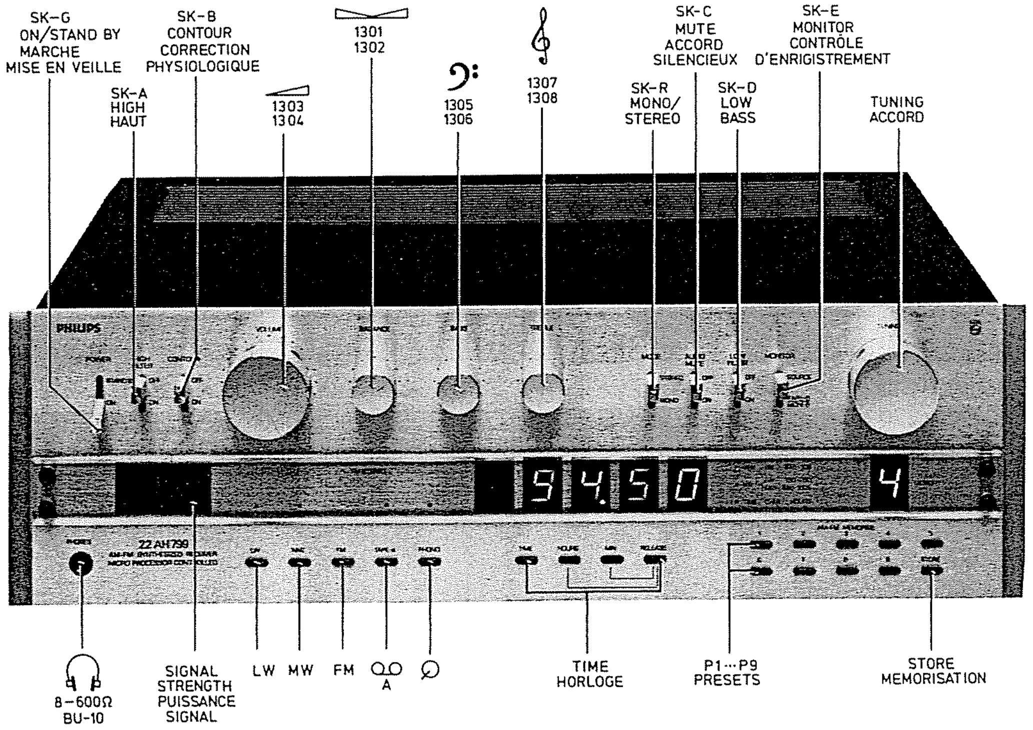
'79

Hi-Fi TA 22AH799/00/15/25

Service Service Service

Service Manual



FM : 87.5 – 108 MHz
FM-IF : 10.7 MHz
LW : 150 – 260 kHz
MW : 520 – 1605 kHz
AM-IF : /00 – 452 kHz
/15/25 – 468 kHz

SENSITIVITY (IHF)
SENSIBILITÉ
FM { MONO 3µV
STEREO 26µV
AM : 26dB S/N 90µV EMK

/00/25 : 220V~ 195 W
/15 : 240V~ 195 W
STAND BY 10 W

DIMENSIONS :
458 x 150 x 335 mm

17229B12

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

Voor meer uitgebreide technische specificaties gelieve de commerciele dokumentatie te raadplegen.

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

Subject to modification

NL 4822 725 13125

PHILIPS

Printed in The Netherlands

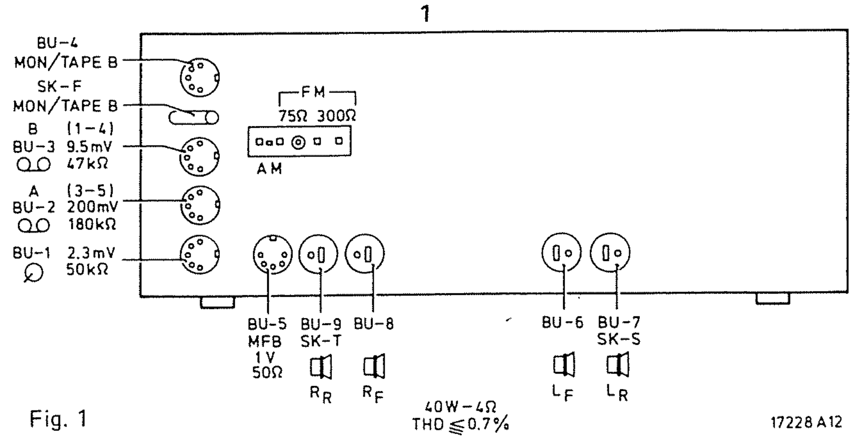


Fig. 1

17228 A12

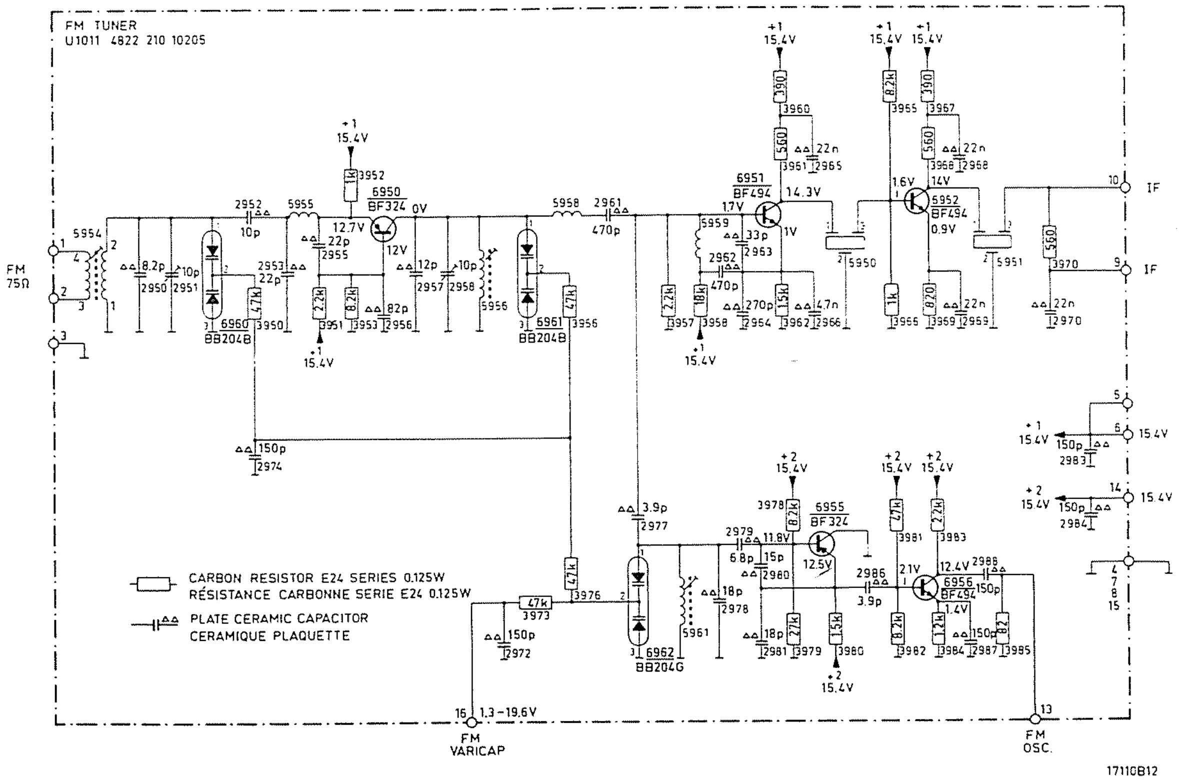


Fig. 2

MISC	C	R
6960 5954	2950 ÷ 2952	3950
5955 6950 5956	2953 2955 ÷ 2958	
5959 6961		3951 ÷ 3953
	2983	3955 3960 3958 3957
	2961 ÷ 2963 2965	
5959 6951 5950	2969 2970 2974	
5951 6952	2966 2954 2987	
6956	2977 2979 2985 2988	
6962	2980	
5961	2981 2984	
6955	2978 2972	

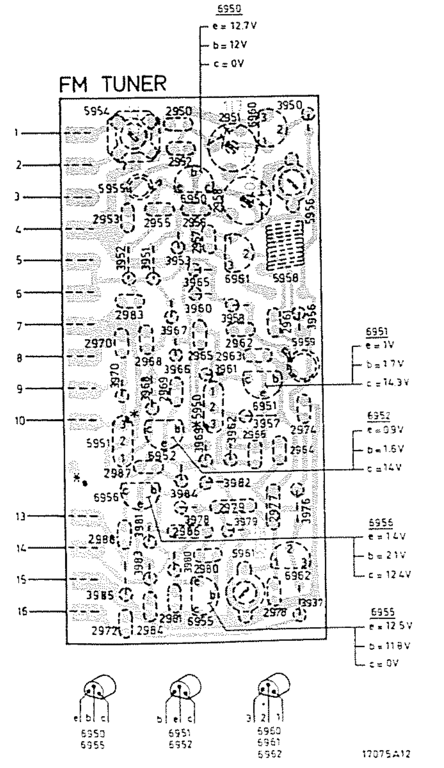


Fig. 3

FM tuner

De FM tuners kunnen verschillende middenfrekwenties hebben, afhankelijk van de tolerantie van de keramische resonator.
Op de verschillende tuners is d.m.v. een kleurindicatie bij de aansluitpennen aangegeven welke middenfrekwentie de tuner heeft.
Afhankelijk van deze frekwentie moet een diode aangebracht worden op de μP print (zie principeschema en printopstelling van μP print).

Zwart	= 10,64 MHz
Blauw	= 10,67 MHz
Rood	= 10,70 MHz
Oranje	= 10,73 MHz
Wit	= 10,76 MHz

[1] Spoel 5067 kortsluiten. Condensator van 47 nF parallel over condensator 2151. Weerstand van 220 Ω over 1 en 2 van spoel 5072 en over 1 en 2 van spoel 5073.

[2] Weerstand (220 Ω) over spoel 5073 verwijderen.

[3] Weerstand (220 Ω) over spoel 5072 verwijderen.

[4] Kortsluiting van spoel 5067 opheffen.

[5] Printspoor wat loopt van condensator 2121 naar punt 3 van varicap diode 6096 onderbreken d.m.v. soldeerbrug te openen.
Knooppunt C2121 - R3137 via een condensator van 500 pF aan massa leggen.

[6] Soldeerbrug dichtmaken. Check de spanningen op A131 (AM varicapspanning) volgens tabel 1.

[7] Spoel 5062 afregelen zodanig, dat het signaal op ◇4 (pin 4 van IC6061) op de nuldoorgang minimaal is.

Display		V-A131 (AM varicap)
LW	150 kHz	⩾ 0,5 V ⎓
	260 kHz	⩽ 7,5 V ⎓
MW	520 kHz	⩾ 0,5 V ⎓
	1605 kHz	⩽ 8,0 V ⎓

Tabel 1

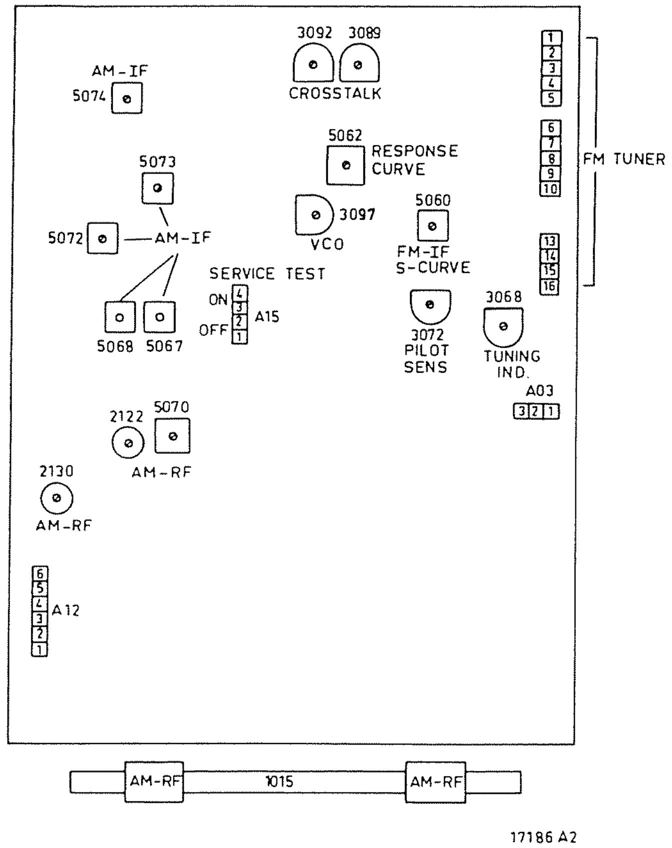


Fig. 4

Wave range SK...	Signal to		Tuning Display	Adjust	Indication	Indication
FM (87.5-108 MHz)	100 MHz "S" signal 1 kHz 1 mV	◇B	100 MHz	5062	◇4 [7]	
	100 MHz Multiplex (1 kHz)	◇B	100 MHz	3097		Counter ◇5 76 kHz ± 0.3 kHz via 1 MΩ
	100 MHz Pilot+R+ 1 kHz	◇B	100 MHz	3089 3092		◇6 Min. L
	100 MHz	◇B	100 MHz	3072		[8]

Wave range SK...	Signal to		Tuning Display	Adjust	Indication	Indication
MW (520-1605 kHz)	/00 452 kHz ± 1 kHz /15/25 468 kHz ± 1 kHz Δf = 20 kHz (50 Hz) via 33 nF	◇A		[1] 5074	◇1 Max.	
				[2] 5073	◇1 Max.+sym.	
				[3] 5072	◇1 Max.+sym.	
				[4] 5067 5068	◇1 Max. ↕	
	520 kHz	◇A		[5] 5070	◇1 Max.	
	1605 kHz	◇A		2122	◇1 Max.	[6]
	550 kHz	◇A	550 kHz	Coil 1,2 of 1015 (ferro coil)	◇1 Max.	
	1500 kHz	◇A	1500 kHz	2130	◇1 Max.	
LW (150-260 kHz)	200 kHz	◇A	200 kHz	Coil 6,7 of 1015 (ferro coil)	◇1 Max.	
FM (87.5-108 MHz)	108 MHz Δf = 200 kHz (50 Hz)	◇B	108 MHz	5961 2951 2958		Max. tuning indication ◇3 V-A031 = 18 V ⎓
	88 MHz Δf = 220 kHz (50 Hz)	◇B	88 MHz	5954 5956		Max. tuning indication V-A031 = 1.2-1.6 V
	98 MHz ± 100 kHz Δf = 250 kHz (50 Hz)	◇B	98 MHz	5060	◇2 Max "S" + sym. via 100 k	
	88 MHz 1 mV	◇B	88 MHz	3068		Tuning indication ◇3 = 7

	18	19
MISC	6086÷6088.6082.6084.6122 6115.6114 6070 6100.6098.6073.6072 6051.6067÷6069 6060 1011	6601 6600.6609.6611.6621.6612.6627.6643÷6645.6615.6606.6607.6610.6618.6619 1022 1017 SK-G
	6113.6116 6104.6103.6096.6109.6110.6117÷6119.6080.6077.6081.6076.6090 6062 6063	6602 6616.6048.6049.6623.6046.6045.6637÷6642.6603.6041.6042.6044.6614.6613.6624.6636.6635 1019 SK-R
	6725 6726 6730.6727.6112.6728.6107.6106.6125 6729 6705÷6712.6716.1700 6722.1701.6719.6723.6715.1702 1703 1704 6721.6720.6724 6700	6604 6701 6628 1706.6631 6632 6634.6266 6260 6262.6263
S	5076.5072÷5074.5068.5065.5064.5067.5070 5700.5701.5062 5060 5061	5600.5603.5602 5250
C	2161.2162.2164÷2167.2170÷2172.2174÷2176 2160.2077.2179 2082.2093.2086.2081.2083.2088÷2090.2096.2097.2080.2066÷2068.2087.2075.2073.2070.2063÷2065.2061.2060	2614 2611.2600÷2603.2620.2622.2606.2607 2621.2616÷2618.2635
	2158.2129÷2132.2155.2147.2146.2119÷2122.2154.2150÷2152.2140.2142÷2145 2100÷2105.2113 2074 2108÷2111 2062	2610.2612 2625 2624 2632 2633 2628 2644
	2133÷2135.2117.2126.2137.2127 2136 2203.2139.2124 2189 2183÷2185.2188.2191 2190 2193÷2199.2182 2201.2200	2638 2641 2643 2637 2642
R	3187÷3189.3182÷3184.3192.3205.3206.3197÷3200.3193.3194.3204.3081÷3084 3074.3097.3093.3092.3088÷3090.3098.3096.3085.3103.3102.3073 3061	3622.3623 3615.3614.3645.3649.3631.3640.3636.3602÷3605.3611.3635.3624÷3630.3634
	3178.3136.3177.3172÷3174.3137.3161.3160.3180.3171.3166÷3168.3159.3154÷3157 3112÷3115.3108.3109.3118÷3123.3060.3076÷3080.3062÷3066.3068.3069	3619.3644.3648.3619 3641.3633 3658.3639.3638 3653.3663÷3665
	3147 3149÷3153.3138.3141÷3144.3236÷3238 3219.3222.3223 3216÷3218.3210÷3213.3218÷3131.3230÷3233.3227	3661 3662 3659 3657.3656
	3737 3738 3739÷3741 3733.3717 3734.3716.3715 3708÷3710.3700 3730.3714 3729 3701÷3707 3711÷3713 3736 3722÷3725	3719÷3721 3263.3260.3261.3265 3250

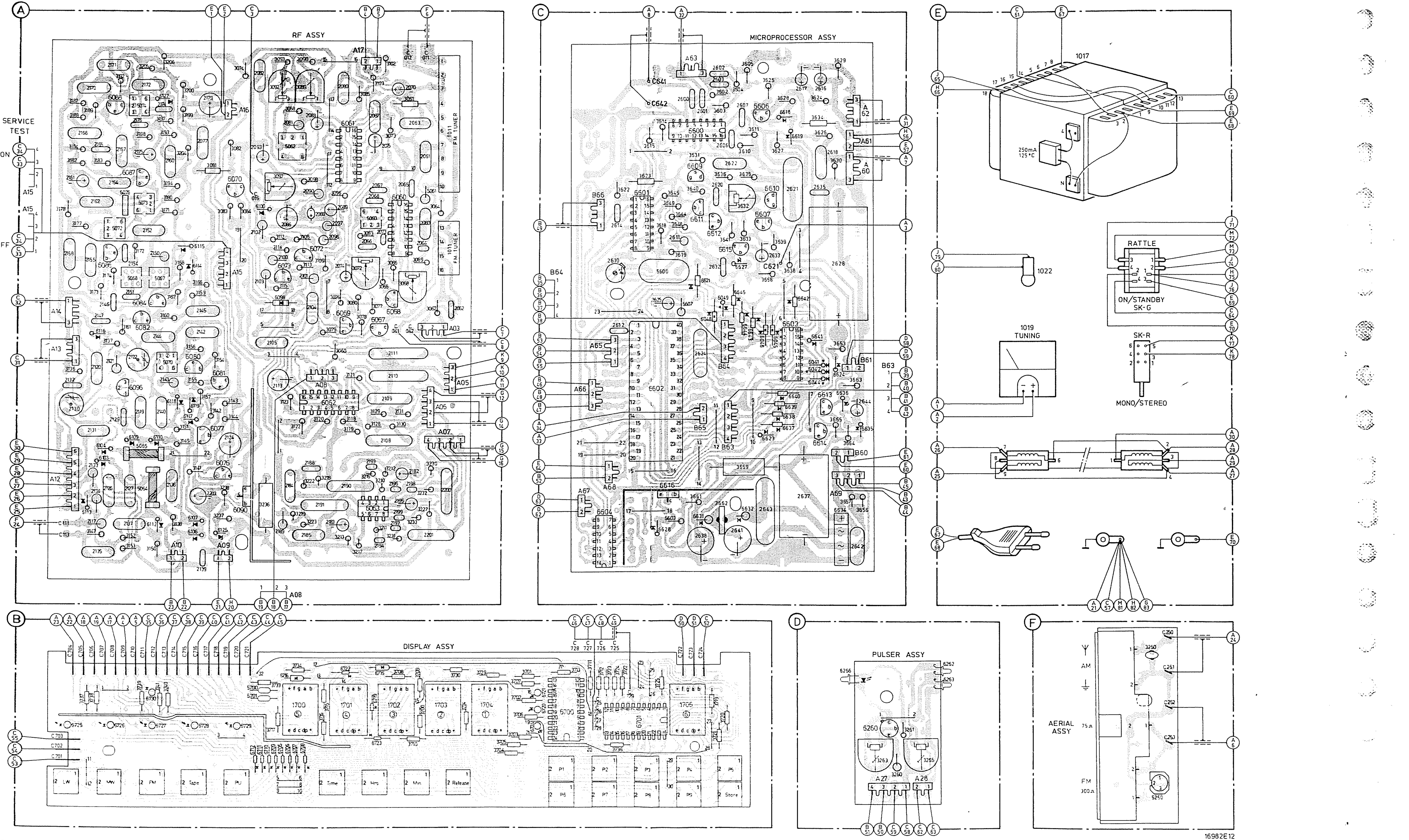


Fig. 20

CS 65 198

MISC	6552 6551 SK-C.D.E
C	2255 2255 2253 2254 2551 2522
R	3559 3555 3561–3564 3560 3551–3554 3557 3558 3552

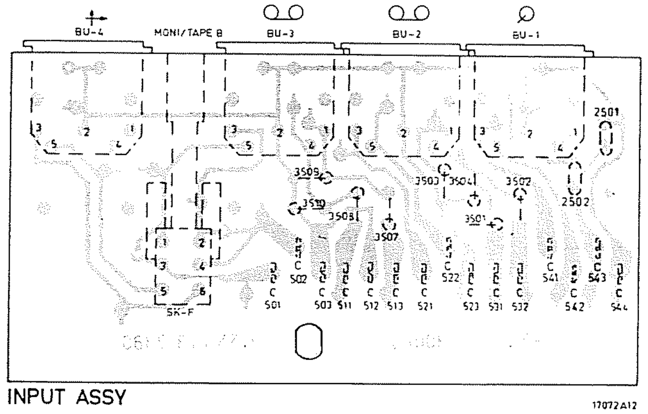


Fig. 14

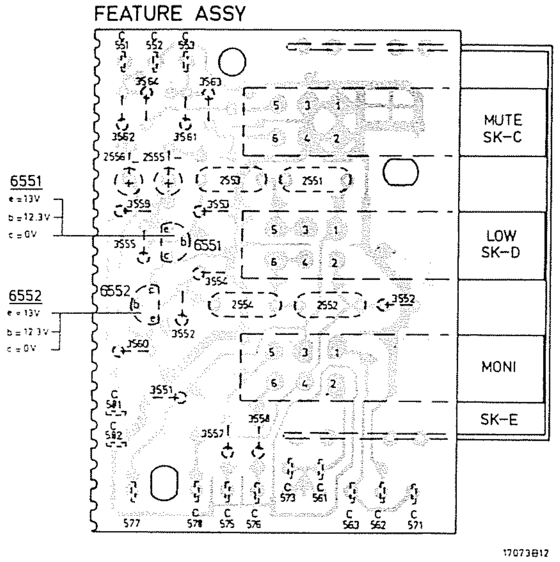


Fig. 15

MISC	6408.BU-5 1030 6410.SK-T BU-9.6406 BU-8 6402 6416 6417 1031 5416 6401 6405 BU-6 6409 1029 SK-S BU-7 6407
C	2422 2416 2420 2414.2410 2426.2408 2404 2402.2052.2429÷2431 2435 2436 2053 2401 2434 2403 2051.2407 2409 2425 2413 2419 2415 2421
R3401÷3435	3434.3430.3428.3424 3414.3432 3416.3422 3410.3412.3420.3406.3402 3404 3403 3401.3405.3409.3411 3419 3421 3415 3413 3431 3427 3423 3429.3433
R3436÷3470	3450.3452.3446.3448 3438.3440 3442 3456 3458.3460.3466 3465.3467.3469 3470 3457 3455 3459 3441 3439 34.. 3447.3445 3451.3449

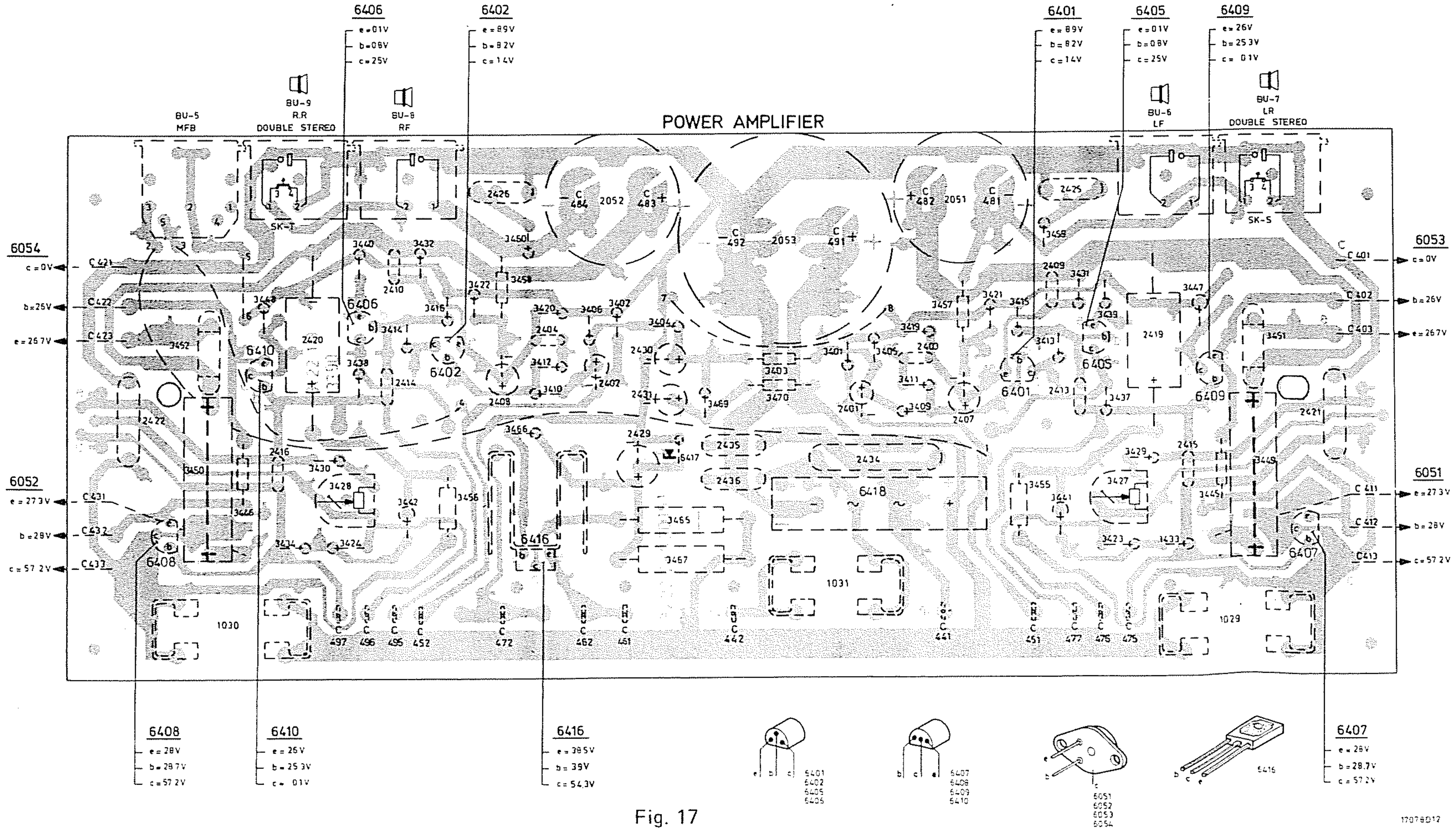


Fig. 17

MISC	6308 6318 6314 6312 6317 6311 6307 6313 6304 6302.6301 SK-B.6303 SK-A
C	2332 2331 2324 2320 2326 2319.2322.2323.2321.2336 2335 2325 2312 2330 2328 2303÷2308.2327.2310 2301.2309 2329 2313 2302 2311 2315 2314.2316
R1301÷3320	1307.1308 1305.1306 1301.1302 3314 3302.3320.1304.1303.3306.3310÷3313.3316.3305 3309 3315.3301 3303.3319 3304
R3321÷3370	3369 3370 3360.3340.3330.3345.3332.3337.3338.3350.3334 3341 3359.3348 3333 3331.3329.3339.3347.3358.3352.3356.3349.3351.3355.3357 3322 3324 3321 3323

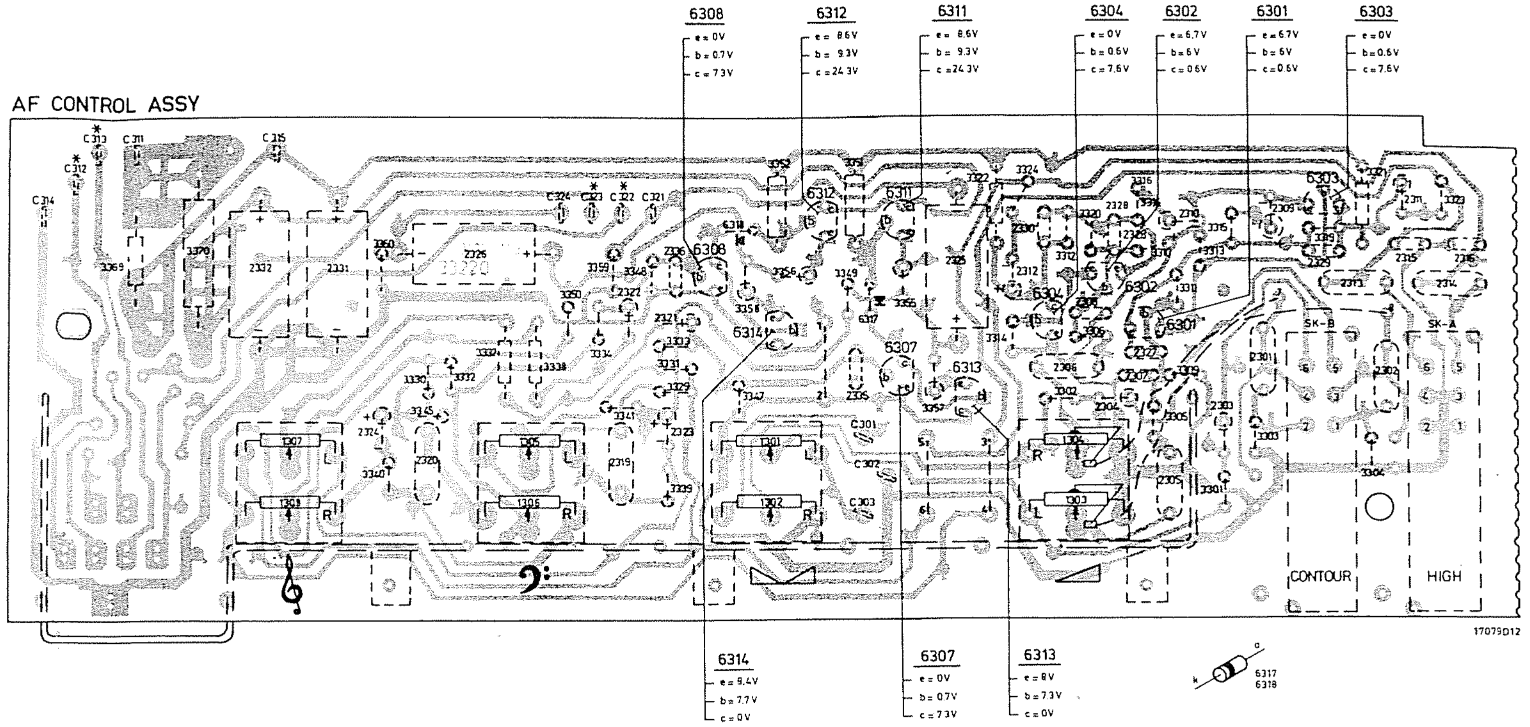


Fig. 16

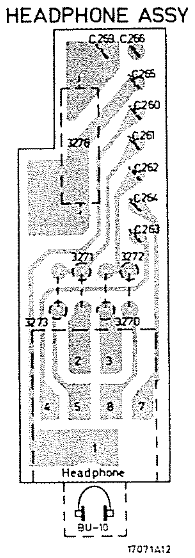


Fig. 18

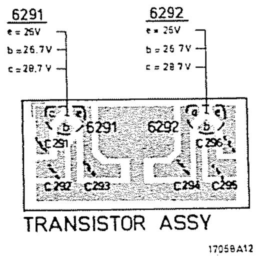
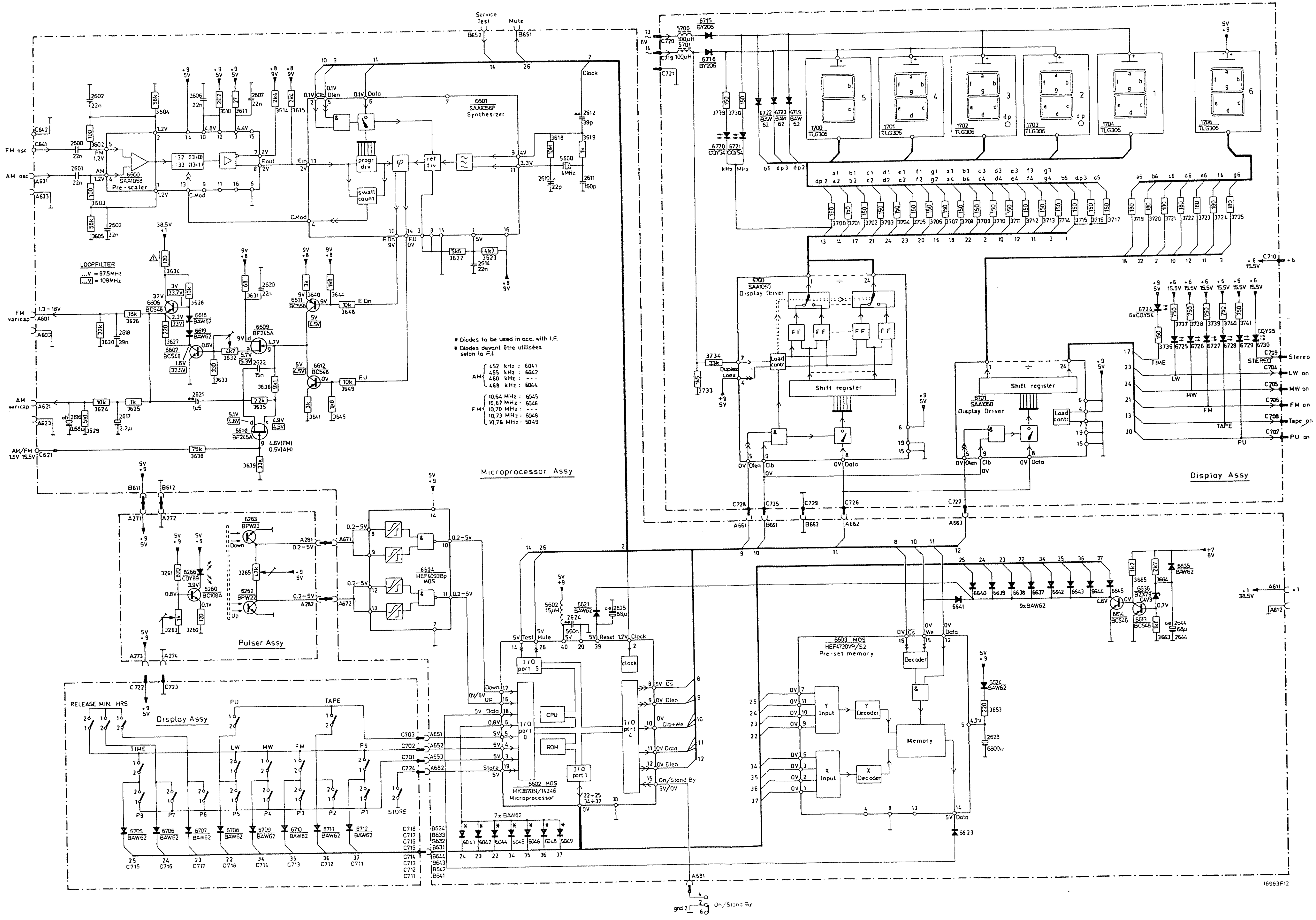


Fig. 19

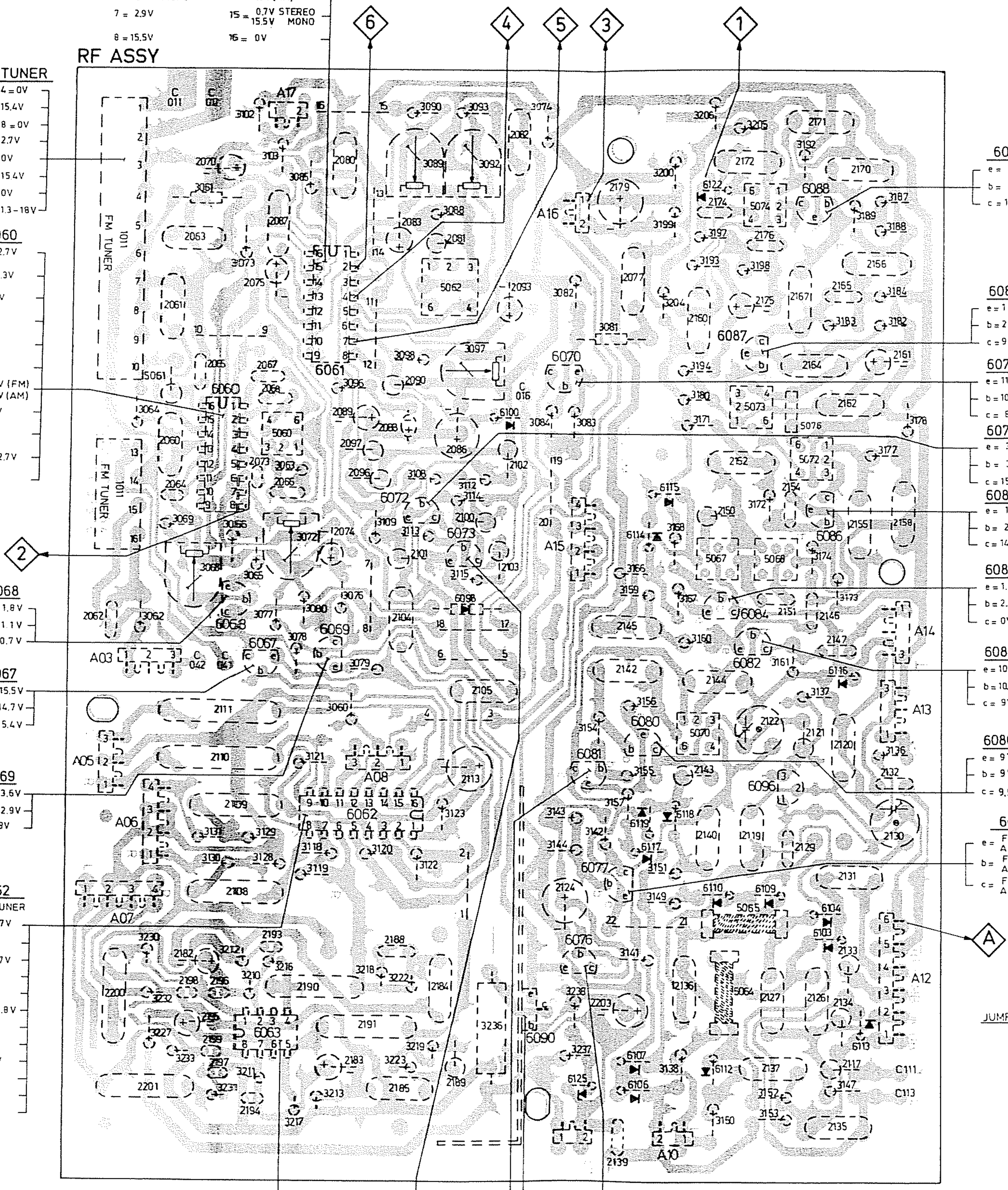
	10	11
MISC	6600 6606 6607 6618 6619 6610 6609 6611 6612 6601 5600	5700.5701.6715.6716.6720.6721.6700.6722.6723.6719 1700 1701 1702. 6701 1703 1704 6724 6725.2726.1706.6727.6728.6729. 6730
MISC	6705 6706 6266 6707 6260 6708 6262.6263.6709 6710 6711 6712 6604 6041 6042 6044.6045.6602.5602.6046.6048.6621.6049	6603 6641.6623. 6640 6624.6639. 6638.6637. 6642 6643 6644. 6645. 6614.6613.6636. 6635
C	2616.2600.2601÷2603.2617.2618 2621.2606 2622.2607. 2620 2614 2610 2624.2611.2612 2625	2628 2644
R	3602.3603.3605.3626.3630.3604.3634.3627.3628.3631÷3633.3610.3611 3614.3615.3640 3644 3648 3622 3623 3618 3619	3729 3730 3700. 3701. 3702.3703. 3704. 3705. 3706. 3707.3708.3709. 3710. 3711.3712. 3713. 3714. 3715. 3716. 3717 3719. 3720.3721.3722.3723. 3724. 3725
R	3629. 3624 3625 3261. 3263. 6260.3638 3265.3639.3635.3636 3641 3645.3649	3733.3734 3653 3665.3663.3664.3736.3737. 3738. 3739. 3740 3741



CS 65 194

Fig. 9

MISC	R			C		
	3206 3074	3093 3205	3090 3102	2171	2082	
	3192					
6122	3092 3085	3103 3200	3089	2080	2070	2172 2170
6088 5074 1011	3189	3187	3061 3088	2179	2174	
	3197	3199	3188	2083 2081	2087 2063	2176
5062	3193	3198	3073	2166		
	3184	3082	3204	2165 2167 2061	2077 2093	2075 2175
	3182	3183	3081		2160	
6087 6070 6061 6060	3098	3194	3097 3096	2161 2065	2164 2090	2067
5073 5076 6100 5061	3180 3178 3084	3171	3064 3083	2068 2088	2162	2089
5060 5072			3177	2086	2097	2060
6115	3063	3112	3108	2152 2096 2064	2102 2154	2073 2066
1011 6072	3114		3172	2150	2158	
6086 6073 6114	3066 3072	3069 3168 3174	3109 3113	2155 2101	2074	2100
5067 5068	3166	3068 3115	3065			2103
	3173 3076	3159	3167	2151		
6098 6084	3077	3080	3062	2104	2146 2145	2062
6082 6067 ÷ 6069 6116	3160 3161	3078	3079	2147	2142	2144
	3137	3156		2105		
5070 6080	3154		3060	2111	2122	2121
6081 6096	3155	3136	3121	2120 2132	2110 2113	2143
6062 6117 ÷ 6119	3157 3142	3143 3129	3123 3131	2130	2119	2109 2140
	3144 3128 3119	3120 3130	3118 3151 3122	2129	2131	
6077 6110 6109 6104 5065 6103 6076	3149			2108		2124
	3141	32.	3212	2186 2182	2193	2133
5064 6090	3216 3238	3218 3222	3210 3216 3232	2136 2190 2126 2203	2198 2127 2134	2196 2184 2200
6113 6063 6107	3236 3237	3227	3219	2191		2195 2199
6112 6125 6106	3138 3147 3213 3153	3233 3152 3150	3223 3211 3231 3217	2117 2189 2194	2183 2137 2185 2139	2197 2201 2135



6061

1 = 2.8V
2 = 4V
3 = 3.7V
4 = 2.8V
5 = 2V
6 = 1.3V STEREO / 0V MONO
7 = 2.9V
8 = 15.5V
9 = 14.8V
10 = 2V
11 = 4.2V
12 = 2.8V
13 = 14V
14 = 0.6V (FM) / 1.3V (AM)
15 = 0.7V STEREO / 15.5V MONO
16 = 0V

FM TUNER

1 – 4 = 0V
6 = 15.4V
7 – 8 = 0V
10 = 2.7V
13 = 0V
14 = 15.4V
15 = 0V
16 = 1.3 – 18V

6060

1 – 2 = 2.7V
3 – 4 = 4.3V
5 – 6 = 8V
7 = 1.8V
8 = 2V
9 = 1.2V
10 = 0.6V (FM) / 1.3V (AM)
11 = 13.1V
12 = 0V
13 – 15 = 2.7V
16 = 0V

6068

e = 1.8 V
b = 1.1 V
c = 0.7 V

6067

e = 15.5 V
b = 14.7 V
c = 15.4 V

6069

e = 13.6 V
b = 12.9 V
c = 8V

6062

POS. TUNER
1 – 2 = 8.7 V
3 = 8.8 V
4 – 6 = 8.7 V
7 = 8.8 V
8 = 8.7 V
9 – 10 = 8.8 V
11 = 14.4V
12 = 5V
13 = 14.4V
14 = 15.5V
15 = 8.8V
16 = 0V

6088

e = 2.1V
b = 2.8V
c = 14.9V

6087

e = 1.4V
b = 2.1V
c = 9.2V

6070

e = 11.5V
b = 10.8V
c = 8.1V

6072

e = 3V
b = 3.7V
c = 15.5V

6086

e = 1.3V
b = 2V
c = 14.5V

6084

e = 1.5V
b = 2.2V
c = 0V

6082

e = 10.8V
b = 10.1V
c = 9V

6080

e = 9.1 V
b = 9.8V
c = 9.9V

6077

e = FM = 0V / AM = 9.9V
b = FM = 0V / AM = 10.6V
c = FM = 0V / AM = 13.8V

6063

1 = 0.9 V
2 = 1.2 V
3 = 0 V
4 = 8.2 V
5 = 8.2 V
6 = 20.6 V
7 = 1.2 V
8 = 0.9 V

6073

e = 3V
b = 3.7 V
c = 15.5 V

6081

e = 9.1 V
b = 9.8V
c = 9.9 V

6090

e = 15.5V
b = 16.2 V
c = 34.5V

6076

e = 15.5V
b = FM = 15V / AM = 14.8V
c = FM = 0V / AM = 15.4V

17077D12

Fig. 7

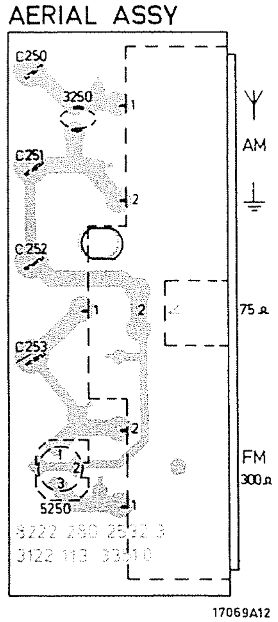


Fig. 8

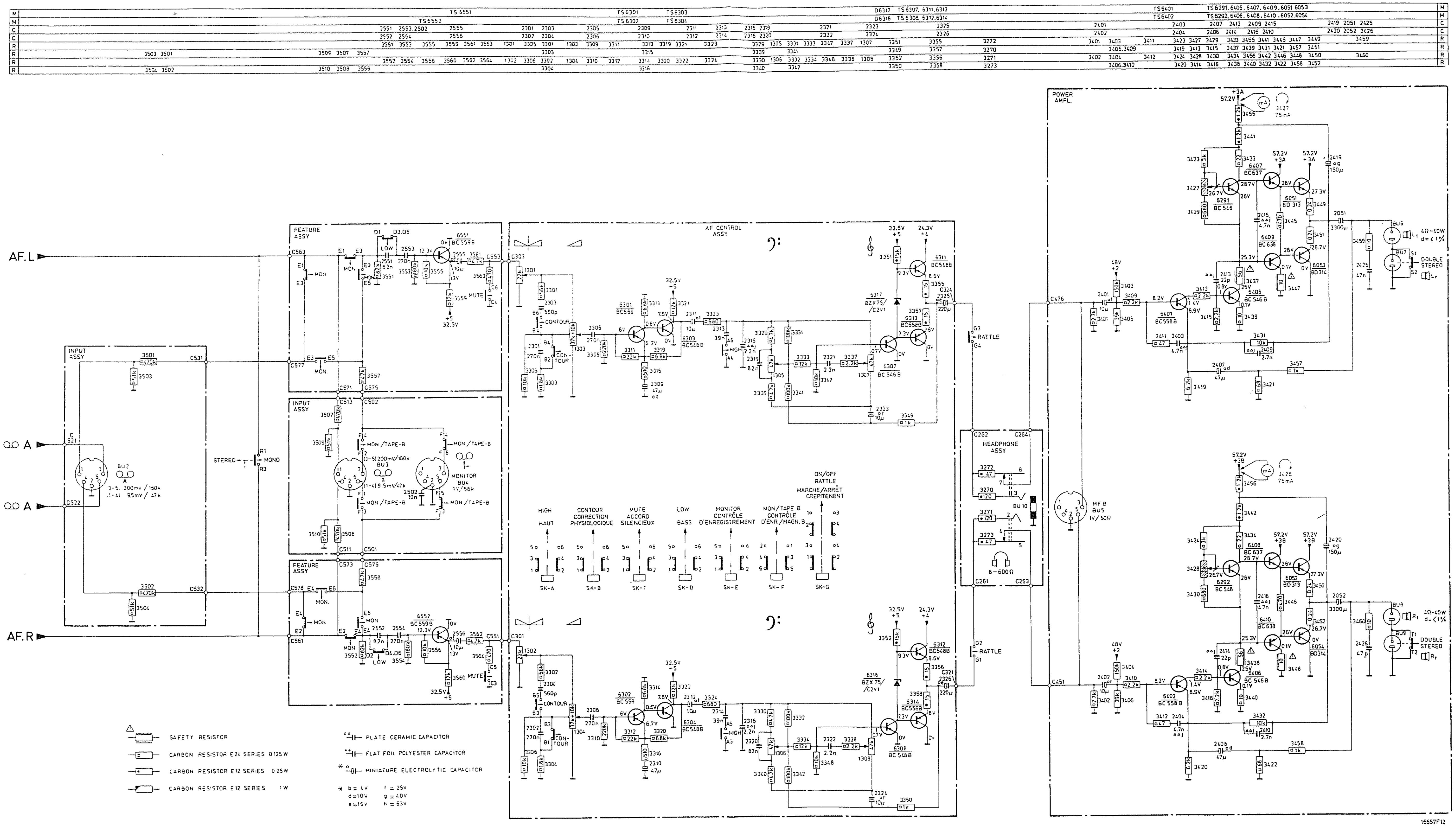

AF.L
AF.R
INPUT ASSY
FEATURE ASSY
INPUT ASSY
FEATURE ASSY
AF CONTROL ASSY
HEADPHONE ASSY
POWER AMPL.
STEREO
MONO
MON
MUTE
CONTOUR
RATTLE
HIGH
HAUT
CONTOUR CORRECTION PHYSIOLOGIQUE
MUTE ACCORD SILENCIEUX
LOW
BASS
MONITOR CONTRÔLE D'ENREGISTREMENT
MON/TAPE B CONTRÔLE D'ENR./MAGN. B
ON/OFF RATTLE MARCHE/ARRÊT CREPITEMENT
SK-A
SK-B
SK-C
SK-D
SK-E
SK-F
SK-G
MONITOR BU4 1V/56k
MF B BUS 1V/50Ω
8-600Ω
4Ω-40W d≤<1%
DOUBLE STEREO
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
16557F12

Fig. 13

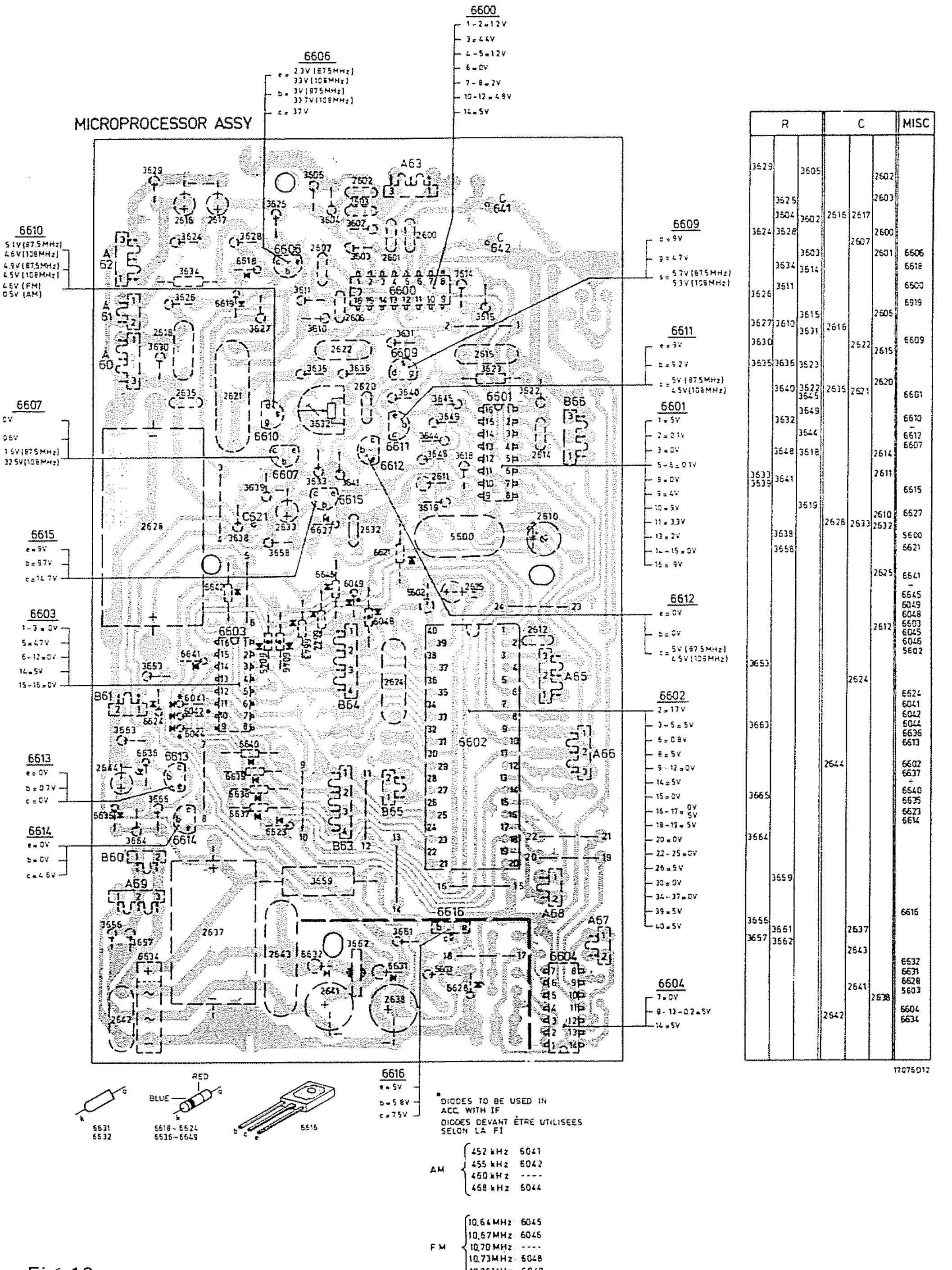


Fig. 10

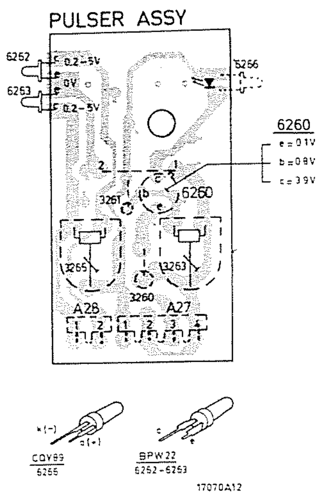


Fig. 12

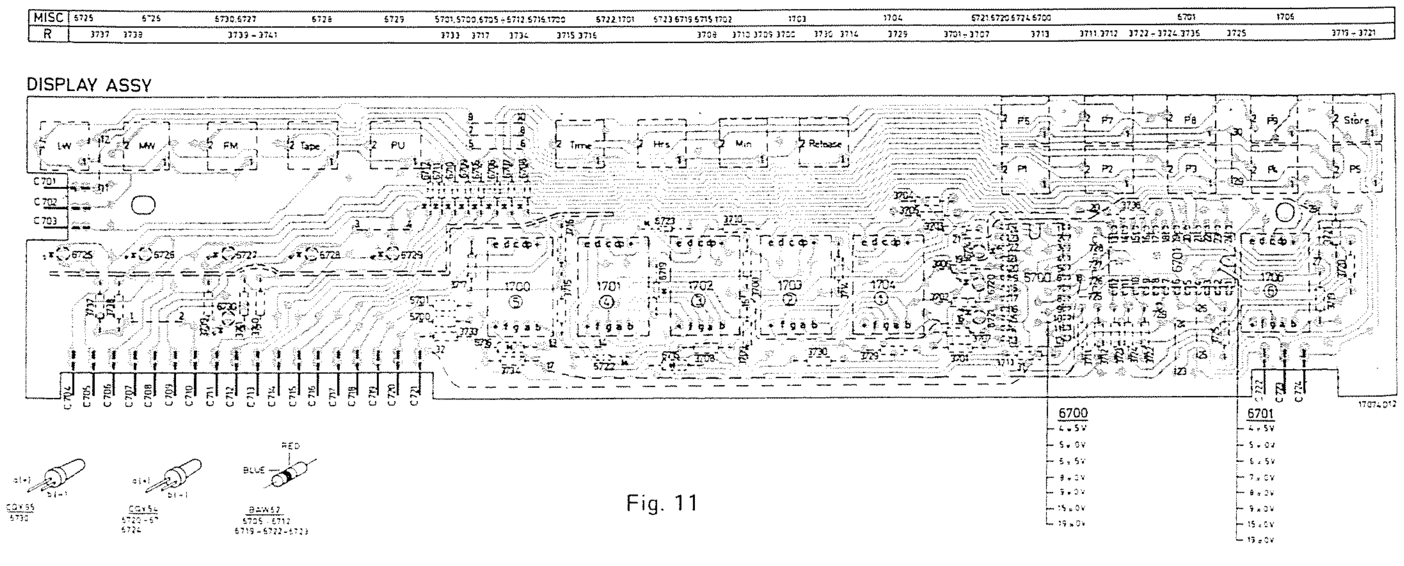


Fig. 11

Afregelen pulser assy (Fig. 12)

De pulser assy moet tijdens het afregelen verbonden blijven met de μP print i.v.m. de belasting.

a. Zet de tuning knop in een zodanige stand, dat op A281 (op A671 van de μP print) de spanning minimaal is. Met R3263 de spanning op A281 instellen tussen 0,5 en 0,8 V ⎓ .
Dezelfde handelingen herhalen terwijl gemeten wordt op A282 (of A672 van de μP print).

b. Oscilloscoop aansluiten op A281 en A282 (of A671 en A672 van μP print).
De signalen welke zichtbaar zijn d.m.v. draaien aan de tuning knop, zijn onderling 90° in fase verschoven.
Met R3265 de pulshoogten gelijk instellen en eventueel punt a herhalen.

c. Met R3263 de pulshoogten vervolgens zodanig instellen dat de spanningen op A281 en A282 (of A671 en A672) in de minimale stand van de tuning knop $\leqslant$ 0,45 V is (onderling verschil $\leqslant$ 0,1 V).

d. Met R3263 de spanning op A281 (of A671) instellen op 1,1x de ingestelde waarde genoemd in punt c.

Afregelen loopfilter

Apparaat in de stand FM zetten en afstemmen op 108.0 MHz op het display.
Met R3632 de spanning op de gate van 6609 instellen op 4.7 V ⎓ .

Afregelen kristaloscillator

Meten met een frekwentieteller op pin 2 van IC6602 (μP). Met C2610 instellen op 3,9999 MHz.

MOS IC: 6602 - 6603 - 6604

Omdat MOS IC's in het algemeen zeer gevoelig zijn voor overbelasting en te hoge spanning dient bij het meten de grootst mogelijke zorgvuldigheid in acht genomen te worden. Zie voor verdere instructies de bijsluiter in de verpakking van de IC's.

52	4822 426 50338
53	4822 426 60142
54	4822 278 90344
56	4822 277 10451
57	4822 277 10461
58	4822 255 40129
59	4822 267 30277
61	4822 255 10007
62	4822 134 40326
63	4822 347 10221
64	4822 381 10483
66	4822 411 40023
67	4822 426 50337
68	4822 413 51007
69	5322 492 60964
71	4822 413 51008
72	4822 502 11107
73	4822 413 51006
74	4822 532 60676
76	4822 267 30317
77	4822 532 51096
78	4822 267 30264
79	4822 267 30271
81	4822 146 60087
82	4822 158 60424
83	4822 532 80646
84	4822 532 51059
85	4822 130 31132
87	4822 410 22151
88	4822 276 10717
89	4822 466 70347
91	4822 267 50209
92	4822 210 10205
93	4822 267 50209
94	4822 267 40339
96	4822 410 21877
97	4822 267 40325
98	4822 276 10691
99	4822 267 40325
101	4822 462 40352
102	4822 532 60653
103	4822 256 30142
104	5322 466 90433
106	4822 264 40023
107	4822 264 30041
108	4822 264 30011
109	4822 264 30042
111	4822 264 30043
112	4822 264 30104

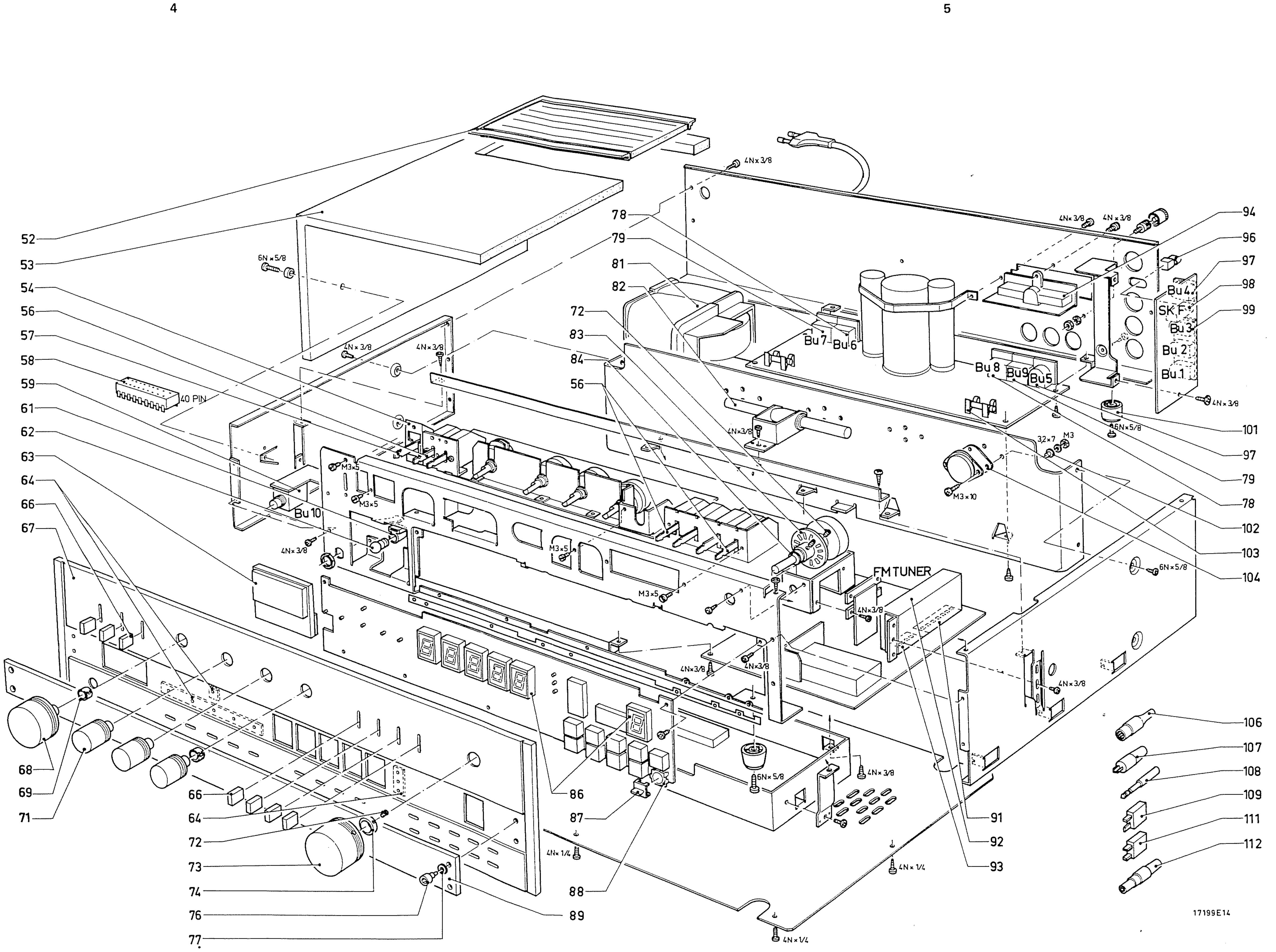


Fig. 5

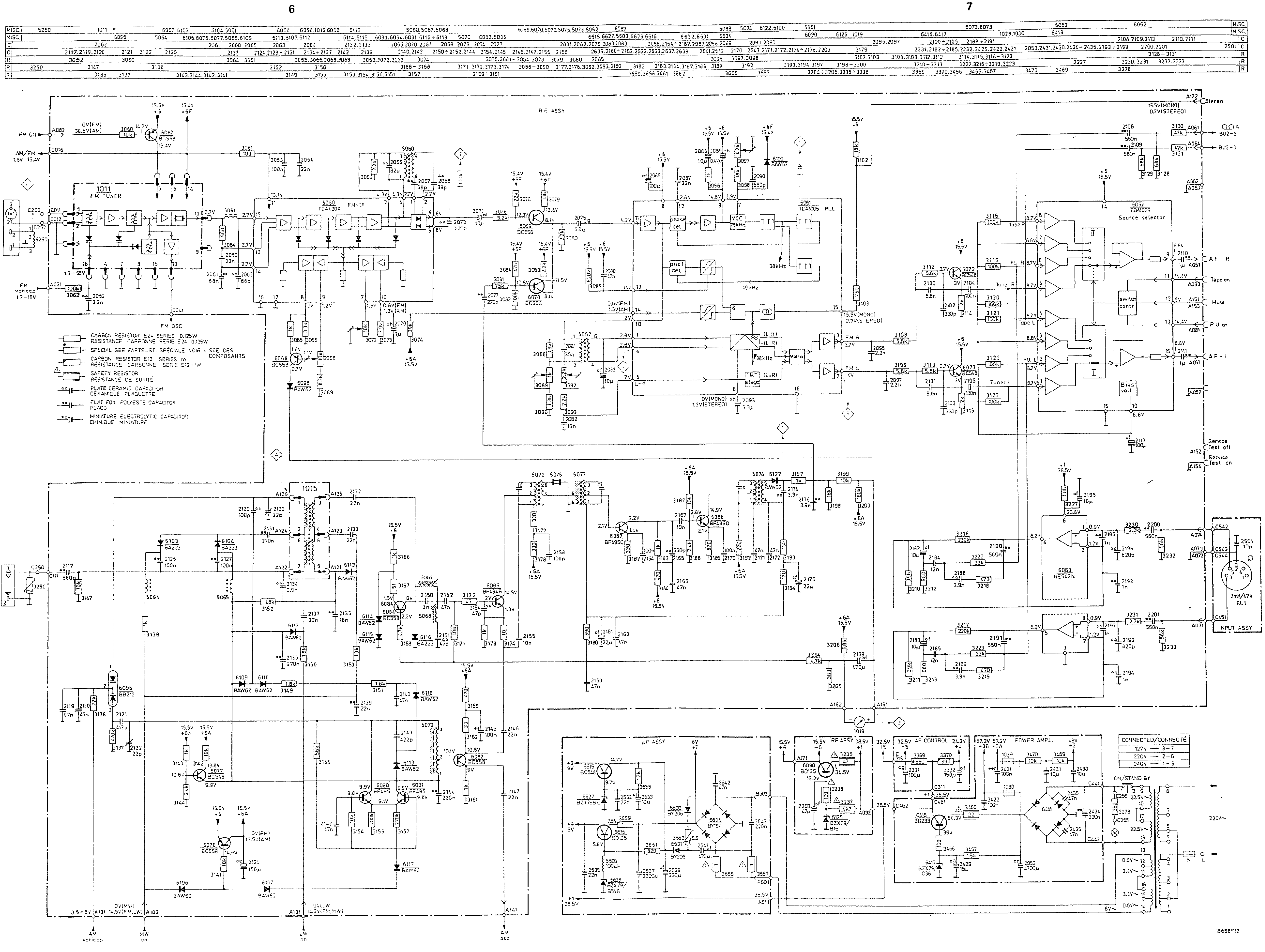

6
7
R.F. ASSY
FM ON
AM/FM
FM TUNER
1011
75Ω
300Ω
FM varicap 1,3-18V
FM OSC
6060 TCA420A FM-IF
6061 TDA1005 PLL
phase det
VCO 76kHz
pilot det
38kHz
19kHz
"M" stage
Matrix
FM R
FM L
15,5V(MONO) 0,7V(STEREO)
0V(MONO) 1,3V(STEREO)
6062 TDA1029 Source selector
Tape R
P.U. R
Tuner R
Tape L
P.U. L
Tuner L
switch contr
Bias volt
Stereo
BU2-5
BU2-3
AF-R
Tape on
Mute
P U on
AF-L
Service Test off
Service Test on
6063 NE542N
2mV/47k BU1
INPUT ASSY
1015
AM varicap
MW on
LW on
AM osc.
µP ASSY
RF ASSY
AF CONTROL
POWER AMPL.
CONNECTED/CONNECTÉ
127V — 3-7
220V — 2-6
240V — 1-5
ON/STAND BY
220V~
CARBON RESISTOR E24 SERIES 0,125W
RESISTANCE CARBONNE SERIE E24 0,125W
SPECIAL SEE PARTSLIST, SPÉCIALE VOIR LISTE DES COMPOSANTS
CARBON RESISTOR E12 SERIES 1W
RESISTANCE CARBONNE SERIE E12-1W
SAFETY RESISTOR
RÉSISTANCE DE SURITÉ
PLATE CERAMIC CAPACITOR
CERAMIQUE PLAQUETTE
FLAT FOIL POLYESTE CAPACITOR
PLACO
MINIATURE ELECTROLYTIC CAPACITOR
CHIMIQUE MINIATURE
16558F12

Fig. 6

	20	21
MISC.	BU1 BU2 BU3 SK F BU4 6053 6051	6407 BU7 1029 BU6 6405 6401 6418 1031 6417 6416 6402 BU8 6406 SK-T BU9 6410 1030 BU5 6408 6054,6052
MISC.	BU10 6292 6291 6551 6552	SK-A SK-B 6303 6301 6302 6304 6313 6311 6307 6317 6312 6314 6318 6308
C	2501 2502 2552 2553 2555	2421 2415 2419 2425 2413 2409 2407 2051 2403 2434 2401 2053 2435 2436 2429···2431 2052 2402 2404 2426 2408 2414 2410 2420 2416 2422
C	2551 2554 2556	2313···2316 2311 2302 2319 2309 2301 2303 2310 2327 2304···2308 2328 2330 2312 2325 2335 2336 2321···2323 2319 2326 2320 2324 2331 2332
R	3278 3502 3501 3504 3503 3507 3508 3509 3510 3553 3563 3561 3564 3559 3562	3451 3449 3455 3447 3439 3437 3431 3413 3459 3415 3421 3457 3419 3411 3405 3401 3403 3470 3469 3465 3467 3404 3402 3406 3412 3458 3460 3422 3416 3432 3414 3440 3438 3430 3448 3446 3450 3452
R	3272 3270 3271 3273 3552 3558 3554 3557 3552 3551 3560 3555	3323 3321 3319 3315 3313 3429 3433 3427 3423 3441 3455 3316 3312 3320 3424 3322 3356 3352 3358 3333 3331 3348 3359 3350 3410 3466 3456 3360 3442 3424 3428 3434
R		3304 3303 3301 3309···3311 3305 3310 1304 1303 3302 3314 3357 3355 3351 3349 1302 1301 3347 3329 3339 3341 3334 3338 1305 1306 3337 3332 3342 3330 3340 1307 1308 3307 3369

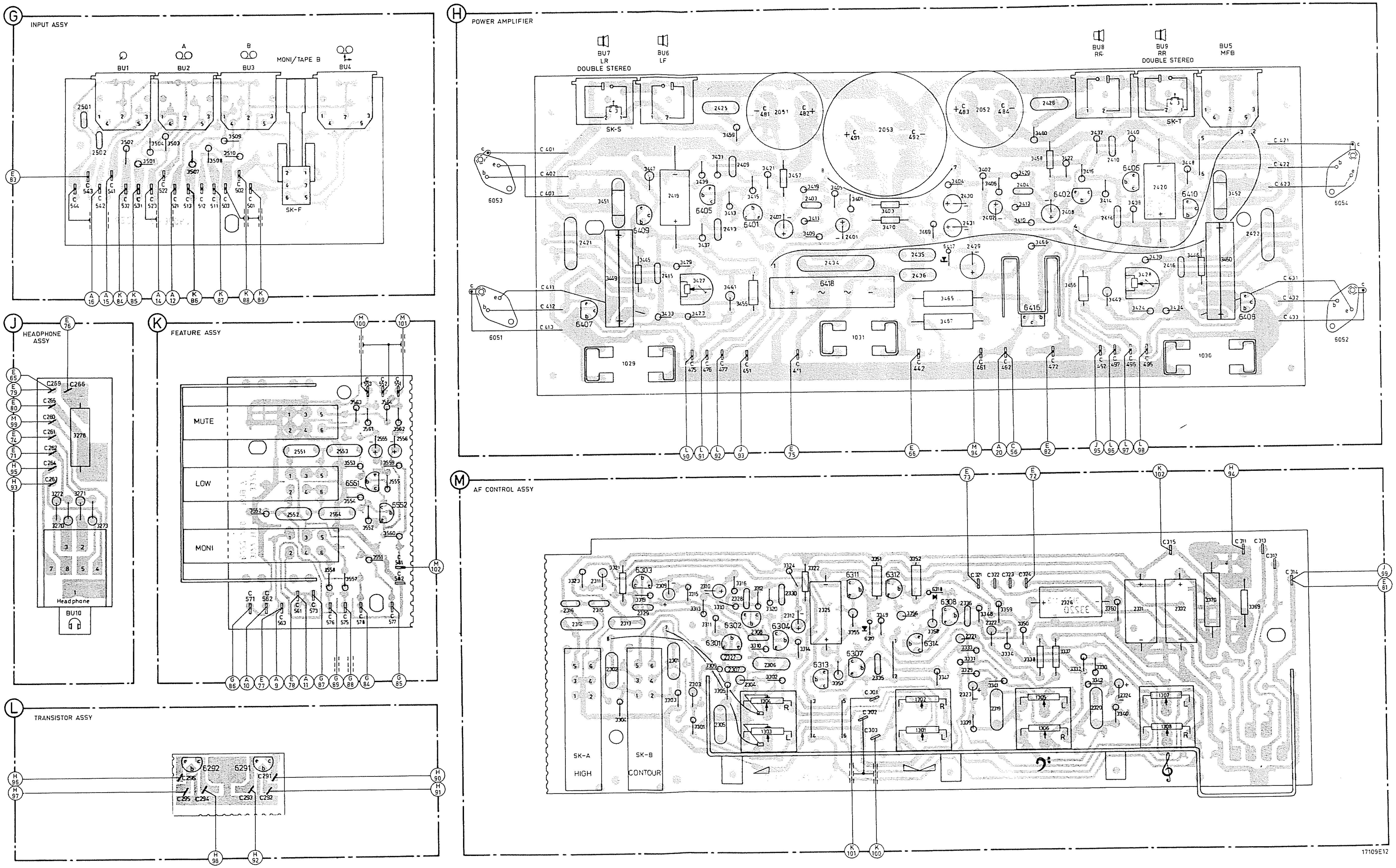
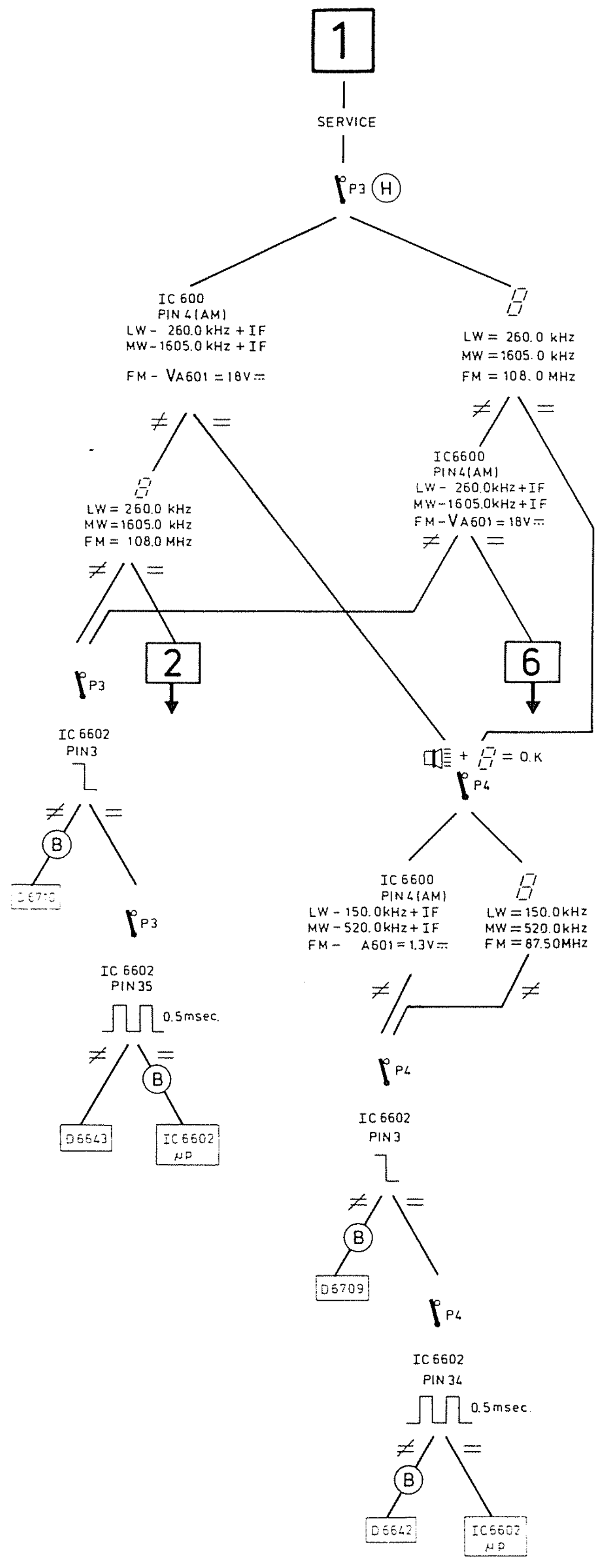


Fig. 21


1
SERVICE
P3 (H)
IC 600
PIN 4 (AM)
LW - 260.0 kHz + IF
MW - 1605.0 kHz + IF
FM - VA601 = 18V
LW = 260.0 kHz
MW = 1605.0 kHz
FM = 108.0 MHz
≠
=
IC6600
PIN4(AM)
LW - 260.0kHz + IF
MW - 1605.0kHz + IF
FM - VA601 = 18V
LW = 260.0 kHz
MW = 1605.0 kHz
FM = 108.0 MHz
2
6
P3
IC 6602
PIN3
B
D6715
P3
IC 6602
PIN 35
0.5msec.
D6643
IC6602 µP
+ = O.K
P4
IC 6600
PIN 4 (AM)
LW - 150.0kHz + IF
MW - 520.0kHz + IF
FM - A601 = 1.3V
LW = 150.0kHz
MW = 520.0kHz
FM = 87.50MHz
P4
IC 6602
PIN3
D6709
P4
IC 6602
PIN 34
0.5msec
D6642
IC6602 µP

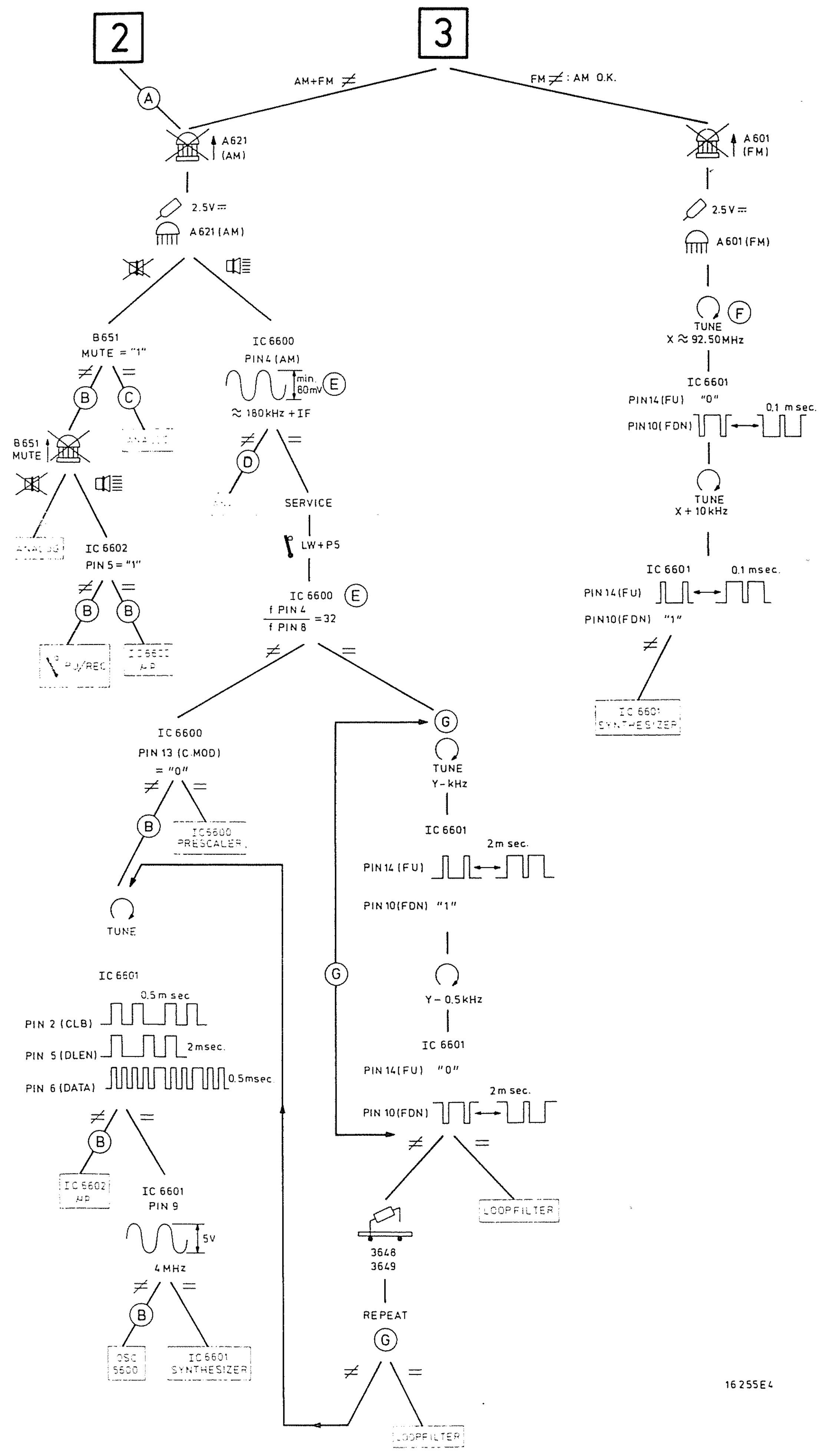

2
3
AM+FM ≠
FM ≠ : AM O.K.
A
A621 (AM)
2.5V
A621 (AM)
A601 (FM)
2.5V
A601 (FM)
B651
MUTE = "1"
B
C
ANALOG
B651 MUTE
ANALOG
IC 6602
PIN 5 = "1"
PU/REC
IC6602 µP
IC 6600
PIN4 (AM)
min. 80mV
E
≈ 180kHz + IF
D
SERVICE
LW+P5
IC 6600
E
f PIN 4 / f PIN 8 = 32
IC 6600
PIN 13 (C.MOD)
= "0"
IC6600 PRESCALER
TUNE
IC 6601
0.5m sec
PIN 2 (CLB)
PIN 5 (DLEN)
2msec.
PIN 6 (DATA)
0.5msec
IC6602 µP
IC 6601
PIN 9
5V
4MHz
OSC 5500
IC 6601 SYNTHESIZER
G
TUNE
Y - kHz
IC 6601
2m sec.
PIN 14 (FU)
PIN 10 (FDN) "1"
Y - 0.5kHz
IC 6601
PIN 14 (FU) "0"
2m sec.
PIN 10 (FDN)
LOOPFILTER
3648
3649
REPEAT
G
LOOPFILTER
F
TUNE
X ≈ 92.50MHz
IC 6601
PIN14 (FU) "0"
0.1 m sec.
PIN10 (FDN)
TUNE
X + 10kHz
IC 6601
0.1 msec.
PIN 14 (FU)
PIN10 (FDN) "1"
IC 6601 SYNTHESIZER
16 255E4

Fig. 22

IC 6602 MICROPROCESSOR

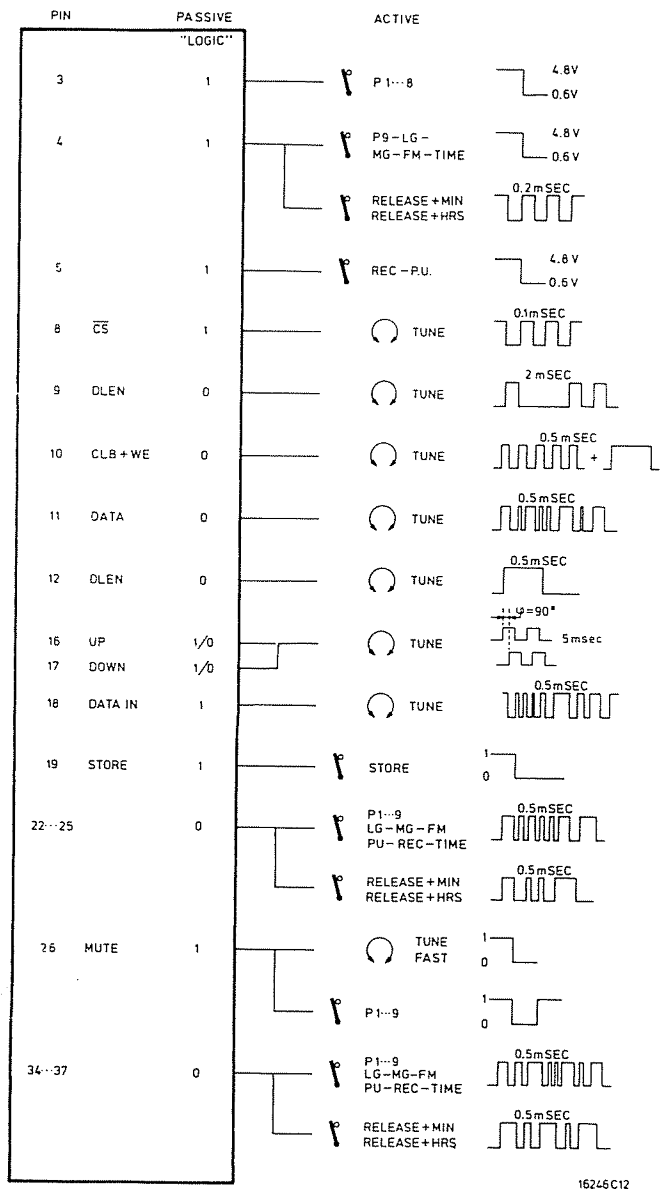


Fig. 25

-IC-

6060	TCA420A	4822 209 80278
6061	TDA1005A	4822 209 80514
6062	TDA1029	4822 209 80511
6063	NE542N	4822 209 80359
6600	SAA1058A	4822 209 80483
6601	SAA1056P	4822 209 80513
6602	MK3870N/14246	4822 209 80515
6603	HEF4720 VP/S2	4822 209 10044
6604	HEF4093BP	5322 209 14186
6700-6701	SAA1060	4822 209 80512

6262-6263	Photo trans. BPW22	5322 130 44754
6609-6610	FET BF245A	5322 130 44499
6260	BC108A	4822 130 40948
6405-6406	BC546B	4822 130 44461
	BC548	4822 130 40938
	BC548B	4822 130 40937
	BC558	4822 130 40941
	BC558B	4822 130 44197
6301-6302	BC559	4822 130 40963
6551-6552	BC559B	4822 130 44358
6407-6408	BC637	4822 130 41041
6409-6410	BC638	4822 130 41087
6090-6616	BD135	4822 130 40645
6416	BD233	5322 130 44281
6086...6088	BF494B-495C-495D	4822 130 40949
6080-6081	BF495	4822 130 40947
6051-6052	BD313	4822 130 41154
6053-6054	BD314	4822 130 41155

1700...1706	TLG306	4822 130 31132
6096	BB212	4822 130 31129
6103-6104-6116	BA223	4822 130 31145
6125	BZX79/B16	5322 130 34268
6266	CQY89	4822 130 30949
6317-6318	BZX75/C2V1	4822 130 34049
6417	BZX79/C36	5322 130 34098
6418	B80 C5500/3300	4822 130 50311
6627	BZX79/B10	4822 130 34297
6628	BZX79/B5V6	4822 130 34173
6631-6632-6715-6716	BY206	4822 130 30839
6634	BY164	4822 130 30414
6636	BZX79/C4V3	5322 130 30509
6720-6721 6724...6729	CQY54-11 red	4822 130 31128
6730	CQY95 green	4822 130 30923
	BAW62	4822 130 30613

1015	Ferroceptor	4822 158 60424
1017	Mains transformer	4822 146 60087
5060		4822 156 30546
5061	0.56 μH	4822 157 50966
5062		4822 156 10465
5064-5065	30 mH	4822 152 20493
5067		4822 156 10457
5068		4822 156 10458
5070		4822 156 10459
5072		4822 156 30676
5073		4822 156 30677
5074		4822 153 10293
5076/00	Cer. resonator 452 kHz	4822 242 70255
5076/15/25	Cer. resonator 468 kHz	4822 242 70278
5250		4822 146 30324
5602	15 μH	4822 157 50965
5603-5700 5701	100 μH	4822 157 50964

1301-1302	Balance 20 kΩ	4822 102 10144
1303-1304	Volume 50 kΩ	4822 102 10142
1305-1308	Bass/treble 50 kΩ	4822 102 10143
3068-3072	10 kΩ	4822 100 10035
3092	2.2 kΩ	4822 100 10029
3097-3632	4.7 kΩ	4822 100 10036
3263	1 kΩ	4822 100 10037
3265	47 kΩ	4822 100 10079
3427-3428	1 kΩ	4822 100 10037

3085	Res. 1/4 W - 620 kΩ	4822 110 60182
3098	Metal film - 18 kΩ	5322 116 54638
3250	V.D.R.	4822 116 20073
3278	Wire wound 360 Ω - 4 W	4822 112 20095
3403-3404	Metal film 150 kΩ	5322 116 54713
3405-3406	Metal film 33 kΩ	5322 116 50482
3419-3420	Metal film 6.2 kΩ	5322 116 50608
3431-3432	Metal film 10 kΩ	5322 116 54619
3449-3450	Fuse res. 0.24 Ω	4822 115 90133
3451-3452	Wire wound 0.24 Ω - 2 W	4822 113 60122
3465	Safe res. 22 Ω	4822 111 50346
3662	PTC thermistor 5.6 Ω	4822 116 40026

2051-2052	3300 μF - 55 V	4822 124 70264
2053	4700 μF - 63 V	4822 124 70198
2088	Tantal 10 μF - 3 V	5322 124 14084

2617	2.2 μF - 63 V	4822 124 20724
2628	6800 μF - 10 V	4822 124 20774
2637	2200 μF - 16 V	4822 124 20779

2060-2087-2137	Flat cap. 33 nF - 10 %	4822 121 40411
2063-2104-2105-2158-2164-2170	Flat cap 100 nF - 10 %	4822 121 41161
2064-2132-2133-2139-2146-2147-2600...2603 2606-2607 2614-2620-2632-2635	Plate cap. 22 nF −20+80%	4822 122 30103
2080-2119-2120-2140-2147-2152-2160-2162-2166-2171-2172	Flat cap. 47 nF - 10 %	4822 121 40239
2081	Micropoco 7.5 nF-5 %	5322 121 54149
2082-2155-2167	Flat cap. 10 nF-10 %	4822 121 41134
2090	Micropoco 560 pF-1%	5322 121 54131
2096-2097	Micropoco 2.2 nF-5%	4822 121 50415
2100-2101	Micropoco 5.6 nF-5%	4822 121 50543
2102-2103	Micropoco 330 pF-5%	5322 121 54077
2121	Micropoco 412 pF-1%	4822 121 50528
2143	Micropoco 422 pF-1%	4822 121 50534
2150	Micropoco 3 nF-5%	4822 121 50414
2184-2185	Flat cap. 12 nF-10%	4822 121 40405
2313-2314-2618	Flat cap. 39 nF-10%	4822 121 40413
2321-2322	Micropoco 2.2 nF-1%	4822 121 50415
2434-2643	Plate cap. 220 nF-20%	4822 121 40538
2501-2502	Plate cap 10 nF−20+50%	5322 122 34041
2551-2552	Flat cap. 8.2 nF-10%	4822 121 40147
2611	Micropoco 160 pF-2%	4822 121 50561
2622	Flat cap. 15 nF-10%	4822 121 40406
2642	Plate cap. 47 nF-10%	4822 121 40525

-Miscellaneous-

1011	FM tuner	4822 210 10205
1019	Tuning indicator	4822 347 10221
1022	Lamp 6V-100 mA	4822 134 40326
1029-1030	Fuse 3.15 A S	4822 253 30027
1031	Fuse 6.3 A S	4822 253 30031
5600	Quartz crystal 4 MHz	4822 242 70258

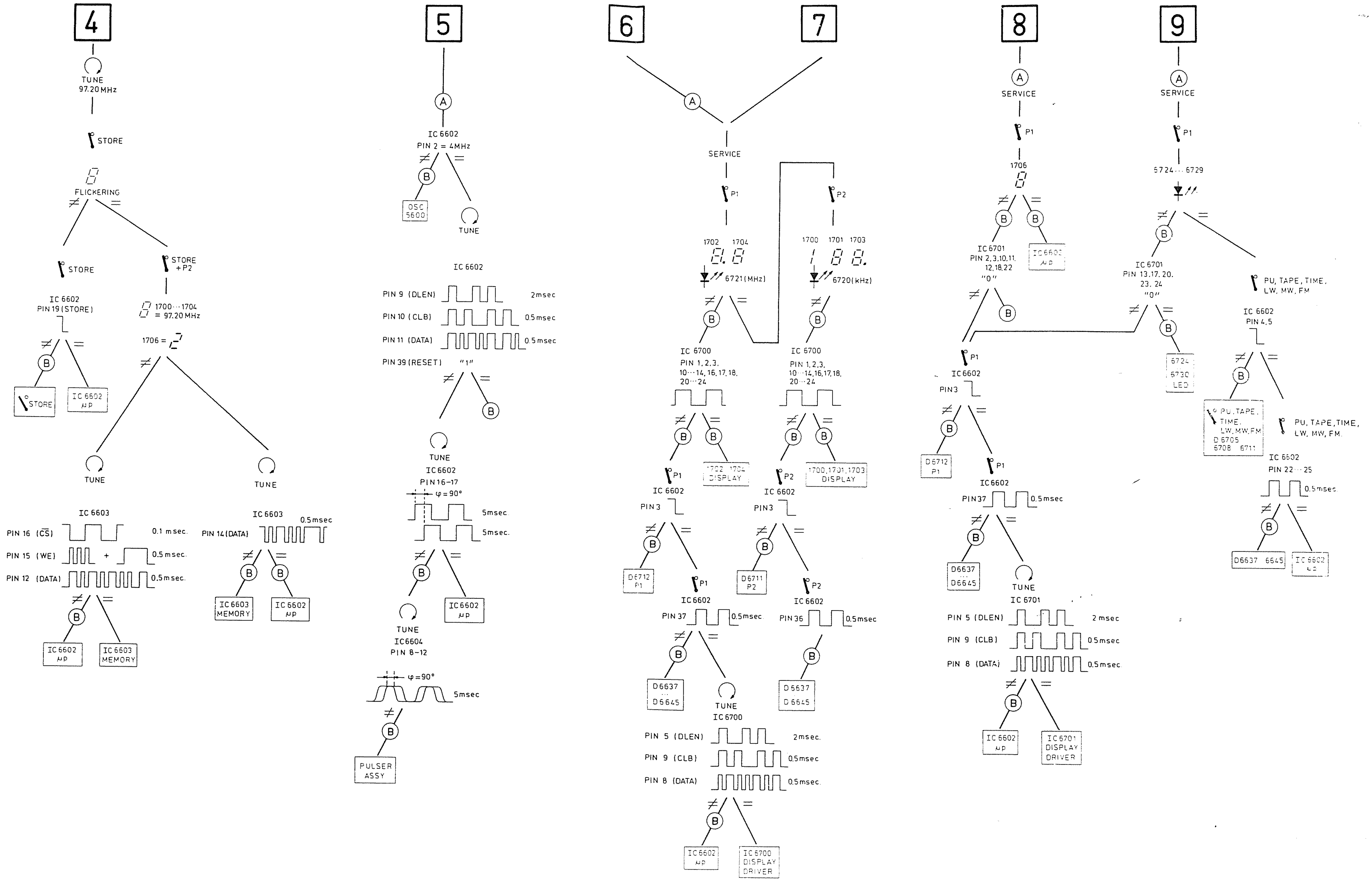


Fig. 24

16254E4