



**USER MANUAL,
MAINTENANCE GUIDE &
LOG BOOK**

CONTENTS

1. FIRE ALARM CONTROL PANEL SAFETY ISSUES.....	3
How to use this Fire Alarm Panel safely	
2. THE PURPOSE OF A FIRE ALARM SYSTEM.....	3
Introduction to fire alarms	
3. USER RESPONSIBILITIES & MAINTAINENCE OF THE FIRE ALARM SYSTEM, INCLUDING THE FACP & ITS INTEGRAL PSE	4
What the end users responsibility is, including daily, weekly, quarterly & annual checks	
4. PANEL INDICATIONS & CONTROLS	5
A list of indicator LEDs & Control Buttons on the Optima Fire Alarm Panel	
4.1 GENERAL CONTROLS	
4.2 ACCESSED CONTROL (AVAILABLE TO AUTHORISED USERS ONLY)	
4.3 SUMMARY OF LED COMBINATIONS AND THEIR MEANING	
4.4 CHECKING THE PANELS INDICATION LEDS	
5. THE FIRE CONDITION	7
5.1 HOW THE OPTIMA INDICATES AN ALARM	
5.2 TO TURN OFF THE ALARM SOUNDERS	
5.3 A SECOND ALARM SIGNAL FROM A NEW DETECTION ZONE	
5.4 TURNING ON THE ALARM SOUNDERS FROM THE FACP (I.E. EVACUATE).	
5.5 RESETTING THE PANEL	
6. THE FAULT CONDITIONS	8
6.1 DIFFERENT TYPES OF FAULT	
6.2 WHAT TO DO IF A FAULT CONDITION OCCURS	
7. DISABLEMENTS	10
7.1 REASONS FOR DISABLING CERTAIN PARTS OF A FIRE ALARM SYSTEM	
7.2 TO DISABLE A ZONE AND/OR EXTERNAL SOUNDER	
7.3 TO ENABLE A ZONE AND/OR EXTERNAL SOUNDER	
8. USING SOUNDER DELAYS.....	11
8.1 WHAT IS A SOUNDER DELAY	
8.2 SOUNDER DELAY SETTING	
8.3 HOW THE PANEL INDICATES SOUNDER DELAY	
8.4 A FIRE ALARM CONDITION ON A DELAYED PANEL	
8.5 OVERRIDING A DELAY IN THE EVENT OF A GENUINE FIRE ALARM	
8.6 RESET THE SYSTEM IN THE EVENT OF A FALSE ALARM	
8.7 TO TURN OFF THE SOUNDER DELAY	
9. SYSTEM DESCRIPTION	12
Lists system comments	
10. FIRE ALARM LOG BOOK.....	13
A place for you to record details of events such as fires, false alarms, call outs, etc.	
11 COMMISSIONING THE SYSTEM, INCLUDING P.S.E.....	17
11.1 DESIGN, INSTALLATION & COMMISSIONING CERTIFICATES	18

1. FIRE ALARM CONTROL PANEL SAFETY ISSUES

There is no need to open this fire alarm during normal operation. Any work carried out on this system must be performed by a competent person who is familiar with this type of system.

This equipment will operate safely provided it has been installed correctly in compliance with the Installation Manual.

It is recommended that the system is serviced frequently. It is customary to arrange a regular maintenance contract with a competent organisation. (Ask the installation company for recommendations). The system needs a thorough maintenance check annually at the very minimum.

If any part of this Fire Alarm Control Panel becomes damaged, contact the company responsible for system maintenance to arrange repair / replacement.



European Union Directives Conformance Statement

This product has been manufactured in conformance with the requirements of all applicable EU Council Directives. The Declaration of Conformance for this product is located at the following Address: GLT Exports Ltd, 72-78 Morfa Road, Hafod, Swansea, SA1 2EN, United Kingdom

2. THE PURPOSE OF A FIRE ALARM SYSTEM

A Fire Alarm System is used to provide an early warning of a fire, so that the property can be evacuated and the fire extinguished if it can be safely tackled, or the local fire brigade called, according to the company evacuation procedure.

Alarms can come from Smoke or Heat Detectors, or manually be a person operating a Manual Call Point.

Split the system into Zones, each covering a different area of a building. This will indicate which area of the system is giving the alarm (or fault).

During an alarm, the panel will start its sounders, and indicate which zone has the fire. It will also activate its auxiliary relay.

Fault Monitoring

All circuits must be checked for line integrity. If a part of the system has a problem which may affect its operation, a fault warning must be given by the fire alarm panel (LED & buzzer indication). The fault relay will also activate.

Disablements

An engineer may be required to work on part of a system, while the system is still active (eg extending a detection zone). During such circumstances, it would be advisable to disable that zone, so that it will not give false alarms. Similarly you may wish to disable a zone that has a fault that has not been fixed, or a zone covering an area with a temporary unusual environment, such as an area which is dusty because of construction work etc.

Delays

In public places, it may be desirable to delay the activation of an alarm until the responsible person has verified the cause of the alarm. (This would avoid a panic evacuation caused by a smoky room, or a maliciously activated call point.) On verification of the alarm, the sounders can be started by pressing the override button, or the panel can be reset in the case of a false alarm. If a delay has been set, it must be recorded on the system configuration chart at the back of this manual.

Power Supply Equipment- General Description.

The Optima FACP has an integral linear power supply capable of supplying 1.2 amps in total. It contains a current limited output for charging sealed lead acid batteries (7 Ah maximum). The PSE is monitored for main supply failure, the battery not taking a charge and low battery voltage. If the battery voltage drops below approximately 20VDC (a fault condition), the battery charging current will be turned off, thus stopping charging. This PSE is only capable of supplying power to the CIE, and is not designed for any other use.

3. USER RESPONSIBILITIES & MAINTENANCE OF THE FIRE ALARM SYSTEM, INCLUDING THE FACP & ITS INTEGRAL PSE

According to the British Standard Code for Fire Detection and Alarm Systems for Commercial Buildings (BS5839: Pt 1: 2002), the owner or person having control of the premises should appoint a responsible person to oversee the effective operation of the Fire Alarm System (Clause 47.1).

Below is a summary of the main functions the "Responsible Person" is expected to carry out. This summary is not intended to replace Section seven (User responsibilities) of BS5839: Pt 1: 2002 (available from BSI, or your local library). It is meant to give a brief outline of user responsibilities for the safe upkeep of the Fire Alarm System. The number in brackets shows the relevant BS5839: Pt 1: 2002 clauses.

The responsible person must:-

1. Have sufficient authority to carry out the duties associated with being the responsible person (47.2.a)
2. Check the system at least once every 24 hours to ensure there are no faults present (47.2.b)
3. Ensure there are arrangements for testing and maintaining the system (47.2.c)
4. Ensure the log book is up to date, and available for inspection (47.2.d)
5. Instruct all relevant occupants on the basic operation of the system, including start evacuation, silence alarms, silence faults and system reset (47.2.e)
6. Take appropriate action to limit the rate of false alarms (47.2.f)
7. Ensure that all detectors and manual call points remain unobstructed at all times (47.2.g)
8. Liaise with maintenance personnel to ensure that cleaning, maintenance or building work does not interfere with the functioning and reliability of the fire alarm system (47.2.h).
9. Ensure any changes to the system are recorded with updated drawings, operating instructions etc (47.2.i)
10. Ensure that there are spare parts (especially Call point elements) held on site (47.2.j.1&2)
11. In the event of a prealarm, determine the cause & take appropriate action (predetermined fire routine if the cause is the start of a fire, arrange maintenance if the cause is a contaminated detector head) (47.3)

With the Optima Range of Fire Alarm Panels, we recommend the following tests are carried out: -

Daily Inspection

- Check that the green Power LED is lit.
- If there are any yellow fault LEDs lit, or the green Power LED is not lit, report the fault(s) to the designated site maintenance engineer.

Weekly Test (you may wish to temporarily disconnect the Aux relay during the following Tests)

- Set off a manual call point or sensor to test the Fire Alarm panel responds and all the sounders activate.
- Do not test the same device each week. Test a different zone each week using a different call point or detector so that eventually, all the devices will be tested.
- Reset the System by pressing 1,2,3 (Stop sounders, Silence fault tone, Reset).
- Turn key to controls enabled. Press the LED Test button. Check that all LEDs light, and the buzzer sounds
- Check that no call points or fire detectors are obstructed in any way. (eg New furniture or decorations)

Quarterly Test (to be carried out by authorised service personnel only)

- Check that any servicing or repairs required by all previous logbook entries has been undertaken.
- Visual inspection of the batteries and connections. Check the alarm sounders work on battery only.
- Activate a device from each zone to test the fire alarm. (As per weekly test).

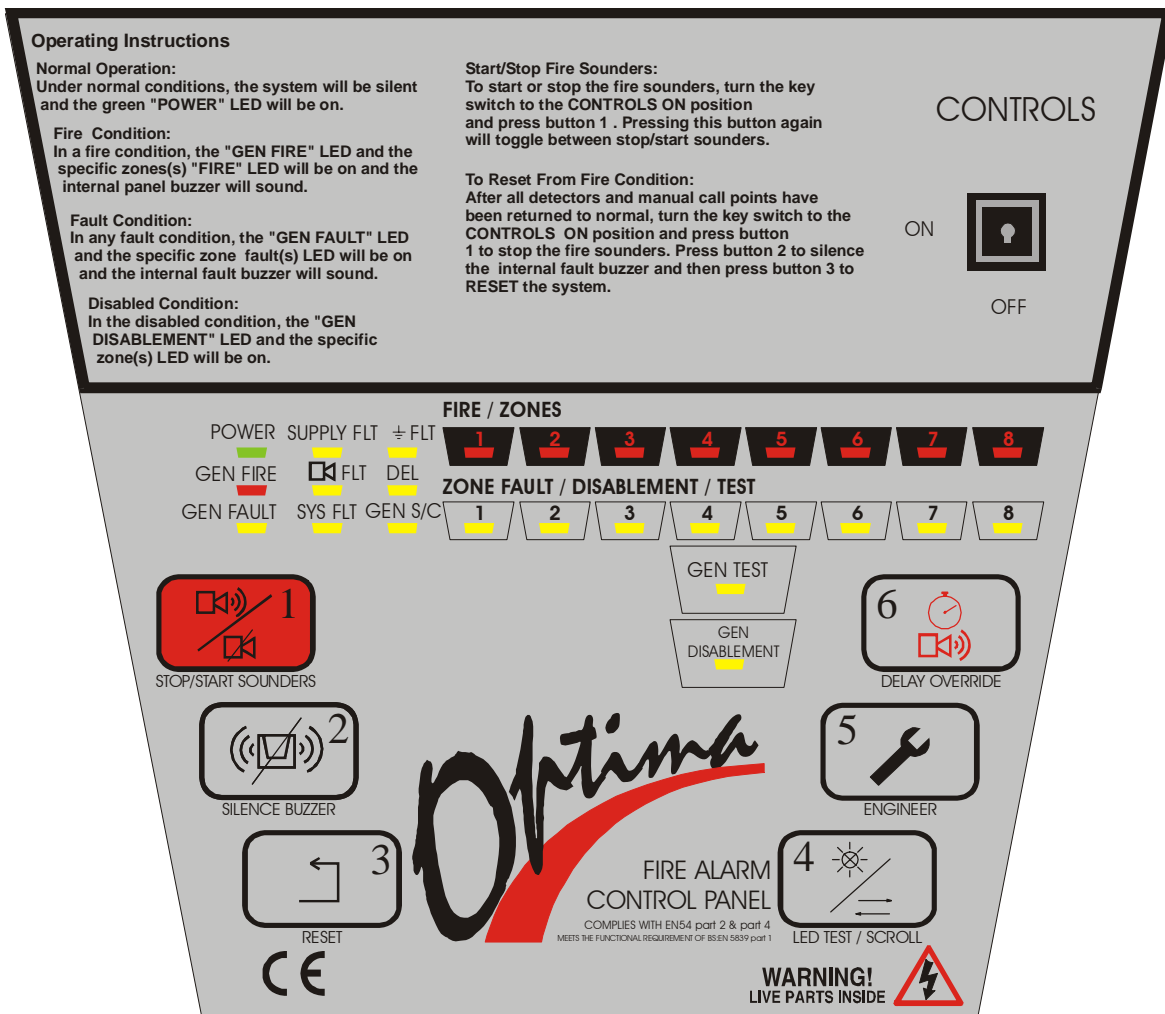
Annual Test (to be carried out by authorised service personnel only)

- Check every detector, call point, sounder and all auxiliary equipment for correct operation.
- Check Transformer output Voltage (32 VAC), Charger Voltage (28.4V off load, adjusted with VR1) & Battery Voltage (25-27V)

Every Five Years (to be carried out by authorised service personnel only)

- Carry out a complete wiring check in accordance with the testing and inspection requirements of the relevant National wiring regulations (in the UK this is the IEE Wiring Regulations). The Batteries should be replaced because SLA batteries have a working life of 5 years.

4. PANEL INDICATIONS & CONTROLS



Two levels of control are available to the User(s) of this Fire Alarm Panel.

4.1 GENERAL CONTROLS

When the Panel is in its Normal state, the indicator lights on the front of the enclosure give a comprehensive overview of the System's current status. Any Fire and Fault conditions are clearly displayed, and any disablements highlighted. For detailed descriptions of what each indicator means, please refer to the table on the opposite page.

The only functions that can be performed by the User when the Panel is in its Normal state are:

- Overriding any Delays, which may have been programmed into the Panel by pressing the Sounder Override button.
- Putting the Panel into the Accessed state – see below.

4.2 ACCESSED CONTROL (AVAILABLE TO AUTHORISED USERS ONLY)

To avoid unauthorised changes to critical parts of the Fire Alarm System, controls such as silencing the Sounders, resetting an Alarm condition and implementing Disablements are only accessible via a secure method of entry which puts the panel into the Accessed state.

To put the Panel into the Accessed State: Turn the key to the control enable position (please note the key should not be removed when in this position). To leave the Accessed state, turn the key back to the off position.

Information on how to use the accessed control can be found on Pages 8 to 11 of this User Manual.

4.3 SUMMARY OF LED COMBINATIONS AND THEIR MEANING

Use the table below to determine the condition of the panel.

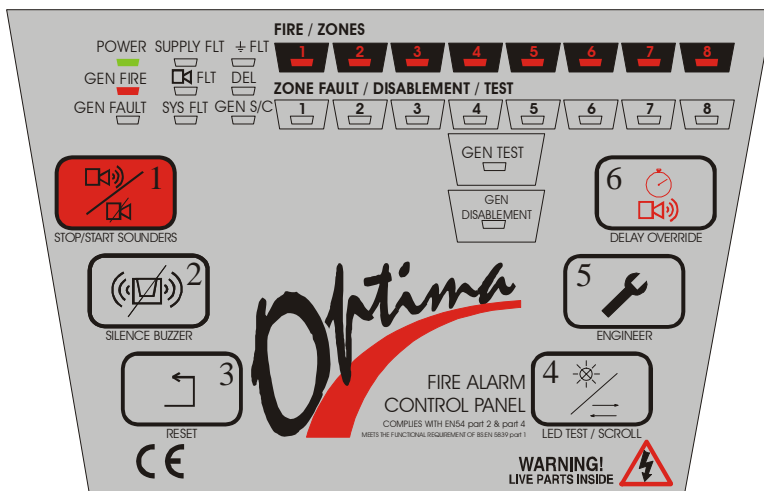
LEDs LIT	LED CONDITION	PANEL STATUS
POWER	CONSTANT GREEN	The panel is supplied with power, and has no faults / fires (System Normal)
GEN FLT ONLY	CONSTANT YELLOW	Problem with keyswitch connections
GEN FLT & SUPPLY FLT	CONSTANT YELLOW FLASHING YELLOW	There is a problem with either the mains supply or the battery backup
GEN FLT & EARTH FLT	CONSTANT YELLOW FLASHING YELLOW	There is a wiring problem. One of the cables is touching the earth screen.
GEN FLT & ZONAL FLT	CONSTANT YELLOW FLASHING YELLOW	There is an open circuit fault in the wiring of the zone indicated.
GEN FLT & ZONAL FLT GEN S/C	CONSTANT YELLOW FLASHING YELLOW FLASHING YELLOW	There is a short circuit fault in the wiring of the zone indicated.
GEN FLT & SND FLT	CONSTANT YELLOW FLASHING YELLOW	There is an open circuit fault in the wiring of one or both of the sounder circuits
GEN FLT & SND FLT GEN S/C	CONSTANT YELLOW FLASHING YELLOW FLASHING YELLOW	There is a short circuit fault in the wiring of one or both of the sounder circuits
GEN FLT & SYSTEM FLT	CONSTANT YELLOW CONSTANT YELLOW	A processor fault has occurred. To reset, turn keyswitch on then back off. If problem persists, consult your dealer.
GEN FIRE ONLY	CONSTANT RED	A manual evacuation has occurred. The sounders will be active.
GEN FIRE & ZONE FIRE	CONSTANT RED CONSTANT RED	A fire has occurred in the zone indicated. The sounders will be active.
GEN FIRE & ZONE FIRE & GEN DISABLE & DEL	CONSTANT RED CONSTANT RED CONSTANT YELLOW CONSTANT YELLOW	A fire has occurred in the zone indicated. The sounders have a delay set, and will become active after the programmed delay. To override the display, press delay override.
GEN DISABLE	FLASHING YELLOW (FAST-4HZ)	The panel is ready for selecting disable or test mode
GEN DISABLE	FLASHING YELLOW (SLOW-0.5HZ)	The panel is in SELECT DISABLEMENT MODE
GEN DISABLE ZONE DISABLE	FLASHING YELLOW (SLOW-0.5HZ)	The user is scrolling through zones to select which one to disable/or user has just enabled the zone.
GEN DISABLE ZONE DISABLE	CONSTANT YELLOW CONSTANT YELLOW	The indicated zone is disabled.
GEN DISABLE DEL	CONSTANT YELLOW CONSTANT YELLOW	The Sounders are delayed by the amount set on the 4 way dip switch.
GEN TEST ZONE DISABLE	FLASHING YELLOW FLASHING YELLOW (VERY SLOW-0.25HZ)	The indicated zone is in Test Mode.

4.4 CHECKING THE PANELS INDICATION LEDS

Turn the key switch to "Controls Enabled" position then press the LED test button (Button 4). All the LEDs on the front panel will light, and the panel's internal buzzer will also sound.

5. THE FIRE CONDITION

5.1 HOW THE OPTIMA INDICATES AN ALARM



When the Optima Fire Alarm Panel is set into alarm by a Detector or Manual Call Point located in a zone that is not already in alarm it will: -

- Light the General Fire LED and appropriate Zone Fire LED(s) on the front of its enclosure
- Sound Internal buzzer
- Start the Alarm Sounder and Auxiliary output, (provided there is no Delay set on the sounders).
The building evacuation procedure should now be followed.

IMPORTANT NOTE: If a zone has been disabled, it can not be triggered into Alarm. This should be remembered when disabling part of the system. (see Disabling zones or sounders later in this manual).

5.2 TO TURN OFF THE ALARM SOUNDERS

- The Alarm Sounders may be silenced by turning the control key to “Control Enable” position and momentarily pressing the Start/Stop button.

The Alarm Sounders will cease to sound but the light(s) for the Zone(s) in Alarm and the red General Fire light will stay lit. The Auxiliary Fire relay will remain active. (The Panels internal buzzer can also be silenced by pressing the Silence int fit button (button 2)).

5.3 A SECOND ALARM SIGNAL FROM A NEW DETECTION ZONE

If another detection Zone is activated after the Alarm Sounders have been silenced, the panel will: -

- Restart the sounders
- Light the Zone Fire LED(s) for any new Zone(s) in alarm
- Keep the light(s) for the previous Zone(s) in fire, and General Fire lit.

5.4 TURNING ON THE ALARM SOUNDERS FROM THE FACP (I.E. TO EVACUATE THE BUILDING).

- With the control key in “Controls Enabled” position, momentarily pressing the Start/Stop will cause the Alarm sounders to sound.

Pressing the Start/Stop button again will Silence the Alarm Sounders.

Note: If the Alarm Sounders have been disabled, pressing the Stop/Start button will have no effect.

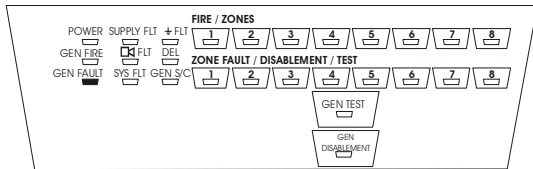
5.5 RESETTING THE PANEL

- Check the cause of the alarm activation. If the cause of the alarm was an activated call point, reset it (if resettable type), or fit a new glass element (if glass type). If the cause of the alarm was by detector activation (eg cooking smoke), the smoke will have to be cleared from the room before the panel can be reset. Reset the panel by pressing the reset button (3) after the sounders and panel buzzer have been silenced.
- If the call point is still active, or the detector is still smoky, this will cause another alarm straight after the panel is reset, so will set off alarm bells again.

6. THE FAULT CONDITION

6.1 DIFFERENT TYPES OF FAULT

The fire alarm monitors itself, and any equipment connected to it, for any faults that can occur. If a fault occurs, the Panel responds by activating its Internal buzzer and lighting the General Fault light and any other Fault light(s) relevant to the particular fault. The Panel's Fault relay will also activate. Typical faults are described below: -

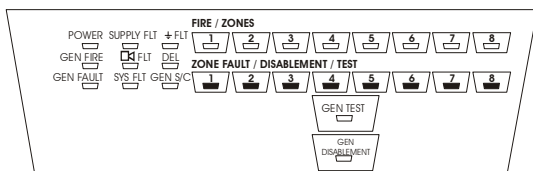


General Fault

The General Fault LED is a common indicator that lights when there is a Fault on any part of the Fire Alarm Systems.

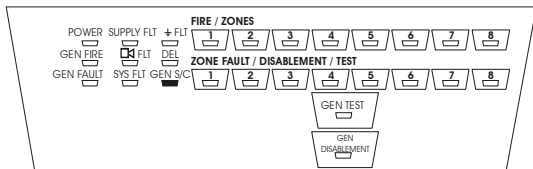
It is usually lit in tandem with at least one other fault light which conveys more precise information on the type of Fault detected.

If this light is lit by itself, it indicates a keyswitch fault.



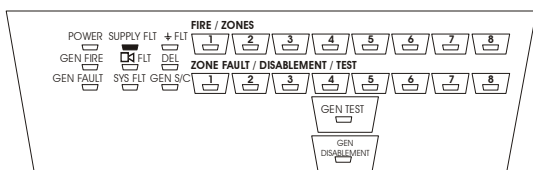
Zone Fault

The relevant Zone Fault light flashes when there is a wiring problem on a Zone or detector has been removed from its base. It should be noted that any alarms raised on the fault zone(s) may not be recognised by the Fire Alarm Panel until the Fault Conditions have been cleared. It can take up to 60 seconds from repairing a fault for the display to clear.



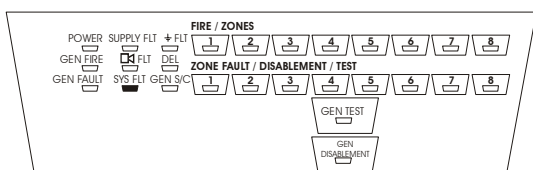
Short Circuit Fault

If the Fault is a short circuit fault, then the S/C LED will be lit. This GEN S/C LED will be lit for S/C faults on the zone and sounder circuits. It can take up to 60 seconds from repairing a fault for the display to clear.



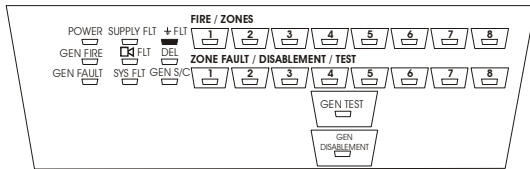
Power Supply Fault

The Power supply Fault light flashes when the Mains supply has failed or the standby batteries or its charger is faulty. If the mains supply fails, the panel will only operate for the standby period dictated by the size of the batteries fitted. If the batteries or charger fails at the same time as the Mains, the Panel will be inoperative.



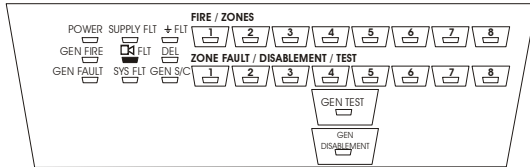
System Fault

The System Fault LED lights when the Panel's micro-processor has Reset, typically after excessive electrical interference, or if the contents of its memory have been corrupted. This fault can only be cleared by turning the key switch from the off position to control enable position and then back to the off position again. If the fault re-occurs within two minutes, this is indicative of a corrupt memory and expert advice should be sought.



Earth Fault

The Earth Fault light flashes when the panel detects an earth fault (short circuit to earth) on the wiring to any part of the control panel.



Sounder Fault

The Sounder status light flashes when there is a wiring fault on the Sounder Circuits. Depending on where the fault has occurred, one or all of the Alarm Sounders may no longer be operative.

If the fault is a short circuit fault, then the S/C LED will also be lit.

6.2 WHAT TO DO IF A FAULT CONDITION OCCURS

If a fault occurs, the responsible person should:

- Turn keyswitch to Controls enabled and press silence flt tone button (button 2) to silence the fault buzzer.
- Write down the fault (s) in the Log Book at the back of this Manual. Take appropriate action to correct the fault (Usually by contacting the service engineer)

On the Optima panel, the fault indications (except system fault) are non latching. That is, when the fault has been cleared, the fault indication will turn off. When all faults have been cleared, the panel will return to its quiescent (normal) condition. When a fault has been rectified the indicator light for that Fault is automatically turned off. If all Faults are cleared, the General Fault light will go out and the Panel's Internal Sounder will be silent (if not already muted).

7. DISABLEMENTS

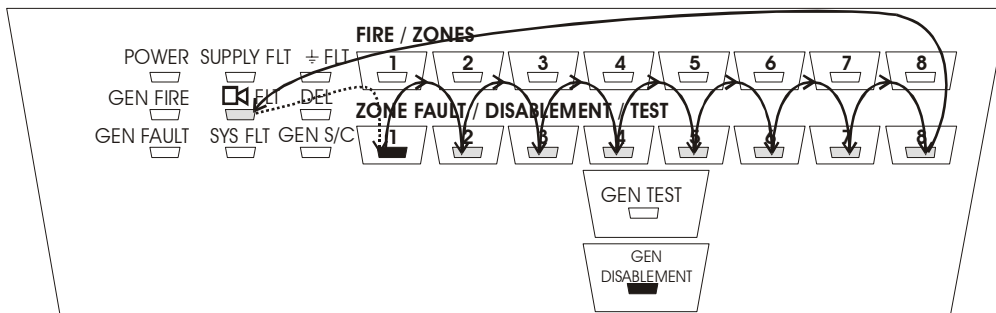
7.1 REASONS FOR DISABLING CERTAIN PARTS OF A FIRE ALARM SYSTEM.

Certain parts of this Fire Alarm Panel can be temporarily disabled (i.e. switched off) to suit prevailing conditions. For example, if there is a risk of a False Alarm in a zone, for example, from vehicle exhaust smoke in a loading bay, it is possible for the user to disable that zone during the risk period and then enable it again afterwards. During a disablement of a zone(s), no fire or fault signal will be processed for that zone(s). Only zone(s) in a non-alarm state can be disabled, that is zones already in fire cannot be disabled.

External sounders can also be disabled as could be required in certain conditions.

7.2 TO DISABLE A ZONE AND/OR EXTERNAL SOUNDERS.

1. Turn control key to "Controls Enable" position;
2. Press "Engineer" switch momentarily, this will cause General Disablement LED to flash (fast). This means the panel is in disable/enable mode;
3. Press scroll (No. 4) switch once and this will cause the General Disablement LED to flash (slow);
4. Press scroll (No. 4) switch once again and this will cause Zone 1 Disablement LED to light steady;
5. Pressing scroll (No. 4) switch will cause the zone disablement LED to toggle to zone 2 and so on;



6. Select zone to be disabled. For example, if Zone 3 is selected and with Zone 3 disablement LED lit (steady) and General Disablement LED flashing slow, pressing "Engineer" will cause General Disablement LED light to change to steady. This means that zone 3 is now disabled;
7. Switch controls key to off position, then both the disabled Zone Disablement LED and the General Disablement LED will remain lit (steady).

7.3 TO ENABLE A ZONE AND/OR EXTERNAL SOUNDERS.

1. Turn key to "Controls enable" position (since a zone is already disabled at this time, the General Disablement LED with stay lit (steady));
2. Press "Engineer" switch once and this will cause the General Disablement LED to flash (fast);
3. Press scroll (No. 4) switch until the light is steady at the disabled zone;
4. Press "Engineer" and this will cause the General Disablement LED to flash (slow);
5. Turn control Key to "Off" position and this will turn off the General Disablement and Zone Disablement LEDs.

NOTES:

The option of disabling or enabling zones 2, 3, 4, 5, 6, 7 and 8 is only available if these zones are present on the panel

8. USING SOUNDER DELAYS

8.1 WHAT IS A SOUNDER DELAY

In certain circumstances it may be desirable to have a delay between the panel detecting a fire, and starting its external sounders, to allow the responsible person to check the cause of the alarm, to stop building evacuation by an obvious false alarm. If the cause of the Alarm is found to be a true fire hazard, the Delay can be overridden and the Alarm Sounders activated immediately. Alternatively, in the case of a false alarm, the Panel can be reset.

8.2 SOUNDER DELAY SETTING

On the Optima panel, the sounder delay is global. That is, all zones will be delayed by the same amount. The delay can be set between 1 minute and 9 minutes, by adjusting dip switch SW7(see install manual), or the delay can be left off (sounders activate immediately), by leaving all dip switches off.

8.3 HOW THE PANEL INDICATES SOUNDER DELAY

If a Delay has been programmed into the Panel, the General Disablement & DEL(AY) LEDs will be lit. When a zone processes an alarm signal, the panel will indicate fire in the usual way, but the sounders will not be active until the delay period has expired. To override this delay, press Delay Override Switch, which will cause the external sounders to energise. If there is no delay programmed, the Delay Override Switch has no function.

8.4 A FIRE ALARM CONDITION ON A DELAYED PANEL

When an alarm occurs on a Delayed Panel, the panel will: -

- Light its General Fire and appropriate Fire Zone light(s)
- Sound its Internal buzzer
- Start the Delay countdown sequence
- Wait until the end of the delay, then start the sounders.

8.5 OVERRIDING A DELAY IN THE EVENT OF A GENUINE FIRE ALARM

If on investigation the cause of the Alarm is found to be a true fire hazard, pressing the Delay Override, will activate the Alarm Sounders and Outputs with immediate effect.

8.6 RESET THE SYSTEM IN THE EVENT OF A FALSE ALARM

If, on investigation, the cause of the Alarm is found to be false, turn the Key switch to the "Controls Enabled" position and press reset button.

8.7 TO TURN OFF THE SOUNDER DELAY

There are two ways of turning off the sounder delay:-

- 1 Set the 4 way dip switch to the 0 position (all off).
- 2 Turn key to controls enabled position. Press engineer button (to select disablement mode). Press delay override (the DEL LED will now go off to show that the delay is no longer active). Pressing Delay Override again will toggle the delay back on.

9. SYSTEM DESCRIPTION

FIRE ALARM SYSTEM SUMMARY:

FIRE ZONE INFORMATION				
<i>ZONE NUMBER</i>	<i>ZONE DESCRIPTION</i> A brief description of all the rooms and areas contained in each zone	<i>QTY SNDR</i>	<i>QTY MCP</i>	<i>QTY HEADS</i>
1				
2				
3				
4				
5				
6				
7				
8				
<i>Sounder Circuit</i>	<i>SOUNDER CIRCUIT DESCRIPTION</i> A brief description of all the rooms and areas contained in each circuit	<i>QTY SNDR</i>	<i>QTY BELLS</i>	
Circuit 1				
Circuit 2				
Circuit 3				
Circuit 4				
Any Other Information about The Sounder Circuits				

OUTPUT ROUTING INFORMATION		
<i>TYPE OF OUTPUT</i>	<i>CONNECTED</i>	<i>WHAT HAPPENS WHEN ACTIVATED</i>
Auxiliary Output	Yes/No	
Fault Output	Yes/No	

ADDITIONAL INFORMATION
<i>Any additional information the User needs to know about should be inserted into this box including details of the routing of any additional outputs, details of inputs utilised, etc.</i>

THE INFORMATION ABOVE WAS COMPLETED BY	
NAME:	_____
COMPANY:	_____
POSITION:	_____
DATE:	_____

10. FIRE ALARM LOG BOOK

It is recommended that this LOG BOOK section of the Manual be maintained by the responsible person(s) on site, who should ensure every event is properly recorded (including fire alarm conditions, failures, tests, temporary disconnections, disablements, enablements, dates of installing engineers' visits together with a note of any outstanding work or panel conditions). This LOG BOOK must be available for inspection at all times.

You can photocopy this log book to provide extra pages for when this book is full.

BS5839 part 1 recommends that fire alarm events should be subdivided & recorded on separate sheets in the log book. The event categories are:

Maintenance work

False alarms – Where the sounders have activated with no signs of a fire.

Any other events- This would be genuine alarms or faults.

Company: _____
Site Address: _____ _____ _____ _____
System designed by: _____
System installed by: _____
System commissioned by: _____
System maintained by: _____
Contract No: _____
Contract valid until: _____
For Service (Normal hours Mon-Fri) Tel: _____
For Service (Other times) Tel: _____
Responsible Person(s) on Site: _____

11 COMMISSIONING THE SYSTEM, INCLUDING P.S.E.

- The commissioning of this fire alarm system should be performed by a qualified commissioning engineer, who has an understanding of sections 2,3,& 4 of BS5839 pt 1:2002 (i.e. Design considerations, Limitations of false alarms, Installation recommendations)
- The system layout drawing should be checked for accuracy & stored in a safe place, accessible to any fire officer.
- The system set-up data chart (GLT.MAN-110, section 9) should be checked for accuracy.
- The fire alarm log book contact details should be checked for completeness.
- The insulation of cables should be checked in accordance with BS5839 Pt1: 2002 clause 38.2 for compliance.
- The Earthing should be checked in accordance with BS5839 Pt1: 2002 clause 38.2 for compliance.
- The PSE mains feed from a 3A spur should be checked. **It should be protected by an over current device (MCB) NOT an earth leakage device (RCD).**
- The PSE Charger voltage should be checked & adjusted if necessary (28.3 with batteries disconnected).
- The battery voltage should be checked (should be between 24 & 27V)
- All call points & detectors can signal an alarm condition and indicate the correct zone (and text message) on the fire alarm panel.
- The Sound pressure level throughout the building should be checked for compliance with the recommendations of BS5839 Pt1: 2002 clause 16.2
- Any deviations from BS5839 Pt1 clause 7.2 should be listed in the Certificate of Installation & Commissioning.
- The Certificate of Installation & Commissioning should be completed, and the whole user manual passed to the relevant person on site. (They should be given a brief training on the basic operation of the FACP)

11.1 DESIGN, INSTALLATION & COMMISSIONING CERTIFICATES

The guidelines in BS 5839 Pt1: 2002 say that each stage of the system design and installation should have a separate certificate. Before this User Manual is handed over to the relevant person(s) on site, the following certificates (or the relevant company's equivalent) should be completed by the system designer, the installation engineer and the commissioning engineer. The System Description sheet should also be completed on Page 12 as should the relevant parts of the Log Book section on Page 13.

The user, or responsible person should then complete the acceptance certificate to acknowledge that they have been instructed in the use of the fire alarm, have witnessed that it is operational, and have been given all the relevant paperwork (drawings, log book, user manual, etc)

DESIGN CERTIFICATE

PAGE 1 of 2

Certificate of Design for the Optima Fire Alarm System installed at:

Address: _____

I/we being the competent person(s) responsible (as indicated by my/our signatures below) for the design of the fire alarm system, particulars of which are set out below, CERTIFY that the said design for which I/we have been responsible complies to the best of my/our knowledge and belief with the recommendations of section 2 of BS 5839-1:2002 for the system category described below, except for the variations, if any, stated in this certificate

Name (in block letters): _____ **Position:** _____

Signature: _____ **Date:** _____

For and on behalf of: _____

Address: _____

_____ **Postcode:** _____

The extent of liability of the signatory is limited to the system described below.

System Category (see BS 5839-1:2002, Clause 5): _____

Variations from the recommendations of section 2 of BS 5839-1:2002 (see Clause 7):

Extent of system covered by this certificate:

Brief description of areas protected (not applicable for Category M, L1 or P1 systems):

DESIGN CERTIFICATE

PAGE 2 of 2

Measures incorporated to limit false alarms. Account has to be taken of the guidance contained in section 3 of BS 5839-1: 2002 and, more specifically (tick as appropriate):

- The System is manual. Type & siting of manual call points takes account of the guidelines contained in section 3 of BS 5839-1
- The system incorporates automatic fire detectors, and account has been taken of reasonably foreseeable causes of unwanted alarms, particularly in the selection and siting of detectors
- An appropriate analogue system has been specified
- An appropriate multi-sensor system has been specified
- A time-related system has been specified. Details: _____
- Fire signals from automatic fire detectors result initially in a staff alarm, which delays a general alarm / transmission of signals to an alarm receiving centre (delete as applicable) for _____ min.
- Appropriate guidance has been provided to the user to enable limitation of false alarms.
- Other measures as follows: _____

INSTALLATION & COMMISSIONING RECOMMENDATIONS

It is strongly recommended that installation and commissioning be undertaken in accordance with the recommendations of section 4 and section 5 of BS 5839-1: 2002 respectively.

SOAK TEST

- In accordance with the recommendations of clause 35.2.6 of BS 5839-1:2002, it is recommended that following commissioning a soak period of _____ should follow (enter a period of at least 1 week)
- As the system incorporates no more than 50 automatic fire detectors, no soak test is necessary to satisfy the recommendations of BS 5839-1:2002

VERIFICATION

Verification that the system complies with BS 5839-1:2002 should be carried out, on completion, in accordance with BS 5839-1:2002 Clause 43

- Yes No To be decided by the purchaser or user

MAINTENANCE

It is strongly recommended that, after completion, the system is maintained in accordance with section 6 of BS 5839-1:2002

USER RESPONSIBILITIES

The user should appoint a responsible person to supervise all matters pertaining to the fire alarm system in accordance with the recommendations of section 7 of BS 5839-1:2002

INSTALLATION CERTIFICATE

Certificate of Installation for the Optima Fire Alarm System installed at:

Address: _____

I/we being the competent person(s) responsible (as indicated by my/our signatures below) for the installation of the fire alarm system, particulars of which are set out below, CERTIFY that the said installation for which I/we have been responsible complies to the best of my/our knowledge and belief with the specifications described below, and with the recommendations of BS5839-1:2002, except for the variations, if any, stated in this certificate

Name (in block letters): _____ **Position:** _____

Signature: _____ **Date:** _____

For and on behalf of: _____

Address: _____

_____ **Postcode:** _____

The extent of liability of the signatory is limited to the system described below.

Extent of the installation work covered by this certificate.

Specification against which the system was installed:

Variations from the specification and/or section 4 of BS 5839-1:2002 (see clause 7)

The wiring has been tested in accordance with the recommendations of clause 38 of BS 5839-1:2002. The test results have been recorded and provided to: _____

Unless supplied by others, the "as fitted" drawings have been supplied to the person responsible for commissioning the system (see BS 5839-1:2002 clause 36.2m)

COMMISSIONING CERTIFICATE

Certificate of COMMISSIONING for the Optima Fire Alarm System installed at:

Address: _____

I/we being the competent person(s) responsible (as indicated by my/our signatures below) for the commissioning of the fire alarm system, particulars of which are set out below, CERTIFY that the said work for which I/we have been responsible complies to the best of my/our knowledge and belief with the recommendations of Clause 39 of BS5839-1:2002, except for the variations, if any, stated in this certificate

Name (in block letters): _____ **Position:** _____

Signature: _____ **Date:** _____

For and on behalf of: _____

Address: _____

Postcode: _____

The extent of liability of the signatory is limited to the system described below.

Extent of the installation work covered by this certificate.

Variations from the recommendations of clause 39 of BS 5839-1:2002 (see clause 7)

- All equipment operates correctly
- Installation work is, as far as can be reasonably ascertained, of an acceptable standard
- The entire system has been inspected and tested in accordance with the recommendations of 39.2.c of BS 5839-1: 2002.
- The system performs as required by the specifications prepared by: _____

Taking into account the guidance contained in section 3 of BS 5839-1: 2002, I/we have not identified any obvious potential for an unacceptable rate of false alarms.

The documentation described in Clause 40 of BS 5839-1:2002 has been provided to the user

The following work should be completed before/after (delete as applicable) the system becomes operational

The following potential causes of false alarms should be considered at the time of the next service visit:

Before the system becomes operational, it should be soak tested in accordance with the recommendations of Clause 35.2.6 of BS 5839-1:2002 for a period of: _____ (enter a period of 1 week, the period required by the design specification, or the period recommended by the signatory to this certificate, whichever period is the greatest, or delete if not applicable)

ACCEPTANCE CERTIFICATE

Certificate of Acceptance for the Optima Fire Alarm System installed at:

Address: _____

I/we being the competent person(s) responsible (as indicated by my/our signatures below) for the acceptance of the fire alarm system, particulars of which are set out below, ACCEPT the system on behalf of:

Name (in block letters): _____ **Position:** _____

Signature: _____ **Date:** _____

For and on behalf of: _____

Address: _____

_____ **Postcode:** _____

The extent of liability of the signatory is limited to the system described below.

Extent of the system covered by this certificate.

- All installation work appears to be satisfactory.
- The system is capable of giving a fire alarm signal
- The facility for remote transmission of alarms to an alarm receiving centre operates correctly.
(Delete if not applicable)

The following documents have been provided to the purchaser or user:

- "As fitted" drawings.
- Operating and maintenance instructions
- Certificates of Design, Installation and Commissioning.
- A log book.
- Sufficient representatives of the user have been properly instructed in the use of the system, including, at least, all means of triggering fire signals, silencing and resetting the system, and avoidance of false alarms.
- All relevant tests, defined in the purchasing specification, have been witnessed.
(Delete if not applicable.)

The following work is required before the system can be accepted:

