

WARNUNG

ACHTUNG:

diese Bausätze sind keine Anfängerprojekte! Die Spannungen in einem Röhrenverstärker können 500V und mehr betragen und sind somit bei unsachgemäßer Handhabung absolut lebensbedrohlich!!!

Wir liefern lediglich eine komplette Zusammenstellung der benötigten Bauteile, Schaltpläne, Layoutplan sowie eine Aufbaubeschreibung.

Für die Funktion der vom Kunden aufgebauten Geräte übernehmen wir keine Gewähr (für die Bauteile selbst natürlich schon). Sollte der Aufbau zu unerwarteten Schwierigkeiten führen, so kann die UK-electronic den Bausatz im Kundenauftrag fertig aufbauen oder ggf. andere Service-Techniker vermitteln.

Fragen zu den Bausätzen werden wir nach Möglichkeit im Forum beantworten.

WARNING

ATTENTION:

Please note that the Amp-Kit are not a beginners project but for experienced amp builders! Voltages inside tube amplifiers can exceed 500V and can cause serious damage and can even kill!

We only supply a complete compilation of excellent parts, schematics, external wiring plans and a description of building. UK-electronic does not offer a general support for you DIY project.

We do not warranty for what you build out of the supplied components. If you get stuck with your DIY project then UK-electronic might offer to finish assembly of your kit based on your service-order or refer you to a skilled technician. Questions and answers about the AMP-KITS will get collected and published at the Forum at www.uk-electronic.de



Processing suggestion Miniamp PCL86

1. unpack materials and check for completeness.
2. start with the assembly of the printed circuit board: first resistors (2W, 0.6W), capacitors, electrolytic capacitors (observe polarity of the power supply unit capacitors), tube sockets and solder pins.
3. prepare the housing if no pre-drilled one is used.
4. Insert the insulating plate into the cover, push 4 screws M3x20 through. Fit the 4 distance rollers M3x3 onto the screws. Then hand-tighten the board with the nuts M3.
Press the two grommets into the holes.
6. wire mains transformer (top 12V AC bottom !230V output), example: 12AC blue, 230V black/red
Fasten the mains transformer and output transformer with the 4 self-tapping screws.
8. screw potentiometer, input socket, speaker out socket, external power supply socket, LED socket and switch to the housing. If faceplates are used, they should be placed underneath.

Wire the components according to the wiring diagram (see also illustration).

- 10) The heating cables in the example green and 230V (black/red) should be twisted.
11. the not needed cables at the output transformer primary side (brown) and secondary side (red) can be cut off. The orange one (1W outlet) is laid as a reserve in the inner one. Since both sides contain a black connection wire, it is recommended to connect either the secondary side first and then the primary side, or to mark the respective black connection wire.

The previously soldered connections from the sockets, potentiometers etc. are then soldered only to the solder pins on the printed circuit board. The two 230V connections should be covered with the enclosed insulating tube.

Then you can plug in the tube when the housing is open and if you are not sure you can measure the voltages given in the circuit diagram. Otherwise the assembly is finished.

Additional Information

Tests have shown that with weak single coil pickups too little voltage is generated to produce a certain crunch. With humbuckers or active pickups the whole thing looks quite different.

In the REV1.2 the necessary booster is now on the PCB. The booster is fixed with a gain of about 10dB. If you want to change this you have to reduce the resistance 330R (more gain) or increase it (less gain).

Manual 1W Tube Amp PCL86

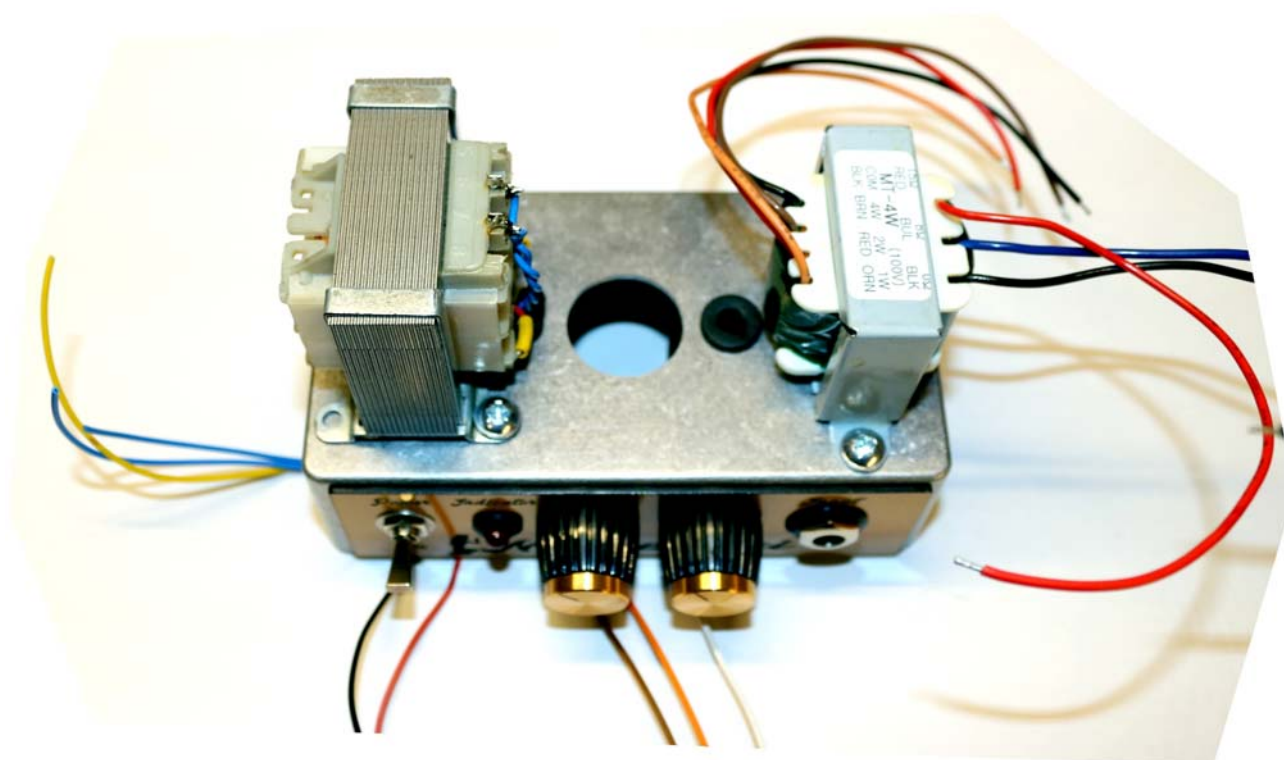
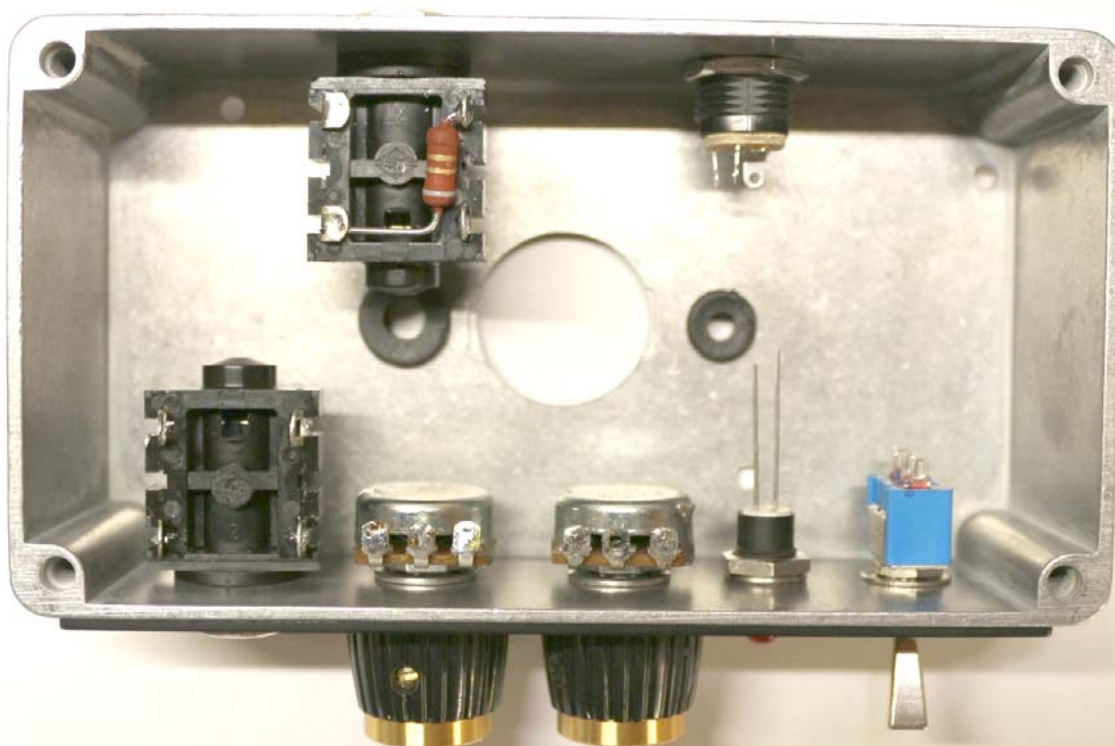
Bill of material miniamp PCL86

1	PCB „Miniamp PCL86“
2	Audio jack Ampstyle EBM_63MS
1	DC-jack NEBJ21C -TW
1	Tube socket pcb SK09 + Tube PCL86
1	PT 9,9V DC/ 230V –Chassis mounting
1	OT 100V Line OT 4W EI/42 – Chassis mounting
1	LED 5mm red Low Current
1	Rectifier B380/C1500
1	Rectifier DIL B80Cxxx
1	LED bezel 5mm Black
1	Grommet 6mm
1	Grommet 4mm
4	Distance rolls M3 x 3mm
4	Screws M3 x 20 + 4 nut
4	Self adhesive Feet 12x12x4mm
14	Solder nails 1mm
1	Some colored wire 0.25mm ²
1	Isolating sleeve
1	Potentiometer 1M-A
1	Potentiometer 500K-A
1	Toggle Switch KNX-1
1	Voltage regulator 78L09
1	Mosfet 2N7000
1	Diode 1N4148
1	Ceramic cap 100p-1000V (101)
1	MKT 100nF (0.1µF - 104) + 2x KDPU 100nF (104)
1	MKP2 4,7nF (0.0047µF)
1	MKP2 10nF (0.01µF)
2	Elektrolytic Radial 47µF – 350V (lay down)
1	Elektrolytic Radial 22µF/25V
1	Elektrolytic Radial 10µF/25V
1	Elektrolytic Axial 100µF – 16....25V
1	Elektrolytic Axial 220µF – 10....25V
1	Elektrolytic Radial 1000µF/16V
1	Resistor 1R (brown/black/black/gold/brown)
1	Resistor 8R2/ 2W (gray/red/gold/gold)
1	Resistor 150R/ 2W (brown/green/brown/gold)
1	Resistor 330R (orange/orange/black/black/brown)
1	Resistor 2K2/ 2W (red/red/red/gold)
2	Resistor 56K/2W (green/blue/orange/gold)
2	Resistor 1K (brown/black/black/brown/brown)
1	Resistor 1K5 (brown/green/black/brown/brown)
1	Resistor 5K1 (green/brown/black/brown/brown)
1	Resistor 10K (brown/black/black/red/brown)
1	Resistor 51K (green/brown/black/red/brown)
1	Resistor 82K (grey/red/black/red/brown)
1	Resistor 100K (brown/black/black/orange/brown)
1	Resistor 680K (blue/gray/black/orange/brown)
3	Resistor 1M (brown/black/black/yellow/Braun)
1	Resistor 10M (brown/black/black/green/brown)

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Then you should equip the enclosure, grommets, potentiometers, input and output jacks, LED sockets (with LED, push in the plug correctly so that the LED has no play), DC jack and the switch.



Bring the connections from the mains transformer through the grommet and secure them above with a cable tie. The same for the output transformer. (Attention! Mark a black wire as described above for safety).

At the switch and at one pole of the DC socket there are 2 wires each. Please do not solder too long on the switch, otherwise it is broken!



Last but not least, make the corresponding connections from the sockets and potentiometers to the printed circuit board. The cathode of the LED (short leg) is simply soldered to the ground point of the potentiometer. The construction is finished and nothing should stand in the way of fun.

Technical changes reserved!

