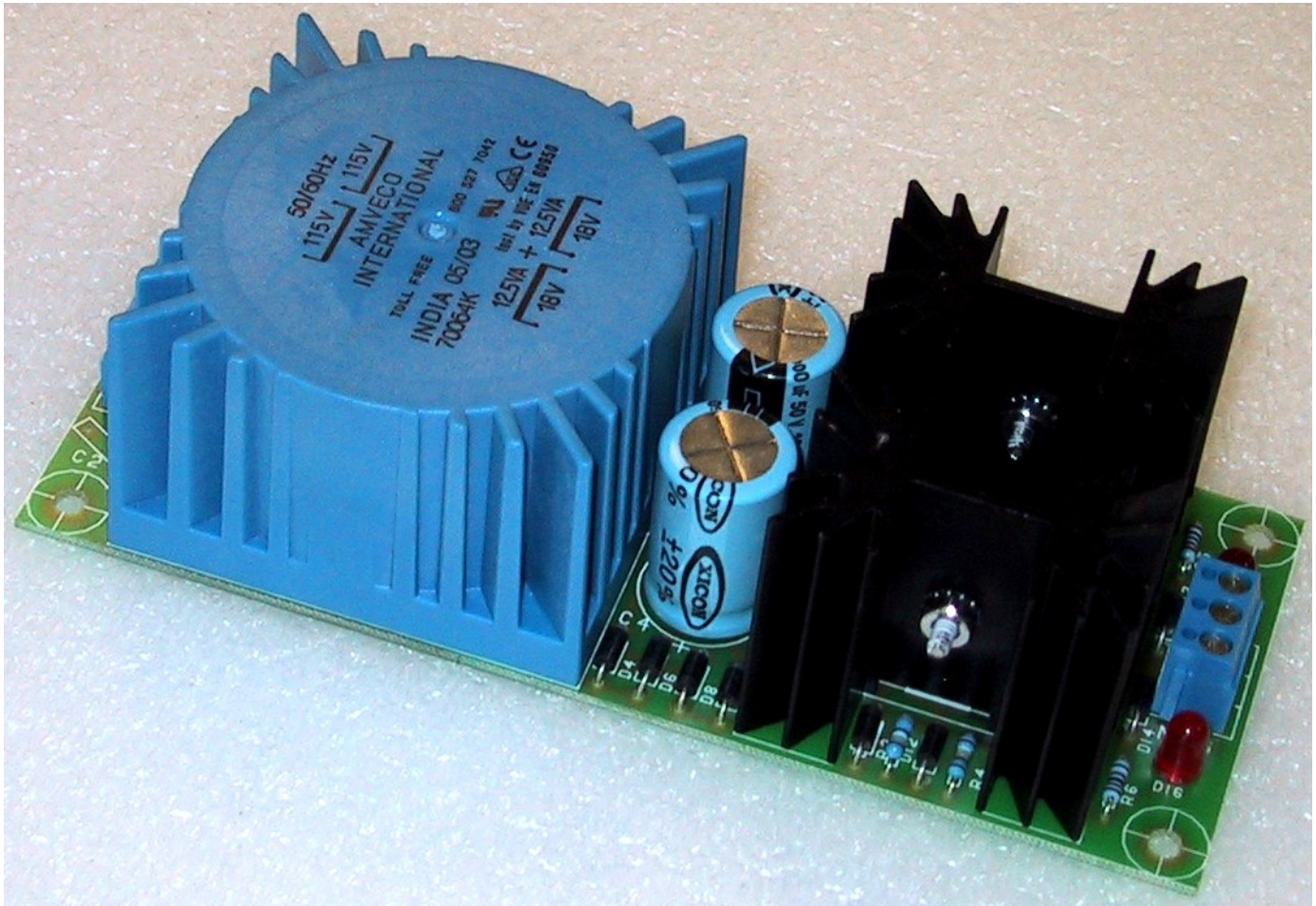


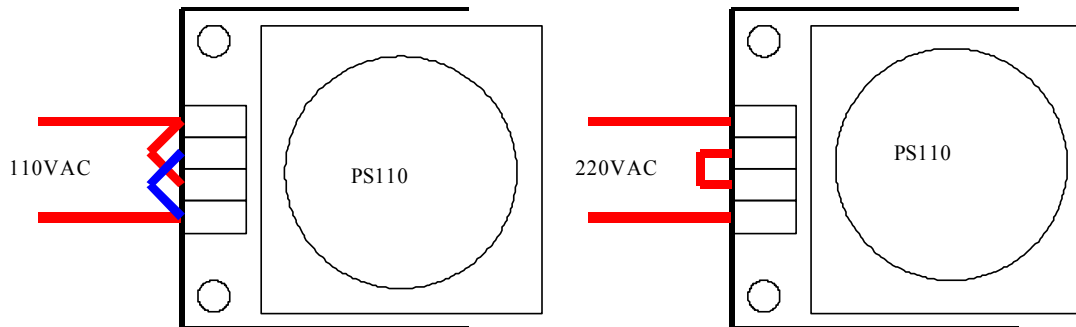
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PS110 Instructions; Revision 1206



PS110 Jumper selection for 110 VAC or 220VAC operation



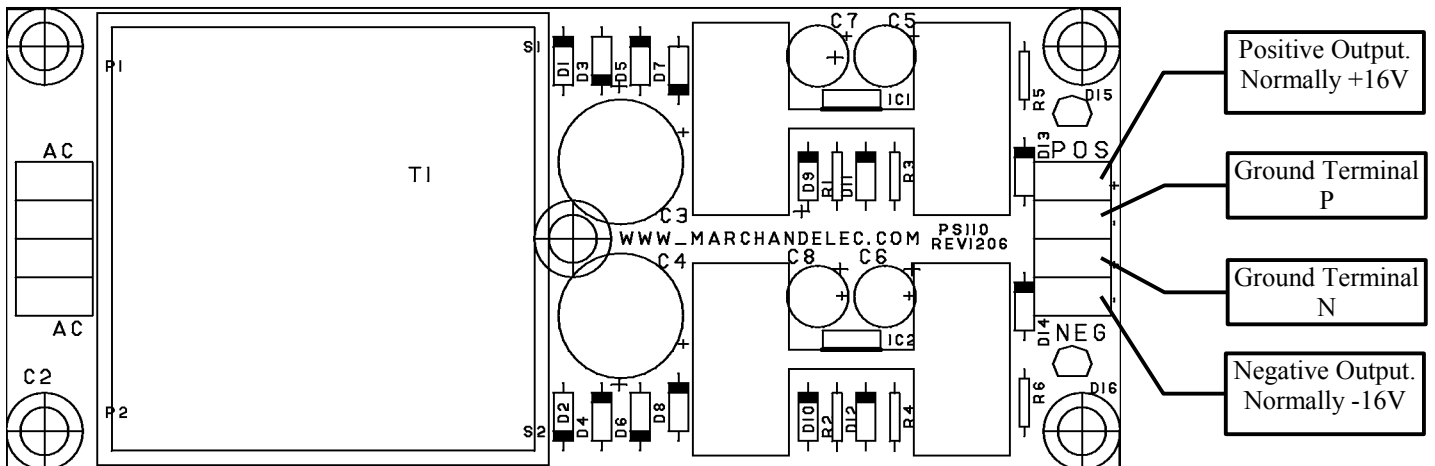
## PS110/310 Part List

R1	100 Ohm	1%, 1/4W, Metal Film
R2	100 Ohm	1%, 1/4W, Metal Film
R3	1K18	1%, 1/4W, Metal Film
R4	1K18	1%, 1/4W, Metal Film
R5	10.0K	1%, 1/4W, Metal Film
R6	10.0K	1%, 1/4W, Metal Film
R7		not used
C1		not used
C2		not used
C3	2200 uF, 35V	Electrolytic
C4	2200 uF, 35V	Electrolytic
C5	10 uF, 50V	Electrolytic
C6	10 uF, 50V	Electrolytic
C7	10 uF, 50V	Electrolytic
C8	10 uF, 50V	Electrolytic
D1	1N4937	1A Diode
D2	1N4937	1A Diode
D3	1N4937	1A Diode
D4	1N4937	1A Diode
D5	1N4937	1A Diode
D6	1N4937	1A Diode
D7	1N4937	1A Diode
D8	1N4937	1A Diode
D9	1N4937	1A Diode
D10	1N4937	1A Diode
D11	1N4937	1A Diode
D12	1N4937	1A Diode

D13	1N4937	1A Diode
D14	1N4937	1A Diode
D15		Red LED
D16		Red LED
IC1	LM317	Regulator
IC2	LM317	Regulator

### Summary

2	100 Ohm	1%, 1/4W, Metal Film
2	1.18K	1%, 1/4W, Metal Film
2	10.0K	1%, 1/4W, Metal Film
2	2200 uF, 35V	Electrolytic
4	10 uF, 50V	Electrolytic
14	1N4937	1A Hi Efficiency Diode
2		Red or Amber LED
2	LM317	Regulator
2	4/40*3/8 machine screw	
2	#4 locknut	
2	TO220 Heatsink	
1	Toroidal transformer, 18V+18V	
1	M4 x 10 metric screw for transformer	
1	#8 split lockwasher	
2	4 position terminal block	
1	Bag of heatsink compound	
1	PS110 circuit board	



Note: Ground terminal N and Ground terminal P are internally connected and are the same; use either one

Selecting output voltage.

The output voltage of the positive regulator is set by R3 and the output voltage of the negative regulator is set by R4. The value is calculated as follows:

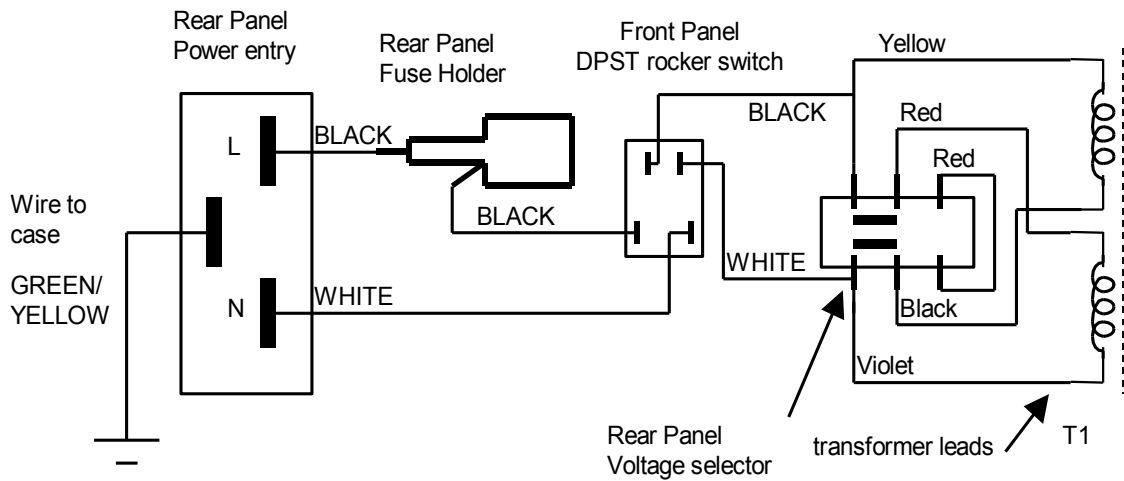
$$R3 = (V_{out} - 1.25) * R1 / 1.25$$

$$R4 = (V_{out} - 1.25) * R2 / 1.25$$

The table shows resistor values using the value of 100 Ohms for R1, R2  
 \*\*\* transformer with 22V + 22V secondary needed.

<b>Output voltage</b>	<b>R3(V+) or R4(V-)</b>
24V ***	1K82
18V	1K34
16V	1K18
15V	1K10
14V	1K02
12V	860

Typical hookup of PS110 power supply w. voltage selector switch and fuse.



With the PS310 power supply board the transformer is not mounted on the circuit board itself. In a typical application (XM44) the primary transformer leads are connected as shown above.

The secondary leads from the transformer are connected to the blue terminal blocks as shown below:

