

## INSTALLATION INSTRUCTIONS FOR B501AP (-IV, -BK) AND B524HTR INTELLIGENT SENSOR BASES

Before installing bases, please thoroughly read System Sensor's Guide to Intelligent Fire Systems, which gives information on sensor spacing, placement, zones and applications. Copies are available from System Sensor at no charge.

### GENERAL DESCRIPTION

These bases are designed for use with all System Sensor 500, 200, 200+ and 200 Advanced intelligent ranges of sensors and their variants (**Note:** If the B524HTR is used with 200 Advanced Isolator sensors, the isolator feature will not function. The standard B501AP is white, an **IV** suffix indicates the base is ivory in colour, a **BK** suffix indicates the base is black. Please refer to the control panel manufacturer for compatibility information.

### INSTALLATION

#### Mounting

The sensor base should be mounted using pan headed screws, with a maximum diameter of 4mm, and with a maximum head diameter of 8mm. If required, suitable junction boxes may be used. Standard mounting hole centres are 60mm, however the B501AP offers from 50mm to 60mm and the B524HTR from 51mm to 60mm.

The B501AP features knock-outs in the side of the base to allow the access of surface mounted cabling. Match the markings on the knock-outs to ensure perpendicular or opposed points (either blank or marked **I** or **II**).

#### Wiring

All wiring should be installed in compliance with local codes and standards, and the authority having jurisdiction.

The base terminals are designed to accept cables with cross sectional areas between 0.75mm<sup>2</sup> and 2.5mm<sup>2</sup>. Reference should always be made to the control panel specifications for acceptable cable parameters.

**Note:** To ensure supervision of contacts, the wire run must be broken. Do not loop the wire under the terminals.

See diagrams opposite for wiring details.

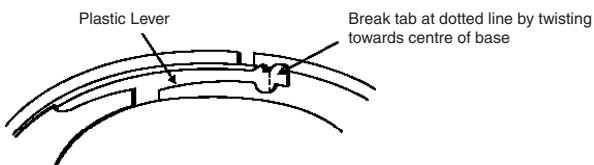
#### Tamper Resist Feature

B500 bases also include a tamper resist feature, which when activated prevents removal of the sensor head without the use of a tool.

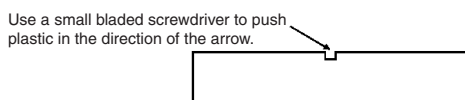
To activate this feature, break off the tab on the base prior to installing the sensor (figure 1a). To remove the sensor once this tamper resist is activated, place a small bladed screwdriver into the slot on the side of the base, push the lever away from the sensor and rotate the sensor anti clockwise (see figure 1b).

**Note:** Do not activate the feature if a head removal tool is to be used; this feature is not reversible without damaging the base.

**Figure 1a: Activation of Tamper Resist Feature**



**Figure 1b: Removing Sensor Head From Base**



### REMOTE ANNUNCIATOR OPTION

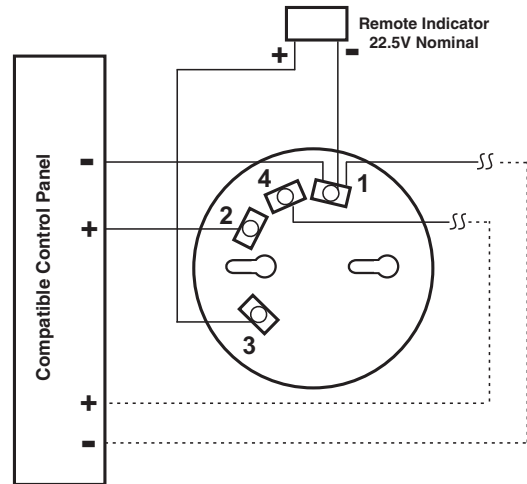
The RA100Z Remote Annunciator LED is available as an optional accessory. This unit has a rectangular plate, which fits US single gang light switch boxes.

If a different remote annunciator is to be used, ensure that it is suitably rated for operation with System Sensor intelligent sensors: 22.5V, 10.8mA at 24VDC supply.

### B501AP (-IV, -BK) BASE

If the sensor address needs to be visible without the removal of the sensor head, break off the address tag from inside the base and place in the slot on the outside of the base as required.

The tamper resist tab is located in the wall of the base between terminals 2 and 4.



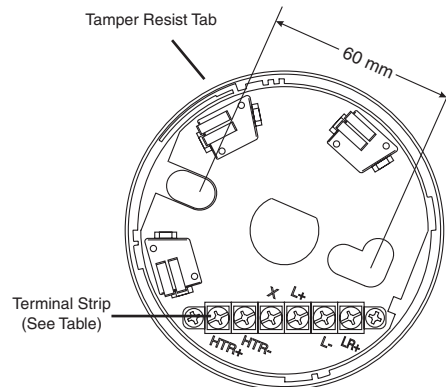
- Terminal 1: Loop (-) In and Out and Remote Annunciator (-)
- Terminal 4: Loop (+) Out
- Terminal 2: Loop (+) In
- Terminal 3: Remote Annunciator (+)

### B524HTR HEATER BASE

This base contains an anti-condensation heater and is suitable for low temperature applications.

### B524HTR Specifications:

- Diameter: 103 mm
- Height: 36 mm
- Weight: 92 g
- Maximum Voltage: 32 V (dc or ac)
- Power at 24V: 1.9 W
- Maximum permissible peak power: 4W
- Equivalent heating resistor value: 300 Ohms
- Operating temperature: -30°C to +60°C
- Operating humidity range: 10% to 93% Relative Humidity (Non-condensing)



Terminal	PCB Label	Connection
1	HTR+	HTR+: Heater Power Supply
2	HTR-	HTR-: Heater Power Supply
3	X	Not Used (Shield)
4	L+	Loop +
5	L-	Loop -
6	LR+	Remote Annunciator +



### Notes:

1. The B524HTR requires an external power supply to drive the heater resistors
2. Ensure all terminals are fully screwed home prior to installation of the sensor
3. A self adhesive address tag is available for use with the B524HTR, which is stuck to the side of the base, and labelled as appropriate to allow the sensor address to be determined without removal of the sensor head