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This is still a work in progress

Quick [illegible] guide to Revox B77:

Page:

1. Revox B77 – Location of the boards:

Power Supply Board

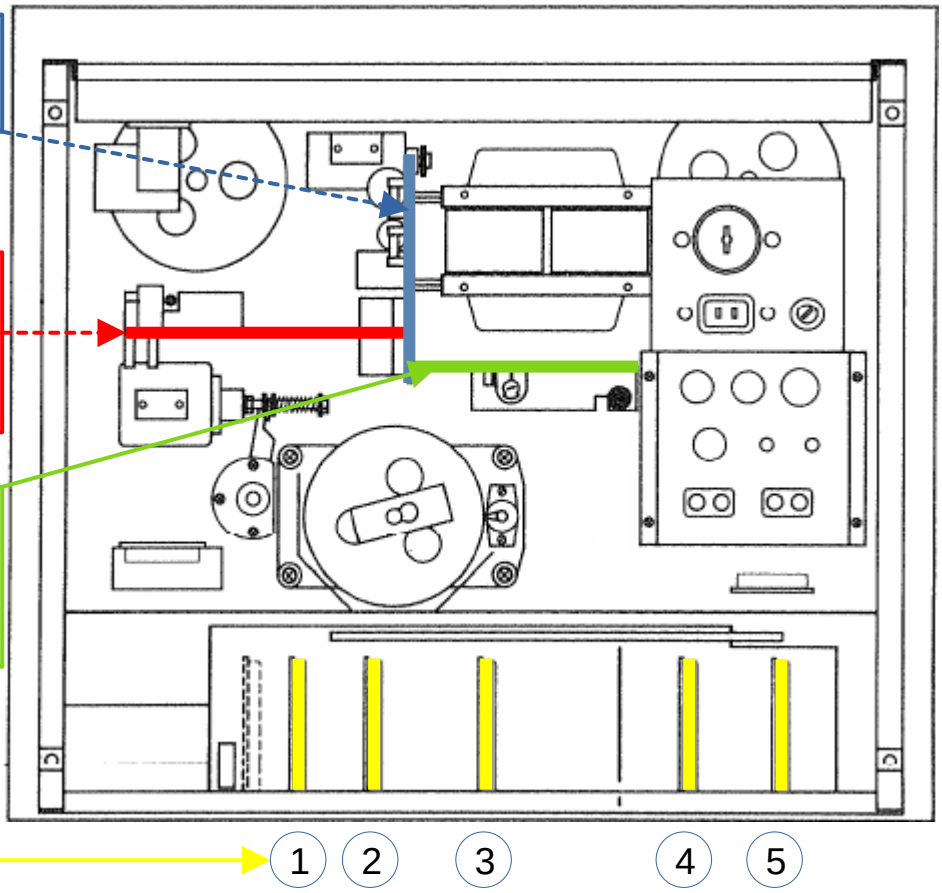
1.177.310/.311/.312

Tape Drive/Transport Control Board

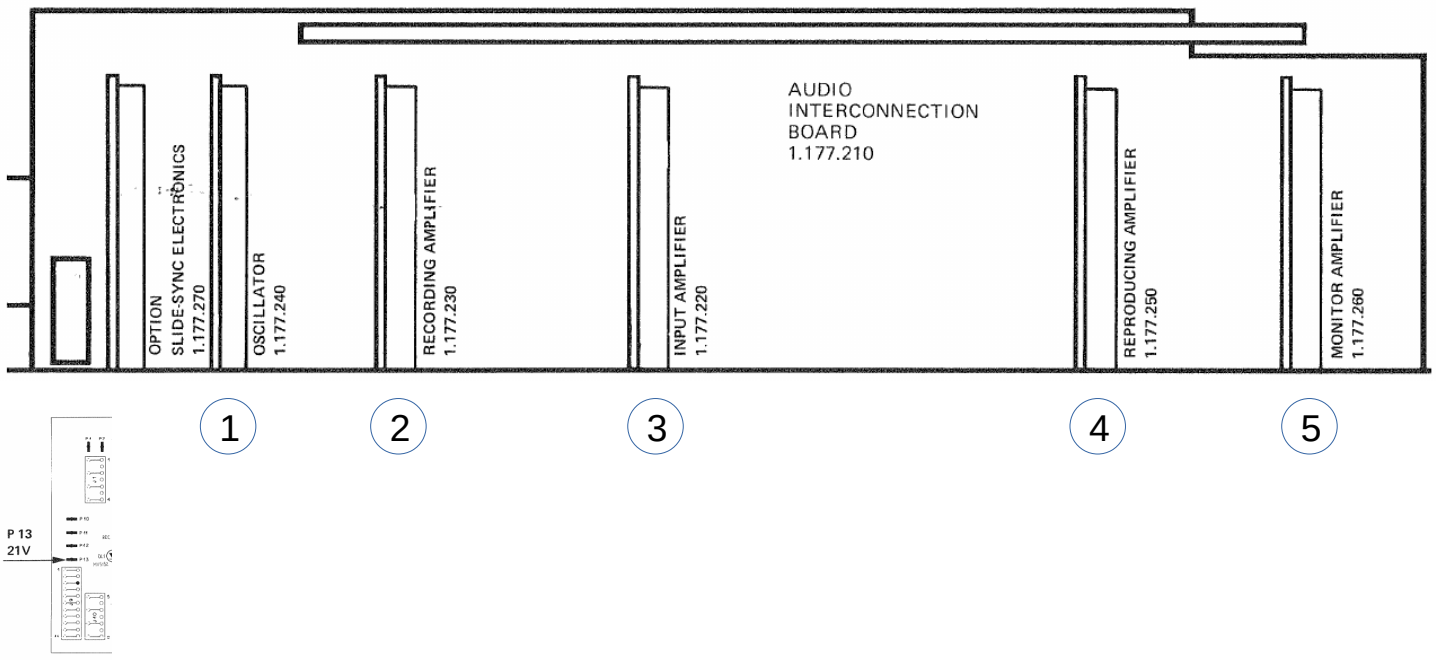
Mk1: 1.177.315
Mk2: 1.177.317.00/.317.81

Capstan Speed Control Board

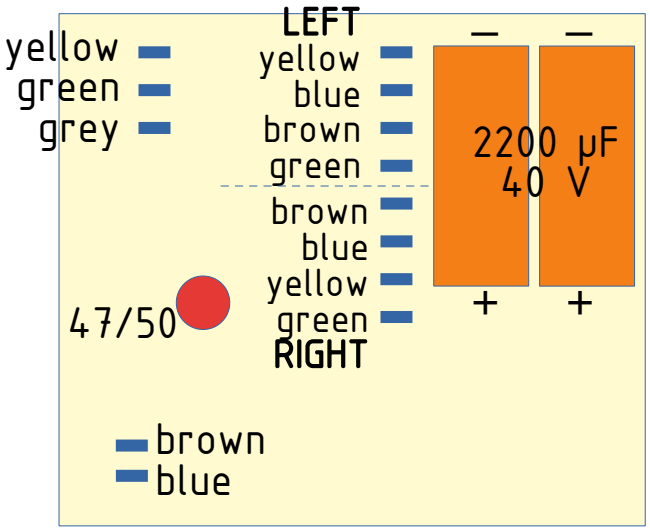
Mk1: 1.177.325/.326/.327
Mk2: .325.81/.326.81/.327.81
.325.82/.326.82/.327.82



1. Oscillator Card
2. Record Amplifier
3. Input Amplifier
4. Repro Amplifier
5. Monitor Amplifier

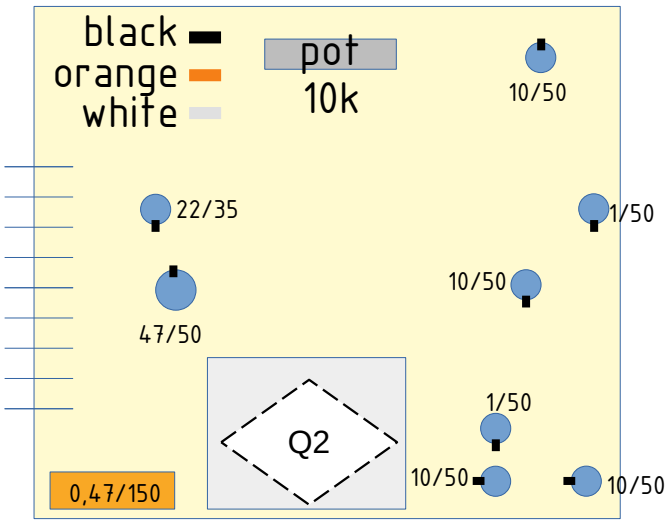


Revox B77 – details of the boards – wires, caps:



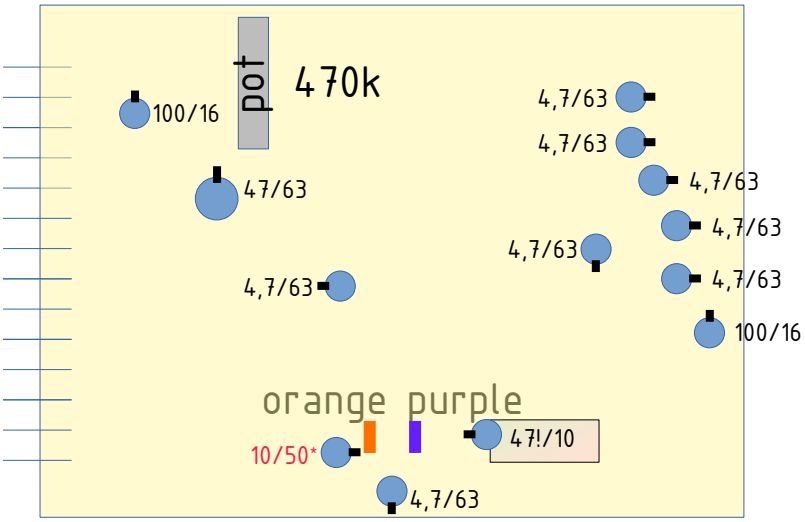
PSU PCB 1.177.312

47 µF	50 V	1x
2200µF	40 V	2x
-		
tot		3x



Capstan PCB 1.177.327.81

1 µF	50 V	2x
10 µF	50 V	4x
22 µF	35 V	1x
47 µF	50 V	1x
-		
tot		8x

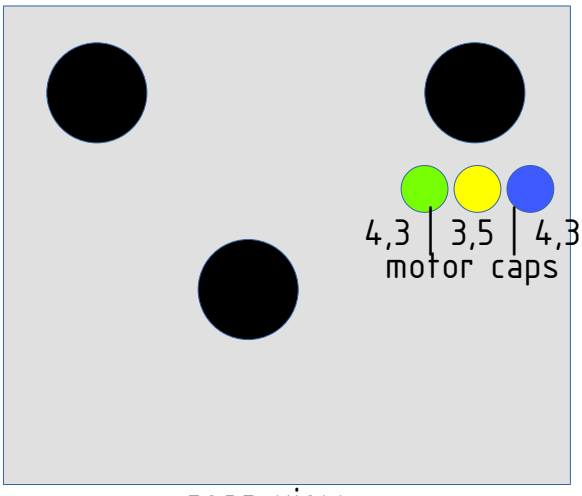


Tape Drive/Transport Control PCB 1.177.317.81

4,7 µF	63 V	8x
10 µF	50 V	1x*
47 µF	63 V	2x
100 µF	16 V	2x
-		
tot		13x

* change 10 µF to 22 µF to improve too much tape slack at starting tape on right reel.

Revox B77 – Motor Caps – value and colouring:



rear view

Short and quick electrical and audio calibration:

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SHORT VERSION if you're familiar with the procedure (else I suggest do it from SM first time)

1a – for the regulated **21 V** supply:
on the audio interconnection board (switch board) check the bottom one of leftmost 4 pins (red wire) for 21 V ± 1 V

1b – for the unregulated **24 V** supply:
check J4 pin 5, small 5- pins connector @bottom of PSU print, probe violet pin

2 – check 35..50 mV @ 3 3/4 IPS at P12 (brown) and P13 (blue) of tacho head

3 – check TP1 on capstan speed control board for 800 Hz (adjust R14)
6.3.3

Audio calibration (Reference Level 0 VU = 257 nWb/m @ 775 mV output)

4 – set control levels at the back fully open
6.4.3

5 – input tone ~20 mV @ 1k at max input knob setting and adjust generator level until
6.4.3 **0,775 V** is obtained at output. (input level should should be ~20 mV)

6 – adjust **METER CAL** for 0 VU on meter

7 – raise signal level > 6 dB to check overload indicators light up, adjust R34/37 or R30/38
6.4.6 on monitor amplifier

8 – adjust the REPRO HEAD azimuth with test tape
6.4.8/9

9 – play reference level from cal tape, adjust **REPRO LVL** trimmer for **0,775 V** on output
6.4.10

10 – set input levels to ZERO (0), HI speed, MONITOR – TAPE
6.4.12

11 – start recording on blank tape and check erase head for a) **30..32 V** and
b) **150 kHz ± 5 kHz** (adjust T1 on osc board)

12 – start rec and measure bias trap on rec amp point **X** for < **350 mV** or less, adjust coils
6.4.13

13 – adjust the REC HEAD azimuth
6.4.14/15

14 – set input levels to MAX. Start recording and feed **10 kHz** @ -20 dB below 0 VU
6.4.16

15 – adjust **BIAS** pots according to table 6.4-15 on pg. 50 of SM PDF (approx. 3 < x < 7 dB)
6.4.16 overbias depending on tape for both speeds *(LPR35 5-4-3 dB @ 9,5-19-38 cm/s)*

16 – keep levels on **MAX**, set MONITOR switch to **SOURCE**

17 – start **REC** 1 kHz and adjust audio generator level for 0,775 V on output
6.4.17

18 – switch MONITOR to position **TAPE**

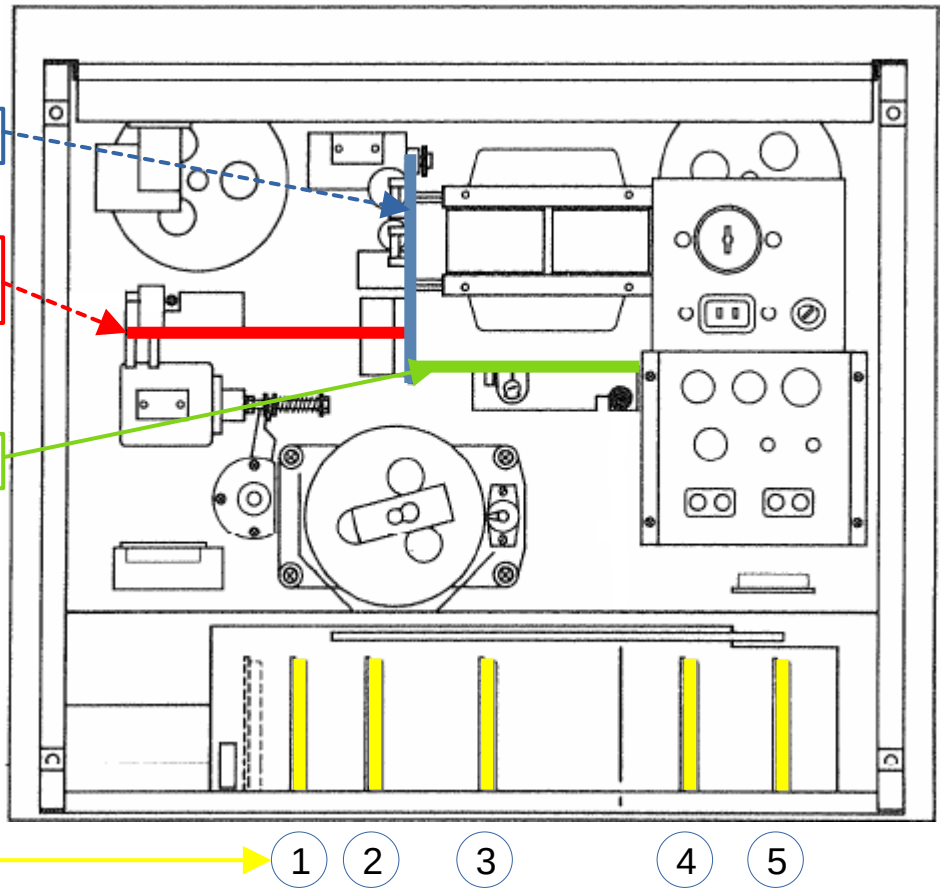
19 – adjust trimmers **REC LEVEL** to obtain output of 0,775 V. Check **TAPE** and **SOURCE**

20 – levels knobs still on **MAX.** Monitor switch on **TAPE**. Start **REC** with input 12 kHz -20 dB
6.4.18

21 – adjust pots **EQ SLOW/FAST** until output is equal to the signal @ **1 kHz** for both speeds

22 = measure distortion 6.5.1 (< 1%, or see table 6.5-2 SM pg. 53 PDF)
23 = measure wow and flutter 6.5.7 (<0,1 % see SM pg. 13 PDF)

1. Revox B77 SLS – Layout of the boards:



Power Supply Board

Tape Drive/Transport Control Board

Capstan Speed Control Board

1. Oscillator Card
2. Record Amplifier
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Audio Interconection Board

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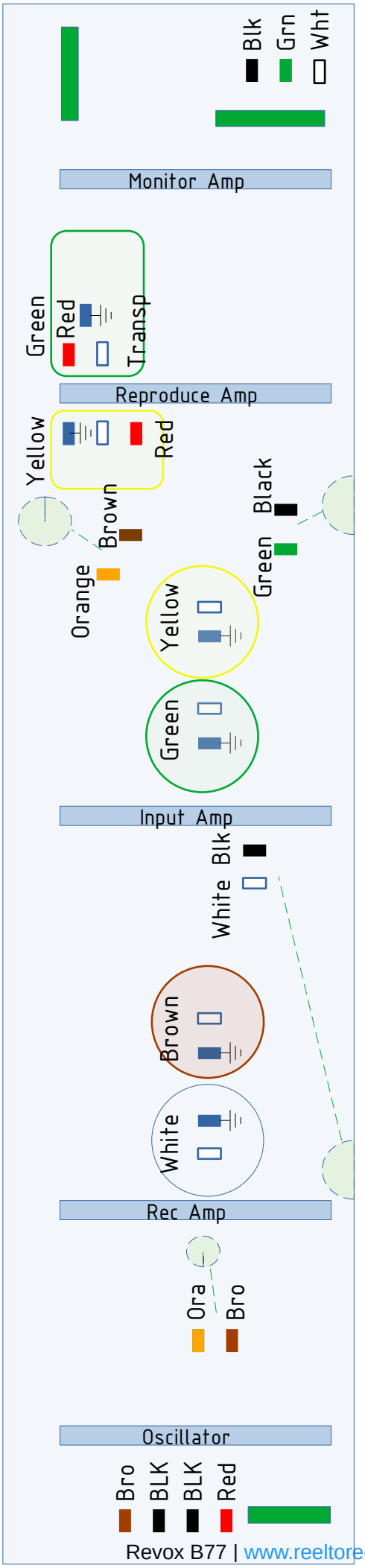

= connector = earth = hole where wires come out