

PS1 Sounder

(AS2220 Sounder)

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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 seconds.
- > Is normally connected to the monitored Bell or Sounder output of a Fire Alarm panel and is activated when the output circuit voltage polarity is reversed to the Alarm state.
- > 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 **PS1** Evacuation tone does NOT comply with NZS4512:2003 for general Evacuation purposes, because it has no voice component.

Features:

- Evacuation and Alert Tones as specified by AS2220.
- > 95dBA @ 1m output sound level with 20dB adjustable volume
- > 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 box.

Sound Level Output: Alert, Evacuation 12 Volt: High Volume - 95dBA ± 3dBA at 1 metre

Alert, Evacuation 24 Volt: High Volume - 98dBA ± 3dBA at 1 metre

Power Requirements:

Operating Voltage 9.5 to 30 Vdc

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: Third wire for Alert tone - connected to 0V for Alert tone operation.

Operation:

When the panel Bell circuit is inactive (OFF), the status of the Bell circuit is monitored by applying a negative voltage to the PS1 '+' terminal and a positive voltage to the PS1 '-' terminal and reading the current for presence of the $10k\Omega$ EOL resistor.

When the panel Bell circuit is active (ON), the Bell circuit voltage reverses applying a positive voltage to the PS1 '+' terminal and a negative voltage to the PS1 '-' terminal, triggering the PS1 to operate.

The Evacuation tone will be generated if the Alert terminal is open.

The Alert tone is generated by connecting the Alert terminal of the PS1 to 0V (negative).



ISO 9001: 2000

International Standards Certifications QAC/R61/0051



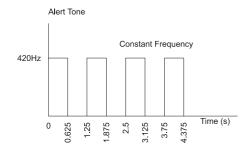
PS1 Operation

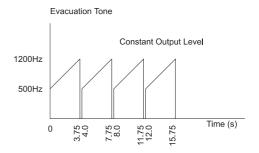
Panel Bell Circuit	Alert Terminal	Tone Generated
Inactive (Monitor Mode)	Don't care	None
Active	Open	Evacuate
Active	0V	Alert

Some Bell driver circuits can provide a pulsed signal to the tone. The sequence (repeated) is:

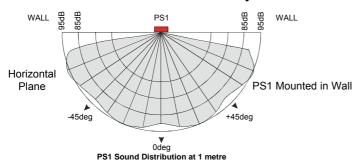
3.5 secs - evacuation tone (one cycle), 12 secs - silence This alternative Alert signal complies with NZ4512:1997, Amendment 2.

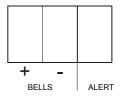
AS2220 Tone characteristics:





Sound Pressure Distribution Terminal Layout

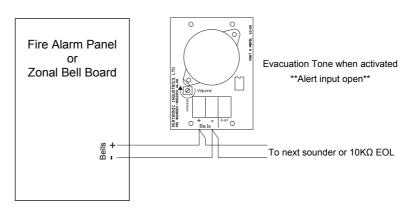




Connection Diagrams:

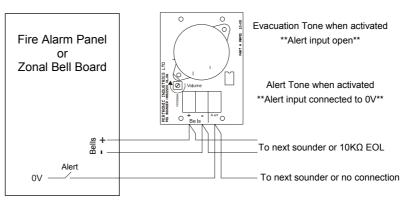
a) Basic Connection:

Evacuation only on Bell Circuit reversal



b) Three-Wire Connection:

Evacuation or Alert on Bell Circuit reversal



Product Codes:

Description	Code
Pertronic Sounder AS2220 Flush : Red	PS1-R
Pertronic Sounder AS2220 Flush : White	PS1-W

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