

# DIY Kit 43. PCB-MOUNTED RELAY BOARD

## INTRODUCTION

There are many applications where you need quick availability of a relay for connection to a particular piece of equipment. We found in developing our kits that we always needed to have a relay mounted on a PCB within arms reach. So we thought if we need it then many others probably do too.

But there are a few problems. Relay pinouts and packages are not standardized. What voltage relay should we use - 3V,6V,9V,12V and 24V? And what coil resistance? So we have chosen a commonly available relay with a 12VDC coil and contacts rated at 10A at 250VAC/30VDC.

**NOTE:** Even though the relay contacts are rated at 10A the PCB tracks connecting the relay contacts to the terminal block will only handle around 3A. If you want to switch such high current then we suggest soldering some wire links end to end across the PCB tracks.

Diode D1 provides a discharge path for the back EMF generated by the collapsing magnetic field of the relay coil when power is removed.

Assembly is very easy – the only thing to make sure of is to get the diode around the correct way. The bar on the diode should match the bar on the overlay.

## KIT COMPONENTS

K43 PCB	1
2 pole terminal block	1
3 pole terminal block	1
12V Relay	1
Diode	1

