

Group Connection of Sounder Bases:

Group activation of sounders is achieved by connecting a common wire to Terminal 3 of each of the of the detector bases in the group to each other. A maximum of 5 detectors may be connected together to form a group. If any detector in the group goes into alarm, the sounders of all the grouped Sounder Bases are activated. Grouping is achieved by connecting Terminal 3 of each Sounder Base together.

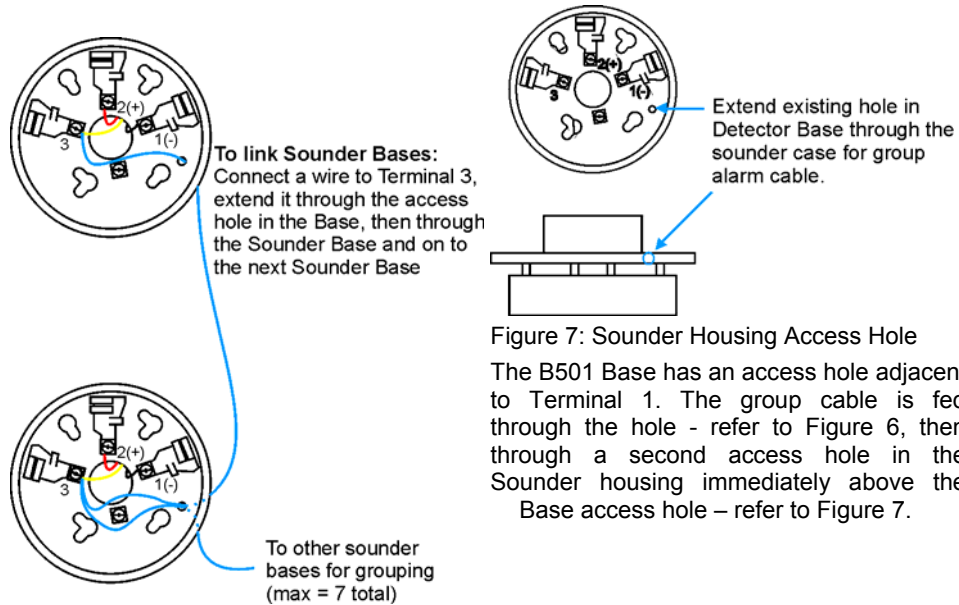


Figure 6: Group Connection

Group wiring is normally run between Sounder Bases above the ceiling, requiring the cable to be routed from the Detector base through the Sounder base assembly into the roof. Group wiring may be implemented for Loop or External Supply configurations.

Product Codes:

Part Code	Description
PSB-T3	Base – Pert. AA Sounder – T3 tone

Overview:

The **Pertronic PSB-T3** is a **Sounder and Analogue Detector Base** that provides an audible warning in accordance with the ISO8201 Standard.

The **PSB-T3** provides a maximum sound level of 98dBA, with a sound distribution pattern as shown in Figure 2.

The **PSB-T3** connects to an analogue addressable loop through the Base connections, and internally to the LED drive output of the analogue addressable detector. The **PSB-T3** sounds the Evacuation or Alert tone (depending on whether the MJ1 link is OUT or IN; refer to Table 1) when the detector is in 'Alarm'.

The **PSB-T3** may be connected to the panel Bell or other Bell driver output. When the Bell circuit reverses, the Evacuation tone sounds.

The **PSB-T3** recess mounts into the ceiling, or a mounting ring is available for surface mount applications.

Specification:

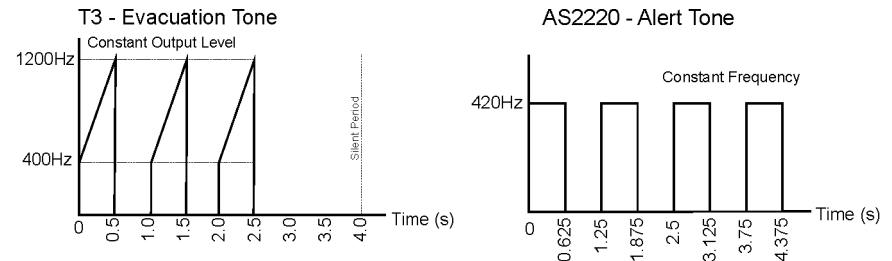
Dimensions:	When recessed:	
	Height below ceiling	31mm (including B501 base)
	Height above ceiling	35mm
	With surface mounted extension cover	66mm
	Diameter of mounting flange	122mm
	Surface mounted extension cover	35mm height

Colour:	Beige.
Sound Level Output:	Sound Pressure Level at 1m (± 3dB)
	Evacuation, Alert: 87dBA @15V
	95dBA @24V

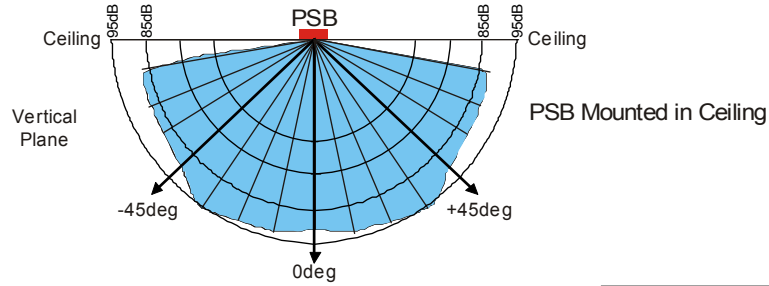
Power Requirements:	ANALOGUE LOOP connection only:
	Operating Voltage 15V to 30Vdc
	Quiescent Current - Non-Alarm 1.5mA @24V
	Operating Current – Alarm T3 5mA average, 9mA peak @ 17V.
	T3 tone 7.5mA average, 17mA peak @ 24V.
	BELL DRIVER connected (with ANALOGUE LOOP):
	Quiescent Current - Non-Alarm 1.2mA @24V (Analogue Loop)
	0.2µA @24V (Bell Driver)
	Operating Current – Alarm T3 6mA average 10mA peak @ 17V
	T3 tone 9mA average, 20mA peak @ 24V.

Note: Operating current sourced from the Bells when Bells activated.

Tone Characteristics:



Sound Pressure Distribution:



PSB Sound Distribution (Evac Tone) at 1 metre

Figure 2: Sound Pressure Distribution

PSB Distribution 200805

Operation:

The **PSB** may be powered from the loop (without an external supply) for applications requiring local Sounder activation only. Groups of up to 5 Sounder Bases may be connected together so that all the sounders in the group are activated when at least one of the detectors within the group goes into alarm.

The **PSB** may also be powered from the panel Bells or other Bell Driver for applications requiring global activation of sounders. The external Bell circuit voltage is applied in reverse for monitoring purposes and to supply power for local activation of the sounders. When a global warning is required, the Bell voltage reverses, activating all the sounders connected to the Sounder circuit.

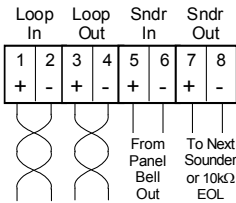


Figure 3: Terminal Block Detail

Local Activation:

Figure 4 shows how Sounder Bases are connected for local activation. In this arrangement, the Sounder associated with the detector on the base is activated (Alert or Evacuation tone; refer to Table 1) when the detector activates into 'Alarm'.

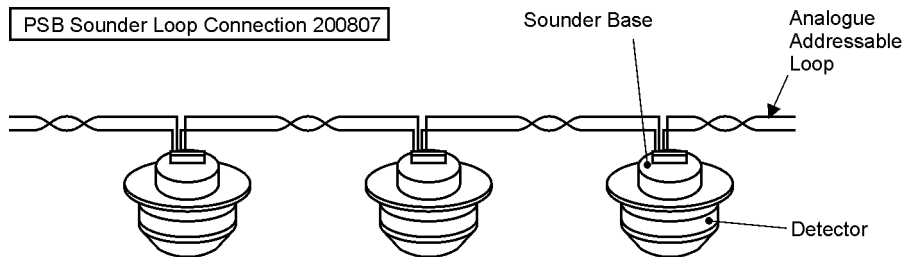


Figure 4: Loop Powered Local Sounder Bases

Combined Local and Global Activation:

Figure 5 illustrates the method for connecting externally powered Sounder Bases. The **PSB** connects to both the analogue loop and to the panel Bell or Bell Driver board output. The **Apartment Sounder** '+' and '-' terminals of the driver Board connect to the respective '+' and '-' terminals of **SNDR IN** and **SNDR OUT** on the Sounder Base terminal block.

Power is applied with reverse polarity to the Sounder Base when the system is Normal to provide a monitoring voltage. (Supply +ve connects to terminals 6 and 8, and supply -ve connects to terminals 5 and 7 of **SNDR IN** and **SNDR OUT** of the terminal block).

When the Sounder output activates, the supply polarity reverses so that supply +ve connects to the **SNDR IN** and **SNDR OUT** '+' terminals and the supply -ve to the **SNDR IN** and **SNDR OUT** '-' terminals, all Sounder Base Sounders activate providing global evacuation.

A 10kΩ End of Line resistor is required at the end of the external supply line for monitoring purposes.

MJ1 Link	Sounder Inactive		Sounder Active	
	Out	In	Out	In
Detector Inactive	No Action	No Action	T3 Evacuation	T3 Evacuation
Detector Active	T3 Evacuation	Alert Tone	T3 Evacuation	T3 Evacuation

Table 1: Tone Generation modes

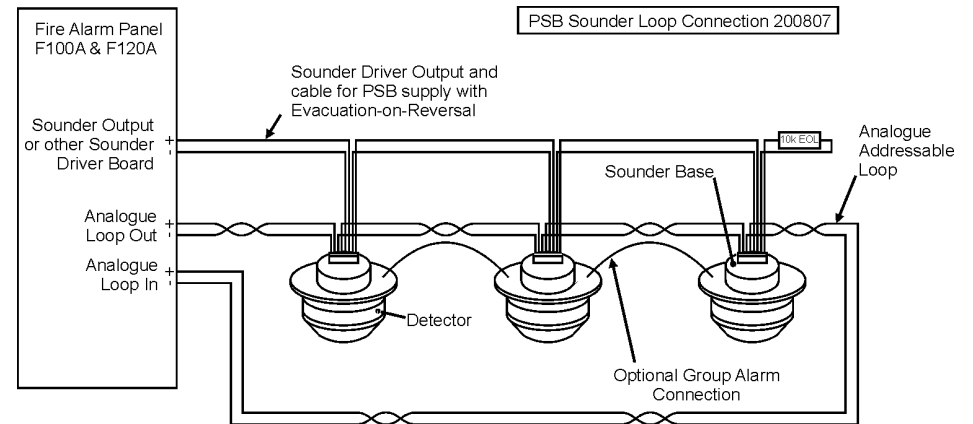


Figure 5: General Loop Sounder Connection