GENERAL INSTALLATION DETAILS – PASRP-1A – PRE-ACTION SPRINKLER RELEASE PANEL

* The Controls Enable Key switch must be in the ON for the push switches to be operational
* The panel Mode settings should be selected before commissioning – See Typical wiring schematic for Mode setting & locations

IMPORTANT INSTALLATION NOTES

Ensure the panel is protected via a Breaker protected circuit either locally or at the distribution board and of sufficient current to power the system. The enclosure is suitable for use in environmental conditions up to IP42

INSTALLATION

The unit is wall mounted with a lockable hinged front door. Connection for the Front Fascia to the motherboards are via pluggable ribbon cables. The front door can be removed for installation by removing the screws fixing the hinged door to the back box.

FIXING OF ENCLOSURE

The back box is hinged to the front door on the lefthand side. The top of the box has 20mm diameter knockouts. The unit is fixed to the wall via 4 off dished fixing holes located in the corners. The mains supply entry is preferred to be located at the last knockout on the righthand side.

POWER SUPPLY CONNECTIONS

The internal power supply requires the following connections-
1) 230v AC supply to the power supply mains terminals: 2) 24v DC standby SLA Battery: 3) 24v DC Emergency SLA Battery

MONITORED INPUT CONNECTIONS

Each monitored input has two Terminals to which the monitored circuit is connected. The 0v input terminal is common to all inputs.

MONITORED OUTPUT CONNECTIONS

Each monitored output has two Terminals to which the monitored circuit is connected. When any output operates the output voltage will reverse polarity therefore the Devices connected should be suitably polarised.

AUXILIARY OUTPUTS

Auxiliary relays outputs are provided for the Various signals being monitored (see Wiring Schematic) and are located on the both the Main and Pre-Action Motherboards.

COMMON FAULT AUXILIARY

One set of Fault contacts (either N/C or N/O depending upon Jumper setting) are provided and are located on the Main motherboard. These contacts will operate on any fault condition including a supply fault. The contact is failsafe (the fault relay is normally energised when the panel has no faults) and the Auxiliary contact notation shown is for the relay in its normal mode.

COMMISSIONING - *IMPORTANT NOTE – CABLES SHOULD BE MEGGERED BEFORE ANY CONNECTIONS ARE MADE*

SUPPLY CONNECTIONS

1.1) Ensure all the EOL resistors are connected (no input or output cables connected)
1.2) With the Control Panel fixed in its location and all internal/fascia cables reconnected, connect the 230v AC Supply to the power supply mains terminals. Ensure that the other cables are not yet connected. Do not touch the printed circuit boards inside the panel.
1.3) Switch on the mains supply and check the following: - the Facia Fault LED is illuminated, the Internal buzzer pulse sounds, and the Internal Supply Fault LED is illuminated. The Standby & Emergency Battery Fault LEDs will be illuminated.
Press the "Fault Buzzer Silence" switch – the buzzer will silence.
1.4) Connect both the 24v DC Standby & Emergency batteries and check the following: - the Facia Supply Healthy LED is illuminated, the Facia Fault LED is extinguished, Internal Supply Fault LEDs are extinguished, the internal buzzer stops. Under normal condition the Green Fault Relay LED will now be illuminated
1.5) Switch off the 230v Supply and check the following: - the Facia Fault LED is illuminated, the Internal buzzer pulse sounds, and the Internal Supply LED fault is ON. The Power Supply Charger Fault LED will be illuminated. Re-connect the 230v AC supply

MONITORED ALARM & PRE-ACTION INPUT CONNECTIONS

2.1) Disconnect Zone 1 EOL – Zone 1 Facia Fault LED will illuminate, the internal Z1 fault LED is illuminated and the Internal buzzer pulse sounds The Internal Green Fault relay LED will extinguish. Reconnect EOL, the control panel will return to is Normal mode
2.2) Short between Zone1 Input terminals and check the following – Zone 1 Facia Fault LED is illuminated, Internal Z1 fault LED flashing and the Internal buzzer pulse sounds. The internal Green Fault relay LED will extinguish. Remove the Short between Zone 1 terminals. The control panel will return to its normal mode
2.3) Repeat 2.1) & 2.2) for all monitored Alarm inputs (Z1 to Z4 & Valves)
2.4) Connect the Devices to Zone 1. Operate a device (Alarm condition) and check the following – Zone 1 Facia Alarm LEDs are illuminated, the internal Alarm Buzzer sounds, the appropriate Common Relay LED is illuminated. The internal Sounder Relay LED is illuminated.
2.5) Depress the "Alarm Silence" switch, the internal buzzer will now pulse. The Sounder relay LED will extinguish. Depress the System Reset button (Alarm condition has been removed) – The control panel will return to Normal Mode
2.6) Repeat 2.1) to 2.4) for all other Alarm inputs used. For Valve signals the Green LED will extinguish and the Tamper LED will illuminate and The Internal Fault buzzer will pulse & the Fault relay Green LED will extinguish
2.7) Repeat 2.1) to 2.5) for all Pre-Action Status inputs and check for correct operation

MONITORED ALARM SOUNDER/SOLENOID OUTPUTS

3.1) Disconnected the monitoring resistor – Check that appropriate Facia Fault LED illuminates, Internal buzzer pulse sounds and the appropriate Fault LED Illuminates. The Green Fault Relay LED is extinguished. Reconnect monitoring resistor; panel will return to normal mode
3.2) Short Circuit the monitoring resistor – Check that Facia Fault LED illuminates, Internal buzzer pulse sounds and the appropriate Fault LED Flashes and the Green Fault Relay LED is extinguished. Reconnect monitoring resistor; panel will return to normal mode
3.3) Connect the Sounder/Solenoid Devices and check for correct operation

AUXILIARY CONNECTIONS

4.1) Connect all External auxiliary outputs and check for correct operation
4.2) To Isolate external auxiliary outputs during routine testing Press "Auxiliary Isolate" switch. Auxiliary Isolated LED will illuminate and internal Buzzer will pulse. To return Auxiliary relay operation to Normal depress Auxiliary Isolate Switch again for about 3 seconds

LAMP TEST

To test all facia LED's and the internal buzzer, Depress the Lamp Test button, all external LED's will illuminate and the Internal the buzzer will sound. Release the button – the panel will return to its normal mode

PRE-ACTION MODE KEYSWITCH

5.1) With the Key switch in the Auto Mode the Pre-Action Release sequence will be operated by both Automatic Detection and by operation of either the Panel or remote Manual Release switches
5.2) With the Key switch in the Manual only mode the Pre-Action Release sequence will operate only by the operation of either the Panel or remote Manual Release switches
5.3) With the Key switch in the Disabled mode the Solenoid Outputs will be inhibited. Other functions will as normal
When in the Disabled mode an internal buzzer will pulse sound and CANNOT be silenced

MANUAL RELEASE

To operate - Lift flap and depress Switch. The switch LED will be illuminated and the panel will enter into 2nd stage release sequence
To cancel – depress Switch – Switch LED will extinguish and the panel will return to its normal condition

PLUG-IN CARD DETAILS

230V AC INPUT
L N E

POWER SUPPLY TYPE 3/24/PU2

MAINS FUSE
WARNING HIGH VOLTAGE (MAINS)

3.15 AMP
BATTERY FUSE
CHARGER
BATTERY
LOW VOLTS
24V
BATT F O/F 24V

0v HEALTHY FAULT
N/C COM N/O
AUX FAULT

3.15 AMP
INPUT
OUTPUTS BATTERY
PRE ACTION PU2/EPS L0510A
24V
NP6 - OK

24V DC STANDBY BATTERY
24V DC EMERGENCY BATTERY

SERIES 1000 MK5 MASTER MOTHERBOARD

1000 MK5 PRE ACTION MOTHERBOARD

AUXILIARIES — FIRST STAGE — SECOND STAGE
SYSTEM CHARGED
REMOTE STATUS OUTPUTS
1ST STAGE MANUAL DISABLED CHARGED

2ND STAGE OUTPUTS
SOLENOID OUTPUTS
BEACON
SOUNDER
CHARGED
LOW AIR
MANUAL RELEASE
AUTO/MAN.

SOLENOID
OGT OUTPUT
24V DC SOLENOID
1N4001 DIODE
4K7 EOL

ALL FUSES 1 AMP A/S 20mm X 5mm

VALVES — BOTTOM — TOP
V2 V1
ZONE 4 ZONE 3
ZONES 1 2
FIRE REPEAT
SMOKE/HEAT DETECTORS
EOL 4K7
470R FIRING
4K7 EOL

P3 MK5 ZONE CARD - VALVES
P2 MK5 ZONE CARD Z3/4
P1 MK5 ZONE CARD Z1/Z2

24V DC IN / OUT
PSU FLT

24v OIP
FAULT REPEAT
FAULT AUXILIARY
REMOTE CONTROL INPUTS
COMMON FIRE SOUNDERS
COMMON AUXILIARIES
4K7 EOL
SOUNDERS (POLARIZED)

ALARM AUX RELAY
AUX LED

RESET RELAY
RESET LED
FAULT LED'S
FRONT CONNECTOR

3.16 AMP A/S 20mm X 5mm

MODE DIL SWITCH
1 2 3 4 5 6 7 8 ON
TEST
1 = NOT USED
2 = SUPPLY FLT TEST
3 = AUX SUPPLY FLT TEST
4 = ALARM AUX
5 = ALARM SILENCE MODE AUX
6 = BUZZER ISOLATE
7 = TEST MODE
8 = SNR ISOLATE

MK5 TWIN INPUT BOARD DIP SWITCH DETAILS

ZONE NO
NO NON S/C FLT
AUX LAT ALM ALM
1 2 3 4 5 6 7 8 ON

NOTE: WITH S/C ALM "ON" ON EITHER AN O/C OR S/C FAULT OUTPUT GIVEN TO PRE-ACTION MOTHERBOARD AS FIRE CONDITION
REF: SEE LPC TB 208

P1 Z1/Z2 INPUTS / P2 Z3/Z4 INPUTS / P3 VALVE 1/2 INPUTS

FRONT FAULT LED PULSES ON "ISOLATE"
1 ZONE ISOLATE
FAULT LED'S
Z1 Z2
O/C - CONT S/C - PULSE
2W VER ONLY S/C - CONT Z2 - PULSE
D/R

MK5 MOTHERBOARD DIP SWITCH DETAILS

MODE DIL SWITCH
1 2 3 4 5 6 7 8 ON
TEST
1 = NOT USED
2 = SUPPLY FLT TEST
3 = AUX SUPPLY FLT TEST
4 = ALARM AUX
5 = ALARM SILENCE MODE AUX
6 = BUZZER ISOLATE
7 = TEST MODE
8 = SNR ISOLATE

PRE ACTION MOTHERBOARD DIP SWITCH DETAILS

NOTE
1) FOR NO DELAY NO SWITCH ON
2) ONLY ONE SWITCH POSITION TO BE ON FOR EACH DELAY

SOLENOID OUTPUT DELAYS
SOLENOID OUTPUT DELAY BEFORE OPERATING IN SECONDS
20 40 60 90
SOLENOID OUTPUT DELAY BEFORE OFF AFTER OPERATING IN SECONDS
20 40 60 90

MODE SWITCH
1-2 S/K
3-4 S/K
1-4 D/K
PULSE 2
RLY ISO
NO CHAR
AUX ISO
1ST MMB
ON

SINGLE KNOCK OPERATION FOR Z1 OR Z2
SINGLE KNOCK OPERATION FOR Z3 OR Z4
SINGLE KNOCK OPERATION FOR ANY 2 FROM 4
2ND STAGE SOUNDER OUTPUT PULSES DURING DELAY ON PERIOD
AUXILIARY OUTPUTS ISOLATED IN "DISABLED MODE"
NO CHARGED INPUT (ON SETTING WILL OPERATE CHARGED RELAY/LED)
OVERRIDES AUXILIARY ISOLATE
1ST STAGE AUX SIGNAL TO MAIN MOTHERBOARD

PRE ACTION RELEASE PANEL TYPE: PASRP-1A
INTERNAL LAYOUT & CONNECTION DETAILS
DRG REF: PASRP- MANUAL SCHEMATIC