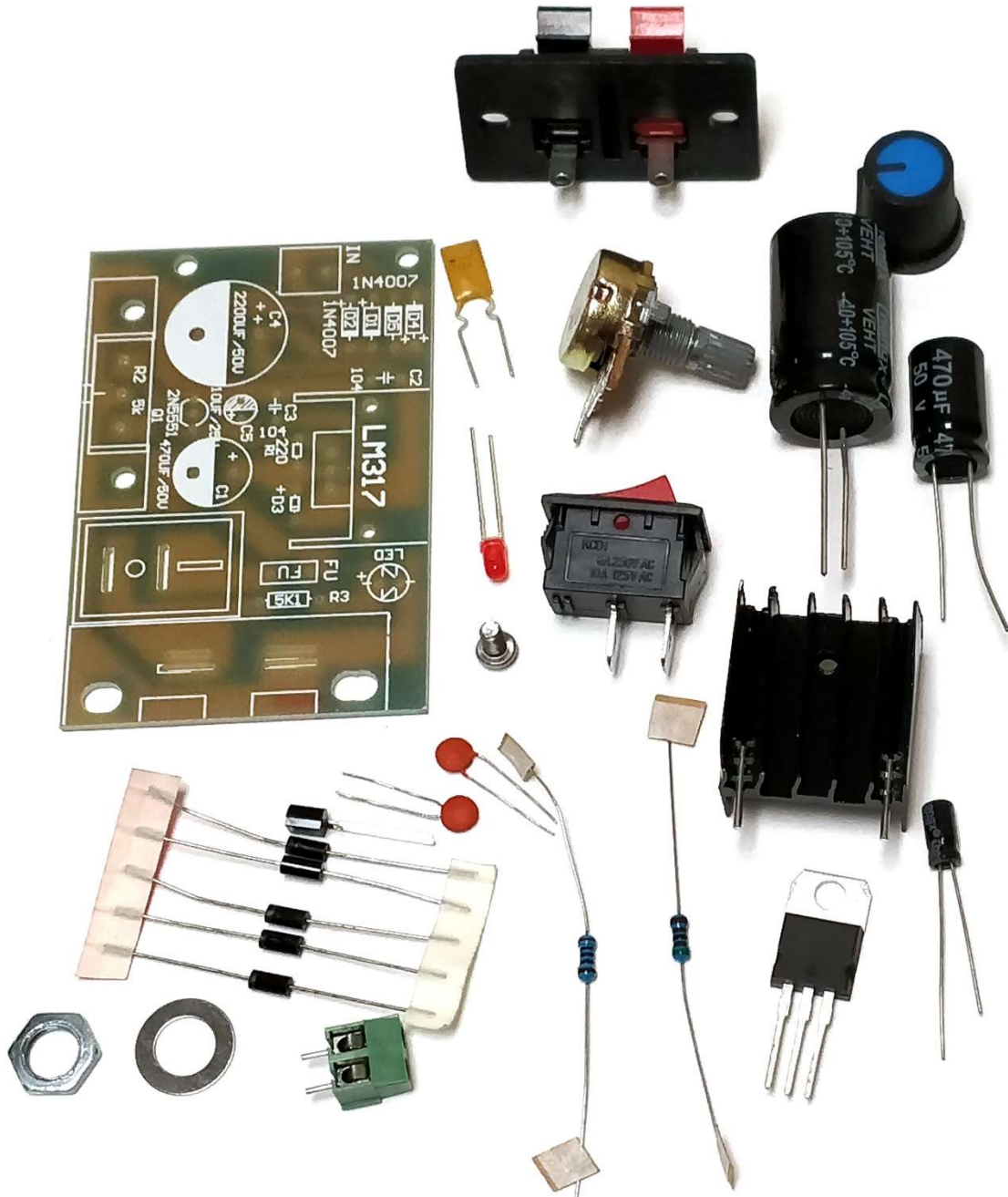








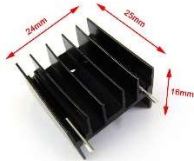

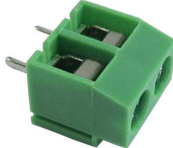

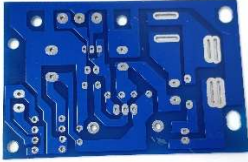







AK-230

30VDC Power Supply D.I.Y KIT



Materials

 1x LM317	 5x 1N4007	 1x PTC fuse	 1x 470uF capacitor
 1x Philips Screw	 2x 104 0.1uF Ceramic Capacitor	 1x 3mm red led	 1x 2200uF capacitor
 1x Heatsink	 1x 220-ohm ¼ resistor	 1x terminal block	 1x 10uF Capacitor
 1x Custom Board	 1x 51k ohm ¼ resistor	 1x 2n5551 transistor	 5k linear potentiometer
 1x single pull/single throw switch	 1x Audio Spring Push-IN Connector		

Assembly Instruction – Basic

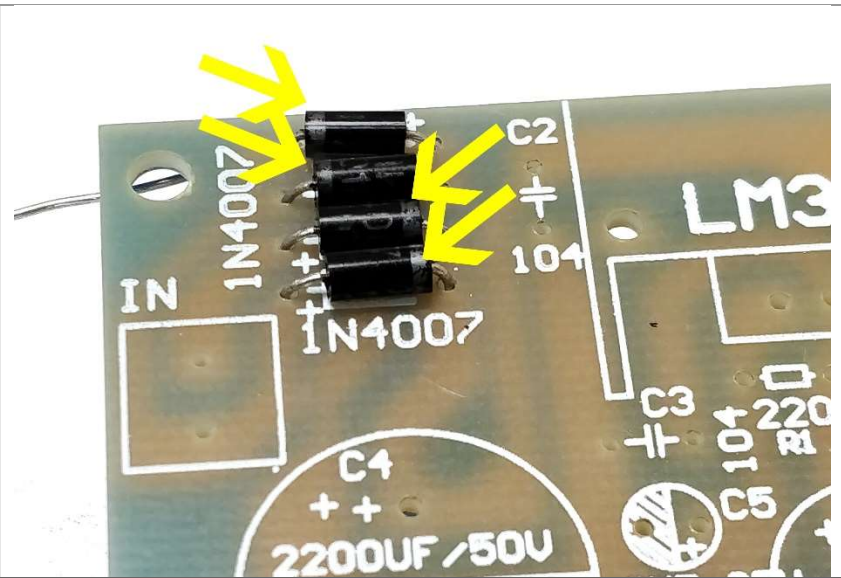
Soldering the components from lowest height to largest height. They are listed as follows;

Diodes, Ceramic Capacitors, Resistors, Led, 10uF Capacitor, Transistor, Terminal block, Fuse, 470uF Capacitor, Potentiometer, Switch, 2200uF capacitor, Spring loaded audio connector.

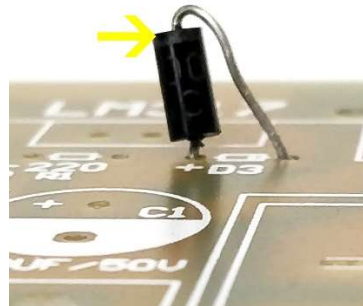
To solder the LM317, **you must first fasten the unit to the heat sink using a Philips screw**, then insert into the custom board and proceed to solder the regulator. Use flush cutters to cut off excess leads on the other side of the board.

Assembly Instruction – Detailed

Solder the diodes as shown.
The white line must match
the board white line
markings.



Solder the last diode at an
angle as shown in the
photo. Ensure that the
white band is facing away
from the pad that has +
symbol written on it.

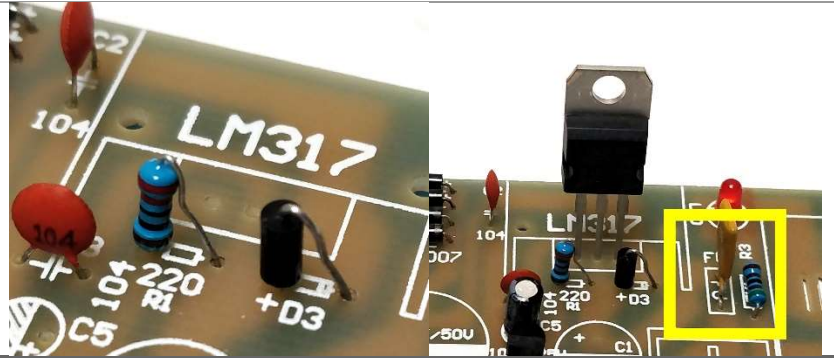


Solder the capacitors as
shown, polarity is not an
issue.

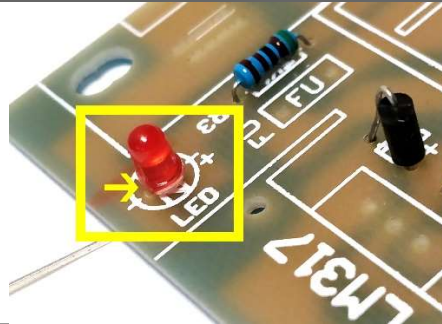


Solder the resistors in the correct order. 51k is identified as green, brown, black, brown, brown.

Whereas 220 is identified as red, red, black, black brown.



Solder the led with the flat side facing the opposite direction of the + symbol on the board. You can also identify it by looking through the led and locating the large plate as cathode (-).



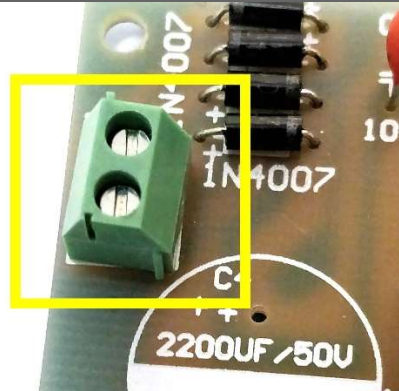
Solder the 10uF capacitor with the white band facing the white shaded region of the capacitor.



Solder the transistor as shown.



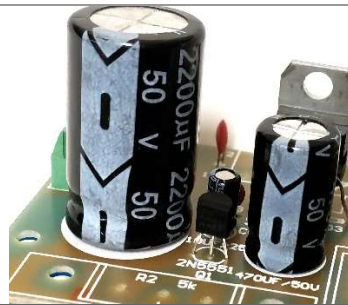
Solder the terminal block as shown.



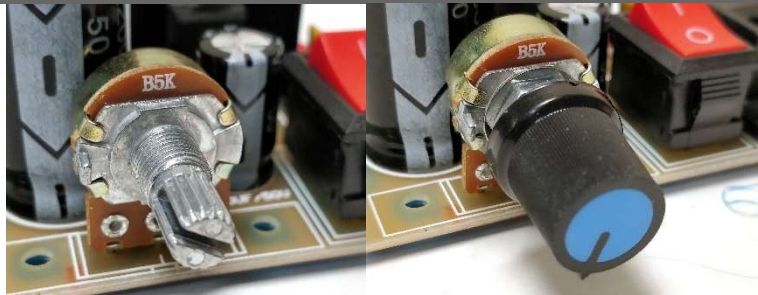
Solder the fuse as shown, polarity is not an issue.



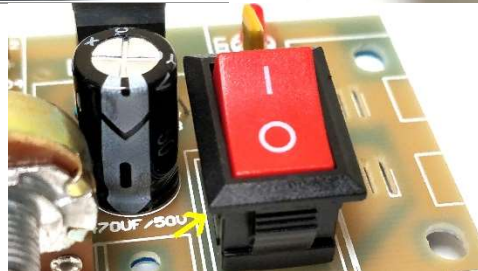
Solder the 470uF capacitor and pay attention with the white strip aligning with the white shaded region.



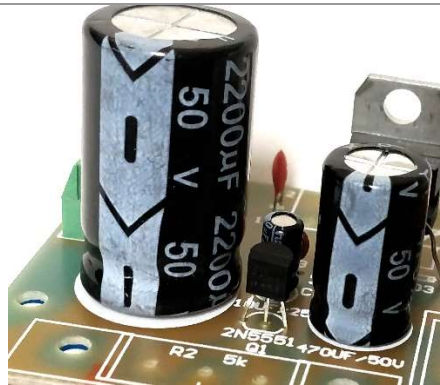
Solder the potentiometer as shown.



Solder the switch as shown.



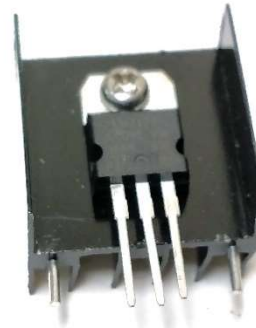
Solder the 2200uF capacitor as shown with the white strip aligning with the white shaded region on the board.



Solder the spring loaded terminal connector as shown.



Fasten the Philips screw to the LM317 and heatsink.



Solder the heatsink and LM317 to the board.

