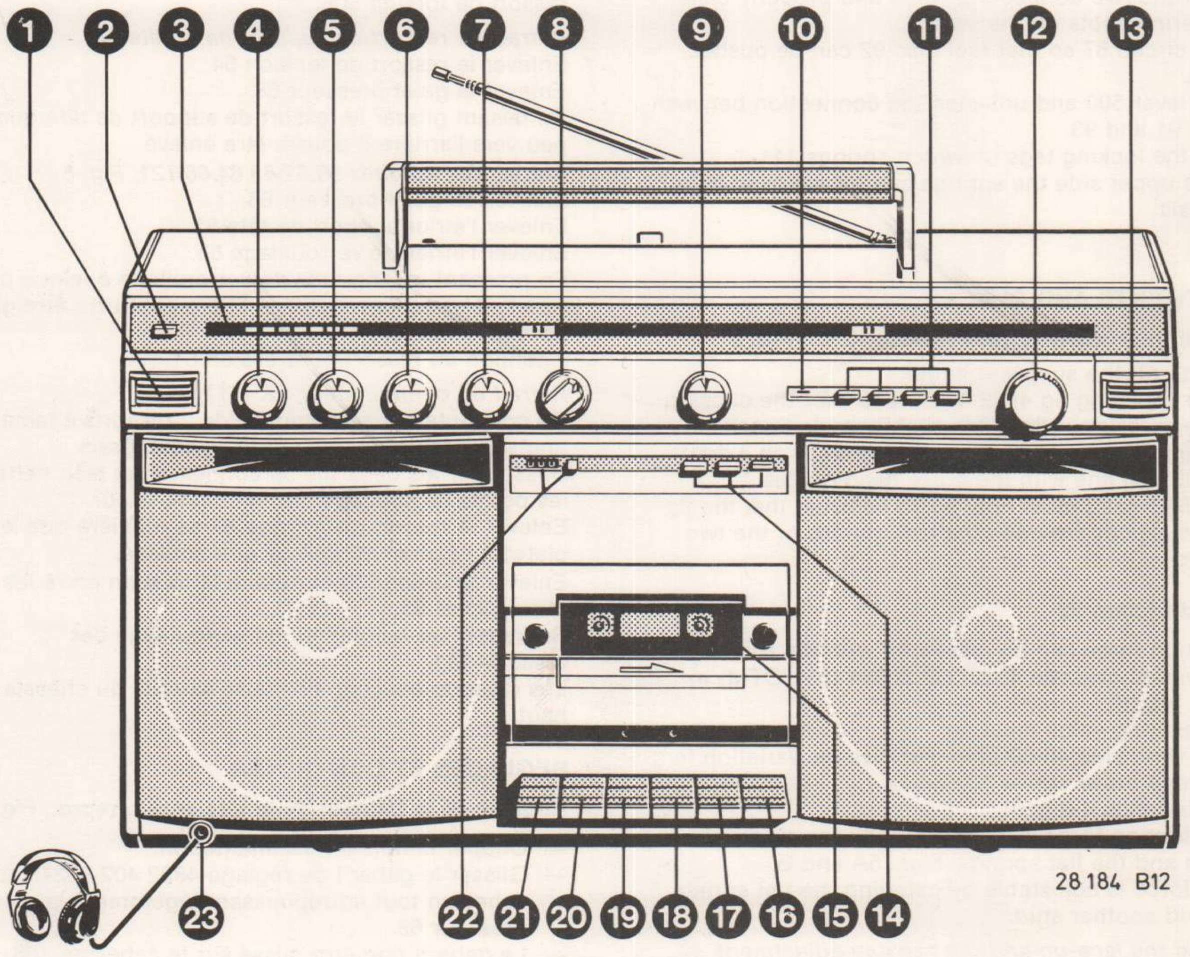
Stereo radio-recorder D 8523/01/10

Service
Service
Service

Service Manual



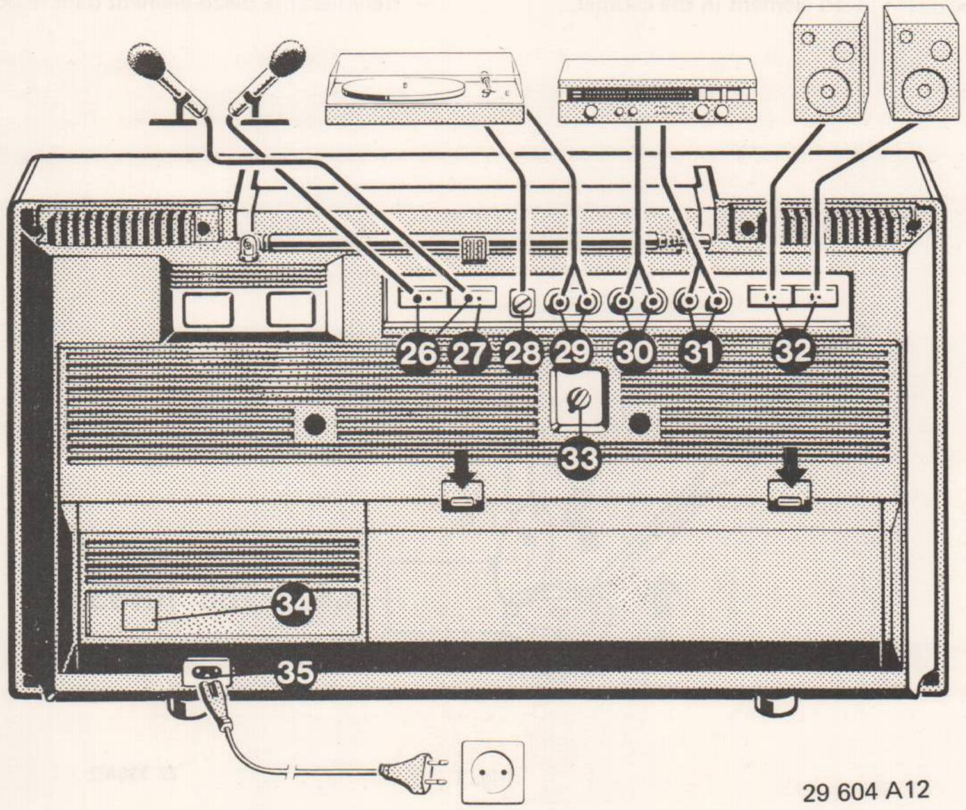
28 184 B12

CONNECTIONS AND CONTROLS

1.	○ L	"electret mic. left"	Mi1
2.	⊣⊢	"battery check switch"	SK21
3.	Tuning VU on/off battery check	"LED bar"	D502,D503
4.	▷◁	"balance control"	R237
5.	𝄢	"bass control"	R225/R275
6.	𝄞	"treble control"	R228/R278
7.	Mono-stereo spatial stereo	"stereo control"	R236
8.	Phono, aux. radio, tape	"mode selector"	SK9
9.	◁	"volume control"	R230/R280
10.		"stereo indicator"	D180
11.	FM SW2 SW1 AM	"FM-SW2-SW1 AM switch"	SK4,SK5, SK6, SK7
12.	▭	"tuning"	C101
13.	○ R	"electret mic. right"	M101
14.	Metal, chrome normal	"tape selector"	SK17, SK18 SK19
15.		"cassette lid"	
16.	⊽	"pause"	

17.	⊽ Eject	"stop/eject"	
18.	▷	"play"	SK28
19.	▷▷	"fast forward"	SK28
20.	◁◁	"rewind"	SK28
21.	○○	"recording"	SK28,SK15
22.		"counter"	
23.	🎧	"headphone"	BU13/SK13
26.	○ L + R	"external mic. left + right"	BU1,2/SK1,2
27.	▷ ⊽ ▭	"start/stop remote control"	BU3/SK3
29.	○	"MD phono socket"	BU4,BU5
30.	AUX	"aux. socket"	BU6,BU7
31.	⊖→	"line out"	BU8,BU9
32.	◁▯ R, L	"external L.S."	BU10,11/ SK10,11
33.	△ f	"R.I.F. switch"	SK16
34.*		"voltage selector"	SK29
35.		"mains"	BU14/SK14

* Only for /01



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

PHILIPS

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

Subject to modification
4822 725 14826
Printed in The Netherlands

PHILIPS

CS 82 370

SPECIFICATION

⊣⊢	: 12 V (8 x R20)
🔌	: 117 V/220 V switchable for /01 110 V/240 V for /10
🔈 🔌	: 2 x 3 W — 8 Ω D= 10%
IF AM	: 455 kHz
IF FM	: 10.7 MHz
FM	: 87.5 MHz — 108 MHz
SW1	: 2.3 MHz — 7.3 MHz
SW2	: 9.5 MHz — 21.7 MHz
AM	: 520 kHz — 1605 kHz
Tape speed	: 4.76 cm/sec. ± 2%
Wow and flutter	: ⩽ 0.3%

Bias Freq.	: 72 kHz
Freq. response	
Metal tape	: 60 - 14000 Hz
CR$_{O2}$ tape	: 60 - 12000 Hz
Ferro tape	: 60 - 10000 Hz
Input sensitivity	
Microphone	: 0.4 mV/2.7 kΩ
Phono dyn.	: 3.5 mV/47 kΩ
Phono crystal aux./line in	: 150 mV/470 kΩ
Headphone impedance	: 8 - 600 Ω
External loudspeaker	: 4 - 8 Ω

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SERVICING HINT

The piezoelectric tweeter is supplied completed with a housing. However, it is not possible to remove this housing from the apparatus without causing damage to the cabinet.
For this reason, only the piezo element should be replaced, if required. To do this, proceed as follows:

- Take the piezo element out of its housing in a manner similar to the one shown in Fig. 1.
- Apply a suspicion of (non-aggressive) adhesive to the periphery of the replacement piezo element.
- Place the replacement piezo element in the cabinet.

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CONSEIL REPARATION

Le tweeter piëzo-électrique est fourni avec son boîtier.
Il n'y a cependant pas moyen d'extraire ce boîtier de l'appareil sans âbimer le grand boîtier.
Il faut donc n'enlever **que** le piëzo-élément en cas de remplacement .
Procéder à cet effet comme suit:

- Extraire le piëzo-élément de son cadre comme indiqué à la fig. 1.
- Appliquer tout autour de l'élément une petite quantité de colle non mordante.
- Remplacer le piëzo-élément dans le boîtier.

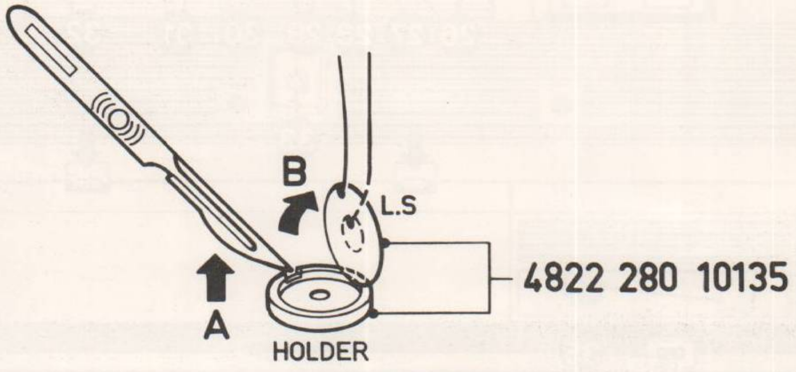

Fig. 1

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DEMOUNTING

Backcover

- Remove the 8 screws (2.9 x 38) which attach the backcover to the case (refer to Fig. 5).
- The telescopic aerial may be left in place.
- Slightly lift the backcover.

Tape deck, Fig. 5

Remove pressure roller 68.
Remove plug 67, compression spring 69 and torsion spring 508.

Removing the head support bracket 52.
Remove tension spring 54.
Remove pressure roller 68.
By pushing the head support bracket slightly backwards it can be removed.
Remark: Mind the 2 balls 58, they now lie loose.

Removing the buttons 59,62,63,64,66,121, Fig. 5
Remove pressure roller 68.
Remove head support bracket 52.
Remove locking bracket 53.
By pressing the locking tag of the relevant button slightly inwards this button is released and can be pushed from the chassis.
When doing this, mind pressure spring 61.

Removing switch SK (111)
This switch consists of 2 separate flat springs, directly fitted in the chassis.
Unsolder the two connecting wires and properly clean the soldering spots on the switch.
Remove circlip 87 so that reel disc 92 can be pushed upwards.
Remove lever 509 and unfasten the connection between brackets 91 and 93.
Unbend the locking tags of switch springs 111.
From the upper side the springs can be removed from the chassis.

ADJUSTMENTS AND CHECKS

Height of the recording/playback head K1, Fig. 5

- Switch off the supply voltage.
- Slide adjusting jig 4822 402 60245 over the capstan while pressure roller 68 is slightly pulled back.
- The jig must be slid over the capstan to an extent that it is in line with the erase head guides.
- The R/P-head must now be so adjusted that the jig slides exactly between the tape guides of the two heads.

Fastwind friction 92

The friction force can be measured with the friction measurement cassette 4822 395 30054 (811/CTM) in position "start".
The measuring value must be:

- Fast-wind side 40-60 gcm. Permissible variation in between these values 10 gcm.
- Rewind-side 4-6 gcm.
- The friction force is determined by the sloping up sides and the flat springs, Figs. 5A and B.
- The force is adjustable by catching the flat spring behind another stud.

Checking the lace-up and the capstan adjustment

- Recorder in the position "playback" with the mirror cassette inserted.
- When the tape at the capstan moves upwards or downwards, adjust the capstan to be perpendicular by means of B on the flywheel pivot bearing (Fig. 2).
- The tape should be straight and smooth between the tape guides and along the capstan.
Small deviations from this pattern are permissible, because they do not have an effect for normal cassettes.

Adjusting the flywheel play

- The flywheel play should be noticeable, but may not exceed 0.3 mm.
Adjust by turning A (Fig. 2).

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DEMONTAGE

Panneau arrière

- Enlever les 8 vis (2,9 x 38) du panneau arrière
- L'antenne téléscopique peut rester en place.
- Soulever quelque peu le panneau arrière

Mécanique, Fig. 5

Retrait du galet presseur 68
Enlever la fiche 67, le ressort de pression 69 et le ressort de torsion 508.

Retrait du ressort de support de la tête 52
Enlever le ressort de tension 54.
Enlever le galet presseur 68.
En faisant glisser le ressort de support de tête quelque peu vers l'arrière il pourra être enlevé.

Retrait des touches 59,62,63,64,66,121, Fig. 5
Enlever de galet presseur 68.
Enlever l'étrier support de tête 52.
Enlever l'étrier de verrouillage 53.
En pressant la languette de verrouillage quelque peu vers l'intérieur, la touche se libère et pourra être glissée hors du châssis.
Attention au ressort de pression 61.

Retrait du commutateur SK (111)
Ce commutateur se compose de 2 ressorts à lame distincts qui sont directement fixés au châssis.
Dessouder les deux fils de connexion et bien nettoyer les points de soudage sur le commutateur.
Enlever le ressort de serrage 87 de manière que le plateau à bobine 92 puisse être soulevé.
Enlever le levier 509 et défaire la fixation entre les étriers 91 et 93.
Redresser les languettes de verrouillage des ressorts 111.
Les ressorts peuvent ainsi être extraits du châssis par le haut.

REGLAGES ET CONTROLES

Réglage de la hauteur de la tête enreg./repro., Fig. 5

- Couper la tension d'alimentation.
- Glisser le gabarit de réglage 4822 402 60245 sur le cabestan tout en repoussant légèrement la galet presseur 68.
- Le gabarit doit être glissé sur le cabestan 108 jusqu'à ce que ce dernier soit dans le prolongement des guide bande de la tête d'effacement.
- Régler à présent la tête enreg./repro. de façon que le gabarit puisse se placer exactement entre les guide bande des deux têtes.

Friction d'embobinage 92

La force nécessaire à l'enroulement est mesurable par la cassette 4822 395 30054 (811/CTM) en position "start".
La valeur doit être de:

- Côté enroulement 40-60 gcm; marge admise dans les limites de ces valeurs: 10 gcm.
- Côté dévidé: 4-6 gcm.
- La force de friction est déterminée par les côtés obliques et par les ressorts à lame (Fig. 5A et B). La force est réglable grâce au ressort à lame que l'on déplacera de quelques crans.

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Important adjustment of the gears for the mechanical stop

In case of repairs, mind the relative positions of the two gears, item 103 and 107.

As shown in Fig. 3, the marking holes a und b must be exactly face to face, because of the running noise (clicks) or improper functioning of the mechanical stop that would otherwise be introduced.

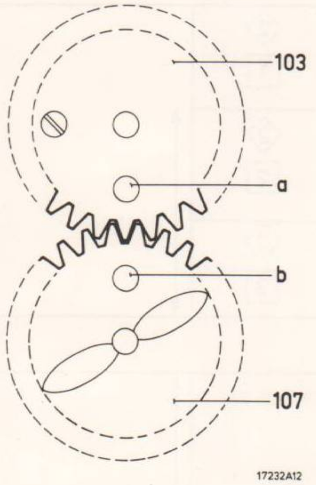

Fig. 3

GB MAINTENANCE

It is recommended to clean the recorder and to lubricate the principal lubrication points after approx. 500 hours of operation

To be cleaned with alcohol or spirit:

- Erase head
- Recording/playback head
- Belts
- Capstan
- Pressure roller

Contrôle de l'entraînement de la bande et réglage du cabestan.

- Appareil dans la position de reproduction avec la cassette à miroir.
- Lorsque la bande près du cabestan monte ou baisse, le cabestan doit être réglé perpendiculairement à B sur le palier du volant (Fig. 2).
- La bande doit défiler bien droit et régulièrement entre les guides-bandes et le long du cabestan. De petits écarts à cet égard sont admissibles, parce que ceci n'a aucune influence pour les cassettes normales.

Réglage du jeu du volant

- Le jeu du volant doit être perceptible, mais ne doit pas dépasser 0,3 mm. A régler à l'aide de A (Fig. 2).

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Réglage important de l'engrenage de l'arrêt mécanique

En cas réparation, veiller à la bonne position des deux roues dentées rep. 103 et 107.

Comme en Fig. 3, les trous de marquage a et b soient exactement face à face car sinon on entendra la cliquetis ou le fonctionnement de l'arrêt mécanique en sera entravé.

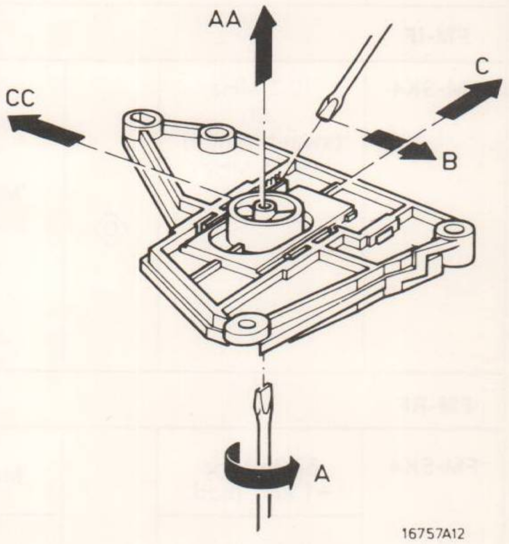


Fig. 2

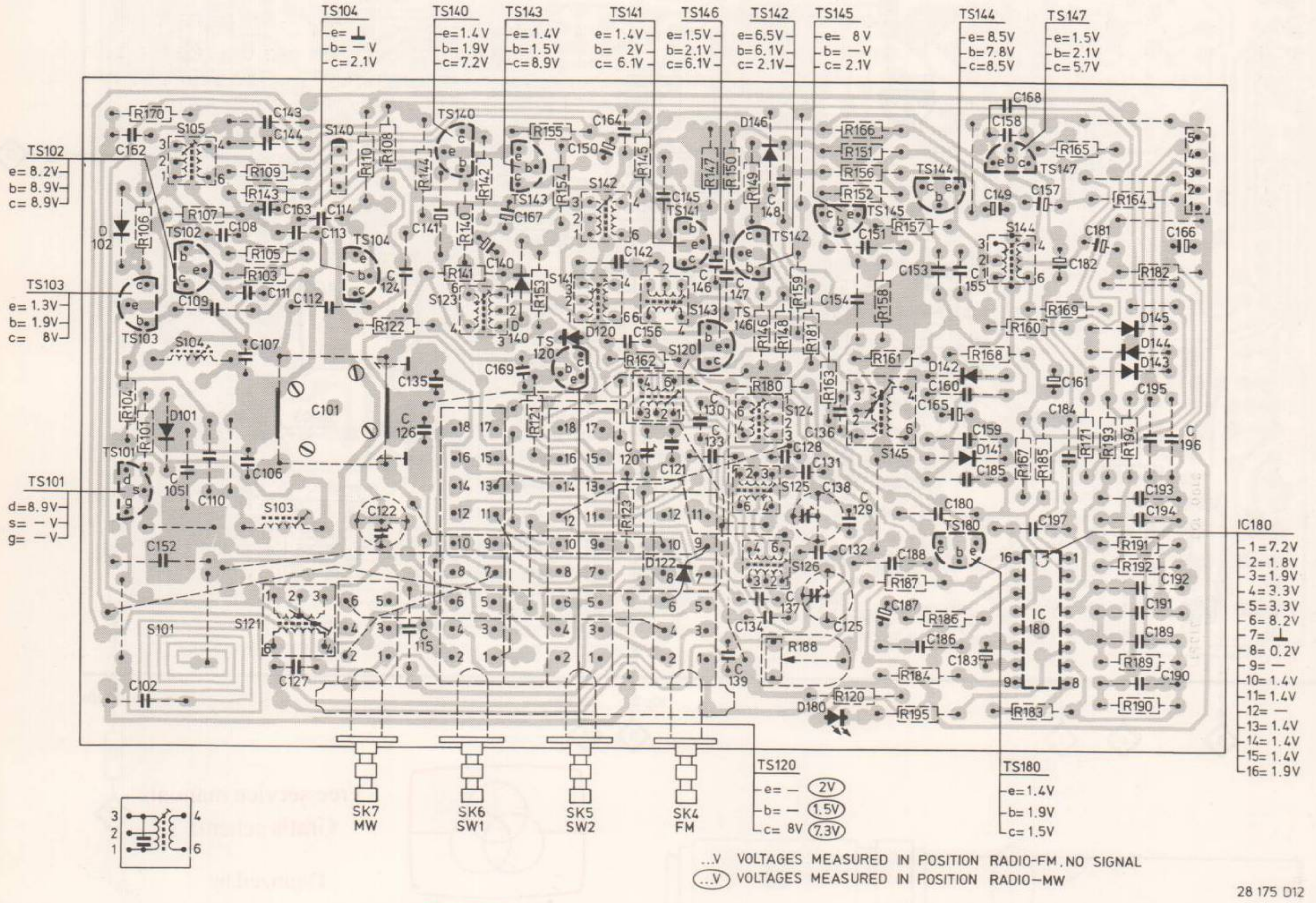
F ENTRETIEN

L'appareil devra être nettoyé après env. 500 heures de marche et lubrifié aux points les plus importants

Nettoyer les éléments suivants à l'alcool ou à l'alcool à brûler:

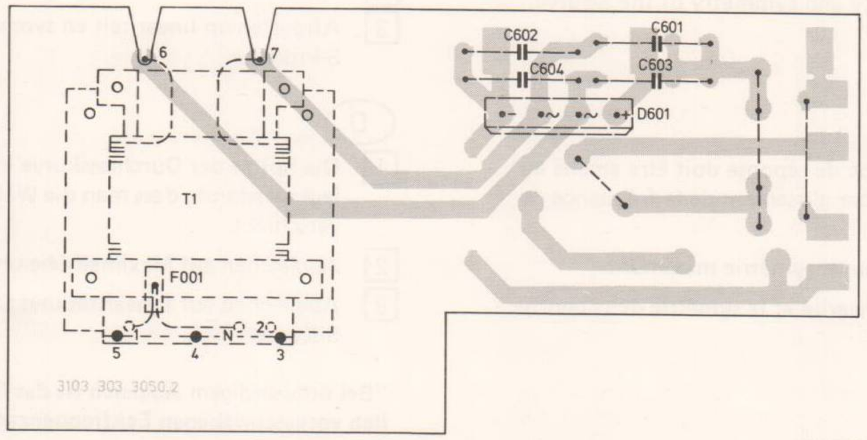
- Tête effacement
- Tête enregistrement/reproduction
- Corroies
- Cabestan
- Galet presseur

MISC	TS101.103.102 TS104.SK4 SK5.TS140 TS143.SK6.TS120 SK7.TS141.146.142.S124÷126 TS145 TS144.180 TS147.IC180
	D102.101.S105.104.S101 S103.121 S140 S123 D140 D120.S141.142.120.D122.S143 D146 D180 S145 D142.141 S144 D143÷145
C	162 152 105÷114 143.144 101 124 141.135.140 167 150.164 145÷147 148 125 154 151 153.162.155.149.168 182 181 166
	102 163 127 122.126 115 169 142.156.120.121.129÷134.136÷139 186÷188.180 157÷161.183.197 189÷196
R	101.170.103÷107 109.143 110 108 144 140÷142 153÷155 145.162 146÷150.159 166.151.156÷158.152.161 160 167÷169.165 164 182
	122 121 123 188.181.163.120.195.184.187.186 183.185.171 189÷194



...V VOLTAGES MEASURED IN POSITION RADIO-FM, NO SIGNAL
(...V) VOLTAGES MEASURED IN POSITION RADIO-MW

28 175 D12



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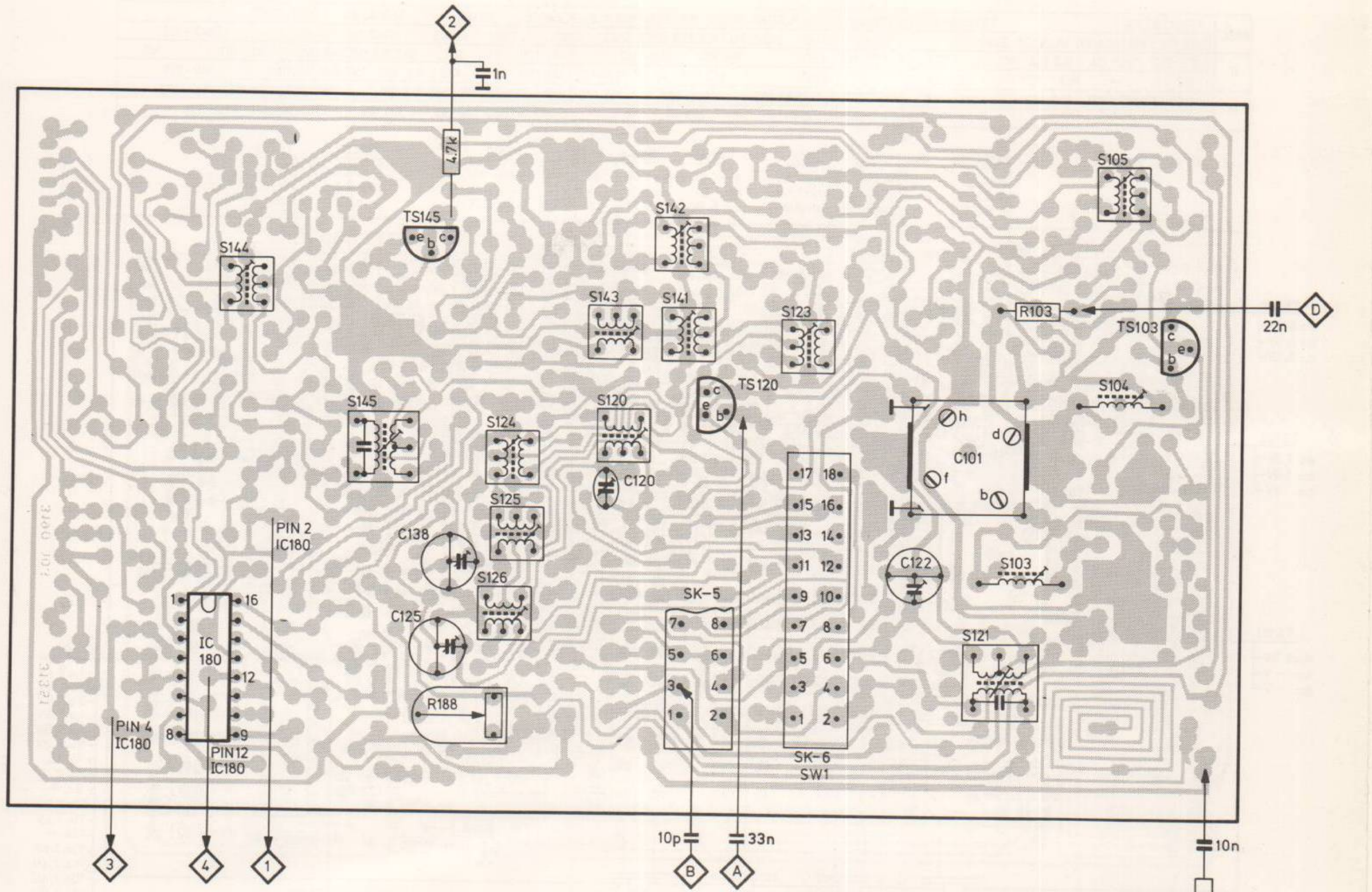

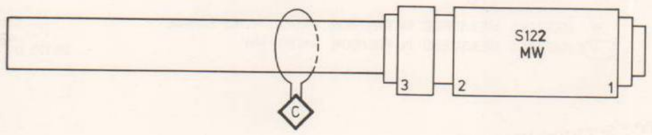

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1 Place the peak of the band-pass curve in the middle of the picture by shifting the sweep frequency.

2 Adjust for maximum height and symmetry.

3 Adjust for linearity and symmetry of the S-curve.

F

1 Le top de la courbe de réponse doit être amené au centre de l'écran par glissement de la fréquence de modulation.

2 Ajuster sur hauteur et symétrie maximum.

3 Ajuster pour la linéarité et la symétrie de la courbe en S.

NL

1 De top van de doorlaatkromme in het midden van het scherm plaatsen door verschuiven van de wobbelfrequentie.

2 Afregelen op maximum hoogte en symmetrie.

3 Afregelen op lineariteit en symmetrie van de S-kromme.

D

1 Die Spitze der Durchlasskurve in der Mitte des Bildes legen dadurch, dass man die Wobbelfrequenz verschiebt.

2 Abgleichen auf Maximalhöhe und Symmetrie.

3 Abgleichen auf Linearität und Symmetrie der S-Kurve.

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

I

1 Il pico della curva di risposta deve trovarsi al centro dello schermo, il chè si farà spostando la frequenza di Wobbulazione.

2 Regolare per un massimo di altezza e di simetria.

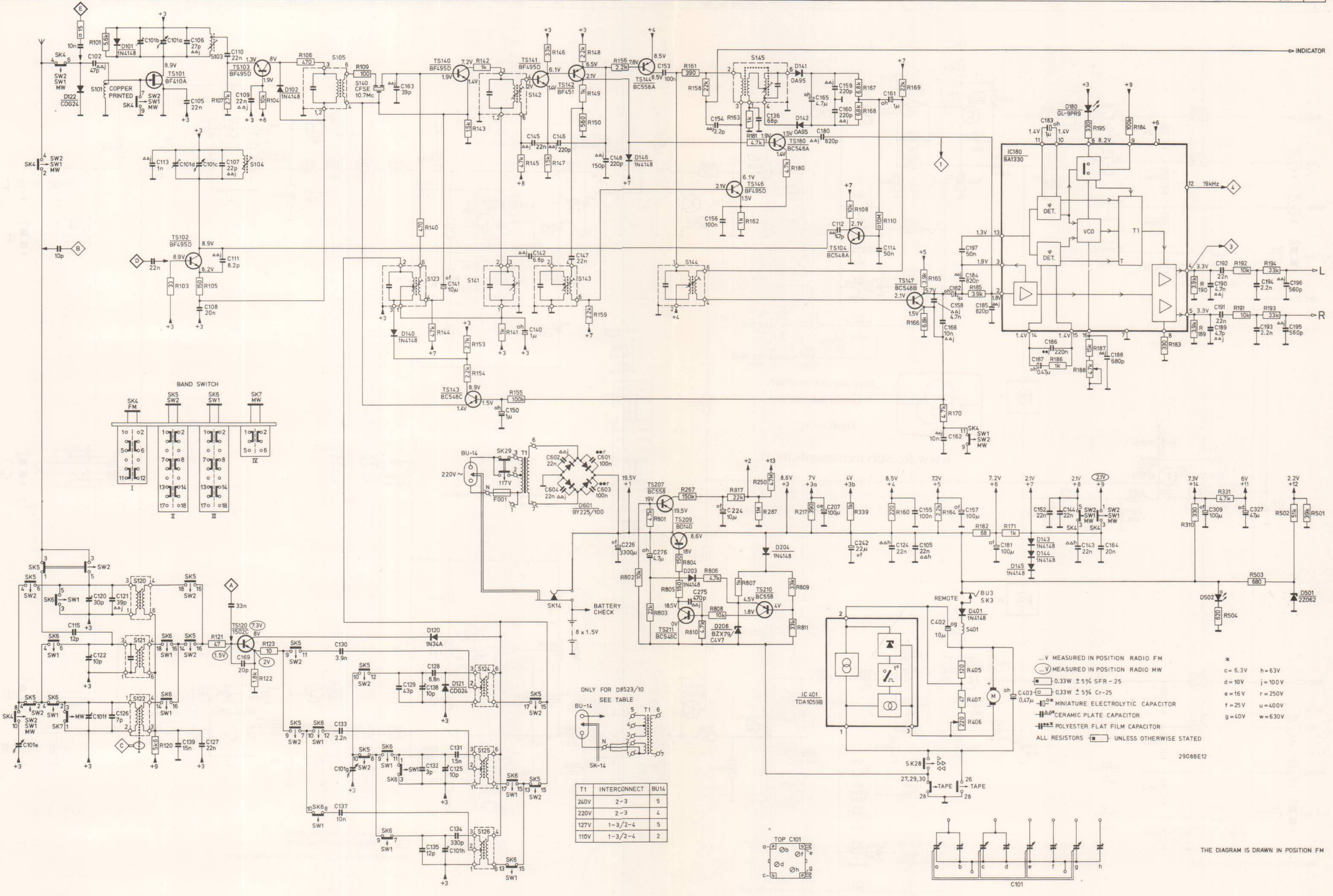
3 Regolare per linearità e simetria della curva ad S.

SK			C101			
MW-SK7	455 kHz +1 kHz mod.	A	Max. cap.	S144 S143 S141 S123	↕	1 max.
MW SK-7	512 kHz	C	Max. cap.	S126	↕	1 max.
	1635 kHz		Min. cap.	C101h		
	600 kHz			S122		
	1400 kHz		▭	C101f		
SW1 SK-6	2.2 MHz	B +1 kHz mod.	Max. cap.	S125	↕	1 max.
	7.45 MHz		Min. cap	C125		
	2.5 MHz			S121		
	7.2 MHz		▭	C122		
SW2 SK-5	9.3 MHz	B +1 kHz mod.	Max. cap.	S124		1 max.
	22.2 MHz		Min. cap.	C138		
	10 MHz			S120		
	21 MHz		▭	C120		
FM-IF						
FM-SK4	10.7 MHz Δf (sweep range) 10-11 MHz	D	Min. cap.	→		
				S142 S105	2 2	↕
				S145	3 3	
FM-RF						
FM-SK4	87.35 MHz +1 kHz mod.	E	Max. cap.	S104*	↕	3 max.
	108.2 MHz +1 kHz mod.		Min. cap.	C101d		
	87.35 MHz +1 kHz mod.		▭	S103*		
	108 MHz +1 kHz mod.		▭	C101b		
Stereo-Decoder						
FM-SK4	no signal			R188		4 freq. counter 19 kHz ± 0.2 kHz

* Trimming rod 4822 395 50135

↕ Repeat - Herhalen - Répéter - Wiederholen - Ricomminciare - Repetera - Gentage - Gjentagelse - Toista

R	101 103 105 107 104 106 109 140 144 143.153.154.142.141.155 145÷150 159 156 267 806 161.158.205.817.162.163.181 180 108 167.168.110 169 165.166 405 185 186 188.187.195 184 183 189.190 191.192 193.194
R	120 121 122.123 801÷805.810.808.244.807.245 295 243 241.809.811 217 339 160 164 170 406 182 407 171 310 504 331 503.502.501
C	102 113 101a÷d 105÷111 109 163 141 150 140 145.142 146 147 148 276 153 156.154 136 165 180 159.160.112 161.114 105 168.158.182.197.184.185 403. 187.186.183 188 189÷192 193÷196
C	101e 115.101f.120÷122.126 139 127 169 130.133.101g 129.132.135.138.128.101h.125.131.134 601÷604 226 275 224 207.166 242 124 155 402.162.152.157 181 152 144 143 164 274 309 327
MISC.	D122 S101 D101 TS101.102 TS103.S104 D102 S105 S140 D140 S123.TS140 BU14.TS143 S142.S141.T1.TS141 S143 TS142 D146 TS144 TS207.209.S144.D203 TS146 S145 TS180 D141 D142 TS104 TS147 D401 IC180 D180
MISC.	S120÷122 TS120 D120 D121 S141.124÷126.F001.SK29. D601 TS211 TS207.D206 TS210.D204 IC401 SK28 BU3 SK3 D143.D144.D145 D502. D501



T1	INTERCONNECT	BU14
240V	2-3	5
220V	2-3	4
127V	1-3/2-4	5
110V	1-3/2-4	2

....V MEASURED IN POSITION RADIO FM

(....V) MEASURED IN POSITION RADIO MW

▪ 0.33W ± 5% SFR - 25

▫ 0.33W ± 5% Cr-25

o* MINIATURE ELECTROLYTIC CAPACITOR

ΔΔ* CERAMIC PLATE CAPACITOR

●●* POLYESTER FLAT FILM CAPACITOR

ALL RESISTORS ▪ UNLESS OTHERWISE STATED

*

c = 6.3V	h = 63V
d = 10V	j = 100V
e = 16V	r = 250V
f = 25V	u = 400V
g = 40V	w = 630V

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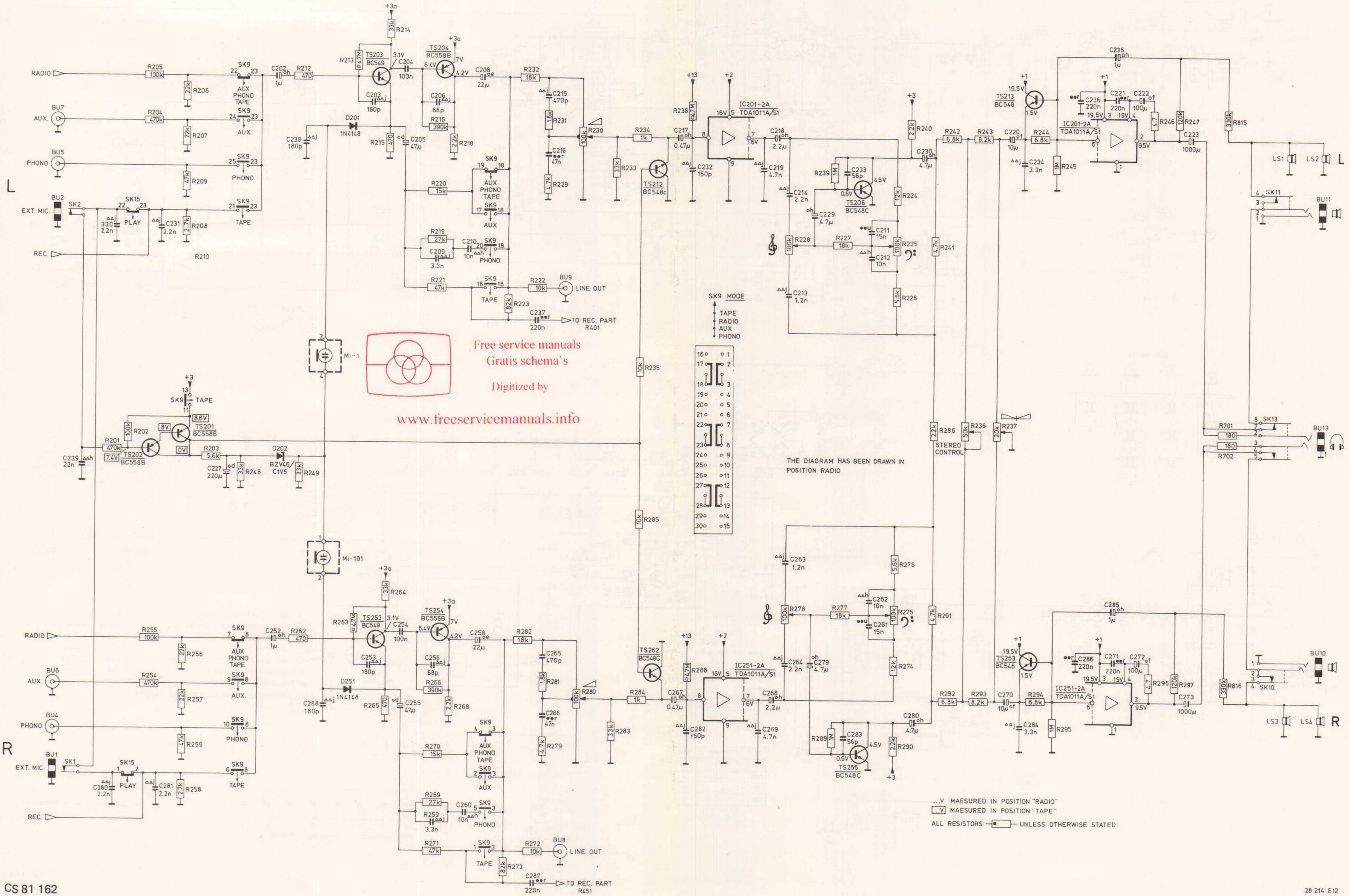
THE DIAGRAM IS DRAWN IN POSITION FM

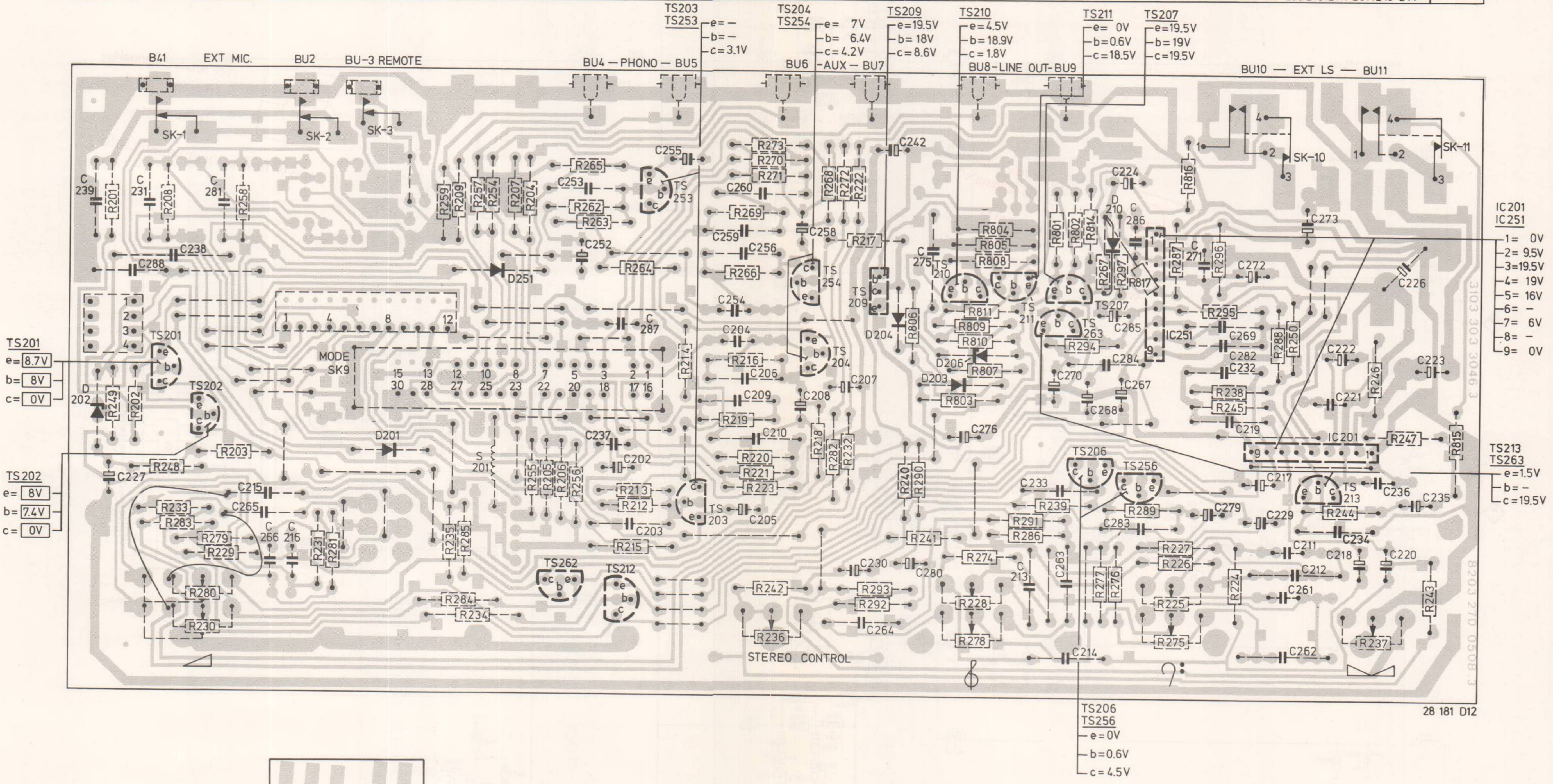
MISC	BU2.5.7	TS202					D201	TS203	TS204		BU9		TS212	IC201–2A	TS206		TS213	IC201–2A				BU11.13
	BU1.4.6		TS201		D202		D251	TS253	TS254		BU8		TS262	IC251–2A	TS256		TS263	IC251–2A				BU10
C			231	227	202	238		203	204···206.209	210.208	237 215 216		217 232	219.218.214.213.229	233 211.212	230	220.234	236 235 221 222		223		
	239	330.380	281		252	288		253	254···256.259	260.258	287 265 266		267 282	269.268.264.263.279	283 261.262	280	270.284	286 285 271 272				
R		201.202	204···208.209	203.248		212.249	213	214.215	216.218···221		223.232.222.229.231	230.233.234.235	238	228	239.227	224···226.240.241.242.236.243.237.	244 245		246	247	701 815	
			254···258.259			262	263	264.265	266.268···271		273.282.272.279.281	280.283.284.285	288	278	289.277	274···276.290.286.291.292 293	294 295		296	297	702 816	

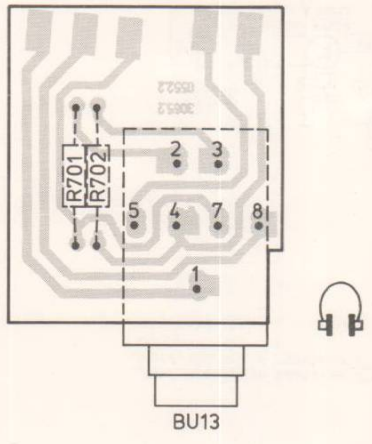


THE DIAGRAM HAS BEEN DRAWN IN POSITION RADIO

...V MAESURED IN POSITION "RADIO"
▭V MAESURED IN POSITION "TAPE"
ALL RESISTORS ▭ UNLESS OTHERWISE STATED

MISC.	D202 TS201.TS202 D201 S201.TS262.TS 212 TS 203 D203 TS211 TS206 TS256. IC201 TS213	MISC.
	D251 TS253 TS254 TS209.TS 204. D204. TS 210 TS263 **TS207** D206. IC 251. **D210**	
C	227.238.**288** .216.265.215.**266** **287.237** 203.202.205.209 210 264.230.280.275 233.213.214.263 **286.224.283** **271.**279 229 217 211 212 261.262.218.220.234÷236	C
	231.239 281. 252÷256.258÷260 .204.206÷208 242 268.267.284.285 270 276.272 219 232.282.269.221÷223 226 **273**	
R	249.230.248.280.229.279 231.281.284.234.235.285.255.205.206.256.215.212.213.236.242.223.220.221.219.218.282.232.292.293.241.240.290. 274÷278.224÷228.239.289.286.291 **817.287.816** 815	R
	201÷203.208.233.258.283 259. 209. 257.254.207. 204.262÷265.214 216.266.217.268÷273.222 801÷813 294.267.297.**814** 245 238 295 296 288 250.246.247. 237.243.244	





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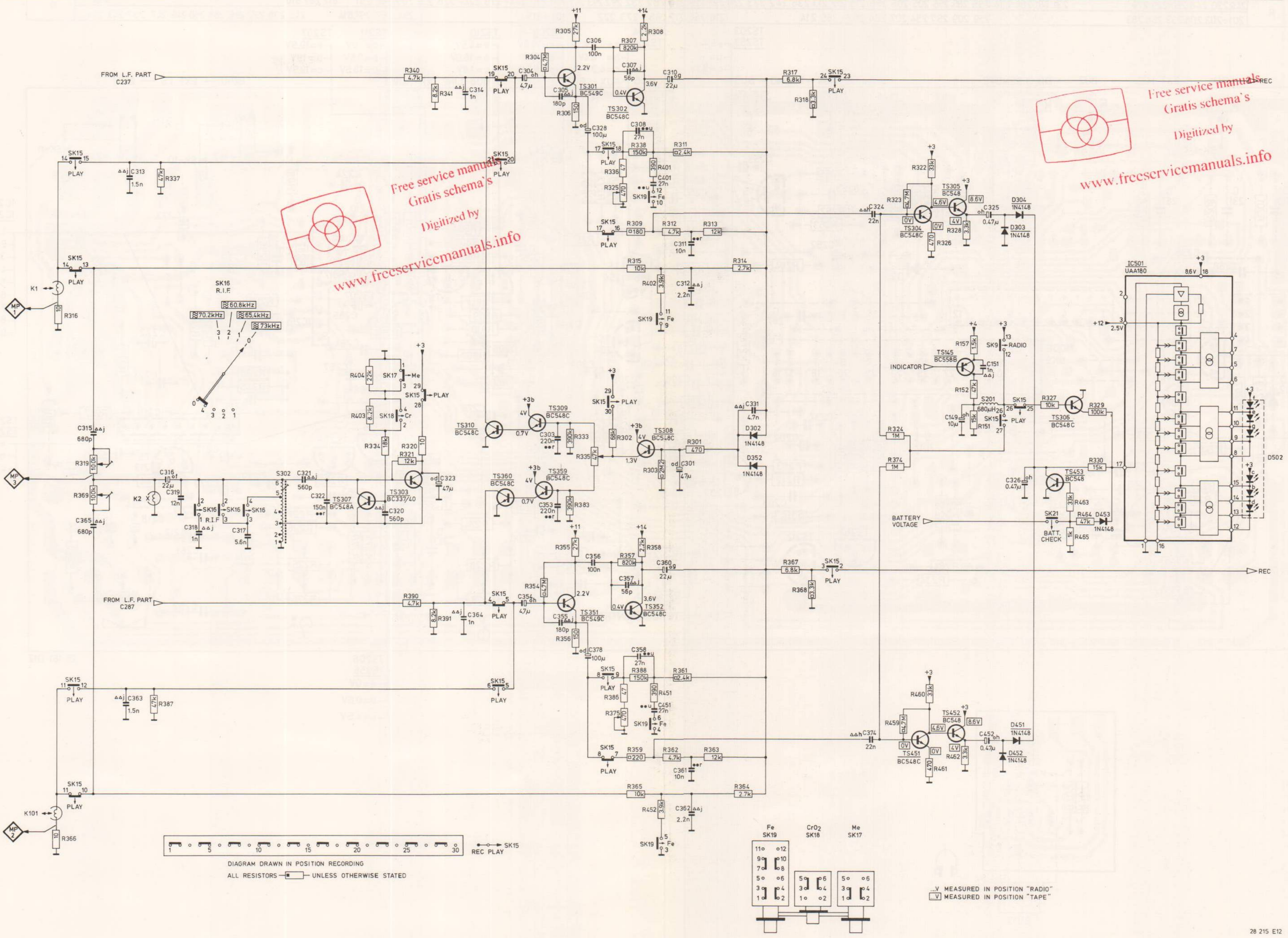
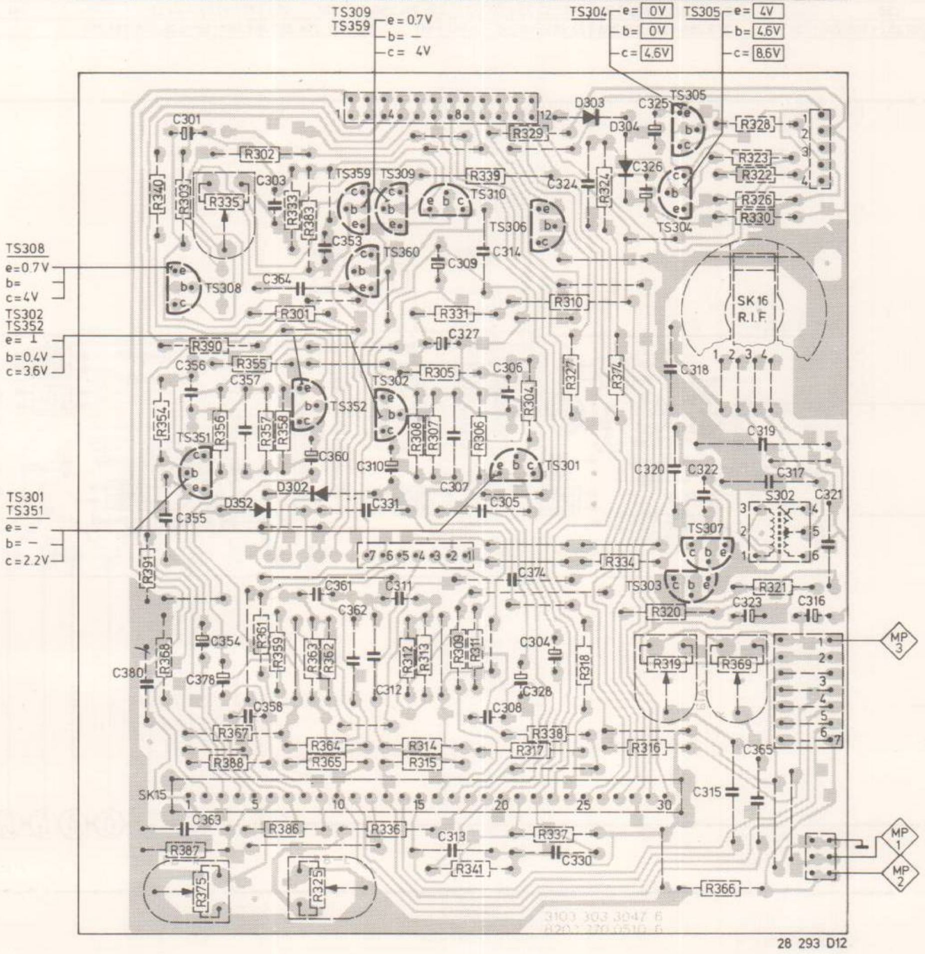
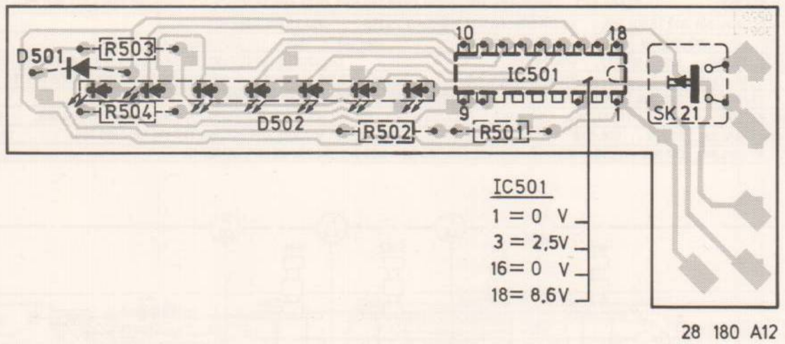
MISC.	K1 · S302 · TS307 · TS303 · TS310 · TS309 · TS301 · TS302 · TS308 · D302 · TS304 · TS305.TS145 · D303.D304.TS453.TS306 · D453.IC501 · D502
MISC.	K101 · K2 · TS360 · TS359 · TS351 · TS352 · D352 · TS451 · TS452 · S201 · D452.D451
C	315 · 313 316 · 319.318 · 317 · 321 · 322 · 320 · 323 · 314 · 304.303.305 · 328.306 · 307.308.401.310÷312.301 · 331 · 324 · 149.151.325 · 326
C	365 · 363 · 364 · 354.353.355 · 378.356 · 357.358.451.360÷362 · 374 · 452
R	316 · 337 · 340 · 341 · 304.305.306 · 336.325.307÷309.401.402.311÷313 · 314 · 317 · 318 · 323 · 322.326 · 328
R	319.369 · 404.403.334.321.320 · 333.383.335.302.338.315.388.365.303 · 301 · 324.374 · 157.152.151 · 327.463÷465.329.330
R	366 · 387 · 390 · 391 · 354.355.356 · 386.375.357÷359.451.452.361÷363 · 364 · 367 · 368 · 459 · 460.461 · 462

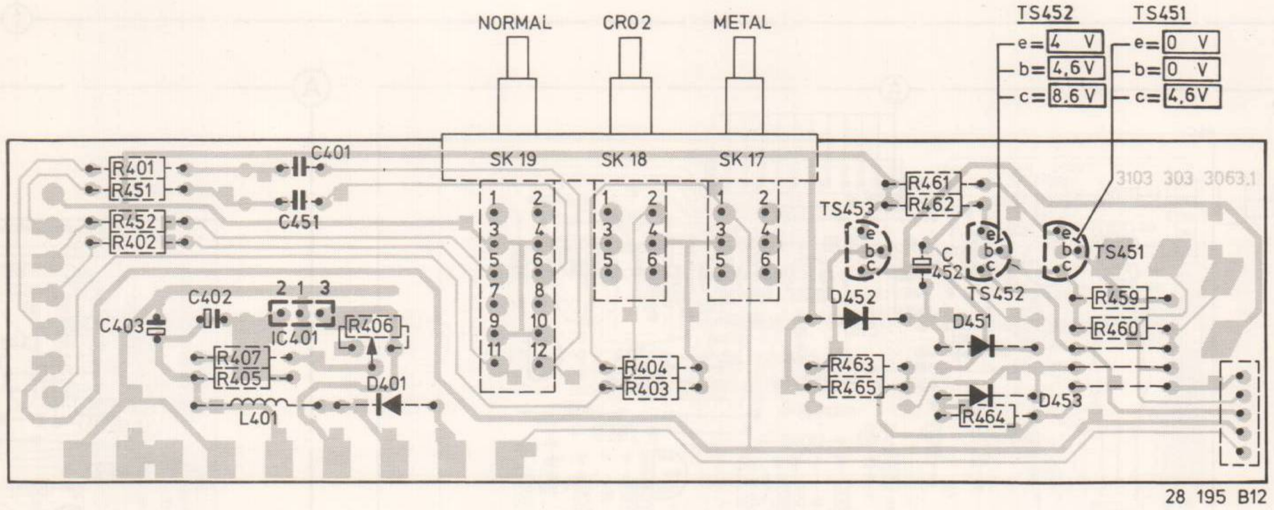


MISC	D302 . TS301.TS303.TS307.S302
	TS351.TS308.D352.TS352 TS302.TS359.TS309.TS360.TS310.TS306 D303.D304.SK16.TS304.TS305
C	380 301.355.378.354.358.362.312.361.311.313.363. 327 330.328.308.304 371 365
	356.357.364.360.310.303.353.331 305÷307.309.314.324÷326 319. 315÷323
R	391.390.375.386÷388.362÷365.367.368. 361.359.311÷315.341 336.338.337.317.316.334.319.320.366.369.321
	340.354÷358.303.325.302.333.301.383.331.339.329.304÷309.327.310.374.324.330.326.322.323.328





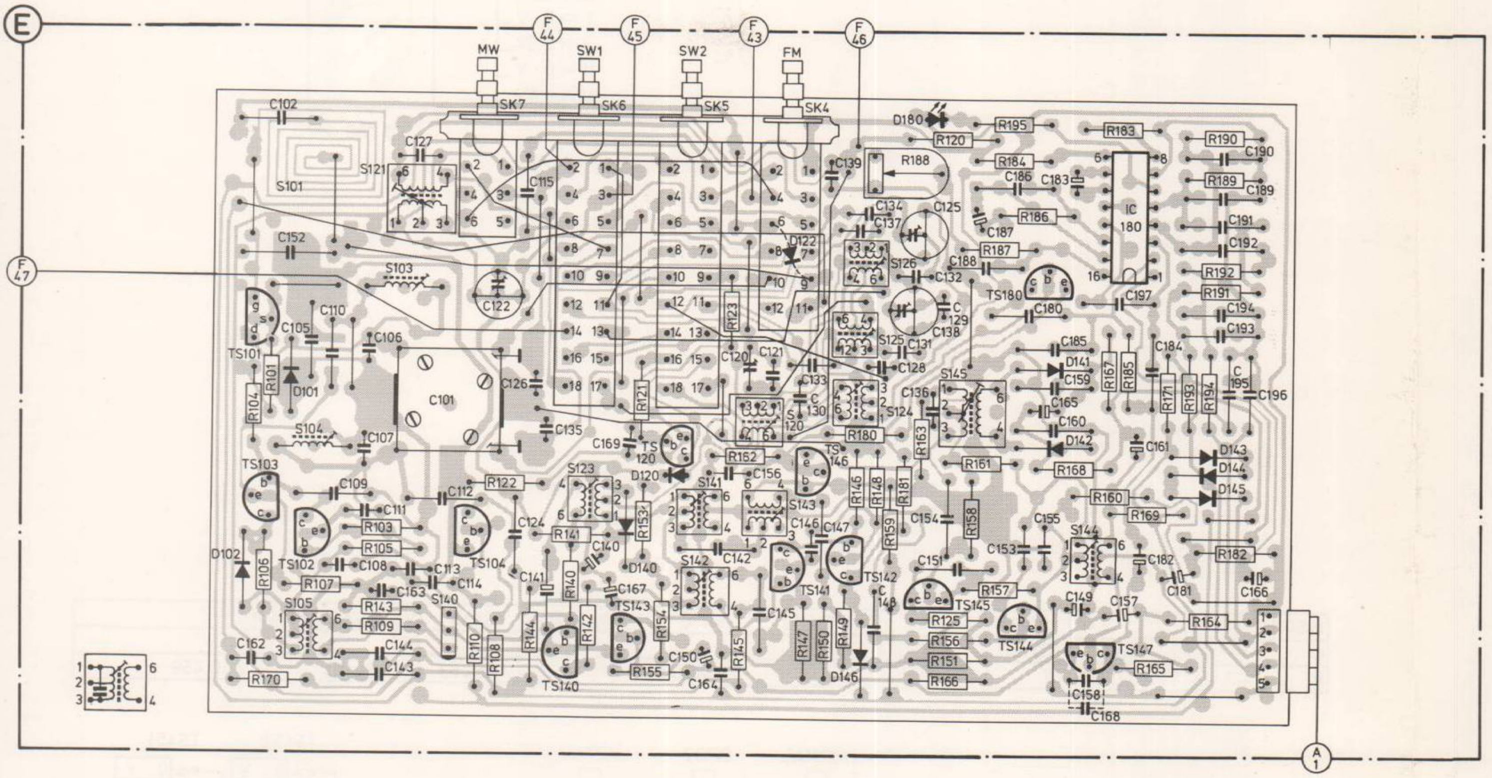
MISC.	L401 IC401 D401 SK 19 SK 18 SK 17 D452 TS453 D451.453.TS452.451
C	403 402 451.401 452
R	401.402.451.452.405.407 406 403.404 465.463 462.461.464 460.459

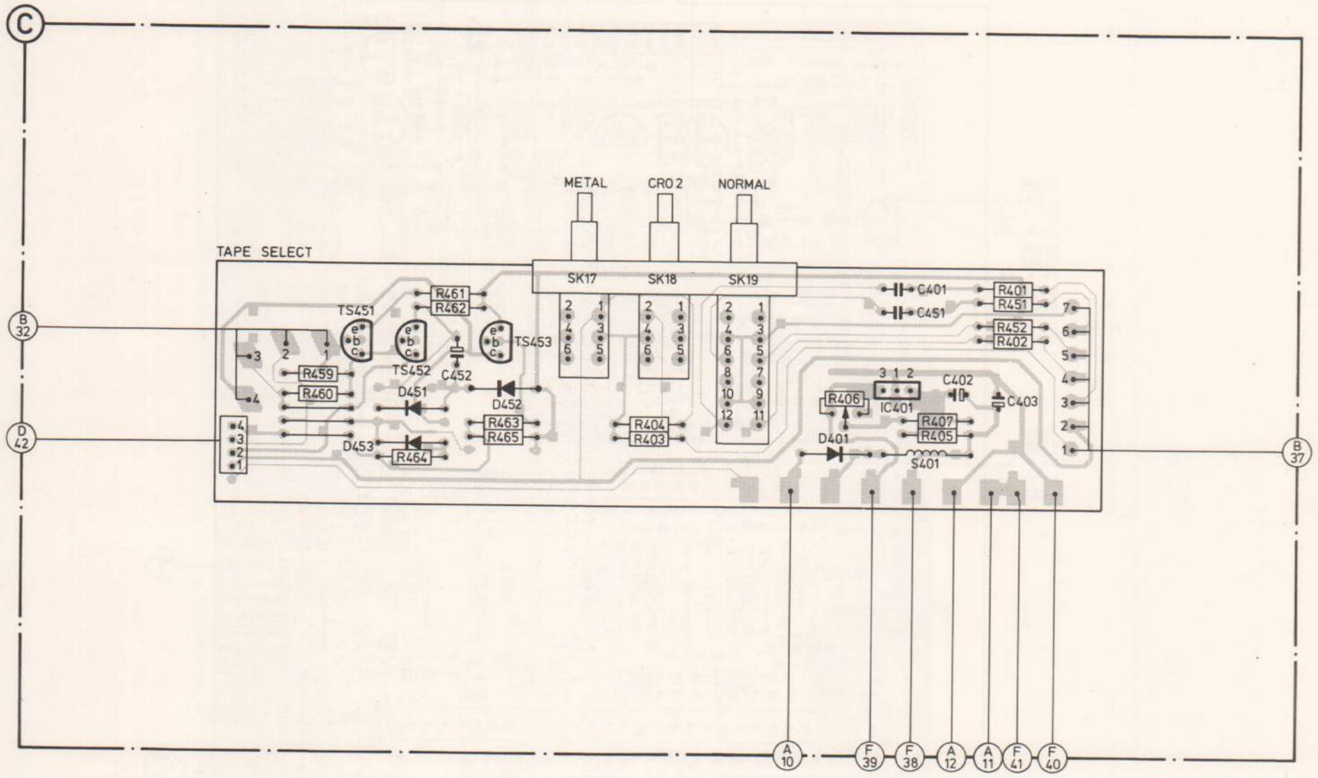


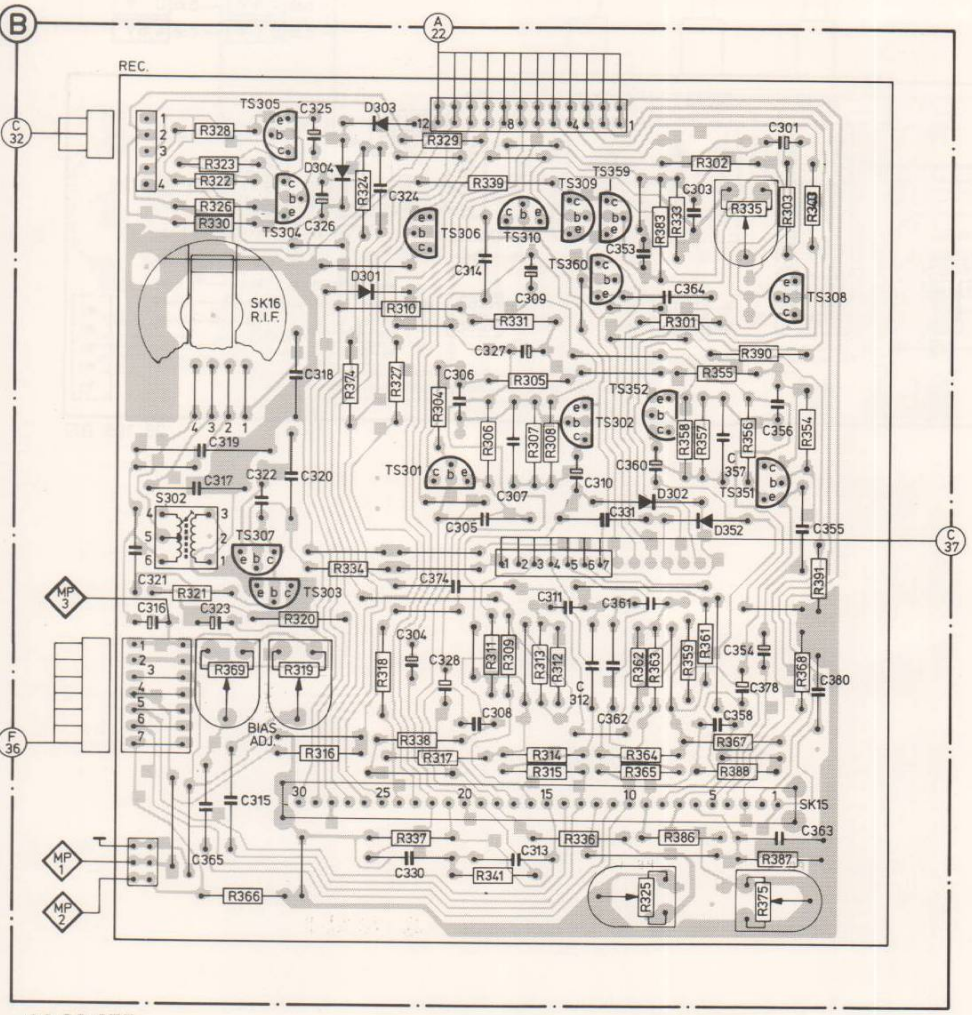
Adjustment	Cassette	Recorder in position	Apply signal to	Measure on	Read on	Adjust with	Adjust to
Play back speed	3150 Hz of SBC126Cr	PLAY SK18-Cr	—	BU9 (BU8)	Wow- and flutter meter	R406	*a
Azimuth R/P head	10 kHz of SBC126Cr	PLAY SK18-Cr	—	BU9 (BU8)	mV-meter	Left screw R/PB head	Max. output
Erase oscillator frequency	—	REC SK18-Cr R403 R453 SK16 "0"	—	MP-3	Frequency counter	S302	73 kHz ± 200 Hz
BIAS	—	REC SK18-Cr R403 R453 SK16 "0"	—	MP-1 MP-2	mV-meter	R319 R369	6 mV ± 1.5 dB
Playback sensitivity	315 Hz 0 dB of SBC126Cr	TAPE PLAY	—	BU9 (BU8)	mV-meter (indicators full scale)	R325 R375	650 mV L/R ± 2 dB
ALC	Side 2 SBC126Cr	AUX. REC. SK18-CR	BU7/BU6 330 Hz ≈ 1 V	R318 (R363)	mV meter	R335	signal strength L = signal strength R

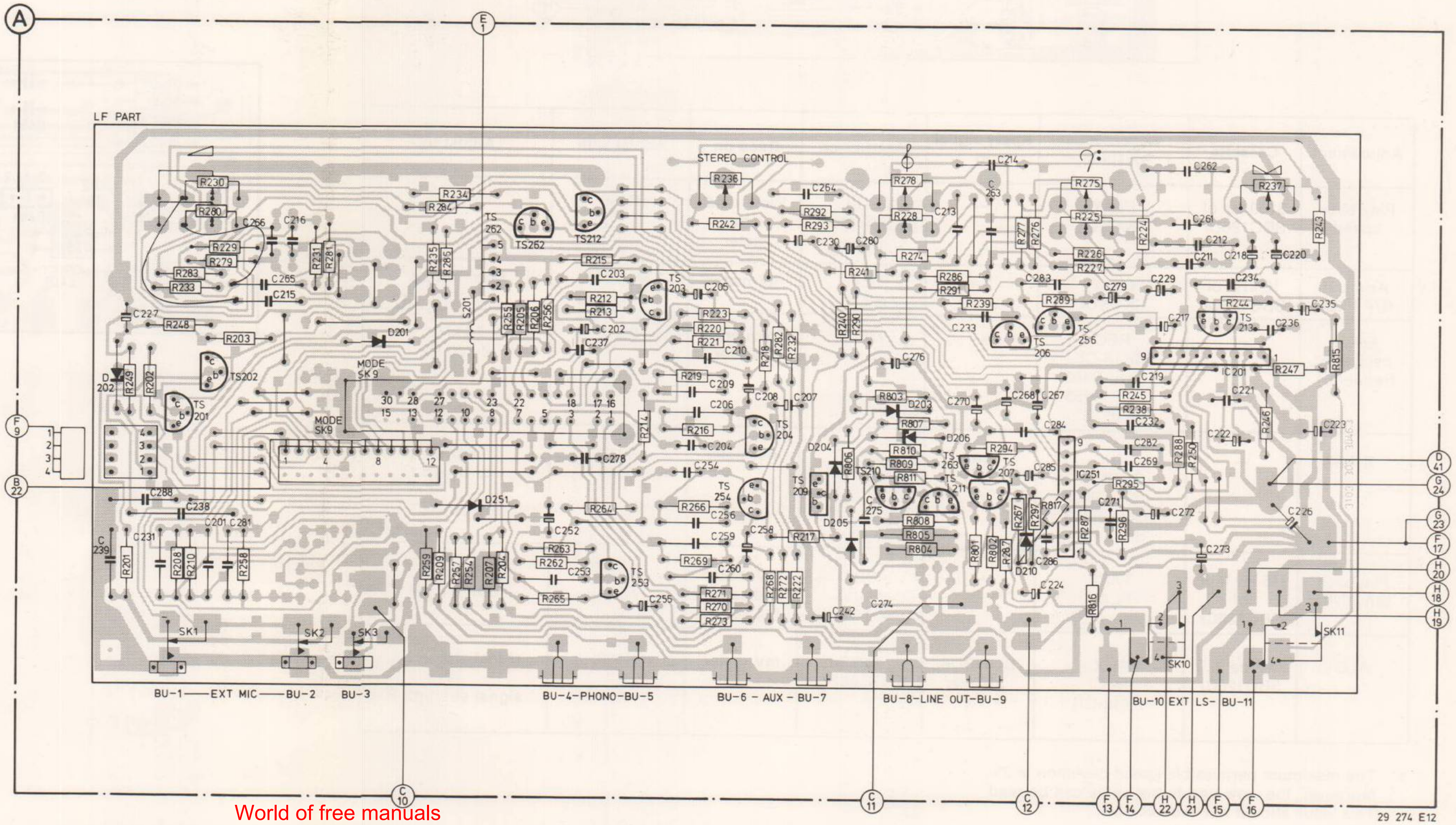
a* The maximum permissible speed deviation is 2%.
Moreover, the wow-and-flutter value can be read.
This value should not exceed 0.3%.

MISC	D102.101.TS101.103.102 TS104.SK7 TS140.SK6.TS143.120.D140.120.SK5.D122.SK4.TS141.146.142.D146.180.TS145.144.180.D141.142.TS147.IC180 D143÷145 TS451.D453.TS452.D451 D452.TS453 SK17 SK18 SK19 D401 IC401
MISC	TS303÷305.307.D304.301.303.TS301.306 TS310.309.360.302.359.D302.TS352 .352.TS351.308.SK15 D202 TS201.SK1.TS202.SK2 SK3.9 D201 D251.TS262 TS212 TS253.203 TS254.204.209 D203÷206.TS210.211.207 TS263 206.256.IC251 SK10 TS213.IC201 SK11
S	302 101 .104.105 103.121.140 123 141÷143 120 124÷126 145 144 201 401
C	102.152.105.110.106 127 101.122. 115.126.135 120.121.130.133.139.137.134.138.132.125.129.186÷188.180.185.197.184. 189÷196 452 401.451 402 403
C	162 107÷109.111÷114 124.141.140.167.169 150.164.142.156.145÷147. 148.128.131.136.154.151.153.155.165.160.149.158.168.157.161.182.181. 166 263.214 279.219.217.229.211.261.262.212.218.234÷236
C	365.315÷323 324÷326 330.374.304÷314 360÷362.353.364.303.354÷358.301.378.380 227.288.238.231 201.281.266.265.215 216 252.253.287.202.203.237.254.256.204÷210.258÷260.230.264.242.280.274.276.213.270.233.268.267.224 283÷286.271.232.282.269.272.273.220÷223.226
R	104.101.106.107.103.105 110.122.144. 140÷142. 121.153÷155 123.162.145 146÷150.180.188.163.161.187.195.184.186. 183.167.185.171.189÷194.164.182 459.460 461÷465 403.404 405÷407 401.402.451.452
R	326.328.330.170.143.109.374.324.327.329. 108.339. .331 383.333.301.302.335.303.340.159.125.151.156÷158.166. 168.160.169.165.233.283.230.280 229.279 231.281 235.285.284.234.255 256 219÷221.223.236.242.282.232.292.293.241 228.278.274.286.291.239 289.275÷277.224÷227 244 237 243
R	321÷323.369.366.334.317÷320.338. 337.309÷311.304÷308.312÷315.336.325.386.261÷365.367.388.354÷358.375.387.368.391 249.201.202. 208.210.248 258 259.209.257.254.204÷207.262÷265.212÷216 266.269÷273.218.268.222.217.240.290 803÷811 801.802.294.287.267.295÷297.238.245.288.250 246.247 815

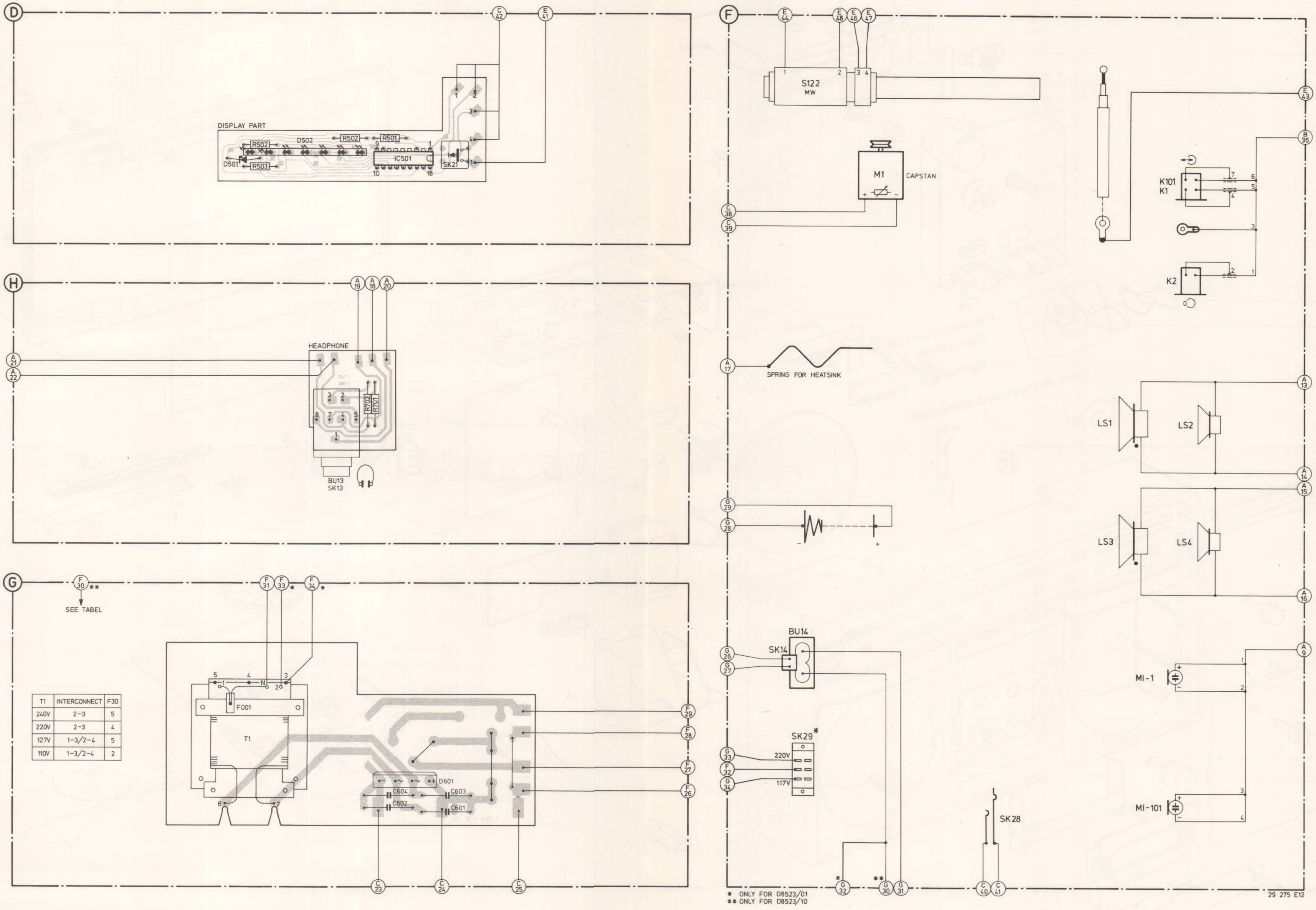








MISC	D501.T1.F001 D502 IC501 D601 SK21 SK14.29 S122 M1 SK28 LS1÷LS4.MI−1.MI−101.K1.2.101
C	602.604 601.603
R	503.504 502 702.701.501

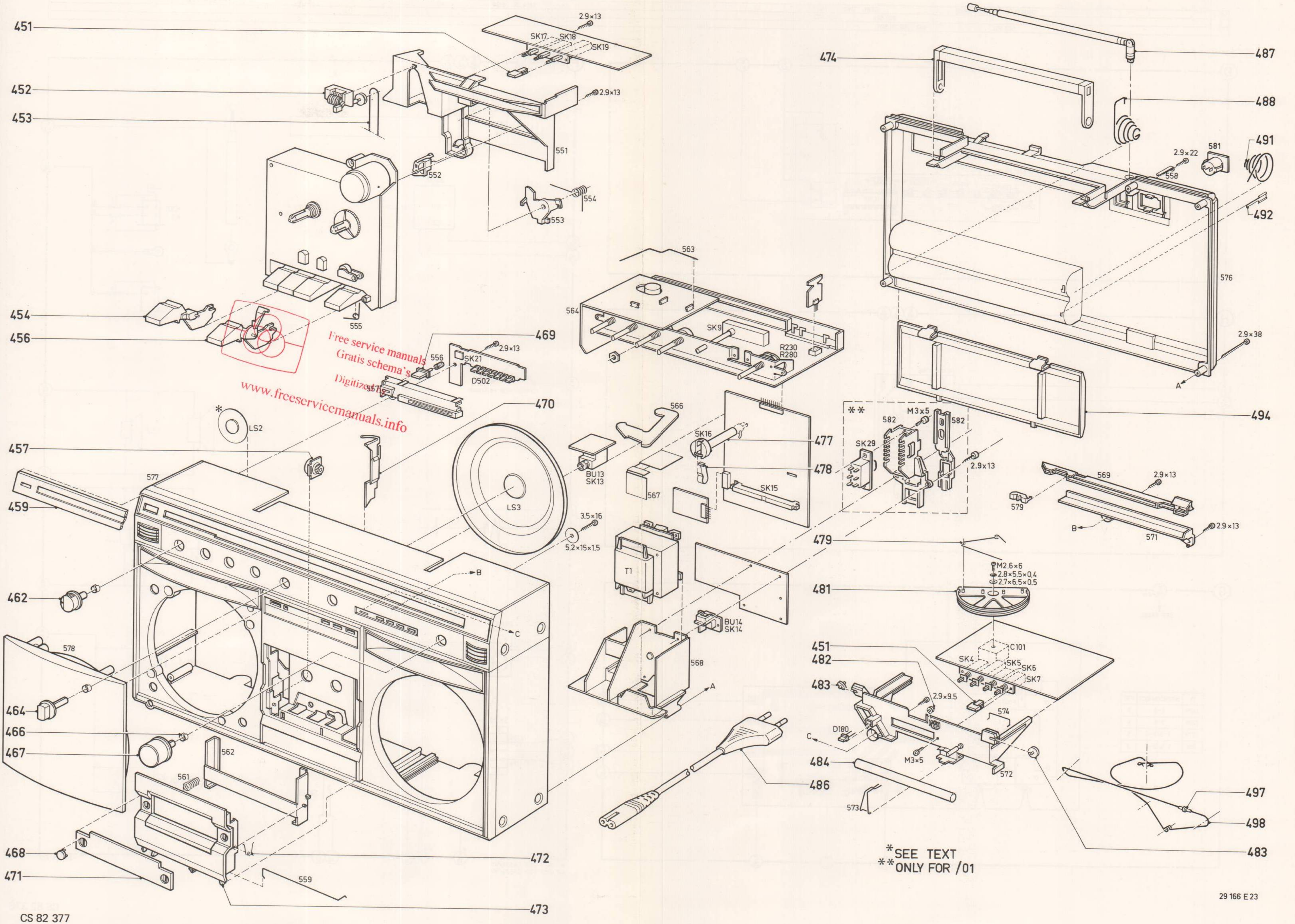


T1	INTERCONNECT	F30
240V	2−3	5
220V	2−3	4
127V	1−3/2−4	5
110V	1−3/2−4	2

* ONLY FOR D8523/01
** ONLY FOR D8523/10

29 275 E12

CS 82 376



*SEE TEXT
**ONLY FOR /01

*

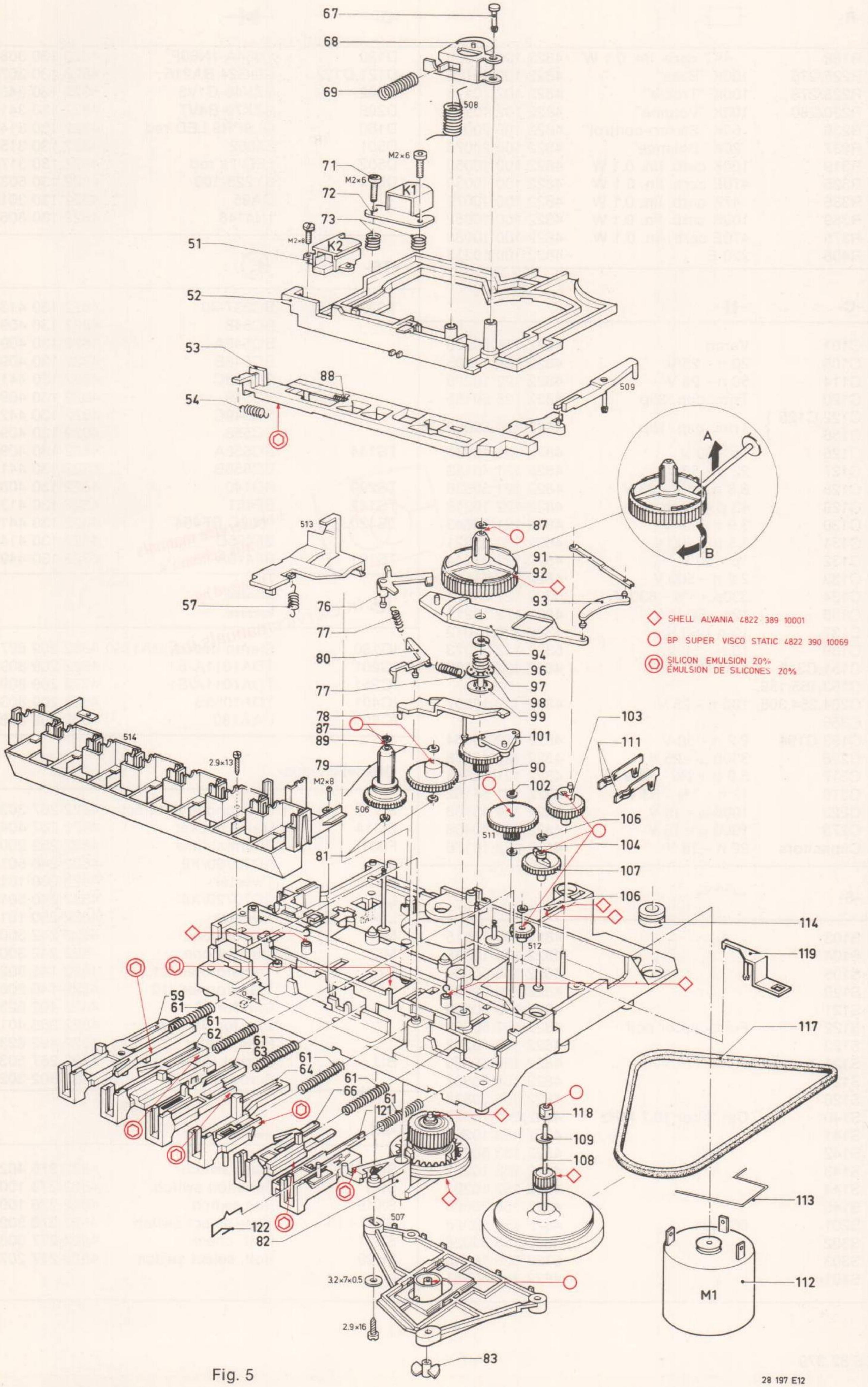
**

CS 82 377

29 166 E 23

51	4822 249 40107	71	4822 502 11454	91	4822 403 51049	109	4822 532 50993
52	4822 403 51078	72	4822 249 10157	92	4822 528 20286	111	4822 290 80345
53	4822 417 50134	73	4822 492 51229	93	4822 403 51051	112	4822 361 20145
54	4822 492 31268	76	4822 403 51067	94	4822 403 51047	113	4822 492 61989
55	4822 403 51447	77	4822 492 62134	96	4822 532 51067	114	4822 325 60038
57	4822 492 31264	78	4822 403 51068	97	4822 492 51217	117	4822 358 30223
59	4822 403 10149	79	4822 492 62035	98	4822 532 51055	118	4822 520 30296
61	4822 492 51228	80	4822 403 51048	99	4822 520 10423	119	4822 403 51096
62	4822 403 30284	81	4822 532 50692	101	4822 403 51294	121	4822 403 10187
63	4822 403 30283	82	4822 528 70291	102	4822 532 51054	122	4822 492 40525
64	4822 403 30282	83	4822 522 31212	103	4822 522 31272		
66	4822 403 10148	87	4822 532 51061	104	4822 532 51054		
67	4822 462 71108	88	4822 492 51137	106	4822 532 50262		
68	4822 403 51071	89	4822 532 50268	107	4822 522 31261		
69	4822 492 51227	90	4822 522 31263	108	4822 528 60171		

451	4822 410 22774	472	4822 492 62513	491	4822 492 62234
452	4822 349 50145	473	4822 443 60878	492	4822 492 62233
453	4822 321 30244	474	4822 498 50136	494	4822 423 40648
454	4822 410 22773	476	4822 462 71247	497	4822 402 20074
456	4822 410 22772	477	4822 413 40992	498	4822 321 30214
457	4822 535 70618	478	4822 492 62247		
459	4822 333 70245	479	4822 492 40799		
462	4822 413 30985	481	4822 528 90335		
464	4822 413 30981	482	4822 528 50116		
466	4822 492 51374	483	4822 528 50148		
467	4822 413 40993	484	4822 526 10133		
468	4822 462 71257	486	4822 321 10105 /01		
469	4822 410 22698	486	4822 321 10296 /10		
470	4822 411 60805	487	4822 303 30248		
471	4822 450 60216	488	4822 492 50824		



◇ SHELL ALVANIA 4822 389 10001

○ BP SUPER VISCO STATIC 4822 390 10069

◎ SILICON EMULSION 20%
ÉMULSION DE SILICONES 20%

Fig. 5

-R-

R188	4K7 carb. lin. 0.1 W	4822 100 10036
R225/275	100K "Bass"	4822 102 10176
R228/278	100K "Treble"	4822 102 10176
R230/280	100K "Volume"	4822 102 10175
R236	50K "Stereo-control"	4822 100 20077
R237	20K "Balance"	4822 100 20076
R319	100K carb. lin. 0.1 W	4822 100 10052
R325	470E carb. lin. 0.1 W	4822 100 10038
R335	47K carb. lin. 0.1 W	4822 100 10079
R369	100K carb. lin. 0.1 W	4822 100 10052
R375	470E carb. lin. 0.1 W	4822 100 10038
R406	220 E	4822 100 10233

-C-

C101	Varco	4822 125 20226
C108	20 n - 25 V	4822 122 10205
C114	50 n - 25 V	4822 122 10206
C120	Trim. cap. 30p	4822 125 50185
C122,C125 C138	Trim. cap. 10p	4822 125 50062
C126	7p - 50 V	4822 122 40137
C127	22 n - 50 V	4822 121 40153
C128	6.8 n - 1% - 63 V	4822 121 50538
C129	43 p - 50 V	4822 122 10218
C130	3.9 n - 50 V	4822 121 50643
C131	1.5 n - 100 V	4822 122 31221
C132	3p - 50 V	4822 122 31444
C133	2.2 n - 500 V	4822 122 31116
C134	330p - 1% - 630 V	5322 121 54077
C135	12p - 50 V	4822 122 10217
C137	10 n - 50 V	5322 122 34072
C139	15 n - 50 V	5322 122 34073
C151,C318	1 n - 50 V	4822 122 10162
C153,155,156, C204,254,306, C356	100 n - 25 V	4822 122 10207
C193,C194	2.2 n - 50 V	4822 122 10164
C226	3300 μ - 25 V	4822 124 40378
C317	5.6 n - 1% - 63 V	4822 121 50543
C319	12 n - 1% - 63 V	5322 121 54162
C223	1000 μ - 16 V	4822 124 40438
C273	1000 μ - 16 V	4822 124 40438
Capacitors	22 n - 16 V	4822 122 10166

-S-

S103		4822 158 10515
S104		4822 158 10515
S105		4822 153 50206
S120		4822 156 30839
S121		4822 156 30565
S122	Ferroceptor coil	4822 157 50889
S123		4822 153 10292
S124		4822 156 30836
S125		4822 156 30837
S126		4822 156 30838
S140	Cer. filter 10.7 MHz	4822 242 70427
S141		4822 153 10292
S142		4822 153 50205
S143		4822 153 10292
S144		4822 153 10293
S145		4822 156 30809
S201	680 μH	4822 157 50968
S302		4822 156 50026
S303		5322 526 10015
S401		4822 157 50961

-D-

D120	1N34A 1N60P	4822 130 30869
D121,D122	CDG24 BA216	4822 130 30702
D202	BZV46-C1V5	5322 130 34865
D206	BZX79-B4V7	4822 130 34174
D180	GL9PR9 LED red	4822 130 31432
D501	2Z062	4822 130 31581
D502	LED 7x red	4822 130 31709
D601	BY225-100	4822 130 50312
	OA95	4822 130 30191
	1N4148	4822 130 30621

-TS-

TS303	BC337-40	4822 130 41344
	BC548	4822 130 40938
	BC548A	4822 130 40948
	BC548B	4822 130 40937
	BC548C	4822 130 44196
	BC549	4822 130 40964
	BC549C	4822 130 44246
	BC558	4822 130 40941
TS144	BC558A	4822 130 40962
	BC558B	4822 130 44197
TS209	BD140	4822 130 40824
TS142	BF451	4822 130 41395
TS120	1502C BF494	4822 130 44195
	BF495D	4822 130 41498
TS101	BF410A	5322 130 44905

-IC-

IC180	Stereo decod. BA1330	4822 209 80771
IC201	TDA1011A/S1	4822 209 80934
IC251	TDA1011A/S1	4822 209 80934
IC401	TDA1059B	4822 209 80361
IC501	UAA180	4822 209 80883

-Miscellaneous-

BU13	Headphone connector	4822 267 30385
BU14	Mains socket	4822 267 40417
F001	Thermal fuse	4822 252 20007
LS1	AD70720/X8	4822 240 50197
LS2	Tweeter	4822 280 10135
LS3	AD70720/X8	4822 240 50197
LS4	Tweeter	4822 280 10135
MI1	Microphone	4822 242 30086
MI2	Microphone	4822 242 30086
T1	Transformer /01	4822 145 30261
T1	Transformer /10	4822 146 20677
	Clip for IC	4822 492 62395
	Clip for BD140	4822 255 40128
	Fuse holder	4822 492 62373
BU	Socket Plate	4822 267 50349
	Screw 2.9 x 38	4822 502 30235

-SK-

SK4÷7	Band switch	4822 276 40293
SK9	Function switch	4822 273 10095
SK15	Rec switch	4822 276 10945
SK17÷19	Tape select switch	4822 276 30283
SK21	Batt. check	4822 277 30683
SK29	Volt. select switch	4822 277 20753

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

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.

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 ricambio identici a quelli specificati.