

# REMOTE RELAY UNIT

This kit is available from:

**Talking Electronics**

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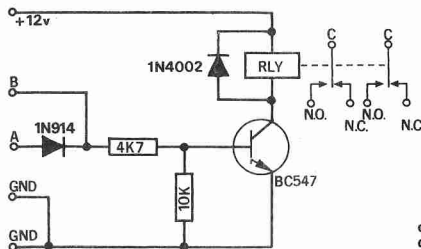
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# REMOTE RELAY UNIT

A buffered relay driver that can be used in many places around a model railway.



The Remote Relay Unit is little more than a buffer transistor driving a relay.

Although this circuit is very simple it can have many uses around the layout. It can be considered to be a very sensitive relay; one that can be driven by the low current supplied at the output of CMOS logic or from any other low current or low voltage source.

A voltage placed at input 'B' will switch on the transistor that drives the relay. The 4K7 resistor is to limit the base current to the transistor. The 10K resistor makes sure the transistor switches off when there is no signal at the input or when input 'A' is being used.

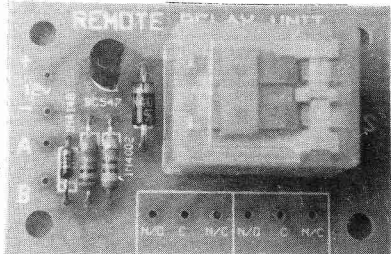
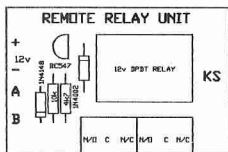
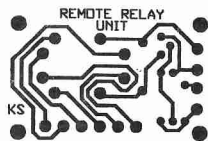
Construction could not be simpler. Mount the six components on the PC board. The relay should be the last component to be installed. Take care not to bend any of the pins on the relay, as they may break off or cause internal damage.

## Uses of the Remote Relay Unit.

If wired to a digital circuit, the Remote Relay Unit can be used to switch street lamps or motor driven accessories. It can also be used to deaden blocks of track in an automatic signalling system.

If one ground (GND) terminal is connected to the common rail on your trackwork and input 'A' is

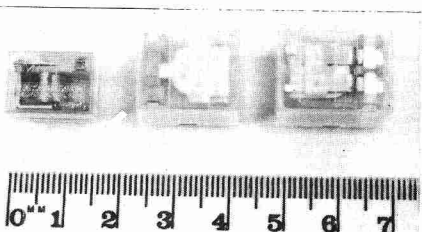
*All components of the Remote Relay Unit fit neatly onto the 3cm by 4.5cm printed circuit board.*



connected to the other rail, the unit can be used as a direction indicator. In this application the Remote Relay Unit must be powered from an isolated supply, in most cases, to prevent short circuits.

In the direction indication mode, the Remote Relay Unit can be used to switch bidirectional signalling systems from one direction to the other.

These are only some of the applications of this versatile device.



Various small relays are available for 12 volt operation. The relay chosen for this project is a Double Pole Double Throw (DPDT) device and is the third relay in this picture.

## Remote Relay Unit Parts List

- 1 - 4K7
- 1 - 10K
- 1 - 1N914 diode
- 1 - 1N4002 diode
- 1 - BC547 transistor
- 1 - 12v Mini DPDT relay
- 1 - Remote Relay Unit PCB