Stereo radio recorder D8154/00/05

Service
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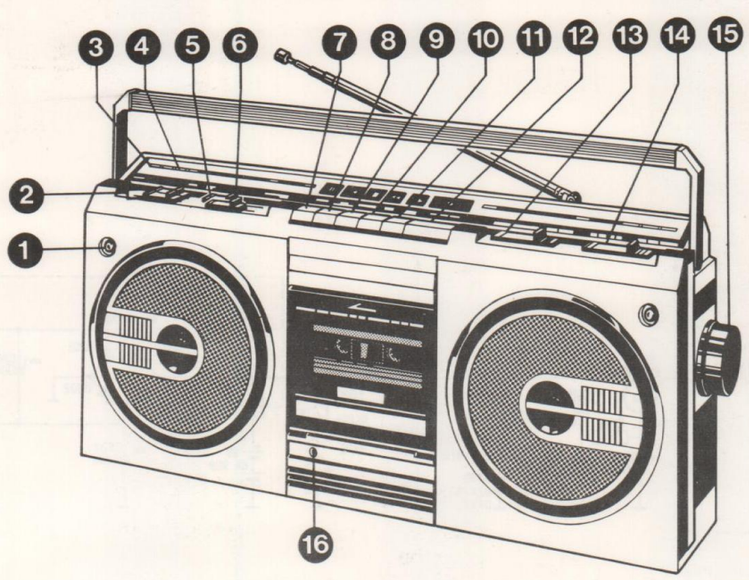
For repair information of the cassette mechanism see Service Manual of "Recorders tape deck RT-1" and "Recorders tape deck RT-45".

Service Manual



38 089 A12

CONNECTIONS AND CONTROLS

1.		„Electret mic"	Mi201	11.		„Rewind/review"	SK2
2.		„Volume control L/R"	R281/R231	12.		‚Record"	SK2,SK210
3.		„Power indicator"	D182	13.	FM-MW-LW-SW**	„Wave range selector"	SK101
4.		„Stereo indicator"	D181	14.	Tape, Radio	„Mode selector"	SK201
5.		„Tone control L/R"	R280/R230	15.		„Tuning"	C101
6.	mono-stereo-spatial	„Sound control"	R250	16.		„Headphone"	BU213
7.		„Pause"		17.		„Line in L/R"	BU210/260
8.		„Play"	SK2	18.		„Line out L/R"	BU230/280
9.	/	„Stop/Eject"		19.	V~	„Mains inlet"	BU1/SK1
10.		„Fast forward/cue"	SK2				

SPECIFICATION (minimum values)

V ⎓		
⏚	9 V (6 × R20)	
	: 220 V 50/60 Hz	
	: (240 V for /05)	
	For adaption see wiring diagram	
IF-FM	: 10.7 MHz ± 90 kHz	
IF-AM	: 468 kHz ± 1 kHz	
FM	: 87.5-108 MHz	+0.5 MHz −0.3 MHz
SW	: 5.95-17.9 MHz	
MW	: 520-1605 kHz	
LW	: 150-255 kHz	
Tape speed	: 4.76 cm/sec. ± 2% (15-35°C)	
Wow and flutter	: ≤ ± 0.3%	

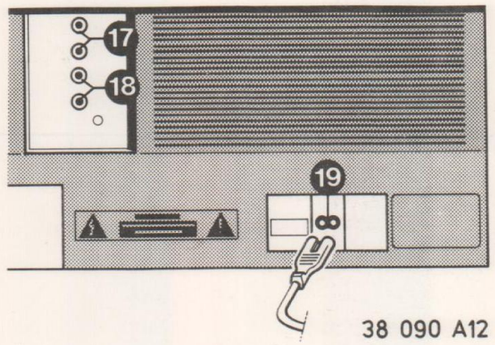
Freq. response (overall within 8 dB)
Ferro (FM-tape) : 250-6300 Hz

Output values

0-2.5 V adjustable line out : BU230,280
Headphone output/8-90 Ω : BU231

Input values

Recording 100 mV/≥50kΩ BU210, 260
Monitoring 300 mV/≥50kΩ BU210, 260



38 090 A12

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

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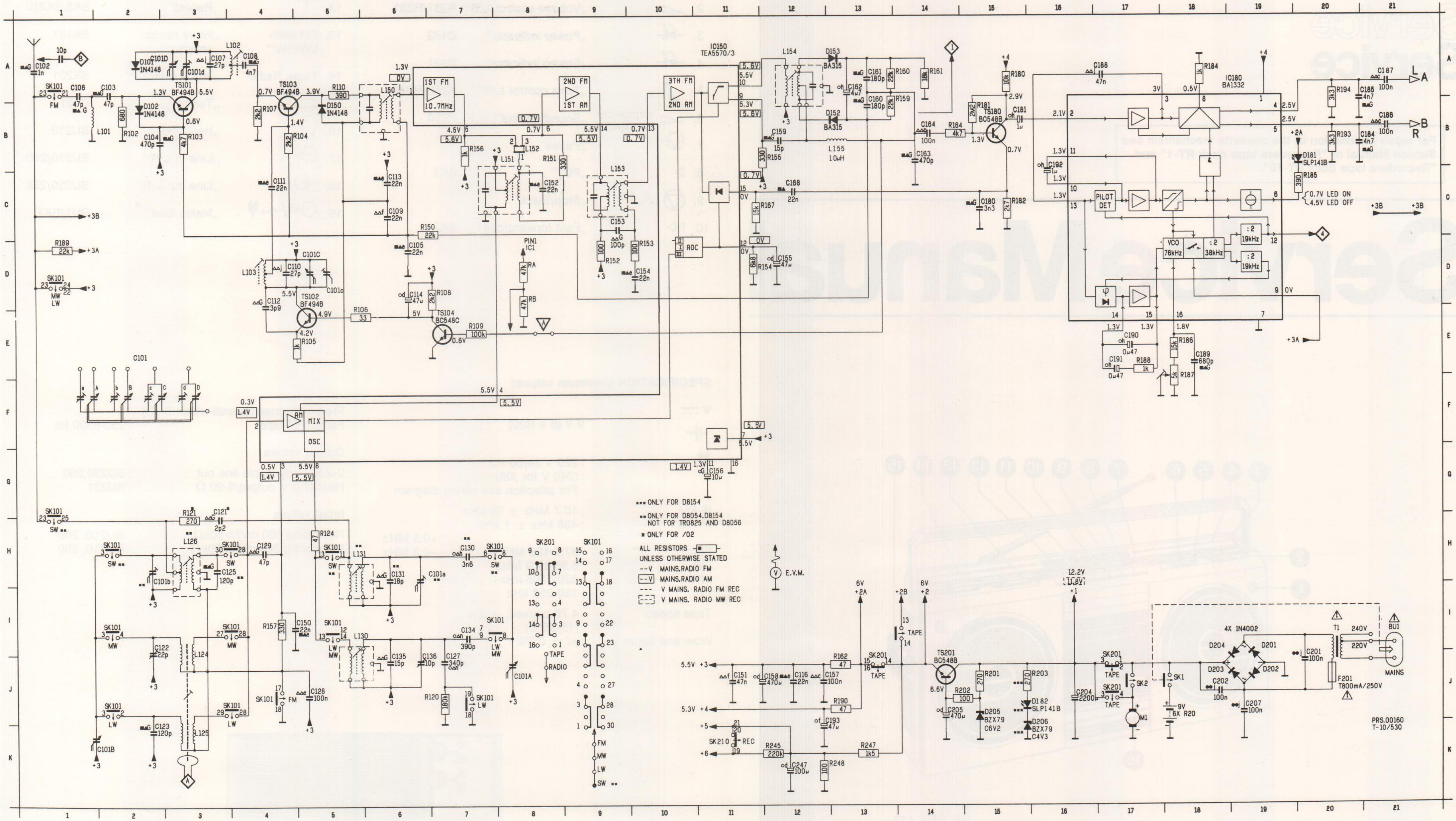
"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

PHILIPS

Published by Service Consumer Electronics

CS 101 748

Component	Location
BU1	I21
C102	A 1
C103	A 2
C104	B 2
C105	D 6
C106	A 1
C107	A 3
C108	A 4
C109	C 6
C110	D 5
C111	C 4
C112	D 4
C113	C 6
C114	D 6
C116	J12
C121	G 3
C122	I 2
C123	K 2
C125	H 4
C127	J 7
C128	J 5
C129	H 4
C130	H 7
C131	H 6
C134	I 7
C135	J 6
C136	J 7
C150	I 5
C151	J11
C152	C 8
C153	C 9
C154	D10
C155	D12
C156	G11
C157	J13
C158	J12
C159	B12
C160	B13
C161	A13
C162	A13
C163	B14
C164	B14
C168	C12
C180	C15
C181	B15
C184	B21
C185	A21
C186	B21
C187	A21
C188	A17
C189	E18
C190	E17
C191	E17
C192	B16
C193	J13
C201	J20
C202	J18
C204	J16
C205	J14
C207	J19
C247	K12
D101	A 2
D102	B 2
D150	B 5
D152	B13
D153	A13
D181	B20
D182	J16
D201	I19
D202	J19
D203	J18
D204	I18
D205	J15
D206	K16
F201	J20
IC150	A11
IC180	A19
L101	B 2
L102	A 4
L103	D 4
L124	I 3
L125	K 3
L126	H 3
L130	I 5
L131	H 5
L150	A 6
L151	B 8
L152	B 8
L153	B 9
L154	A12
L155	B13
R102	B 2
R103	B 3
R104	B 5
R105	E 5
R106	E 5
R107	B 4
R108	D 7
R109	E 7
R110	A 5
R120	J 7
R121	G 3
R124	H 5
R150	C 7
R151	B 8
R152	D 9
R153	D10
R154	D12
R155	B12
R156	B 7
R157	I 4
R159	B14
R160	A14
R161	A14
R162	J13
R164	B14
R167	C12
R180	A15
R181	B15
R182	C15
R184	A18
R185	C20
R186	E18
R187	F18
R188	E17
R189	D 1
R190	J13
R193	B20
R194	A20
R201	J15
R202	J14
R203	J16
R245	K12
R247	K13
R248	K13
SK1	J18
SK101	A 1
SK101	J 4
SK101	H 2
SK101	I 2
SK101	J 2
SK101	H 4
SK101	I 4
SK101	J 4
SK101	H 5
SK101	I 5
SK101	H 7
SK101	I 7
SK101	G 1
SK101	J 7
SK101	D 1
SK201	J17
SK201	J17
SK201	J13
T1	I20
TS101	A 3
TS102	D 5
TS103	A 4
TS104	E 7
TS180	B15
TS201	J14



CS 101 749

Adjustment	Cassette	Recorder in position	Apply signal to	Measure on	Read on	Adjust with	Adjust to
Tape speed	3150 Hz of SBC420	PLAY Tape	—	BU230 (BU280)	Wow- and flutter meter	R motor	*a 4.76 cm/s
Azimuth R/P head	8 kHz of SBC420	PLAY Tape	—	BU230 (BU280)	mV-meter	Left screw R/PB head	Max. output + outp. L ≈ outp. R

*a The maximum permissible speed deviation is 2%. Moreover, the wow-and-flutter value can be read. This value should not exceed 0.3%.

SBC420= 4822 397 30071

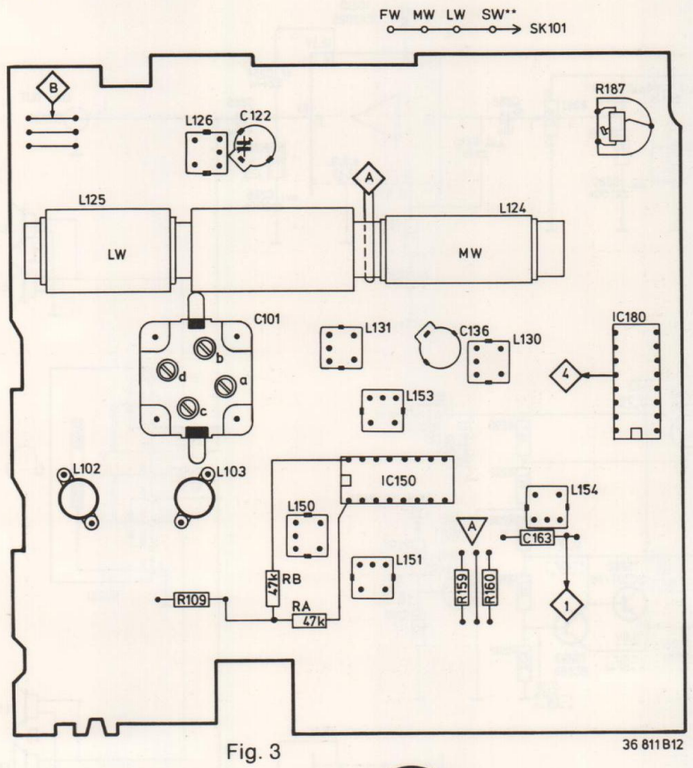


Fig. 3

GB

1 Adjust the "S"-curve for symmetry and max. linearity.
2 Open jumper A. Connect R109 to RA and RB (2x 47k).
3 Close jumper A. Remove RA and RB.

NL

1 Regel de "S"-kromme af op symmetrie en max. lineariteit.
2 Open brug A. Verbindt R109 met RA en RB (2x 47k).
3 Sluit brug A. Verwijder RA en RB.

I

1 Regolare per pendenza massima e per simmetria della curva ad "S".
2 Aprire il ponticello A. Collegare R109 a RA e RB (2x 47k).
3 Chiudere il ponticello A. Sopprimere RA e RB.

F

1 Adjuster la courbe en "S" pour un maximum de pente et de symétrie.
2 Ouvrir le pontet A. Relier R109 à RA et RB (2x 47k).
3 Fermer le pontet A. Eliminer RA et RB.

D

1 Die "S"-Kurve auf Symmetrie und maximale Linearität einstellen.
2 Brücke A öffnen. R109 mit RA und RB (2x 47k) verbinden.
3 Brücke A schliessen. RA und RB entfernen.

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

SK-101						
MW	468 kHz*	A	Max Cap	L151 L153		1 Max
MW 520-1605 kHz	1635 kHz*	A	Min Cap	C136		1 Max
	560 kHz*			L124		
	1500 kHz*			C122		
LW 150-255 kHz	150 kHz*	A	Max Cap	L130		1 Max
	200 kHz*			L125		
SW** 5.9 MHz ÷ 17.9 MHz	5.9 MHz*	B	Max Cap	L131		1 Max
	17.9 MHz*		Min Cap	C101a		
	6.2 MHz*			L126		1 Max
	17 MHz*			C101b		
FM	10.7 MHz △f= 300 kHz (50 Hz)	B		L154 L150	2 1 1	
FM 87.5-108 MHz	87.35 MHz Mod 1 kHz △f= 22.5 kHz	B	Max Cap	L103***		1 Max
	108 MHz Mod 1 kHz △f= 22.5 kHz		Min Cap	C101c		
	87.35 MHz Mod 1 kHz △f= 22.5 kHz		Max Cap	L102***		1 Max
	108 MHz Mod 1 kHz △f= 22.5 kHz		Min Cap	C101d	3	1 Max

↕ Repeat-Herhalen-Répéter-Wiederholen-Repetera-Ricomminiare-Gentage
* Mod 1 kHz 30% AM

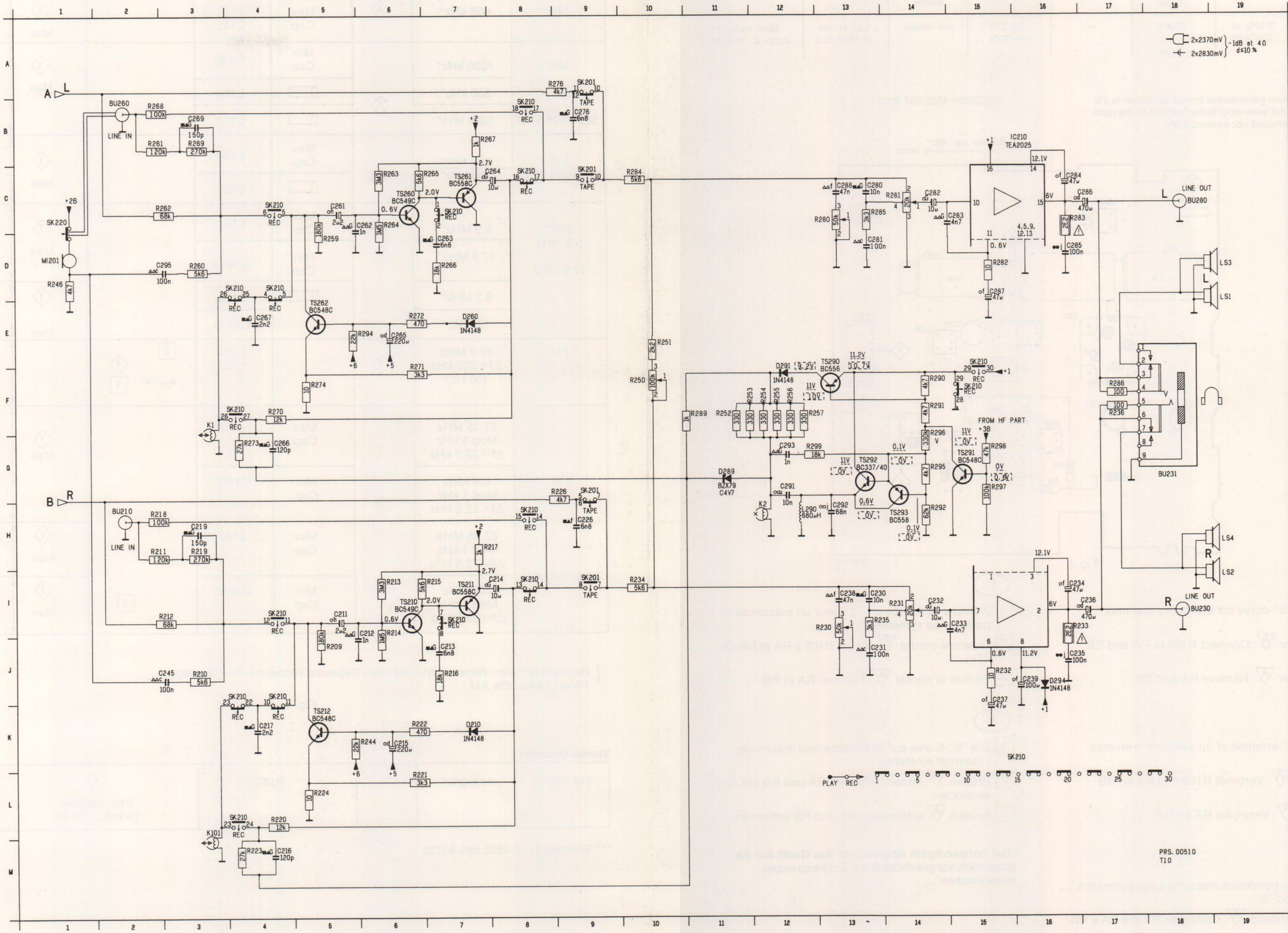
Fig. 4

Stereo-Decoder

FM-SK101	no signal		R187	4 freq. counter 19 kHz ± 50 Hz

*** Trimming rod 4822 395 50135

BU210 H 2	C213 J 7	C230 I13	C237 J15	C264 C 8	C281 D13	C288 C13	D289 G11	L290 H12	R210 J 3	R217 H 8	R224 L 5	R235 I13	R253 F11	R261 B 2	R268 B 2	R276 A 9	R286 F17	R296 G14	SK201 I 9	SK210 J 4	SK210 E15	TS260 C 6
BU230 I18	C214 I 8	C231 J13	C238 I13	C265 E 6	C282 C14	C291 G12	D291 F12	LS1 E19	R211 H 2	R218 H 2	R226 G 9	R236 F17	R254 F12	R262 C 3	R269 B 3	R280 C13	R289 F11	R297 G15	SK210 D 4	SK210 L 4	SK210 B 8	TS261 C 7
BU231 G18	C215 K 6	C232 I14	C239 J16	C266 G 4	C283 C15	C292 H13	D294 J16	LS2 I19	R212 I 3	R219 H 3	R230 I13	R244 K 6	R255 F12	R263 C 6	R270 F 4	R281 C14	R290 F14	R298 G15	SK210 F 4	SK210 J 4	SK210 H 8	TS262 E 5
BU260 B 2	C216 M 4	C233 I15	C245 J 3	C267 E 4	C284 C16	C293 G12	IC210 B16	LS3 D19	R213 I 6	R220 L 4	R231 I14	R246 D 1	R256 F12	R264 C 6	R271 E 6	R282 D15	R291 F14	R299 G12	SK210 D 4	SK210 I 8	SK220 C 1	TS290 E13
BU280 C18	C217 K 4	C234 I16	C261 C 5	C269 B 3	C285 D16	C295 D 3	K1 F 3	LS4 H19	R214 I 6	R221 L 6	R232 J15	R250 F10	R257 F13	R265 C 7	R272 E 6	R283 C17	R292 H14	SK201 A 9	SK210 C 8	SK210 I 7	TS210 I 6	TS291 G15
C211 I 5	C219 H 3	C235 J16	C262 C 6	C276 B 9	C286 C17	D210 K 7	K101 L 3	MI201 D 1	R215 I 7	R222 K 6	R233 I17	R251 E10	R259 D 5	R266 D 7	R273 G 4	R284 C10	R294 E 6	SK201 C 9	SK210 C 7	SK210 I 4	TS211 I 7	TS292 G13
C212 I 6	C226 H 9	C236 I17	C263 D 7	C280 C13	C287 D15	D260 E 7	K2 H12	R209 J 5	R216 J 7	R223 M 4	R234 I10	R252 F11	R260 D 3	R267 B 8	R274 F 5	R285 C13	R295 G14	SK201 G 9	SK210 C 4	SK210 F15	TS212 K 5	TS293 H14



CS 101 750

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.

Carbon film 0.2 W	70°C	5%	
Carbon film 0.33 W	70°C	5%	
Metal film 0.33 W	70°C	5%	
Carbon film 0.5 W	70°C	5%	
Carbon film 0.67 W	70°C	5%	
Carbon film 1.15 W	70°C	5%	
Ⓒ Chip component			

Ceramic plate Tuning ≤ 120 pF NP.0	2%	
Others	−20/+80%	
Polyester flat foil	10%	
Metalized polyester flat film	10%	
Polyester flat foil small size (Mylar)	10%	
Polysterene film/foil	1%	
Tubular ceramic		
Miniature single		
Subminiature tantalum	± 20%	

*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	

27 037A/C

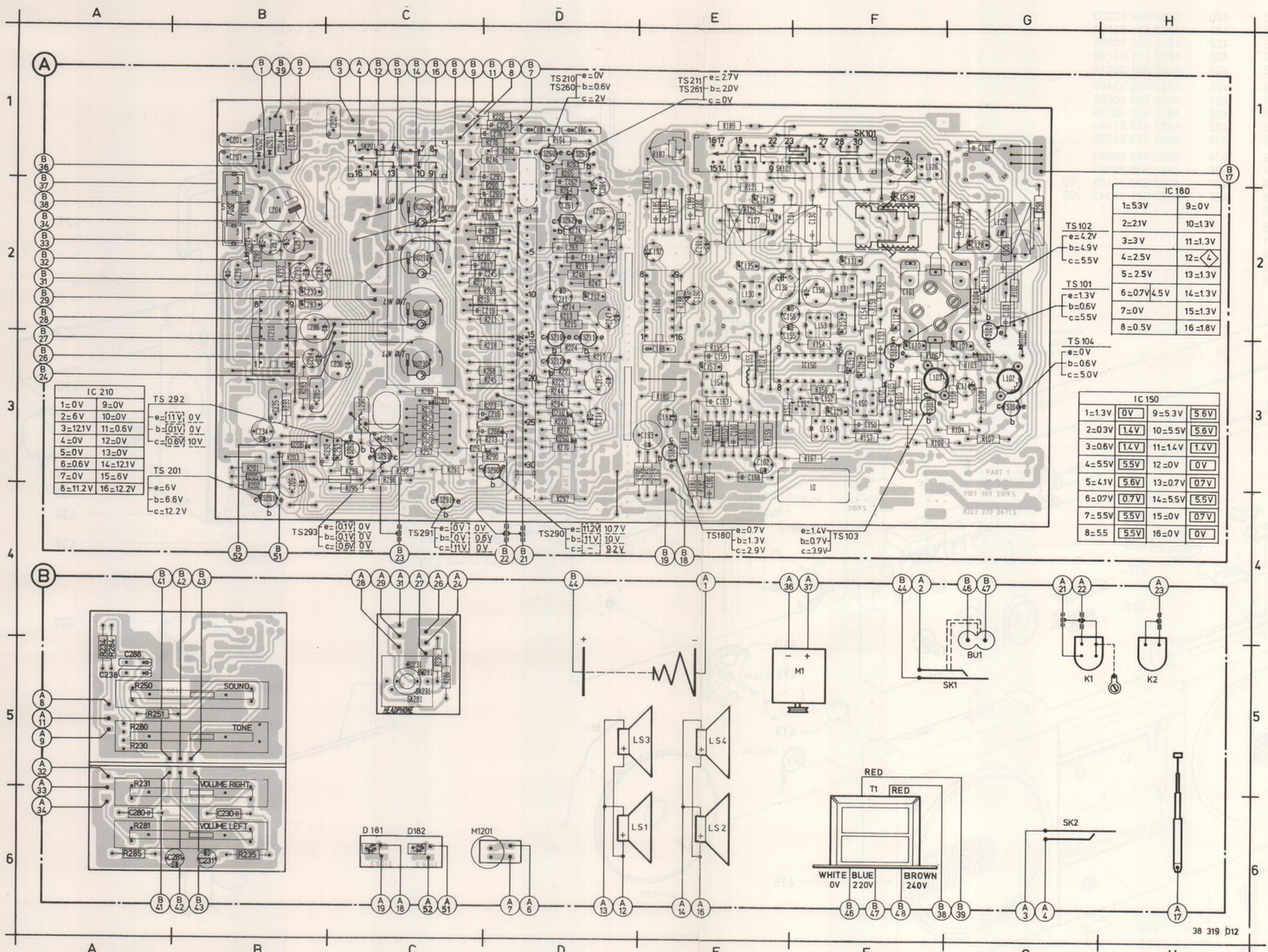
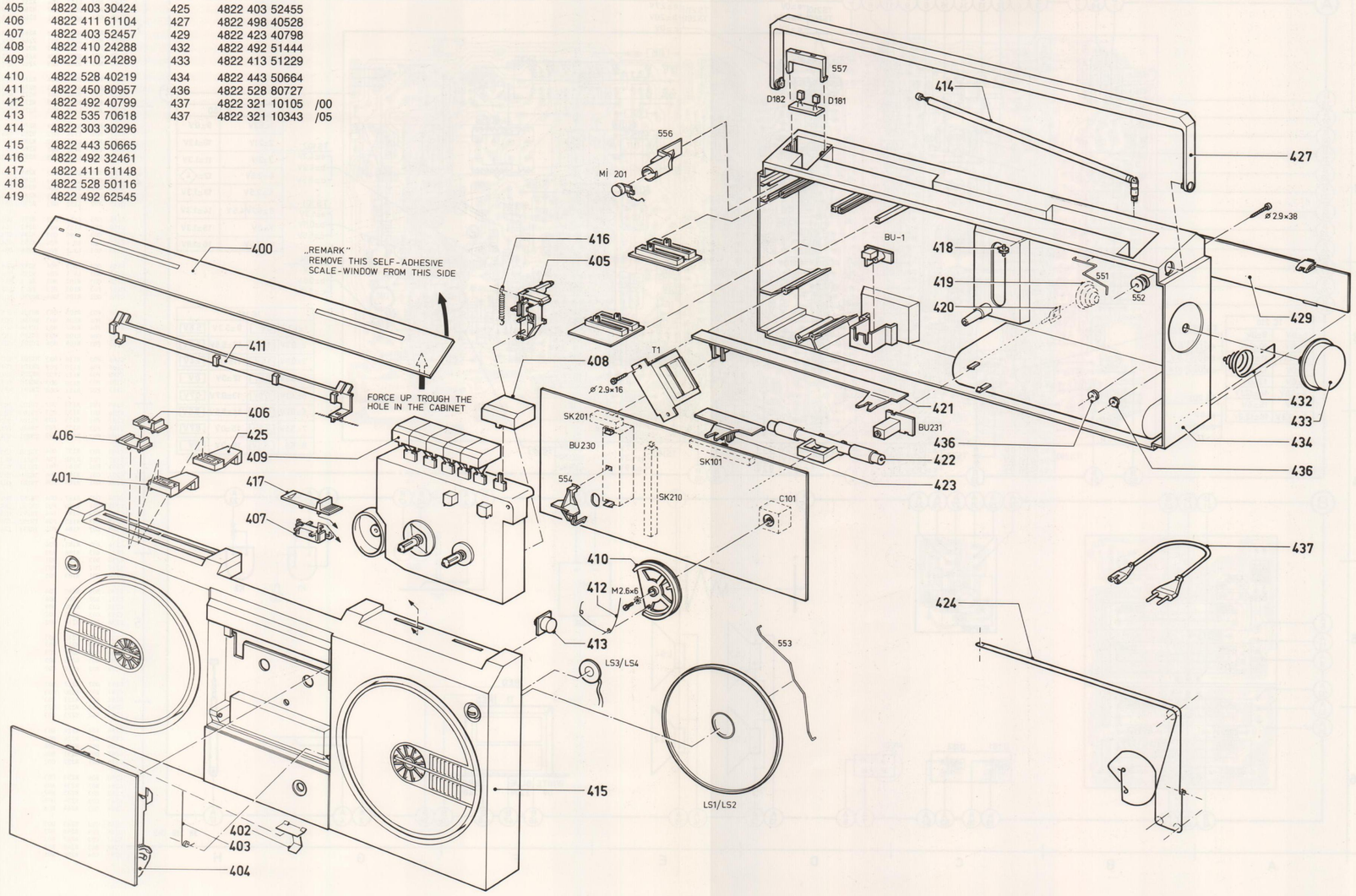


Fig. 6

400	4822 333 50656	420	4822 492 62233		
401	4822 403 52456	421	4822 411 61151		
402	4822 492 63186	422	4822 526 10262		
403	4822 492 41234	423	4822 411 61149		
404	4822 443 61612	424	4822 321 30214		
405	4822 403 30424	425	4822 403 52455		
406	4822 411 61104	427	4822 498 40528		
407	4822 403 52457	429	4822 423 40798		
408	4822 410 24288	432	4822 492 51444		
409	4822 410 24289	433	4822 413 51229		
410	4822 528 40219	434	4822 443 50664		
411	4822 450 80957	436	4822 528 80727		
412	4822 492 40799	437	4822 321 10105	/00	
413	4822 535 70618	437	4822 321 10343	/05	
414	4822 303 30296				
415	4822 443 50665				
416	4822 492 32461				
417	4822 411 61148				
418	4822 528 50116				
419	4822 492 62545				



38 296 E12

-IC-		
IC180	BA1332	4822 209 83105
IC210	TEA2025A	4822 209 82487
IC150	TEA5570	4822 209 81563

-TS-	
BC337-40	4822 130 41344
BC548B	4822 130 40937
BC548C	4822 130 44196
BC549C	4822 130 44246
BC556	4822 130 40989
BC558	4822 130 40941
BC558C	4822 130 44197
BF494B	4822 130 41376

-D-	
BA315	4822 130 30843
BZX79-B4V7	4822 130 34174
BZX79-B6V2	4822 130 34167
SLP141B	4822 130 31191
1N4002	5322 130 30684
1N4148	4822 130 30621
BZX79C4V3	4822 130 31554

-L-	
L102	4822 156 30947
L103	4822 156 30947
L126	4822 156 30811
L130	4822 156 10687
L131	4822 156 10689
L150	4822 153 50206
L151	4822 156 10737
L152	4822 242 70249
L153	4822 156 10737
L154	4822 156 10686
L155	4822 157 51462
L290	5322 157 51718

-C-	
C101	4822 125 30039
C122	4822 125 50045
C136	4822 125 50062

-R-	
R187-5K	4822 100 10918
R230-50K	4822 105 10609
R231-20K	4822 105 10674
R233-2E2 ⚠	4822 111 20378
R250-100K	4822 105 10608
R281-20K	4822 105 10674
R283-2E2 ⚠	4822 111 20378

-SK-		
SK101	"Wave select"	4822 277 30716
SK201	"Mode"	4822 277 30633
SK210	"Play/Rec"	4822 277 60189

-Miscellaneous-		
BU1	⚠	4822 265 20207
BU230		4822 267 50487
BU231		4822 267 30599
F201	⚠ 800 mAT	4822 253 30019
LS1,LS2		4822 240 30211
LS3,LS4		4822 280 10144
Screw	2,9×38	4822 502 30235
T1	⚠	4822 146 10121
Fuse holder		4822 492 62373
Mi201		4822 242 10054