

FA3 THREE ZONE FIRE ALARM CONTROL & STATUS DISPLAY MODULE

System Description: This Fire Alarm system is in two parts, the central alarm monitoring module where all external wiring terminates, plus a very compact surface mount PIM Personal Interface Module, which provides backlit system visual status display, sealed touch switch controls plus local audible warning to the operator. The system monitors Three zones of Fire Detection circuits, plus power supply inputs.

System Normal: Two green indications are normally illuminated when the system is in good healthy condition; **NORMAL** and **MAIN POWER ON**, These two green indications can be dimmed for night time use by pressing the green Dim switch.



If a Fire detector operates, the Green **NORMAL**, indication will go out

FIRE ALARM

will flash Red plus
FIRE ZONE 1,
FIRE ZONE 2 or
FIRE ZONE 3

will flash Red, to indicate the source of the alarm. This is accompanied by pulsed alarm tone. The Remote Alarm Output will also pulse the central audible alarm as soon as an alarm condition is detected.

Fire Alarm Fault Warning:

If a fault condition is detected on a Fire Detector Circuit the Green **NORMAL**, will go out and the Amber **SYS FAULT** will illuminate, accompanied by a very slow (1 per 50 seconds) audible pulse, during which the

Red **FIRE ALARM**, will flash plus
FIRE ZONE 1,
FIRE ZONE 2 or
FIRE ZONE 3 Will briefly illuminate to identify the origin of the Fault Condition.

Power Supplies: This system can be powered from two independent 24V DC power supplies when 10K EOL End of line resistors are fitted across the end of each detector circuit. The system can also be powered from two 12V DC supplies when 5K EOL End of line resistors are fitted across the end of each detector circuit.

NOTE: Check detector compatibility if running the system on 12V DC as some detectors will not operate below 16V DC.

The Green **MAIN POWER ON**, is illuminated whenever the main DC power supply is on. If the main power supply drops below 18V DC the green **NORMAL** indication will go out and the amber **SYS FAULT** will illuminate accompanied by very slow (1 per 50 seconds) audible pulse, during which the Red **FIRE ZONE 1, FIRE ZONE 2 and FIRE ZONE 3** will all briefly illuminate to identify the Power Fault Condition.

If the battery voltage continues to fall the system will still continue to be able to detect and indicate an alarm condition down as low as 6.5V DC, below which the Amber **POWER FAULT** indication will illuminate. The Amber **POWER FAULT** indication will illuminate if the main power supply or secondary back-up power supply is not present or drops below 6.5V.



System Isolated: All Alarm, and Fault conditions are latching on the PIM module. Press the yellow/green ISOL/RESET Switch once to isolate the audible alarms.

The Amber **ISOLATED** indication will illuminate. Power to each of the three detector circuits is also isolated. Press the yellow/green ISOL/RESET Switch again to reset the alarm latches and return the panel to the Green **NORMAL** condition. Power will be restored to each of the detector circuits.

System Test Switch: Pressing the system test switch, will beep and start a series of tests: **System Fault** and **Fire Zone 1, Reset, System Fault** and **Fire Zone 2, Reset, System Fault** and **Fire Zone 3, Reset, Fire Alarm** and **Fire Zone 1, Reset, Fire Alarm** and **Fire Zone 2, Reset, Fire Alarm** and **Fire Zone 3, Reset, Normal** and **Main Power On**.

This simulates all Fault and Alarm conditions in sequence on each detection circuit input. At the end of each test the alarm or fault latch on is reset before stepping to the next test. At the end of the test sequence the system undergoes a full Isolate/Reset to restore system to Normal.

Wiring: Site wiring terminates on a plug in terminal FA3 central fire alarm control unit.

Terminal 1. DC supply 1, -ve,
Terminal 2. DC supply 1, +ve

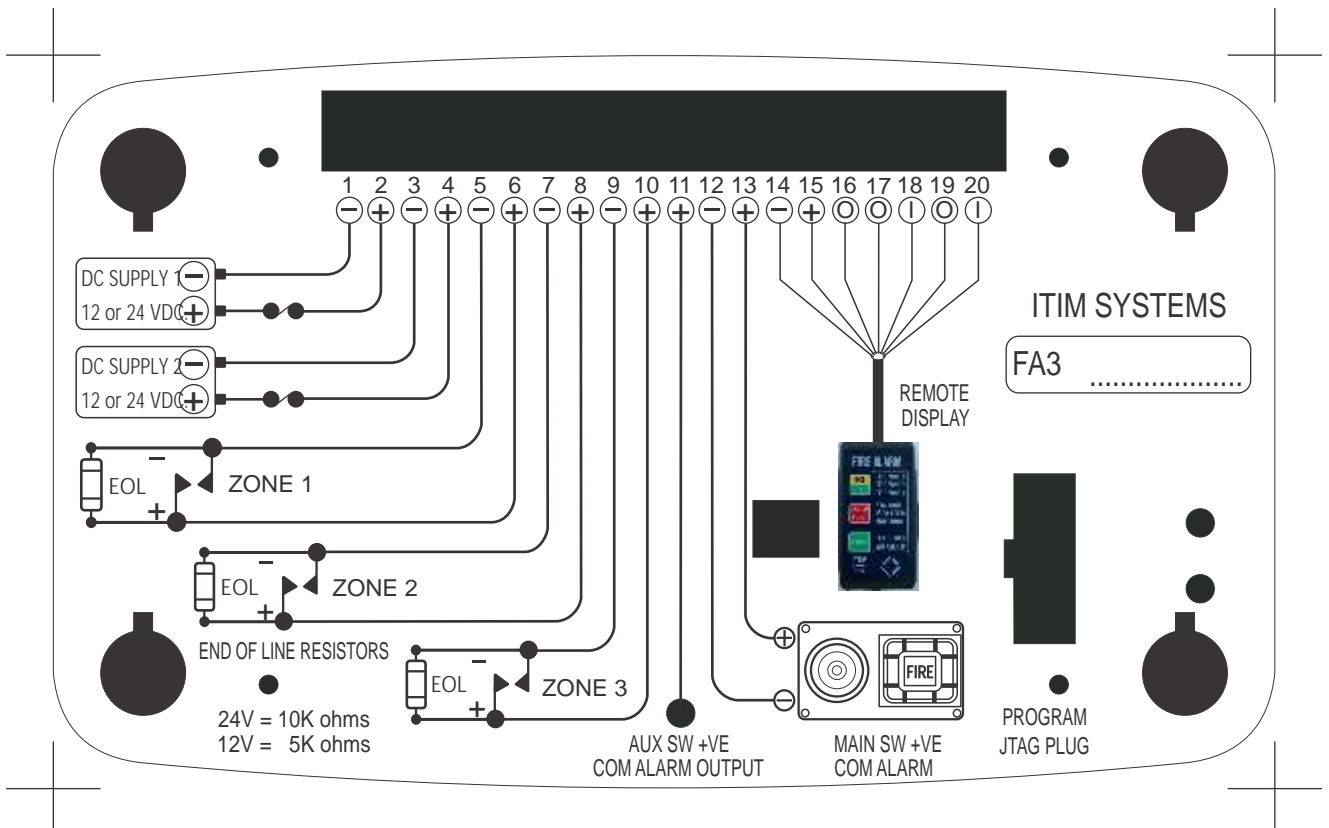
Terminal 3. DC supply 2, -ve,
Terminal 4. DC supply 2, +ve

Terminal 5. Detector Circuit, Zone 1. -ve,
Terminal 6. Detector Circuit, Zone 1. +ve

Terminal 7. Detector Circuit, Zone 2. -ve,
Terminal 8. Detector Circuit, Zone 2. +ve

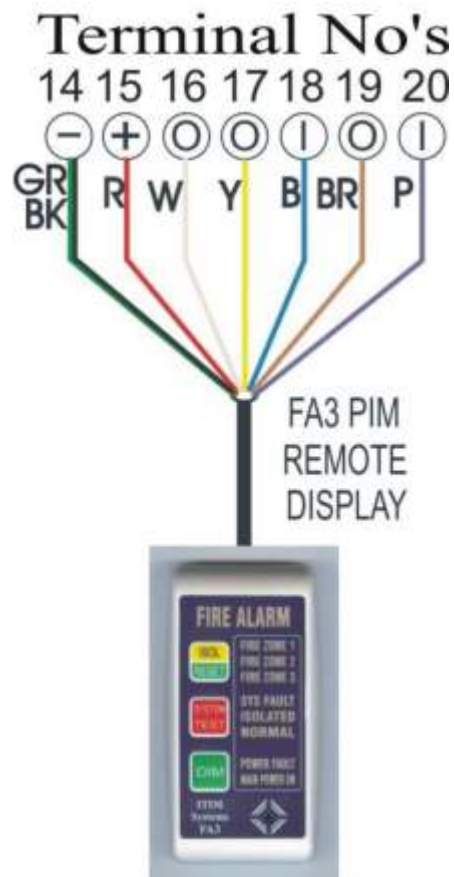
Terminal 9. Detector Circuit, Zone 3. -ve,
Terminal 10. Detector Circuit, Zone 3. +ve

Terminal 11. Aux Common Alarm output, Switched +ve,
Terminal 12. Remote Alarm unit, -ve, to Pezio in Lid.
Terminal 13. Remote alarm unit, Switched +ve pulsed.



The remote PIM Alarm and display module, is prewired in 8 core shielded cable, and connects to Terminals 14 to 20 on the central alarm monitoring module.

- Terminal 14. Remote PIM Alarm and display module, Green & Black, -ve,
- Terminal 15. Remote PIM Alarm and display module, Red, +ve,
- Terminal 16. Remote PIM Alarm and display module, Grey, Output.
- Terminal 17. Remote PIM Alarm and display module, Yellow, Output.
- Terminal 18. Remote PIM Alarm and display module, Blue, Input.
- Terminal 19. Remote PIM Alarm and display module, Brown, Output.
- Terminal 20. Remote PIM Alarm and display display module, Purple, Input.



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CONTROL
SYSTEM

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