

LM3886 Amp - mounting instructions

Thanks for buying this chipamp pcb or kit! Now the fun of mounting starts. Make sure you read the complete instructions before you start mounting. Complete assembly can be done by an experienced hobbyist in less than one hour. More information can be found on the project page:

<http://www.djuke.nl/en/projects/>

List of components

The kit consists of the following components. If you bought the pcb, these components are suggested (but you can of course adapt it to your needs).

Qty	Value	Device	Parts
1	220pF	C-cer	C9
2	220uF/35V	C-Elec-3.5-10	C4, C5
1	22uF	C-Bipolar-3.5-8	C3
1	100uF/35V	C-Elec-3.5-8	C6
1	1uF	C-MKT	C1
1	100nF	C-MKT	C2
2	100nF	C-multi	C8, C10
1	LM3886TF	Chipamp	IC1
4	4.8mm	Con-faston	OUT, V+, V-, V0
2	1mm	Con-pcb pin	GND, IN
2	1k	R-0207	R1, R2
3	22k	R-0207	R3, R5, R6
1	2R7	R-0613	R4
1	J20MM	wire	J1 (use spare wire)

Tools

Required:

- ✓ Soldering iron, flux and solder
- ✓ Multi-meter (voltage and resistance)
- ✓ Side-cutting pliers, tweezers

Recommended:

- ✓ Adjustable dual power supply
- ✓ Signal source
- ✓ Oscilloscope

Mounting

The easiest way of mounting is by starting with the components with the lowest height and build up the PCB in steps, where components of the same height are fitted and soldered in each step. So, solder the components in this order: resistors, small capacitors, connectors, electrolytic capacitors and the chipamp.

Always double check all components before you solder them (especially the ones that are polarity dependent, electrolytic capacitors, etc), as it is difficult to remove them after soldering, much more time consuming and may break components or PCB.

Hints:

- By default the kit supplies the isolated LM3886TF, which can directly be mounted to a heatsink
- Depending on your grounding setup, you can connect signal ground and supply ground on the pcb or externally

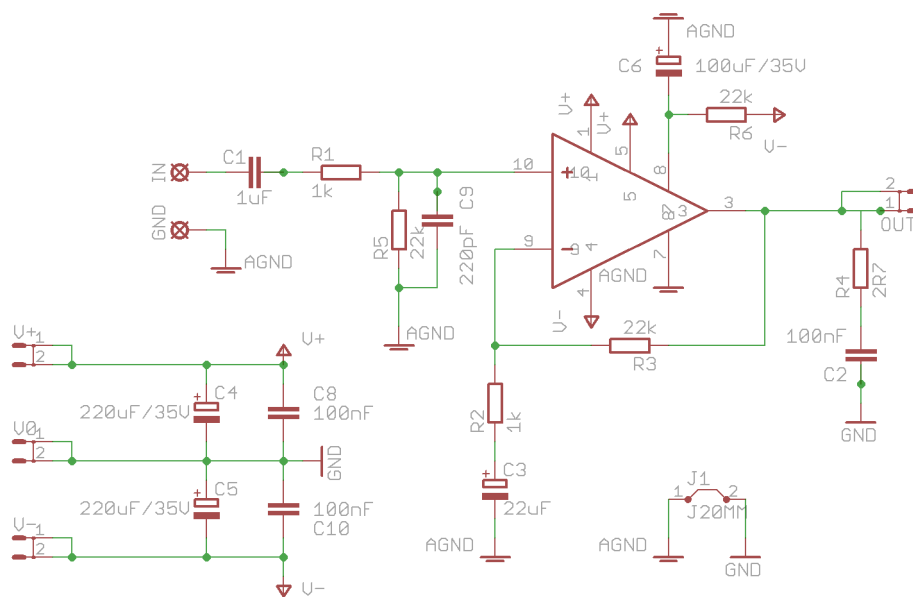
Testing

Double-check all soldering connections to make sure no shorts are present.

- Connect a bench supply at +/-12V to the supply connector
- Measure the output voltage, should be below 100mV
- Connect a signal source and check with a scope that the signal is amplified at the output

If all of above is ok, remove the bench supply, connect the final supply. Connect your favourite input and speakers and enjoy many listening hours!

Schematic



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