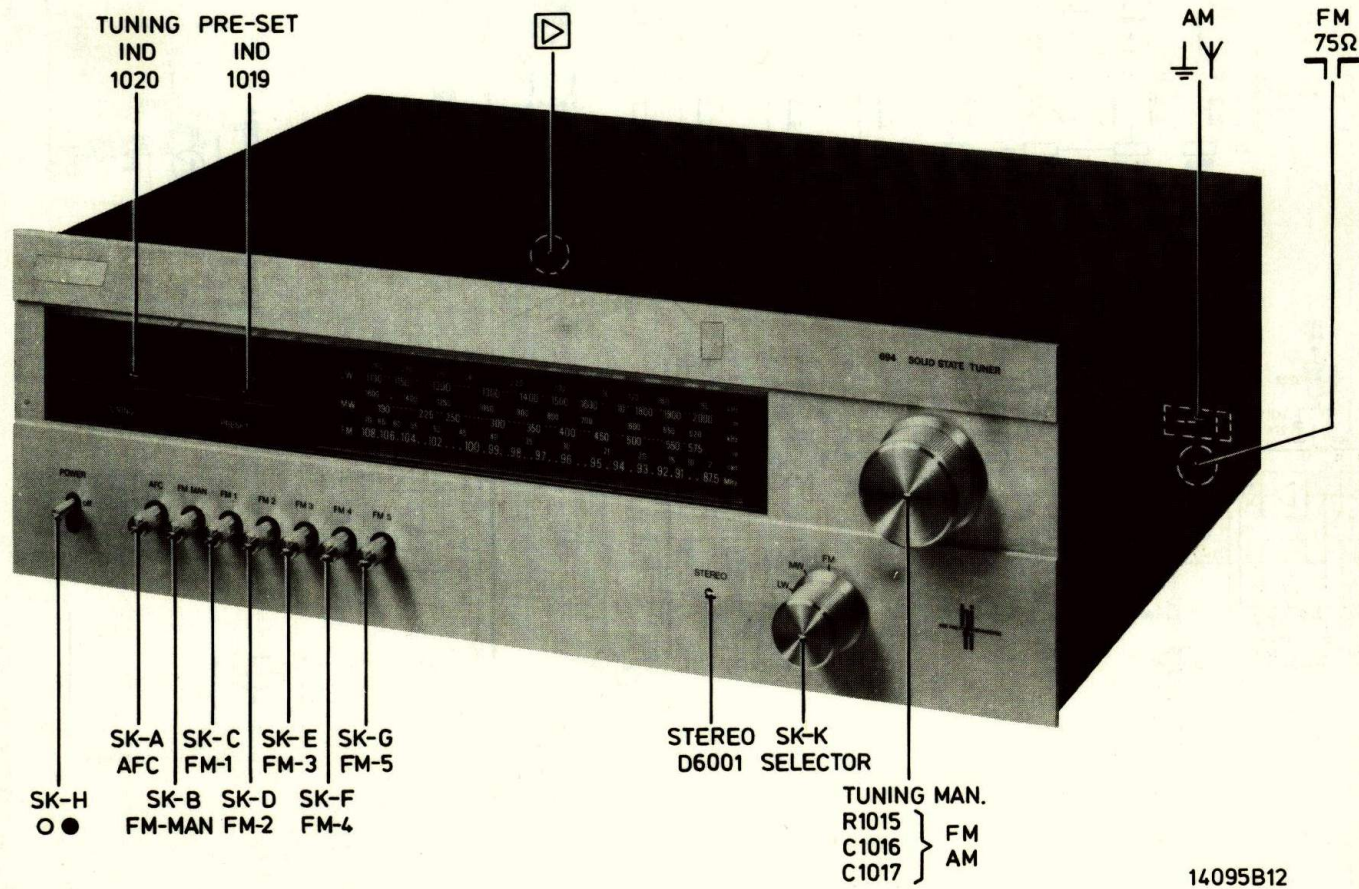


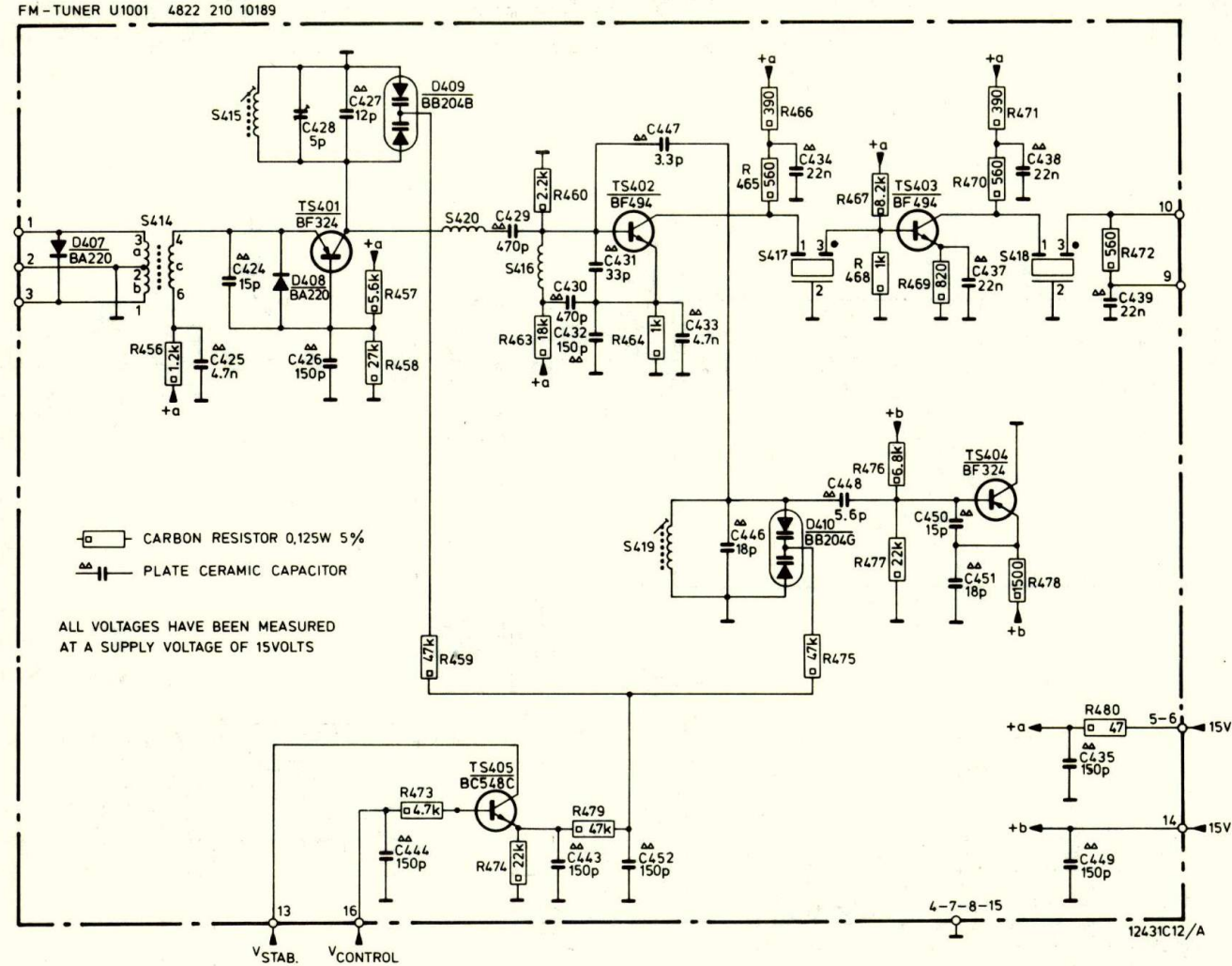
Tuner 22AH694/00/22/29

Service Service Service

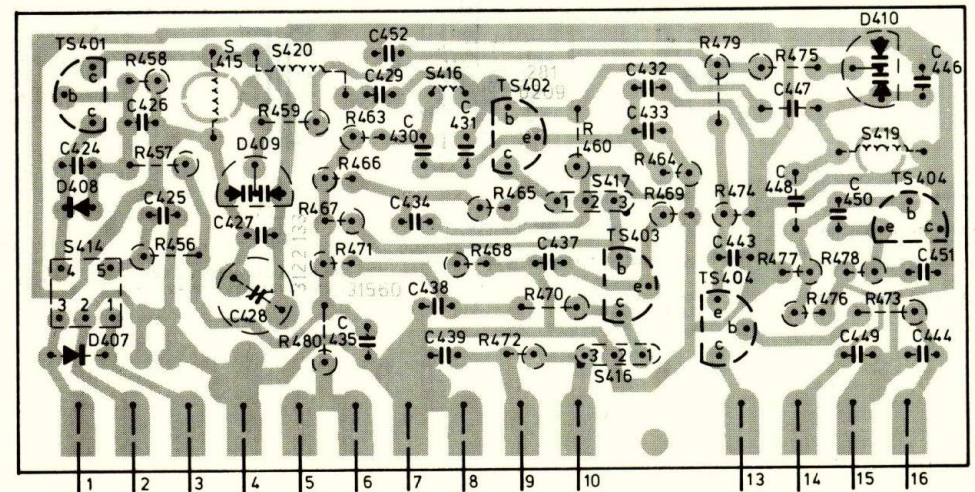
Service Manual



14095B12



MISC	TS401	D408	S415	D409	S420	S416	TS402	S417	TS403	D410	S419
MISC	S414	D407						S416	TS404		TS.0
C	424 425 426	427	429 452 430 434 431	432 433	447 448 450 446	443	449 444 451				
C		428	435 438 439 437	443	449 444 451						
R	456 457	458 459 467 466 466	465 460 464 469 479 474 475								
R		480 471	468 472 470		477 476 478 473						



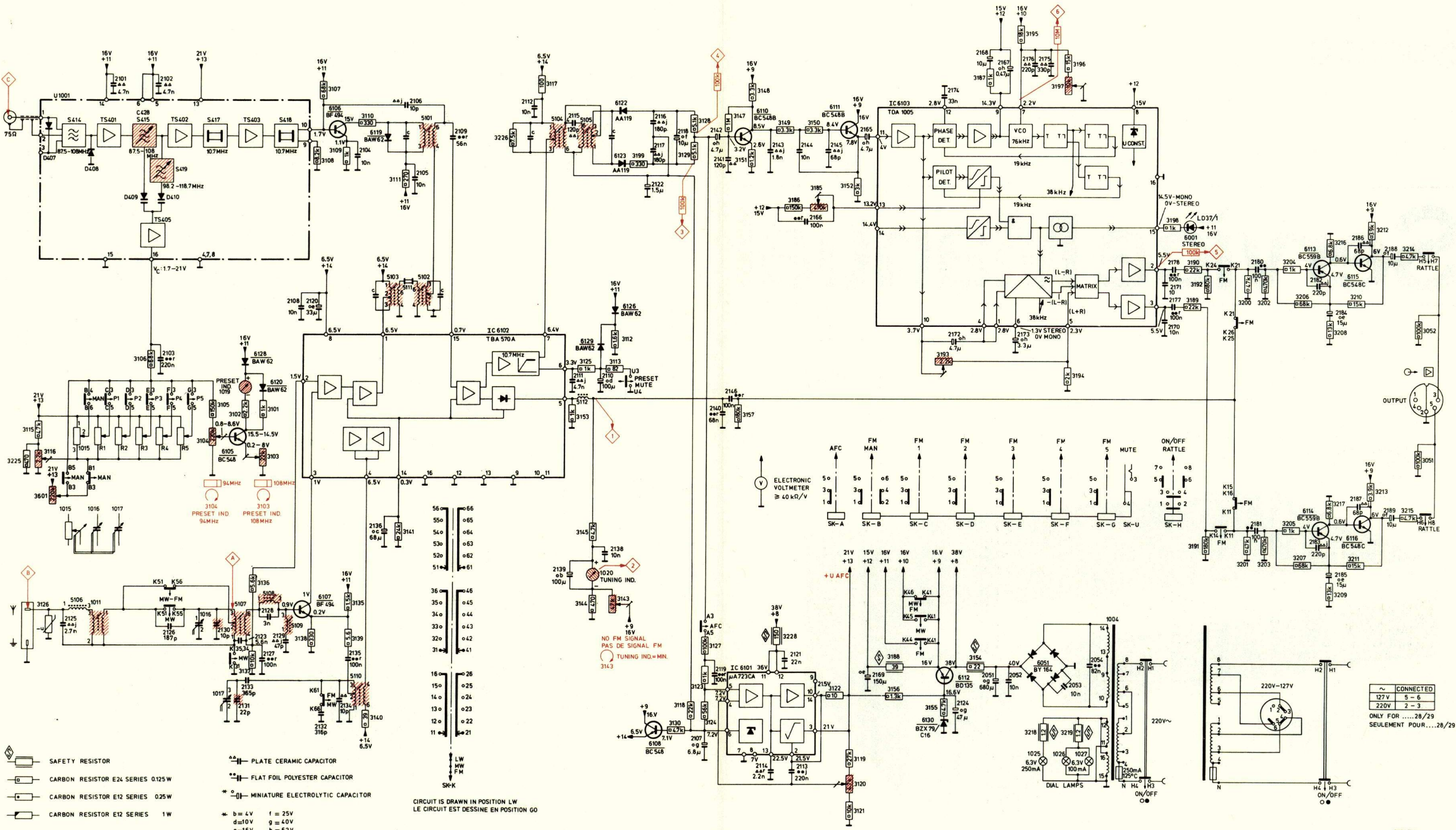
Documentation Technique Service Dokumentation Documentazione di Servizio Huolto-Ohje Manual de Servicio Manual de Servicio

Subject to modification
4822 725 12599
Printed in The Netherlands

PHILIPS

12338B2/A

M	U1001	ME 1019 D6128 D6120	TS6106 D6119	S 5101...5103	IC 6102	S5104 S5112 S5105	D6122,6123,6126	TS6110 TS6109	TS6111	IC6103 D6130	D6051 LA1025...1027 T1004	D6001	TS6113	TS6115	M
M	S5106,1011	TS6105 S5107...5109	TS6107 S5110	ME 1020	TS6108	IC 6101	ME 1020	TS6108	IC 6101 D6124	TS6112	TS6114	TS6116	TS6118	TS6116	M
C		2101 2102 2103	2106 2120	2104	2106 2105 2109	2112	2111 2115 2110	2116 2117 2118	2142 2140 2146	2143 2144 2166	2145 2165	2174 2172 2168	2167 2173 2176 2175	2170 2171 2178 2177	C
C		2125 2123	2126	1016 2130 1017 2131 2127 2128 2133 2129 2132 2134 2135 2136	3107...3109 3135 3110	3111	3226 3117	3138	2122	2107 2119 2141	2114 2121 2113	2124	2051 2052	2053 2432 2054	C
R		3225 3115 3116 3114 1015	3106	3104 3105 3101...3103	3107...3109 3135 3110	3111	3226 3117	3138	3125 3112 3113	3129 3128	3147 3151 3148 3149 3186 3150 3185 3152	3193	3187	3195 3197 3196	R
R		3126 3601		3137 3136	3138	3139 3140 3141	3153...3145	3199	3157	3130 3118 3123 3127 3124	3228 3119 3122	3188 3156	3155 3154	3218 3219	R
															R
															R

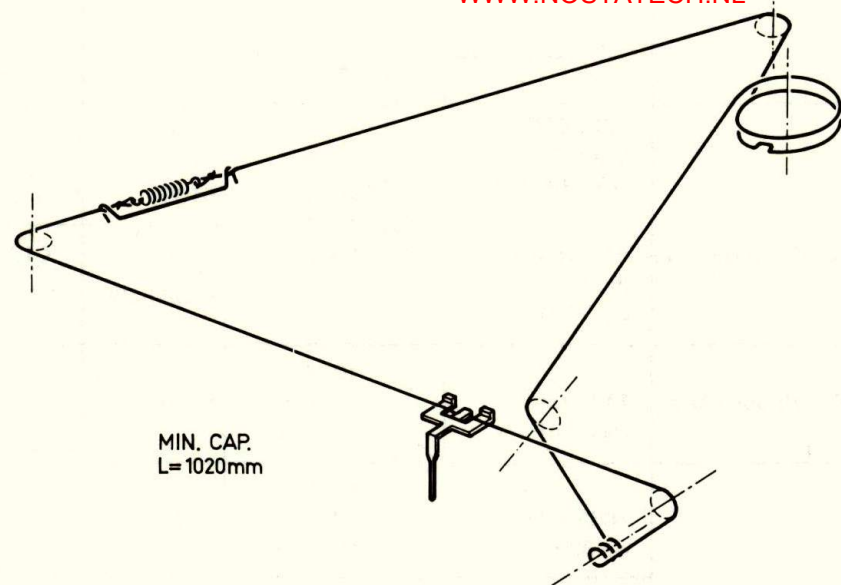
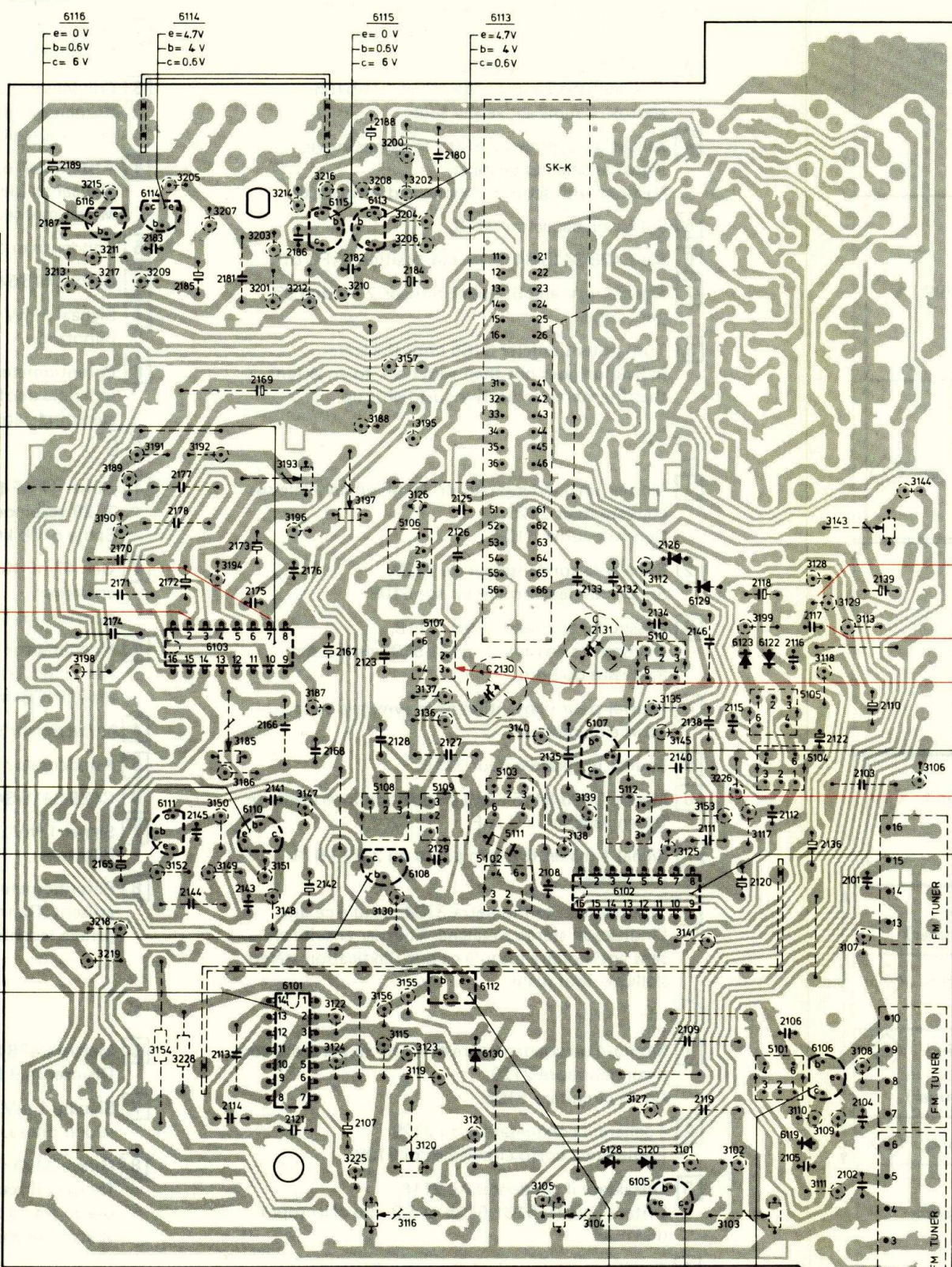


- SAFETY RESISTOR
 - CARBON RESISTOR E24 SERIES 0.125W
 - CARBON RESISTOR E12 SERIES 0.25W
 - CARBON RESISTOR E12 SERIES 1W
 - PLATE CERAMIC CAPACITOR
 - FLAT FOIL POLYESTER CAPACITOR
 - MINIATURE ELECTROLYTIC CAPACITOR
- * b = 4V f = 25V
d = 10V g = 40V
e = 16V h = 63V

CIRCUIT IS DRAWN IN POSITION LW
LE CIRCUIT EST DESSINE EN POSITION GO

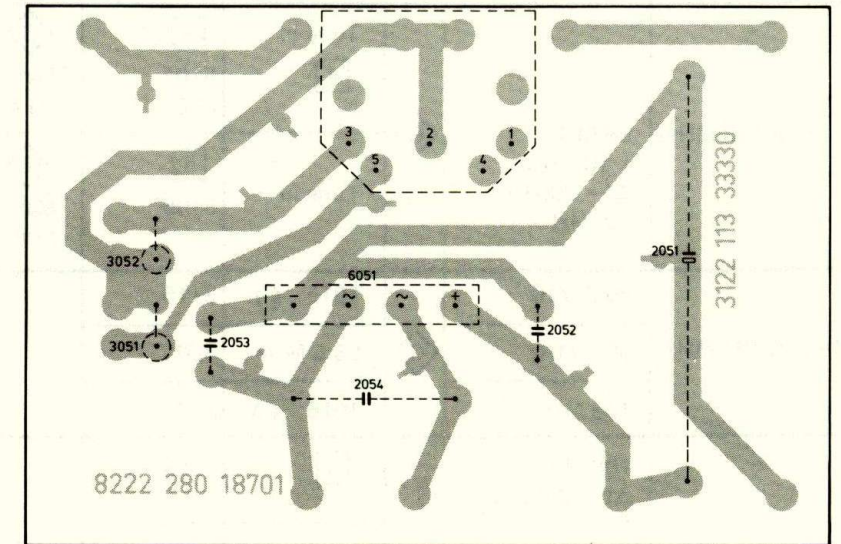
~ CONNECTED
127V 5 - 6
220V 2 - 3
ONLY FOR28/29
SEULEMENT POUR.....28/29

RF-IF UNIT

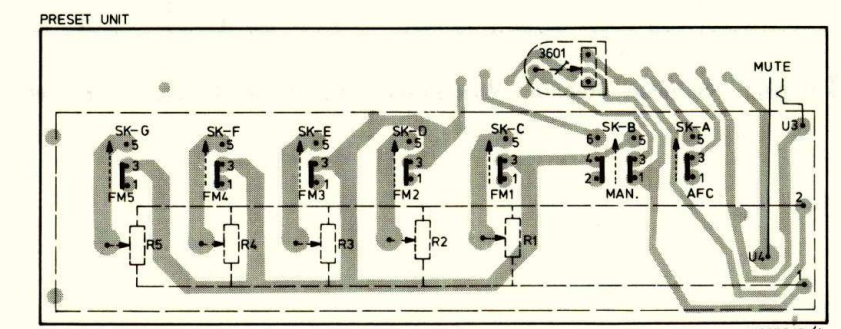


MIN. CAP. L=1020mm

14170C12

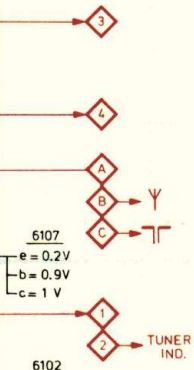
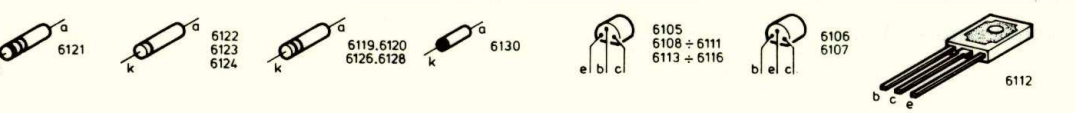


14062B12



14087B12/A

MISC	S	C	C	R	R
SK-R				2188	3200
SK-H				2180	3223
6113				2189	3202
6116					3208
					3214
				2187	3216
					3205
					3207
					3204
					3203
					3206
					3211
					3210
					3217
					3213
					3209
					3201
					3212
				2169	
					3188
					3195
					3191
					3192
					3189
					3193
					3126
					3197
					3190
					3196
					3143
					3142
					3112
					3194
					3128
					3129
					3199
					3113
					3118
					3138
					3140
					3185
					3186
					3147
					3150
					3139
					3153
					3117
					3138
					3125
					3149
					3152
					2108
					3151
					2101
					3142
					2143
					2144
					3148
					3130
					3218
					3141
					3107
					3155
					3156
					3122
					2124
					3124
					3115
					3123
					3228
					3119
					3108
					2104
					2119
					3127
					3110
					3109
					3120
					3101
					3102
					3225
					13=22.5V
					14=21.5V
					3116
					3103
					3104



- 6107 e=0.2V, b=0.9V, c=1V
- 6102 1=6.5V, 2=1.5V, 3=1V, 4=6.5V, 5=0.3V, 6=3.3V, 7=6.4V, 8=6.5V, 9=0V, 10=, 11=, 12=0V, 13=0V, 14=0.3V, 15=0.7V, 16=0V
- FM TUNER 1=0V, 2=0V, 3=0V, 4=0V, 5=16V, 6=16V, 7=0V, 8=0V, 9=1.7V, 10=1.8V, 13=21V, 14=16V, 15=0V, 16=1.7V...21V

Wave range	Signal to	Varco	Adjust	Indication	Indication	
SK...						
MW (520-1605 kHz)	/00/28/29- 452 kHz \pm 1 kHz /22 460 kHz $\Delta f = 20$ kHz (50 Hz) via 33 nF		1016 1017 Max.cap.	 5102 5103 5108-5109	 Max. + sym. (= fo 5111) Min. + sym.	B.V. M \pm 60 mV 3-BU1
LW (150-355 kHz)	147 kHz via 33 nF		1016 1017 Max.cap.	5110		Max. tuning ind. \pm 60 mV 3-BU1
MW (520-1605 kHz)	1635 kHz via 33 nF		1016 1017 Min.cap.	2131		
MW (520-1605 kHz)	550 kHz		Tune in	1011 Ferro coil		Max. tuning ind. \pm 60 mV 3-BU1
	1500 kHz		Tune in	2130		
LW (150-355 kHz)	155 kHz		Tune in	5107		
FM (87.5-108 MHz)	98 MHz \pm 100 kHz $\Delta f = 200$ kHz (50 Hz)		Tune in 	 5104 5101	 Max. + sym. via 470 k Ω	
			Tune in	 5105	 Max. "S" + sym.via 470 k Ω	
FM (87.5-108 MHz)	86.8 MHz		1015	3116		Max. tuning ind.
	95.5 MHz		95.5 MHz	3601		
	109 MHz		1015	3120		
FM (87.5-108 MHz)	108 MHz $\Delta f = 200$ kHz (50 Hz)			1015		Vc = 18 V
			1015 (Vc = 18 V)	S419 C428		Max. tuning ind.
	88 MHz $\Delta f = 200$ kHz (50 Hz)		Tune in			Max. tuning ind. Vc = 1,7-2,1 V
				S415		Max. tuning ind.

↓ Repeat - Herhalen - Répéter - Wiederholen - Repitanse - Ripetere - Repetera - Gentage - Gjntagelse - Toista

(GB)

- 1 Connect a 47 nF capacitor in parallel with capacitor 2129. Short-circuit coil 5108.
- 2 Remove the 47 nF capacitor from C2129. Remove the short-circuit of coil 5108.
- 3 Unsolder capacitor 2118. Turn out the cores of the coils 5101-5105 approx. 2 mms above the edge.
- 4 Adjust for symmetry of the response curve. Signal as small as possible. Measure with scope disconnected from earth.
- 5 Solder on capacitor 2118.
- 6 Set C428-S415-S419 to mid-position. AFC off.
- 7 Signal 1 mV and 6 % pilot tone or 2 μ V and 9% pilot tone.
- 8 Turn potentiometer 3185 until the stereo indication goes out then turn back to an extent that the stereo indication just lights up.

(F)

- 1 Monter un condensateur de 47 nF en parallèle sur condensateur 2129. Court-circuiter 5108.
- 2 Enlever le condensateur de 2129. Supprimer le court-circuit sur 5108.
- 3 Dessouder le condensateur 2118. Devisser les noyaux de 5101-5105 de \pm 2 mm au-dessus du bord.
- 4 Ajuster pour l'obtention de la symétrie de la courbe de réponse.
- 5 Souder le condensateur 2118.
- 6 Mettre C428-S415-S419 en position intermédiaire. Désenclencher la C.A.F.
- 7 Signal 1 mV et 6 % son pilote ou 2 μ V - 9 % son pilote.
- 8 Tourner le potentiomètre 3134 jusqu'à ce que l'indication stéréo s'éteigne. Tourner ensuite en sens anti-horaire jusqu'à ce que l'indication stéréo s'allume tout juste.

(I)

- 1 Montare un condensatore di 47 nF in parallelo con il condensatore 2129. Corto-circuitare 5108.
- 2 Togliere il condensatore da 2129. Eliminare il corto-circuito su di 5108.
- 3 Dissaldare il condensatore 2118. Svitare i nuclei 5101-5105 di \pm 2 mm al di sopra dell'orlo.
- 4 Regolare per simetria della curva di riposta.
- 5 Saldare il condensatore 2118.

(NL)

- 1 Een condensator van 47 nF parallel verbinden aan condensator 2129. Spoel 5108 kortsluiten.
- 2 De condensator van 47 nF verwijderen van C2129. Kortsluiting van spoel 5108 verwijderen.
- 3 Condensator 2118 lossolderen. Kernen van spoelen 5101-5105 \pm 2 mm boven de rand uitdraaien.
- 4 Afstemmen op sym. doorlaatkromme. Signaal zo klein mogelijk. Meten met scoop los van aarde.
- 5 Condensator 2118 vast solderen.
- 6 C428-S415-S419 in middenstand zetten. AFC uit.
- 7 Signaal 1 mV en 6 % piloottoon of 2 μ V en 9% piloottoon.
- 8 Potentiometer 3185 draaien totdat de stereo indicatie dooft. Daarna terugdraaien totdat de stereoindicatie juist brandt.

(D)

- 1 Einen 47-nF-Kondensator parallel zu Kondensator 2129 verbinden. Spule 5108 kurzschliessen.
- 2 Den 47-nF-Kondensator von Kondensator 2129 entfernen. Kurzschluss über Spule 5108 entfernen.
- 3 Kondensator 2118 ablöten. Kerne der Transformatoren 5105-5105 ca. 2 mm über den Rand herausdrehen.
- 4 Auf symmetrische Durchlasskurve abstimmen.
- 5 Kondensator 2118 festlöten.
- 6 C428-S415-S419 in Mittelstellung setzen.
- 7 Signal 1 mV und 6 % Pilotton oder 2 μ V und 9% Pilotton.
- 8 Potentiometer 3134 drehen bis die Stereoanzeige erlischt. Dann zurückdrehen bis die Stereoanzeige gerade leuchtet.

- 6 Mettre C428-S415-S419 in posizione intermedia. Disinserire il C.A.F.
- 7 Signale 1 mV e 6 % suono pilota o 2 μ V - 9 % suono pilota.
- 8 Girare 3134 fino a quando l'indicazione "stereofonica" si accendi. Quindi girare in senso antiorario fino a quando l'indicazione "stereofonica" si accende appena.

S

- 1 47 nF parallelt med 2129.
Kortslut 5108.
- 2 Tag bort 47 nF från 2129.
Tag bort kortslutningen över 5108.
- 3 Löd loss 2118.
Vrid ut kärnorna 5101-5105 ungefär 2 mm över kanten.
- 4 Justera kurvan till max. symmetri.
- 5 Löd till 2118.
- 6 Ställ C428-S415-S419 i mittläge.
AFC fränkopplad.
- 7 Singal 1 mV och 6 % pilotton eller 2 μ V och 9 % pilotton.
- 8 Vrid 3134 till stereoindikatorn slocknar och vrid därefter tillbaka så att stereoindikatorn precis börjar lysa.

DK

- 1 47 nF parallelt över 2129.
Kortslut 5108.
- 2 Fjern 47 nF fra 2129.
Fjern kortslutning over 5108.
- 3 Fralod 2118.
Uddrej jernkærnerne i 5101-5105 til de går ca. 2 mm udenfor spolekappen.
- 4 Juster til symmetrisk frekvenskurve.
- 5 Pålod 2118.
- 6 Sæt C428-S415-S419 i midterstilling.
Afbryd AFC.
- 7 Signal 1 mV og 6 % pilottone eller 2 μ V og 9 % pilottone.
- 8 Drej 3134 til stereoindikatoren slukker. Drej herefter tilbage til stereoindikatoren lige netop tænder.

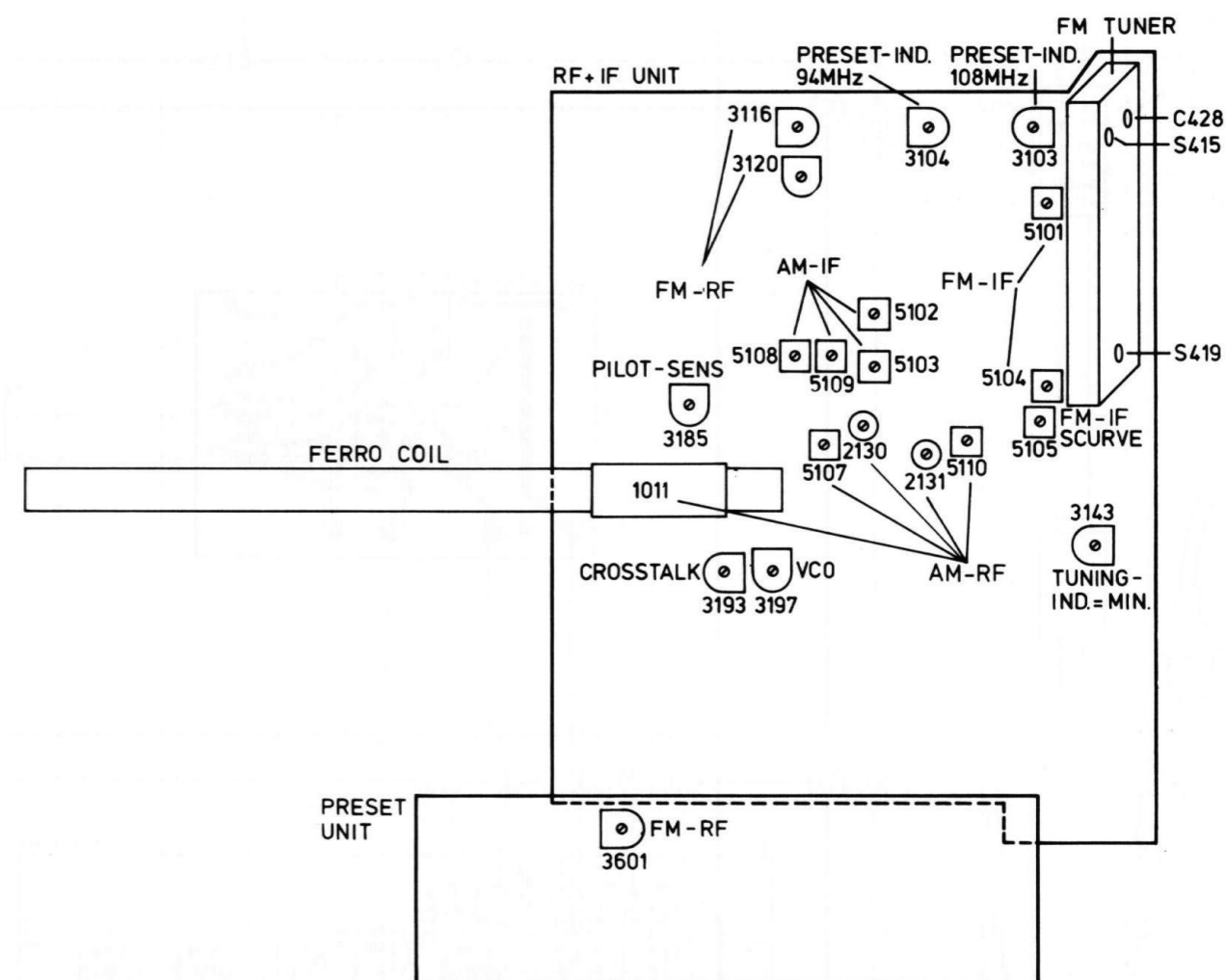
N

- 1 47 nF parallelt med 2129.
Kortslutt 5108.
- 2 Fjern 47 nF fra 2129.
Fjern kortslutningen over 5108.
- 3 Lodd fra 2118.
Skru ut kjernene 5101-5105 til ca. 2 mm over kanten.
- 4 Juster responskurven til symmetri.
- 5 Lodd til 2118.
- 6 Sett C428-S415-S419 i midtstilling.
AFC av.
- 7 Signal 1 mV og 6 % pilot-tone eller 2 μ V og 9 % pilot-tone.
- 8 Drei 3134 til stereoindikatoren slukker – drei deretter tilbake, akkurat så meget at stereoindikatoren lyser opp igjen.

SF

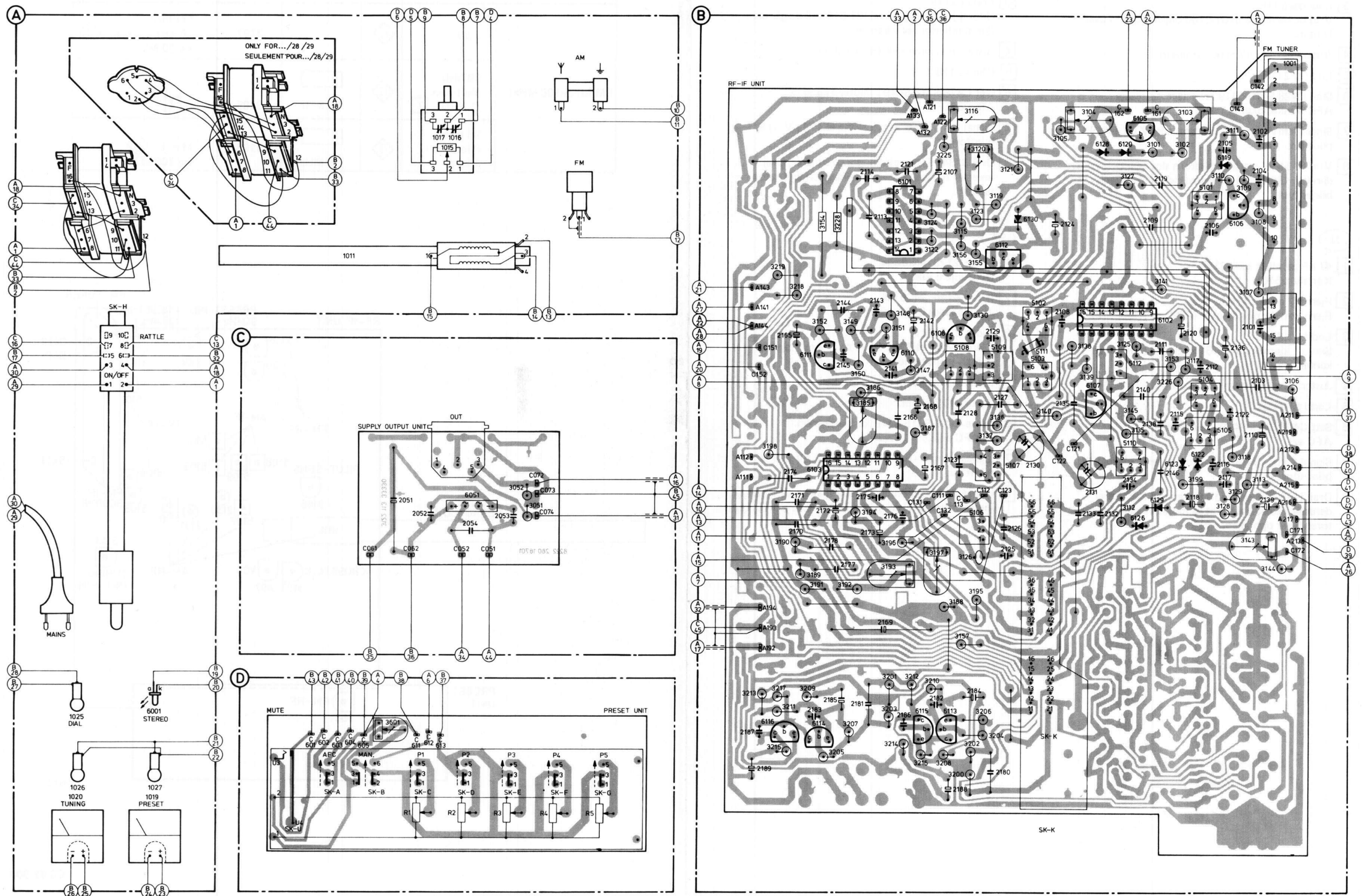
- 1 47 nF 2129:n rinnalle.
Oikosulje 5108.
- 2 Irrota 47 nF 2129:stä.
Ja oikosulku 5108:stä.
- 3 Juota 2118 irti.
Kierrä sydämet 5101-5105 noin 2 mm purkin reunan yläpuolelle.
- 4 Säädä läpäisykäyrä symmetriseksi.
- 5 Juota 2118 kiinni.
- 6 Aseta C428-S415-S419 keskiasentoon.
Ja AFC pois.
- 7 Signaali 1 mV - 6 % pilotääni tai 2 μ V ja 9 % pilottäni.
- 8 Kierrä 3134ää kunnes stereoindikaattori sammuu, kierrä sitten takaisin niin paljon että se juuri syttyy.

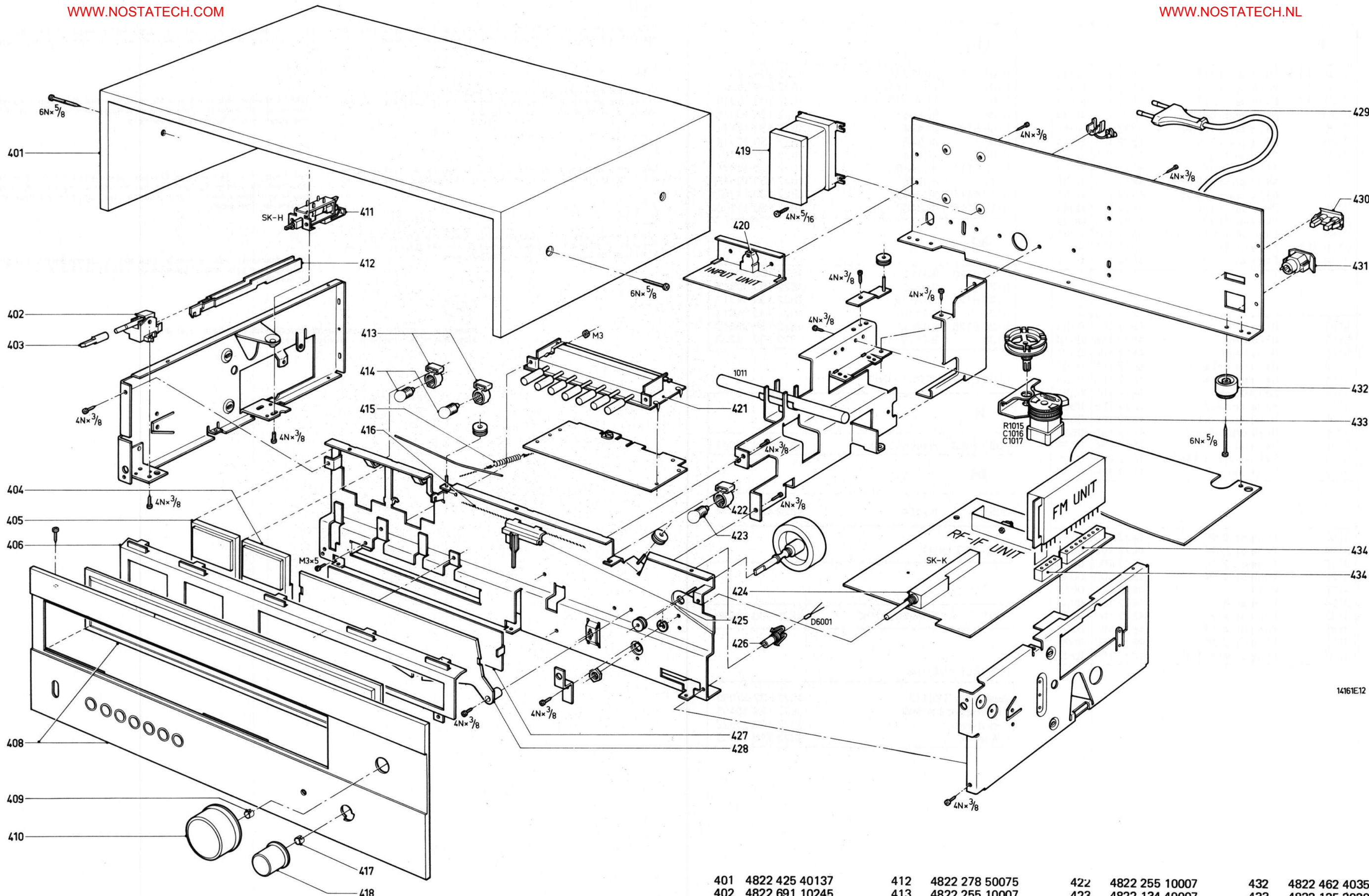
Wave range	Signal to		Varco	Adjust	Indication
SK...					
	0 μ V			3197	Counter 76 kHz \pm 1 kHz via 10 M Ω
FM (87.5-108 MHz)	98 MHz Multiplex (1 kHz)			98 MHz 3185	
	98 MHz Pilot + R + 1 kHz			98 MHz 3193	Min. L via 100 k Ω



14336C4

MISC.	1025,1026,SK-H	6001,1027	SK-U	SK-A	SK-B	SK-C,SK-D	6051	SK-E	SK-F	SK-G	6116	6111,6103,6114,6109	6101,6110,6115,6108,6113	6112,6130	SK-K	6107,6128,6120,6105,6126,6102,6129	6122...6123,6119,6106	MISC.			
S	1016...2129		1011										5108,5106	5109,5107	5102	5111	5103	5110,5112	5101,5104,5105	S	
C	2130...2150					2051,2052,1016,1017	2054	2053				2114,2113	2121	2107,	2128,2129,2127,2125	2108,2124	2109,2111	2115...2120,2112,2101...2106,2122,2110	1016...2129	C	
R	2151...2556											2144,2145,2143	2141	2141		2130	2135,2133,2131,2132,	2134,2140,2138,2146,	2136	2139	2130...2150
	3051...3134					R1	1015,R2	R3,3052,3051	R4	R5											2151...2556
	3135...3164																				3051...3135
	3165...3199																				3135...3164
	3200...3601					3601.															3136...3199
																					3200...3601








14161E12


401	4822 425 40137	412	4822 278 50075	422	4822 255 10007	432	4822 462 40352
402	4822 691 10245	413	4822 255 10007	423	4822 134 40007	433	4822 125 20205
403	4822 411 40023	414	4822 134 40326	424	4822 278 90326	434	4822 267 50209
404	4822 347 10166	415	4822 492 31225	425	4822 450 80558		
405	4822 347 10167	416	4822 321 30215	426	4822 256 90201		
406	4822 454 10595	417	4822 492 61974	427	4822 466 70331		
408	4822 426 50268	418	4822 413 50928	428	4822 333 60152		
409	4822 492 61974	419	4822 146 40235	429	4822 321 10084		
410	4822 413 50929	420	4822 267 40209	430	4822 267 30213		
411	4822 276 10651	421	4822 276 70062	431	4822 268 40092		


RF + IF UNIT

		
2104-2105	Plate cap. 10 nF	4822 122 30043
2108-2112	Plate cap. 10 nF	4822 122 30043
2121-2122	Plate cap. 22 nF	4822 122 30103
2123	Micro poco 5.6 nF	4822 121 50543
2126	Micro poco 187 pF	5322 121 54047
2128	Micro poco 3 nF	4822 121 50414
2130	Trimmer 10 pF	4822 125 50062
2131	Trimmer 22 pF	4822 125 50045
2132	Micro poco 316 pF	4822 121 50531
2133	Micro poco 365 pF	4822 121 50551
2138	Plate cap. 10 nF	4822 122 30043
2144	Flat cap. 10 nF	5322 121 44002
2168	Elco tantal 10 μ F-3 V	5322 124 14084
2170-2171	Flat cap. 10 nF	5322 121 44002
2174	Flat cap. 33 nF	4822 121 40411



		
5101	IF coil-FM	4822 153 50205
5102	IF coil-AM	4822 156 30578
5103	IF coil-AM	4822 156 30577
5104	Det. coil FM prim	4822 153 50207
5105	Det. coil FM sec	4822 153 50208
5106	Coil 100 μ H	4822 156 30581
5107	Aerial coil AM	4822 156 30564
5108	IF rejection coil	4822 156 30582
5109	IF absorbtion coil	4822 156 30583
5110	Osc. coil	4822 156 30579
5111	PXE resonator 452 kHz	4822 242 70255
5112	Filter coil	4822 156 20743

		
3103	Trimpot. 22K	4822 100 10051
3104	Trimpot 220K	4822 100 10088
3116	Trimpot. 2.2K	4822 100 10029
3120	Trimpot. 4.7K	4822 100 10036
3126	V.D.R.	4822 116 20073
3134	Trimpot. 4.7K	4822 100 10036
3143	Trimpot. 47K	4822 100 10079
3185	Trimpot. 470K	4822 100 10107
3193	Trimpot. 2.2K	4822 100 10029
3197	Trimpot spec. 10K	4822 100 10202


		
6101	μ A723CA	5322 209 84655
6102	TBA750A	4822 209 80358
6103	TDA1005	4822 209 80315
6105	BC548	4822 130 40938
6106-6107	BF494	4822 130 44195
6108	BC548	4822 130 40938
6109	BC559	4822 130 40963
6110-6111	BC548B	4822 130 40937
6112	BD135	4822 130 40645
6113-6114	BC559B	4822 130 44358
6115-6116	BC548C	4822 130 44196

		
6119-6120	BAW62	4822 130 30613
6121	BA315	4822 130 30843
6122-6123	2AA119	4822 130 30312
6124	AA119	4822 130 31012
6126-6128	BAW62	4822 130 30613
6130	BZX79/C16	5322 130 34268

SUPPLY + OUTPUT UNIT

		
2052-2053	Plate cap. 10 nF	4822 122 30043
		
6051	BY164	4822 130 30414

PRE-SET UNIT

		
3601	Trimpot. 220K	4822 100 10088

MISCELLANEOUS

Washer for TS6112	4822 532 51059
Ferroceptor LW-MW	4822 158 60405
Led-stereo	4822 130 30923
FM-tuner	4822 210 10189

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

Die Sicherheitsvorschriften erfordern, dass das Gerät sich nach der Reparatur in seinem originalen Zustand befindet und dass die benutzten Einzelteile den aufgeführten Teilen identisch sind.

SF

Korjatessa laitetta on turvallisuussyistä ehdottomasti ennettävä oikein ja käytettävä tehtaan määräämiä alkuperäisvaraosa.

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 af föreskrivna reservdelar.

DK

Myndighedernes sikkerheds- og radiostøjbestemmelser kræver, at enhver reparation skal udføres korrekt m.h.t. overholdelse af originalplacering og montering af komponenter, ledningsbundter, etc., og ved anvendelse af de foreskrevne reservedele.

N

Sikkerhetsbestemmelser kreves at apparatet blir gjenopprettet til original utførelse og at deler som er identiske med de som er spesifisert, blir benyttet.

Service mededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN
TECHNISCHE SERVICE

Ref. 273 PH

Type AH 694

Datum maart 1980

U gelieve de volgende wijzigingen in de service-documentatie aan te brengen:

- C2120 - 33 μ F, in 68 μ F - 16 V oe.
- C2139 - 100 μ F, in 220 μ F - 4 V ob.
- C2119 - 100 nF, in 220 nF ●●r
- C2121 - 22 nF, in elco 1,5 μ F - 50 V, 4822 124 20828
- R3103 - 22 Kohm, in 47 Kohm, 4822 100 10079
- R3112 - 1,6 Kohm, in 4,7 Kohm
- R3145 - 4,7 Kohm, in 1,8 Kohm
- R3143 - 47 Kohm, in 100 Kohm, 4822 100 10052
- R3127 - 100 Kohm, in 47 Kohm
- R3124 - 56 Kohm, in 22 Kohm

Vanaf stempeling PL 03 is het IC 6103, TDA 1005 gewijzigd in TDA 1005A; het bestelnummer is niet gewijzigd.

C2175 is vervallen.

C2176 - 220 pF is gewijzigd in 680 pF, 4822 120 31103.

Vanaf stempeling PL 04 is het IC 6102, TBA 570 A gewijzigd in TDA 5700, 4822 209 80543.
De AM-MF spoel 5102 is gewijzigd in 4822 156 30677.

Het printspoor is gewijzigd, zie fig. 1.

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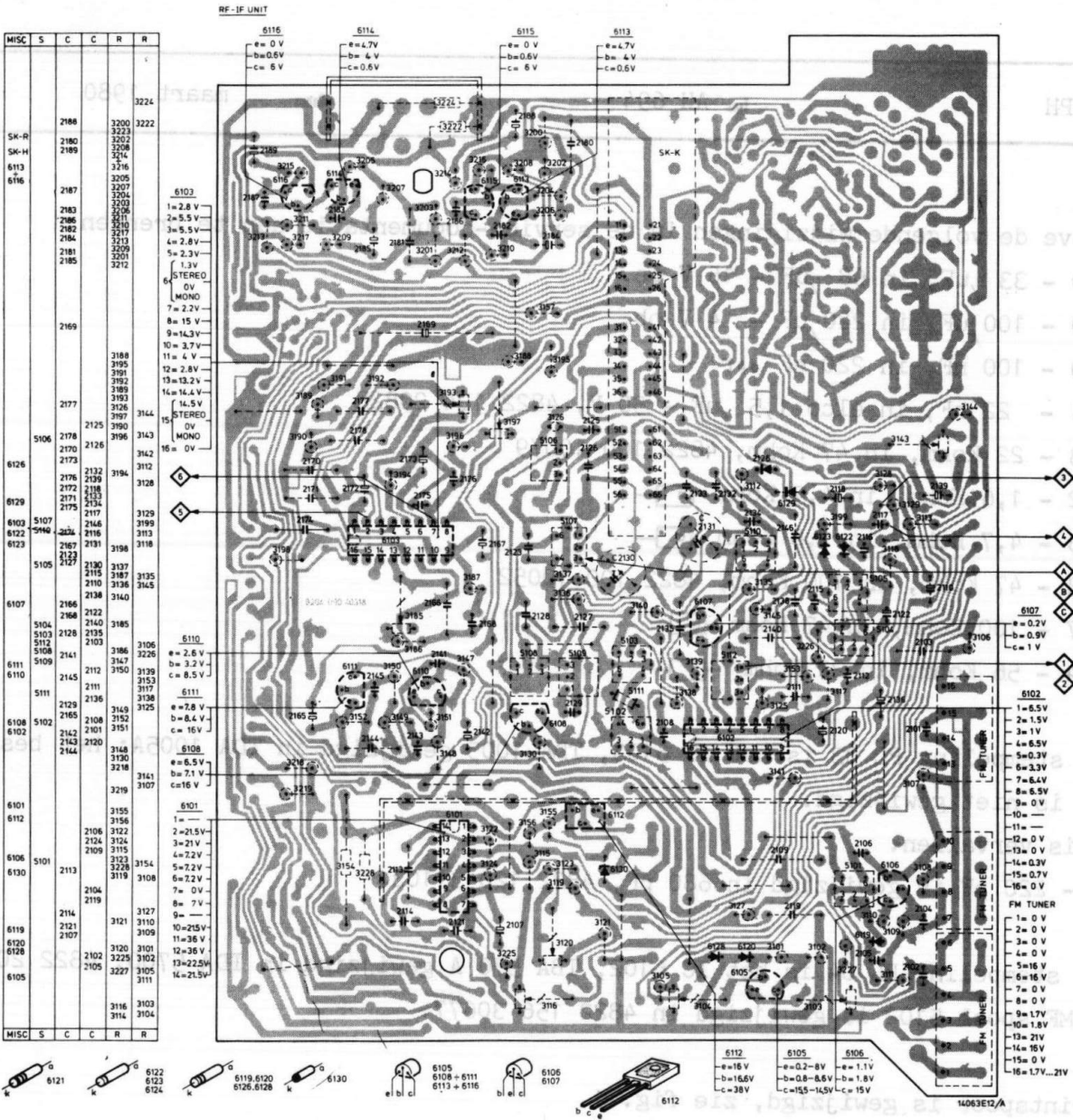


Fig. 1