



## INSTALLATION NOTE

### PL1 SOUNDER

#### Overview

The **Pertronic PL1 LED Alarm** complements the **PS** range of sounders manufactured by Pertronic Industries by providing a visual alarm. The **PL1** flashes at a rate corresponding to the Evacuation and Alert tones specified by AS2220.

The **PL1** light output is generated from a matrix of 6 red LED emitters in one housing; together they provide a light output of 30 mcd Max.

The **PL1** is normally connected to the monitored bell or sounder output of a fire alarm panel and is activated when the sounder output circuit voltage polarity is reversed to the alarm state.

The **PL1** may be mounted in standard single-gang flush or surface electrical fittings.

#### Specification

Dimensions: 117mm H x 74mm W x 21mm D (LED dome height above flush box).  
Designed to fit into a standard single flush box.

Colour Options: Red or White Flush Plate

Light Output Level: 30 mcd Max, 120° viewing angle.

Power Requirements: BELL IN terminal (Supplied from the bell circuit):  
Operating Voltage 9.5V to 30Vdc  
Quiescent current (non alarm) 0.2µA(12V)  
0.4µA(24V)  
Operating current (alarm state) 7.5mA average, (12V)  
18mA average, (24V)

Controls: Third wire for Alert/Evacuation flash control  
0V for the alert flash.

#### Operation

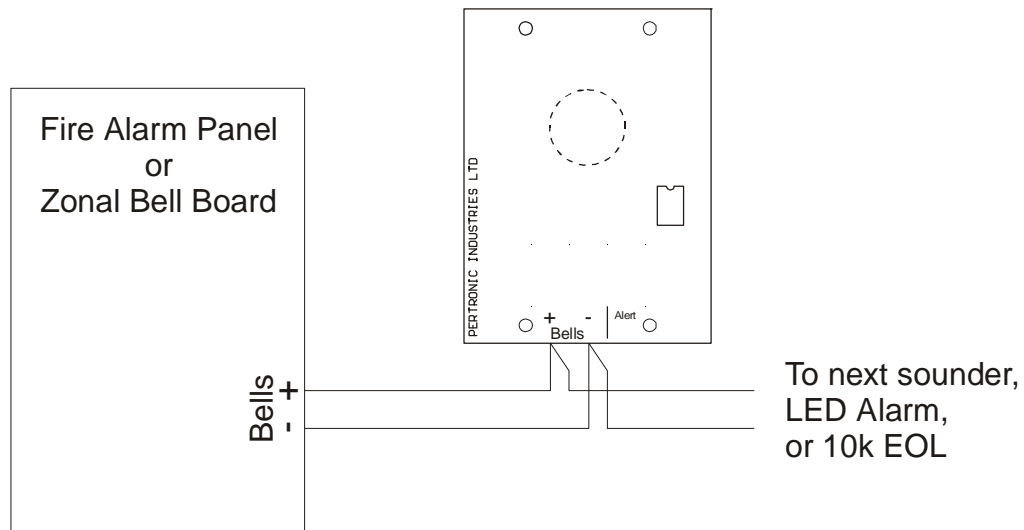
The panel Bells circuit is connected to the **PL1** LED Alarm as shown overleaf. Bell terminals '+' and '-' are connected to the corresponding sounder '+' and '-' terminals. If the bells are not active, the panel monitors the Bell circuit by applying a negative voltage to the **PL1** '+' terminal. The quiescent current drawn by the **PL1** under this condition is less than 0.4µA.

When the panel Bell circuit is active, the panel Bell circuit voltage is reversed (applying positive voltage to the **PL1** '+' terminal). This causes the **PL1** to operate. The flash will correspond to the evacuation tone pulse rate if the Alert terminal is left open. If the Alert terminal of the **PL1** is connected to 0V (negative), a flash corresponding to the alert tone pulse rate will be generated instead.

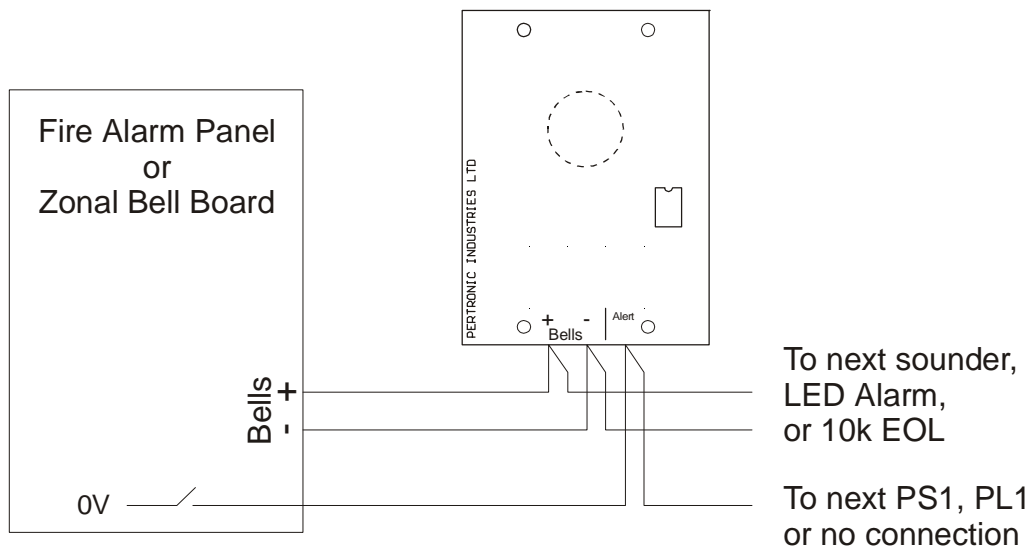
**PL1 Operation**

Panel Bell Circuit	Alert Terminal	Flash Generated
Monitor mode	Don't care	None
Active	Open	Evacuate
Active	0V	Alert

## Connection Diagrams



Basic Connection - LED flash on bell reversal



3-Wire Connection - Alert / Evacuation Flash Control

### Ordering Information:

Part No.	Description
PL1-R	LED Alarm Indicator - Red Flush Plate
PL1-W	LED Alarm Indicator - White Flush Plate