

3374-01

## Brief description

### Description

The ZP755B-2 is an addressable sensor base sounder, designed for use on Ziton analogue addressable fire detection and alarm systems. Conforming to EN54 Part 3, the ZP755B-2 is developed for applications in individual rooms, sleeping accommodation or small compartments where it is impractical for the sounder and sensor to be separate.

### Application

Installed directly onto the wiring loop - the ZP755B-2 enables the system designer to offer a complete analogue addressable system on a single pair of wires. Installation costs are greatly reduced, whilst system integrity, sounder options and programmed alarm organisation are significantly increased.

The ZP755B-2 features the wide sound distribution design, with an 'all around' sound output of 70 dBA. The unit's high efficiency acoustic design and sound transducer, enables up to 60 Addressable Sensor Base Sounders to be connected to a one-kilometre loop of 1.5 mm<sup>2</sup> cable. A plug-in base accepts all loop and screen connections, prior to the base sounder connection. A volume control is included for areas where a reduced sound output is required, but this control must be fully clockwise to conform to EN54 Part 3 sound output levels.

The ZP755B-2 range features a unique self test facility - automatically activated during routine sounder testing. A built in microphone circuit measures sound output level and automatically signals the sounder address and location to the control panel, should volume fall below the expected test level.

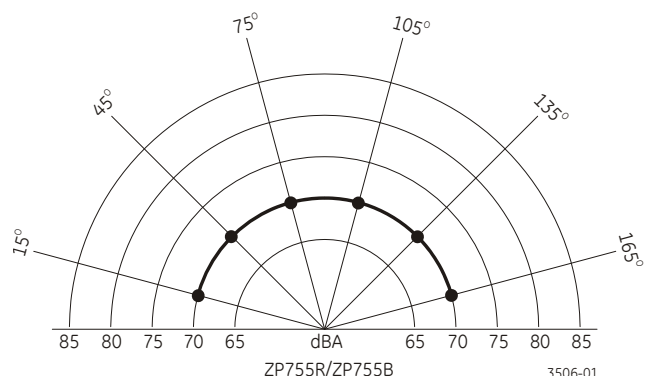
In systems where loop lengths or current requirements are excessive, ZP755B-2 sounders can be powered directly from an external power supply. All ZP755B-2 sounders incorporate switch settings enabling them to be assigned a unique address, which is polled by the panel every two seconds.

Continuous, intermittent and two-tone outputs are available, from which any combination can be chosen to provide alert and evacuate, two stage alarms. All sound types comply with BS 5839 Part 1:1988 recommended frequencies (in accordance with EN54 Part 3).

Moulded in high impact thermoplastic, the sounder is available in white.

## Specifications

Design specification:	EN54 Part 3
Designation:	Addressable Sensor Base Sounder
Model number:	ZP755B-2
Part number:	177101
Compatibility:	Ziton analogue addressable systems
Mounting:	Surface - with plug-in base
SPB-2W (white):	180901
Addressing method:	7-way Dipswitch
Wiring:	2-core loop
Monitoring:	ZP loop - open and short circuit fault Sound output level - self-test facility
Sound output:	
Tone 1	continuous 980 Hz
Tone 2	intermittent 980 Hz (0.5 sec on/off)
Tone 3	two tone warble 980 Hz/670 Hz
Sound distribution:	Wide
CNPP anechoic sound levels:	



Operating voltage:	External supply - 18 to 30 VDC Loop supply - ZP protocol 19.5 - 20.5 V pulsed, max. 4 V line loss
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**Current (line powered)**

Quiescent (RMS): 820 µA  
Alarm (RMS): 4.5 mA  
Alarm (maximum. avg. - excl. device address): 7.5 mA  
Alarm (maximum – at device address): 23 mA

**Current (externally powered)**

Quiescent (RMS): 470 µA  
Alarm (RMS): 500 µA  
Max number: 60 per 1 km loop (subject to cable size and sounder spacing)

**Environmental**

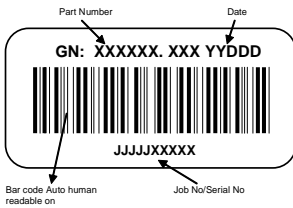
Application: Indoor use  
EN60529 rating: IP21C  
Temp range: -10 to 70 °C  
Humidity range: 10% to 95% RH (non-condensing)

**Construction**

Material: Moulded thermoplastic  
Dimensions:  
ZP710/ZP730 (Ø x D) 127 x 90 mm  
ZP720 (Ø x D) 127 x 90 mm  
ZP732/ZX732 (Ø x D) 127 x 97 mm  
Colour: White  
Weight: 150 g

**Manufacturer traceability**

A barcode label is affixed to each product (see example below). This label reflects, amongst other things, the date of manufacture of the product in the form YYDDD.



These numbers are interpreted as follows:

YY = year of manufacture  
DDD = day of manufacture

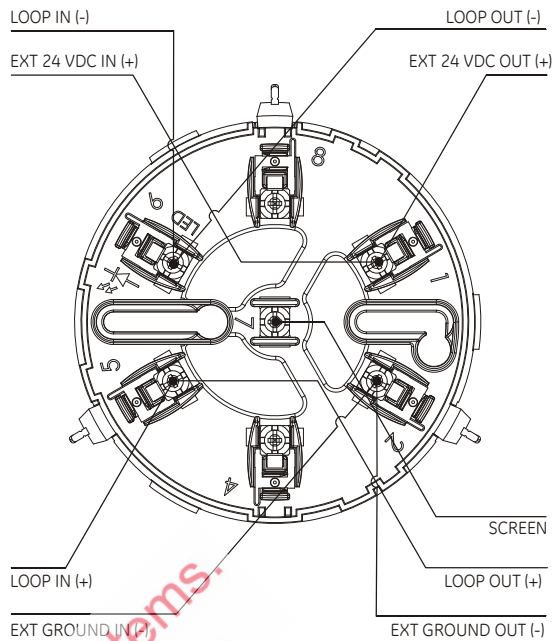
For example the numbers 07134 would indicate that the product was manufactured on the 134<sup>th</sup> day of the year 2007, which is 14<sup>th</sup> May 2007.

**Physical installation**

**Connecting wiring**

Loop wiring for the plug-in base. There is no wiring between the sounder and plug-in base. See Figure 1 in the adjacent column. Plug-in base supplied separately.

**Figure 1**

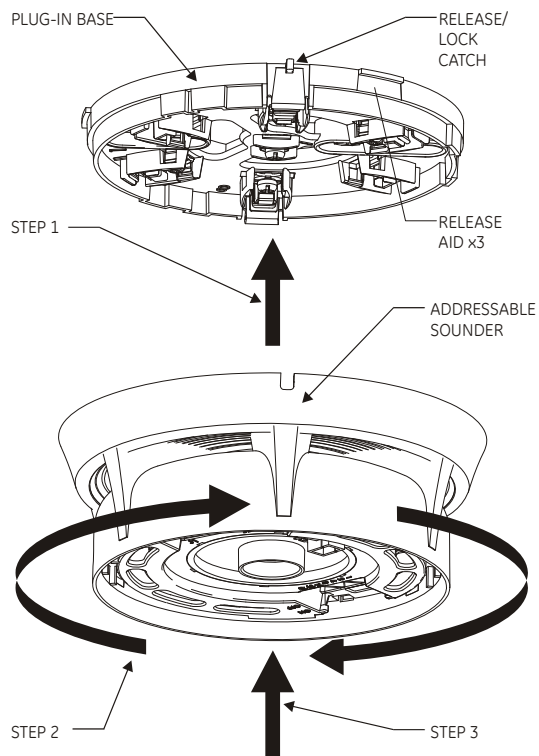


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**Mounting the sounder**

Align the addressable sounder to the plug-in base. Push up (step 1) and turn the sounder until it clicks into place (step 2). Push the sounder up once more to engage (step 3). See Figure 2 below.

**Figure 2**



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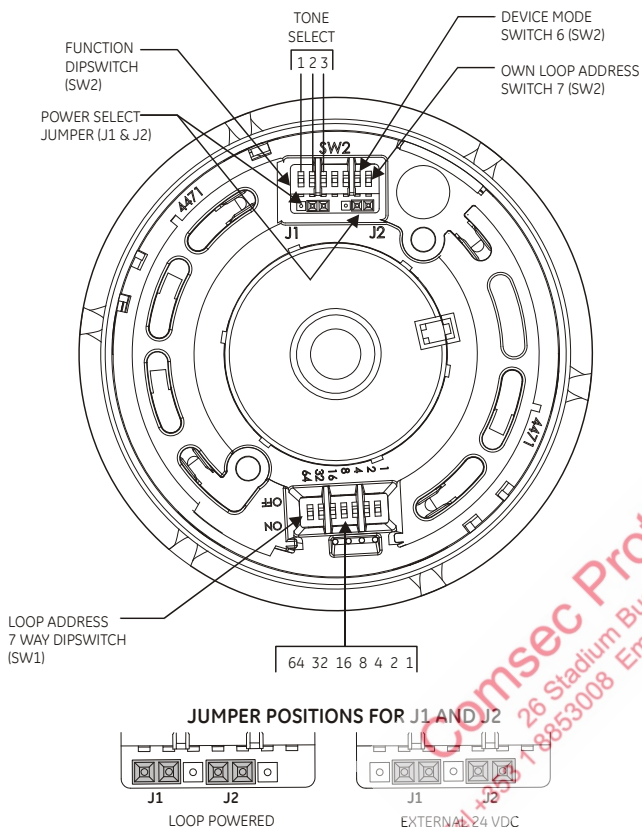
### Operating power

The ZP755B-2 can be powered directly from its address loop (setting 1), or externally from a 24 VDC supply (setting 2). See Figure 3 below.

### Setting the address

The switch is used to set the device address in binary code. The switch may be set to represent all addresses from 1 to 127. See Figure 3 below.

Figure 3



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### Operating modes

The ZP755B-2 sounder has 2 modes of operation, which are selected using switch 7 on dipswitch SW2. It may be operated as a dedicated sounder or with a ZP detector fitted. See Figure 3 above.

#### 1. Operation as a stand-alone sounder

Own unique loop address	Switch 7 = ON
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1.1 Navigate to the following menu to tag the sounders as SAB:

ZP3 Panel Menu/Setup/Sounders/SAB/Add SAB.

The Planner program can also be used.

1.2 To map an alert to evac function the first input type must be a fast flash input. The sounder will sound the alert tone in response to a fast flash input. The sounder will sound the evac tone when the input configured as steady is triggered, overriding the alert tone

#### 2. ZP755 Sounder with detector fitted

Address matched to detector address	Switch 7 = OFF
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2.1 Navigate to the following menu to configure the sounder for use with a detector:

ZP3 Panel Menu/Setup/Sounders/Add SAB.

The Planner program can also be used.

2.2 Only one sounder option will be available, i.e. secondary sound types.

2.3 If a sounder is set to the same address as a detector, then the sounder will sound automatically when that detector operates. All other required operations must be programmed at the panel.

Note: The secondary tone will be selected whether triggered by a fast flash or steady flash.

### Emulation

The ZP755B-2 can operate as a ZP755B-2 or emulate a ZP754. See Figures 3 and 4.

#### 1. ZP755 Mode

Set switch 6 (dipswitch SW2) to OFF. Provides user selectable 2-tone operation and full monitoring.

Operates with ZP3 software 1.18 or higher.

#### 2. ZP754 Emulation mode

Set switch 6 (dipswitch SW2) to ON. Emulates ZP754, provides 2 fixed tones. Use with ZP5 panels or ZP3 panels with legacy software.

### Tone settings

See Figures 3 and 4.

Two different tones can be programmed to operate from the panel. In ZP755B-2 mode these tones are selected using switches 1, 2 and 3 on the function dipswitch SW2.

For mode selection, refer to Operating modes.

Note: In the ZP panel I/O mapping menu, outputs are programmed as "steady" or "flashing". The link to the table below is as follows:

Tone A = Panel setting "fast flash/slow flash."

Tone B = Panel setting "steady."

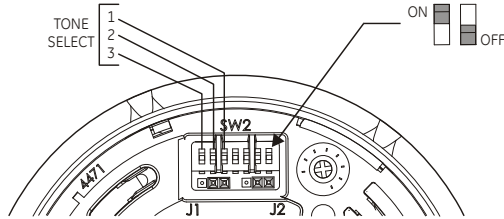


**Volume setting**

See Figure 4. Volume can be adjusted using the volume control potentiometer.

**Warning:** To conform to EN54 Part 3 sound output levels, the volume control pot **MUST** be set to the fully clockwise position. If the volume is adjusted for any reason, it **MUST** be returned to the fully clockwise position.

Figure 4



Switch setting for device mode Switch 6	Device mode	DIP Switch setting (1) (2) (3)	Mapping input type	
			Fast flash	Steady
			Tone Type	
			Tone A primary/alert	Tone B secondary/evac
OFF	ZP755	0	Intermittent	Continuous
OFF	ZP755	1	Continuous	Intermittent
OFF	ZP755	2	Continuous	Two - Tone
OFF	ZP755	3	Two - Tone	Continuous
OFF	ZP755	4	Two - Tone	Intermittent
OFF	ZP755	5	Intermittent	Two - Tone
OFF	ZP755	6	Not Used	
ON	ZP754	7	Intermittent	Continuous

**Number of sounders per loop**

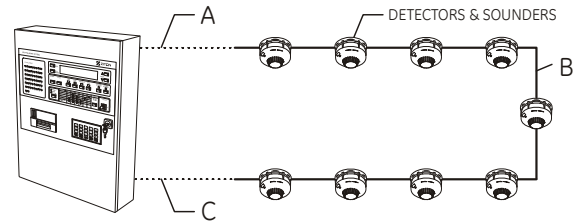
See Figure 5.

The ZP755B-2 sounder can be powered directly from the loop of a ZP5 or ZP3 panel. The table in the adjacent column, read in conjunction with figure 5, gives the quantity of detectors and sounders that can be connected to a 2-core screened loop of:

**1000 metres cable size 1.5 mm<sup>2</sup>**

1. **10 metres panel to devices**  
50 detectors and 50 sounders  
63 detectors and 42 sounders
2. **100 metres panel to devices**  
45 detectors and 45 sounders  
63 detectors and 40 sounders
3. **200 metres panel to devices**  
40 detectors and 40 sounders  
63 detectors and 37 sounders
4. **300 metres panel to devices**  
37 detectors and 37 sounders  
63 detectors and 35 sounders

Figure 5



A = Cable length panel to first sounder  
B = Cable length first to last sounder  
C = Cable length last sounder to panel

1. A=10m      B=980m      C=10m
2. A=100m      B=800m      C=100m
3. A=200m      B=600m      C=200m
4. A=300m      B=400m      C=300m

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**Mounting the detector**

The detector attaches to the sounder with a plug-and-twist action. Align the detector with the sounder and turn slowly anticlockwise until the location lugs and grooves mate, allowing the detector to slide completely into the sounder. Now push the detector and rotate clockwise until it locks into position.

Reverse the above procedure to remove the detector from the sounder.

**Note:** To prevent unauthorised removal, a plastic breakout tab is provided in the detector housing. Once the breakout tab is removed the detector can only be released using a picker tool.