

# PS2 Sounder

## (AS2220 Sounder)

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ISO 9001: 2008

International Standards  
Certifications  
QAC/R64/0012

### Product Overview:

#### The Pertronic PS1 Sounder:

- ▶ Generates the Evacuation and Alert Tones to NZS4512:1997, as specified by AS2220
- ▶ Generates an Alert signal compliant with NZS4512:1997, by generating an Evacuation tone sweep every 15.5 seconds.
- ▶ Normally connects to the monitored Bell or Sounder output of a Fire Alarm panel and to the LED output of a conventional or analogue addressable System Sensor smoke detector.
- ▶ The **PS2** sounds the Evacuation tone when the detector is in Alarm. If the bell circuit polarity is reversed when the detector is Normal, the Evacuation or Alert tone sounds, depending on the state of the **Alert** input or jumper **J3** on the **PS2**
- ▶ May be powered from the analogue addressable loop - the **PS2** will sound the Evacuation tone only when the detector is in Alarm
- ▶ May be mounted in standard single-gang flush or surface-mount electrical fittings and is supplied with a protective plastic cover for installation during building construction.
- ▶ The **PS2** Evacuation tone does NOT comply with NZS4512:2010 or NZS4512:2003 for general Evacuation purposes, because it has no voice component.
- ▶ Supplied with a protective plastic cover for installation during building construction

#### Features:

- ▶ Evacuation and Alert Tones as specified by AS2220
- ▶ A single detector or multiple detectors may operate up to five (5) inter-linked **PS2** Sounders
- ▶ 95dBA @ 1m output sound level with 20dB adjustable volume control.
- ▶ Available in two colours : Red or White

#### Specifications:

##### Dimensions:

117 x 74 x 12mm (H x W x D - depth above flush box)  
Designed to fit into a standard, single flush or surface-mount box.  
Alert, Evacuation 12 Volt: High Volume - 95±3dBA at 1 metre  
Alert, Evacuation 24 Volt: High Volume - 98±3dBA at 1 metre

##### Sound Level Output:

##### Power Requirements:

**Operating Voltage** 9.5 to 30Vdc  
**Quiescent Current: Non-Alarm** 0.2µA @ 12Vdc 0.4µA @ 24Vdc  
**Operating Current: Alarm State** 8mA average, 12mA peak @ 12Vdc  
14mA average, 22mA peak @ 24Vdc

##### Controls:

- a) **Detector IN, Detector OUT** for detector activation (Evacuation). Connect the detector LED output to the corresponding +/- terminals
- b) **J4** for conventional or analogue addressable detectors.
  - ▶ J4 MUST be fitted for conventional detectors.
  - ▶ J4 MUST be removed for analogue addressable detectors
- c) **Alert IN, Alert OUT** for externally selected tone control.
  - ▶ No connection for Evacuation
  - ▶ 0V for Alert
- d) **J3** for internally selected tone control.
  - ▶ Remove J3 for 'Evacuation' on Bell reversal,
  - ▶ Insert J3 for 'Alert' on Bell reversal..

#### Operation:

When the Fire Alarm panel or Zonal Bell Board is used to power the **PS2**, the Sounder can generate either the Evacuation or Alert tones. The tone produced depends on the state of the Alert input (jumper J3) and whether the detector(s) connected are in Alarm.

When the **PS2** is powered by an analogue addressable loop, only the Evacuation tone is available.

The Alert IN (or Alert OUT) terminal is connected directly or through a contact to the battery negative (0V) to enable the Alert tone when the Bell circuit polarity is reversed (no detector alarm).

The Alert IN and Alert OUT terminals are interconnected on the **PS2**. These terminals may be connected to other **PS2** (or **PS1**) sounders to simultaneously enable or disable the Alert option.



## PS2 Operation:

Panel Bell Circuit	Detector IN	ALERT IN (or J3 fitted)	Tone Generated
Monitor Mode	Normal	Open	None
Optional	Active	Optional	Evacuate
Active	Normal	Open (and J3 removed)	Evacuate
Active	Normal	0V (or J3 fitted)	Alert

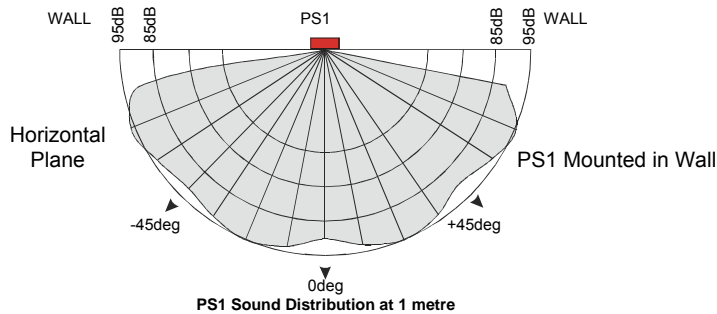
**NOTE:** J4 must be **REMOVED** for **ANALOGUE** detectors  
 J4 must be **FITTED** for **CONVENTIONAL** detectors

Some Bell driver circuits can provide a pulsed signal to the PS1 to give an alternative Alert signal using the Evacuation tone. The sequence (repeated) is:

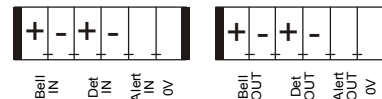
3.5 seconds – Evacuation tone (one cycle), 12 seconds – silence

This alternative Alert signal complies with NZ4512:1997, Amendment 2

## Sound Pressure Distribution:

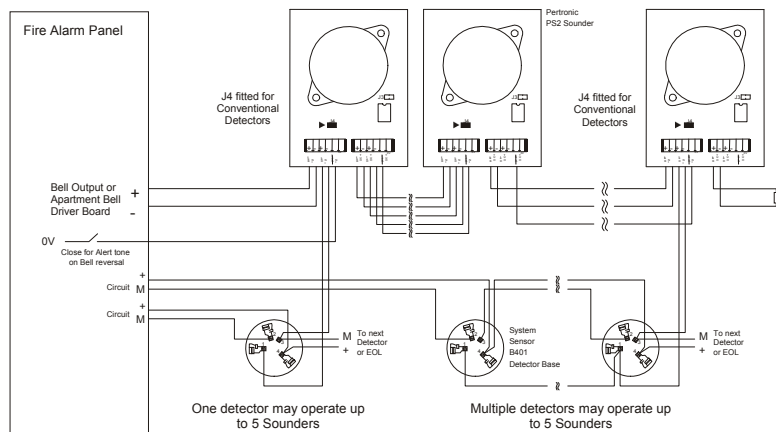


## Terminal Layout

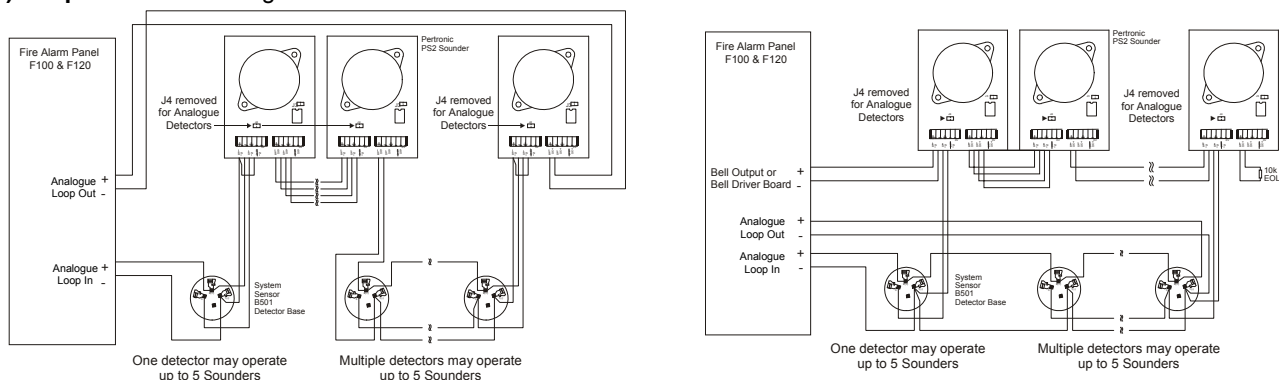


## Connection Diagrams:

### a) Bell Circuit: Conventional Detectors



### b) Loop Powered: Analogue Detectors on F100 or F120 Panels



## Product Codes:

NZS Code	Description	NZFPA Listing No
PS2-R	Pertronic Apartment Sounder AS2220 Flush : Red	PI/407
PS2-W	Pertronic Apartment Sounder AS2220 Flush : White	PI/407

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