PCB solder side (mirrored)

U1
Adj
Out
In

D6

R1

C1

R6

C2

R2

D5

C3

D1...4

~ **12 V** ~   LED A   SW A   +Out   GND
(SW B
& LED C)

D6 1N4001

+Out
(6/9/12/15 V)

Tr1

U1 LM317

approx. 18 V

Vin   Vout

ADJ

R1
240Ω

SW A

230/12 V

D1-4
1N5822
(Schottky
3A, 40V)

R6
10kΩ

Pos3
(12V)

Pos2
(9V)

Pos1
(6V)

C1
2200µF
25V

C2
0.1µF

C3
1µF
25V

D5
1N4001

LED A

R2
2.7kΩ

R3
9.1kΩ

R4
3.3kΩ

R5
1.3kΩ

LED
2mA

LED C

SW B

GND
(0 V)
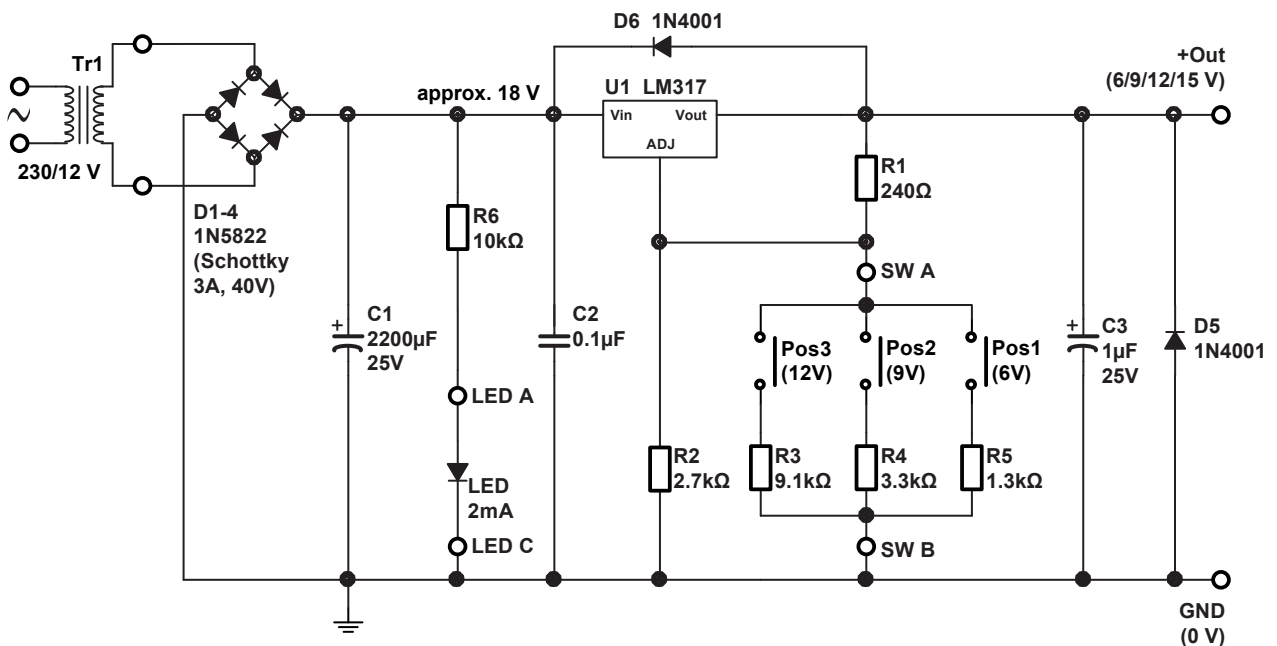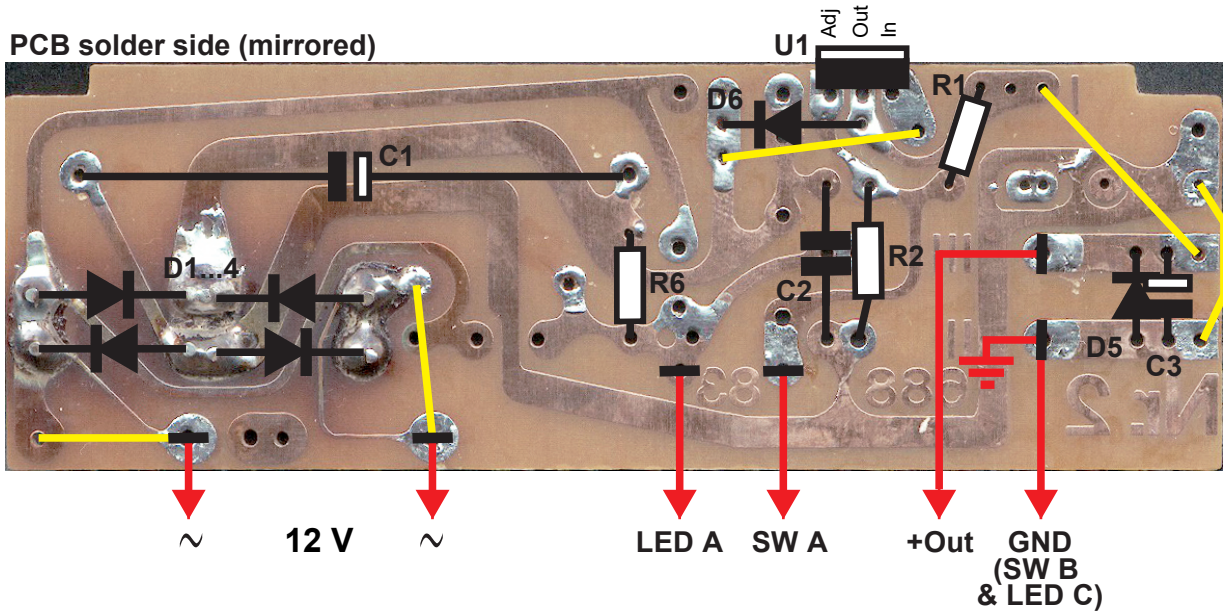
LM317 output voltage (the theory):

Vout = 1.25 V x (1 + R2/R1)

Vref is the difference in voltage between the Vout pin
and the ADJ pin (typically 1.25 V in normal operation).

Important: R1 must be low enough for a quiescent
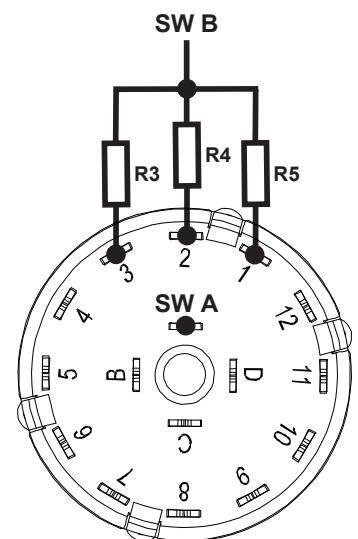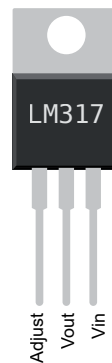current of approx. 5...10 mA.

LM317

Adjust   Vout   Vin

SW B

R3   R4   R5

SW A

Output voltage selector:

R2 value (for R1 = 240 Ω)
6 V (Pos1): 912 Ω (**2k7 ¦¦ 1k3** = 878 Ω) → **5.82 V**
9 V (Pos2): 1k488 (**2k7 ¦¦ 3k3** = 1k485) → **8.98 V**
12 V (Pos3): 2k064 (**2k7 ¦¦ 9k1** = 2k082) → **12.09 V**
15 V (Pos4): 2k640 (**2k7**) → **15.31 V**

Rotary Switch Bottom View