

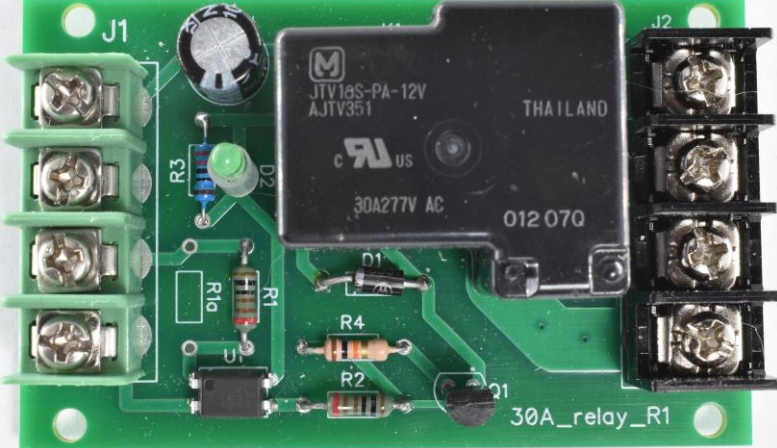
Relay Module, 30Amp, for Arduino etc

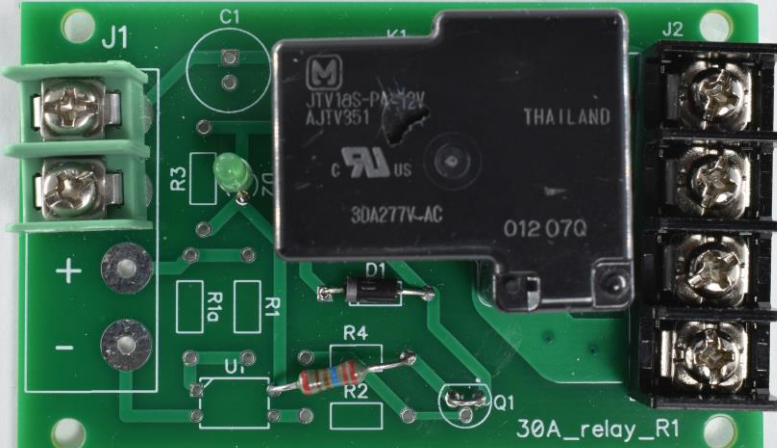
This Relay Module provides convenient low voltage/ low current input control and screw-terminal output power connections. The relay is the powerful, but surprisingly quiet, 30 ampere Panasonic JTV1AS-PA-12. It can be configured in many different ways, 3 of which are shown below, depending on the desired end use:

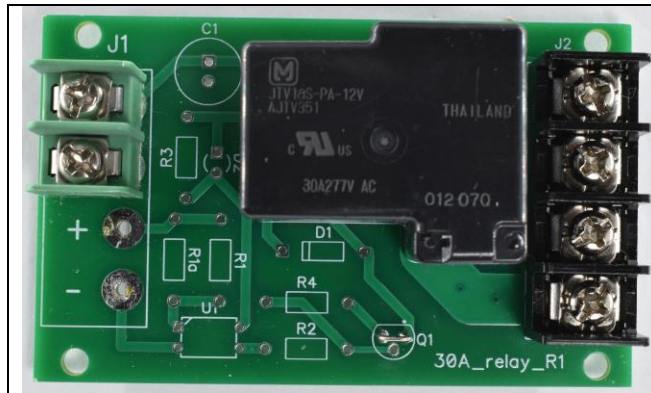
Features:

- Good quality screw terminal barrier block connections
- 2 ounce copper pcb tracks for the high current output connections
- Double screw terminals provided for the high current output connections
- Isolation from coil to contacts rated at 2500v RMS
- Compact size overall, 4 mounting screw holes

Some Configurations (dependent on populated parts):

 <p>The image shows a green PCB for a 30A relay module. It features a Panasonic JTV1AS-PA-12V relay (part number AJTV351) with a coil current of 30A277V AC. The PCB is populated with an EL817C optoisolator (D1), a BC337 transistor (Q1), and several resistors (R1, R2, R3, R4, R10). A green LED (D2) is used as a state indicator. The module has two screw-terminal blocks: J1 on the left and J2 on the right. The PCB is labeled '30A_relay_R1'.</p>	<p>Fully Populated</p> <ul style="list-style-type: none">• LED (D2) state indicator• Drive isolation provided by EL817C opto-isolator• Isolated 3.3/ 5 v input to turn on relay• Relay coil diode clamp for switching transients• Robust relay drive transistor (BC337) rated for >5x relay coil current• R3 ensures operation even if LED D2 fails.
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 <p>The image shows the same green PCB as above, but with a different configuration. It features a Panasonic JTV1AS-PA-12V relay (part number AJTV351) with a coil current of 30A277V AC. The PCB is populated with a BC337 transistor (Q1), several resistors (R1, R2, R3, R4, R10), and a green LED (D2). A jumper is placed across the transistor (Q1). The module has two screw-terminal blocks: J1 on the left and J2 on the right. The PCB is labeled '30A_relay_R1'.</p>	<p>Basic with LED Indicator</p> <ul style="list-style-type: none">• LED (D2) state indicator• Relay coil diode clamp for switching transients• Direct to relay control via J1 input, 12 volts relay is on, 0 volts relay is off. <p>(note jumper across Q1)</p>
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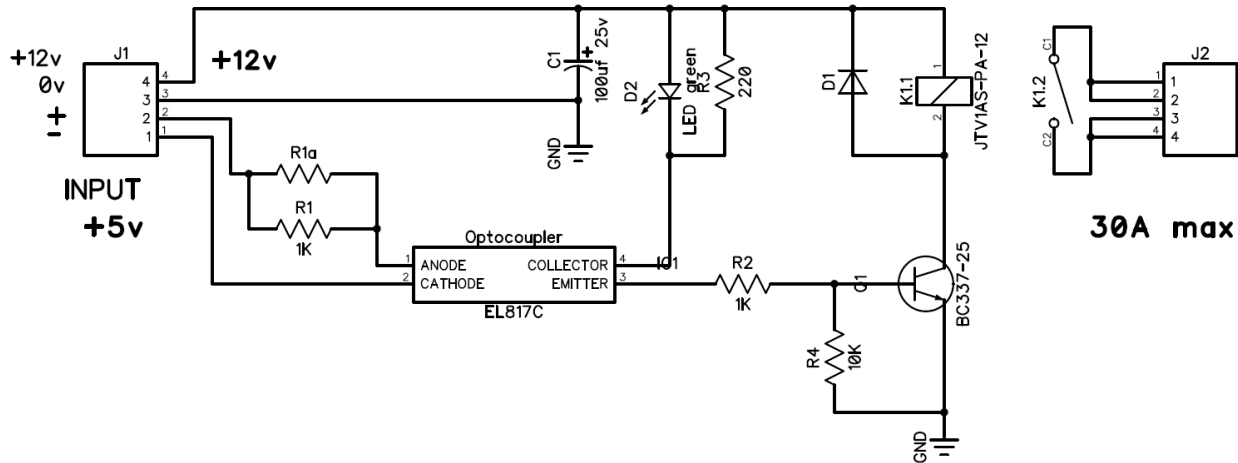


Basic

- Direct to relay control via J1 input, 12 volts relay is on, 0 volts relay is off.

(note jumper across Q1)

Example Schematic



Relay Module Parts List	
Ref	Part Name
C1	Electrolytic Cap, 100uf/25v
D1	Diode, 1N4004
D2	LED, green, 3mm
IC1	Optocoupler, EL817C
J1	Screw Term. Strip, 2 or 4pin, 7.62 mm/0.300"
J2	Screw Term. Strip, 4pin, 20amp, 8.25 mm/0.325"
K1	Relay, JTV1AS-PA-12, 30 amp spst
Q1	Transistor, BC337-25
R1	Resistor, CF, 1/4w 5%, 1K Ω
R1a *	Resistor, CF, 1/4w 5%, 470 Ω
R2	Resistor, CF, 1/4w 5%, 1K Ω
R3	Resistor, CF, 1/4w 5%, 220 Ω
R4	Resistor, CF, 1/4w 5%, 10K Ω
PCB	30A_relay
* used only for 3V logic input	