

Service
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Service Manual

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PHILIPS

SPECIFICATION**General:**

Mains voltage : 220V 50Hz for/00
 : 240V 50Hz for/05
 : 120/230V 50Hz for/01

Power consumption : ≤ 10 W power on
 : ≤ 9 W stand by

Dimensions:(wxhxd) : 435x90x300 mm

Timer and clock function
 Local Station Name function : Length name max 8 characters
 Radio Data System
 Saerch stop FM : 2 levels
 Back-Up battery : 3,6V

Tuner: FM Part

Tuning range : 87,5MHz to 108MHz

Aerial input : 75 Ω coaxiaal

IF : 10,7MHz $\pm$ 25kHz

Sensitivity mono : 1,1 μ V 26dB S/R Distant 3 μ V 50dB S/R local
 stereo : 45 μ V 50dB S/R Distant 100 μ V 50dB S/R local

Selectivity : 60 dB at 300kHz wide
 : 80 dB at 300kHz narrow

Channel separation : 40 dB (1kHz Mod.)

Distortion THD mono : 0,5 % wide
 stereo : 0,7 % wide

Signal/noise mono : 74 dB IEC weighted
 Ratio stereo : 70 dB " "

Output : 950 mV by ■f75kHz

AM PART

Tuning range MW : 522kHz to 1611kHz
 : 530kHz to 1710kHz (only/01)
 LW : 153kHz to 279kHz

Aerial input : Frame aerial

IF : 450kHz $\pm$ 1kHz

Sensitivity MW : 1mV/m for 26dB S/R
 LW : 2,5mV/m for 26dB S/R

Selectivity : 30dB at 9kHz

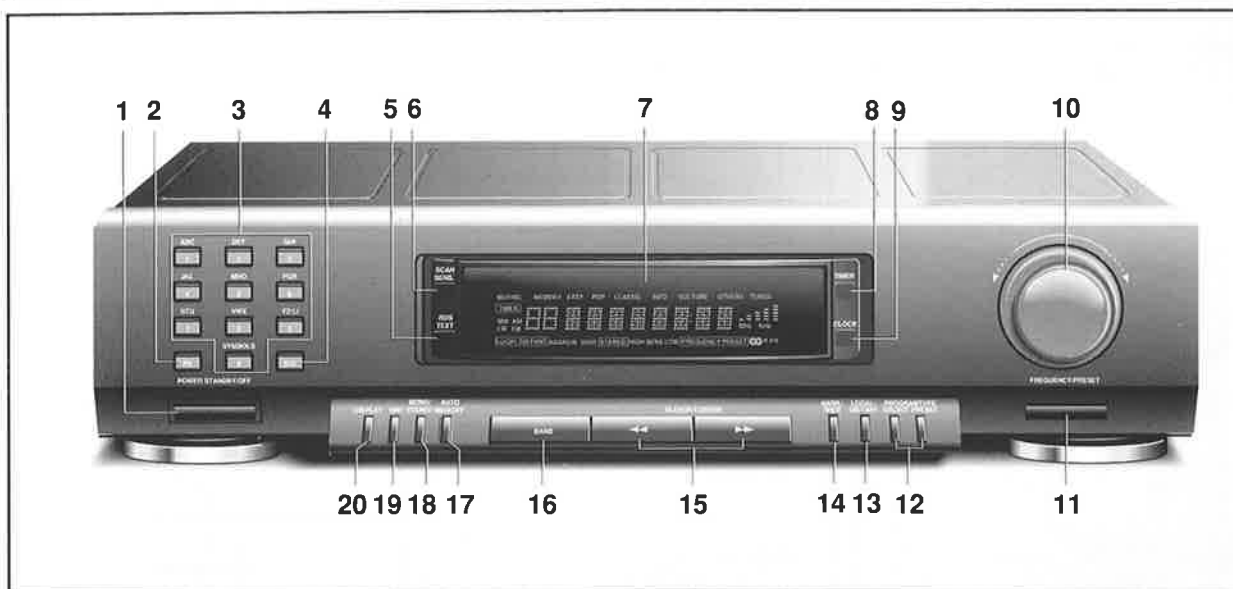
Suppression IF : 60dB

Digital Part

Switchable FM/MW/LW : 50kHz/ 9kHz/ 3kHz (aut./man.)

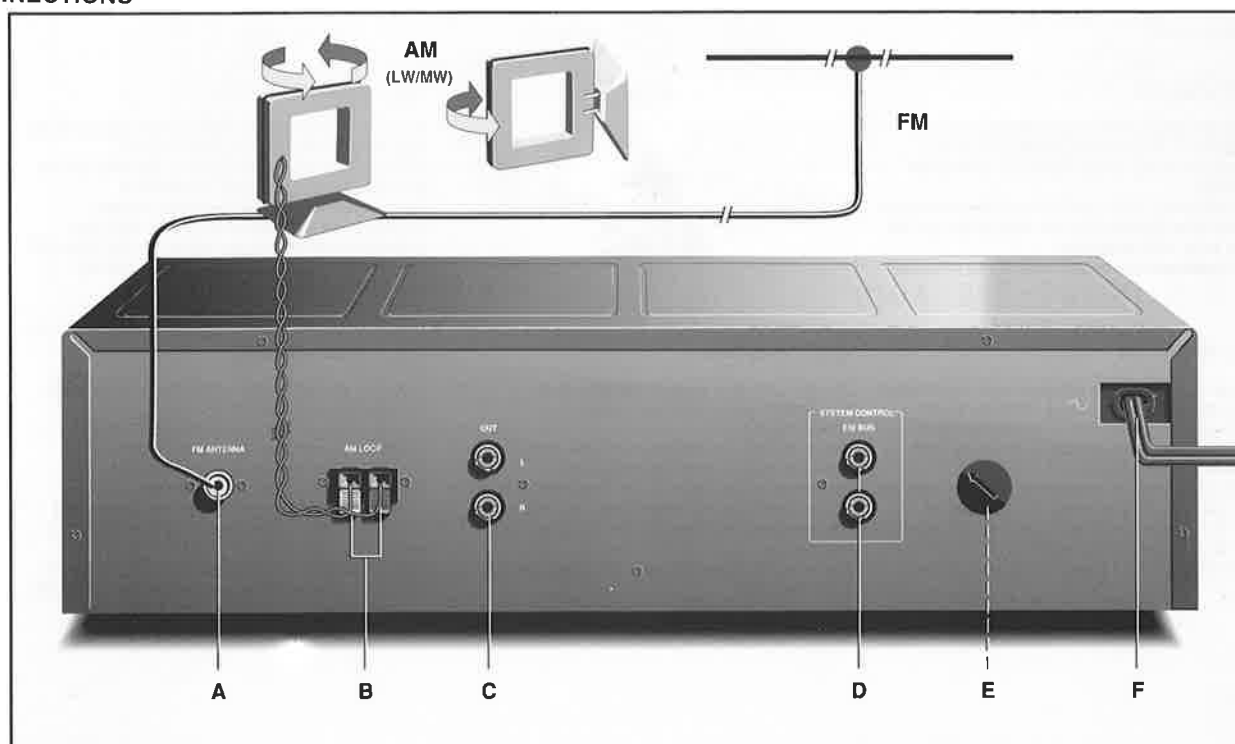
Presets FM/MW/LW : 40 random

CONTROLS



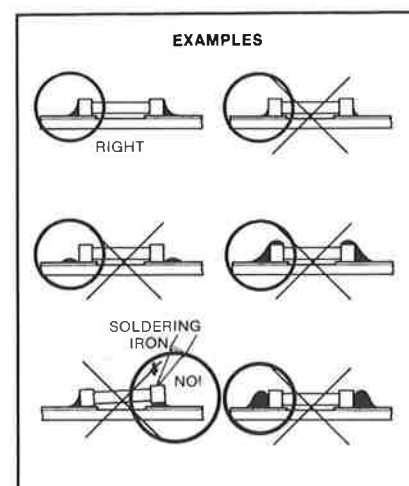
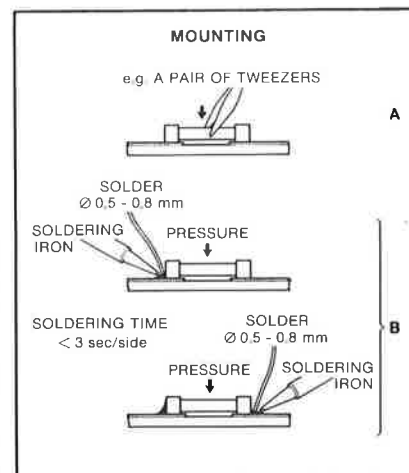
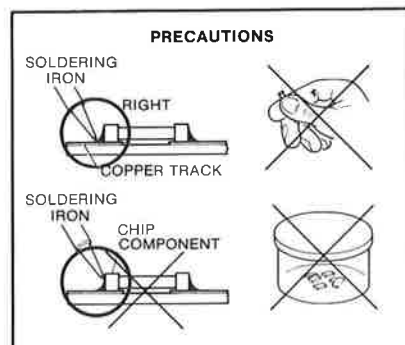
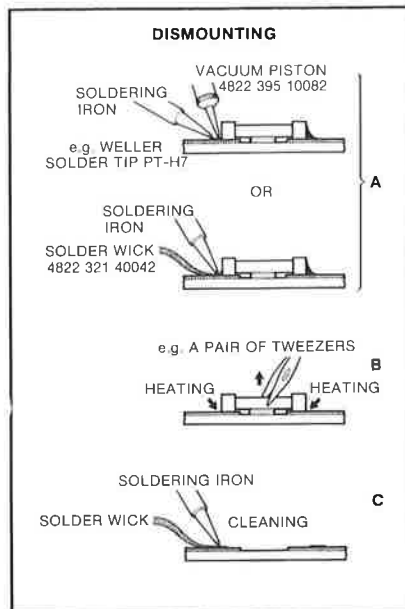
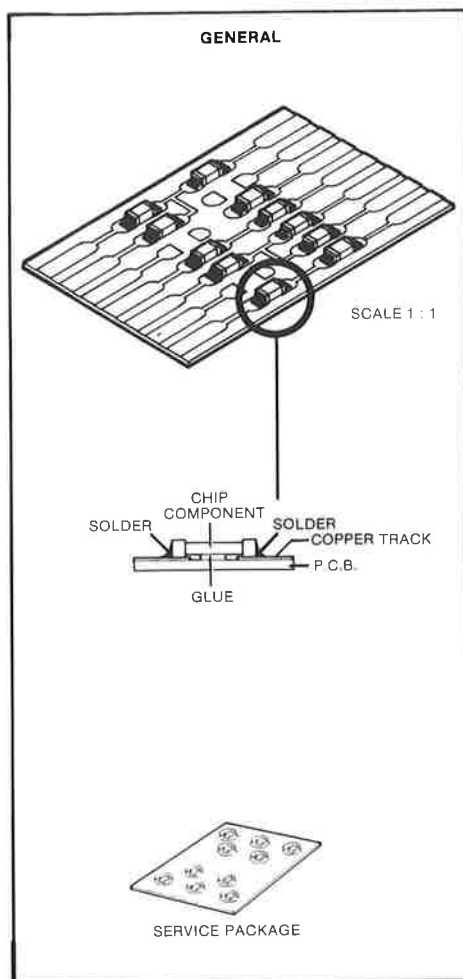
	Pos nr.		Pos nr.
1 Power on/off	1401	7 DISPLAY	
2 Freq.direct	1483	8 Timer	1488
3 Presets		9 Clock	1489
Preset N° 1	1466	10 Freq./Preset Rotary knob	1495
Preset N° 2	1467	11 Freq./Preset	1485
Preset N° 3	1468	12 Prog. select	1487
Preset N° 4	1469	Prog. preset	1475
Preset N° 5	1470	13 Local Distant	1476
Preset N° 6	1471	14 Narrow/Wide	1492
Preset N° 7	1472	15 Search down	1481
Preset N° 8	1473	Search up	1480
Preset N° 9	1474	16 Waveband	1477
Preset N° 0	1465	17 Automemory	1491
4 Memory Open/Close	1482	18 Mono/stereo	1484
5 RDS Text	1490	19 SND: Station Name Display	1486
6 Scan Sens	1479	20 Display	1478

CONNECTIONS



- A Aerial socket FM
B Frame aerial AM
C Tuner out

- D Easy link (in/out)
E Voltage selector (only/01)
F Fixed mainscord



27 012C12

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.

Keep components and tools also at this potential.

ESD**(NL) WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.

Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfilier le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cautela alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un bracciale a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

[illegible]

Key Test and input port test

To go in this test mode press the **MONO** and **BAND** switch at the same time when tuner is switched on.

Bottoms	Display
Scan	40F
Waveband FM	41F
Mono/Stereo	49F
Preset up	43F
Preset down	44F
Memory	4CF
Frequency direct	4FF
Station name	48F
Select programtype	42F
Preset programtype	46F
Automemory	47F
Frequency/preset	8AF
Na/Fr/Ti	2CF
Timer	2DF
Clock	2EF
Narrow/Wide	8DF
Local/Distant	8BF
Sens High/Low	81F
RDS info	4EF
Freq.up	2AF
Freq.down	2BF
Preset 0	20F
Preset 1	21F
Preset 2	22F
Preset 3	23F
Preset 4	24F
Preset 5	25F

Bottoms

Display

Preset 6	26F
Preset 7	27F
Preset 8	28F
Preset 9	29F

Quartz frequency test :

Checking the clock frequency (32.768 kHz)

To go in this test mode press the **MONO** and **DISPLAY** switch at the same time when Tuner is switched on.

Measuring on pin 42 IC7471 or on Easylink output busin/out (2) a clock frequency of 1024 Hz. The display is blanked during this test.

Give a power down to leave this test.

Local Station Name SDN :

The name can be given using the numeric path. Every time one numeric key is pressed it scrolls through the following sequences:

Key 1 A ---> B ---> C --->1
 Key 2 D ---> E ---> F --->2
 Key 3 G ---> H ---> I --->3
 Key 4 J ---> K ---> L --->4
 Key 5 M ---> N ---> O --->5
 Key 6 P ---> Q ---> R --->6
 Key 7 S ---> T ---> U --->7
 Key 8 V ---> W ---> X --->8
 Key 9 Y ---> Z --->blank->9
 Key 0 - ---> + ---> * --->0

WARNINGS

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 in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

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

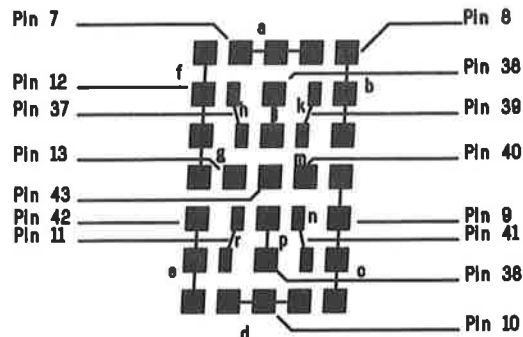
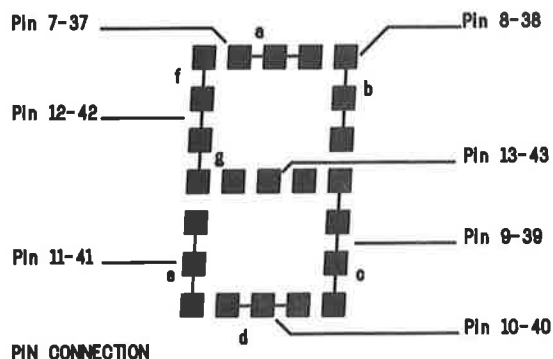
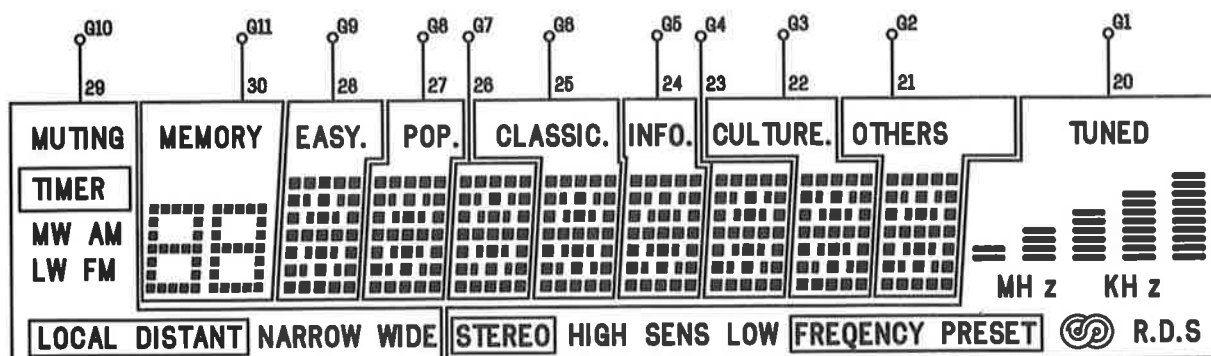
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

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.

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

GRID ASSIGNMENT

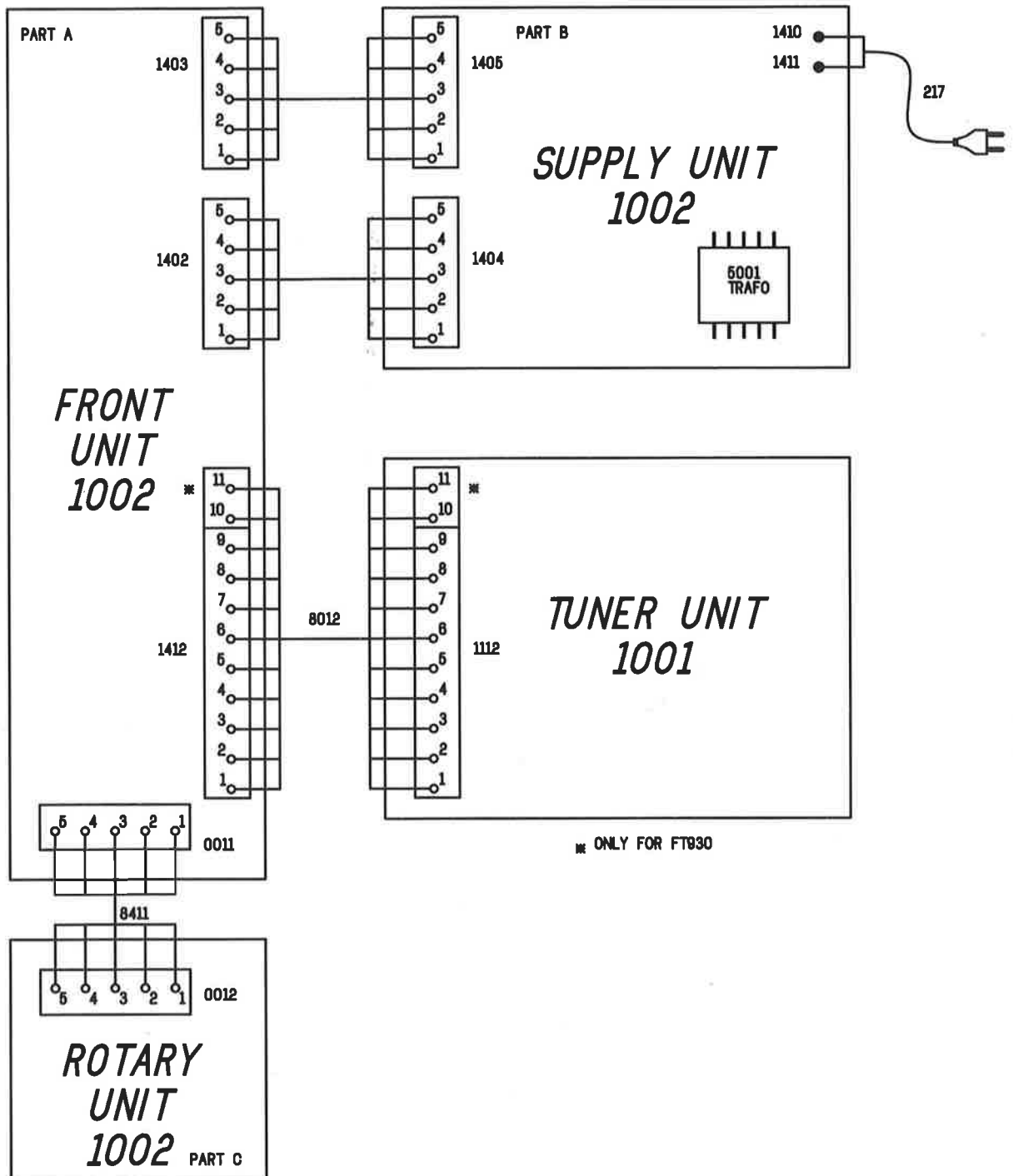


PIN NO	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNEC	F	F	N	N	P	P	P	P	P	P	P	N	N	N	N	N	11	10	9	8	7	6	5	4	3	2	1	N	N	N	N	N	N	P	P	P	P	P	P	P	P	N	N	F	F	1	

ANODE CONNECTION

	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1
P1	MEMORY	TIMER	EASY	POP	-	CLASSIC	INFO	CULTURE	OTHERS	TUNED	
P2	-	MUTING	a	a	-	a	a	a	a	-	-
P3	a		a	a	a	a	a	a	a	a	
P4	b	AM	b	b	b	b	b	b	b	b	
P5	c	LW	c	c	c	c	c	c	c	c	
P6	d	MW	d	d	d	d	d	d	d	d	
P7	e	-	e	e	e	e	e	e	e	e	MHz
P8	f	-	f	f	f	f	f	f	f	f	kHz
P9	g	-	g	g	g	g	g	g	g	g	STEREO
P10	a	NARROW	h	h	h	h	h	h	h	h	PRESET
P11	b	WIDE	j,p	j,p	j,p	j,p	j,p	j,p	j,p	j,p	FREQUENCY
P12	o	-	k	k	k	k	k	k	k	k	
P13	d	FM	m	m	m	m	m	m	m	m	LOW
P14	e	LOCAL	n	n	n	n	n	n	n	n	HIGH
P15	f	DISTANT	r	r	r	r	r	r	r	r	SENS
P16	g		t	t	t	t	t	t	t	t	R.D.S

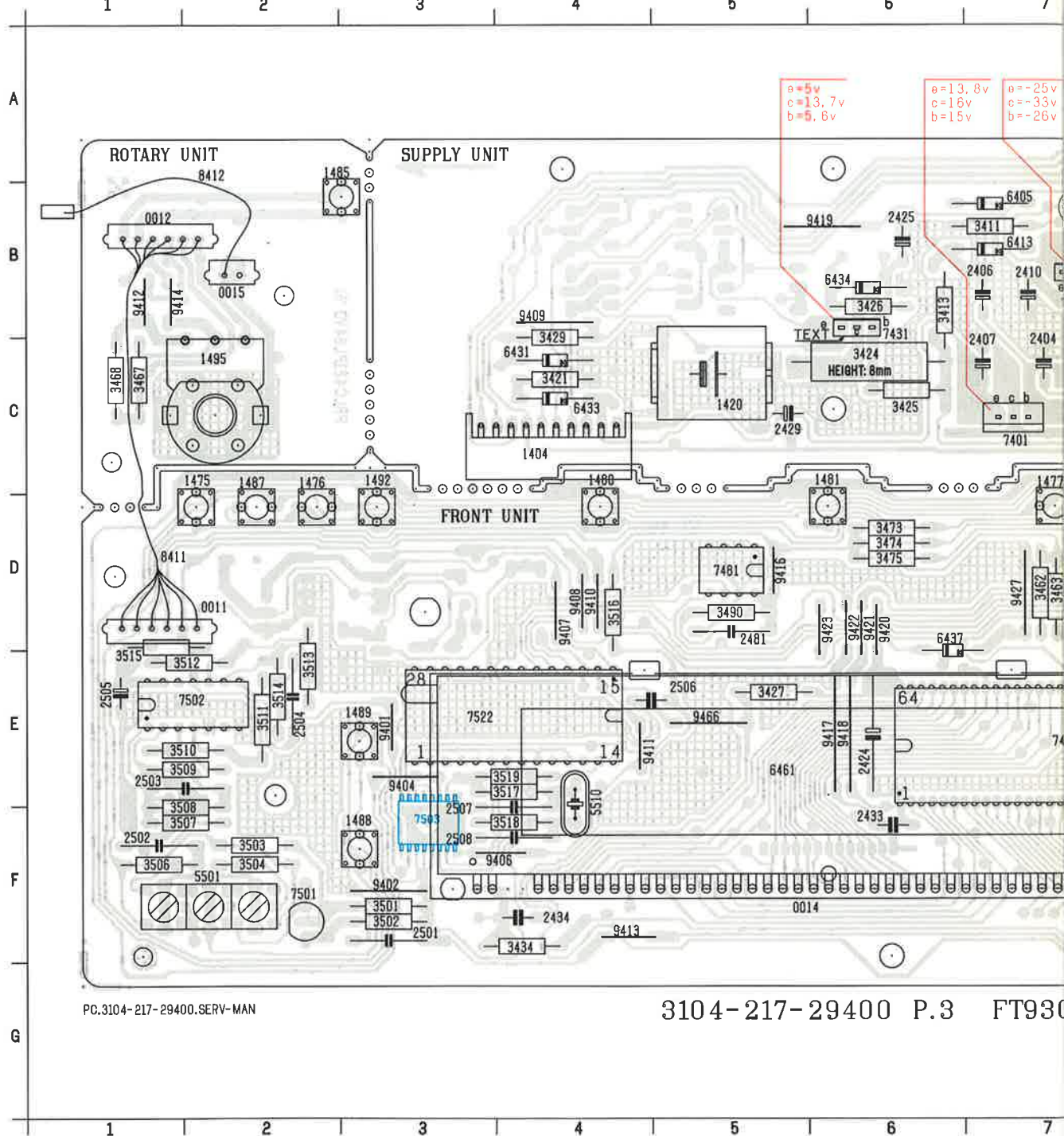
PC.3104-217-29401.SERV.ES-UNIT



9

4	47
1	
0	
1	

0011	D 2	1407	C12	1468	F11	1476	C 2	1484	C 9	1492	C 3	2407	C 7	2427	E11	2481	D 5	2506	E 5	3407	C 8	3421	C 4	3432	D10	3454	D 9	3466	F 9	3474	D 6	3482	F 9	3500
0012	B 1	1410	D12	1469	F12	1477	C 7	1485	A 2	1495	C 2	2408	B 9	2428	F 8	2491	D 8	2507	F 3	3408	B 8	3424	C 6	3433	F 8	3455	D 9	3467	C 1	3475	D 6	3483	F 9	3501
0014	F 5	1412	F10	1470	F12	1478	C10	1486	C 9	2401	C 9	2409	B 8	2429	C 5	2492	D 8	2508	F 3	3409	B 8	3425	C 6	3434	F 4	3456	D 9	3468	C 1	3476	E13	3484	D 7	3502
0015	B 2	1420	C 5	1471	F11	1479	F 9	1487	C 2	2402	B 9	2410	B 7	2430	E11	2501	F 3	3402	C 9	3410	B 8	3426	B 6	3435	F 8	3457	B12	3469	F13	3477	E13	3485	D 7	3503
1401	D12	1421	C11	1472	E12	1480	C 4	1488	F 3	2403	C 9	2411	B12	2433	F 6	2502	F 1	3403	B 8	3411	B 7	3427	E 5	3441	B12	3462	D 7	3470	F13	3478	F13	3490	D 5	3504
1402	E10	1465	E12	1473	E12	1481	C 6	1489	E 3	2404	C 7	2424	E 6	2434	F 4	2503	E 1	3404	B 8	3413	B 6	3428	E11	3451	D 9	3463	D 7	3471	E12	3479	F13	3501	F 3	3505
1404	C 4	1466	F12	1474	E11	1482	D11	1490	E 9	2405	C 8	2425	B 6	2435	F 8	2504	E 2	3405	C 8	3414	C 8	3429	C 4	3452	D 9	3464	F 9	3472	E12	3480	F 9	3502	F 3	3506
1406	B13	1467	F12	1475	C 2	1483	E12	1491	C 8	2406	B 7	2426	F10	2456	B12	2505	E 1	3406	C 8	3420	E 9	3431	D10	3453	D 9	3465	F 9	3473	D 6	3481	F 9	3503	F 2	3507



4	F	2	3513	E	2	5492	F	7	6407	B	8	6432	E	10	7402	B	7	7471	E	7	9405	E	10	9413	F	4	9422	D	6	9434	D	8	9442	E	10	9450	E	11	9459	C	12
6	F	1	3514	E	2	5501	F	2	6408	B	10	6433	C	4	7413	B	7	7481	D	5	9406	F	4	9414	B	2	9423	D	6	9435	D	9	9443	F	10	9451	B	11	9460	C	13
7	F	2	3515	E	1	5510	E	4	6409	B	10	6434	B	6	7431	B	6	7501	F	2	9407	D	4	9416	D	5	9427	D	7	9436	D	9	9444	E	10	9452	E	11	9466	E	5
8	F	2	3516	D	4	6401	C	10	6410	B	8	6435	D	10	7432	F	11	7502	E	2	9408	D	4	9417	E	6	9428	D	8	9437	E	9	9445	F	11	9453	E	11			
9	E	2	3517	E	4	6402	C	10	6411	B	12	6436	D	10	7434	E	9	9401	E	3	9410	D	4	9418	B	6	9429	D	8	9438	E	9	9446	F	11	9454	F	11			
0	E	2	3518	F	4	6403	B	10	6413	B	7	6437	D	6	7435	E	9	9401	E	3	9410	D	4	9419	B	6	9430	D	8	9439	F	9	9447	C	12	9455	F	11			
1	E	2	3519	E	4	6405	B	7	6430	E	10	6461	E	5	7451	E	10	9402	F	3	9411	E	5	9420	D	6	9432	D	8	9440	D	10	9448	F	11	9456	F	11			
2	E	2	5491	D	8	6406	C	10	6431	C	4	7401	C	7	7452	D	10	9404	E	3	9412	B	1	9421	D	6	9433	F	8	9441	F	10	9449	E	11	9457	F	11			

8

9

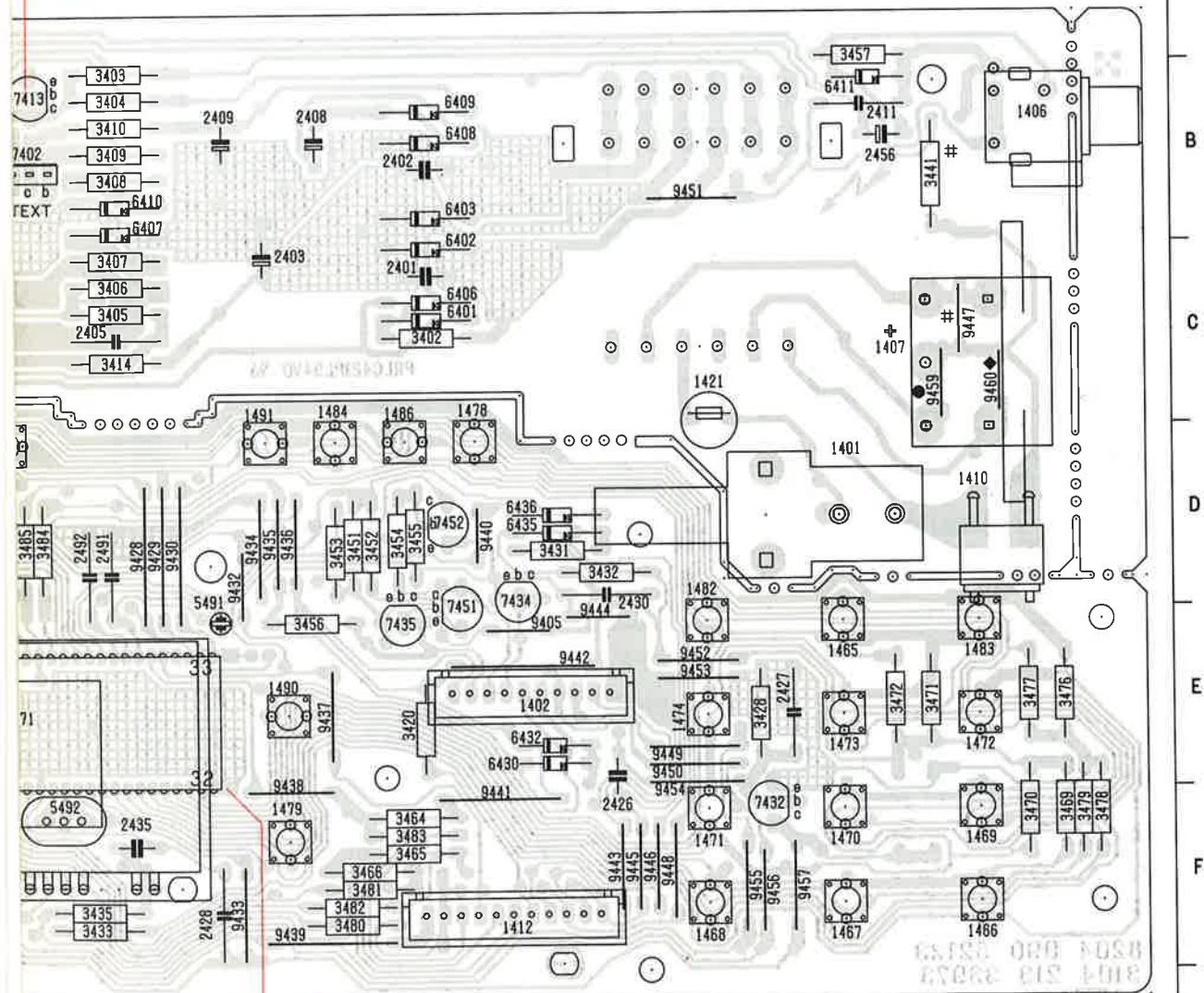
10

11

12

13

a = -20v
c = -19v
b = -20v



A

B

C

D

E

F

G

● ONLY FOR /05
+ ONLY FOR /01
ONLY FOR /17
◆ ONLY FOR /00

8

9

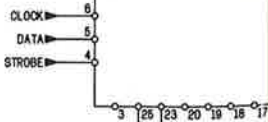
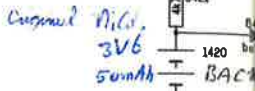
10

11

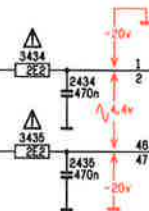
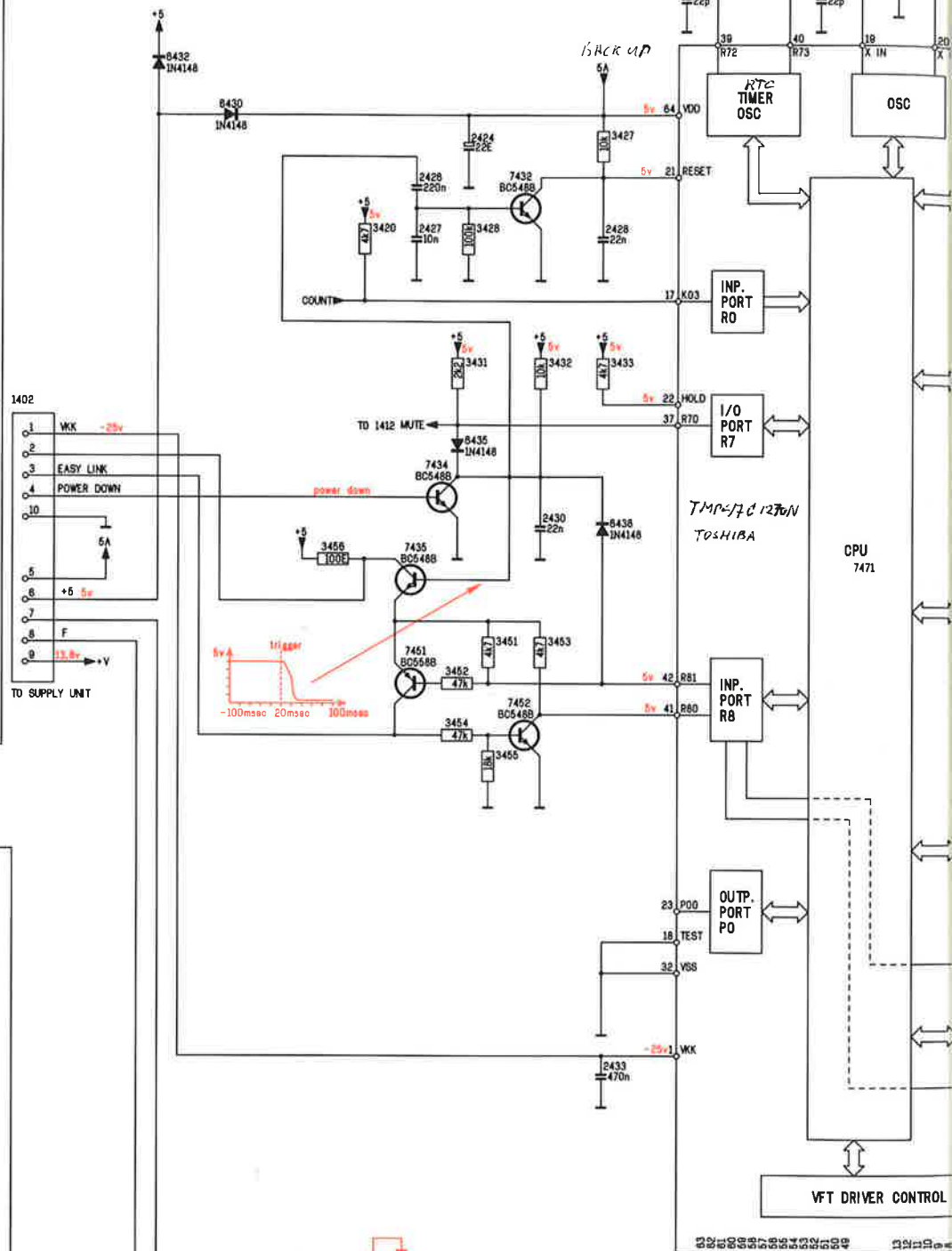
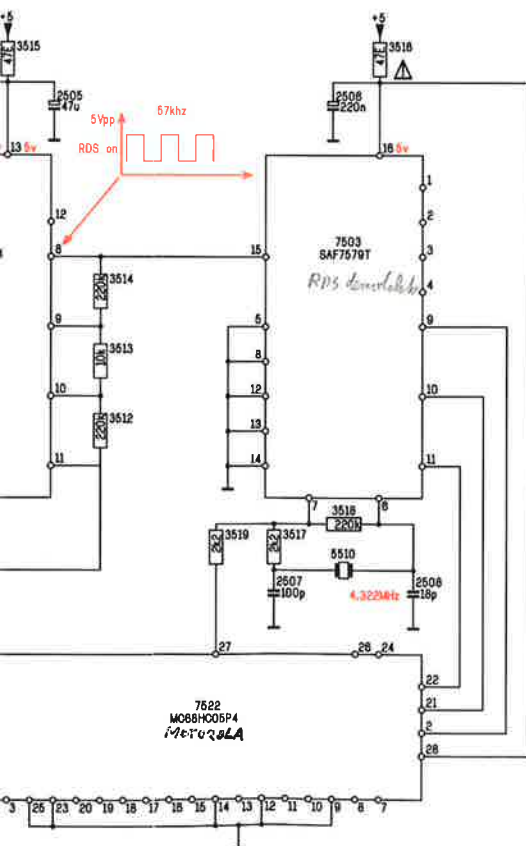
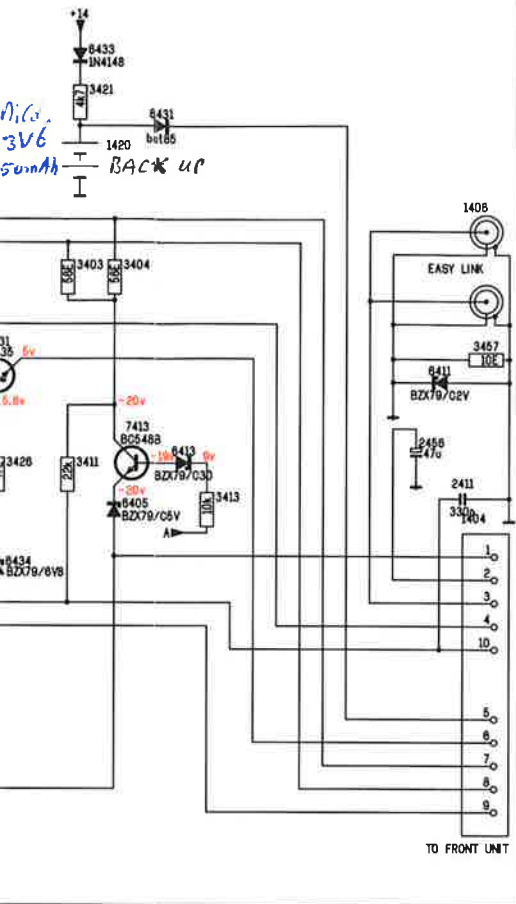
12

13

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q



FRONT UNIT



MUTING MEMORY EASY. POP. CLASSIC. INFO. CUI

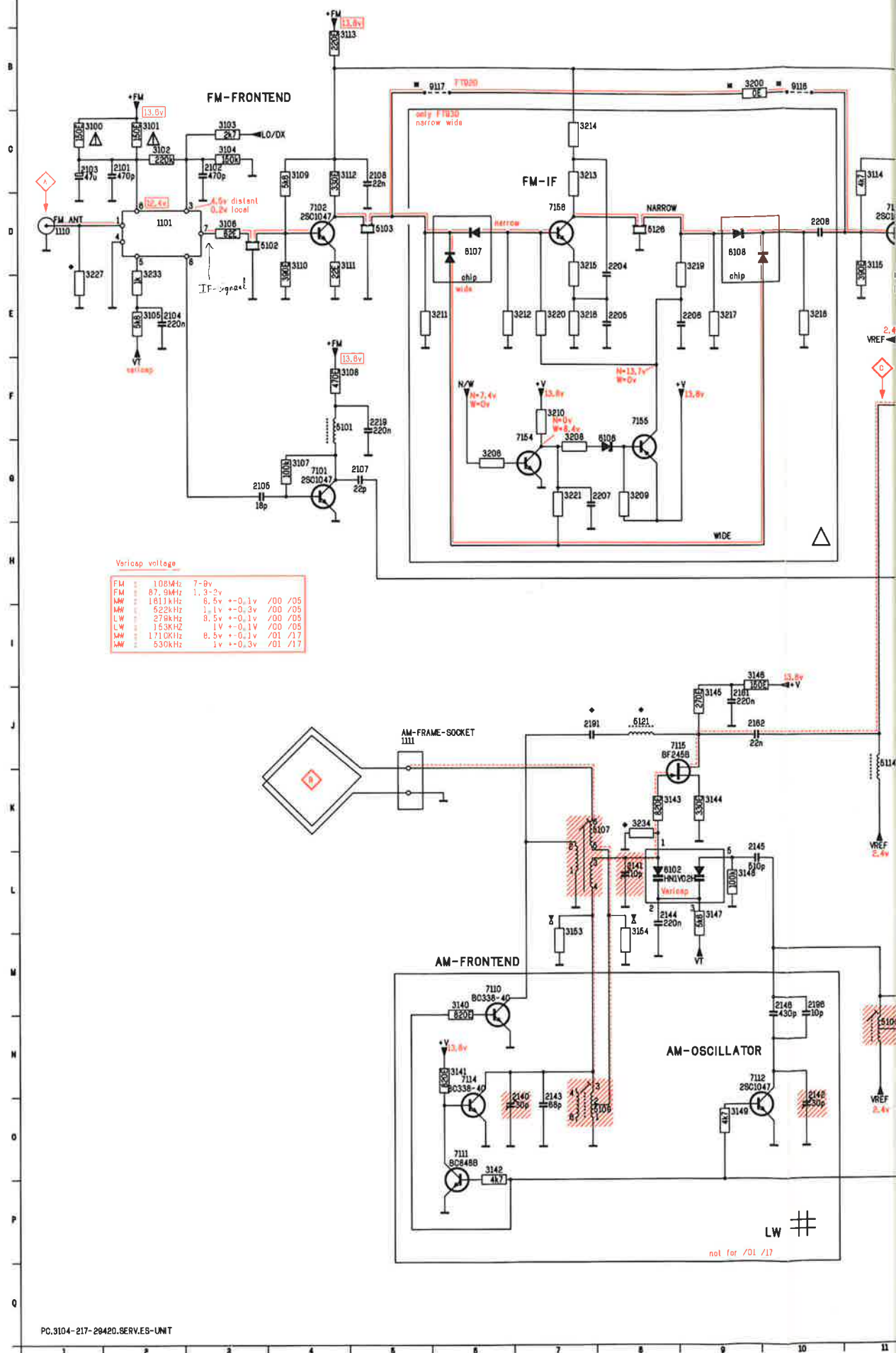
TIMER MW AM LW FM

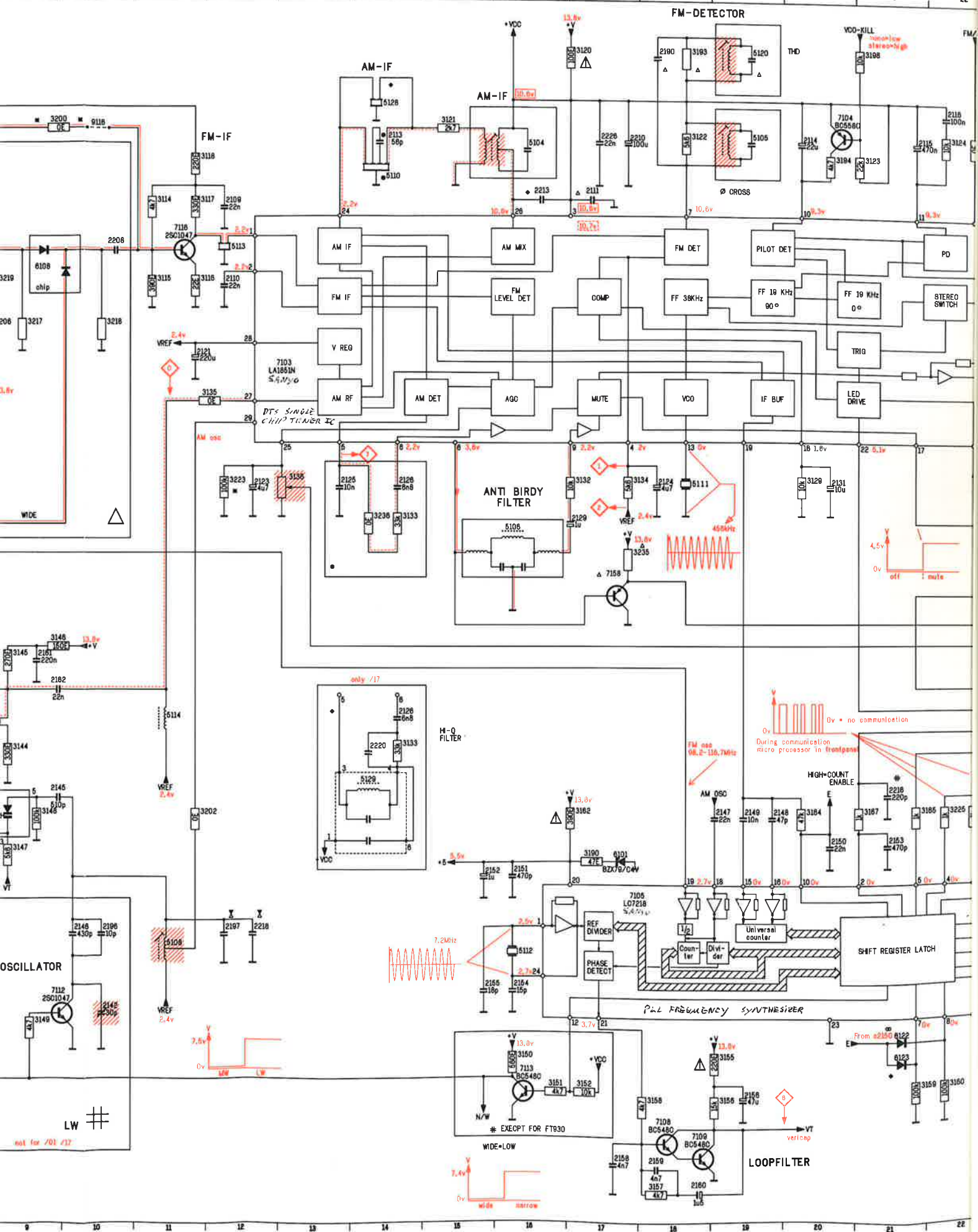
LOCAL DISTANT NARROW WIDE STEREO HIGH SENS LO

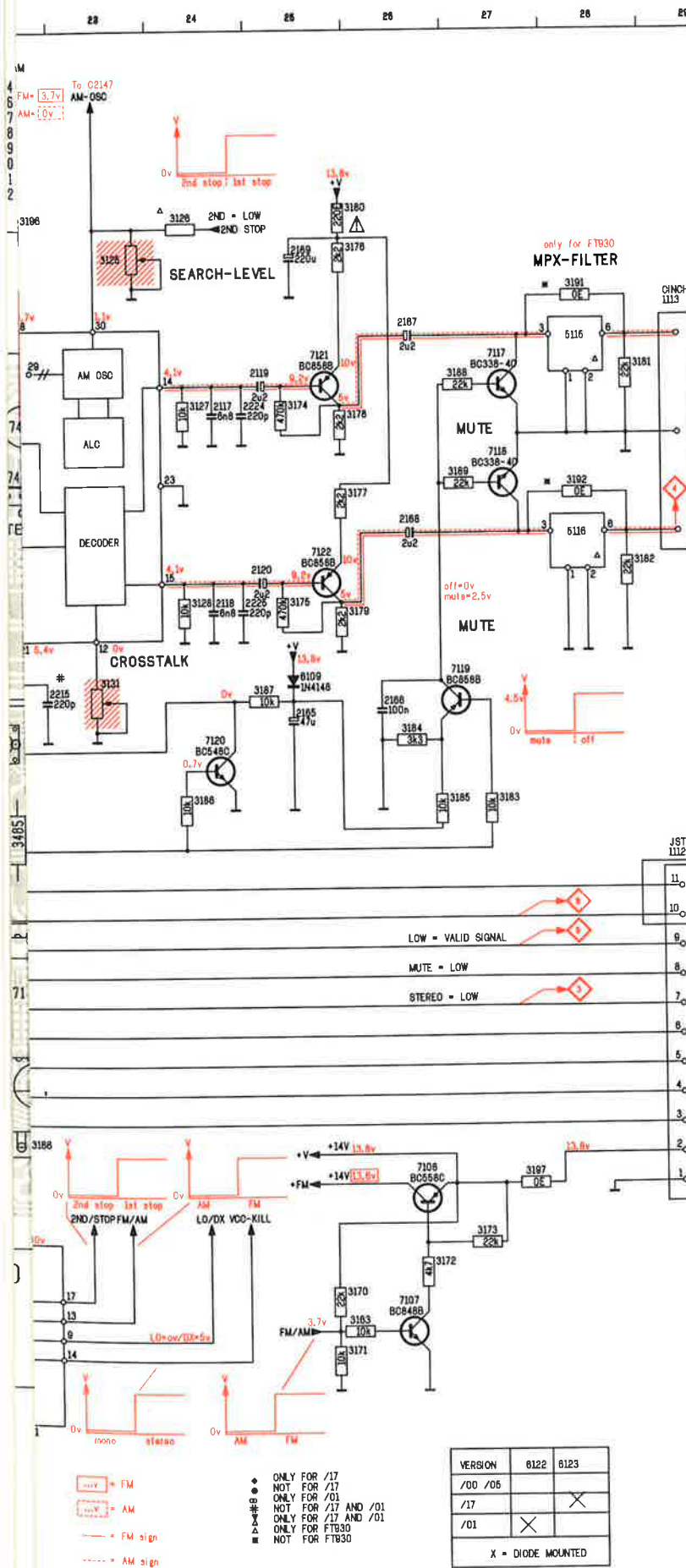


IF-filter na frontend: 5102 4822 242 81194
 5103 4822 242 81194
 allow narrow → 5126 4822 242 81194
 5113 4822 242 81194

TUNER UNIT



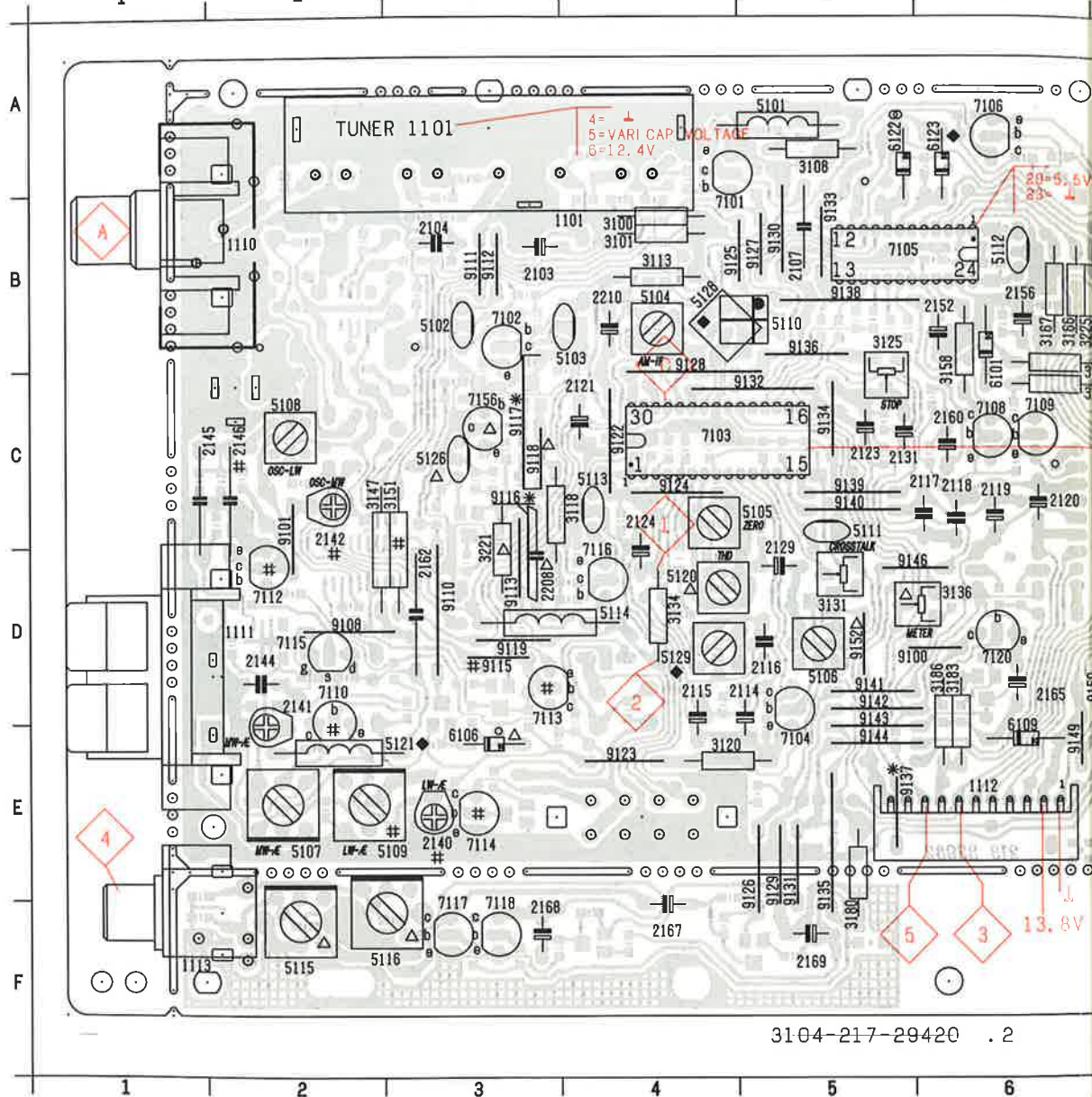




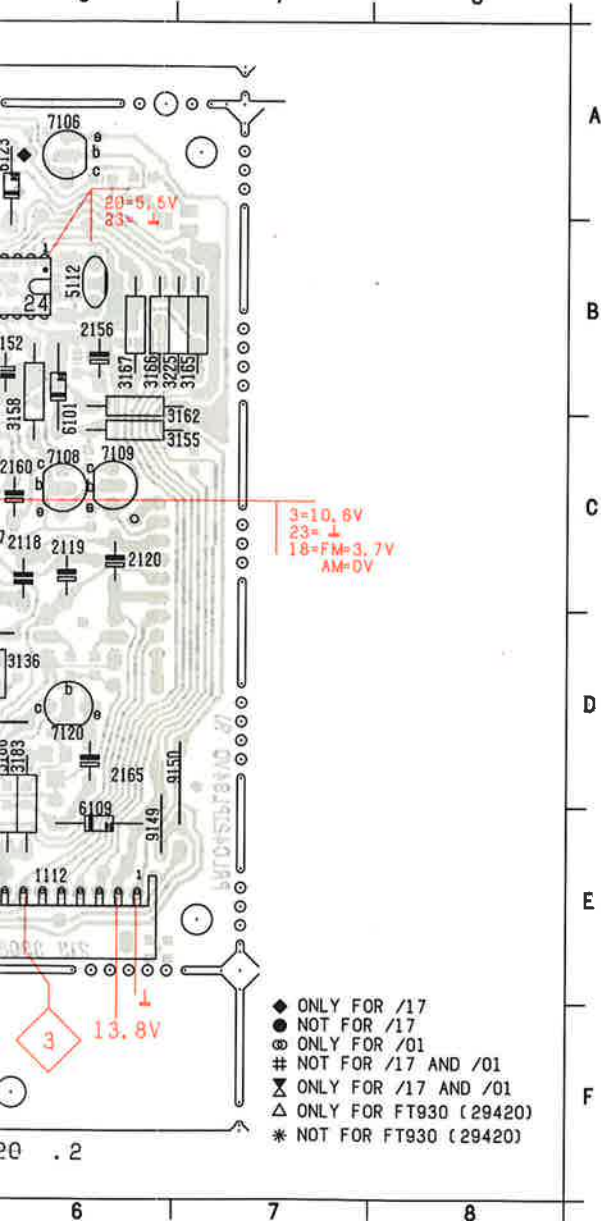
1101	D 2	3196	B22
2101	C 2	3197	L27
2102	C 3	3198	R21
2103	C 1	3200	B 9
2104	E 2	3202	L11
2105	G 3	3206	D 6
2107	O 5	3208	F 7
2108	C 5	3209	D 8
2109	C12	3210	F 7
2110	D12	3211	E 5
2111	C17	3212	E 6
2113	B14	3213	C 7
2114	B20	3214	C 7
2115	B21	3215	D 7
2116	B22	3216	E 7
2117	D24	3217	E 9
2118	F24	3218	E10
2119	D25	3219	O 9
2120	F25	3220	E 7
2121	E11	3221	G 7
2123	D12	3223	D12
2124	D16	3225	L22
2125	D13	3227	D 1
2126	G14	3233	D 2
2126	J14	3234	K 8
2129	H16	3235	H17
2131	G20	3236	H14
2140	N 6	5101	F 4
2141	L 8	5102	D 3
2142	N10	5103	D 5
2143	N 7	5104	B16
2144	L 6	5105	B19
2145	K 9	5106	H16
2146	N10	5107	K 7
2147	L18	5108	M11
2148	L19	5109	O 7
2149	L19	5110	C14
2150	L20	5111	O18
2151	N16	5112	N16
2152	N15	5113	D12
2153	L21	5114	J11
2154	N16	5115	D28
2155	N15	5116	F28
2158	P18	5120	R19
2158	Q17	5121	J 8
2159	Q18	5126	D 8
2160	Q18	5128	B14
2161	Q 9	5129	N14
2162	J 9	6101	L17
2165	D25	6102	L 8
2166	D26	6105	F 8
2167	C26	6107	D 6
2168	E26	6108	D 9
2169	C25	6109	D25
2190	R18	6122	D21
2191	J 7	6123	D21
2196	M10	7101	G 4
2197	M12	7102	D 4
2204	D 8	7103	F13
2205	E 8	7104	B20
2206	E 8	7105	M17
2207	G 7	7106	L26
2208	D10	7107	H26
2210	B17	7108	P18
2213	C16	7109	P18
2215	D22	7110	M 6
2216	K21	7111	O 6
2218	M12	7112	N 9
2219	F 5	7113	N 6
2220	K14	7114	N 6
2224	D24	7115	J 9
2225	F24	7116	D11
2226	B17	7117	D27
3100	C 1	7118	E27
3101	C 2	7119	D27
3102	C 2	7120	H24
3103	C 3	7121	D25
3104	C 3	7122	F25
3105	E 2	7154	F 7
3106	D 3	7155	F 8
3107	G 4	7156	O 7
3108	F 4	7158	H17
3109	C 4	9116	B10
3110	D 4	9117	B 6
3111	D 4		
3112	C 4		
3113	B 4		
3114	C11		
3115	D11		
3116	L11		
3117	C11		
3120	R17		
3121	B17		
3122	B19		
3123	C21		
3124	B22		
3125	C23		
3126	B24		
3127	D24		
3128	F24		
3129	D20		
3131	D23		
3132	D17		
3133	H14		
3134	K14		
3135	D17		
3136	F12		
3137	D13		
3140	H 6		
3141	N 6		
3142	O 6		
3143	K 8		
3144	K 9		
3145	J 9		
3146	L 9		
3147	L 9		
3148	L 9		
3149	O 9		
3150	O16		
3151	P16		
3152	P17		
3153	L 7		
3154	L 8		
3155	O19		
3156	P19		
3157	Q18		
3158	P18		
3159	P21		
3160	P22		
3162	L17		
3163	N26		
3164	L20		
3165	L21		
3166	L22		
3167	L21		
3170	N25		
3171	N25		
3172	M26		
3173	M27		
3174	D25		
3175	F25		
3176	C25		
3177	E25		
3178	D25		
3179	F25		
3180	B25		
3181	D28		
3182	F28		
3183	H27		
3184	H26		
3185	H26		
3186	H24		
3187	D25		
3188	D27		
3189	E27		
3190	L17		
3191	C28		
3192	E28		
3193	R18		
3194	C20		

2119, 2120, 2117 en 2168
vervangen door een 10k Condensator, MKT
1113 verguld

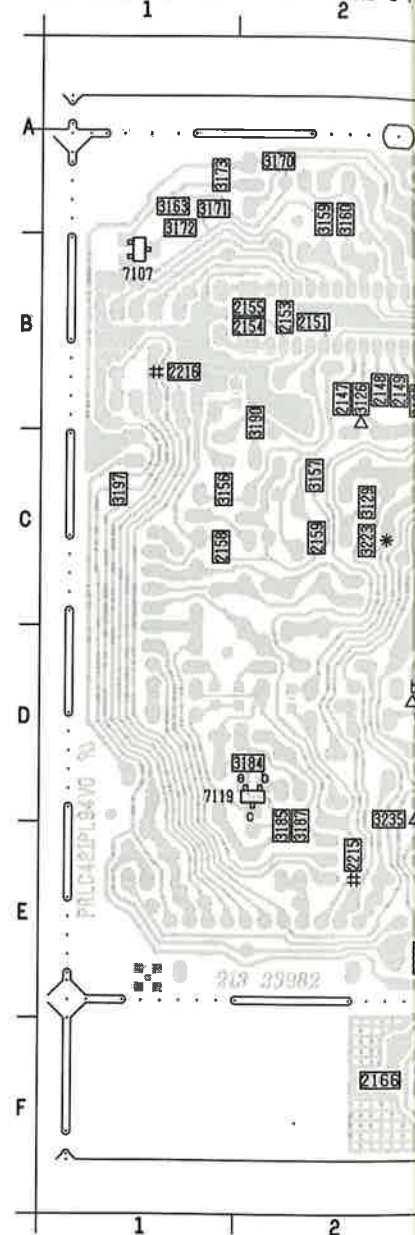
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1110	B 2	2115	D 4	2124	C 4	2146	C 2	2169	F 5	3120	E 4	3158	B 6	3221	C 3	5107	E 2	5115	F 2	6106	E 3	7105	B 5	7115	D 2	9108	D 2	9118	C 3	9128
1111	D 2	2116	D 5	2129	D 5	2152	B 6	2208	D 3	3125	B 5	3162	C 7	3225	B 7	5108	E 3	5116	F 3	6109	E 6	7106	B 6	7116	D 4	9110	D 3	9119	D 3	9129
1112	D 6	2117	C 6	2131	C 5	2156	B 6	2210	B 4	3131	D 5	3165	B 7	5101	A 5	5109	E 3	5120	D 4	6122	A 5	7108	C 6	7117	F 3	9111	B 3	9122	C 4	9130
1113	F 1	2118	C 6	2140	E 3	2160	C 6	3100	B 4	3134	D 4	3166	B 6	5102	B 3	5110	B 5	5121	E 3	6123	A 6	7109	C 6	7118	F 3	9112	B 3	9123	E 4	9131
2103	B 3	2119	C 6	2141	D 2	2162	D 3	3101	B 4	3136	D 6	3167	B 6	5103	B 4	5111	C 5	5126	C 3	7101	B 4	7110	D 2	7120	D 6	9113	D 3	9124	C 4	9132
2104	B 3	2120	C 6	2142	C 2	2165	D 6	3108	A 5	3147	C 2	3180	F 5	5104	B 4	5112	B 6	5128	B 4	7102	B 3	7112	D 2	7156	C 3	9115	D 3	9125	B 5	9133
2107	B 5	2121	C 4	2144	D 2	2167	F 4	3113	B 4	3151	C 3	3183	D 6	5105	C 5	5113	C 4	5129	D 4	7103	C 4	7113	D 3	9100	D 5	9116	C 3	9126	E 5	9134



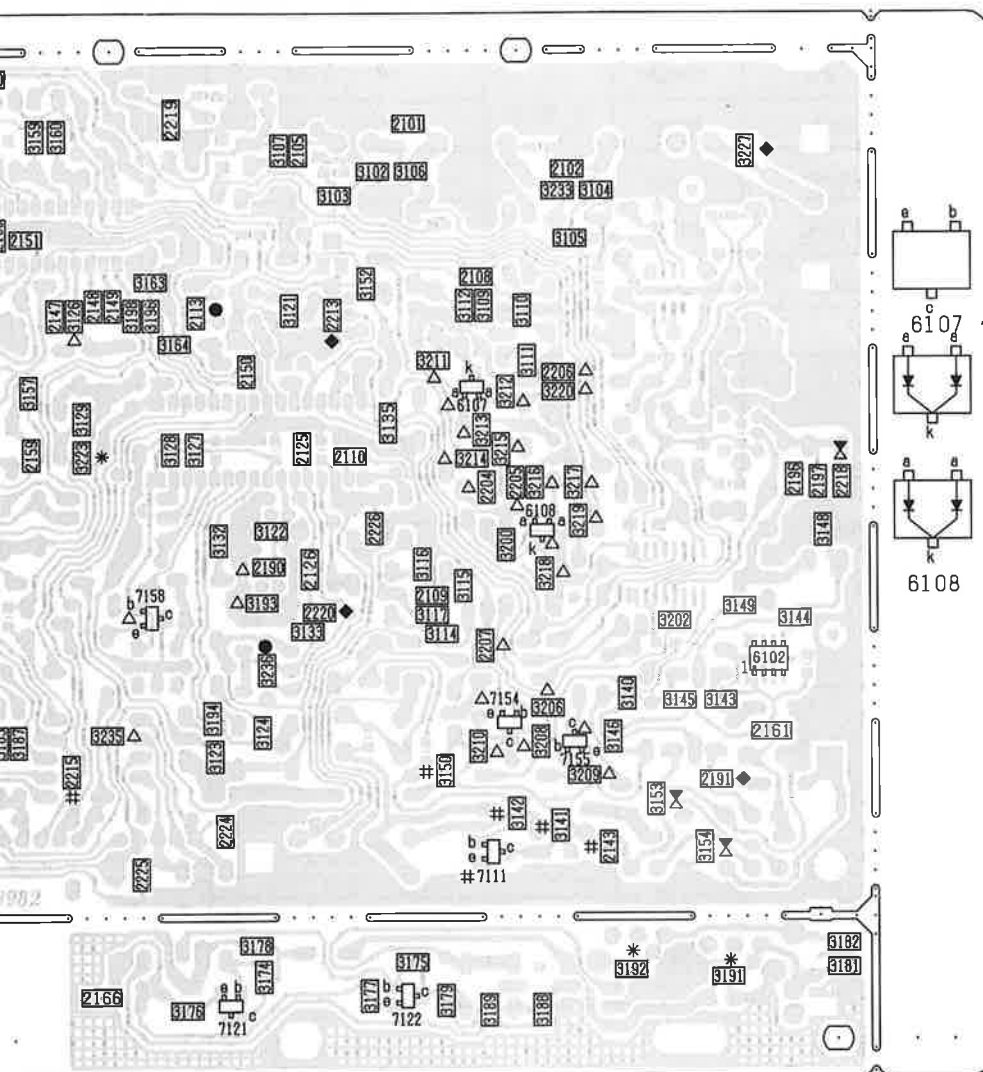
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00	D	3	9119	D	3	9129	E	5	9137	E	5	9146	D	5
01	B	3	9122	C	4	9130	B	5	9138	B	5	9149	E	6
02	B	3	9123	E	4	9131	E	5	9139	C	5	9150	D	7
03	D	3	9124	C	4	9132	C	5	9140	C	5	9152	D	5
05	D	3	9125	B	4	9133	B	5	9141	D	5			
06	C	3	9126	E	5	9134	C	5	9142	D	5			



2101	A	4	2126	D	3	2154	B	2	2196	C	6	2216	B	1
2102	B	5	2143	E	5	2155	B	2	2197	C	6	2218	C	6
2105	A	3	2147	B	2	2158	C	1	2204	C	4	2219	C	3
2108	B	4	2148	B	2	2159	C	2	2205	C	4	2220	D	3
2109	D	4	2149	B	2	2161	D	6	2206	C	5	2224	E	3
2110	C	4	2150	C	3	2166	F	2	2207	D	4	2225	E	2
2113	B	3	2151	B	2	2190	D	3	2213	B	3	2226	C	4
2125	C	3	2153	B	2	2191	E	5	2215	E	2	3102	B	4



6	C 6	2216	B 1	3103	B 3	3112	B 4	3124	D 3	3140	D 5	3149	D 6	3160	A 2	3174	F 3	3184	D 2	3193	D 3	3208	E 4	3216	C 4	3235	D 2	7121	F 3
7	C 6	2218	C 6	3104	B 5	3114	D 4	3126	B 2	3141	E 5	3150	E 4	3163	B 3	3175	F 4	3185	E 2	3194	D 3	3209	E 5	3217	C 5	3236	D 3	7122	F 4
4	C 4	2219	A 3	3105	B 5	3115	D 4	3127	C 3	3142	E 4	3152	E 5	3163	A 1	3176	F 3	3187	E 2	3196	B 3	3210	E 4	3218	D 5	6102	D 6	7154	D 4
5	C 4	2220	D 3	3106	B 4	3116	D 4	3128	C 3	3143	D 5	3153	E 5	3164	B 3	3177	F 4	3188	F 4	3197	C 1	3211	C 4	3219	C 5	6107	C 4	7155	E 5
6	C 5	2224	E 3	3107	A 3	3117	D 4	3129	C 2	3144	D 6	3154	E 5	3170	A 2	3178	F 3	3189	F 4	3198	B 2	3212	C 4	3220	C 5	6108	C 5	7158	D 3
7	D 4	2225	E 2	3109	B 4	3121	B 3	3132	C 3	3145	D 5	3156	C 2	3171	A 1	3179	F 4	3190	B 2	3200	D 4	3213	C 4	3223	C 2	7107	B 1		
3	B 3	2226	C 4	3110	B 4	3122	C 3	3133	D 3	3146	D 5	3157	C 2	3172	A 1	3181	F 6	3191	F 5	3202	D 5	3214	C 4	3227	B 6	7111	E 4		
5	E 2	3102	B 4	3111	C 4	3123	E 3	3135	C 4	3148	C 6	3159	A 2	3173	A 1	3182	F 6	3192	F 5	3206	D 5	3215	C 4	3233	B 5	7119	D 1		
		2				3					4						5					6					7		8

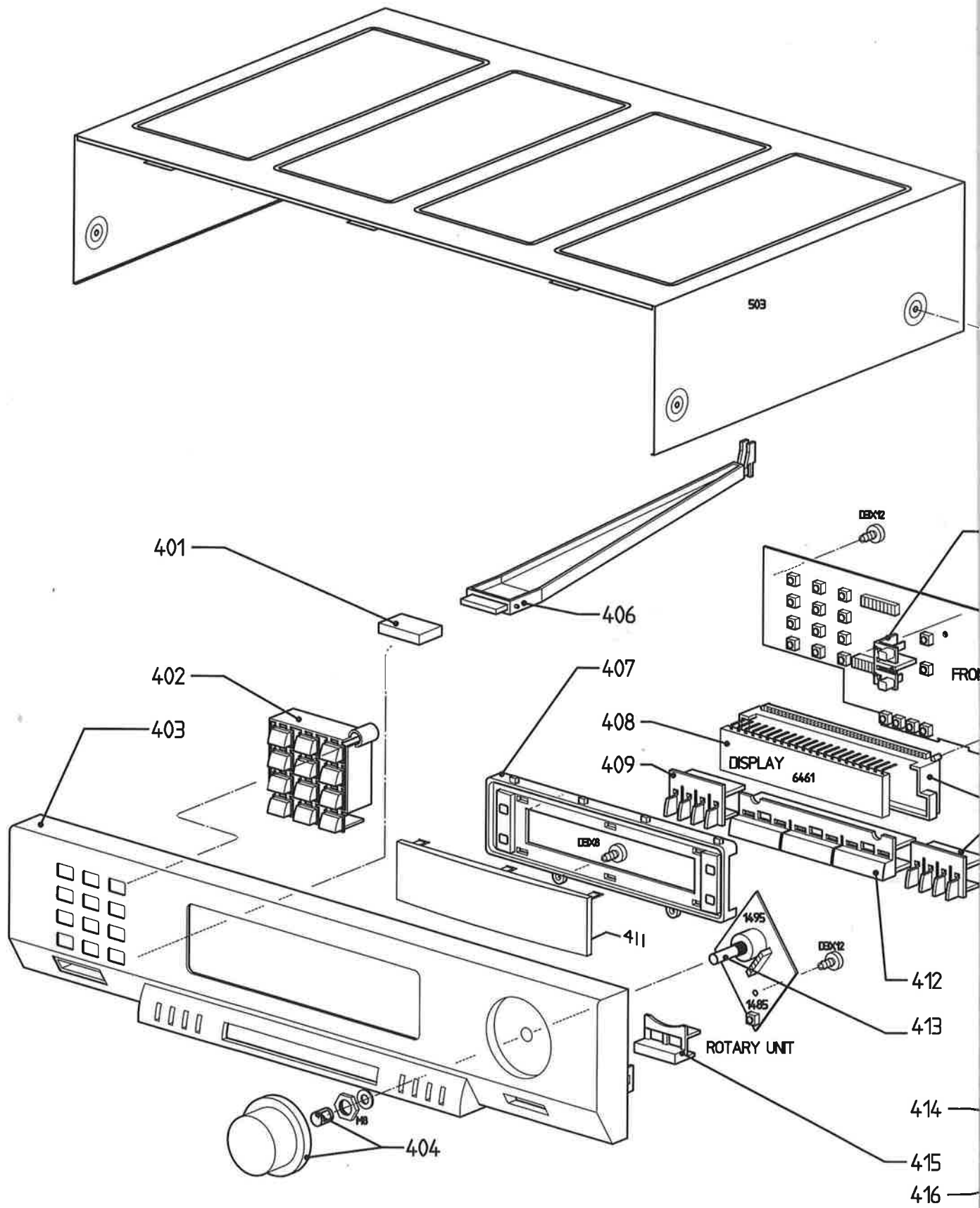


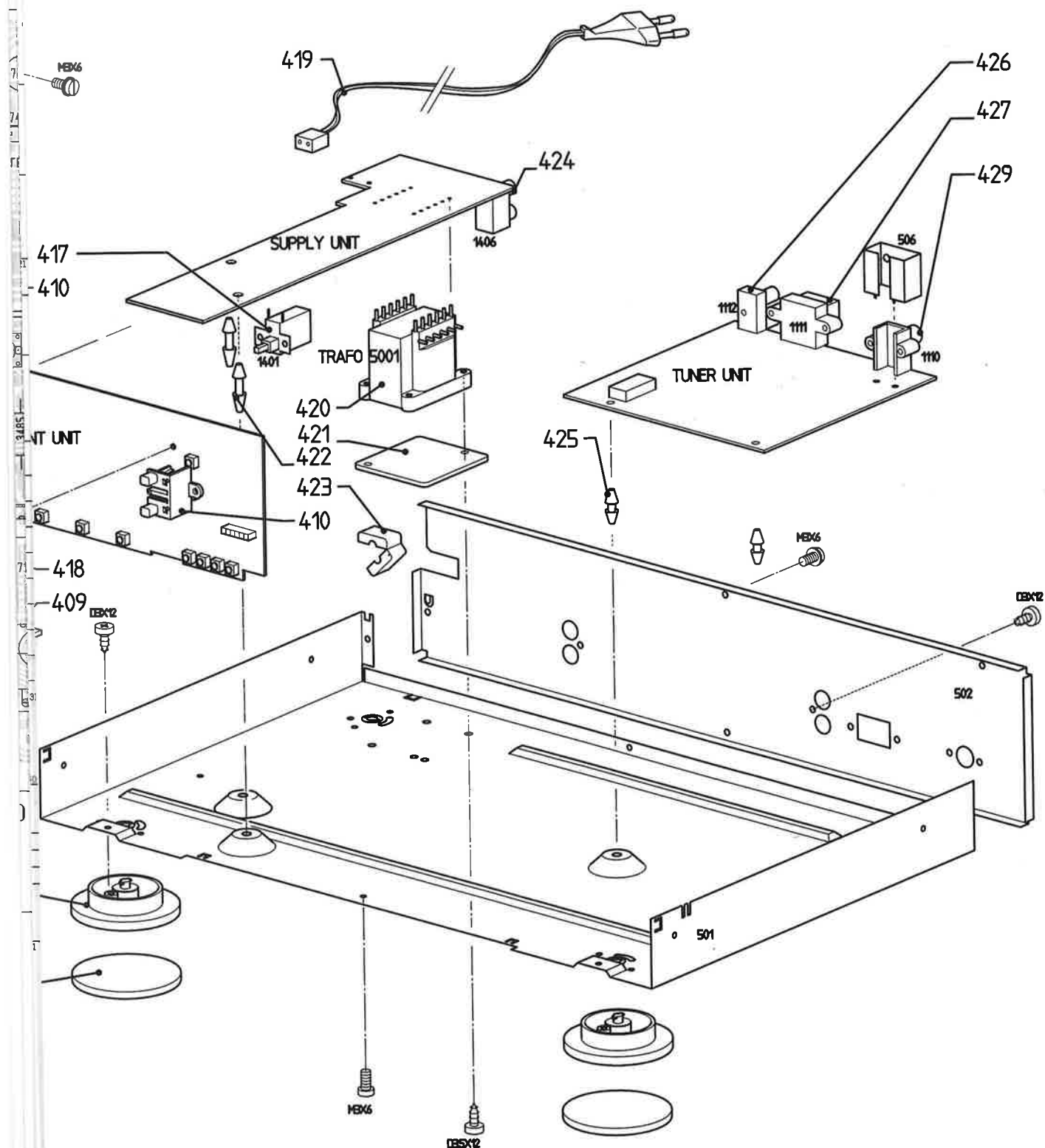
- ◆ ONLY FOR /17
- NOT FOR /17
- ⊗ ONLY FOR /01
- # NOT FOR /17 AND /01
- ⌵ ONLY FOR /17 AND /01
- △ ONLY FOR FT930 (29420)
- * NOT FOR FT930 (29420)

3104-217-29420 . 2

TUNER Adjustment table

Waverange	Input frequency	Input	Set tuned to	Adjust	Output	Scope / Voltmeter
VARICAP ALIGNMENT						
FM 87.5 - 108MHz			108 MHz	check	6	7....9V
			87.5MHz	check		1.3....2V
AM (2 band version) 530 - 1700kHz			1700kHz	5108		8.5V ± 0.1V
			530kHz	check		1V ± 0.3V
LW 153 - 279kHz			279kHz	5108		8.5V ± 0.1V
			153kHz	check		1V ± 0.1V
MW (3 band version) 522 - 1611kHz			1611kHz	2142		8.5V ± 0.1V
			522kHz	check		1.1V ± 0.3V
FM IF						
FM Wide on	98 MHz 1mVrf mod = 1kHz Δf = 75kHz	A	98MHz	5105	1 2	0V ± 20mV
				5120	4	min.distortion
				3136	8	2V
STEREO CROSTALK						
FM Wide on	98MHz 1mVrf 90% L + 9% pilot	A	98MHz	check	3	low < 1V
				3131	4	R min. out
SEARCH SENSITIVITY						
FM Wide on Scan sens low	98MHz 15μV mod = 1kHz Δf = 75kHz	A	98MHz	3125	5	Switches just from High to Low
AM - IF						
MW	1494kHz Δf = 10kHz low as posible		1494kHz	5104	7	symmetrical and max height
AM - RF						
MW mod= 1 kHz 30% AM	558kHz	B	558kHz	5107	7	MAX
	1494kHz		1494kHz	2141		MAX
MW only /01/17 mod= 1 kHz 30% AM	560kHz		560kHz	5107		MAX
	1600kHz		1600kHz	2141		MAX
LW mod= 1 kHz 30% AM	156kHz		156kHz	5109		MAX
	270kHz		270kHz	2140		MAX





MECHANICAL PARTS

401	4822 462 71808	POWER CAP
402	4822 410 61734	PRESET HINGE
403	4822 426 51534	FRONT
404	4822 413 51401	KNOB
406	4822 535 93289	POWER ROD
407	4822 426 51535	FRONT PIECE
408	4822 130 91104	FTD DISPLAY
409	4822 410 61882	NOSE HINGE SIDE
410	4822 410 61883	FEATURE HINGE
411	4822 450 61837	WINDOW
412	4822 410 61735	NOSE HINGE CENTRE
413	4822 413 51402	ROTARY ENCODER
414	4822 462 41888	FOOT
415	4822 410 61732	SELECT HINGE
416	4822 462 41887	FOOT FELT
417	4822 276 13231	POWER SWITCH
418	4822 256 91897	FTD HOLDER
419	4822 321 10791	CORD SET
420	4822 146 31056	MAINS TRAFO
421	4822 466 62112	TRAFO RUBBER
422	4822 532 52403	SPACER
423	4822 532 60948	BUSH
424	4822 265 20542	PIN JACK
425	4822 532 52404	SPACER
426	4822 265 20553	PIN JACK
427	4822 290 61066	PUSH TERMINAL
429	4822 210 10472	ANTENNE TERMINAL
	4822 736 21396	I.F.U FT930

MISCELLANEOUS

1020	4822 138 10317	BATTERY NICD
1101	4822 210 10474	FM TUNER MODULE
1110	4822 210 10472	ANTENNE TERMINAL
1111	4822 290 61066	PUSH TERMINAL
1113	4822 265 20553	PIN JACK
1401	4822 276 13231	POWER SWITCH
1406	4822 265 20542	PIN JACK
1407	4822 272 10302	VOLT SELECTOR/01S
1410	4822 267 31462	POWER CONNECTOR
1421	4822 071 51601	1FUSE 160MA
1465	4822 276 13114	TACT SWITCH
1466	4822 276 13114	TACT SWITCH
1467	4822 276 13114	TACT SWITCH
1468	4822 276 13114	TACT SWITCH
1469	4822 276 13114	TACT SWITCH
1470	4822 276 13114	TACT SWITCH
1471	4822 276 13114	TACT SWITCH
1472	4822 276 13114	TACT SWITCH
1473	4822 276 13114	TACT SWITCH
1474	4822 276 13114	TACT SWITCH
1475	4822 276 13114	TACT SWITCH
1476	4822 276 13114	TACT SWITCH
1477	4822 276 13213	TACT SWITCH
1478	4822 276 13114	TACT SWITCH
1479	4822 276 13114	TACT SWITCH
1480	4822 276 13213	TACT SWITCH
1481	4822 276 13213	TACT SWITCH
1482	4822 276 13114	TACT SWITCH
1483	4822 276 13114	TACT SWITCH
1484	4822 276 13114	TACT SWITCH
1485	4822 276 13213	TACT SWITCH
1486	4822 276 13114	TACT SWITCH
1487	4822 276 13114	TACT SWITCH
1488	4822 276 13114	TACT SWITCH
1489	4822 276 13114	TACT SWITCH
1490	4822 276 13114	TACT SWITCH
1491	4822 276 13213	TACT SWITCH
1492	4822 276 13114	TACT SWITCH
1495	4822 413 51402	ROTARY ENCODER

CAPACITORS

2101	5322 122 34099	470pF 10% 63V
2102	5322 122 34099	470pF 10% 63V
2103	4822 124 40433	47μF 20% 25V
2104	4822 121 42408	220nF 5% 63V
2105	5322 122 32965	18pF 5%NPO 50V
2107	4822 122 31385	22pF 50V

2108	5322 122 32654	22nF 10% 63V
2109	5322 122 32654	22nF 10% 63V
2110	5322 122 32654	22nF 10% 63V
2113	5322 122 32661	56pF 5% 50V
2114	5322 124 41431	22μF 20% 35V
2115	4822 124 40239	0,47μF 20% 63V
2116	5322 121 42386	100nF 5% 63V
2117	4822 121 51093	6,8nF 5% 250V
2118	4822 121 51093	6,8nF 5% 250V
2119	4822 124 40244	2,2μF 20% 63V
2120	4822 124 40244	2,2μF 20% 63V
2121	4822 124 40196	220μF 20% 16V
2123	4822 124 40246	4,7μF 20% 63V
2124	4822 124 40246	4,7μF 20% 63V
2125	4822 122 33177	10nF 20% 50V
2126	4822 122 32597	6,8nF 10% 63V
2129	4822 124 40242	1μF 20% 63V
2131	4822 124 40435	10μF 20% 50V
2140	4822 125 60102	30 pF
2141	4822 125 60101	10 pF
2142	4822 125 60102	30 pF
2143	5322 122 32269	6,8pF 5% 50V
2144	4822 121 42408	220nF 5% 63V
2145	4822 121 51263	510pF 1% 400V
2145	4822 121 51381	PP 560P 400V /01
2146	4822 121 70082	430pF 1% 400V
2147	5322 122 32654	22nF 10% 63V
2148	5322 122 32452	47pF 5% 50V
2149	4822 122 33177	10nF 20% 50V
2150	5322 122 32654	22nF 10% 63V
2151	5322 122 34099	470pF 10% 63V
2152	4822 124 40242	1μF 20% 63V
2153	5322 122 34099	470pF 10% 63V
2154	5322 122 32481	15pF 5% 50V
2155	5322 122 32965	18pF 5%NPO 50V
2156	4822 124 40433	47μF 20% 25V
2158	5322 126 10223	4,7nF 10% 63V
2159	5322 126 10223	4,7nF 10% 63V
2160	4822 124 41631	1,5μF 50V
2161	4822 122 32927	220nF
2162	4822 122 10166	22nF 30% 16V
2165	4822 124 40433	47μF 20% 25V
2166	4822 122 33496	100nF 10% 63V
2167	4822 124 40244	2,2μF 20% 63V
2168	4822 124 40244	2,2μF 20% 63V
2169	4822 124 40196	220μF 20% 16V
2190	5322 126 10343	1,8pF 5% 63V
2196	5322 122 32448	10pF 5% 50V
2197	4822 122 33804	CHIP 27pF /01
2204	5322 122 32654	22nF 10% 63V
2205	5322 122 32654	22nF 10% 63V
2206	5322 122 32654	22nF 10% 63V

2207	5322 122 32654	22nF 10% 63V	3105	4822 051 20562	5k6 5% 0,1W
2208	4822 122 10177	10nF 20% 25V	3106	4822 051 20829	82Ω 5% 0,1W
2210	4822 124 41643	100μF 20% 16V	3107	4822 051 20104	100k 5% 0,1W
2215	4822 122 32575	220pF 10% 500V	3108	4822 116 52224	470Ω 5% 0,5W
			3109	4822 051 20562	5k6 5% 0,1W
2216	4822 122 32575	220pF 10% 500V			
2219	4822 122 32927	220nF	3110	4822 051 20391	390Ω 5% 0,1W
2224	4822 122 32575	220pF 10% 500V	3111	4822 051 20688	6Ω8 5% 0,1W
2225	4822 122 32575	220pF 10% 500V	3112	4822 051 20331	330Ω 5% 0,1W
2226	5322 122 32654	22nF 10% 63V	3113	4822 050 14709	47Ω 1% 0,4W
			3114	4822 051 20472	4k7 5% 0,1W
2401	4822 121 43526	47nF 5% 100V			
2402	4822 121 43526	47nF 5% 100V	3115	4822 051 20391	390Ω 5% 0,1W
2403	4822 124 21511	2200μF 20% 25V	3116	4822 051 20688	6Ω8 5% 0,1W
2404	4822 124 41525	100μF 20% 25V	3117	4822 051 20331	330Ω 5% 0,1W
2405	4822 122 10158	1nF 10% 50V	3118	4822 050 22201	220Ω 1% 0,6W
			3120	4822 053 10101	100Ω 5% 1W
2406	4822 124 40433	47μF 20% 25V			
2407	4822 124 40433	47μF 20% 25V	3121	4822 051 20272	2k7 5% 0,1W
2408	5322 124 22094	220μF 20% 50V	3122	4822 051 20562	5k6 5% 0,1W
2409	5322 124 22094	220μF 20% 50V	3123	4822 051 20223	22k 5% 0,1W
2410	4822 124 22427	47μF 20% 35V	3124	4822 051 20103	10k 5% 0,1W
			3125	4822 100 11392	47k LIN.
2411	4822 122 33196	330pF 10% 50V			
2424	5322 124 21643	22μF 20% 40V	3126	4822 051 20123	12k 5% 0,1W
2425	4822 124 40435	10μF 20% 50V	3127	4822 051 20103	10k 5% 0,1W
2426	4822 121 42408	220nF 5% 63V	3128	4822 051 20103	10k 5% 0,1W
2427	4822 122 10177	10nF 20% 25V	3129	4822 051 20103	10k 5% 0,1W
			3131	4822 100 11319	4k7
2428	4822 122 10166	22nF 30% 16V			
2429	4822 124 41576	2,2μF 20% 50V	3132	4822 051 20103	10k 5% 0,1W
2430	4822 122 10166	22nF 30% 16V	3133	4822 051 20333	33k 5% 0,1W
2433	4822 121 51252	470nF 5% 63V	3134	4822 050 15602	5k6 1% 0,4W
2434	4822 121 51252	470nF 5% 63V	3135	4822 051 10008	0Ω 5% 0,25W
			3136	4822 100 11163	100k 30%LIN 0,1W
2435	4822 121 51252	470nF 5% 63V			
2456	4822 124 40177	47μF 20% 10V	3140	4822 051 20821	820Ω 5% 0,1W
2481	4822 122 10166	22nF 30% 16V	3141	4822 051 20821	820Ω 5% 0,1W
2491	4822 122 31385	22pF 50V	3142	4822 051 20472	4k7 5% 0,1W
2492	4822 122 31385	22pF 50V	3143	4822 051 20821	820Ω 5% 0,1W
			3144	4822 051 20331	330Ω 5% 0,1W
2501	4822 122 10177	10nF 20% 25V			
2502	4822 122 10158	1nF 10% 50V	3145	4822 051 20271	270Ω 5% 0,1W
2503	4822 122 10168	10pF 5% 50V	3146	4822 051 20151	150Ω 5% 0,1W
2504	4822 122 10158	1nF 10% 50V	3147	4822 050 15602	5k6 1% 0,4W
2505	4822 124 40433	47μF 20% 25V	3148	4822 051 20104	100k 5% 0,1W
			3149	4822 051 20472	4k7 5% 0,1W
2506	4822 121 42408	220nF 5% 63V			
2507	4822 122 10183	100pF 5% 50V	3150	4822 051 20561	560Ω 5% 0,1W
2508	4822 122 31553		3151	4822 050 24702	4k7 1% 0,6W
			3152	4822 051 20103	10k 5% 0,1W
			3153	4822 051 20008	JUMPER 0Ω /01
			3154	4822 051 20008	JUMPER 0Ω /01
RESISTORS					
3100	4822 050 21501	150Ω 1% 0,6W	3155	4822 050 22201	220Ω 1% 0,6W
3101	4822 050 21501	150Ω 1% 0,6W	3156	4822 051 20153	15k 5% 0,1W
3102	4822 051 20224	220k 5% 0,1W	3157	4822 051 20472	4k7 5% 0,1W
3103	4822 051 20008	0Ω 5% 0,1W	3158	4822 050 24702	4k7 1% 0,6W
3104	4822 051 20154	150k 5% 0,1W	3159	4822 051 20104	100k 5% 0,1W
			3160	4822 051 20104	100k 5% 0,1W
			3162	4822 050 23901	390Ω 1% 0,6W

3163	4822 051 20103	10k 5% 0,1W
3164	4822 051 20473	47k 5% 0,1W
3165	4822 050 21002	1k 1% 0,6W
3166	4822 050 21002	1k 1% 0,6W
3167	4822 050 21002	1k 1% 0,6W
3170	4822 051 20223	22k 5% 0,1W
3171	4822 051 20103	10k 5% 0,1W
3172	4822 051 20472	4k7 5% 0,1W
3173	4822 051 20223	22k 5% 0,1W
3174	4822 051 20474	470k 5% 0,1W
3175	4822 051 20474	470k 5% 0,1W
3176	4822 051 20122	1k2 5% 0,1W
3177	4822 051 20122	1k2 5% 0,1W
3177	4822 051 10102	CHIP 1k /01
3178	4822 051 20222	2k2 5% 0,1W
3179	4822 051 20222	2k2 5% 0,1W
3180	4822 050 22201	220Ω 1% 0,6W
3181	4822 051 20472	4k7 5% 0,1W
3182	4822 051 20472	4k7 5% 0,1W
3183	4822 050 21003	10k 1% 0,6W
3184	4822 051 20332	3k3 5% 0,1W
3185	4822 051 20103	10k 5% 0,1W
3186	4822 050 21003	10k 1% 0,6W
3187	4822 051 20103	10k 5% 0,1W
3188	4822 051 20223	22k 5% 0,1W
3189	4822 051 20223	22k 5% 0,1W
3190	4822 051 20479	47Ω 5% 0,1W
3193	4822 051 20472	4k7 5% 0,1W
3194	4822 051 20472	4k7 5% 0,1W
3196	4822 051 20008	0Ω 5% 0,1W
3197	4822 051 20008	0Ω 5% 0,1W
3198	4822 051 20103	10k 5% 0,1W
3202	4822 051 20008	0Ω 5% 0,1W
3206	4822 051 20103	10k 5% 0,1W
3208	4822 051 20472	4k7 5% 0,1W
3209	4822 051 20473	47k 5% 0,1W
3210	4822 051 10102	1k 2% 0,25W
3211	4822 051 10102	1k 2% 0,25W
3212	4822 051 10102	1k 2% 0,25W
3213	4822 051 20331	330Ω 5% 0,1W
3214	4822 051 20331	330Ω 5% 0,1W
3215	4822 051 20229	22Ω 5% 0,1W
3216	4822 051 10102	1k 2% 0,25W
3217	4822 051 10102	1k 2% 0,25W
3218	4822 051 10102	1k 2% 0,25W
3219	4822 051 10102	1k 2% 0,25W
3220	4822 051 10102	1k 2% 0,25W
3221	4822 050 21002	1k 1% 0,6W
3225	4822 050 21002	1k 1% 0,6W
3233	4822 051 10102	1k 2% 0,25W
3235	4822 051 20123	12k 5% 0,1W
3236	4822 051 20008	0Ω 5% 0,1W
3402	4822 050 22203	22k 1% 0,6W

3403	4822 116 52197	56Ω 5% 0,5W
3404	4822 116 52197	56Ω 5% 0,5W
3405	4822 116 52224	470Ω 5% 0,5W
3406	4822 050 23301	330Ω 1% 0,6W
3407	4822 052 10479	47Ω 5% 0,33W
3408	4822 052 10479	47Ω 5% 0,33W
3409	4822 050 24702	4k7 1% 0,6W
3410	4822 052 10101	100Ω 5% 0,33W
3411	4822 050 22203	22k 1% 0,6W
3413	4822 050 21003	10k 1% 0,6W
3414	4822 052 10478	4Ω7 5% 0,33W
3420	4822 050 24702	4k7 1% 0,6W
3421	4822 050 24702	4k7 1% 0,6W
3421	4822 050 22002	MET FLMRST 2k /01
3424	4822 053 12151	150Ω 5% 3W
3425	4822 050 22202	2k2 1% 0,6W
3426	4822 052 10479	47Ω 5% 0,33W
3427	4822 050 21003	10k 1% 0,6W
3428	4822 116 52234	100k 5% 0,5W
3429	4822 050 25603	56k 1% 0,6W
3431	4822 050 22202	2k2 1% 0,6W
3432	4822 050 21003	10k 1% 0,6W
3433	4822 050 24702	4k7 1% 0,6W
3434	4822 052 10228	2Ω2 5% 0,33W
3435	4822 052 10228	2Ω2 5% 0,33W
3451	4822 050 24702	4k7 1% 0,6W
3452	4822 050 24703	47k 1% 0,6W
3453	4822 050 24702	4k7 1% 0,6W
3454	4822 050 24703	47k 1% 0,6W
3455	4822 050 21803	18k 1% 0,6W
3456	4822 051 10101	100Ω 2% 0,25W
3457	4822 052 10109	10Ω 5% 0,33W
3462	4822 050 24702	4k7 1% 0,6W
3463	4822 050 24702	4k7 1% 0,6W
3464	4822 050 24702	4k7 1% 0,6W
3465	4822 050 24702	4k7 1% 0,6W
3466	4822 050 21003	10k 1% 0,6W
3467	4822 050 21003	10k 1% 0,6W
3468	4822 050 21003	10k 1% 0,6W
3469	4822 050 24702	4k7 1% 0,6W
3470	4822 050 24702	4k7 1% 0,6W
3471	4822 050 24702	4k7 1% 0,6W
3472	4822 050 24702	4k7 1% 0,6W
3473	4822 050 24702	4k7 1% 0,6W
3474	4822 050 24702	4k7 1% 0,6W
3475	4822 050 24702	4k7 1% 0,6W
3476	4822 050 26803	68k 1% 0,6W
3477	4822 050 26803	68k 1% 0,6W
3478	4822 050 26803	68k 1% 0,6W
3479	4822 050 26803	68k 1% 0,6W
3480	4822 050 21002	1k 1% 0,6W
3481	4822 050 21002	1k 1% 0,6W
3482	4822 050 21002	1k 1% 0,6W
3483	4822 050 21002	1k 1% 0,6W

3484	4822 050 21002	1k 1% 0,6W
3485	4822 050 21002	1k 1% 0,6W
3490	4822 050 24702	4k7 1% 0,6W
3501	4822 050 21204	120k 1% 0,6W
3502	4822 050 21002	1k 1% 0,6W
3503	4822 050 21804	180k 1% 0,6W
3504	4822 050 21002	1k 1% 0,6W
3506	4822 050 21002	1k 1% 0,6W
3507	4822 050 21003	10k 1% 0,6W
3508	4822 050 22204	220k 1% 0,6W
3509	4822 050 21003	10k 1% 0,6W
3510	4822 050 22204	220k 1% 0,6W
3511	4822 050 21003	10k 1% 0,6W
3512	4822 050 22204	220k 1% 0,6W
3513	4822 050 21003	10k 1% 0,6W
3514	4822 050 22204	220k 1% 0,6W
3515	4822 052 10479	47Ω 5% 0,33W
3516	4822 052 10479	47Ω 5% 0,33W
3517	4822 050 22202	2k2 1% 0,6W
3518	4822 050 22204	220k 1% 0,6W
3519	4822 050 22202	2k2 1% 0,6W
3523	4822 050 21003	10k 1% 0,6W
COILS		
5001	4822 146 31056	MAINS TRAFO
5101	4822 157 53192	COIL
5102	4822 242 81194	CER.FILTER 10,7Mc
5103	4822 242 81194	CER.FILTER 10,7Mc
5104	4822 157 63029	IF COIL AM
5105	4822 157 63904	Q DET COIL
5106	4822 157 63802	BIRDY FILTER COIL
5107	4822 157 63799	MW AERIAL COIL
5107	4822 157 63835	MW AERIAL COIL /01
5108	4822 157 63912	MW OSCILL.COIL
5108	4822 157 63836	MW OSCILL.COIL /01
5109	4822 157 63801	COIL
5110	4822 242 71878	CER.FILTER 450kc
5111	4822 242 81147	RESONATOR 19kc
5112	4822 242 72976	RESONATOR 7.2Mc
5113	4822 242 81194	CER.FILTER 10,7Mc
5114	4822 152 20699	COIL 560μH
5115	4822 157 63905	COIL
5116	4822 157 63905	COIL
5120	4822 157 63904	COIL
5126	4822 242 81195	CER.FILTER 10,7Mc
5491	4822 242 81016	CRYSTAL
5492	4822 242 73769	RESONATOR 4,19Mc
5501	4822 157 63911	COIL
5510	4822 242 80259	CRYSTAL
DIODES		
6101	4822 130 34174	BZX79-C4V7
6102	4822 125 50611	CHIP VARICAP
6106	4822 130 34382	BZX79-C8V2
6107	5322 130 34331	BAV70
6108	5322 130 34331	BAV70
6109	4822 130 30621	1N4148
6122	4822 130 30621	1N4148 /01
6401	4822 130 30621	1N4148
6402	5322 130 32184	BYV27-50
6403	5322 130 32184	BYV27-50
6405	4822 130 34233	BZX79-C5V1
6406	4822 130 30621	1N4148
6407	4822 130 34281	BZX79-B15
6408	5322 130 30684	1N4002
6409	5322 130 30684	1N4002
6410	4822 130 34379	BZX79-C27
6411	4822 130 31253	BZX79-C2V4
6413	4822 130 80928	BZX79-C30
6430	4822 130 30621	1N4148
6431	4822 130 31983	BAT85
6432	4822 130 30621	1N4148
6433	4822 130 30621	1N4148
6434	4822 130 34278	BZX79-C6V8
6435	4822 130 30621	1N4148
6436	4822 130 30621	1N4148
6437	4822 130 30621	1N4148
6461	4822 130 91104	FTD DISPLAY
TRANSISTORS & IC's		
7101	4822 130 60163	2SC1047C
7102	4822 130 60163	2SC1047C
7103	4822 209 31001	LA1851N
7104	5322 130 60068	BC558C
7105	4822 209 73435	LC7217
7106	5322 130 60068	BC558C
7107	5322 130 41982	BC848B
7108	4822 130 44196	BC548C
7109	4822 130 44196	BC548C
7110	5322 130 44779	BC338-40
7111	5322 130 41982	BC848B
7112	4822 130 60163	2SC1047
7113	4822 130 44196	BC548C
7114	5322 130 44779	BC338-40
7115	4822 130 41024	BF245B
7116	4822 130 60163	2SC1047C
7117	5322 130 44779	BC338-40
7118	5322 130 44779	BC338-40

7119	5322 130 41983	BC858B
7120	4822 130 44196	BC548C
7121	5322 130 41983	BC858B
7122	5322 130 41983	BC858B
7154	5322 130 41982	BC848B
7155	5322 130 41983	BC858B
7156	4822 130 60163	2SC1047C
7158	5322 130 41983	BC858B
7401	5322 130 42701	BD645
7402	4822 130 40824	BD136
7413	4822 130 40937	BC548B
7431	4822 130 40823	BD135
7432	4822 130 40937	BC548B
7434	4822 130 40937	BC548B
7435	4822 130 40937	BC548B
7451	4822 130 44197	BC558B
7452	4822 130 40937	BC548B
7471	4822 209 31245	TMP47C1270N..
7481	4822 209 63244	X24C04
7501	4822 130 40937	BC548B
7502	4822 209 10264	HEF4069UBP
7503	4822 209 31248	SAF7579T
7522	4822 209 31244	MC68HC05P4-C9-91-B