PERTRONIC INDUSTRIES LTD

PS1-T3 Sounder - Installation Instructions

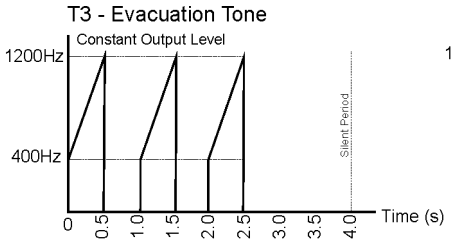
Overview:

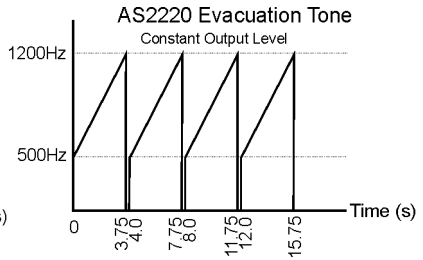
The **PS1-T3** generates 'Evacuation' tones compliant to AS2220 or ISO8201
The **PS1-T3 Sounder** has a maximum sound pressure level of 98dBA with a sound distribution pattern shown below. The sound level may be adjusted by a Volume control.
The **PS1-T3 Sounder** is normally connected to the monitored Bell or Sounder circuit of a Fire Alarm Panel and is activated when the Sounder circuit voltage polarity is reversed in the 'Alarm' state.
The **PS1-T3 Sounder** may be mounted in a standard single-gang electrical flush-box fitting and is supplied with a protective plastic cover for installation and building construction use.

Specification:

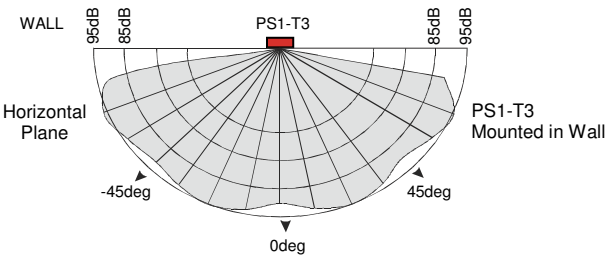
Dimensions:	117 x 74 x 12 H x W x D (mm) - depth above flush-box. - designed to fit into a standard electrical flush-box fitting.	
Colour Options:	Red or White.	
Sound Level Output:	Sound pressure level at 1m (peak ± 3dB)	
	Evacuation, Alert: 98dBA	(@24Vdc)
Power Requirements:	**BELL IN** terminal - supplied from the Bell circuit:	
	Operating Voltage 9.5Vdc to 30Vdc	
Quiescent current (Non-Alarm state)	0.4µA	(@24Vdc)
Operating current (Alarm state – T3 tone)	9mA average, 25mA peak	(@24Vdc)
(Alarm state – AS2220 tone)	14mA average, 28mA peak	(@24Vdc)
Controls:	Third wire for 'AS2220 / T3 Evacuation' tone control. - 0V on Alert terminal for the 'AS2220' tone.	
Volume Control:	Potentiometer to adjust sound output level – range = 20dB.	

Tone Characteristics:





Sound Pressure Distribution:



PS1-T3 Sound Distribution at 1 metre

PS1-T3 Terminal:

Connector Layout

Operation:

The panel Bell circuit connects to the **PS1-T3** Sounder as shown below.
Bell terminals '+' and '-' connect to the corresponding Sounder '+' and '-' terminals.
If the Bells are not active, the panel monitors the Bell circuit by applying a negative voltage to the **PS1-T3** '+' terminal. The quiescent current drawn by the **PS1-T3** under this condition is less than 0.4μA.

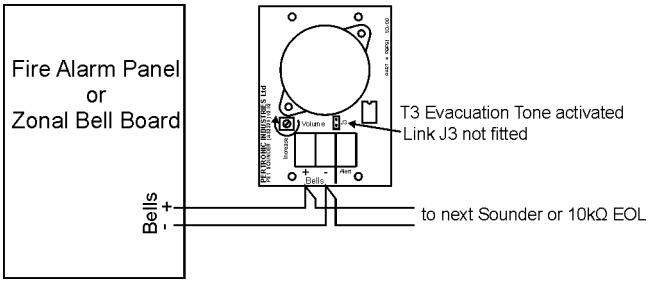
When the panel Bell circuit activates, the panel Bell circuit voltage reverses (applying positive voltage to the **PS1-T3** '+' terminal), sounding the **PS1-T3**. The 'T3' tone is generated if the 'Alert' terminal is open or J3 link not fitted. If the 'Alert' terminal of the **PS1-T3** is connected to 0V (negative) or the J3 link is fitted, the 'AS2220' tone is generated instead.

PS1-T3 Operation

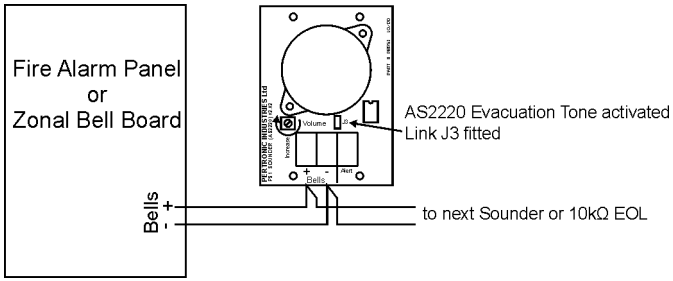
Panel Bell Circuit	Alert Terminal or J3 link	Tone Generated
Monitor mode	Don't Care	None
Active	Open	T3-Evacuate
Active	0V or link fitted	AS2220-Evacuate

Connection Diagrams:

Basic Connection: T3 Evacuation only on Bell Circuit reversal



Basic Connection: AS2220 Evacuation on Bell Circuit reversal



Product Codes:

Part Code	Description
PS1-T3	Sounder, Pert w/o Front Plate – T3 tone
PS1/2-FCR	Sounder Cover – Flush Red
PS1/2-FCW	Sounder Cover – Flush White