

Audvance monitor and output board

This board can be used in all Revox B77 and PR99 machines as a direct replacement for all varieties of Revox monitor amplifier and output amplifier boards.

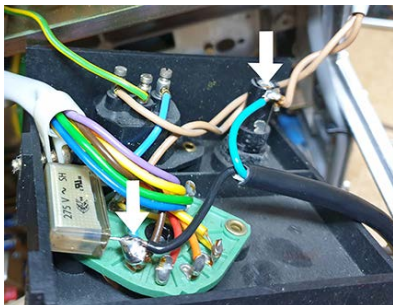
General information

The board contains all electronics to drive the VU meters and peak level indicators, high quality balanced output stages (for PR99) and high quality class A headphone amplifiers. The VU meter and peak levels are pre-calibrated when you buy this board. For improved accuracy these levels can be calibrated on your machine. The procedure for this follows at the end of this sheet.

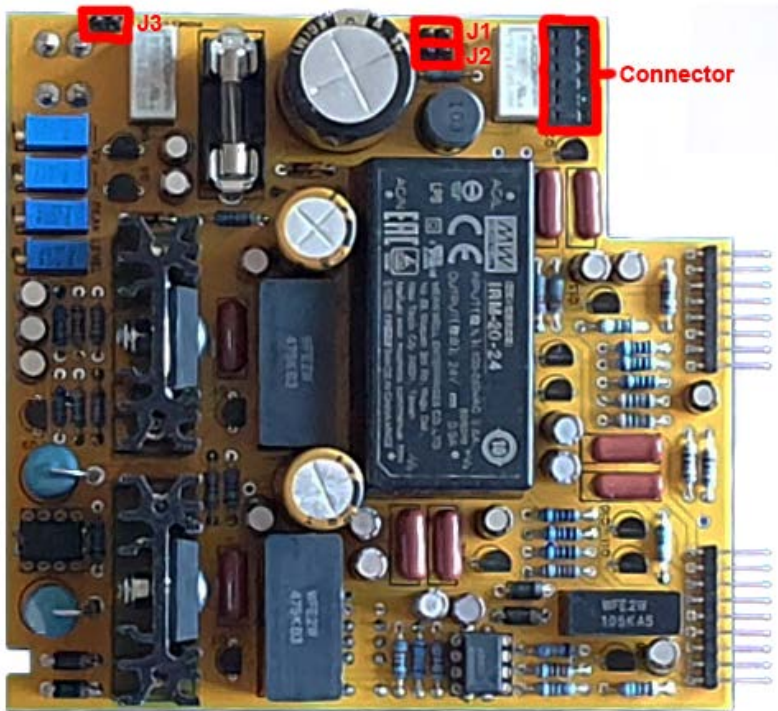
The headphone amplifiers will drive any headphone and supply far more power than the original Revox headphone amplifiers and also drive headphones with low impedances. An indication of the maximum output power at 3% THD:

RL=8 Ohms	20mW
RL=16 Ohms	80mW
RL=32 Ohms	150mW
RL=300 Ohms	70mW
RL=600 Ohms	35mW

The fuse F1 protects the SMPS power supply for the built in class A headphone amplifier. The fuse should be a slow blow fuse of 600mA or 630mA. On the rear of this board you will find the pins that connect to the line voltage. The included cable can be connected to this pins on one side and the other side should be soldered by a qualified technician to the main power entry of your Revox machine. See the white arrows in the picture below where it should be soldered to. By doing it this way the power switch on the front also powers this board. The AC input voltage has to be within the range of 85-264 V.



Jumper J3 in the picture below should be present when you want to use the headphone amplifier on this board. **If you operate your Revox machine in horizontal position it is advised to disable the headphone amplifier to avoid overheating of this board and other components in your machine.** To disable the headphone amplifier you only have to remove jumper J3. All other functions on the board will still function when J3 is removed.



Revox B77 (all models and versions)

With the B77 the connector in the picture above will not be used and jumpers J1 and J2 should not be used (left open). Simply plug in the board in your machine and you are ready to go.

Revox PR99 (all models and versions)

The black ground wire of the Revox board is not needed with the Audvance board.

With the PR99 jumper J1 should be in place (shorted). The connector in the picture above can be used in two ways.

If you would like to use your machine with the regular balanced outputs leave jumper J2 open. You can plug in the male connector of your machine that goes to the XLR outputs directly in the connector on this board. On the board are high quality transformerless output stages for this purpose.

You can also modify your machine to have RCA outputs and drive these unbalanced from the same connector. This will result in the highest possible sound quality with the shortest signal path. To do this you will have to short jumper J2. By placing this jumper the balanced outputs are bypassed and unbalanced output signals are now on the connector. Simply replace the XLR output connectors with Neutrik NF2D RCA connectors and connect them as follows:

You can use the original wiring to the outputs in your machine and the male connector going to the output board.

- Solder the yellow wire to the central connection (+) of the left channel (channel 1) RCA output connector
- Solder the red wire to the central connection (+) of the right channel (channel 2) RCA output connector
- Solder the black ground wire to the outer connection (-) of each RCA output connector
- Leave the brown and orange wires open (isolate them so no short to anything can occur or cut them)

Calibration of VU meters and peak level indicators

On this board there are four pots and next to it you see printed what they are for. Two are for the VU meter calibration (Left and Right) and the other two are for peak level calibration (the LED's in the VU meters, Left and Right).

Set the input level controls to their maximum. Apply an 1kHz input signal to each of the channels, and adjust the input level so that the output level is 775mV. Adjust the pots on the this board so the VU-meters read 0dB.

To calibrate the peak level indicators double the input voltage (raise with 6dB). Adjust the pots on this boards so that the peak level LED's just light up.