MIDI STACK F1385

/10/30/31/32/35/38/40

Service
Service
Service

Service Manual

For repair information of the cassette mechanism see
Service Manual of Recorders tape deck RX version
RX-4

For repair information of the record player
see Service Manual of Record Player
HP7D 277 not for /32
HP7D 277MQ only for /32

CONTENTS Page

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

PHILIPS

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

Subject to modification
4822 725 22234
Printed in The Netherlands

PHILIPS

Published in Heiloo, Holland.

SPECIFICATION

		Typical value	Nominal value
General			
Mains voltage		: 120V-220V-240V	
Voltage selection		: Serviceable (set at 220V)	
		Switchable (Set to 220V) For -/31 only	
Mains Frequency		: 50-60 Hz	
Power consumption		: 80W max.	
Tuner: FM Section			
Tuning range		: 87.5 MHz - 108 MHz	
IF Frequency		: 10.7 MHz	
Aerial inputs		: 75 Ω coaxial	
Sensitivity		: 2 μV 26dB S/N	: ≤ 2.5 μV 26dB S/N
Selectivity		: 35dB at 600 KHz bandwidth	: ≥ 30 dB at 600 KHz bandwidth
IF Rejection		: 60dB	: ≥ 55dB
Image Rejection		: 50dB	: ≥ 40dB
Tuner: AM Section			
Tuning range	MW	: 522 KHz - 1611 KHz	
	LW	: 150 KHz - 263 KHz	
IF Frequency		: 450 KHz	
Sensitivity	MW	: 2 mV/M 26dB S/N	: ≤ 2.5 mV/M 26dB S/N
	LW	: 2.5 mV/M 26dB S/N	: ≤ 3 mV/M 26dB S/N
Selectivity		: 35dB at 18 KHz bandwidth	: ≥ 30dB at 18 KHz bandwidth
IF Rejection		: 60dB	: ≥ 50dB
Image Rejection	MW	: 40dB	: ≥ 30dB
	LW	: 50dB	: ≥ 40dB
Amplifier			
Output power		: 2 x 10W ±1dB, D = 10%	
Speaker impedance		: 8 ohm	
Frequency Response (within 3dB)		: 125 Hz to 10 KHz	
Equalizer control		: -6dB to + 6dB	
Dynamic Bass Boost		: +6dB	
Input Sensitivity	Aux./TV	: 300mV	: 400mV
	Mic	: 0.7mV	: 1mV
Cassette Recorder			
Number of tracks		: 2 x 2 (stereo)	
Tape speed		: 4.76 cm/sec ± 2%	
		: 2 x 4.76 cm/sec on dubbing	
Wow and flutter		: ≤ 0.35%	
Fast-wind time C60		: ≤ 130 sec.	
Bias system		: DC on AM position	
		: AC on FM/Tape position	
Bias Frequency		: 70 KHz ±15 KHz	
Recording playback frequency response (within 8dB)		: 100Hz to 6300Hz	
Signal to Noise ratio		: ≥ 42dB on FM/Type position	
		: ≥ 22dB on AM position	
		: ≥ 38dB on dubbing	
Record player			
Type of PU Head		: Sapphire (Ceramic stereo)	
		: Diamond (Magnetic stereo)	
Stylus force		: 5.0 gmf + 1.5 gmf, -1gmf	
Speed		: 33/45 r.p.m. +3%, -1%	
Wow and flutter		: 0.3%	
Rumble		: -30dB (DIN. A)	
		: - 40dB (DIN. B)	

RECORD PLAYER

Adjustment	Set in position	Read on	Adjust with	Adjust to
Speed	Phono 33 r.p.m.	Stroboscope	Trimpot in turntable motor	33 r.p.m.
Speed	Phono 45 r.p.m.	Stroboscope	Trimpot in turntable pcb.	45 r.p.m.

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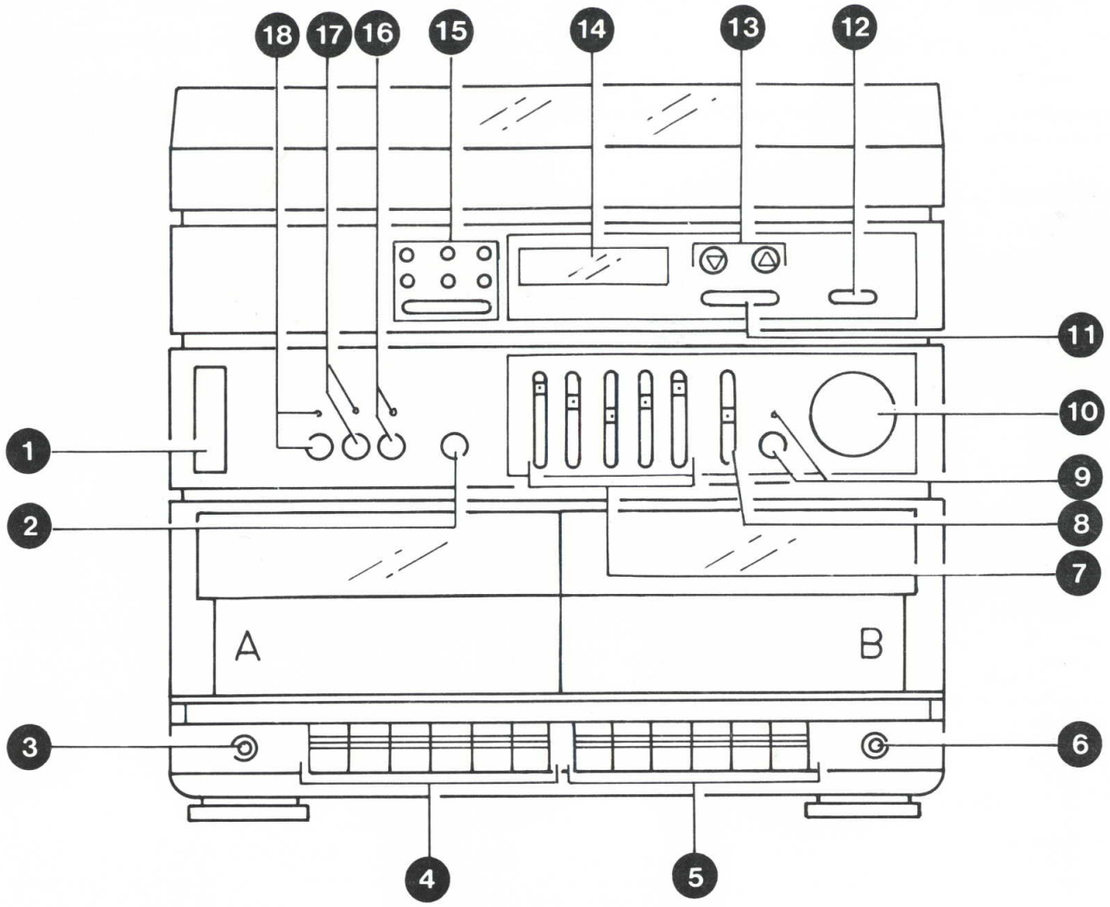

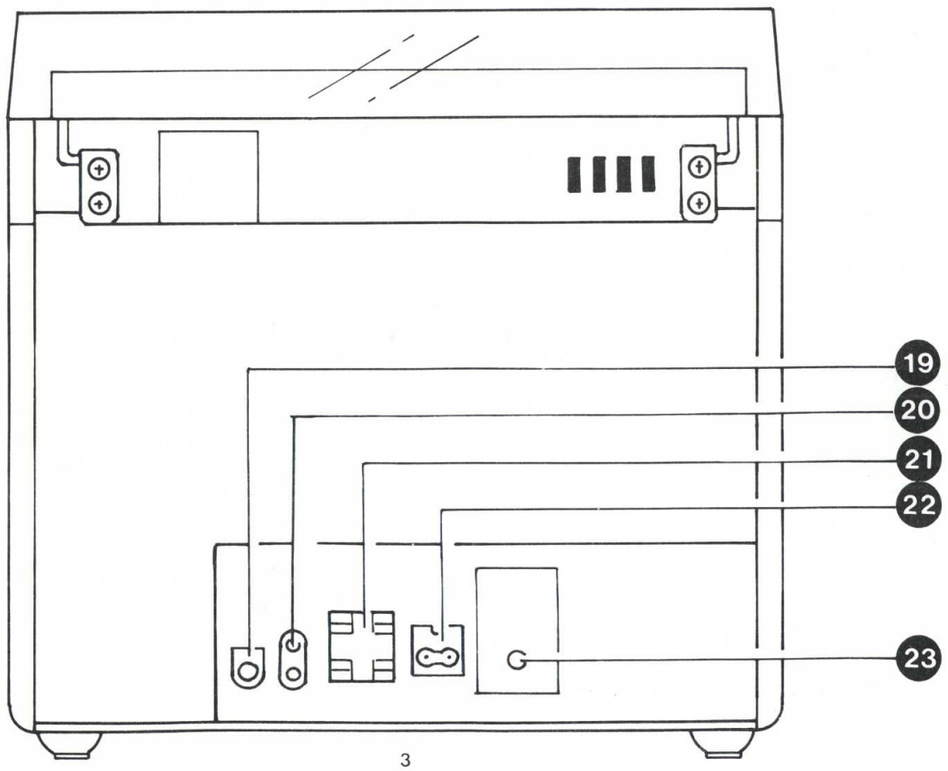

Connections and controls:

1	Power ON/OFF	SK-L	8		3595
2	Speed selector	SK-H	9	Bass Boost	SK-P/7418
3		BU-6	10		3596
4	Tape deck A button :		11	Bandswitch	SK-N
		SK-G	12	Mono/Stereo	SK-M
		SK-G,SK-D,SK-K	13	Down	1111
		SK-G		Up	1112
		SK-G	14	LCD Display	7550
		SK-G,SK-K	15	Preset button	1114-1119
				Memory button	1113
5	Tape deck B button :		16	Phono/CD/TV	SK-E/7259
		SK-F	17	Tape	SK-E/7261
	Continuous play	SK-F,SK-J	18	Tuner	SK-E/7260
		SK-F	19	FM Aerial(75Ω)	BU-4
		SK-F	20	CD/TV	BU-3
		SK-F,SK-J	21	R, L	BU-2
			22		BU-5
6		BU-1	23	Voltage selector	SK-Q
7	Graphic Equalizer	3590-3594			

CASSETTE DECK

Adjustment	Cassette	Recorder position			Measure on	Read on	Adjust with	Adjust to
		SK...	Deck A	Deck B				
Azimuth	10KHz SBC 420*	Tape	Play	—	BU-1	mV-meter	Left hand screw Play head	max. output L = R
		Tape	—	Play	BU-1	mV-meter	Left hand screw R/P head	
Motor speed (Normal)	3150Hz SBC 420*	Tape	Play	—	BU-1	Wow and Flutter meter	preset in motor	**a
		Tape	—	Play	BU-1	Wow and Flutter meter	—	**a
Motor speed (High)	3150Hz SBC 420*	Tape High speed	Record	Play	BU-1	Frequency counter	—	6.0 ± 0.3 KHz

* SBC 420 : 4822 397 30071

**a The maximum permissible speed deviation is 2%. Moreover, the wow and flutter value can be read. This value should not exceed 0.35%.

26735
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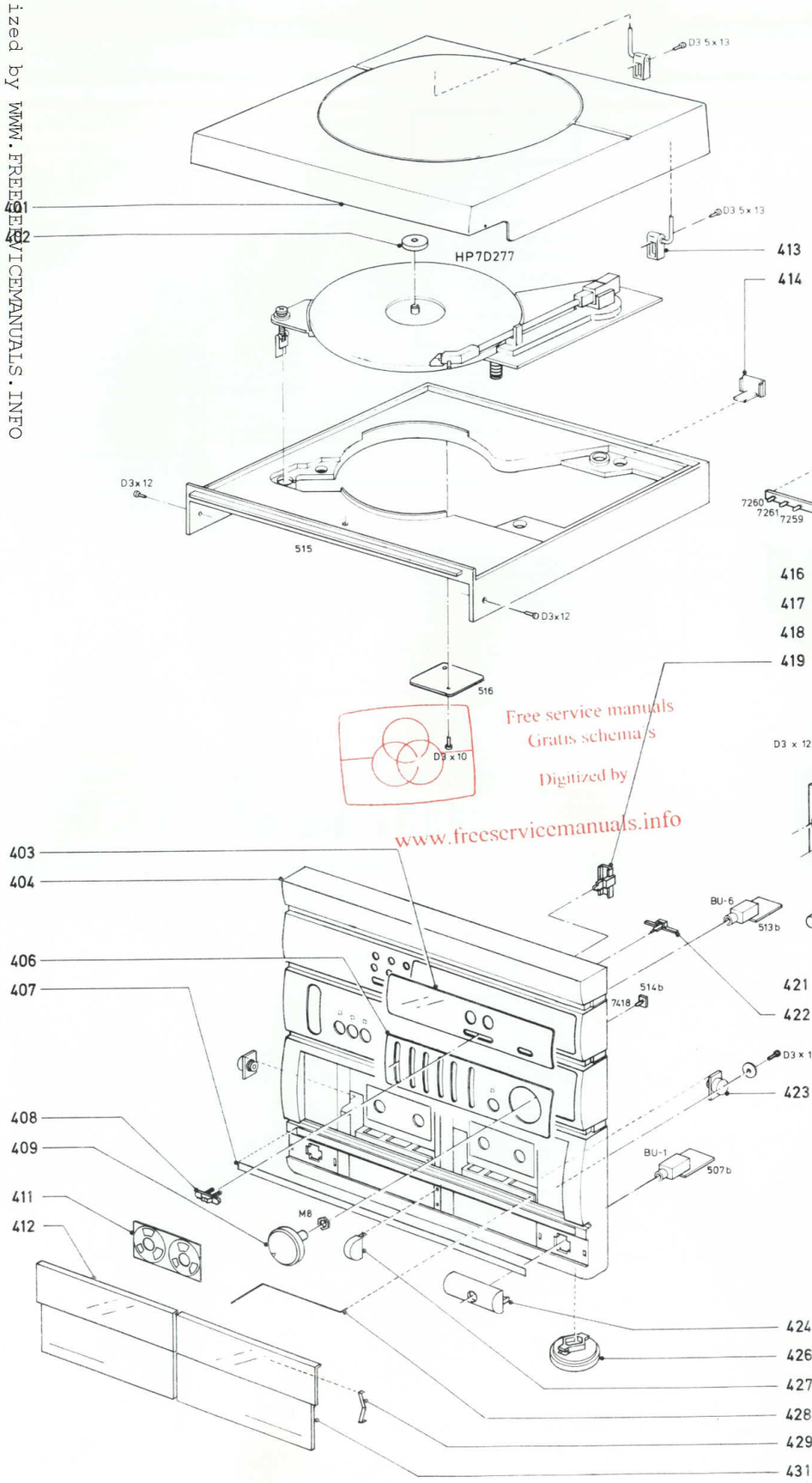

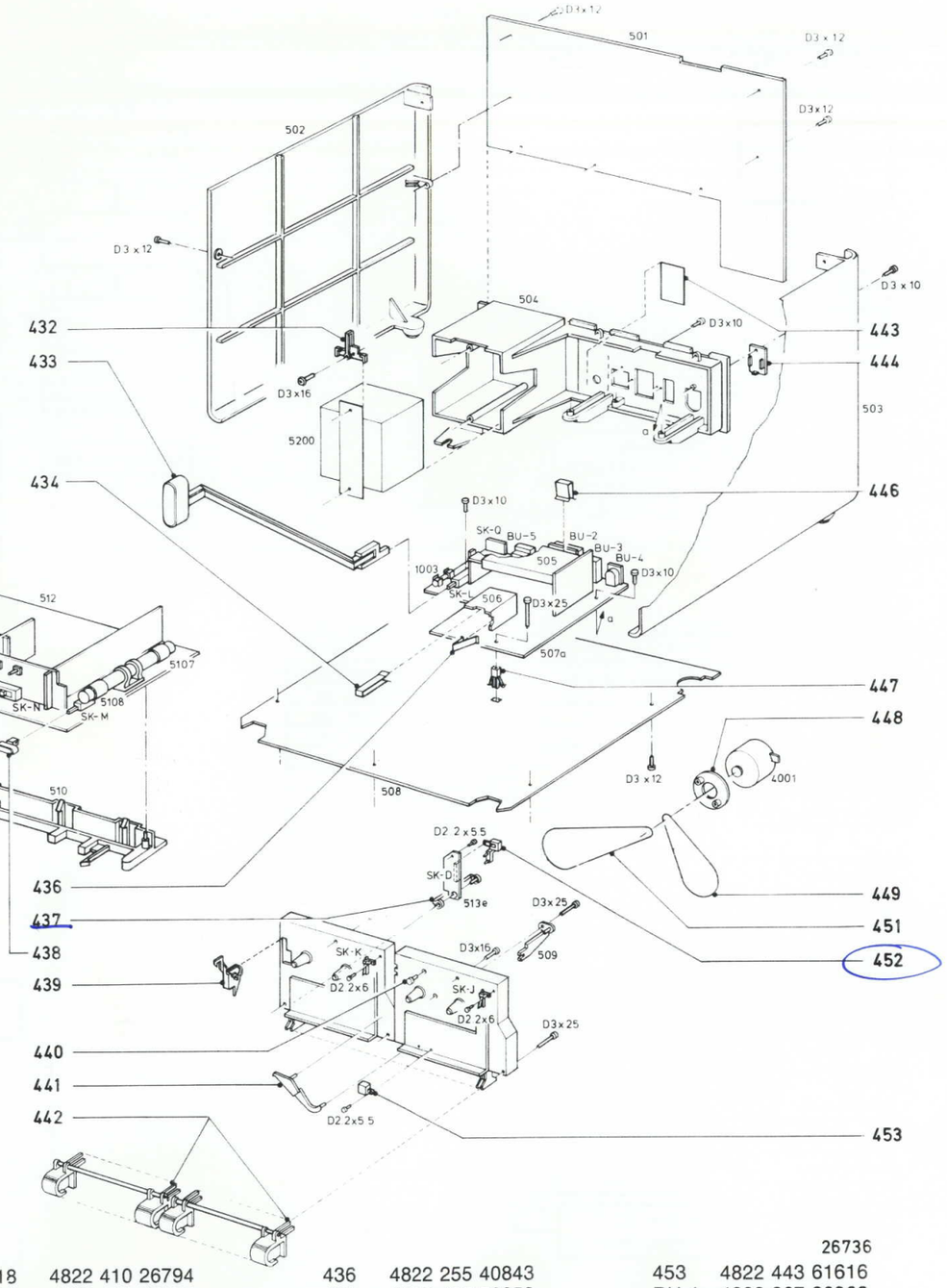

401	4822 444 60596	418	4822 410 26794	436	4822 255 40843	453	4822 443 61616
402	4822 532 60579	419	4822 411 61551	437	4822 402 50253	BU-1	4822 267 30968
403	4822 454 12211 (-/30,-/35)	421	4822 410 26795	438	4822 410 26792	BU-2	4822 290 60673
403	4822 454 12235 (-/10, -/31,-/32,-/38)	422	4822 402 61219 (-/30,-/35)	439	4822 404 10744	BU-3	4822 267 30631
		422	4822 404 21016 (-/10,-/31,-/32,-/38)	440	4822 502 30441	BU-4	4822 267 30633
404	4822 426 51317			441	4822 403 53059	BU-5	4822 265 20291
406	4822 454 12212	423	4822 522 20384	442	4822 410 26279	BU-6	4822 264 30237
407	4822 450 61297	424	4822 426 60559	443*	4822 466 92212	SK-D	4822 276 12348
408	4822 411 61549	426	4822 402 61221	444	4822 426 60544 (-/32,-/38)	SK-E	4822 276 12347
409	4822 411 61552	427	4822 426 60539	446	4822 401 10905	SK-H	4822 276 12345
411	4822 460 20739	428	4822 492 42213	447	4822 532 81094	SK-J	4822 278 90564
412	4822 443 62615	429	4822 492 63834	448	4822 529 10193	SK-K	4822 278 90564
413	4822 417 10631	431	4822 443 62616	449	4822 358 10111	SK-L	4822 276 12349
414	4822 460 10589	432	4822 404 20989	451	4822 358 10113	SK-M	4822 276 12345
416	4822 410 26791	433	4822 410 26793	452	4822 402 61164	SK-N	4822 277 21264
417	4822 413 31548	434	4822 492 70042			SK-P	4822 276 12502
						SK-Q	4822 272 10225 (-/31)

* Not used in -/31 version

26736

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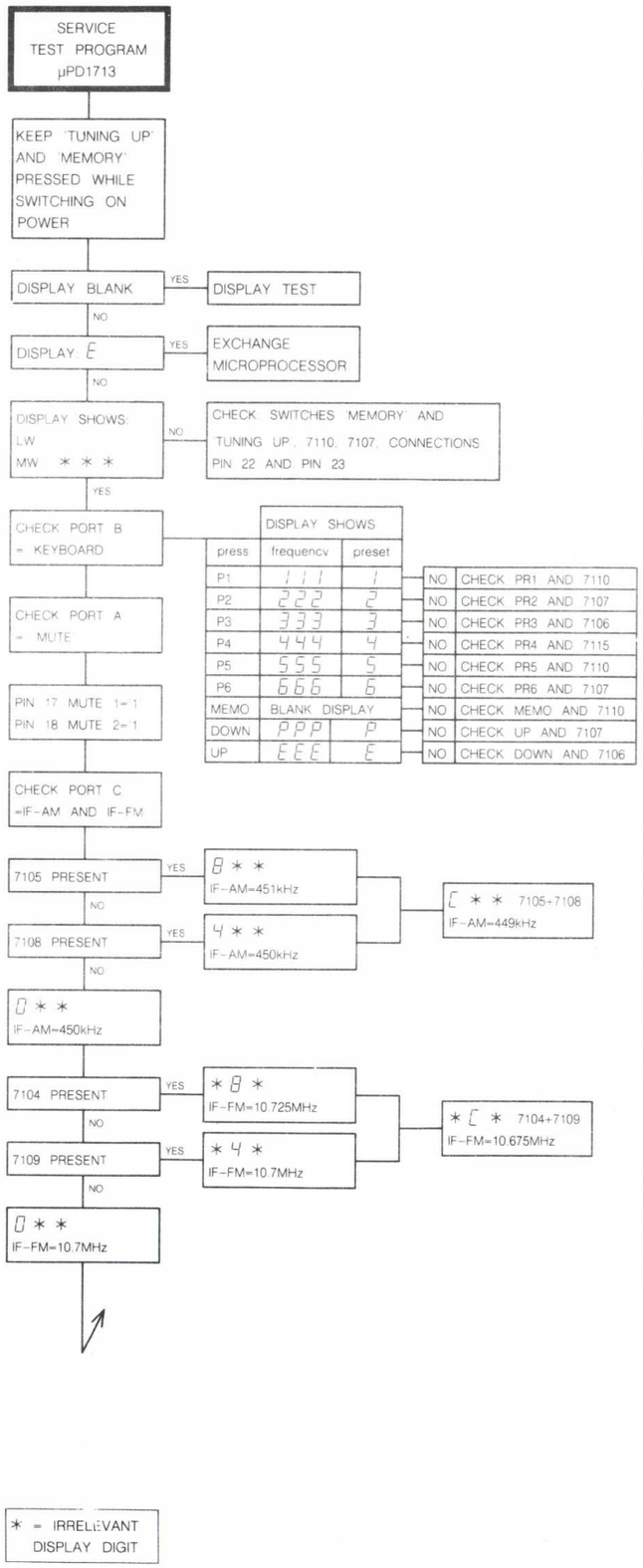
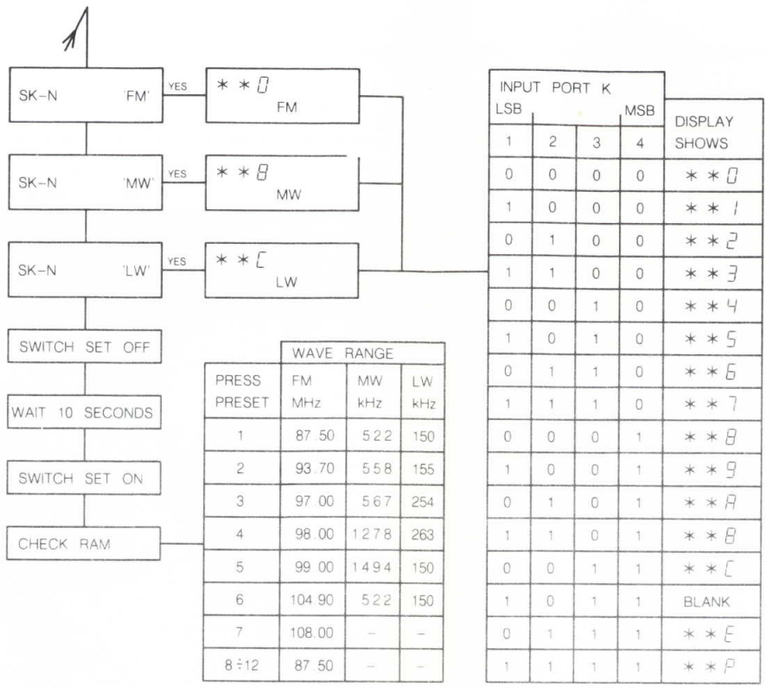
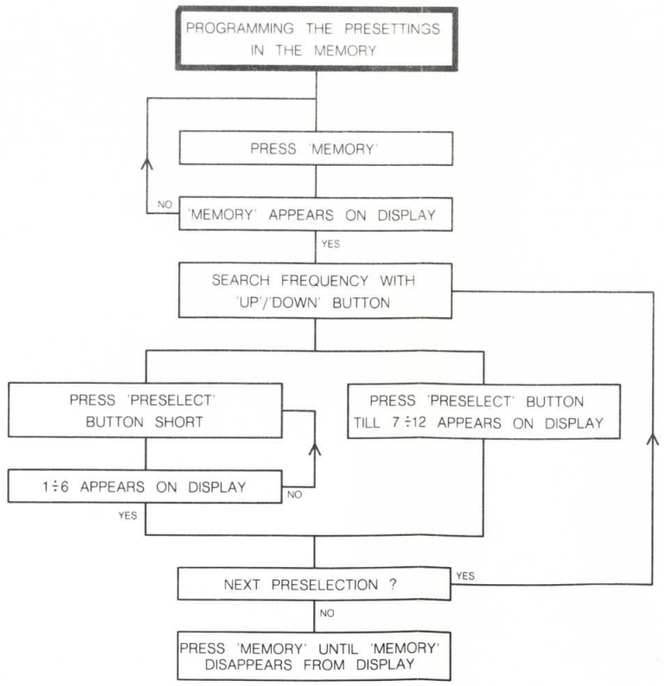
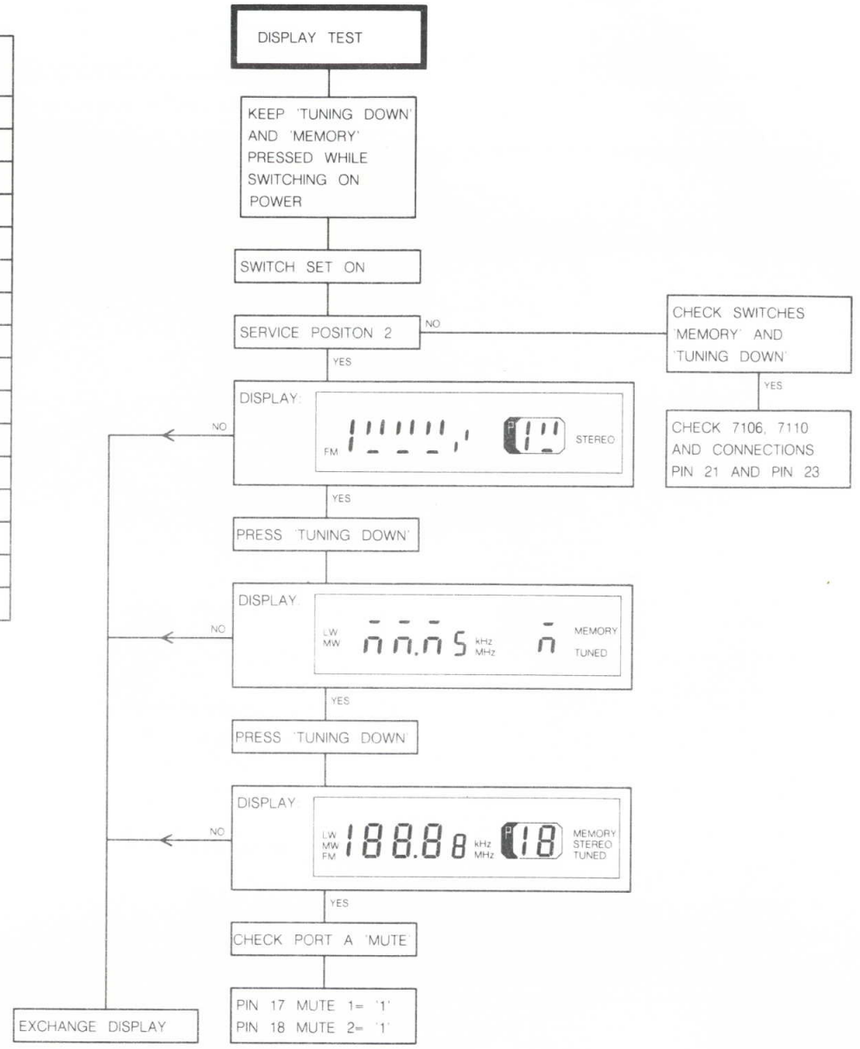
MICRO PROCESSOR CHECK





PRESS PRESET	WAVE RANGE FM MHz	MW kHz	LW kHz
1	87.50	522	150
2	93.70	558	155
3	97.00	567	254
4	98.00	1278	263
5	99.00	1494	150
6	104.90	522	150
7	108.00	–	–
8÷12	87.50	–	–





MDA 01584
T27/839
CS 18 179

Carbon film 0.2 W CR16	70°C	5%	
Carbon film 0.33 W CR25	70°C	5%	
Carbon film 0.5 W CR37	70°C	5%	
Standard film 0.5 W SFR16T	70°C	5%	
Standard film 0.4 W SFR25	70°C	5%	
Metal film 0.6 W MRS25	70°C	5%	
Safety resistor			
Plate ceramic Tuning < 120 pF		2%	
Plate ceramic Others		—20/+80%	
Tubular ceramic			
Polystyrene film / foil		1%	
Polyestor Film / foil		10%	
Mylar		10%	
Electrolytic			

(C) Chip component

* a = 2,5 V
b = 4 V
c = 6,3 V
d = 10 V
e = 16 V
f = 25 V
g = 40 V
h = 63 V
j = 100 V
l = 125 V
m = 150 V
n = 160 V
q = 200 V
r = 250 V
s = 300 V
t = 350 V
u = 400 V
v = 500 V
w = 630 V
x = 1000 V
A = 1,6 V
B = 6 V
C = 12 V
D = 15 V
E = 20 V
F = 35 V
G = 50 V
H = 75 V
I = 80 V

26338

(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 ditzelfde 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 enfiler 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).
Unsorgfältige Behandlung im Reparaturfall kan 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 ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

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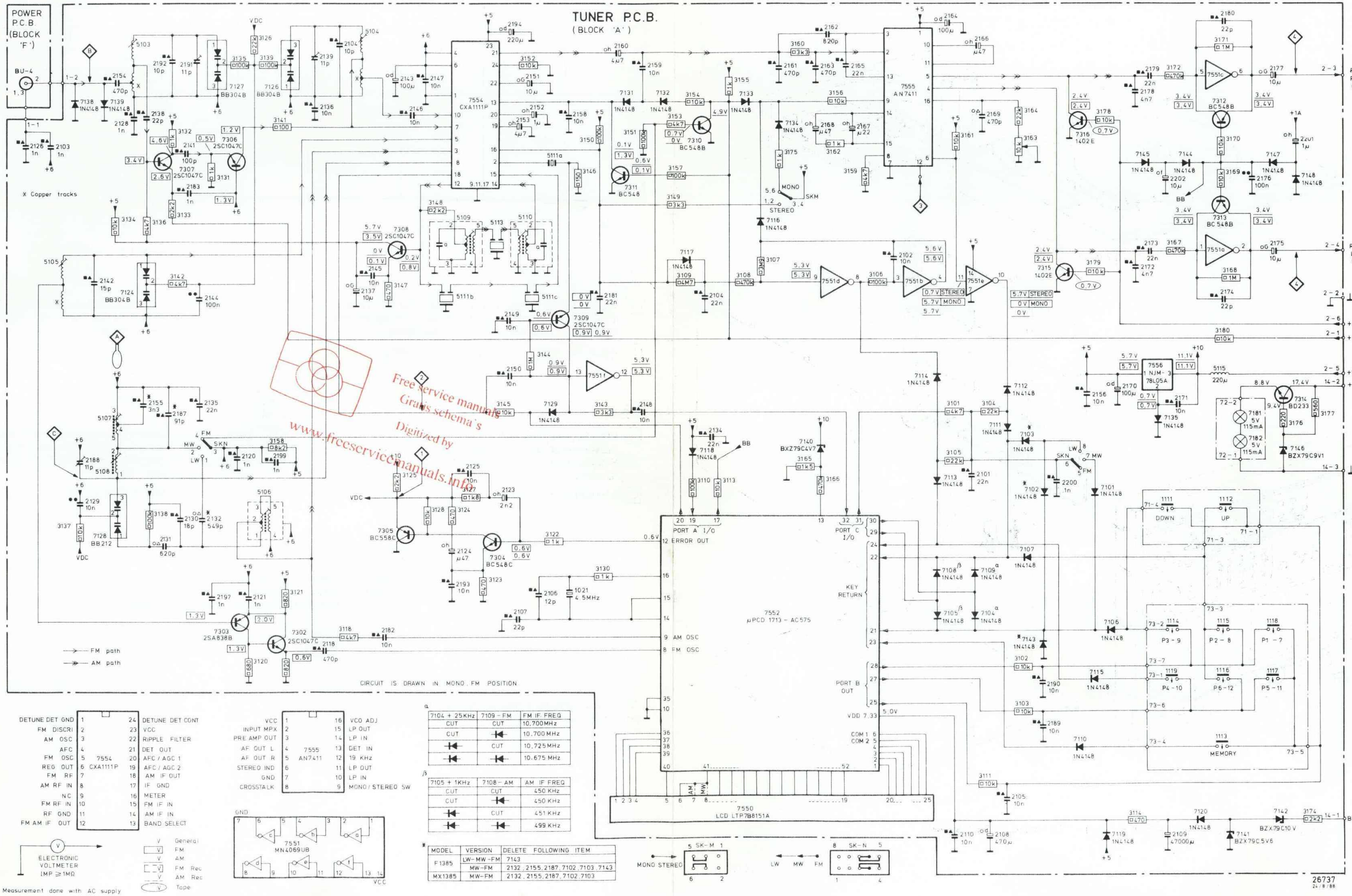
MISC	BU4 5105 7138 7128 7139 5103 7303 7127 7126 7302 5104 7308 5109 7554 5113 5110 5111a 7309 7551f 7131 7132 7117 7118 7133 7552 7134 7140 7551d 7555 7113 7551e 7111 7112 7103 7315 7316 7101 7119 7145 7556 7144 7551c 7312 1112 7181 7147 7146 7148
	5107 7124 7307 7306 5106 7305 5111b 7304 5111c 1021 7311 7310 7550 7116 7551b 7108 7109 7102 7107 7110 7106 1111 7135 7551a 7313 1115 7182 1118 7314
	5108 7129 7114 7105 7104 7143 7115 1114 1119 7120 5115 1113 1116 7141 1117 7142
CAP	2126 2103 2188 2142 2154 2138 2192 2191 2135 2120 2121 2199 2118 2104 2145 2143 2146 2147 2124 2125 2123 2194 2158 2160 2148 2159 2104 2161 2162 2165 2102 2164 2101 2169 2105 2190 2156 2170 2179 2202 2180 2175-2177 2201
	2129 2128 2155 2187 2141 2144 2197 2139 2137 2182 2193 2149 2107 2106 2181 2134 2168 2167 2110 2166 2108 2178 2173 2109 2171 2174
	2131 2130 2183 2132 2136 2150 2151-2153 2163 2189 2200 2172
RES	3137 3134 3136 3132 3131 3135 3139 3121 3118 3125 3148 3124 3127 3145 3152 3144 3150 3143 3151 3153 3154 3155 3108 3107 3160 3156 3159 3106 3161 3104 3164 3178 3114 3172 3168-3171 3176 3177
	3138 3133 3126 3141 3147 3128 3123 3122 3146 3130 3157 3110 3113 3175 3162 3101 3111 3163 3179 3167 3180 3174
	3142 3120 3158 3119 3149 3109 3165 3166 3105 3102 3103



7554 CXA1111P	Pin	Pin	
DETUNE DET GND	1	24	DETUNE DET CONT
FM DISCRI	2	23	VCC
AM OSC	3	22	RIPPLE FILTER
AFC	4	21	DET OUT
FM OSC	5	20	AFC / AGC 1
REG OUT	6	19	AFC / AGC 2
FM RF	7	18	AM IF OUT
AM RF IN	8	17	IF GND
NC	9	16	METER
FM RF IN	10	15	FM IF IN
RF GND	11	14	AM IF IN
FM AM IF OUT	12	13	BAND SELECT

7555 AN7411	Pin	Pin	
VCC	1	16	VCO ADJ
INPUT MPX	2	15	LP OUT
PRE AMP OUT	3	14	LP IN
AF OUT L	4	13	DET IN
AF OUT R	5	12	19 KHz
STEREO IND	6	11	LP OUT
GND	7	10	LP IN
CROSSTALK	8	9	MONO / STEREO SW

α

7104 + 25KHz	7109 - FM	FM IF. FREQ
CUT	CUT	10.700MHz
CUT	⊣◀⊢	10.700 MHz
⊣◀⊢	CUT	10.725MHz
⊣◀⊢	⊣◀⊢	10.675 MHz

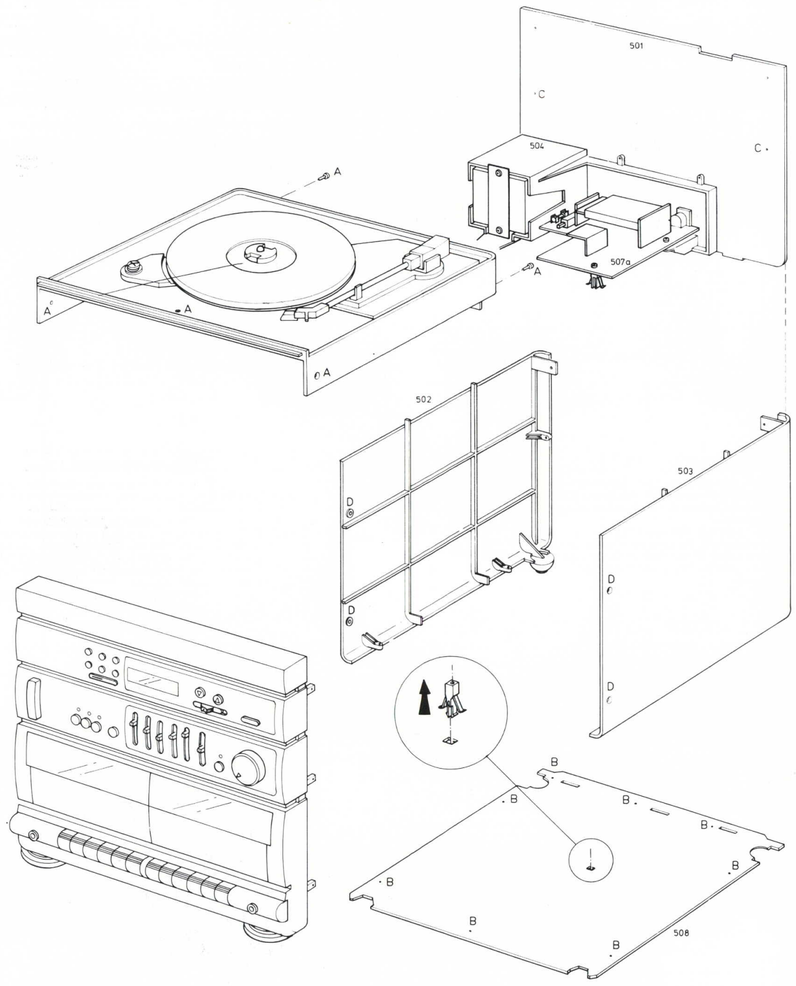
β

7105 + 1KHz	7108 - AM	AM IF FREQ
CUT	CUT	450 KHz
CUT	⊣◀⊢	450 KHz
⊣◀⊢	CUT	451 KHz
⊣◀⊢	⊣◀⊢	499 KHz

*

MODEL	VERSION	DELETE FOLLOWING ITEM
F1385	LW-MW-FM	7143
	MW-FM	2132, 2155, 2187, 7102, 7103, 7143
MX1385	MW-FM	2132, 2155, 2187, 7102, 7103

26737
24/8/88



Disassembly sequence : A (5 screws) – B (8 screws) – C (2 screws) – D (4 screws)

26738

After replacing 5113 (AM) or 5111a, 5111b and 5111c (FM)

SK	→	◇	≠	◯		Diodes		
						7105 + 1KHz	7108 - AM	AM - IF - freq
AM	≈ 450 KHz * Mod 1 KHz 30% AM	◇C via 100nF		generator frequency control	1 4	×	×	450 KHz
						×	▷|◁	450 KHz
						▷|◁	×	451 KHz
						▷|◁	▷|◁	449 KHz
						7104 +25KHz	7109 - FM	FM - IF - freq
FM	≈ 10.7 MHz Mod 1 KHz Δf = 22.5 KHz	◇B		generator frequency control	1 4	×	×	10.7 MHz
						×	▷|◁	10.7 MHz
						▷|◁	×	10.725 MHz
						▷|◁	▷|◁	10.675 MHz

GB

1 Adjust the generator frequency so, that you receive a maximal and undistorted sine wave, Program this frequency according to the "Diodes"-table.

2 Adjust for maximum height and symmetry.

NL

1 Stel de generatorfrequentie zodanig in, dat u een maximale en onvervormde sinus ontvangt. Programmeer deze frequentie volgens de tabel "Diodes".

2 Afregelen op maximum hoogte en symmetrie.

F

1 Ajuster la fréquence génératrice de façon que vous recevez un sinus maximal et indéformé. Programmer cette fréquence selon la table "Diodes".

2 Ajuster sur hauteur et symétrie maximum.

D

1 Stellen Sie die Generatorfrequenz so ein, dass Sie eine maximale und unverzerrte Sinuskurve empfangen. Programmieren Sie diese Frequenz gemäss der Tabelle "Diodes".

2 Abgleichen auf Maximalhöhe und Symmetrie.

I

1 Regolate la frequenza del generatore in modo che ricevete un sinus massimale e indistorsionato. Programmate questa frequenza secondo la tabella "Diodes".

2 Regolare per un massimo di altezza e di simetria.

"Bei notwendigem Abgleich ist das Gerät auf die gesetzlich vorgeschriebenen Eckfrequenzen abzugleichen."

SK	→	◇	≠	◯		
Varicap alignment						
FM 87.5 - 108 MHz			108 MHz	5105		◇1 ≈ 8V
			87.5 MHz			◇1 ≈ 2V
LW 150-263 KHz			263 KHz	5106		◇1 ≈ 8V
			150 KHz			◇1 ≈ 2V
MW 522-1611 KHz			1611 KHz	5106		◇1 ≈ 8V
			522 KHz	check		◇1 ≈ 2V
FM-RF						
FM Stereo	87.5 MHz	◇B	87.5 MHz	5104		◇4 max.
				5103		
	108 MHz		108 MHz	2139		◇4 max.
				2191		
AM-IF						
MW	450 KHz Δf = 5 KHz (50 Hz)	◇C via 100nF	1611 KHz	5109	Symmetrical max. to ◇2 2	
				5110		
AM-RF						
MW	558 KHz*	◇A	558 KHz	5108		◇4 max.
	1494 KHz*		1494 KHz	2188		
LW	155 KHz*	◇A	155 KHz	5107		◇4 max.

* Mod 1 KHz 30% AM

Stereo decoder						
FM Stereo			No signal	3163		◇3 19 ± 0.05 KHz

CS 18 181

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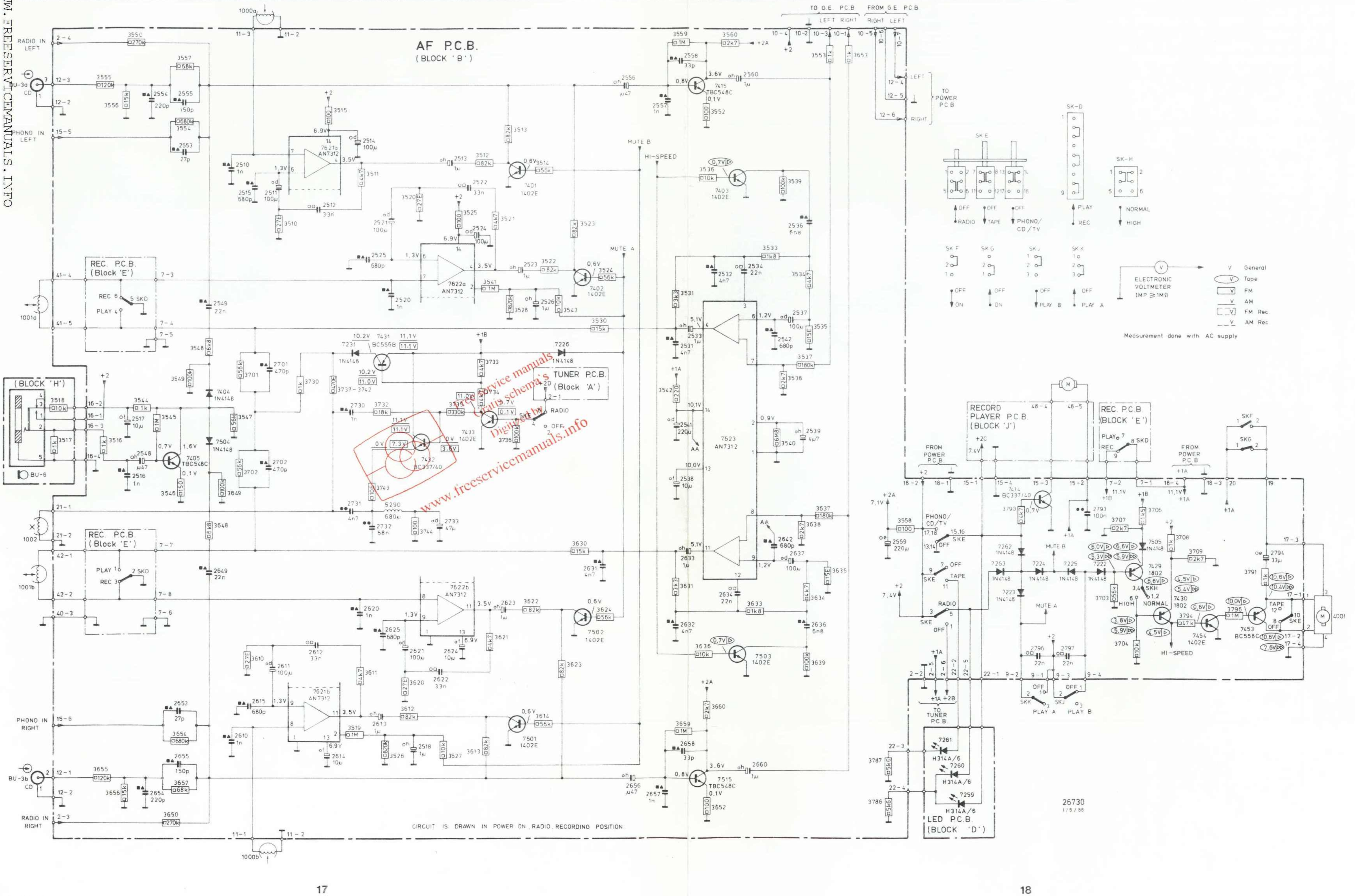
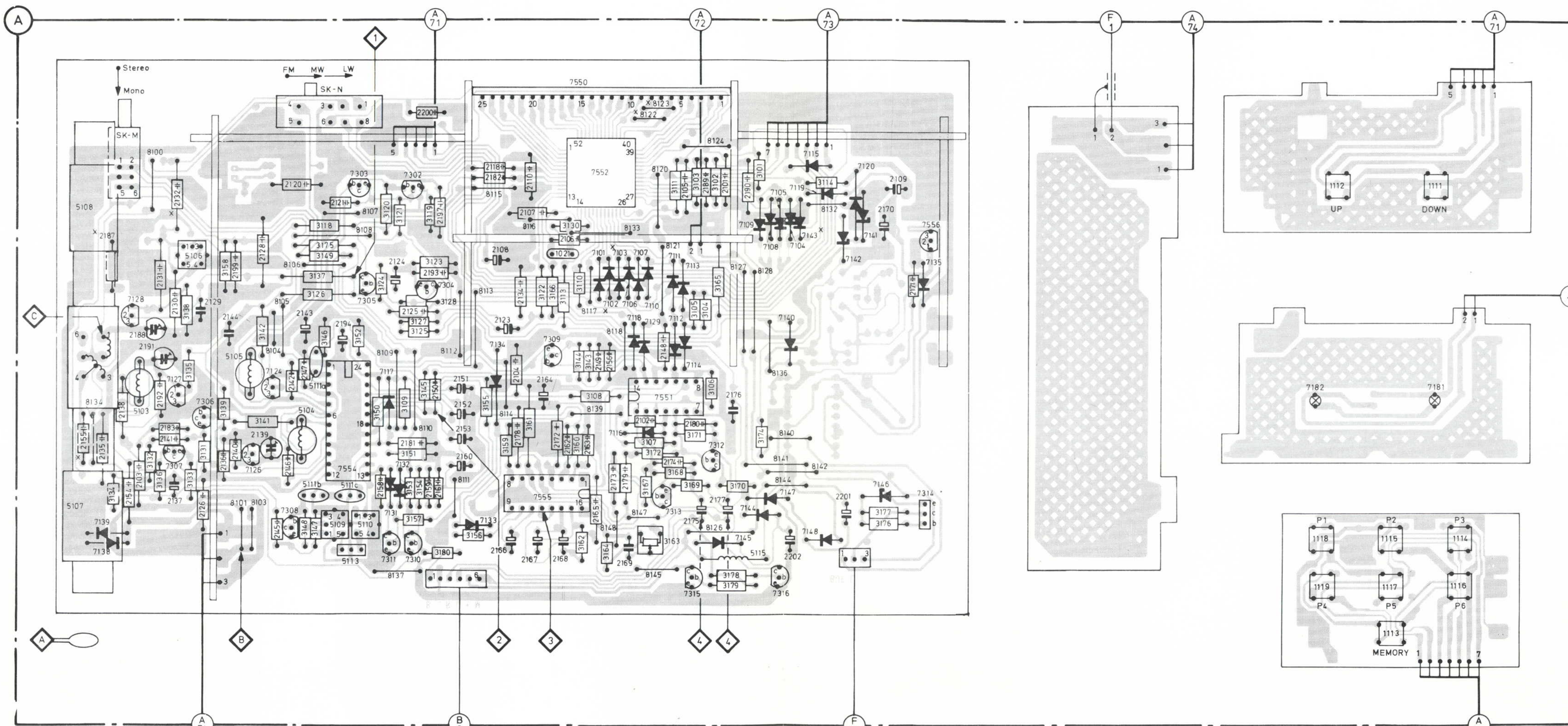
MISC.	BU3a 1001a	7405 7404 1000a 7621a 7231 7431 5290 7432 7622a 7433 7401 7226 7402 7415 7403 7503 7261 7260 7263 7414 7224 7225 7222 7505 7454 7453
	BU3b 1001b	7504 1000b 7621b 7622b 7501 7502 7623 7259 7262 7429 7430 SKG 4001
	1002 BU6	7515 7223 SKF
CAP.		2517 2554 2555 2549 2510 2701 2612 2512 2730 2514 2613 2520 2621 2622 2513 2524 2623 2523 2526 2631 2556 2557 2633 2558 2658 2532 2534 2542 2536 2636 2559 2796 2797 2793 2794
		2516 2654 2553 2649 2610 2615 2702 2614 2731 2521 2625 2518 2624 2522 2656 2657 2531 2533 2634 2560 2537 2539
		2548 2653 2655 2515 2511 2611 2620 2525 2732 2733 2632 2541 2538 2660 2642 2637
RES.	3518	3555 3516 3544–3546 3557 3548 3648 3649 3702 3510 3730 3515 3519 3732 3520 3744 3735 3525 3512 3521 3513 3522 3543 3523 3524 3559 3636 3552 3560 3633 3533 3537–3540 3553 3653 3787 3558 3704 3706 3708 3709 3796 3791
	3517	3655 3556 3550 3549 3554 3547 3701 3737–3742 3743 3620 3527 3613 3541 3621 3528 3514 3623 3630 3530 3659 3531 3660 3637÷3639 3635 3786 3790 3703 3707 3794
		3656 3650 3654 3657 3610 3611 3511 3526 3612 3733 3734 3736 3622 3614 3624 3542 3631 3536 3652 3534 3634 3535



MISC.	5108 8134 SKM 8100 7127 5106 7306 5105 8104÷8106 SKN 7303 8107÷8109 7302 7304 8115 8116 1021 7552 8133 8120÷8123 8124 7109 7105 7119 7115 8132 7141 7120 7314 7556 7182 1112 1115 1111 1114
	5107 7139 5103 7307 8101 7124 7308 5104 7305 7117 8110 8112 8111 7133 8114 7555 7309 7101 7102 7103 7107 7110 8126÷8128 7108 7104 7143 7148 7142 7146 7135 1118 1117 7181 1116
	7138 7128 7126 8103 5111b 5111c 7554 7131 7310 8113 8117 8139 8118 7106 7129 7111÷7114 7312 8136 7140 7147 1119 1113
	5111a 5109 5110 7311 7132 7134 8148 7116 8147 7313 7551 7145 7144 8144 8140÷8142
	5113 8137 7550 7118 8145 8122 7315 5115 7316
CAP.	2155 2187 2188 2131 2132 2137 2129 2199 2128 2120 2143 2121 2158 2124 2200 2197 2118 2108 2107 2106 2163 2149 2156 2148 2105 2189 2101 2190 2202 2201 2170 2109 2171
	2135 2138 2191 2130 2126 2144 2140 2139 2142 2194 2125 2181 2150÷2153 2182 2134 2104 2162 2165 2173 2174 2180 2175 2177 2176
	2103 2192 2183 2136 2145÷2147 2159 2161 2123 2178 2172 2168 2179 2102
	2154 2141 2193 2160 2166 2167 2110 2164 2169
RES.	3134 3132 3138 3158 3139 3142 3141 3137 3118 3152 3120 3121 3119 3123 3156 3155 3161 3122 3166 3130 3108 3172 3107 3111 3165 3174 3101 3114 3177
	3136 3133 3131 3126 3175 3150 3124 3109 3127 3145 3159 3144 3162 3167 3168 3171 3162 3170 3176
	3135 3146÷3149 3157 3125 3128 3160 3143 3164 3163 3169 3179
	3151 3153 3154 3180 3113 3110 3102÷3106 3178



※

MODEL	VERSION	DELETE FOLLOWING ITEM
F1385	LW-MW-FM	7143, 8123
	MW-FM	2132, 2155, 2187, 7102, 7103, 7143, 8122
MX1385	MW-FM	2132, 2155, 2187, 7102, 7103, 8122

ELECTRONIC VOLTMETER IMP ≥ 1MΩ

V	General
[V]	FM
V (underlined)	AM
[V] (dashed)	FM Rec.
V (dashed underline)	AM Rec.
(V)	Tape

7551

Pin	FM	AM
1	3.4V	3.4V
2	3.4V	3.4V
3	0V	0V
4	5.6V	5.6V
5	3.4V	3.4V
6	3.4V	3.4V
7	0V	0V
8	0V	0V
9	5.3V	5.3V
10	5.7V Stereo / 0V Mono	0V
11	0.7V Stereo / 5.7V Mono	5.7V
12	5.3V	5.3V
13	0.9V	0.9V
14	5.7V	5.7V

7552

7 - 5.0V
12 - 0.6V
33 - 5.0V

7554

Pin	FM	AM
1	0V	0V
2	3.1V	3.6V
3	1.3V	1.3V
4	1.3V	1.3V
5	1.3V	1.3V
6	1.3V	1.3V
7	1.3V	1.3V
8	1.3V	1.3V
9	0V	0V
10	0.3V	- 0V
11	0V	0V
12	0.8V	0.2V
13	1.3V	0.1V
14	0V	0V
15	1.3V	0.1V
16	4.9V	5.7V
17	0V	0V
18	0.2V	0.2V
19	1.2V	1.5V
20	1.3V	1.1V
21	1.0V	0.8V
22	3.6V	3.6V
23	5.7V	5.7V
24	0.1V	0.1V

7556

Pin	FM	AM
1	5.7V	5.7V
2	0.7V	0.7V
3	11.1V	11.1V

7555

Pin	FM	AM
1	5.7V	5.7V
2	1.5V	1.5V
3	1.4V	1.4V
4	2.4V	2.4V
5	2.4V	2.4V
6	5.7V Mono / 0.7V Stereo	5.7V
7	0V	0V
8	0.4V	0.4V
9	2.0V Mono / 0.1V Stereo	2.0V
10	1.3V	1.3V
11	1.3V	1.3V
12	-	-
13	1.3V	1.3V
14	1.3V	1.3V
15	1.3V	1.3V
16	0.2V	0.2V

	7302	7303	7304	7305	7306	7307	7314
e	0.6V	2.0V	- / -	- / -	0.5V	2.6V	-8.8V
b	1.3V	1.3V	0.6V / 0.6V	- / -	1.3V	3.4V	-9.4V
c	2.0V	1.3V	- / -	0V / 0V	1.2V	4.6V	-17.4V

	7308	7309	7310	7311	7312/7313	7315/7316
e	0.1V / 0V	0V / 0V	0V / 0V	0V / 0V	3.4V / 3.4V	0V / 0V / (0V)
b	0.8V / 0.2V	0.6V / 0.6V	0.7V / 0V	0.1V / 0.6V	- / -	- / - / (0.7V)
c	3.5V / 5.7V	0.9V / 0.9V	- / 4.9V	1.3V / 0.1V	3.4V / 3.4V	2.4V / 2.4V / (-)

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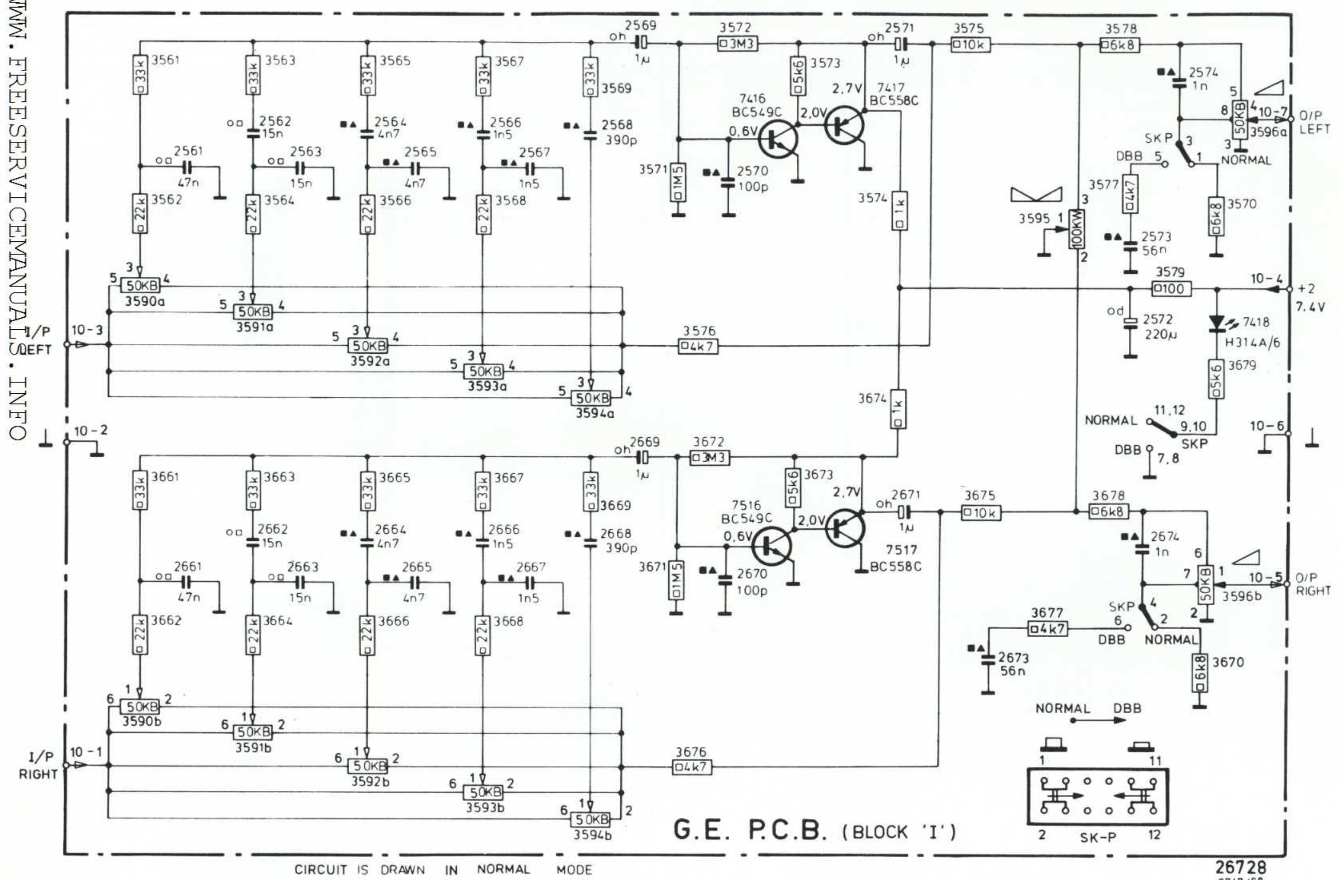
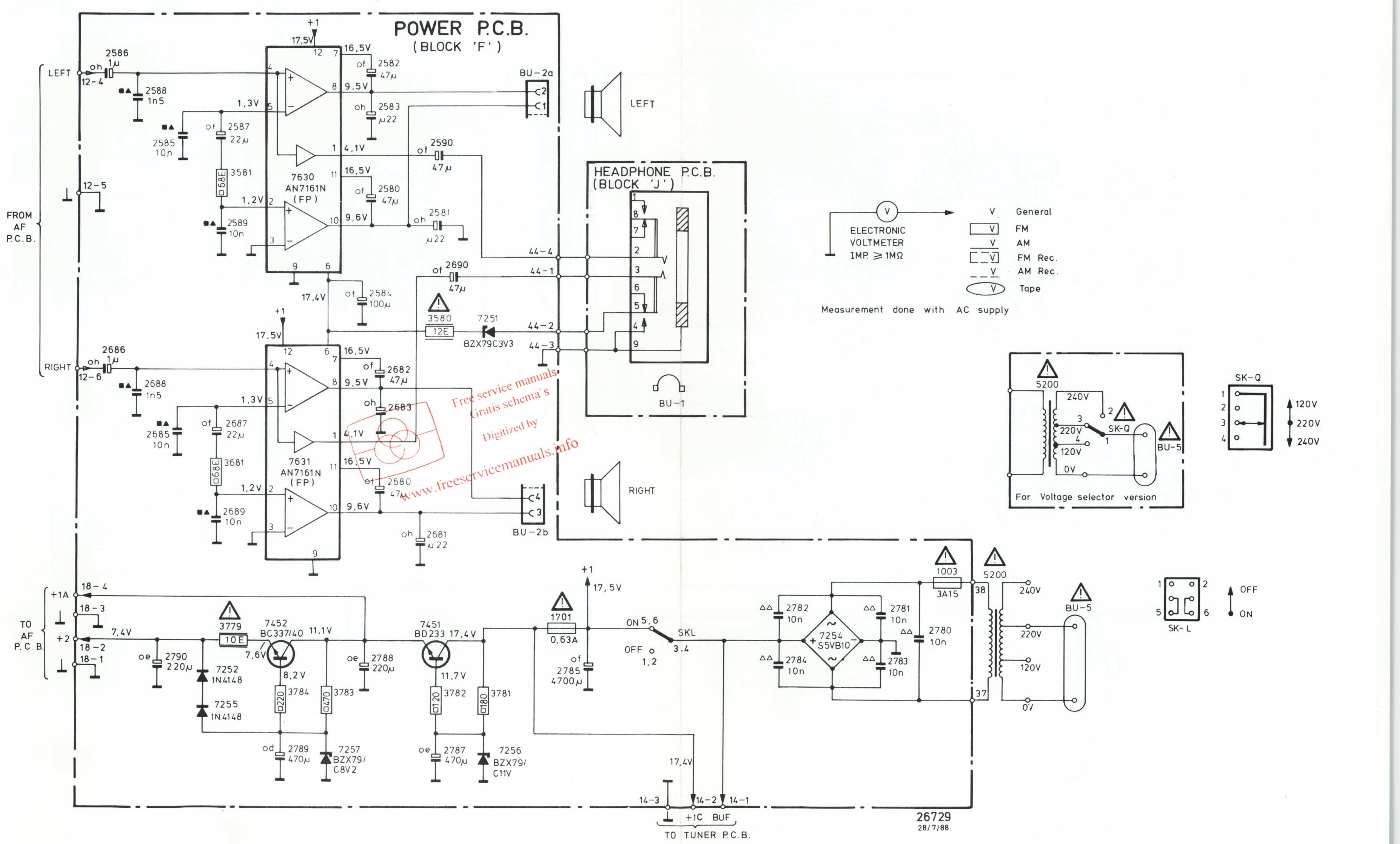
MISC	7416 7516 7417 7517 7418
CAP.	2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2673 2573 2574
	2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2572 2674
RES.	3561 3562 3563 3564 3565 3566 3567 3568 3594a 3569 3571 3576 3572 3573 3574 3575 3677 3578 3579 3570 3596a
	3590a 3590b 3591a 3591b 3592a 3592b 3593a 3593b 3594b 3669 3671 3672 3673 3674 3675 3577 3679 3596b
	3661 3662 3663 3664 3665 3666 3667 3668 3676 3595 3678 3670



CIRCUIT IS DRAWN IN NORMAL MODE

MISC.	7255 7252 7452 7630 7631 7257 7451 7251 7256 BU2 1701 SKL BU1 7254 1003 5200 5200 BU5 SKQ BU5
CAP.	2586 2588 2585 2587 2589 2789 2582÷2584 2581 2787 2785 2782 2781 2780
	2686 2688 2685 2790 2687 2689 2788 2590 2784 2783
	2580 2680÷2683 2690
RES.	3581 3779 3784 3783 3580 3781
	3681 3782



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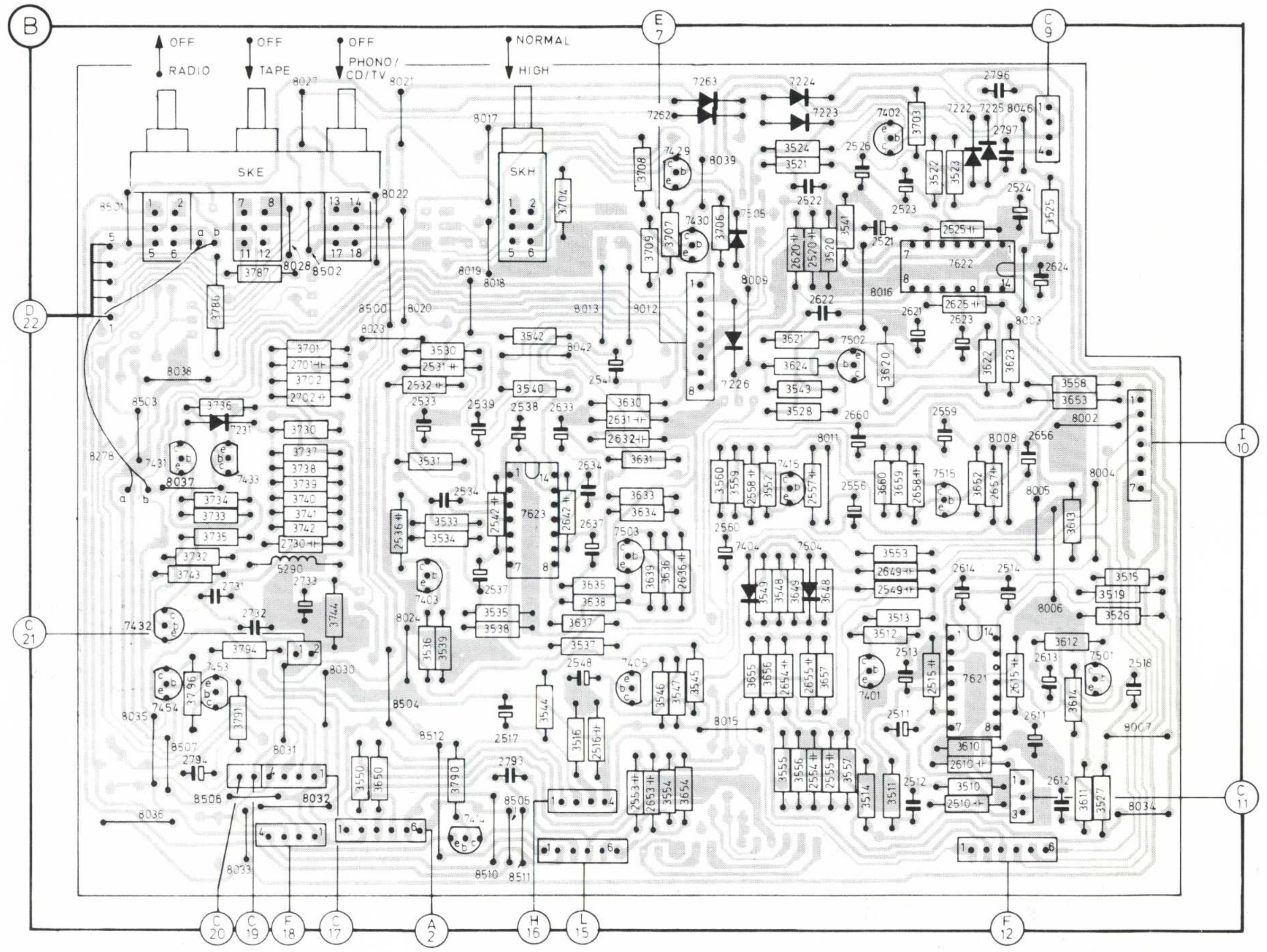
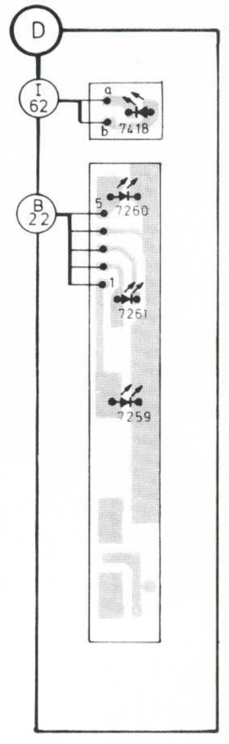
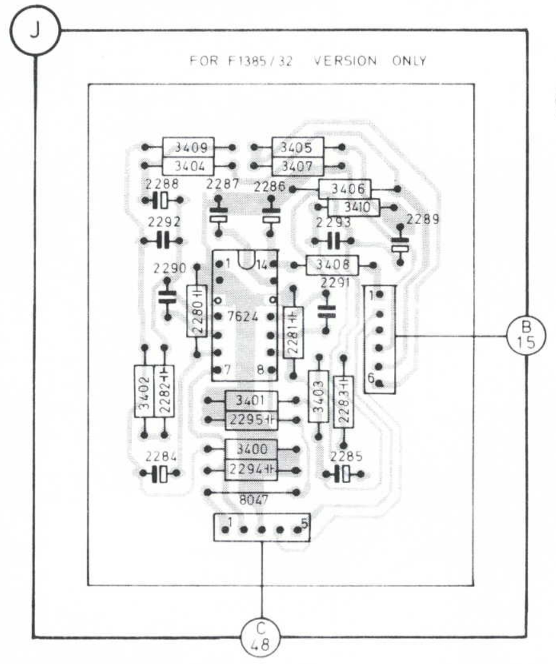
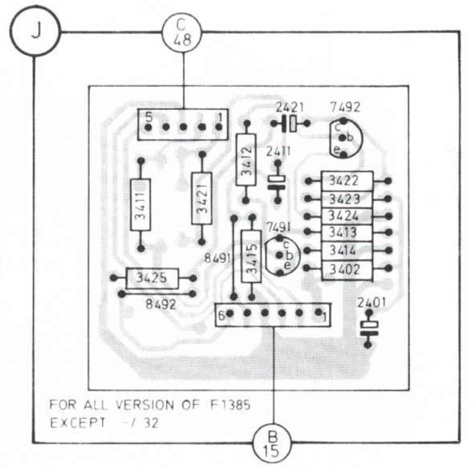
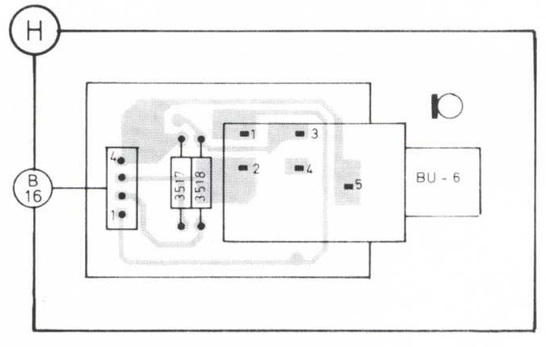
MISC	8501 8503 8506 7231 8027 8032 8023 8022 8021 7414 8019 8505 7623 8012 7262 7263 8039 7224 7223 7502 7402 7515 7622 7225 8046 8002 8007 7260 5200 BU6 8095 8492 8096 7491 7492
	7432 7431 7433 8028 8030 SKF 8020 8017 8018 1001 8013 7503 7430 7226 7404 7415 8011 7401 8016 BU7 7222 8008 8003 8005 8004 8034 7261 7624 8047 SKD 8491
	8278 8035 - 8038 7453 SKE 5290 8502 8024 7403 8512 8510 8511 8042 7405 7429 4001 7505 7504 7621 SKJ 8006 7501 7259
	7454 8507 8033 8031 8500 8504 1002 SKG SKH 1000 8015 8009 SKK
CAP	2794 2731 2732 2701 2536 2539 2538 2633 2634 2541 2553 2560 2558 2620 2522 2526 2523 2621 2525 2796 2524 2624 2518 2288 2290 2287 2295 2293 2289 2411 2421 2401
	2730 2542 2793 2642 2631 2653 2636 2654 2520 2622 2521 2658 2559 2625 2797 2656 2292 2280 2294 2291
	2733 2534 2537 2548 2637 2554-2557 2511-2513 2515 2623 2657 2514 2611-2613 2282 2284 2286 2283
	2702 2531-2533 2517 2516 2632 2655 2660 2549 2649 2510 2614 2610 2615 2281 2285
RES	3796 3794 3787 3701 3744 3530 3534 3535 3704 3631 3706-3709 3560 3552 3621 3524 3520 3620 3703 3522 3523 3622 3623 3525 3558 3519 3526 3517 3402 3409 3401 3405 3408 3425 3421 3412
	3791 3702 3550 3650 3531 3533 3538 3540 3516 3630 3634 3545-3547 3559 3528 3624 3521 3648 3660 3659 3652 3610 3653 3515 3518 3404 3400 3407 3406 3411 3415 3422-3424
	3732-3736 3730 3539 3790 3542 3537 3635-3639 3554 3654 3549 3548 3655-3657 3553 3510 3611-3614 3403 3410 3413 3414
	3743 3786 3737-3742 3536 3544 3633 3534 3649 3555-3557 3541 3511-3514 3527 3402

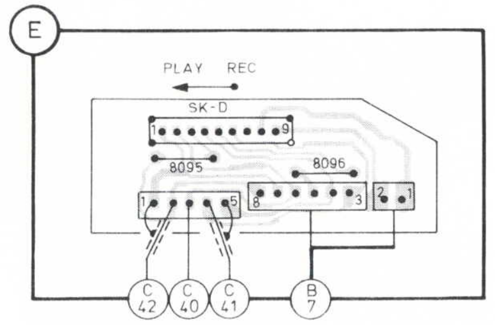


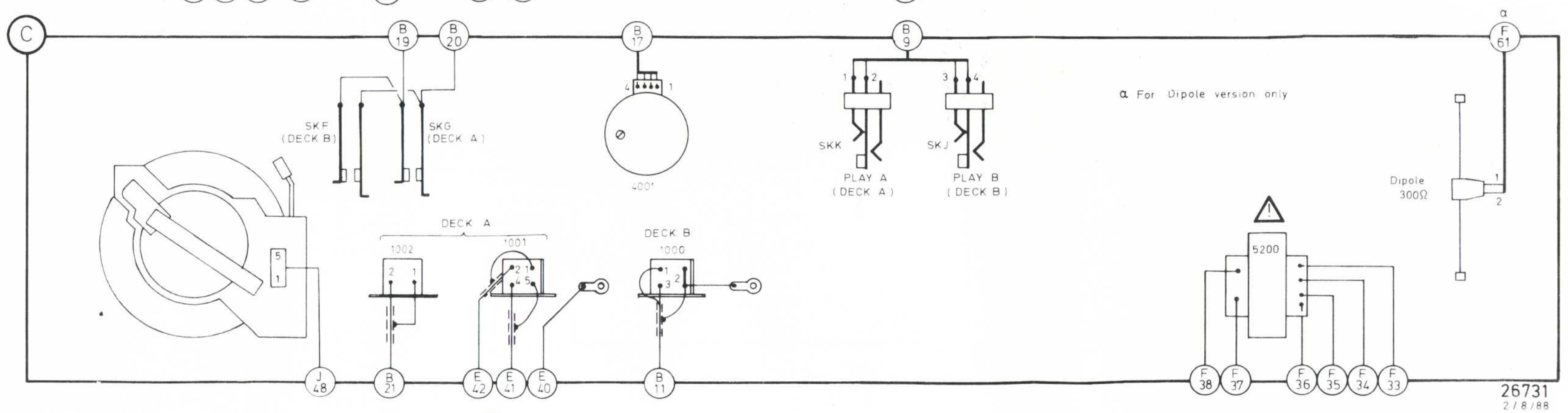




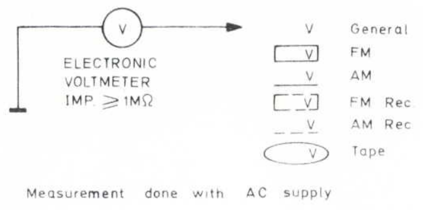




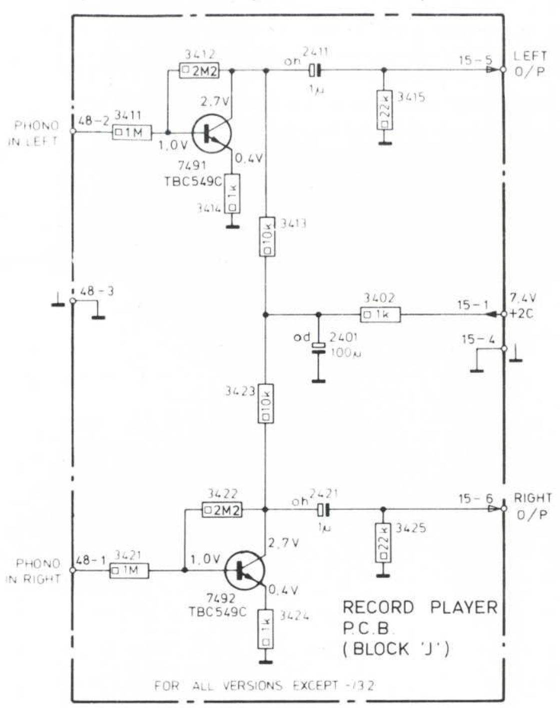


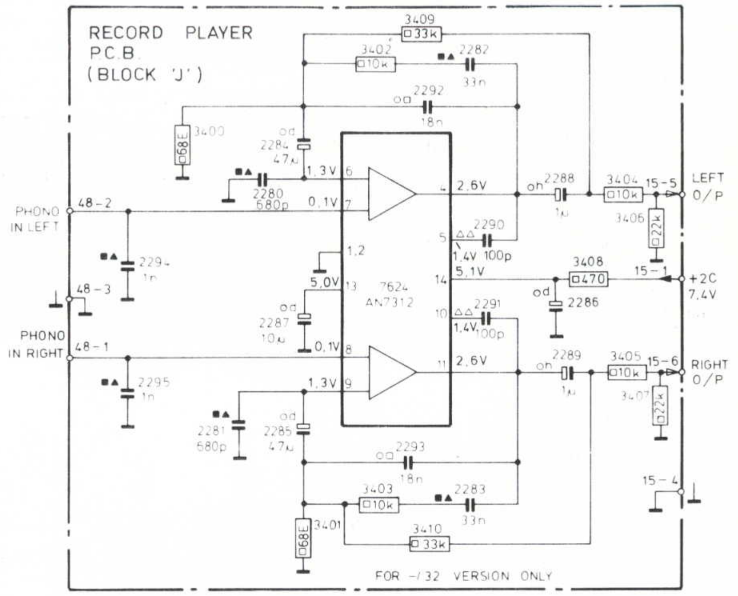


26731
2/8/88

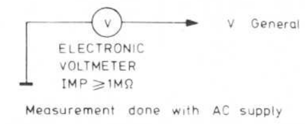


MISC	7491 7492 7624
CAP	2411 2294 2281 2284 2287 2292 2282 2290 2288 2286
	2421 2401 2295 2280 2285 2293 2283 2291 2289
RES	3411 3412 3414 3413 3415 3400 3401 3402 3409 3408 3404 - 3407
	3421 3422 3423 3424 3402 3425 3403 3410





26734
12/8/88



Pin	7621/7622	7623	7624
1	0V	0V	0V
2	-	0.9V	0V
3	-	-	-
4	3.5V	5.1V	2.6V
5	-	-	1.4V
6	1.3V	1.2V	1.3V
7	-	-	0.1V
8	-	-	0.1V
9	1.3V	1.2V	1.3V
10	-	-	1.4V
11	3.5V	5.1V	2.6V
12	-	-	-
13	6.9V	10.0V	5.0V
14	6.9V	10.1V	5.1V

	7491/7492	7431 (boxed)	7431 (underlined)
e	0.4V	11.1V	11.1V
b	1.0V	11.0V	10.2V
c	2.7V	-	10.2V

	7432 (boxed)	7432 (underlined)	7433 (boxed)	7433 (underlined)
e	7.3V	0V	0V	0V
b	3.6V	0V	0.1V	0.7V
c	11.1V	11.1V	11.0V	-

	7401/7501	7402/7502	7403/7503
e	0V	0V	0V
b	0.6V	0.6V	0.7V ▷
c	-	-	-

	7405	7414	7415/7515
e	0.1V	0V	0.1V
b	0.7V	0.7V	0.8V
c	1.6V	-	3.6V

	7429 ▷	7429 ▷▷	7430 ▷	7430 ▷▷
e	6.6V	5.9V	4.5V	5.4V
b	6.0V	5.3V	3.8V	5.9V
c	6.6V	5.9V	4.5V	-

	7454 ▷	7454 ▷▷	7453 ▷	7453 ▷▷
e	-	-	10.6V	10.4V
b	0.6V	-	10.0V	-
c	-	-	10.6V	7.6V

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POWER SUPPLY PANEL P018

Miscellaneous

1000	4822 249 10334	R/P Head
1002	4822 249 20072	Erase head
1003	4822 253 30027	Fuse T3.15A
1021	4822 242 70761	Crystal 4.5 MHz
1104	4822 276 12502	Switch push 4P2T
1110	4822 267 30633	Socket aerial
1111	4822 276 12276	Switch key
1120	4822 276 12345	Switch push 2P2T
1121	4822 277 21264	Switch slide 2P3T
1201	4822 278 90564	Switch leaf
1203	4822 276 12347	Switch push assy
1205	4822 276 12348	Switch slide 3P2T
1206	4822 276 12349	Switch push
1KQ	4822 272 10225	Voltage selector
1210	4822 265 20291	Socket mains
1211	4822 267 30631	Socket cinch assy
1212	4822 267 30968	Socket headphone
1213	4822 264 30237	Socket micro D6.3
1214	4822 290 60673	Socket push terminal
1701	4822 253 20089	Fuse T0.63A
4001	4822 361 21089	12 V NMI-6H2LWDA
7181	4822 134 40885	5 V 115 mA *

C

2109	4822 122 33157	Elco 47 nF 5.5 V
2131	4822 121 51377	160 V 620p
2132	4822 121 51376	160 V 549p
2139	4822 125 60101	Trim 100 V 11p
2187	4822 122 33653	50 V 91p

R

3163	4822 100 20166	Preset 10k
3580	4822 111 30511	NFR25 12E
3590	4822 105 11013	Potm. slide 50KBX2
3595	4822 105 11012	Potm. slide 100 kW
3596	4822 102 30465	Potm. rot 50KBX2

S

5103	4822 156 30947	FM RF coil
5106	4822 156 11045	MW Osc coil
5107	4822 158 60583	MW LW Ant assy
5109	4822 156 10688	IFT AM WT
5110	4822 156 10726	IFT AM YW
5111	4822 242 71856	Cer. filter
5113	4822 242 72097	Cer. filter
5115	4822 157 53808	Ind. 220 µH
5200	4822 146 30718	Transformer, mains
5290	4822 157 53809	Ind. 680 µH

D

7101	4822 130 30621	1N4148
7124	4822 130 81091	BB304
7128	4822 130 31129	BB212
7140	4822 130 34174	BZX79C4V7
7141	4822 130 34173	BZX79C5V6
7142	4822 130 34297	BZX79C10V
7146	4822 130 30862	BZX79C9V1
7251	5322 130 31504	BZX79C3V3
7254	4822 130 33774	S5VB10
7256	4822 130 34488	BZX79C11V
7257	4822 130 34382	BZX79C8V2
7259	4822 130 80986	PLED H314A/6

TS

7302	4822 130 60163	2SC1047C
7303	4822 130 60093	2SA838B
7304	4822 130 44196	TBC548C
7305	5322 130 60068	BC558C
7311	4822 130 40938	TBC548
7310	4822 130 40937	TBC548B
7314	4822 130 44235	BD233
7315	4822 130 44196	1402E
7414	4822 130 41344	BC337-40
7416	4822 130 44246	BC549C
7429	4822 130 44104	180Z
7431	4822 130 41691	BC556B
7491	4822 130 44246	TBC549C
7550	4822 130 90607	LTP7B8151A

IC

7551	4822 209 10264	MN4069UB
7552	4822 209 11443	UPD1713AG-575
7554	4822 209 72097	CXA1111P
7555	4822 209 71321	AN7411
7556	4822 209 71901	NJM78L05A
7621	4822 209 70997	AN7312
7630	4822 209 73356	AN7161N(FP)

(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 i pezzi di ricambiago 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.

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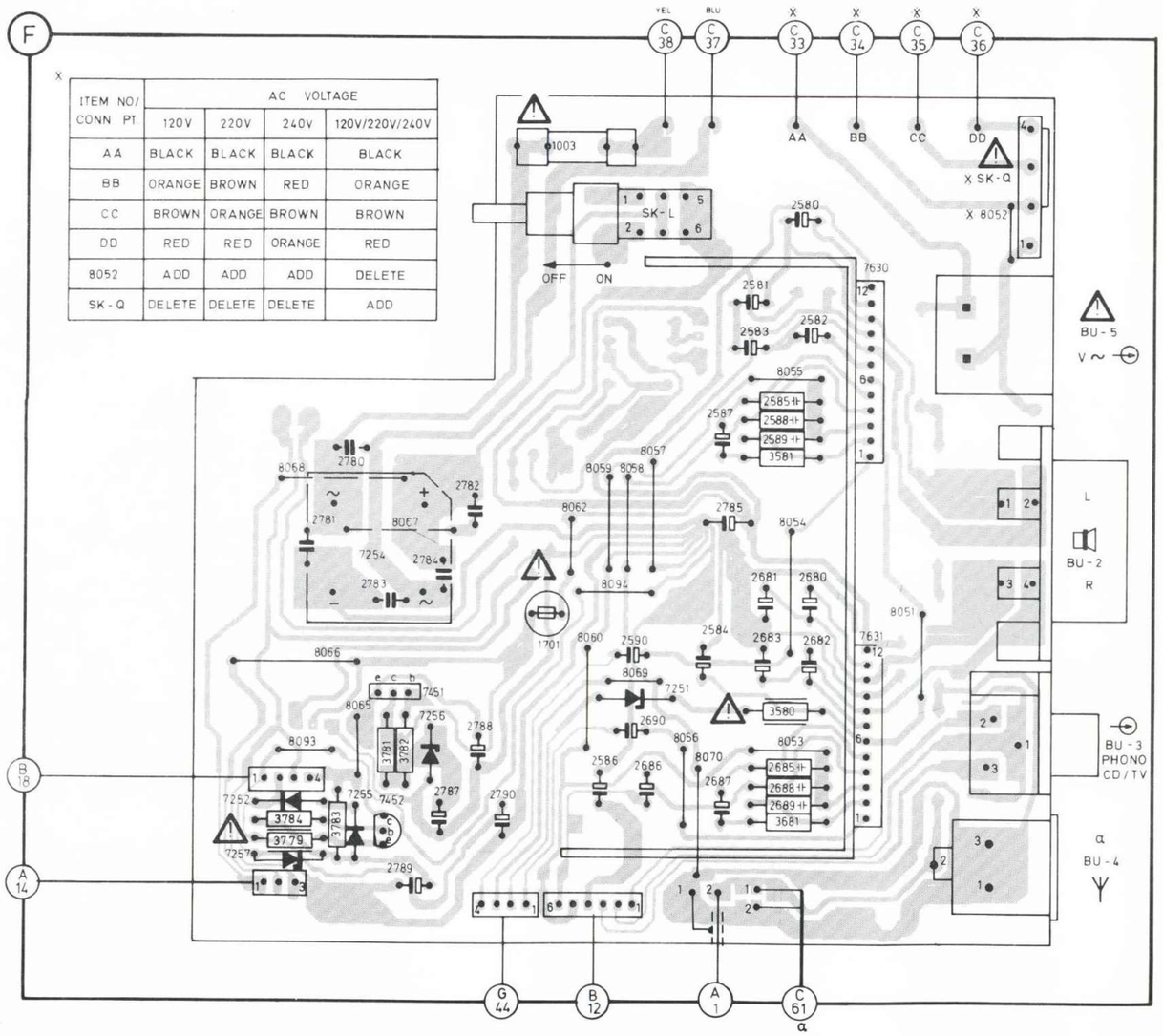
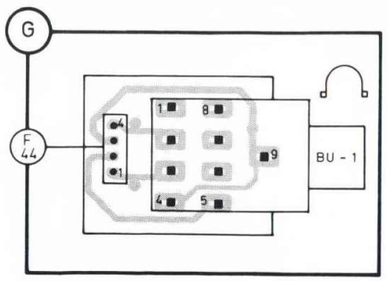
MISC	7252 8068 8066 8065 8067 7451	1003 8059 8058 8057 7251 8070 8053-8055 7630 8051 SKQ BU5 BU3
	7257 8093 7255 7452 7256	1701 8094 8069 8056 7631 8052 BU2
	7254	8062 8060 SKL BU4
	BU1	
CAP	2781 2780 2784 2782 2790	2586 2590 2686 2785 2581-2583 2580
	2783 2789 2787 2788	2690 2584 2680-2683
		2587-2589 2585
		2687-2689 2685
RES	3784 3783 3781 3782	3581
	3779	3580
		3681

	8081-8083	7417 7517 7516 8080
		SKP 7416
		8085 8084
	2573 2661 2564	2562 2568 2572 2563
	2569 2561 2664 2673 2667-2669	2663
	2674	2566 2671 2665 2662 2670
	2574	2666 2571 2565 2567 2570
	3566 3678 3675 3562 3677	3590-3594 3561 3565 3579
	3666 3676 3576 3662	3595 3573 3661 3667 3674
	3568 3578 3670 3564	3596 3673 3571 3563 3567 3574
	3668 3575 3664	3679 3663 3569 3672
	3577 3570	3572 3665 3669 3671

F

ITEM NO/ CONN PT	AC VOLTAGE			
	120V	220V	240V	120V/220V/240V
AA	BLACK	BLACK	BLACK	BLACK
BB	ORANGE	BROWN	RED	ORANGE
CC	BROWN	ORANGE	BROWN	BROWN
DD	RED	RED	ORANGE	RED
8052	ADD	ADD	ADD	DELETE
SK-Q	DELETE	DELETE	DELETE	ADD



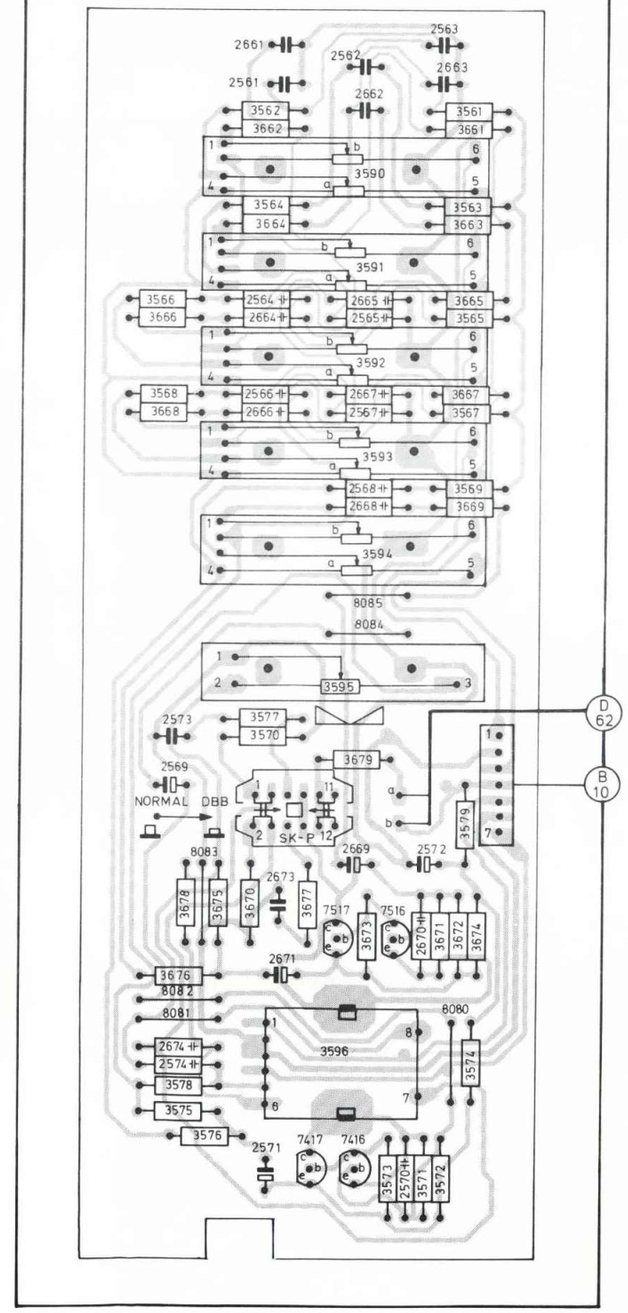


α

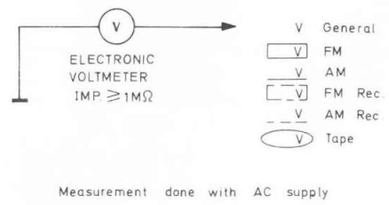
	-/32	-/38	Others
BU-4	ADD	DELETE	ADD
C 61	ADD	ADD	DELETE

25

I



7630 / 7631	7416 / 7516	7417 / 7517
1 - 4.1 V	e - 0 V	e - 2.7 V
2 - 1.2 V	b - 0.6 V	b - 2.0 V
3 - 0 V	c - 2.0 V	c - 0 V
4 - -		
5 - 1.3 V		
6 - 17.4 V		
7 - 16.5 V		
8 - 9.5 V	7451	7452
9 - 0 V	e - 11.1 V	e - 7.6 V
10 - 9.6 V	b - 11.7 V	b - 8.2 V
11 - 16,5 V	c - 17.4 V	c - 11.1 V
12 - 17.5 V		



Measurement done with AC supply

26

26732
4/8/88

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