Premier Quatro

MKII PROTOCOL ONE TO FOUR LOOPS ANALOGUE ADDRESSABLE FIRE ALARM PANEL

USER MANUAL, MAINTENANCE GUIDE & LOG BOOK

Zeta® ALARM SYSTEMS

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WHAT TO DO IF THE FIRE ALARM PANEL SHOWS AN ALARM (RED LED)

Write down the LCD reading and which LEDs are lit (either in the log book, or on a piece of paper for transferring to the log book later).

Follow the building procedures for fire alarm activation.

When the building has been evacuated, the sounders can be silenced by turning the key to the CONTROLS ENABLED position, which will cause the CONTROLS ACTIVE LED to light. Press the START/STOP SOUNDERS button and the SILENCE BUZZER button. (Note that the sounders may take up to 10 seconds to stop).

If there is no sign of fire, investigate the area that reported the fire CAREFULLY. Check for a detector or a call point with its RED LED lit.

If a detector caused the alarm, look for any innocent phenomena that could have activated it (Steam, cooking food, exhaust smoke, excessive dust etc. can all activate a smoke detector). If anything is found, try to clear the room by opening a window.

If there is a fire discovered, either attempt to douse it with a fire extinguisher if suitably trained, or call the fire brigade**.**
To reset the panel press the RESET button.

If the panel goes back into alarm, stop the sounders and call the engineer.

WHAT TO DO IF THE FIRE ALARM PANEL SHOWS A FAULT (YELLOW LED)

Write down the LCD reading and which LEDs are lit (either in the log book, or on a piece of paper for transferring to the log book later).

If the SUPPLY FAULT LED is lit, check if there is a power cut to the building. Check that the mains supply to the fire alarm has not been turned off.

All other fault indications will need the service engineer's attention. Call the engineer as soon as possible. Note that when the Quatro panel is in a fault condition, the majority of the system may still function correctly. Extra vigilance should be paid in the area with the fault. The alarm may not be operational in this area.

The panel's internal buzzer can be silenced by turning the key to the on position and pressing the SILENCE BUZZER button.

1. FIRE ALARM CONTROL PANEL SAFETY ISSUES

When the Premier Quatro panel is operating normally, i.e. not being tended by service personnel, the access door must be closed and locked. After locking, the key MUST be removed and ONLY held by the responsible person and / or the service personnel. It must under NO CIRCUMSTANCES be held by the user.

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.

C E	**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

1. 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.
2. An Alarm can be raised from Smoke or Heat Detectors, or manually by a person operating a Manual Call Point.
3. To split the building into Zones, each covering a different area of the building. This will indicate which area of the system is giving the alarm (or fault).
4. To start its sounders, and indicate which zone (area of the building) has signalled the fire. It will also activate its fire relay.

Fault Monitoring

The panel checks all circuits 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 (e.g. 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.

Power Supply Equipment- General Description

The Quatro panel has a switch mode power supply capable of supplying 5 amps in total. It contains a current limited output for charging sealed lead acid batteries (17 Ah maximum). The PSE is monitored for mains supply failure, the battery not taking a charge, the battery having a high resistance, 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.

3. USER RESPONSIBILITIES & MAINTAINENCE 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 (**BS 5839-1**:2002+A2:2008), 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 BS 5839-1:2002+A2:2008 (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 pre-alarm, 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 Quatro Fire Alarm Panel, 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.
- Turn the key to CONTROLS ENABLED. Reset the System by pressing STOP SOUNDERS, SILENCE BUZZER, and RESET.
- 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. (e.g. 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).

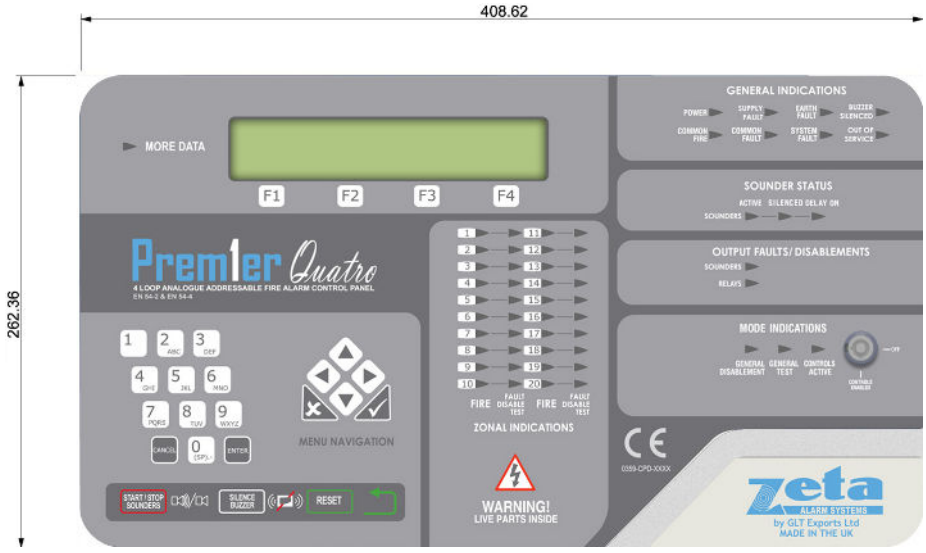
Annual Test (to be carried out by authorised service personnel only)

- Check every detector, call point, sounder and all auxiliary equipment for correct operation.
- Check Switch Mode cage INPUT Voltage (30.5 VAC), Charger Voltage (27.6V 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



4.1 PANEL INDICATIONS

The LEDs used for zonal fire indication are reserved solely for this purpose. The other LEDs in this zonal range are shared between fault, disable and test. These are accompanied by the Common Fault LED, the General Disablement LED and the Test LED, respectively. A zonal fault LED can be distinguished from disablement and test by the zonal fault LED flashing, and the other two zonal conditions are indicated by a steady LED.

4.2 PANEL CONTROLS

The controls on the Quatro are grouped together to try to be as user friendly as possible. The Start/Stop Sounder, Silence Buzzer, & Reset buttons are the main control buttons. Above these, to the left are the alphanumeric menu keys (used for entering device labels, access codes and numeric data), and to the right the menu navigational keys (used to move the cursor around the menus and accept / reject various options). The remaining control is the access control key, which is located on the far right of the panel, next to the enclosure's lock. If the panel is located in a position where the general public have access, this key must be removed from the panel and placed where it can be easily accessed by authorised personnel only. The access control key must be rotated clockwise to the CONTROLS ENABLED position, before any of the other controls can be activated.

4.3 IN THE EVENT OF AN ALARM

After the site has been deemed safe for return, to return the panel to normal: -

1. Turn the access control key to the CONTROLS ENABLED position.
2. Press the START/STOP SOUNDERS button to turn off the alarm sounders.
3. Press the SILENCE BUZZER button to turn off the panel's buzzer.
4. Record the LCD screen details in the Fire Alarm Log Book.
5. Press the RESET button to return the panel to its normal condition.

4.4 ACCESS LEVELS

The Quatro has the following access levels:

i. QUIESCENT STATE

When the Panel is in its Normal state (i.e. the access control key is in the OFF position or removed from the panel, 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 Section 4.5.

The only functions that can be performed by the user when the panel is in the normal or quiescent state are:

- Ending a programmed delay when the panel is in alarm. For example, if the installation engineer has instructed the panel to wait for 2 minutes after a fire has been detected before sounding the alarm, a user can override this delay if it is obvious that the building needs to be evacuated immediately. The user can override the delay by pressing button F4 (above which is displayed [END DELAY] on the screen).
- Putting the Panel into the Controls Enabled state – see below.

ii. CONTROLS ENABLED

This access level is obtained by turning the access control key to the controls enabled position. When the controls are enabled you can start or stop the external sounders, silence the panel's internal buzzer, or reset the panel. The numeric keypad is also enabled which allows the codes to be entered for the user's password or the installation engineer's password.

iii. USER MENU – FOR EACH AUTHORISED USER OF THE PANEL

This access level is obtained by entering a password which has been assigned to an authorised user. The password is 4 digits long. The initial default password value is 1111. It is recommended that this is changed for the authorised users by the installation / commissioning engineer, to make the panel more secure. Here the user can view panel, loop, and zone and event log contents; read individual points (i.e. detectors, call points, sounders & I/O's); disable / enable zones, points, sounders and relays; cancel programmed delays; and test the LEDs and LCD. The user can also enter the test mode, which permits points in selected zone(s) to be tested without causing the alarm to be raised throughout the building.

iv. INSTALLER MENU – FOR INSTALLATION / COMMISSIONING ENGINEERS ONLY

This access level is entered via the installation / commissioning engineer's password. At the installer level, the engineer can set up or modify a panel's site configuration, and use the available menus to fault find the alarm system. The engineer's password must not be revealed to the users.

4.5 CHECKING THE PANELS INDICATION LEDS

Turn the key switch to "Controls Enabled" position, and enter the 4-digit User password. Use the ▼button to scroll down the menu to Test LEDs & LCD. Press the **ENTER** button. All the LEDs on the front panel will light, the LCD screen will fill up with black squares, and the internal buzzer will sound. After about a second all these events will automatically reset.

4.6 WHAT THE LEDS MEAN

The LEDs on the Quatro can be grouped into the following sections:

General Indications:
These are indications to specific conditions, such as power, power supply faults, Earth faults, double address, system fault etc. They indicate all conditions except those that relate to the zones & sounders.

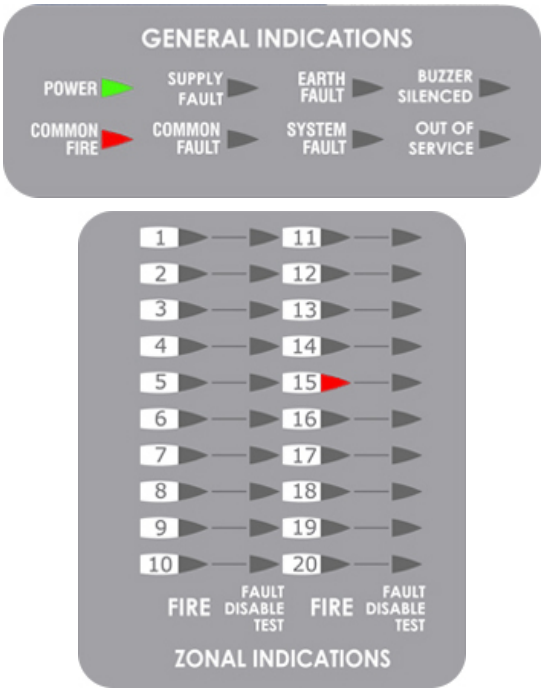
Common Indications:
These are Common Fire & Common Fault. These will light in conjunction with another LED which indicates the fire or fault condition, as a backup indication. They do not represent a specific event.

Zone Indications:
These are used to show a fire, fault, test mode, or disablement on a zone.

Mode Indications:
These are used to show which mode the panel is in. The controls active LED shows if the controls are enabled. The general test & general disablement are used to indicate test mode & disablement mode, respectively.

5. THE FIRE CONDITION

5.1 HOW THE QUATRO INDICATES AN ALARM



When the 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 COMMON FIRE LED and appropriate ZONE FIRE LED(s) on the front of its enclosure.
- Display fires from any zone on the LCD display.
- Sound the Internal buzzer.
- Start the Alarm Sounders and Auxiliary
- Outputs, (unless a delay has been programmed).
- The building evacuation procedure should now be followed.

```
FIRST ALARM: Z015 - SECOND FLOOR
LAST ALARM : Z025 - FOURTH FLOOR
ZONES IN FIRE : 003 POINTS IN FIRE : 005
PRESS ◄ OR ► TO SCROLL
```

```
FIRST ALARM: Z015 - SECOND FLOOR
LAST ALARM : Z025 - FOURTH FLOOR
002/005-08:10 Z086 - STAIR WELL
MKII-AOP (2.4.124) - ROOM 101
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More information about fires in any zone can be seen on the LCD by using the MENU NAVIGATION buttons to scroll the fire data. In the above example, 5 points (i.e. detectors or call points) are in fire. These are located in 3 different zones. The first alarm occurred in zone 15 and the most recent alarm occurred in zone 25. The 2nd point is located in zone 86 (STAIRWELL). The address label of this point is ROOM 101. It is on panel number 2, loop number 4 and at address 124. The point, which is an optical detector, was triggered at the time of 08:10.

IMPORTANT NOTE: If a zone has been disabled, it cannot be triggered into Alarm. This should be remembered when disabling part of the system (see Disablements in Section 7).

5.2 HOW 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 SOUNDERS button.

The Alarm Sounders will cease to sound* but the light(s) for the Zone(s) in Alarm and the red COMMON FIRE light will stay lit. The Auxiliary Outputs will remain active. (The Panels internal buzzer can also be silenced by pressing the SILENCE BUZZER button).

*Addressable loop sounders will stop within 2 seconds. Sounder bases can take up to 10 seconds to stop. If the START/STOP button is pressed again during this time, the panel will start the sounders again.

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 LED(s) for the previous Zone(s) in fire, and General Fire, lit.

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

- If a user comes across a fire in the protected building, the alarm can also be raised by operating the START / STOP SOUNDERS button on the front of the Fire Alarm Control Panel.
- With the control key in CONTROLS ENABLED position, momentarily pressing the Start/Stop will cause the Alarm sounders to sound.
- Pressing the START/STOP SOUNDERS button again will Silence the Alarm Sounders.

Note: If ALL of the Alarm Sounders have been disabled, pressing the STOP/START BUTTON will have **NO** effect.

5.5 RESETTING THE PANEL

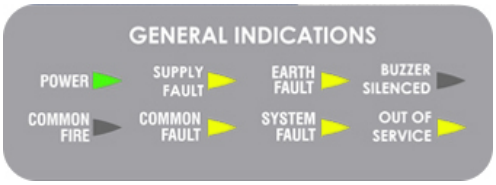
- Check the cause of the alarm activation. If the cause of the alarm was an activated call point, reset it (if a resettable type), or fit a new glass element (if a glass type). If the cause of the alarm was by detector activation the smoke (or steam or other stimulus) will have to be cleared from the room before the panel can be reset. Reset the panel by pressing the reset button 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, and the alarm sounders will start again.

6. THE FAULT CONDITION

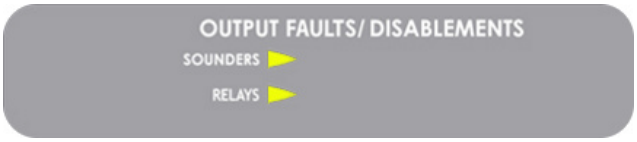
The fire alarm panel monitors itself, and any equipment connected to it, for any faults that can occur. If a fault occurs, the panel responds by activating its Internal buzzer and lighting the General Fault light and any other Fault light(s) relevant to the particular fault. The panel will also display the fault on its LCD display. The Panel's Fault relay will also activate. If there is more than one fault, the MORE DATA LED will light. The user can either wait for each fault to be scrolled automatically on the LCD, or scroll manually through the list of faults using the ◄ and ► buttons.

6.1 FAULT INDICATIONS

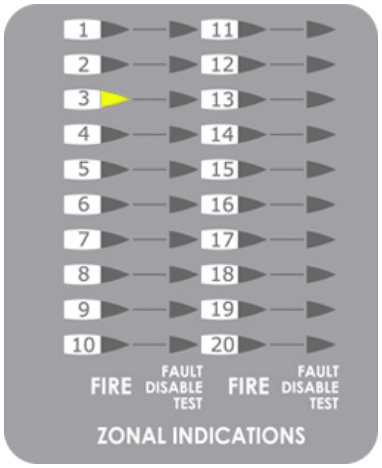
The panel has the following yellow flashing FAULT LEDs:



SUPPLY FAULT, COMMON FAULT, EARTH FAULT, SYSTEM FAULT, OUT OF SERVICE FAULT, which can be found at the top right of the LED display as shown.



Two blocks below this in the section headed OUTPUT FAULTS / DISABLEMENTS are 2 LEDs which notify the user of SOUNDER FAULTS and RELAY FAULTS.



To the left of this are 20 LEDs which are used to indicate Zone Faults / Disablement / Test in Zones 1 – 20.

COMMON FAULT

The Common fault LED is lit for all types of fault.

SUPPLY FAULT

This indicates a loss of Mains power or a loss of Battery power or a loss of Battery Charger or a Battery with a High Resistance.

Battery Fault indicates that there is no battery connected to the panel. Charger Fault indicates there is a problem with the mains supply (or one of its fuses). 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.

OUT OF SERVICE FAULT

This is lit when the battery voltage has dropped to a value at which the alarm system is no longer fully functional (following a period when the mains service is not supplied to the panel).

ZONE FAULT

The relevant zone fault light will flash 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 10 seconds from repairing a fault for the display to clear.

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.

EARTH FAULT

The Earth Fault LED lights when the panel detects an earth fault (short circuit to earth) on the wiring to any part of the control panel. The panel will function correctly with a single earth fault, but if a second fault occurs it could damage the panel. The screen will show Positive or Negative to help the engineer locate the problem.

SOUNDER FAULT

If there is a fault on the loop sounders, the line sounder fault LED will light along with the zone that contains that sounder. Because the sounder is addressable, any fault will be indicated as a device fault.

6.2 WHAT TO DO IF A FAULT CONDITION OCCURS

If a fault occurs, the responsible person should:

- Turn the key switch to CONTROLS ENABLED and press the SILENCE BUZZER button.
- 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).

When a fault has been rectified the indicator light for that fault stays on until the RESET button is pressed. If the fault condition has not been rectified, the fault indication will only clear temporarily when the RESET button is pressed.

Similarly, pressing the RESET button will clear the General Fault light (LED) and silence the Panel's Internal Sounder (buzzer). If any fault(s) have not been rectified these will come back on again a short time later.

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

A zone can be disabled as follows:

Turn the key switch clockwise to the CONTROLS ENABLED Position. The controls Active LED will light. Press any button followed by the User password (default 1111). Select **ZONES** then **DISABLE**. Enter the zone(s) or range of zones to be disabled. Finally select **ACCEPT** and then **EXIT**.

When a zone has been disabled, the General Disablement LED will be lit and also the zonal disablement LED (in one of the columns labelled FAULT DISABLE TEST).

To re-enable a disabled zone, repeat the same procedure used for disabling the zone, selecting Enable instead of Disable.

7.3 TO DISABLE A POINT

Rather than disable an entire zone, it is often useful to just disable one or more input devices (detector, call point, or interface) within a zone, especially if they are malfunctioning and likely to cause a false alarm or repeatedly indicate a fault.

To disable a device / point follow the same procedure as in 7.2 but select **POINT** instead of ZONE, followed by **DISABLE**.

Once a point is disabled, the panel ignores any alarms or faults generated by it.

If all points in a zone are disabled, the panel will indicate a zone disablement. If subsequently one or more devices are re-enabled then the zone disablement indication will be automatically cancelled.

To display any disabled point, press any button followed by the User password (default 1111), and then **POINTS** followed by **SHOW DISABLED POINTS**.

To re-enable a disabled point, repeat the same procedure used for disabling the point, selecting Enable instead of Disable.

7.4 TO DISABLE A SOUNDER

Press any button followed by the User password (default 1111). Next select **SOUNDERS**

On a Quatro Panel, the sounders can either be disabled by zone, or all disabled together.

When any sounder has been disabled, the Sounders Output Disablements LED will light up.

The number of sounders affected by this can be checked by selecting the **SHOW** option in the sounders Menu.

7.5 TO DISABLE A RELAY

Relay outputs can also be disabled. These can either be addressable output units on any of the loops or a PCB output relay.

8. SYSTEM DESCRIPTION

FIRE ALARM SYSTEM SUMMARY

FIRE ZONE INFORMATION						
ZONE NO.	**LOOP NO.**	**ZONE DESCRIPTION** *A brief description of all the rooms and areas contained in each zone.*	**NO. OF DETECTORS**	**NO. OF MCPS**	**NO. OF SOUNDERS**	**NO. OF I/OS**
1						
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ZONE NO.	LOOP NO.	ZONE DESCRIPTION *A brief description of all the rooms and areas contained in each zone.*	NO. OF DETECTORS	NO. OF MCPS	NO. OF SOUNDERS	NO. OF I/OS
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ZONE NO.	LOOP NO.	ZONE DESCRIPTION *A brief description of all the rooms and areas contained in each zone.*	NO. OF DETECTORS	NO. OF MCPS	NO. OF SOUNDERS	NO. OF I/OS
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ZONE NO.	LOOP NO.	ZONE DESCRIPTION *A brief description of all the rooms and areas contained in each zone.*	NO. OF DETECTORS	NO. OF MCPS	NO. OF SOUNDERS	NO. OF I/OS
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ZONE NO.	LOOP NO.	ZONE DESCRIPTION *A brief description of all the rooms and areas contained in each zone.*	NO. OF DETECTORS	NO. OF MCPS	NO. OF SOUNDERS	NO. OF I/OS
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ZONE NO.	LOOP NO.	ZONE DESCRIPTION *A brief description of all the rooms and areas contained in each zone.*	NO. OF DETECTORS	NO. OF MCPS	NO. OF SOUNDERS	NO. OF I/OS
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247						

ZONE NO.	LOOP NO.	ZONE DESCRIPTION *A brief description of all the rooms and areas contained in each zone.*	NO. OF DETECTORS	NO. OF MCPS	NO. OF SOUNDERS	NO. OF I/OS
248						
249						
250						

SOUNDER CIRCUIT INFORMATION			
SOUNDER CIRCUIT	SOUNDER CIRCUIT DESCRIPTION *A brief description of all the rooms and areas contained in each circuit.*	NO. OF SOUNDERS	NO. OF BELLS
1			
2			

INPUTS & OUTPUTS INFORMATION		
ZONE NO.	LOOP NO.	DESCRIPTION OF INPUTS AND OUTPUTS CONNECTED TO LOOP WHAT HAPPENS WHEN ACTIVATED?

FIRE & FAULT RELAYS INFORMATION		
TYPE OF OUTPUT	CONNECTED	WHAT HAPPENS WHEN ACTIVATED?
FIRE RELAY	YES/NO	
FAULT RELAY	YES/NO	

ADDITIONAL INFORMATION
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.

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

DETAILED LOOP CONTENTS: LOOP 1

This must be fully recorded by an authorised Engineer before system handover. (A Loop Report from the Quatro Connect Configuration software will also be acceptable)

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
1				43				85			
2				44				86			
3				45				87			
4				46				88			
5				47				89			
6				48				90			
7				49				91			
8				50				92			
9				51				93			
10				52				94			
11				53				95			
12				54				96			
13				55				97			
14				56				98			
15				57				99			
16				58				100			
17				59				101			
18				60				102			
19				61				103			
20				62				104			
21				63				105			
22				64				106			
23				65				107			
24				66				108			
25				67				109			
26				68				110			
27				69				111			
28				70				112			
29				71				113			
30				72				114			
31				73				115			
32				74				116			
33				75				117			
34				76				118			
35				77				119			
36				78				120			
37				79				121			
38				80				122			
39				81				123			
40				82				124			
41				83				125			
42				84				126			

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
127				169				211			
128				170				212			
129				171				213			
130				172				214			
131				173				215			
132				174				216			
133				175				217			
134				176				218			
135				177				219			
136				178				220			
137				179				221			
138				180				222			
139				181				223			
140				182				224			
141				183				225			
142				184				226			
143				185				227			
144				186				228			
145				187				229			
146				188				230			
147				189				231			
148				190				232			
149				191				233			
150				192				234			
151				193				235			
152				194				236			
153				195				237			
154				196				238			
155				197				239			
156				198				240			
157				199				241			
158				200				242			
159				201				243			
160				202				244			
161				203				245			
162				204				246			
163				205				247			
164				206				248			
165				207				249			
166				208				250			
167				209							
168				210							

DETAILED LOOP CONTENTS: LOOP 2

This must be fully recorded by an authorised Engineer before system handover. (A Loop Report from the Quatro Connect Configuration software will also be acceptable)

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
1				43				85			
2				44				86			
3				45				87			
4				46				88			
5				47				89			
6				48				90			
7				49				91			
8				50				92			
9				51				93			
10				52				94			
11				53				95			
12				54				96			
13				55				97			
14				56				98			
15				57				99			
16				58				100			
17				59				101			
18				60				102			
19				61				103			
20				62				104			
21				63				105			
22				64				106			
23				65				107			
24				66				108			
25				67				109			
26				68				110			
27				69				111			
28				70				112			
29				71				113			
30				72				114			
31				73				115			
32				74				116			
33				75				117			
34				76				118			
35				77				119			
36				78				120			
37				79				121			
38				80				122			
39				81				123			
40				82				124			
41				83				125			
42				84				126			

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
127				169				211			
128				170				212			
129				171				213			
130				172				214			
131				173				215			
132				174				216			
133				175				217			
134				176				218			
135				177				219			
136				178				220			
137				179				221			
138				180				222			
139				181				223			
140				182				224			
141				183				225			
142				184				226			
143				185				227			
144				186				228			
145				187				229			
146				188				230			
147				189				231			
148				190				232			
149				191				233			
150				192				234			
151				193				235			
152				194				236			
153				195				237			
154				196				238			
155				197				239			
156				198				240			
157				199				241			
158				200				242			
159				201				243			
160				202				244			
161				203				245			
162				204				246			
163				205				247			
164				206				248			
165				207				249			
166				208				250			
167				209							
168				210							

DETAILED LOOP CONTENTS: LOOP 3

This must be fully recorded by an authorised Engineer before system handover. A Loop Report from the Quatro Connect Configuration software will also be acceptable)

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
1				43				85			
2				44				86			
3				45				87			
4				46				88			
5				47				89			
6				48				90			
7				49				91			
8				50				92			
9				51				93			
10				52				94			
11				53				95			
12				54				96			
13				55				97			
14				56				98			
15				57				99			
16				58				100			
17				59				101			
18				60				102			
19				61				103			
20				62				104			
21				63				105			
22				64				106			
23				65				107			
24				66				108			
25				67				109			
26				68				110			
27				69				111			
28				70				112			
29				71				113			
30				72				114			
31				73				115			
32				74				116			
33				75				117			
34				76				118			
35				77				119			
36				78				120			
37				79				121			
38				80				122			
39				81				123			
40				82				124			
41				83				125			
42				84				126			

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
127				169				211			
128				170				212			
129				171				213			
130				172				214			
131				173				215			
132				174				216			
133				175				217			
134				176				218			
135				177				219			
136				178				220			
137				179				221			
138				180				222			
139				181				223			
140				182				224			
141				183				225			
142				184				226			
143				185				227			
144				186				228			
145				187				229			
146				188				230			
147				189				231			
148				190				232			
149				191				233			
150				192				234			
151				193				235			
152				194				236			
153				195				237			
154				196				238			
155				197				239			
156				198				240			
157				199				241			
158				200				242			
159				201				243			
160				202				244			
161				203				245			
162				204				246			
163				205				247			
164				206				248			
165				207				249			
166				208				250			
167				209							
168				210							

DETAILED LOOP CONTENTS: LOOP 4

This must be fully recorded by an authorised Engineer before system handover. A Loop Report from the Quatro Connect Configuration software will also be acceptable)

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
1				43				85			
2				44				86			
3				45				87			
4				46				88			
5				47				89			
6				48				90			
7				49				91			
8				50				92			
9				51				93			
10				52				94			
11				53				95			
12				54				96			
13				55				97			
14				56				98			
15				57				99			
16				58				100			
17				59				101			
18				60				102			
19				61				103			
20				62				104			
21				63				105			
22				64				106			
23				65				107			
24				66				108			
25				67				109			
26				68				110			
27				69				111			
28				70				112			
29				71				113			
30				72				114			
31				73				115			
32				74				116			
33				75				117			
34				76				118			
35				77				119			
36				78				120			
37				79				121			
38				80				122			
39				81				123			
40				82				124			
41				83				125			
42				84				126			

ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL	ADDR	ZONE	TYPE	LABEL
127				169				211			
128				170				212			
129				171				213			
130				172				214			
131				173				215			
132				174				216			
133				175				217			
134				176				218			
135				177				219			
136				178				220			
137				179				221			
138				180				222			
139				181				223			
140				182				224			
141				183				225			
142				184				226			
143				185				227			
144				186				228			
145				187				229			
146				188				230			
147				189				231			
148				190				232			
149				191				233			
150				192				234			
151				193				235			
152				194				236			
153				195				237			
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155				197				239			
156				198				240			
157				199				241			
158				200				242			
159				201				243			
160				202				244			
161				203				245			
162				204				246			
163				205				247			
164				206				248			
165				207				249			
166				208				250			
167				209							
168				210							

9. 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, enablement's, 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 INSTALLED BY:
SYSTEM MAINTAINED BY:
CONTRACT NO:
CONTRACT VALID UNTIL:
FOR SERVICE (NORMAL HOURS MON-FRI) TEL:
FOR SERVICE (OTHER TIMES) TEL:
RESPONSIBLE PERSON(S) ONSITE:

MAINTENANCE WORK

DATE	TIME	LOOP & ADDRESS	ZONE/ LOCATION	REASON FOR WORK	WORK CARRIED OUT	ADDITIONAL WORK REQUIRED	SIGNED

MAINTENANCE WORK (CONTINUED)

DATE	TIME	LOOP & ADDRESS	ZONE/ LOCATION	REASON FOR WORK	WORK CARRIED OUT	ADDITIONAL WORK REQUIRED	SIGNED

UNWANTED (FALSE) ALARMS

DATE	TIME	LOOP & ADDRESS	ZONE/ LOCATION	CAUSE (IF KNOWN) OR ACTIVITIES IN ALARM AREA	MAINTENANCE VISIT NEEDED (YES/NO)	MAINTENAN CE FINDINGS	CATEGORY OF FALSE ALARM	FURTHER ACTION REQUIRED	SIGNED

UNWANTED (FALSE) ALARMS (CONTINUED)

DATE	TIME	LOOP & ADDRESS	ZONE/ LOCATION	CAUSE (IF KNOWN) OR ACTIVITIES IN ALARM AREA	MAINTENANCE VISIT NEEDED (YES/NO)	MAINTENAN CE FINDINGS	CATEGORY OF FALSE ALARM	FURTHER ACTION REQUIRED	SIGNED

ALL EVENTS OTHER THAN MAINTENANCE WORK OR FALSE ALARMS

DATE	TIME	LOOP & ADDRESS	ZONE/ LOCATION	DETAILS OF EVENT (INCLUDING CAUSE IF KNOWN)	ACTION REQUIRED	DATE COMPLET ED	INITIALS

ALL EVENTS OTHER THAN MAINTENANCE WORK OR FALSE ALARMS (CONTINUED)

DATE	TIME	LOOP & ADDRESS	ZONE/ LOCATION	DETAILS OF EVENT (INCLUDING CAUSE IF KNOWN)	ACTION REQUIRED	DATE COMPLETED	INITIALS

10. COMMISSIONING THE SYSTEM, INCLUDING POWER SUPPLY EQUIPMENT 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 BS 5839-1:2013 (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-108, section 8) 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 BS 5839-1:2013 clause 38.2 for compliance.
- The earthing should be checked in accordance with BS 5839-1:2013clause 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 BS 5839-1:2013 clause 16.2.
- Any deviations from BS 5839-1:2013 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).

10.1 DESIGN, INSTALLATION & COMMISSIONING CERTIFICATES

The guidelines in BS 5839-1:2013 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 Pages 12-20 as should the relevant parts of the Log Book section starting on Page 21.

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 Premier Quatro 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 5839-1:2013 for the system category described below, except for the variations, if any, stated in this certificate

Name (Block Letters):		Position:	
Signature:		Date:	
For & on behalf of:			
Address			

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

System Category (see BS 5839-1:2013, Clause 5):

Variations from the recommendations of section 2 of BS 5839-1:2013 (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 5839-1:2013 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 5839-1:2013
❏ 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 5839-1:2013 respectively.

SOAK TEST
❏ In accordance with the recommendations of clause 35.2.6 of BS 5839-1:2013, 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 5839-1:2013.

VERIFICATION
Verification that the system complies with BS 5839-1:2013 should be carried out, on completion, in accordance with BS 5839-1:2013 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 5839-1:2013.

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 5839-1:2013.

Installation Certificate

Certificate of INSTALLATION for the Premier Quatro 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 BS 5839-1:2013, except for the variations, if any, stated in this certificate

Name (Block Letters):		Position:	
Signature:		Date:	
For & on behalf of:			
Address			

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 5839-1:2013 (see clause 7)

The wiring has been tested in accordance with the recommendations of clause 38 of BS 5839-1:2013. 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 5839-1:2013 clause 36.2m)

Commissioning Certificate

Certificate of COMMISSIONING for the Premier Quatro 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 BS 5839-1:2013, except for the variations, if any, stated in this certificate

Name (Block Letters):		Position:	
Signature:		Date:	
For & on behalf of:			
Address			

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 5839-1:2013 (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 5839-1:2013.
❏ The system performs as required by the specifications prepared by:

❏ Taking into account the guidance contained in section 3 of BS 5839-1:2013, I/we have not identified any obvious potential for an unacceptable rate of false alarms.
❏ The documentation described in Clause 40 of BS 5839-1:2013 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 5839-1:2013 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 Premier Quatro 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 (Block Letters):		Position:	
Signature:		Date:	
For & on behalf of:			
Address			

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:
