TWINFLEX® SRP

Single Flood Zone Fire Suppression System Control Panel
100-0001

(Suitable for TWINFLEX® SRP control panels from V01.000)

Control Panel Engineering and Commissioning Manual

(TO BE RETAINED BY THE COMMISSIONING ENGINEER)

26-1361-02

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Due to the complexity and inherent importance of a life risk type system, training on this equipment is essential and commissioning should only be carried out by competent persons.

Fike cannot guarantee the operation of any equipment unless all documented instructions are complied with, without variation.

E&OE.

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Contents

Glossary Of Terms

Acronym	Description	Acronym	Description
ASD	Automatic Smoke Detector	MCP	Manual Call Point
CIE	Control & Indicating Equipment	O/C	Open Circuit
DIVA	Direct Impulse Valve Actuator	O/P	Output
EOL	End Of Line	RSI	Remote Status Indicator
I/O	Input Output	S/C	Short Circuit
I/P	Input	SRM	Solenoid Releasing Module
IRM	Impulse Releasing Module	SRP	Single-hazard Releasing Panel
IVO	Impulse Valve Operator	OSP	On Site Programmer

Introduction

This Manual is intended as a guide to the engineering and commissioning principles of the TWINFLEX® SRP 2-wire Fire Detection and Alarm system and covers the system hardware information only.

Due to the complexity and inherent importance of a system covering a 'Life Protection Risk', training on this equipment is essential and commissioning should only be carried out by competent and approved persons. For further details of the availability of commissioning services, please contact your supplier.

System Design

This document does not cover Fire Alarm system design and a basic understanding is assumed.

Knowledge of BS5839: Pt 1: 2002: Fire Detection and Alarm Systems for Buildings and BS 7273 Pt 1 : 2006 Code of Practice for the operation of fire protection measures is essential.

It is strongly recommended that a suitably qualified and competent person is consulted in connection with the Fire Alarm System design and that the entire system is commissioned in accordance with the current national standards and specifications.

Equipment Guarantee

The equipment carries no warranty unless the system is installed, commissioned and serviced in accordance with this manual and the relevant standards by a suitably qualified and competent person or organisation

Anti-Static Handling Guidelines

Immediately prior to handling any PCBs or other static sensitive devices, it is essential to ensure that a personal **connection to earth is made with an anti-static wrist-strap** or similar apparatus.

Always handle PCBs by their sides and avoid touching any components. PCBs should also be stored in a clean dry place, which is free from vibration, dust and excessive heat and is protected from mechanical damage.

Warning

Do not attempt to install this equipment until you have fully read and understood this manual.

Failure to do so may result in damage to the equipment and could invalidate the warranty.

For technical support please contact your distributor. Do not call the Fike Safety Technology support department unless your distributor has first given their advice and attempted to rectify the issue.

Technical support will **not** be available if the instruction manual has not been read and understood. Please have this instruction manual available whenever you call for technical support.

EMC

This equipment when installed is subject to the EMC directive 2004/108/EC. It is also subject to UK Statutory Instrument 2006 No. 3418.

To maintain EMC compliance, this system must be installed as defined within this manual. Any deviation from this renders the installer liable for any EMC problems that may occur either to the equipment or to any other equipment affected by the installation.

The TWINFLEX® SRP System

The TWINFLEX® SRP system is a single flood zone panel with an intelligent '2-wire' system utilising a conventional type cabling format. The system is classed as 'Analogue non-addressable' due to the architecture used within the design. All field devices including sounders can be connected to the zone via a common 2-core screened cable. The devices communicate with the control panel using the TWINFLEX® data protocol.

The TWINFLEX® SRP panel monitors each zone for detector head removal, device fault, 'End of line' fault and open or short circuit fault.

Devices or detector heads should not be removed with the zone switched on. Switch off the zone (at access level 3) before removing any devices or detector heads from that zone.
Twinflex detector heads must only be removed using the correct head removal tool, 25-0046-201. Removing detector heads without using the correct tool will result in damage to the head / detector base.

Every device has an inbuilt 'End of line' signal, which may be activated as required. All setting options are configured using the DIL switches fitted to the device.

Do not use a resistor or capacitor or any other 3rd party 'End of line' module for 'End of line'.

The TWINFLEX® SRP control panel also provides three monitored outputs that may be configured as notification (conventional sounder) circuits or 2 notification (conventional sounder) circuits and 1 releasing circuit, four volt free common relays and a volt free common fault relay. There are also five multifunction latching/non-latching inputs.

The TWINFLEX® SRP control panel incorporates an integral power supply unit and requires **2 x 12V 12.0Ah batteries** to provide up to 72 hour standby times depending on system loading (refer to Technical Data for further information). Standby battery calculations may be made using the TWINFLEX® SRP Panel Battery & Loading Unit Calculation Sheet (document no. 26-1389).

Unlike most conventional fire alarm systems, which require separate pairs of cables for detector zones and sounder circuits, the TWINFLEX® SRP system requires one 2-core screened cable for each zone to accommodate both detection devices and sounders. Furthermore, sounders are incorporated within the detector to reduce system components and simplify installation.

The zones can also be programmed to be conventional zones and use conventional detectors.
MCPs must not be used on conventional zones. Conventional zones cannot distinguish between an MCP or detection activation so if needed should be connected to a monitored input.
An MCP activation will therefore not initiate an extinguishing release procedure on a conventional zone.

The TWINFLEX® SRP panels include some features described in EN54-2 as 'optional functions with requirements'. These are:-

Output to fire alarm devices	EN54-2 Clause 7.8
Output to fire protection equipment, type A	EN54-2 Clause 7.10.1
Delays to outputs	EN54-2 Clause 7.11.1
Zone test facility	EN54-2 Clause 10
Input/output facilities	EN54-2 Clause 7.11.1

The TWINFLEX® SRP panel includes the following compulsory features required by EN12094-1:

Input signal to manually trigger	EN12094-1 Section 4.3.2a
Transmission of extinguishing signal	EN12094-1 Section 4.3.2b
Activation of alarm devices after triggering	EN12094-1 Section 4.3.2c
Unambiguous indication of each condition	EN12094-1 Section 4.2.2d
Transmission of incorrect status and fault warning	EN12094-1 Section 4.3.2e
Transmission of the released condition	EN12094-1 Section 4.3.2f

The TWINFLEX® SRP panel includes the following optional features with requirements allowed by EN12094-1:

Delay of extinguishing signal up to 60 seconds	EN12094-1 Section 4.17
Signal representing flow of extinguishing agent	EN12094-1 Section 4.18
Monitoring of status by way of a low pressure switch input	EN12094-1 Section 4.19
Emergency hold device to allow delay to be extended	EN12094-1 Section 4.20
Control of flooding time	EN12094-1 Section 4.21
Manual only mode to disable release	EN12094-1 Section 4.23
Triggering of equipment outside the system	EN12094-1 Section 4.26
Control of extended discharge	EN12094-1 Section 4.28
Activation of alarm devices to indicate pre-discharge and release	EN12094-1 Section 4.30

These facilities are described elsewhere in this manual.

Control Panel

Mounting the Control Panel

First identify the proposed location for the control panel. Ensure that the control panel will be easily accessible and that account is taken of any subsequent work that may affect access.

The control panel should be located at the most likely point of access for the fire services. It should be mounted on a flat, vertical wall at a height where the indicators may be seen without difficulty.

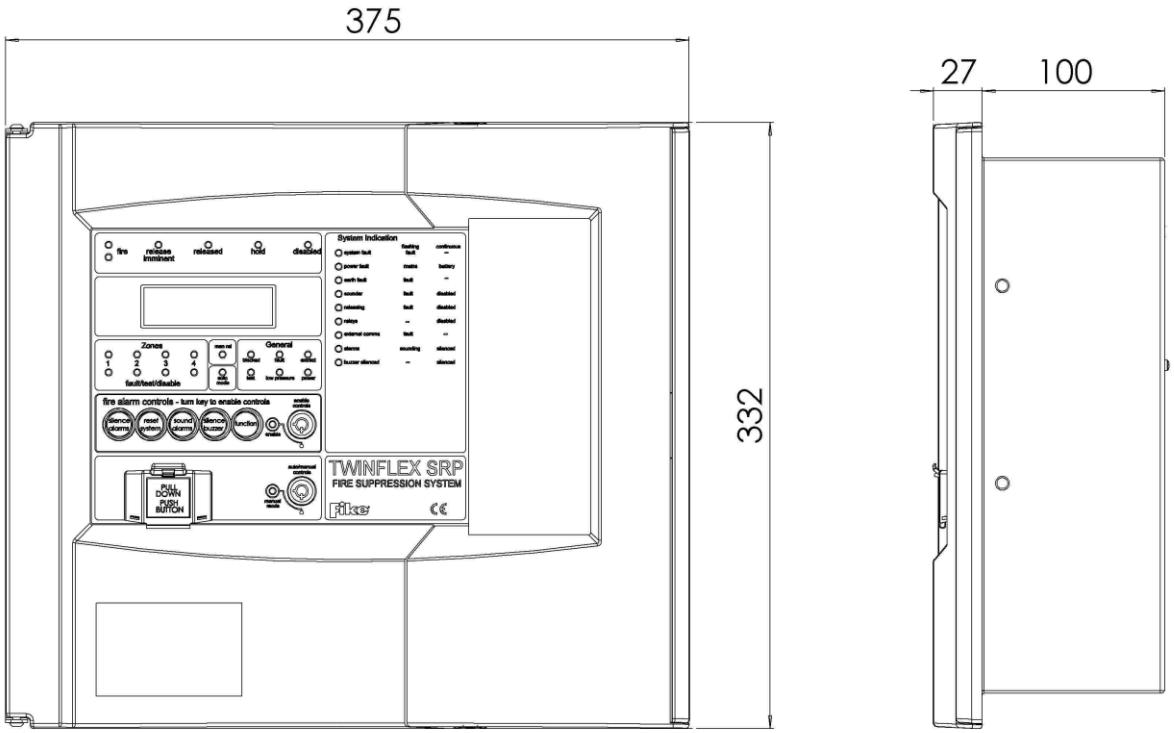
Do not locate the control panel at high level where stepladders or other access equipment may be required, in spaces with restricted access, or in a position that may require access panels to be removed.

Do not locate the control panel where extremes of temperature or humidity may occur, or where there is any possibility of condensation or water ingress.

Like all electronic equipment, the control panel may be affected by extreme environmental conditions. The position selected for its installation should therefore be clean and dry, not subjected to high levels of vibration or shock and at least 2 metres away from any pager or radio transmitting equipment. Ambient temperatures should be within the range given within the Technical Data section, e.g. not directly over a radiator or heater.

In common with all microprocessor-controlled panels, the control panel may operate erratically or may be damaged if subjected to lightning-induced transients. Proper earth/ground connections will greatly reduce susceptibility to this problem.

Physical Dimensions

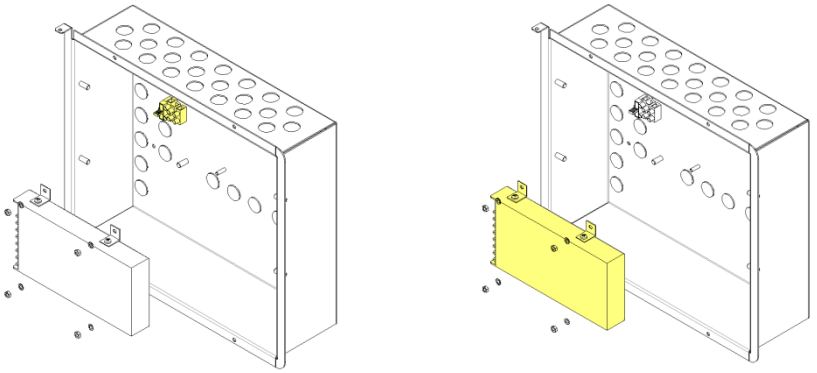


The control panel back box is designed as a dual-purpose surface or flush mount unit.
Surface Mounting: Utilize the three through holes in the back of the back box to secure it to the mounting surface with suitable anchors
Flush Mounting: Cut an opening in the wall to fit the back box dimensions, not to include the 14mm flange, and secure the box in place utilizing the through holes provided on the sides of the back box with suitable anchors.

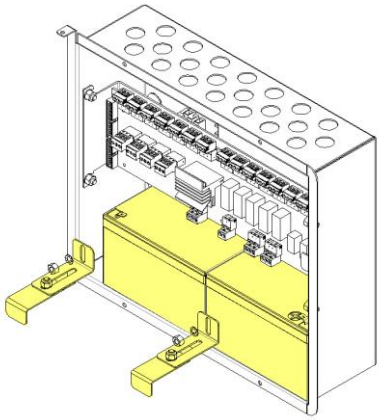
NOTE: The 14mm flange facilitates flush mounting. To allow installation of the main front moulding, this flange must be flush with the mounting surface and not recessed into it.

Power Supply Unit

The mains supply should be dedicated to the Fire Alarm Panel and should be clearly labelled 'FIRE ALARM: DO NOT SWITCH OFF' at all isolation points. The Fire Alarm Panel 230V AC supply requires a 3 amp fused un-switched spur with local isolation and fixed wiring between 0.75 mm^2 and 2.5 mm^2, terminated into the fused terminals provided in the back box. The main PCB is supplied via a Switch Mode Power Supply located behind the connector board mounting plate. Only the power supply provided in the unit may be used to power the control panel. Both mains termination and location of power supply are shown below.



The control panel requires standby batteries. Fike recommends 2 x Yuasa YUCEL Y12-12 or equivalent. The sealed lead acid batteries should be installed according to the following diagram. These are to be sited in the control panel back box using the provided clamps. The batteries should be connected in series using the connection leads supplied See the section entitled *Control Panel Connections* for panel connections.



When fitting new batteries the total battery voltage must not be less than 21.5V. If the battery voltage is less than 21.5V the charger will assume that they are faulty and will not charge them.

Note that the charging circuit will be in its high impedance state (approximately 3V DC) if no batteries, faulty batteries, or only one battery is connected. The full 27V DC (nominal) charging voltage should be present if the correct batteries are connected.

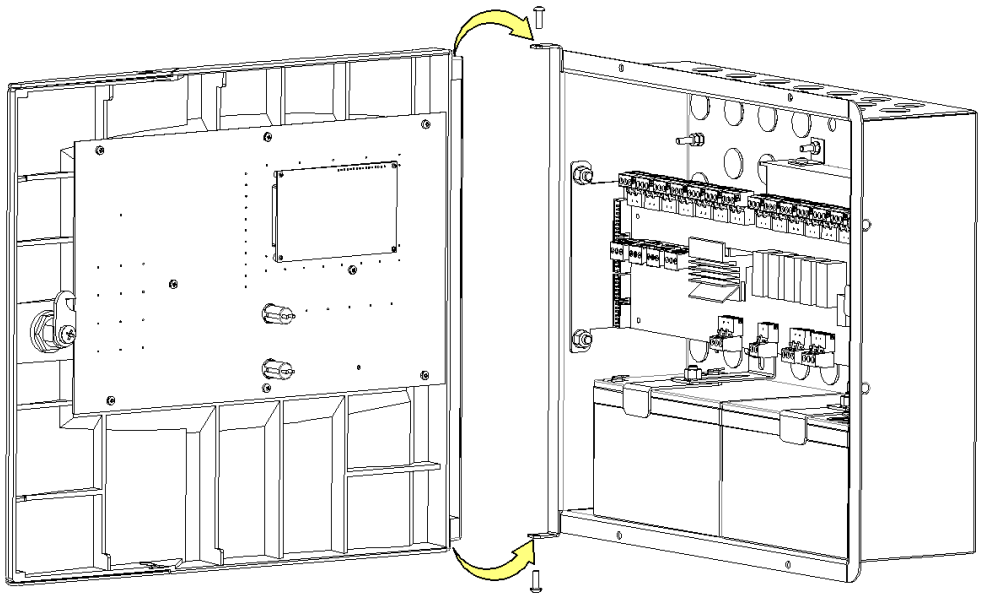
If the system shows a charger or battery fault on first power up, leave the system to charge the batteries for 5-6 hours.

In order to test for correct operation of the batteries, remove the mains 230V AC fuse and allow the batteries to settle from their charging voltage for approximately 5 minutes. The battery voltage should then be measured using an electronic test meter and a voltage greater than 24V DC should be seen.

Note that batteries are electrically live at all times and great care should be taken to ensure that the terminals are never presented with a short circuit. Care should be taken at all times, especially during transit, installation and normal use.

Batteries no longer required should be disposed of in a safe and environmentally friendly manner by the manufacturer or a suitable recycling service. They should never be incinerated or placed in normal rubbish collection facilities.

General Assembly



Topology & Cabling

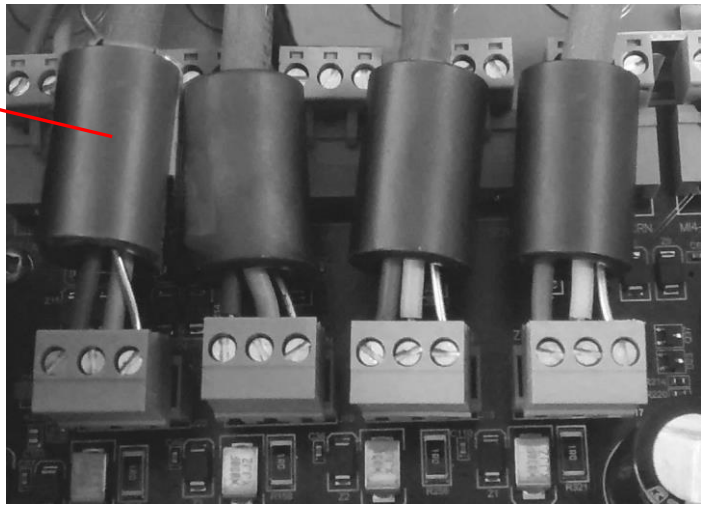
All system wiring should be installed to comply with BS 5839: Pt 1: 2002 + A2 : 2008 and BS 7273 Pt 1 : 2006 and any other standards relevant to the area or type of installation. A cable complying with the BS 5839: Pt 1: 2002 + A2 : 2008 Category 1 (cables required to operate for prolonged periods during fire conditions) is required. This must be a 2-core 1.5mm^2 screened fire resistant cables (i.e. MICC, FP200, Firetuff, Firecell, Lifeline or equivalent).

Each zone requires a separate 2-core radial circuit from the control panel to the furthest point of the zone, to a maximum of 500 metres.

In order to protect against possible data corruption it is important to ensure the following points are adhered to:

1. **Ferrites must be fitted to all four zones**. See diagram below
   These will be supplied with the panel.

Wurth Part No 7427009 ferrites



2. The cable screen must be connected to the SCRN terminal for each circuit at the control panel only.

3. The cable screen must not be connected to earth/ground at any point other than the control panel (at the SCRN terminal provided, not at any earthing point). **Do not connect the screen to a device back box other than one supplied by Fike**.

4. The cable screen continuity must be maintained at every point of the circuit, using the terminals provided or a suitable connection block.

5. **Do not** use a 4-core cable as a circuit **zone in** and **zone out,** due to the possibility of data corruption. It is essential that two 2-core screened cables are used if this is required.

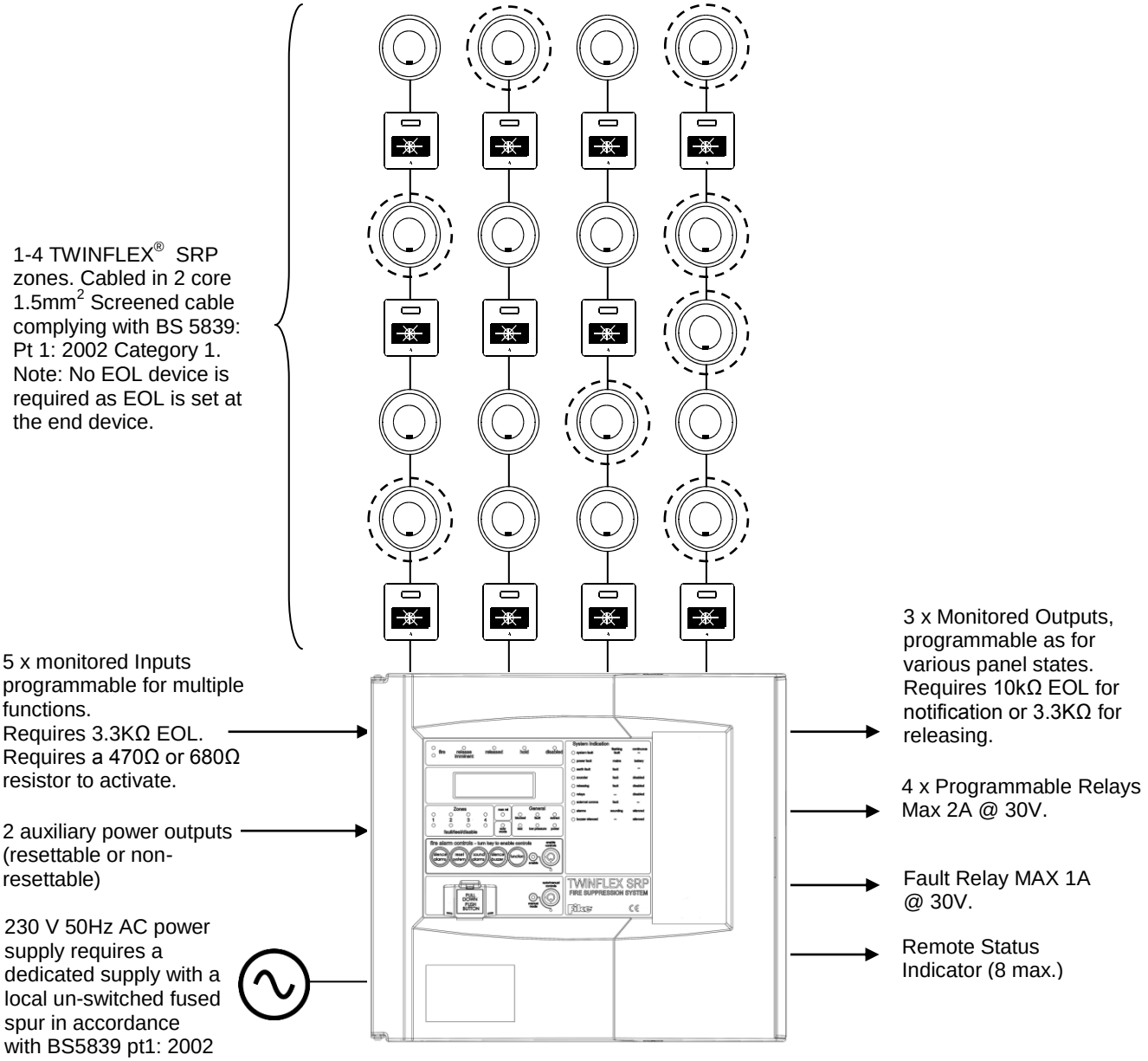
Refer to the following System Wiring Schematic for further details.

System Wiring Schematic

The four zones can be configured in menu option 9 as follows:

Off,	Zone not in use.
Twinflex,	Twinflex detection zone, as shown in the schematic below
Conventional,	Conventional detection zone
Release IRM,	Impulse releasing module zone
Release SRM,	Solenoid releasing module zone

The following schematic may prove useful as an aid to understanding the cable requirements for the system;



KEY TO SYMBOLS

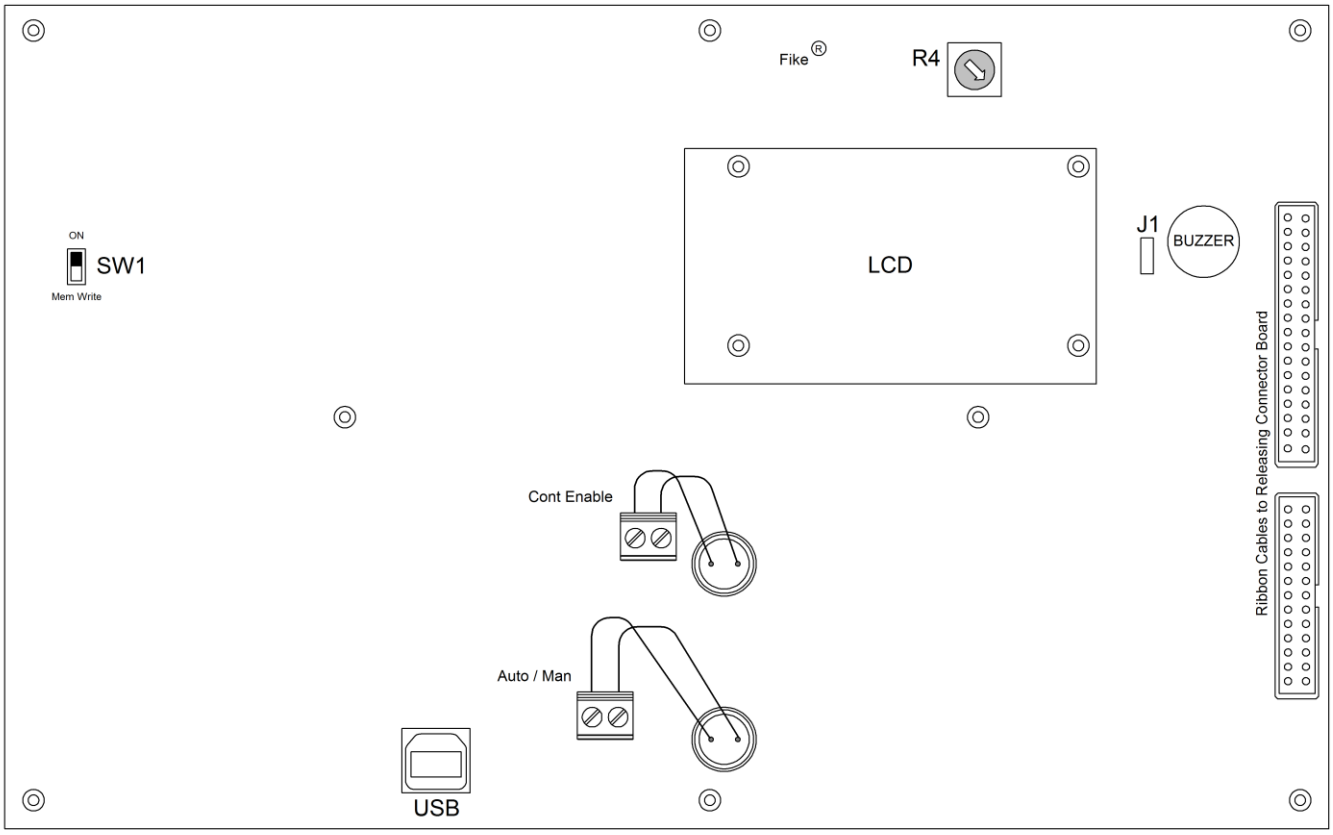
TWINFLEX® Multipoint

TWINFLEX® Multipoint with Sounder

TWINFLEX® Manual Call Point

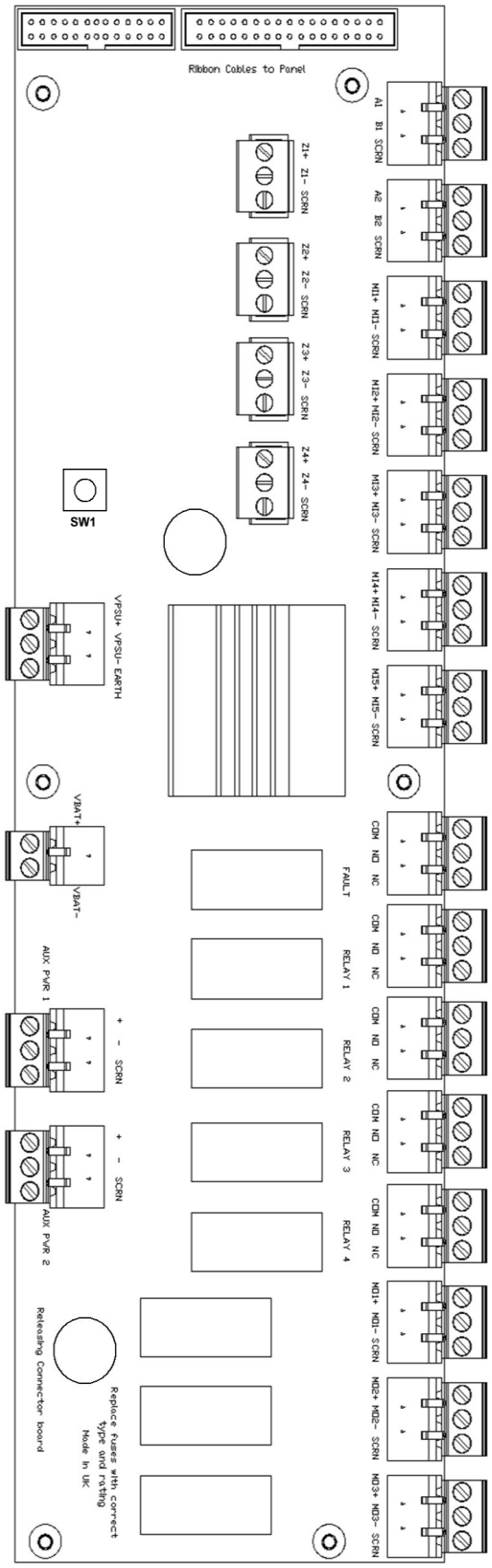
Control Panel Connections

Main Display Board



TERMINAL	DESCRIPTION
SW1	Write Protect/Write Enable Switch
USB	USB-B connection for pc link
J1	Buzzer Link Jumper
R4	LCD Contrast

Releasing Connector Board



TERMINAL	DESCRIPTION
RSI Communication	
A1	Positive connection for RSI communication
B1	Negative connection for RSI communication
SCRN	Screen connection for RSI communication
A2	Positive connection for RSI communication
B2	Negative connection for RSI communication
SCRN	Screen connection for RSI communication
MONITORED I/P 1-5	
MI# +	Monitored Input positive connection
MI# -	Monitored Input 0V connection
SCRN	Field cable screen connection
MONITORED O/P 1-3	
MO# +	Programmable Output positive connection
MO# -	Programmable Output 0V connection
SCRN	Field cable screen connection
ZONES 1 - 4	
Z # +	Device zone positive connection
Z # -	Device zone 0V connection
SCRN	Field cable screen connection
FAULT RELAY	
N/C	Normally closed fault contact
N/O	Normally open fault contact
COM	Common fault contact
PROG RELAY 1-4	
N/C	Normally closed fire contact
N/O	Normally open fire contact
COM	Common fire contact
AUX SUPPLY	
+	Aux power positive connection
-	Aux Power 0V connection
SCRN	Field cable screen connection
BATTERY	
VBATT +	24V DC 12Ah Battery positive connection
VBATT -	24V DC 12Ah Battery 0V connection
PSU	
VPSU +	31V DC Input from Switch Mode PSU
VPSU -	0V DC Input from Switch Mode PSU
Earth	Earth input from Switch Mode PSU

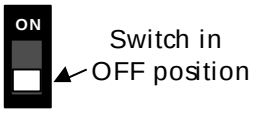
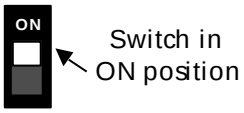
Note: References to voltages are nominal values

Ethernet

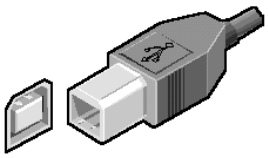
This port on the panel is reserved for future use.

Write Protect / Write Enable Switch

The write protect / write enable switch is a two position switch which is normally set to stop options in the engineer menu from being inadvertently changed.
Note: when this switch is in the on position the general fault LED will flash to remind the Engineer the switch is on.

	**Write Protect Mode:** In the OFF position, as shown (left), engineering options may be viewed but no configuration changes made.
	**Write Enable Mode:** If configuration changes are to be made, this switch needs to be in the ON position as shown (left).

USB-B



The panel is fitted with an on board USB-B connector. This is to provide communication via a suitable USB lead to a PC for programming of panel options using the TWINFLEX® SRP OSP configuration software.

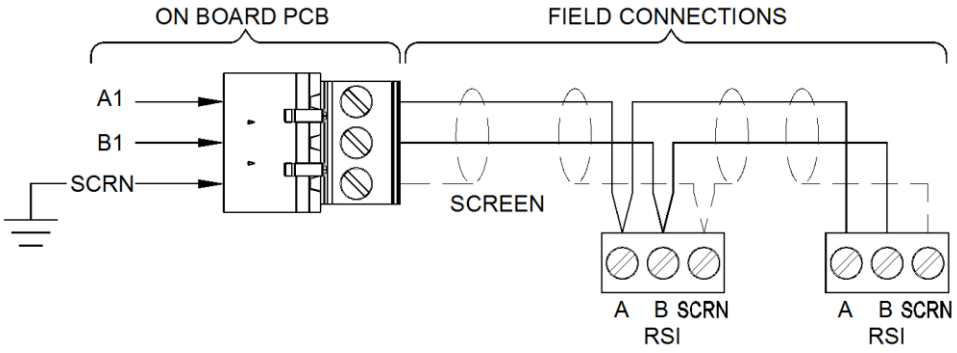
Buzzer Link: J1

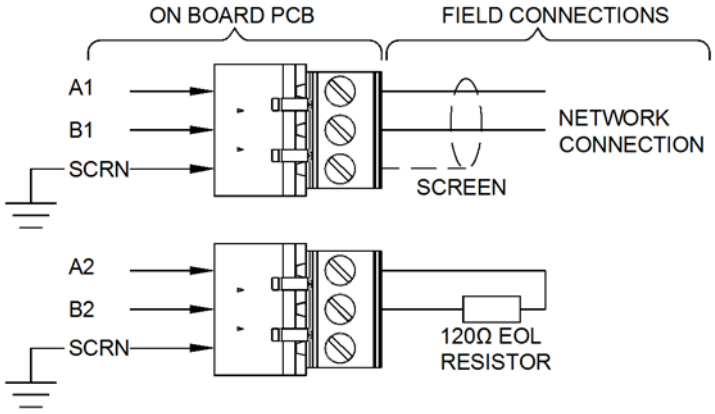
Linking J1 will disable the panel buzzer. The buzzer will remain disabled whilst the link is in place. **Warning – To comply with EN54 and BS5839: Pt1: 2002 this link must be left OPEN.**

LCD Contrast: R4

The LCD contrast may be adjusted by rotating the screw on the variable resistor, located in the upper right hand corner of the main PCB. Rotate anticlockwise to reduce the contrast (lighten text). Rotate clockwise to increase the contrast (darken text).

RSI Peripheral Bus Connections: A1, B1, SCRN or A2, B2, SCRN



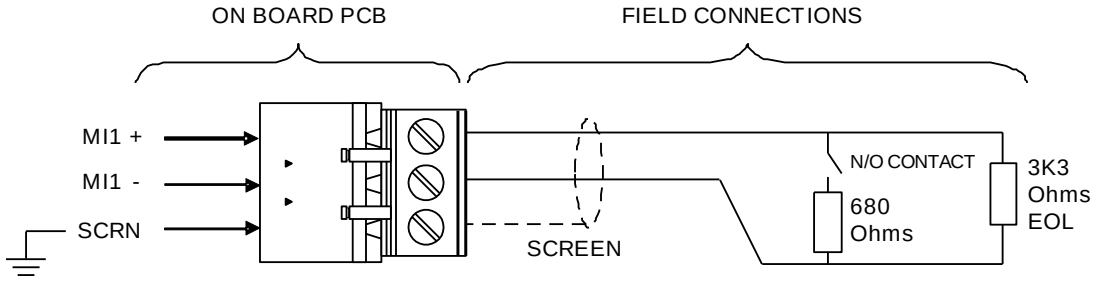


These ports on the panel are for connections to a Remote Status Indicator (RSI) device (Maximum 8 devices). This is an RS-485 connection operating at 57.6 kbps.

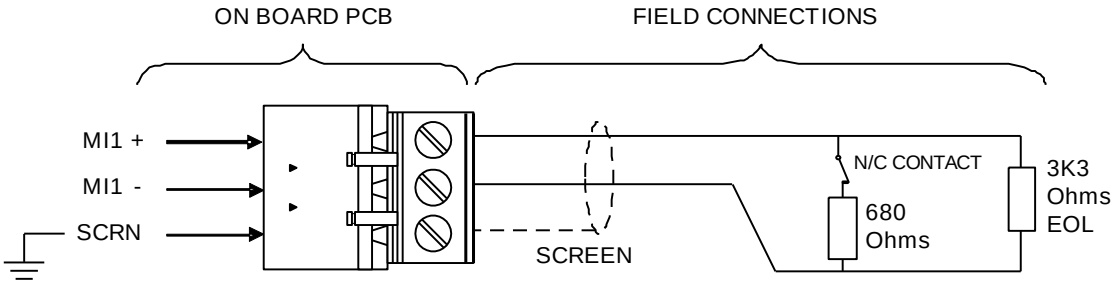
NOTES

1. An RSI must be setup to be supervised in order to operate with the SRP. This is done at Access Level 3 (Engineer) at Engineer Menu 13. RSI SUPERVISION.
2. A 120Ω End of Line (EOL) resistor must be fitted across A and B of the last RSI on the network.

Programmable Inputs 1-5: MI# +, MI# -, SCRN



Activate On Closing Contact



Activate On Opening Contact

Note: When a monitored input is configured as a normally closed extinguishant flow input, connecting a normally open switch will cause the panel to go into a release state.
Likewise when a monitored input is configured as a normally open extinguishant flow input, connecting a normally closed switch will cause the panel to go into a release state.

Maximum Voltage at contacts, 3.3 Volts, Maximum current 0.72mA.
Minimum Voltage at contacts, 0 Volts.

Monitored Inputs can be configured so they activate on an opening or a closing contact using a 680Ω or 470Ω 'firing' resistor. They also monitor for open and short circuit faults using a 3k3Ω EOL resistor.

Programmable inputs can be configured to initiate the following system-level events:

CONTROL EVENT	SILENCE ALARMS RESET SYSTEM SOUND ALARMS SILENCE BUZZER	**DISABLEMENT**	ALL SOUNDERS & RELEASING OUTPUTS RELAYS
RELEASE EVENT	MANUAL RELEASE HOLD EXTINGUISHANT FLOW MANUAL MODE LOW PRESSURE EXTRACT	**REMOTE EVENT**	REMOTE FIRE GENERAL FAULT

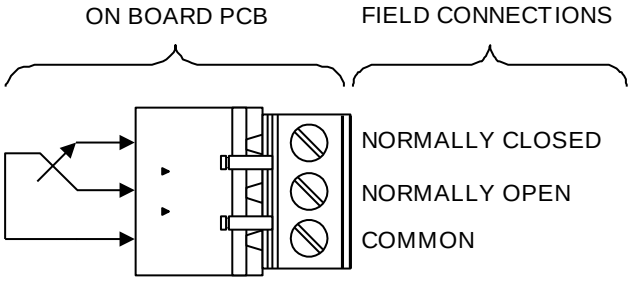
Caution – the use of an input to disable the buzzer does not meet EN54-2

Note:

Access to any input device connected to an SRP monitored input which has been configured to activate one of the following functions needs to be protected by a locked enclosure or be operated by a key switch to prevent unauthorised operation.

Silence Alarms
Sound Alarms
Reset System
Silence Buzzer
Manual Mode
Disablements

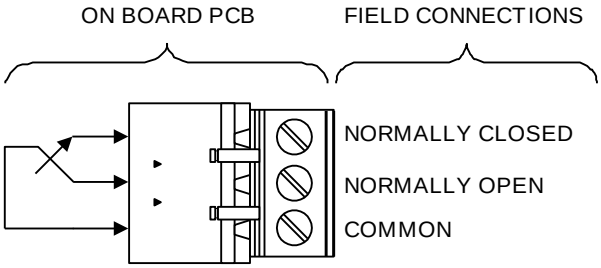
Fault Relay: C, N/C, N/O



The fault relay is derived from a single pole change over 'volt-free' relay contact which is not fault monitored. The maximum contact current rating is 2A @ 24V DC. Inductive loads should be diode protected to prevent back EMF causing damage to the relay contact.

The default setting for the fault relay causes the relay to operate as a **Common Fault** output where the relay is de-energised in the fault condition and will remain so until the fault is cleared.

Programmable Relays 1-4: C, N/C, N/O



The relays are derived from a single pole change over 'volt-free' relay contact which is not fault monitored. The maximum contact current rating is 2A @ 24V DC. Inductive loads should be diode protected to prevent back EMF causing damage to the relay contact.

Programmable relays can be configured to activate during the following system-level states:

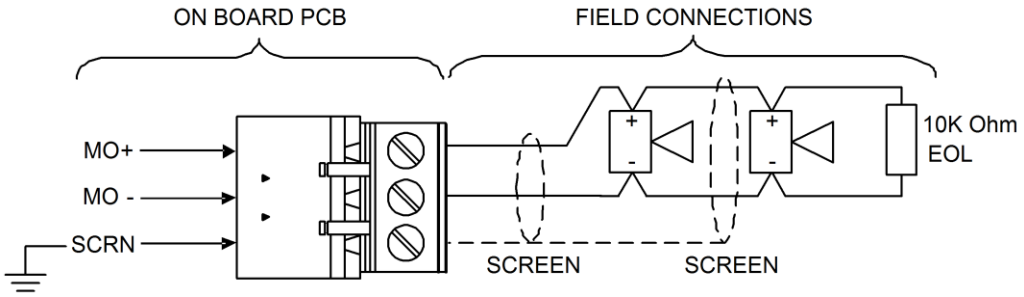
OUTPUT STATE	No State
	Manual
	Fault
	Disablement
	Hold
	Extract
	Release
	Pre-Release
	Alarm

Note:

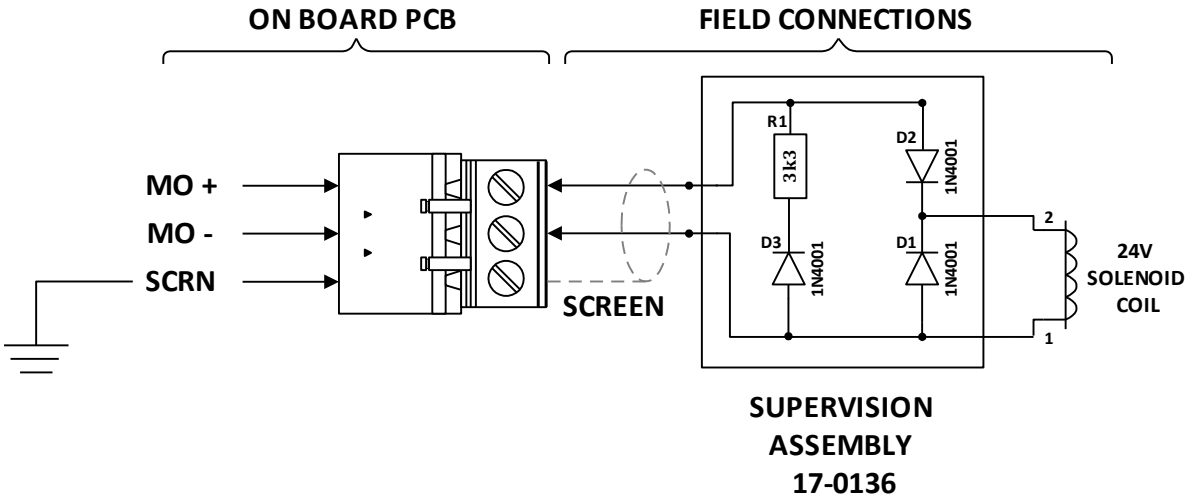
- Programmable relays set to activate on release must not be used to drive releasing devices. The circuits connected to these relays are not monitored and will not follow the releasing alarm pattern.

- When releasing outputs are disabled, Programmable Relays that are set as releasing are also disabled but are not logged in the event log as being disabled.

Monitored Outputs 1 -3: MO# +, MO# -, SCRN



Notification Device Connections



Releasing Device Connections

A Monitored Output can be used to connect either Releasing (solenoid) or Notification devices. Monitored circuits supervise for open and short circuit faults with a 10kΩ EOL resistor when configured for Notification and when configured for Releasing (solenoid) the circuit requires an EOL arrangement as shown above for the monitoring of open and short faults. The 3k3Ω EOL resistor must have a power rating of 1/3 watt or greater. (If a DIVA or UVO is used then the circuit above can be replaced by the 17-0136 EOL assembly. The maximum output current for each output is 1 Amp. Output voltage range is minimum 0V, maximum 32V.

As per EN 12094, par. 4.30, The Monitored Output signals must be programmed such that during the pre-release warning time the signal is intermittent and the signal for the released condition shall be continuous.

Note:

If monitored outputs are set to 'Releasing Notification' they still operate when releasing outputs are disabled.

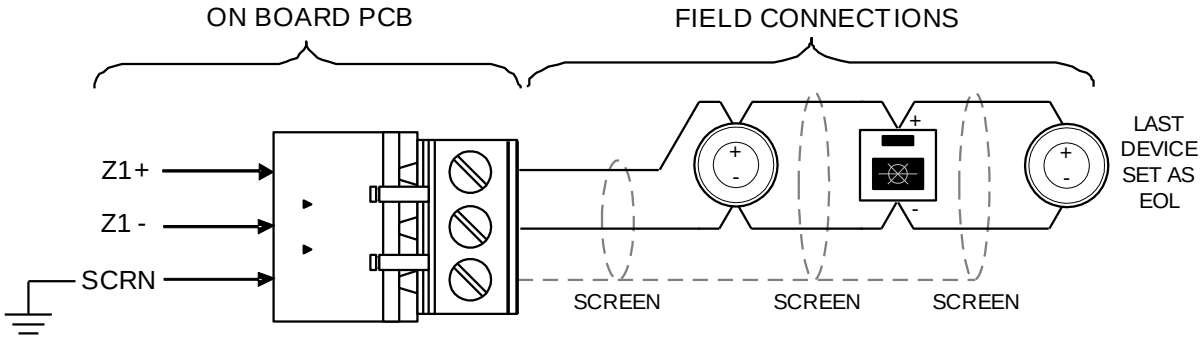
Monitored outputs can be configured to the following settings:

OUTPUT TYPE	Notification
	Release
OUTPUT STATE	Off
	Release
	Pre-Release
	Alarm
OUTPUT PATTERN	Continuous
	Slow
	Fast
	Temporal
	User 1-4
SILENCEABLE	Yes
	No

IMPORTANT NOTE: If the Behaviour of the monitored output is configured and then the Type is changed from Notification to Releasing or vice versa the panel clears out the Behaviour to default setting.
Default Behaviour is OFF State, Continuous Pattern and Silenceable Output.

A Notification Output can be configured for a user defined custom pattern. The SRP panel allows up to 4 user defined patterns i.e. User 1-4.The user defined patterns can only be configured via OSP software.

Device Zones: Z1 - Z4 (TWINFLEX® Devices)



Each zone requires a separate 2-core radial circuit from the control panel to the furthest point of the zone, to a maximum of 500 meters.

In order to protect against possible data corruption it is important to ensure the following points are adhered to:

1. The cable screen must be connected to the SCRN terminal for each circuit at the control panel only.

2. The cable screen must not be connected to earth/ground at any point other than the control panel (at the SCRN terminal provided, not at any earthing point). **Do not connect the screen to any device back box other than one supplied by Fike**.

3. The cable **screen continuity must be maintained** at every point of the circuit, using the terminals provided or a suitable connection block.

4. **Do not** use a 4-core cable as a circuit **zone in** and **zone out,** due to the possibility of data corruption. It is essential that two 2-core screened cables are used if this is required.

No EOL resistor or unit should be fitted to terminate the cable; this function is performed via DIL switch 1 on the last device.

If a zone is **NOT** used it **MUST** be switched off using the zone status menu in the engineers programming options.

TWINFLEX DETECTOR SOUND PATTERN SETTING

Twinflex detectors have their settings programmed using DIP switches see the Twinflex detector installation sheets 26-0027 & 26-0947 for more details. The sound patterns can also be set with the DIP switches.

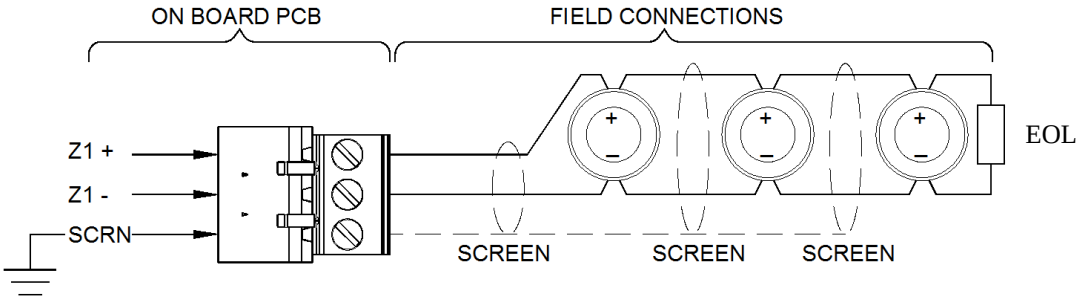
It is important when Twinflex detectors are used with the SRP panel that the sound pattern must be set to continuous (DIP switch settings 6 ON, 7 OFF). This allows the SRP panel to control the sound pattern.

MAXIMUM NUMBER OF DEVICES PER ZONE

The max of 32 devices is dependent on Device Loading Units (DLUs) not exceeding the stated maximum loading. To ensure the maximum loading is not exceeded, refer to TWINFLEX® SRP Panel Battery & Loading Unit Calculation Sheet (document no. 26-1389).

Device Zones: Z1 - Z4 (Conventional Devices)

Connecting non-conventional devices to a zone that has been configured for conventional devices can create a fire condition and in some cases cause the panel to go into a release state.



EOL – 20uF, 50V EOL capacitor

Zones: Z1 - Z4 RELEASING OPERATION (IVO OR SOLENOID)

When selected for releasing operation, only releasing modules of the same type (i.e., impulse releasing module, IRM or solenoid releasing module SRM) can be connected to the same zone circuit. **DO NOT exceed a maximum of 2 SRMs per zone or 6 IRMs per zone, or a maximum of 6 devices per system.**

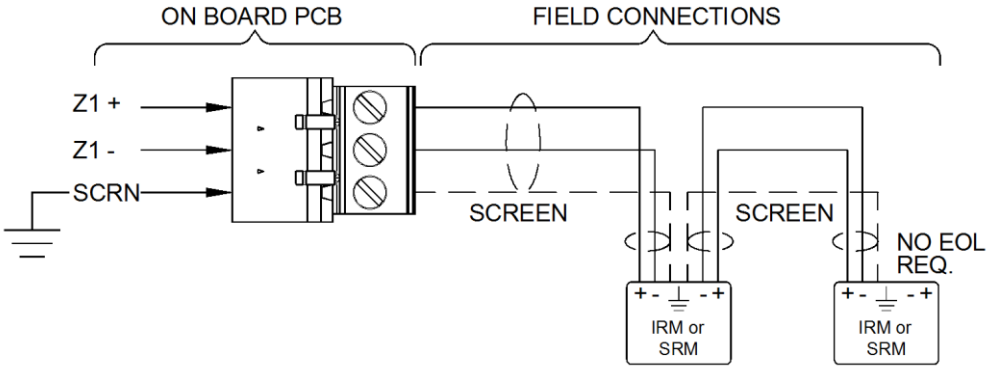
The IRM & SRM modules directly connect to the release equipment and receive triggering signals from the SRP panel via the zone wiring.

The input labelled Discharge Pressure on the IRM & SRM can be connected directly to a manual triggering device.

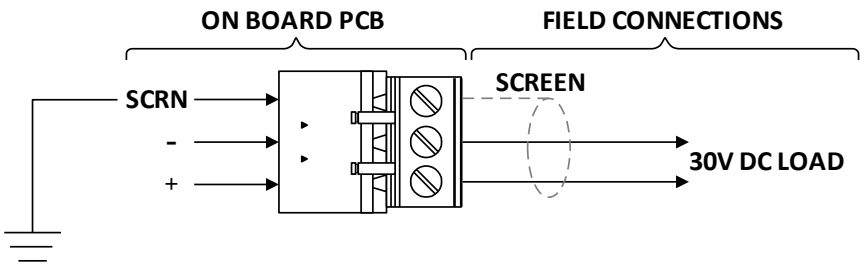
If a manually triggered device connected to this input is triggered the system will go straight into a discharge state. All releasing devices on the system will also go into the discharge state.

Note: The Discharge Pressure input on an IRM, SRM & a monitored input configured as a Extinguishant Flow on the SRP panel, if triggered will override releasing and sounder output disablements on the panel and the system will go into a release state.

The IRM and SRM modules also monitor for low bottle pressure and actuator missing which will be displayed on the panel as faults.



Auxiliary Power: AUX PWR 1-2, +, -, SCRN



An auxiliary nominal 31V DC power supply is available to power ancillary devices requiring up to 30V DC. Each auxiliary output can be programmed to cycle power during a system reset, or to keep its power constant during a system reset.

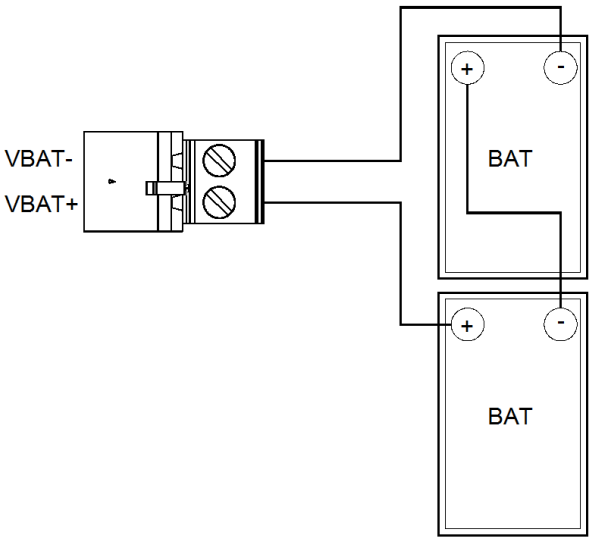
Note: The auxiliary power supply output will be approximately 30-31V DC when the panel is running from a mains supply. Or between 21.1V - 27V when running from the batteries in a mains failure condition.

The maximum output current for each circuit is **1.0A.** The Auxiliary Power outputs are protected by **2A Fast blow** fuses.

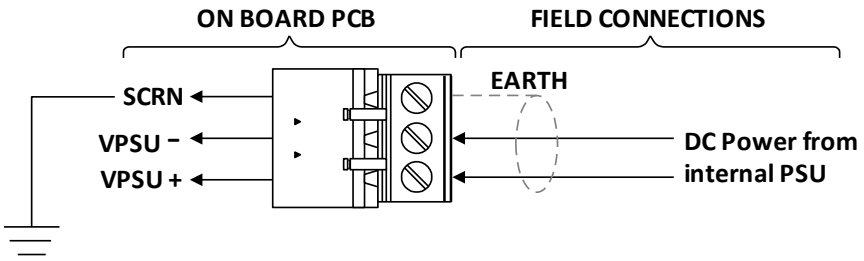
It is suggested that additional Power Supply Units be installed to provide power for additional loads. If additional power supply units are used they must be listed for use with Fire Alarm systems.

Battery: BAT+, BAT-

Terminals are supplied to connect and charge standby batteries. The charging circuit has been designed to charge 2 x 12V DC 12.0 Ah sealed lead acid batteries. Batteries should be connected in series as per the diagram.
NOTE: Battery harness (supplied) for connection part numbers:
17-0097 – Battery leads
17-0096 – Battery Interconnect lead



Power Supply: VPSU+, VPSU-, EARTH



DC power from the internal system power supply. 31V DC, 5A rating.

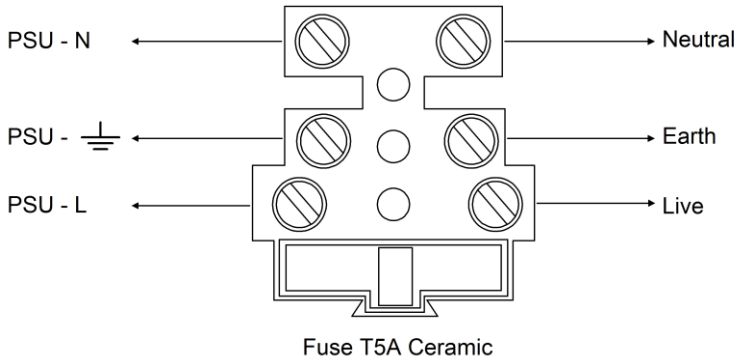
Output De-rating

Note: Monitored Outputs MO1 to MO3 and AUX PWR 1 and 2 can each supply a maximum of 1A. Each zone can also supply a maximum of 160mA.

The total current must not exceed 3.8 Amps.
If all the outputs, zones and Aux power supplies are used they must be de-rated so that the total maximum current of 3.8 Amps is not exceeded.

This will ensure a current of 1.2 Amps is available for battery charging.

Mains Input Wiring



Note:

If stranded cables are used for mains input wiring crimped end ferrules or other guards preventing loose strands must be used by the engineer performing the installation, (soldering is not permitted).

General Operation of Control Panel

Zone Detection & Releasing Operation

If one detection zone is activated the panel enters a Fire 1 state. (See EN12094-1:2003 para 4.6)
To start the extinguishing release procedure two smoke detection zones must be activated.
MCPs or heat detectors configured for Fire 2 when activated will start the extinguishing release and will not require a second zone activation.

The panel will start the extinguishing release procedure if two zones activate where:

- Both zones are configured as Twinflex detection zones
- Both zones are configured as conventional detection zones
- One zone is configured as Twinflex and the other zone is configured as conventional.

If three or four zones are configured as detection zones any two zones activated would initiate an extinguishing release procedure.

MCPs can be used on Twinflex zones.
If an MCP is activated on a Twinflex zone it will initiate an extinguishing release procedure and will not require a second zone to be activated.
This is because a Twinflex zone is able to distinguish between MCP or detection activation.

MCPs must not be used on conventional zones.
Conventional zones cannot distinguish between MCP or detection activation.
MCP activation will therefore not initiate an extinguishing release procedure on a conventional zone.

IRMs will not work on a zone configured for SRMs and vice versa, separate zones configured accordingly are required for each.

It is also valid to have:

- An IRM releasing zone and an SRM releasing zone configured on the same panel if required.
- Two zones designated as IRM release on the same panel if required.
- Two zones designated as SRM release on the same panel if required.

Hold State / Hold Sound Patterns

Monitored inputs can be set to hold the release when connected to an emergency hold device.
In menu option 8, Release Config there are two hold setting that can be selected Hold Type 1 & Hold Type 2.

6.6.1. EN Hold Type 1 (Ref EN12094 Section 4-20-3 Sub para B)
The pre-release warning time shall be restarted from the beginning of each release of the emergency hold device. Counter shall reset once Hold is activated.

6.6.2. EN Hold Type 2 (Ref EN12094 Section 4-20-3 Sub para A)
Countdown continues during hold activation. Release occurs when both the countdown is completed and the hold is deactivated.

The hold menu shows a hold pattern if any Monitored Output is configured for a Pre-release state.
The user can set an Output pattern for the hold state. The user gets 9 choices for a hold state which are: Off, Continuous, Slow, Fast, Temporal & User 1 to User 4.

Whenever Pre-release state is active, the Monitored Output plays the Pre-release pattern and it switches to the Hold pattern for Hold state. Both states MUST not be configured with the same pattern, it has to be unique.
Note: The Hold Pattern setting is only applicable to a Monitored Output set for Pre-release state. This pattern will not sound on Zone Sounders or Monitored Outputs set to any state other than a Pre-release state.

The hold Pattern on Twinflex – SRP Zone Sounders plays a unique pattern for Hold state notification on TF sounders. It's permanently set to be ~1 sec. on and ~3 sec. off.

Auto/Manual operation

When in Manual mode the following should occur for Twinflex detection

i. If a zone is still enabled and it detects a fire, the panel will log the detection & operate as normal. All appropriate outputs and sounders will activate as if it were in Auto mode.
ii. If a SECOND zone activates, the panel will log the detection but REMAINS in Fire 1 and not advance to Pre-release or Release.
iii. IF the panel is placed back into Auto mode, it will then revert back into normal Auto operation.

When in Auto mode the following should occur for Twinflex detection

i. If a zone is still enabled and it detects a fire, the panel will log the detection & operate as normal. All appropriate outputs and sounders will activate.
ii. If a SECOND zone activates, the panel will log the detection to Fire 2 and advance to Pre-release followed by Release.

Extinguishant Flow, Discharge Pressure Input Operation

The SRP Panel programmable inputs can be set for Extinguishant Flow or Manual Release, there are also inputs labelled Discharge Pressure on the IRM & SRM.
These inputs can be connected directly to a manual triggering device. If a manual triggered device connected to any of these inputs is triggered, the system will go straight into a discharge state and all releasing devices on the system will also go into a full discharge state.

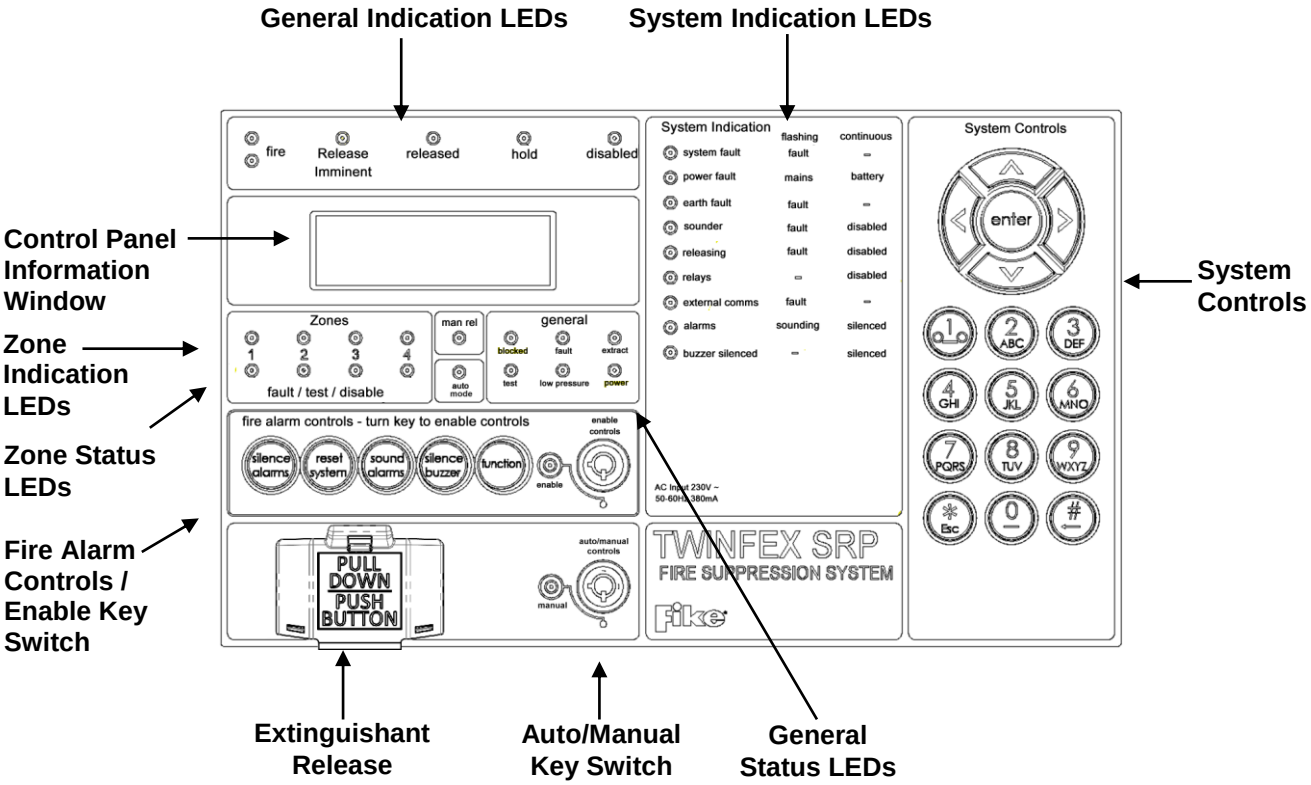
Note: **The SRP Panel's programmable inputs set as Extinguishant Flow and the Discharge Pressure inputs on the IRM & SRM if triggered will override releasing output disablements and sounder disablements on the panel.**

The SRP panel's programmable inputs set as Manual Release will NOT override releasing output disablements and sounder disablements on the panel. If a manual release input is triggered and releasing outputs are disabled the panel will go into the pre-release state but will not progress into the released state.

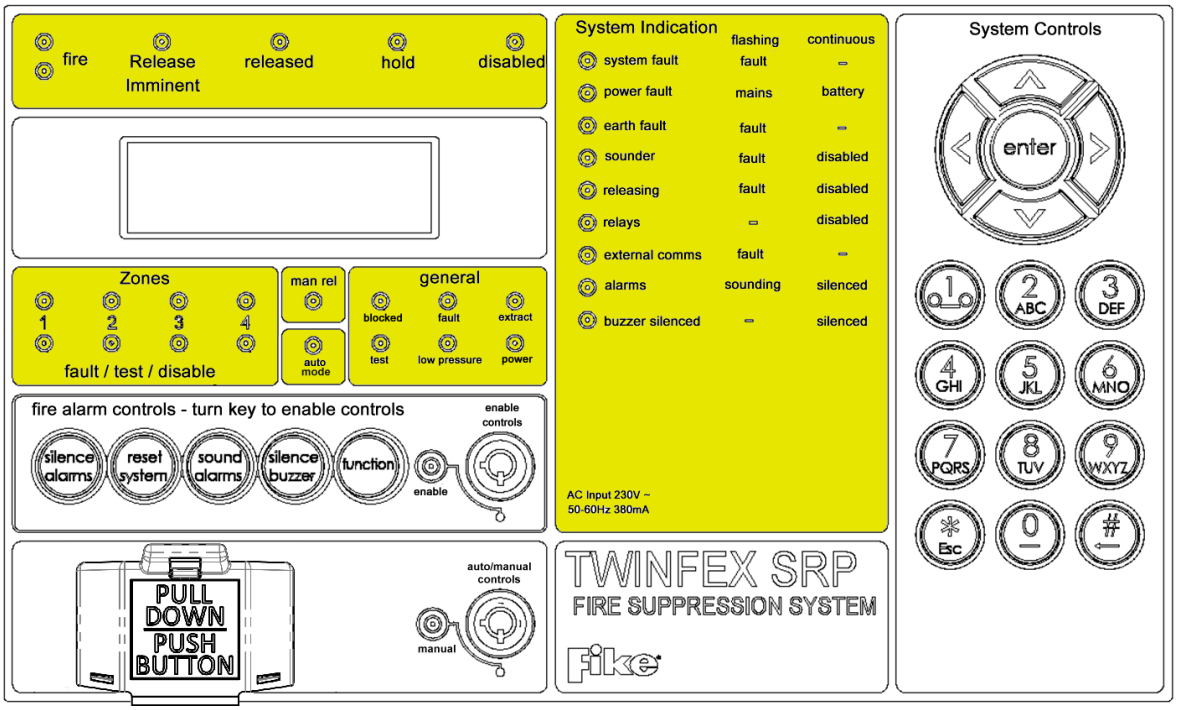
Power Start Up with batteries only

If batteries are used for initial start up to run the panel with no mains power connected, button SW1 on the connector board is to be pressed and HELD until the LCD on the SRP panel indicates Initialization.

Control Panel Front



LED Indication



The operation of the LED indication on the front of the control panel is described below. The LED indication on the panel can also be confirmed by checking the message displayed in the panel information screen or by accessing the relevant event log from the panel menu.

Description	Colour	State	Reason
FIRE – 1 LED illuminated	Red	Flashing	The control panel is in the fire state. Other indicators will show the origin.
		Continuous	The control panel is in the fire state and the sounders have been silenced.
FIRE – 2 LED illuminated	Red	Flashing	The control panel is in the pre-release state. Other indicators will show the origin.
		Continuous	The control panel is in the pre-release state and the sounders have been silenced.
RELEASE IMMINENT	Red	Flashing	The control panel has reached a pre-release state and the counter is counting down to release.
		Continuous	This LED illuminates continuous on a silence.
RELEASED	Red	Flashing	The control panel has reached the release state and the release outputs have been activated.
		Continuous	This LED illuminates continuous on a silence.
HOLD	Yellow	Flashing	A Hold activation has been received and the control panel is currently in a Hold mode. System operation will continue once the Hold condition is cleared.
		Continuous	This LED illuminates continuous on a silence.
DISABLED	Yellow	Flashing	An input, output or zone has been disabled on the control panel.
		Continuous	This LED illuminates continuous on a silence.
‘ZONE 1-4’ Upper LED	Red	Flashing	An alarm has been detected in this zone.
		Continuous	An alarm has been detected in this zone and a Silence Alarms input/button has been activated.
‘ZONE 1-4’ Lower LED	Yellow	Flashing	There is a Fault in the zone indicated.
		Continuous	The zone is in test mode or Disabled in the zone indicated.
MANUAL RELEASE	Red	Flashing	A manual release has been activated in the system.
		Continuous	A manual release has been activated in the system and the alarm has been silenced.
AUTO MODE	Yellow	Off	The system has been placed into the Manual mode of operation. Automatic detection will not cause a system release.
		Continuous	The system has been placed into the Auto mode of operation. Automatic detection may cause a system release.
GENERAL			
BLOCKED	Yellow	Continuous	Not currently used, for future use.
FAULT	Yellow	Continuous	A Fault condition exists on the control panel and the buzzer has been silenced.
		Flashing	A Fault condition has been detected on the control panel in either a zone or on the control panel.
EXTRACT	Yellow	Continuous	The extract function has been activated either automatically or manually and the buzzer has been silenced.
		Flashing	The extract function has been activated either automatically or manually.
TEST	Yellow	Continuous	This indicates that a test routine is in place. End all tests to clear.
LOW PRESSURE	Yellow	Continuous	A low pressure condition has been detected on the system and the buzzer has been silenced.
		Flashing	A low pressure condition has been detected on the system.
POWER	Green	Continuous	This indicates that power is being supplied to the control panel from either the 230V AC mains supply, or the standby batteries.
SYSTEM INDICATION			
SYSTEM FAULT	Yellow	Flashing	The system Fault LED indicates the presence of a processor failure or a memory checksum error. Power the system down to clear. If System Fault does not clear after power down contact your distributor.
POWER FAULT	Yellow	Flashing	A mains supply fault has been detected (check for a 230V AC supply on the incoming AC terminals).
		Continuous	A battery fault has been detected (check batteries and inline battery fuse).
EARTH FAULT	Yellow	Flashing	An Earth Fault condition exists on the control panel or a zone.
SOUNDER	Yellow	Flashing	A fault condition is present on a monitored sounder circuit.
		Continuous	The sounders have been disabled.
RELEASING	Yellow	Continuous	A disable condition is active in a releasing zone or output.

		Flashing	A Fault condition exists in a releasing zone or circuit.
RELAYS	Yellow	Continuous	A relay has been disabled on the system.
EXTERNAL COMMS	Yellow	Flashing	Fault on the external comms, (missing RSI).
ALARMS	Yellow	Flashing	The alarm sounders have been activated.
		Continuous	The alarm sounders have been silenced whilst operating,
BUZZER SILENCED	Yellow	Continuous	The control panel buzzer has been silenced whilst operating and will stay silenced until another fault or relevant action occurs.
ENABLE CONTROLS – ENABLE	Yellow	Continuous	Controls are enabled through the keyswitch
		Flashing	Controls are enabled through the code entry.
MANUAL	Yellow	Continuous	Manual mode operation has been enabled from this panel.
		Flashing	Manual mode operation has been enabled from a remote RSI panel.

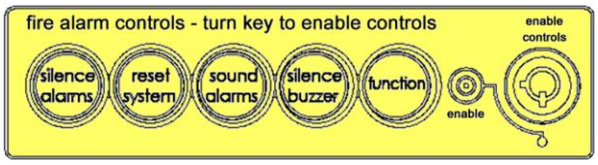
The SRP panel will enter the activated condition within 3 seconds after the activation of a manual triggering device connected directly to the SRP panel or the activation of a transmission path from a fire detection alarm system – After establishing the activated condition all appropriate outputs will be triggered within 1 second unless a time delay is interposed in an output function circuit.

If the display is blank and no LEDs are showing, then either the unit is not powered, or the mains have failed and the batteries are lower than 21V.

If the battery Voltage is measured lower than 21V then they should be replaced or monitored during initial charging to ensure they recharge per battery manufacturers recommendations. This could take several hours.

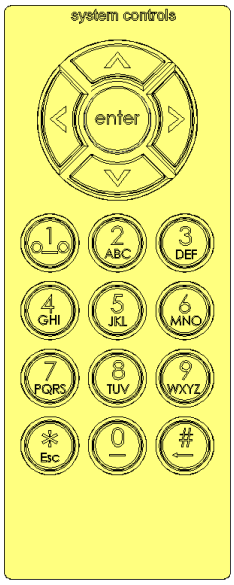
If the battery Voltage is measured below 18V they should be replaced as they will have lost much of their capacity and are unlikely to recover. This could leave the system with no power under mains fail conditions.

Fire Alarm Controls



The main Fire Alarm Controls may be enabled by turning the Enable Controls key switch to the Enabled position, or by entering a valid access code
The Silence Alarms button will silence any fire alarm sounders that are currently sounding.
The Reset System button will reset the panel and place the system into a non-alarm state.
The Sound Alarms button will activate all fire alarm sounders.
The Silence Buzzer button will silence the panel buzzer if it is currently buzzing.
The Function key will activate any Programmable Relays that are configured to EXTRACT, if the system is in the Release state.

System Controls



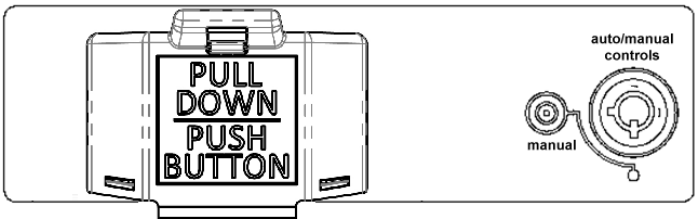
A context-driven, cursor highlighted-selection menu system is used to navigate around the menu system, automatically prompting you with the relevant options for your Access Level and system status.

```
▶MAIN MENU
  1 VIEW EVENTS
→ 2 VIEW LOGS
  3 TEST MODES
```

The menus may be navigated using the system control keys. Use the **UP** / **DOWN** arrow keys to move the selection arrow to the desired option and press **ENTER** or the **RIGHT** arrow key to select the chosen one.

Press the **Esc** or the **LEFT** arrow key to exit to the previous menu.

Extinguishant Release Controls



The extinguishant release switch allows the user to manually release the extinguishing agent directly from the control panel. To operate the switch, the user must pull down the protective cover and then push the release button.

The auto/manual key switch allows the user to place the fire alarm system in ‘automatic’ or ‘manual’ operation modes. When set to the default ‘automatic’ mode, the control panel will operate in a normal fashion and will advance to release through automatic detection methods.
When set to ‘manual’, the control panel’s zone circuits will not advance the system into release. In this mode, the only way to release the extinguishant system is to manually activate it.

Information Window

Upon initial power up of the panel, the display will show the default screen:

01/01/2015 08:01 NRM **TWINFLEX RELEASING** **FIKE (UK)** **Esc for Menu**

The top line of the display will show the default system date and time and the current access level. Information displayed on lines two and three of the default display can be user defined.

Press the **Esc** or **ENTER** key from this screen to display the main menu.

The default screen shown above will automatically change to display any fires or faults occurring on the system.

Access Levels and Codes

The SRP menu system is divided into four access levels in order to restrict access to those who require it. For simple indication, the status of the **Controls Enabled** light will show the level selected as follows:

Access Level	Factory Default Code	Description	Controls Enabled LED	Key Operation	Write Enable
1 – NORM	None	Normal	OFF	OFF	N/A
2A – USER	None	User	CONTINUOUS	ON	N/A
2A – USER	8737	User	FLASH	N/A	N/A
2B – SUPR	7877	Supervisor	FLASH	N/A	N/A
3A – ENGR	3647	Engineer	FLASH	N/A	OFF
3B – ENGR	3647	Engineer	FLASH	N/A	ON

Access to the menu system requires either the operation of the **enable controls** key switch for access to Access Level 2A (User)**,** or the correct entry of the relevant code for access to all other levels, in order to protect against unauthorised access to the system. The codes may be changed by the engineer using menu option 12, Panel Details, Set Access Codes. or via the TWINFLEX® SRP OSP software.

All system configuration settings can be saved only when the access level has been set to ENGR 3B.

Any configuration changes initiated via the panel keypad to Zone, Input, Output, Relays or Releasing functions will start a 5 minute reset countdown. **Note:** Changing the Aux configuration will not start the reset countdown.

To enter Engineer Access Level 3B, enter the ENGR code then open the main cover using the key lock and move the Write Enable switch to the ON position. This switch is located on the main CIE board close to the lock. The panel will display a general fault while the Write Enable switch is on. Remember to put the switch back to the OFF position when you have finished making configuration changes to the system. If any access level passwords are entered other than Access Level 1 and the Twinflex SRP does not experience human input after 10 minutes the access level will automatically revert to Access Level 1 (Normal).

Codes 3A – ENGR and 3B - ENGR must not be given to the end user and are only to be used by qualified fire alarm installation engineers.

Enter An Access Code

To enter an access code from the default screen (shown above), press any number button or the Backspace button. The screen will change (see example below).

ENTER ACCESS CODE
*** - - -**
PRESS ENTER
SW v01.000 key: 4412

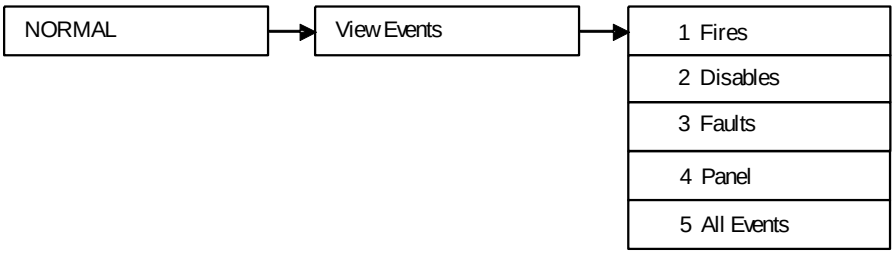
Enter all four digits of the access code using the number buttons. Asterisks will cover up the numbers as you enter them. When all four digits have been entered, press the **Enter** button. The display will say "ACCESS CODE ACCEPTED", and return to the default screen.
Now press the **Esc** or **ENTER** button to get to the menus for the access code entered above.

Note: No access code is allowed to have the value 0000*.*

Access Level 1 (Normal):

Controls Enabled LED off

At Access Level 1 (Normal), the main **Fire Alarm Controls** are disabled and the following System Menus are all that can be accessed. **Fire Alarm Controls** will only be accessible if the key switch is turned or the User Level password is entered.



These are described below. Note that actual display indications may differ from those shown in the grey boxes below, depending on actual set up.

1 View Events → **1 Fire Events**

FIRE 1/1
2014/03/22 14:22:02
ZONE 1 SMOKE ALARM
→ /← /Esc

The display will show any current fire events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **2 Disable Events**

DISABLE 2/4
2014/03/22 14:22:02
ZONE 1 DISABLED
→ /← /Esc

The display will show any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

Note: When the home screen is displayed, it will automatically change to display any fires or faults on the system as they occur.

1 View Events → **3 Fault Events**

FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc

The display will show any current faults. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **4 Panel Events**

PANEL 10/68
2014/03/22 14:22:02
CONTROLS ENABLED
→ /← /Esc

The display will show any current panel events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **5 All Events**

FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc

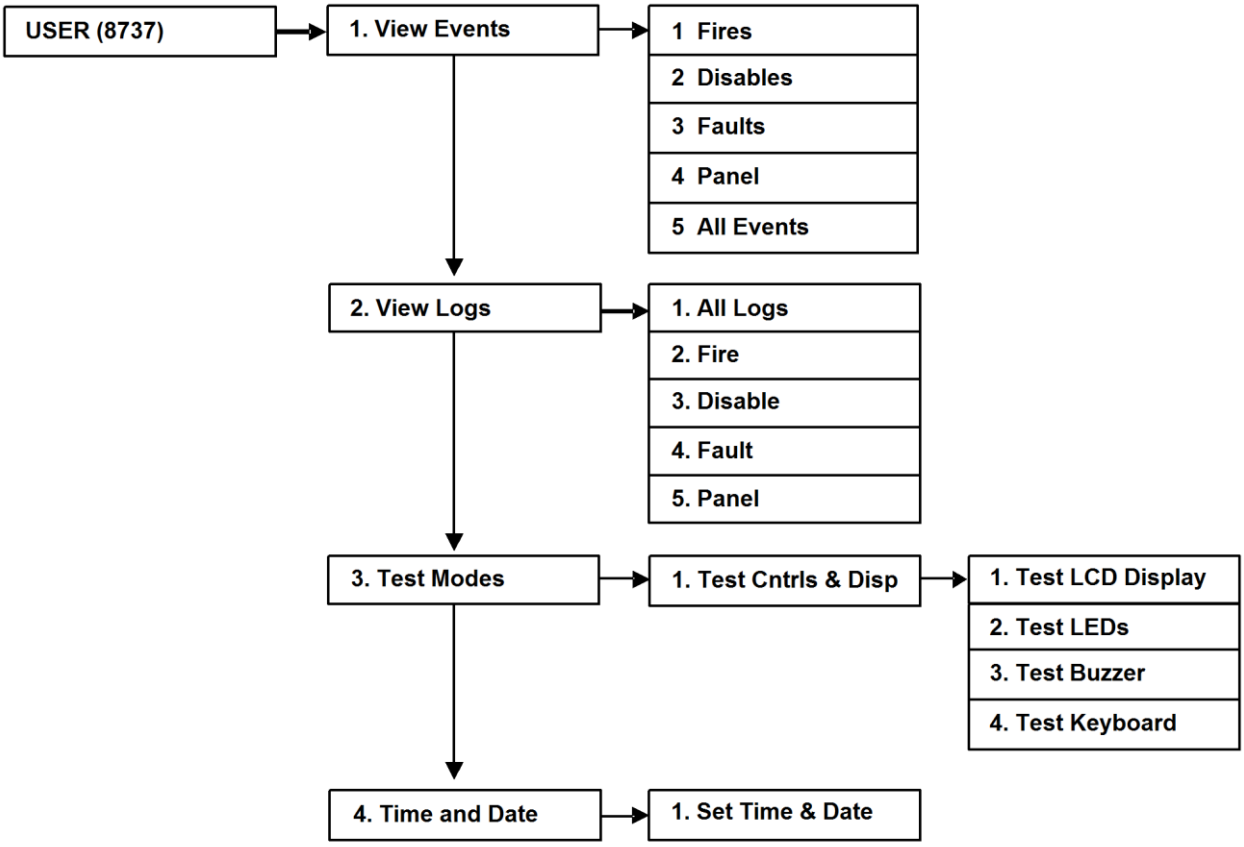
The display will show all current events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

Access Level 2A (User):

Controls Enabled Key or Factory Default Code 8737

Enable Controls LED ON if selected using the enabled controls key switch.
Enable Controls LED FLASHING if selected using the user password

At Access Level 2A (User), the main **Fire Alarm Controls** are enabled, "USR" is displayed on the home screen and the following **System Menus** are accessible:



These are described below. Note that actual display indications may differ from those shown in the grey boxes below, depending on actual set up.

1 View Events → **1 Fire Events**

FIRE 1/1
2014/03/22 14:22:02
ZONE 1 SMOKE ALARM
→ /← /Esc

The display will show any current fire events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **2 Disable Events**

DISABLE 2/4
2014/03/22 14:22:02
ZONE 1 DISABLED
→ /← /Esc

The display will show any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

Note: When the home screen is displayed, it will automatically change to display any fires or faults on the system as they occur.

1 View Events → **3 Fault Events**

```
FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc
```

The display will show any current faults. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **4 Panel Events**

```
PANEL 10/68
2014/03/22 14:22:02
CONTROLS ENABLED
→ /← /Esc
```

The display will show any current panel events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **5 All Events**

```
FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc
```

The display will show all current events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **1 All Logs**

```
FAULT 44/29563
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc          LOG
```

The Event Log stores 61184 fire, fault and system events which may be displayed in a single group or by category. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

When event log storage is nearly full, a “MEMORY ALMOST FULL!” event will occur. When event log storage has run out, the most recent 512 event logs will be erased and event logs will continue being stored—however, a fault condition will then exist and can only be cleared by contacting your distributor.

2 View Logs → **2 Fire Events**

```
FIRE 2/154
2014/03/22 14:22:02
ZONE 1 SMOKE ALARM
→ /← /Esc          LOG
```

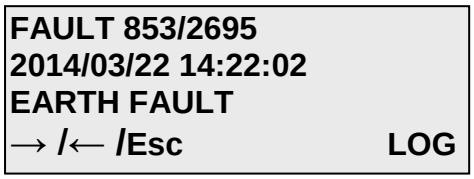
The Fire Log will display a log of any fire conditions received by the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **3 Disable Events**

```
DISABLE 2/4
2014/03/22 14:22:02
ZONE 1 DISABLED
→ /← /Esc          LOG
```

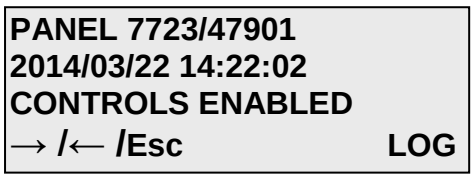
The Disable Log will display any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **4 Fault Events**



The Fault Log will display a log of any fault conditions received by the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **5 Panel Events**

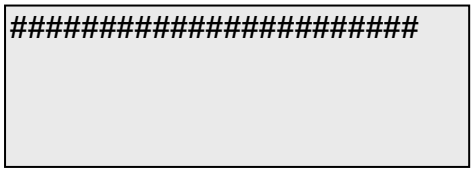


The Panel Event Log will display a log of events generated from the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

3 Test Modes → **Test Ctrls & Disp**

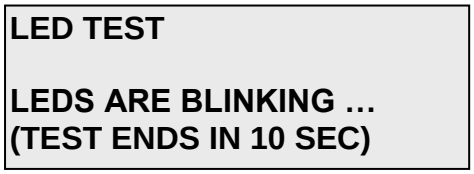
The Test Controls & Display function allows the selection of multiple tests. Select Enter to execute the selected test.

3 Test Modes → **Test Ctrls & Disp** → **LCD display**



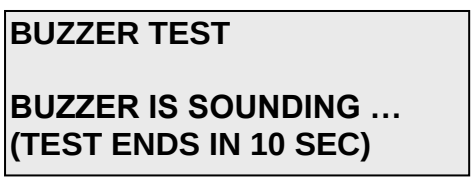
The Test Display function causes the LCD screen to display a # symbol in each character location to indicate each character location is operational. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **Test Ctrls & Disp** → **LEDs**



The Test LEDs function causes the panel LEDs to toggle on/off and will illuminate to ensure correct operation. When this option is active, the test LED will flash. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **Test Ctrls & Disp** → **Buzzer**



The Test Buzzer function turns the buzzer on to ensure correct buzzer operation unless the buzzer has been disabled by fitting a jumper link to J1 on the PCB. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **1 Test Ctrls & Disp** → **4 Keypad**

KEYPAD TEST
"SILENCE ALARMS"
IS BEING PRESSED
Esc & Esc to End Test

The Test Keypad function enables the user to select each button to ensure the correct function is shown on the screen. Press the **Esc** key **TWICE** to exit the menu.

4 Time And Date → **1 Set Time & Date**

SET TIME & DATE
TIME: 13:10
DATE: 2014/03/17
↑/↓ / → /← /Enter/Esc

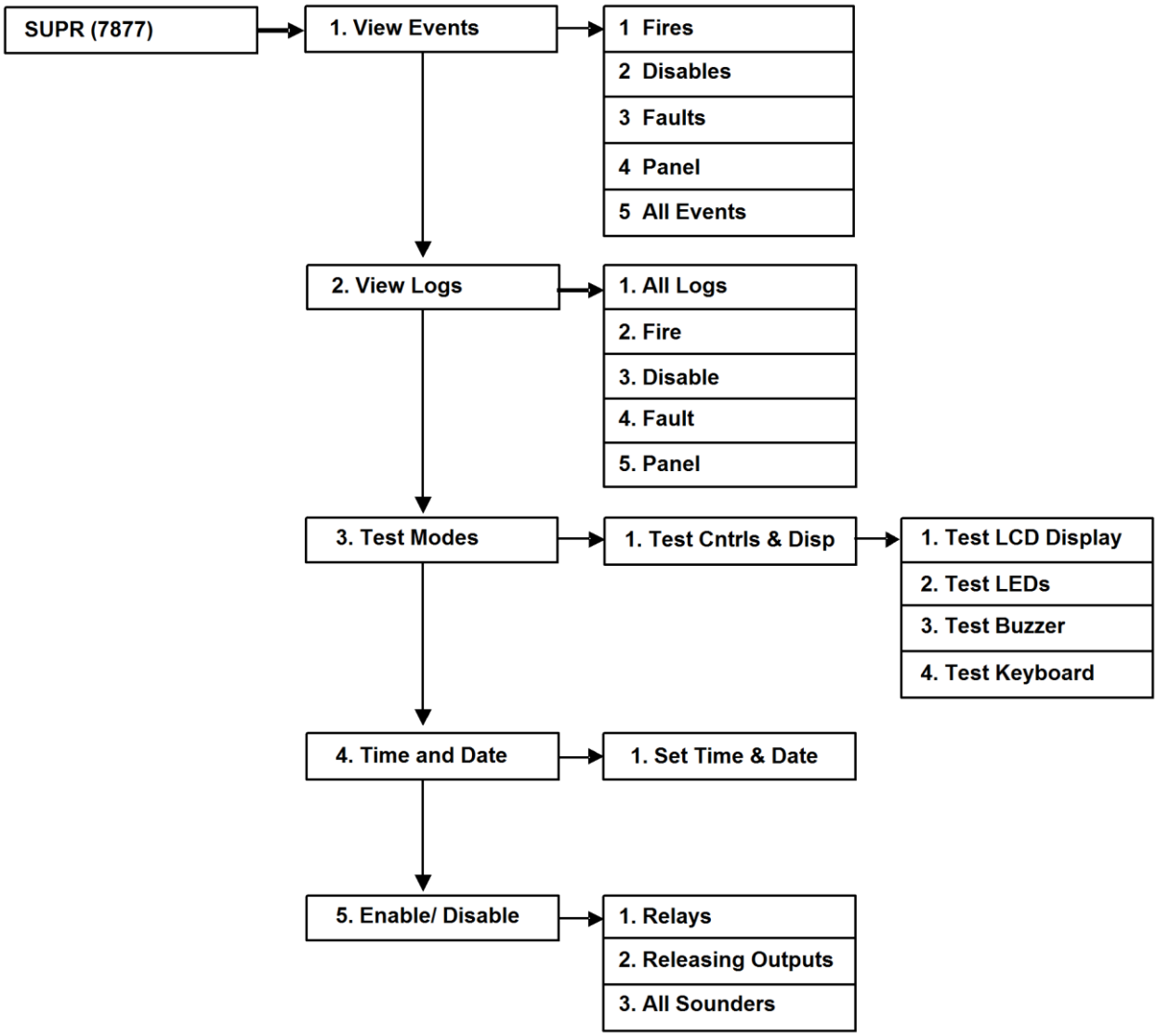
This allows the time and date to be adjusted. Use the **LEFT** and **RIGHT** arrow keys to move the cursor between digits and the **UP** and **DOWN** arrow keys or the number keys to change values. Press the **ENTER** key to confirm the change.
The date is displayed using the format set in Set Date Format in the Time And Date menu.

Note: If the SRP panel is powered down it will not retain the time and date. The correct time and date will need to be re-programmed after the panel is powered up.

Access Level 2B (Supervisor):

Factory default code 7877
Enable Controls LED flashing

At Access Level 2B (Supervisor), the main **Fire Alarm Controls** are enabled, “SPR” is displayed on the home screen and the following **System Controls** are accessible:



These are described below. Note that actual display indications may differ from those shown in the grey boxes below, depending on actual set up.

1 View Events → **1 Fire Events**

FIRE 1/1
2014/03/22 14:22:02
ZONE 1 SMOKE ALARM
→ /← /Esc

The display will show any current fire events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **2 Disable Events**

DISABLE 2/4
2014/03/22 14:22:02
ZONE 1 DISABLED
→ /← /Esc

The display will show any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

Note: When the home screen is displayed, it will automatically change to display any fires or faults on the system as they occur.

1 View Events → **3 Fault Events**

FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc

The display will show any current faults. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **4 Panel Events**

PANEL 10/68
2014/03/22 14:22:02
CONTROLS ENABLED
→ /← /Esc

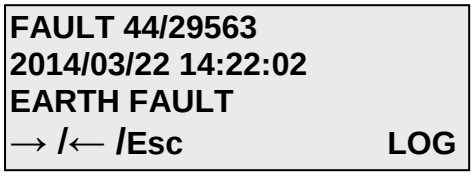
The display will show any current panel events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **5 All Events**

FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc

The display will show all current events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

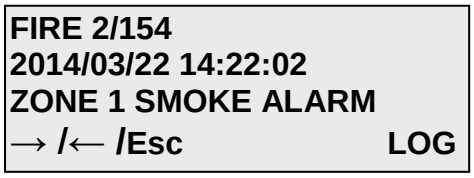
2 View Logs → **1 All Logs**



The Event Log stores 61184 fire, fault and system events which may be displayed in a single group or by category. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

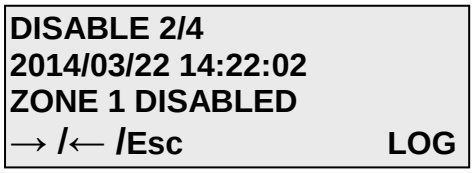
When event log storage is nearly full, a “MEMORY ALMOST FULL!” event will occur. When event log storage has run out, the most recent 512 event logs will be erased and event logs will continue being stored—however, a fault condition will then exist and can only be cleared by contacting your distributor.

2 View Logs → **2 Fire Events**



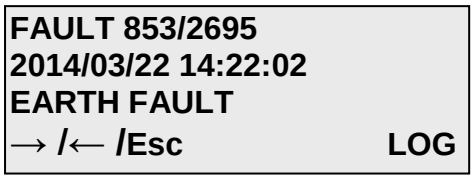
The Fire Log will display a log of any fire conditions received by the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **3 Disable Events**



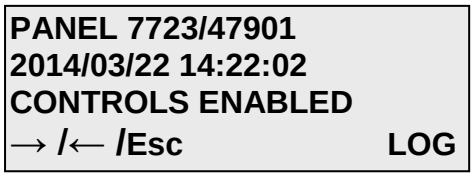
The Disable Log will display any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **4 Fault Events**



The Fault Log will display a log of any fault conditions received by the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **5 Panel Events**



The Panel Event Log will display a log of events generated from the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

3 Test Modes → **Test Ctrls & Disp**

TESTS (10 seconds):
LCD DISPLAY LEDS
BUZZER KEYPAD
→ /← /Enter/Esc

The Test Controls & Display function allows the selection of multiple tests. Select Enter to execute the selected test.

3 Test Modes → **Test Ctrls & Disp** → **LCD display**

########################

The Test Display function causes the LCD screen to display a # symbol in each character location to indicate each character location is operational. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **Test Ctrls & Disp** → **LEDs**

LED TEST

LEDS ARE BLINKING …
(TEST ENDS IN 10 SEC)

The Test LEDs function causes the panel LEDs to toggle on/off and will illuminate to ensure correct operation. When this option is active, the test LED will flash. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **Test Ctrls & Disp** → **Buzzer**

BUZZER TEST

BUZZER IS SOUNDING …
(TEST ENDS IN 10 SEC)

The Test Buzzer function turns the buzzer on to ensure correct buzzer operation unless the buzzer has been disabled by fitting a jumper link to J1 on the PCB. Test will timeout and return to test screen or press the **Esc** key to exit the test.
.

3 Test Modes → **1 Test Ctrls & Disp** → **4 Keypad**

KEYPAD TEST
"SILENCE ALARMS"
IS BEING PRESSED
Esc & Esc to End Test

The Test Keypad function enables the user to select each button to ensure the correct function is shown on the screen. Press the **Esc** key **TWICE** to exit the menu.

4 Time And Date → **1 Set Time & Date**

SET TIME & DATE
TIME: 13:10
DATE: 2014/03/17
↑/↓ / → /← /Enter/Esc

This allows the time and date to be adjusted. Use the **LEFT** and **RIGHT** arrow keys to move the cursor between digits and the **UP** and **DOWN** arrow keys or the number keys to change values. Press the **ENTER** key to confirm the change.
The date is displayed using the format set in Set Date Format in the Time And Date menu.

Note: If the SRP panel is powered down it will not retain the time and date. The correct time and date will need to be re-programmed after the panel is powered up.

5 Enable/ Disable → **1 Relays**

ENABLE/DISABLE
RELAY: 01
MODE: Enable
↑/↓ / → /← /Enter/Esc

Enable or Disable all Relay outputs.
Mode: Enable or Disable (default = enable)

5 Enable/ Disable → **2 Releasing Outputs**

ENABLE/DISABLE
ALL RELEASING OUTS?
1. Enable 2. Disable
→ /← /Enter/Esc

Enable or Disable all Releasing outputs.
Mode: Enable or Disable (default = enable)

5 Enable/ Disable → **3 All Sounders**

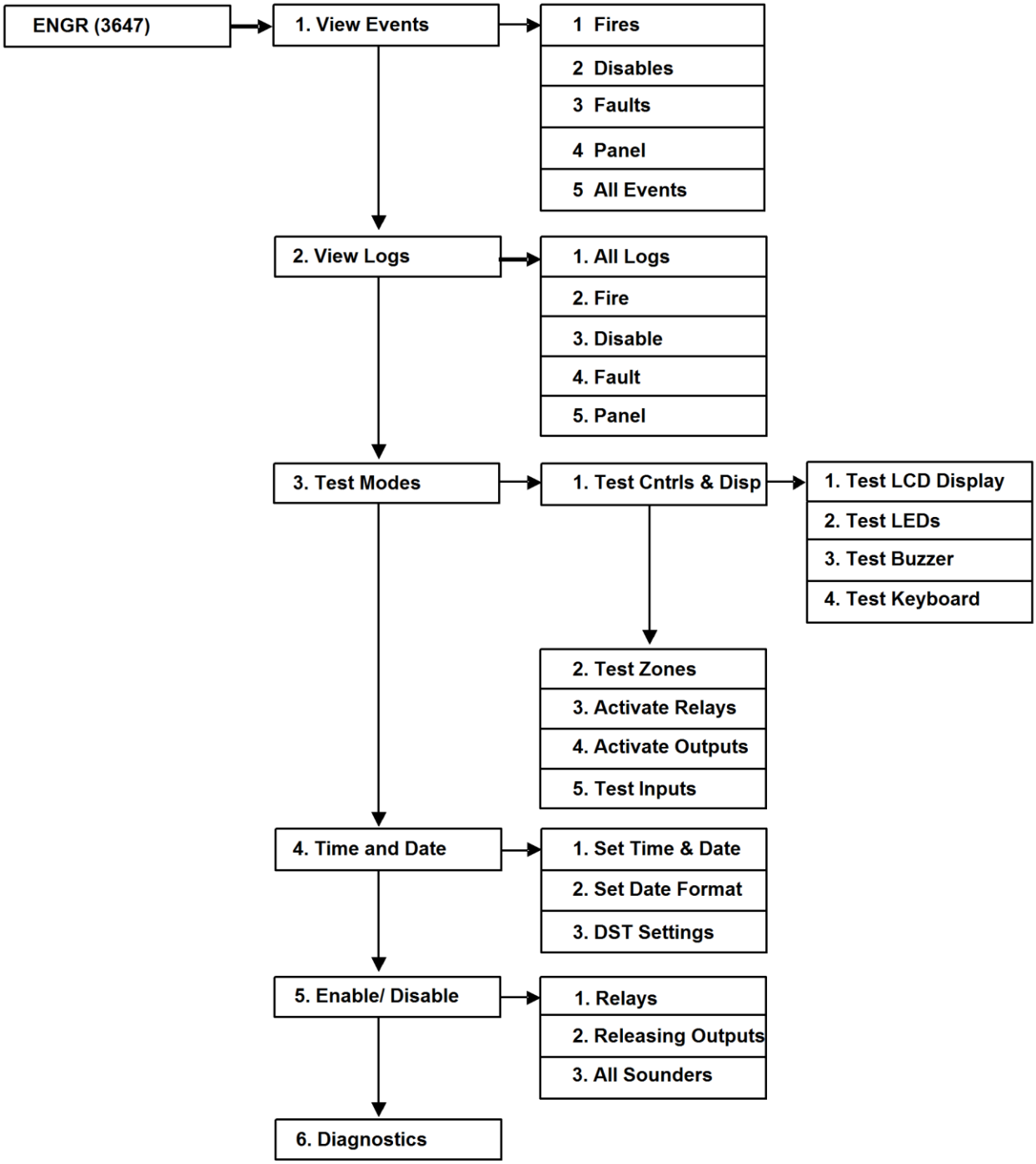
ENABLE/DISABLE
ALL SOUNDERS?
1. Enable 2. Disable
↑/↓ / → /← /Enter/Esc

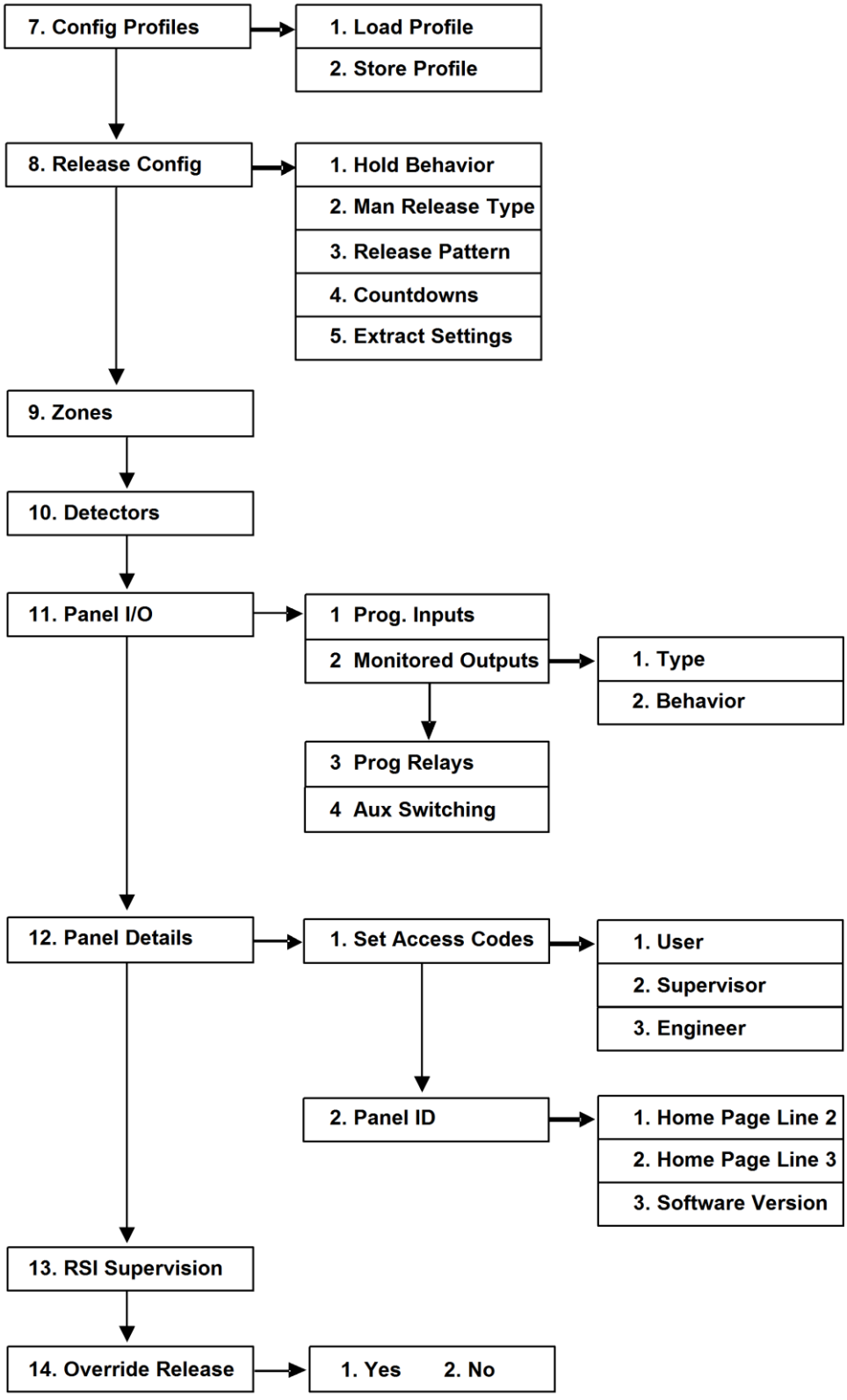
This function allows the global disablement or enablement of all the sounders on the system. The control panel will indicate that disablements are present and a disablement event will be recorded to log. The sounders can be disabled only if the Releasing outputs are also disabled. This is because you cannot have a release without notifying building occupants.
Releasing can be enabled only if the Sounders are enabled since the Sounders cannot stay disabled by themselves.

Access Level 3 (Engineer):

Factory default code 3647
Controls Enabled LED flashing

At Access Level 3A (Engineer), the main **Fire Alarm Controls** are enabled, “ENG” is displayed on the home screen and the following **System Controls** are accessible. To change options contained within the engineer menu, enter Access Level 3B. This is done by removing the right hand cover and moving the write enable switch to the ON position.





Available menu options are described below. Note that actual display indications may differ from those shown in the grey boxes below, depending on actual set up.

1 View Events → **1 Fire Events**

FIRE 1/1
2014/03/22 14:22:02
ZONE 1 SMOKE ALARM
→ /← /Esc

The display will show any current fire events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **2 Disable Events**

DISABLE 2/4
2014/03/22 14:22:02
ZONE 1 DISABLED
→ /← /Esc

The display will show any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

Note: When the home screen is displayed, it will automatically change to display any fires or faults on the system as they occur.

1 View Events → **3 Fault Events**

FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc

The display will show any current faults. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **4 Panel Events**

PANEL 10/68
2014/03/22 14:22:02
CONTROLS ENABLED
→ /← /Esc

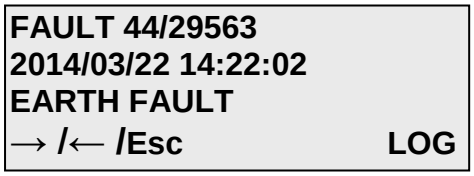
The display will show any current panel events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

1 View Events → **5 All Events**

FAULT 9/19
2014/03/22 14:22:02
EARTH FAULT
→ /← /Esc

The display will show all current events. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

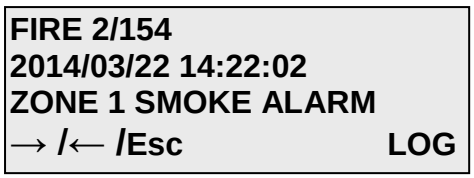
2 View Logs → **1 All Logs**



The Event Log stores 61184 fire, fault and system events which may be displayed in a single group or by category. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

When event log storage is nearly full, a “MEMORY ALMOST FULL!” event will occur. When event log storage has run out, the most recent 512 event logs will be erased and event logs will continue being stored—however, a fault condition will then exist and can only be cleared by contacting your distributor.

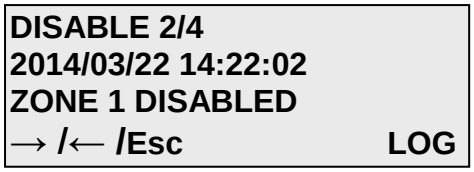
2 View Logs → **2 Fire Events**



The Fire Log will display a log of any fire conditions received by the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

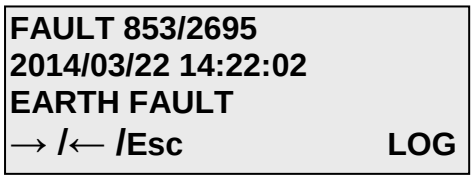
.

2 View Logs → **3 Disable Events**



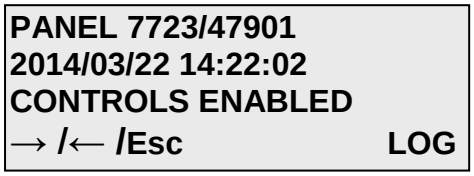
The Disable Log will display any current disables. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **4 Fault Events**



The Fault Log will display a log of any fault conditions received by the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

2 View Logs → **5 Panel Events**



The Panel Event Log will display a log of events generated from the panel. These may be scrolled through with the **LEFT** and **RIGHT** arrow keys. Press the **Esc** key to exit the menu.

3 Test Modes → **Test Ctrls & Disp**

TESTS (10 seconds):
LCD DISPLAY LEDS
BUZZER KEYPAD
→ /← /Enter/Esc

The Test Controls & Display function allows the selection of multiple tests. Select Enter to execute the selected test.

3 Test Modes → **Test Ctrls & Disp** → **LCD display**

########################

The Test Display function causes the LCD screen to display a # symbol in each character location to indicate each character location is operational. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **Test Ctrls & Disp** → **LEDs**

LED TEST

LEDS ARE BLINKING …
(TEST ENDS IN 10 SEC)

The Test LEDs function causes the panel LEDs to toggle on/off and will illuminate to ensure correct operation. When this option is active, the test LED will flash. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **Test Ctrls & Disp** → **Buzzer**

BUZZER TEST

BUZZER IS SOUNDING …
(TEST ENDS IN 10 SEC)

The Test Buzzer function turns the buzzer on to ensure correct buzzer operation unless the buzzer has been disabled by fitting a jumper link to J1 on the PCB. Test will timeout and return to test screen or press the **Esc** key to exit the test.

3 Test Modes → **1 Test Ctrls & Disp** → **4 Keypad**

KEYPAD TEST
"SILENCE ALARMS"
IS BEING PRESSED
Esc & Esc to End Test

The Test Keypad function enables the user to select each button to ensure the correct function is shown on the screen. Press the **Esc** key **TWICE** to exit the menu.

3. Test Modes → **2. Test Zones**

TEST ZONES
ZONE: 01
MODE: Test Off
↑/↓ / → /← /Esc

Test Off – Stops all test modes.

Silent - Allows the selection of one or more detection-zones to operate in a 'silent one-man walk test mode'. On triggering a device, the device LED operates and the event is recorded into the event log as a test activation, but the sounder does not sound and the control panel does not show an alarm. After approximately 5 seconds the system will reset the device and another may be tested. The control panel event log will indicate that a test mode has been selected. This operation will also enable the test LED and the circuit that is in test mode.

System - Allows the entire system to operate in a simple one-man walk test mode. On triggering a device the device LED operates and the event is recorded into the event log, all the assigned sounders operate for 10 seconds and the control panel indicates DEVICE ACTIVATED. After approximately 10 seconds, the system will reset the device and another may be tested. The control panel event log will indicate that a test mode has been selected. Please note that with the system test mode, only the sounders that are on the same circuit as the device being tested will sound.

To put ALL Twinflex zones into test enter 00 for the zone number. This operation will also enable the TEST LED and the circuit or circuits that are in test mode.

Critical note for 00 setting: If zone circuits 01, 02, 03 or 04 are set for test mode SILENT or SYSTEM and the user scrolls to 00 it will automatically change all zone circuits to test mode OFF.

Ensure smoke is cleared from the detectors that are being tested before a reset of the system or taking the system out of test mode as it may result in an activation in normal mode. The Detector will blink if it senses the presence of smoke and if the detector no longer blinks then the system can be taken out of TEST MODE.

Conventional detection circuits are not affected by test mode and will activate normally. This will bring the circuits that are in test mode out of test mode and the system will operate as configured for the fire event.

3. Test Modes → **3. Activate Relays**

ACTIVATE Relays
Relay: Fault Relay
MODE: Off
↑/↓ / → /← /Esc

Allows Relays to be activated for testing.
Relay selections : Fault Relay & Relay 1 to Relay 4.
Mode: Off or On. (Default = Off)
All modes reset to Off once Esc is pressed.

3. Test Modes → **4. Activate Outputs**

ACTIVATE OUTPUTS
OUTPUT: Output 1
MODE: Off
↑/↓ / → /← /Esc

Allows Outputs to be activated for testing.
Output selections : Output 1, Output 2, Output 3 (default = Output 1)
Mode: Off, Continuous, Slow, Fast, Temporal, User1, User2, User3, User4 (default = Off)
All modes reset to Off once Esc is pressed.

3. Test Modes → **5. Test Inputs**

```
TEST INPUT
1   2   3   4   5
N   N   N   N   N
Esc to return
```

Allows inputs 1 - 5 to be verified. Indicates status of input.
Blank = input is not configured
N = switch is not active (see page 18)
A = switch is active
S = circuit is shorted
O = circuit is open

4 Time And Date → **1 Set Time & Date**

```
SET TIME & DATE
TIME: 13:10
DATE: 2014/03/17
↑/↓ / → /← /ENTER/Esc
```

This allows the time and date to be adjusted. Use the **LEFT** and **RIGHT** arrow keys to move the cursor between digits and the **UP** and **DOWN** arrow keys or the number keys to change values. Press the **ENTER** key to confirm the change.
The date is displayed using the format set in Set Date Format in the Time And Date menu.

Note: If the SRP panel is powered down it will not retain the time and date. The correct time and date will need to be re-programmed after the panel is powered up.

4 Time And Date → **2 Set Date Format**

```
SET DATE FORMAT
STYLE: DD-MM-YYYY

↑/↓ / → /← /Enter/Esc
```

This allows the date format to be set.
Formats allowed: YYYY-MM-DD, MM-DD-YYYY, DD-MM-YYYY (default = DD-MM-YYYY)

4. Time And Date → **3 DST Settings**

```
DST:      Off  FWD  BACK
MONTH:         Mar   Oct
DAY:           Sun L Sun L
TIME:          01:00 01:00
```

This allows the Daylight Saving Time to be set.
DST: Allows DST to be turned on or off
MONTH: Set what month DST activates for forward or backward
DAY: Set the day of the week on which DST activates and in what week of the month (1st, 2nd, 3rd, 4th, L (Last)).
TIME: Set what hour of the day DST activates.

5 Enable/ Disable → **1 Relays**

```
ENABLE/DISABLE
RELAY: 01
MODE: Enable
↑/↓ / → /← /Enter/Esc
```

Enable or Disable all Relay outputs.
Mode: Enable or Disable (default = enable)

5 Enable/ Disable → **2 Releasing Outputs**

ENABLE/DISABLE
ALL RELEASING OUTS?
1. Enable 2. Disable
→ /← /Enter/Esc

Enable or Disable Releasing outputs.
Mode: Enable or Disable (default = enable)

5 Enable/ Disable → **3 All Sounders**

ENABLE/DISABLE
ALL SOUNDERS?
1. Enable 2. Disable
↑/↓ / → /← /Enter/Esc

This function allows the global disablement or enablement of all the sounders on the system. The control panel will indicate that disablements are present and a disablement event will be recorded to log. The sounders can be disabled only if the Releasing outputs are also disabled. This is because you cannot have a release without notifying building occupants.
Releasing can be enabled only if the Sounders are enabled since the Sounders cannot stay disabled by themselves.

The values shown in the diagnostic screens are calculated values and will differ from actual measured values. They are accurate enough to be used as a guide to show that correct EOL resistors have been fitted or that zones are healthy. A DVM should always be used to obtain accurate readings when testing the panel.

6. Diagnostics → **Screen 1**

OUTPUT 1: 10KΩ →
OUTPUT 2: 9.9KΩ
OUTPUT 3: 9.9KΩ
INPUT 1: 3.2KΩ

The values shown are for example purposes only.
Pressing the Enter Key will toggle between ADC Values and calculated values.
The **RIGHT** arrow key will take you to the next screen.

6. Diagnostics → **Screen 2**

INPUT 2: 3.2KΩ →
INPUT 3: 3.2KΩ
INPUT 4: 3.2KΩ
INPUT 5: 3.2KΩ

The values shown are for example purposes only
Pressing the Enter Key will toggle between Analogue to Digital Converter (ADC) Values and calculated values.
The **RIGHT** arrow key will take you to the next screen.

6. Diagnostics → **Screen 3**

ZONE1 (V): 29.1V →
ZONE2 (V): 29.1V
ZONE3 (V): 29.1V
ZONE4 (V): 29.1V

The values shown are for example purposes only.
Pressing the Enter Key will toggle between ADC Values and calculated values.
The **RIGHT** arrow key will take you to the next screen.

6. Diagnostics → **Screen 4**

```
ZONE1 (I)   4mA      →
ZONE1 (I)   4mA
ZONE1 (I)   4mA
ZONE1 (I)   4mA
```

The values shown are for example purposes only.
Pressing the Enter Key will toggle between ADC Values and calculated values.
The **RIGHT** arrow key will take you to the next screen.

6. Diagnostics → **Screen 5**

```
POWER SUPPLY: 29.6V   →
EARTH GND:  1.6V
BATTERY:  26.6V
CHARGER:  27.1V
```

The values shown are for example purposes only.
Pressing the Enter Key will toggle between ADC Values and calculated values.
The **RIGHT** arrow key will take you back to the first screen.

7. Config Profiles → **1. Load Profile**

```
LOAD CONFIG PROFILE
PROFILE: User 1
User 1 is empty
↑/↓ /Enter/Esc
```

This will load the pre-stored configuration profile identified. There are a total of 8 profiles, User 1 to 4 and Profile 1 to 4.
User 1 – 4 will not load unless a profile has previously stored in them.

7. Config Profiles → **2. Store Profile**

```
STORE CURRENT CONFIG
PROFILE: User 1
User 1 is empty
↑/↓ / Enter/Esc
```

This function stores current configuration as a profile. This will store all panel settings into the profile.

8. Release Config → **1. Hold Behaviour**

```
HOLD BEHAVIOR
TYPE: 1

↑/↓ / Enter/Esc
```

Select system hold type: 1 or 2

6.6.1. EN Hold Type 1 (Ref EN12094 Section 4-20-3 Sub para B)
The pre-release warning time shall be restarted from the beginning of each release of the emergency hold device. Counter shall reset once Hold is activated.

6.6.2. EN Hold Type 2 (Ref EN12094 Section 4-20-3 Sub para A)
Countdown continues during Hold activation. Release occurs when both the countdown is completed and the abort is deactivated.

If an output is configured for Pre-Release, then the Hold Behaviour / Pattern can be configured. When a hold is activated, this pattern will be enunciated on the output instead of the Pre-Release pattern. If there are no outputs configured for Pre-Release, then this option will not be displayed and cannot be changed.

8. Release Config → **2. Manual Release**

ON MANUAL RELEASE,
THE SYSTEM WILL:
Enter Countdown
↑/↓ / Enter/Esc

Select system manual release type: Enter Countdown or Release Instantly. This will determine operation when the manual release input has been activated on the control panel.

8. Release Config → **3. Release Pattern**

RELEASE PATTERN
On Time: 0001 s
Off Time: 0000 s
↑/↓ / → /← /Enter/Esc

This will set the on and off time for the releasing output activation pattern. This allows multiple system types to be used by adjusting the timings.
Off time has 2 special cases –

1. 0 = Never (the releasing circuit will never deactivate)
2. 9999 = Forever (once the on time has completed, the releasing circuit will never reactivate)

8. Release Config → **4. Countdowns**

COUNTDOWNS
Release Delay: 30s
Reset Inhibit: 0000s
↑/↓ / → /← /Enter/Esc

Set the release delay time to allow for a time delay between Fire 2 alarm and activation of the releasing devices.
Set reset inhibit time to prevent a manually activated system reset after the Release.
It allows for the soak time so that the extinguishant can penetrate into the protected space before the system can be reset.

8. Release Config → **5. Extract Settings**

EXTRACT SETTINGS
Activate: Auto
On Time: 020 min
↑/↓ /Enter/Esc

The SRP panel provides the capability to extract through a relay programmed for extract state. Extract settings can be configured via this menu. Extract can be set to activate automatically or manually. Manual setting requires activation of a monitored input set for extract function. Auto extract is activated at the end of soak period (reset inhibit time). The duration for auto extract is set through the On Time setting.

Select extraction duration: 0 – 999 minutes.

9. Zones

ZONE: 01
TYPE: Off
NAME: ZONE_1
↑/↓ / → /← /Enter/Esc

Allows zones to be setup:
Zone: 00- all zones, else zone number
Type: Off, Twinflex®, Conventional, Release IRM, Release SRM (default = Off)
Name: text editable area for zone name.

10. Detectors

DETECTORS **HEAT DETECTOR WILL** **SET STATE: Fire 2** **↑/↓ /Enter/Esc**

Sets up the operation for a heat alarm when Twinflex detectors are used. A Twinflex heat detector activation can either put the panel into Fire 1 (Alarm) or Fire 2 (Pre-release) states.
The default setting is Fire 1 Alarm.

11. Panel I/O → **1. Prog Inputs**

INPUT: 01 NO **CONTROL EVENT:** **SILENCE ALARMS** **NAME: INPUT_01**

This will allow the engineer to view or change the operation of programmable inputs. Use the **UP** and **DOWN** arrow keys to toggle through the following options. To confirm the changes press **ENTER**.

Select Input number at the **INPUT:** and select Normally Open or Normally Closed at the **NO** selection.
Use the **UP** and **DOWN** arrow keys to cycle through the following options for the triggering event:

CONTROL EVENTS – Operation of I/P will operate a control function on the panel. Select from:

Silence Alarms – silences active system alarms.

Reset System – resets the TWINFLEX® panel.

Sound Alarms – initiates evacuate input at the control panel. Monitored Outputs that are configured to Notification will be activated.

Silence Buzzer – silences the TWINFLEX® panel local buzzer.

RELEASE EVENTS – Operation of I/P will operate a release function on the panel. Select from:

Manual Release – Activates a manual release in the control panel.

Hold – Activates a Hold function in the control panel.

Extinguishant Flow – Indicates Extinguishant is flowing in the system. If an extinguishant input goes active during an inactive (no alarms) state the system will release.

Manual Mode – Changes the control panel to Manual operating mode

Low Pressure – Indicates a Low Pressure situation

Extract – Activates the Extract function

REMOTE EVENT – Operation of I/P will signal a remote fire input at the control panel. Panel outputs will be triggered and fire indication will be shown at the control panel. Select from:

Remote Fire – initiates a remote fire signal at the control panel. All sounders and relays will operate (latching or non-latching).

DISABLEMENT EVENT – Operation of I/P will activate a disablement on the control panel. Select from:

All Sound & Rel. Outs – disables all sounders and releasing outputs.

Relays – disables all control panel relays.

NAME:
This option allows the engineer to change the text that will be displayed on the panel when Programmable Input 1 is activated. This is displayed in text format and may be scrolled through by pressing the **LEFT** and **RIGHT** keys. To change the text, move the cursor underneath the character to be changed and use the **UP** and **DOWN** keys or the alphanumeric keypad to change that character. The Backspace key will delete the character and move the cursor to the previous character. To confirm the changes press **ENTER**.

11. Panel I/O → **2. MONITORED OUTPUTS**

OUTPUT OPTIONS
1 Type
2 Behaviour

This allows the selection of subscreens that will allow setting the Type and Behaviour of the outputs.

11. Panel I/O → **1 Type screen**

OUTPUT: 01
TYPE: Notification
NAME: OUTPUT_01
↑/↓ / → /← /Enter/Esc

This will allow the engineer to view or change the operation of Monitored Output. Use the **LEFT** and **RIGHT** arrow keys to move the cursor to a different option and the **UP** and **DOWN** arrow keys to change the current value. To confirm the changes press **ENTER**.

TYPE:
Notification – sets the type to a notification device (strobe or sounder)
Release – sets the output to a releasing type to allow activating a solenoid device.

11. Panel I/O → **2 Behaviour screen**

OUTPUT: 01
STATE: Off
PATTERN: Continuous
SILENCABLE: Yes

This will allow the engineer to view or change the operation of Monitored Output Use the **LEFT** and **RIGHT** arrow keys to move the cursor to a different option and the **UP** and **DOWN** arrow keys to change the current value. To confirm the changes press **ENTER**.

SILENCABLE:

Yes –	Pressing the silence alarms button will silence the output.
No –	Pressing the silence alarms button will not silence the output.

STATE:

OFF -	Output is turned off
Alarm –	Output will activate when the panel in is in the Fire 1(Alarm) state or Sound Alarms input/button is activated.
Pre-Release –	Output will activate when panel is in the Fire 2(Pre-Release) state
Release-	Output will activate when panel is in the Release state

PATTERN:

Continuous –	The output will operate in a continuous (constant) pattern when activated.
Slow –	The output will operate with a slow (1/2 second on, 1/2 second off) pattern when activated.
Fast –	The output will operate with a fast (1/4 second on, 1/4 second off) pattern when activated.
Temporal –	The output will operate with a temporal pattern when activated.
User 1-4 -	The output will operate with a user defined pattern when activated. (The user patterns can only be defined in OSP software)

IMPORTANT NOTE: If the Behaviour of the monitored output is configured and then the Type is changed from Notification to Releasing or vice versa the panel clears out the Behaviour to default setting.
Default Behaviour is OFF State, Continuous Pattern and Silenceable Output.

11. Panel I/O → **3. Prog Relays**

RELAY: 01
STATE: NO STATE
NAME: RELAY 01
↑/↓ / → /← /Enter/Esc

This will allow the engineer to view or change the operation of programmable relay 01 - 04. The NAME can be up to 14 characters long. Use the **LEFT** and **RIGHT** arrow keys to move the cursor to a different option and the **UP** and **DOWN** arrow keys to change the current value or option. To confirm the changes press **ENTER**.

STATE:

No State –	Operation of programmable relay is not configured.
Alarm –	Operation of programmable relay will be triggered by panel's Fire 1 Alarm State.
Pre-release –	Operation of programmable relay will be triggered by panel's Fire 2 (Pre-Release) Pre-discharge State.
Release –	Programmable relay will be triggered by panel's Release State.
Extract –	Programmable relay will be triggered by panel's Extract State.
Hold –	Programmable relay will be triggered by panel's Hold/Abort State.
Disablement –	Programmable relay will be triggered by panel's Disable State.
Fault –	Programmable relay will be triggered by a Fault State.
Manual Mode –	Programmable relay will be triggered by a Manual Mode State.

11. Panel I/O → **4. AUX Switching**

AUX POWER SWITCHING
AUX1: Power Constant
AUX2: Power Cycled
↑/↓ / → /← /Enter/Esc

Each auxiliary output can be programmed to cycle power during a system reset, or to keep its power constant during a system reset.

12. Panel Details

This will allow the engineer to select the Access Codes or Panel ID submenus.

```
PANEL DETAILS
1  SET ACCESS CODES
2  PANEL ID
```

12. Panel Details → **1. Set Access Codes**

This will allow the engineer to select which access code will be modified.

```
SET ACCESS CODES
1 USER
2 SUPERVISOR
3 ENGINEER
```

12. Panel Details → **1. Set Access Codes** → **1 User**

```
SET USER ACCESS CODE
ENTER OLD CODE:      0000
ENTER NEW CODE:      0000
RE-ENTER NEW CODE: 0000
```

This will allow the engineer to change the code for access to the user menus. Use the **LEFT** and **RIGHT** arrow keys to move the cursor between digits or codes and use the **UP** and **DOWN** arrow keys or the number keys to enter the code. Press the E**NTER** key to confirm the change.

12. Panel Details → **1. Set Access Codes** → **2 Supervisor**

```
SET SUPR ACCESS CODE
ENTER OLD CODE:      0000
ENTER NEW CODE:      0000
RE-ENTER NEW CODE: 0000
```

This will allow the engineer to change the code for access to the supervisor menus. Use the **LEFT** and **RIGHT** arrow keys to move the cursor between digits or codes and use the **UP** and **DOWN** arrow keys or the number keys to enter the code. Press the **ENTER** key to confirm the change.

12. Panel Details → **1. Set Access Codes** → **3 Engineer**

```
SET ENGR ACCESS CODE
ENTER OLD CODE:      0000
ENTER NEW CODE:      0000
RE-ENTER NEW CODE: 0000
```

This will allow the engineer to change the code for access to the engineer menus. Use the **LEFT** and **RIGHT** arrow keys to move the cursor between digits or codes and use the **UP** and **DOWN** arrow keys or the number keys to enter the code. Press the **ENTER** key to confirm the change.

12. Panel Details → **2. Panel ID**

```
PANEL ID
1  HOME PAGE LINE 2
2  HOME PAGE LINE 3
3  SOFTWARE VERSION
```

This will allow the engineer to select and edit the screen with user defined home screen text.

12. Panel Details → **2. Panel ID** → **1 Description line 2**

PANEL DESCRIPTION
LINE 2:
DESCRIPTION LINE 2
↑/↓ / → /← /Enter/Esc

This will allow the engineer to view or change line 2 of the panel description. Use the **UP** and **DOWN** keys to change the character and **LEFT** or **RIGHT** to move the cursor. The keypad can also be used for entry. Press **ENTER** to accept the changes.

12. Panel Details → **2. Panel ID** → **2 Description line 3**

PANEL DESCRIPTION
LINE 3:
DESCRIPTION LINE 3
↑/↓ / → /← /Enter/Esc

This will allow the engineer to view or change line 3 of the panel description. Use the **UP** and **DOWN** keys to change the character and **LEFT** or **RIGHT** move the cursor. The keypad can also be used for entry. Press **ENTER** to accept the changes.

12. Panel Details → **2. Panel ID** → **3 Software version**

TWINFLEX RELEASING
SW VER: 01001
FC KEY: 3952

This will allow the engineer to view the version of panel operating software.

13. RSI Supervision

RSI SUPERVISION
RSI: 01
MODE: Off
↑/↓ / → /← /Enter/Esc

This option allows the engineer to enable or disable supervision for any connected Remote Status Indicators (RSI). **RSI** number can be selected as 1-8. **MODE** can be Off or On for each address. This will start supervision of the RSI at that address.

14 Override Release

NO RELEASE
HAS OCCURED

If Override Release is selected when a release has not occurred this message will be displayed.

Override / Deactivate
The Active Release?
1. Yes 2. No

This screen will be displayed if Override Release is selected when in a released state. This allows the Release to be overridden.
If **yes** is chosen the solenoid valves will be deactivated and the Reset Inhibit will be cancelled.
Once the solenoids have been deactivated they will not activate.
Note: Override Release does not require the Write Enable Switch to be ON.

Installation and Commissioning

Installation 1st Stage

The installer must install the system wiring in the form of 2-core radial circuits. The cabling should be 2 core 1.5mm^2, screened and fire resistant, of an MICC or FP200 equivalent type. 4 core cable as a zone in and zone out must not be used, due to the possibility of data corruption.

The zone should be left unconnected to the panel with no devices installed and must be tested for continuity and integrity with a multi-meter set to read Ohms.

The control panel back box should be mounted, with the mains supply tested, connected and isolated at the un-switched fused spur, ready for commissioning. Where the zone cabling is continued via the device, the cables should be temporarily connected through using connector blocks.

The installer needs to provide a set of 'As-Wired' drawings and proof of loop continuity and insulation test readings etc. before commissioning may proceed. This information is essential, and may be entered onto the forms provided at the rear of this manual.

Maximum Cable Lengths

Circuit	Distance
Zone Circuits	500 metres
Monitored Outputs	500 metres
Monitored Inputs	500 metres
Aux Power	500 metres
Fault and Programmable Relays	500 metres
RS485	500 metres

Installation 2nd Stage

Once the commissioning engineer is satisfied with the continuity / integrity of the zone cables, the control panel may be powered up as follows:

1. Ensure that none of the field wiring is connected to the panel. This is not essential but it helps to build up the system in sections when commissioning a system for the first time.

2. Apply the 230V AC mains supply, before connecting the batteries.

3. The control panel takes approximately half a minute to boot up its processor.

4. Program the number of active zones required, and any other settings needed. This is easier and quicker using a laptop PC and the TWINFLEX® SRP OSP software via the USB port.

5. Add a device to the end of each zone and ensure that the EOL signal is switched on in all these devices. Connect the zones into the control panel one at a time and ensure that the fault lights clear as each zone is connected (after approximately. 20 sec).

6. Add the additional devices in one at a time. In the case of detectors, allow each one to clear from fault (approximately half a minute).

7. Connect all other circuits and ensure that they are fault free.

There is no requirement to build the system up in sections in this manner, but we recommend this method as good engineering practice to provide a controlled process of building up the system in blocks.

Commissioning

Commissioning the TWINFLEX® SRP system involves programming and testing the system for correct operation.

It is essential that every device is tested in every mode of operation, and that all programmed actions are observed for correct operation. This includes the smoke testing of smoke detectors, heat testing of heat detectors, testing of Manual Call Points, testing of all inputs, testing of all sounders and outputs, and fault testing of detectors by head removal.

We also recommend that all devices, which are set to 'heat only', are tested for smoke operation, to ensure that the smoke detection has been correctly disabled.

Due to the complexity and inherent importance of a life protection type system, training on this equipment is essential, and commissioning should only be carried out by competent persons.

End User Training

A Fire Alarm System is of little use if the end user and/or the responsible persons who will be present in the building do not know how to operate and respond to the system. It is therefore essential that commissioning includes training for the users of the system and responsible persons.

User instructions and a Zone Chart should be left adjacent to the control panel. As access to the system must be controlled by responsible persons, it would be unusual to display the access codes on this notice. These codes must however be available for the responsible persons, so ensure that they know and record them in a secure place.

The **TWINFLEX® SRP User Guide** should be explained and left with the responsible person on site, for storage in an accessible and known location, in order that the responsible person and the service engineer may keep information records up to date.

A single page user instruction sheet is included at the end of this manual. A copy of this should be mounted adjacent to the control panel.

Maintenance

The CIE does not require user maintenance other than checking the log at the service interval for any spurious faults or messages and checking that all programmed functions are still valid and operational and that all devices are working correctly.

The power supply batteries should be checked for leaks or low voltages during the regular service. The service interval is to be decided by the appropriate persons but should not be more than 12 monthly.

Fault Finding

Summary of Faults

Intermittent Zone Fault

1. Tighten the unused ‘zone screw terminals’ at the EOL device and check all connections on the zone.

2. Too many sounders on a zone. Remove some or adjust sound levels down.

3. EOL resistor, capacitor or third party EOL device has been fitted. Remove and use the correct DIL switch on the last device.

4. Interference from old or flickering fluorescent lights, low voltage transformers etc. Ensure that the cable is screened and install a ferrite core on the zone cables. Ensure that the detector is away from light fittings and from light, especially direct or reflected sunlight.

5. Dirty or contaminated optical chambers. Replace with a new optical chamber or device.

6. Weak EOL signal. Replace the EOL device.

7. Faulty auto-calibration of EOL signal. Replace the EOL device.

8. More than one EOL. Temporarily switch off the EOL at the last device to see if the fault has cleared. If the system stays clear then another device is set to EOL and this must be found and switched off. It may be possible that more than 2 EOLs are switched on.

9. Earth fault. Ensure that all system earths are intact and not shorting to any other cables or metal.

Permanent Zone Faults

1. More than one EOL switched ON. Temporarily switch off the EOL at the last device to see if the fault has cleared. If the system stays clear then another device is set to EOL and this must be found and switched off.

2. No EOL signal detected by panel. Switch the EOL on at the last device.

3. Open-Circuit or Short-Circuit on zone cables. Remove the zone cable from the control panel and check with an electrical test meter (not a high voltage insulation test).

4. Tighten the unused ‘zone screw terminals’ at the EOL device.

5. Interference from old or flickering fluorescent lights, low voltage transformers etc. Ensure that the cable is screened and install a ferrite core on the zone cables. Ensure that the detector is away from light fittings and from light, especially direct or reflected sunlight.

6. Dirty or contaminated optical chambers. Replace with a new optical chamber or device.

7. Faulty Zone at control panel (22-30 volts healthy, 1-21 volts faulty, 1 volt or less, zone switched off or short circuit).

8. Weak EOL signal. Replace the EOL device.

False Alarms

1. Dirty or contaminated optical chambers. Replace with a new optical chamber or device.

2. Incorrectly set smoke detector (smoke is not suitable for kitchens, bathrooms, boiler rooms etc., however, SM3 may be suitable outside a bathroom or kitchen but the individual situation needs to be looked at very carefully). Incorrectly set heat detector (HM1 is not suitable for kitchens, and HM3 should be kept for hotter areas such as plant rooms and commercial kitchens)

3. Faulty detector. Replace with a new one.

General Faults

1. Sounder fault LED – this only activates for a fault on the Monitored output circuit configured for notification (Conventional Sounder)so check for Open-Circuit, Short-Circuit and 10kΩ EOL resistor.

2. Power fault - mains fault – Check that the 230V AC mains supply is live and the fuses are healthy.

3. Power fault, battery or charger fault – Check that the correct batteries are installed, the fuse has not blown and that the mains supply is live.

4. Earth fault. One of the circuits is connected to ground. Remove them one at a time until the relevant circuit is found, following which an electronic test meter may be used to track the problem.

Finding Zone Faults

A fault on a zone of the TWINFLEX® SRP system may be found as follows:

1. In order to prove whether the fault is control panel based or in the field (including the field wiring), swap the wires from the zone in fault with those in a clear zone (active but no fault) at the control panel.

   If the fault moves with the wiring then the fault is in the field. If the fault stays on the same zone then the fault is in the control panel.

2. Examine the LEDs carefully for signs of the fault as follows:

   If the buzzer has been silenced, create another fault to cause it to return, e.g. remove a battery lead until the buzzer starts again.

ASD Detector LED action	**Reason**
20 second flash	The detector is operating normally, is set as smoke and is not set to EOL.
20 second dual flash	The detector is operating normally, is set as heat only and is not set to EOL .
5 second flash	The detector is operating normally and is set to EOL.
1.5 second flash	The detector is in fault. Check for dust contamination .
0.3 second flash or continuous	The detector has triggered into the fire state and is not yet reset. Check for smoke and contamination.

3. If steps 1. and 2. do not clarify the matter then split the zone wiring at a suitable midpoint, removing the outgoing cables from the terminals completely, and then setting the EOL switch to the on position before reassembling that device.

   If the fault clears then it is after that point, but if the fault persists then it is before that point.

   The split may then be moved in the relevant direction, halving the remaining devices, and the procedure repeated until the fault is found.

Advanced Connections

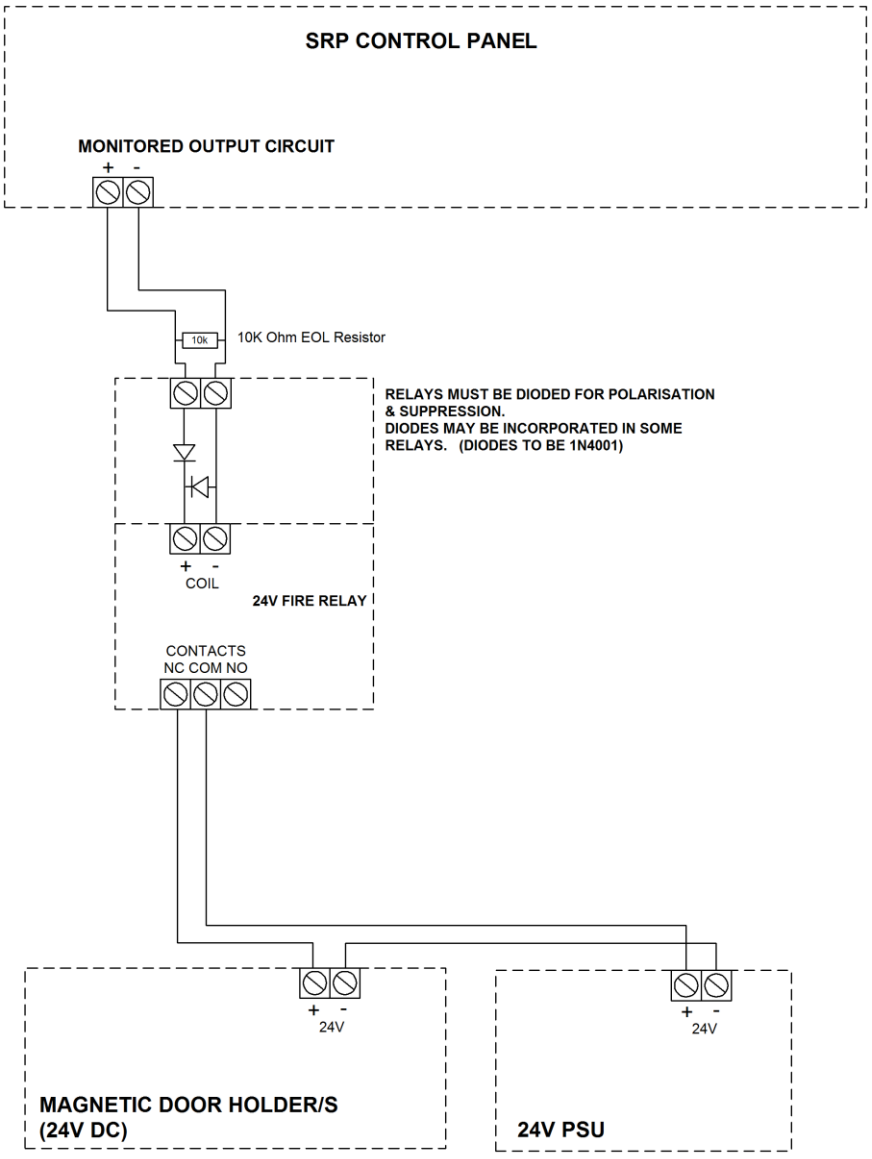
Magnetic Door Hold Units

If magnetic door hold devices are required, it is recommended that they are connected to monitored outputs MO1, MO2 or MO3 as shown in the upper right diagram. This is suitable if it is convenient to cable to the control panel.

An Input/Output module may also be used for this operation, in which case a relay would not be required.

We recommend the use of 24V DC Magnetic Door Hold units, in order to enable them to operate from a power supply with a battery standby. This ensures normal operation in the event of an interruption to the power supply.

For assistance in choosing a suitable power supply unit, standby batteries, and Magnetic Door Hold units please contact your supplier.



Technical Data

Control Panel Specification

Dimensions (mm)	375 x 332 x 127
Weight (excluding batteries)	2.25 kg
Construction	5VB rated ABS and Metal back box
IP Rating	IP 30
Cable Entry	19 x 20mm knockouts
Cable type	2 core 1.5mm^2 screened fire rated cable, 500m (max per zone)
Detection zones	4 maximum
Flooding Zones	1
Devices per zone	Up to 32 Devices dependant on Device Loading Units (DLUs) not exceeding the stated maximum loading.
Device Protocol	TWINFLEX® V3 / V4 + TWINFLEX® SRP
Monitored sounder circuits	Up to 3
Relay circuits	Up to 4
Relays on board	common fault + 4 programmable
Operating standard	BS EN54-2 & 4, EN12094
Operating temperature	-5^{O}C to 40^{O}C, Class A

Control Panel Ratings

Note: Unit markings / ratings label is located in service access area behind the batteries.

	Twinflex® SRP
Mains voltage	230V 50Hz AC Nominal 700mA
PSU output (4 hour continuous)	5.0A
Operating voltage	Nominal 24V DC (Range 21.1 – 31V DC)
Battery charger output	1.2 A Max
Charger high impedance voltage	<4V DC
Battery voltage (During Charge)	27.3 V DC @ 20^{O}C
Battery capacity	2 x 12V 12 Ah, Max load 3.8A
Battery Maximum Internal resistance including connections and Fuse	1R
RSI operating voltage	21.1V – 31V DC
Zone output current (max)	160 mA
Zone Loading	160 DLUs max per zone
Zone output voltage ~~(nominal)~~	Nominal 30V DC (Range 21.1V – 31V DC)
Auxiliary DC supply Current (max)	1A
Auxiliary DC supply Volts, Unregulated	21.1V – 31V DC
Common fault relay current (max)	Volt free SPCO contacts max current 2A @ 24V
Common fault relay voltage range	0v – 32V
Monitored outputs current (max)	1A @ 30V
Monitored outputs voltage range	0v – 32V
Monitored outputs EOL (Notification)	10KΩ
Monitored outputs EOL (Releasing)	3.3KΩ
Programmable relays current (max)	Volt free SPCO contacts max current 2A @ 24V
Programmable relays voltage range	0v – 32V
Monitored inputs current (max)	0.72mA
Monitored inputs voltage range	0v – 3.3V
Monitored inputs EOL	3.3KΩ
Imin (Required by EN54-4)	50mA
Imax.a (Required by EN54-4)	3.8A

Control Panel Fuses and Protection

Zone output	300 mA trip polyfuse
Monitored output	1A trip polyfuse
Auxiliary 24V DC supplies	2A Fast Blow Fuse
Mains	T5A Time Delayed 20mm Ceramic (in mains terminal block)
Battery Charger	1.2 A current limiter
Battery (reverse polarity)	6.3A F 20mm glass quick blow (in line with battery leads)

Note: Refer to the relevant sections in the manual for full details of input and output ratings

Factory Default Settings & Profiles,

Config Name	Active Profile	Profile 1 Impulse/TF	Profile 2 Solenoid/TF	Profile 3 Impulse/Conv	Profile 4 Solenoid/Conv
Release Type:					
hold type	1	1	1	1	1
hold pattern	Off	Off	Off	Off	Off
manual release type	instant release	instant release	instant release	instant release	instant release
pattern on time	1	1	60	1	60
pattern off time	never	never	1200	never	600
Release Delay	30	30	30	30	30
reset inhibit	0	0	0	0	0
extract activate	manually	manually	manually	manually	manually
extract on time	20	20	20	20	20
Zones:					
zone1 type	Off	Twinflex	Twinflex	Conventional	Conventional
zone1 name	ZONE_01	ZONE_01	ZONE_01	ZONE_01	ZONE_01
zone2 type	Off	Twinflex	Twinflex	Conventional	Conventional
zone2 name	ZONE_02	ZONE_02	ZONE_02	ZONE_02	ZONE_02
zone3 type	Off	Twinflex	Twinflex	Conventional	Conventional
zone3 name	ZONE_03	ZONE_03	ZONE_03	ZONE_03	ZONE_03
zone4 type	Off	Release_IRM	Release_SRM	Conventional	Conventional
zone4 name	ZONE_04	ZONE_04	ZONE_04	ZONE_04	ZONE_04
Detectors:					
heat is	Fire 1	Fire 1	Fire 1	Fire 1	Fire 1
input1 polarity	Norm Open	Norm Open	Norm Open	Norm Open	Norm Open
input1 event	NO EVENT	MAN RELEASE	MAN RELEASE	MAN RELEASE	MAN RELEASE
input1 name	INPUT_01	INPUT_01	INPUT_01	INPUT_01	INPUT_01
input2 polarity	Norm Open	Norm Open	Norm Open	Norm Open	Norm Open
input2 event	NO EVENT	HOLD	HOLD	HOLD	HOLD
input2 name	INPUT_02	INPUT_02	INPUT_02	INPUT_02	INPUT_02
input3 polarity	Norm Open	Norm Open	Norm Open	Norm Open	Norm Open
input3 event	NO EVENT	DISABLE REL. OUTS & SOUNDERS	DISABLE REL. OUTS & SOUNDERS	EXT FLOW RELEASE	EXT FLOW RELEASE

Factory Default Settings & Profiles Continued

Config Name	Factory Default	Profile 1 Impulse/TF	Profile 2 Solenoid/TF	Profile 3 Impulse/Conv	Profile 4 Solenoid/Conv
input3 name	INPUT_03	INPUT_03	INPUT_03	INPUT_03	INPUT_03
input4 polarity	Norm Open	Norm Open	Norm Open	Norm Open	Norm Open
input4 event	NO EVENT	EXTRACT	EXTRACT	LOW PRESSURE	LOW PRESSURE
input4 name	INPUT_04	INPUT_04	INPUT_04	INPUT_04	INPUT_04
input5 polarity	Norm Open	Norm Open	Norm Open	Norm Open	Norm Open
input5 event	NO EVENT	MODE SELECT (AUTO/MAN)	MODE SELECT (AUTO/MAN)	MODE SELECT (AUTO/MAN)	MODE SELECT (AUTO/MAN)
input5 name	INPUT_05	INPUT_05	INPUT_05	INPUT_05	INPUT_05
Outputs:					
output1 type	notification	notification	notification	notification	notification
output1 name	OUTPUT_01	OUTPUT_01	OUTPUT_01	OUTPUT_01	OUTPUT_01
output1 silenceable	yes	yes	yes	yes	yes
output1 state	off	Alarm	Alarm	Alarm	Alarm
output1 pattern	Slow	Slow	Slow	Slow	Slow
output2 type	notification	notification	notification	notification	notification
output2 name	OUTPUT_02	OUTPUT_02	OUTPUT_02	OUTPUT_02	OUTPUT_02
output2 silenceable	yes	yes	yes	yes	yes
output2 state	off	Pre-Release	Pre-Release	Pre-Release	Pre-Release
output2 pattern	Fast	Fast	Fast	Fast	Fast
output3 type	notification	notification	notification	release	release
output3 name	OUTPUT_03	OUTPUT_03	OUTPUT_03	OUTPUT_03	OUTPUT_03
output3 silenceable	yes	yes	yes	N/A	N/A
output3 state	off	Release	Release	N/A	N/A
output3 pattern	continuous	Continuous	Continuous	N/A	N/A
relay1 state	no state	Alarm	Alarm	Alarm	Alarm
relay1 name	RELAY_01	RELAY_01	RELAY_01	RELAY_01	RELAY_01
relay2 state	no state	Pre-Release	Pre-Release	Pre-Release	Pre-Release
relay2 name	RELAY_02	RELAY_02	RELAY_02	RELAY_02	RELAY_02
relay3 state	no state	Release	Release	Release	Release
relay3 name	RELAY_03	RELAY_03	RELAY_03	RELAY_03	RELAY_03
relay4 state	no state	Extract	Extract	Extract	Extract
relay4 name	RELAY_04	RELAY_04	RELAY_04	RELAY_04	RELAY_04
Panel:					
user code	8737	8737	8737	8737	8737
supervisor code	7877	7877	7877	7877	7877
engineer code	3647	3647	3647	3647	3647
main display line 2	TWINFLEX RELEASING	TWINFLEX RELEASING	TWINFLEX RELEASING	TWINFLEX RELEASING	TWINFLEX RELEASING
main display line 3	FIKE (UK)	FIKE (UK)	FIKE (UK)	FIKE (UK)	FIKE (UK)
aux1	Power Constant	Power Constant	Power Constant	Power Constant	Power Constant
aux2	Power Constant	Power Constant	Power Constant	Power Constant	Power Constant

Battery Calculations

Where: IS = Standby Current, IA = Alarm Current, MP = Multipoint Detector
Note: An Excel spreadsheet (document no. 26-1389) is also available to automatically work out both standby battery calculations and zone loading calculations based on the quantities entered.

Item	**QTY**	**IS (mA)**	**Tot IS (mA)** =QTY x IS (mA)	**IA (mA)**	**Tot IA (mA)** =QTY x IA (mA)
TWINFLEX® SRP Panel		100.000		120.000	
Multipoint no sounder		0.114		1.500	
Multipoint sounder – Low		0.114		3.500	
Multipoint sounder – High		0.114		8.500	
MCP with sounder – Off		0.185		1.998	
MCP with sounder – Low		0.185		12.619	
MCP with sounder – High		0.185		14.500	
ASD detector no sounder		0.101		0.150	
ASD detector sounder - Low		0.101		2.500	
ASD detector sounder - High		0.101		8.000	
ASD detector strobe no sounder		0.101		2.600	
ASD detector strobe sounder - Low		0.101		4.900	
ASD detector strobe sounder - High		0.101		10.500	
Flashpoint – Beacon Only		0.223		5.520	
Flashpoint – Low		0.223		15.002	
Flashpoint – High		0.223		23.515	
Soundpoint – Low		0.185		12.619	
Soundpoint – High		0.185		14.500	
Hipoint – Low		0.185		12.619	
Hipoint – High		0.185		14.500	
Hatari Sounder		0.092		10.056	
SRM zone current		2.290		5.580	
IRM zone current		1.730		3.360	
No. of Zones in Use (EOL in standby)		0.500		0.000	0.000
No. of Multipoint Detectors Activated		0.000	0.000	48.500	
No. of ASD Detectors Activated		0.000	0.000	18.000	
No. of MCPs Activated		0.000	0.000	16.000	
Current Drawn from Aux PWR 1 Output – (up to 1A) Enter total mA for standby and for alarm		?		?	
Current Drawn from Aux PWR 2 Output – (up to 1A) Enter total mA for standby and for alarm		?		?	
RSI When powered from the panel Aux PWR		16.000		50.000	

ADD

Totals				
Times (hrs)	IStot (mA) **A**		IAtot (mA) **B**	
	Standby (hrs) **C**		Alarm (hrs) **D**	
Current required (mAh)	IS (mAh) **E**		IA (mAh) **F**	
Total Current (mAh) without backlight			E + F = **G**	
Add: LCD Backlight for 20 minutes during alarm (44mA / 3)			**H**	14.52
Total Current (mAh) with backlight			G + H = **I**	
Total Current (Ah)			I / 1000 = **J**	
Battery requirement (Ah)			J x 1.25 = **K**	

Installation Checklist

Use the following checklist to ensure that your work is correct and that the commissioning engineer has the necessary information to complete the commissioning of the system

If you require a commissioning visit, the engineer will require this sheet, along with 'Zone Continuity and Insulation Test Results' and correctly marked 'as-wired' drawings, before attending site to commission the system.

Stage 1

Description	Installation Engineer Checked	Commissioning Engineer Checked
Zone cables installed correctly, clipped or in containment.		
All device bases and back boxes installed and terminated.		
Cable insulation and continuity testing complete, and form filled out.		
As-wired drawing marked up showing cable runs and devices.		
Control panel back-box installed with 230V AC supply live, tested and isolated locally		

Stage 2

Depending on the terms of your contract, you may also be required to carry out 'Stage 2'.

Description	Installation Engineer Checked	Commissioning Engineer Checked
Devices installed into bases and back-boxes		
Detector dust covers fitted		

Site Name & Address:	
Installation Company:	
Testing Engineer:	
Signature:	
Date:	

Commissioning Checklist

The following checklist may be used to ensure that all steps are taken. This is not a BS5839 certificate and serves as a reminder only and may need additional items added to suit your working practices.

Step 1

Description	**Commissioning Engineer Checked**
Panel powered up (230V AC Mains first, then batteries). Nothing else connected. All zones showing fault.	
Program the number of 'Active' zones required, check that zones not required are clear of fault.	
Low voltage multimeter test of cables to show no inter-core short circuits.	
End of Line device installed with EOL switch in the ON position and remainder of devices added with DIL switches set, then each zone connected with approx. 30 - 50 secs allowed to clear fault condition.	
All faults (device, input, output, EOL, battery, etc,) cleared from control panel.	

Step 2

Control panel programmed for any additional features.	
All other cables connected and clear of fault.	

Step 3

Correct operation of all input devices tested, i.e. detectors, manual call points and inputs.	
Correct operation of all output devices tested, i.e. sounders, relays and outputs.	
Correct operation of all programmed actions tested, i.e. instant alarms, Fire 2 alarms.	

Step 4

System Manuals completed, zone chart or zone list displayed.	
End user or responsible person trained and user manual issued.	

Site Name & Address:	
Commissioning Company:	
Commissioning Engineer:	
Signature:	
Date:	

Cable Continuity & Insulation Test Results

After installation of the cable, and termination into all the relevant back-boxes, install a wire link between the zone +ve and –ve connections at the last device in order to be able to take cable continuity readings, removing it to take insulation readings. Make sure that all the cables are dressed smoothly and neatly into their back-boxes in order that they will not be disturbed after the readings are taken.

The commissioning engineer will require these readings, along with correctly marked 'as-wired' drawings, before attending site to commission the system.

Core	**Continuity Reading (ohms)**							
	Z1	Z2	Z3	Z4				
Zone +ve to –ve with a temporary link at the last device.								
Others . .								

A reading of approximately 1 ohm per 100 metres of 1.5 mm^2 cable is expected and any significant variation from this should be investigated. If the above readings are satisfactorily showing circuit continuity then you may also take the reading below, remembering to remove your temporary link at the last device.

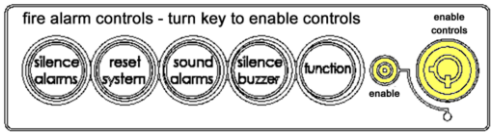
Core	**Insulation Reading (M ohms)**							
	Z1	Z2	Z3	Z4				
+ve to -ve								
+ve to Earth								
-ve to Earth								
Screen to mains Earth: with scrn disconnected from panel								
Others . .								

A reading in excess of 1M ohm is expected and any significant variation from this should be investigated. If the readings are satisfactory then the zone wiring is largely proven other than for faults such as complete polarity reversal.

Site Name & Address:	
Installation Company:	
Testing Engineer:	
Signature:	
Date:	

FIRE ALARM SYSTEM NOTICE

To Enable the Fire Alarm Control Panel Keys

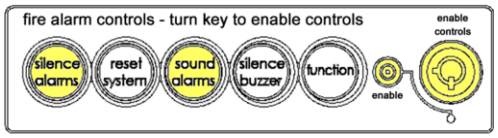


You may gain access to the Fire Alarm Controls by inserting the key turning ¼ turn or by entering any valid access code. The 'Controls Enabled' LED should then be illuminated. If, after entering the code, further action is not taken, the 'Enabled' LED will turn off after 10 minutes of no activity.

To disable the Fire Alarm Controls, turn the key switch off. When disabled, the 'Enabled' LED should then be extinguished. If an access code was used, the Enabled LED will be blinking; if you perform no action on the panel, the LED will turn off after 10 minutes of no activity and access to the Fire Alarm Controls will be disabled.

To prevent unauthorised operation, the controls should be kept disabled and the key/code kept secure under the control of the responsible person.

To Manually Operate the Fire Alarm Sounders

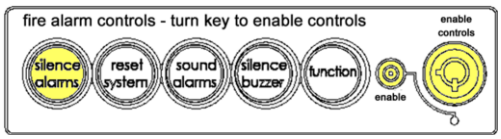


Enable the controls and then press 'SOUND ALARMS'.

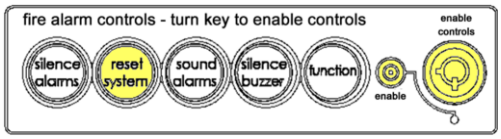
To silence the alarm sounders press 'SILENCE ALARMS'.

Following a Fire Alarm Operation

The red 'FIRE' LED will illuminate. The fire alarms and the internal buzzer will operate as programmed. Take appropriate action as defined by the emergency plan for the premises.

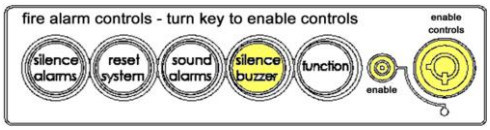


To silence the alarm press 'SILENCE ALARMS', then establish the cause of the alarm and enter the details in the log book.



Reset any Manual Call Points which may have been operated, or if a detector has been operated be sure that the cause of the alarm has been removed, before resetting the system by pressing 'RESET SYSTEM'.

Following a Fault Condition



The appropriate fault LEDs will illuminate. The internal buzzer sound. To mute the panel buzzer press 'SILENCE BUZZER'. Investigate and rectify the appropriate fault (competent persons). Once the fault has been rectified the fault indication will clear automatically.

Important Notes

FIRE ALARM COMPANY:

ADDRESS:

FOR SERVICE CALL: (Working hours) (Call Out)

FIRE ALARM USER NOTICE

Note

Please read and understand the following information in order to make the most use of the system.

Action Required

If you think that you may have accidentally set off the fire alarms, then check the following:

If the fire alarm within your area only is sounding, then check your own area for the cause of the alarm. If this proves to be a false alarm due to dust, cooking fumes, steam, cigarette smoke, etc., then clear the smoke from the area and press reset on the Control Panel. If the alarm state does not re-annunciate then no further action is required. If the fire alarms in the communal areas are also sounding, then follow the building's fire procedures for evacuation.

If you discover a genuine fire, then follow the building's fire procedures for evacuation, activating the nearest Fire Alarm manual call point on the way out if the alarms are not already sounding.

Do not attempt to put out the fire unless it is safe to do so.

Further Information

Further information will be located adjacent to the Main Fire Alarm Control Panel, or may be obtained from either the person responsible for building maintenance or from the Fire Alarm Company responsible for maintaining the Fire Alarm System.

Engineers Notes

CE 15
0843

UL EU

Fike Safety Technology Ltd
Unit 31, Springvale Ind. Est.
Torfaen, NP44 5BD
15
DoP-100-0001
0843-CPR-0220

EN54-2: 1997 +A1: 2006, EN54-4: 1997 +A1: 2002 +A2: 2006

EN12094-1:2003
Electrical automatic control and delay device

Environmental class A
1 Flooding zone

CO^2 - low pressure
CO^2 - high pressure
Inert gas systems
Water Systems

Provided options:
- **Delay of extinguishing signal**
- **Monitoring of status of components**
- **Control of flooding time from 0 to ∞**
- **Manual only mode**
- **Triggering of equipment within the system**
- **Triggering of equipment outside the system**
- **Control of extended discharge**

Response delay activated condition maximum 3s
Response delay triggering of outputs maximum 1s

100-0001
Intended for use in the fire detection and fire alarm - Fixed fire fighting and gas extinguishing Systems in and around buildings

Technical Support

Contact your distributor for technical support on this product.

Do not call the Fike Safety Technology technical support department unless your distributor has first given their advice and attempted to rectify the issue.

Technical support will not be available if the instruction manual has not been read and understood. Please have this instruction manual available whenever you call for technical support.