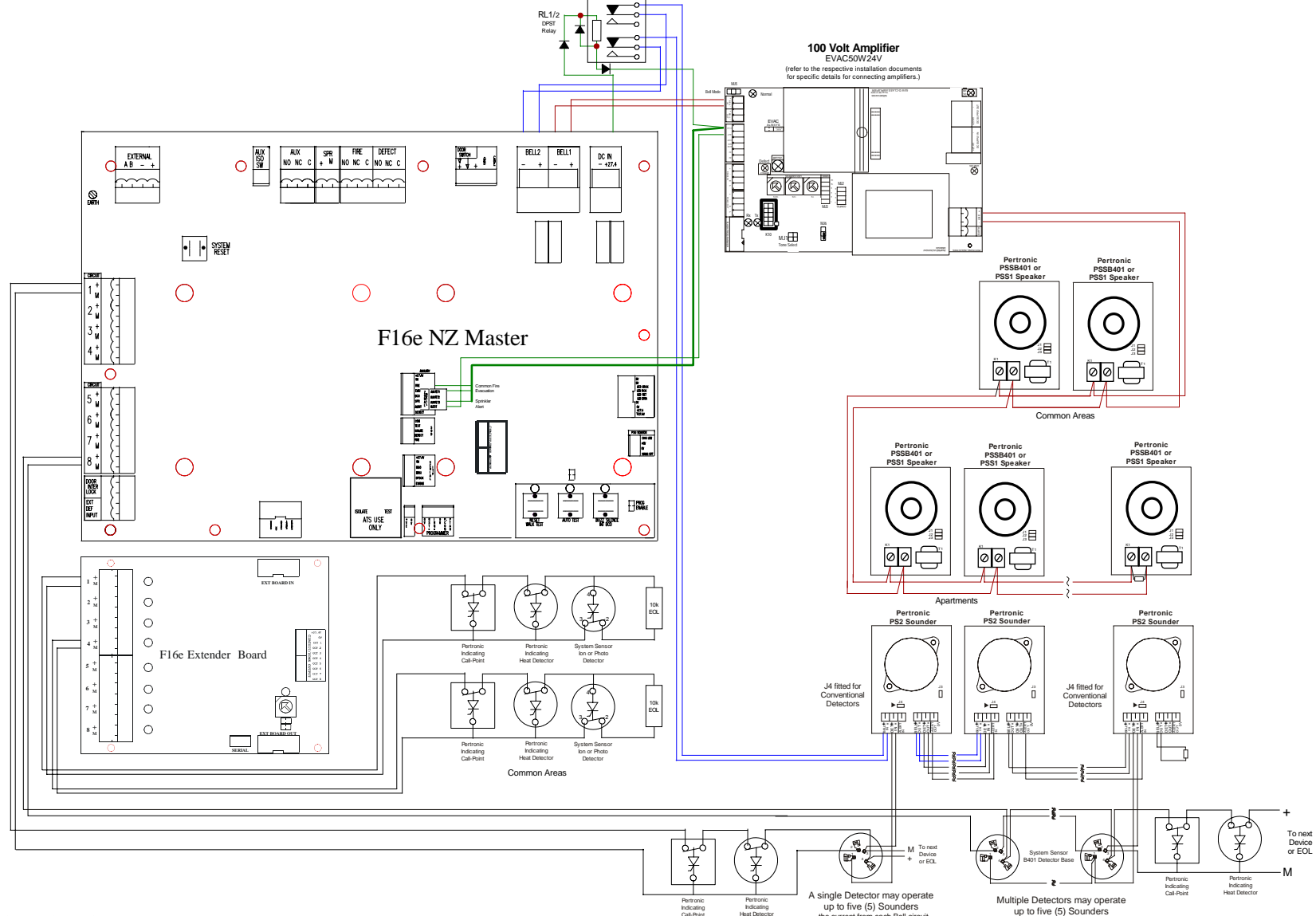


F16e Conventional Panel: Type 5 Mixed with EVAC50W24V Amplifier

Apartment circuits combine both Smoke detectors with Indicating Heat detectors and Call-Points



CONNECTIONS:

- 1) Apartment Smoke Detectors, Indicating Heat Detectors and Indicating Manual Call-Points are shown connected to Circuits 1 to 8
- 2) Heat Detectors, Smoke Detectors and Common Area Smoke Detectors are shown connected to Circuits 9 to 12
- 3) BELL1 drives the 100V Amplifier used for global EVACUATION. BELL2 provides power for the Apartment Sounders (PS2)
- 4) PS2 Sounders provide localised Alert and are shown connected to Apartment Smoke Detectors - these may sound individually, or in apartment size groups (maximum 5 sounders)
- 5) PSSB401 Speaker Base or PSS1 Single-Gang Speakers provide the global Evacuation alarm and are shown in conjunction with the Apartment Sounders and in Common Areas.

OPERATION:

1) When a Smoke Detector on Circuit 1 - 8 activates:

- (a) BELL2 relay does not operate, but the PS2 Sounder(s) within the apartment operate - the sounders draw power from the reversed BELL2 circuit causing an unbalance on the BELL output and a 'Defect' on the panel.
- (b) BELL1 relay operates, but not the Common Fire open-collector output, hence the 100V Amplifier Evacuation Alarm does not operate.

NOTE: in Residential mode, the smoke detectors on Circuits 1-8 can be either latching (and must be reset at the panel) or non-latching and will reset after the smoke detector has cleared.

2) When a Manual Call-Point or Heat Detector on Circuit 1 - 8 activates:

- (a) The Smoke Detector has not activated, therefore the PS2 Sounder(s) within the apartment cannot operate.
- (b) BELL1 and the Common Fire open-collector output operate, enabling the 100V Amplifier, thus sounding the General Evacuation throughout the Apartments and the Common Area.

3) When a Smoke Detector activates and a Manual Call-Point or Heat Detector on any Circuit 1 - 12 activate subsequently:

- (a) PS2 Sounder(s), within the apartment, operate through the closed contacts of Relay RL1/2 (DPDT) on BELL2 circuit.
- (b) The Common Fire open-collector output operates, activating Relay RL1/2. The BELL2 feed to the PS2 Sounders is isolated, disabling the Alert tone.
- (c) BELL1 and the Common Fire open-collector output operate, enabling the 100V Amplifier, thus sounding the General Evacuation throughout the Apartments and the Common Area.

CIRCUIT ASSIGNMENT GUIDE		
Assignment	Apartment (Smoke, Heat & MCPs)	Common Area (Smoke, Heat & MCPs)
Brigade	ON	ON
Bell 1	ON	ON
Bell 2	OFF	OFF
Latching	OFF or ON	ON
Residential	ON	OFF
Auxiliary Relay	As Required	As Required
Alert	As Required	As Required
Isolate	OFF	OFF

Note that this Table is indicative only - settings will vary according to system requirements.

Residential mode on F16e units to v1.18 firmware, 'latch' the Smoke Detectors. From v1.20 firmware, Smoke Detectors in Residential mode may be selected to be either 'latching' or 'non-latching'.

Title:	F16e Conventional Panel: Type 5 Mixed with 50W24V Amp
Issue Number:	Issue 1.3
Date:	25 November, 2005
Drawing:	G M Tustin
Checked:	B A Pells