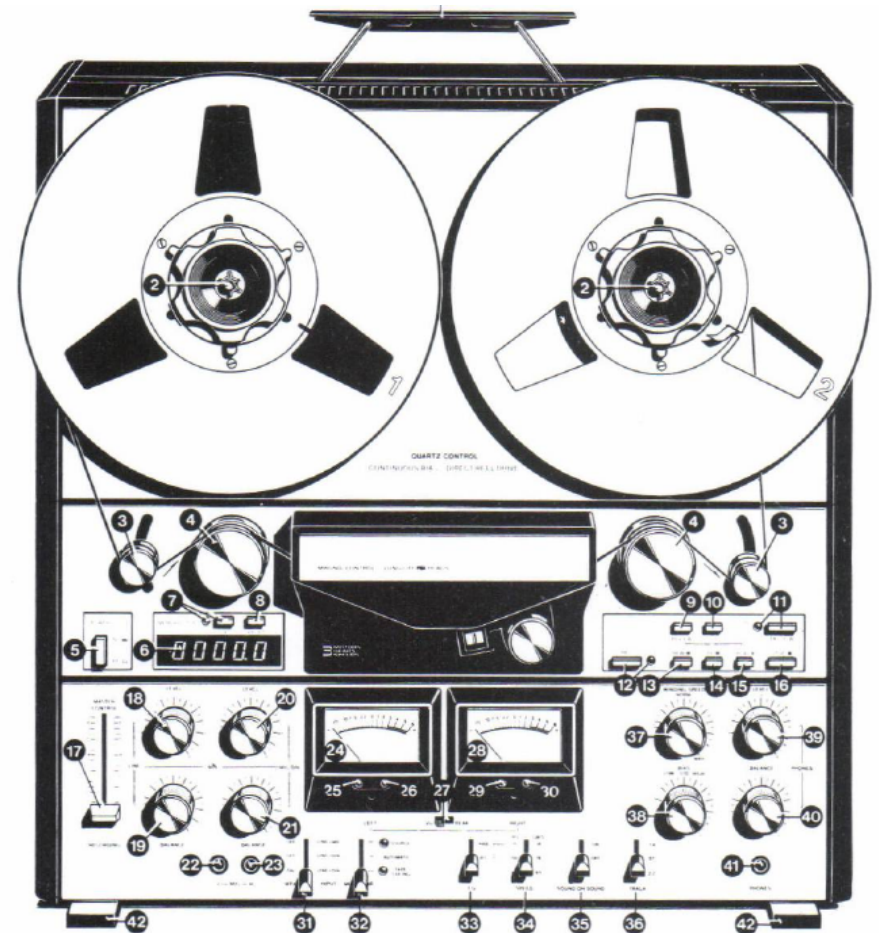
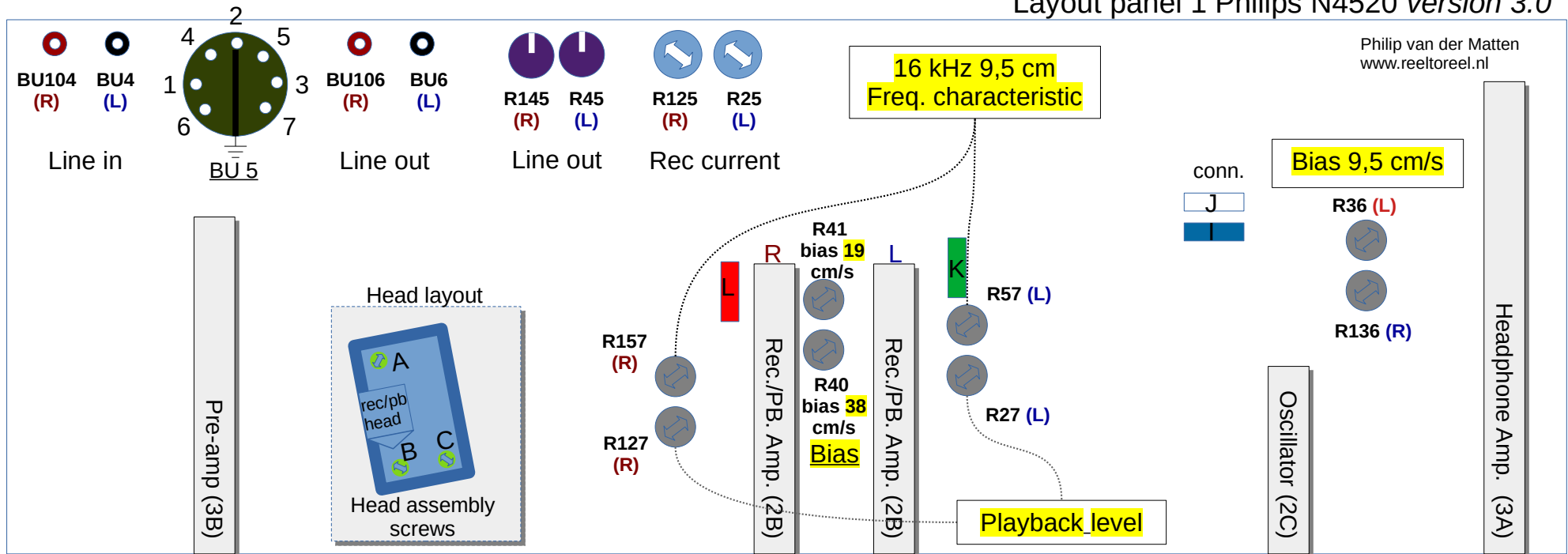


Quick Reference Guide of Philips N4520:

Page:

- 2 Layout of Panel 1 (audio undertray) with calibration instructions
- 3 Overview of electrolytic capacitors, transistors and pots lists for replacement
- 4
- 5





Calibrating N4520, short summary (have Service Manual at hand for full instructions)

- 1 - section 3.2 impossible to perform (zero-setting peaklevel and VU meters).
- 2 - azimuth playback head. screw C.
- 3 - azimuth record head, insert conn. J into L, and conn. I into K. Adjust screw C. reseal conn.
- 4 - play ref tape 250 nWb/m - 0dB section, line out: 780mV. adjust R(1)27.
- 5 - play freq char. section, line out: 1kHz eq. 16kHz +/-1,5dB. 1kHz=ref.point. adjust R(1)57.
- 6 - record 9,5cm/s BU5 (3,5) 330Hz 1V in. line out: 1V +/-0,25dB. note LINE LEVEL position - LEAVE IT!
- 7 - record BU5 (3,5) 1kHz 80mV, 16kHz 80mV in. line out: 1kHz=16kHz +/-2dB. adjust R(1)36 bias.
- 8 - record freq sweep 31Hz-**16kHz**. line out: +/-2dB. 1kHz=ref.point 0dB
- 9 - record 330Hz, adjust input signal so line out=1.41V (meters +3dB). distortion <3%. adjust R(1)36. repeat sweep.
- 10 - record BU5 (3,5) 330Hz 1,41V. line out: 1,41V +/-0,25dB. adjust R(1)25 rec current.
- 11 - record 19cm/s(!) BU5 (3,5) 1 kHz 80mV, 20kHz 80 mV in. line out: 1kHz=20kHz +/-2dB. R41 bias 19cm.
- 12 - record freq sweep 31Hz-**20kHz(!)**. line out: +/-2dB. 1kHz=ref.point 0dB
- 13 - record 330Hz, adjust input signal so line out=1.41V (meters +3dB). distortion <3%. adjust R41. repeat sweep.
- 14 - record 38cm/s(!) BU5 (3,5) 1 kHz 80mV, 26kHz(!) 80 mV in. line out: 1kHz=26kHz +/-2dB. R40 bias 38cm.
- 15 - record freq sweep 31Hz-**26kHz(!)**. line out: +/-2dB. 1kHz=ref.point 0dB
- 16 - record 330Hz, adjust input signal so line out=1.41V (meters +3dB). distortion <3%. adjust R40. repeat sweep.

Philips N4520 components list

audio tray 1 record/playback PCBs 2B left right headphone 3A panel 3B

total:

caps						
capacity in μF :	V					
0,47	63	9				7
1	63	4	2	1	1	
1,5	63	2	2			
3,3	63	2				2
4,7	63	21	6	5	5	5
6,8	40	2				2
15	40	8	2	2	2	2
22	25	13	2	2	2	7
47	10	4	2	1	1	
100	25	1	1			
150	16	2				2
220	25	2		1	1	

<i>total caps:</i>	70	17	12	12	10	19
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transistors						
BC327/25		2				2
BC337/25		2				2
BC546A		2	2			
BC547		1	1			
BC547C		2				2
BC548		8	4			4
BC548C		10		3	3	4
BC549		2	2			
BC549B		6				6
BC550B		2		1	1	
BC556A		2	2			
BC557		1	1			
BC558		4		2	2	
BC558B		4				4
BD135						?
BF245A		7	7			

<i>total transistors</i>	55	19	6	6	14	10
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var. resistors/pots:	
R(1)36	47k Ω
R(1)57	470k Ω
R(1)27	22k Ω
R40	47k Ω
R41	100k Ω