

18361B2

Service Manual

Inhoud	Pag.
Knopfuncties	2
Specificatie	2
Blokschema	3,4
Printenoverzicht	5,6
VOCUM { schema + print	7,8,9
{ foutzoekmethodiek	10,11
{ schemabeschrijving	12,13,14
HF-AM schema	15,16
HF-print	17,18
HF-FM schema	19,20
Afregeling HF	21,22,23,24
Voeding	25
FM-tuner	26
Toonregeling	27,28,29,30
Ingangsschakeling	31,32
Stuurversterker	33,34
Eindversterker	35,36,37,38
Snaarloop	38
Bedrading	39,40,41
Mechanische stuklijst + exploded view	42,43,44
Electrische stuklijst	45,46,47

1 Loudness	SK-C
2 Volume	R1293/1294
3 Balans	R1291/1292
4 Audio-mute	SK-D
5 Lage tonen-regelaar	R1297/1298
6 Uitschakelaar toonregeling	SK-K
7 Hoge tonen-regelaar	R1299/1300
8 Lage tonen filter	SK-G
9 Hoge tonen filter	SK-H
10 AF-Mono/Stereo	SK-L
11 FM-mute	SK-J
12 Functie keuze	SK-A
13 AFC	SK-B
14 Afstemming FM	R1048
AM	C1046,1047
15 Aan/uit	SK-M
16 Veldsterktemeter	IND. 1020
17 Hoofdtelefoon bus	BU14
18 DC beveiligingsindicator	D6653
19 FM-afstemindicator	IND. 1019
20 FM-voorkeuze	SK-P1...16
21 FM-voorkeuze display	IND. 1630, 1631
22 FM-voorkeuzesysteem	SK-R
23 FM-manual	SK-Q
24 Voorkeuze-opslag	SK-S

25 Voorkeuze-zoeker	D6650
Luidsprekersysteem schakelaars	
26 Systeem A	SK-N
27 Systeem B	SK-T,
28 MFB	SK-U
29 Source indicator	D6001
30 Tape 1/monitor	SK-V
31 Tape 2/monitor	SK-W
32 Tape kopieerschakelaars	SK-X, Y
33 FM-stereo-indicator	D6003
34 Antenne aansluiting	BU1,2,3
35 Phono ingang	BU4
36 Aux. ingang	BU5
37 Aardschroef	
38 Tape 1 - weergave/monitor	BU6
39 Tape 1 - opname	BU7
40 Tape 2 - weergave/monitor	BU8
41 Tape 2 - opname	BU9
42 Tape 2 - DIN/monitor	BU10
43 MFB uitgang	BU11
44 LS-uitgang systeem B	BU12-BU13
45 LS-uitgang systeem A	BU14-BU15
46 Akoestieschakelaar - 250 Hz-500 Hz	SK-E
47 Akoestieschakelaar - 2,5 kHz - 5 kHz	SK-F
48 Preset systeem indicator	D6651,6652

SPECIFICATIES

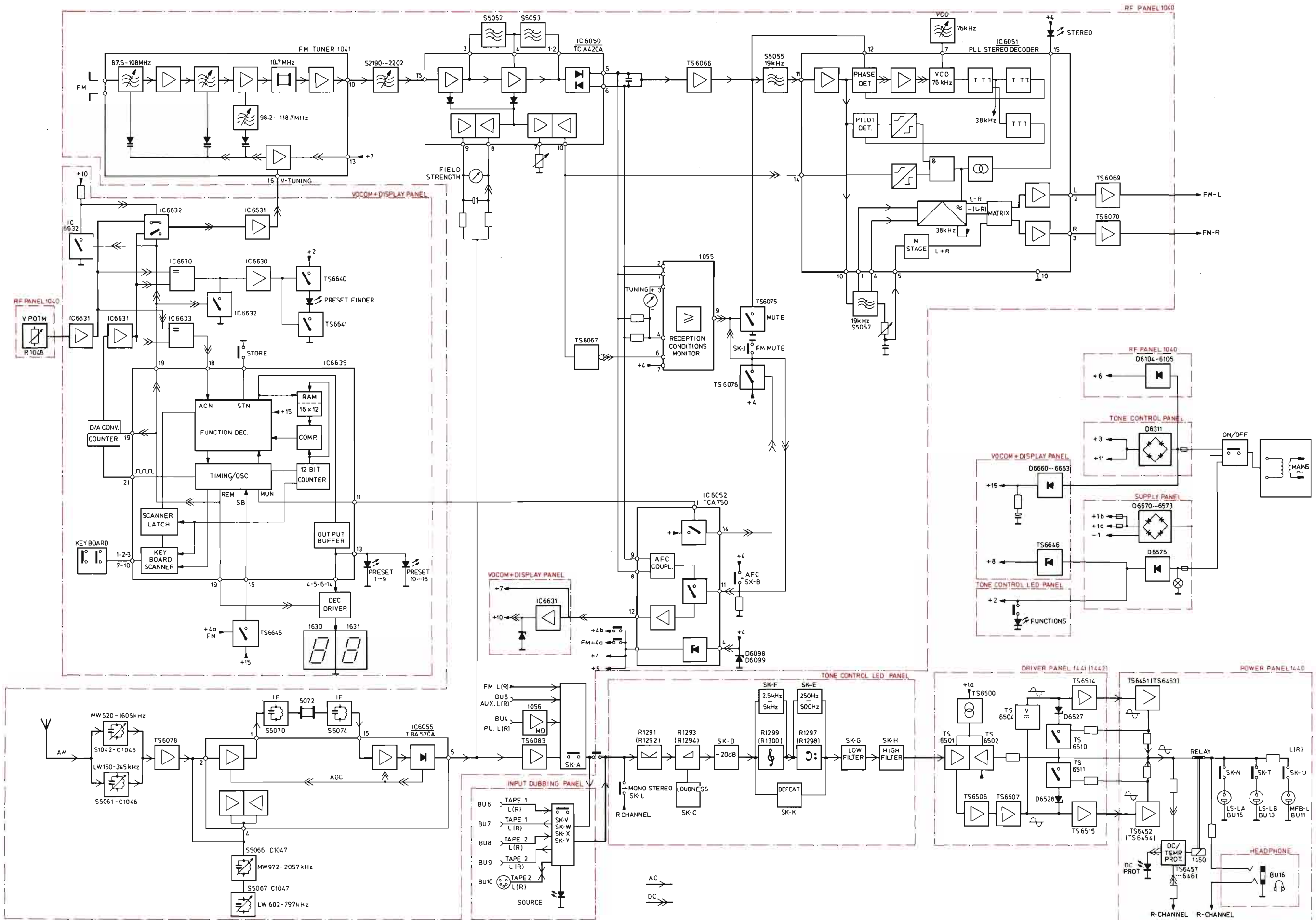
Voedingsspanning	: -/00/12/28 - 220 V~, 50 Hz
	-/15 - 240 V~, 50 Hz
Opgenomen vermogen	: 54 - 320 W
Afmetingen	: 458x350x150 mm
Golfbereik	: FM 87,5 - 108 MHz
	: LG 150 - 345 kHz
	: MG 520 - 1605 kHz
Gevoeligheid (IHF)	: FM mono 0,9 μ V
	: FM stereo 5 μ V
Gevoeligheid AM	
26 dB S/N	: 300 μ V EMK
Ingangsimpedantie	: FM 75 Ω /300 Ω
	: AM 300 Ω

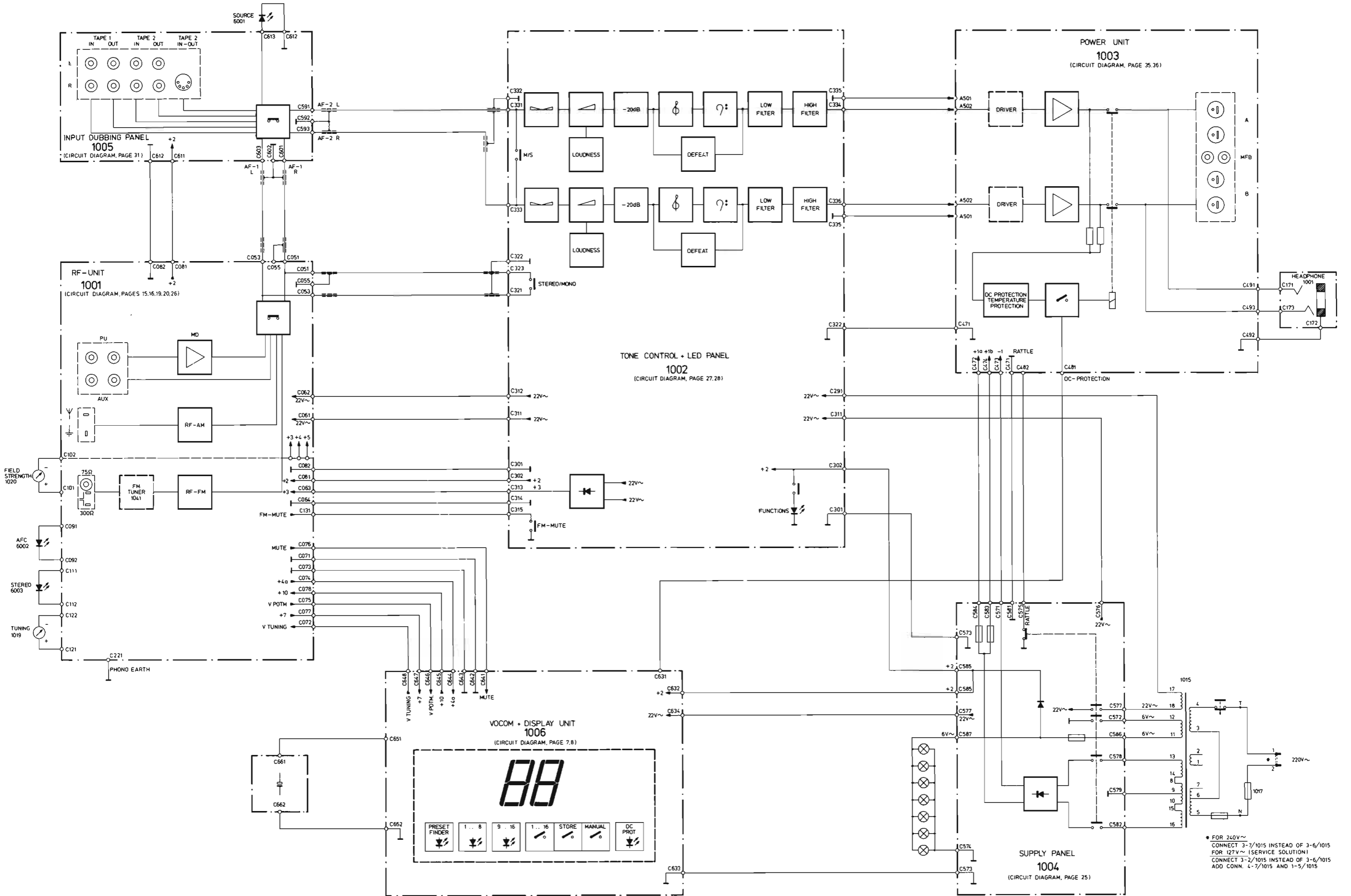
Middenfrequentie	: FM 10.7 MHz
	: AM -/00/15 - 468 kHz
	-/12/28 - 452 kHz

Ingangen (1 kHz):	
Platenspeler	: 2,5 mV/47 k Ω
Tape 1, Tape 2	: 150 mV/100 k Ω
Monitor, AUX	

Uitgangen (1 kHz):	
Tape 1, Tape 2	: 150 mV
Tape 2 DIN	: 13,7 mV/47 k Ω
Luidsprekers (2x2)	: 2x80 W/8 Ω , D \leq 0,08 %
Hoofdtelefoon	: 8-600 Ω
MFB	: 3 V/300 Ω

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

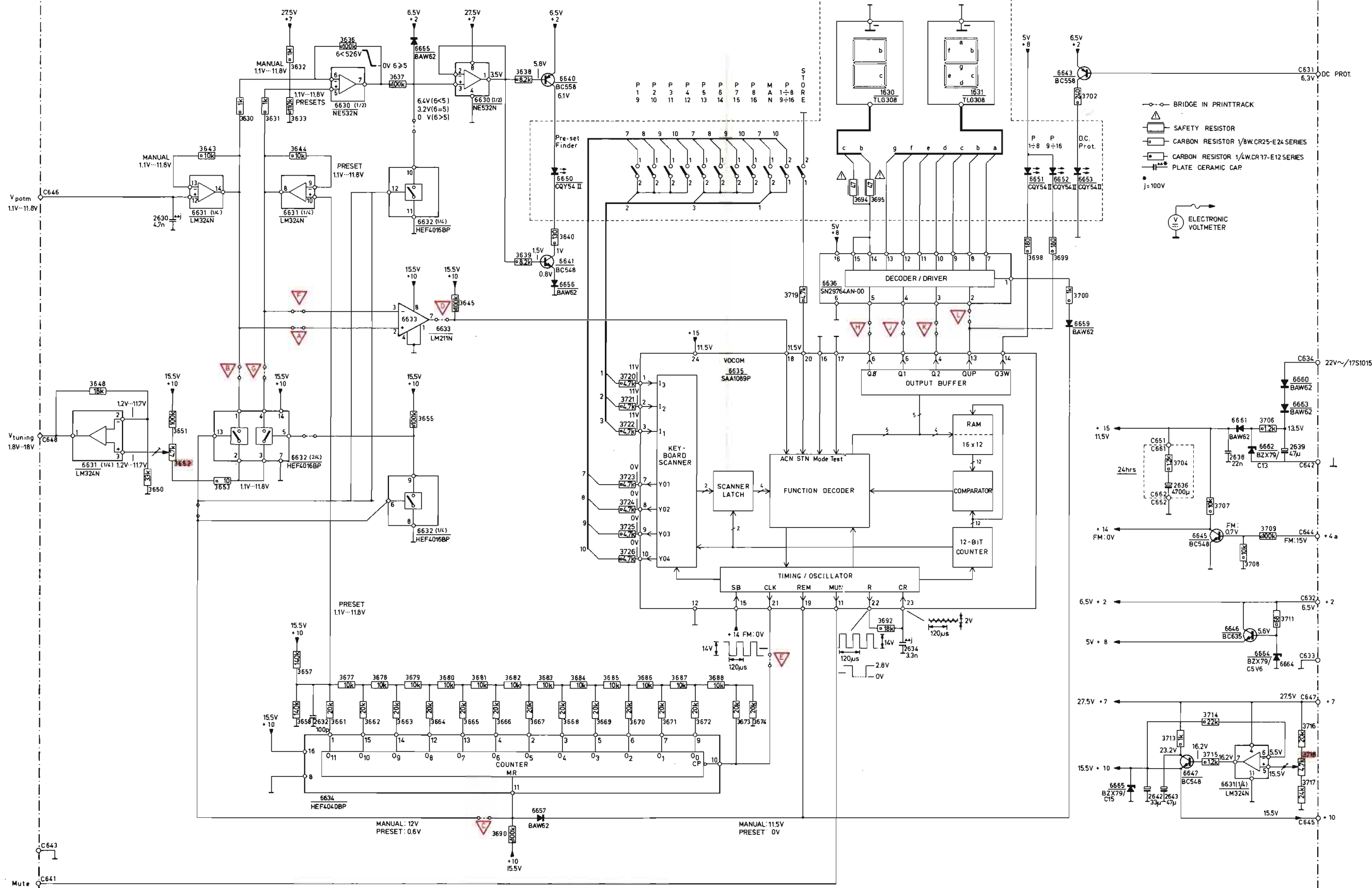




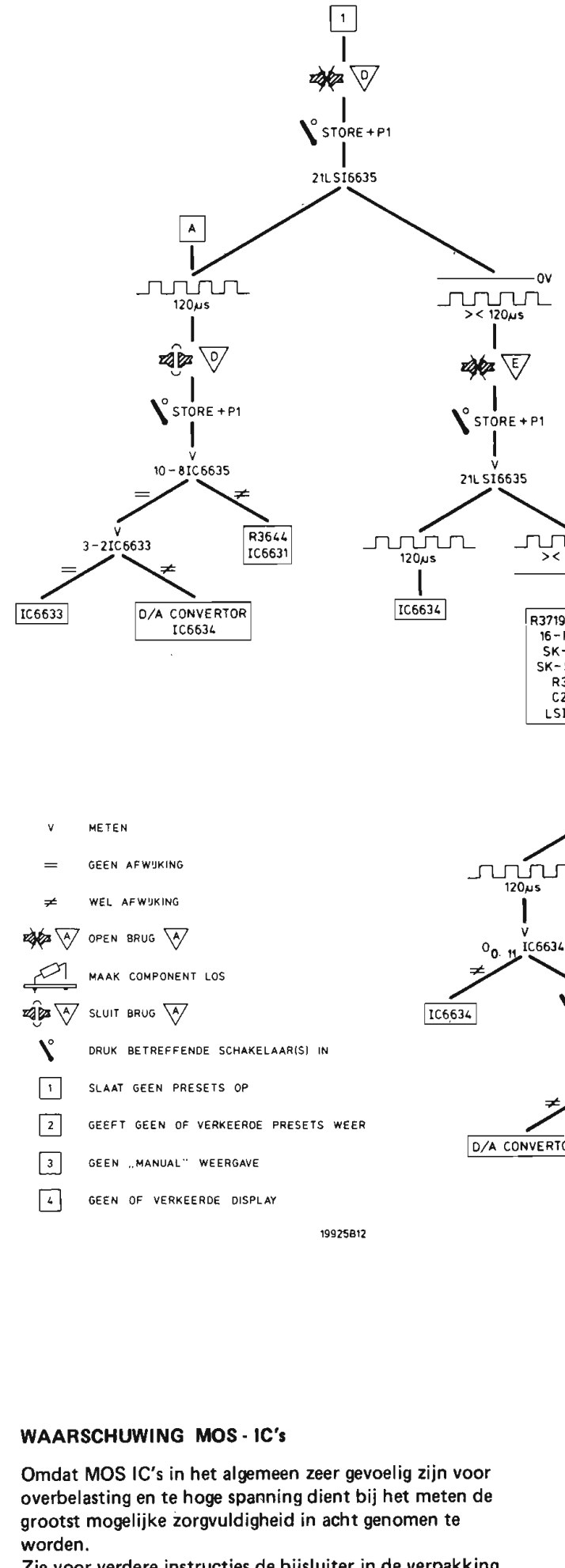
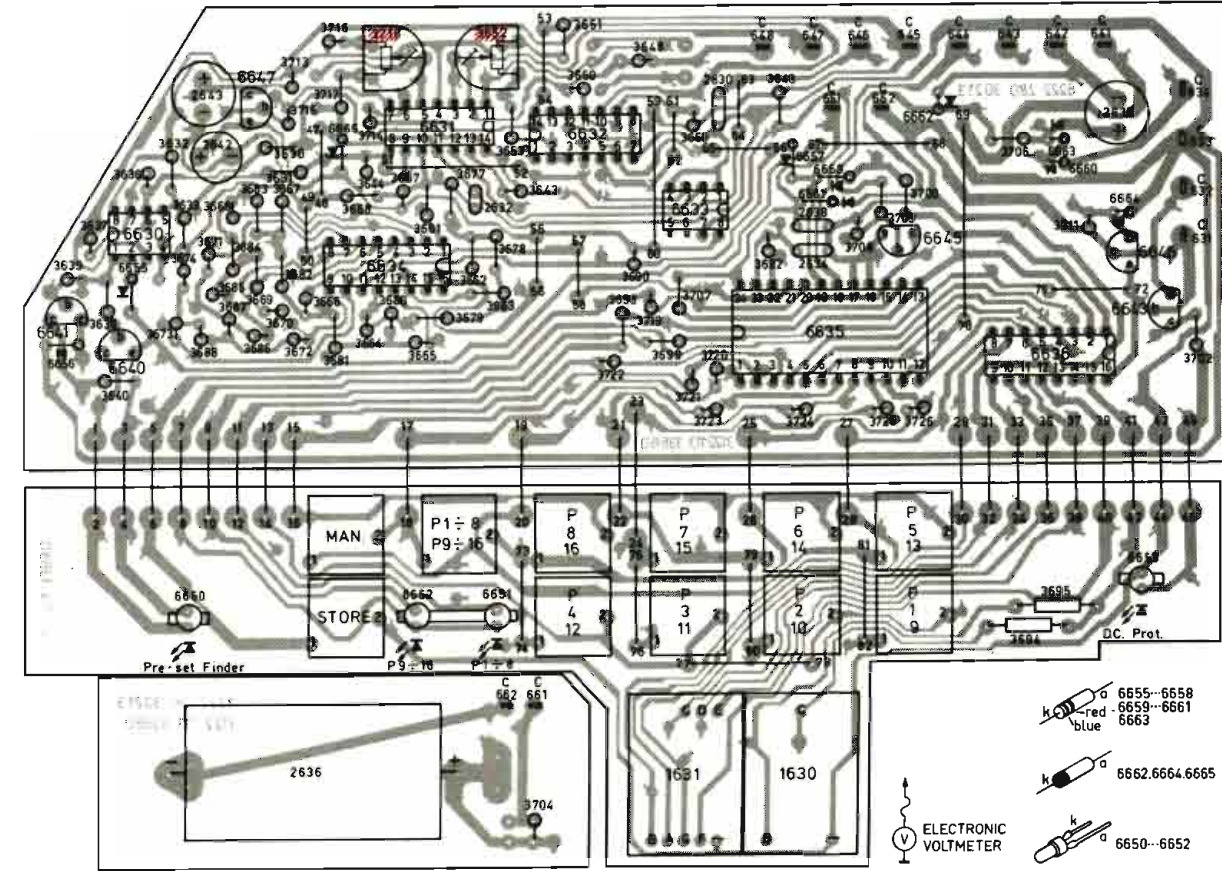
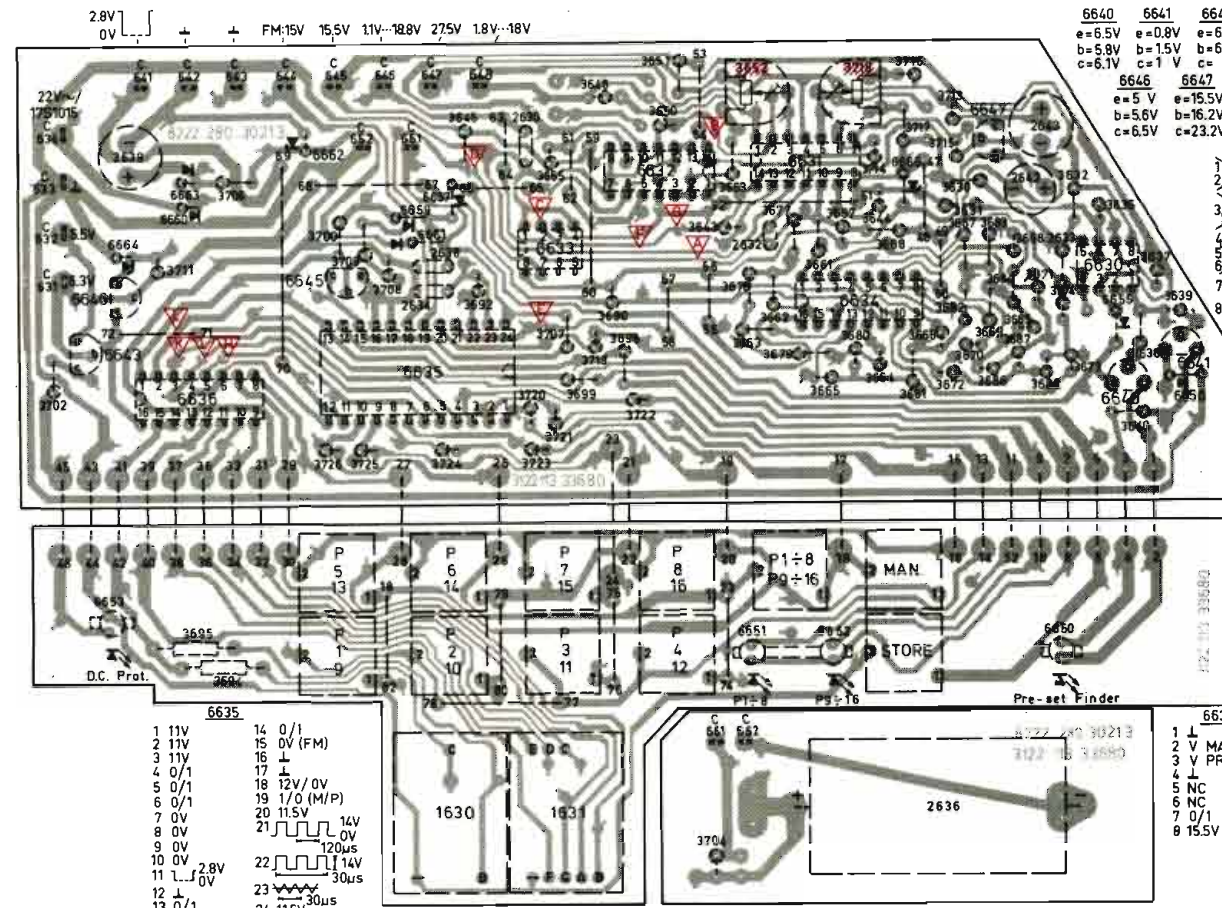
* FOR 240V~
 CONNECT 3-7/1015 INSTEAD OF 3-6/1015
 FOR 127V~ (SERVICE SOLUTION)
 CONNECT 3-2/1015 INSTEAD OF 3-6/1015
 ADD CONN. 4-7/1015 AND 1-5/1015

MISC	IC6631	IC6631	IC6632	IC6631	IC6634,IC6630	IC6632,D6655,IC6633	IC6630	TS6640,TS6641,D6650,D6655,D6657	IC6635	IC6636	D1630	D1631	D6651...D6653,D6659,TS6643	D6665	TS6645...TS6647,IC6631	D6660...D6664	
C	2630	2630	2632	2632							2634		2642,2643,2636	2638	2639		
R	3648	3650...3652	3643,3653	3630...3633,3644,3657,3658,3636,3661...3665,3637,3655,3677...3681,3645,3690,3666...3669,3638...3640					3720...3726,3686...3688,3670...3674	3719	3694,3695,3692			3698	3699,3700,3702	3704	3707...3709,3713...3718,3706,3711

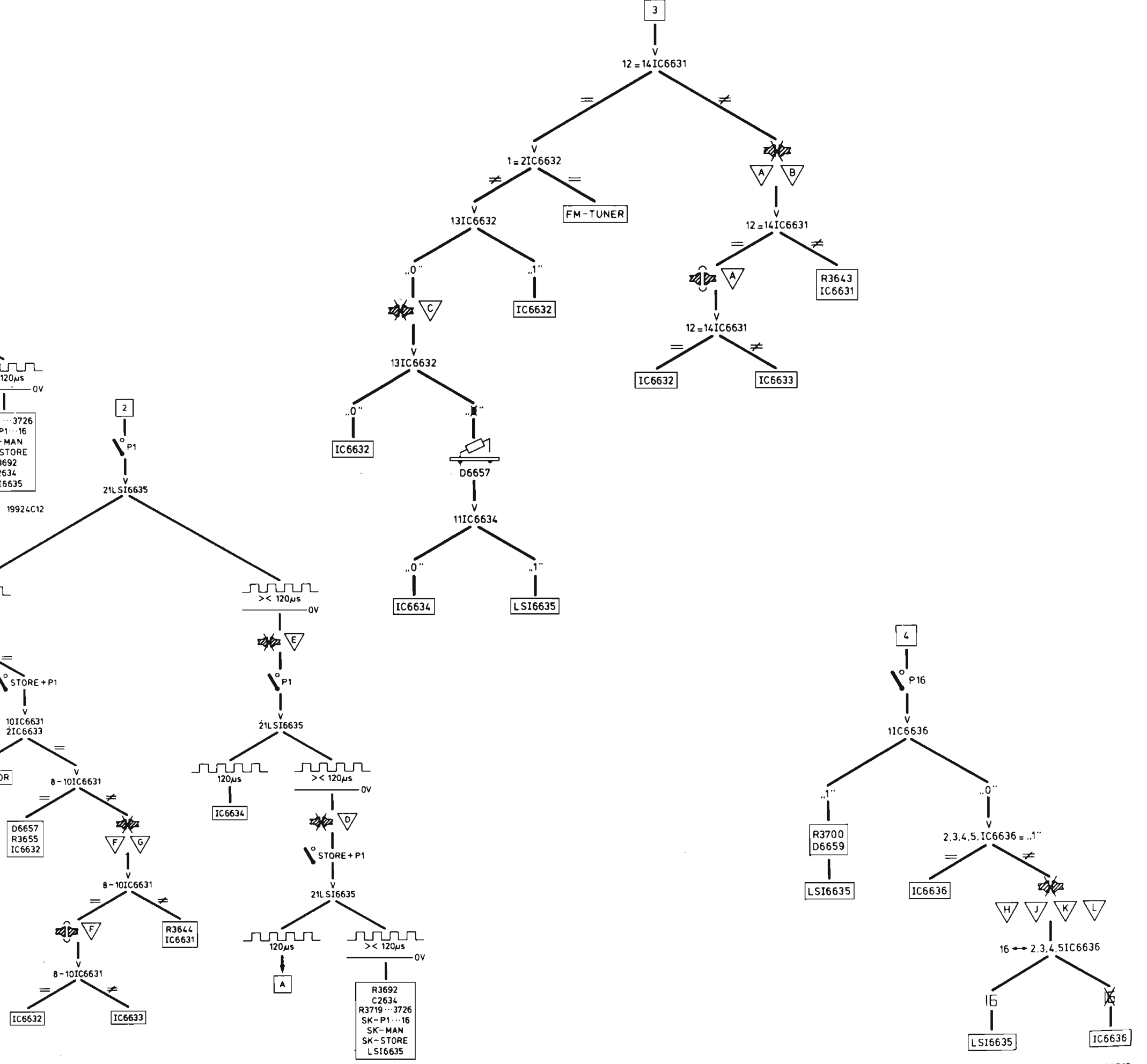
1006 VOCOM+DISPLAY PANEL



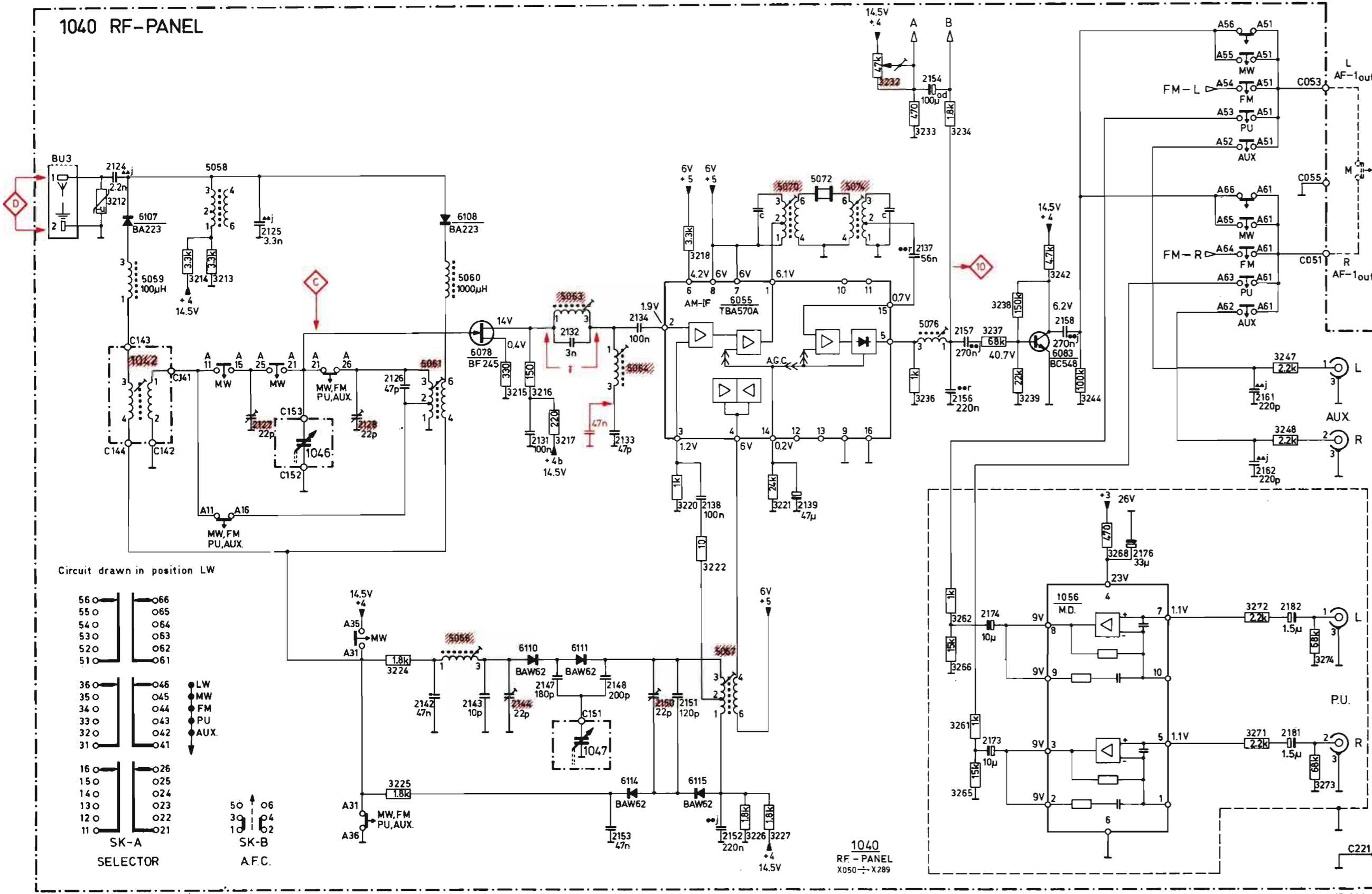
MSC	6643	6653	6646	6664	6660	6653	6636	6662	6645	6635	6659	6661	6657	6633	6632	6651	6631	6652	6634	6655	6647	6650	6630	6655	6640	6641	6656	
C	2639					2634	2630																					
R			3706																									
R			3700	3709	3708																							
R	3702		3711	3695	3694																							

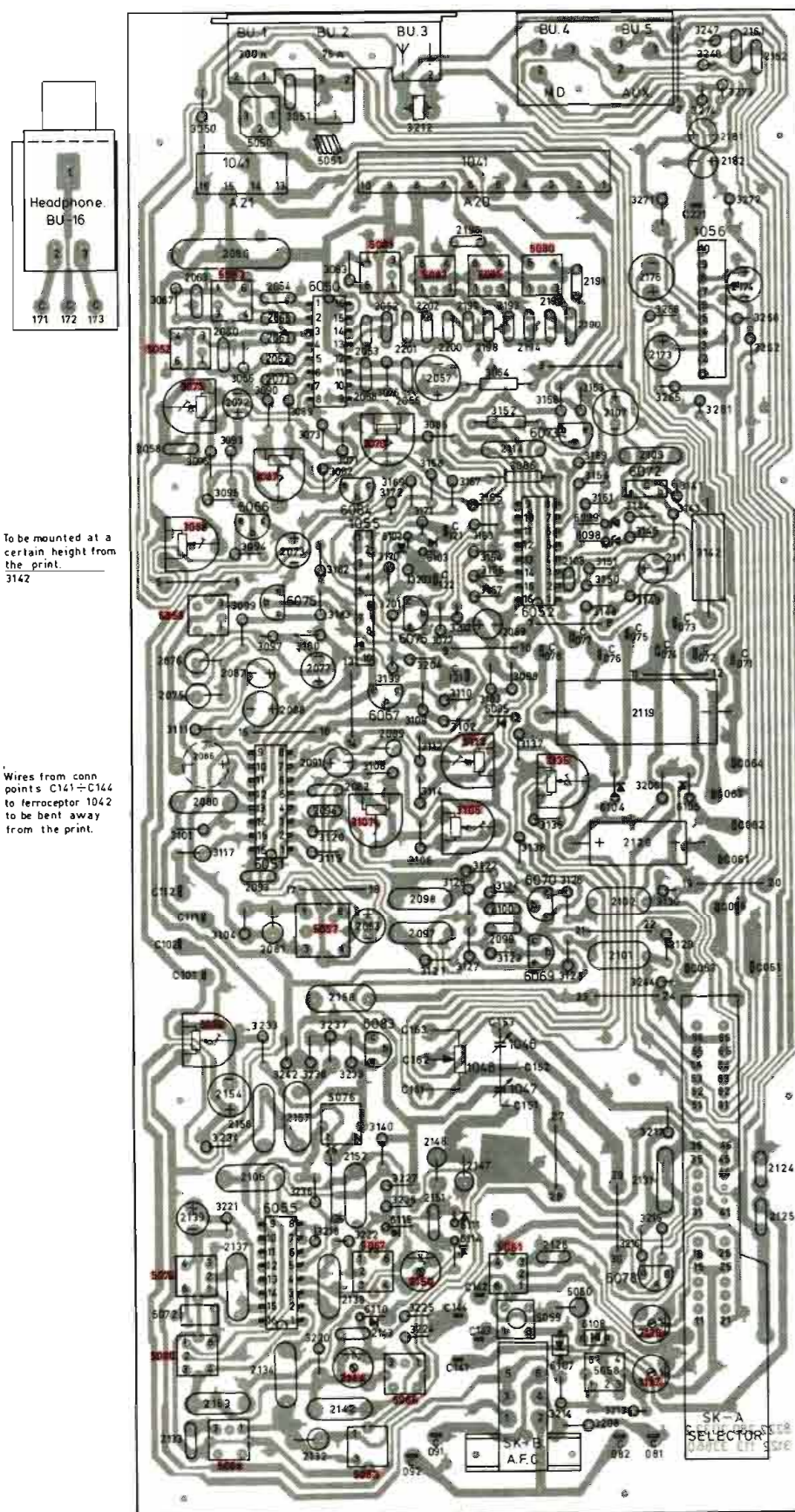


WAARSCHUWING MOS-IC's
Omdat MOS IC's in het algemeen zeer gevoelig zijn voor overbelasting en te hoge spanning dient bij het meten de grootst mogelijke zorgvuldigheid in acht genomen te worden.
Zie voor verdere instructies de bijsluiter in de verpakking van de IC's.



MISC	D6107	D6108	TS6078	D6110	D6111	D6114	D6115	IC6055	TS6083	IC1056
S	5059,1042	5058	5061,5060,5066	5063	5064	5067	5070	5072	5074	5076
C	2124	2127,2125	1046	2128	2142	2143,2144,2131,2147,2132,1047,2148,2133,2134,2150...2153,2138	2139	2137,2154,2157,2173,2174	2158	2176
R	3212	3214,3214	3224,3225	3215...3217	3220,3218,3222,3226,3221,3227	3232...3234,3236,3262,3266,3261,3265,3237...3239,3242,3244,3268	3271,3272,3247,3248,3273,3274			





R	C	S	IC	TS	D
3247	2161				
3248	2162				
3273	2051	2181	6050		
3274	2051	2182	6051		
3271	3272				
3063	2050	2052	6050		
3067	2063	2064	6050		
3068	2065	2066	6050		
3069	2067	2068	6050		
3070	2069	2070	6050		
3071	2071	2072	6050		
3072	2073	2074	6050		
3073	2075	2076	6050		
3074	2077	2078	6050		
3075	2079	2080	6050		
3076	2081	2082	6050		
3077	2083	2084	6050		
3078	2085	2086	6050		
3079	2087	2088	6050		
3080	2089	2090	6050		
3081	2091	2092	6050		
3082	2093	2094	6050		
3083	2095	2096	6050		
3084	2097	2098	6050		
3085	2099	2100	6050		
3086	2101	2102	6050		
3087	2103	2104	6050		
3088	2105	2106	6050		
3089	2107	2108	6050		
3090	2109	2110	6050		
3091	2111	2112	6050		
3092	2113	2114	6050		
3093	2115	2116	6050		
3094	2117	2118	6050		
3095	2119	2120	6050		
3096	2121	2122	6050		
3097	2123	2124	6050		
3098	2125	2126	6050		
3099	2127	2128	6050		
3100	2129	2130	6050		
3101	2131	2132	6050		
3102	2133	2134	6050		
3103	2135	2136	6050		
3104	2137	2138	6050		
3105	2139	2140	6050		
3106	2141	2142	6050		
3107	2143	2144	6050		
3108	2145	2146	6050		
3109	2147	2148	6050		
3110	2149	2150	6050		
3111	2151	2152	6050		
3112	2153	2154	6050		
3113	2155	2156	6050		
3114	2157	2158	6050		
3115	2159	2160	6050		
3116	2161	2162	6050		
3117	2163	2164	6050		
3118	2165	2166	6050		
3119	2167	2168	6050		
3120	2169	2170	6050		
3121	2171	2172	6050		
3122	2173	2174	6050		
3123	2175	2176	6050		
3124	2177	2178	6050		
3125	2179	2180	6050		
3126	2181	2182	6050		
3127	2183	2184	6050		
3128	2185	2186	6050		
3129	2187	2188	6050		
3130	2189	2190	6050		
3131	2191	2192	6050		
3132	2193	2194	6050		
3133	2195	2196	6050		
3134	2197	2198	6050		
3135	2199	2200	6050		
3136	2201	2202	6050		
3137	2203	2204	6050		
3138	2205	2206	6050		
3139	2207	2208	6050		
3140	2209	2210	6050		
3141	2211	2212	6050		
3142	2213	2214	6050		
3143	2215	2216	6050		
3144	2217	2218	6050		
3145	2219	2220	6050		
3146	2221	2222	6050		
3147	2223	2224	6050		
3148	2225	2226	6050		
3149	2227	2228	6050		
3150	2229	2230	6050		
3151	2231	2232	6050		
3152	2233	2234	6050		
3153	2235	2236	6050		
3154	2237	2238	6050		
3155	2239	2240	6050		
3156	2241	2242	6050		
3157	2243	2244	6050		
3158	2245	2246	6050		
3159	2247	2248	6050		
3160	2249	2250	6050		
3161	2251	2252	6050		
3162	2253	2254	6050		
3163	2255	2256	6050		
3164	2257	2258	6050		
3165	2259	2260	6050		
3166	2261	2262	6050		
3167	2263	2264	6050		
3168	2265	2266	6050		
3169	2267	2268	6050		
3170	2269	2270	6050		
3171	2271	2272	6050		
3172	2273	2274	6050		
3173	2275	2276	6050		
3174	2277	2278	6050		
3175	2279	2280	6050		
3176	2281	2282	6050		
3177	2283	2284	6050		
3178	2285	2286	6050		
3179	2287	2288	6050		
3180	2289	2290	6050		
3181	2291	2292	6050		
3182	2293	2294	6050		
3183	2295	2296	6050		
3184	2297	2298	6050		
3185	2299	2300	6050		
3186	2301	2302	6050		
3187	2303	2304	6050		
3188	2305	2306	6050		
3189	2307	2308	6050		
3190	2309	2310	6050		
3191	2311	2312	6050		
3192	2313	2314	6050		
3193	2315	2316	6050		
3194	2317	2318	6050		
3195	2319	2320	6050		
3196	2321	2322	6050		
3197	2323	2324	6050		
3198	2325	2326	6050		
3199	2327	2328	6050		
3200	2329	2330	6050		
3201	2331	2332	6050		
3202	2333	2334	6050		
3203	2335	2336	6050		
3204	2337	2338	6050		
3205	2339	2340	6050		
3206	2341	2342	6050		
3207	2343	2344	6050		
3208	2345	2346	6050		
3209	2347	2348	6050		
3210	2349	2350	6050		
3211	2351	2352	6050		
3212	2353	2354	6050		
3213	2355	2356	6050		
3214	2357	2358	6050		
3215	2359	2360	6050		
3216	2361	2362	6050		
3217	2363	2364	6050		
3218	2365	2366	6050		
3219	2367	2368	6050		
3220	2369	2370	6050		
3221	2371	2372	6050		
3222	2373	2374	6050		
3223	2375	2376	6050		
3224	2377	2378	6050		
3225	2379	2380	6050		
3226	2381	2382	6050		
3227	2383	2384	6050		
3228	2385	2386	6050		
3229	2387	2388	6050		
3230	2389	2390	6050		
3231	2391	2392	6050		
3232	2393	2394	6050		
3233	2395	2396	6050		
3234	2397	2398	6050		
3235	2399	2400	6050		
3236	2401	2402	6050		
3237	2403	2404	6050		
3238	2405	2406	6050		
3239	2407	2408	6050		
3240	2409	2410	6050		
3241	2411	2412	6050		
3242	2413	2414	6050		
3243	2415	2416	6050		
3244	2417	2418	6050		
3245	2419	2420	6050		
3246	2421	2422	6050		
3247	2423	2424	6050		
3248	2425	2426	6050		
3249	2427	2428	6050		
3250	2429	2430	6050		
3251	2431	2432	6050		
3252	2433	2434	6050		
3253	2435	2436	6050		
3254	2437	2438	6050		
3255	2439	2440	6050		
3256	2441	2442	6050		
3257	2443	2444	6050		
3258	2445	2446	6050		
3259	2447	2448	6050		
3260	2449	2450	6050		
3261	2451	2452	6050		
3262	2453	2454	6050		
3263	2455	2456	6050		
3264	2457	2458	6050		
3265	2459	2460	6050		
3266	2461	2462	6050		
3267	2463	2464	6050		
3268	2465	2466	6050		
3269	2467	2468	6050		
3270	2469	2470	6050		
3271	2471	2472	6050		
3272	2473	2474	6050		
3273	2475	2476	6050		
3274	2477	2478	6050		
3275	2479	2480	6050		
3276	2481	2482	6050		
3277	2483	2484	6050		
3278	2485	2486	6050		
3279	2487	2488	6050		
3280	2489	2490	6050		
3281	2491	2492	6050		
3282	2493	2494	6050		
3283	2495	2496	6050		
3284	2497	2498	6050		
3285	2499	2500	6050		
3286	2501	2502	6050		
3287	2503	2504	6050		
3288	2505	2506	6050		
3289	2507	2508	6050		
3290	2509	2510	6050		
3291	2511	2512	6050		
3292	2513	2514	6050		
3293	2515	2516	6050		
3294	2517	2518	6050		
3295	2519	2520	6050		
3296	2521	2522	6050		
3297	2523	2524	6050		
3298	2525	2526	6050		
3299	2527	2528	6050		
3300	2529	2530	6050		
3301	2531	2532	6050		
3302	2533	2534	6050		
3303	2535	2536	6050		
3304	2537	2538	6050		
3305	2539	2540	6050		
3306	2541	2542	6050		
3307	2543	2544	6050		
3308	2545	2546	6050		
3309	2547</				

SK									
FM-IF									
FM-Manual AFC-off FM-Mute off	1 fo = ± 10,7 Mc Δf = 250 kc via 10 pf	A					1 2		
	fo = ± 10,7 Mc Δf = 250 kc via 10 pf	A			S 5080 S 5081 S 5082 S 5083	2 Max. + symm.			
	98 Mc 1...2 μV Δf = 250 kc	B			S 5053	3 3			
	98 Mc 1 mV Δf = 75 kc				S 5052	3 4			
	98 Mc 1...2 μV Δf = 75 kHz				R 3088	5 7.15 V...			
					R 3087	4 0 ± 30 mV...			
Stereo-decoder									
FM-Manual AFC-off FM-Mute off					R 3113	6 Counter via 1 M Ω 76 kc ± 0,3 kc			
	100 Mc 1 mV Pilot mod 7%	B			S 5055	7 Min.			
	100 Mc 10 μV				R 3075	8 0.7 V ...			
	100 Mc S-signal 1 kc, 1 mV	B			S 5057	7 Min.			
	100 Mc-1mV 1 Kc-R mod 1 Kc-L mod	B			R 3105 R 3107	9 Min.			

SK																
FM-RF																
FM-Manual AFC-off FM-Mute off	109 Mc 87 Mc 98 Mc	B	<table border="1"> <tr> <td>87</td> <td>98</td> <td>109</td> </tr> <tr> <td>A</td> <td>B</td> <td>A</td> </tr> </table>	87	98	109	A	B	A			R 3718 R 3652 R 3135	1 Max.	11 = 20 V... = 1.8 V... = 5.1 V...		
	87	98	109													
A	B	A														
FM-Tuner																
FM-Manual AFC-off FM-Mute off	1 fo = ± 10,7 Mc Δf = 250 kc via 10 pf	A					1 2									
	109 Mc 1...2 μV	B				S 5961	12 2									
	87 Mc 1...2 μV					C 2951 C 2958	12 Max.									
						S 5954 S 5956	12 Max.									
AM-IF																
MW	± 452 kc (-/12/28) ± 468 kc (-/00/15) Δf = 50 kc	C	Min.cap.		S 5063	10 2										
					47 nF C2133	S 5070 S 5074	10 5									
						S 5063 S 5064	10 Min.									
AM-RF																
LW	147 kc + 1 kc mod		Max.cap.		S 5067											
	352 kc + 1 kc mod		Min.cap.		C 2150	10 Max.										
MW	512 kc + 1 kc mod	C	Max.cap.		S 5066											
	1635 kc + 1 kc mod		Min.cap.		C 2144											

SK								
LW	157 Kc + 1 kc mod 336 Kc + 1 Kc mod				S 5061			
MW	550 Kc + 1 kc mod				C 2128			
	1500 kc + 1 kc mod				S 1042			
					C 2127			

REPEAT

Fieldstrength-indicator Ind. 1020

FM					R 3070	IND 1020 "zero"	
AUX					R 3232		

GB

- Determine the frequency of the ceramic resonator.
- Place the peak of the band-pass curve in the middle of the picture by shifting the sweep frequency.
- Adjust for linearity and symmetry of the S-curve.
- Adjust for minimum distortion on distortion meter.
- Adjust for maximum height and symmetry.

F

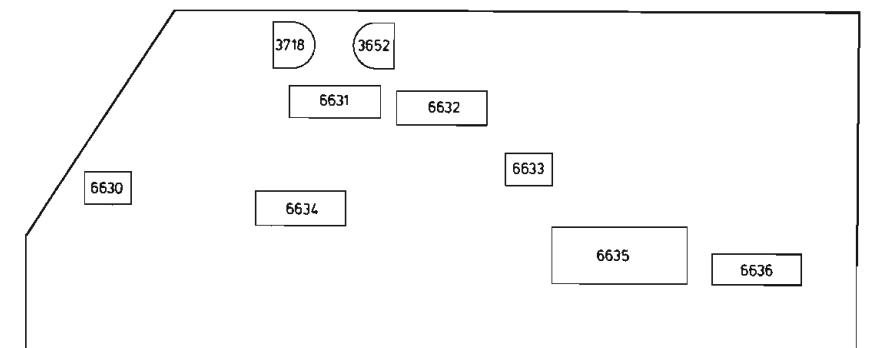
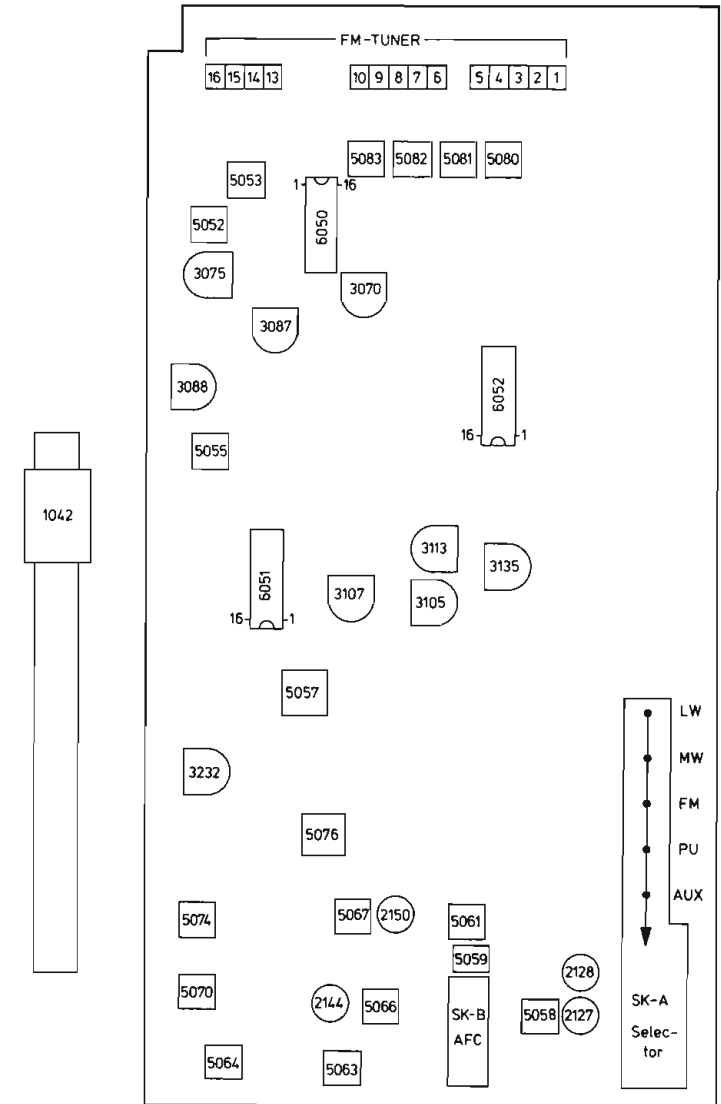
- Déterminer la fréquence du résonateur céramique.
- La crête de la courbe de réponse doit être placée au milieu de l'écran en déplaçant la fréquence wobulatrice.
- Ajuster la linéarité et la symétrie de la courbe en S.
- Ajuster de façon à obtenir un minimum de distorsion sur l'instrument ad hoc.
- Ajuster pour un maximum de hauteur et symétrie.

NL

- Bepaal de frequentie van de keramische resonotr.
- De top van de doorlaatkromme door verschuiven van de wobbelfrequentie in het midden van het beeld plaatsen.
- Afregelen op lineariteit en symmetrie van de S-kromme.
- Afregelen voor minimale distorsie op distorsimeter.
- Afregelen op maximum hoogte en symmetrie.

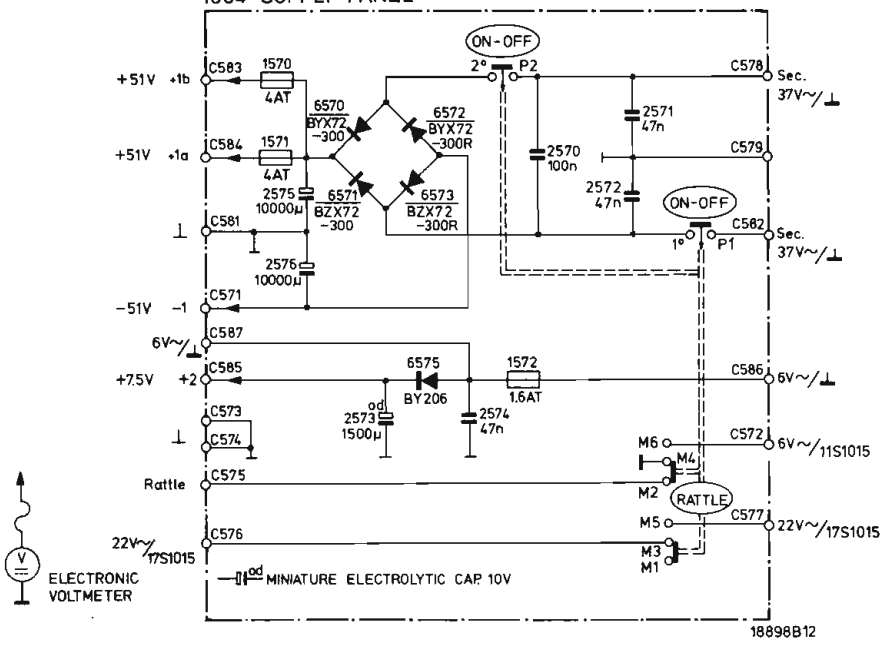
D

- Die Frequenz des keramischen Resonators feststellen.
- Die Spitze der Durchlasskurve in der Mitte des Bildes legen dadurch, dass man die Wobbelfrequenz verschiebt.
- Abgleichen auf Linearität und Symmetrie der Durchlasskurve.
- Abgleichen auf Minimalverzerrung mit Klirrfaktormesser.
- Abgleichen auf Maximalhöhe und Symmetrie.



MISC	1570,1571	D6572,6575	1572
C	2575,2576	2573	2574 2570 2572,2571

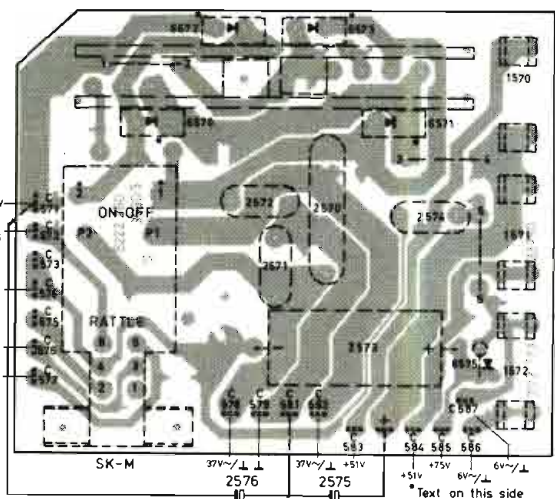
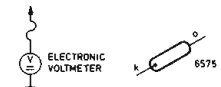
1004 SUPPLY PANEL



ELECTRONIC VOLTMETER
MINIATURE ELECTROLYTIC CAP 10V

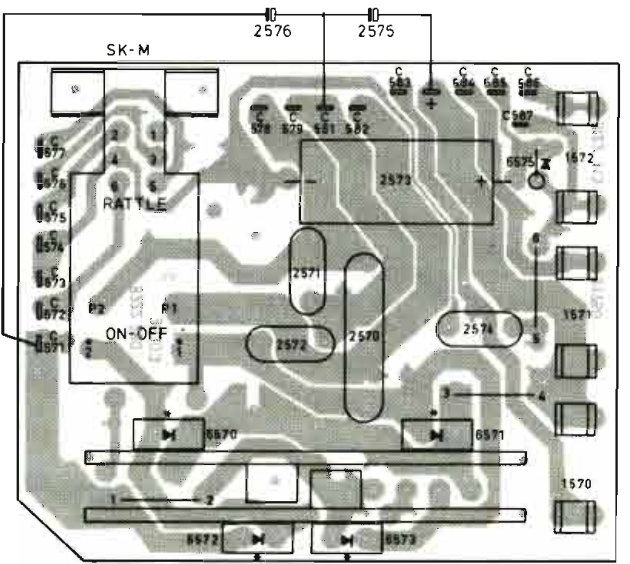
18896B12

MISC	SK-M	D6570,6572	D6573	6571	D6575	VL1570,1571,1572
C		2572,2571	2570	2574		
		2576	2575,2573			



18649C12

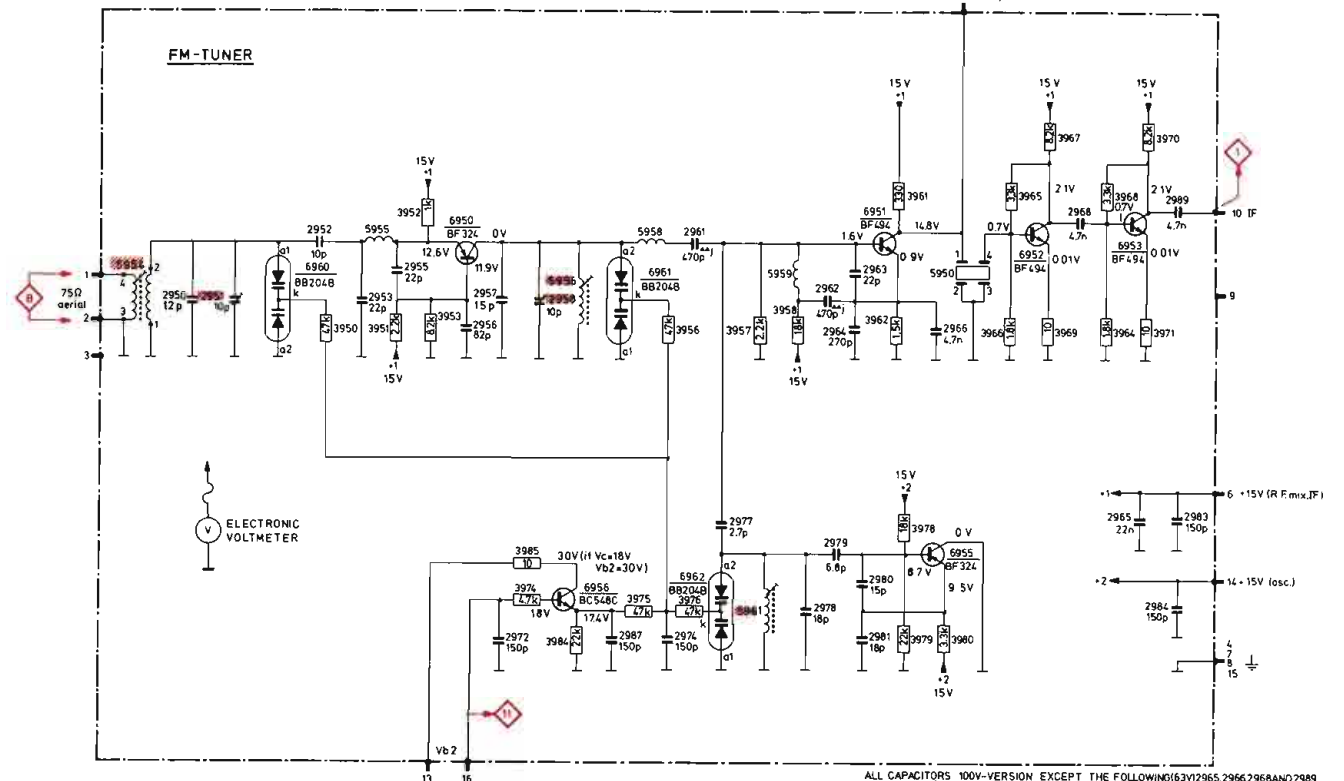
MISC	SK-M	D6570	D6572	D6573	D6571	D6575,VL1570+1572
C		2576	2575,2573	2574		



* Text on this side

19651C12

MISC	5954	6960	5955	6950	5956	6956	6961	5958	6962	5961	5959	6951	5950	6955	6952	6953				
C	2950	2951	2952	2953	2955	2956	2957	2972	2958	2987	2974	2961	2962-2964,2978-2981	2966	2968,2965,2984,2983,2989					
.R			3950	3951	3952	3953	3965	3974	3984	3975,3956	3976	3957	3958	3962	3961	3978-3980	3965-3967	3969	3968	3964,3970,3971

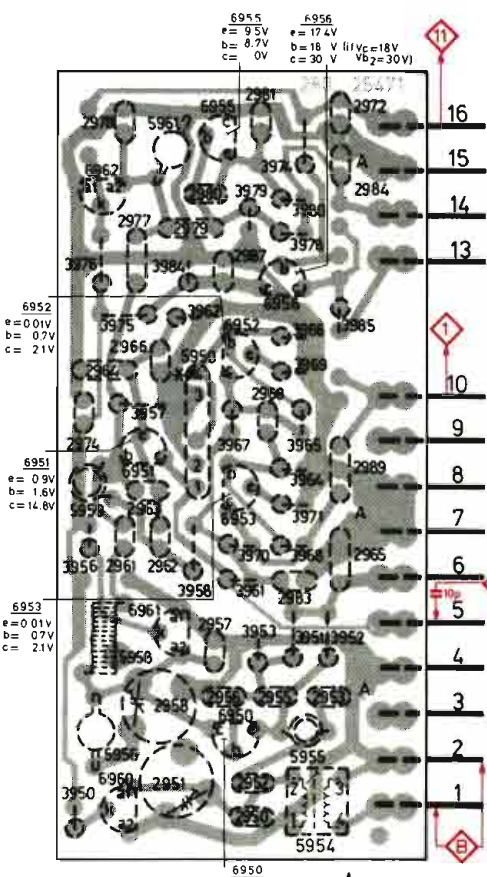


ELECTRONIC VOLTMETER

> +22V < +30V 1.8V...18V

ALL CAPACITORS 100V-VERSION EXCEPT THE FOLLOWING: 6951, 2965, 2966, 2968, 2989
ALL RESISTORS ARE 1/8W CARBON CR25-E12-SERIES

17466012

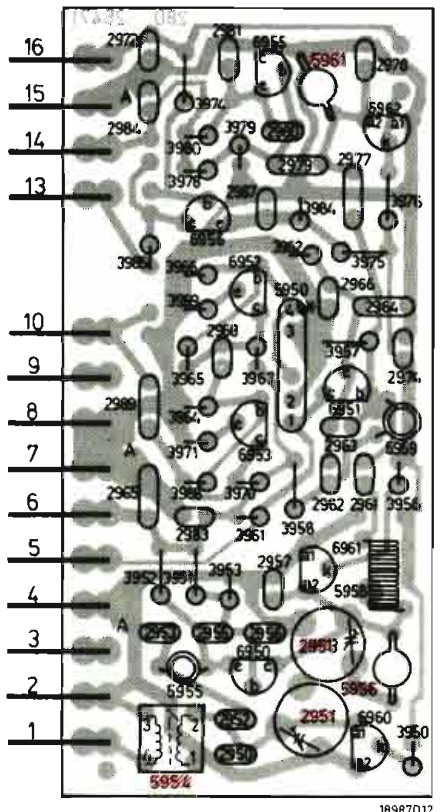


* = Colour dot indication on this side.
A = To be soldered to the case



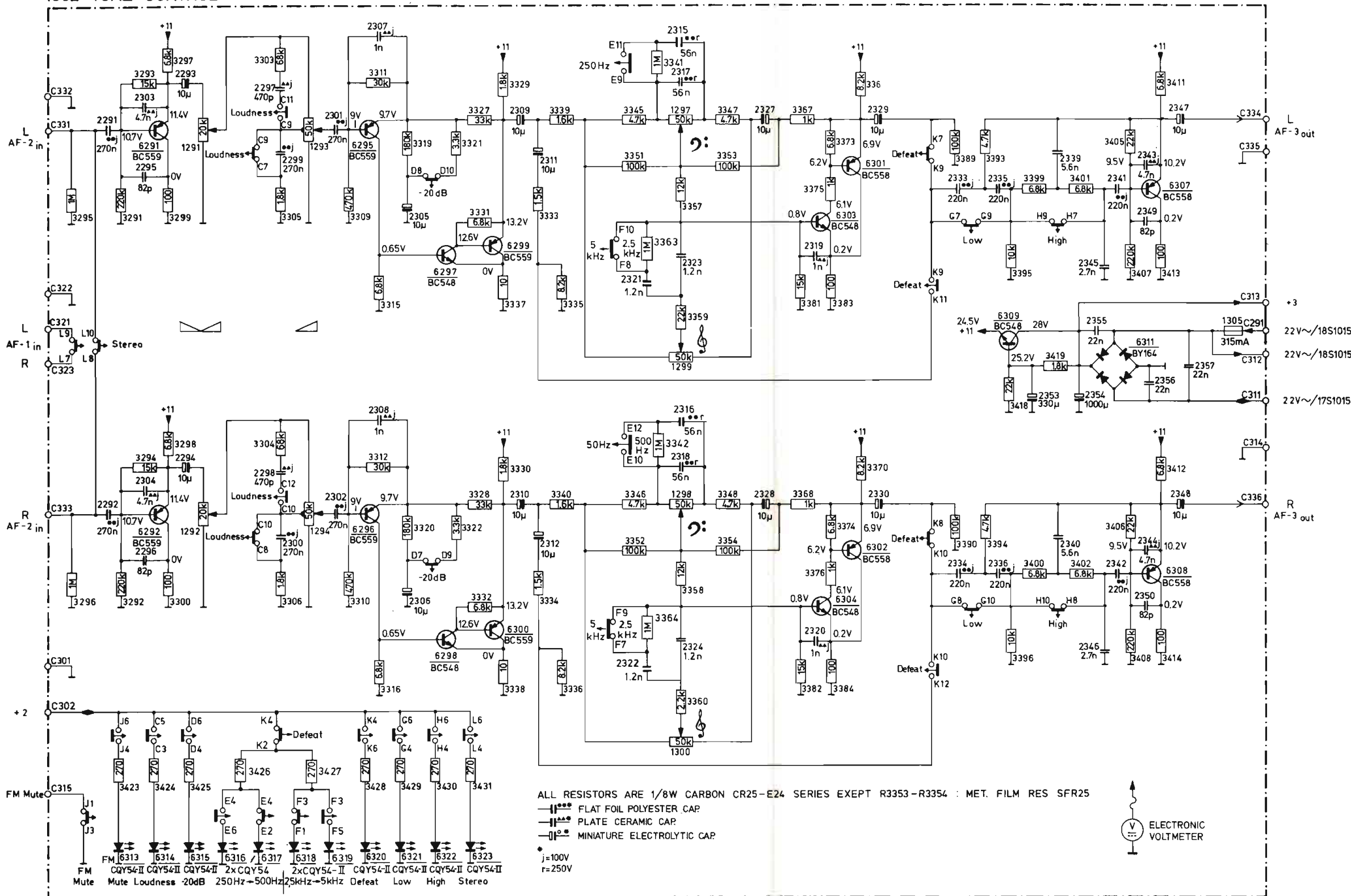
ELECTRONIC VOLTMETER

Ts	S	C	C	R	R
6955	2972	2978			
	2981	2978			
6962	2984	3974			
	2980	3980	3979		
	2979	3978			
6956	2987	2977	3984	3976	
	2985	3985	3985	3975	
6952	2966	2964	3966	3969	
	2966	2964	3969	3967	
6951	2968	2974	3965	3967	
6953	2989	3964	3971		
	2962	2961	3968	3970	
	2965	3956	3968	3956	
	2983	3961	3958		
6961	5958	2957	3952	3951	
	2953	2955	3953		
6950	5955	2956	2958		
	2952	2951			
6960	2950				
	3950				



MISC	D6313...6315.TS6291.6292	D6316...6319	TS6295.6296.D6320...6323.TS6297...6300	TS6301...6304	TS6309	D6311.TS6307.6308	1305							
C	2291.2292.2303.2304.2293	2295	2297...2299.2300...2302.2305...2308	2309...2312	2315...2318.2321...2324.2327.2328	2319.2320.2329.2330	2333...2335.2353.2339...2345.2354...2357.2347...2350							
R	3295	3291.3293.3297.3299.1291	3303.3305.1293	3309.3311	3319	3321.3327.3331.3329.3333.3339	3345.3351.1297.3357.3347.3353	3367.3373.3375.3369	3389	3393.3395.3399	3401.3405.3407.3411.3413			
R		3294.3298	1292	3304	1294	3312.3315.3320.3322.3328.3330.3337.3335.3340	3352.3346.1298.1299.3359.3348.3354.3368.3381.3383.3374.3370	3390	3394.3418	3419	3406	3412		
R	3296	3292.3423...3425.3300.	3426.3427.3306.	3310	3316	3428...3431	3332.3338	3334.3336	3341.3363	3338.3360.1300.3342.3364.	3382.3376.3384	3396.3400	3402	3408.3414

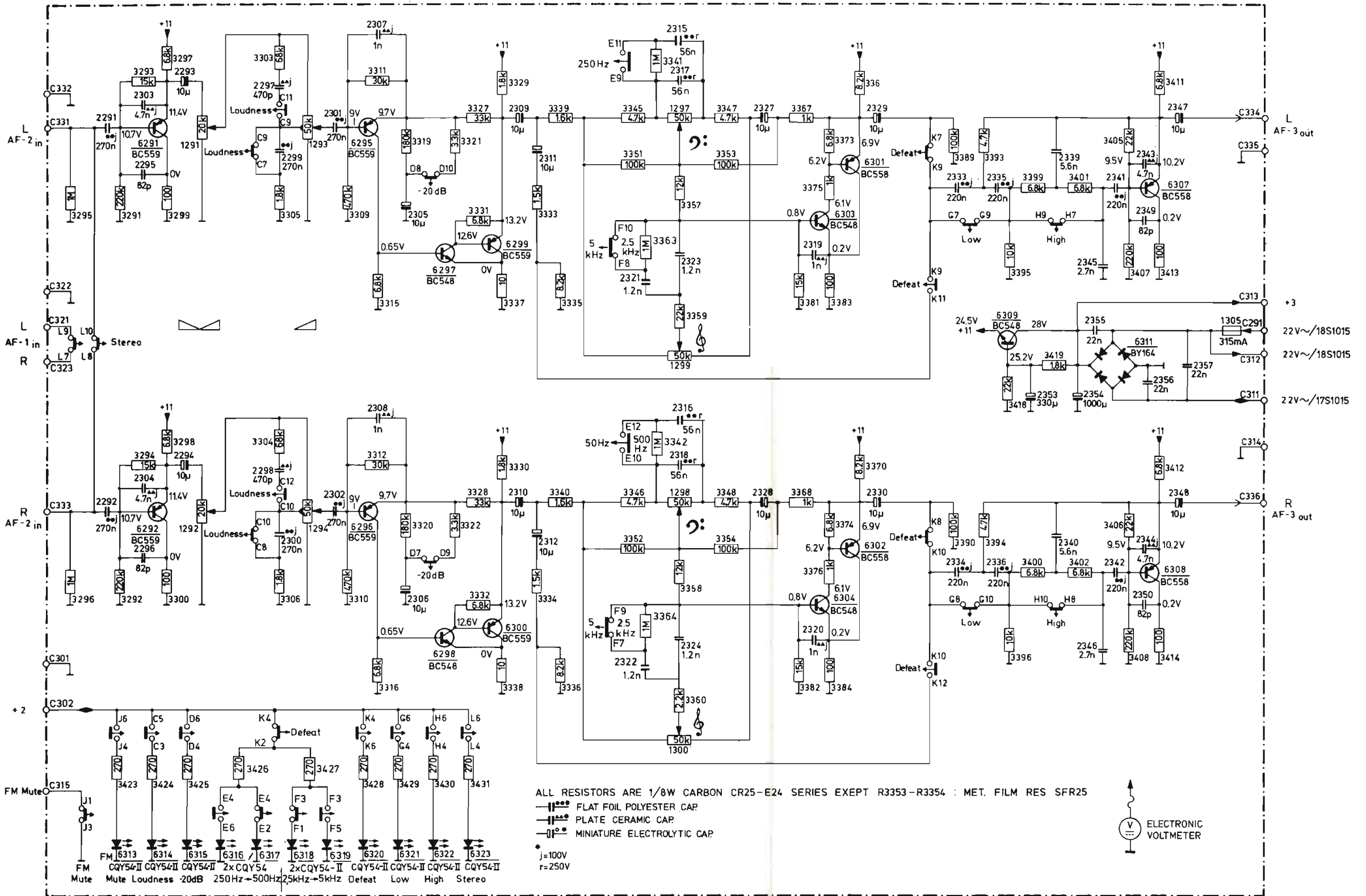
1002 TONE CONTROL



18820D2

MISC	D6313...6315.TS6291.6292	D6316...6319	TS6295.6296.D6320...6323.TS6297...6300	TS6301...6304	TS6309	D6311.TS6307.6308	1305							
C	2291.2292.2303.2304.2293	2295	2297...2299.2300...2302.2305...2308	2309...2312	2315...2318.2321...2324.2327.2328	2319.2320.2329.2330	2333...2335.2353.2339...2345.2354...2357.2347...2350							
R	3295	3291.3293.3297.3299.1291	3303.3305.1293	3309.3311	3319	3321.3327.3331.3329.3333.3339	3345.3351.1297.3357.3347.3353	3367.3373.3375.3369	3389	3393.3395.3399	3401.3405.3407.3411.3413			
R		3294.3298	1292	3304	1294	3312.3315.3320.3322.3328.3330.3337.3335.3340	3352.3346.1298.1299.3359.3348.3354	3368.3381.3383.3374.3370	3390	3394.3418	3419	3406	3412	
R	3296	3292.3423...3425.3300.	3426.3427.3306.	3310	3316	3428...3431	3332.3338	3334.3336	3341.3363	3338.3360.1300.3342.3364.	3382.3376.3384	3396.3400	3402	3408.3414

1002 TONE CONTROL



M	1291-1294										1297,1298					1299,1300					1305				
TS,D	6314	6295-6300					6301-6304					6315	6316	6317	6291	6292	6320	6307	6308	6318	6319,6309	6321	6322	6323	6311,6313
R	3316 3312, 3328 3330 3335 3336 3370 3367, 3368										3297 3293 3294 3411					3389 3412 3408 3407, 3418					3295 3296				
	3311 3327 3310 3332 3333 3334, 3369 3376, 3374, 3358										3354 3353 3299 3291 3300 3292					3405 3406 3419					3296				
	3315 3331, 3318 3329 3322 3320 3373 3381, 3384 3352 3351										3357 3348 3347 3298 3428					3390 3393, 3394 3396 3395 3399 3400 3402					3401				
	3309 3303, 3337 3306 3319 3321 3375 3340 3382 3346										3341 3364 3413 3414					3363 3429 3430 3431 3423									
C	2302 2308 2310 2312 2329										2293 2294 2304 2347 2291														
	2307 2311 2330										2303 2296 2349 2343 2292 2342										2357				
	2301 2309 2319 2320 2327 2328										2295 2344 2350 2348 2341 2353 2354										2355				
	2298 2306 2305 2318 2316 2315 2317										2333 2334 2335 2336, 2340, 2339										2356				
	2297 2299 2300										2324 2322 2323 2321 2346 2345														

6295,6296 6297,6298 6299,6300 6301,6302 6303,6304

a=9.7 V a=0 V a=13.2V a=6.9V a=0.2V
 b=9 V b=0.65V b=12.6V b=6.2V b=0.8V
 c=0.65V c=12.6 V c=0 V c=0.2V c=6.1V

6291,6292

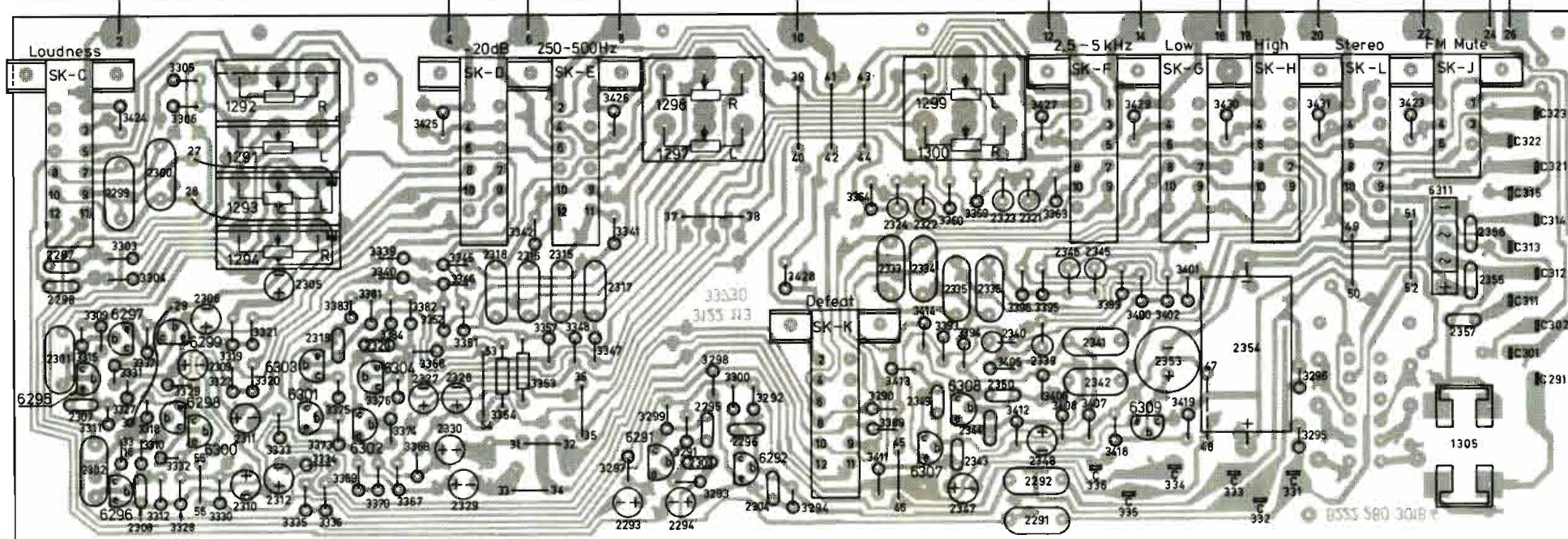
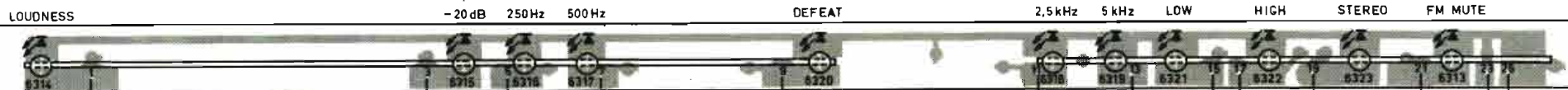
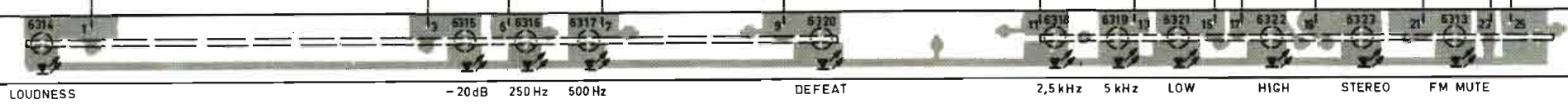
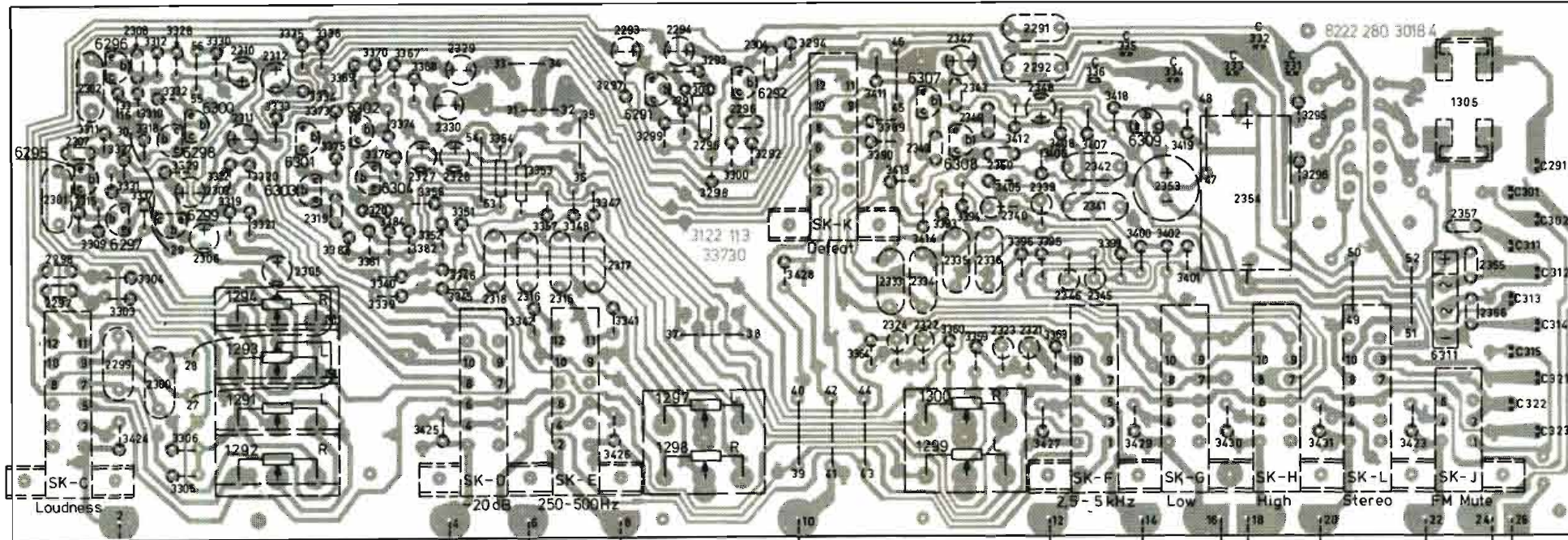
a=11.4V a=10.2V
 b=10.7V b=9.5V
 c=0 V c=0.2V

6307,6308

a=10.2V a=10.2V
 b=9.5V b=9.5V
 c=0.2V c=0.2V

6309

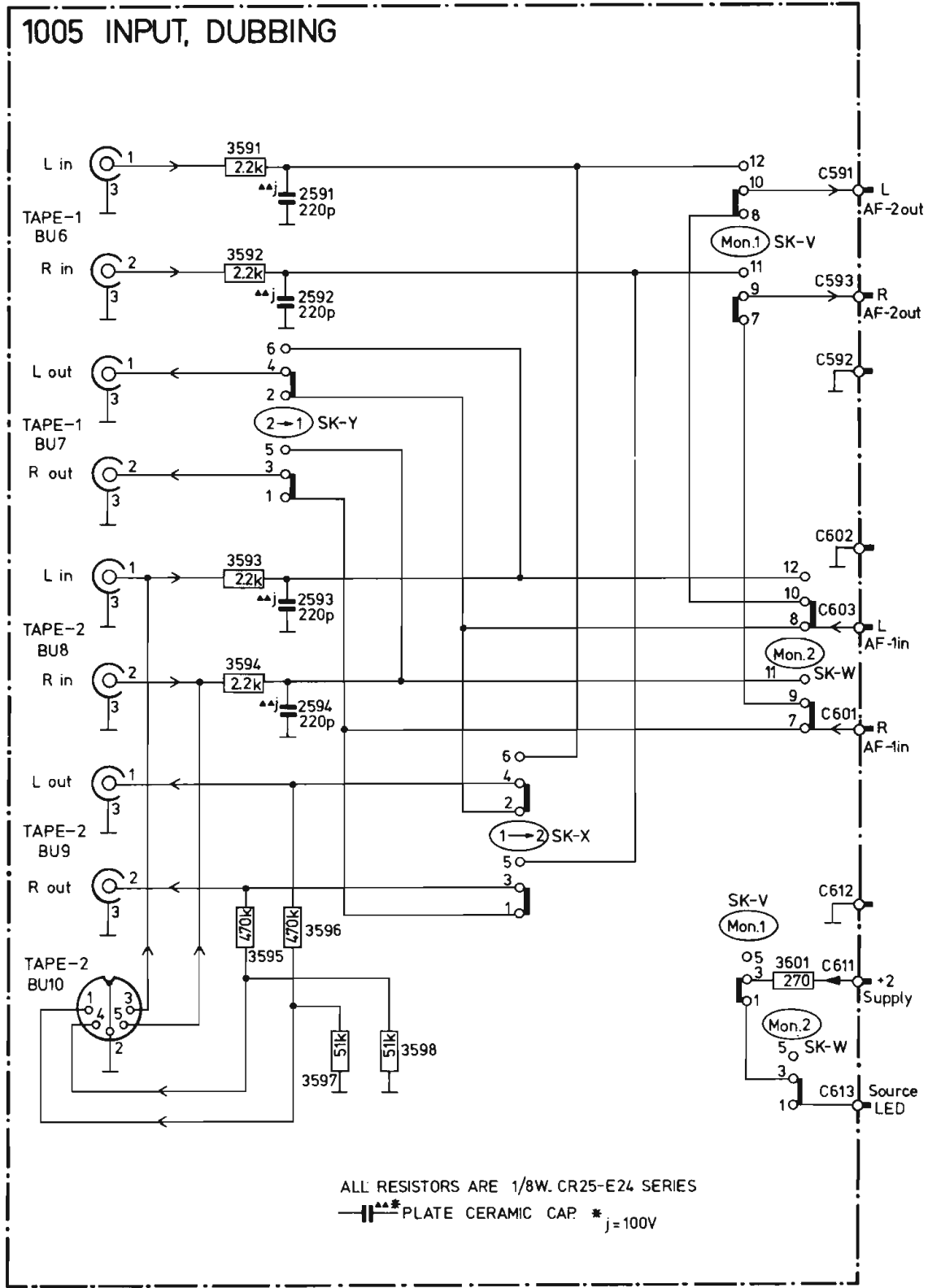
a=21.5V a=21.5V
 b=25.2V b=25.2V
 c=28 V c=28 V



18616E12

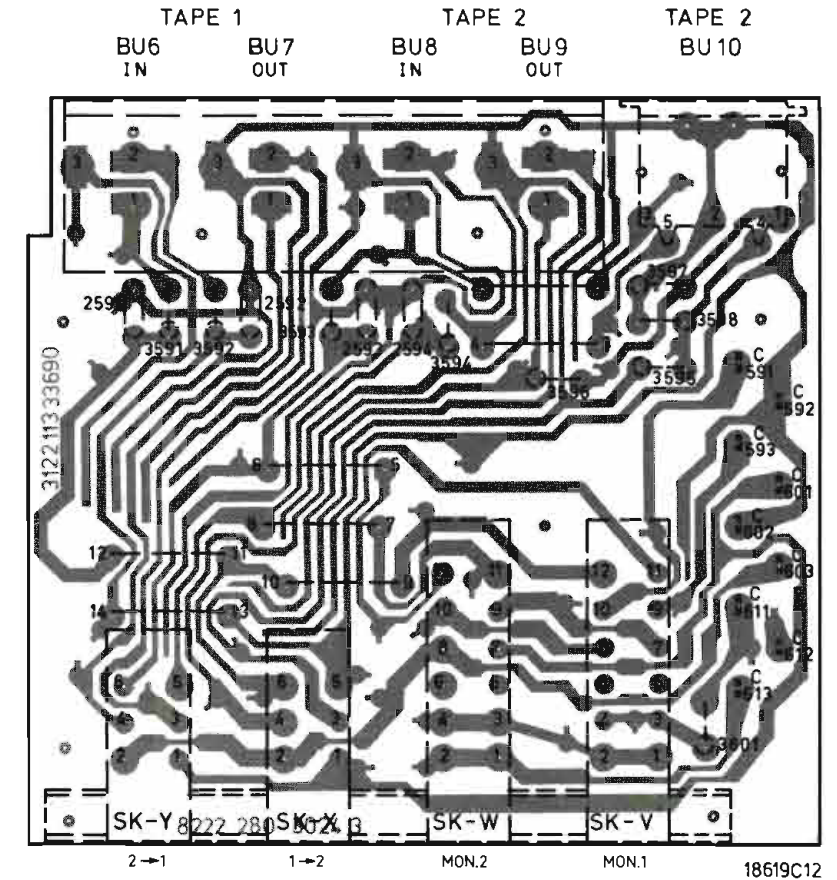
18617E12

C	2591...2594	3601
R	3591...3596.3597.3598	

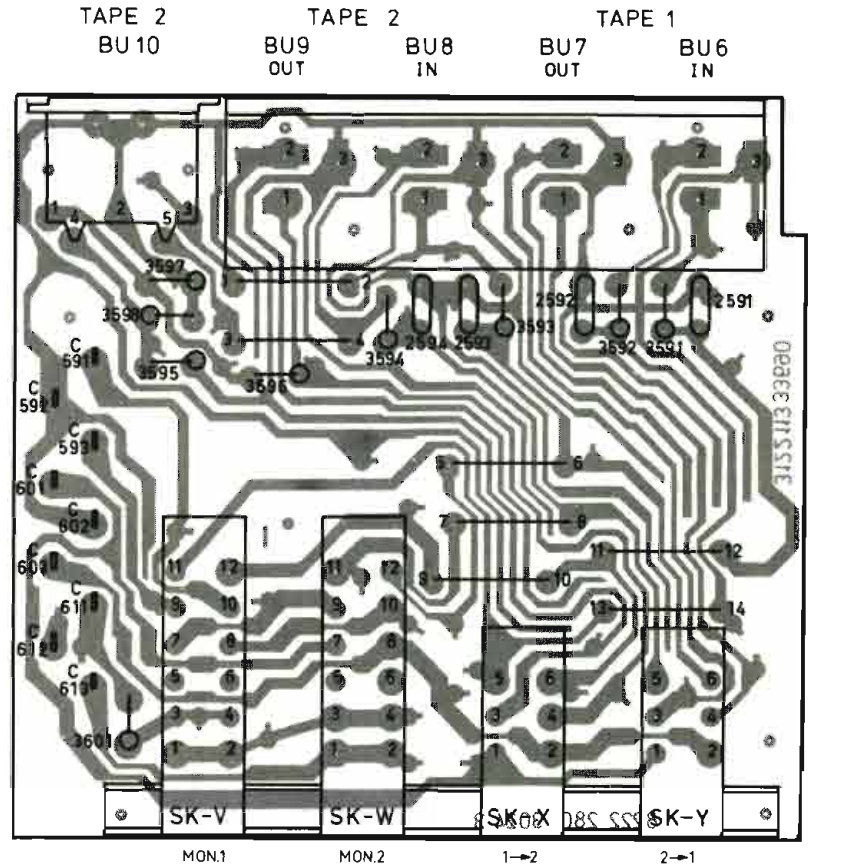


17465D12

C	2591	2592	2593	2594			
R	3591	3592	3593	3594	3596	3597	3598
						3595	3601

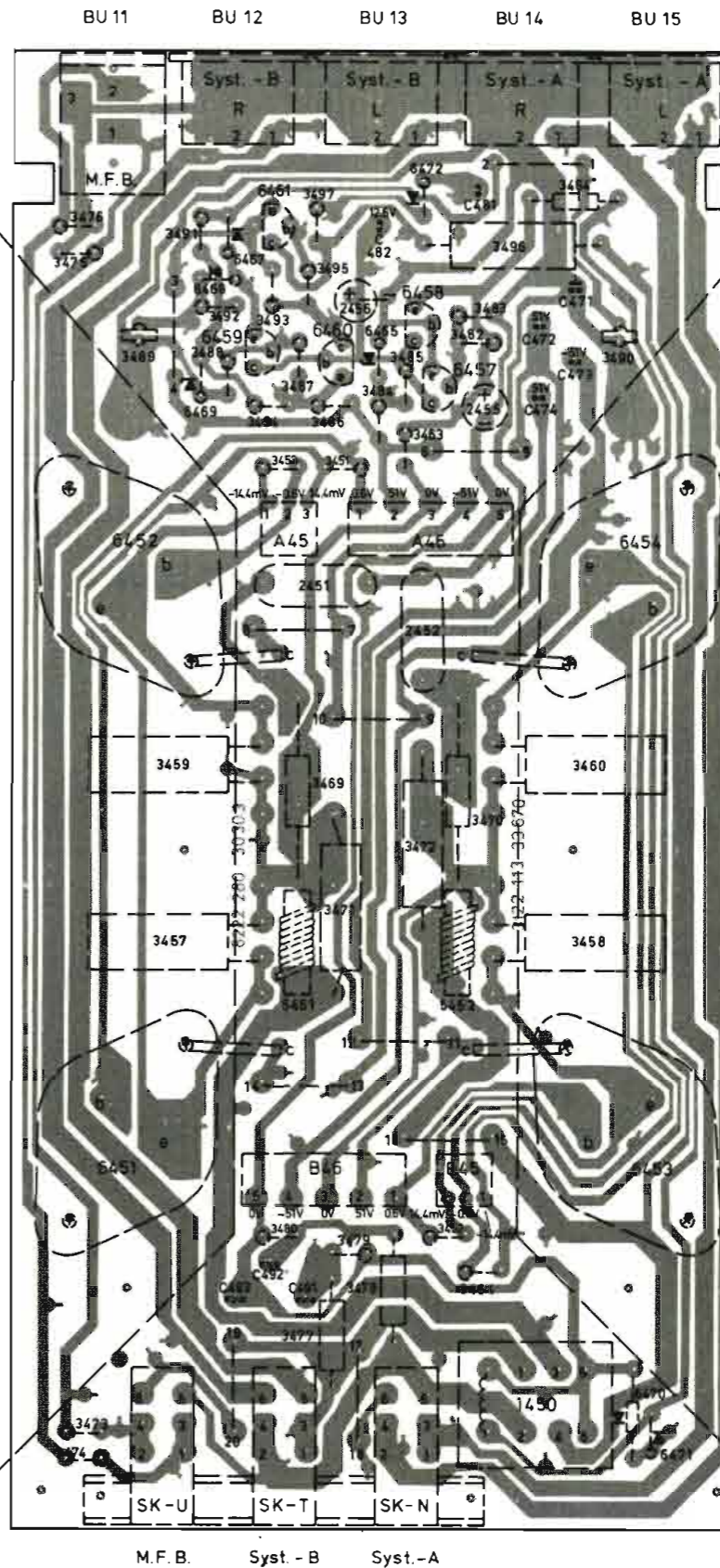
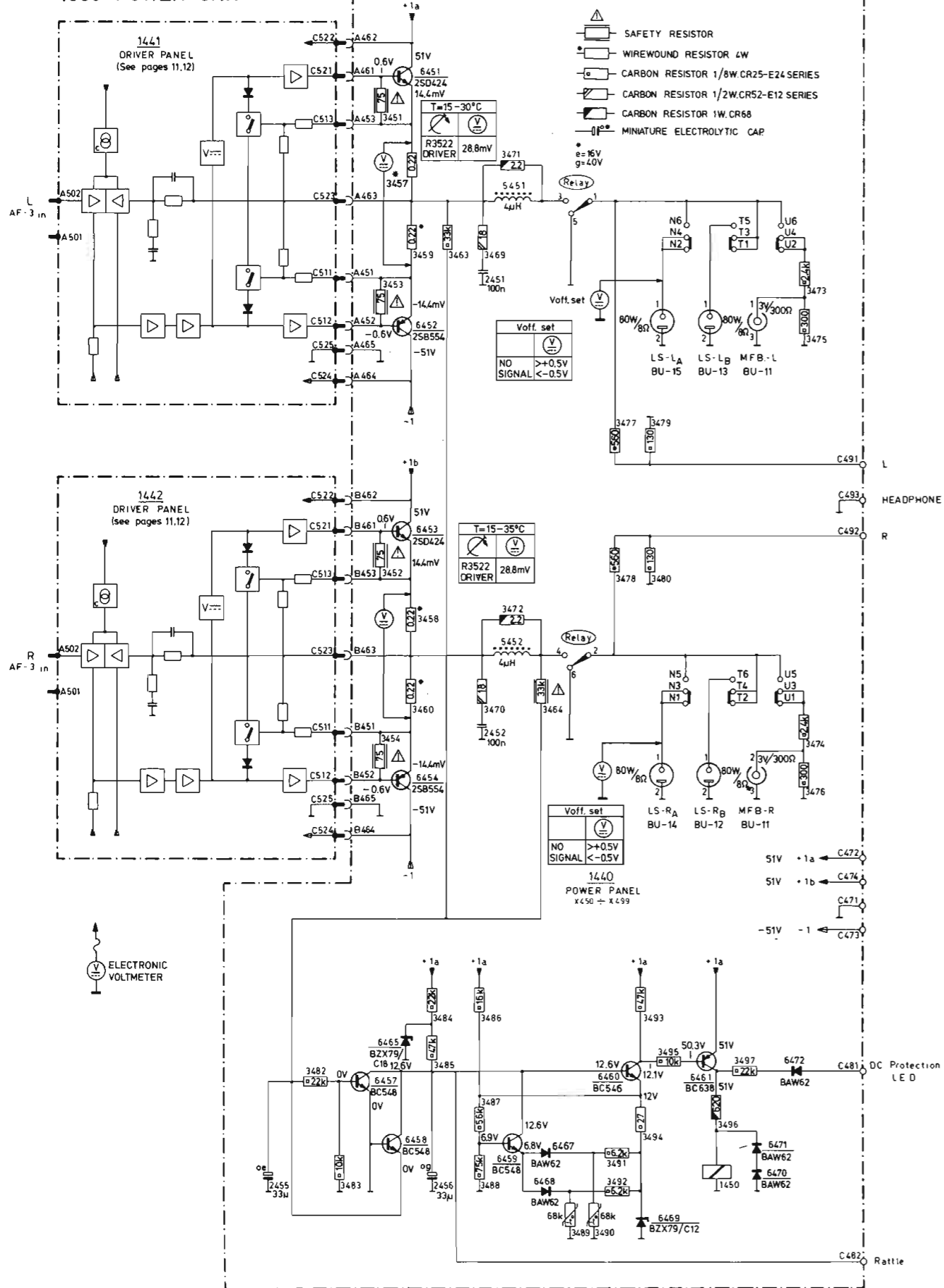


C			2594	2593	2592		2591
R	3598	3597	3596	3594	3593	3592	3591
	3601	3595					



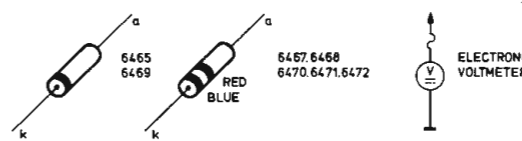
MISC	1441,1442	TS6457,6458,6451...6454, D6465, L5451, S452, TS6459, D6467...6469, TS6460, 6461, 1450, BU-11...15, D6470...6472
C	2450	2456 2451,2452
R	3482,3483,3451...3454,3457...3460,3463,3484...3488,3469...3472,3469,3489...3494,3477...3480,3495...3497,3473...3476	

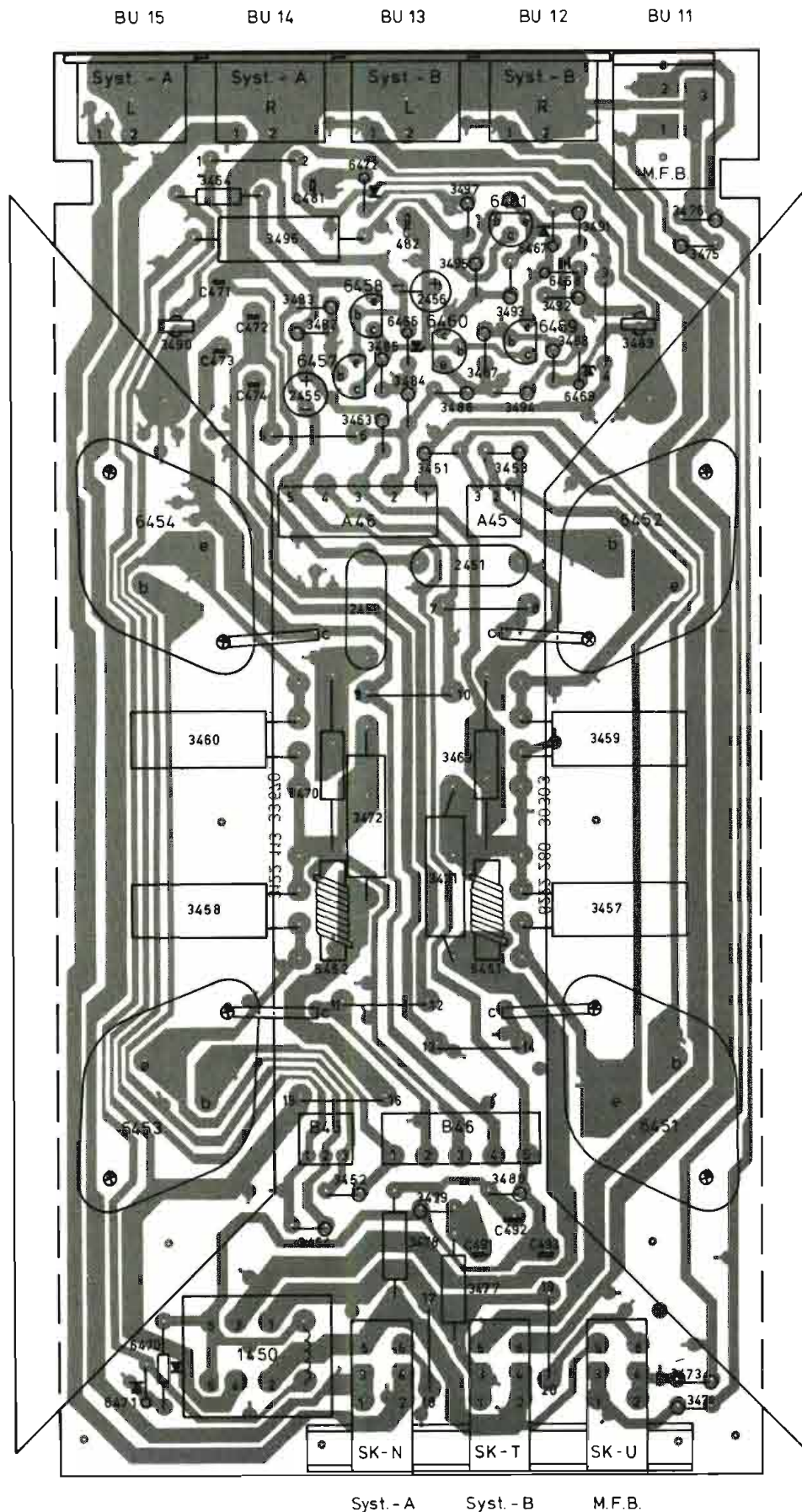
1003 POWER UNIT



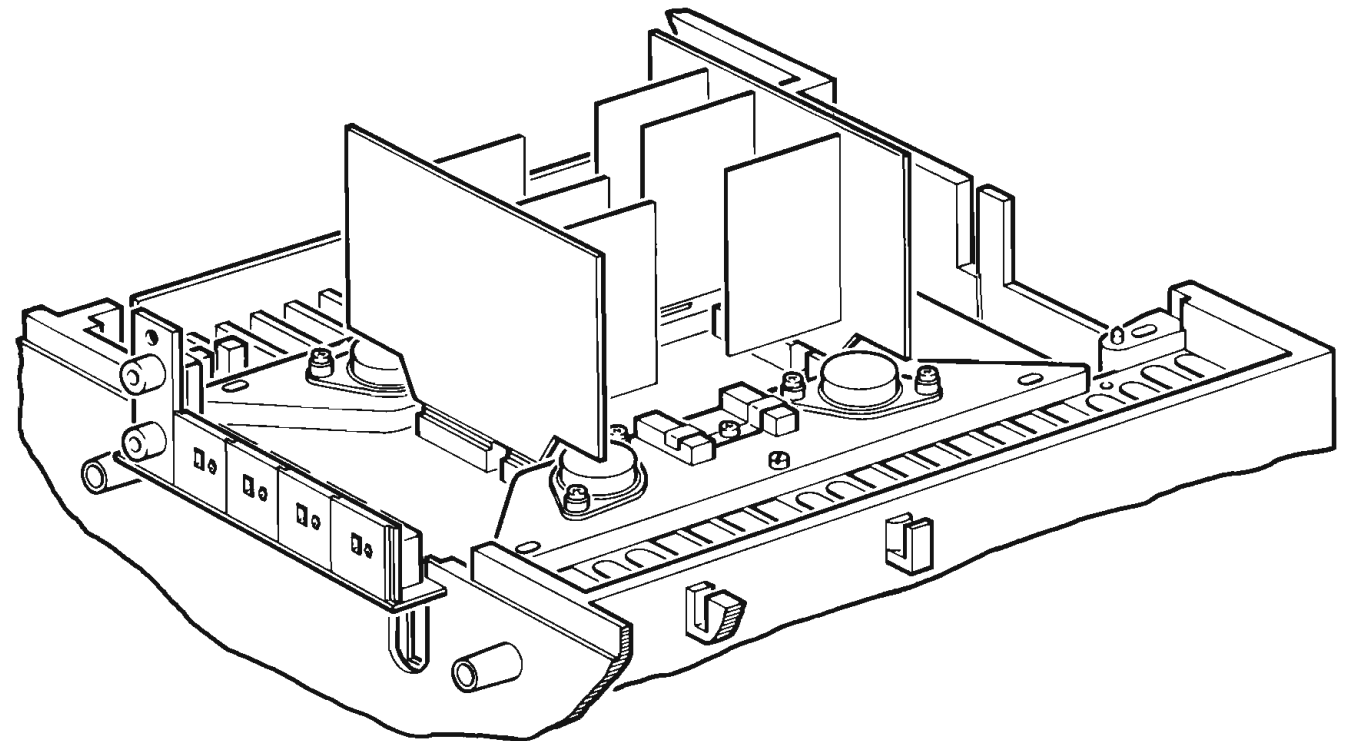
R	C	TS	D
3476	3497	3464	6472
3476	3491	3496	6458
3475	3495		6461
3492	3483	2456	6458
3488	3482		6459
3489	3485	3490	6460
3487	3484		6457
3494	3486	2455	6469
3493	3463		6457
3453	3451		6452
3459	3460		6454
3469	3470		2451
3470	3472		2452
3471	3458		
3457	3458		6451
			6453
3480	3452		
3479	3454		
3478	3454		
3477			
3473			6470
3474			6471

To be mounted at a certain height from the print.
3469, 3470, 3471, 3472, 3477, 3478, 3496

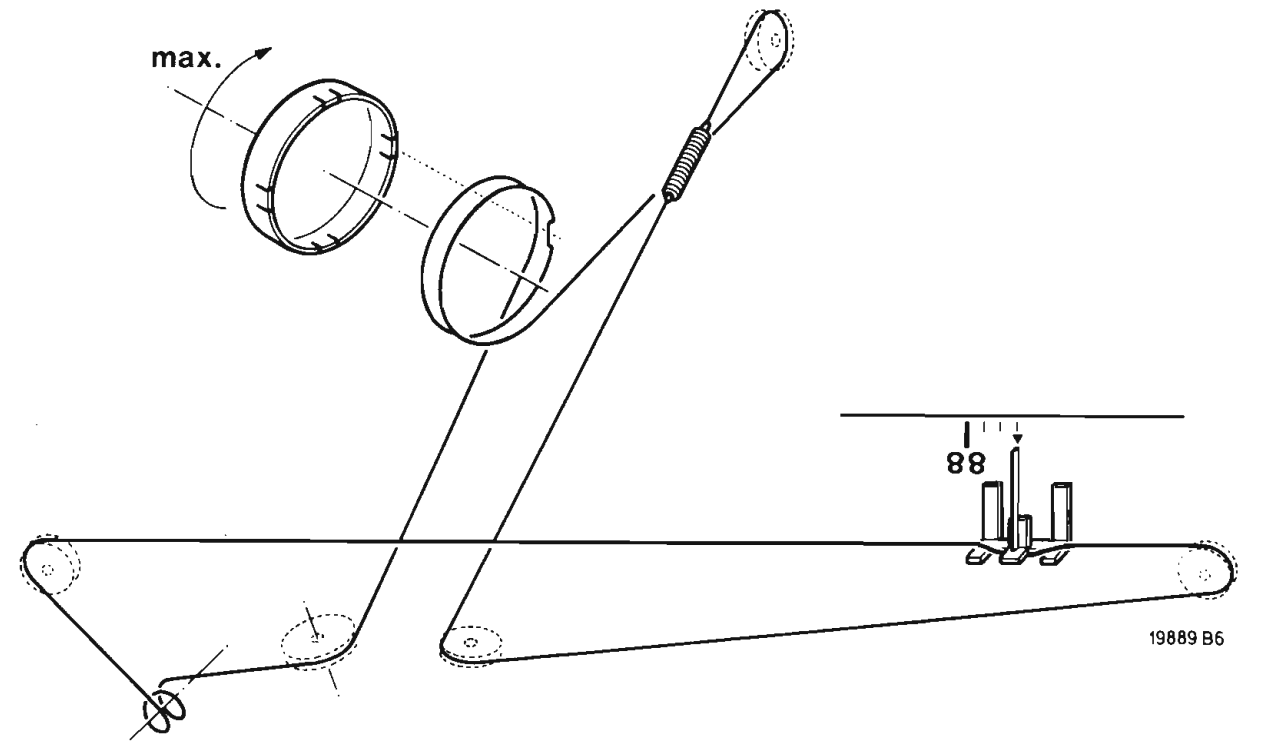




R	C
3464	3497
3491	3476
3496	3475
3495	
3483	2456
3482	3493
3490	3489
3488	
3485	
3487	2455
3484	
3486	3494
3463	
3451	3453
	2451
	2452
3460	3459
3469	
3470	3472
3471	
3458	3457
3452	3480
3479	
3454	3478
	3477
	3473
	3474

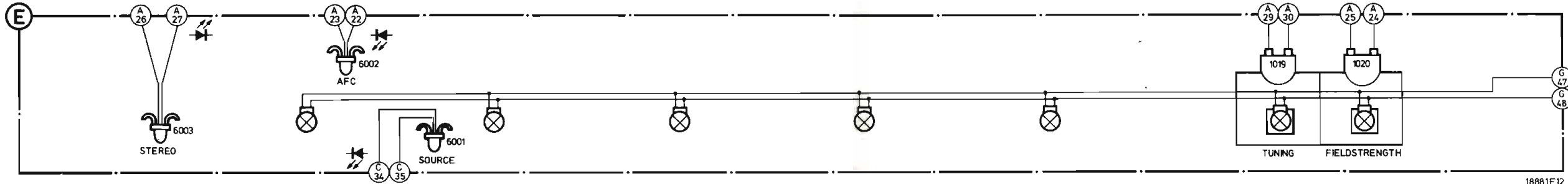
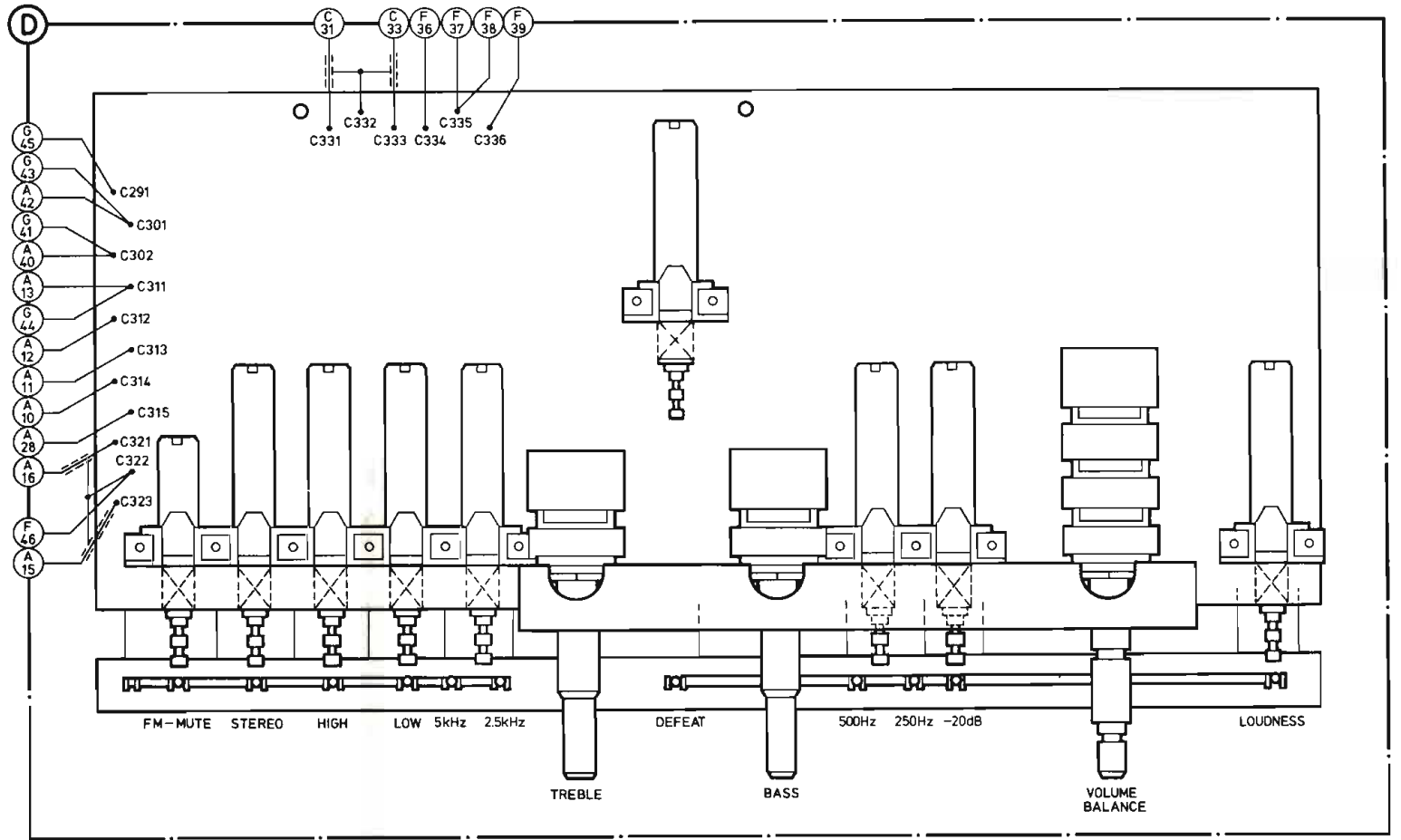
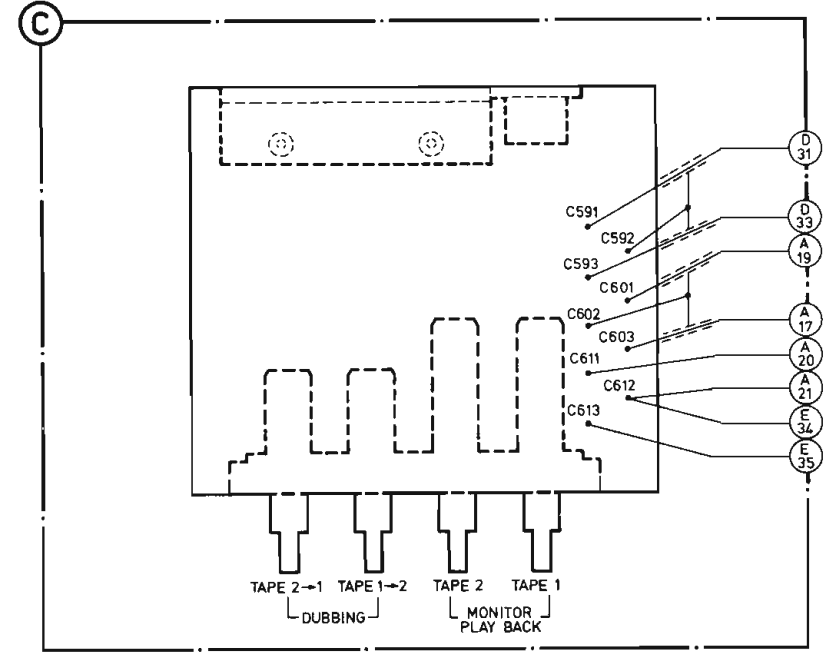
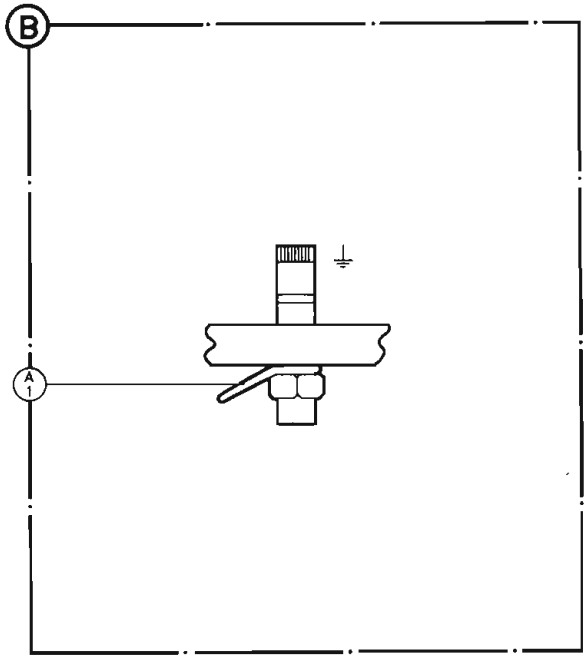
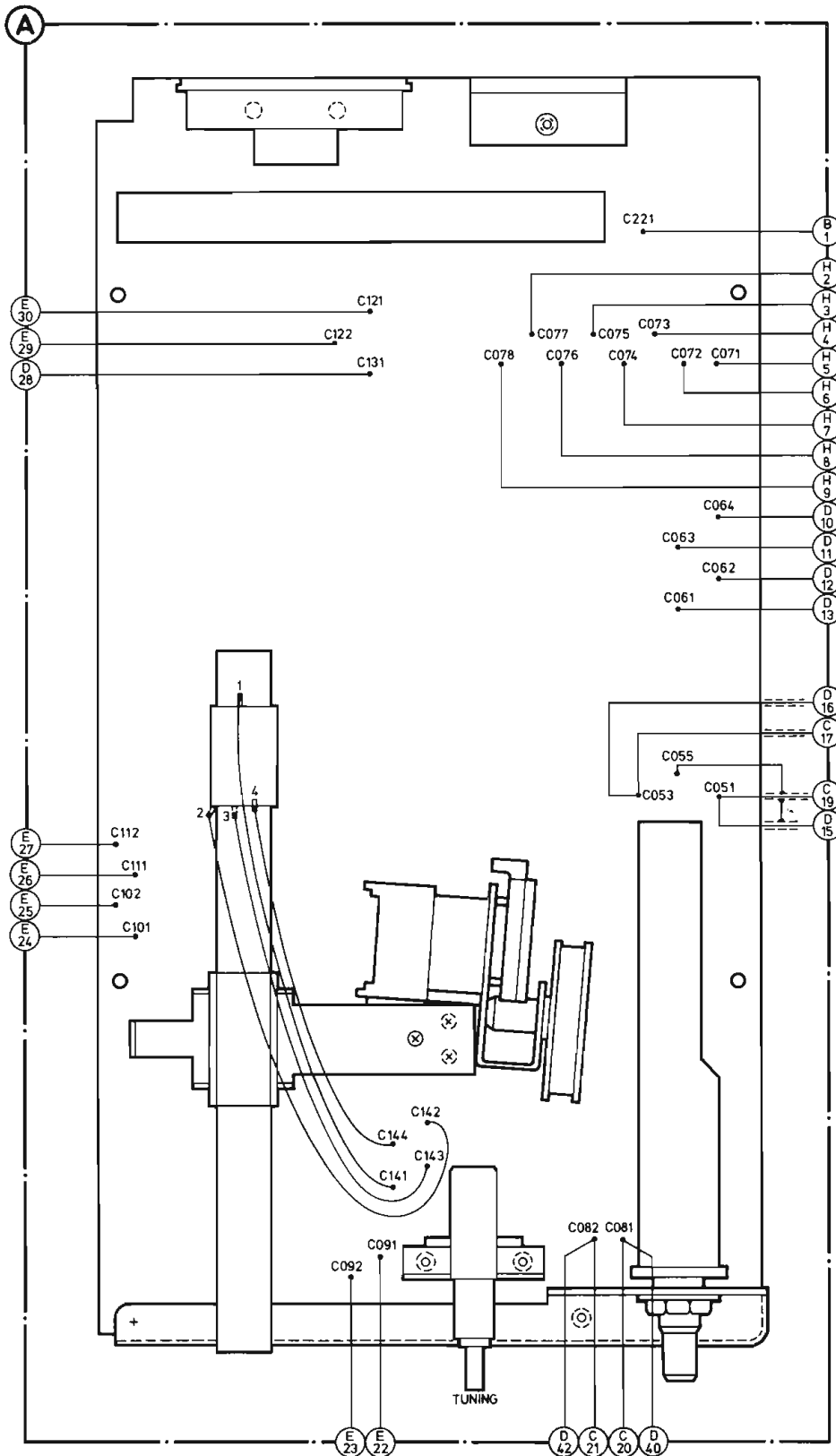


19790B12



To be mounted at a certain height from the print.
3469, 3470, 3471, 3472, 3477, 3478, 3496.

19656012



-Miscellaneous-		
1015	Mains transformer Fuse in 1015	4822 146 20567
1017	Fuse 2,5 AT	4822 253 30026
1019	IND. tuning	4822 347 10237
1020	IND. Field strength	4822 347 10238
1023,1024	Lamp IND. 6 V - 100 mA	4822 134 40326
1025, 1026-1029	Lamp dial 6,3 V-250 mA	4822 134 40007
6001,6002	LED CQY54-II	4822 130 31128
6003	LED CQY95	4822 130 30923

1001 RF UNIT

1041	FM tuner	4822 210 10207
1042	Ferroceptor	4822 158 60412
1046, 1047,1048	Gang cap+potm. comb.	4822 125 30016
1055	Rec. cond. monitor	4822 218 10122
1056	M.D. pre-amp.	4822 218 10124



Plate cap		
2051	3,9 pF±0,25 pF - 100 V-NP0	4822 122 31043
2052,2053, 2058	22 nF,-20+80% - 63 V	4822 122 30103
2060,2063	68 pF-2%-63 V-N220	4822 122 31321
2056,2082, 2068	10 nF,-20+80% -63 V	4822 122 30043
2061,2062	2,2 pF±0,25 pF-NP0	4822 122 31315
2064,2065	39 pF-2%-100 V-N750	4822 122 31323
2071	330 pF-2%-100 V-N750	4822 122 31322
2126,2133	47 pF-2%-100 V-N750	4822 122 31324
2143	10 pF ± -0,25 pF - ferroperm	4822 122 31333
2151	120 pF-3% -63 V-N220	4822 122 31319
2190,2194 2198,2202	82 pF-2%-100 V-NP0	4822 122 31318
2191,2193 2199,2201	270 pF-2%-100 V-N750	4822 122 31168
2192	39 pF-2%-500 V-N1500	4822 122 31327
2196	22 pF-2%-500 V-N1500	4822 122 31326
2200	12 pF-2%-500 V-N1500	4822 122 31325

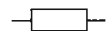
Flat cap

2080,2142 2153	47 nF-20%-400 V	4822 121 40239
2097,2098	5.6 nF-20%-630 V	4822 121 40402
2109,2114 2131,2134 2138	100 nF-20%-250 V	4822 121 41161

Elcos

2111,2072 2086	2,2 μF-63 V	4822 124 40244
2083,2088	10 μF-40 V	4822 124 40222
2107	33 μF-25 V	4822 124 40205
2139	47 μF-10 V	4822 124 40177
2173,2174	10 μF-16 V	4822 124 40187
2176	33 μF-25 V	4822 124 40205
2181,2182	1,5 μF-50 V	4822 124 20828

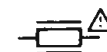
Micro poco		
2075,2076	6,8 nF-5%	4822 121 50538
2081	7,4 nF-5%	5322 121 54149
2089	560 pF-2%	4822 121 50576
2131	3 nF-5%	4822 121 50414
2147	180 pF-1%	5322 121 54057
2148	200 pF-1%	4822 121 50532
2127,2128 2144,2150	Trimmer 22 pF	4822 125 50045



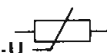
3070,3088 3113	Trim. pot. 4,7 kΩ	4822 100 10036
3075	Trim. pot. 10 kΩ	4822 100 10035
3087,3232	Trim. pot. 47 kΩ	4822 100 10079
3105	Trim. pot. 1 kΩ	4822 100 10037
3107	Trim. pot. 2,2 kΩ	4822 100 10029
3135	Trim. pot. 1 MΩ	4822 100 10089

Met. film resistors

3064	100 Ω - SFR25	5322 116 54852
3086	100 kΩ-SFR25	4822 116 51123
3099,3114	17,8 kΩ-MR25	5322 116 54637
3136	4,3 kΩ-MR25	5322 116 54594
3137	8,2 kΩ-MR25	5322 116 54558
3138	510 Ω-MR25	5322 116 54525
3144	12 kΩ-MR25	5322 116 50572
3145	9,1 kΩ-MR25	5322 116 55277
3152	220 Ω-SFR25	4822 116 51216
3153	18 kΩ-MR25	5322 116 54638
3154	5,36 kΩ-MR25	5322 116 54597



3142	56 Ω-SR68	4822 111 50298
------	-----------	----------------



3212	VDR	4822 116 20073
------	-----	----------------



5050	Aerial transformer	4822 146 30324
5051	Choke	4822 152 20494
5052,5053 5080,5083	IF coil FM	4822 156 30692
5055	Filter 19 kHz	4822 156 20743
5057	MPX 38 kHz	4822 156 10465
5059	Choke 100 μH	4822 156 30581
5060	Choke 1000 μH	4822 157 50975
5058,5061	Aer coil AM	4822 156 30693
5063	Rejection coil	4822 156 10457
5064	Absorption coil	4822 156 10458
5066	Osc. coil MW	4822 156 30691
5067	Osc. coil LW	4822 156 30689
5070	IF coil prim.	4822 156 30577
5072	Cer. resonator 468 kHz	4822 242 70278
	Cer. resonator 452 kHz	4822 242 70255
5074	IF coil sec.	4822 156 30578
5076	Choke	4822 156 20743

IC		
6050	TCA420A FM/IF	4822 209 80278
6051	TDA1005A PLL Dec.	4822 209 80514
6052	TCA750 Stab.	4822 209 80367
6055	TBA570A AM/IF	4822 209 80358



6064,6066 6069,6070, 6076	BC558	4822 130 40941
6067,6083	BC548	4822 130 40938
6072	BD135	4822 130 40645
6073	BC637	4822 130 41041
6075	BC337	4822 130 40855
6078	BF245 FET	4822 130 20051



6095,6102 6103,6110, 6111,6114 6115	BAW62	4822 130 30613
6104,6105	BAX18	4822 130 34121
6107,6108	BA223	4822 130 31145
6098	BZV38	4822 130 30947
6099	BZX79-C7V5	4822 130 30861

1002 TONE CONTROL PANEL

-Miscellaneous-		
1291...1294	Duo potm. 2x20 kΩ+ 2x50 kΩ	4822 102 10146
1297...1300 1305	Potm. alps 2x50 kΩ Fuse 315 mA	4822 102 30316 4822 253 30014



Plate cap		
2295,2296 3449,2350	82 pF-2%-100 V-NP0	4822 122 31318
2355-2357	22 nF-20+80%-63 V	4822 122 30103

Elcos

2293,2294 2305,2306 2309-2312, 2327-2330, 2347-2348	10 μF-16 V	4822 124 40187
2353	330 μF-25 V	4822 124 40212
2354	1000 μF-40 V	4822 124 20795

Micro poco

2321-2324	1,2 nF-5%	4822 121 50439
2339,2340	5,6 nF-5%	4822 121 50543
2345,2346	2,7 nF-5%	5322 121 54065



3353,3354	100 kΩ-SFR25	4822 116 51123
-----------	--------------	----------------

6291,6292 6295,6296 6299,6300 6297,6298 6303,6304 6309	BC559	4822 130 40963
6301,6302 6307,6308	BC548	4822 130 40938
	BC558	4822 130 40941



6311	BY164	4822 130 30414
6313-6323	LED CQY54-II	4822 130 31128

1003 POWER UNIT

1440 POWER PANEL

Miscellaneous		
1450	Relay	4822 280 80384
3451-3454	SAF. res. SR25-75 Ω	4822 111 30454
3464	Met. film SFR25-33 kΩ	4822 116 51217
3457-3460	0,22 Ω-4 W WW-Res.	4822 115 10043
3489,3490	NTC 68 kΩ	4822 116 30188
5451,5452	Coil 4 μH	4822 157 50718
2451,2452	Poly. 100 nF-20%-100 V	4822 121 40334





6451/6452 6453/6454	Pair 2SD424/2SB554	4822 130 41392
6457,6458, 6459	BC548	4822 130 40938
6460	BC546	4822 130 41001
6461	BC638	4822 130 41087
6465	BZX79/C18	4822 130 31024
6467,6468 6470-6472	BAW62	4822 130 30613
6469	BZX79/C12	4822 130 34197

1441,1442 DRIVER PANEL

-II-		
2500	680 pF-5% micro poco	5322 121 54174
2507,2501	270 pF-2%-100 V-N750	4822 122 31335
2503	56 pF-2%-63 V-N220	4822 122 31074
2505	22 nF-20+80%-63 V	4822 122 30103
2506	18 pF-2%-100 V-NP0	4822 122 31061
2508	100 nF-20%-250 V	4822 122 41161
2512,2513	47 nF-20%-100 V poly	4822 121 40336
2516	Elco 100 μF-63 V	4822 124 20735






3522	Trim. pot. 470 Ω	4822 100 10023
3548,3549, 3552	SAF. Res. 10 Ω-SR37	4822 111 30114
3550,3551	SAF. Res. 1,5 Ω-SR25	4822 111 30217
3508,3509	SAF. Res. 47 Ω-SR37	4822 111 30006

		
6500	BC556	4822 130 40989
6501,6502	BC556A	5322 130 44462
6504,6506 } 6510	BC548	4822 130 40938
6507	2SD668	4822 130 41394
6511	BC558	4822 130 40941
6514,6515	Pair 2SD669/2SB649	4822 130 41393
		
6525	BZX79/C24	5322 130 34398
6527,6528	BZX79/C2V4	4822 130 31253
6530	BAX18	4822 130 34121



1004



SUPPLY PANEL


		
1570,1571	4 AT	4822 253 30038
1572	1,6 AT	4822 253 30024
		
2570	Pol. cap. 100 nF-20% - 250 V	4822 121 40518
2571,2572, } 2574	Pol. cap. 47 nF-20% - 100 V	4822 121 40336
2575,2576	Elco 10000 μ F-63 V	4822 124 20897
		
6570,6571	BYX72-300	5322 130 34262
6572,6573	BYX72-300R	5322 130 34261
6575	BY206	4822 130 30839

1006

VOCOM + DISPLAY PANEL


Miscellaneous		
1630,1631	Display TLG308	4822 130 90028
		
2632	Plate cap. NPO-100 V 100 pF-2%	4822 122 31316
2636	Elco 4700 μ F-16 V	4822 124 20782
2638	Plate cap. 22 nF-63 V -20+80%	4822 122 30103
2639,2643	Elco 35 V/T14-47 μ F	4822 124 40215
2642	Elco 25 V/T13-33 μ F	4822 124 40205
		
3648	18 k Ω -MR25	5322 116 54638
3650	33 k Ω -MR25	5322 116 50482
3651	100 k Ω -MR25	5322 116 54696
3657,3658	140 k Ω -MR25	5322 116 54259
3661...3674 } 3716	20 k Ω -MR25	5322 116 54642
3677...3688	10 k Ω -MR25	5322 116 54619
3694,3695	47 Ω -SFR25	4822 116 51218
3717	24 k Ω -MR25	5322 116 54647
3652,3718	Trimpotm. 4.7 k Ω	4822 100 10036


		
6630	NE 532N	4822 209 80484
6631	LM 324N	5322 209 85899
6632	HEF 4016BP	5322 209 14119
6633	LM 211N	4822 209 80537
6634	HEF 4040BP	5322 209 14269
6635	SAA 1089P	4822 209 80538
6636	SN 29764-AN-00	4822 209 80345
		
6640,6643	BC558	4822 130 40941
6641,6645. } 6647	BC548	4822 130 40938
6646	BC635	5322 130 44349


		
6650...6653	LED CQY54-II	4822 130 31128
6655...6657 } 6659...6661 } 6663	BAW62	4822 130 30613
6662	BZX79C13	4822 130 34195
6664	BZX79C5V6	4822 130 34173
6665	BZX79C16	5322 130 34268


1041

FM-TUNER

		
Plate ceramic cap.		
2952,	10 pF-2%-100 V-NPO	4822 122 31054
2955,2953 } 2963	22 pF-2%-100 V-NPO	4822 122 31313
2956	82 pF-2%-100 V-N1500	4822 122 31309
2950	12 pF-2%-100 V-NPO	4822 122 31056
2964	270 pF-2%-100 V-N1500	4822 122 31331
2965	22 nF-20+80%-63 V	4822 122 30103
2968,2966	4,7 nF-20+80%-63 V	4822 122 31125
2974,2972 } 2984,2983 } 2987	150 pF-2%-100 V-N1500	4822 122 31308
2977	2,7 pF+0,25P-100 V-NPO	4822 122 31328
2978	18 pF-2%-100 V-N150	4822 122 31314
2979	6,8 p F+0,25P-100 V- N330	4822 122 31329
2957,2980	15 pF-2%-100 V-NPO	4822 122 31058
2981	18 pF-2%-100 V-NPO	4822 122 31061
2989	4,7 nF-20+80%-63 V	4822 122 31125
2958,2951	Trimmer 10 pF	4822 125 50062

		
5950	Cer. filter 10,7 MHz	4822 242 70295
5954	Aerial-coil	4822 157 50896
5955	Choke	4822 157 51057
5956	RF-coil	4822 157 50973
5958	Coupling coil	4822 157 30204
5959	Absorption coil	4822 157 30205
5961	Osc. coil	4822 157 50895

		
6955,6950	BF324	5322 130 44396
6951,6953	BF494	4822 130 44195
6956	BC548C	4822 130 44196

		
6969...6962	BB204B	4822 130 34449

Service mededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN
TECHNISCHE SERVICE

Ref. 414 PH Type 22 AH 708 Datum juni 1981

Onderstaande wijzigingen zijn ingevoerd.

VOCOM + DISPLAYPANEEL 1006

D 6600 en D 6663 zijn gewijzigd in BAX 12, bestelnummer 5322 130 34605.

RF PANEEL - AM DEEL - 1040 (zie fig. 1.)

	OUDE	NIEUW	BESTELNUMMER
C2157	270 nF ●●j	82 nF ●●j	
C2158	270 nF ●●j	180 nF ●●j	
C2159	—	4.7 nF ●●j	
C2160	—	10 nF ΔΔj	
R3237	68 kΩ □	12 kΩ □	
R3238	150 kΩ □	22 kΩ □	
R3239	22 kΩ □	150 kΩ □	
R3240	—	12 kΩ □	
TS6083	BC548	BC558	4822 130 40941

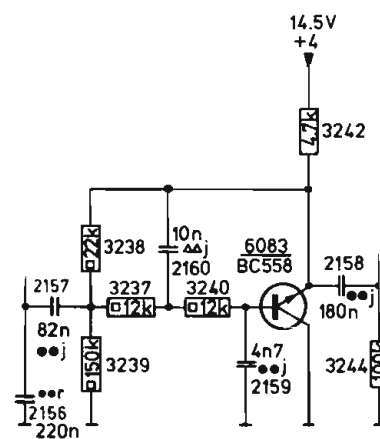


Fig. 1

RF PANEEL - FM DEEL - 1040 (zie fig. 2)

De dikkefilm unit 1055 is gewijzigd, het nieuwe bestelnummer luidt: 4822 218 10137. S 5074 is gewijzigd, hiervoor is het nieuwe bestelnummer: 4822 156 30677.

	OUDE	NIEUW	BESTELNUMMER
C2105	—	150 pF ΔΔj	
R3064	100 Ω Δ	100 Ω □	
R3067	4.7 kΩ □	1.8 kΩ □	
R3078	—	2.2 kΩ □	
R3097	27 kΩ □	100 Ω □	
R3134	—	100 kΩ □	
R3142	56 Ω Δ	47 kΩ Δ	4822 111 50155
R3204	120 Ω □	20 Ω □	
R3206	10 Ω □	10 Ω Δ	4822 111 30405

Vanaf stempeling PL 01, zie fig. 2 zijn 2112, 10 nF ΔΔj en R 3160, 470Ω □ toegevoegd.

Vanaf stempeling PL 02 zijn de aansluitpunten C 243, C 244 en C 245 toegevoegd voor de aansluiting van de "preset mute" schakeling, zie fig. 2.

FM TUNER 1041

R 3985 is vervallen en S 5959 is gewijzigd, nieuw bestelnummer: 4822 157 50966.

TOONREGELPANEEL 1002

Het hoogfilter is gewijzigd: SK H 9 - 11 en SK H 10 - 12 zijn toegevoegd. Zie fig 3a-b.

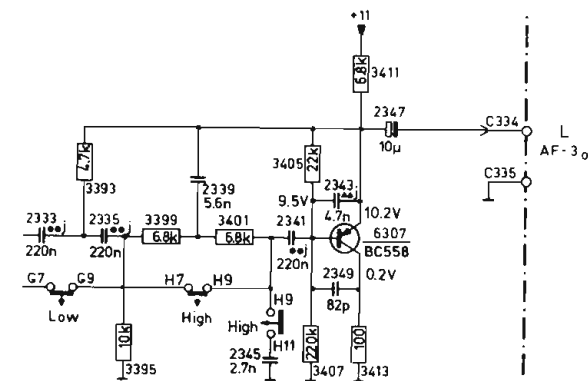


Fig. 3a

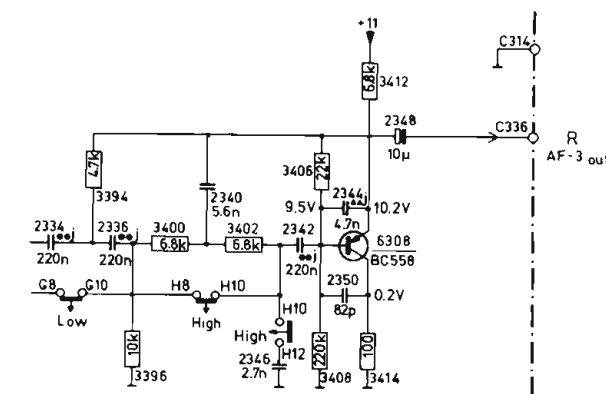


Fig. 3b



MISC	BU1, BU2	1048	1041	6050, 6064, 6072, 6073	6052	6066, 6098, 6099	6067	6095, 1055, 6051	6076, 6075	6069, 6070, 6102...6105					
S	5050	5051		5080	5081	5082, 5052	5083	5055	5057						
C		2051, 2050		2190...2194, 2106, 2196, 2198, 2111, 2199...2202, 2107...2109	2114					2119	2120				
R	3136...3138	3134, 3135		2052, 2053, 2056, 2057, 2105	2060, 2058, 2112, 2061...2063, 2068, 2064, 2069, 2065, 2071, 2072			2073, 2075, 2076, 2081...2083, 2077	2086	2087...2089, 2091	2080, 2093, 2094	2097	2100	2101, 2102	
R				3140	3148...3154, 3141...3145, 3155...3160	3085	3086	3161, 3163...3165	3167...3169, 3172, 3182, 3183, 3110, 3170	3171	3202, 3199, 3201	3204		3206, 3203, 3208	
R				3063	3064	3070, 3071, 3073, 3066, 3082, 3067, 3075...3077	3078, 3087...3090	3093...3096	3104...3108, 3097...3100, 3102, 3103, 3109		3111...3114	3101	3117, 3119...3124	3125...3128	3129, 3130

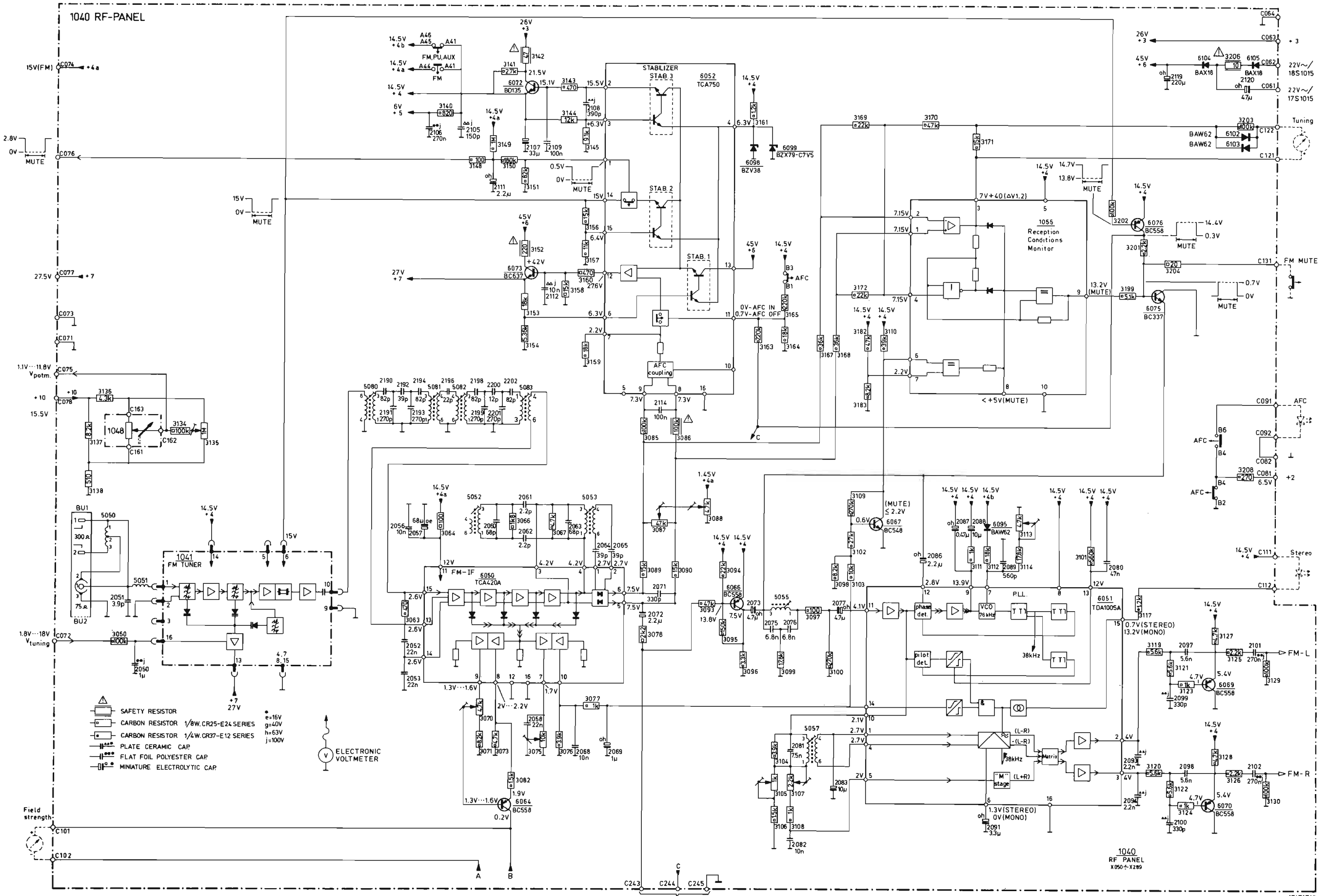


Fig. 2

C293 C294 C295
TONE CONTROL PANEL

Vanaf stempeling PL 02 (zie fig. 4) is TS 6310 - BC 337 (bestelnummer 4822 130 40855) aan de "preset mute" schakeling toegevoegd.

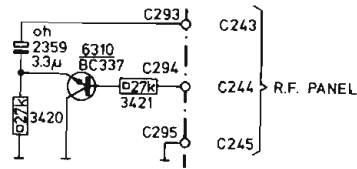


Fig. 4

Ter voorkoming van schakelklikken zijn vanaf stempeling PL 02 de condensatoren C 2305 en C 2306 vervangen door elco's met lage lekstroom, 15 uF - 16V (4822 124 20883).

DRIVERPANEEL 1441

	OUD	NIEUW	BESTELNUMMER
C2500	680 pF	470 pF	5322 121 54078
C2501	270 pF	180 pF $\Delta\Delta j$	
C2503	56 pF	47 pF $\Delta\Delta j$	
C2506	22 pF	18 pF $\Delta\Delta j$	

C 2509, 22 pF $\Delta\Delta j$ is toegevoegd tussen de voeding - 2 en de collectoren TS 6506.

Het bestelnummer van de smeltveiligheidshouder 1017 luidt: 4822 256 30064.