

Parts List – Please check off each item

- DC to DC IC (MC34063)
- □ Schottky Diode (1N5819)
- □ 33µH Inductor
- Π 100μF Capacitor (C1)
- □ 470pF Capacitor (C2)
- \Box 1 Ω Resistor(Brown-Black-Gold-Gold) R2
- \square 180 Ω Resistor(Brown-Grey-Brown-Gold) R1
- $\hfill\square$ 3300 Resistor (Orange-Orange-Brown-Gold) R5
- 1.5kΩ Resistor(Brown-Green-Red-Gold) R4
- \Box 13k Ω Resistor(Brown-Orange-Orange-Gold) R3
- □ Green LED (5mm) L
- □ (6x) 2-pin Terminals (5mm pitch) J1-J6
- Mini Slide Switch
- □ Extra-Long Female Header (facing bottom of board)
- □ Short Female Header (facing Top of board)
- □ ABRA Custom PCB Board

"Warning: please isolate the bottom of the board, where the IC is located with electrical tape"

ABRA Electronics

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RASPBERRY PI 2 PROTOTYPE BOARD WITH 12 VOLT SUPPLY.



User reference manual



This product comes with a built in 5 volts to 12 volts DC signal step up converter.

Use the screw terminals for your projects for external or internal prototyping power supply. This prototype boards allows you to work with standard values such as 3v, 5v and 12v.

- Additional features; to turn on or off the 12 volt conversion circuit.
- Offers the same familiar prototyping grid for your circuits.

Warning(s)

Do not supply 12 volts to the raspberry pi GPIOs.

Please Isolate the bottom of the board near the 12 volt conversion circuit with electrical tape.

If the components do get hot, please power down and disconnect the shield. Please isolate the problem or area where the issues are occurring.

Installation guide

1. Place all components in the specified layout on the prototype board.



- 2. View the parts list to find the corresponding resistor number to resistor value.
- If you are given a 100μF electrolytic capacitor, place the cathode facing outwards.



- If you are using as recommended a temperature controlled soldering iron, place the temperature to 260°C.
- 5. Solder in well ventilated areas.
- 6. Trim excess leads that are exposed.
- 7. Ensure that the Extra-long female headers are facing downwards.
- 8. Ensure that the short female header is facing upwards.
- 9. Connect the prototype board to the raspberry pi.
- 10. Ensure that the switch is pointing downwards.



- 11. Connect the power cord to the raspberry pi.
- 12. Measure to check if 5v and 3v are being outputted.
- 13. Flick the switch up, this marks the system in ON position.
- $14. \ \ See \ if \ the \ LED \ is \ indicating \ power.$
- 15. Measure the voltage where 12 volts should be outputting.
- 16. Check with a quick finger test, the temperature of the components.
- 17. If the temperature of the components is not hot and the measured output is 12 volts, you may proceed to power down and build your prototype design.
- If the temperature of the components is hot or the measured output is not 12v, please disconnect and check the soldered connections.

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