FIRETEC

FTEW 1-8 ZONE FIRE PANEL

2WIRE ALARM SENSE

INSTALLATION INSTRUCTIONS

USER GUIDE

LOG BOOK

CONTENTS

FRONT PANEL INDICATORS

1. **FAULT / TEST / DISABLE - COMMON - yellow led** - illuminates when any fault with the panel has occurred, the specific fault led is flashed. If no other fault led is on, it indicates the monitored input is in fault.

2. **FIRE- COMMON - red led** – illuminates during a fire / evacuation condition or if set up, it illuminates when class change is activated.

3. **ZONE 1-8 FIRE - red led's** - Illuminates when a fire occurs on the relevant zone. The COMMON FIRE led will also be illuminated at the same time.

4. **ZONE 1-8 FAULT - yellow led's** – Flashes (slowly) the relevant zone led during a fault condition. Illuminated (steady) to indicate it is disabled or when in walktest is quickly flashed.

5. **SUPPLY - green led** - Illuminated whilst there is power (mains/battery) available to the panel.

6. **SUPPLY FAULT - yellow led** – Flashes when a power supply fault has occurred. Check mains and battery.

7. **DISABLED - yellow led** - illuminates when a fire zone and or alarm has been disabled, the relevant zone and or alarm fault led is illuminated - steady.

8. **ALARM FAULT/DISABLED - yellow led** – Flashes when the panel detects a fault with the sounder wiring. Common fault led is also illuminated.
   It is illuminated when the alarms are disabled along with the DISABLED led.

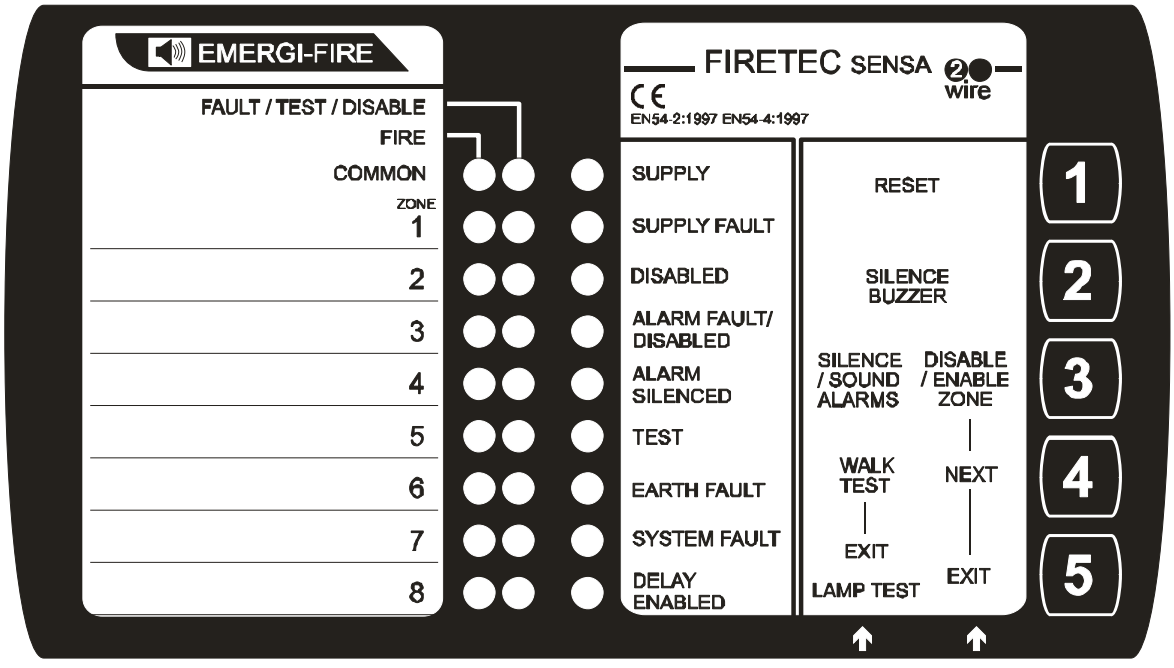
9. **ALARM SILENCED - yellow led** – Illuminates when the sounders on the alarm circuits have been switched off during a fire/evacuation – The alarm condition still remains.

10. **TEST - yellow led** - illuminates when walk test function is selected.

11. **EARTH FAULT - yellow led** - Flashes if a fault with the earthing of the system has occurred.

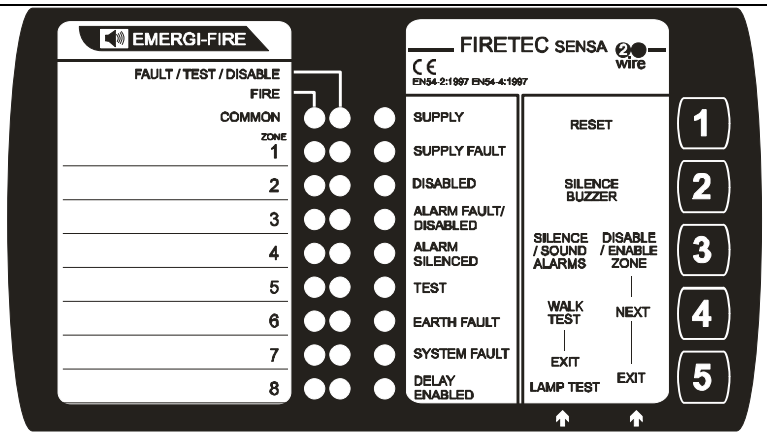
12. **SYSTEM FAULT - yellow led** – Illuminates if the panel has been restarted by the supervisory circuit. Flashes if an error in the system software has been detected – Requires attention.

13. **DELAY ENABLED - yellow led** – illuminates when there is a delay to the sounders activating.



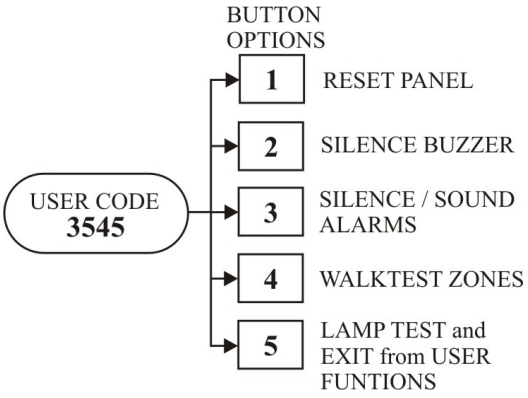
USER GUIDE FOR 1-8 ZONE FIRE PANELS

The panel is controlled by the five push buttons mounted on the front. To gain access to the panels functions, either of two 4 digit code's must be entered via the push buttons.



User / Level 2a Functions Selected
When USER code – 3545 is entered
Functions above Left illuminated arrow can be accessed

Functions available are:



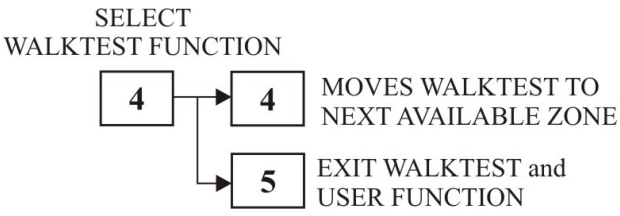
LEVEL 2a - USER CODE - *3545* - The functions available are as follows:-

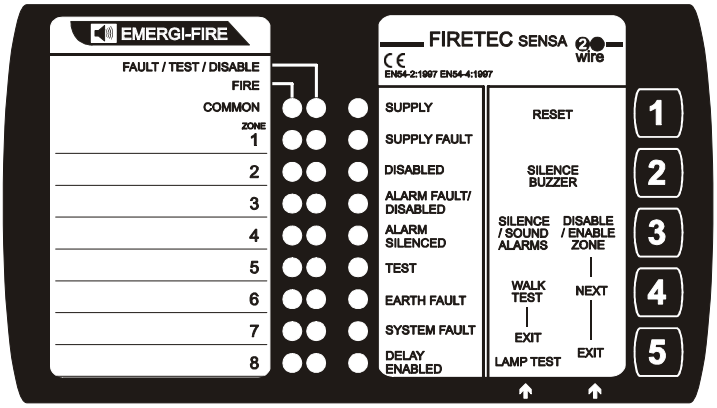
1 - RESET - Returns the fire alarm system to the normal clear condition, silencing the panels internal buzzer and all sounders, resetting fire alarm detectors and other devices connected to the panel.

2 - SILENCE BUZZER – Switches OFF the fire panels' internal buzzer during a fire or fault condition. Any new fire/fault activation will resound the buzzer.

3 - SILENCE / SOUND ALARMS
Turns off external alarm sounders after a fire activation, the ALARM SILENCED led is illuminated. The panel will continue will to indicate the fire condition and the internal buzzer will continue to bleep. Fire activations on other zones will re-sound the alarm sounders. If the alarm sounders are off, this activates the fire alarm sounders. Any devices on the auxiliary contacts (i.e. a digital communicator) are not triggered - The FIRE indicator is illuminated.

4 - WALK TEST - Allows the user to test fire detectors and callpoints on the system. Only one zone at a time can be put in to walktest all other zones operate as normal.



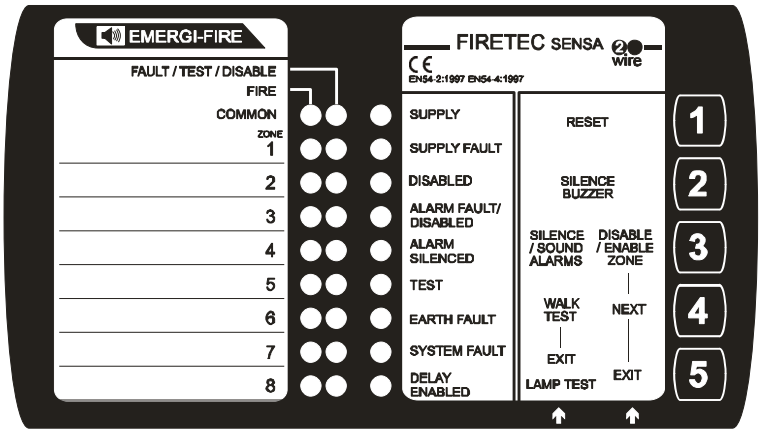


When selected- TEST led is illuminated and amber led of the first zone in Walk test flashes quickly.

Press 4 moves to walk testing the next available zone.
Press 5 - Exit walktest and the menu system.

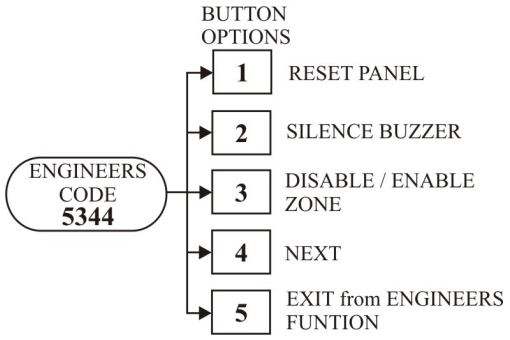
When a detector on a zone in walk test is activated, the alarms will sound for a few seconds and then silence. The FIRE indicator of the zone will then be illuminated. After testing, **Press 4,** to test next available zone

5 - LAMP TEST and **EXIT**- This option illuminates all the LED's and sounds the internal buzzer. After 2 seconds the LED's revert back to their previous state and the panel to its normal condition.



Engineers / Level 2 Functions Selected
When ENGINEERS code – 5344 is entered
Functions above Right illuminated arrow can be accessed

Functions available are:

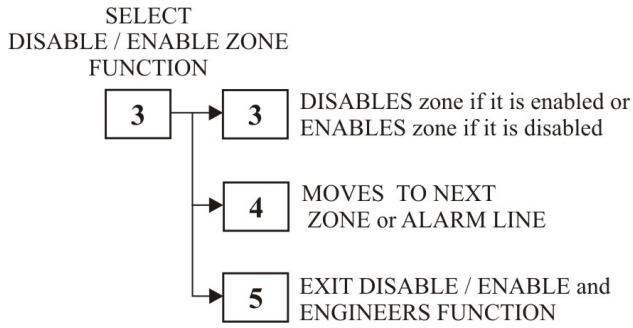


LEVEL 2b – ENGINEERS CODE - *5344* – The functions available are as follows:-

1 - RESET - Returns the fire alarm system to the normal clear condition, silencing the panels internal buzzer and all sounders, resetting fire alarm detectors and other devices connected to the panel.

2 - SILENCE BUZZER – Switches OFF the fire panels' internal buzzer during a fire or fault condition. Any new fire/fault activation will resound the buzzer.

3 - DISABLE /ENABLE ZONE - If a fault occurs or work is being carried out on a zone / alarm circuit, it is possible to disable the zone(s) and alarm circuit from the system without affecting the other zones. If a zone or alarm is disabled, the general DISABLED led and the DISABLE led(s) of the corresponding zone(s) or alarm will be illuminated.



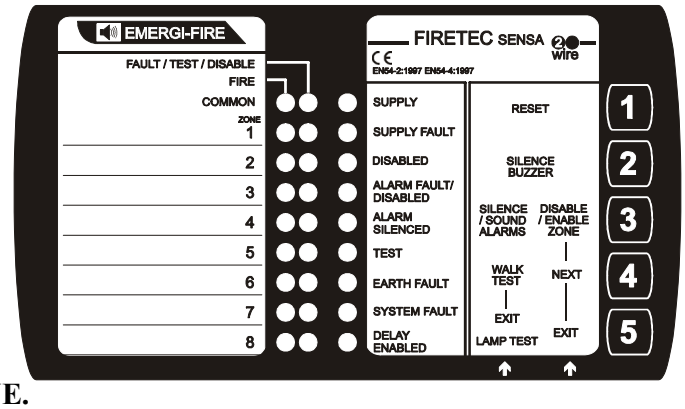
On entering **ENABLE / DISABLE.** Fault led of zone 1 flashes quickly and The Disabled led is illuminated (steady).

To disable the zone **Press 3.** The Fault led of zone 1 and the Disabled led are illuminated (steady) – zone 1 is disabled.

The flashing led automatically moves to zone 2 and flashes zone 2 fault led.

Pressing 4 Advances to the next zone / alarm without affecting the current zone/alarm line. Any number of zones or alarm circuits can be disabled.

Press 5 EXIT – exits from function and menu system. Disabled zone/alarm circuit can now be worked on.



To re-enable a zone/alarm circuit –
Enter code **5344. Press 3 – DISABLE/ENABLE ZONE.**
The fault led of zone 1 flashes quickly.
Press 4 To advance to the zone / alarm circuit to be re-enabled.
Press 3 To re-enable the zone/alarm. The illuminated fault led of the re-enabled zone is cleared and moves to the next zone/alarm.
Press 5 To exit from function when finished.

5 - EXIT - To exit when finished.

PANEL SPECIFICATIONS

Zones of Protection		2	4	8
	Designed to comply with EN54 pt 2 & 4 and is suitable for BS5839 Pt1 : 2002 installations.			
Detection Circuits Compatibility	Compatible with Emergi-Lite Alarm Sense Manual Call Points, Smoke and Heat detectors.			
	Compatible with Emergi-Lite Alarm Sense Zone Sounders and Zone Sounder-Beacon Bases.			
	Compatible with Emergi-Lite Alarm Sense Priority/Non Priority Devices.			
	Compatible with Emergi-Lite Alarm Sense Sounders.			
	Maximum of 30 Detectors per zone.			
Total Panel Alarm Current	1A – See Note 1			
Maximum Zone Alarm Current Per Zone	0.15A			
Sounders Per Zone[2] (Low{70dB(A)} 5mA High{70dB(A)} 5mA)		30	30	30
Sounder-Beacons Per Zone[2] (Low{70dB(A)} 9mA High{70dB(A)} 9mA)		16	16	16
Alarm Lines[3] (Al1 & Al2)	2 Alarm circuits each rated @ 24Vdc 0.5A max. Panel Total is 1A – see Note 3			
	Each sounder circuit protected by a resettable fuse - resets when fault is removed			
	Expandable to 8 circuits in groups of 4 with 4 way alarm extender board			
Aux Relay Contacts	2 Sets of volt-free contacts rated 30Vdc @2A - activated during a fire condition when the alarm circuits are activated			
Auxiliary Output	24Vdc rated 250mA protected by resettable fuse - resets when fault is removed.			
Class Change	Connect CC to Gnd terminal to activate sounders.			
Fault Monitoring	Zone: Short circuit & open circuit/detector removed monitoring using end of line device			
	Alarm: Short circuit & open circuit using end of line resistor			
Mains Input Voltage	230Vac +10% -6%, 50Hz (mains fuse: 20mm, 240VAC 1A High rupture capacity)			
Battery	1 x 12V 7Ahr VRLA (valve regulated lead acid) battery			
	Battery charger is temperature compensated			
	Battery is deep discharge protected (cut off at approx. 10.5V)			
	Battery protected by resettable fuse - resets when fault is removed.			
	For more details refer to technical sales for standby calculations.			
Supply Fault Monitoring	Mains missing - battery missing - battery charger fault			
Controls	5 push buttons with coded entry access: Level 2a: 3545 Level 2b: 5344 Level 3: 4554			
Dimensions hwd(mm)	263 x 337 x 90			
Construction	Moulded polycarbonate plastic fascia and back box in cool grey.			
Fault Output	TTL fault output: Active (5Vdc) when no faults are present - fail safe to off.			
Programmability	Zones individually programmed as latching or unlatching fire conditions			
	Zones individually programmed as Priority or Non Priority			
	Class change can be programmed to illuminate 'general fire' led when activated.			
	Delay of 1-10 mins to alarms activating in a fire condition - this works in congunction with Enable delay' input. 'Enable delay' can also be used as a 'day switch/input.'			

Notes:

1 Total panel alarm current = Total zone alarm current + total current on Al1 & Al2.
Total panel alarm current should not exceed 1A

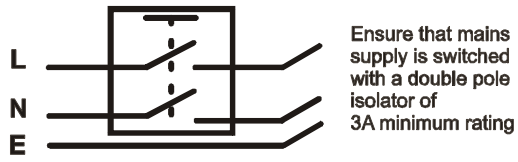
2 Ensure that maximum number of sounders/sounder-beacon devices does not exceed total current allowed for zones.
30 sounders on a zone = 5mA * 30 = 0.15A. Zone is supplying maximum current, no more sounders / sounder-beacons should be placed on the zone.
16 sounder-beacons on a zone = 9mA * 16 = 0.144A. Zone is supplying maximum current and no more should be placed on the zone

3 Current available for alarm lines Al1 & Al2 = 1A - Total zone alarm current.

This manual provides the necessary guidance for the correct installation and commissioning of the 1-8 zone fire panels. Persons carrying out system design and installation should be familiar with BS5839-1:2002, the code of practice relating to the installation of fire detection and alarm systems within buildings.

SYSTEM DESIGN GUIDE

When installing the system the designer should ensure:-



1. The installation complies with BS5839 Pt1: 2002
2. The mains supply is switched via a double pole isolator -
3. All detectors are sighted in accordance with British standard recommendations.
4. That zone (detector and zone sounder) and alarm sounder circuits have NO SPURS.
5. It is recommended that the cabling used for detector and alarm circuits is 1.5mm^2 Fire Protected, 2-core + screen complying with BS6387 or BS6207.
6. That detectors and callpoints used are compatible with the panel, and that only devices recommended by the supplier are used.
7. The correct end of line component is used on the detection and alarm circuits (including those not used), These components must be fitted after the last detector, callpoint or sounder.
8. Detector bases, Manual Call Points (MCPs) and zone sounders are connected correctly – Figure 1
9. If sounders are connected to Alarm lines (Al1 or 2), they are correctly connected-Figure 2, fitted with suppression components and with series blocking diodes that will only allow current to flow through the sounders when correctly wired to the control panel pcb.
10. Sounder current consumption (zone sounders + alarm line sounders) should not exceed the panel maximum of 1A.
11. That if a 24V auxiliary output is used for powering an auxiliary circuit, the battery standby period is checked to ensure that the maximum duration can still be achieved.

INSTALLATION PROCEDURE

The following instructions must be followed. It is recommended that the installation is delayed until all building or maintenance work is completed. Building work near the panel may result in damage.

Remove the fire panel from the packaging, but retain this for the future storage of panel parts during installation.

A) To remove the front – Please refer to Figure 5. Remove the 2 screws located on the front of the panel, open the door and unplug the ribbon cable from the display pcb, by pulling the plug from the main pcb. Note- do not pull on the wires. Open the door to the 90 degrees position, and push the door off the hinges. NOTE – the door cannot be removed in any other position. Store the panel front face down in the packing box taking care of the pcb and ribbon cable on the back.

B) Box Mounting - Once the cable entry routes have been decided, remove the appropriate knockouts situated on the back of the box, or if surface wiring is required drill 20mm holes in the top surface using the drill centres visible. Note the entry point for the mains cable is through a knockout which is located at the back box near the fused terminal block, or drilled hole below. Ensure that the back box is secure and flush fitted to the fabric of the building, and that it is not twisted. It should be mounted at such a height that the push buttons and LED's are at eye level. When mounting the box take care not to damage the pcb in the box. Remove any debris.

C) The panel can be flush mounted up to the lip at the front edge of the back box.

D) Feed the required cable into the box then make off a reasonable working length, (identify each of the cables). Conduct all installation tests on the cables with the detectors and other electronic devices disconnected. Failure to observe this could result in serious damage to the detectors etc.

E) Connect the cables from the zones (detectors & zone sounders) and alarms (sounders) to the pcb as shown in Figures 1-3, ensuring that there are **NO** spurs from the main circuit. Fit the end-of-line component onto the last detector or call-point of each zone circuit ensuring that it follows the correct polarity – see Figure 3. The end-of-line resistor used on the alarm circuit can be connected either way round. For any unused circuits, leave the end-of-line component / resistor in the terminal block located on the pcb.

F) The panel has several optional inputs and outputs.

- **AUX 1 & 2** -Are volt free relay contacts that change over when the alarm sounds – Used for switching auxiliary equipment.

- **Enable delay (set up in level 3.)** – When 'Enable Delay' and 'GND' terminal are connected a pre-programmed delay to alarms activating occurs when a detector/callpoint is activated.
- **CC** – Class Change - wire a push switch between Gnd and CC terminals to make the sounders operate when required. At level 3, CC can be set up to illuminate the 'common fire' LED if required – default setting is not to illuminate the 'common fire' led.
- **Mon I/P (set up in level 3)** – When set up, the 'monitor i/p' terminal should have 24Vdc applied to it. If not, a fault is generated and the 'common fault' LED is illuminated.
- **TTL Fault**- During normal operation, 4Vdc is applied to this terminal. If a fault occurs, The terminal is 0Vdc, this is to drive a 4way fault relay board.
- **AUX 24V** - a 24v DC power supply (max 250mA) used to power auxiliary equipment.

Connect mains supply cable to the fused terminal block, using the knockout in the back or a drilled hole in the base, secure the cable with a cable tie through the supports. Fit the 12v battery into the bottom left hand corner of the box and connect but don't connect the wires yet. Commission the system as described.

ADDITIONAL INSTRUCTIONS FOR ELECTROMAGNETIC COMPATIBILITY

When used as intended this product complies with EMC Directive (2004/108/EC) and the UK EMC regulations, Statutory Instrument 2006 No. 3418 by meeting the limits set by the standards, EN 55022: 1998 and EN 50130-4 1996.

The EMC directive also adds specific requirements to which fixed installations must be installed:

- System components must be used as they were intended.
- Good engineering practices must be applied during the installation and must be documented.
- The apparatus must only be incorporated in the fixed installation for which it was intended and must respect intended use of the apparatus and comply with good engineering practice.
- A "Responsible" person be nominated and holds the installation documentation for as long as the installation is in operation.
- The documentation is updated as necessary taking into account changes that could affect its EMC characteristics, over its operating life.

PANEL COMMISSIONING

The system should be commissioned in accordance with the requirements of BS5839 Pt1 as follows:-

1 The complete installation should be checked to ensure that all the cables have been correctly installed in accordance with the IEE regulations.
2 All the cables must be insulation tested with high voltage test sets prior to the sounders and bases / detectors being connected.
3 The earth to the panel must be tested.
4 All detectors and sounders must be correctly wired, no spurs, and correctly fitted to the bases.
5 End of line components / resistors (of the correct value) must be fitted to the end of each circuit.
6 Connect the battery and switch on the mains supply.
7 If the panel/system requires set up changes from the default, use Level 3 option – see below.
8 Test the panel as described in the USER GUIDE
9 Test every detector, call point and sounder on the system.
10 Enter the zone text on the front panel main card by removing the slide in zone card. This can be hand written or via typed via a PC using a free file provided via email.
11 HAND-OVER TO THE USER - as follows:-
   a) Teach the user how to operate the panel and test the system, using the USER GUIDE
   b) Issue drawings of the wiring. c) Issue a commissioning certificate

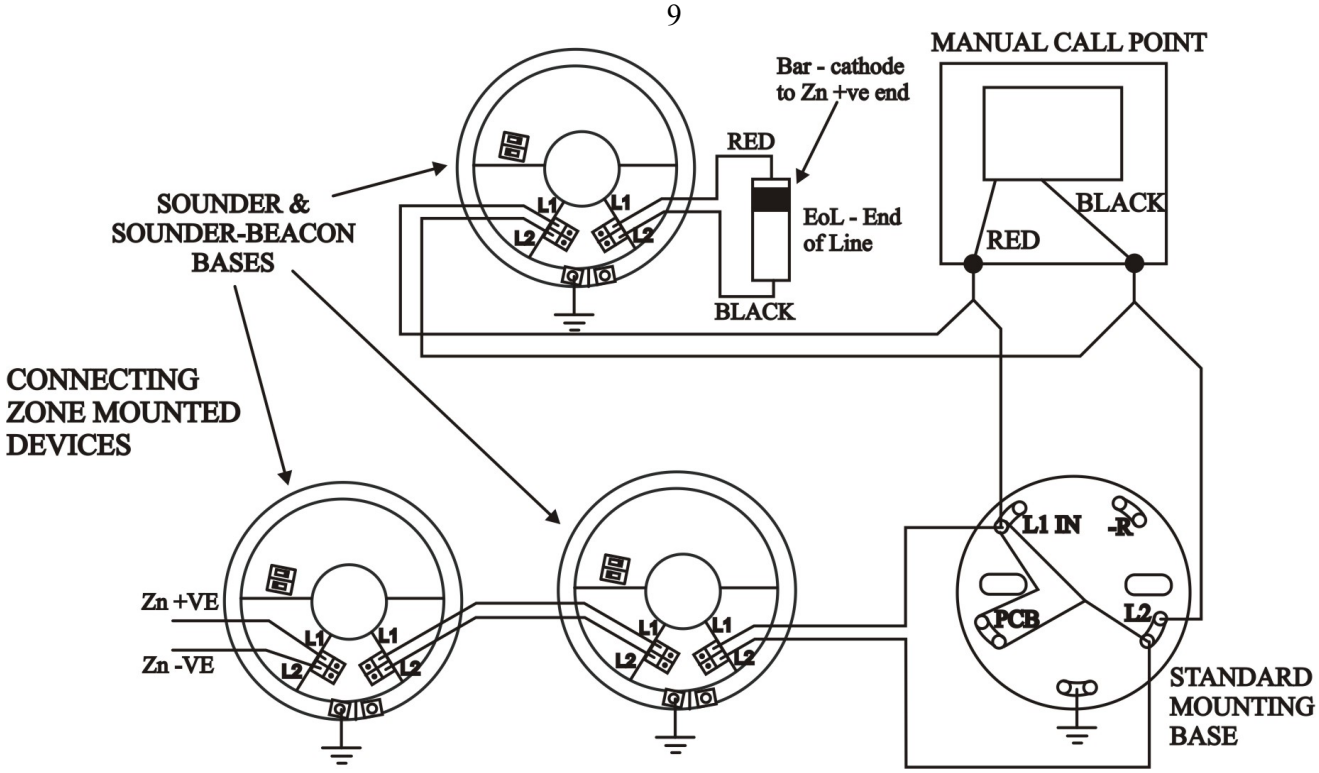


Figure 1. Wiring Alarm Sense Zone Mounted Devices

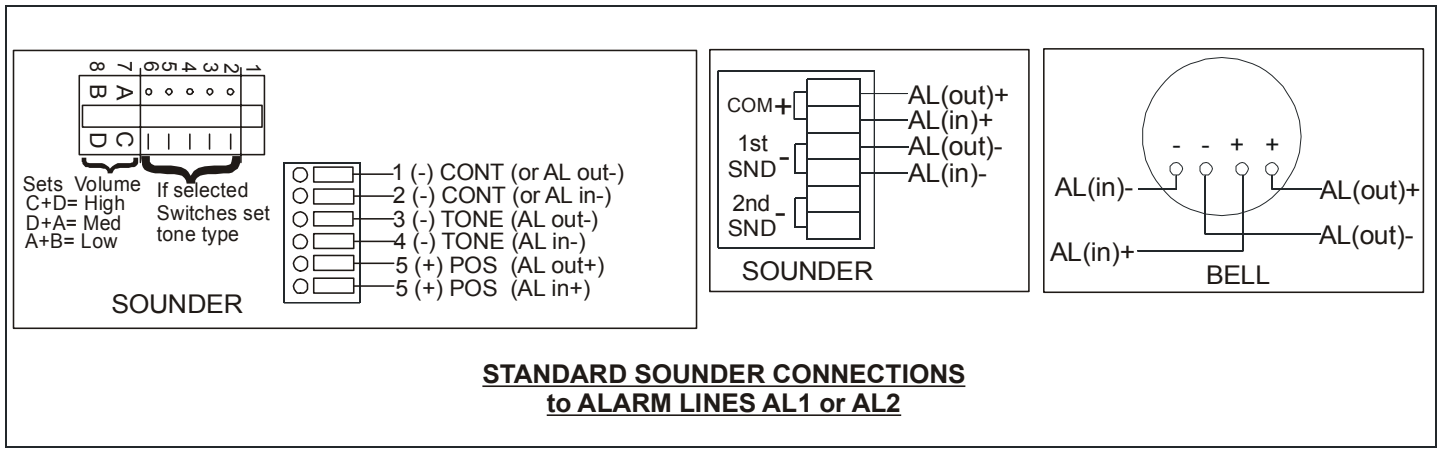


Figure 2 Wiring Standard Alarm Devices

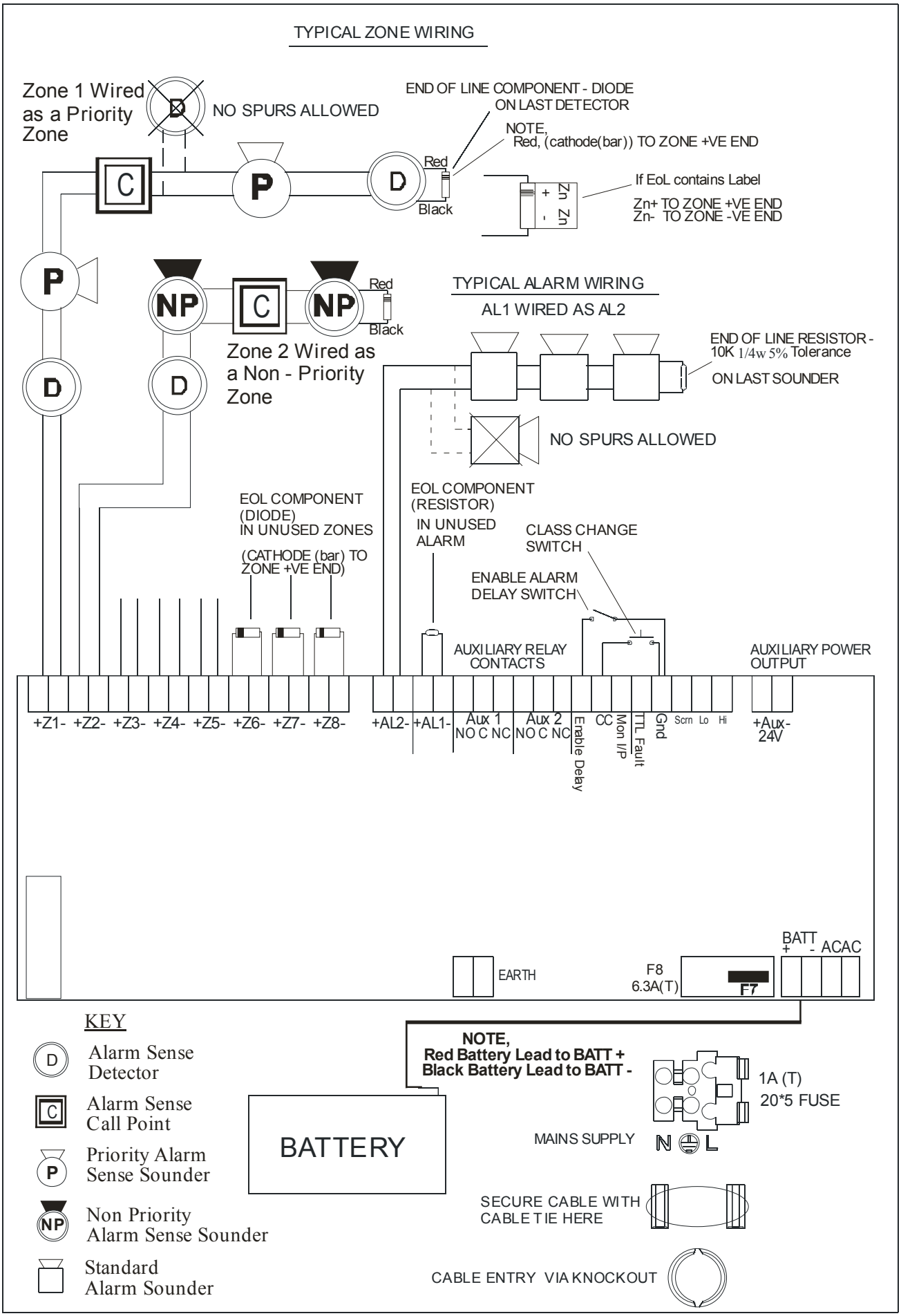


Figure 3. Typical Panel Wiring

Cautionary Notes:

- Panel is supplied with zones set as Priority
- For the Non-Priority feature to operate correctly:
  - Set the switches on the sounder/sounder beacon devices to non-priority and
  - At the panel, through Level 3 setup, set the zone to Non-Priority
- Do not place Priority sounders onto zones that are set as Non-priority - when a detector on a Non-priority sounder is activated, only that sounder for a period of 2 minutes (alert period) is sounding. If a Priority set sounder were to also be on that zone, the priority sounder would also be sounding during the alert period.

Please refer to sections LEVEL 3 - PANEL SETUP and NON-PRIORITY DETECTORS for more information.

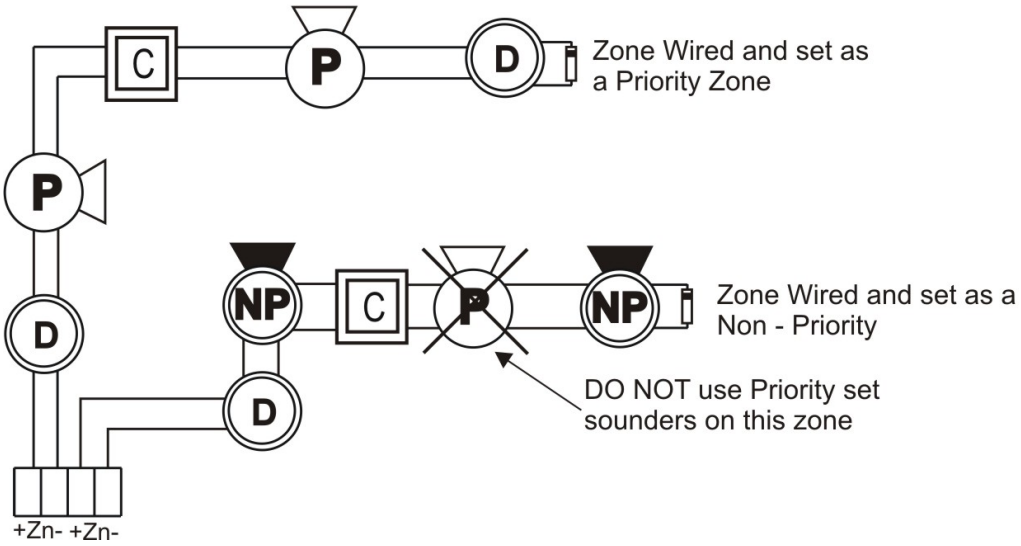


Figure 4.

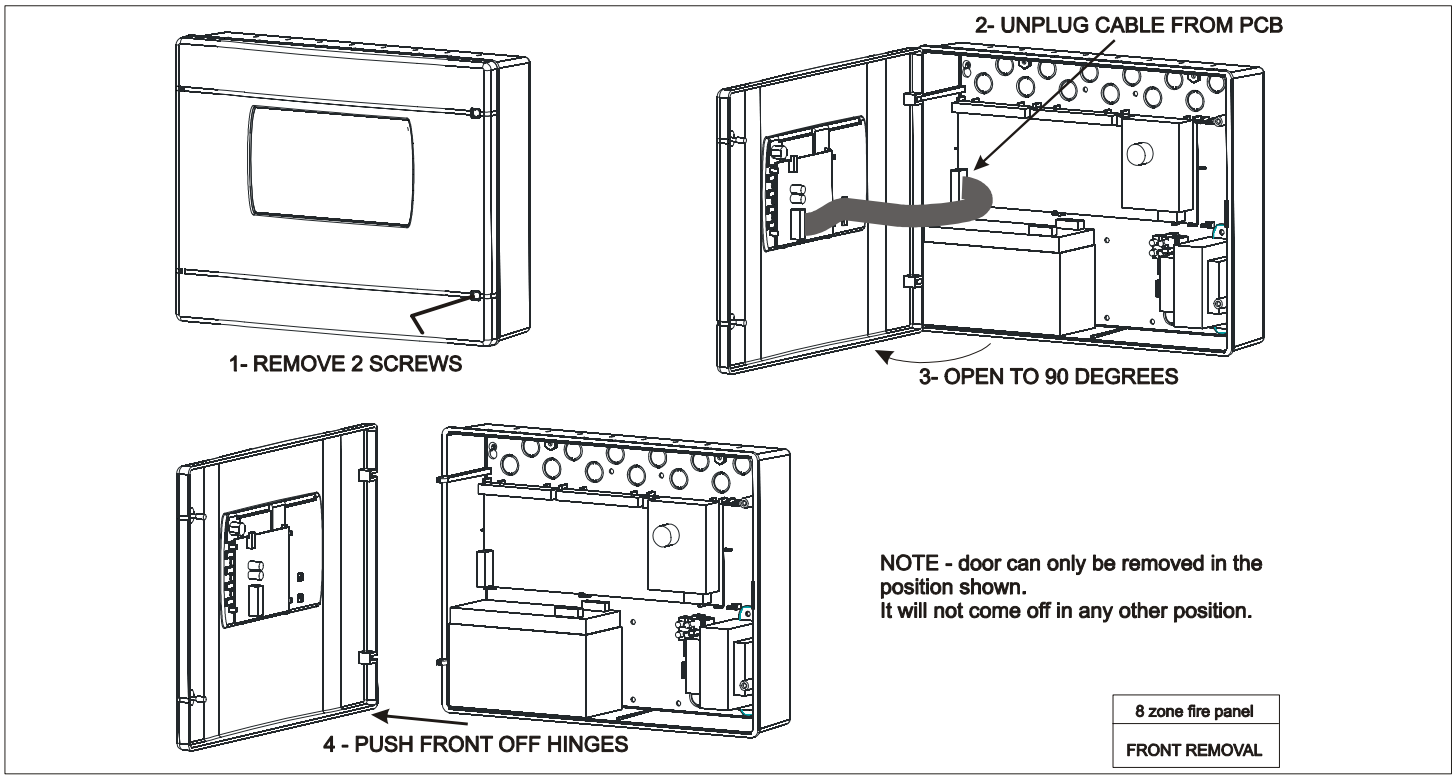


Figure 5. Front Door Removal

Alarm Sense Two Wire Priority/Non-Priority Sounder devices

Definition of Terms Used

Alarm Sense: Alarm Sense is a range of conventional devices designed to be connected onto the same pair of wires – devices include, Detectors, Manual Callpoints (MCPs), Sounders, Sounder-Beacons and Alarm-Relay.

Priority: Alarm Sense Sounder / Sounder-Beacon Bases are switchable by means of a DiL switch between Priority and Non-Priority. Priority set device reacts in the same way a general device would and causes a full fire situation.

Non Priority: If a detector on a Non-Priority set device (sounder detector) is activated, the control panel will cause only that sounder to ring for a period of 2 minutes in the first instance.
This setting is aimed for use in HMO applications.

Alert / Local Alarm: This is a condition where the sounder of a sounder detector combination on a zone is activated. This sounder (Non-Priority) is activated because the detector mounted onto it has been triggered. It is intended to warn people in the locality of the device in the first instance.

LR Sounder: This is a sounder device, which when set to Non-Priority will also sound when another Non-Priority device is activated on the same zone.

Sounder bases that don't have the Priority/Non-Priority switches <u>cannot</u> be mixed on the same zone with Priority/Non-Priority bases.

If Non-Priority devices are wired on a zone – The zone must be set as 'Non-Priority' for the feature to work, see 'LEVEL 3 – PANEL SETUP' pg17.

It is recommended that when a Heat detector is attached to a Sounder/Sounder Beacon Base that the sounder is set as a 'priority' sounder.

Alarm Sense Sounder and Sounder-Beacon Base devices are selectable between Priority (as a standard two wire device) and Non-Priority (giving a local alert within the vicinity in the first instance.)

When set up correctly, a detector activated on a Non-Priority sounder will ring that sounder for 2 minutes - this is referred to as an alert/local alarm. The alert allows the cause of the activation to be investigated and appropriate action taken. If the detector remains activated after the alert period, the system goes into a full fire condition.
The alert is intended for use in HMO applications, where occupants of individual dwellings are first warned of a possible situation or false alarm by the alert. They then have 2 minutes to investigate and rectify if it's a false alarm ie heat/fumes from cooking. After the 2 minutes, if the detector is still activated the system will go into a full fire situation.

Note, At any time during the alert period, if another device is activated, the system goes into a full fire situation.

<u>How Alarm Sense and Non-Priority Devices Work</u>

Alarm sense detectors and MCPs operate at a nominal 12V, Sounders and beacons operate at 24V - at 12V there isn't enough voltage to make them operate. When a detector or MCP is activated, the panel detects this and switches the sounders on by taking the zone voltage to 24V.

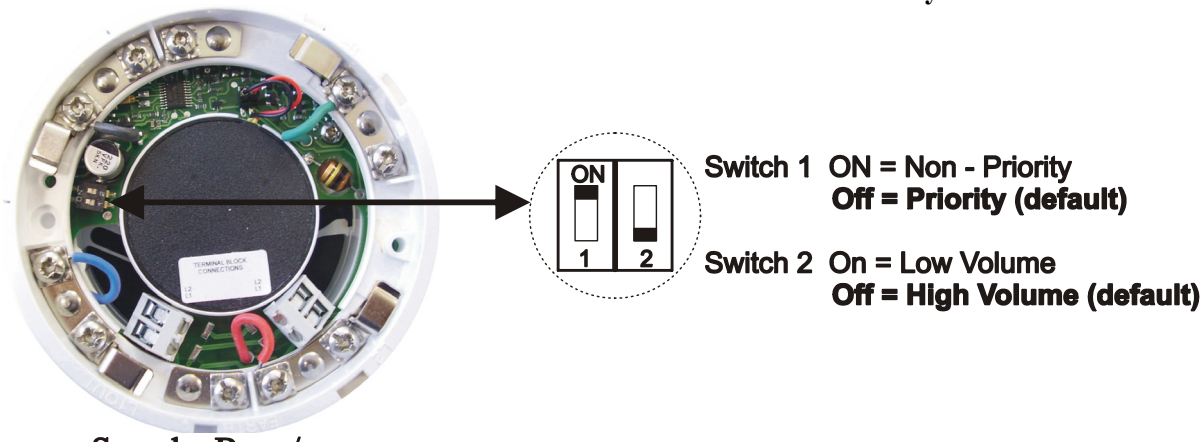
Non-Priority devices operate slightly differently. When a detector on a sounder set as Non-priority is activated. The detector signals to the panel that a Non-Priority device is activated. The panel sends out a Non-Priority pattern onto all zones that are set as Non-priority. This causes the sounder on the activated detector to sound for 2 minutes (alert period.)

If another device of any type or Priority/Non-Priority is activated during the alert period, the system goes into a full fire condition.

A Non-Priority alert cannot be generated if the system is already in a fire condition.

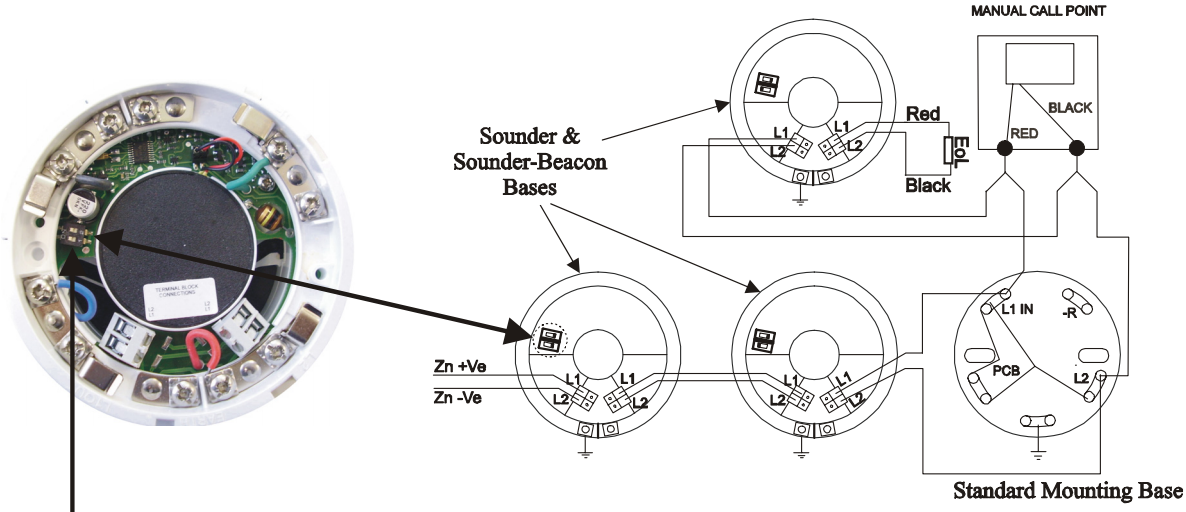
Note,
Sounder bases that don't have the Priority/Non-Priority switches cannot be mixed on the same zone with Priority/Non-Priority bases.

Two wire Sounders and LR sounders use DiL switches to set operation as Non-Priority devices or as normal standard (Priority) devices. The Dil switches are on the PCB in the base and works in conjunction with the panel zone configuration - this must be '**Two Wire (AlarmSense) with Non Priority Sounder**' in order for the local alert feature to operate.
Any sounder/sounder beacon bases with heat detectors should be set as 'Priority'.

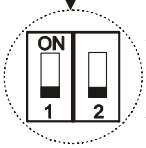


Sounder Base /
Sounder-Beacon Base

Wiring Alarm Sense Sounder and Sounder-Beacon Bases



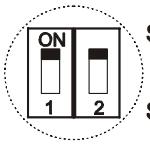
Examples of Sounder / Sounder-Beacon Base - DiL Switch Settings



Switch 1 ON = Non - Priority
Off = Priority (default)

Switch 2 On = Low Volume
Off = High Volume (default)

Base Set As Priority Base (Standard 2Wire Base)
With High Sound Output 87dB(A).

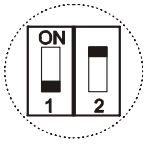


Switch 1 **ON = Non - Priority**
Off = Priority (default)

Switch 2 **On = Low Volume**
Off = High Volume (default)

Base Set As Non-priority 2Wire Base
With Low Sound Output 70dB(A).

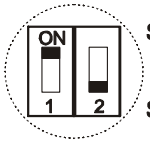
Note:- If Non-priority devices are to be used.
All zones containing these devices should have the configuration in the Eurofire panel set to Non-proiority



Switch 1 ON = Non - Priority
Off = Priority (default)

Switch 2 **On = Low Volume**
Off = High Volume (default)

Base Set As Priority Base (Standard 2Wire Base)
With Low Sound Output 70dB(A).



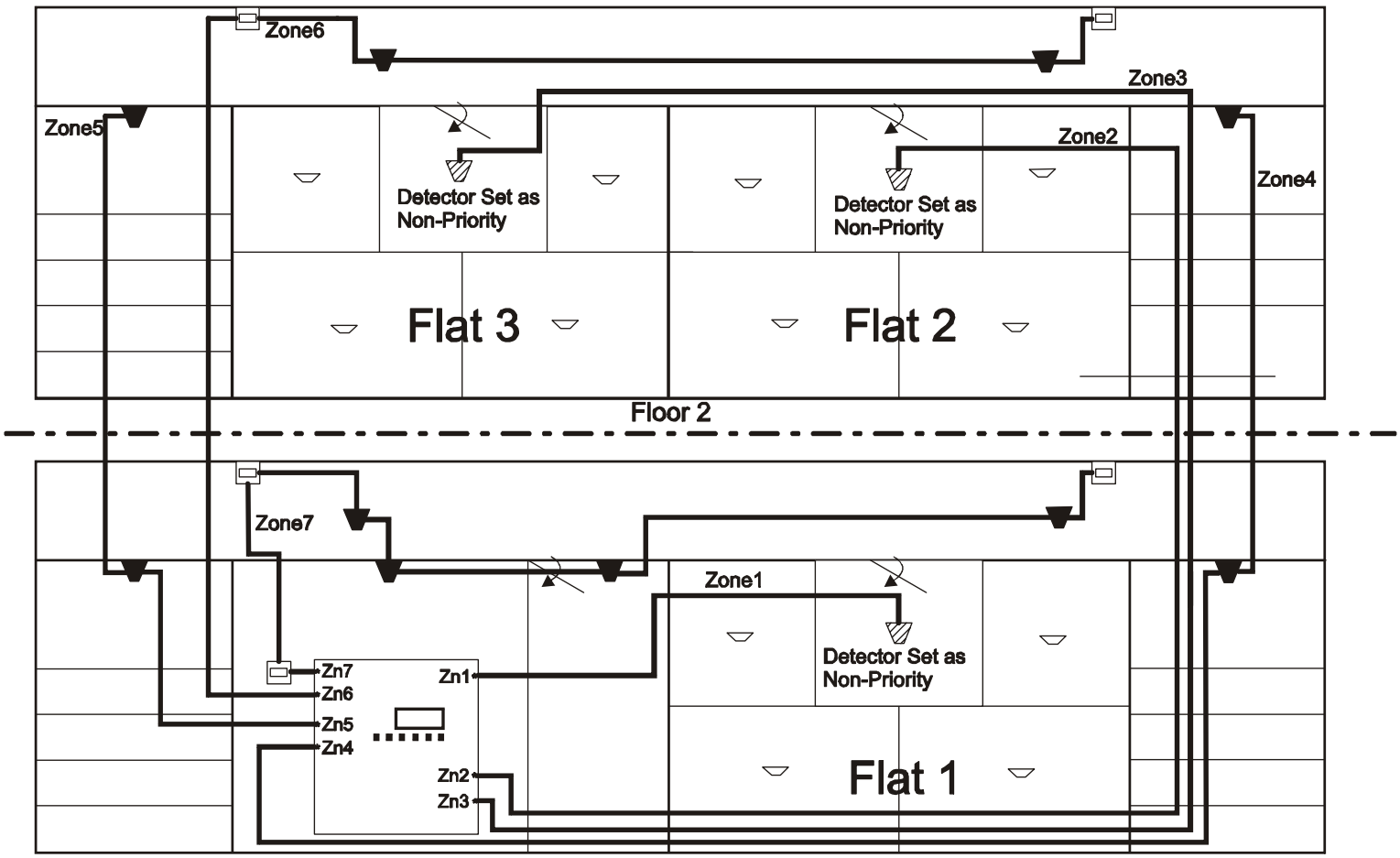
Switch 1 **ON = Non - Priority**
Off = Priority (default)

Switch 2 On = Low Volume
Off = High Volume (default)

Base Set As Non-priority 2Wire Base
With High Sound Output 87dB(A).

Note:- If Non-priority devices are to be used.
All zones containing these devices should have the configuration in the Eurofire panel set to Non-proiority

Examples of Programming and use of Non-Priority Detectors - Local alert operation



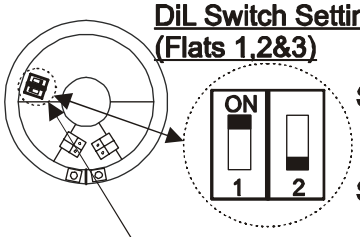
Key

- Manual Call Point (MCP)
- Combined Sounder-Detector Base Set as priority.
- Combined Sounder-Detector Base Set as Non Priority Detector
- Sounder-Beacon Base - An LR Device
- Stand Alone Smoke Alarm

Panel Settings

Zone 1	Non Priority set zone	Zone 4	Priority set zone
Zone 2	Non Priority set zone	Zone 5	Priority set zone
Zone 3	Non Priority set zone	Zone 6	Priority set zone
		Zone 7	Priority set zone
		Zone 8	Priority set zone

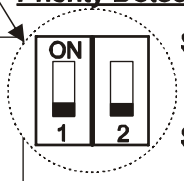
DiL Switch Settings for Non-Priority Sounder-Detectors (▨) (Flats 1,2&3)



Switch 1 **ON = Non - Priority**
Off = Priority (default)

Switch 2 On = Low Volume
Off = High Volume (default)

Priority Detectors (▼) (All Other Areas) - DiL Switch Settings



Switch 1 ON = Non - Priority
Off = Priority (default)

Switch 2 On = Low Volume
Off = High Volume (default)

NOTE:- any sounder/sounder beacon bases with heat detectors should be set as 'Priority'.

Scenarios

1. ***Non Priority detector (▨) in Flat 1 is activated due to fumes from cooking.***
   - Sounder on that detector will sound for 2 minutes (alerting the occupants in flat1.) No other alarm on the system is activated. The occupant has time to expel the smoke from in and around the detector.
   - During this period, the panel indicates Zone 1 in fire (Local Alert), and sounds the buzzer in the control panel.

The responsible person has time to investigate the alert and act accordingly.

- After the alert period, if fumes have dispersed away from the detector, panel returns to a quiescent state.
- Though, if during the alert condition, another Priority Detector ( ), Non Priority Detector ( ), or MCP ( ) is activated, the system goes into a full fire situation and all sounders/beacons operate.

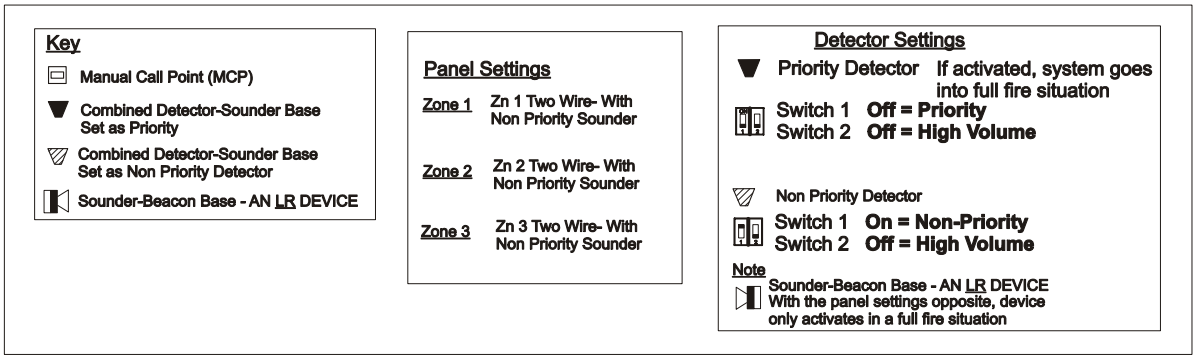
2. Non Priority detector ( ) in Flat 1 is activated as a real fire condition.

- Sounder on that detector will sound for 2 minutes (alerting the occupants in flat1.) No other alarm on the system is activated.
- During this period, the panel indicates Zone 1 in fire (Local Alert), and sounds the buzzer in the control panel.
  The responsible person has time to investigate the alert and act accordingly.
- After the alert period the Non Priority Detector ( ) is still activated, this causes the panel to go into a full fire situation and all sounders/beacons operate.
- If during the alert, another Priority Detector ( ), Non Priority Detector ( ), or MCP ( ) is activated, the system goes into a full fire situation and all sounders/beacons operate.

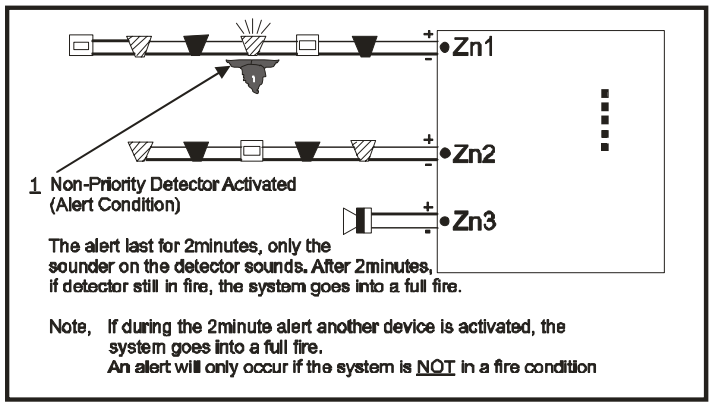
3. Detector ( ) or MCP ( ) is activated as a fire condition.

- The panel goes into a full fire situation.
  If a Non Priority Detector ( ) is activated afterwards – the panel treats this as a normal detector activated in a fire situation.

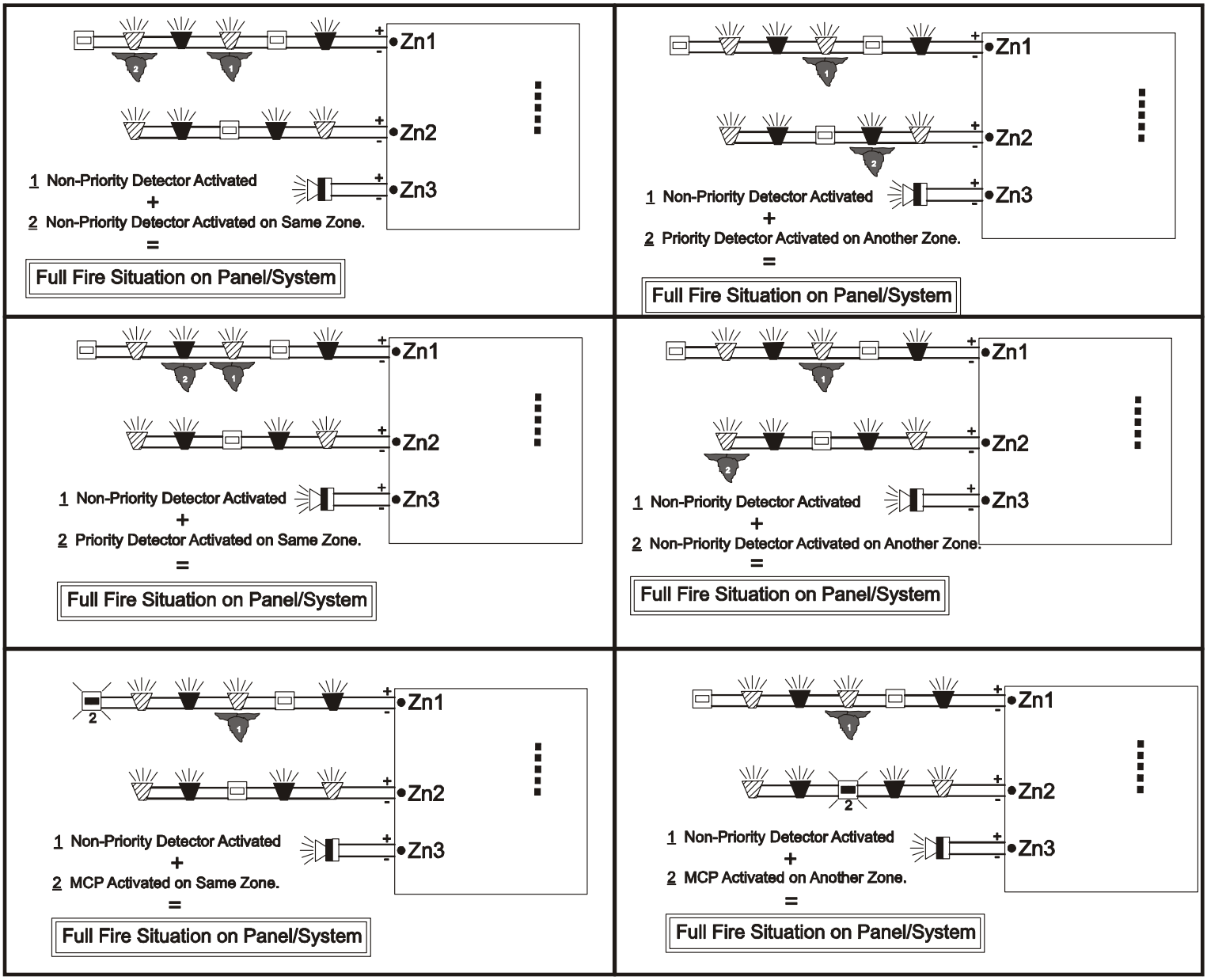
Examples Using Priority and NonPriority Devices



Single Activation of Non-Priority Detector



Multiple Activations



LEVEL 3 – PANEL SETUP –

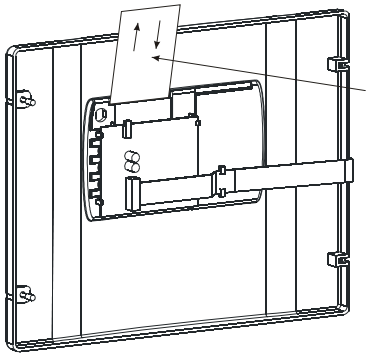
The fire panel is factory set as follows:

- All zones set as Latching
- All zones set as Priority or Non-Priority
- Monitor Input, OFF
- Class Change illuminates Fire led, OFF
- Alarm Delay, OFF

The above settings can be altered to suit various installation requirements.
A Level 3 card has been provided to help the set up process. Open the panel front and change slide in cards to the level 3 side, see below–**when finished remove and replace cards with main card side showing.**

Fit the small link across pins marked MEM at the bottom centre of the main pcb – close the door and enter **LEVEL 3 CODE *4554***. Only one function is indicated (flashing led) at any time, all functions must be set up in sequence. To go straight to a specific setting, **press 1 – function** until you reach the required setting. After set up is complete **press 4- SAVE CHANGES**, remove the MEM link and then **press 5 – EXIT.**

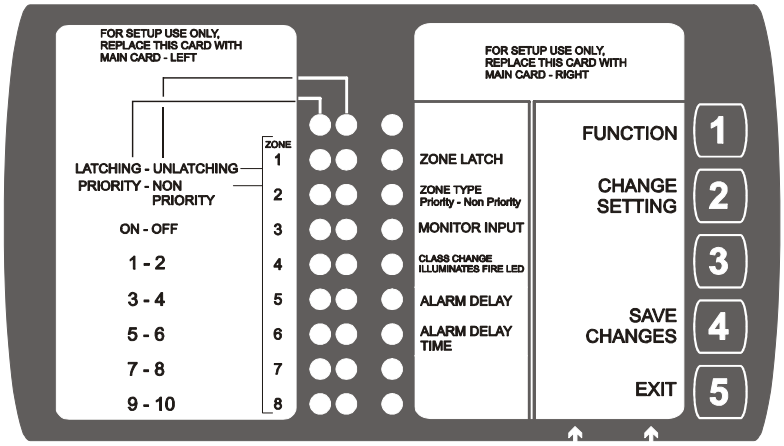
NOTE, to exit and NOT save the changes - remove the link and then press 5 – EXIT



CHANGING ZONE CARDS

1- Pull cards out of slots
2- Rotate cards and carefully slide into slots - note - cards are different widths.
3- Ensure cards are fully inserted and aligned correctly.
4- Zone card may be written with zone text, or typed via a PC using a free file provided via email

Panel Front Layout with Level 3 Set up Card



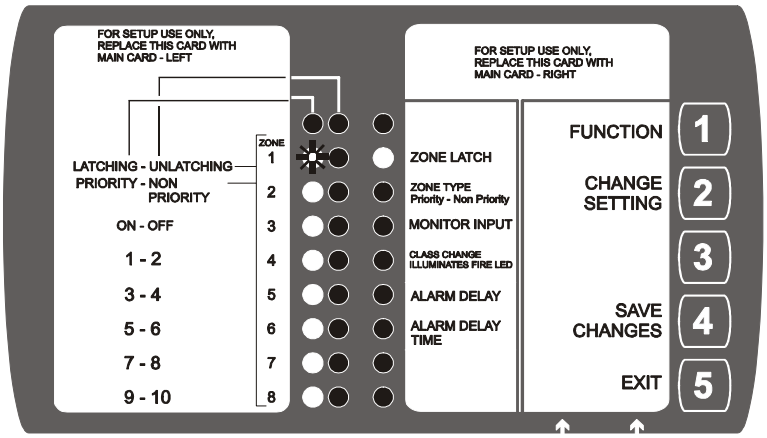
When entering Level 3

Note, If at any point you go passed desired setting, press key No:1 until you return to desired location.

Start at ZONE LATCH – Each zone is individually set as either Latching or Unlatching.

Starting with Zone 1 led flashing (zone 1 is latching)

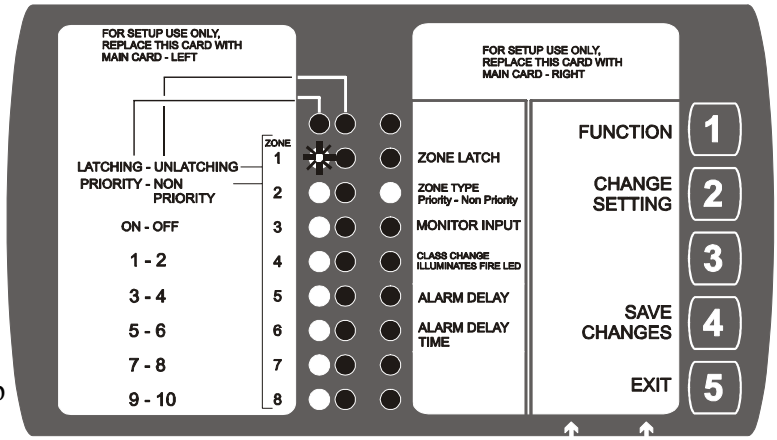
PRESS Key 2 (Change Setting) – moves flashing Led to make 'Zone 1 UNLATCHING'
PRESS Key 1 (Function) – moves setting (flashing led) to the next zone.
Repeat above process to set remaining zones.
On the last zone, Press Key 1 (Function) moves setup to setting the Zone Type – Priority or Non-Priority.



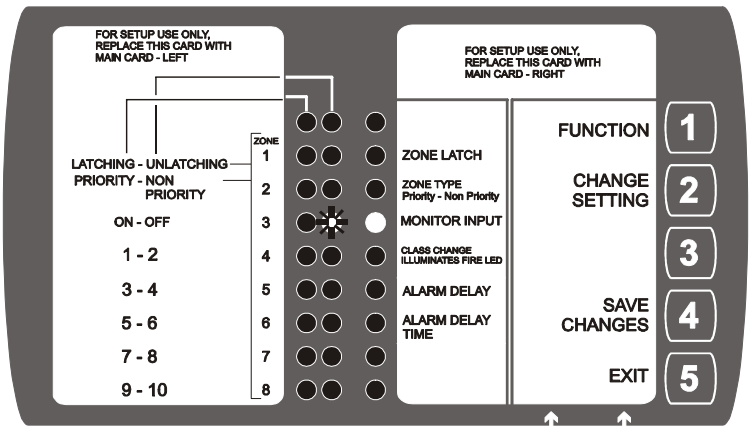
Zone Type – The fire detection type of each zone i**s** set as either Priority or Non-Priority (standard default setting is Priority)

Starts at Zone 1 led flashing (Zone 1 is Priority)
PRESS Key 2 (Change Setting) – moves flashing led to make 'Zone 1 Non-Priority

PRESS Key 1 (Function) – moves setting (flashing led) to the next zone.
Repeat above process to set remaining zones.
On the last zone, press Key 1 (Function) moves setup to setting Monitor Input.

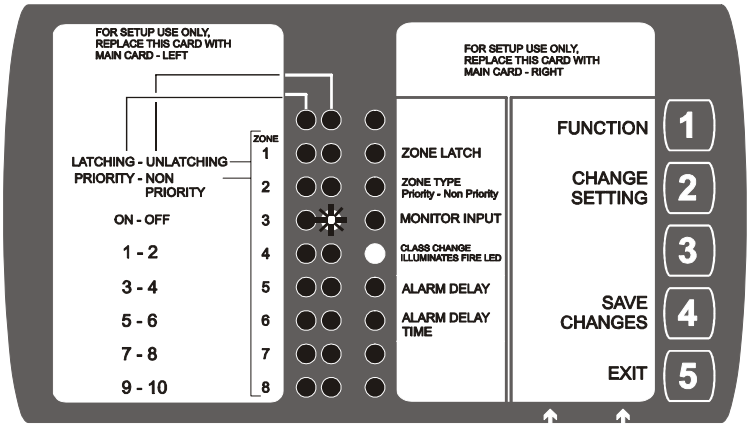


Setting Monitor Input – This is an input which when set up requires 24Vdc applied to the 'MON I/P' terminal. If not a fault is generated and the 'common fault' LED is illuminated.
Monitor input can either be ON or OFF – if it is off the input is not monitored and 24Vdc does not have to be applied to the terminal.



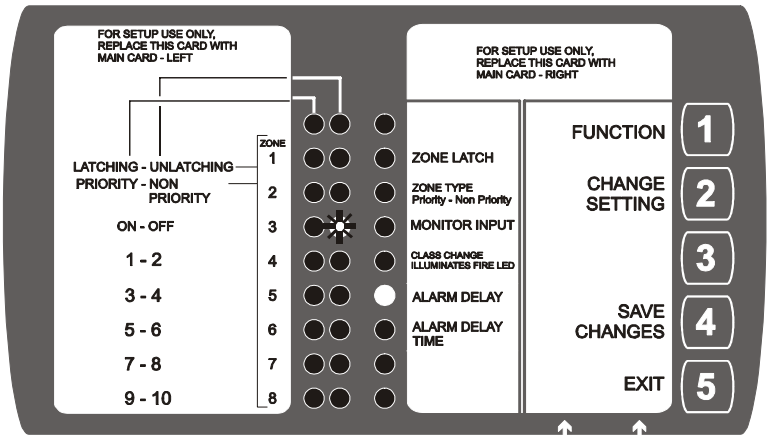
PRESS Key 2 (Change Setting) – moves flashing led to make Monitor Input either ON or OFF.
PRESS Key 1 (Function) – moves setting (flashing led) to Class Change.

Setting Class Change – Set up to illuminate the 'common fire' led when Class Change is activated. It can be set to either ON or OFF – if it is set to OFF The 'common fire' led is NOT illuminated when Class Change is activated.

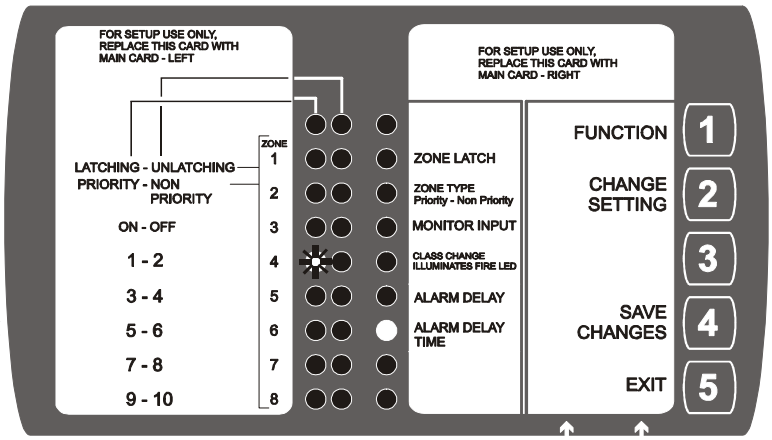


PRESS Key 2 (Change Setting) – moves flashing led to make option either ON or OFF.
PRESS Key 1 (Function) – moves setting (flashing led) to Alarm Delay.

Setting Alarm Delay – This option is set to either On or Off. If set to on, it works in conjunction with the setting 'Alarm Delay Time' and input terminal 'enable delay' – figure 3. When set up, if input terminal 'Enable Delay' is connected to 'GND' (via switch etc), a fire on any zone will cause a delay to the alarms sounding, the length of the delay is set by 'Alarm Delay Time.' If 'Enable Delay' is not connected to 'GND', sounders will operate immediately in a fire condition.
This feature would for example be a 'Day Switch'
PRESS Key 2 (Change Setting) – moves flashing led to make option either ON or OFF.
PRESS Key 1 (Function) – moves setting (flashing led) to Alarm Delay Time, only if Alarm Delay is set to ON.
If set to OFF, moves setting (flashing led) to ZONE LATCH.



Setting Alarm Delay Time – Sets the delay time to sounders activating - from 1 to 10 minutes.
Display shows flashing led, the 'Alarm Delay Time' example opposite – 1 minute.
Note, If 'Setting Alarm Delay' above, is <u>off</u> this option 'Setting Delay Time' is not available.



PRESS Key 2 (Change Setting) – moves flashing led through the time settings, 1 to 10.
PRESS Key 1 (Function) – moves setting (flashing led) to back to Zone Latch.

Summary of the Maintenance Requirements of BS5839-1: 2002

Note: This information is provided for the general guidance of fire detection and fire alarm system users. As it is a summary, it omits much of the information included in the clauses listed below. It is therefore not intended to be a replacement for the detailed recommendations included within BS5839-1.

Clause 44 Routine Testing

Clause 44.1 Commentary

- It is vital for a regular test to be undertaken to ensure that there has not been a major failure of the entire fire detection and fire alarm system that may otherwise go unnoticed.

Clause 44.2 Weekly Testing by the User

- Test a manual call point during working hours to check that the control panels and alarm sounders operate satisfactorily.
- Each week, a different manual call point should be tested.
- Voice alarm systems should be tested weekly in accordance with BS5839-8
  Note: If the system is connected to an Alarm Receiving Centre (ARC) for calling the fire brigade, it is very important that the ARC is notified before testing commences and when it is completed

Clause 44.3 Monthly Attention by the User

- Testing of any automatically started generator used for the fire detection and fire alarm system.
- Inspection of any vented batteries used as a standby power supply for the fire detection and fire alarm system.

Clause 45 Inspection and Servicing

Clause 45.1 Commentary

- The inspection and servicing should be undertaken by organisations with the appropriate competence. This can be assured by the used of organisations that are third party certificated, by a UKAS accredited certification body, specifically to carry out inspection and servicing of fire detection and fire alarm systems.

Clause 45.2 Quarterly inspection of vented batteries

- Vented batteries should be examined by a person with relevant competence and topped up if necessary.

Clause 45.3 Periodic Inspection and Testing

- The period between visits to undertake inspection and service should be based upon a risk assessment but the maximum period between visits should not exceed six months.
- The logbook should be inspected.
- A visual inspection should be made to check whether structural or occupancy changes have been made that require changes to the fire detection and fire alarm system.
- False alarm records should be checked and relevant action taken if necessary.
- Batteries should be checked and tested.
- Control panel functions should be checked and tested.
- Fire alarm devices should be tested.
- Facilities for automatic transmission of alarm signals to an alarm receiving centre (ARC) should be checked after advising the ARC of the proposed actions.
- All fault indicators and circuits should be tested and checked.
- Other checks and tests recommended by the manufacturer should be carried out.
- Outstanding defects should be reported and the logbook completed and servicing certificate issued.

Clause 45.4 Inspection and Test of a System Over a 12 Month Period

- The switch mechanism of every manual call point should be tested.
- Every automatic fire detector should be examined and functionally tested. Note: this includes, but is not limited to; smoke detectors, most heat detectors, optical beam smoke detectors, aspirating fire detection systems, carbon monoxide fire detectors and flame detectors.
- Additional checking is required for some analogue fire detectors and for multi-sensor detectors.
- All fire alarm devices should be tested.
- Certain filament lamps should be replaced.
- Visual inspection of readily accessible cable fixings should be undertaken.
- The cause and effect programme should be checked.
- The standby power supply capacity should be checked.
- Other annual checks and tests recommended by the system component manufacturers should be undertaken.
- Outstanding defects should be reported and the servicing certificate issued.

Clause 46.4.4 Recommendations for action to address an unacceptable rate of false alarms

- This Clause recommends that any false alarm investigation and subsequent modifications to the system takes into account the guidance provided in Section 3 of BS5839-1 : 2002. Note: Any organisation undertaking false alarm investigations and related remedial work should be able to demonstrate their competence to undertake such work.

Section 3 of BS5839-1 : 2002

- This section contains comprehensive information on all aspects of limitation of false alarms. The measures to limit false alarms are divided into eight groups:
    - Siting and selection of manual call points.
    - Selection and siting of automatic fire detectors.
    - Selection of system type.
    - Protection against electromagnetic interference
    - Performance monitoring of newly commissioned systems.
    - Filtering measures.
    - System management.
    - Regular servicing and maintenance.

LOG BOOK

This log book should be maintained by a responsible person who should ensure that every entry is properly recorded. An ‘event’ should include fire alarms (real and unwanted), faults, tests, temporary disconnection’s or zone isolations and the dates of service engineers visits and the work carried out.

Name and Address ....

....

Person responsible ....Date ....

Person responsible ....Date................................

The system was installed by ....

and is maintained under contract by..until................................

Tel no .... who should be contacted if service is required.

DATE	TIME	EVENT	ACTION REQUIRED	DATE COMPLETED	INITIALS

DATE	TIME	EVENT	ACTION REQUIRED	DATE COMPLETED	INITIALS

QUICK USER GUIDE FOR 1-8 ZONE FIRE PANELS		
USER CODE	**BUTTON**	**ACTION**
3545 LEVEL 2a	**1 – RESET**	Return the system to a normal condition after a fire or fault has occurred. This should only be performed when the fire or fault has been identified and alarms have been silenced.
	2– SILENCE BUZZER	Stops the sounding of the internal buzzer.
	3 – SILENCE / SOUND ALARMS	Turn off the fire alarm sounders whilst the system is being cleared after a fire. Sound the fire alarms to evacuate the building. Other devices will not be triggered
	4,5 – WALK TEST	Tests detectors and callpoints on a zone. The sounders will sound for 1 second then reset. Zones tested are indicated on the panel
	5 – LAMP TEST - EXIT	Lights all LEDs and beeps the internal buzzer for 2 seconds. Then exits from Level 2a function
5344 LEVEL 2b	**1 – RESET**	Return the system to a normal condition after a fire or fault has occurred. This should only be performed when the fire or fault has been identified and alarms have been silenced.
	2– SILENCE BUZZER	Stops the sounding of the internal buzzer.
	3,4 – DISABLE / ENABLE ZONE	Disable zones & alarms if a fault occurs – does not affect the other zones. Select as follows:-
		3 - Selects/deselects the zone/alarm **4** - Moves flashing light to the required zone.
	5 – EXIT	Exit from Level 2b function.

INDICATORS	COLOUR	INDICATION
FAULT /TEST /DISABLE – COMMON	Yellow	On when a fault condition has occurred, or if no other fault Led is on, this indicates 24v auxiliary fuse has tripped.
FIRE - COMMON	Red	On when a FIRE condition has occurred.
ZONES 1-8 FAULT	Yellow	Flashes if a detector is removed from its base, or an open/short circuit zone wiring fault. On when a zone is disabled and flashed when in walk test.
ZONES 1-8 FIRE	Red	On during a FIRE condition in this zone. Flashed when a device has been tested during walk test.
SUPPLY	Green	On while power is being supplied to the panel.
SUPPLY FAULT	Yellow	Flashes during a mains or battery supply failure.
DISABLED	Yellow	Zones and / or alarm are disabled. The specific zone or alarm fault led will also be lit.
ALARM FAULT/ DISABLED	Yellow	Flashes with a fault on the sounder wiring. Illuminated if alarm lines are disabled.
ALARM SILENCED	Yellow	Sounders on the alarm circuits during a fire/evacuation condition have been switched off.
TEST	Yellow	Walk test function selected.
EARTH FAULT	Yellow	Will illuminate if a fault occurs with the earthing.
SYSTEM FAULT	Yellow	Illuminated if the panel has “crashed” and an attempt to restart the system has been made. Flashed if an error in the system software has been detected – Requires attention.
DELAY ENABLED	Yellow	There is a delay before the Alarms are going to be activated. Works in conjunction with the Enable Delay input.