



# F1-3 2W

## Single Zone 2-Wire Conventional Fire Alarm System

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ISO 9001: 2000

International Standards  
Certifications  
QAC/R61/0051

### Product Overview:

Pertronic Industries **F1-3 2W** is a low cost, single zone 2-Wire Fire Alarm system for Housing NZ applications. The **F1-3 2W** is modified to meet Housing NZ requirements for small residential applications and meets most requirements of **NZS 4512:2003**

The **F1-3 2W** supports Pertronic Indicating Manual Call-Points, Indicating Heat Detectors, PS1 sounders and **System Sensor** Smoke Detectors.

### Functionality:

- When panel is triggered into alarm the panel sounders are activated and panel indicates the alarm.
- If panel is in alarm and the hush button is operated sounders are silenced for 5 minutes.
- After hush period the panel is automatically reset but will re-trigger into alarm and resound sounders if smoke is still present.

### Features:

- Front Service cabinet with 'Normal', 'Defect' and 'Fire' indication on front panel.
- 'Internal Bell Cut-Off' and 'External Bell Cut-Off' (BCO).
- Alarm reset available from a front panel key-switch.
- Trial Evacuation key-switch
- Local or remote Hush button option temporarily silences sounders for up to 5 minutes.
- Detectors are automatically reset at end of hush period
- Combined Detector and Sounder Circuit: monitored with a 10kΩ EOL resistor.
- The combined sounder and detector circuit, support a mix of System Sensor 2WTA-B Smoke/Thermal Detectors with in-built sounder, System Sensor 1151 and 2151 smoke detectors, Pertronic indicating Heat Detectors and indicating Manual Call-Points and Pertronic PS1 sounders..
- Indicating Heat detectors and indicating Manual Call-Points give instantaneous (less than 0.5 sec) response.
- Zone circuit self-test on start-up and every 24 hours.
- Automatic Alarm Verification Facility (AVF) provides substantial protection against transient false alarm activation.
- Optional 100V line amplifier with voiced Evacuation message as an alternative to 2WTA-B.
- 'Battery Absent' detection circuitry.
- Earth Leakage monitoring
- Integrated piezo alarm and 'Piezo on Defect' warning.
- On-board System 'Defect' LED indicates source of fault.
- Door Interlock.

### Specifications:

- Cabinet: Dimensions 350H x 245W x 80D (mm).  
Weight 2.2Kg - excluding battery.  
Material 1.2mm mild steel, powder coated beige (other colours optional).
- Power Supply: 230Vac, 50Hz, 5W. 13.7Vdc, 275mA
- DC current consumption: Mains OFF  
Normal: 10mA  
Defect: 13mA  
Alarm: 87mA - plus sounder load.
- Battery Type: Sealed lead acid 12Vdc, 7Ah - internally mounted.
- Charger: Integral float charger 13.7Vdc, 250mA.
- Power Supply Timer: Automatic 24-Hour load test with automatic 'Battery Absent' detection circuitry.
- Combined Single (1) zone / sounder circuit terminated with a 10kΩ End-of-Line (EOL) resistor.
- Alarm triggered by smoke detector operation with 1-second alarm verification (AVF) or instantaneous operation for indicating Heat detector or indicating Manual Call-Point.
- Up to 12 **System Sensor** 2WTA-B (Smoke / Thermal Detectors) or 12 x 1151 / 2151 smoke detectors may be connected to each zone circuit in addition to an unlimited number of **Pertronic** indicating Heat detectors and indicating Manual Call-Points.
- Sounder Output: 12Vdc, 3A.

### Important Note:

A hard short-circuit or open-circuit produces a 'Defect' signal.

Non-indicating Heat Detectors and Manual Call-Points will NOT produce a 'Fire' signal when triggered and MUST NOT be used with the **F1-3 2W** panel.

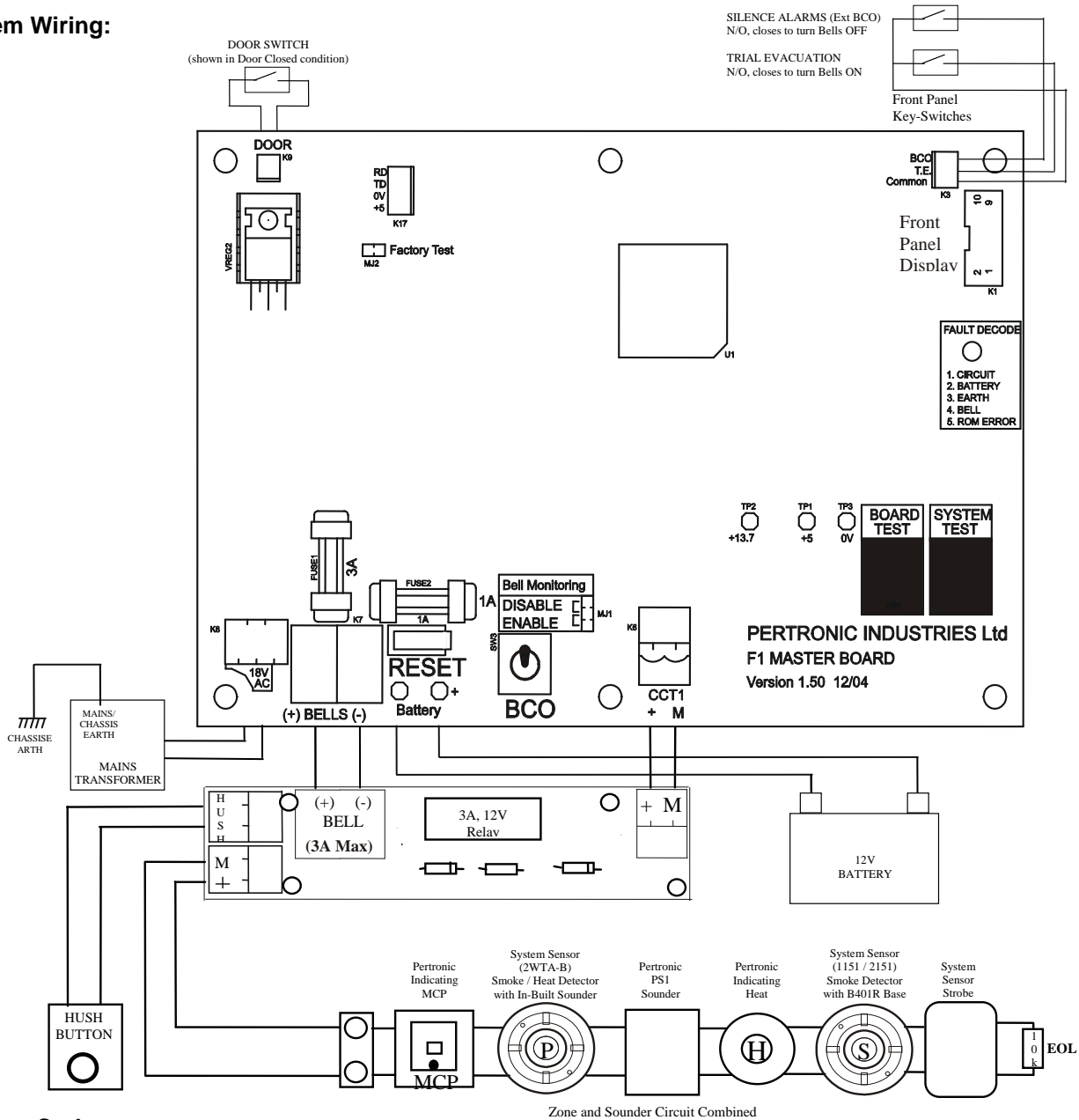
The 2WTA-B Smoke/Thermal Detectors with built in sounder do not comply with NZ4512:2003 tones. For compliant tones replace with **System Sensor** 1151, 2151 smoke detectors and **Pertronic** PS1 sounders or a **Pertronic** EVAC20W12V 100V line amplifier and PSS1 speakers.



**Benefits:**

1. The F1-3 2W and its detectors provide a cost effective solution for domestic applications.
2. Installation is made simple as the detectors and sounders are wired on the same pair of cables.
3. The sounders and detectors are fully monitored for open and short circuits.
4. Long battery standby period of up to 7 days
5. 2WTA-B detectors have two detection elements (Smoke / Thermal) with built in sounder.
6. Reduced false alarms due to environmental conditions. The 2WTA-B detector sensitivity is automatically adjusted to compensate for contamination caused by environmental conditions such as dust and dirt.
7. Optional Local or remote hush button facility enables sounders to be silenced for up to 5 minutes allowing investigation of alarm, detectors are automatically reset at end of this period.
8. Panel Silence and Evacuate facility.

**System Wiring:**



**Product Code**

Description	NZS Code	Description	NZS Code
F1-3 2W Single Zone Front Service Fire Alarm Panel	F1-3 2W	Evacuation Amplifier 20W, 12V, 4512:2003	EVAC20W12V
2W-B, 2 Wire PE I3 Detector + Thermal and Sounder	2WTA-B	Pert Sounder Speaker 1W Flush Red	PSS1-R
1151 Low Pro Ion Detector excl Base	1151	Pertronic Sounder AS2220 Flush- Red	PS1-R
2151 Low Pro Photo Detector excl Base	2151	Pertronic Sounder AS2220 Flush- White	PS1-W
<b>B401R</b> 2-wire base with current limiting resistor.	B401R	Remote Hush Unit	AMRH
SpectrAlert Advance 2 Wire Strobe 12/24V	SR	Indicating Heat Detector, Blue (57°C)	IHDB-3
		Conventional Indicating Call-Point	CPPIN-3

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