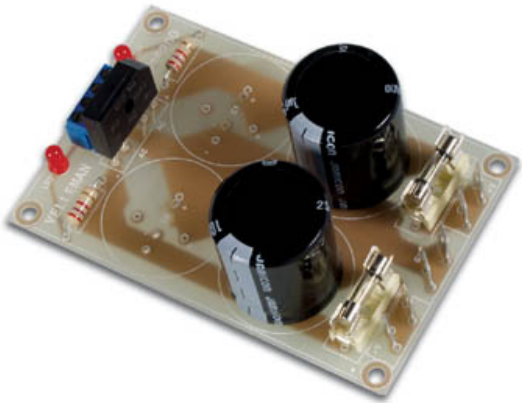
Total solder points: 36
Difficulty level: *beginner* 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ *advanced*

Power supply for K4004B and K4005B



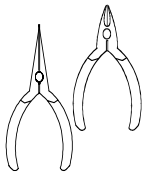
K4006

1. Assembly (Skipping this can lead to troubles !)
Ok, so we have your attention. These hints will help you to make this project successful. Read them carefully.

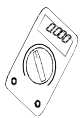
1.1 Make sure you have the right tools:

- A good quality soldering iron (25-40W) with a small tip.
- Wipe it often on a wet sponge or cloth, to keep it clean; then apply solder to the tip, to give it a wet look. This is called 'thinning' and will protect the tip, and enables you to make good connections. When solder rolls off the tip, it needs cleaning.

- Thin raisin-core solder. Do not use any flux or grease.
- A diagonal cutter to trim excess wires. To avoid injury when cutting excess leads, hold the lead so they cannot fly towards the eyes.



- Needle nose pliers, for bending leads, or to hold components in place.
- Small blade and Phillips screwdrivers. A basic range is fine.



For some projects, a basic multi-meter is required, or might be handy

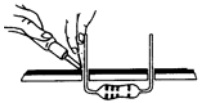
1.2 Assembly Hints :

⇒ Make sure the skill level matches your experience, to avoid disappointments.
⇒ Follow the instructions carefully. Read and understand the entire step before you perform each operation.
⇒ Perform the assembly in the correct order as stated in this manual
⇒ Position all parts on the PCB (Printed Circuit Board) as shown on the drawings.
⇒ Values on the circuit diagram are subject to changes.
⇒ Values in this assembly guide are correct*
⇒ Use the check-boxes to mark your progress.
⇒ Please read the included information on safety and customer service

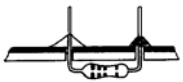
* Typographical inaccuracies excluded. Always look for possible last minute manual updates, indicated as 'NOTE' on a separate leaflet.

1.3 Soldering Hints :

1- Mount the component against the PCB surface and carefully solder the leads



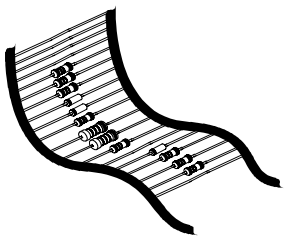
2- Make sure the solder joints are cone-shaped and shiny



3- Trim excess leads as close as possible to the solder joint

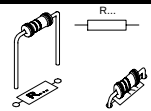
REMOVE THEM FROM THE TAPE ONE AT A TIME !

AXIAL COMPONENTS ARE TAPED IN THE CORRECT MOUNTING SEQUENCE !



You will find the colour code for the resistances and the LEDs in the HALG (general manual) and on our website: http://www.velleman.be/common/service.aspx

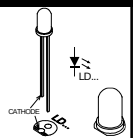
1. 1W Resistors



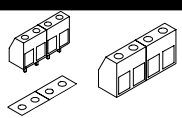
- ❑ R1 : 2K7 (2 - 7 - 2 - B)
- ❑ R2 : 2K7 (2 - 7 - 2 - B)

2. LEDs. Watch the polarity!

- ❑ LD1
- ❑ LD2

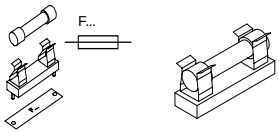


3. Screw terminal



- ❑ J1

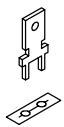
4. Fuse + fuseholder



- ❑ F1 : 6,3A slow
- ❑ F2 : 6,3A slow

5. PCB mounting tab

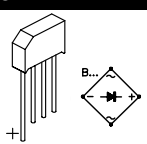
- ❑ -V (2x)
- ❑ GND (2x)
- ❑ +V (2x)



6. Bridge rectifier

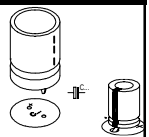
- ❑ B1 : RS603 (6A - 200V)

Watch the polarity!



7. Electrolytic Capacitors. Watch the polarity !

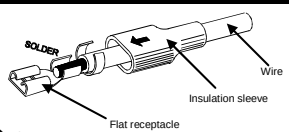
- ❑ C3 : 10.000µF
- ❑ C4 : 10.000µF



- ❑ C1 : Optional
- ❑ C2 : Optional

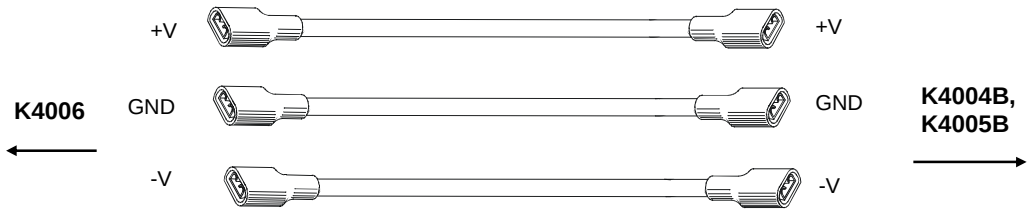
Ordernr C1 & C2 : 10000LPOJ

8. Flat receptacle



- ❑ 6 x

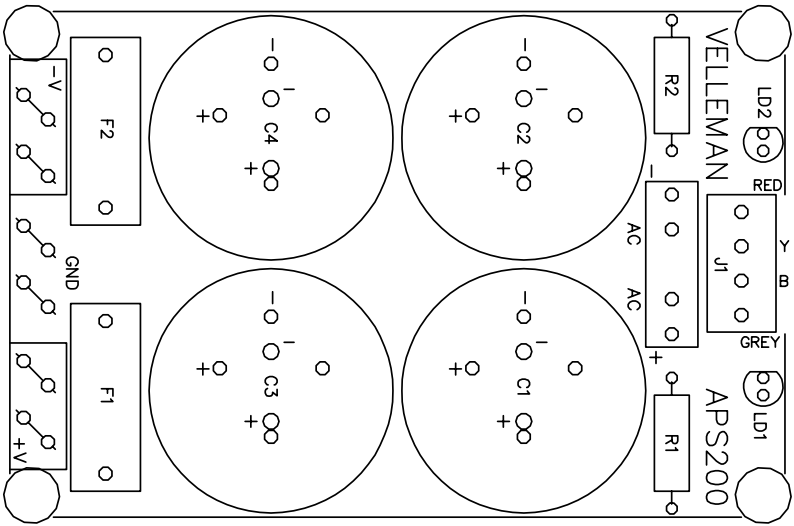
9. Connection



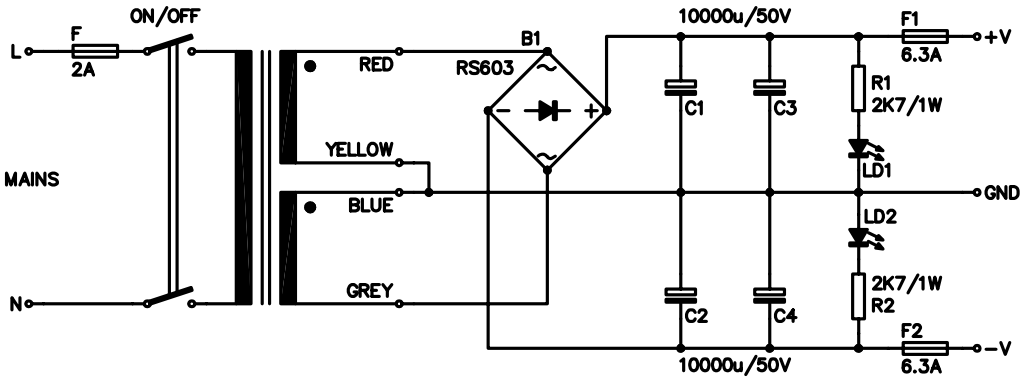
Needs transformer :

	Speaker	Power supply	Transformer
K4005B	2 x 8 ohm	2 x 30VAC / 225VA	Type 22530
K4005B	2 x 4 ohm	2 x 21VAC / 300VA	Type 30021
K4005B	1 x 8 ohm	2 x 21VAC / 300VA	Type 30021
K4004B	2 x 8 ohm	2 x 18VAC / 160VA	Type 16018
K4004B	2 x 4 ohm	2 x 18VAC / 225VA	Type 22518
K4004B	1 x 8 ohm	2 x 18VAC / 225VA	Type 22518

10. PCB layout.



11. Diagram


ON/OFF
F
2A
L
N
MAINS
RED
YELLOW
BLUE
GREY
B1
RS603
10000u/50V
C1
C3
C2
C4
10000u/50V
F1
6.3A
+V
R1
2K7/1W
LD1
GND
LD2
2K7/1W
R2
F2
6.3A
-V

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