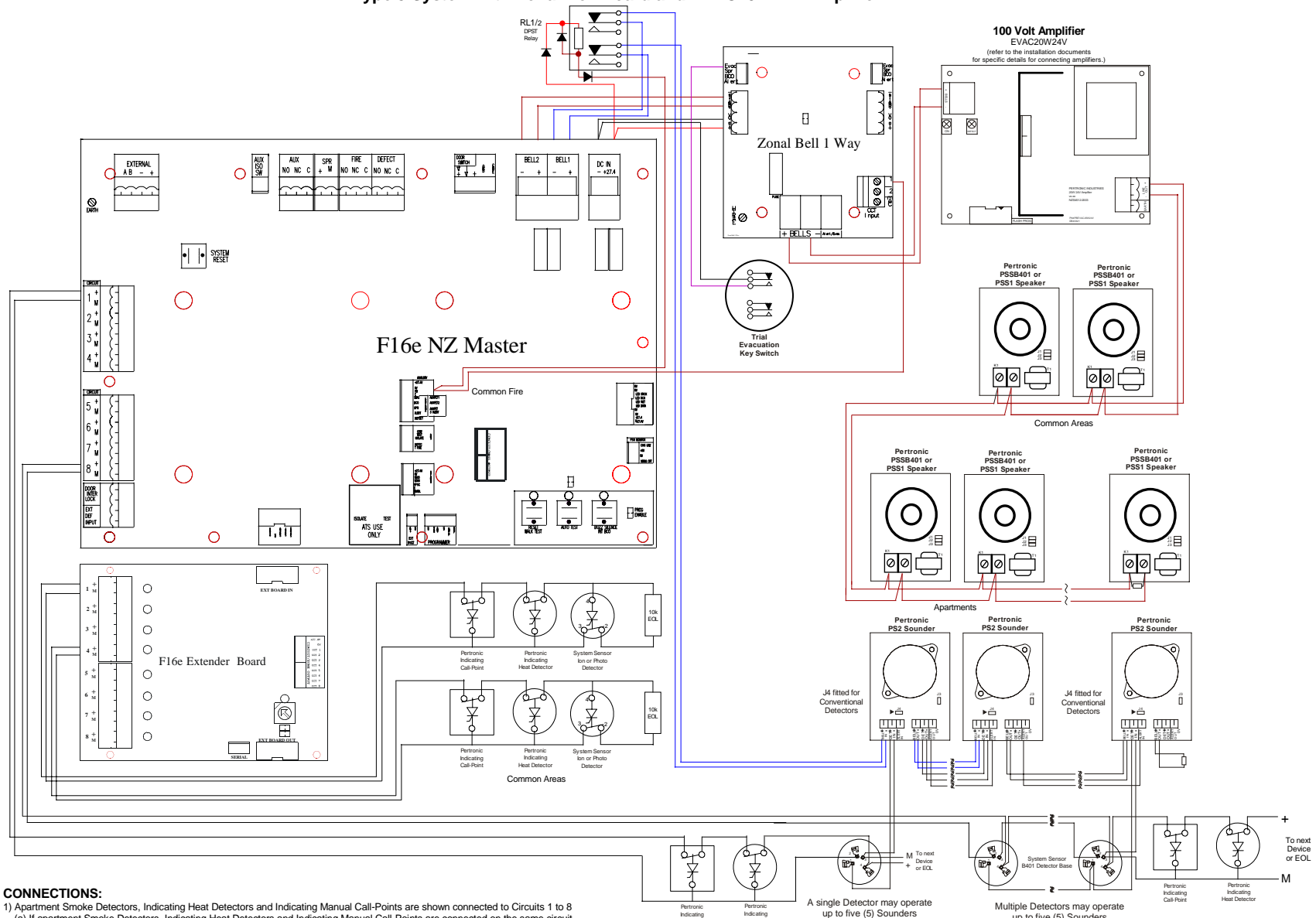


# F16e Conventional Panel

## Type 5 System with Zonal Bell Board and EVAC20W24V Amplifier



**CONNECTIONS:**

- 1) Apartment Smoke Detectors, Indicating Heat Detectors and Indicating Manual Call-Points are shown connected to Circuits 1 to 8
  - (a) If apartment Smoke Detectors, Indicating Heat Detectors and Indicating Manual Call-Points are connected on the same circuit, a Zonal Bell Board is required to operate the global alarm (100V Amplifier)
  - (b) If apartment Smoke Detectors are wired into separate circuits from the Indicating Heat Detectors and Indicating Manual Call-Points, a Zonal Bell Board is not required.
- 2) Heat Detectors, Smoke Detectors and Common Area Smoke Detectors are shown connected to Circuits 9 to 12
- 3) 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)
- 4) 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) BELL1 does not operate, but the PS2 Sounder(s) within the apartment operate - the sounders draw power from the reversed Bell 1 circuit causing an unbalance on the BELL output and a 'Defect' on the panel.
    - (b) BELL2 and the Common Fire open-collector output do not operate, hence the Zonal Bell Board and 100V Amplifier Evacuation Alarm do 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) BELL2 and the Common Fire open-collector output operate, enabling the Zonal Bell Board and 100V Amplifier, 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 RL1/2, a DPDT Relay on BELL2 circuit.
  - (b) BELL2 and the Common Fire open-collector output operate, turning on RL1/2 and isolating the BELL1 feed to the PS2 Sounders, so disabling the Alert tone.
  - (c) BELL2 and the Common Fire open-collector output enable the Zonal Bell Board and 100V Amplifier, sounding the General Evacuation throughout the Apartments and the Common Area.

**CIRCUIT ASSIGNMENT GUIDE**

Assignment	Apartment (Smokes, Heats & MCPs)	Apartment (Heats/MCPs Only)	Apartment (Smokes Only)	Common Area (Smokes, Heats & MCPs)
Brigade	ON	OFF	OFF	ON
Bell 1	OFF	OFF	OFF	OFF
Bell 2	ON	OFF	ON	ON
Latching	OFF or ON	OFF or ON	ON	ON
Residential	ON	ON	OFF	OFF
Auxiliary Relay	As Required	As Required	As Required	As Required
Alert	As Required	As Required	As Required	As Required
Isolate	OFF	OFF	OFF	OFF

NOTE: 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 with Zonal Bell Board and 20W24V Amp
Issue Number:	Issue 1.1
Date:	31 August, 2005
Drawing:	G M Tustin
Checked:	B A Pells