

# INSTALLATION INSTRUCTIONS FOR 300 SERIES B312/2RL RELAY BASE

Before installing detectors, please thoroughly read detector's guide to Conventional Fire Systems, which provides information on the detector spacing, placement, zoning, wiring, and special specifications.

## GENERAL DESCRIPTION

These plug-in detector relay bases are for use with 1151E/2151E or 300 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 connection. Relay contact provided through wires (Grey, Pink, Violet, White, Green and Brown). 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 B312/2RL latching relay base, the alarm condition can be terminated by removal of the supply to the detector or base.

## SPECIFICATIONS

Base Diameter:	127mm
Base Height:	29mm (excluding detector)
Weight:	90g (excluding detector)
Base Fixing Centers:	60mm
Operating temp. range:	-20 °C to 70 °C
Operating humidity range:	0 to 93% Relative humidity (Non-condensing)

## ELECTRICAL RATINGS

Supply Voltage DC:	10 - 16 V
Standby Current:	1 µA
Remote output Current:	6 mA
Contact Activation time after detector latch:	100 ms
Contact Reset time after Detector unlatch:	100 ms
Contact Resistance:	100 mΩ
Contact Rating DC:	2A

## MOUNTING:

The detector base should be mounted using pen 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 in a 2-wire system, or figure 2b for connection to a 4wire system.

The base terminals are designed to accept cables between 0.5mm<sup>2</sup> and 2.5mm<sup>2</sup>, however reference should be made to the panel specifications, For acceptable cable resistance and capacitance. The N/O terminals can accept multi core cables up to 1mm<sup>2</sup> or single core up to 1.5mm<sup>2</sup>

**NOTE:** Do not loop the wire under the terminals – to ensure supervision of contact the wire run must be broken. To permit continuity testing of the wire circuit prior to installation of the detector heads, the base contain a shorting spring which acts to connect terminals 2 (Negative in) and 3 (Negative Out) see figure 1. To activate, gently push the spring towards the center of the detector until it clips into place. The short will automatically disengage when the detector is installed.

### Optional Remote Annunciator Units

The mode 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.

The Relay NO/NC terminal can accept multi core cable up to 1 mm<sup>2</sup> or single core up to 1.5 mm<sup>2</sup>.

**NOTE:** Two N/C Connections is also available as spare wire RED and Yellow.

Figure 1: Terminal

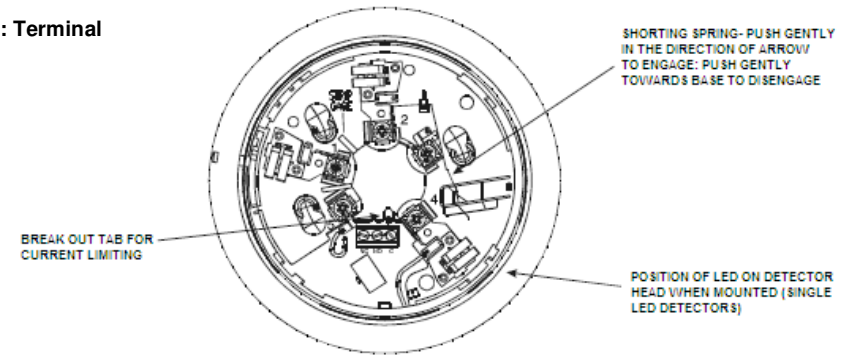


TABLE 1: WIRING CONNECTION	
TERMINAL NO.	FUNCTION
<b>BASE TERMINALS</b>	
1	Remote Indicator +
2	Negative Supply In, Remote indicator
3	Negative Supply Out
4	Do not Use
5	Positive in and Out
<b>RELY CONTACTS</b>	
Grey wire	Common 1
Pink wire	Normally Closed 1
Violet wire	Normally Open 1
White wire	Common 2
Green wire	Normally Closed 2
Brown wire	Normally Open 2

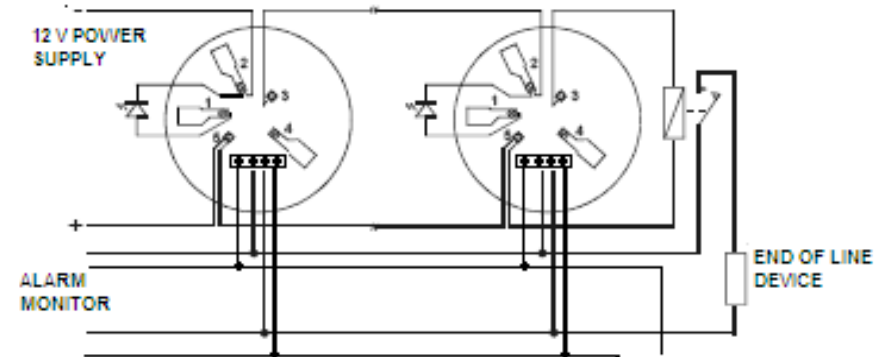


Figure 2a: Typical 4-Wire System Connection

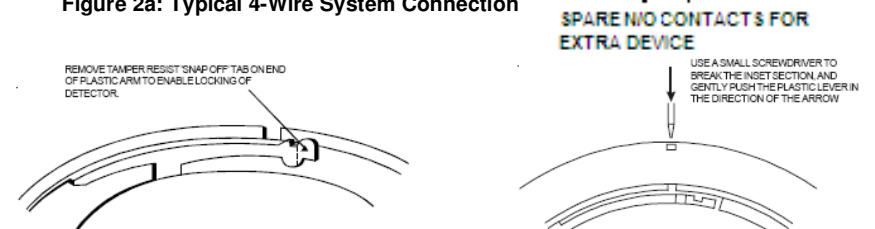


Figure 3a: Temper Resist Activation

Figure 3b: To Remove a Locked Detector

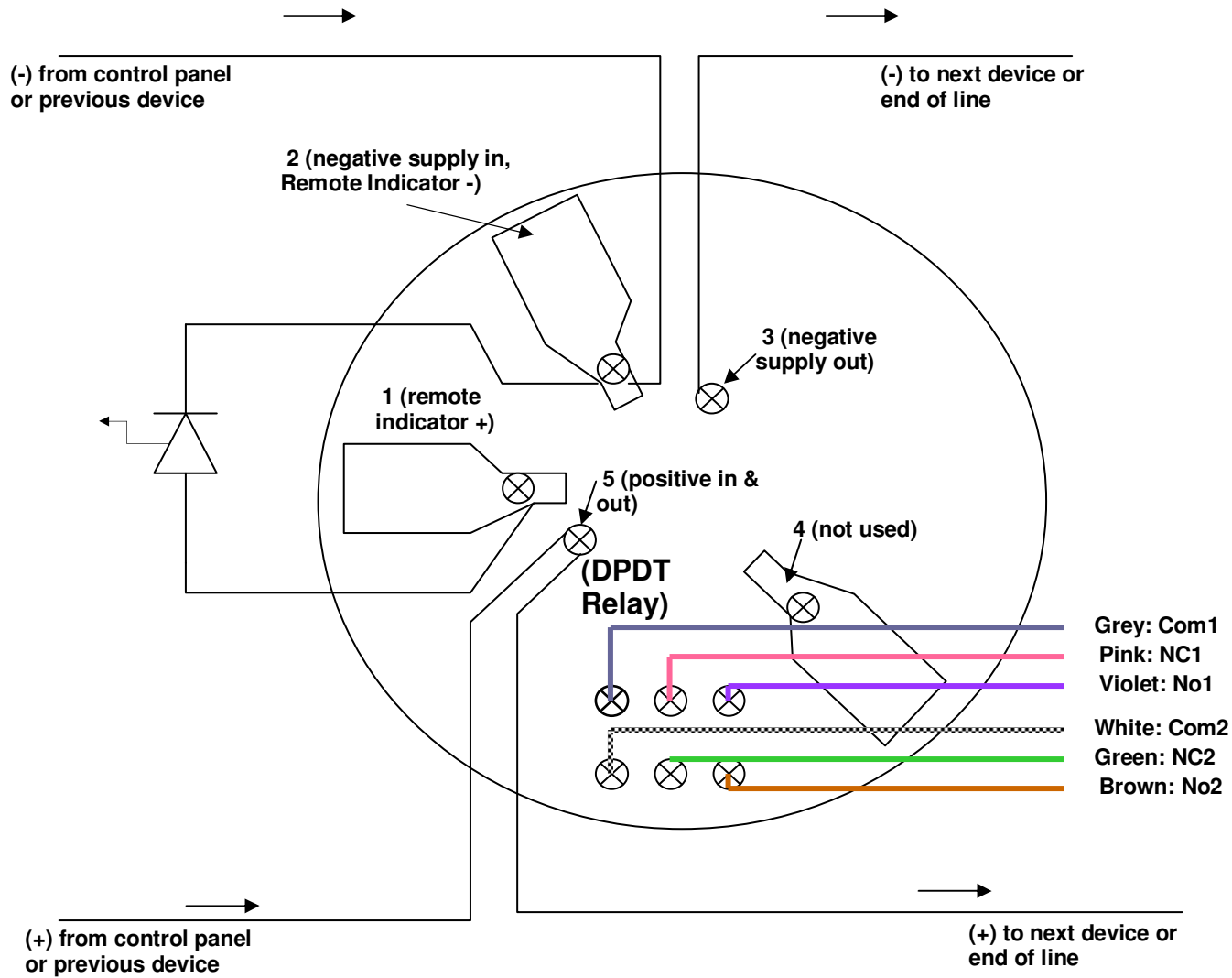


Figure 2a: 2-Wire System Auxiliary Device Wiring