

# PERTRONIC INDUSTRIES LTD

## INSTALLATION / OPERATING INSTRUCTIONS

### ZONAL SOUNDER DRIVER (4-WAY and 1-WAY)



#### Function

The Pertronic **Zonal Sounder Driver** board allows one or more monitored bell circuits to be activated independently for either evacuation or alert tones. Single-way and 4-way bell driver boards are available. Other combinations may be constructed by connecting the externally accessible bussed control signals.

Table 1 shows the standard sounder control functions available from a panel that may be used for activating the **Sounder Driver** output.

Table 2 shows the three sounder functions and how they are selected and operated by the system signals and controls. The sounder circuit is activated as shown when the Bell input, usually originating from the panel, becomes active.

The Sounder Circuit is continuously ON for evacuation, and blinks at 4 seconds ON / 12 seconds OFF for alert.

**Table 1: Control Functions from Panel**

Evacuation	Sprinkler	Panel Bells	Bell Silence	Sounder Circuit
ON	X	x	x	ON continuously
x	ON	ON	x	ON continuously
OFF	OFF ON OFF	OFF OFF ON	ON	Disabled

x = don't care state

**Table 2: Sounder Input Functions when Panel Bells is Active**

CCT1 or CCT2	Alert Control	Alert Link	Alert/Evac	Sounder Circuit	Function
Both OFF	OFF	x	Inactive	Disabled	When the Bells input is active: The sounder circuit is ON continuously (Evac) when either (or both) CCT1 or CCT2 are active.
Either ON	OFF	x	Inactive	On continuously	
Either ON	ON	OUT	Inactive	On continuously	When the Bells input is active: The sounder circuit is ON continuously (Evac) when either (or both) CCT1 or CCT2 are active; otherwise, the sounder circuit is pulsed (Alert).
Both OFF	ON	OUT	Inactive	On but pulsed	
Either ON	ON	IN	Inactive	On continuously	When the Bells input is active: The sounder circuit is on continuously (Evac) when either (or both) CCT1 or CCT2 are active; otherwise, the Alert/Evac output is activated to indicate Alert to connected sounders.
Both OFF	ON	IN	Active	On continuously	

**Note:**

For the Pulsed or Alert signal,  
the sounders are pulsed 4 seconds ON / 12 seconds OFF.  
x = don't care state

## Specification

**Power Supply:** 12V or 24V. <35mA, 1-way board (Sounder Circuit not operated).  
<140mA, 4-way board (Sounder Circuit not operated).  
Adds up to 3A per Sounder Circuit when operated.

### Busse d control signals:

Panel Bells	Connected to the panel monitored bells circuit. Action depends on the state of other control signals. Active when the panel bell circuit is operated.
Evacuation	Usually connected to the panel Evacuation switch. Always activates the Sounder Circuit. Active when pulled low (0V), or taken high ( $\geq 5V$ ).
Sprinkler	Follows the panel sprinkler input. Activates the Sounder Circuit if Panel Bells is active. Active when pulled low (0V).
Bell Silence	Disables the Sounder Circuit. Is overridden by Evacuation or Sprinkler. Active when pulled low (0V).
Alert Control	Used to generate a global alert signal Action depends on the state of other control signals. Active when pulled low (0V).

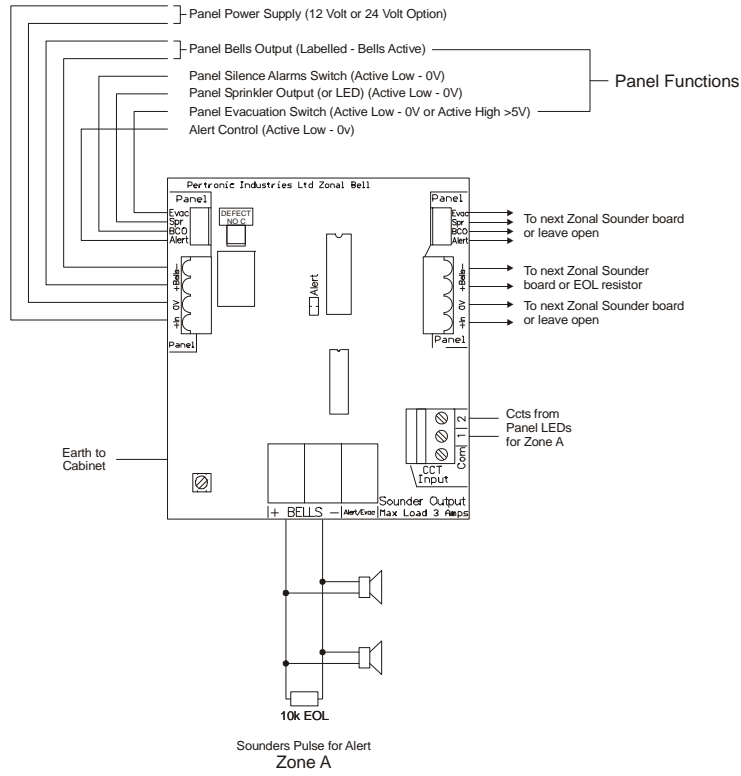
### Independent control signals:

Circuit1,2	Activated by zones or one member of a group of detectors or call points being in alarm. Action depends on the state of other control signals. Active when pulled low (0V).
Alert Link	When inserted, disables the Alert Control signal. (The global alert state is disabled).

### Output functions:

Sounder Circuit	3A (fused) drive capability, 12V or 24V. Monitored with 10K EOL (one spur), 2 x 22K EOL (two spurs), 3 x 33K EOL (three spurs). EOL resistors 5%, 0.5W. Evacuation: Continual activation. Alert: 4 seconds on, 12 seconds off.
Alert/Evac Control	'Third wire' for sounder alert or evacuation control. Pulled low (0V) for alert.
Bells Defect	The Sounder Circuit is monitored for a 10K EOL resistor by applying reverse supply voltage to the circuit. Defects in the bell circuit are sent to the panel by unbalancing the Panel Bells circuit.
Defect Output	24V 2A clean contact relay output.
LED Indication	On, continuously Flashing. Sounder Circuit relay on. Latched fault on Sounder Circuit. Low battery, or Bell circuit fault.

## Connection diagram – Single Unit



## Connection Diagram – Quad Unit

