

RELAY INFORMATION

Warning!

Mains power can KILL and must therefore be treated with extreme CAUTION! The construction, testing and use of kits and projects with mains voltages should only be attempted by competent persons or under supervision of someone fully experienced in this field. Kits must be fitted into a suitable fully enclosed box before operating. We strongly recommend that, where available, you also order the box designed for the kit so that you can finish your project to both a safe and professional-looking standard. We accept no responsibility for injury, loss, or damage of any kind as a result of the purchase, assembly or use of any of our products.

You will find relay outputs on many of the kits that we sell. A relay is simply an electrically operated on/off switch. It is important that you observe the relay voltage and current limitations specified in the kit documentation.

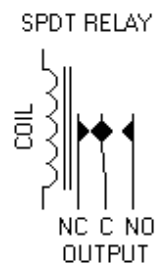
Relay Terminals

Most of the boards have SPDT (Single Pole Double Throw) style relays. These have three outputs:

C = Common

NO = Normally-Open contacts connect the circuit when the relay is activated; the circuit is disconnected when the relay is inactive. It is also called a Form A contact or "make" contact.

NC = Normally-Closed contacts disconnect the circuit when the relay is activated; the circuit is connected when the relay is inactive. It is also called a Form B contact or "break" contact.

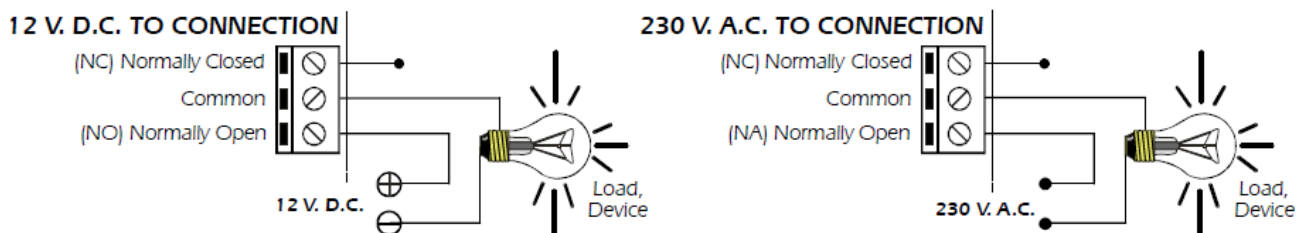


Connecting the Device you want to Control

You must provide an external power source to the device you want to control. No voltage is present at the relay terminals (remember it is just a switch). The relay is connected in *series* with the positive (+) power wire of the device you want to control.

So the positive wire from the power source should be connected to Common. Then either the NO or NC terminal (as appropriate for your purpose) is connected to the positive (+) wire going to the device you want to control. The negative (-) wire does not connect to the relay at all. It goes directly from the power source to the device negative (-) terminal.

Standard SPDT Relay Connection Diagrams



Anti-Spark SPDT Relay Connection Diagram

Sometimes the connected equipment can cause arcing across the relays terminals. This must be corrected by installing a 47R, 1/2W resistor and 100nF, 400V **Type X2** capacitor (not supplied) between the two contacts of the relay as shown below.

