TA 22AH606/00/12/15/29

Service
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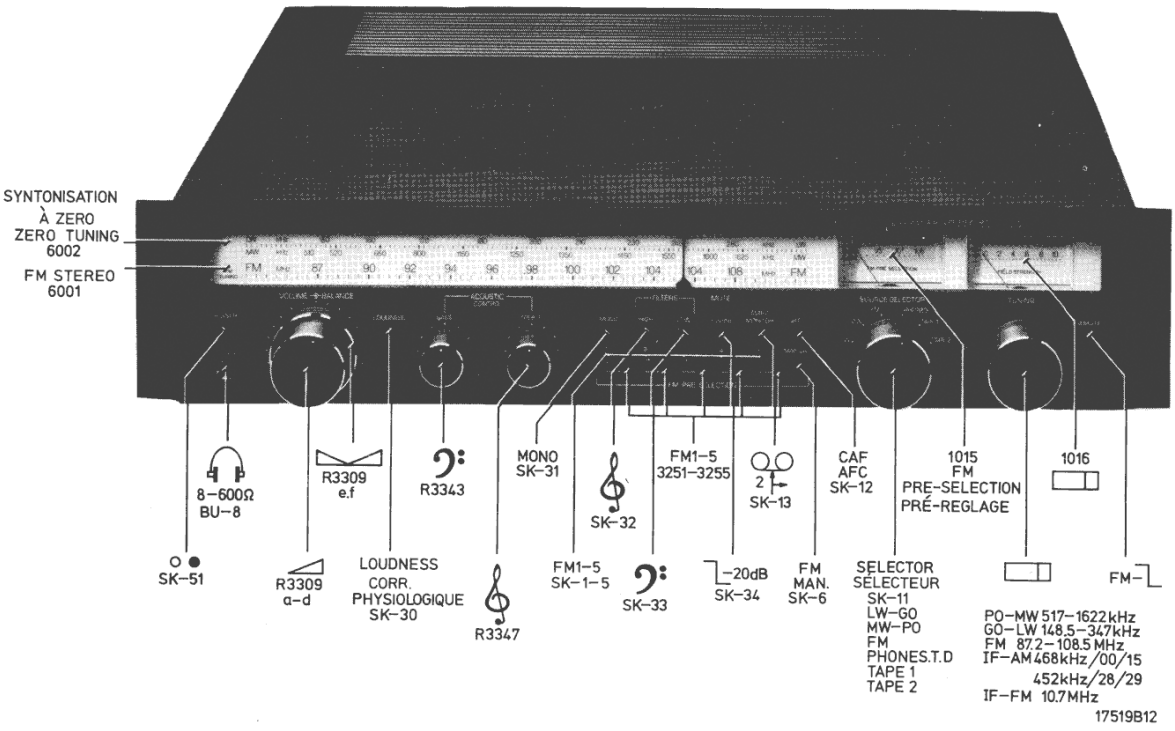
Service Manual



Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

Subject to modification

4822 725 13198

Printed in The Netherlands

PHILIPS

Alignement Réglage	SK...			2051 2052 3051				
AM-IF AM-FI	MW	452 kHz [1] 468 kHz 470 kHz (=fo 5115) (+ 1 kHz)	A	Min. cap.	5111 5121 5120		① Max. + symm. (=fo 5115)	
		fo 5115				5111		
						5120 5121	① Min. + symm.	
AM-OSC	LW	147 kHz (+ 1 kHz)	A	Max. cap		5123		② or ③ Max.
	MW	512 kHz (+ 1 kHz)				5122		
		1635 kHz (+ 1 kHz)		Min. cap		2197		
AM-RF	MW	600 kHz (+ 1 kHz)	A			5118		② or ③ Max.
	LW	155 kHz (+ 1 kHz)				5119		
	MW	1500 kHz (+ 1 kHz)				2186		
FM-IF	FM	[2] ± 10.7 MHz Δf 250 kHz (50 Hz)	B	Min. cap.	5107 5109 5113	5112	④ + ⑤ Max. + symm.	
			C			5107 5109 [3]		
		± 10.7 MHz				5113 [6]	⑥ + ⑦ [4]	[5] ⑥ + ⑦ < 20 mV ⎓

GB

[1] Before proceeding to trimming, short-circuit point 14 of IC 6111 by connecting it to the mass.

[2] Switch off the AFC (automatic frequency control).
Interrupt solder bridge A.
Adjust the R.F. generator in such a way that a symmetrical response curve is obtained on the screen (= fo 5110).

[3] The input signal shall be as low as possible.

[4] Adjust for maximum linearity of the S-curve.

[5] Close solder bridge A.

[6] Adjust for zero-axis crossing (red LED shall burn glaringly).

[7] Mark at scale.

[8] Meter deflection ⩾ 8 divisions.

[9] Eliminate short-circuit at point 14 of IC 6111.

Adjustment output amplifier

Direct current adjustment – Left (Right).
With the aid of R3527 (3523) adjust the quiescent current through the output transistors to 50 mA ± 5 %.
To be measured with a non-earthed mV-meter connected across the resistors 3505, 3507 (3506, 3508).
The deflection shall then be 24 mV ± 5 %.

Inspection DC protection

- Connect a resistor of 270 kΩ between the negative pole of C2411 and point +1 of the power supply. The relay shall then be released.
- Connect a resistor of 220 kΩ between the negative pole of C2414 and point –1 of the power supply. The relay shall then be released.

Alignement Réglage	SK...							
FM-HF	FM	109 MHz Δf 75 kHz 1 mV	C	Max.		5108 [6]		
						2106 [3] [6]		◇8◇ + ◇9◇ Max.
		86.8 MHz Δf 75 kHz 1 mV		Min.		3258		
						5105		◇8◇ + ◇9◇ Max.
		95.5 MHz Δf 75 kHz 1 mV		[7]		3257 [6]		[9]
STEREO DECODER	FM	19 kHz ± 2 Hz 100 mV	D		10 nF 15 16 IC6111	5114		◇2◇ or ◇3◇ Min.
		100 MHz + pil. tone + R. Mod.	C			3179		◇2◇ Min.

Stereo Decoder - Décodeur Stéréo - Decodificatore stereo - Stereodekoder

1015	FM			95.5 MHz		3149		1015 95.5
				108 MHz		3151		1015 108
1016	PU					3217		1016 0
	MW	600 kHz 10 mV	A					1016 [8]

↕ Repeat - Herhalen - Répéter - Wiederholen - Repetera - Ricomminciare - Gentage - Gjentagelse - Toista

(NL)

[1] Vóór het trimmen punt 14 IC 6111 kortsluiten met massa.

[2] AFC uitschakelen.
Soldeer brug ⟨A⟩ open
RF generator zo instellen dat de doorlaatkromme symetrisch in beeld komt (= fo 5110).

[3] Ingangssignaal zo laag mogelijk houden.

[4] Afregelen op max. lineariteit van de S-kromme.

[5] Sluit brug ⟨A⟩ .

[6] Afregelen op 0-doorgang (Rode LED moet fel branden).

[7] Merkpunt op schaal.

[8] Meteruitslag ⩾ 8 schaaldelen.

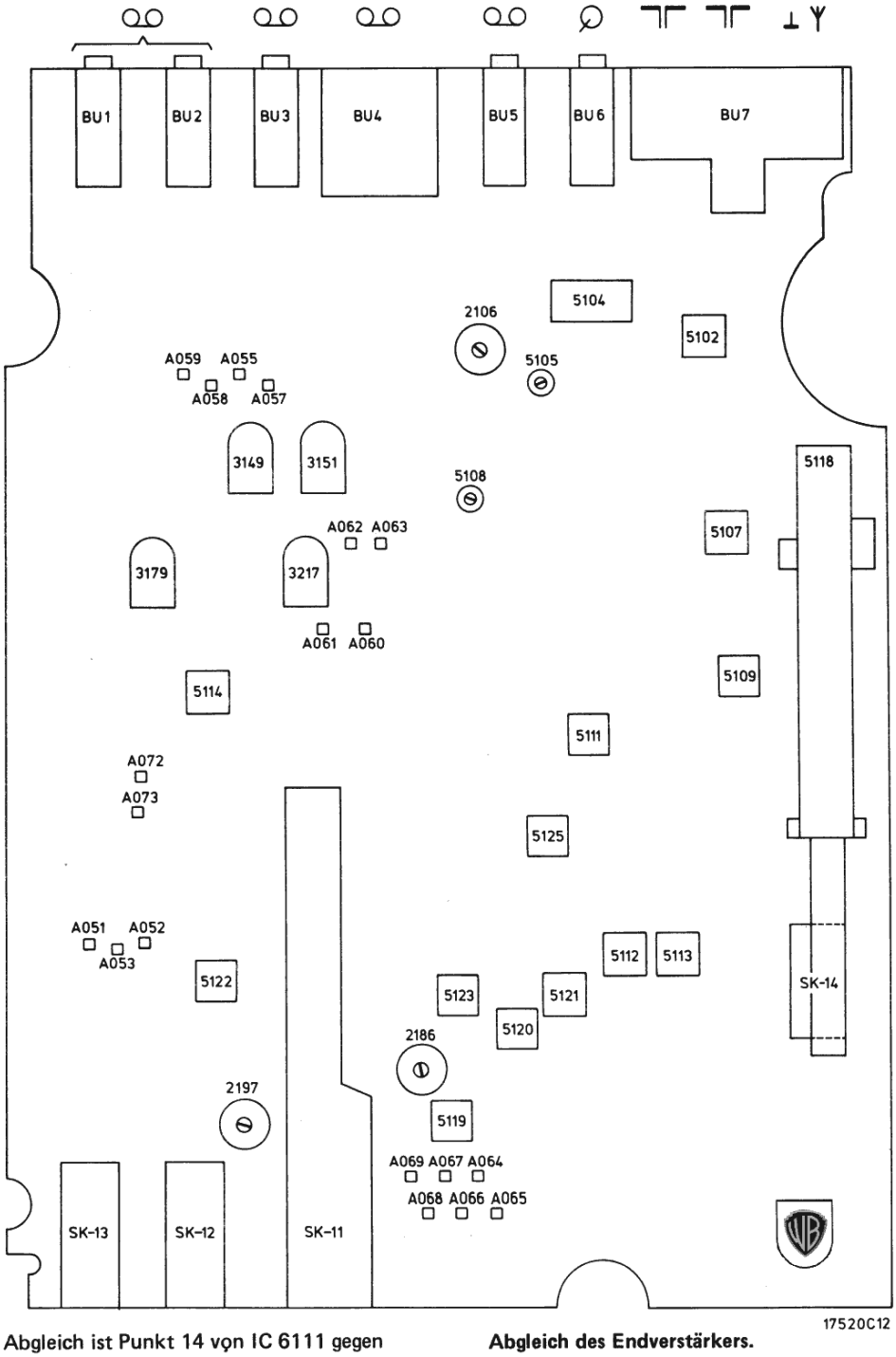
[9] Kortsluiting punt 14 IC 6111 opheffen.

Afregelen eindversterker

Gelijkstroominstelling – L(R).
De ruststroom door de eindtransistoren moet ingesteld worden met R3527 (3523) op 50 mA ± 5 % te meten met een niet geaarde mV-meter aangesloten over de weerstanden 3505, 3507 (3506, 3508).
De uitslag moet dan 24 mV ± 5 % zijn.

Controle DC beveiliging

- Sluit een weerstand van 270 kΩ aan tussen de – (min pool) van C2411 en de +1 voeding.
  Het relais moet dan afvallen.
- Sluit een weerstand van 220 kΩ aan tussen de – van C2412 en de –1 voeding.
  Het relais moet dan afvallen.



1 Vor dem Abgleich ist Punkt 14 von IC 6111 gegen Masse kurzzuschliessen.

2 AFC ausschalten.
Lötbrücke A öffnen.
Hf-Generator dahin einstellen, dass die Durchlasskurve symmetrisch ins Bild kommt. (= fo von 5110).

3 Eingangssignal möglichst niedrig halten.

4 Auf Höchstlinearität der S-Kurve abgleichen.

5 Lötbrücke A schliessen.

6 Auf Nulldurchgang abgleichen (rote Leuchtdiode soll grell aufleuchten).

7 Marke auf Skala.

8 Ausschlag des Messgeräts: ⩾ 8 Skalenteile.

9 Kurzschluss an Punkt 14 von IC 6111 beheben.

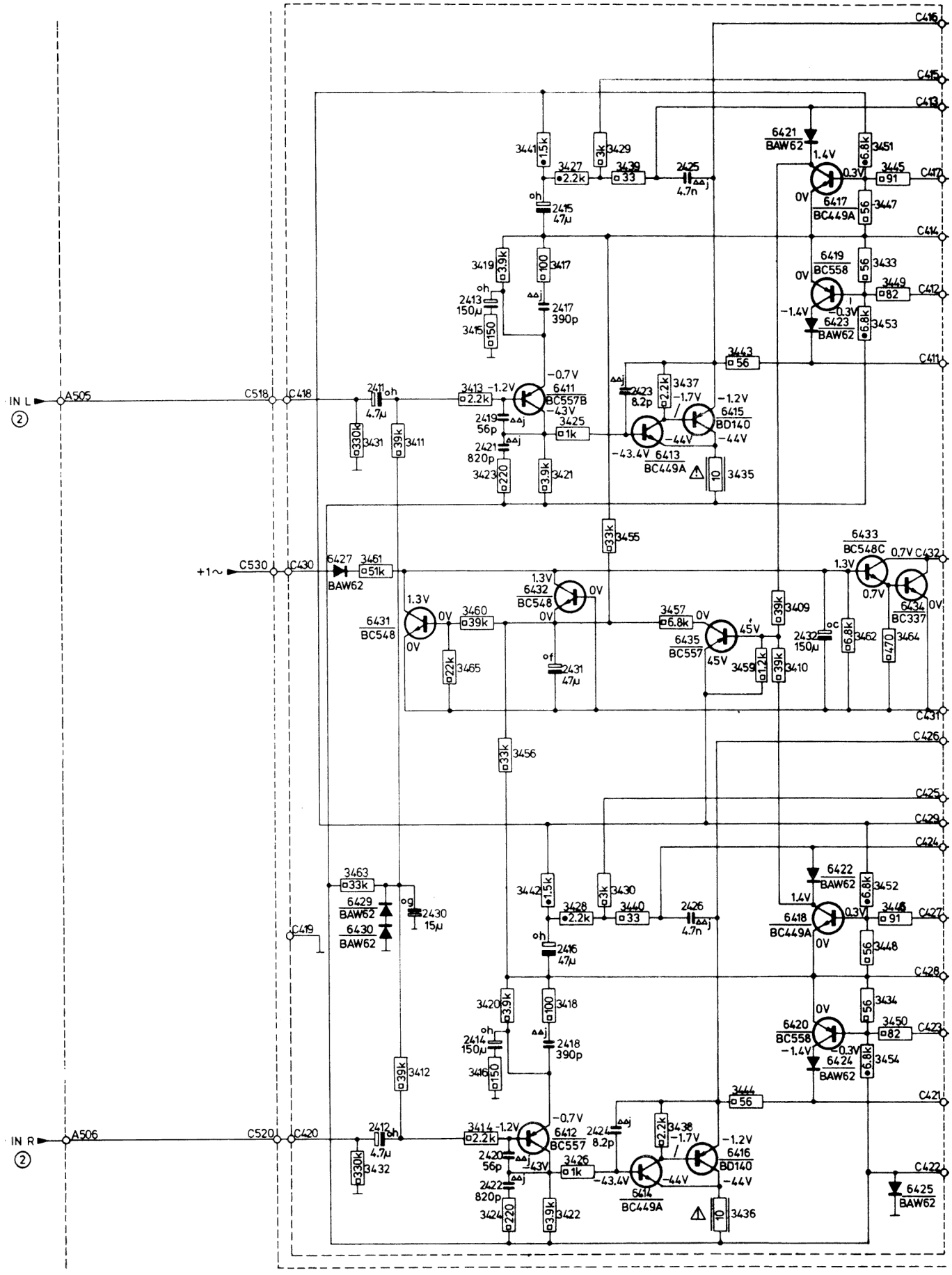
Abgleich des Endverstärkers.

Gleichstromeinstellung – L(R).
Der Ruhestrom durch die Endtransistoren soll mit R 3527 (3523) auf 50 mA ± 5 % eingestellt werden; zu messen mit einem nicht-geerdeten mV-Meter, über die Widerstände 3505 und 3507 (3506 und 3508) angeschlossen.
Der Ausschlag soll dann 24 mV ± 5 % sein.

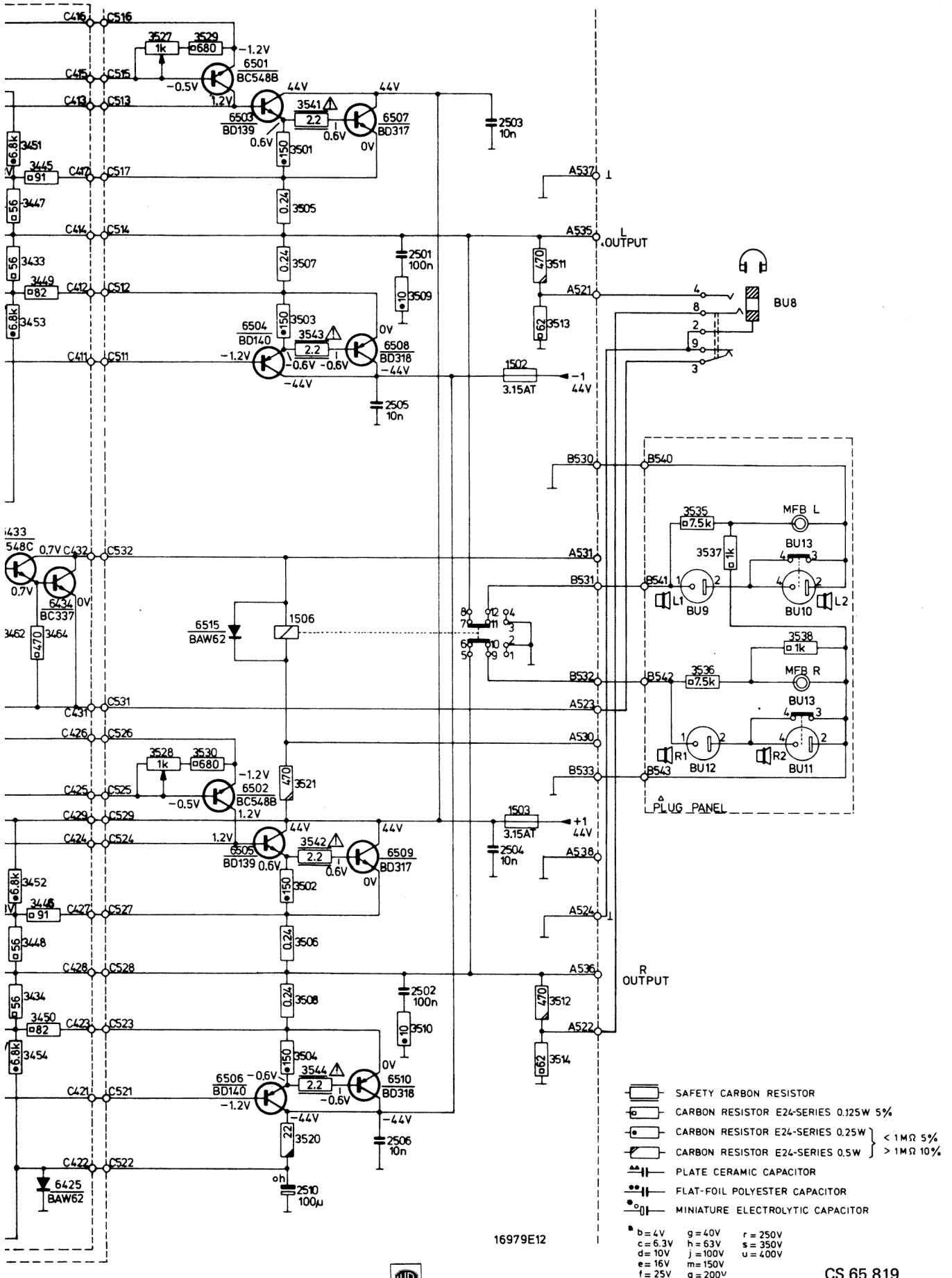
Kontrolle der Gleichspannungssicherung

- Einen Widerstand von 270 kΩ zwischen Minusleiter von C2411 und +1-Stromversorgung anschliessen. Das Relais soll dann abfallen.
- Einen Widerstand von 220 kΩ zwischen Minusleiter von C2412 und −1-Stromversorgung anschliessen. Das Relais soll dann abfallen.

M	6427.6429.6430 6431 6411.6412.6432 6413÷6416 6435 6421÷6425.6417÷6420.6433 6434
C	2411.2412 2430 2413÷2422.2431 2423÷2426 2432
R	3463.3432.3431.3461.3465.3411÷3424.3460.3456 3455.3425÷3430.3436÷3444.3457.3459.3410.3409.3462 3445÷3454.3433.3434.34



6433	6434	6515.6501÷6506	1506	6507÷6510	1502.1503	
			2510	2505.2506.2501.2502	2503.2504	
3454.3433.3434.3464	3527÷3530	3520.3521.3501÷3508.3541÷3544.3509.3510			3511÷3514	3535÷3538

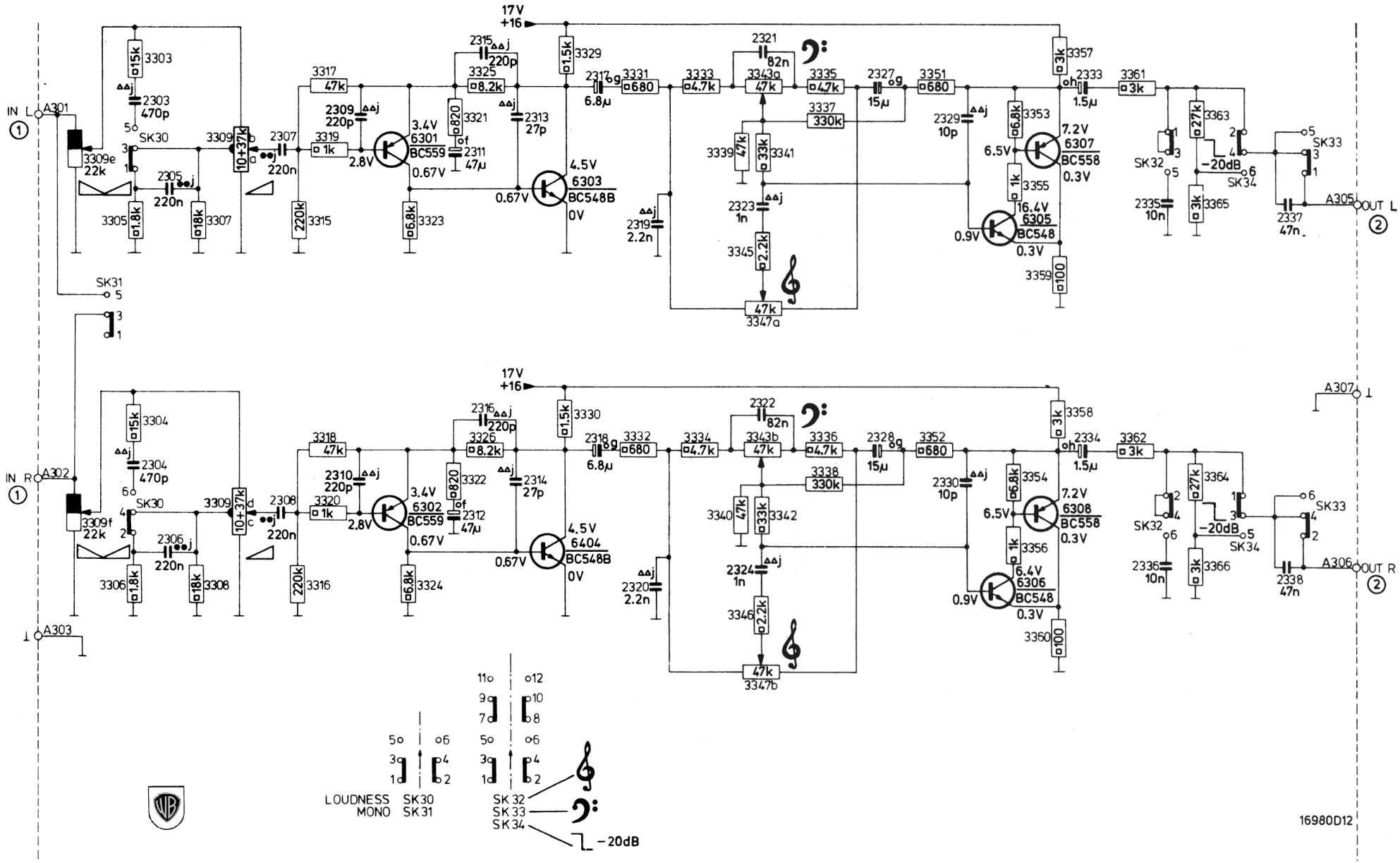


- SAFETY CARBON RESISTOR
- CARBON RESISTOR E24-SERIES 0.125W 5%
- CARBON RESISTOR E24-SERIES 0.25W } < 1MΩ 5%
- CARBON RESISTOR E24-SERIES 0.5W } > 1MΩ 10%
- PLATE CERAMIC CAPACITOR
- FLAT-FOIL POLYESTER CAPACITOR
- MINIATURE ELECTROLYTIC CAPACITOR

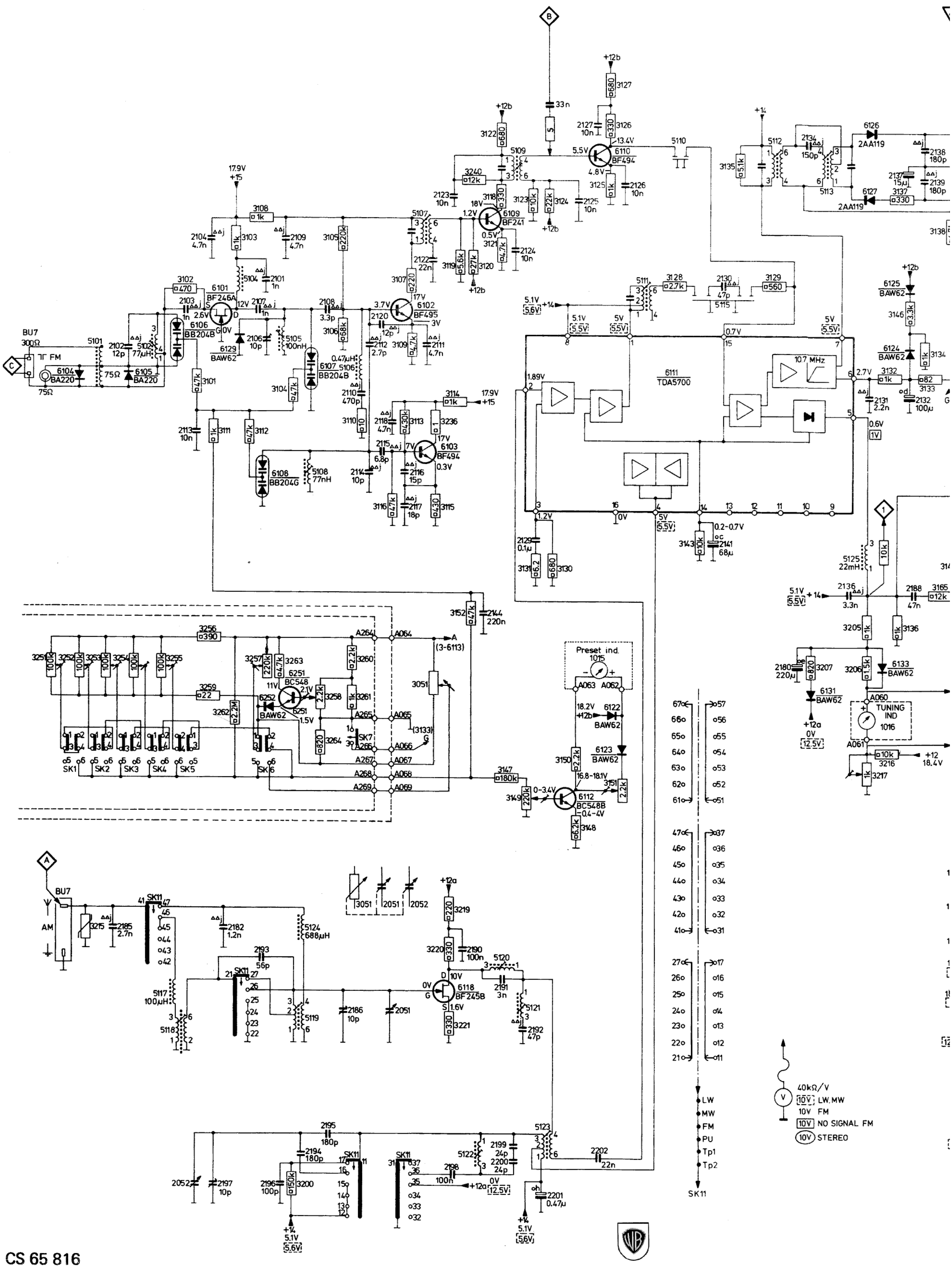
b = 4V g = 40V r = 250V
c = 6.3V h = 63V s = 350V
d = 10V j = 100V u = 400V
e = 16V m = 150V
f = 25V q = 200V

CS 65 819

6301.6302	6305.6304	6305÷6308						
2303÷2306	2307÷2310	2311÷2316	2317÷2320	2321÷2424	2327÷2330	2333.2334	2335.2336	2337.2338
3303÷3309	3315÷2320	3321÷3326	3329÷3332	3345÷3347.3333÷3340.3341÷3345	3351÷3356	3357÷3362	3363÷3366	



M	6104 6105 6106 6101.6129.6108.6252.6251.6107 6102.6103 6118 6109 6112 6110.6122.6123.1015 6111 6131 1016.6124 ÷ 6127.6133
S	5101 5102.5117.5118 5104 5105 5108.5119.5124 5106 5107.5120 ÷ 5123 5109 5111 5110 5115 5112 5113 3125
C 2001÷2170	2102 2052.2103.2113.2104 2106.2107.2101.2109 2108.2051.2110 2112.2120.2114÷2118.2122.2111.2123.2144.2124.2129 2125.2127.2126 2130.214… 2134 2131 ÷ 2133.2136 ÷ 2140
C 2171÷2511	2185 2197 2182 2193 2196 2194 2195.2186 2190.2191.2192.2198÷2202 2180 2188
R3001÷3204	3101 ÷ 3103.3111.3112.3108.3104.3200. 3110.3105 ÷ 3107.3109.3113 ÷ 3116.3051.3152 3118 ÷ 3124 3131.3130.3147 ÷ 3151 3125 ÷ 3128 3143 3135 3129 3132 ÷ 3134 3136 ÷ 3…
R3205÷3525	3215.3251 ÷ 3256 3237 ÷ 3264 3236.3219 ÷ 3221.3200 3205 3207 3217.3216



CS 65 816

7.6133 6116.6117.6114 1150 6522.6136 6002 6115.6519.6516.6113 6001 1151 6128.6517.6518 1013 1012 1011 1010 6119.6120.1152

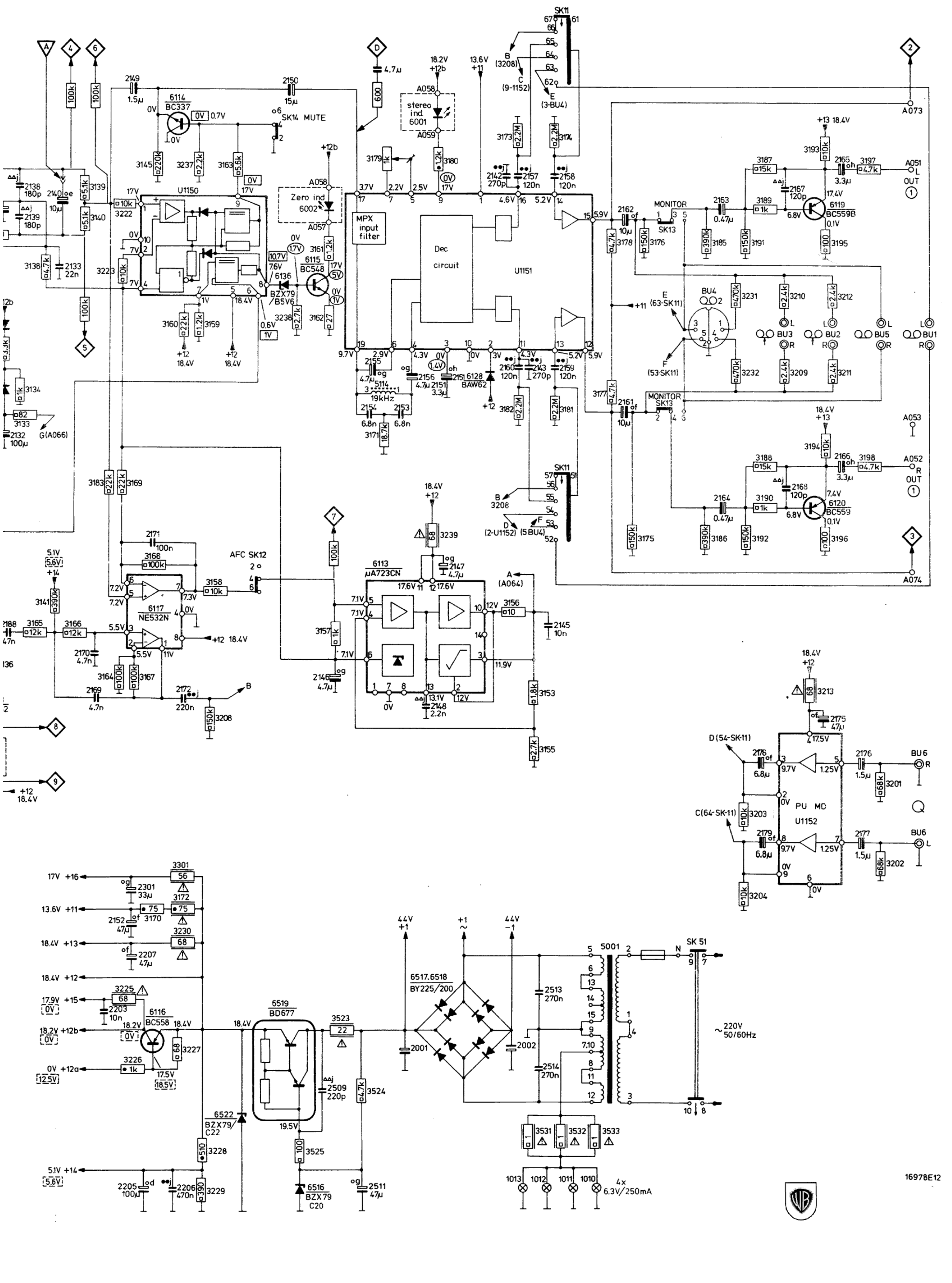
5114 5001

136÷2140 2170.2169 2152.2149 2150 2001.2146÷2148.2153÷2156.2151 2142.2143.2145.2157÷2160.2002 2161.2162 2163.2164 2167.2168 2165.2166

2203.2207.2205.2206 2171.2301.2772 2509.2511 2513.2514 2178.2179 2175 2176.2177

3136÷3141.3183.3164÷3169.3145.3170 3158÷3160.3172 3161÷3163.3157 3171.3179 3180 3155 3156.3182.3153.3181 3173÷3178 3185÷3193 3201÷3204.3193÷3198

3225.3230.3222.3223.3226÷3229.3237.3207.3301 3525 3238.3523.3524 3239 3531÷3533 3231.3232 3209÷3213



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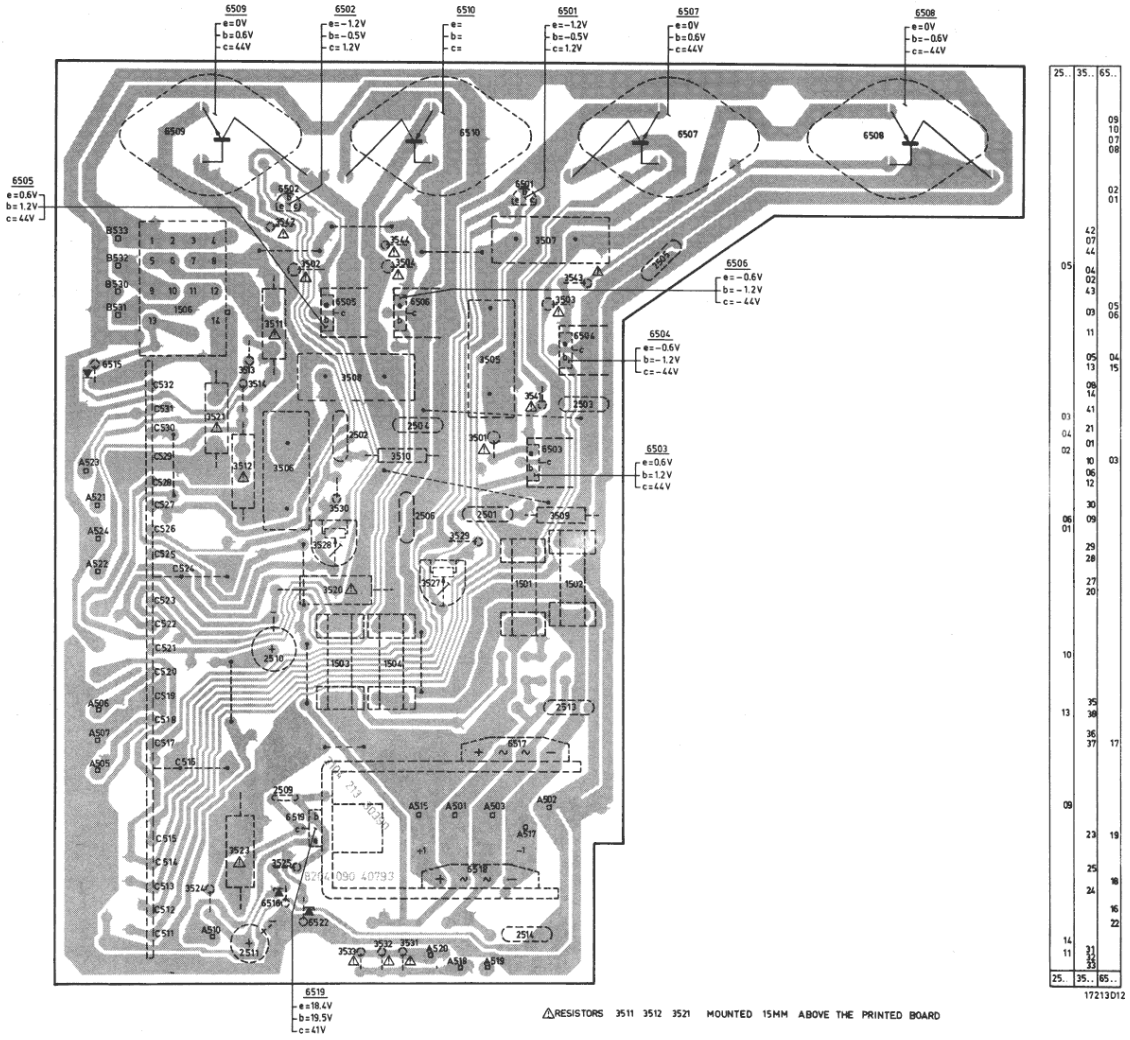
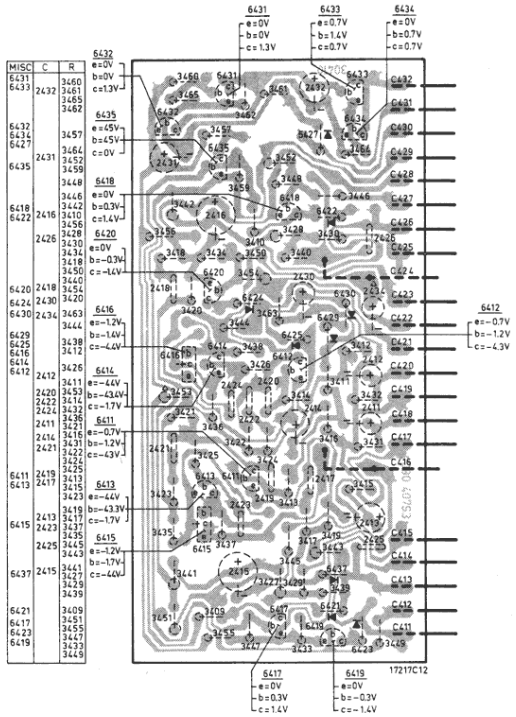
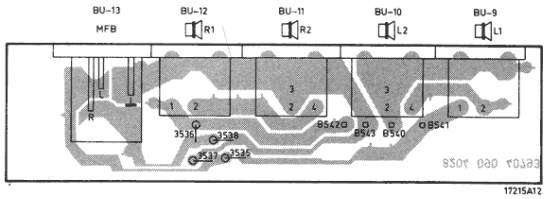
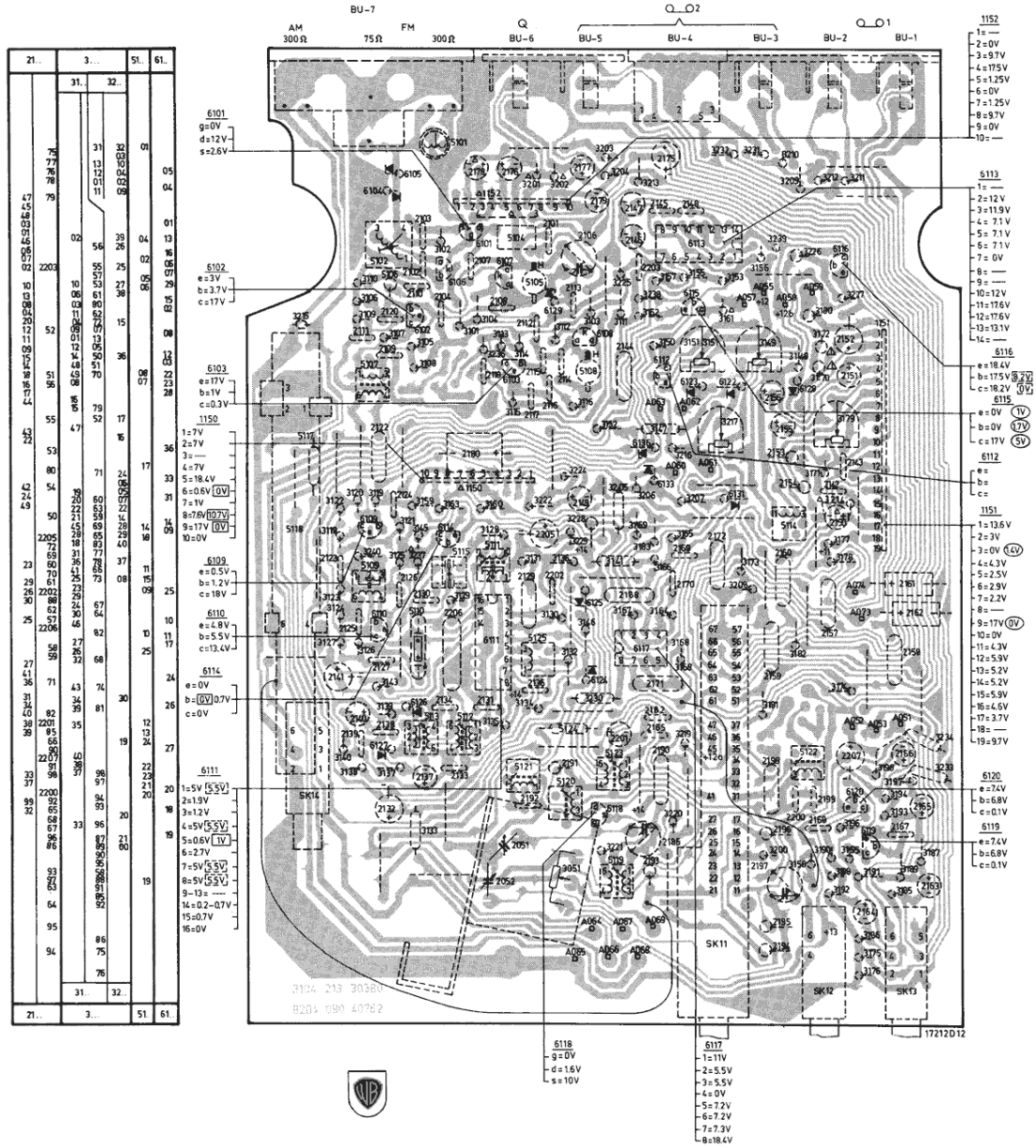


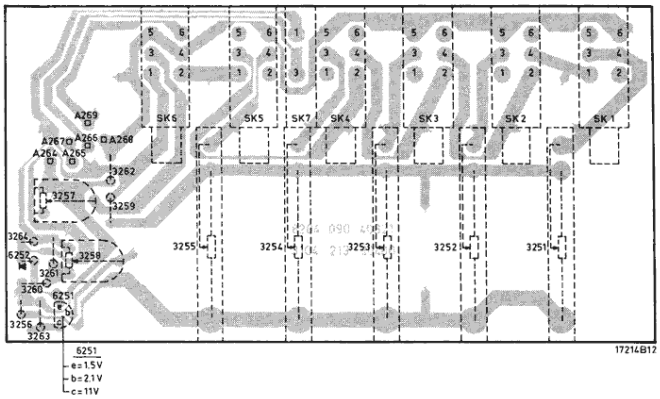
△RESISTORS 3511 3512 3521 MOUNTED 15MM ABOVE THE PRINTED BOARD



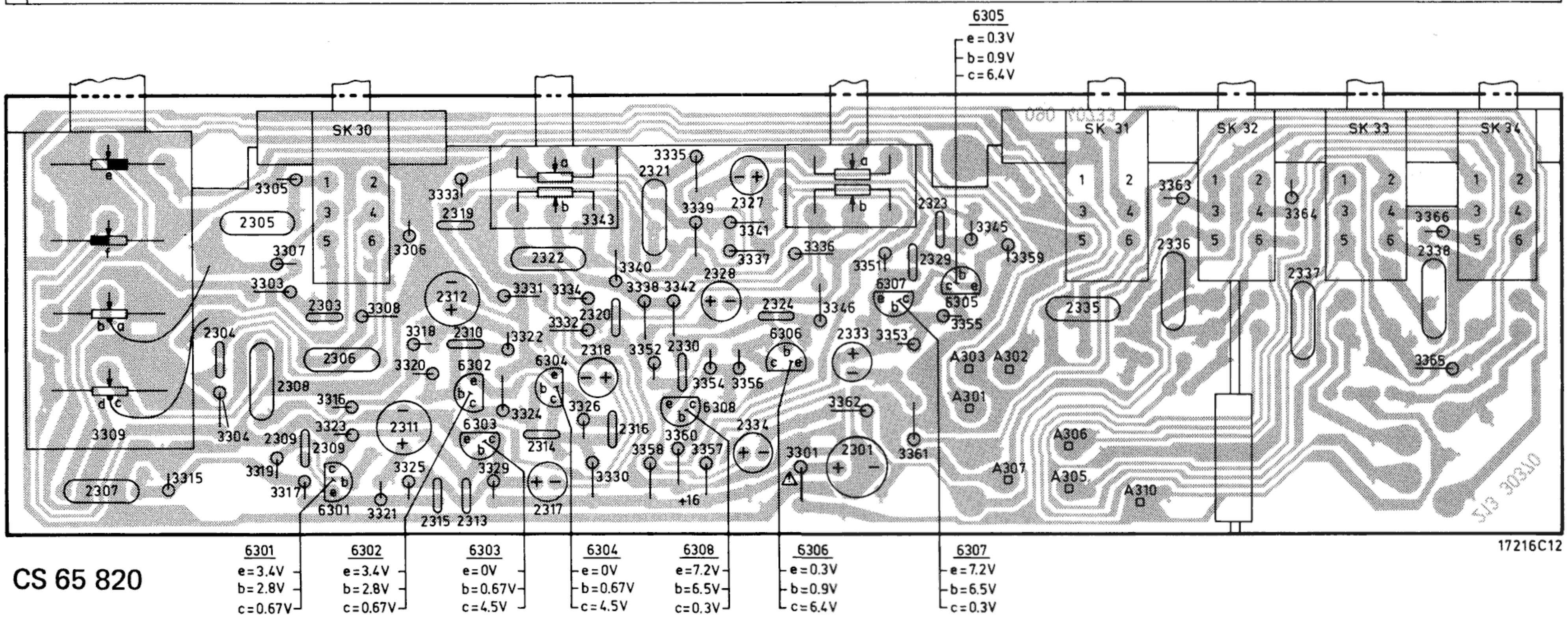




MISC	6252.6251	SK6	SK5	SK7	SK4	SK3	SK2	SK1
R	3256 ··· 3264	3255	3254	3253	3252	3251		



MISC		6301. SK 30	6302.6303	6304	6308	6306	6307 6305	SK 31	SK 32	SK 33	SK 34
C	2305	2303	2312.2319.2310.2322		2320.2321	2328.2327.2324	2329.2323	2335	2336	2337	2338
C	2307	2304.2308.2309.2306.2311	2315 2313	2314 2316 ··· 2318	2330	2334	2301.2333				
R	3309	3303.3307.3305.3308.3306	3331 ··· 3334.3343.3335.3337 ··· 3342				3336.3346.3347.3351.3355.3345.3359		3363	3364	3366
R	3315 3304 3323	3316 ··· 3321.3325.3329.3324.3322.3326.3330.3352.3360.3356 ··· 3358.3354.3301.3362.3353.3361									3365



CS 65 820