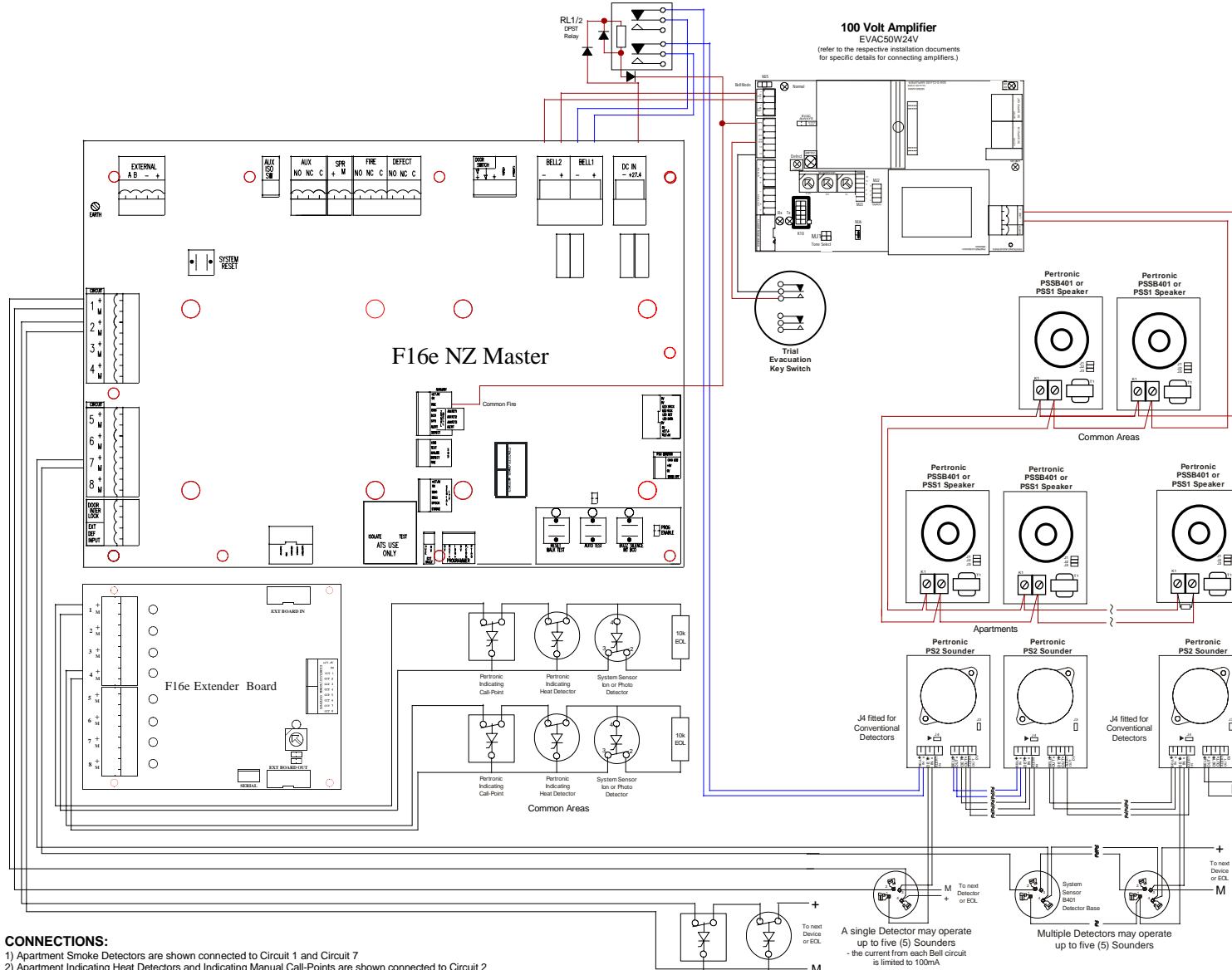


# F16e Conventional Panel: Type 5 Discrete with EVAC50W24V Amplifier

Apartment circuits are discrete with either Smoke detectors or Indicating Heat and Call-Points, but not both!



**CONNECTIONS:**

- 1) Apartment Smoke Detectors are shown connected to Circuit 1 and Circuit 7
- 2) Apartment Indicating Heat Detectors and Indicating Manual Call-Points are shown connected to Circuit 2
- 3) Heat Detectors, Smoke Detectors and Common Area Smoke Detectors are shown connected to Circuits 9 to 12
- 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 General Evacuation alarm and are shown in conjunction with the Apartment Sounders and in Common Areas.

**OPERATION:**

**1) When a Smoke Detector on Circuit 1 activates:**

- (a) BELL1 does not operate, but the PS2 Sounder(s) within the apartment operate - the sounders draw power from the reversed BELL1 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 100V Amplifier Evacuation Alarm does not operate.

NOTE: In Residential mode, the smoke detectors 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 2 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, calling the brigade and enabling the 100V Amplifier - the General Evacuation sounds throughout the Apartments and the Common Area.

**3) When a Smoke Detector on Circuit 1 activates and a Manual Call-Point or Heat Detector on any Circuit 2 - 12 activate subsequently:**

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

**CIRCUIT ASSIGNMENT GUIDE**

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

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