ACCESS MENUS

INSTALLATION INSTRUCTIONS FOR 300 SERIES DETECTOR RELAY BASES B324RL, B312RL AND B312NL

Before installing detectors, please thoroughly read System Sensor's Guide to Conventional Fire Systems, which provides information on detector spacing, placement, zoning, wiring, and special applications. Copies of this manual are available at no charge from system sensor.

GENERAL DESCRIPTION

These plug-in detector relay bases are for use with System Sensor 1151E/2151E or series 300 detector heads. They are designed to operate both in 2 and 4-wire systems, with screw terminals provided for power and remote annunciator connections. Normally open and normally closed relay contacts are provided on a separate terminal block. The circuit built into the base provides current limiting to the detector in the alarm state.

The relay is controlled directly from the detector and therefore as the detector is latched in alarm, so will be the base. For the B324RL and B312RL latching relay bases, the alarm condition can only be terminated by removal of the supply to the detector and base. For the B312NL Non-latching base however, the base periodically isolates the detector from the supply, hence providing an "automatic reset" once the alarm stimulus has cleared.

SPECIFICATIONS

Base diameter:	127mm
Base height:	29mm (excluding detector)
Weight:	96g (excluding detector)
Base fixing centres	60mm
Operating temperature range:	-30°C to 80°C
Operating humidity range:	0 to 93% Relative Humidity (Non-condensing)

ELECTRICAL RATINGS

	B324RL	B312NL	B312RL
Supply voltage dc	10.5 to 32V *	10-15V	10-15V
Standby Current	1µA	20µA	1µA
Remote output current	6mA	6mA	6mA
Contact activation time after detector	100ms	100ms	100ms
Contact reset time after detector unlatch	100ms	100ms	100ms
Contact resistance	100mΩ	100mΩ	100mΩ
Contact rating dc	1A	1A	1A

* **Important - when a B324RL is to be used refer to the Breakout Tab Option paragraph below.**

MOUNTING

The detector base should be mounted using pan head screws, with a maximum thread diameter of 4mm, and maximum head diameter of 8mm. If required, suitable junction boxes may be used.

Detector LED Position

If a single LED detector is used, when mounted in the base the position of its indicator LED will coincide with terminal 4 on the base.

WIRING

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

See figure 2a if the base is to trigger and auxiliary device on a 2-wire system, or figure 2b for connection to a 4-wire system.

The base terminals are designed to accept cables between 0.5mm² and 2.5mm², however reference should be made to the panel specifications for acceptable cable resistance and capacitance. The NO/NC terminals can accept multi core cables up to 1mm² or single core up to 1.5mm²

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

To permit continuity testing of the wiring circuit prior to installation of the detector heads, the base contains a shorting spring, which acts to connect terminals 2 (negative in) and 3 (negative out) see figure 1. To activate, gently push the spring toward the centre of the detector until it clips into place. The short will automatically disengage when the detector is installed.

Optional Remote Annunciator Units

The model RA400Z remote annunciator LED is available as an optional accessory. This unit has a rectangular plate that fits U.S. Single-gang light switch boxes. If a different type of remote annunciator is used, it must use less than 5mA @ 3.0v.

BREAKOUT TAB OPTION (B324RL ONLY)

See figure 1: When power to the B324RL is provided by a power supply greater than 15V, without current limiting to 25mA or less in alarm, the tab on the PCB should be broken using a suitable tool such as a pair of thin nose pliers otherwise damage may occur to the base and detector.

Note: If in doubt, refer to the control panel manufacturer. Once broken the tab cannot be reset!

Tamper Resist Feature

The base includes a feature which, when activated prevents removal of the detector without a tool - see figures 3a and 3b.

Figure 1: Terminal Layout.

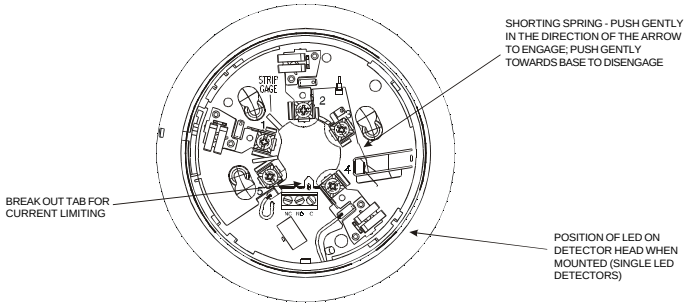


Figure 2a: 2-Wire System Auxiliary Device Wiring

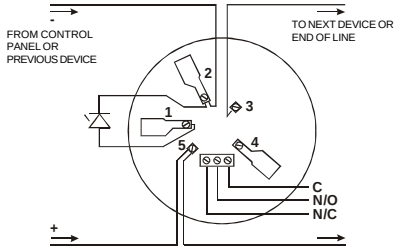


TABLE 1: WIRING CONNECTIONS	
Terminal No.	**Function**
BASE TERMINALS	
1	Remote Indicator +
2	Negative Supply In, Remote Indicator -
3	Negative Supply Out
4	DO NOT USE
5	Positive In and Out
RELAY CONTACTS	
TB1	Normally Open
TB2	Normally Closed
TB3	Common

Figure 2b: Typical 4-Wire System Connections

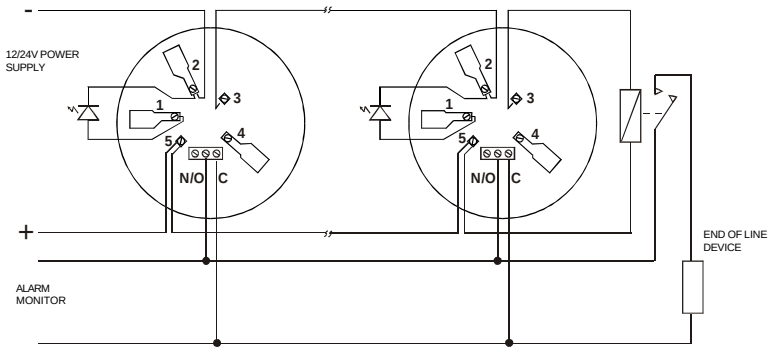


Figure 3a: Tamper Resist Activation

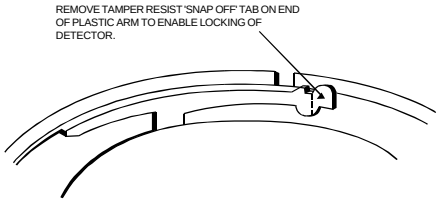
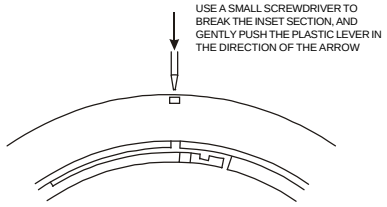


Figure 3b: To Remove a Locked Detector



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