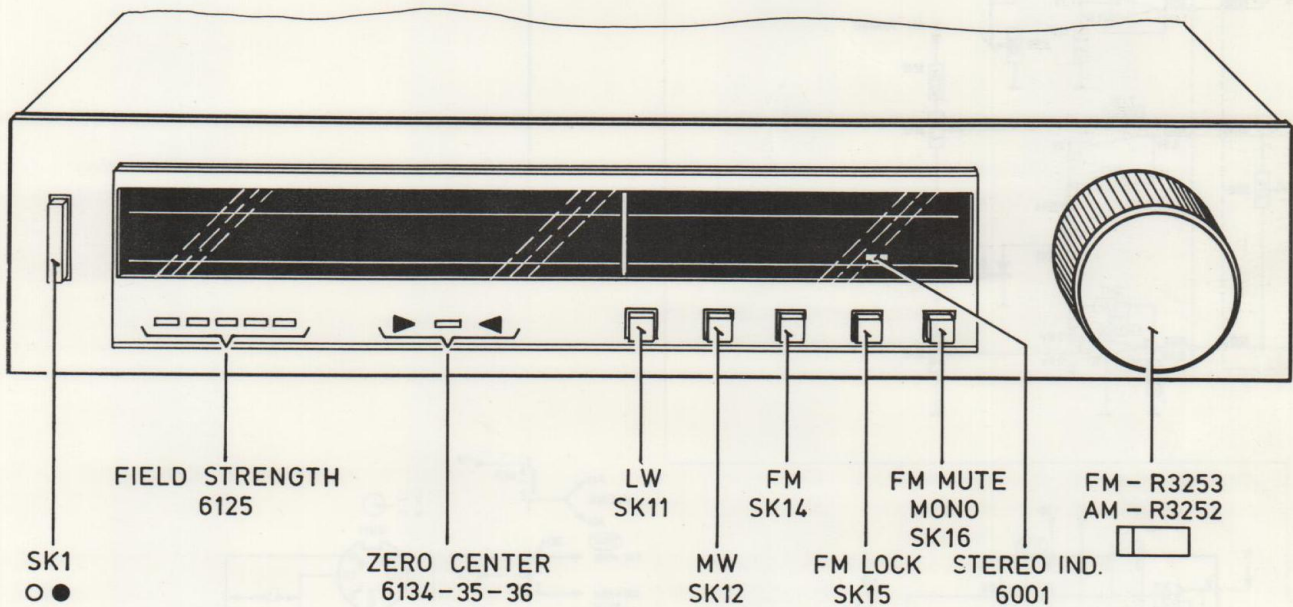


Service
Service
Service

Service Manual

Power supply from matching amplifier



22809 A12

- (GB)**

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.
- (NL)**

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.
- (F)**

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.
- (D)**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.
- (I)**

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.
- (S)**

Säkerhetsbestämmelserna kräver att varje reparation skall utföras korrekt med hänsyn till ursprunglig placering av komponenter, ledningar etc. och med användning av föreskrivna reservdelar.

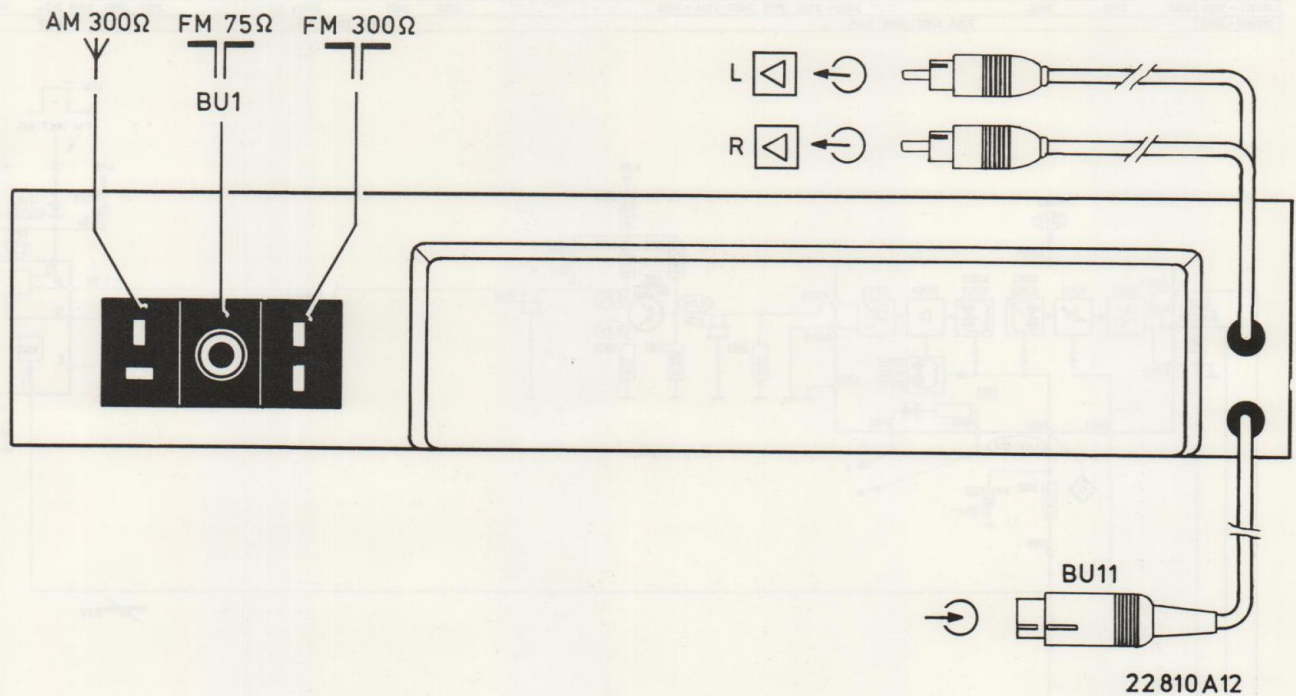
Documentation Technique Service Dokumentation Documentazione di Servizio Huolto-Ohje Manual de Servicio Manual de Serviço



"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Subject to modification
4822 725 14131
Printed in The Netherlands

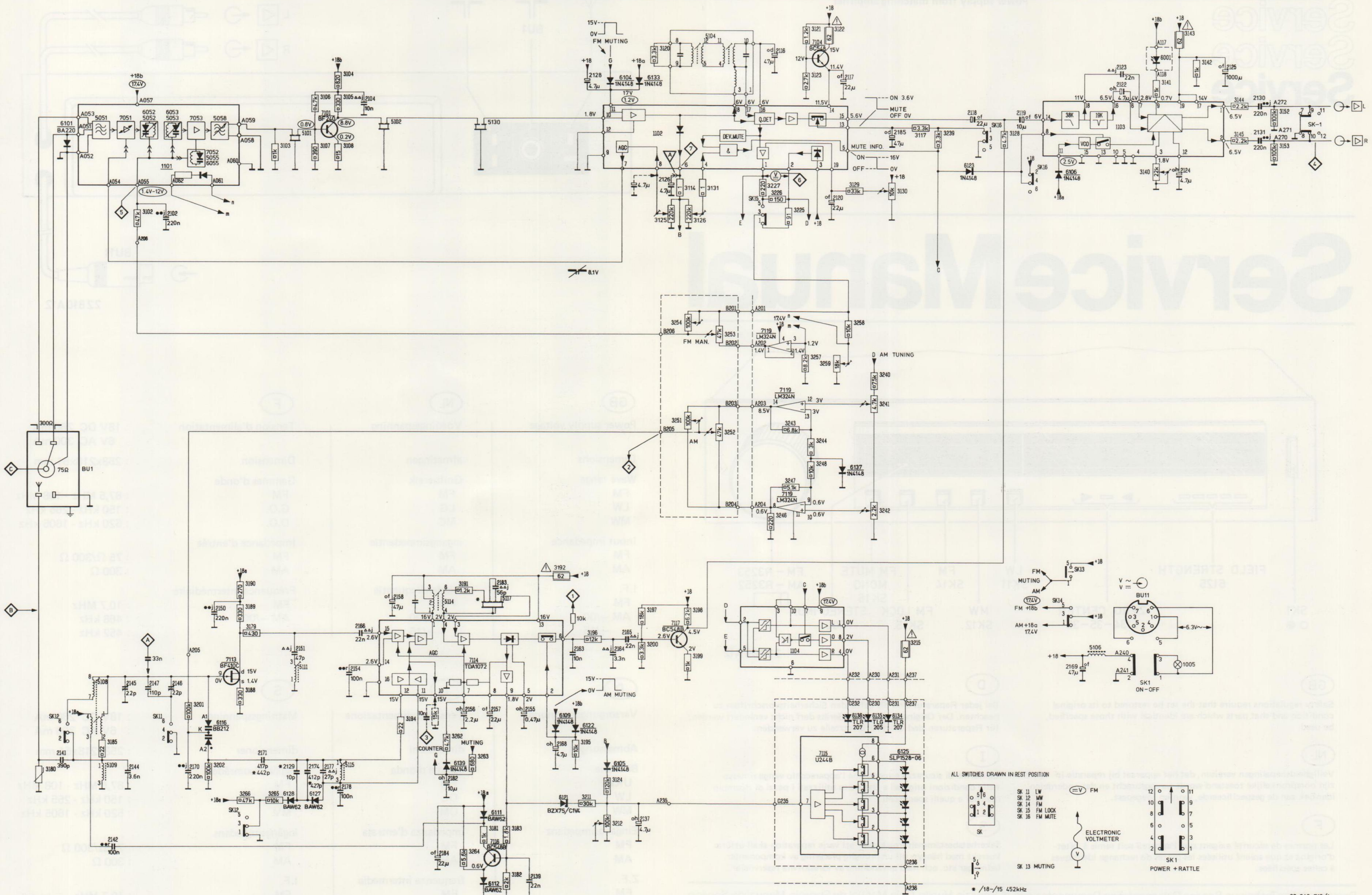
PHILIPS

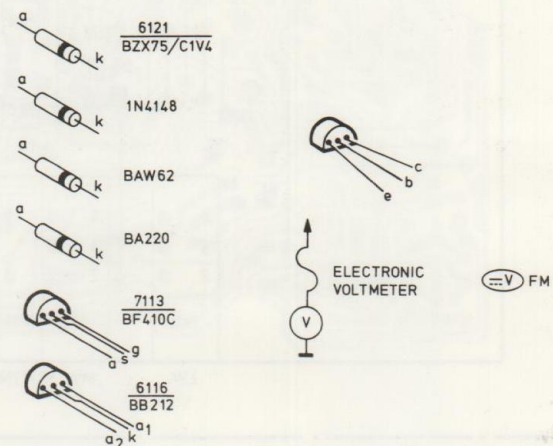


(GB) Power supply voltage	(NL) Voedingsspanning	(F) Tension d'alimentation	: 18V DC 260 mA 6V AC 300 mA
Dimensions	afmetingen	Dimension	: 258x218x51 mm
Wave range	Golfbereik	Gammes d'onde	
FM	FM	FM	: 87,5 MHz - 108 MHz
LW	LG	G.O.	: 150 kHz - 255 kHz
MW	MG	D.O.	: 520 kHz - 1605 kHz
Input impedance	ingangsimpedantie	Impédance d'entrée	
FM	FM	FM	: 75 Ω/300 Ω
AM	AM	AM	: 300 Ω
I.F.	middenfrequentie	Fréquence intermédiaire	
FM	FM	FM	: 10,7 MHz
AM -/00	AM -/00	AM -/00	: 468 kHz
-/15	-/15	-/15	: 452 kHz
(D) Versorgungsspannung	(I) Tensione alimentazione	(S) Matningsspänning	: 18V DC 260 mA 6V AC 300 mA
Abmessungen	dimensioni	dimensioner	: 258x218x51 mm
Bereiche	gamme d'onda	våglängdsområde	
UKW	FM	FM	: 87,5 MHz - 108 MHz
LW	OL	LV	: 150 kHz - 255 kHz
MW	OM	MV	: 520 kHz - 1605 kHz
Eingangsimpedanz	impedanza d'entrata	ingångsimpedans	
FM	FM	FM	: 75 Ω/300 Ω
AM	AM	AM	: 300 Ω
Z.F.	frequenza intermedia	I.F.	
FM	FM	FM	: 10,7 MHz
AM -/00	AM -/00	AM -/00	: 468 kHz
-/15	-/15	-/15	: 452 kHz

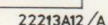
RF IF UNIT

MISC.	6101.BU1. 5108. 5109. 1101	1101	6116. 7113. 5111. 6128. 6127	5101. 7101. 5115	5102. 5114. 6139. 7114. 5117. 6111. 5130. 7116. 6112. 6121. 6109. 6122. 6105. 6104	6133. 1102. 7117	5104	7119. 1104. 7104. 7115. 6137. 6136. 6135. 6134. 6125	6123	6106. 5106	1103. BU11	6001. 1005					
C	2141	2142. 2144. 2147	2102. 2170	2150	2171. 2129. 2151. 2174. 2177. 2178. 2154. 2166. 2104. 2158. 2184. 2182. 2155 + 2157. 2183	2139	2168. 2163 + 2165. 2128	2137	2116	2120. 2117	2185	2118	2119	2169. 2123. 2122	2124	2125	2130. 2131
R3102 + 3199	3180	3185	3102	3188 + 3190. 3179. 3103. 3104 + 3108	3194	3191	3181 + 3183	3192. 3195. 3196. 3124	3197. 3120. 3125. 3198. 3199. 3126. 3131	3121 + 3125. 3129. 3130	3128	3140	3141 + 3143	3144. 3145. 3152. 3153			
R3200 + 3266				3201. 3202. 3266. 3265	3262. 3263. 3264	3211	3212	3200	3114. 3251 + 3254.	3225 + 3227. 3243. 3244. 3246 + 3248. 3257 + 3259. 3240 + 3242. 3117	3215. 3239						

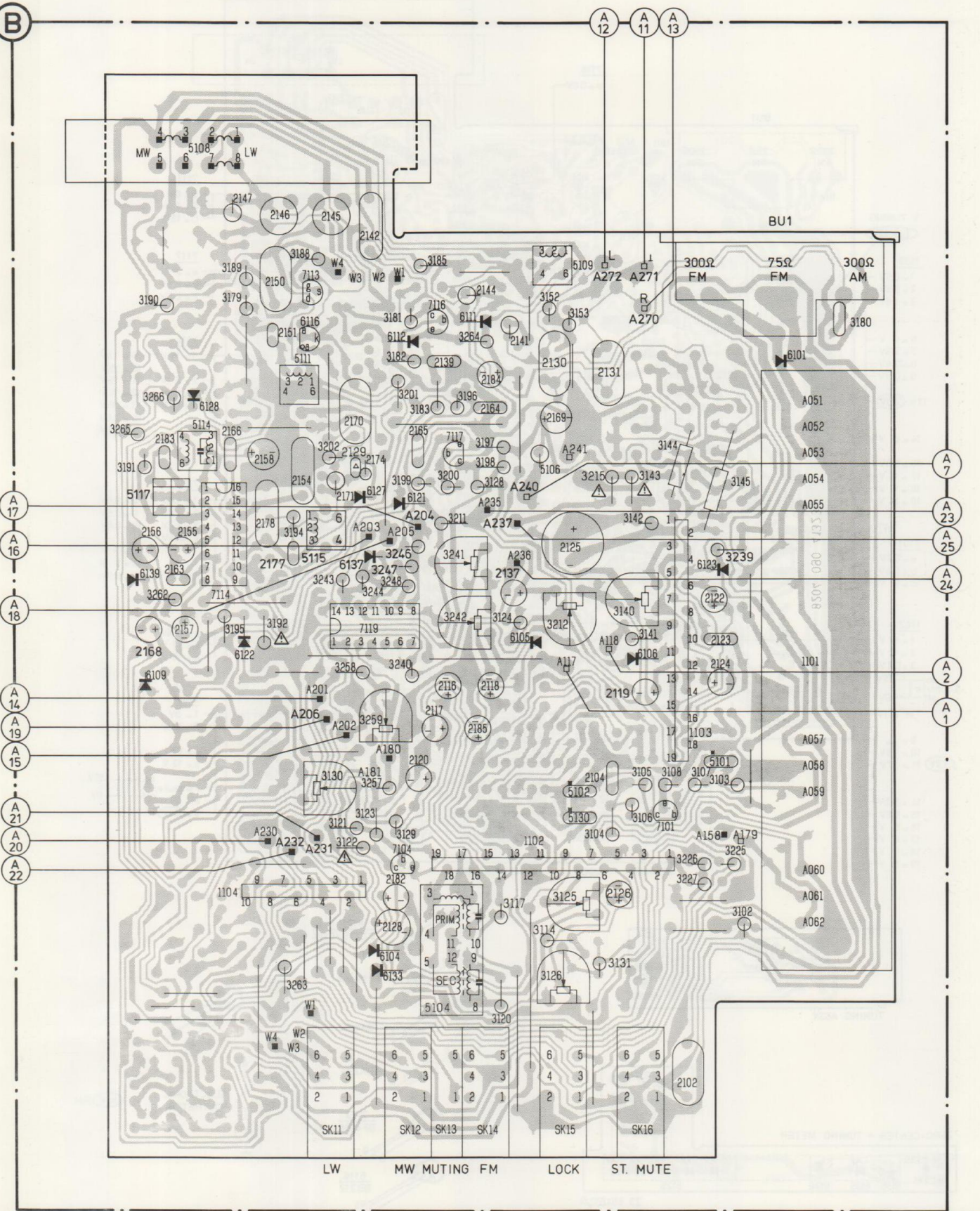
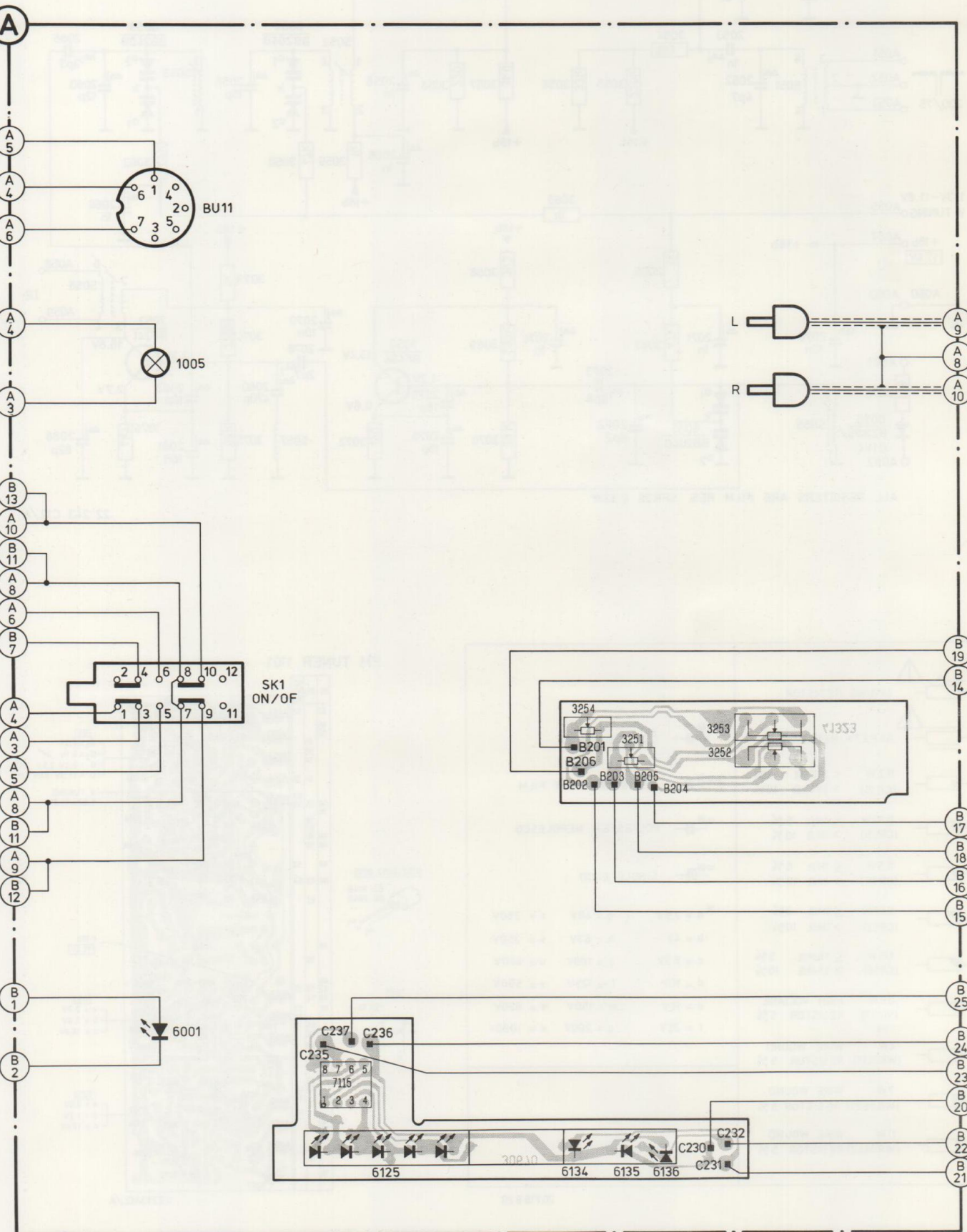




22 243 C12/A

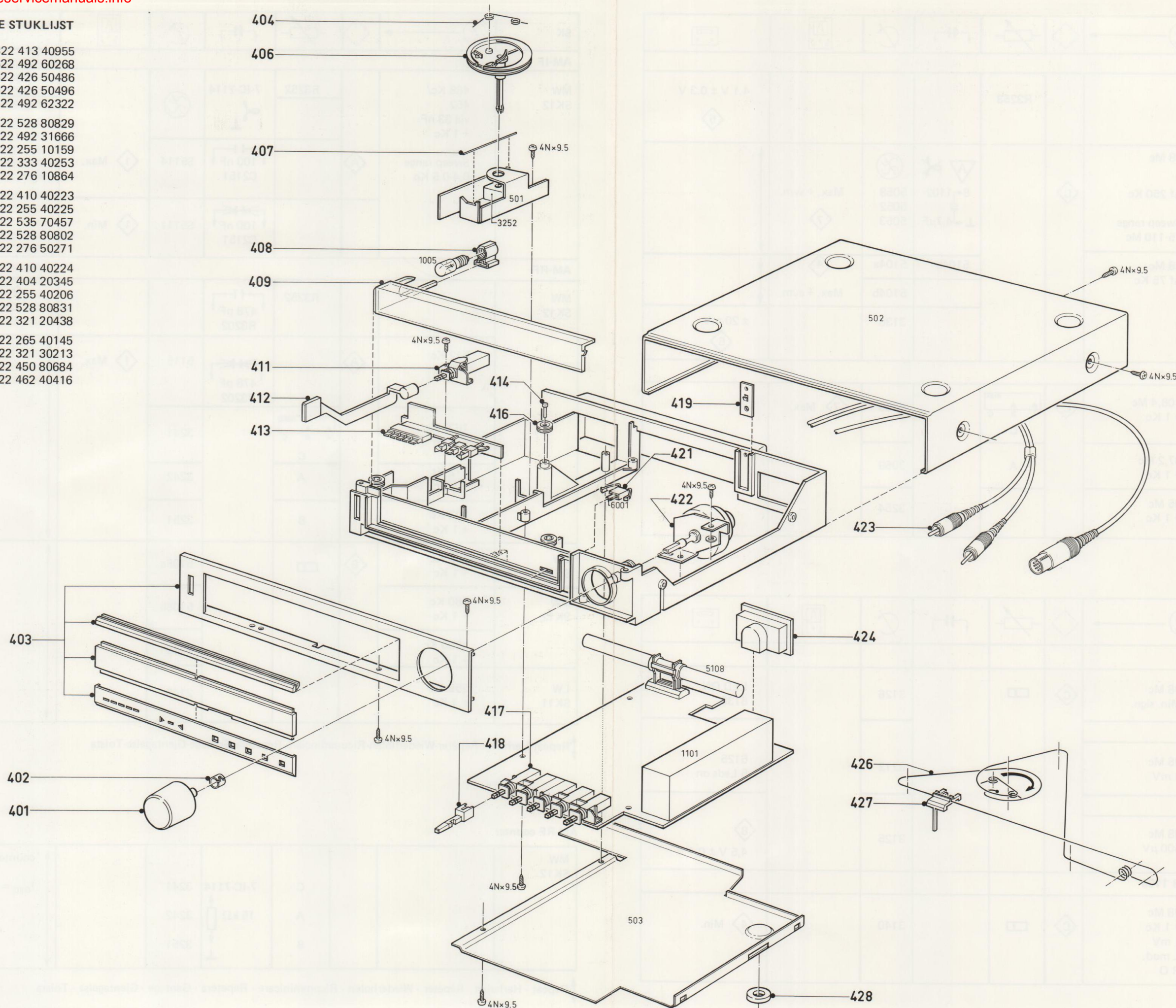


MISC	6001.1005.BU11					6139	6128.7114	6116.7113.6121.6112.7116.7117.6111				1103.6123	BU1.6101.1101	MISC									
MISC	7115.6125					6134	6135	6136	6109				6122.1104.6127.6137.7119.6133.6104.7104	6105.1102	6106.7101	MISC							
S									5117.5114				5111.5115	5104	5106.5109.5130.5102	5101	S						
C									2183				2147.2151.2150.2146.2145.2142.2139.2144.2184.2141.2169.2130.2131					C					
C									2155...2157.2166.2178.2158.2154.2171.2129.2170.2174.2165.2116...				2118.2164.2137				2119	2122...2124	C				
C									2168.2163				2177				2128.2182.2120		2102.2126	2102	C		
R									3191.3265.3190.3266.3189.3179.3188.3202.3181...				3183.3185.3196...				3201.3264.3152.3153.3215.3140...3145		3180	R			
R						3254			3251	3252.3253				3262.3195.3192.3194.3243.3244.3246...				3248.3211.3242.3241.3128.3124.3212		3239	R		
R													3263.3130.3121...				3123.3257...3259.3129.3240.3120.3117.3114.3126.3125.3131.3102...				3108.3225...3227		R



MECHANISCHE STUKLIJST

401	4822 413 40955
402	4822 492 60268
403	4822 426 50486
403 -/18	4822 426 50496
404	4822 492 62322
406	4822 528 80829
407	4822 492 31666
408	4822 255 10159
409	4822 333 40253
411	4822 276 10864
412	4822 410 40223
413	4822 255 40225
414	4822 535 70457
416	4822 528 80802
417	4822 276 50271
418	4822 410 40224
419	4822 404 20345
421	4822 255 40206
422	4822 528 80831
423	4822 321 20438
424	4822 265 40145
426	4822 321 30213
427	4822 450 80684
428	4822 462 40416



SK							
FM-IF							
FM SK14			R3253				4.1 V $\pm$ 0.3 V $\diamond 5$
FM-SK15 Lock off	98 Mc						
FM-SK16 Mute off	Δf 250 Kc Sweep range 75-110 Mc	$\diamond C$			Max. + sym. $\diamond 7$		
	98 Mc Δf 75 Kc			5104b	5104a	$\diamond 4$	
					5104b	Max. + sym.	
					3130		± 20 mV $\diamond 6$
FM-RF							
FM SK14	108,4 Mc + 1 Kc	$\diamond C$			5055	$\diamond 7$ Max.	
FM Lock off SK15	87,2 Mc + 1 Kc		A		3059		
FM Mute off SK16	95 Mc + 1 Kc		B		3254		

SK							
MUTE LEVEL							
FM SK14	98 Mc Min. sign.	$\diamond C$			3126		LED ON 6135
FIELD STRENGTH							
FM SK14	98 Mc 1 mV				3212		6125 5 Leds on
AGC							
FM	98 Mc 500 μ V				3125		$\diamond 8$ 4,5 V $\pm$ 0,1 V
STEREO DECODER 1103							
FM SK14 ST-Mute SK16	98 Mc + 1 Kc 1 mV L mod. R O	$\diamond C$			3140		$\diamond 4$ Min.

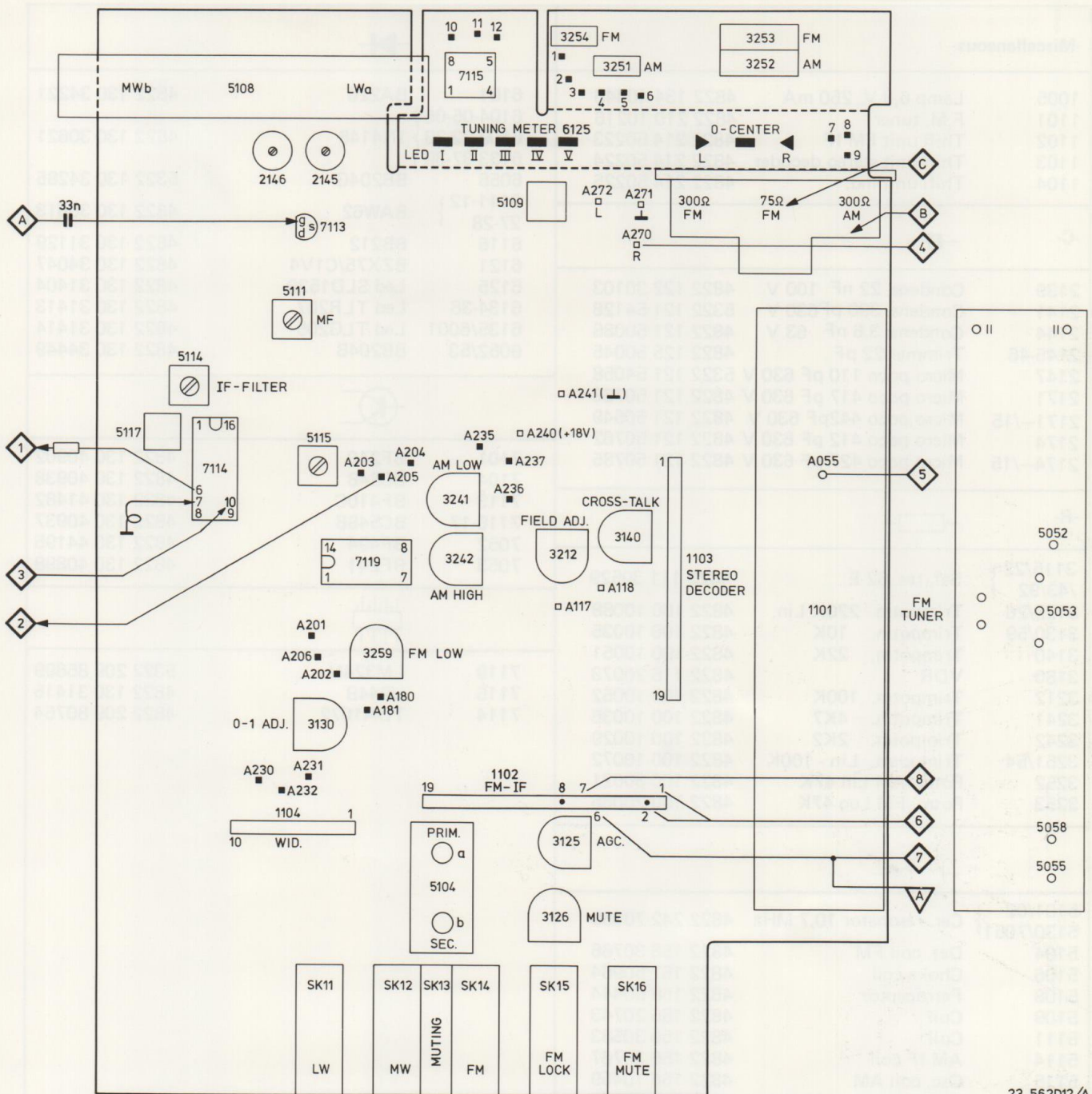
SK							
AM-IF							
MW SK12	468 Kc/ 452 via 33 nF + 1 Kc Sweep range 0.4-0.5 Kc		R3252	7-IC-7114 			$\diamond 2$ Min.
		$\diamond A$			100 nF C2151	S5114	$\diamond 1$ Max.
					100 nF C2151	S5111	$\diamond 1$ Min.
AM-RF							
MW SK12			R3252		478 pF R3202		$\diamond 2$ 17.5 V
	512 Kc + 1 Kc	$\diamond A$			478 pF R3202	5115	$\diamond 1$ Max.
	1635 Kc + 1 Kc					3241	
	512 Kc + 1 Kc					3242	
	902 Kc + 1 Kc					3251	
LW SK11	155 Kc + 1 Kc	$\diamond B$				5108a	
MW SK12	560 Kc + 1 Kc					5108b	
	1500 Kc + 1 Kc					2145	
LW SK11	250 Kc + 1 Kc					2146	

Repeat-Herhalen-Répéter-Wiederholen-Ricominciare-Repetera-Gentage-Gjentagelse-Toista

AM-RF counter

MW SK12			C	7-IC-7114	3241		counter via 10 nF
			A	15 k Ω	3242		$f_{osc} = f_{RF} + f_{IF}$
			B		3251		$\diamond 3$

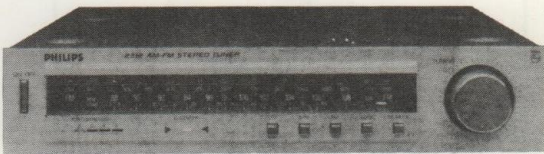
Repeat - Herhalen - Répéter - Wiederholen - Ricominciare - Repetera - Gentage - Gjntagelse - Toista



23 562D12/A

-Miscellaneous-					
1005	Lamp 6,3 V 250 mA	4822 134 40446	6101	BA220	4822 130 34221
1101	F.M. tuner	4822 210 10216	6104-05-06 }	1N4148	4822 130 30621
1102	Thifi unit FM IF	4822 214 50223	6109-22-23 }		
1103	Thifi unit stereo decoder	4822 214 50224	6133-37-39 }		
1104	Thifi unit ind.	4822 214 50225	6055	BB204G	5322 130 34285
-C- 			6111-12 }	BAW62	4822 130 30613
			27-28 }		
2139	Condens. 22 nF 100 V	4822 122 30103	6116	BB212	4822 130 31129
2141	Condens. 390 pF 630 V	5322 121 54128	6121	BZX75/C1V4	4822 130 34047
2144	Condens. 3,6 nF 63 V	4822 121 50088	6125	Led SLD152B	4822 130 31404
2145-46	Trimmer 22 pF	4822 125 50045	6134-36	Led TLR207	4822 130 31413
2147	Micro poco 110 pF 630 V	5322 121 54058	6135/6001	Led TLG205	4822 130 31414
2171	Micro poco 417 pF 630 V	4822 121 50763	6052/53	BB204B	4822 130 34449
2171-15	Micro poco 442pF 630 V	4822 121 50549			
2174	Micro poco 412 pF 630 V	4822 121 50762	7101	BF240	4822 130 40902
2174-15	Micro poco 427 pF 630 V	4822 121 50785	7104	BC548	4822 130 40938
-R- 			7113	BF410C	4822 130 41482
3115/22 }	Saf. res. 62 E	4822 111 30529	7116-17	BC548B	4822 130 40937
/43/92 }			7052	BF494	4822 130 44195
3125/26	Trimpotm. 220K Lin.	4822 100 10088	7053	BF241	4822 130 40898
3130/59	Trimpotm. 10K	4822 100 10035			
3140	Trimpotm. 22K	4822 100 10051	7119	LM324N	5322 209 85899
3180	VDR	4822 116 20073	7115	U244B	4822 130 31415
3212	Trimpotm. 100K	4822 100 10052	7114	TDA1072	4822 209 80754
3241	Trimpotm. 4K7	4822 100 10036			
3242	Trimpotm. 2K2	4822 100 10029			
3251/54	Trimpotm. Lin - 100K	4822 100 10072			
3252	Potm. AM Lin 47K	4822 100 30021			
3253	Potm. FM Log 47K	4822 100 20066			
					
5101/02 }	Cer. resonator 10,7 MHz	4822 242 70355			
5130/7051 }					
5104	Det. coil FM	4822 156 30766			
5106	Choke coil	4822 157 50964			
5108	Ferroceptor	4822 158 60444			
5109	Coil	4822 156 20743			
5111	Coil	4822 156 30583			
5114	AM IF coil	4822 156 30767			
5115	Osc. coil AM	4822 156 10459			
5117	Cer. resonator 468 KHz	4822 242 70275			
	Cer. resonator 452 KHz	4822 266 20069			
5055	Coil FM	4822 157 51171			
5058	Coil FM	4822 153 50206			
5051	Transformer	4822 146 40267			

Service
Service
Service



28 014 A12

Power supply from matching amplifier

Service Manual

GB

The version F2312/02 is equal to the versions F2312/00/15 with the exception of the following parts.

FM-RF alignment:
For FM-RF alignment F2312/02 version, see table 1.

NL

De uitvoering F2312/02 is gelijk aan de uitvoeringen F2312/00/15 met uitzondering van de volgende onderdelen.

FM-RF afregeling:
Voor FM-RF afregeling voor de F2312/02 uitvoering zie tabel 1.

D

Die Ausführung F2312/02 ist den Ausführungen F2312/00/15 gleich. Es gibt jedoch Ausnahmen für folgende Bauteile.

FM-RF Abgleich:
Der Abgleich soll für die Ausführung F2312/02 nach Tabelle 1 durchgeführt werden.

Geändert wurden;
Gewijzigd;
Changed;

pos. 409	4822 333 40284
pos. 1101 FM-Tuner	4822 210 10231
3068 62 Ω Δ	4822 111 30529
3069 330 kΩ □	
3070 47 kΩ □	

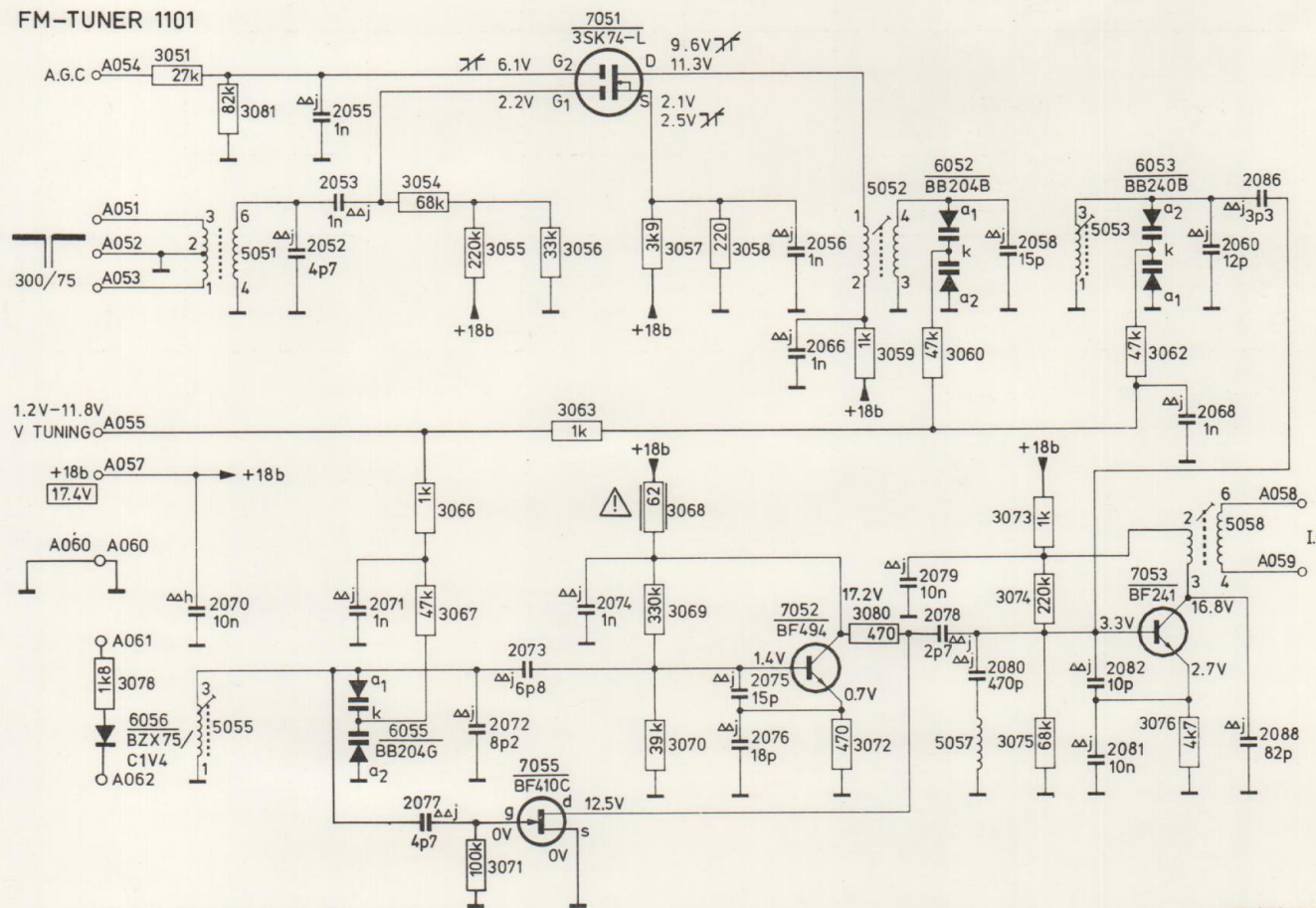
Hinzugefügt wurden;
Toegevoegd;
Added;

2077 4.7 pF ΔΔj	
3071 100 kΩ □	
3080 470 Ω □	
7055 BF410C	4822 130 41482



MISC.	6056	5055,5051	6055	7055	7051	7052	5052	6052,5057	5063	6053,7053,5058
C	2070	2052,2055,2053,2071,2077,2072,2073	2074	2075,2076,2056,2066,2078+2080	2058	2082,2081	2060,2088,2086			
R	3051	3081	3067,3066,3054+3056,3071,3063	3068	3070,3057,3058,3072,3059,3080,3060	3073+3075	3062	3076		

FM-TUNER 1101



ALL RESISTERS ARE FILM RES. SFR 25 0.33W

27 836 C12

FM-RF

SK-						
FM SK-14	108 MHz + 1 kHz mod.					
FM Lock off SK-15	87.56 MHz + 1 kHz mod.					
FM mute off SK-16	95 MHz + 1 kHz mod.					

Lock in > 87.2 < 108.5 MHz

FM TUNER 1101

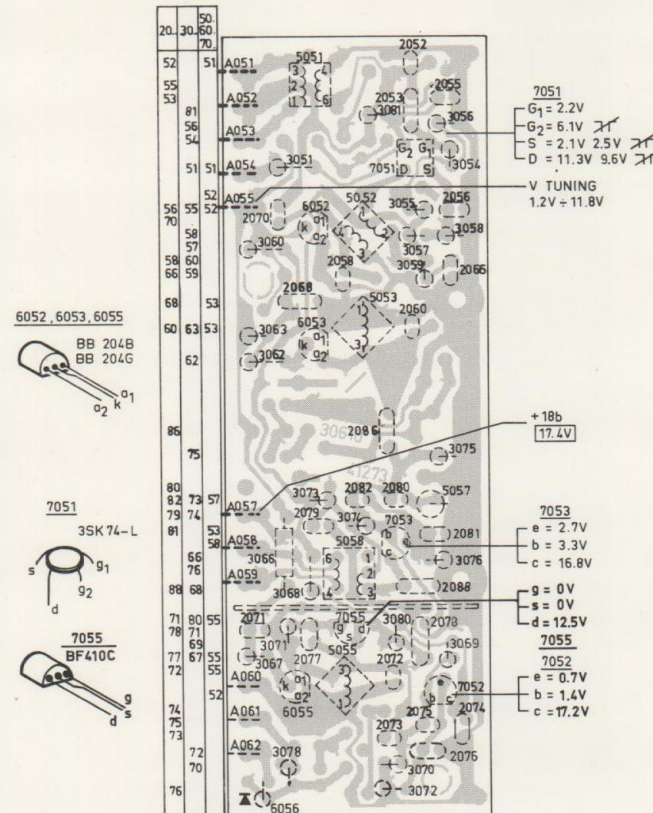


Fig. 1

27 860 A12