

Pievox Information

Pievox PR99_VU

Pievox PR99_VU Patch for Revox PR99 Line out Amplifier -

- To improve the level display accuracy of the VU meters
- for separate setting of VU_Meter and Peak-LED
- to correct the temperature dependency of the settings

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Revox PR99 in the original state

With the PR99 in the original state, when measuring, unsightly effects occur:

The adjustment of the peak-level LED and the VU meter calibration interact .

In addition, the VU meter calibration and the threshold of the "peak level" changes with the temperature.

This is actually a device like the PR99 unworthy.

That's why I've developed an upgrade kit that fixes the flaw.

The setting of VU meter and peak LED are therefore independent of each other

and In addition,

the display accuracy of the VU meters is enormously improved at levels below -3dB.

The potentiometers retain their specific function, i.e.

The VU meter pot continues to adjust the VU display and the peak LED Pot is the + 6dB threshold.

It was also a goal during the development that the load conditions of the new circuit are identical to the original circuit, so that the installation also in a complete circuit measured machine can be done without changing other settings.

Only the potentiometers of the line-out board must be adjusted accordingly.

Output Level

VU meters

+ 6dB peak Led

Before the success, the gods have put the sweat The Greek poet Hesiod 700 BC.

A part of the circuit on the board is replaced by a patch,

with two buffer amplifiers per channel the independent setting of VU-Meter and Peak-LED.

I have tried to prepare as many works as possible,

therefore you will receive the following parts in the upgrade kit:

- 6 pcs Cermet Potentiometer for replacing the simple original Pertinax Pot

Each 2 pcs.

- 25k for Output Level,

- 2,2k for VU-Meter,

- 470k for the + 6dB peak-Led

- 2 pcs - AL Electrolytics 22uF

- The module with the buffer amplifiers

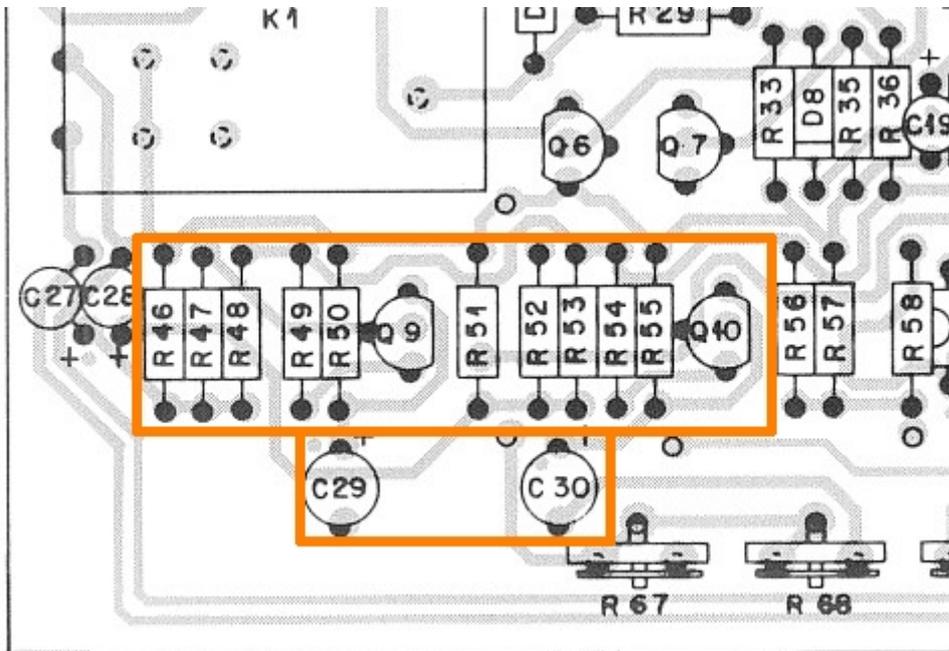
- 1 black-withe cable and 2 hoses.

- The two resistors Y-shaped with black cables in different lenght.

What to do now:

The components in the orange boxes in the drawing # 1 and #2 has to be removed.

drawing # 1



Since the connection wires on the solder side are bent, the more brutal - but more PCB-friendly procedure is recommended::

Cut the resistors just above the soldering points and pull out the residual lead wire with a pair of tweezers - on the soldering joint side after a short heating.

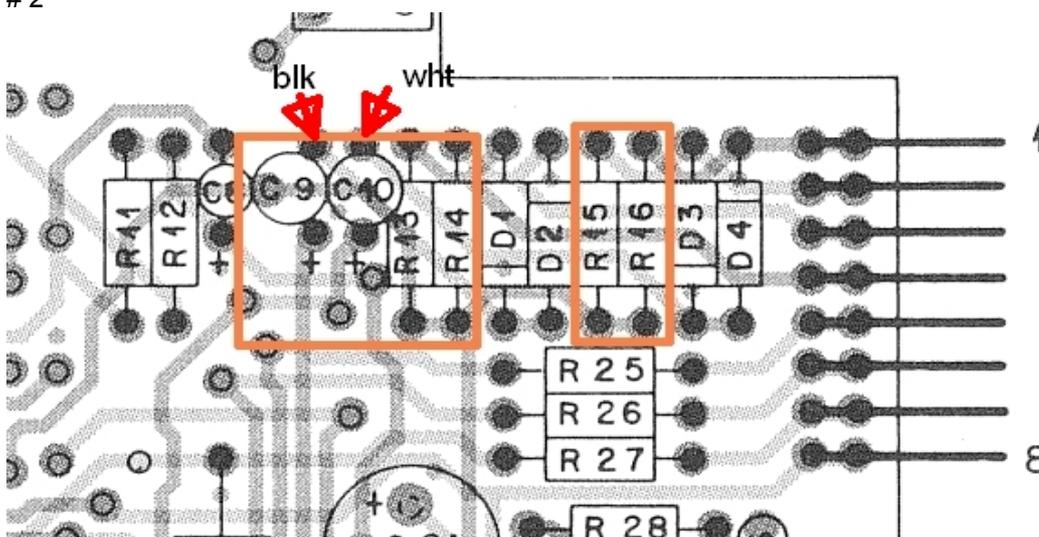
The circuit boards are old, that's why do not overheat and do not exert any mechanical force!

The two tantalum beads C9 and C10 are also removed (drawing #2)

And the resistors R13, R14, R15 and R16 .

These are then replaced by the supplied Y-resistor pair with black cables in different lenght.

drawing # 2



As a first step towards building

The black-white braid are soldered in on the negative (upper) pin of the former C9 / C10 (white wire to C10)

Observe the following work :

The two tantals C29 and C30 have to be moved somewhat towards the board edge.
On the occasion, they are replaced by 22uF Al -electrolytics, the positive pole is angled out.
To the somewhat free + end of the condensor wire the respective black strands the from the Y-resistors are soldered.

Successive build up to avoid confusion of black wires!

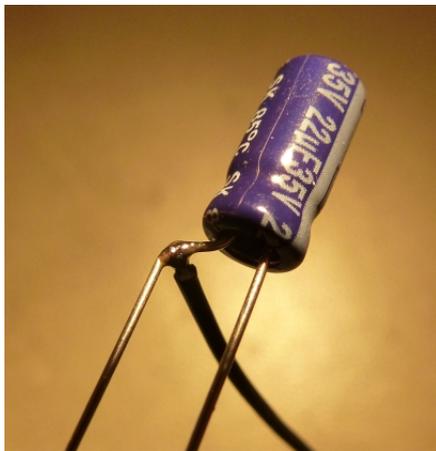
The black wires have different lenght, so there should be no confusion.

Y- R13 and R14 belong to the left channel, the black wire goes to C30 !
Y- R15 and R16 belong to the right channel, the black wire goes to C29 !

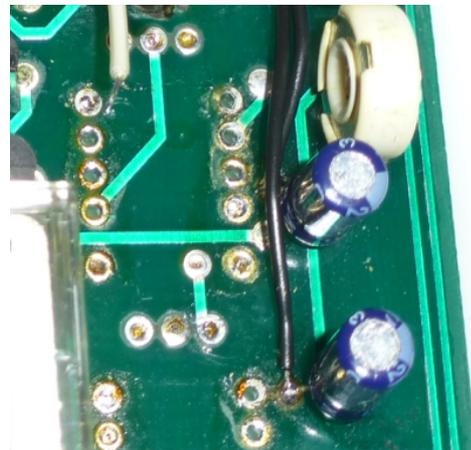
First solder in the Y-pair R13 R14 with the shorter cable, pull the black cable into the hose and solder on the Elko C30 (here in the picture the upper one).

Then pull the braid of Y-R15 R16 through the wire through the hose and solder to C29
The solder both capacitors in the PCB with both legs. The cap on the pot has to be soldered in slightly laterally position, so that it stands straight.

Picture # 1

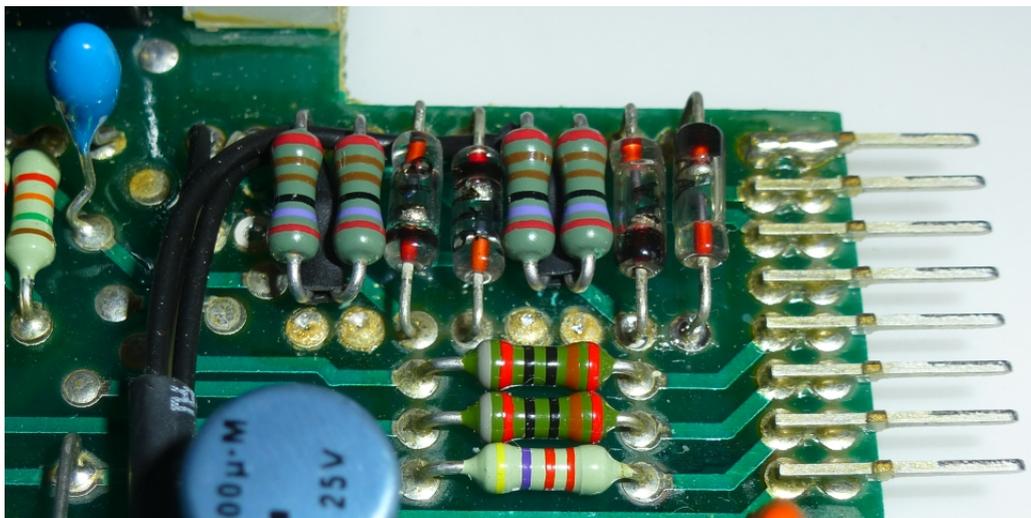


detail of wire soldered to the 22uF cap.

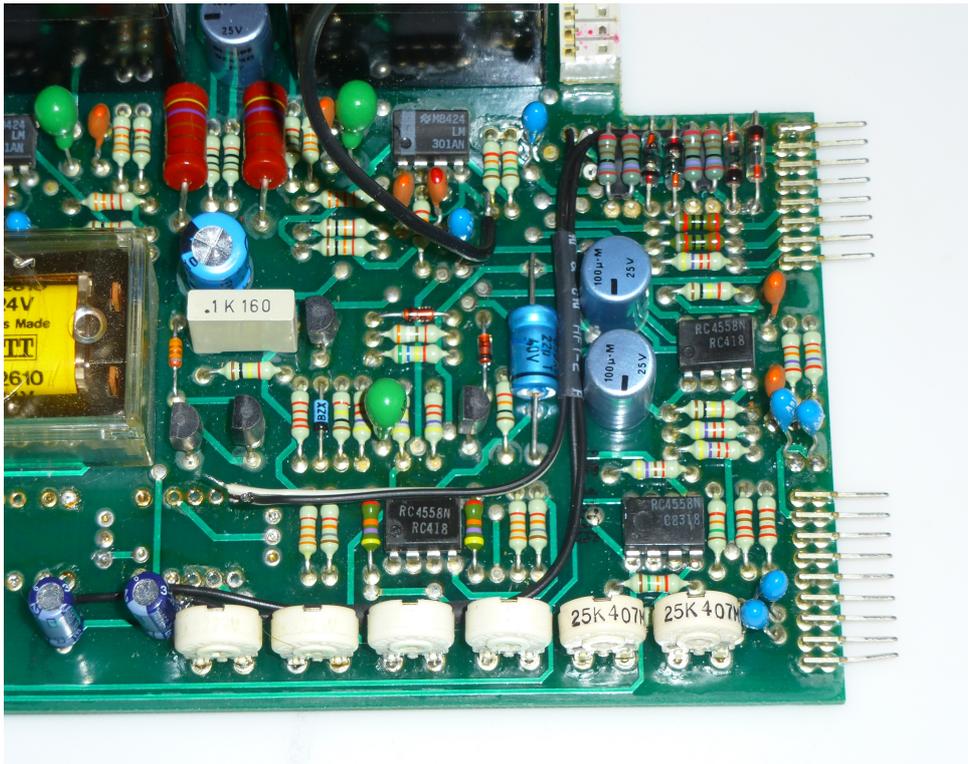


So it should look now

Picture # 2



Picture #3 Strands installed



The final : The fiddling has come to an end !

Now there remains to be done, the module itself into the cleaned solder eyes.

First solder the ends of the twill strand white-black - The black wire near to the PIEVOX text.

Then align the board approximately horizontally and with two soldering points - possibly correct the position of the PCB and solder the pins.

Finished adjust the line-out pot, VU display and peak LED as described in the PR99 manual.

Incidentally, this black braid, which can be seen in the picture "braids installed" center up , is an additional ground line that has been introduced on the PR99 MKIII to eliminate a signal leakage at Volume Pot to zero.

Can also be installed in the MKII, if the interference is disturbing.

This is the only known difference from the comparison of the part lists

Of the circuit boards 1.177.880 (PR99 MKII) to 1.177.882 (PR99 MKIII) other op-amps.