCE MENU, 6, ☑)

```
LOOP TEST

Loop Test    :   Single Device on A Side
Addr.        :   1
Start Test

                          Numeric, A..z, ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. :  0   P  :  1  S D Z
```

For single device test, the menu changes to add the address field:

0..9 or ⇞ ⇟ select device address

The following loop tests can be performed:
General Loop Test
Overload
All devices on A side
All devices on B side
All devices on A+B sides
Single device on A side
Single device on B side
Single device on A+B sides
Power on A side
Power on B side
Power on A+B side

When testing "All Devices", a normal loop scan is done and the number of devices that respond is counted.

The General Loop Test includes:

- All devices on A side
- All devices on B side
- All devices on A+B sides
- Overloads

5.4.16 Loop test 1 – parameter screen 1

(LOOP TEST 1, START TEST, ☑)

When selecting "START TEST", loop and device parameters will be displayed on the screen.

LOOP TEST : General Loop Test

Lp	A	B	A+B	Ovld	Lp	A	B	A+B	Ovld
1	**25**	**25**	**25**	ok	**5**	**0**	**0**	**0**	ok
2	**0**	**0**	**0**	A+B	**6**	**90**	**0**	**90**	B
3	**0**	**0**	**0**	ok	**7**	**0**	**45**	**45**	A
4	**76**	**76**	**76**	ok	**8**	**7**	**7**	**7**	ok

<>, E, X

Alarms : **0** Faults : **4** Cond. : **1** P : **1** T D Z

Lp - Loop number
A - Loop side A
B - Loop side B
A+B - Loop side A+B
Ovld - Overload

5.4.17 Loop test 2 – parameter screen 2

(LOOP TEST 2, START TEST, ☑)

For "SINGLE" device test, the display will be as follows:

```
LOOP TEST    :   Single Device on A Side
   L Val Typ Adr St Ck  L Val Typ Adr St Ck
   1  48   2   1  0  0  5  0   0   0  0  0
   2  0    0   0  0  0  6  32  5   1  0  0
   3  0    0   0  0  0  7  0   0   0  0  0
   4  32   11  1  0  0  8  67  2   1  0  0
                                          X
Alarms     : 0  Faults    : 0  Cond. : 1  P  :  1  T D Z
```

L - Loop number

Val - Device analogue value

Typ - Device type (base type)

0 - NONE
1 - MCP
2 - OPT
3 - ION
4 - reserved
5 - OPT
6 - ION
7 - HEAT
8 - ICC
9 - I/O
10 - SIM
11 - ZMU
12 - MUL

Adr - Device address

St - Device state

0 - NO ALARM
1 - DEVICE IN ALARM

Ck - Device checksum *(Not implemented)*

5.4.18 Loop test 3 – parameter screen 1

(LOOP TEST 3, START TEST, ☑)

For controlling power supply to the loops, the display will be as follows:

```
LOOP TEST

Loop Test    :  Power on A side
Loop    :   1    2    3    4    5    6    7    8
            off  off  off  off  off  off  off  off
Start Test
                                              ^v, <>, E, X
Alarms    : 0  Faults   : 0  Cond. : 0   P  :  1   S D Z
```

Loop - Loop number, power on or off

Start Test - Activates the function as indicated

This function could be specifically useful in the controlling of power to the loop lines for the location of Earth Faults.

5.4.19 Fast Compensation

(MAINTENANCE MENU, 7, ☑)

Returns Automatically to Maintenance Menu Page 179

This function will allow the panel to use a fast compensation algorithm to compensate quickly according to the current analogue values of the smoke detectors. It may be particularly useful in the event of clearing all device statistics when there may already be devices that are highly compensated. With no compensation applied, these devices may be very sensitive and prone to nuisance alarms.

5.4.20 Main menu

(MAIN MENU, 6, ☑)

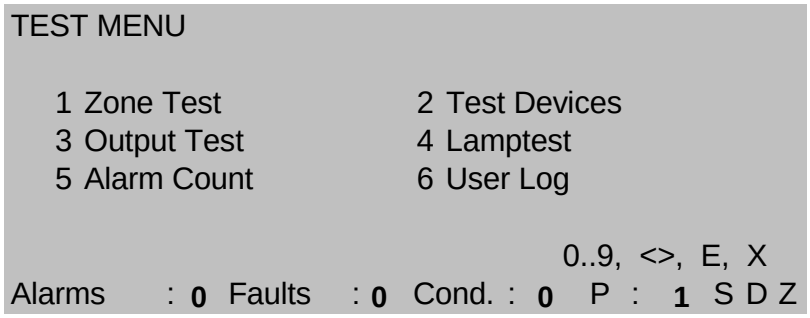
```
MAIN MENU

   1 System                    2 Devices
   3 Input/Output              4 Events
   5 Maintenance               6 Test/Disable

                                        0..9, <>, E, X
Alarms      : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

Selecting OPTION 6 (Test/Disable) on the Main Menu will display the message "Use dedicated Test and Disable Keys".

By pressing the corresponding key on the front panel, one enters the Test and Disable Menus.

5.5 Test menu

Push front panel TEST button



Select number or use ⇤ ⇥ and press ⇤ ⇥

✕ Return to menu that was displayed prior to Test being pushed.

1 Zone Test
Page 200

Zone test
Test report
Clear test results
Exception report

2 Test Devices
Page 207

Perform Device Self Test

3 Output Test
Page 208

Test the Sounder, Fire Brigade, Fault Routing and Fire Protection outputs

4 Lamp Test
Page 209

Test the front panel LEDs

5 Alarm Count
Page 210

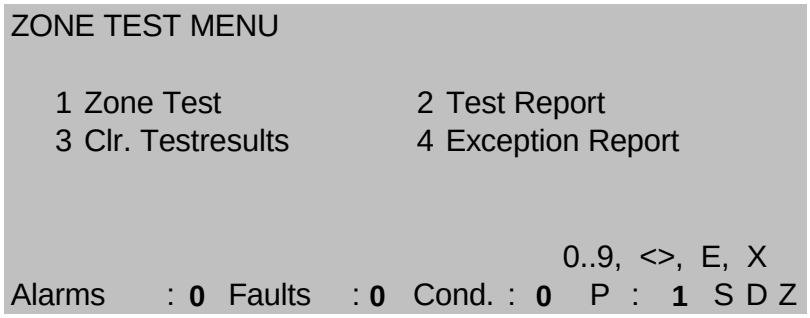
Displays the number of recorded alarms

6 User Log
Page 211

Allows the user to enter a code between 1 and 9999

5.5.1 Zone test menu

(TEST MENU, 1, ☑)



Select number or use ⇤ ⇥ and press ☑

☒ Return to Test Menu Page 199

1 Zone Test Page 201
Select up to four zones to test

2 Test Report Page 202
Generate a test report of zones that have been tested

3 Clr. Test Results Page 204
Clear the zone test results

4 Exception Report Page 205
Generate a report of devices that have failed the zone test or devices that were not tested.

5.5.2 Zone test

(ZONE TEST MENU, 1, ☑)

```
ZONE TEST
                Start  : dd/mm hh:mm
Zone   : 0              00/ 00  00: 00
Zone   : 0              00/ 00  00: 00
Zone   : 0              00/ 00  00: 00
Zone   : 0              00/ 00  00: 00
                                    0..9, ^v, <>, E, X
Alarms      : 0  Faults    : 0  Cond. : 0    P  :  1   S D Z
```

☒ Return to Zone Test Menu Page 200

⇤ ⇥ Select a new zone entry to start test or to cancel test

⇞ ⇟ or 0..9 to select the zone number

☑ Confirm entry

Up to four zones can be simultaneously tested. The test is performed as a "one man walk test", whereby the device being tested will indicate a fire condition and then automatically reset when the fire condition is cleared. No operator intervention is required at the panel. A single person can test each device in the zone by simply observing the device LED.

To cancel a test, enter Ø for the zone being tested. It is possible to cancel the test if any device in the zone is in a fire condition. The devices that are still in fire can be observed in the exception report.

Zones that are in test are indicated by the fault lamp of the zone being steady on. The common test lamp is also illuminated. The zone is effectively isolated and no output switching will occur for any fire condition in the zone.

Devices that can be tested in a zone are:

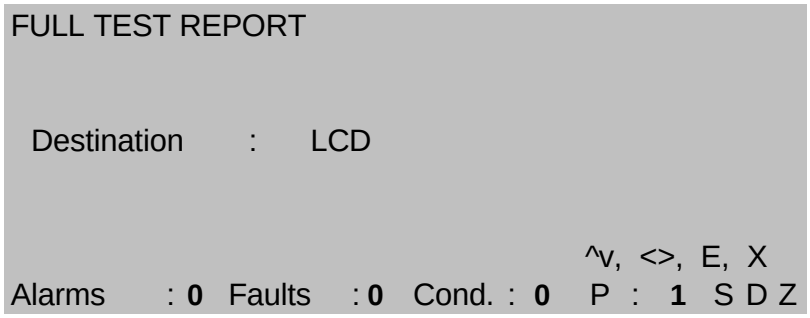
Smoke and heat detectors
Manual call points
Zone monitor units and control unit monitors

A full report of the tested zone or an exception report (those devices that were not tested or failed the test) can be obtained from the panel.

When a zone is enabled for test, the previously held test report for that zone is cancelled, and the new report is begun.

5.5.3 Full test report

(ZONE TEST MENU, 2, ☑)



☒ Return to Zone Test Menu Page 200

↕ Select the report destination

☑ Confirm entry

The full test report is displayed/printed to the selected device. The test report shows all testable devices *(see Page 200)* and the pass/fail result of the device.

The test report of each zone of the fire panel is held indefinitely unless it is cleared by Clear Test Results *(Page 204)* or the report is superseded by a new zone test report.

See Page 203 for the report format of the LCD screen.

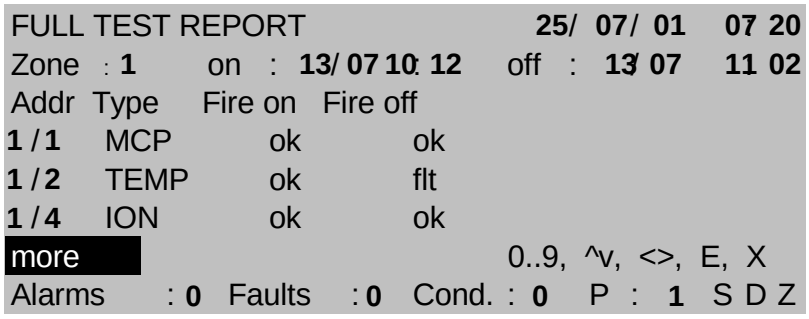
The devices where the report can be generated are:

↑ LCD screen
Report printer
Event printer

↓ none

5.5.4 Test report [LCD]

(FULL TEST REPORT, LCD, ☑)



☒ Return to Zone Test Menu Page 200

⇤ ⇥ Select zone/Addr.

Zone selected:

Enter 0..9, ☑ or use ⇞ ⇟ to select zone

Address selected:

⇞ Scroll screen up

⇟ Scroll screen down

The full test report is listed in order of zone and loop/address. The cursor will toggle between zone and address. The screen can be scrolled when ‘Addr.’ is selected with the cursor.

The screen will show the following:

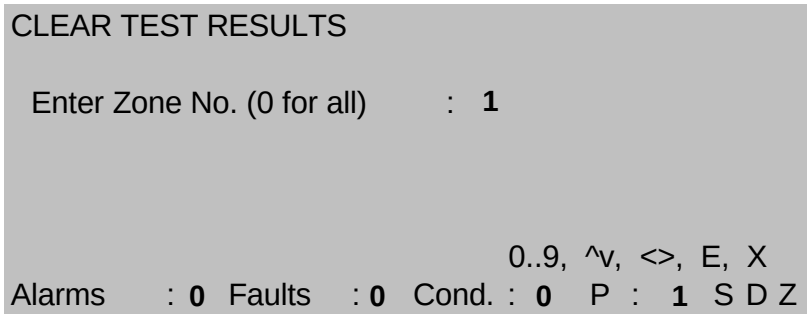
- The zone number of the test report
- The date and time the test was started
- The date and time the test was finished
- A list of the testable devices

The devices that successfully entered into a fire condition are marked "OK" under the "FIRE ON" column, otherwise they are marked as "FLT". When the device returns to normal from the fire condition, it is flagged "OK" under the "FIRE OFF" column.

The LCD screen is not a dynamic display and shows the conditions at the time of acquiring the report. To obtain an update of the screen, the user should exit and re-enter this menu.

5.5.5 Clear test results

(ZONE TEST MENU, 3, ☑)



☒ Return to Zone Test Menu Page 200

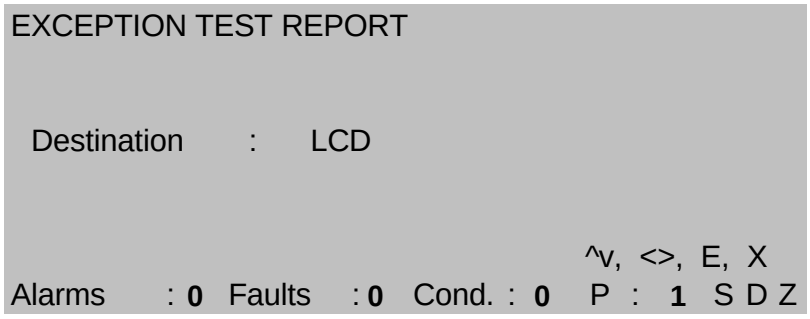
Enter 0..9 or use ↑ ↓ to select the zone (0 = all zones)

☑ Confirm entry

The test report of the selected zone(s) is cleared. All devices marked "OK" are set to "FLT" *(see Page 203)*. The exception test report will contain the full list of testable devices flagged as "FLT".

5.5.6 Exception test report

(ZONE TEST MENU, 4, ✓)



✕ Return to Zone Test Menu Page 200

↑ ↓ Select the report destination

✓ Confirm entry

The exception report is displayed/printed to the selected device. The test report shows all that have either not been tested or failed the test.

The exception test report of each zone of the fire panel is held indefinitely unless it is cleared by Clear Test Results *(Page 204)* or the report is superseded by a new zone test report.

See Page 206 for the report format of the LCD screen.

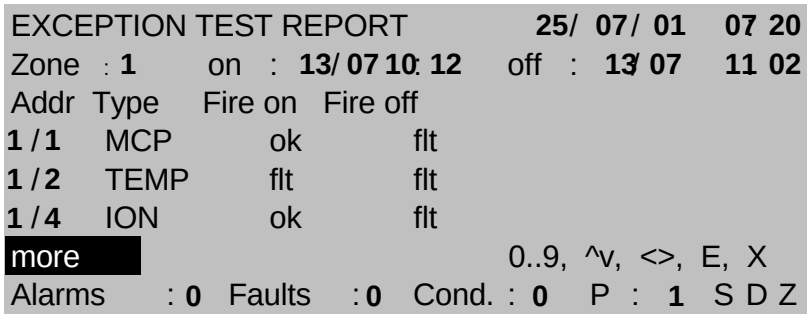
The destinations to where the report can be generated are:

↑ LCD screen
Report printer
Event printer

↓ none

5.5.7 Exception test report [LCD]

(EXCEPTION TEST REPORT, LCD, ☑)



The exception test report is listed in order of zone and loop/address. The cursor will toggle between zone and address. The screen can be scrolled when the 'Addr.' is selected with the cursor.

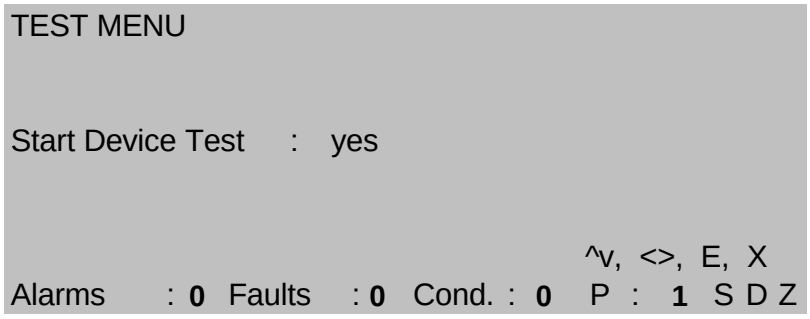
The screen will show the following:

- The zone number of the test report
- The date and time the test was started
- The date and time the test was finished
- A list of the testable devices that have failed or had not been tested

The LCD screen is not a dynamic display and shows the conditions at the time of accessing the screen. To obtain an update of the screen, the user should exit and re-enter the menu.

5.5.8 Test devices

(TEST MENU, 2, ☑)



☒ Return to Test Menu Page 199

☒ Toggle YES/NO for test

☑ Confirm entry

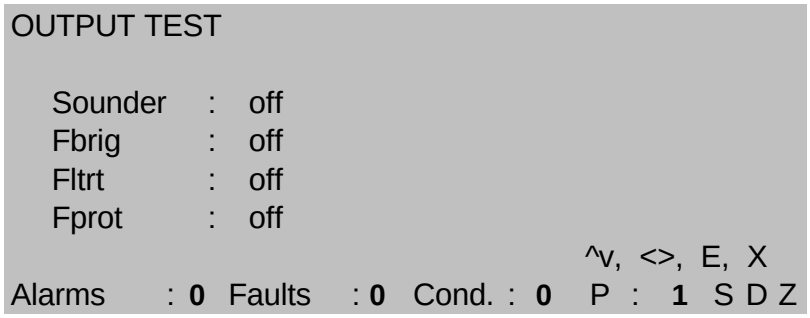
The devices on the loop are tested and the test values are updated. The loop driver is switched to the opposite side of the loop and polling occurs from that side.

The status of the FP1200/2000 changes from ‘Scanning’ (S) to ‘Test’ (T). The fire panel returns to ‘Scanning’ when the test is completed. Any devices returning test values below the alarm level threshold are reported as faults.

For automatic testing of devices, *See Test Times, Page 186.*

5.5.9 Output test

(TEST MENU, 3, ☑)



☒ Return to Test Menu Page 208

⇤ ⇥ Select Sounder Test/Fbrig Test

⇳ Toggle ON/OFF

☑ Confirm entry

The Sounder, Fire Brigade, Fault Routing and Fire Protection, outputs can be tested. The tested outputs are pulsed at once per second. This test remains active even if the user exits the menu. The tests are cancelled by toggling to OFF.

The outputs pulsed by Sounder Test are:

- the monitored Sounder output relay
- any internal relays linked to Sounder in the Output Menu
- all loop sounder circuit controllers set as a Device Output or Supervised Device Output and linked to Sounder in the Output Menu

The outputs pulsed by Fire Brigade Test are similarly:

- the monitored Fire Brigade output relay
- any internal relays linked to Fire Brigade in the Output Menu
- all loop sounder circuit controllers set as Device Output or Supervised Device Output and linked to Fire Brigade in the Output Menu

The outputs pulsed by Fault Routing are:

- the fault routing output relay
- any internal relays linked to fault routing in the Output Menu
- all loop sounder circuit controllers set as Device Output or Supervised Device Output and linked to Fault Routing in the Output Menu

The outputs pulsed by Fire Protection are:

- the fire protection output relay
- any internal relays linked to fire protection in the Output Menu
- all loop sounder circuit controllers set as Device Output or Supervised Device Output and linked to Fire Protection in the Output Menu

5.5.10 Lamp test

TEST MENU, 4, ☑)

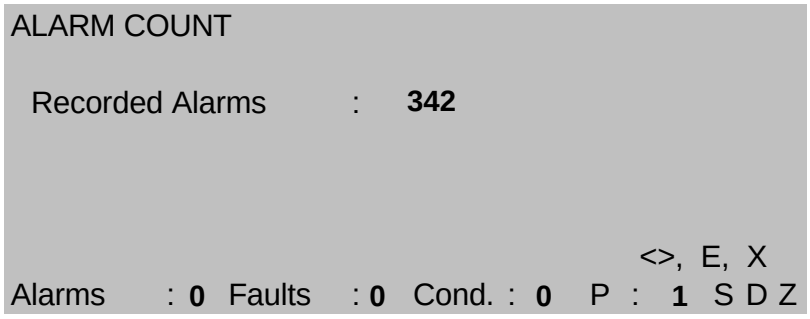
The LED lamps of the front panel are illuminated. The lamps are illuminated in blocks where each block is tested for one second.

Each time the ☑ button is pushed, the test is repeated.

The "Test 3rd Source" LED will not go on during Lamp Test, it has to be tested separately by means of pushing the appropriate button.

5.5.11 Alarm count

(TEST MENU, 5, ☑)

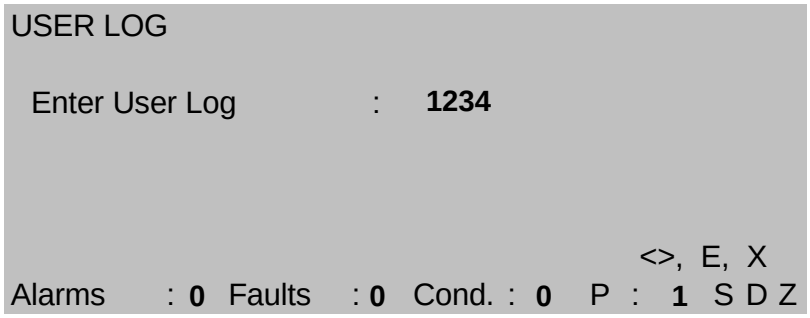


☒ Return to Test Menu Page 199

Displays the number of recorded fire alarms

5.5.12 User log

(TEST MENU, 6, ☑)



☒ Return to Test Menu Page 199

⇤ ⇥ Return to the beginning of the field

0..9 or ⇞ ⇟ to change value

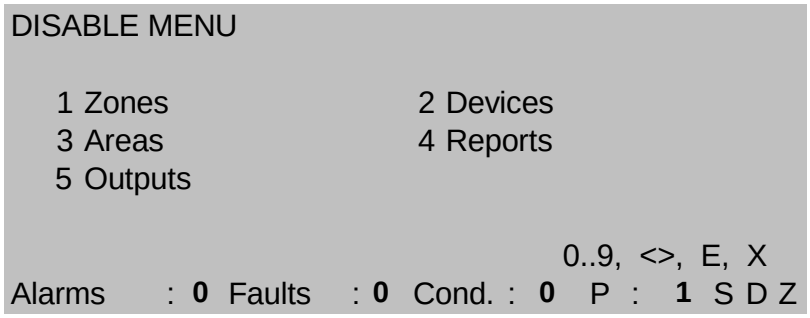
☑ Confirm entry

The user ID Code can be any number between 1 and 9999.

The user ID Code is logged in the Event Log.

5.6 Disable menu

Push front panel DISABLE button



Select number or use ⇤ ⇥ and press ✓

✕ Return to menu that was displayed prior to DISABLE button being pushed

1 Zones Page 213
Disable/Enable selected zones

2 Devices Page 214
Disable/Enable individual devices by
- alarm select
- manual select

3 Areas Page 217
Disable/Enable Areas

4 Reports Page 218
Obtain reports of disabled zones, devices and areas

5 Outputs Page 222
Disable/Enable fault routing and fire protection

5.6.1 Zone disable

(DISABLE MENU, 1, ✓)

ZONE DISABLE		I.S. Zone	:	dis
zone	: **1**	on/off	:	dis
Status	: en	Day/Night	:	dis
Mode	: Normal	Sounder Delay	:	dis
Area	: **4**	Fbrig Delay	:	dis
				0..9, ^v, <>, E, X
Alarms	: **0** Faults	: **0** Cond. : **0**	P :	**1** S D Z

✕ Return to Disable Menu Page 212

⇤ ⇥ Toggle between Zone and Status

For Zone field:

⇧ ⇩ or 0..9 select zone to be disabled/enabled

✓ Confirm entry

For Status field:

⇧ ⇩ select enable/disable

✓ Confirm entry

The selected zone is disabled/enabled from the system. A disabled zone will not report fires or faults occurring in the zone. The disabled zone is indicated by the zone fault lamp steady on, and the common disable illuminated. A disabled zone causes a fault condition.

Existing fire or fault conditions will not be cancelled when the zone is disabled. The fire or fault will be cleared, and not re-occur, when the panel is reset after the disablement.

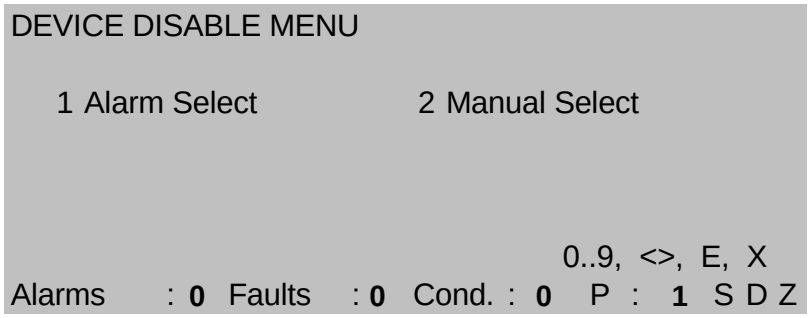
Disable does not electrically disconnect the device from the loop. Disable should not be used if maintenance is to be done on the loop or the devices. The loop must be physically disconnected in this case.

The Mode, Area, On/Off and Day/Night settings are displayed on this screen for information purposes only.

See Zone Menu (Page 109) for further information of the Zone Menu.

5.6.2 Device disable menu

(DISABLE MENU, 2, ☑)



Select number or use ⇤ ⇥ and press ☑

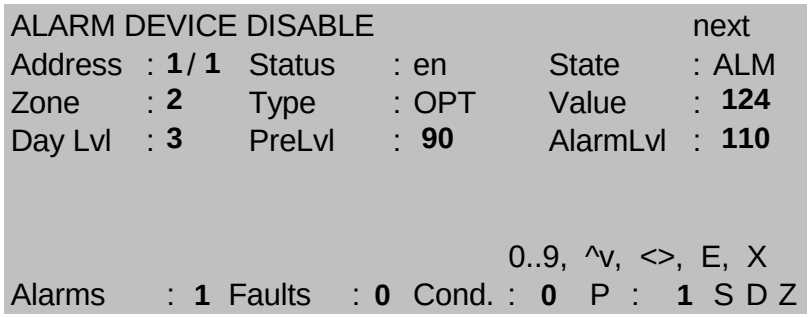
☒ Return to Disable Menu Page 212

1 Alarm Select Page 215
Disable/enable devices from the Alarm Screen

2 Manual Select Page 216
Disable/enable any loop device of the system

5.6.3 Alarm device disable

(DEVICE DISABLE MENU, 1, [X])



[X] Return to Device Disable Menu Page 214

[↕] Toggle between DISABLE/ENABLE/SOAK TEST

[✓] Confirm entry

This screen allows the disabling of devices currently in fire alarm or fault condition and enabling those devices already disabled.

*For disabling/enabling **any** device on the system, See Manual Device Disable Page 216*.

The most recent highest priority device in alarm is displayed. By moving the cursor to the 'next' field and pressing ENTER, the other devices in alarm may be selected. The status field is toggled to disable, soak test or enable. The current alarm condition is not removed until the fire panel is reset.

Disable does not electrically disconnect the device from the loop. Disable should not be used if maintenance is to be done on the loop or the devices. The loop must be physically disconnected in this case.

The zone, state, type and value are displayed for information purposes.

See Device Setup (Page 90) for further information.

5.6.4 Manual device disable

(DEVICE DISABLE MENU, 2, ✓)

```
MANUAL DEVICE DISABLE
Address  : 1 / 1   Status   : en      State    : NML
Zone     : 2       Type     : TEMP    Value    : 51
Day Lvl  : 3       PreLvl   : 90      AlarmLvl : 110




                                  0..9, ^v, <>, E, X
Alarms   : 0  Faults  : 0  Cond. : 0   P : 1  S D Z
```

✕ Return to Device Disable Menu Page 214

⇤ ⇥ Toggle Address and Status field

For Address field:

⇧ ⇩ or 0..9 select loop and address of device

✓ Confirm entry

For Status field:

⇧ ⇩ Toggle Disable/Soak test/Enable

✓ Confirm entry

Individual devices can be disabled, enabled, or placed in soak test mode.

A disabled device will cause a disabled condition. A zone disable condition occurs if **all devices** in that zone are disabled or if all but one are disabled when the zone is set to coincidence mode.

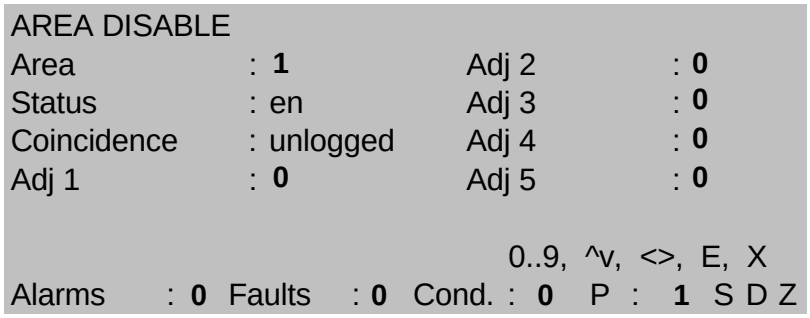
The current alarm condition of a device is not cleared until the panel is reset.

Disable does not electrically disconnect the device from the loop. Disable should not be used if maintenance is to be done on the loop or the devices. The loop must be physically disconnected in this case.

The zone, state, type and value are displayed for information purposes.

5.6.5 Area disable

(DISABLE MENU, 3, ☑)



☒ Return to Disable Menu Page 212

⇤ ⇥ Toggle between Area and Status

For Area field:

⇡ ⇣ or 0..9 select area to be disabled/enabled

☑ Confirm entry

For Status field:

⇡ ⇣ select enable/disable

☑ Confirm entry

The selected area is disabled/enabled from the system. A disabled area will still report fires or faults occurring in the area. Only I/O operation to or from the area is disabled.

Existing fire or fault conditions will not be cancelled when the area is disabled. The fire or fault will be cleared, and re-occur if they are still present, when the panel is reset.

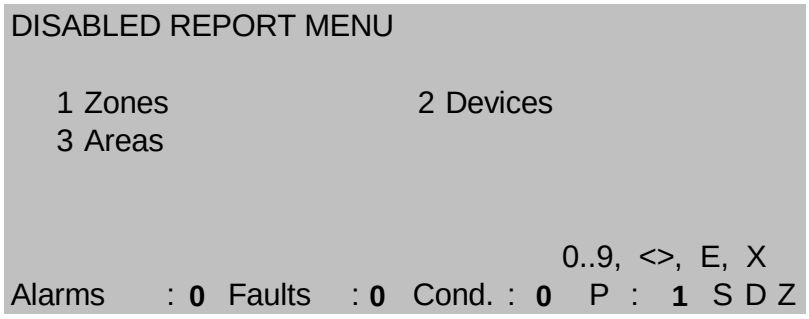
Disable does not electrically disconnect the device from the loop. Disable should not be used if maintenance is to be done on the loop or the devices. The loop must be physically disconnected in this case.

The Coincidence and Adjacent Area settings are displayed on this screen for information purposes only.

See Area Menu (Page 115) for further information of the Area Menu.

5.6.6 Disabled report menu

(DISABLE MENU, 4, ✓)



Select number or use ⇤ ⇥ and press ✓

✕ Return to Disable Menu Page 214

1 Zones Page 219
Report zones that are disabled

2 Devices Page 220
Report individual devices that are disabled.

3 Areas Page 221
Report areas that are disabled.

5.6.7 Disabled zones report

(DISABLED REPORT MENU, 1,)

```
DISABLED ZONES


 Destination      :     LCD


                                        ^v,  <>,  E,  X
Alarms     : 0  Faults     : 0  Cond. :  0   P  :   1  S D Z
```

Return to Disable Report Menu Page 218

Select destination of report

Confirm entry

A list of zones that are currently disabled is reported to the selected destination.

The report can be directed to:

LCD screen
report printer
event printer
none

When selecting the LCD screen as the destination, the report can be scrolled by using the and keys.

The screen format is shown below:

```
DISABLED ZONES                        25/07/01  07:35
Zone  Disablement
  3      Disabled
  7      Disabled



                                              ^v,  X
Alarms     : 0  Faults     : 0  Cond. :  2   P  :   1  S D Z
```

5.6.8 Disabled device report

(DISABLED REPORT MENU, 2,)

```
DISABLED DEVICES


  Destination      :     LCD


                                                ^v,  <>,  E,  X
Alarms      : 0  Faults     : 0  Cond. :  0   P  :   1  S D Z
```

Return to Disable Report Menu Page 218

Select destination of report

Confirm entry

A list of devices disabled is reported to the selected destination.

The report can be directed to:

LCD screen
report printer
event printer
none

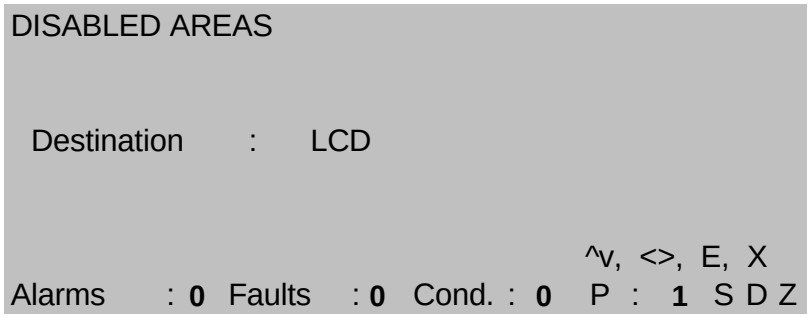
When selecting the LCD screen as the destination, the report can be scrolled by using the and keys.

The screen format is shown below:

```
DISABLED DEVICES                        25/07/01  07:35:12
Addr  Zone Type  Disablement
3/1      3   MCP  Disabled
7/1      5   OPT   Maintenance



                                                       ^v,  X
Alarms      : 0  Faults     : 0  Cond. :  2   P  :   1  S D Z
```

5.6.9 Disabled areas report

(DISABLE REPORT MENU, 3, ✔)



✖ Return to Disable Report Menu Page 218

↑ ↓ Select destination of report

✔ Confirm entry

A list of areas disabled is reported to the selected destination.

The report can be directed to:

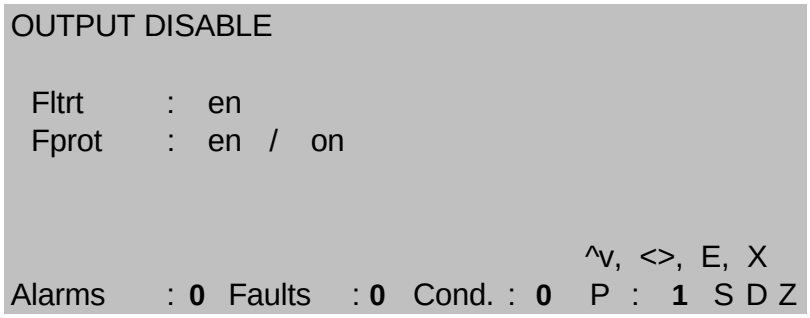
↑ LCD screen
report printer
event printer

↓ none

When selecting the LCD screen as the destination, the report can be scrolled by using the ↑ and ↓ keys.

5.6.10 Output disable

(DISABLE MENU, 5, ☑)



☒ Return to Disable Menu Page 212

⇤ ⇥ Select field

⇞ ⇟ Select Disable/Enable

☑ Confirm entry

The Fault Routing and Fire Protection Outputs can be disabled.

The second setting controls the “Löschlange ausgelöst” LED on the "Feuerwehr Bedienfeld". The “off” LED does not switch. The “on” LED follows Fire Protection Output.

6 APPENDIX A

6.1 FP1200/2000 panel menus

The following table gives the field numbers (access field) of the FP1200/2000 Panel's menus. The table also shows what FP1200/2000 Panel configuration is required for a specific menu to exist.

6.2 Description

Field Number or Access Field:

This is a word value (two bytes) that is used to distinguish between the different menus. This is also the value that is used by FP1200/2000 Communication Format message number 16 to change or read the access level of a specific menu remotely.

The field numbers in the table is intended to show the menu hierarchy.

Existence Option:

The existence of the different menus for four FP2000 Panel configurations is shown. The configurations are:

- Absence of Field Loops
- Local Repeater
- Global Repeater
- Panel

FieldNo.	Description	Existence			
		Panel Configuration			
		FIELD LOOPS ABSENT	Local Rep.	Global Rep.	Panel
0	System Menu	yes	yes	yes	yes
10	Configuration menu	yes	yes	yes	yes
50	Hardware Display	yes	yes	yes	yes
51	Memory Allocation	yes	yes	yes	yes
52	Identification	yes	yes	yes	yes
53	Communication Menu	yes	yes	yes	yes
110	Port Setup	yes	yes	yes	yes
111	Network Menu	yes	yes	yes	yes
200	Panels	yes	yes	yes	yes
201	Local Repeaters	yes	no	no	yes
202	Global Repeaters	yes	no	yes	yes
112	Modem	yes	yes	yes	yes
210	Modem Alarm Report	yes	yes	yes	yes
211	Modem Maintenance	yes	yes	yes	yes
212	Modem Setup	yes	yes	yes	yes
113	Pagers	yes	yes	yes	yes
114	LON Devices	yes	yes	yes	yes
54	System Setup	yes	yes	yes	yes
55	System Info	yes	yes	yes	yes
220	Allocation	yes	yes	yes	yes
221	Panels	yes	yes	yes	yes
222	L-Repeaters	yes	yes	yes	yes
223	G-Repeaters	yes	yes	yes	yes
224	System	yes	yes	yes	yes
225	Stack	yes	yes	yes	yes
226	Special Characters	yes	yes	yes	yes
227	Text Debugging	yes	yes	yes	yes
240	FEP	yes	yes	yes	yes
241	SER	yes	yes	yes	yes
242	Modem	yes	yes	yes	yes
243	ARC1	yes	yes	yes	yes
244	ARC2	yes	yes	yes	yes
245	LON	yes	yes	yes	yes
246	LON Characters	yes	yes	yes	yes
11	Access Menu	yes	yes	yes	yes
60	Access Codes	yes	yes	yes	yes
61	Field Access	yes	yes	yes	yes
12	Clear Site Data	yes	yes	yes	yes
80	Clear Devices Display	no	no	no	yes

FieldNo.	Description	Existence			
		Panel Configuration			
		FIELD LOOPS ABSENT	Local Rep.	Global Rep.	Panel
81	Clear Zones Display	yes	no	no	yes
82	Clear Areas Display	yes	no	no	yes
83	Clear Inputs Display	yes	yes	yes	yes
84	Clear Outputs Display	yes	yes	yes	yes
85	Clear System Display	yes	yes	yes	yes
86	Clear Loops Display	no	no	no	yes
87	Clear Logic Display	yes	yes	yes	yes
230	Clear Modem Display	yes	yes	yes	yes
232	Clear LON Devices Display	yes	yes	yes	yes
233	Clear All Display	yes	yes	yes	yes
13	Set Default	yes	yes	yes	yes
90	Default Devices Display	no	no	no	yes
91	Default Zones Display	no	no	no	yes
92	Default Areas Display	no	no	no	yes
93	Default System Display	yes	yes	yes	yes
94	Default Loops Display	no	no	no	yes
95	Default Configuration Display	yes	yes	yes	yes
96	Default Logic Display	yes	yes	yes	yes
97	Default Modem Display	yes	no	yes	yes
14	Set Times Menu	yes	yes	yes	yes
100	Set Date and Time	yes	yes	yes	yes
101	Output Delays	yes	yes	yes	yes
102	FBrig (Fire Brigade) Delay Off	yes	yes	yes	yes
103	Sounder Delay Off	yes	yes	yes	yes
104	Zones Off	yes	no	no	yes
105	Zones On	yes	no	no	yes
106	Day Mode	yes	no	no	yes
107	Night Mode	yes	no	no	yes
15	Restart	yes	yes	yes	yes
1	Device Menu	yes	yes	yes	yes
20	Device Setup	no	no	no	yes
21	Zone	yes	no	no	yes
22	Areas	yes	no	no	yes
23	Zone Graphics	no	no	no	yes
24	Device Graphics	no	no	no	yes
25	Zone Range	yes	yes	yes	yes
2	Input / Output	yes	yes	yes	yes
140	Inputs	yes	yes	yes	yes
141	Outputs	yes	yes	yes	yes
142	Logic	yes	yes	yes	yes

FieldNo.	Description	Existence			
		Panel Configuration			
		FIELD LOOPS ABSENT	Local Rep.	Global Rep.	Panel
143	Timers	yes	yes	yes	yes
144	Markers	yes	yes	yes	yes
145	Lon Devices	yes	yes	yes	yes
3	Event Menu	yes	yes	yes	yes
30	Display Events	yes	yes	yes	yes
31	Clear Events Display	yes	yes	yes	yes
32	Clear All Events	yes	no	yes	yes
4	Maintenance Menu	yes	yes	yes	yes
40	Maintenance Report Menu	no	no	no	yes
130	Device Values	no	no	no	yes
131	Maintenance Device	no	no	no	yes
41	Clear Device Statistics	no	no	no	yes
42	Hardware Test Display	yes	yes	yes	yes
43	Report (Maintenance) Times	yes	yes	yes	yes
44	Options	yes	yes	yes	yes
170	Language	yes	yes	yes	yes
171	Operation	yes	yes	yes	yes
172	Device Protocol	no	no	no	yes
173	Battery	yes	FR1200/2000	FR1200/2000	FP12xx
174	Fault Masks	yes	FR1200/2000	FR1200/2000	FP12xx
45	Loop Test	no	no	no	yes
46	Fast Compensation	no	no	no	yes
5	Test Menu	yes	yes	yes	yes
150	Zone Test Menu	no	no	no	yes
160	Zone Test	no	no	no	yes
161	Full Test Report	no	no	no	yes
162	Clear Test Results	no	no	no	yes
163	Exception Test Report	no	no	no	yes
151	Test Devices Display	no	no	no	yes
152	Output Test	yes	yes	no	yes
153	Lamp test Display	yes	yes	yes	yes
154	Alarm Count	yes	yes	yes	yes
155	User Log	yes	yes	yes	yes
6	Disable Menu	no	no	no	yes
120	Zone Disable	no	no	no	yes
121	Device Disable Menu	no	no	no	yes
180	Alarm Device Disable	no	no	no	yes
181	Manual Device Disable	no	no	no	yes
122	Area Disable	no	no	no	yes
123	Disabled Report Menu	no	no	no	yes

FieldNo.	Description	Existence			
		Panel Configuration			
		FIELD LOOPS ABSENT	Local Rep.	Global Rep.	Panel
190	Disabled Zones	no	no	no	yes
191	Disabled Devices	no	no	no	yes
192	Disabled Areas	no	no	no	yes
124	Output Disable	yes	yes	yes	yes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