



**ID1000 SERIES
FIRE ALARM PANEL
OPERATING MANUAL**

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Note: This manual applies only to panels with software versions:

1.33, or above, for Network Master Panels

3.33, or above, for Network Slave or Stand-alone Panels.

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Installation Precautions

Adherence to the following will aid in problem-free installation and a system with long-term reliability:

WARNING - *Several different sources of power can be connected to this fire alarm control panel.* Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until this manual is read and understood.

CAUTION - *System Re-acceptance Test after Software Changes:* To ensure proper system operation, this product must be tested after any programming operation or change in site-specific software. Reacceptance testing is also recommended after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, should also be tested and proper system operation verified.

This system may operate over the range of 0-49°C and at a relative humidity of 90% RH (non-condensing) at 30°C. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a nominal room temperature of 5-35° C.

Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning induced transients. Although no system is completely immune from lightning transients and interferences, proper grounding will reduce susceptibility. *Notifier does not recommend the use of overhead or outside aerial wiring due to the increased susceptibility to nearby lightning strikes.*

Disconnect mains power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, and printed circuit board location.

Do not tighten screw terminals more than 1Nm. Over tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static-suppressive packaging to protect electronic assemblies removed from the unit.

Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment.

Fire Alarm System Limitations

An automatic fire alarm system - typically made up of smoke detectors, heat detectors, call points, audible warning devices, and a fire alarm control with remote notification capability can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

Any fire alarm system may fail for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in walls, or roofs, or on the other side of closed doors.

Smoke detectors also may not sense a fire on another level or floor of a building. A second floor detector, for example, may not sense a first floor or basement fire. Furthermore, all types of smoke detectors - both ionisation and photoelectric types, have sensing limitations. No type of smoke detector can sense every kind of fire caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, children playing with matches, or arson.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building.

A fire alarm system will not operate without any electrical power. If mains power fails, the system will operate from standby batteries only for a specified time.

Rate-of-Rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist.

While installing a fire alarm system may make lower insurances rates possible, it is not a substitute for fire insurance!

Equipment used in the system may not be technically compatible with the control. It is essential to use only equipment listed for service with your control panel.

The most common cause of fire alarm malfunctions, however, is inadequate maintenance. All devices and system wiring should be tested and maintained by professional fire alarm installers following written procedures supplied with each device. System inspection and testing should be scheduled monthly or as required by National and/or local fire codes. Adequate written records of all inspections should be kept.

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1 INTRODUCTION

This manual applies only to panels with software versions:

1.33 and later (for Network Master Panels)

3.33 and later (for Network Slave or Stand-alone Panels).

Note: To find out your panel software version number, briefly press the TEST LAMPS button.

This manual contains instructions on the operation of the ID1000 Series range of Intelligent Fire Detection Panels. This is a very powerful and versatile range of Fire Alarm panels, each of which may be connected to up to two or four loops only of addressable analogue detectors and modules. In some installations, panels may also be connected together in a network of up to eight panels plus repeaters making a total of up to 32 stations.

The range of ID1000 Series panels, as supplied by NOTIFIER Limited, are designated as follows:

| | | |
|-------------|---|---|
| ID1002/16 | - | 2-loop, 16-zone Analogue Addressable Panel |
| ID1002/80 | - | 2-loop, 80-zone Analogue Addressable Panel |
| ID1004/80 | - | 4-loop, 80-zone Analogue Addressable Panel |
| ID1004/64NM | - | 4-loop, 64-zone Network Master Analogue Addressable Panel |

Each loop has the capacity for up to 99 analogue sensors plus up to 99 addressable modules. Details of the available sensor and module types are given in APPENDIX 1.

All panels have a powerful CONTROL MATRIX feature. This is a set of cross-reference instructions, stored in the panel's internal software, which determine exactly which control outputs (sounders, etc.), and in what manner, are to operate on the occurrence of any specific Fire Alarm input. Examples of the large range of options that may be configured in a particular panel include zoned evacuation patterns, operation of plant controls, pulsed sounder operation for alert purposes, sounders operating after a delay, or change of mode after a delay, so as to allow time for investigation, etc.

Although all the control and operation functions described in this manual can be carried out using the pushbuttons on the front of the panel alone, many of them can, on some installations, also be carried out by use of function keys on a remote VDU terminal, or by operation of remote switches (connected to Monitor modules situated on the loops). For each function, an indication is given as to whether it is possible by one of these other means.

Note 1: This manual does not cover details on the installation or configuration of ID1000 Series panels. For information on these topics refer to the ID1000 Series Installation and Commissioning Manual (997-340-000) and the ID1000 Series Programming Manual (997-340-003) respectively.

Note 2: Panel software upgrade procedures and panel software compatibility issues are described in the ID1000 Programming Manual (997-340-003) and ID1000 Upload/Download Software User Manual (997-340-005).

Note 3: Users of this manual are assumed to be working with a panel that has already been installed and configured appropriately for the area under its supervision.

1.1 Very Intelligent Early Warning (VIEW) Sensors

The ID1000 Series control panel is now capable of supporting the new laser-based VIEW sensor (LPX-751).

Some Cautionary Notes About Using VIEW Sensors

Each VIEW sensor has to be calibrated on first operation with the panel. This calibration is normally carried out automatically for each sensor, approximately 90 seconds after the panel is powered on or 60 seconds after the sensor is installed on a panel which is already operating normally (either by downloading the configuration file or by using the on-line menus). During this initial period, which is required to allow the VIEW sensor to stabilise, it must not be exposed to smoke or other abnormal conditions. Failure to observe this precaution may cause the panel to report a sensor fault.

Note: If a configured VIEW sensor is removed from the loop, or communication is otherwise disrupted for at least 30 seconds, it will be re-calibrated automatically. This means that if a VIEW sensor is removed and cleaned, OR replaced with another one, you must wait for a minimum of 30 seconds after removal before replacing it.

2 AUTOMATIC OPERATIONS OF SYSTEM

2.1 FIRE: Automatic Actions

If the system detects a fire alarm, the panel always carries out the following actions automatically:

- a) Operation of the internal (high-pitched) fire sounder.
- b) Flashing of red lettered FIRE annunciator lamp, numbered red ZONE lamp, and (in some events) red NEWALARM lamp.
- c) Display and printing (if printer installed) of the event.
- d) Operation of the fire transfer relay (for fire brigade alert).
- e) Operation of sounder circuits and remote Control modules according to the Control Matrix programme, which was configured in the panel when the system was commissioned.
- f) If any delayed operations are incorporated in the Control Matrix programme, a warning message appears on the text display every 4 seconds, indicating how much time is left until the first delayed control will be activated.

2.2 FIRE: Recommended Operator Actions

- a) Press MUTE INTERNAL SOUNDERS pushbutton. Additional information about the occurrence appears on the display. Flashing lamps change to steady operation. The internal fire sounder changes to intermittent operation (once every 12 seconds).
- b) Follow prescribed instructions for evacuation of premises, notification of Fire Brigade and investigation of source of Fire.
- c) If additional sounder operations are required in order to achieve a complete and immediate evacuation of the premises, press the EVACUATE pushbutton.
- d) Once evacuation of premises is achieved, or at the direction of an authorised person, the Alarm sounders may be silenced by pressing the SILENCE SOUNDERS pushbutton. If there are any delayed operations for which the timer has not yet expired, these are also cancelled by pressing SILENCE SOUNDERS.
- e) To re-start sounders after having pressed SILENCE SOUNDERS, press the SILENCE SOUNDERS pushbutton a second time. You must wait at least 10 seconds after having originally silenced sounders before exercising this option.
- f) When cause of alarm has been removed and call points and input devices have been locally reset, the system may be returned to NORMAL by pressing RESET pushbutton.

2.3 PRE-ALARM: Automatic Actions

This is the condition when one or more input devices has signalled a PRE-ALARM to the panel - i.e. a reading which is higher than normal but not yet at the FIRE level. The following actions are always carried out automatically:

- a) Operation of the internal (high-pitched) fire sounder, intermittently (once every 12 seconds).
- b) Flashing of amber PRE-ALARM lamp.
- c) Operation of those programmed control outputs which are associated with pre-alarm events, if there are any specified in the Control Matrix configuration.
- d) Display and printing (if printer is installed) of the event.

2.4 PRE-ALARM: Recommended Operator Actions

- a) Press MUTE INTERNAL SOUNDERS pushbutton. Additional information about the occurrence appears on the display. Flashing PRE-ALARM lamp changes to steady operation.
- b) Check condition of detector indicated and check area for possible fire. If the cause cannot be determined notify authorised Servicing company.
- c) Once cause of pre-alarm has been cleared press RESET pushbutton.

2.5 FAULT: Automatic Actions

In the event of a fault being identified the actions carried out are as follows:

- a) Operation of the internal FAULT buzzer (intermittently in the case of a CHARGER FAULT)
- b) Flashing of one or more amber FAULT lamps, including numbered amber ZONE Fault lamp(s) if appropriate.
- c) Operation of those programmed control outputs which are associated with fault events, if there are any specified in the Control Matrix configuration
- d) Display and printing (if printer installed) of the event (Note that only the point of origin for a sensor fault or a brief reference appears on the on the text display and certain panel internal faults will be identified only as 'SYSTEM FAULT xx' where 'xx' is a number of up to 2 digits.
- e) Operation of the fault transfer relay (for automatic alert to a service centre).

2.6 FAULT: Recommended Operator Actions

- a) Press MUTE INTERNAL SOUNDERS pushbutton. Additional information about the occurrence appears on the display. Flashing lamps change to steady operation. The internal fault sounder changes to intermittent operation (once every 2 minutes).
- b) If the green MAINS HEALTHY lamp is NOT lit, check for the presence of mains supply.
- c) If the fault relates to a specific sensor or module, investigate device to see if cause of fault is immediately apparent and can be corrected.
- d) In all other cases, note full description of fault and notify authorised Servicing company.
- e) Once cause of fault has been cleared press RESET pushbutton.

Note: If difficulty is experienced in reading the scrolling or static display messages, adjustment should be made as described in Section 3.6.

3 OPERATOR ACTIONS AT PANEL

3.1 The Panel Pushbuttons

There are 22 pushbuttons on the front of the panel. Five of these are for main controls of the system:

- MUTE INTERNAL SOUNDERS
- EVACUATE
- SILENCE SOUNDERS
- TEST LAMPS
- RESET

The remaining pushbuttons comprise:

- a) The digits 0 to 9
- b) Four 'arrow' keys
- c) Two dual-function keys labelled YES/ENTER and NO/CANCEL, and
- d) A special key labelled CONFIRM CHANGES which is used only during system configuration.

Note: The YES/ENTER key is referred to below sometimes as 'YES' and sometimes as 'ENTER' depending on the context; in either case the same key is referred to. The same applies to the NO/CANCEL key.

The functions of the main control pushbuttons, and other operations apart from programming the system, are detailed below. For information about programming the system refer to the ID1000 Series Programming Manual (997-340-003).

3.1.1 ENABLE CONTROLS Keyswitch

The panel pushbuttons are only functional if the appropriate key is inserted in the left-hand (when facing the panel) two-position keyswitch and turned clockwise to the ENABLE CONTROLS position. With the key in the 'disabled' position, i.e. the position that allows the insertion/removal of the key, or with the key removed, the CONFIRM CHANGES and NO/CANCEL function keys only are operable. Refer to the Installation & Commissioning Manual and Programming Manual for more details (997-340-000 and 997-340-003). Pressing any disabled function key will cause an internal beep and a refresh of the display.

3.2 Top Level Display

Except when some operator action is in progress, the built-in text display shows the following information:

| | | |
|---|--------|--------|
| (system status) | (date) | (time) |
| (blank) or (System Normal message) or (event) | | |

This is referred to as the Top-Level Display. The information shown on line 2 varies according to the status; it is either blank, or it shows the System Normal message (a site-specific message), or the location or nature of the most important recent event, in a static display mode. See Section 6 for descriptions of the displayed system conditions.

Most of the operator actions described below can only be initiated from this level of display (if the system is not at the Top-Level display, press CANCEL until it is). The exception to this rule is the CANCEL pushbutton itself which may be pressed at any time, regardless of the state of the display, except when the panel is asking for a YES/NO response (this exception arises from the dual function of the NO/CANCEL pushbutton). The main controls MUTE, EVACUATE, SILENCE SOUNDERS and RESET may also be pressed at any time. In each case, any operator action which was in progress at the time is aborted.

If the system is left with the display in any status other than the Top-Level display, and no key is pressed for 2 minutes, it reverts back to the Top-Level display, with any action in progress being aborted. The same happens if any Alarm or Fault, or any other significant change-of-state, occurs on the system.

3.3 MUTE INTERNAL SOUNDER

(This function is also possible from VDU or remote switch)

After an alarm or fault has occurred, pressing this pushbutton (or the appropriately-labelled VDU key or remote switch if available) will switch either the FIRE or FAULT internal sounder from continuous to intermittent operation: at 12 seconds interval in the case of the FIRE sounder and 2 minutes interval in the case of FAULT (if both sounders are sounding only the FIRE sounder operates intermittently, the FAULT sounder being silenced altogether). This mode of operation then continues until the system is RESET.

In addition, if the MUTE INTERNAL SOUNDER pushbutton *on the panel* was pressed, further information is given about the events which have occurred, in 'horizontal-scrolling' mode on the text display. In particular, those FAULTs which are identified at Top-Level display only as a SYSTEM FAULT with a number, are described in full at this stage. The most recent event is shown first, regardless of whether it is FIRE, PRE-ALARM or FAULT.

If more than one event is outstanding since the last time that the RESET pushbutton was pressed, you may step through the events by operation of the up or down arrow keys, 'down' to go backwards in time and 'up' to go forwards. The word MORE appears on the text display to indicate further events. Press the NO/CANCEL pushbutton to revert to the top-level display. If no key is pressed within two minutes the system reverts to top-level display automatically.

The MUTE pushbutton may be pressed at any time in order to review these events, not only when the internal sounders are operating.

As a special case, if the fault LOSS OF PART LOOP has occurred and has not been cleared, it is possible to obtain a detailed report on all the devices recorded as missing. Press ENTER at any time when the display is scrolling, and the system, if appropriate, displays:

**Log each missing device individually?
(Y/N)?**

If YES is pressed all the individual devices involved are reported with separate NO REPLY/MISSING messages (this will cause normal FAULT action to take place). The devices can then be reviewed by pressing MUTE again and stepping up and down through the events.

Note: If 'System Fault 40 - Main CPU Watchdog Operated' is indicated, it will also be necessary to press the SILENCE SOUNDERS pushbutton in order to mute the fault buzzer.

3.4 EVACUATE

(This function is also possible from the VDU)

Press this pushbutton (or the appropriately-labelled VDU key) to cause all sounders, etc., which are designated in the pre-programmed EVACUATE pattern, to operate. No further action is required until it is required to silence the sounders, in which case SILENCE SOUNDERS should be pressed.

Note: The RESET pushbutton will not function after EVACUATE is pressed. SILENCE SOUNDERS must be pressed first.

3.5 SILENCE (and RE-START) SOUNDERS

(This function is also possible from the VDU or remote switch)

Press the SILENCE SOUNDERS pushbutton (or the appropriately-labelled VDU key or remote switch if available) to switch off all external Alarm sounders which are operating as a result of a FIRE alarm or EVACUATE action. The internal FIRE sounder is NOT affected by this operation (except in the case detailed below), also if any external Control Modules have been programmed so as not to be silenced by SILENCE SOUNDERS, these too will not be switched off by this operation.

If, after having pressed this pushbutton, you want to start sounders again in the same pattern as they were previously operating, press the SILENCE SOUNDERS pushbutton once again. You must wait at least 10 seconds between silencing the sounders, and re-starting the sounders. Note that on re-starting the sounders, the internal fire sounder will also change back to steady mode of operation and you may have to press MUTE again.

In the exceptional case of a 'System Fault 40 - main CPU Watchdog operated' type fault, this pushbutton must be pressed followed by the MUTE INTERNAL SOUNDERS pushbutton, in order to mute the fault sounder.

3.6 TEST LAMPS and Display Control

By pressing the TEST LAMPS pushbutton momentarily, the panel lamps will be tested in sequence, one row at a time being briefly illuminated. The internal FIRE sounder, and then the FAULT sounder, (but not remote sounders) will also be tested momentarily. In addition the text display will briefly show the sign-on message including the product description and software version number.

If the pushbutton is held down for approximately 3 seconds, the following question appears on the text display:



Switch ALL lamps on (Y/N)?

If you answer YES all the lamps will be switched on and will remain on until CANCEL is pressed (see below). This test is normally required only for factory set-up of the panel.

Whether you answer YES or NO to the above question, the text display then changes to a scrolling 'quick brown fox' test message. The ↑ and ↓ keys may now be used to adjust the Liquid Crystal Display (LCD) contrast to suit the viewing angle. Once satisfied with the display, press the NO/CANCEL pushbutton.

Should the system be running on batteries only, i.e. with a MAINS FAILURE indicated and the MAINS HEALTHY lamp off, those lamps which are lit to indicate alarms and faults will appear to flicker rapidly. This is an intentional design feature to extend battery support time and it should also be noted that under this condition the length of time during which the LCD display is backlit is also curtailed.

3.7 RESET

(Also possible from VDU or remote switch)

Press this pushbutton (or the appropriately-labelled VDU key or remote switch if available) to reset the system completely (except after an EVACUATE operation). Provided that no FIRE, PRE-ALARM or FAULT conditions remain uncleared in the system, all FIRE, PRE-ALARM and FAULT lamps are switched off, all sounders cease to operate (either steadily or intermittently), and the status returns to NORMAL. Some internal tests are also carried out: they will be completed within about 20 seconds.

External Control Modules will be switched off, even if they are programmed so as not to be silenced by SILENCE SOUNDERS.

If an Alarm, Pre-Alarm or Fault is still present when RESET is pressed, it will be reported as if it were a completely new event with appropriate annunciation.

3.8 Passcodes

For some of the actions described in this manual (i.e. MASKING of output devices, and over-riding of a remote MASK operation), a passcode is required. You will be asked for it at the appropriate time, by means of the message:



.....Password?

The passcode is a code of up to eight digits programmed into the panel during commissioning (see ID1000 Series Programming Manual for details). There are different levels of passcode available. However, for actions described in this Manual only the lowest level (level 1) is required. While you are entering the code only '*'s will appear on the display. Once the passcode has been entered the status indication (in the absence of any alarms, faults or masked devices) will show ENGINEER. During this time, the passcode need not be re-entered for further operations listed below which require it.

You may cancel the ENGINEER status, and thus prevent any other person from access for which a passcode is required, by pressing the NO/CANCEL pushbutton from the Top-Level display. The panel automatically carries out this cancellation if no key is pressed within any 2-minute period (in which case any uncompleted operator action will also be aborted).

3.9 System Test

To perform a system test press the '0' pushbutton (TEST). You may be given the choice of up to three options:

- a) Perform a ZONE WALK TEST
- b) Perform an individual CONTROL OUTPUT TEST
- c) Perform a SENSOR AUTOMATIC TEST

The first option is always available, but the other four are only available if the appropriate options are enabled in the panel configuration. If more than one option is possible, the panel displays one of the following as appropriate:

0=Zone Walk Test/1=Output Test:

or

**0=Zone Walk Test/1=Output Test/
2=Daily automatic test NOW:**

or

**0=Zone Walk Test/1=Output Test/
2=Weekly automatic test NOW:**

or

**TEST: 0=Zone Walk Test/1=Output Test
/2=Replace Sensor**

or

**TEST: 0=Zone Walk Test/1=Output Test
/2=Auto-test NOW/3=Replace Sensor**

To carry out a walk-round test of sensors or MCPs, select '0' and see Section 3.9.1. To carry out a Control Output test select '1' and see Section 3.9.2. To perform the daily or weekly sensor automatic test select '2' and see Section 3.9.3. To perform a VIEW sensor recalibration after its replacement, select '2' or '3' as appropriate.

3.9.1 Zone Walk Test

If the panel is a member of an ID1000 Series panel network, and if testing of zones on other panels on the network has been enabled in the configuration, the display will now show:

TEST MODE: SLAVE no. (0=MASTER): n

You will need to know the number of the panel at which you wish the test to be conducted. However, the digit 'n' indicates the local panel (i.e. the one you are currently standing next to), and to perform a test at this panel simply press ENTER.

The above question is omitted if the panel is not part of a network, or if network tests are not permitted on this installation.

If devices on the system are grouped into more than one zone the display will next show:

TEST MODE: Enter Zone number:

Type in the number of the zone you want to operate the test in (NOTE only one zone at a time can be in TEST mode), then press ENTER. The display then shows:

TEST ZONE (n): Confirm (Y/N)?

Press YES and the first stage of the system test is carried out. This consists of a remote automatic fire simulation control, applied to each of the sensors in that zone, with the panel verifying that each detector responds correctly. During this stage (which last a few seconds), only failures registered during this test are reported.

Subsequently the text display shows '**ZONE n IN TEST**' where 'n' is the zone number. The panel ZONE IN TEST lamp is also switched on (steady). In this condition, you may apply Fire conditions to any sensor in that Zone (either by applying smoke or heat as appropriate, or by operating the sensor's internal test switch by means of a magnet). You may identify the sensors in the Zone under test because their Light-emitting-diodes (LEDs) will be illuminated periodically for 1 second pulses (this is in addition to the rapid flashing due to normal data scanning). Manual Call Points are tested by use of the test key.

Each test operation is logged in the Event History, recorded on the printer (if fitted) and displayed. In the case of analogue sensors correct operation may be verified by observing that the sensor's LED changes to steady ON status, returning to pulsing mode about 5 seconds after the test condition is removed.

In the case of a Manual Call Point test the appropriate sounder outputs are activated (according to the specified test requirements), either for approximately one second, or for as long as the call point test key is left in (depending on configuration). Only the internal sounder circuits and outputs designated as type BELL are involved.

A test may be applied to any point any number of times; test alarms are auto-resetting. Wait at least 5 seconds before re-testing a device.

To cancel testing press pushbutton '0' once more, and again select '0' in answer to the question as described in Section 3.9 (if given). The display shows:

CANCEL TEST MODE (Y/N)?

Press YES and the system returns to normal operation. This action must be carried out before another zone can be put into Test mode.

Test mode is also cancelled if a FIRE is detected in another Zone, or if the walk round test is not completed within the time limit specified for the installation (normally 2 hours).

3.9.2 Control Output Test

This is a facility to select an individual Control Output and activate it without putting the whole system into alarm or walk test mode. This function is only available if it has been enabled in the configuration of the panel. If it is, press key '0' as detailed in Section 3.9 above, followed by '1' to select the option Output Test. The panel now displays:

**Control Output Test:
0=CMX/1=Sounder 1 /2=Sounder 2:**

3.9.2.1 Control Output Test: CMX Modules

If you select 0 in response to the prompt described in 3.9.2, you are then asked further questions in order to specify which remote Control Module (CMX) you require. The first is:

Choose from ZONE no. (0=ALL)?

If you know which zone the module is in, key in that zone number followed by ENTER, else press just ENTER to enable a scan through all zones.

The system then displays:

Use ↑ ↓ to step up/down, ENTER to select

Press ↑ or ↓ (both these keys auto-repeat if held down) until details of the module you want are shown, then press ENTER. The module can only be one which is present on the system - note that existing devices need not be numbered consecutively. If, while you are scanning up or down, you press neither arrow key for a second or two, the module location text (if programmed) also appears. If you already know the exact or approximate number of the module you want, type in that number (which must be in the range 1 to 399) followed by ENTER. As soon as you press a digit the prompt changes to show:

Module no. (1-xxx):

Once you have pressed ENTER, details of the existing module nearest in number to what you typed are shown, and you may then continue to step up or down from that point. Press ENTER a second time to finally select the module.

Note that input as well as output modules are scanned through - but only output modules (type BELL or CTRL) can be selected.

Once a module has been selected, the system displays:

**Mod. (n) Zone (n) (type)
Switch Module ON (Y/N)?**

if the module is not currently active, or:

**Mod. (n) Zone (n) (type)
Switch Module OFF (Y/N)?**

if the module is currently active.

Press YES to perform the test. In order to switch off the module quickly, simply press SILENCE SOUNDERS. However, if you do not want to silence sounders elsewhere, to remain on because of an Alarm or Evacuate condition, you will have to repeat the above sequence.

3.9.2.2 Control Output Test: Local Sounder Circuits

If you want to test one of the two local sounder circuits, press 1 or 2 in response to the prompt in Section 3.9.2. You are then asked:

Switch Sounder n ON (Y/N)?

if it is not currently active, or:

Switch Sounder n OFF (Y/N)?

if it is currently active.

Press YES to perform the test. In order to switch off the sounder quickly, simply press SILENCE SOUNDERS. However, if you do not want silence sounders elsewhere, to remain on because of an Alarm or Evacuate condition, you will have to repeat the sequence above.

3.9.3 Sensor Automatic Test

This option is only available if the panel is already configured so as to perform this test daily or weekly at a programmed time of day. This test differs from the normal walk test in that no part of the panel is taken off watch for more than a few seconds, and no operator intervention is normally required unless a fault is detected. There is normally no need to force the panel to undergo this test ahead of the scheduled time, but if you need to do so, press key '0', as detailed in Section 3.9, followed by '2' to select the option Weekly or Daily Automatic Test (the prompt indicates at what interval the automatic test is normally scheduled). The panel now displays:



Confirm (Y/N)?

Answer YES to start the test. The panel will revert to the normal top-level display, but with the message:



Weekly automatic test in progress

or



Daily automatic test in progress

on line 2 of the display (this message also appears when the test is in progress at the scheduled time) for as long as the test is under way (the length of time depends on the configuration of the panel, but will typically be 10-15 minutes).

Note: If you initiate a zone walk test (as described in Section 3.9.1), or if a FIRE is detected elsewhere in the system, while the automatic test is in progress, that test is automatically cancelled.

3.9.4 Replace Sensor

This option refers only to the VIEW sensor. If a VIEW sensor is removed from an existing operational loop, or communication with the panel is broken for a minimum of 30 seconds, recalibration will take place automatically.

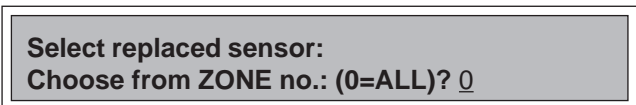
Note: If a VIEW sensor is removed and cleaned or replaced with a new one, you should wait at least 30 seconds after removal before replacing it.

VIEW sensors can also be recalibrated manually, either individually or an entire loop or panel at once. Press key '0' followed by key '2' or '3' (depending on other configuration options). You are then prompted for a 'configuration' passcode. Enter the passcode and the panel now displays:



0 = Individual/ 1= Entire Loop:

If you press '0' the panel now displays:



Select replaced sensor:
Choose from ZONE no.: (0=ALL)? 0

Select the VIEW sensor in the same way as any other individual sensor. You are prompted with the following:

Has sensor been replaced (Y/N)?

Answer YES to this prompt to complete the operation (remember that the VIEW sensor will be inoperative for the next 60 seconds after this step). The action is logged and if a printer is installed the following message is printed out:

sensor replaced

If you press '1' for entire loop the panel prompts:

Loop number (1-n; 0=ALL):

then

ALL sensors replaced, this loop (Y/N)?

Answer YES to complete the operation. Sensors will be inoperative for the next 60 seconds. The action is logged in memory or to the printer if fitted. After this operation has completed the following message is displayed:

ALL VIEW sensors replaced loop n

3.10 Setting the Clock

This operation is required after any Time Zone change, e.g. start/end of British Summer Time, and after the system has been fully powered-off (in the latter case the system will start-up at midnight on the last date on which it had been operating, or at the time when the clock was last reset, whichever was the later).

Press Pushbutton '3'. The clock display will be 'frozen', and the display will show:

SETTING CLOCK (date) (time)
Enter Year in Figures:

with the 'Year' field of the clock flashing on the display. The flashing value may be altered by keying in the correct setting followed by ENTER; if already correct, the value is left unchanged by pressing just ENTER. You need only enter the last two digits of the Year if the first two are already correct.

Then the same procedure is followed for Month, Day, Hour, Minute and finally Second. Note that the day-of-week is not entered by the user: instead it is calculated from the year/month/date. Also, when entering months, regardless of the fact that this is displayed in words, it must be entered in figures, i.e. 1 for January up to 12 for December. The hour must be entered in 24-hour form, with the hour between midnight and 1 a.m. being entered as '0'.

After 'seconds' has been entered the display shows:

SETTING CLOCK (date) (time)
CONFIRM TIME (Y/N)?

(Note that the time is still 'frozen'). Press YES to start the clock running at the precise time shown. Press NO to cancel the whole operation and return to the previous clock setting.

3.11 Display and/or Log Device Data

(This function is also available from the VDU terminal)

This function is used to continuously monitor the data value returned by a sensor or module. Values are shown as a percentage, scaled so that a sensor's nominal FIRE threshold reading is 100% (i.e. if the reading is 100% or above the sensor is in FIRE condition; if it is below 100% it is not). Since these values are scaled up from an internal digital value, at some places 'gaps' may appear in the scaling where the reading appears to jump by 2%.

Other facilities available are the option to set the sensor's LED indicator into 'pulsing' mode, and to set up a memory log of its data readout. See below for details.

Press pushbutton '2' (on the VDU press '8'). If operating from the panel, the display shows:



LOG/DISPLAY: 0=Devices/1=Events

The option required here is '0'. This step is omitted if operating from the VDU. The display then shows:



0=Display/1=Full Printer Dump:

The option required is '0'. The display then shows:



0=Sensors/1=Modules

Press the appropriate pushbutton, depending on whether you want to inspect Analogue sensors or Monitor/Control modules. If after examining Sensors you want to examine Modules, you must CANCEL the current operation and then re-enter it.

The next option is:



Choose from ZONE no. (0=ALL)?

Key in the specific Zone number followed by ENTER, in which case you may examine only devices in that zone, or just ENTER to select the default of ALL ZONES.

The system then displays:



**LOG/DISPLAY Device: Please select:
Use ↑ ↓ to step up/down, ENTER to select**

Press ↑ or ↓ (both these keys auto-repeat if held down) until details of the sensor or module you want are shown, then press ENTER. The device can only be one which is present on the system - note that existing devices need not be numbered consecutively. If, while you are scanning up or down, you press neither arrow key for a second or two, the device location text (if programmed) also appears. If you already know the exact or approximate number of the device you want, type in that number (which must be in the range 1 to 399) followed by ENTER. As soon as you press a digit the prompt changes to show:

LOG/DISPLAY Device: Please select:-
Sensor no. (1-xxx):

or

LOG/DISPLAY Device: Please select:-
Module no. (1-xxx):

as appropriate. Once you have pressed ENTER, details of the existing device nearest in number to what you typed are shown, and you may then continue to step up or down from that point. Press ENTER a second time to finally select the device.

Then, in place of the location text, the display shows on line 2:

Sens. (n) Zone (n) (type)
NOT LOGGED ... present value xx%

or

Sens. (n) Zone (n) (type)
BEING LOGGED ... present value xx%

the value being continuously updated. The 'LOGGED' message indicated whether a memory log is currently set up for that sensor (at start-up, all devices are NOT logged).

If operating this function from the VDU, the value is displayed as you step up and down the devices. Note that the value is **not** continuously updated in this case, however a fresh reading may be observed by using the up and down arrows alternately to select the next device and then return to the one in question.

To return to the 'standard' display, press CANCEL (on VDU press ctrl/X). Alternatively, you may continue to use the up and down arrows to examine other devices' data.

The LED pulsing option is only available from the panel keypad, and is a means of assisting with identifying a sensor in the field. Press ENTER during continuous data display of the appropriate sensor. The display shows:

Sens. (n) Zone (n) (type)
1sec pulses, this device's LEDs (Y/N)?

Press YES and the LEDs of that device will pulse in a 1 second ON/1 second OFF mode. See below for explanation of the DATA LOG question which is next asked.

If the LEDs of this device were already pulsing, you may stop this by repeating the above procedure: in this case the question asked is:

Sens. (n) Zone (n) (type)
Stop pulsing this device's LEDs (Y/N)?

As an alternative, RESET may be pressed.

The logging facility applies only to analogue sensors and is a means for storing in memory at regular time-intervals the data reading from the device. It is intended for use in conjunction with the ID1000 Series remote configuration program which runs on an IBM-compatible personal computer. This program incorporates a facility for retrieving this stored data and generating an ASCII file which may be imported into several commonly-available spreadsheets.

To set up a data log (panel keypad operation only), answer the question about pulsing the device's LEDs. The display then shows:

**Sens. (n) Zone (n) (type)
Set up/amend DATA LOG (Y/N)?**

Answer YES and the display then shows:

**(just ENTER to cancel logging)
Interval (sec.):**

Key in the required recording interval: a whole number of seconds, permitted range 1 to 16383 (just over 4.5 hours), then press ENTER. If you just want to terminate logging for that sensor and release the memory allocated, just press ENTER. In the former case, the display then shows:

**Sens. (n) Zone (n) (type)
Store Capacity (1-5000)?**

Key in the number of data values to be stored. To calculate the total logging period multiply this by the 'Interval' already entered. The display then shows:

Confirm (Y/N)?

to which YES should be answered to complete the set-up, NO to cancel the whole procedure. The maximum store capacity depends on the available memory and if another sensor is already being logged, less than the maximum of 5000 values may be available. Up to 28 sensors may be logged simultaneously, with a combined total of up to 5000 values stored at one time. For each logged sensor, once allocated memory is filled, logging continues with the oldest data being discarded.

3.12 Printout of Device Data

(This function is also available from the VDU terminal)

This option is the means of obtaining a complete or partial printout of all the devices on the system, including current readings and status. If a printer is installed, press pushbutton '2'. The display shows:

**LOG/DISPLAY: 0=Devices/1=Events:
2=PRINTER control: _**

The option required here is '0'. The display then shows:

0=Display/1=Full Printer Dump:

This time, the option required is '1'. The display then shows:

0=Sensors/1=Modules

Press the appropriate pushbutton. Sensors and Modules must be printed out as separate operations. Three further options are provided:

Choose from ZONE no. (0=ALL)?

Key in the specific Zone number followed by ENTER, to print only the devices in that zone, or just ENTER to select the default of ALL ZONES. In the case of the latter the display then shows:

Print ONLY if value above (%)? 0

Key in the desired minimum value (expressed as a percentage) followed by ENTER, or press just ENTER to select the default of ALL values. This is a means of selectively printing only those devices with an unusually high reading. In normal conditions values should be below 60%.

If you press just ENTER in response to the above question, you are given a further option:

**Print only MASKED devices?
(0=NO, 1=YES):**

or, on a Network Master panel:

**Print only MASKED devices (ALL stns.)?
(0=NO, 1=YES):**

If you select 1 for 'YES' then only MASKED devices are printed. In the case of this option only, if the panel is the Master Panel on a Network system, any masked devices connected to the Slave panels are also printed. This is the only occasion on which a list of devices at another panel can be obtained.

Note that only one of the above special options at a time can be selected, i.e. you cannot print out selectively both by specific Zone and by specific value threshold, etc.

The printout will list, in addition to configuration details about each device and its current reading, indications of any device that is MASKED and any device that is MISSING (i.e. registering a NO-REPLY fault).

You may abort the printout subsequently by pressing CANCEL (on the VDU: by pressing any key); it will also be aborted if any new alarm occurs in the meantime.

3.12.1 Printer Control Modes

Selection of option '2' offers a choice of three printer control modes as displayed below:

0=Normal/ 1=Hold/ 2=Disable: 0

The panel always powers-on with the printer in 'Normal' mode. Selection of option '1' allows the printout data to be held in memory but without being printed. When option '2' is selected, the printout data will not be printed and is discarded.

During panel mains failures, the printer status is equivalent to being in 'Hold' mode. However, if the printer is manually set to 'Hold', it does not revert to 'Normal' when the mains is restored.

All three modes are latched either until subsequently changed by the user or the panel goes through a power-up sequence.

3.13 Display and Re-Print Event Log

This is a means of examining the most recent past history of events on the system, up to the maximum recording depth of 600 events (once this capacity is reached, as new events are entered the earliest events are discarded). The format of display is the same as that which appears under the MUTE INTERNAL SOUNDER operation, but events prior to the last RESET may now also be reviewed; in addition non-alarm events (such as previous key operations) are included.

Press pushbutton '2'. The display shows:

LOG/DISPLAY: 0=Devices/1=Events

The option required here is '1' for 'Events'. Use the up and down-arrows to scroll through the events in sequence; press CANCEL to exit from this operation.

If you want to review events at or around a specific date and time, and provided such events have not been 'lost' by being over-written by more recent events, press ENTER while reviewing the events. The panel now displays:

DATE & TIME from which to review?
Wed 16-Aug-95 12:30:00 (use ↑ ↓)

where the date and time field initially show the time 'now' (*not* the time of the most recent event). The 'date' field will be flashing. Press ↓ repeatedly to step back a day at a time, ↑ to step forward. You cannot select a date later than 'today' nor earlier than the oldest event still recorded in the log (as the log becomes filled the oldest events are over-written). Then press ENTER whereupon the 'time' field will flash. Use the ↓ and ↑ arrows in the same way to step back and forward an hour at a time (times will be rounded to the nearest hour). When you press ENTER again, the first event which occurred *after* the selected time and date will be shown, and you can continue to step up and down through events as before.

The above-described process of selecting a date and time from which to review events, can be repeated as many times as you like.

If a printer is installed all events are printed out at time of occurrence. However, it is possible to obtain a repeat printout of a selection of all recorded events (up to the maximum of 600) spanning any time period. To do this, follow the above procedure until you have located the *first* event that you want to re-print, and it is on display in 'sliding' format. Now press ENTER and you will get the question **DATE & TIME from which to review?** as described above.

Press ENTER twice *without changing the date or time*, then the 'sliding' display of the event you had selected will re-appear along with the following prompt:

RE-PRINT Log from this point (Y/N)?

If you answer YES you will now be asked:

RE-PRINT Log up to when?
Wed 16-Aug-95 12:30:00 (use ↑ ↓)

You should select a date and time *after* the *last* event you want re-printed, using the same method as described above. If you press ENTER twice without changing anything, re-printing is carried out all the way up to the present time.

Note: When any portion of the event history is re-printed, the original sequence numbers of the re-printed events are also reproduced. This enables you to determine, on inspecting the printout, where the re-printed data ends and 'live' event logging re-commences.

3.14 Mask and Unmask

[This function is also possible from a remote switch (see Section 3.14.3) or programmed using the time-of-day function (see Section 3.14.4)]

If a device is 'MASKed', this means that although its conditions continue to be monitored a detected FIRE condition does not lead to Fire Alarm actions being taken. In addition certain FAULTs (in particular device missing and low data reading) do not lead to normal Fault action being taken. However, the primary purpose of MASKing a sensor is to avoid unwanted alarms of FIRE where exceptional circumstances prevail (note that the Fault buzzer sounds intermittently when any device is Masked).

If a Control module is masked, it is not activated in the event of an Alarm or Evacuate operation, even if the Control Matrix specifies that it is required to do so.

CAUTION: this facility was not supported by some earlier versions of software (prior to version 3.21). If your system has recently been upgraded, and there are modules MASKed in the system, you should pay particular attention to the masking schedule.

There is normally no time-out for MASKed devices: the masking is effectively permanent until cancelled by a subsequent UNMASK operation. Some systems, however, may be configured so that temporary MASKing (see Section 3.14.1) is automatically cancelled after a set time-out or at certain times of the day. Time-of-day controlled MASK and UNMASK are possible with software versions 3.32 and 1.32 using two new Control Matrix 'types' TRUE and FALSE.

Note: There are limits in using this feature, i.e. only one FLAG is supported per panel, meaning you cannot have two or more sets of zones set to different time-of-day schedules.

See the ID1000 Series Programming Manual (997-340-003) for more details.

The lamp indication and displayed status message (in the absence of any current FIREs, FAULTs, etc.) show whether any devices are MASKed on the system as a whole. In addition the fault buzzer sounds intermittently (every 2 minutes) as long as devices are MASKed: this mode cannot be completely silenced even by pressing RESET.

Note: In the case of a Network Master panel, these indications are shown if **any** panel of the network has devices masked, not just devices attached directly to the Master panel. On the Slave panels, however, the indication of masking is shown only if devices attached to the panel itself are masked.

There are two modes of operation: either a complete zone or an individual device. These are described in detail in the following sections.

3.14.1 Mask and Unmask - Complete Zone

To mask or unmask a zone of devices, press pushbutton '1'. The display shows:



MASK operation: Entire Zone (Y/N)?

Answer YES to MASK all the devices (subject to certain selection rules) in a zone. If more than one zone is configured, the display will then show:



MASK oper.: Enter ZONE no.:

prompting you to key in a Zone number followed by ENTER.

If you select a zone which has previously been masked by means of a remote switch, the system displays a warning message:

**ZONE n already masked by remote action:
to continue: Password?**

and you will need to enter a passcode to over-ride the remote switch action (if you have already entered a passcode for some previous operation you are simply asked to confirm your action).

The display then shows:

**Zone n: 0=Unmask/1=Mask Sensors Only/
2=Mask ALL Inputs/3=Inputs & Outputs.**

If you select the option '3' a passcode is required, but not for other MASK actions. UNMASK always operates on all devices in the zone, inputs and outputs, and requires no passcode. The panel then displays one of the following depending on your selection:

UNMASK ALL devices, zone n (Y/N)?

or

MASK SENSORS in zone n (Y/N)?

or

MASK ALL inputs, zone n (Y/N)?

or

MASK ALL devices, zone n (Y/N)?

If you choose to MASK devices, the panel then displays:

0=Temporary/1=Permanent:

Normally the temporary option should be selected: this causes devices to remain masked until a subsequent UNMASKing operation, or until the panel is switched off or undergoes a full power restart. The permanent option which corresponds to the system used in earlier software, leads to devices remaining masked even if the panel undergoes a power restart; furthermore masking in this mode can be saved and restored from a configuration file. If you select the latter, the system will return to the Top-Level display with the message:

Press CONFIRM CHANGES key

on line 2. You must press CONFIRM CHANGES to complete the MASKing operation in this case.

This will also be necessary when UNMASKing devices which have previously been masked in the permanent mode. Alternatively, pressing CANCEL at this point will cancel any permanent masking actions, or unmasking actions from a permanently masked state.

For some Network systems (dependent on configuration), there may be a facility, *available at the Master Panel only*, to perform a MASKing or UNMASKing action on a complete zone at a different panel on the network. If this feature is available, then at the Master Panel, when you enter the MASK/UNMASK procedure and select the ENTIRE ZONE option you are then asked:

MASK oper.:SLAVE no. (0=MASTER): n

Where the suggested value under the cursor is the number of the local panel. If you enter a different value - i.e. you select a panel other than the local one - you are then asked:

**Remote MASK at Slave n:
Enter Zone no.:**

to which you should enter the required zone number remembering that it refers to the *Slave* panel. Then the system displays:

0=Unmask/1=Mask:

Press 0 or 1 as required. Unlike when masking local zones, there is no option to specify whether sensors, all inputs, or input and outputs, are to be included. That is determined by the configuration of the Slave panel which you have selected. Also, only the temporary mode of masking is possible.

Note carefully the distinction between this facility, which can be initiated *only at the Master panel*, and the REMOTE TEST facility described in Section 3.9.1, which may be initiated at any panel on the network.

3.14.2 Mask and Unmask - Individual Device

To mask or unmask an individual device, press pushbutton '1'. The display shows:

MASK operation: Entire Zone (Y/N)?

Answer NO to this question. If there are already some devices masked on the system, the panel issues the following prompt:

**Select only from devices ALREADY MASKED
(Y/N)?**

Answering YES enables you to quickly find the device(s) that are currently masked.

You are then asked to select a device present on the system using the same procedure as for the Display/Log Device Data procedure (see Section 3.11). When you have found the device you want press ENTER.

If the device selected is in a zone which has previously been masked by means of a remote switch, the system displays a warning message:

**ZONE n already masked by remote action:
to continue: Password?**

and you will need to enter a passcode to over-ride the remote switch action (if you have already entered a passcode for some previous operation you are simply asked to confirm your action).

The display then shows:

(device description)
MASK (Y/N)?

if the device is currently not masked, and

(device description)
UNMASK (Y/N)?

if it is masked.

In either case, press YES to invert the current status: i.e. change from MASKED to UNMASKED or from UNMASKED to MASKED. If the device is an Output attached to a CMX module (logical types CTRL or BELL - but not CDI), and you intend to MASK it, you will be asked for a passcode (see Section 3.8) and only when this is correctly entered will the MASKing action be carried. Note that no passcode is required if you are UNMASKing the module.

If you are MASKing the device, the panel then requests you to choose between temporary and permanent mode as described in Section 3.14.1. See that section for further details.

3.14.3 Mask and Unmask - Complete Zone via Remote Switch

This function is only available if a remote switch is connected to a loop module which has been configured as anAUXILIARY type input, and this has been linked to a MASK operation on a particular zone or zones. See the ID1000 Series Programming Manual for details (997-340-003) on how to configure this option. It enables the use of a remotely-placed switch to mask and unmask zones without the need for access to the panel. Only complete zone masking, not individual devices, is possible by this means.

Operate the switch as indicated so as to mask the zone or zones according to the pre-programmed set-up. If the switch contains, or is adjacent to, an indicator lamp, this should light up when the mask operation has been completed. Release the switch so as to restore the zones to normal.

3.14.4 Mask and Unmask - Time-of-Day Control

Using the time-of-day function, input devices can be masked and unmasked as part of the panel configuration set up. This is done by creating appropriate entries in the Control Matrix - refer to Section 4.8 of the ID1000 Programming Manual (997-340-003).

4 OPERATOR ACTIONS AT VDU

If a VDU terminal is installed, some of the operator actions, listed in Section 3, are also possible from the keyboard of that VDU. Whether the four main controls (MUTE, EVACUATE, SILENCE SOUNDERS and RESET) are available or not, depends on the configuration of your particular system. See the ID1000 Series Programming Manual (997-340-003) for details.

You will be able to determine whether the main controls are available on your system by examining the bottom line of the VDU display. Only if there is a menu of function key actions, beginning with 'F10=MUTE...', are the controls available on your system; if not, the following four sections should be ignored.

Note that only the current overall status of the system is displayed on the VDU (as on line 1 of the LCD display), no date/time and no alarm point identification.

4.1 MUTE Internal Sounder

Press Function Key F10. The same MUTE operations as defined in Section 3.3 are carried out, but there is no 'scrolling' display and no review of other events outstanding.

4.2 EVACUATE

Press Function Key F12. The same EVACUATE actions as defined in Section 3.4 are carried out. Note that to subsequently SILENCE SOUNDERS you must press the appropriate pushbutton on the panel, the corresponding VDU key will not function.

4.3 SILENCE SOUNDERS

Press Function Key F14. Except following an EVACUATE operation (when initiated from the panel), this key will lead to the same SILENCE actions as defined in Section 3.5. After an EVACUATE action *initiated from the panel* (also with some installations an EVACUATE action initiated from any point) this key will have no effect.

Following 'System Fault 40', the SILENCE SOUNDERS and MUTE INTERNAL SOUNDERS pushbutton on the panel will silence the fault buzzer.

4.4 RESET

Press Function Key F16. The same RESET actions as defined in Section 3.7 are carried out.

4.5 Display/Printout Device Data

See Sections 3.11 and 3.12 for details.

5 NON-LATCHED INPUT OPERATION.

This function is only available if a remote switch is connected to a loop module which has been configured as an AUXILIARY type input, and this has been linked to specific outputs in the Control Matrix. See the ID1000 Series Programming Manual (997-340-003) for details on how to configure this option. It enables the use of a remotely-placed switch to switch on, temporarily, certain outputs without the need for access to the panel.

Operate the switch as indicated so as cause the sounders or other outputs to operate in the pre-programmed pattern. Release the switch so as to switch off the outputs.

Normally there will be no indication at the panel of these operations. However, some installations may be configured so that the text display shows the last such operation in a format similar to that used for other events. This will be one of the following:

| | | |
|---------------------------------------|---------------|---------------|
| (system status) | (date) | (time) |
| SET: (module description) AUX. | | |

if the switch referred to is still ON, or

| | | |
|---|---------------|---------------|
| (system status) | (date) | (time) |
| CLEAR: (module description) AUX. | | |

if it is now OFF. No other indication is shown on the panel.

6 STATUS SUMMARY

There are nine possible status conditions of the panel. The default is NORMAL which indicates the absence of any other condition. The other conditions are exceptions and more than one at a time may be present. If so, the first-mentioned one, in the following list, has priority as far as indications on the panel are concerned.

FIRE
PRE-ALARM
FAULT
DEVICE(S) MASKED
EVACUATE
TEST
ENGINEER
ENGINEER'S 'MUTE'
NORMAL

Additionally, the panel can display the selection of printer control modes, where a printer, such as the P40 and PRN1000, has been configured (refer to Section 6.1.10).

6.1 System Indications for Each of The Status Conditions

6.1.1 Panel 'NORMAL' Status

This is the condition of the panel when it is operational, and there are no uncleared FIREs or FAULTs, no part of the system is MASKED, and no TESTING or CONFIGURATION is being carried out. The indications of the panel and external equipment are as follows:

| | | |
|---------------------------------|--|-----|
| LAMP indications: | MAINS HEALTHY(green) | ON |
| | All other LAMPs | OFF |
| LCD: | <div style="border: 1px solid black; padding: 5px; display: inline-block;"> Status: NORMAL (date) (time) (blank) or: (system-normal message) </div> | |
| Internal sounders: | | OFF |
| Circuits Controlled Internally: | Sounder Circuits: | OFF |
| | FIRE, FAULT, EVACUATE transfer relays | OFF |
| External Devices: | All CONTROL MODULES should be | OFF |
| | - unless operated by an auxiliary action. | |

The built-in LED indicators on all sensors and modules should either give short pulses or be off altogether.

The 'system-normal message' is a text message specially customised for your installation, and may consist of an advertisement, such as an installer's name, or similar information.

6.1.2 Panel 'FIRE' Status

This is the condition when one or more input devices has signalled a FIRE to the panel. This condition continues to be shown until cleared by pressing the RESET pushbutton.

The occurrence may have been 'accepted' at the panel by pressing the MUTE INTERNAL SOUNDERS pushbutton, if so the status is still 'FIRE'.

The SILENCE SOUNDERS pushbutton may have been operated, if so the status is still 'FIRE'.

The indications of the panel and external equipment are as follows:

| | |
|--|---------------------------|
| LAMP indications: MAINS HEALTHY (green): | ON |
| Worded FIRE indication (red): | if not accepted: FLASHING |
| | if accepted: STEADY |

| | |
|---|---------------------------|
| Numbered zone indication(s) | |
| [for zone(s) where Fires have been detected - red]: | |
| | if not accepted: FLASHING |
| | if accepted: STEADY |

NEW ALARM indication (red) may be FLASHING (see below)

LCD:

| | |
|---------------------------|----------------------|
| Status: ** FIRE ** | (date) (time) |
| (location) (device type) | |

For approximately two minutes after Alarm accepted, line 2 shows 'sliding' message giving full details about the occurrence:

'**FIRE**' (Device number) (zone) (type) (analogue value at time of alarm) (location) (date & time of alarm) plus indication as to whether any further alarms exist, indicated by 'MORE: PRESS ↑ or ↓'.

| | |
|-------------------------------------|--|
| Internal sounders: if not accepted: | Fire sounder (high-pitched) on: STEADY. |
| if accepted: | Fire sounder on intermittently (one bleep every 12 seconds). |

Circuits Controlled Internally:

| | |
|---|---|
| Sounder Circuits: | If not substituted by alternative devices in matrix program, both circuits on: STEADY |
| After SILENCE SOUNDERS pressed: may now be: | OFF |
| FIRE transfer relay: | ON |
| After SILENCE SOUNDERS pressed: | OFF |
| FAULT, EVACUATE transfer relays: | OFF |

External Devices: depending on programmed schedule some or all control modules may be ON, either steady or pulsing.

After SILENCE SOUNDERS pressed: some or all devices may now be OFF, dependent upon programming.

The built-in LED indicators on the sensor(s) and/or module(s) which issued the alarm will either be on STEADY - if the alarm input conditions (e.g. presence of smoke) still exist - or show 1-second-on/1-second-off pulses (possibly with intervening short pulses) - if the alarm input conditions are no longer present.

The LEDs of active Control Modules (those for which the control output is ON) may also be on STEADY.

The LEDs of all other sensors and modules should either give short pulses or be off altogether.

6.1.3 Panel 'PRE-ALARM' Status

This is the condition when one or more input devices has signalled a PRE-ALARM to the panel - i.e. a reading which is higher than normal but not yet at the FIRE level.

This condition continues to be shown until superseded by a higher-priority condition (i.e. FIRE) or until cleared by pressing the RESET pushbutton.

The occurrence may have been 'accepted' at the panel by pressing the MUTE INTERNAL SOUNDERS pushbutton, if so the status is still 'PRE-ALARM'.

The indications of the panel and external equipment are as follows:

| | | |
|-------------------|-------------------------|---------------------------|
| LAMP indications: | MAINS HEALTHY (green): | ON |
| | PRE-ALARM LAMP (amber): | if not accepted: FLASHING |
| | | if accepted: STEADY |
| All other LAMPs: | | OFF |

| | |
|------|---|
| LCD: | <div style="border: 1px solid black; padding: 5px; display: inline-block;"> Status: PRE-ALARM (date) (time) (location) (device type) </div> |
|------|---|

For approximately two minutes after Pre-Alarm accepted, line 2 shows 'sliding' message giving full details about the occurrence:

'PRE-ALARM' (Device number) (zone) (type) (analogue value at time of alarm) (location) (date & time of alarm) plus indication as to whether any further alarms exist, indicated by 'MORE: PRESS ↑ or ↓'.

Internal sounders: Fire sounder (high-pitched) on intermittently (one bleep every 2 minutes).

Circuits Controlled Internally: and

External Devices: Programmed function.

6.1.4 Panel 'FAULT' Status

This condition occurs for a number of reasons: some arise from incorrect operation of a remote sensor or module, others from incorrect operation of the panel or system as a whole.

Also included in this category are 'CHARGER FAULT', which indicates a failure of battery, mains supply or charger circuit, and 'CPU FAULT' which indicates a microprocessor fault.

The FAULT condition continues to be shown until superseded by a higher-priority condition or until cleared by pressing the RESET pushbutton.

The occurrence may have been 'accepted' at the panel by pressing the MUTE pushbutton, if so the status is still 'FAULT'.

The indications of the panel and external equipment are as follows:

| | | |
|-------------------|---|---------------------------|
| LAMP indications: | MAINS HEALTHY (green): | |
| | if mains supply OK: | ON |
| | if mains supply failed: | OFF |
| | FAULT/CHARGER FAULT/CPU FAULT LAMP (amber): | |
| | (as appropriate): | if not accepted: FLASHING |
| | | if accepted: STEADY |

Numbered zone indication(s) (for zone(s) where sensor faults have been detected - amber):

| | |
|------------------|----------|
| if not accepted: | FLASHING |
| if accepted: | STEADY |

| | |
|------|--|
| LCD: | <div style="border: 1px solid black; padding: 5px; display: inline-block;"> Status: * FAULT * (date) (time) (location) (device type) or: (fault identification) </div> |
|------|--|

For approximately two minutes after Fault is accepted, line 2 shows 'sliding' message giving full details about the occurrence:

(type of fault) (Device number) (zone) (type) (analogue value at time of alarm) (location) (date & time of alarm) plus indication as to whether any further alarms exist, indicated by 'MORE: PRESS ↑ or ↓'.

Internal sounders: if not accepted: Fault buzzer on STEADY
if accepted: Fault buzzer on intermittently (one buzz every 2 minutes)

Circuits Controlled Internally:

| | |
|----------------------------------|---------------------|
| Sounder Circuits: | Programmed Function |
| FIRE & EVACUATE transfer relays: | OFF |
| FAULT transfer relay: | ON |

| | | |
|-------------------|--------------------------------|---------------------|
| External Devices: | All CONTROL MODULES should be: | Programmed Function |
|-------------------|--------------------------------|---------------------|

For certain types of fault (TYPE MISMATCH and DUPLICATE ADDRESS) the built-in LED indicators on the sensor(s) and/or module(s) for which the fault occurred will show 1-second-ON/1-second-OFF pulses (possibly with intervening short pulses).

The built-in LED indicators on all other sensors and modules should either give short pulses or be OFF altogether.

6.1.5 Panel 'DEVICES MASKED' Status

This is indicated when some or all of the sensors or modules of the system have been disabled by means of the MASK/UNMASK operation (see Section 3.14 for details).

If the panel is a NETWORK MASTER panel this status is shown whenever devices are masked on the network as a whole. For other panels it is shown only if devices connected directly to that panel are masked.

The DEVICES MASKED condition continues to be shown until superseded by a higher-priority condition or until cleared by removing all devices from a MASKed status. If an Alarm or Fault occurs and is subsequently cleared and RESET is pressed, then if appropriate the panel reverts to showing the SENSORS MASKED status.

The indications of the panel and external equipment are as follows:

| | | |
|-------------------|------------------------------|----|
| LAMP indications: | MAINS HEALTHY (green): | ON |
| | SENSORS MASKED LAMP (amber): | ON |

LCD:

| | | |
|-------------------------|---------------|-------------------------|
| DEVICE(S) MASKED | (date) | (time) |
| (blank) | or: | (system-normal message) |

Internal sounders: Fault buzzer on intermittently (one buzz every 2 minutes).

Circuits Controlled Internally and

External Devices: Programmed function.

6.1.6 Panel 'EVACUATE' Status.

This is the condition when the TOTAL EVACUATE pushbutton has been pressed.

The condition continues to be shown until superseded by a higher-priority condition or until cleared by pressing the SILENCE SOUNDERS pushbutton (note that pressing the RESET pushbutton alone will not clear it).

The indications of the panel and external equipment are as follows:

| | | |
|-------------------|------------------------|-----|
| LAMP indications: | MAINS HEALTHY (green): | ON |
| | All others | OFF |

LCD:

| | | |
|-----------------------|---------------|-------------------------|
| TOTAL-EVACUATE | (date) | (time) |
| (blank) | or: | (system-normal message) |

| | |
|--------------------|-----|
| Internal sounders: | OFF |
|--------------------|-----|

Circuits Controlled Internally:

Sounder Circuits: if not substituted by alternative devices in matrix program, both circuits on STEADY.

| | |
|------------------------------|-----|
| FIRE, FAULT transfer relays: | OFF |
|------------------------------|-----|

| | |
|--------------------------|----|
| EVACUATE transfer relay: | ON |
|--------------------------|----|

External Devices:

depending on programmed EVACUATE schedule some or all Control modules may be ON, either steady or pulsing.

The LEDs of active Control Modules (those for which the control output is ON) also be on STEADY.

The LEDs of all other sensors and modules should either give short pulses or be OFF altogether.

6.1.7 Panel 'TEST' Status.

This is the condition of the panel when a Zone has been selected for the walk-round test operation, using the appropriate pushbutton sequence (see below).

The TEST condition continues to be shown until superseded by a higher-priority condition or until Test mode is terminated using the appropriate pushbutton sequence.

The indications of the panel and external equipment are as follows:

| | | |
|-------------------|----------------------------|-----|
| LAMP indications: | MAINS HEALTHY (green): | ON |
| | ZONE IN TEST LAMP (amber): | ON |
| | All other LAMPs | OFF |

LCD display:

| | | |
|--------------------------|---------------|--|
| ZONE (no) IN TEST | (date) | (time) |
| (blank) | or: | (system-normal msg) or: (last tested det.) |

Internal sounders and

Circuits Controlled Internally: as for status NORMAL.

External Devices:

| | |
|-------------------------------|-----|
| All CONTROL MODULES should be | OFF |
|-------------------------------|-----|

The built-in LED indicators on the sensor(s) in the Zone in test show 1-second-ON/1-second-OFF pulses (possibly with intervening short pulses).

The built-in LED indicators on all other sensors and modules should either give short pulses or be OFF altogether.

6.1.8 Panel 'ENGINEER' Status

This is functionally identical to the NORMAL status except that it serves to indicate that a Passcode has been entered by an authorised engineer in order to program the system. See the ID1000 Series Programming Manual (997-340-003) for further details.

This condition remains active until cancelled by pressing the CANCEL pushbutton (note: not the RESET), or the occurrence of any alarm, fault, etc. or until a two-minute period has elapsed with no pushbutton having been pressed in the meantime. The indications of the panel and external equipment are as follows:

LCD:

| | | |
|-----------------|--------|-------------------------|
| Status:ENGINEER | (date) | (time) |
| (blank) | or: | (system-normal message) |

All other indications and external equipment: as for status NORMAL

6.1.9 Panel 'ENGINEER-MUTE' Status

This is functionally identical to the NORMAL status except that a special option has been selected by the authorised engineer to partially inhibit the functioning of the fault buzzer. Operation of the FIRE internal sounder is not affected. This mode is normally used only during initial commissioning and testing of a system. See the ID1000 Series Programming Manual (997-340-003) for further details.

The indications of the panel and external equipment are as follows:

LCD:

| | | |
|------------------|--------|-------------------------|
| Status:ENG.-MUTE | (date) | (time) |
| (blank) | or: | (system-normal message) |

All other indications and external equipment: as for status NORMAL

6.1.10 Panel 'PRINTER Control' Status

The panel pushbutton '2' (log/display) offers a choice of three printer control modes when a P40 or PRN1000 printer has been configured (see Section 4.9.17 RS232 Mode Selection of the Programming Manual). LCD messages are displayed only when the printer mode is other than 'Normal'. The two displayed printer modes are as follows:

LCD:

| | | |
|-------------------|--------|--------|
| Status: NORMAL | (date) | (time) |
| PRINTER ON 'HOLD' | | |

or

LCD:

| | | |
|------------------|--------|--------|
| Status: NORMAL | (date) | (time) |
| PRINTER DISABLED | | |

7 MENU MAPS

To aid the user menu maps are provided for utilities that can be accessed directly through the numeric keypad. These are illustrated in Figures 7.1 to 7.5. Refer to the ID1000 Series Programming Manual (997-340-003) for the menu map on programming functions accessed through pressing '4' on the numeric keypad.

Note: Tinted boxes are used to indicate those functions accessed only with a valid passcode (refer to Section 3.9 of the ID1000 Series Programming Manual for details on passcode access levels).

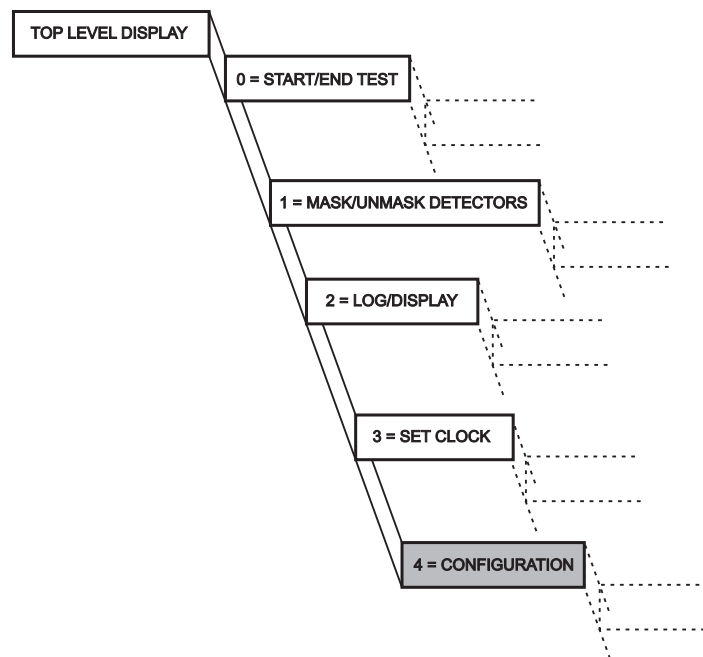


Figure 7.1 - Top Level Menu Options

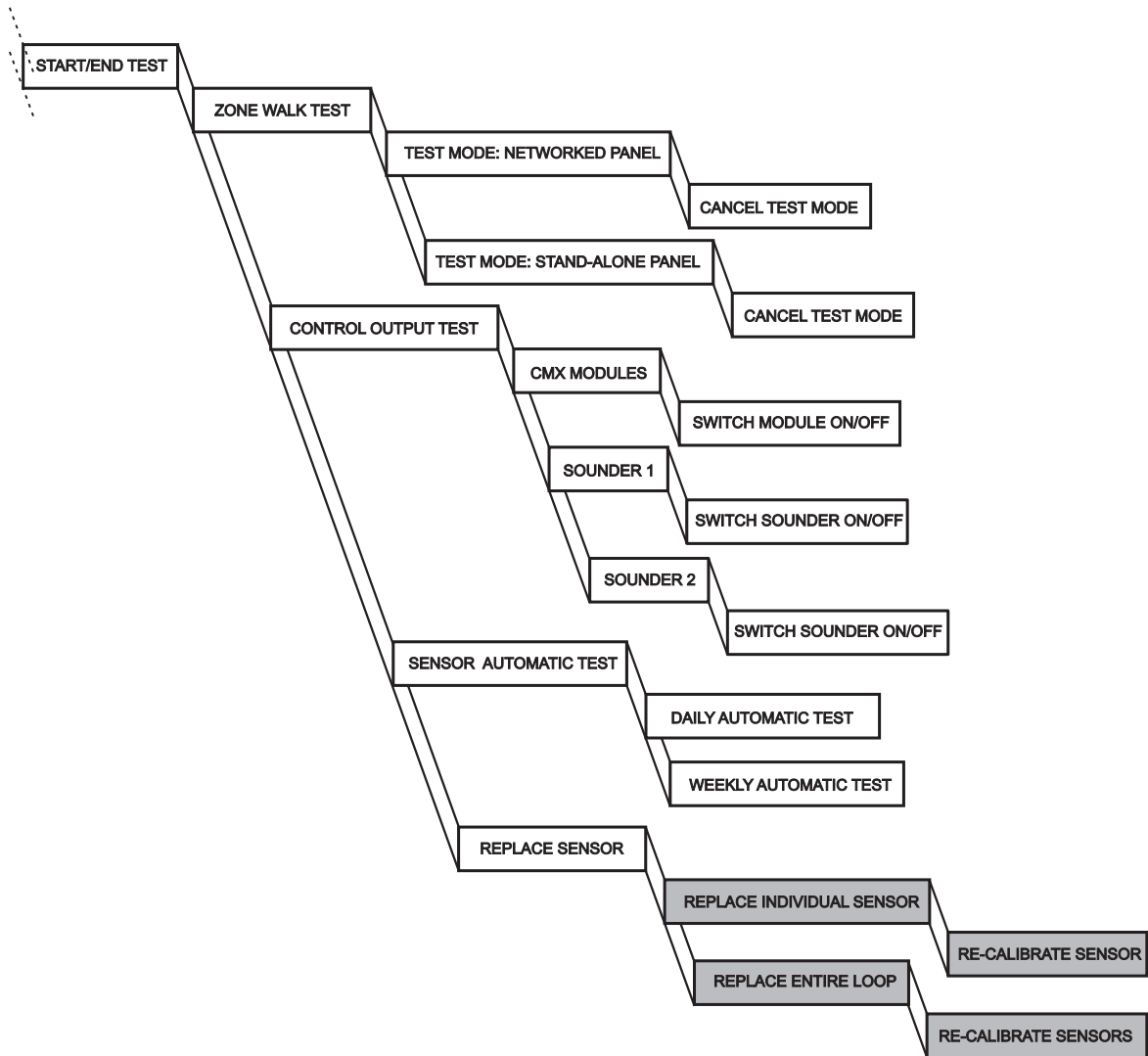


Figure 7.2 - TEST Menu Options

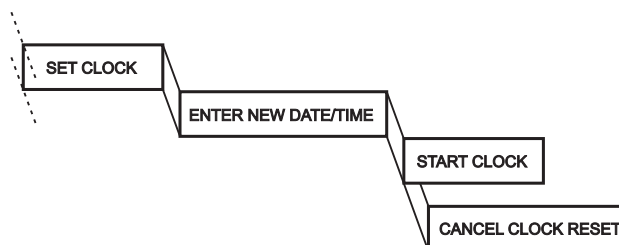


Figure 7.3 SET CLOCK Menu Option

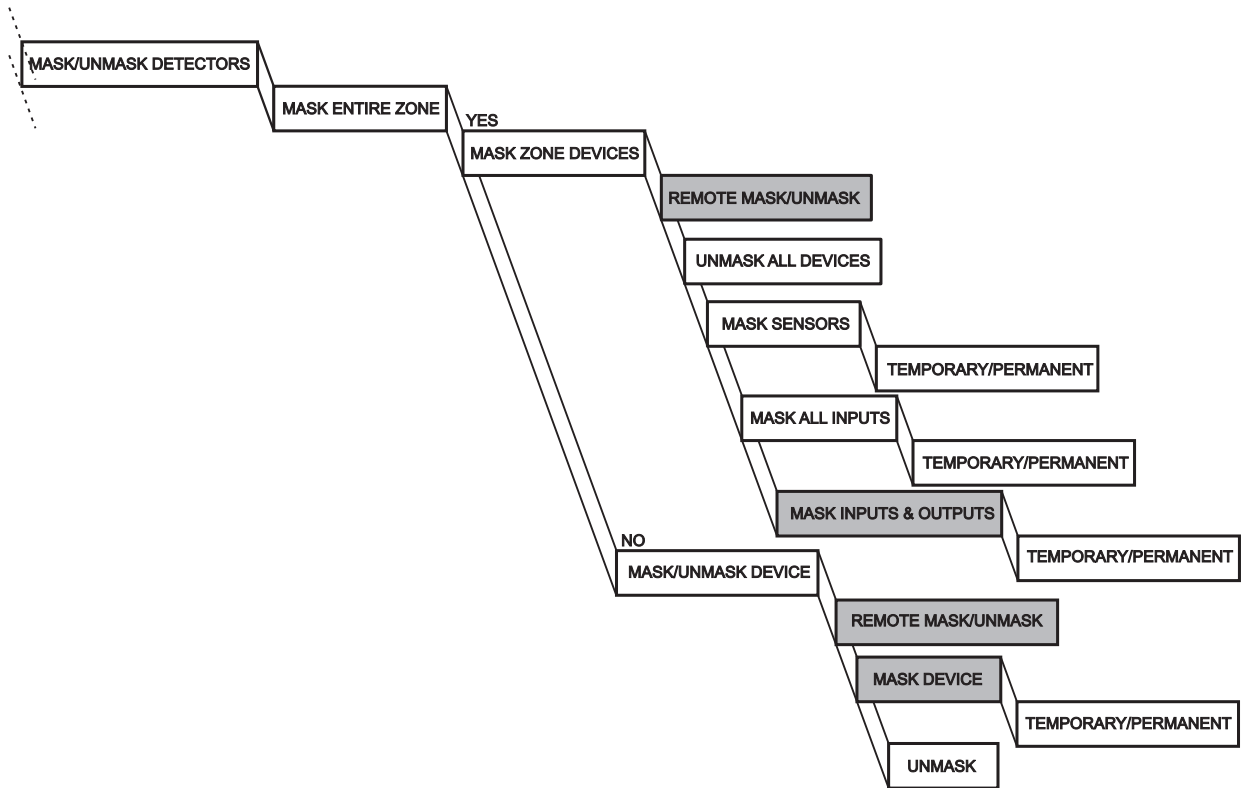


Figure 7.4 - MASK/UNMASK Menu Options

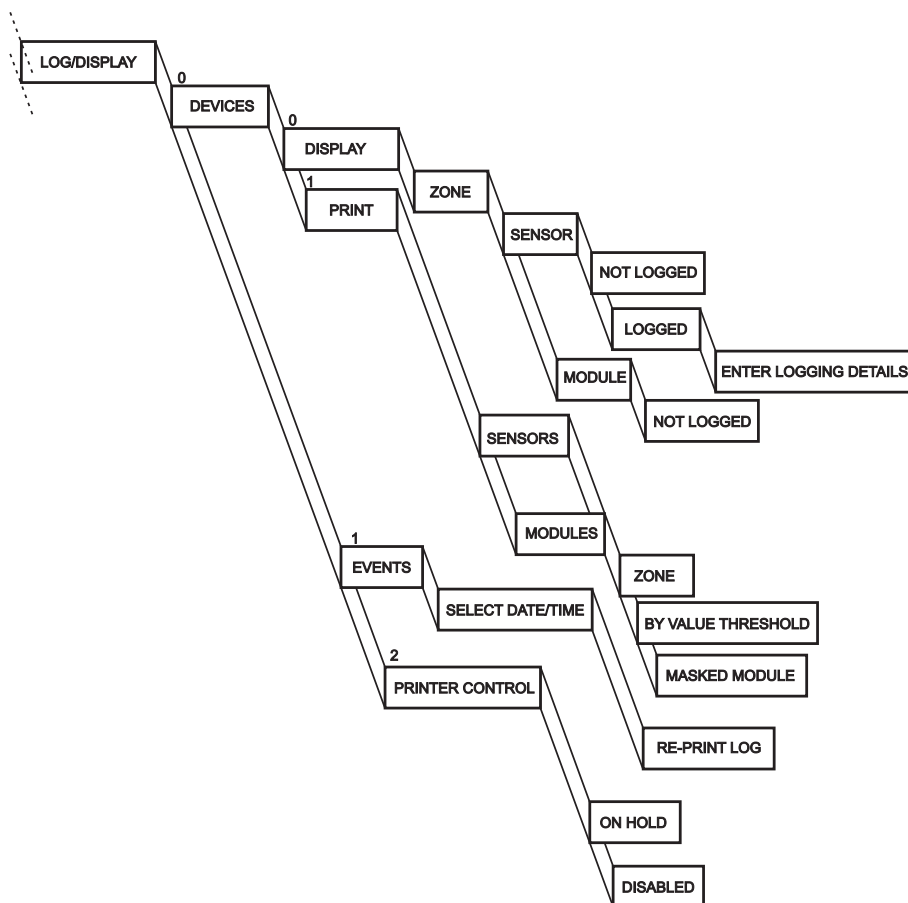


Figure 7.5 - LOG/DISPLAY Menu Options

APPENDIX 1

AVAILABLE LOOP DEVICE TYPES

There are six types of analogue sensors:

| | |
|----------------------------------|----------------------|
| VIEW (Laser-based Smoke): | Type LPX-751 |
| OMNI (Combined Heat/smoke): | Type IPX-751 |
| IONISATION SMOKE: | Type CPX-551/CPX-751 |
| OPTICAL (PHOTOELECTRONIC) SMOKE: | Type SDX-551/SDX-751 |
| HEAT (THERMAL) Grade 2 | Type FDX-551 |
| HEAT (THERMAL) Grade 1 | Type FDX-551R |

and ten types of module:

| | |
|---|-----------------|
| Manual Call Point (MCP) | Type M500KACGB |
| ZONE INTERFACE | Type ZMX-1 |
| LASER BASED ASPIRATING DETECTOR & INTERFACE | LaserStar |
| MONITOR:(input only) | Type MMX-1 |
| MINI-MONITOR:(input only) | Type MMX-101 |
| MICRO-MONITOR:(input only) | Type M503ME |
| CONTROL:(input/output) | Type CMX-2 |
| 10-WAY MONITOR CARD | Type MMX-10 |
| 10-WAY CONTROL RELAY CARD | Type CMX-10R |
| Loop-powered Sounder | Type AB**, AN** |

Note: The ZMX-1 is a lower cost alternative to the Conventional Detector Interface (CDI). However, the two devices are not interchangeable unless a configuration change is made in the panel.

These modules may be further designated according to the type of equipment which they are supervising. Possible types are, for input (MMX types):

| | |
|------|------------------------------|
| MCP | Manual call point |
| MON | General monitoring function |
| SPRK | Sprinkler switch monitoring |
| AUX | Auxiliary non-latching input |

For output (CMX types):

| | |
|------|---|
| CTRL | General control output |
| BELL | Bell, loop-powered sounder or other sounder |
| CDI | Conventional Detector Interface. |

Note 1: In ID1000 Series systems fitted with earlier versions of software, up to 2.14, 1.12, 3.12, the type CONV was also possible with MMX modules. This facility is incompatible with NOTIFIER Limited's Conventional Detector Interface (CDI) and has now been withdrawn.

Note 2: For newer versions of software (i.e. 3.30 and 1.30, or later) the new device type CONV is now re-named as device type CDI; this is to distinguish it from the new device type ZMX.

Note 3: Device type HAL has been withdrawn.

Isolators

In addition there is a non-addressable isolator module (type ISO-X) which has the capability to isolate sections of the loop in the event of short-circuit.

Relays

The panel also has four general purpose relays for the purpose of switching auxiliary equipment, three of which are designated FIRE, FAULT and EVACUATE transfer, the fourth being SPARE and programmable, plus two 1-amp programmable, monitored sounder circuits.

APPENDIX 2**SYSTEM FAULT CODES**

| CODE | MEANING |
|-------------|---|
| 1 | Loop TX Card missing or failed to respond |
| 2 - 4 | Reserved |
| 5 | Loop TX Card CPU (8748) performed a Power Restart |
| 6 - 8 | Reserved |
| 9 | Signalling Loop Short Circuit (if not isolated) |
| 10 - 12 | Reserved |
| 13 | Device number '00' installed in error |
| 14 - 16 | Reserved |
| 17 | Loop TX Card CPU (8748) EPROM Checksum error |
| 18 - 20 | Reserved |
| 21 | Loop TX Card End 'A/B' relays operated incorrectly |
| 22 - 24 | Reserved |
| 25 | Signalling loop degraded (fault count exceeded max.) |
| 26 - 31 | Reserved |
| 32 | Third Party RS232 Monitoring |
| 33 | Mains Supply to Panel failure |
| 34 | Charger/Battery Fault (in Panel) |
| 35 | Internal 24 volts, 12 volts or 5 volts supply: failed or voltage outside limits |
| 36 | Auxiliary 24 volts supply: failed or voltage outside limits |
| 37 | 'Fire' Transfer relay monitored fault |
| 38 | 'Fault' Transfer relay monitored fault |
| 39 | 'Evacuate' Transfer relay monitored fault |
| 40 | Main CPU watchdog operated |
| 41 | Main CPU card EPROM 'A' checksum failure |
| 42 | Main CPU card EPROM 'B' checksum failure |
| 43 | EEPROM (configuration data) checksum failure |
| 44 | Printer fault (only applicable if miniature printer fitted) |
| 45 | EEPROM write failure |
| 46 | Software error (should not occur) |
| 47 | Panel internal hardware fault. (Display driver or clock) |
| 48 | Printer or VDU timed out 'Busy'. |
| 49 | Fault in main Watchdog (NOT operation of watchdog) |
| 50 | Sounder Circuit 2 SHORT-CIRCUIT |
| 51 | Sounder Circuit 1 SHORT-CIRCUIT |
| 52 | Sounder Circuit 2 OPEN-CIRCUIT |
| 53 | Sounder Circuit 1 OPEN-CIRCUIT |
| 54 | Sounder Circuit 2 RELAY FAULT |
| 55 | Sounder Circuit 1 RELAY FAULT |
| 56 | Earth Fault |

FAULT CODES - POSSIBLE CAUSES & REMEDIES

- 1** Loop card missing or failed to respond. Possible causes are:
- Wrong ribbon cable connected
 - Ribbon cable disconnected
 - Loop card failure.
- For last case, change the loop card.
- 5** Loop card CPU power restart. Possible cause:
- Loop card failure
- Change the loop card.
- 9** A short circuit has occurred on loop X. If isolators are fitted, the system shows NO REPLY/MISSING for the devices located between the isolation points.
- Disconnect the affected section of the loop and use a meter to find the fault.
- 13** This indicates that a device has been installed without setting a valid address, i.e. left at factory default of '00'.
- 17, 21** Either fault code indicates a loop card failure.
- Replace the loop card.
- 25** Data returned from a loop device is being corrupted over a period of time. Check:
- The continuity of loop screens
 - The screen is connected to earth at one point only (normally at the panel)
 - Ferrite suppressors are fitted to loop wiring at the control panel.
- 32** This fault indicates that the peripheral unit has not responded to the enquiry code sent or the link to the third party equipment is not connected (this would normally indicate a fault in the external device).
- First check by replacing the unit with an RS232 monitor or device that is known to work. If this checks out OK, replace unit. If not, change the CPU PCB.
- 33** This indicates that the incoming supply has failed. Check the following:
- Blown mains fuse (FS1)
 - Failed 240VAC mains supply failure
 - Failed PSU transformer
- 34** This fault indicates the occurrence of one or more of the following:
- Battery charger fuse (FS5) has blown
 - Faulty PSU PCB
 - Faulty batteries
- Replace items as required.
- 35** Check fuse FS6 on the PSU PCB. If OK, check the 24V regulator or PSU PCB.
- Replace as necessary.
- 36** This fault code indicates one of the following conditions has occurred:
- No continuity exists between the 24V AUX output and 24V monitored input
 - 27V AUX supply fuse (FS2) has blown
 - Faulty PSU PCB.
- 37, 38, 39** Should any of these faults occur change the Display/RS485 PCB assembly (PN 124-153).

- 40, 41, 42** If any of these faults occur replace the CP6 PCB assembly (PN 124-083).
- 43, 45, 46** If any of these faults occur replace the CP6 PCB assembly (PN 124-083).
- 44** This fault may be an indication of a paper jam or printer paper out condition.
- 45** If this fault occurs replace the CP6 PCB.
- 46** If this fault occurs replace the CP6 PCB.
- 47** Change the Display/RS485 PCB assembly (PN 124-153).
- 48** This fault indicates that the peripheral equipment has sent a busy signal to the control panel (this will normally be indicated at the peripheral device). Disconnect it from the RS232 port on the CP6 PCB and reset the panel. If OK change the peripheral device - if not OK change the CP6 PCB. If the peripheral device is a printer the fault may be due either to a paper jam or a printer paper out condition.
- 49** If this fault occurs change the PSU PCB.
- 50** This fault code indicates a short circuit fault on sounder circuit 2 wiring.
Disconnect the wiring and use a meter to locate the fault.
- 51** This fault code indicates a short circuit fault on sounder circuit 1 wiring.
Disconnect the wiring and use a meter to locate the fault.
- 52** This fault code indicates an open circuit (disconnection condition) fault on sounder circuit 2 wiring.
Disconnect the wiring and use a meter to locate the faulty sounder or cable.
- 53** This fault code indicates an open circuit (disconnection condition) fault on sounder circuit 1 wiring. Disconnect the wiring and use a meter to locate the faulty sounder or cable.
- 54, 55** This fault indicates a failure of the drive relays to the sounder circuits.
The PCU PCB should be changed to PSU PCB (PN: 124-132).
- 56** The earth fault monitor detects the presence of an earth on the positive or negative sides of the system. Should this condition occur, disconnect the field circuit wiring one loop at a time until the fault is removed.
Use a meter to locate the earth fault.