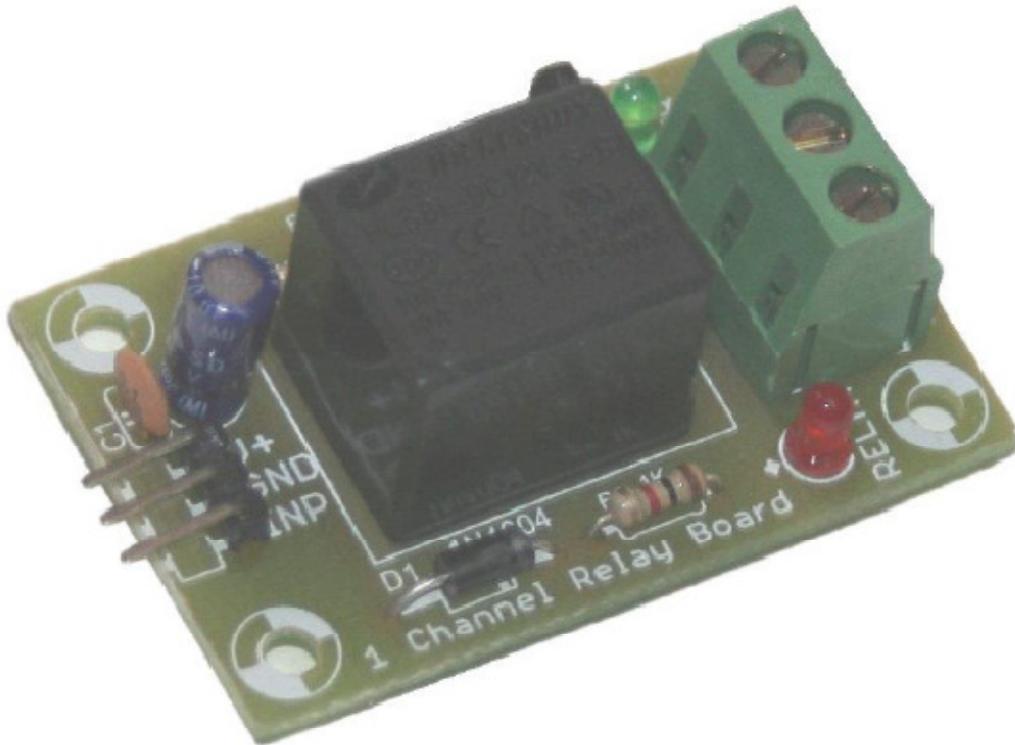


1 Channel Relay Board Starter Guide



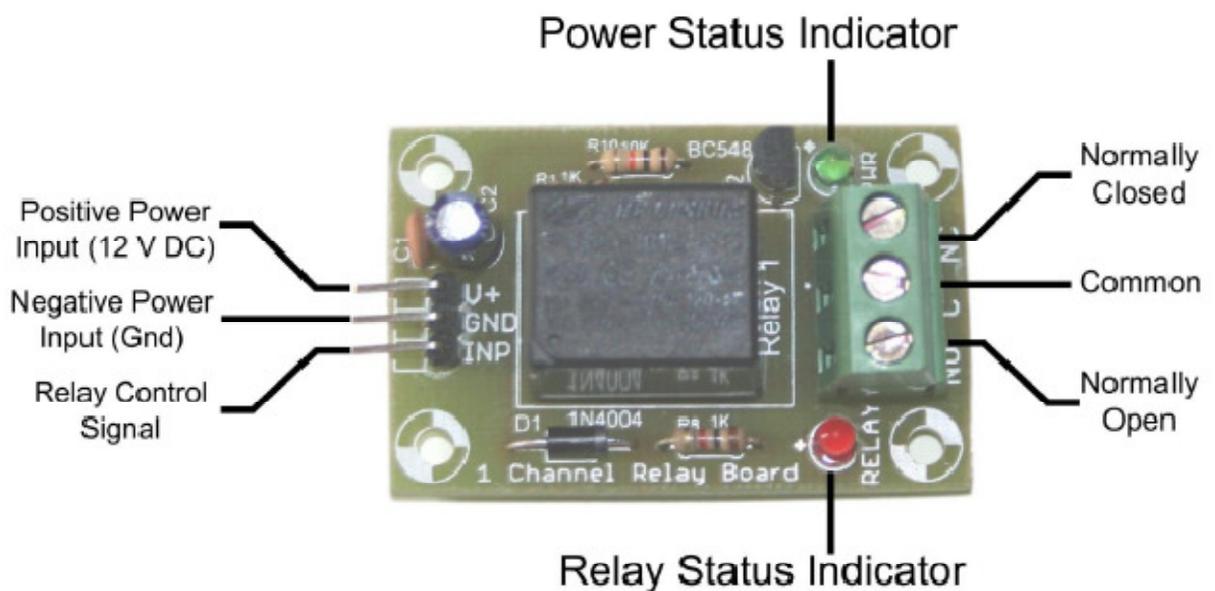
Contents

1. Overview
2. Features
3. Using the board
4. Troubleshooting and Getting Help

1. Overview

This is a small and easy to use 1 channel relay board. Use it to control one 240V power appliance directly from microcontrollers or low voltage circuits. Perfect for switching 240V appliances - lights, fans, etc, and even high power motors.

The board uses a high quality onboard relay, which can handle a maximum of 7A/240 V AC or 7A/24V DC. Each relay has all three connections - Common, Normally Open, Normally Closed brought out in 3 pin screw terminals which makes it easy to make and remove connections. The board has a power indication and a relay status LED, to ease debugging. The board can accept inputs within a wide range of voltages from 4V to 12V.



Relay Board Overview (for 12V operation)

2. Features

- The board is built on a high quality FR-4(1.6 mm) board with a green solder mask and a clear and legible white legend
- High power relay which can be used to switch 240 V appliances, motors, other electronic circuits, etc
- Relay is provided with a status indicating LED for easy debugging
- Male header pins are provided for inputs, which enable easy connections to microcontroller boards, external circuits, etc
- Onboard 4 mounting holes for easy mounting
- Excellent after-sales support and service

3. Using the board

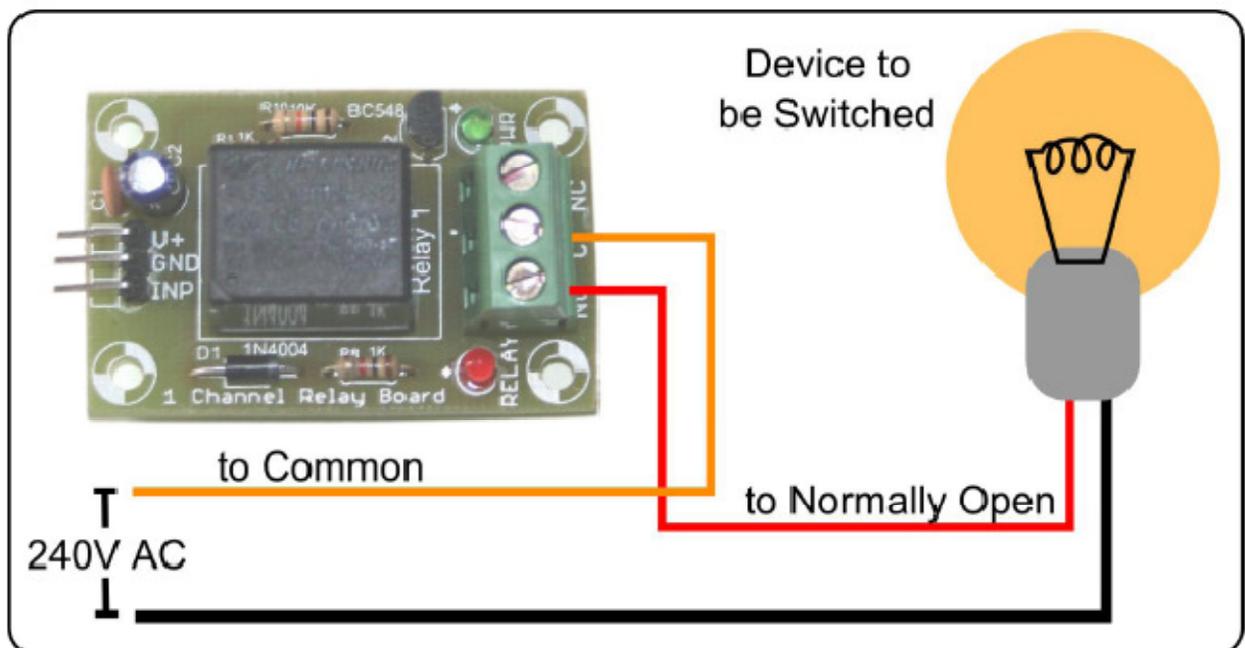
This section explains the steps to be followed to use the board –

Power Supply

The relay board needs to be powered with an input voltage of around 11-13V DC. Power supply should be applied to the power input connectors. Care should be taken to ensure proper polarity. The power applied at the input pins is the power supplied to the relay. When powered correctly the green Power LED on the boards will glow indicating a correct power supply.

Connecting devices to the Relay

Each relay offers three pins at its output – Normally Open (NO), Common (C) and the Normally Closed (NC) pin. The Common pin is connected to the NC pin when the relay is off and to the NO when the relay is on. Hence you will have to wire the device to be switched to the relay as shown below



Connections to switch a 240V Appliance

The relay board can also be used to switch other devices like motors, coils, and even other external circuits, whose maximum power consumption is within the maximum rating of the board. To connect these devices, just use same connections as above, and apply the power you want to drive the device at in place of 240V AC.

The maximum power rating the board can handle is 10A/250V DC, 10A/30V DC, 15A/120V AC or 7A/250VAC when the 12V relay is used.

Controlling the Relay

The relay can be controlled through a microcontroller or an external circuit by a simple logic signal applied to the relay control pin (marked “Inp” on the board). To switch the relays on, you will have to provide a logic high (4 – 12V) to the pin and to switch it off, you will have to provide a logic low.

Relay Status Indicating LED

The relay board features an onboard relay status indication LED. When this LEDs are on, the relay is on and vice-versa.

4. Troubleshooting and Getting Help

We are committed to ensure that our customers' projects, designs and research go as efficiently and as smoothly as possible. And for this we promise and provide an excellent after-sales support service. Due to the nature of the products we sell, we are sure to receive a lot of request for support. In anticipation of this, we have created a separate section, "Resources", where we have many tutorials covering how to use our products. Your first step to seek support from us would be to surf through the "Resources" section for answers to your query. We also have our very own forum, which you can use to post your queries and get replies directly from us and our other customers who have used our products and probably faced the same doubts when they first got started. You may access our forum at www.ilabzelectronics.com. If our Resources and Forum sections don't address your query, mail us directly at sales@ilabzelectronics.com in for further support. When you contact us for support, please keep the following things in mind -

- you will have to provide us with the invoice information(order no., date of purchase, etc.)
- provide us with all the required details(operating system being used, compiler being used, etc)
- do not ask us questions or doubts about products we do not sell
- do not contact us 2 days before a project deadline for any sort of immediate or urgent support
- do not mail us a rephrased version of your project
- contact us only if you know what you are doing, do not expect any sort of help from our side otherwise