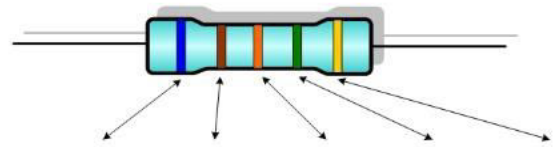


30 Watt Stereo Audio Amplifier Kit Level: Intermediate AK-85

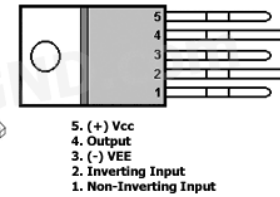
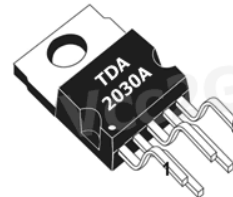


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5-band Resistor



Color	1 st band value	2 nd band value	3 rd band value	Multiplier	Tolerances
Black	0	0	0	× 1	
Brown	1	1	1	× 10	± 1%
Red	2	2	2	× 100	± 2%
Orange	3	3	3	× 1000	± 3%
Yellow	4	4	4	× 10,000	± 4%
Green	5	5	5	× 100,000	± 0.5%
Blue	6	6	6	× 1,000,000	± 0.25%
Violet	7	7	7	× 10,000,000	± 0.10%
Grey	8	8	8	× 100,000,000	± 0.05%
White	9	9	9	× 1,000,000,000	
Gold				× 0.1	± 5%
Silver				× 0.01	± 10%
No band					± 20%



Soldering Guide

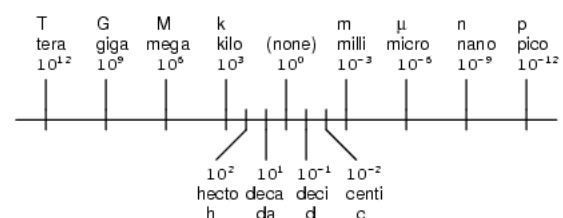
- 1) Turn on the iron to 370°F (188°C) if you are using 60 Tin /40 Lead solder.
- 2) Solder the resistors first, then proceed to the Capacitors, Jumpers and diodes.
- 3) Solder the audio input jack, then the radial Capacitors Solder the terminal blocks.
- 4) Insert the TDA2030A into the PCB through-hole, place the heatsink behind the IC and insert the screw to fasten the units together. After doing so solder the IC and heatsink, repeat for the other IC.
- 5) Insert the potentiometer pay attention to the marking on the top indicating the value. 50k goes to the far right.
- 6) Solder the push button and prepare the transformer.
- 7) Transformer recommend is a 24v coil with a center tap, the connection is blue, black, blue.
- 8) Connect the left channel to the upper left and right to the upper right, there is no polarity for speakers. Recommended 5 Watt speakers!
Power up by pressing the switch, inserting audio Signal and adjusting the controls!

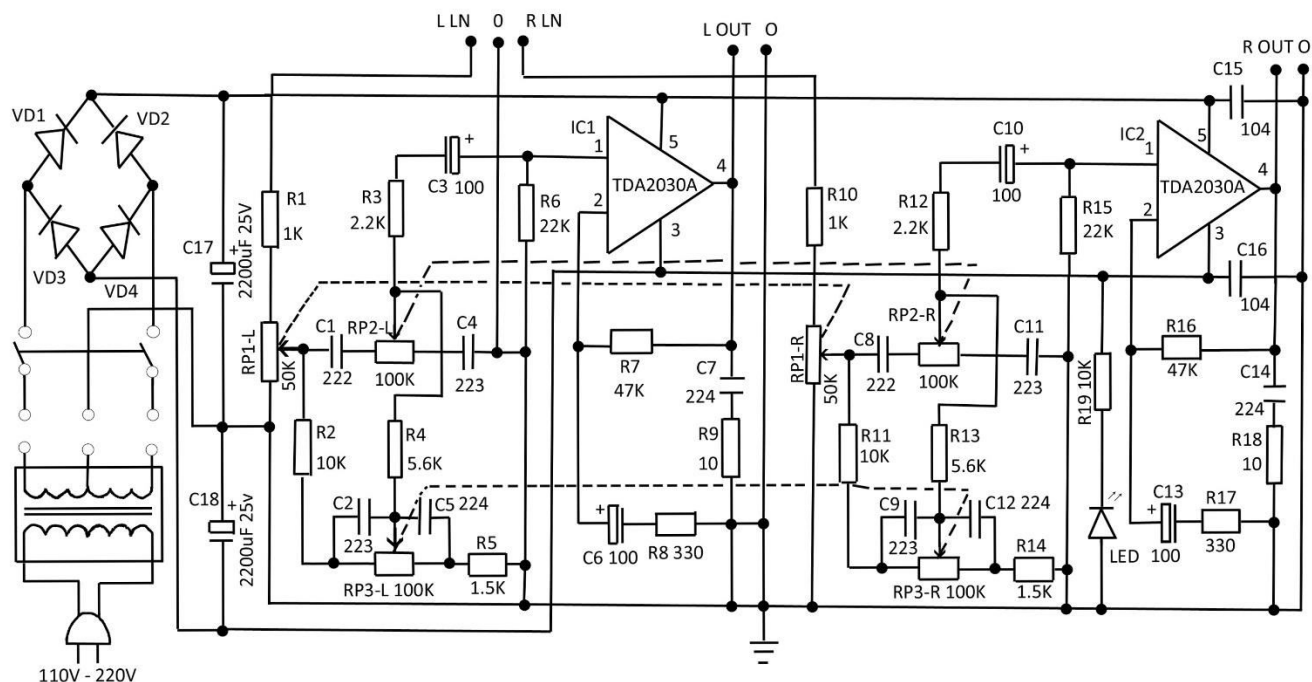
Reading the Components

Resistors: To read resistor value please look up the Provided resistor chart. Fortunately, the PCB has the required values labelled. Use a multi-meter if you're not sure.

Capacitors: polyester & ceramic disc capacitors have a three-digit number written across them. The first two are the value. The last digit is the multiplier. Example 223 is 22 and three decimal places to the left resulting in .022, all small ceramic capacitors are maximum in the μF range. You won't find a .022 μF capacitor so we can use this little trick to make it easier. The prefix jump by the exponent 3. 9-Giga 6-Mega 3-Kilo, 1, -3-milli, -6-micro -9-nano. We simply move the decimal place Three points to the right to get the next smallest prefix. Thus the answers is 22nF.

METRIC PREFIX SCALE





Component	Quantity	Remarks	PCB Reference Number
TDA2030A	2	Odd pins go in the front, even in the back	TDA2030A
1N4007	4	Diode the solid lines must match.	1N4007
10Ω Resistor	2	Brown, Black, Black, Gold, Brown	10
330Ω Resistor	2	Brown, Black, Black, Orange, Orange	330
1kΩ Resistor	2	Brown, Black, Black, Brown, Brown	1k
1.5kΩ Resistor	2	Brown, Brown, Black, Blue, Brown	1.5k
2.2kΩ Resistor	2	Red, Red, Black, Brown, Brown	2.2k
5.6kΩ Resistor	2	Brown, Brown, Black, Blue, Green	5.6k
10kΩ Resistor	3	Brown, Red, Black, Black, Brown	10k
22kΩ Resistor	2	Red, Red, Black, Red, Brown	22k
47kΩ Resistor	2	Brown, Red, Black, Purple, Yellow	47k
0.1µF Ceramic Capacitor	2	104 written across Component	104
2.2nF Ceramic Capacitor	2	222 written across Component	222
22nF Ceramic Capacitor	4	223 written across Component	223
220nF Ceramic Capacitor	4	224 written across Component	224
25v 10µF Radial Capacitor	4	+ must not be white end!	10uF
25v 2200µF Radial Capacitor	2	+ must not be white end.	2200uF / 25v
50kΩ Potentiometer	1	Look on the upper side without the pins	50K
100kΩ Potentiometer	2	Look on the upper side without the pins	100K
PCB Board	1	Standard PCB	
Power Button Switch	1	Spring based switch	SW
2 pin terminal block	2	Left channel and Right channel	L_OUT, R_OUT
3 pin terminal block	1	Blue, Black, Blue! (left, center, right)	AC~12V/~12V
Audio Jack input	1	3.55mm audio jack	AUDIO_IN
heatsink	2	Must be placed when soldering IC	TDA2030A
3mm LED RED	1	The uncut side must match + on the board.	LED

Requires jumper cable, they only go in vertically. As in faces from heat sink to potentiometer do not cross!