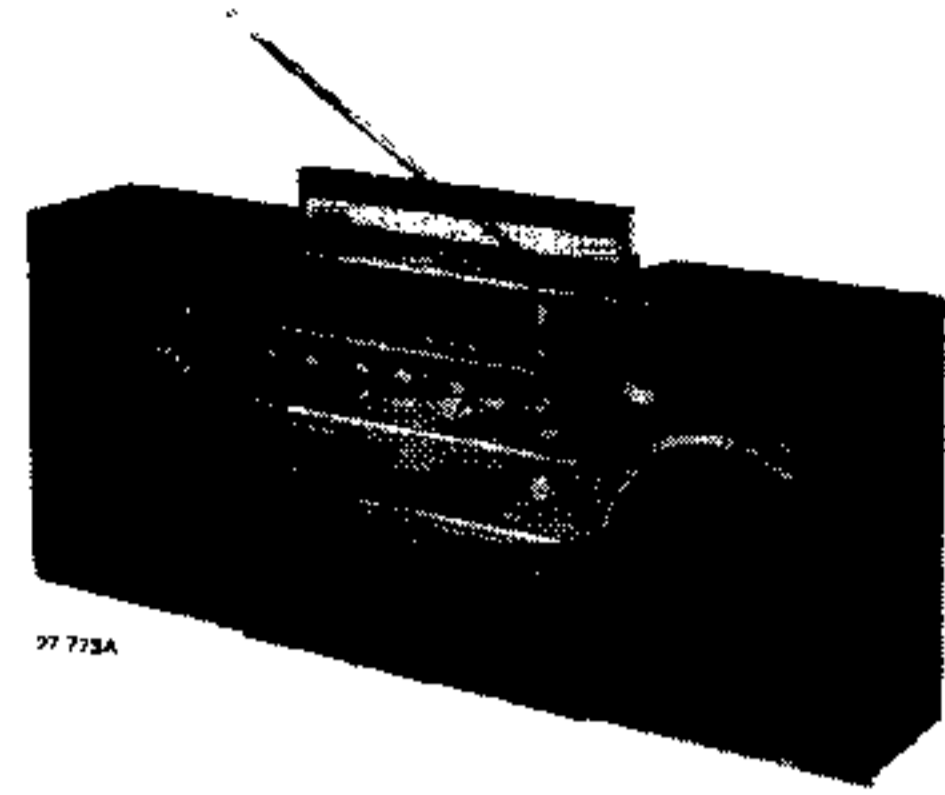
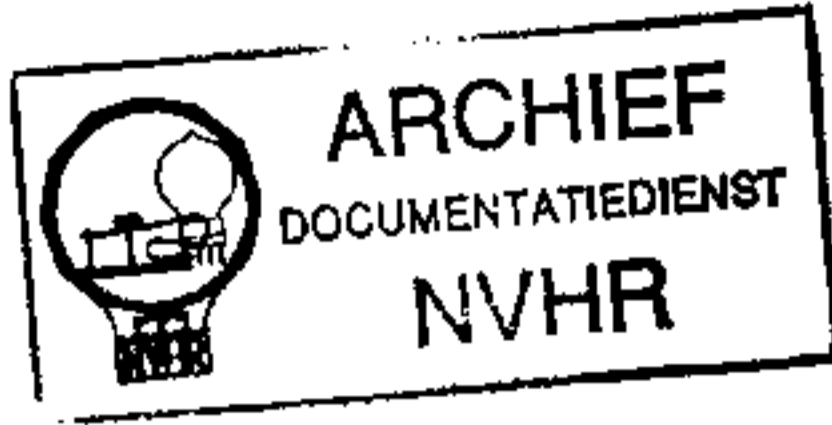


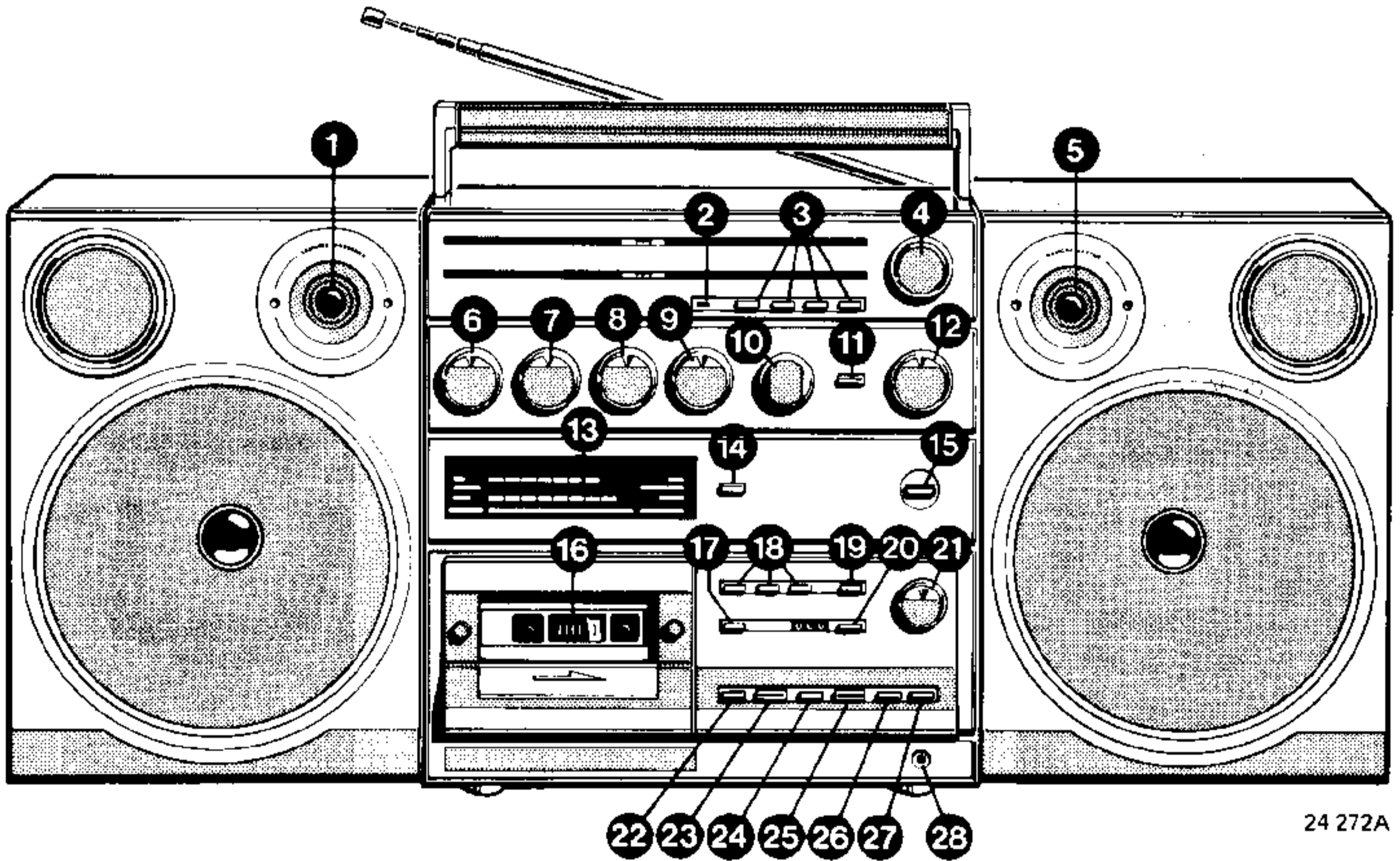
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Service Manual



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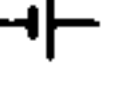


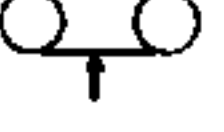





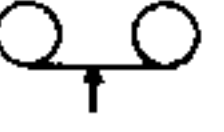

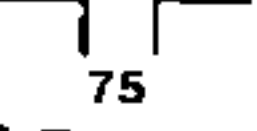


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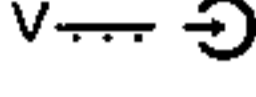

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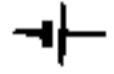




PHILIPS

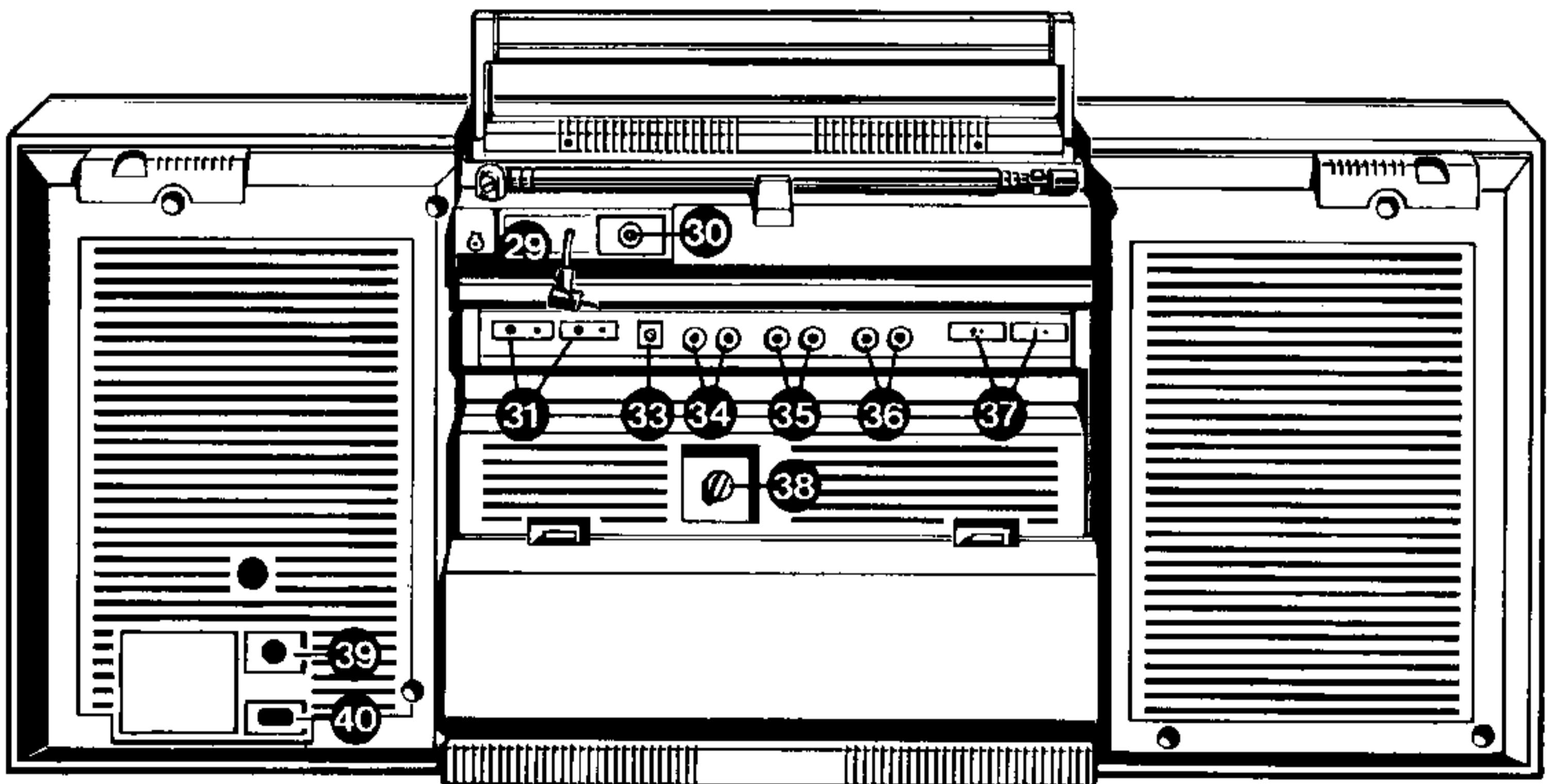
CONNECTIONS AND CONTROLS

1.		"electret mic. left"	Mi-1				
2.		"stereo indicator"	D180				
3.	<table border="1" data-bbox="183 350 434 493"> <tr> <td>SW</td> <td>MW</td> </tr> <tr> <td>LW</td> <td>FM</td> </tr> </table>	SW	MW	LW	FM	"LW-MW-SW-FM switch"	SK4, SK5, SK6, SK7
SW	MW						
LW	FM						
4.		"tuning"	C101				
5.		"electret mic. right"	Mi-101				
6.		"balance control"	R237				
7.		"bass control"	R225/R275				
8.		"treble control"	R228/R278				
9.	mono-stereo- spatial stereo	"stereo control"	R236				
10.	phono-aux-radio- tape	"mode selector"	SK9				
11.	loudness on/off	"loudness"	SK8				
12.		"volume control"	R230/R280				
13.	tuning meter vu-meter L and R battery check meter	"led bar"	D503,D553 D504,D554				
14.		"battery check switch"	SK21				
15.		"power on/off switch"	SK28				
17.		"eject"					
18.	metal-chrome- normal	"tape selector"	SK17,SK18,SK19				
19.	Aut./man. 	"automatic/manual recording switch"	SK20				
20.	Reset	"counter reset button"					
21.		"recorder level L and R manual control"	R403/R453				
22.		"pause"	SK22/D709				
23.		"stop"	SK23				
24.		"rewind"	SK24				
25.		"play"	SK25/D708				
26.		"fast-forward"	SK26				
27.		"recording"	SK27/D710 SK15				
28.		"headphone"	BU13/SK13				
30.		"FM aerial socket 75 Ω "	BU15				
31.		"externe mic. left + right"	BU2,1/SK2,1				
33.		"earth terminal"					

34. 	"MD phono socket"	BU5/BU4
35. AUX	"aux socket"	BU7/BU6
36. 	"line out"	BU9/BU8
37. 	"ext. L.S."	BU11/BU10 SK11/SK10
38. Δf	"R.I.F.-switch"	SK16
39. 	"external supply D.C."	BU12 SK12
40. 	"mains"	BU14 SK14

SPECIFICATION

	: 9-14 V DC	Wow and flutter	: $\leq 0.3\%$
	: 12 V (8x R20)	Bias frequency	: 72 kHz
	: 220 V 50/60 Hz (240 V, 50/60 Hz for D8614/05)	Frequency response	Typical value DIN45511 Min. value DIN45511
	2x3.5 W - 1 dB - 4 Ω $D \leq 10\%$ 2x5 W - 4 Ω	Metal tape	50 Hz - 15 kHz 60 Hz - 14 kHz
IF-AM	: 468 kHz \pm 1 kHz	CrO ₂ -tape	50 Hz - 14 kHz 60 Hz - 12 kHz
IF-FM	: 10.7 MHz	Ferro-tape	50 Hz - 12 kHz 60 Hz - 10 kHz
FM	: 87.5 - 108 MHz	Input sensitivity	
SW	: 5.95 - 17.9 MHz	Microphone	: 0.4 mV/2.7 k Ω
MW	: 520 - 1605 kHz	Phono dynamic	: 3.5 mV/47 k Ω
LW	: 150 - 255 kHz	Phono/Crystal Auxiliary/line in	} : 150 mV/470 k Ω
Tape speed	: 4.76 cm/sec \pm 2 % (min. batt. voltage 8 V)	Headphone impedance 	8 \div 600 Ω .
		Ext. l.s. impedance 	4 \div 8 Ω



GB

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 suspension of (non-aggressive) adhesive to the periphery of the replacement piezo element.
- Place the replacement piezo element in the cabinet.

F

CONSEIL REPARATION

Le tweeter piézo-électrique est fourni avec son boîtier.

Il n'y a cependant pas moyen d'extraire ce boîtier de l'appareil sans abîmer le grand boîtier.

Il faut donc n'enlever **que** le piézo-élément en cas de remplacement.

Procéder à cet effet comme suit:

- Extraire le piézo-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 piézo-élément dans le boîtier.

NL

REPARATIEWENK

De piezo-tweeter wordt geleverd met behuizing. Het is echter niet mogelijk deze behuizing uit het apparaat te verwijderen zonder de kast te beschadigen.

Daarom moet **alleen** het piezo-elementje uitgewisseld worden. Men kan hierbij als volgt te werk gaan:

- Neem het piezo-elementje uit zijn behuizing op een soortgelijke manier als aangegeven in fig. 1.
- Breng aan de omtrek van het piezo-elementje, een kleine hoeveelheid niet agressieve kleefstof aan.
- Breng het piezo-elementje weer in de kast aan.

D

REPARATURHINWEIS

Der Kristall-Hochtonlautsprecher wird im Gehäuse geliefert. Es ist jedoch nicht möglich, dem Gerät dieses Gehäuse zu entnehmen ohne dass das Gehäuse des Geräts schadhaft wird.

Daher soll **nur** das piezoelektrische Element ausgewechselt werden. Man kann folgendermassen vorgehen:

- In ähnlicher Weise wie in Bild 1 gezeigt ist das piezoelektrische Element seinem Gehäuse zu entnehmen.
- Auf den Umfang des piezoelektrischen Elements ist eine geringe Menge - nicht aggressiven - Klebstoffs aufzutragen.
- Das piezoelektrische Element in das Gehäuse einbauen.

I

CONSIGLI PER IL SERVIZIO

Il tweeter piezoelettrico è fornito completo di contenitore.

Infatti non è possibile togliere questo contenitore dall'apparecchio senza danneggiare il mobile.

Per questo motivo soltanto l'elemento piezo sarà sostituito, se richiesto.

Per fare ciò procedere come segue:

- Togliere l'elemento piezo dal contenitore come riportato in fig. 1.
- Applicare un po' (non molto) di adesivo al bordo dell'elemento piezo da montare.
- Mettere l'elemento piezo nel mobile.

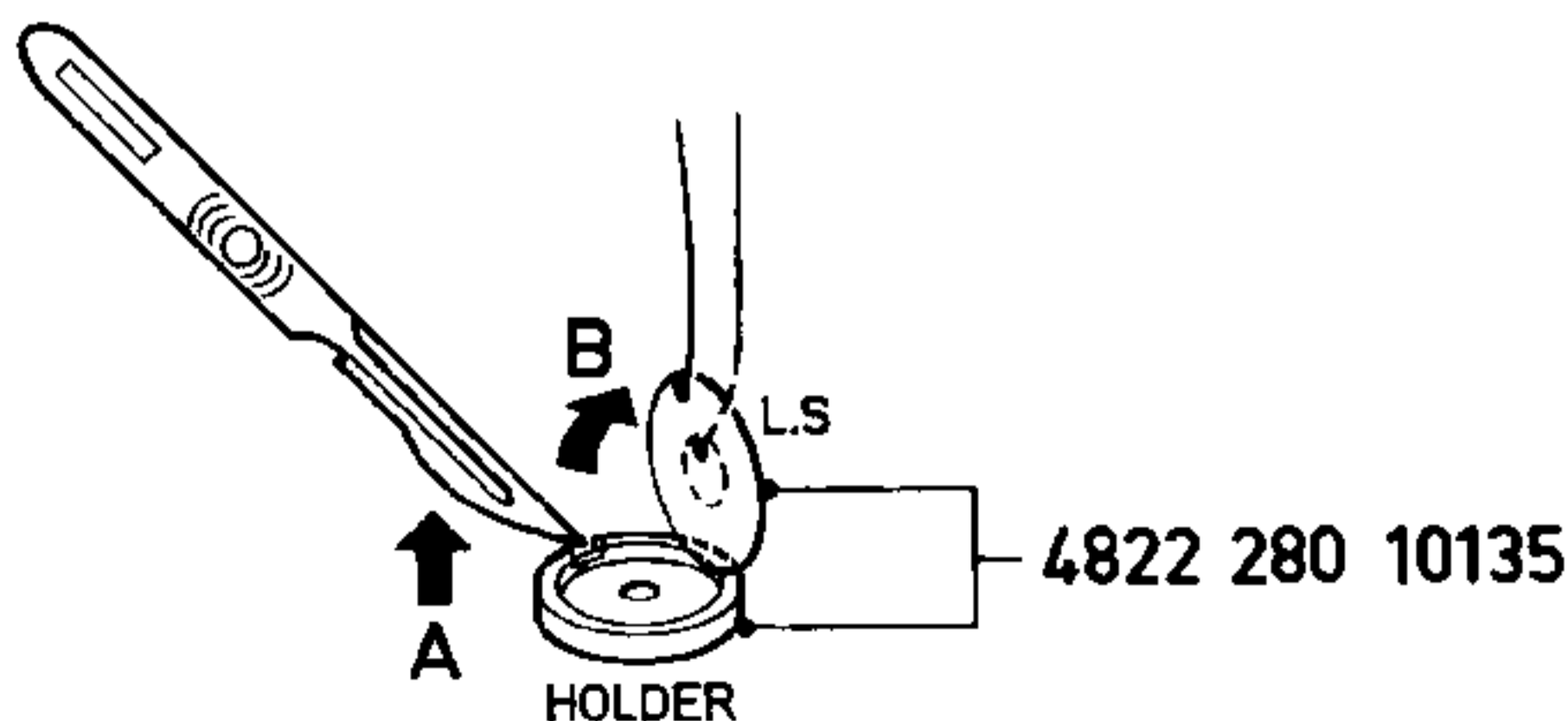


Fig. 1

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DISMANTLING

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 and:
 - a. Remove the cable tag from the aerial socket BU15.
 - b. Remove aerial socket BU15 as shown in Fig. 5, steps 1 through 4.

Note:

When reuniting the backcover to the case, take care that the leads to aerial socket BU15 do not get stuck.

Tuner PC-board (refer to Fig. 5)

- Take off tuning knob 479 and take out the two 2,9 x 13 screws.

I. Recorder PC-board (Figs. 2a, b)

- Take out the 2,9 x 13 screw indicated by arrow "1".
- Release recorder bracket from recorder switch as shown by arrow "2".
- Slightly lift PC-board as shown by arrows "3" and take it out of amplifier PC-board (arrow "4").

Amplifier PC-board (refer to Fig. 5)

- Perform operation I.
- Take off all the rotary knobs projecting from the front.
- Take out the two 2,9 x 13 screws.

II. Tape transport (comprising drive, control and tape select PC-boards) (Refer to Fig. 2c)

- Perform operation I.
- Take off the knobs 483, 484 (refer to Fig. 5).
- Take out the screws A through G.

III. Drive PC-board + control PC-board (refer to Fig. 2d)

- Perform the operations I and II.
- Take out the two 2,2 x 9,5 screws indicated by the arrows "1".
- Slightly lift the drive PC-board out of its holder as indicated by arrow "2". Release the control PC-board by bending out the fastening lugs as shown by the arrows "3".
- Remove the PC-board assy as shown by arrow "4".

Note:

When reassembling, first make sure that the three LED's on the control PC-board are correctly oriented with respect to their relevant apertures.

IV. LED meters (refer to Fig. 2e)

- Perform the operations I and II.
- Push aside the fastening lugs as shown by the arrows "1".
- Remove the LED meters as indicated by arrow "2".

V. Transformer housing

The transformer + PC-board may be lifted as a whole out of their housing.

The only thing to do is to overcome the low force exerted by a snap-in arm.

UITKASTEN

Achterwand

- Verwijder de 8 schroeven (2,9 x 38) uit de achterwand (zie fig. 5).
- De telescoopantenne kan blijven zitten.
- Licht de achterwand een weinig op en:
 - a. Verwijder het kabelschoentje van de antennebus BU15.
 - b. Verwijder de antennebus BU15 zoals aangegeven in fig. 5, handeling 1 t/m 4.

Opmerking:

Bij het terug plaatsen van de achterwand dient men erop te letten dat de bedrading van antennebus BU15 niet bekleemd geraakt.

Tunerprint (fig. 5)

- Verwijder tuningknop 479 en de beide schroeven 2,9 x 13.

I. Recorderprint (fig. 2a, b)

- Verwijder schroef 2,9 x 13 aangegeven met "1".
- Maak recorderbeugel vrij van recorder-schakelaar volgens "2".
- Licht de print een weinig op volgens "3" en neem hem uit de versterkerprint volgens "4".

Versterkerprint (fig. 5)

- Verricht handeling I.
- Verwijder alle aan de voorzijde aanwezige draaiknoppen.
- Verwijder de beide schroeven 2,9 x 13.

II. Loopwerk inclusief sturing, bediening en tape-select (zie fig. 2c)

- Verricht handeling I.
- Verwijder de knoppen 483, 484 (zie fig. 5).
- Verwijder de schroeven A t/m G.

III. Sturingsprint met bedieningsprint (zie fig. 2d)

- Verricht handeling I en II.
- Verwijder de 2 schroefjes 2.2 x 9.5 volgens "1".
- Licht de stuurprint een weinig uit de houder volgens "2".
- Neem het bedieningsprintje weg door de bevestigingslippen volgens "3" weg te buigen.
- Neem het geheel weg volgens "4".

Opmerking:

Bij het terug plaatsen van het geheel dient men er zich van te voren van te overtuigen, dat de 3 LED's op het bedieningsprintje goed t.o.v. de doorvoeringen georiënteerd zijn.

IV. Led-meters (zie fig. 2e)

- Verricht handelingen I en II.
- Druk de bevestigingslippen weg volgens "1".
- Neem de Led-meters weg volgens "2".

V. Transformatorhuis

Het transformatorhuis inclusief printplaat kan in z'n totaliteit uit de behuizing geschoven worden.

Men dient hiertoe slechts een kleine kracht van een klik-in arm te overwinnen.

DEMONTAGE

Panneau arrière

- Enlever les 8 vis (2,9 x 38) du panneau arrière (voir fig. 5).
- L'antenne télescopique peut rester en place.
- Soulever quelque peu le panneau arrière et,
 - a. enlever le patin autour du câble sur la douille BU15.
 - b. enlever la douille d'antenne BU15 comme indiqué en fig. 5 opérations de 1 à 4.

Remarque:

Lors du montage du panneau arrière il faudra faire attention de ne pas coincer le câblage de la douille d'antenne BU15.

Platine de tuner (fig. 5)

- Enlever le bouton 479 et les deux vis 2,9 x 13.

I. Platine magnétophone (fig. 2a, b)

- Enlever la vis 2,9 x 13 marquée "2".
- Dégager l'étrier du magnétophone selon l'indication "2".
- Soulever quelque peu la platine selon "3" et l'extraire de la platine de l'ampli selon "4".

Platine de l'amplificateur (fig. 5)

- Procéder à l'opération 1.
- Enlever à l'avant tous les boutons.
- Dévisser les deux vis 2,9 x 13

II. Mécanique (platine de contrôle, platine de commande et sélection de bande) (voir fig. 2c)

- Procéder à l'opération I.
- Enlever les boutons 483, 484 (voir fig. 5).
- Enlever les vis A à G.

III. Platine de contrôle et platine de commande (voir fig. 2d)

- Procéder aux opérations I et II.
- Enlever les deux vis 2,2 x 9,5 selon "1".
- Soulever quelque peu la platine de contrôle du support selon "2".
- Extraire la platine de commande en pliant les languettes de fixation selon "3".
- Enlever l'ensemble selon "4".

Remarque:

Avant de remonter l'ensemble, il faut s'assurer de ce que les 3 LED sur la platine de commande soient bien en regard des ouvertures de traversée.

IV. Galvanomètres à LED (voir fig. 2e)

- Procéder aux opérations I et II.
- Repousser les languettes de fixation selon "1".
- Enlever les galvanomètres selon "2".

V. Boîtier du transformateur

Le boîtier du transformateur peut être extrait dans sa totalité de sa monture. Il suffit de forcer légèrement la résistance d'un bras-cliquet.

AUSBAU

Rückwand

- Die 8 Schrauben (2,9 x 38) aus der Rückwand herausdrehen (siehe Bild 5).
- Die Teleskopantenne muss nicht abgenommen werden.
- Die Rückwand ein wenig heben und
 - a. den Kabelschuh von der Antennenbuchse BU15 abziehen;
 - b. Antennenbuchse BU15 ausbauen wie in Bild 5 dargestellt; Vorgänge 1 bis 4.

Bemerkung:

Wenn die Rückwand zurückgestellt wird, ist zu beachten, dass sich die Verdrahtung der Antennenbuchse BU15 nicht verklemt.

Tunerprintplatte (Bild 5)

- Abstimmknopf 479 abziehen und die beiden Schrauben 2,9 x 13 lösen.

I. Recorder-Printplatte (Bild 2a und b)

- Mit "1" gekennzeichnete Schraube 2,9 x 13 lösen.
- Recorderbügel von Recorderschalter entsprechend "2" lösen.
- Printplatte entsprechend "3" ein wenig heben und entsprechend "4" aus der Verstärkerprintplatte herausnehmen.

Verstärkerprintplatte (Bild 5)

- Vorgang I durchführen.
- Alle auf der Vorderseite befindlichen Drehknöpfe abziehen.
- Die beiden Schrauben 2,9 x 13 lösen.

II. Laufwerk einschliesslich Steuerung, Bedienung und "tape-select" (siehe Bild 2c)

- Vorgang I durchführen.
- Knöpfe 483 und 484 (siehe Bild 5) abziehen.
- Schrauben A bis G lösen.

III. Steuerprint mit Bedienungsprint (siehe Bild 2d)

- Vorgänge I und II durchführen.
- Die beiden Schrauben 2,2 x 9,5 entsprechend "1" lösen.
- Den Steuerprint entsprechend "2" ein wenig aus der Fassung heben.
- Bedienungsprint ausbauen indem die Befestigungslappen entsprechend "3" auswärts gebogen werden.
- Die Gesamtheit entsprechend "4" beseitigen.

Bemerkung:

Wenn die Gesamtheit eingebaut wird, soll man sich vorher davon überzeugen, dass die 3 Leuchtdioden auf dem Bedienungsprint richtig zu den Durchführungen orientiert sind.

IV. Leuchtdiodenanzeiger (siehe Bild 2e)

- Vorgänge I und II durchführen.
- Befestigungslappen entsprechend "1" wegdrücken.
- Leuchtdiodenanzeiger entsprechend "2" ausbauen.

V. Transformatorgehäuse

Das Transformatorgehäuse samt Printplatte lässt sich in der Gesamtheit hinausschieben. Dazu ist nur eine geringe Kraft eines Einschnapparmes zu überwinden.

I SMONTAGGIO

Coperchio posteriore

- Togliere le 8 viti (2,9 x 38) che fissano il posteriore al mobile (vedere fig. 5).
- L'antenna telescopica può rimanere montata.
- Sollevare leggermente il posteriore e:
 - a. Togliere il capocorda dalla presa d'antenna BU15.
 - b. Togliere la presa d'antenna BU15 come riportato in fig. 5, da 1 a 4.

Nota:

Quando si rimonta il posteriore al mobile, fare attenzione che il cablaggio non tocchi la presa d'antenna BU15.

Circuito stampato del sintonizzatore (vedere fig. 5)

- Togliere la manopola di sintonia 479 e le due viti 2,9 x 13.

I. Circuito stampato del registratore (fig. 2a, b)

- Togliere la vite 2,9 x 13 contrassegnata dalla freccia "1".
- Liberare la staffa dal commutatore del registratore come indicato dalla freccia "2".
- Sollevare leggermente il circuito stampato come riportato dalla freccia 3 e togliere la parte del registratore dal circuito stampato dell'amplificatore (freccia "4").

Circuito stampato dell'amplificatore (vedere fig. 5)

- Procedere alle operazioni I.
- Togliere tutte le manopole della parte frontale.
- Togliere le due viti 2,9 x 13.

II. Parte del registratore (compreso i circuiti di trascinamento, controllo e selezione nastri), vedere fig. 2c

- Procedere all'operazione I.
- Togliere le manopole 483, (vedere fig. 5).
- Togliere le viti A attraverso G.

III. Circuito stampato di trascinamento + circuito stampato di controllo (vedere fig. 2d)

- Procedere alle operazioni I e II.
- Togliere le due viti 2,2x9,5 indicate dalle frecce "1".
- Sollevare leggermente il circuito stampato relativo al trascinamento dal suo supporto come indicato dalla freccia "2". Liberare il circuito stampato di controllo piegando verso l'esterno le lamelle di fissaggio come indicato dalle frecce "3".

Nota:

Quando si rimonta, prima fare attenzione che i tre LED sul circuito di controllo siano correttamente posizionati rispetto alla loro finestrella.

IV. LED per gli indicatori (vedere fig. 2e)

- Procedere alle operazioni I e II.
- Spostare le lamelle come indicato dalle frecce "1".
- Togliere i Led dagli indicatori come indicato dalla freccia "2".

V. Alloggio trasformatore

- Il trasformatore + il circuito stampato può essere sollevato ad un'altezza pari al loro contenitore. L'unica cosa da fare è di vincere la leggera forza esercitata dalle linguette di fissaggio.

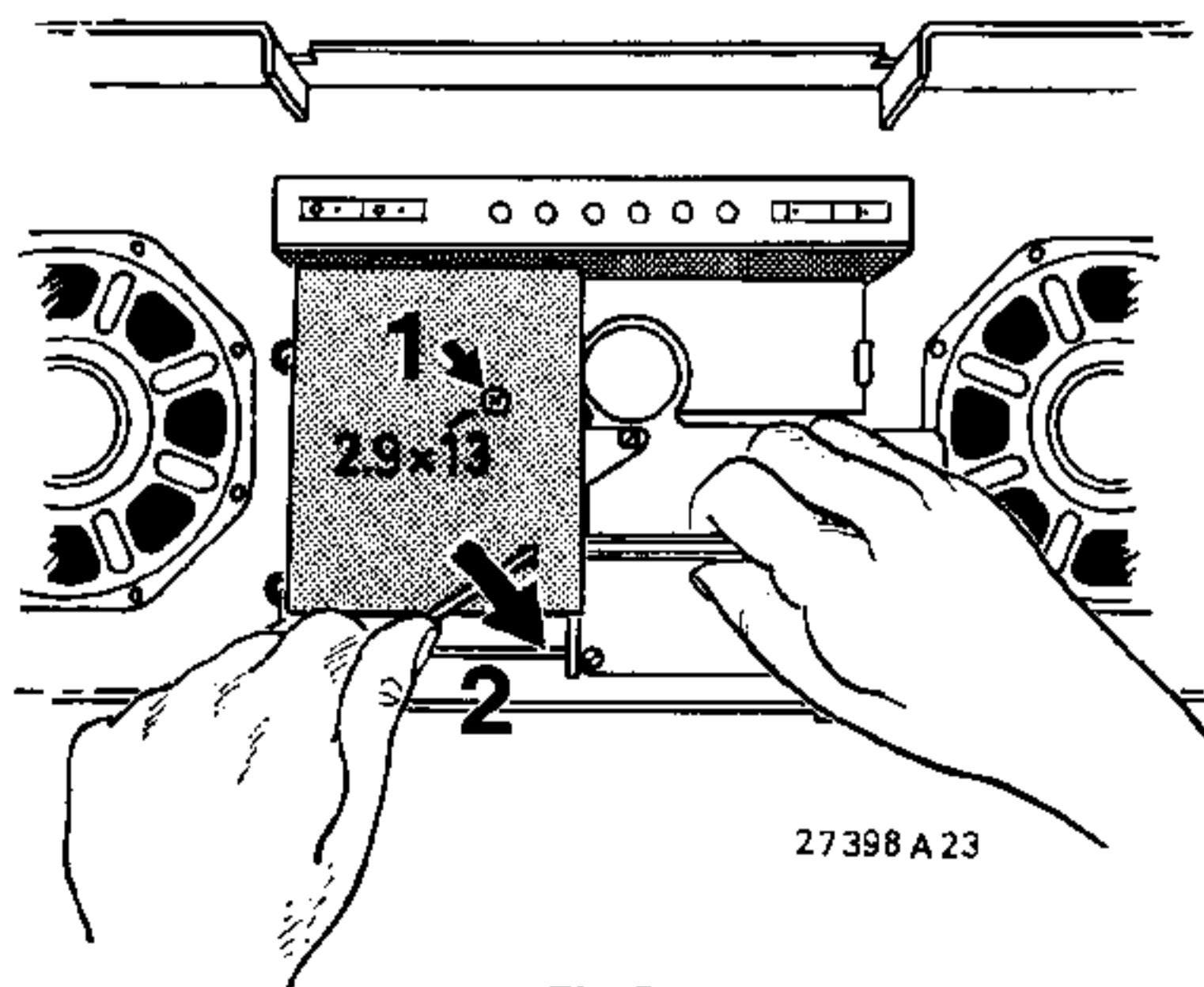


Fig. 2a

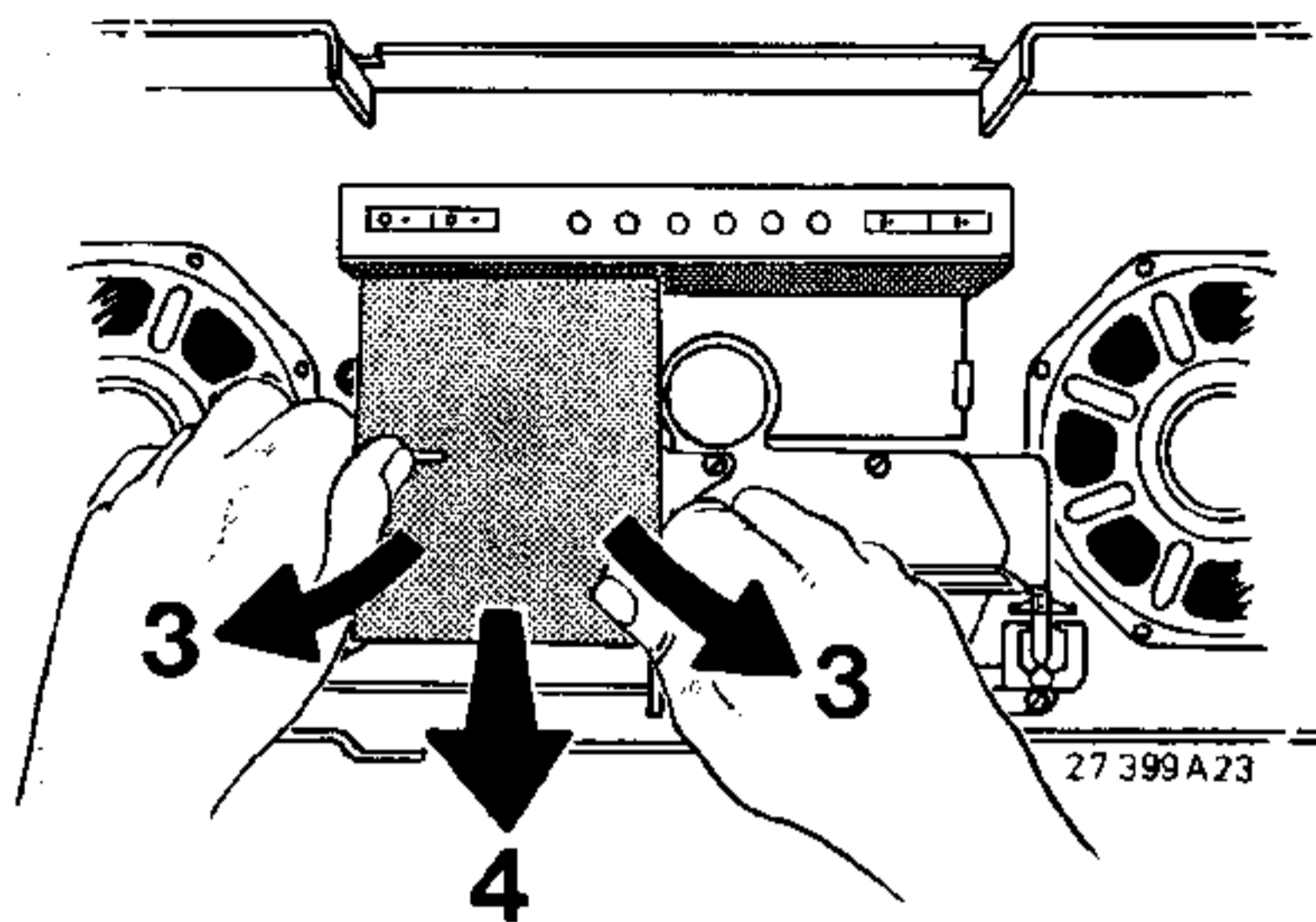
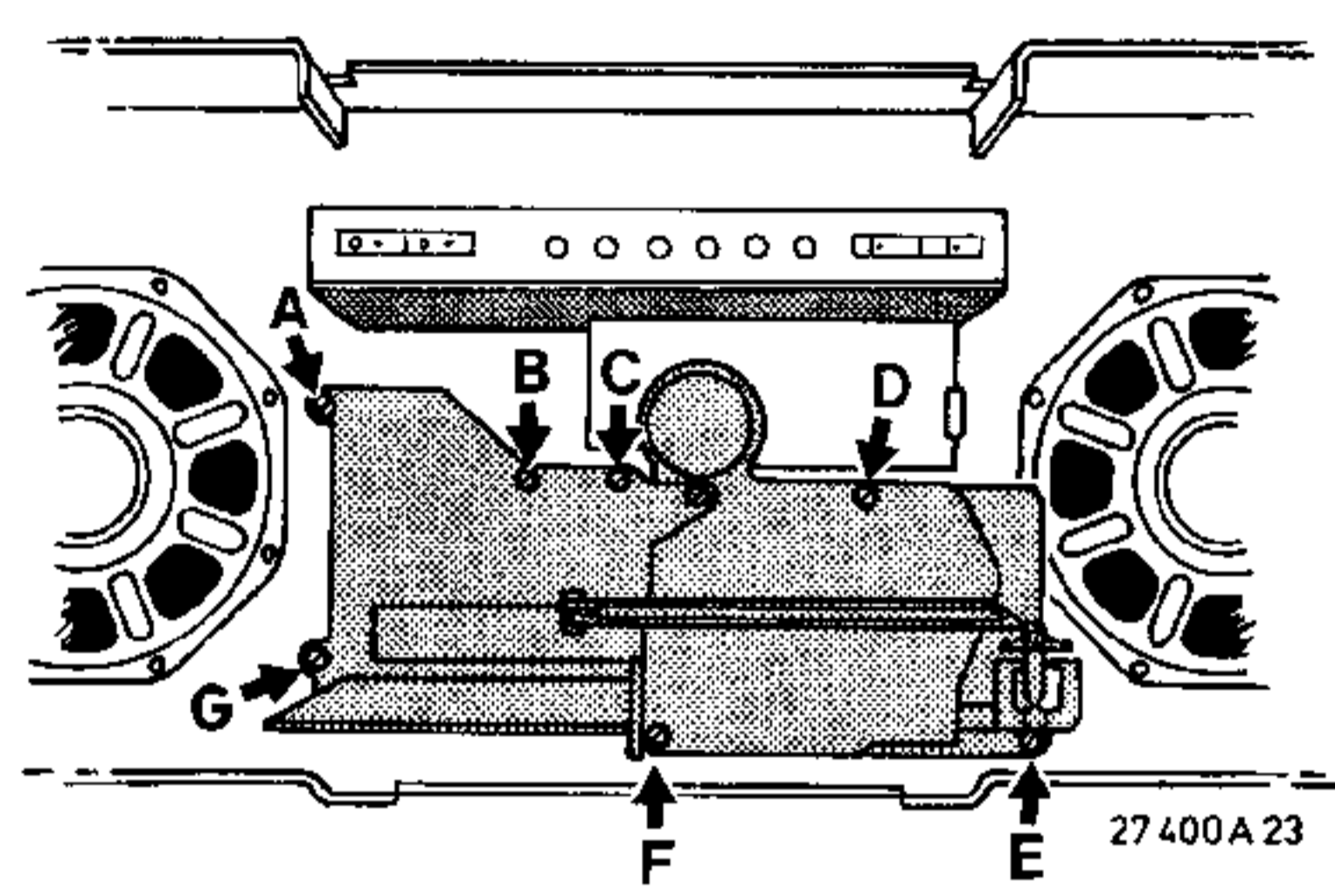


Fig. 2b



- A= 2,9 x 13
- B= 2,9 x 13
- C= 2,9 x 13
- D= 2,9 x 32
- E= 2,9 x 32
- F= 2,9 x 38
- G= 2,9 x 13

Fig. 2c

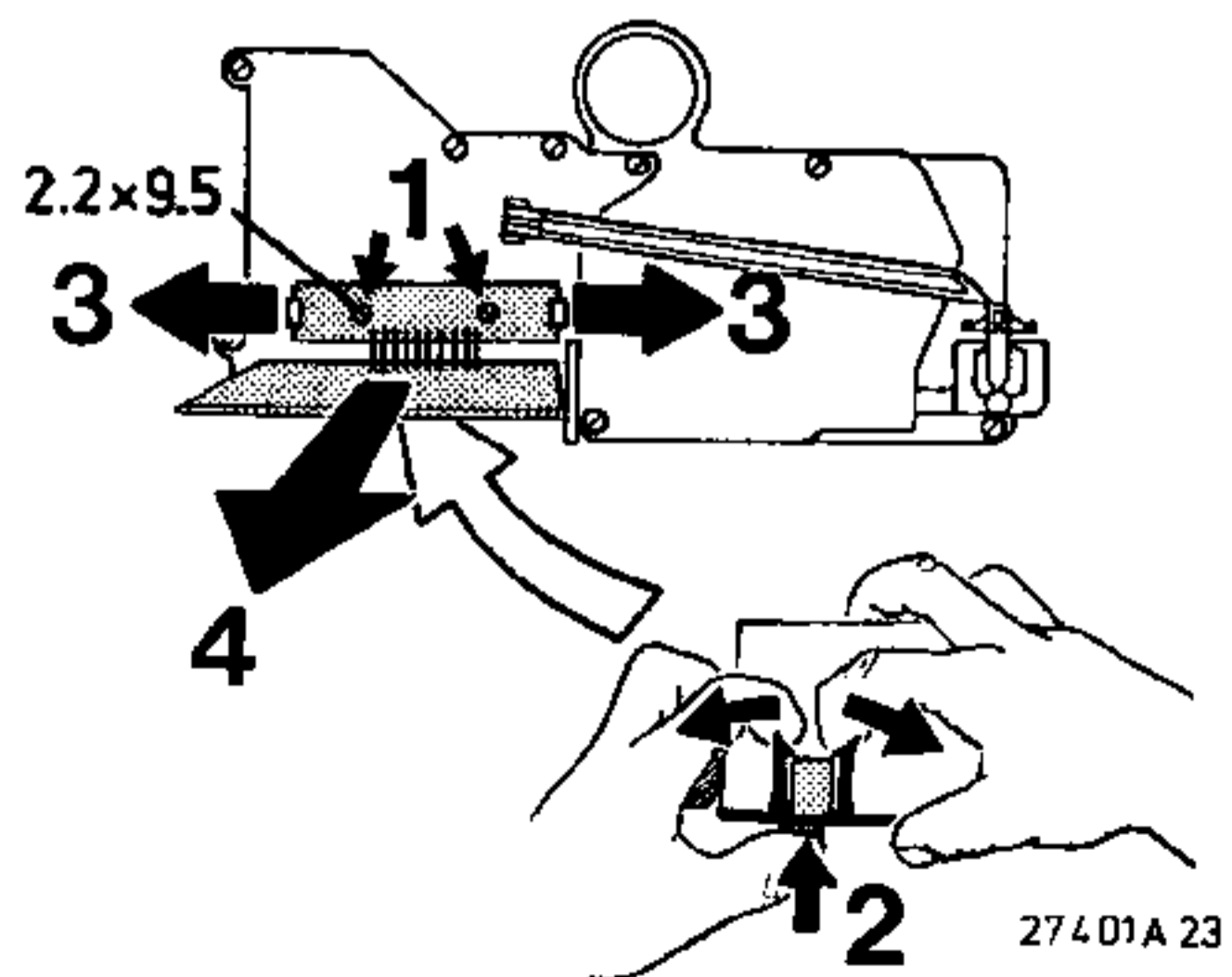


Fig. 2d

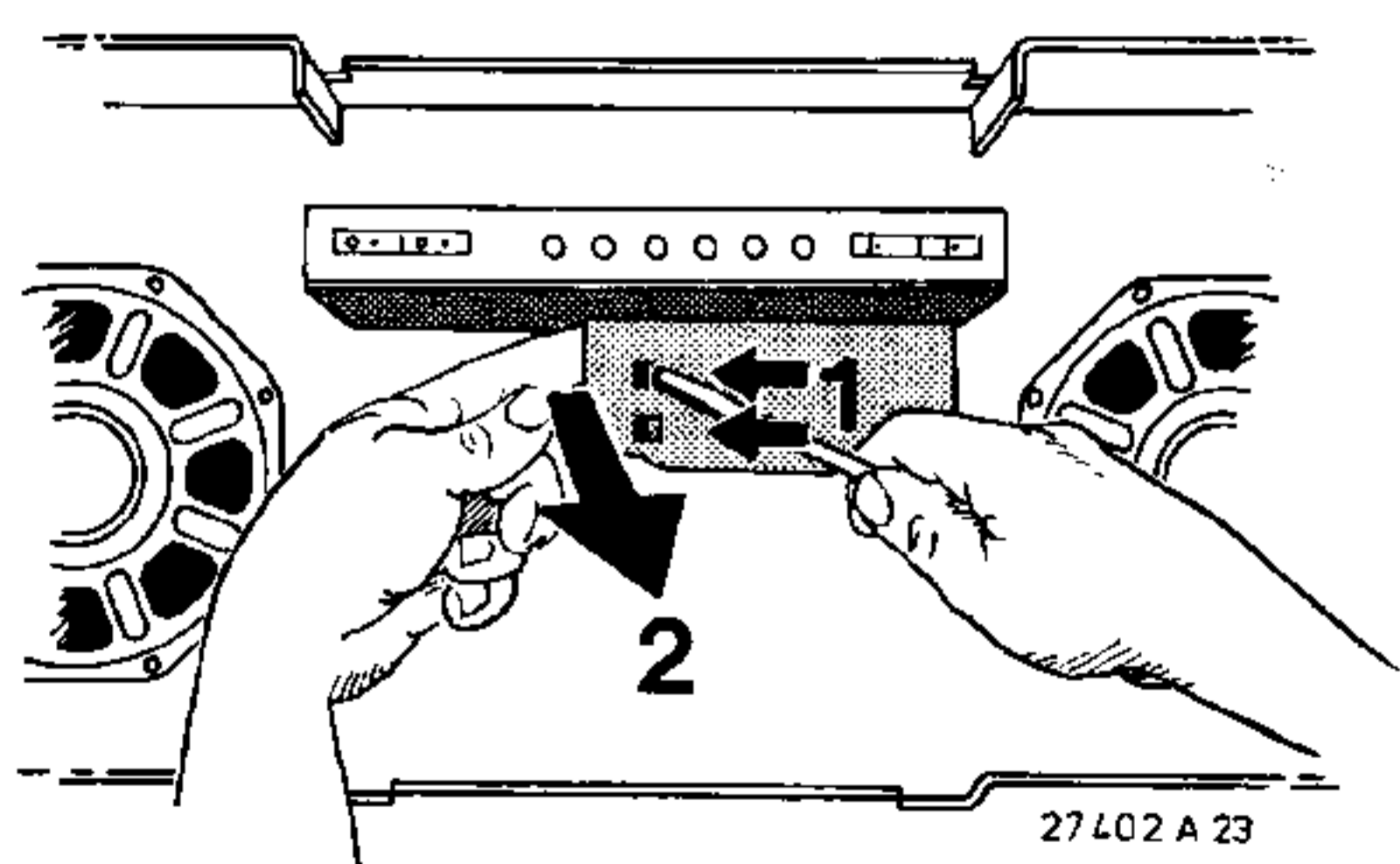
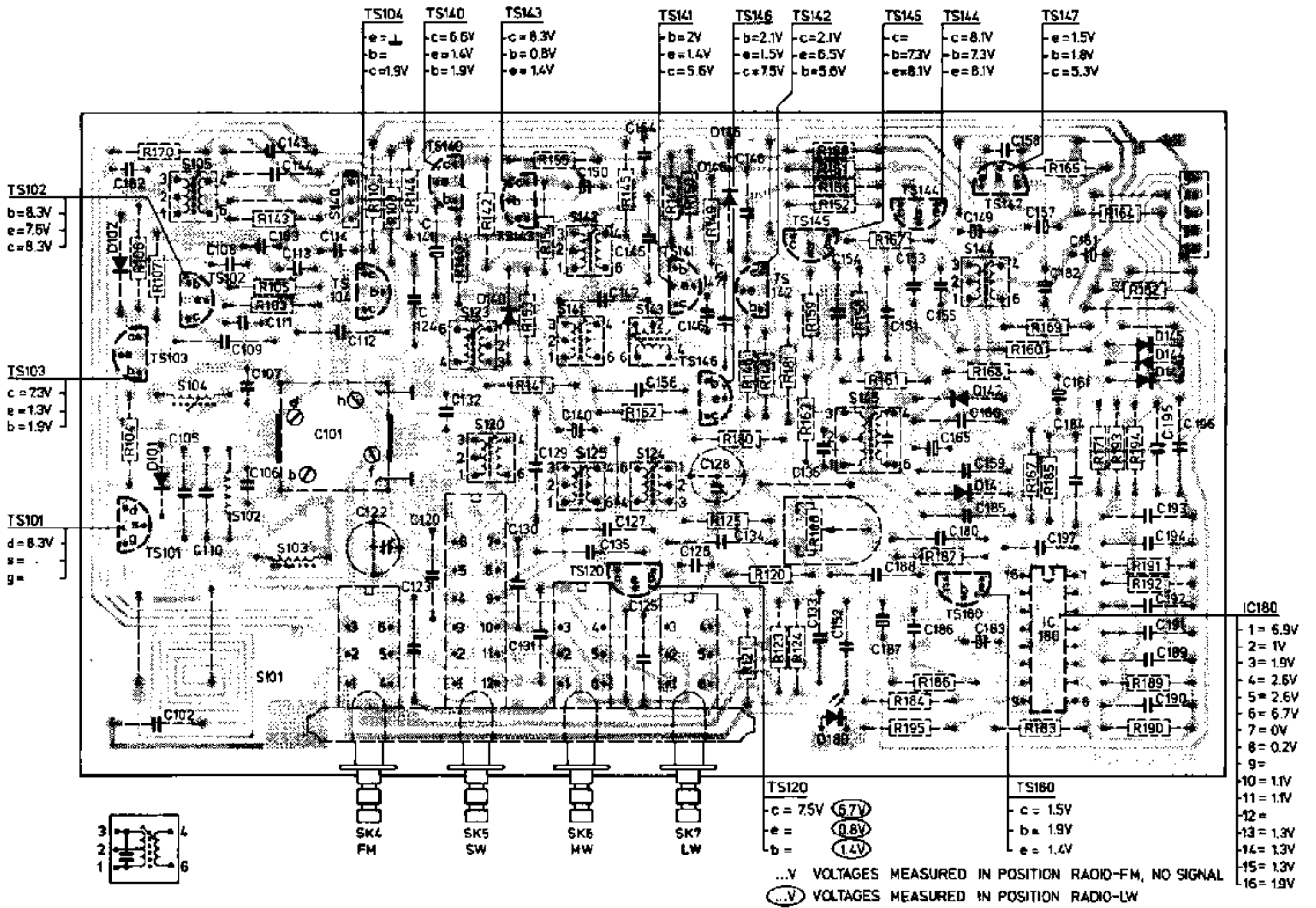
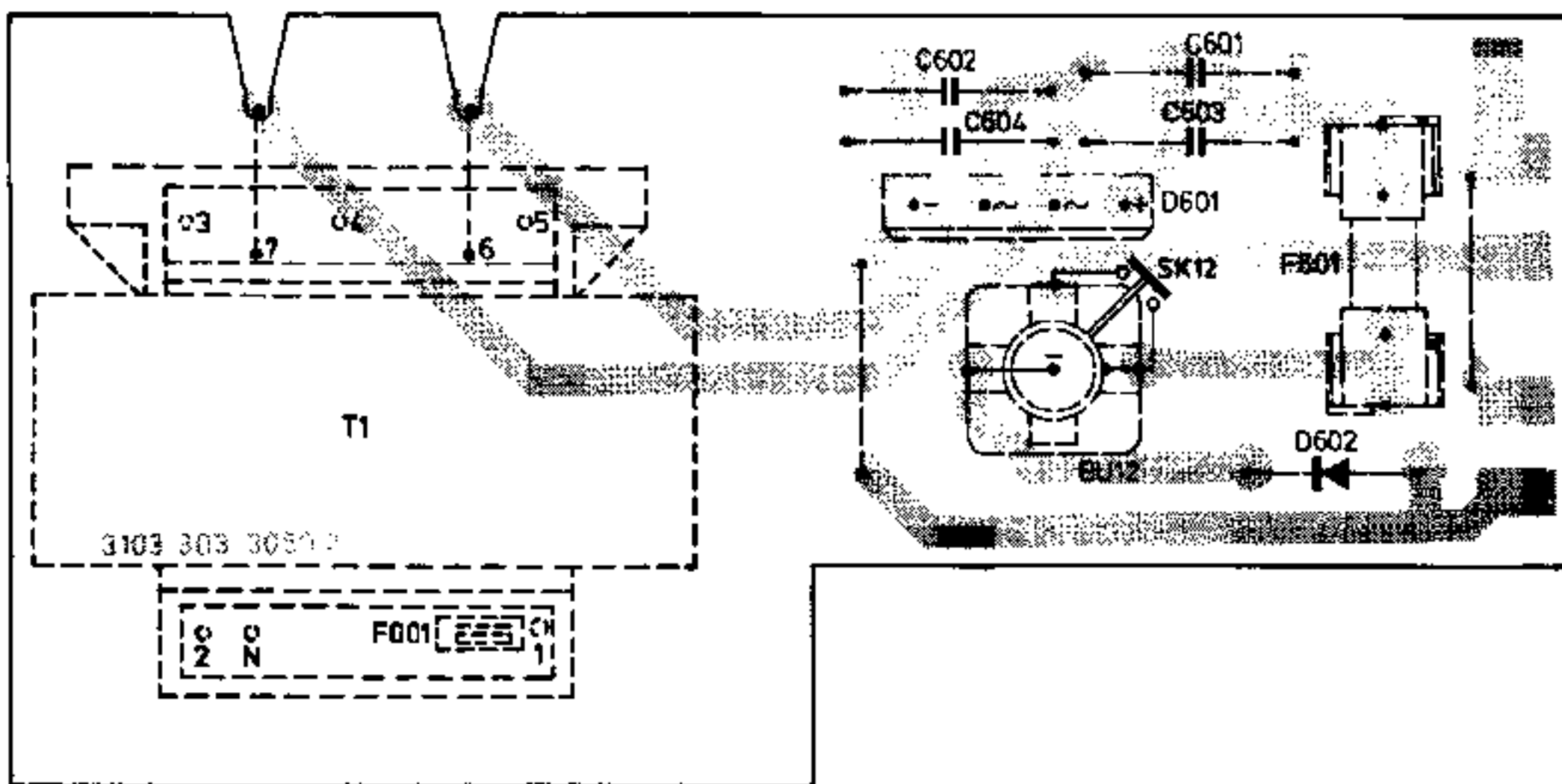


Fig. 2e

MISC.	TS101, D101, S104, S102, S103	SK4	SK5, S120, D140	SK6, S125, TS120, S124, SK7, TS145	D180	S145	TS180, D141, D142	IC180	MISC.
	TS103, D102, TS102, TS104	S140	TS140, S123, TS143	S141 + S143	TS141, D146, TS142	TS145	TS144	TS147, S144	D143 + D145
C	102, 105 + 114	101	122, 123, 120	129 + 132	135, 127, 125	126, 134, 128	133, 152	185 + 188, 180, 183, 159 + 161, 184, 189 + 197	
	162	163, 144, 143	124, 141		140, 150, 142, 156, 145, 164	146 + 148	136, 154, 151, 153, 165, 155, 149, 158, 162, 157, 181		
R	103 + 107				162	125, 121, 120, 123, 124, 188	195, 183 + 167	171	189 + 194
	170	143	108, 110	144	140	142, 141, 153, 154, 155	145 + 150, 180, 181, 163, 156 + 161, 152, 151, 166	167, 168, 169, 165, 164, 182	



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GB

- 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.

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.

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.

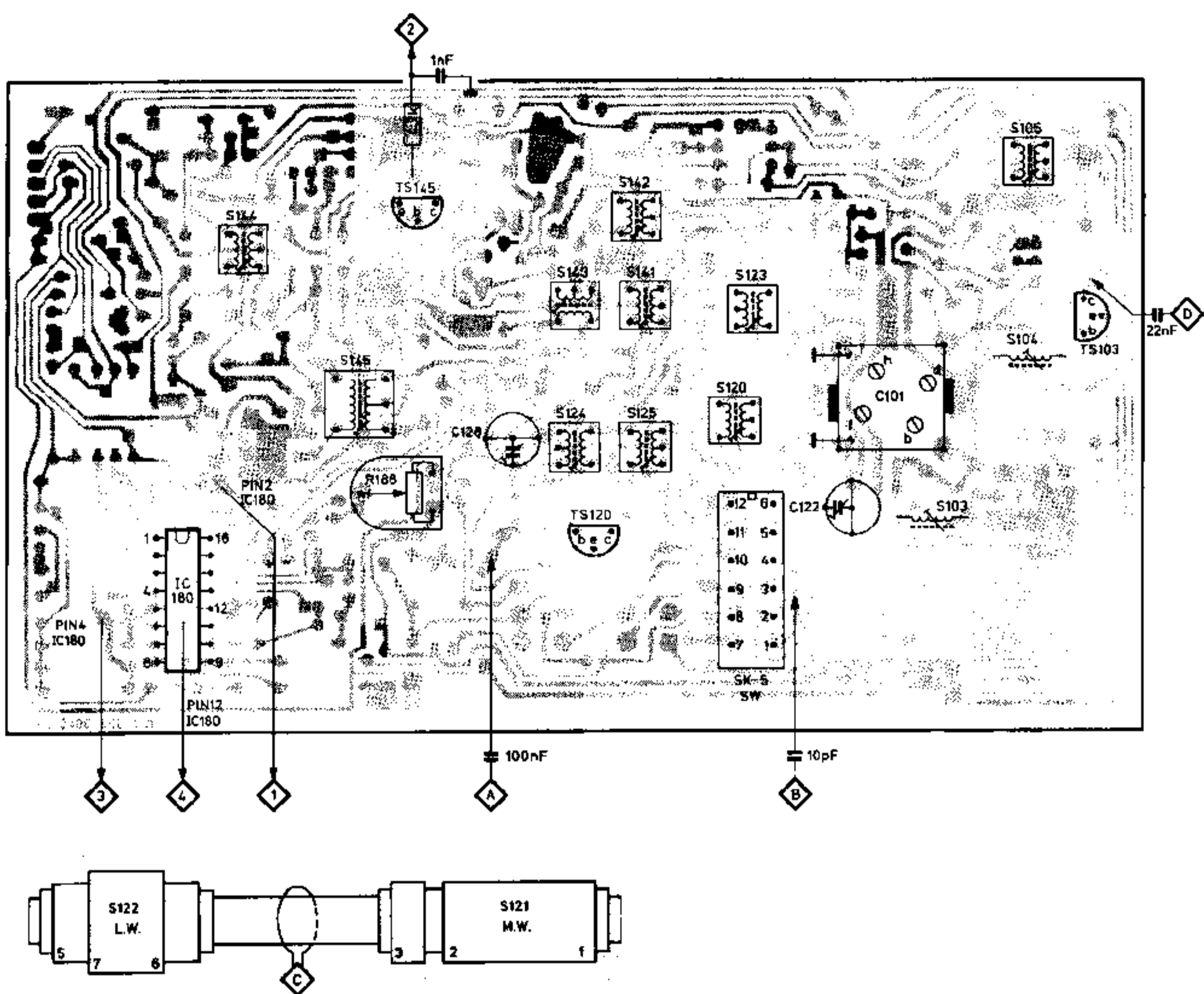
D

- 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 che 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.



27 772 C12

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	R-capstan motor M1	*a
Azimuth R/P head	10 kHz of SBC126Cr	PLAY SK18-Cr	—	BU9 (BU8)	mV-meter	left screw R/PB head	Max. output
Indicators	Side 2 SBC126Cr	AUX. A.L.C. REC. SK18-Cr	BU7/BU6 330 Hz~ ≈ 1 V	—	Indicators	R335	signal strength L = signal strength R
Playback sensitivity	Rewind recording made	Tape Play	—	—	Indicators	R325 R375	Signal strength L/R in pos. play = Signal strength L/R in pos. recording
Bias	—	Rec. SK18-Cr R403 R453 SK16 "0"	—	MP-1 MP-2	mV-meter	R319 R369	6 mV ± 3 dB
Erase oscillator frequency	—	Rec. SK18-Cr R403 R453 SK16 "0"	—	MP-3	Frequency counter	S302	73 kHz ± 200 Hz

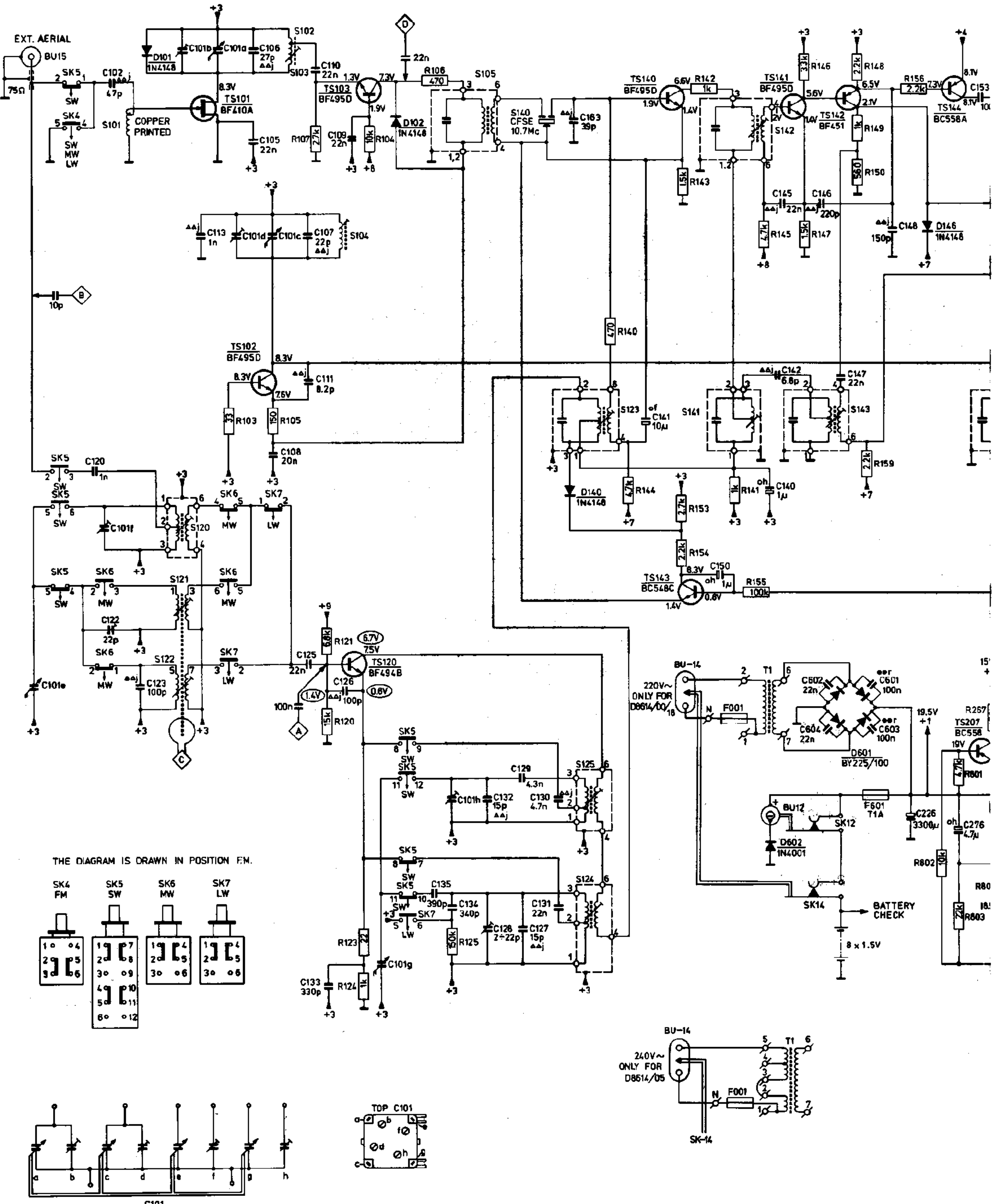
*a The maximum permissible speed deviation is 2%. Moreover, the wow-and-flutter value can be read. This value should not exceed 0.3%.

SK			C101 			
LW-SK7	468 kHz 1 kHz mod.		Max. cap.	S144 S143 S141 S123		
SW-SK5	5.8 MHz		Max. cap.	S125 S120		
	18.2 MHz		Min. cap.	C101h C101f		
	17.0 MHz			C101f		
	6.2 MHz		S120			
MW-SK6	1635 kHz		Min. cap.	C128 C122		
	512 kHz		Max. cap.	S124 S122		
	560 kHz			S121		
	1500 kHz			C122		
LW-SK7	148 kHz		Max. cap.	S124		
	200 kHz			S122		
FM-IF						
FM-SK4	10.7 MHz Δf (sweep range) 10-11 MHz					
				S142 S105	 	
				S145	 	
FM-RF						
FM-SK4	87.35 MHz +1 kHz mod.		Max. cap.	S104*		
	108 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		 freq. counter 19 kHz \pm 0.2

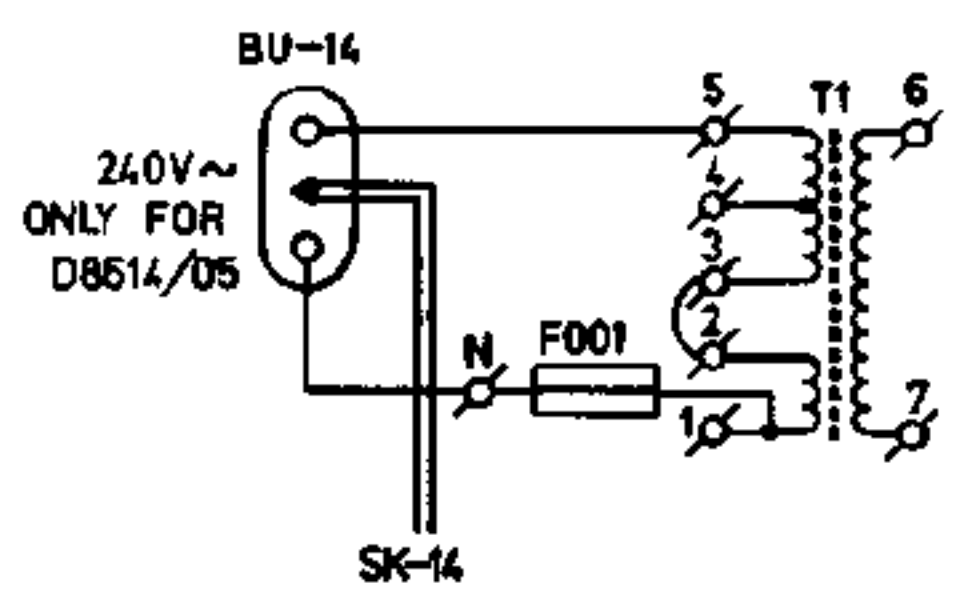
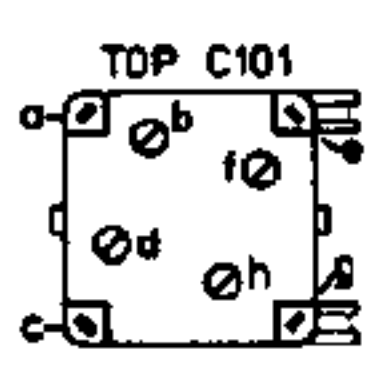
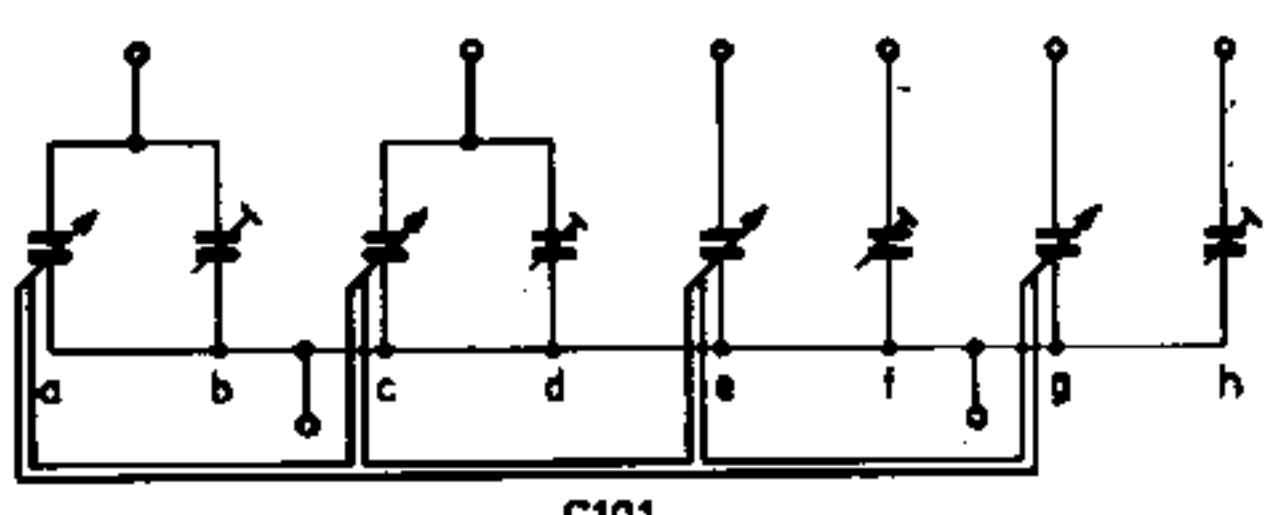
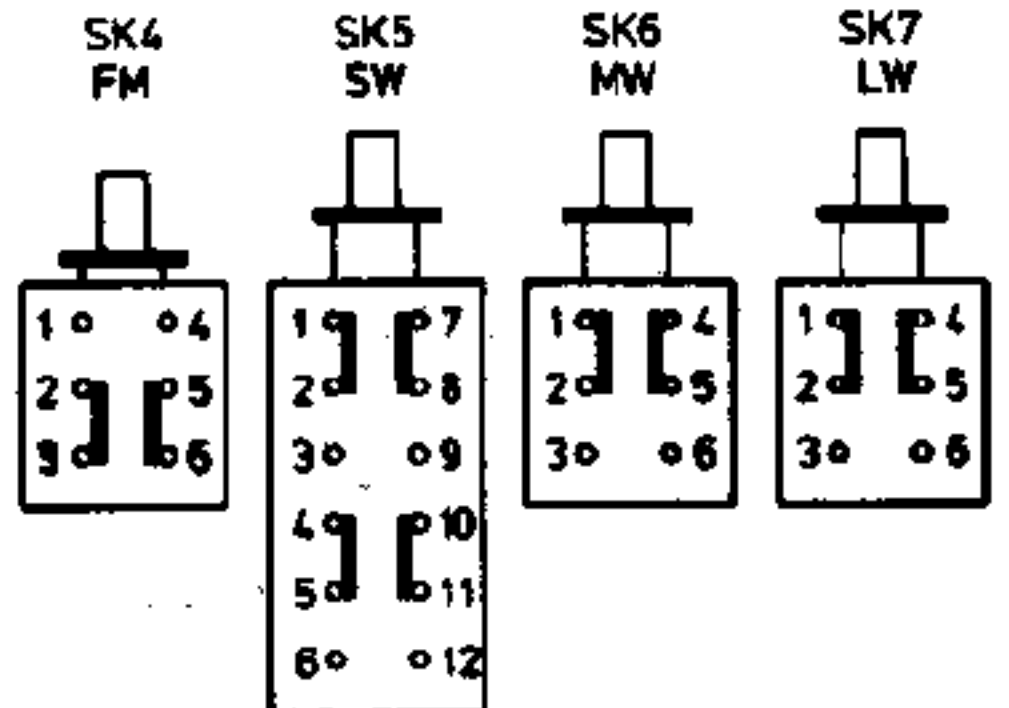
* Trimming rod 4822 395 50135

↓ Repeat - Herhalen - Répéter - Wiederholen - Ricominciare - Repetera - Gentage - Gjentagelse - Toista

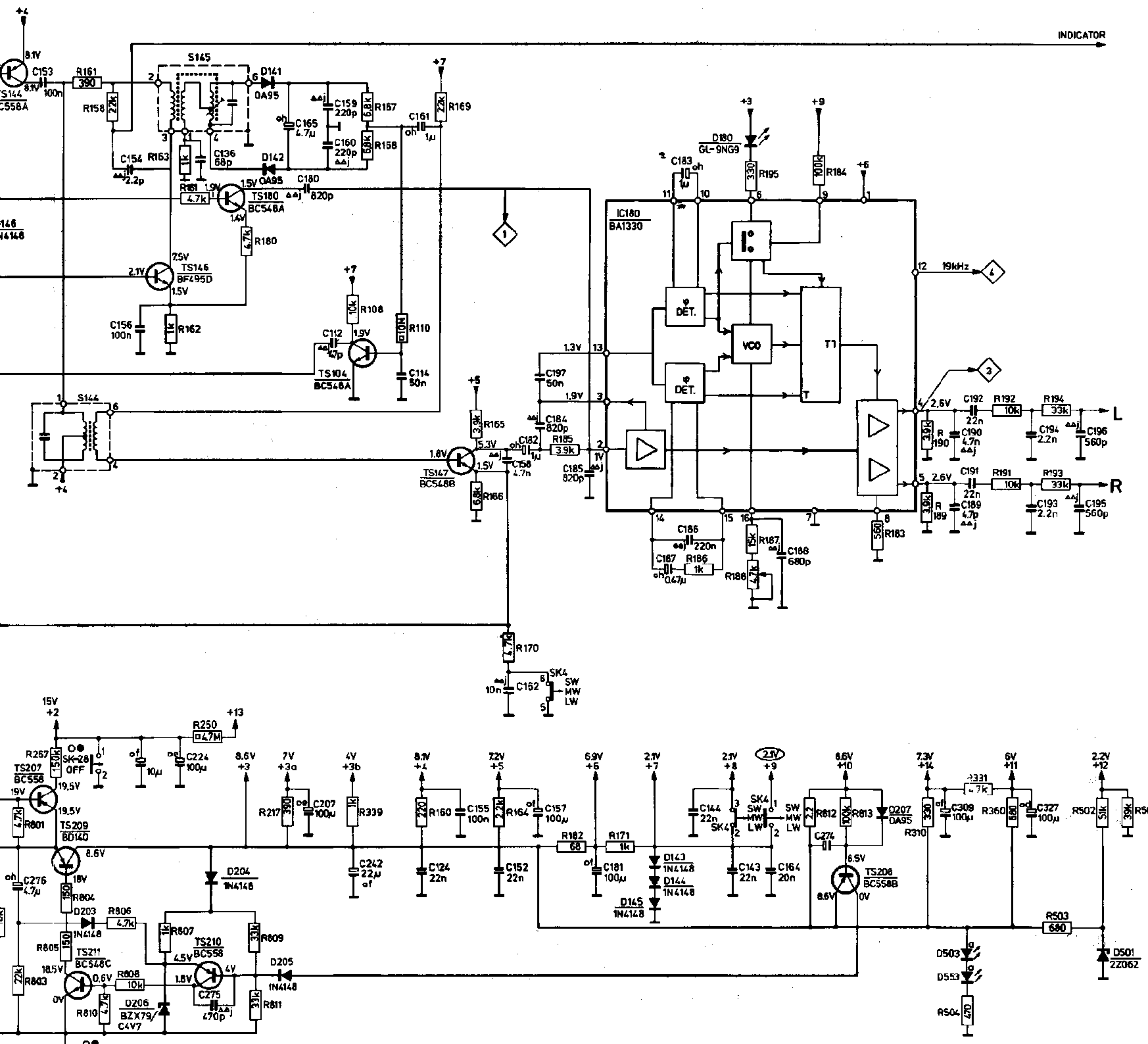
R	103	105	107	104	106	140	144	143, 153, 154, 142, 141, 155	145-150	159	156	287	8							
C	120	102, 101f, 121f, 122, 101a + 101d, 105, 113, 106 + 111	121, 120	123, 124	125	163	141	150	140	145, 142	146	147	148	276	153					
MISC.	BU15	D101	TS101	TS102	S102	S103	TS103, S104	D102	S105	S140	D140	S123	TS140, TS143	S142, S141	TS141	S143	TS142	D146	TS144	TS20
		S101, S120, S121, S122		TS120					S125, S124		S141	BU-14	T1	BU12	D602	D601		F601		



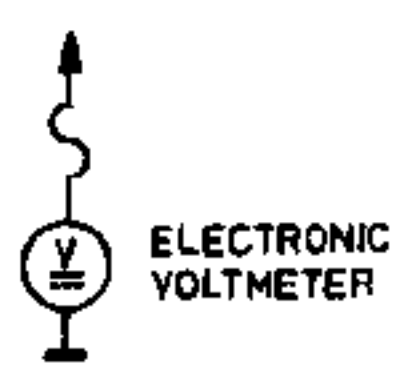
THE DIAGRAM IS DRAWN IN POSITION FM.



267	806	161,158,205	162,163,161	180	108	167,168,110	169	165,166	185	186	188,187,195	184	183	189,190	191,192	193,194	R		
01	805,810,808,244,807,245	295	243	241,809,811	217	339	160	164	170	182	171	812	813	310	504	331	360	503,502,501	R
276	153	156,154	136	165	180	159,160,112	161,114	158,182,197,184,185	187,186,183	188	144	143	164	274	169+192	193+196			C
226		224,275	207	242			124	155	162,152,157	181				309	327				C
TS144	TS207,209,S144,D203	TS146	S145	TS180	D141	D142	TS104	TS147	IC180	D180									MISC.
	TS211	TS207,D206	TS210,D204	D205					D143, D144, D145	TS208	D207			D503,553	D501				MISC.

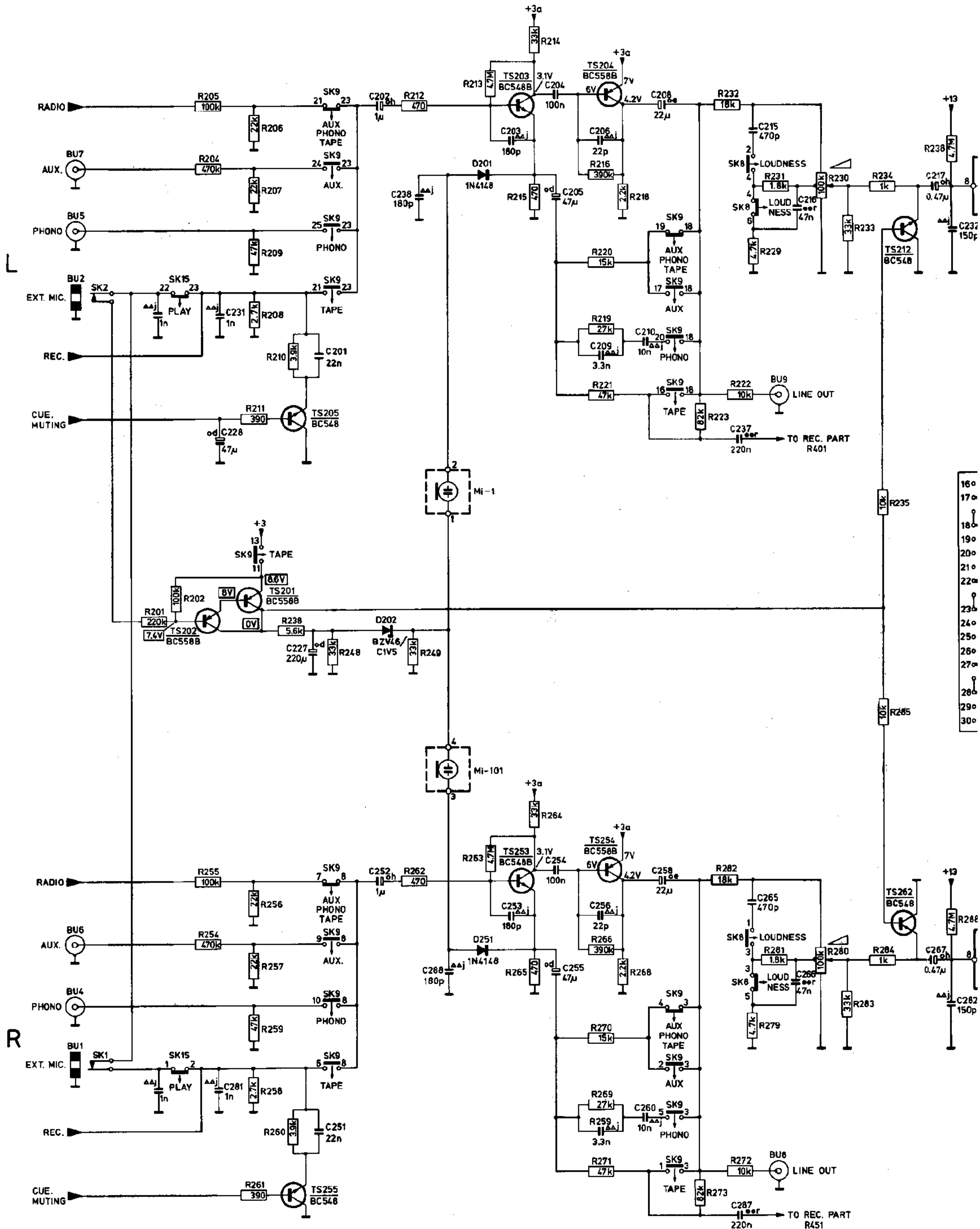


- 0.33W ±5% SFR-25
 - 0.33W ±5% Cr-25
 - |— MINATURE ELECTROLYTIC CAPACITOR
 - |— CERAMIC PLATE CAPACITOR
 - |— POLYESTER FLAT FILM CAPACITOR
 - ALL RESISTORS —□— UNLESS OTHERWISE STATED
- | | |
|------------|----------|
| * c = 6.3V | h = 63V |
| d = 10V | j = 100V |
| e = 16V | r = 250V |
| f = 25V | u = 400V |
| g = 40V | w = 630V |

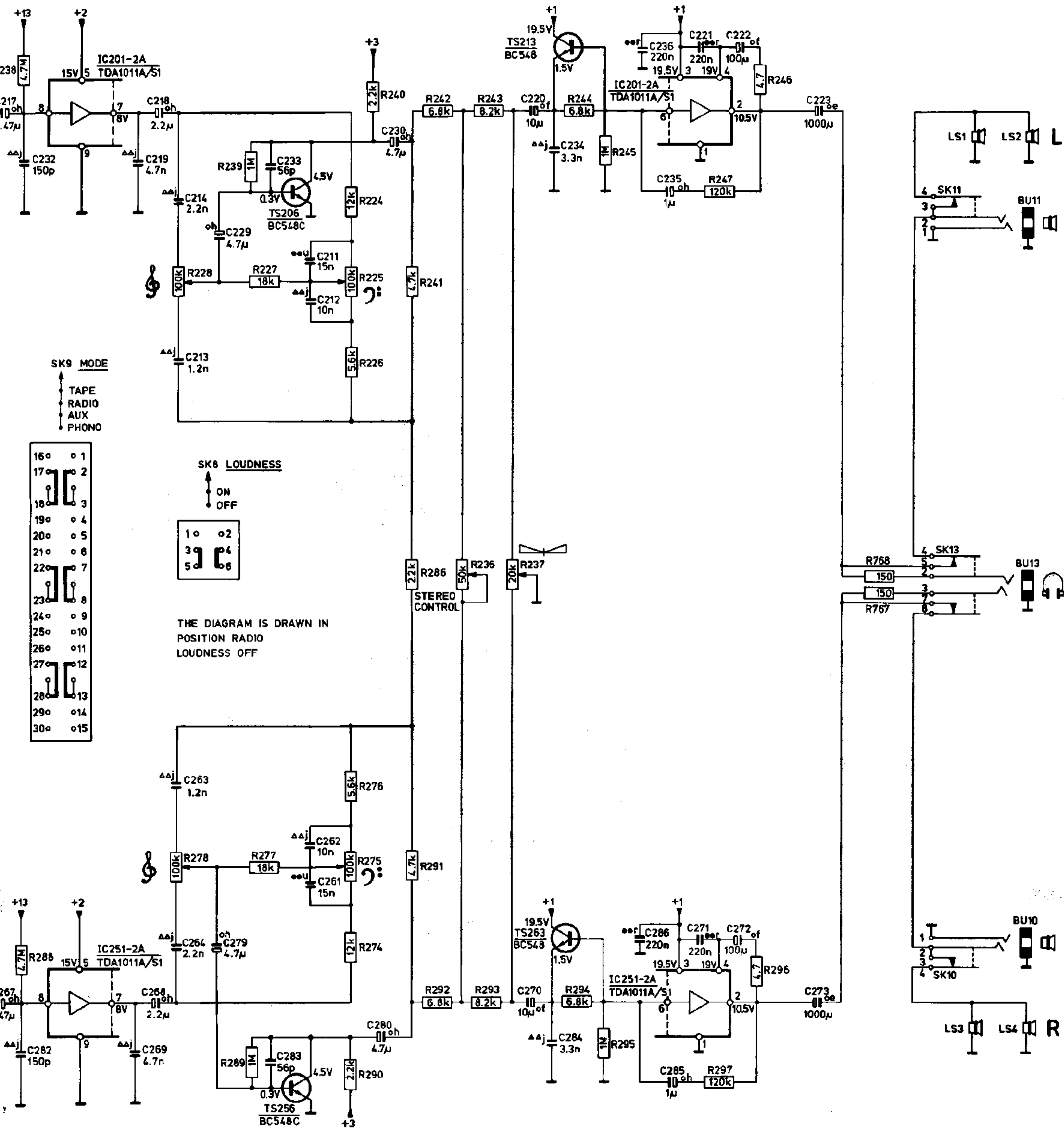


23921 E 13

MISC	BU2.5.7	TS202	TS205	O201	TS203	TS204	BU9	TS212
MISC	BU1.4.6	TS201	TS255	D202	TS253	TS254	BU8	TS262
C201 ... 238		228.231	227.201	202	203	204...206.209	210.208	237 215 216
C240 ... 288		281	251	252	288	253	254...256.259	260.258
R201 ... 247		201.202	204...208.209...211.238.248	212.249	213	214.215	216.218...221	223.232.222.229.231
R251 ... 297		254...258.259	261	262	263	264.265	266.268...271	273.282.272.279.281
								280.283.284.285
								217 232
								287 282
								238
								288



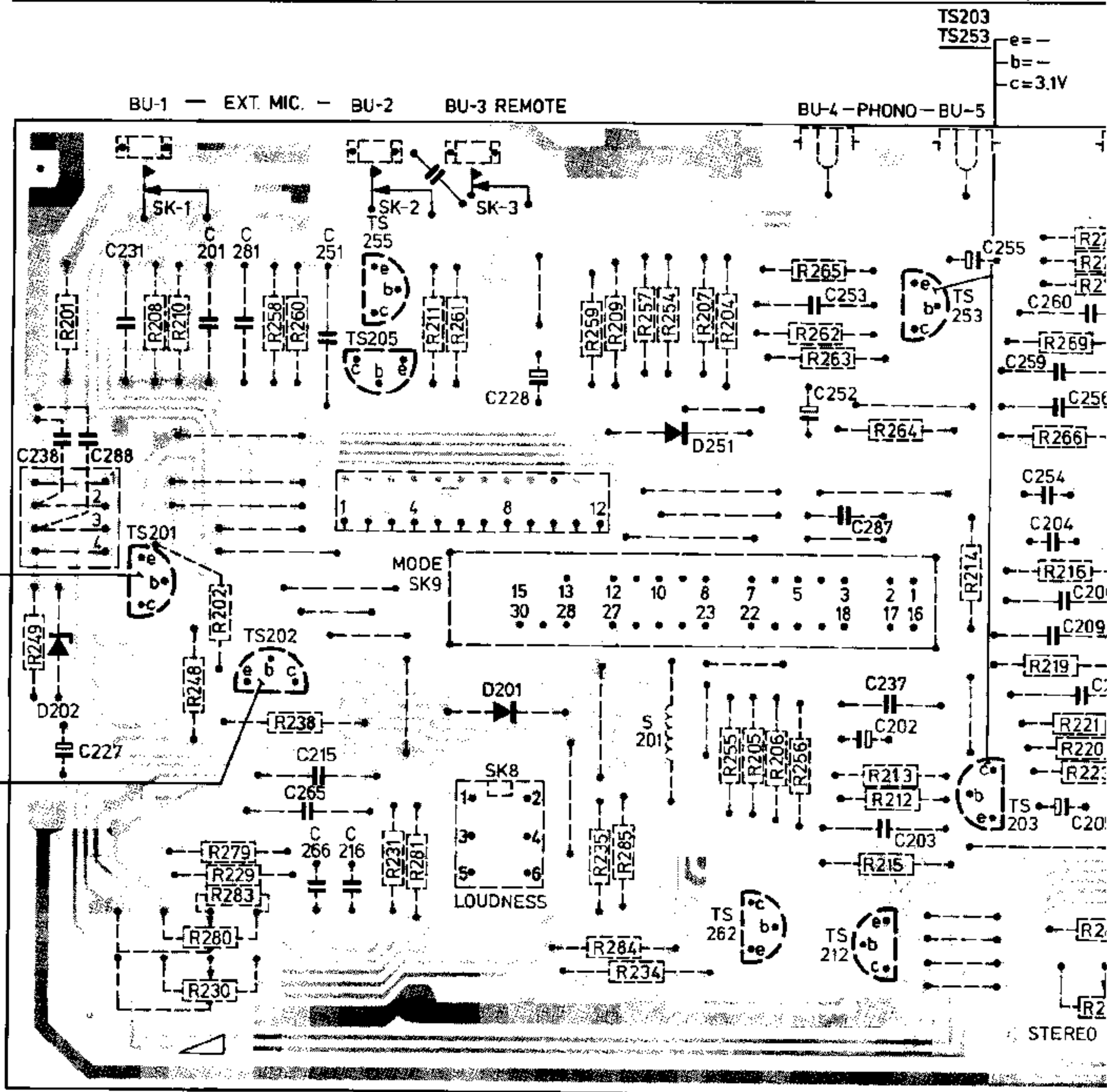
IC201-2A	TS233	TS213	IC201-2A	BU11.13
IC251-2A	TS283	TS263	IC251-2A	BU10
17 232	219, 218, 214, 213, 229	233 211, 212	230	220, 234
27 282	269, 268, 264, 263, 279	283 281, 262	280	238 235 221 222
238	228	239, 227	224...226, 240, 241, 242, 236, 243, 237,	244 245
288	278	289, 277	274...276, 290, 286, 291, 292	293
				294 295
				247 246
				297 296
				768
				767



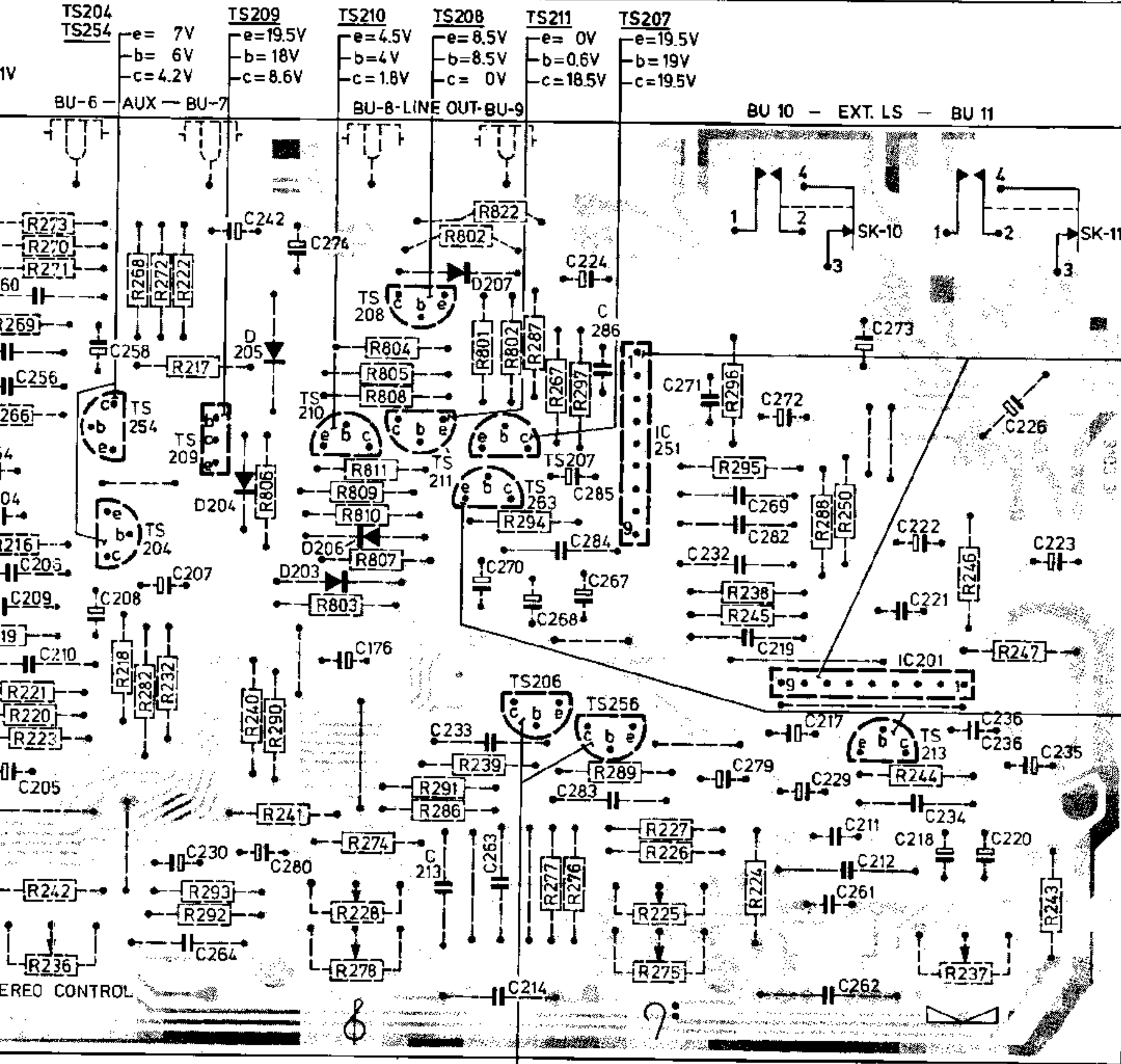
THE DIAGRAM IS DRAWN IN
POSITION RADIO
LOUDNESS OFF

...V MAASURED IN POSITION "RADIO"
 [] V MAASURED IN POSITION "TAPE"
 ALL RESISTORS [] UNLESS OTHERWISE STATED

MISC.	D202.D202.TS201.TS202.D249	SK8.D201.SK9.S201.TS262.TS 212	TS203
	SK-1	TS205.TS255.SK-2.SK-3	D251
			TS253
			TS254.D205.TS
C	227.238.288.216.265.215.266		287.237
	231	201.281.251	228
			252+256.258+260.203.204.206
R	230.248.280.229.279	238.231.281.284.234.235.285.255.205.206.256.215.212.213.236.242.223.220.221.219.218.	
	201.208.210.258.260.212.261	259.209.257.254.207.204.262+265.214	216.266.217.



D205, TS209, TS204, D204, TS210, TS271, TS263, TS207, TS208, D207, D206, IC251	TS206, TS256	IC201, TS213, SK-10	SK-11	MISC.
210	264, 230, 280	233, 213, 214, 263, 270, 238	279, 229, 217, 211, 212, 261, 262, 218, 220, 234, 236	C
04, 206, 208	274, 242, 224, 286, 268, 267, 284, 285, 271, 270, 273, 276, 272, 219, 232, 282, 269, 221, 223, 226			R
19, 218, 282, 232, 292, 293, 241, 240, 290, 274, 278, 224, 228, 239, 289, 286, 291				
66, 217, 268, 273, 222, 801, 813	294, 267, 297	245, 238, 295, 296, 288, 250, 246, 247, 237, 243, 244		



- IC201
IC251
- 1= 0V
 - 2= 10.5V
 - 3= 19.5V
 - 4= 19V
 - 5= 15V
 - 6= -
 - 7= 8V
 - 8= -
 - 9= 0V
- TS213
TS263
- e= 1.5V
 - b= -
 - c= 19.5V

TS206
TS256

- e= 0V
- b= 0.8V
- c= 4.5V

27 334 D12

MISC.	K1	S302				TS307	TS303	TS310	TS309	TS301, D305, D301	TS302	TS308
MISC.	K101	K2						TS360	TS359	TS351	TS352	TS351
C		315	313	316, 319, 318		317	321	322		320	323	314
C		385	383									304, 303, 305
C												328, 306
C												307, 308, 401, 310
R	318			337		401	402	403	404			364
R		319, 369										304, 305, 306
R												333, 383, 335, 302, 338, 315, 388, 365, 303
R	366			387		451	452	453	454			354, 355, 356
												386, 375, 357, 359, 456, 1

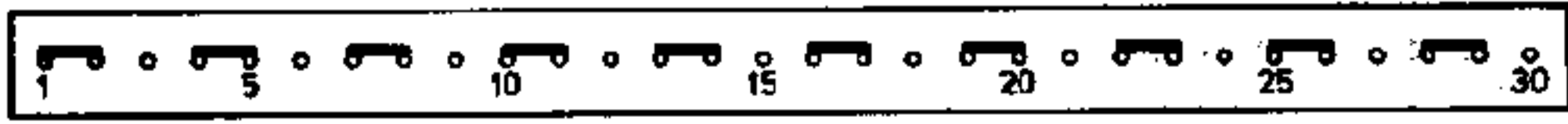
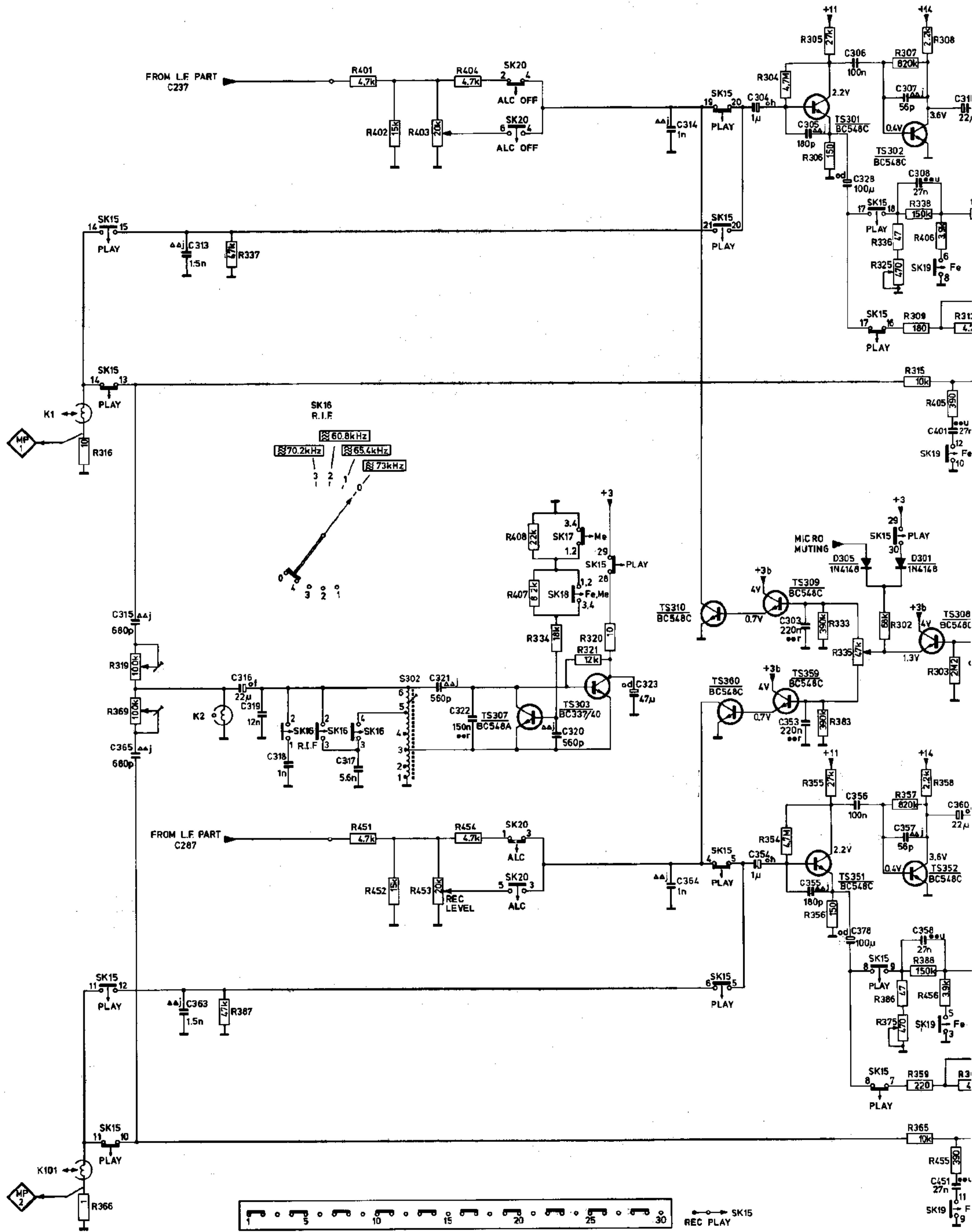
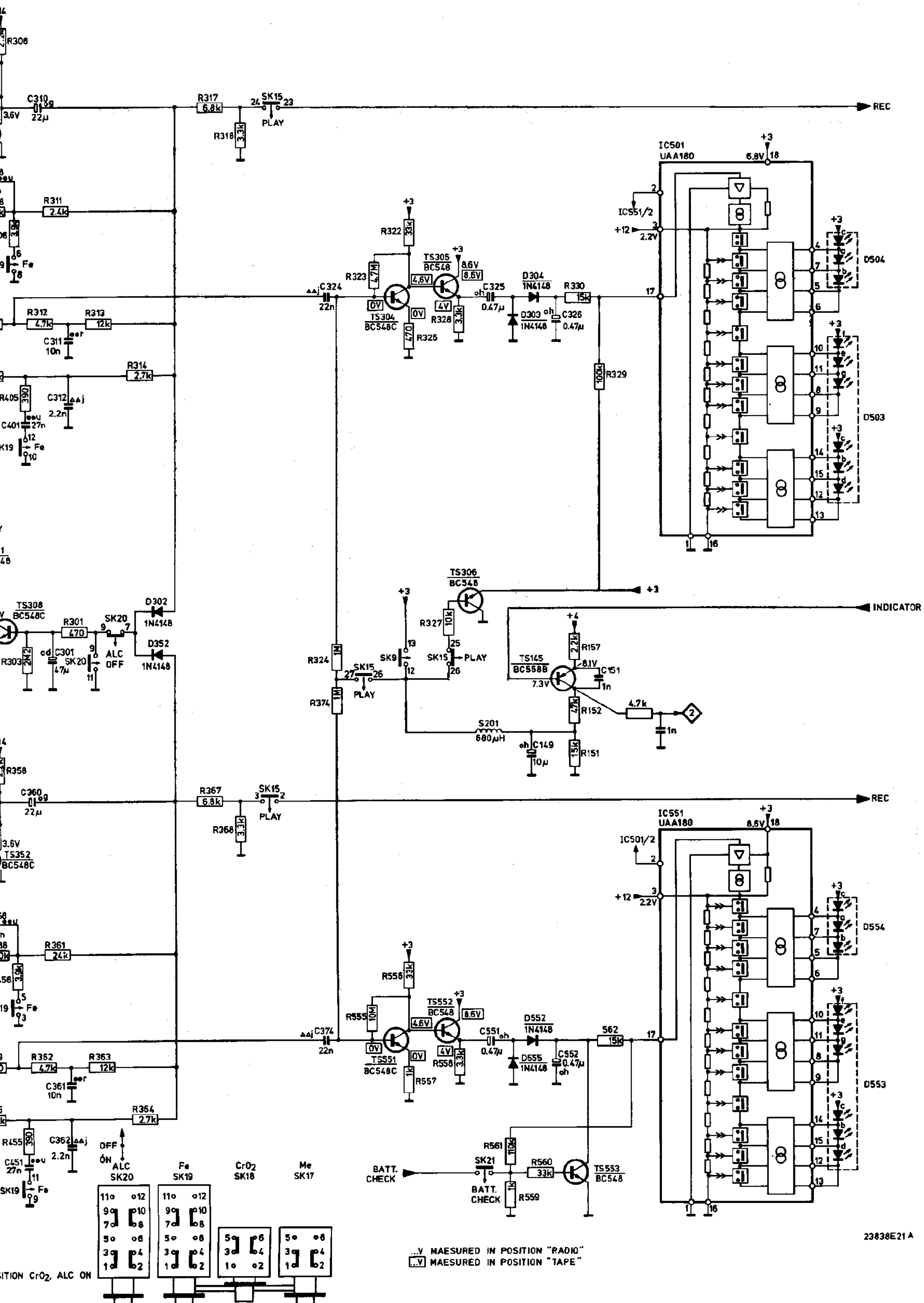


DIAGRAM DRAWN IN POSITION RECORDING
 ALL RESISTORS — [] — UNLESS OTHERWISE STATED

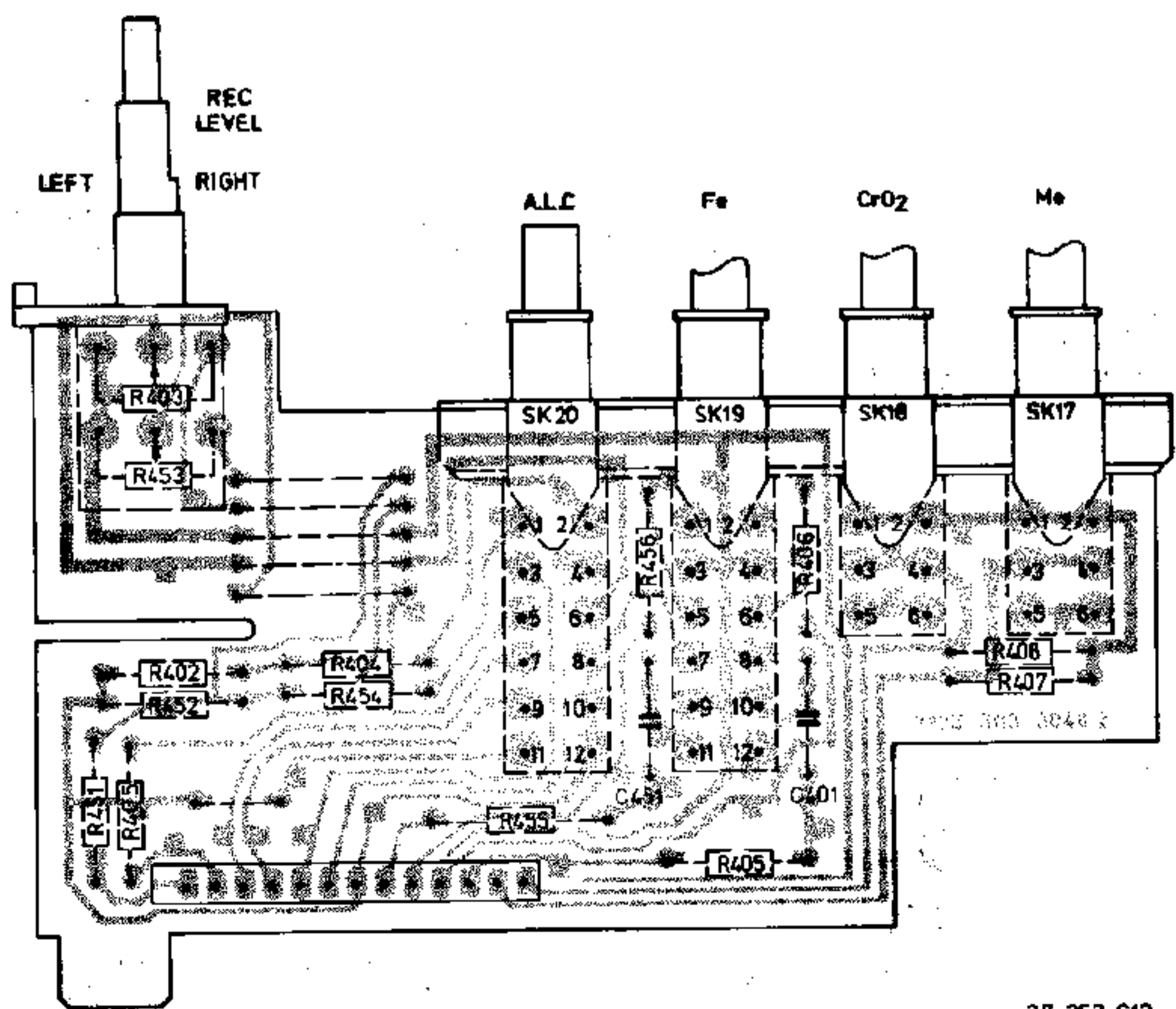
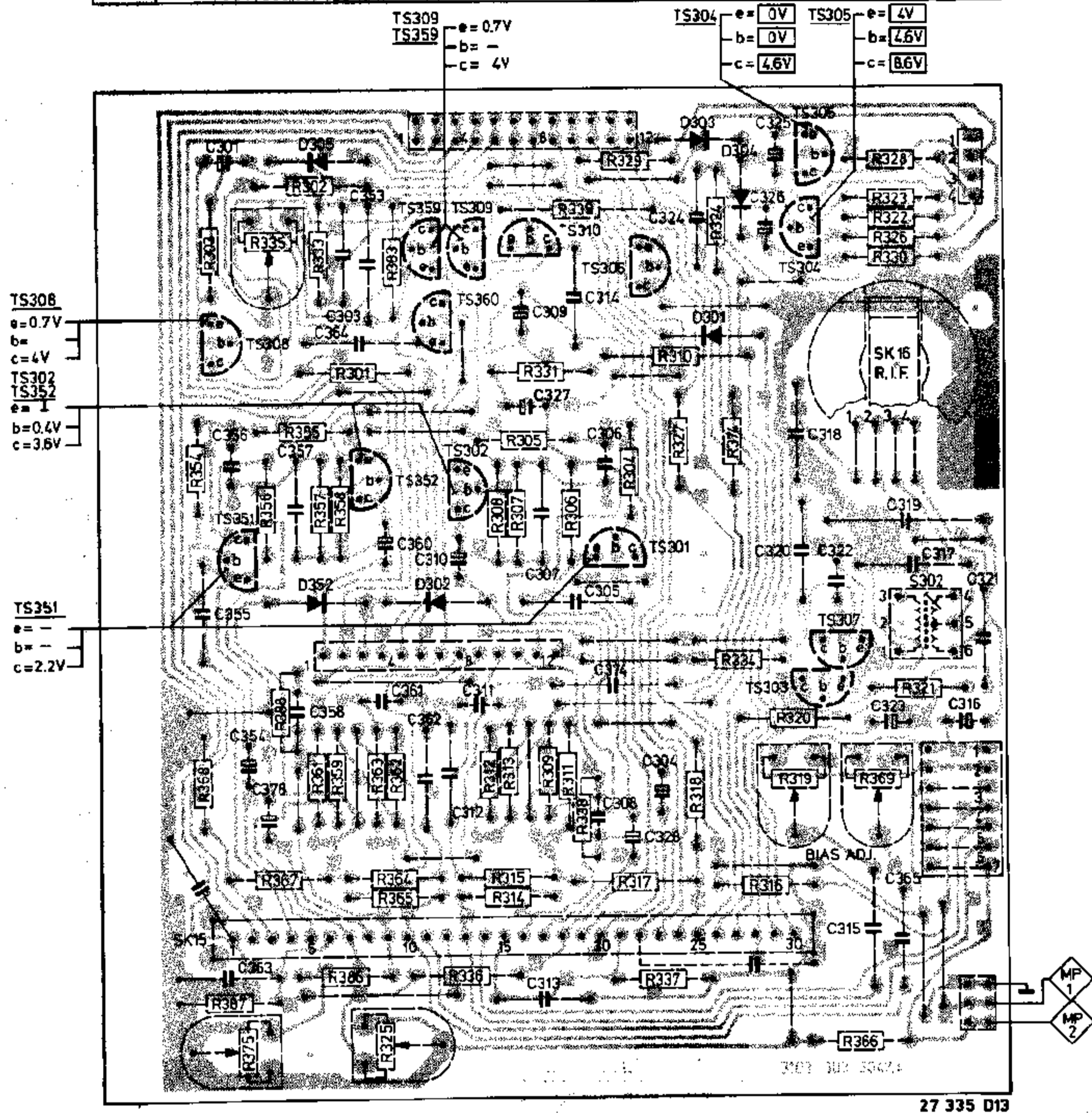
DIAGRAM DRAWN IN POSITION CFC

TS308	D302	TS304	TS305	TS306	D303	D304	IC501	D504	D503
	D352	TS551	TS552	S201	D555	D552	TS148	TS553	IC551
401.310...312.301		324		325	326	151			
451.360...362		374		551	149	552			
7...309.406.405.311...313	314	317	318	323	322	326	328	330	329
88.365.303 301		324	374		327			157.152.151	
359.456.455.361...362	364	367	368	555	556	557	558	561.559.560	562



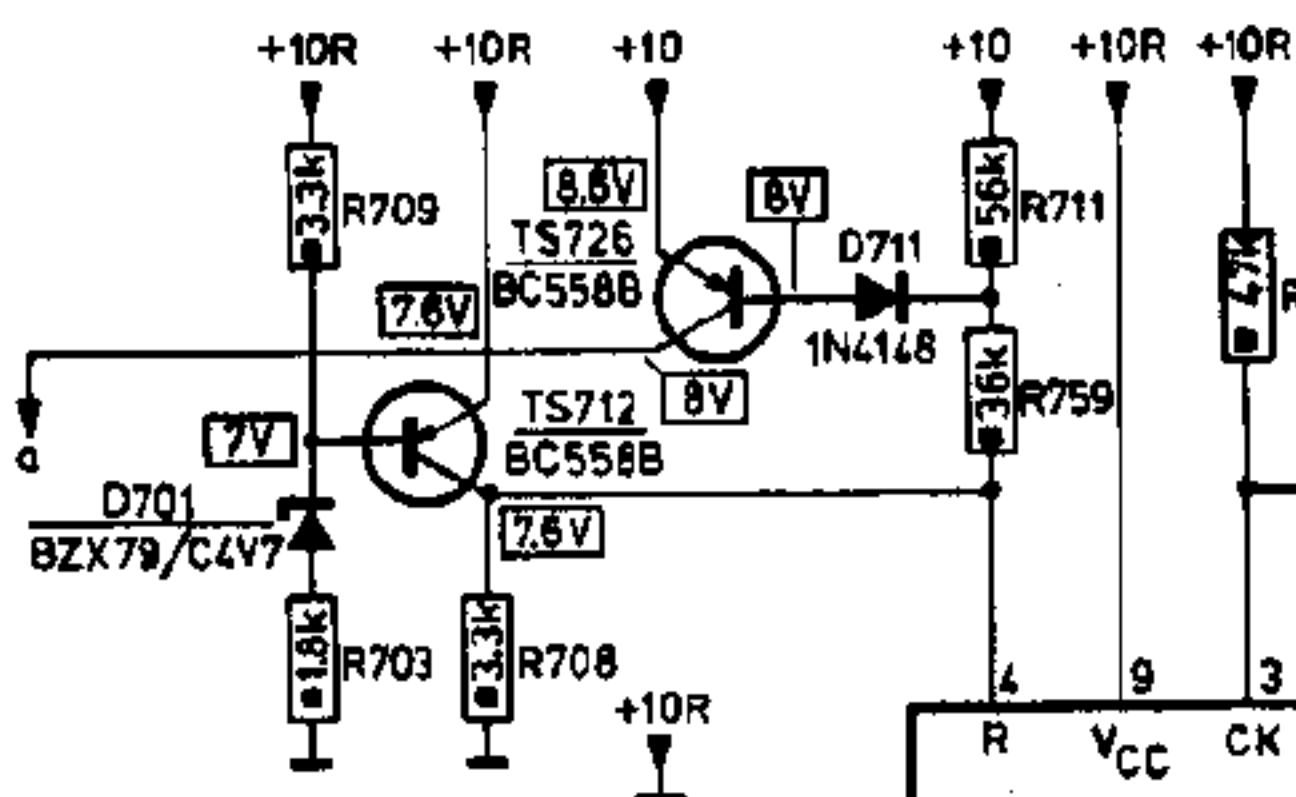
...V MAESURED IN POSITION "RADIO"
 [] V MAESURED IN POSITION "TAPE"

MISC	D302, TS301, TS303, TS307, S302	
	TS351, TS308, D352, TS352, D305, TS302, TS359, TS309, TS360, TS310, TS306, D301, D303, D304, SK16, TS304, TS305	
C	355, 378, 354, 358, 362, 312, 361, 311, 313, 363, 327, 328, 308, 304, 318, 371, 315, 365, 323, 321	316
R	375, 387, 385, 362, 365, 367, 368, 388, 361, 359, 311, 315, 309, 336, 338, 337, 317, 316, 334, 319, 320, 366, 369, 321	
	354, 358, 303, 325, 302, 333, 301, 383, 331, 339, 329, 304, 308, 327, 310, 374, 324, 330, 326, 322, 323, 328	

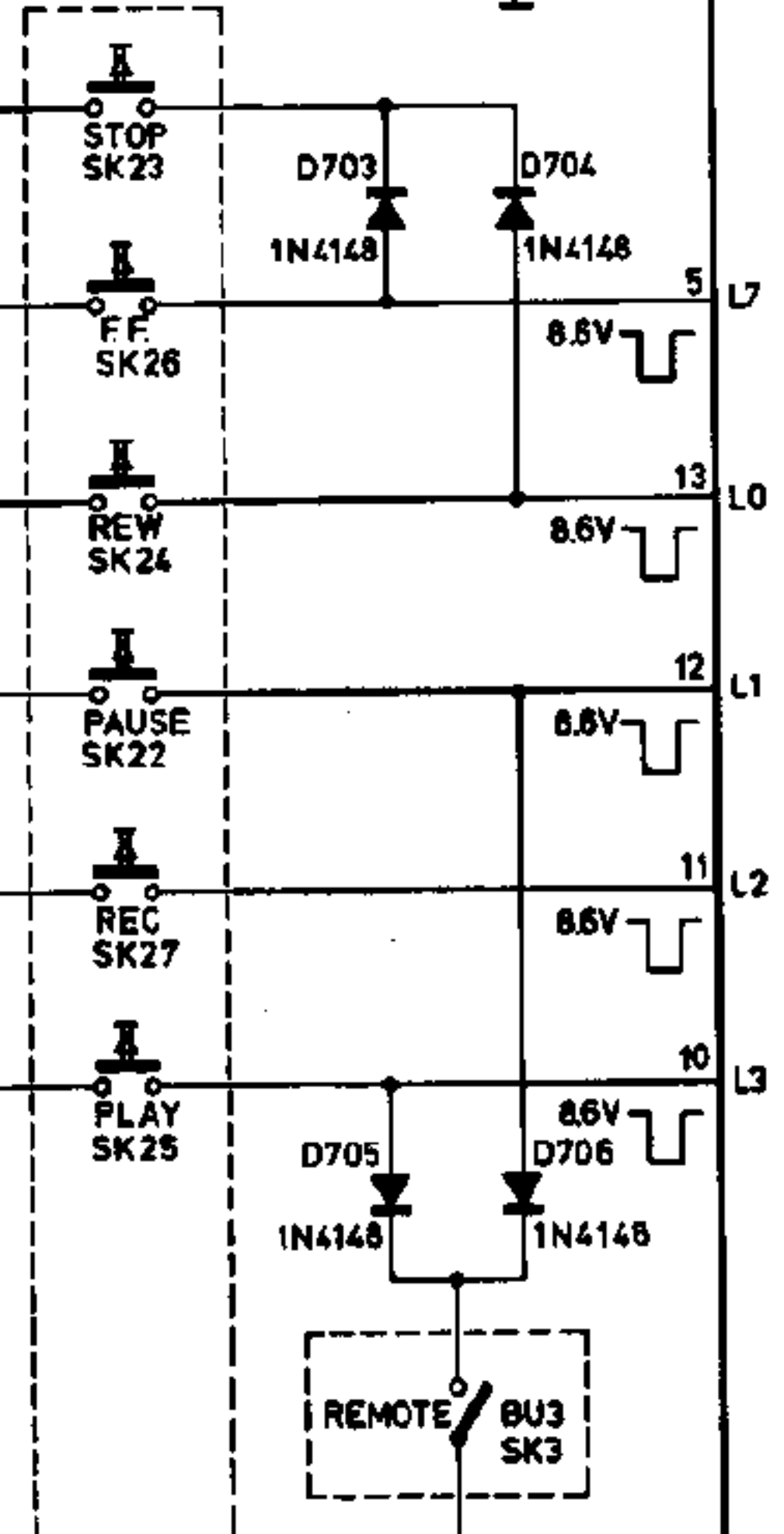
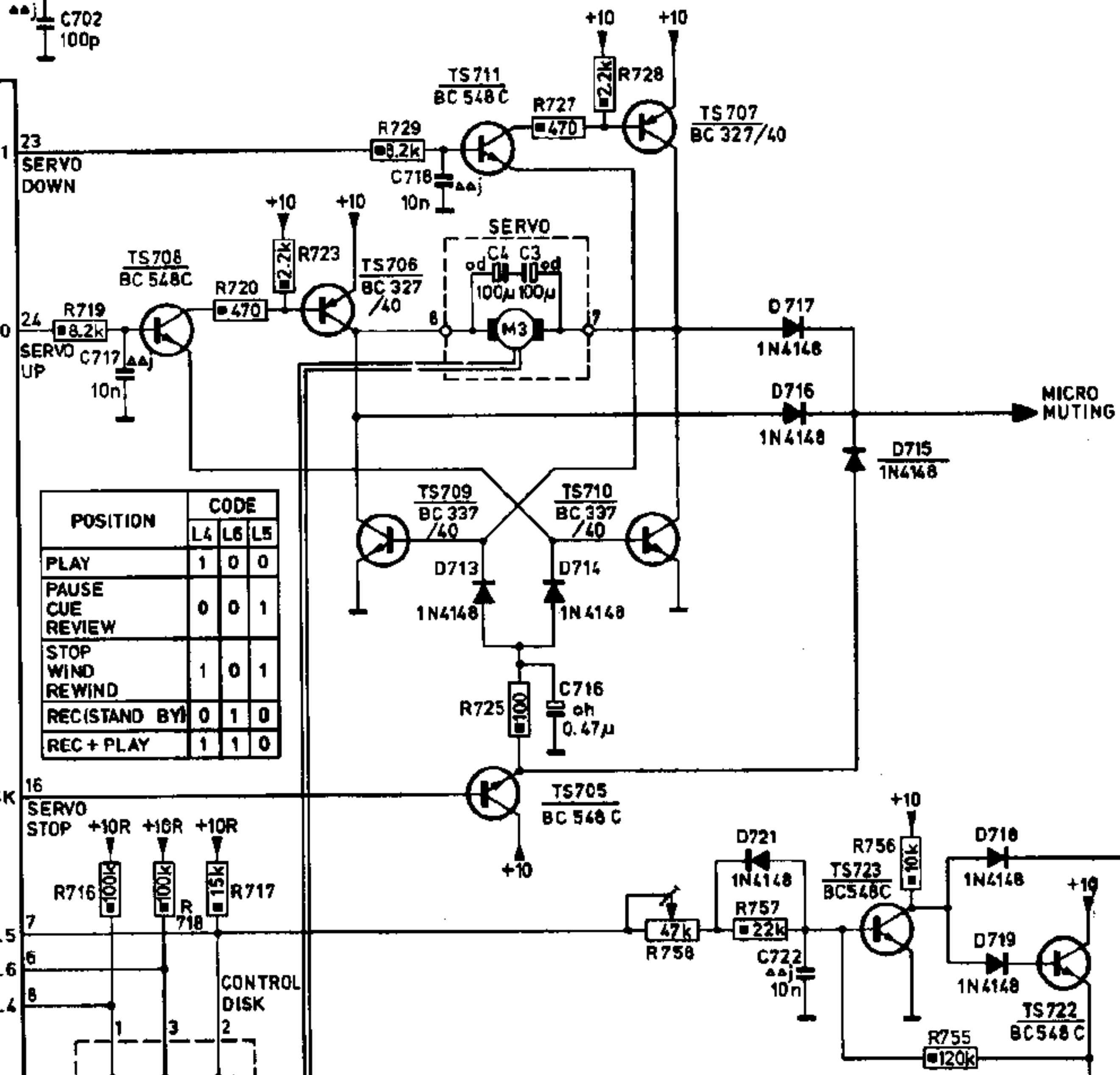


M	D701	D703	TS712,726	D704	SK701	IC701	TS708	TS706,709,711	TS710,705,707	D721,716,717,715	D718,719																
M	TS702	D708+710	D707,709	TS701,703,704	D706,711		TS716,719	TS714,717	D713	S701	D714	D720	TS715,718	TS723,724	TS725,722												
C			707		703		702	717		718	716	722															
C	723	715	701					720	721	719		713	714	705	708	708											
R				703	709	704		711	759	702	719	716	718	717	720	723	729	725	727	728	758	757	756	755			
R		701	710		705+706						743	733		734	735	739	740	737	736		738	746	748	744	749	753	754

— RESET CIRCUIT —

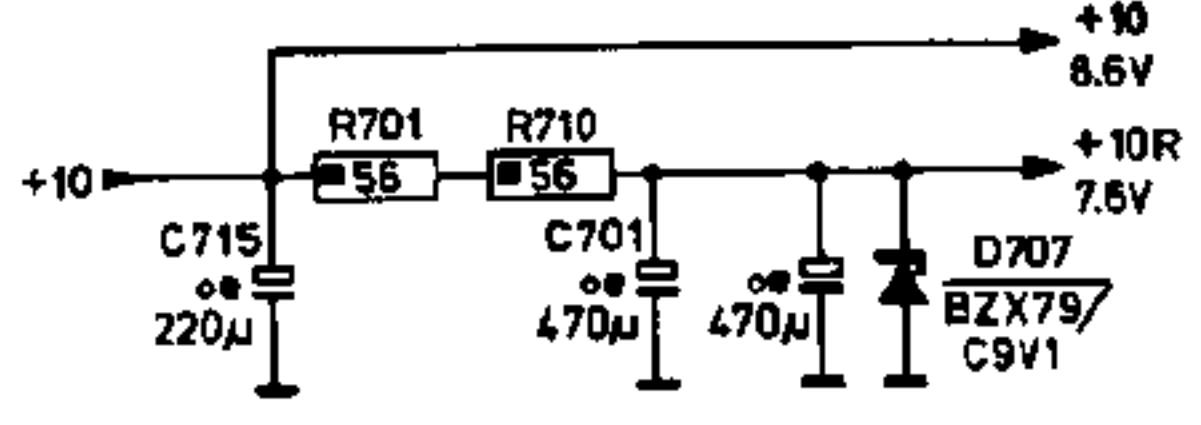
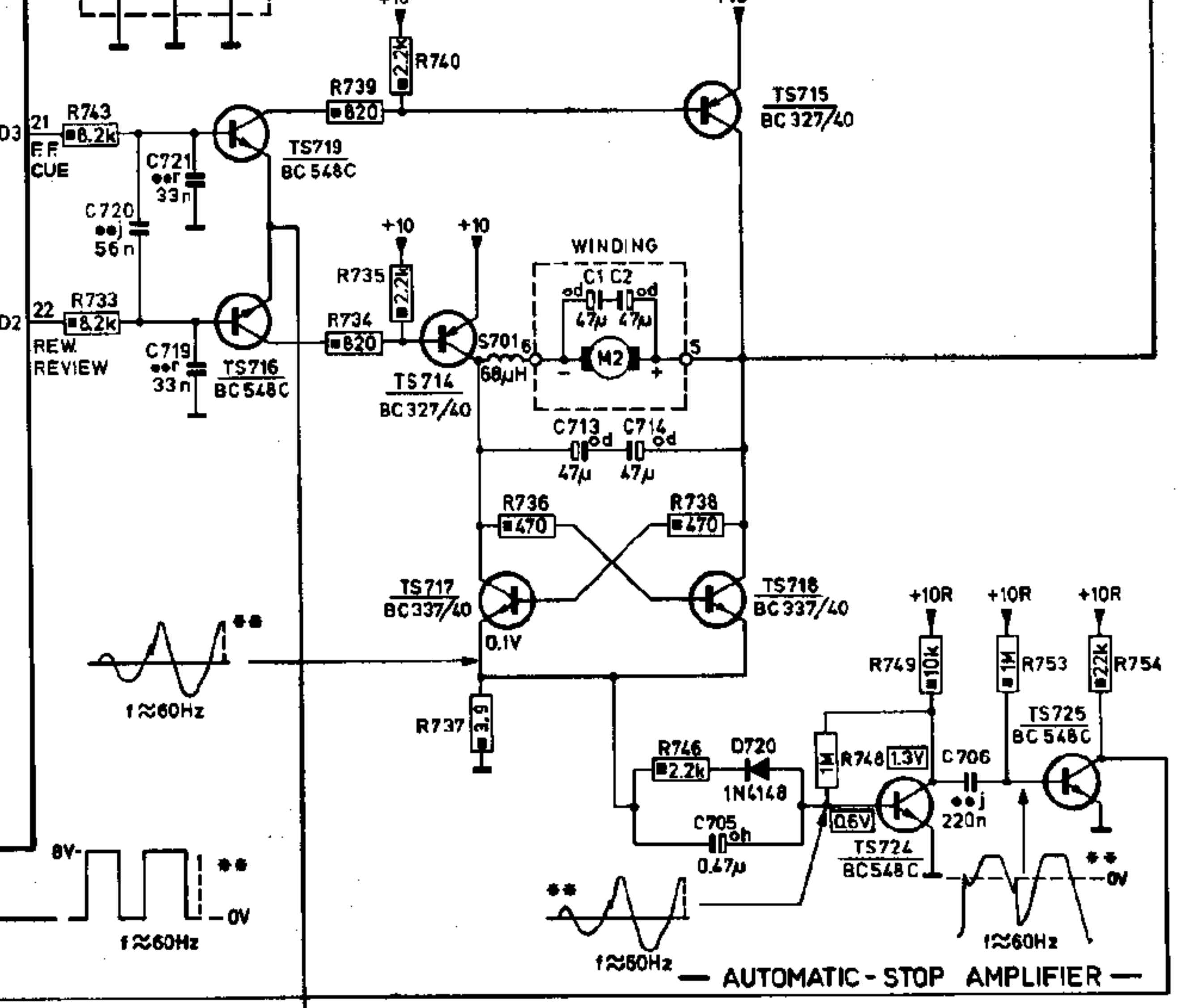


— SERVO MOTOR CONTROL —

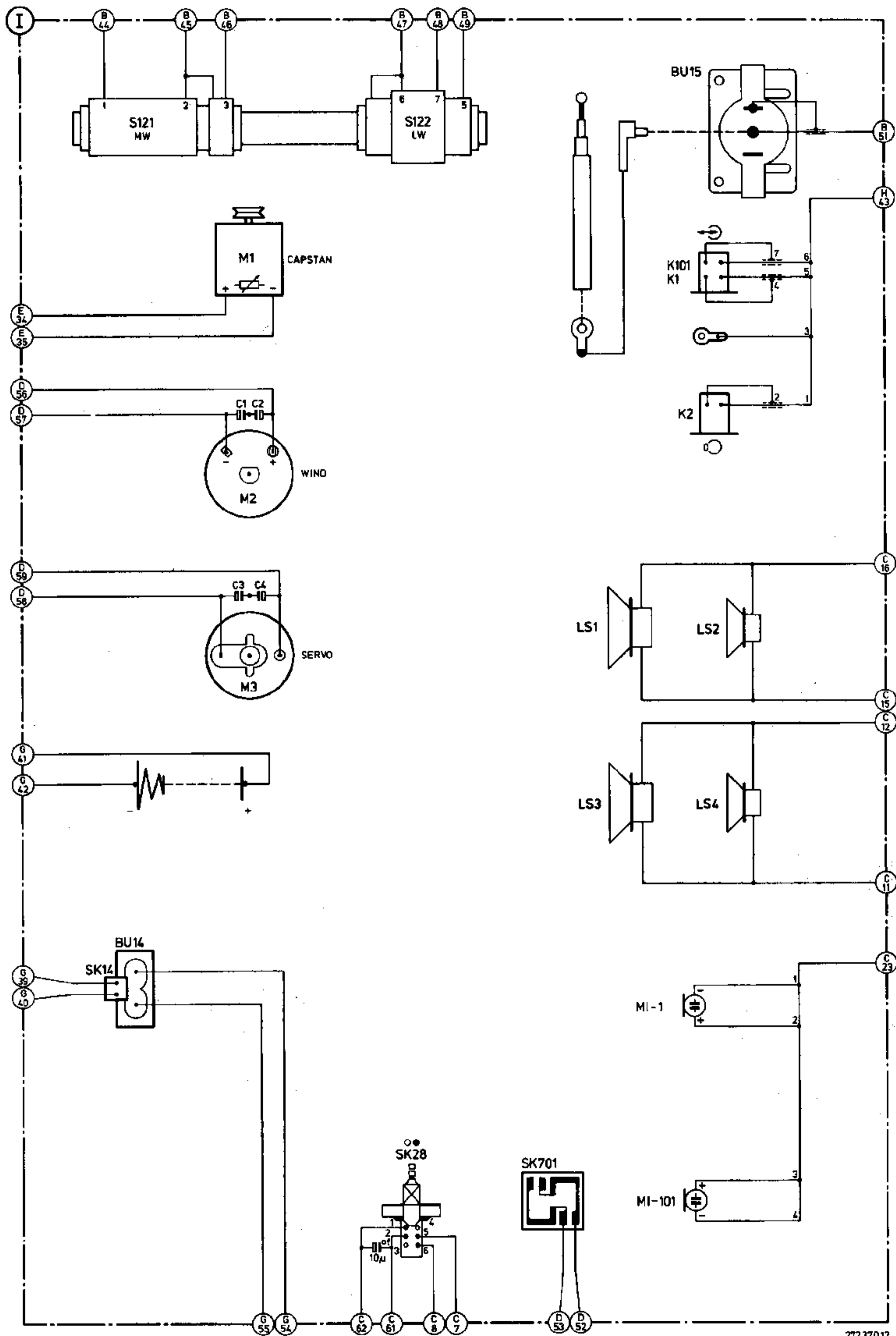


POSITION	CODE		
	L4	L6	L5
PLAY	1	0	0
PAUSE	0	0	1
CUE	0	1	0
REVIEW	1	0	1
STOP	1	1	0
WIND	0	1	0
REWIND	1	1	0
REC(STAND BY)	0	1	0
REC + PLAY	1	1	0

— WINDING-MOTOR CONTROL — — TAPE-TENSION-CONTROL —

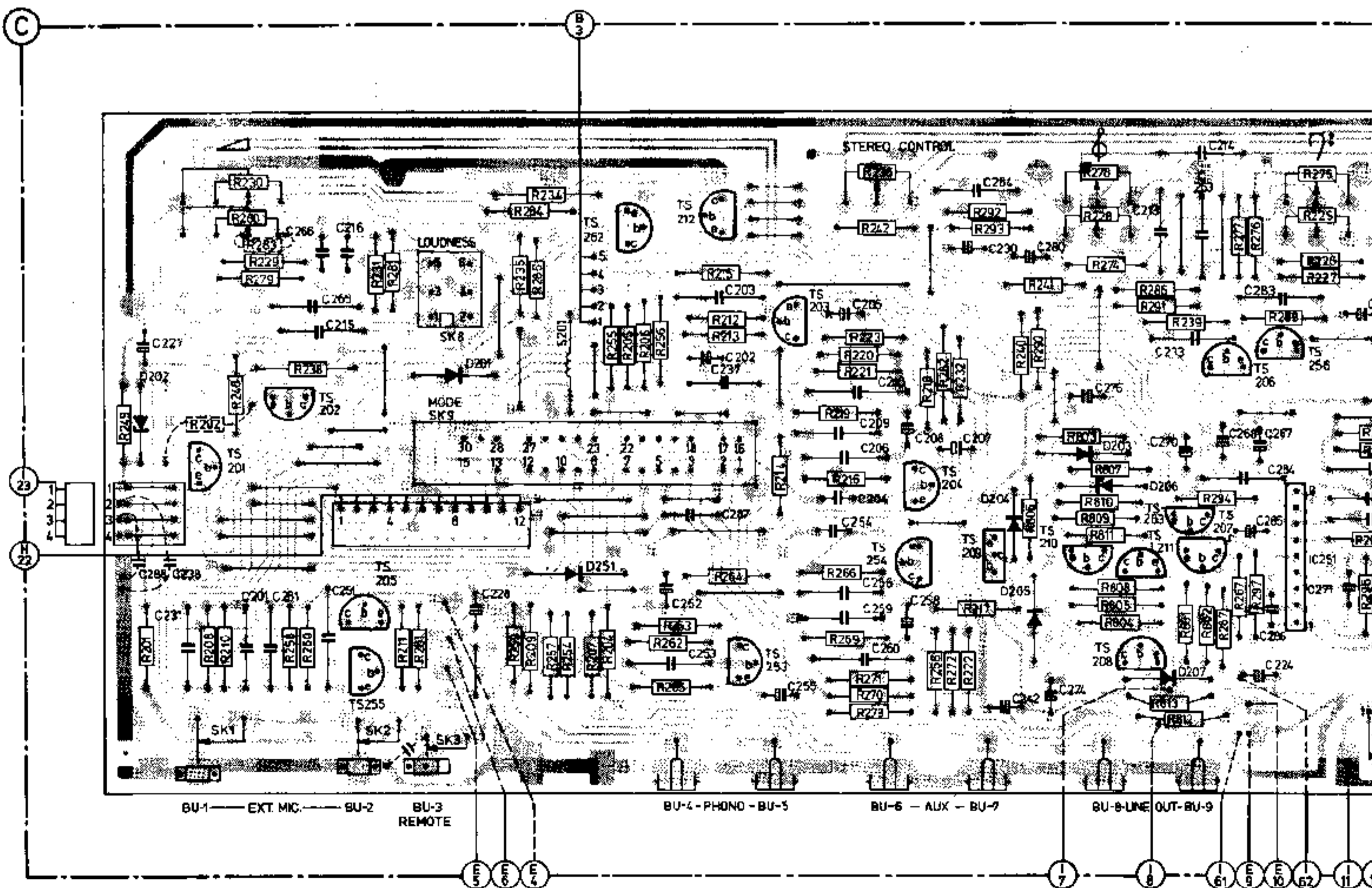
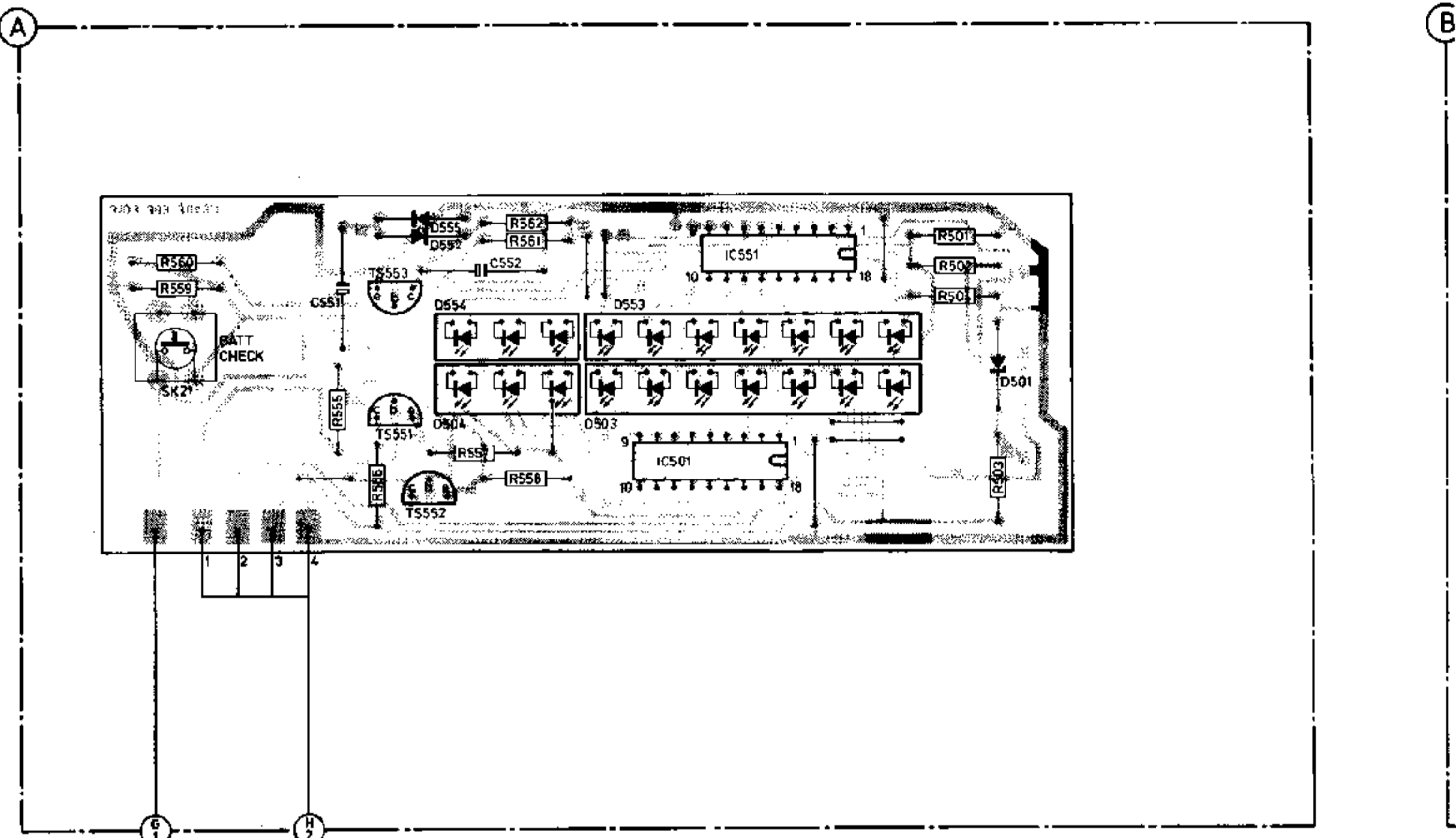


** MAESURED IN POSITION "PLAY"
NO CASSETTE INSERTED
[V] MAESURED IN POSITION "TAPE"

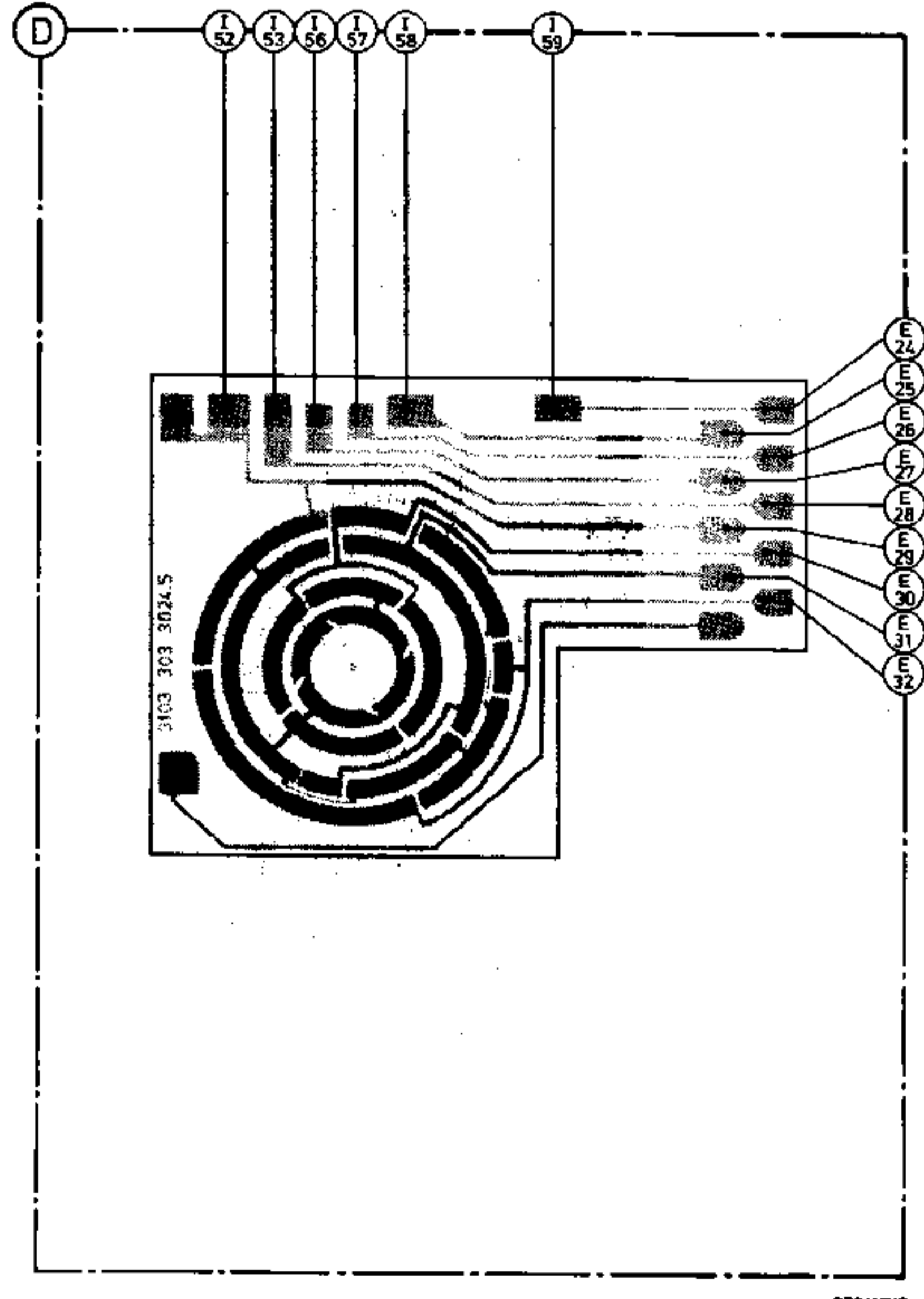
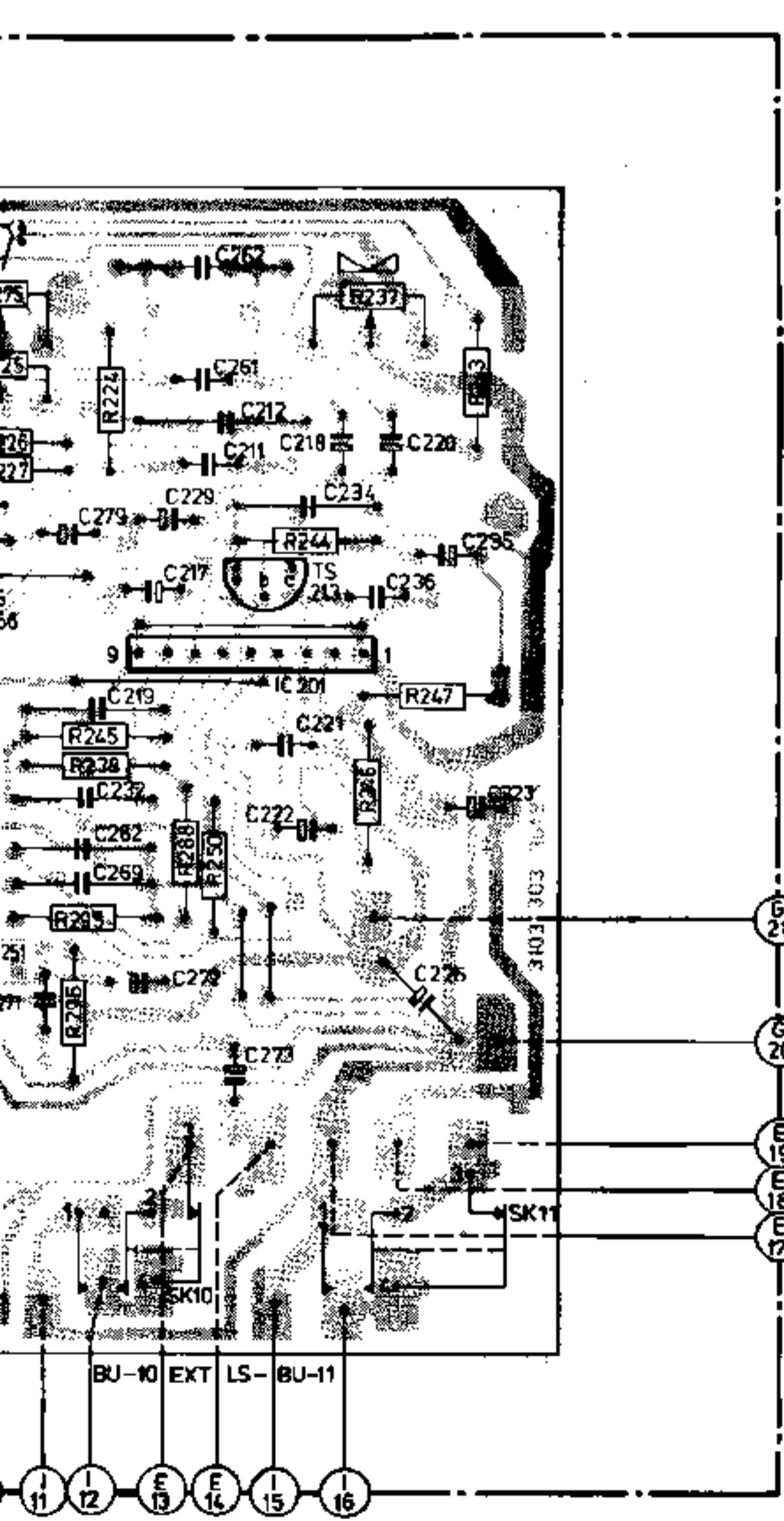
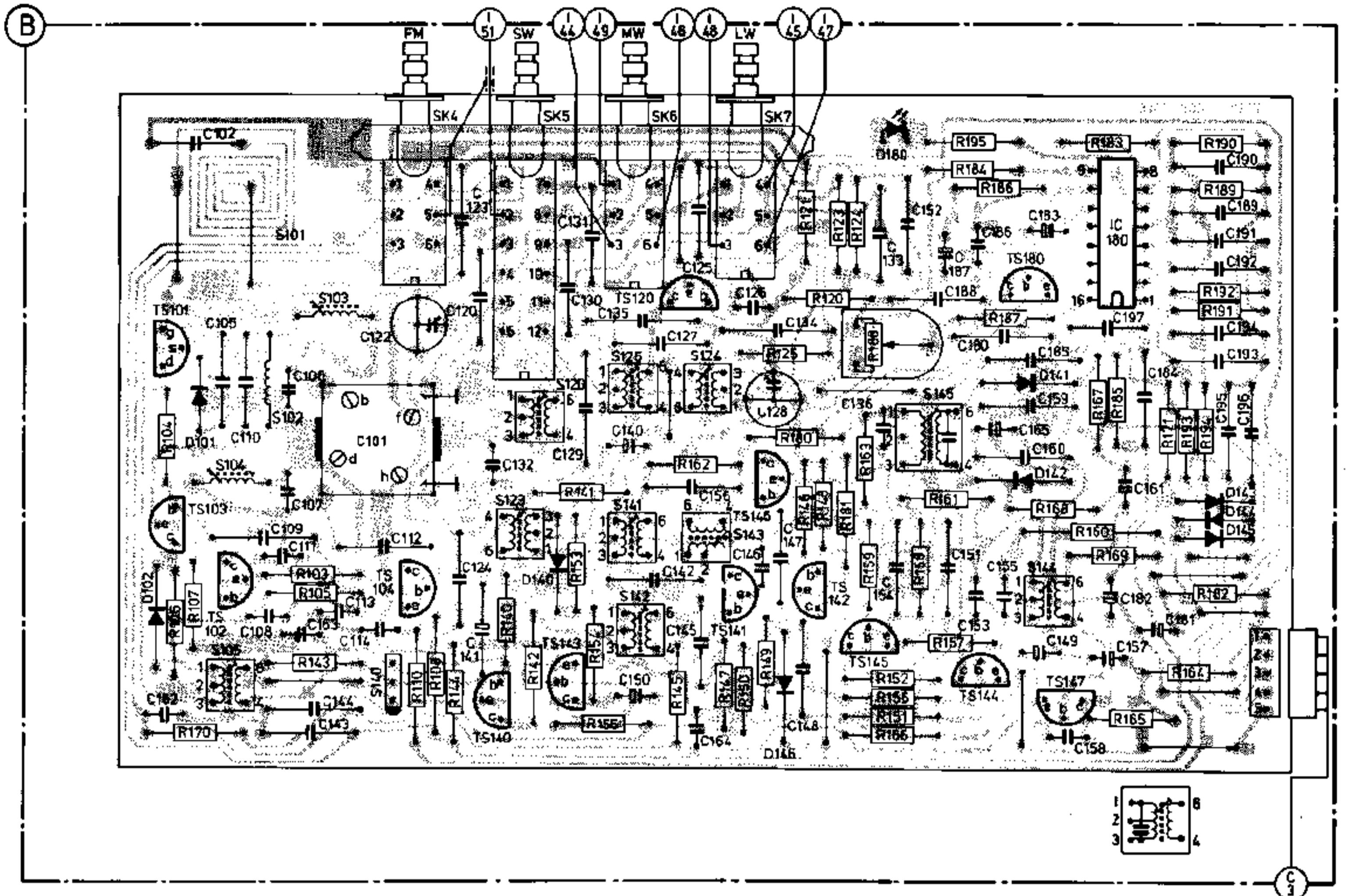


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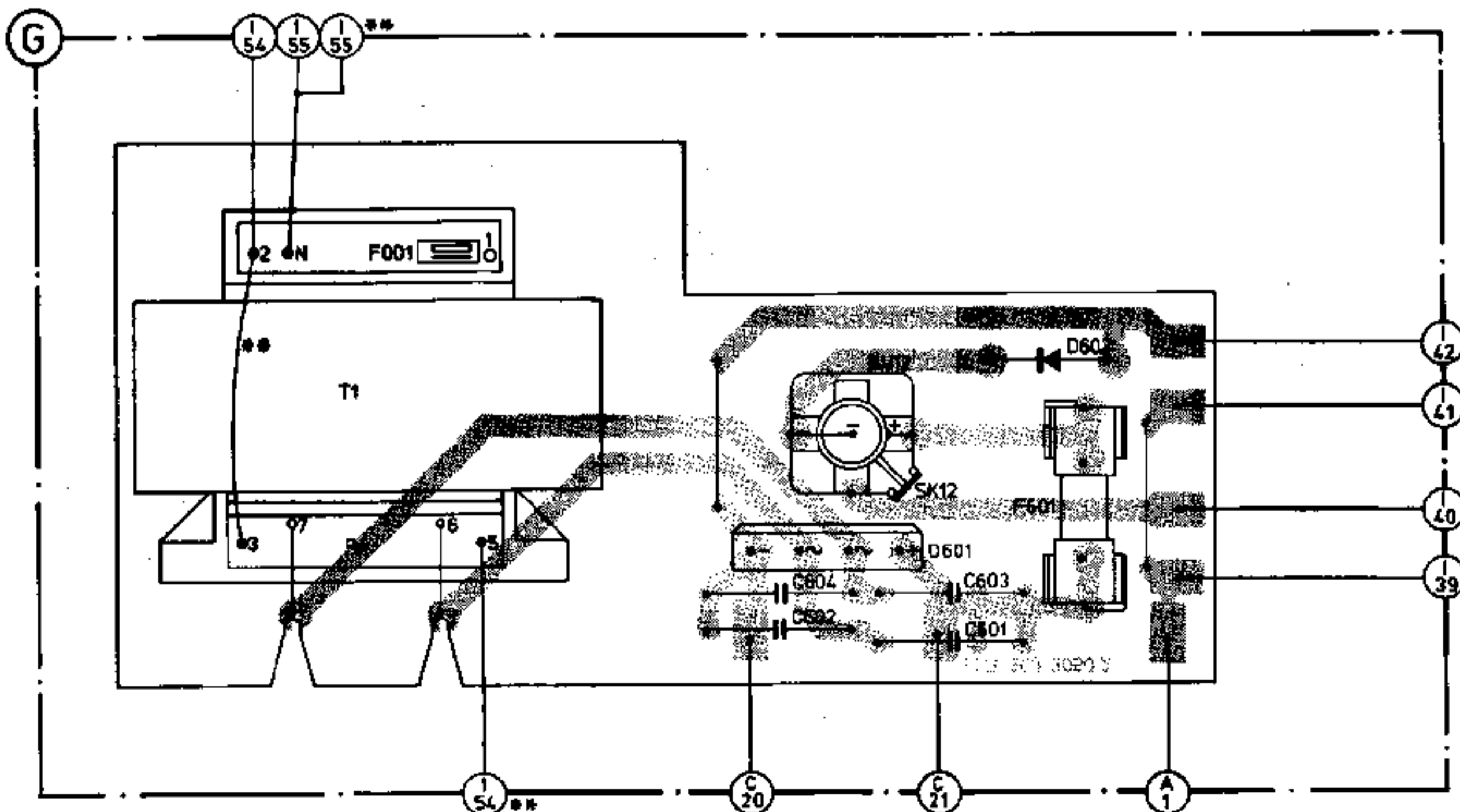
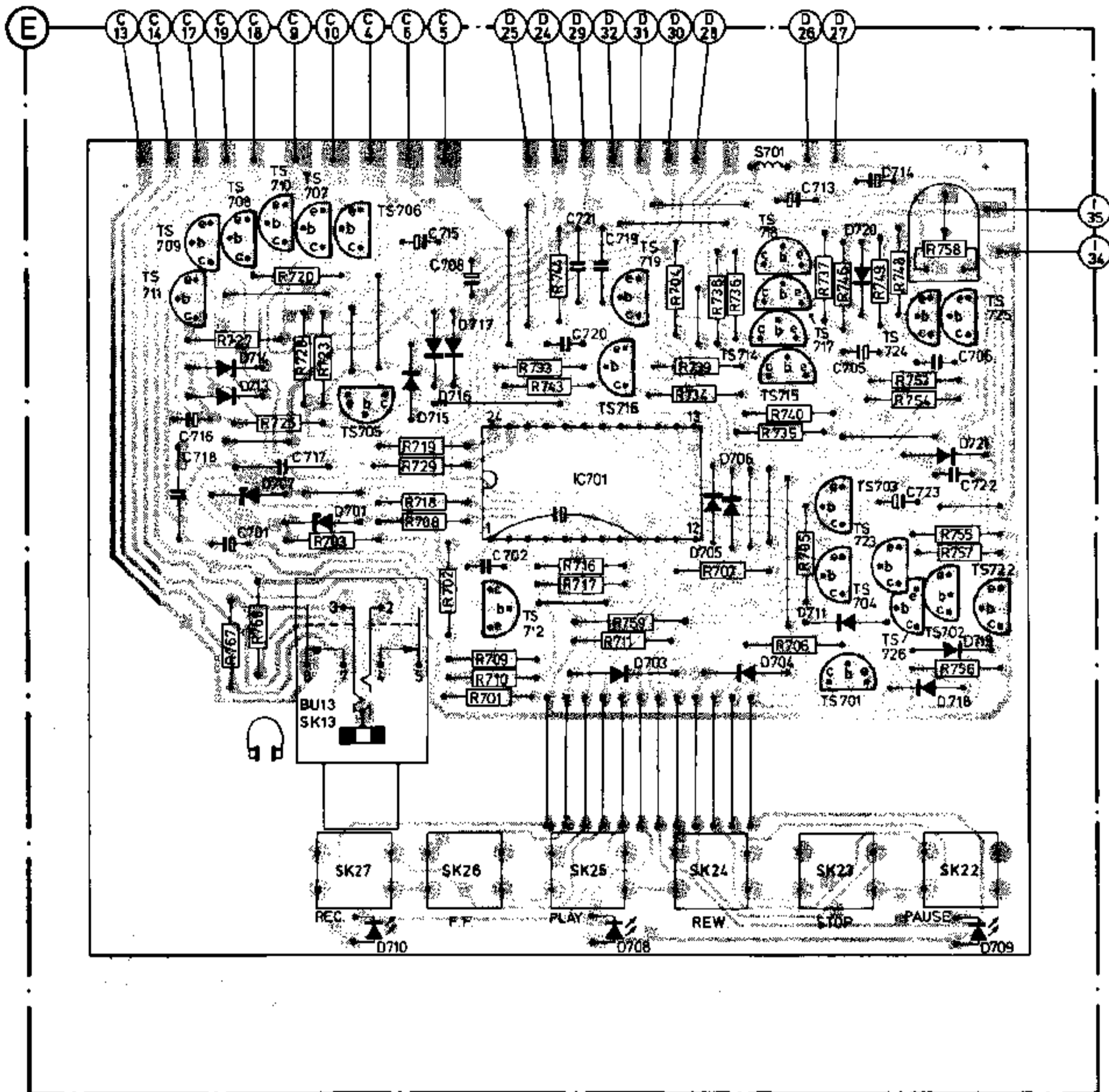
MISC	SK21	D552, D555, D504, D5554				D503, D553	IC501	IC551	D501				D204, D205, D206, D203, D207				IC 251	
C	D202	SK-1	SK-2	SK-3	SK-8	D201	D251, S201					D204, D205	D206, D203, D207	IC 251				
	231	201, 281	251	551	552, 228		253, 252, 237	295	256, 258, 280		242, 274, 275, 176	270, 268, 224, 286, 285, 284, 267, 274						
	227	215, 265, 266, 216				202, 203, 287				254, 204, 210, 254	230, 264, 280	213, 233, 263, 214, 263				232, 2		
TS	551, 552, 553								262	212	253	203	204, 254	209	210, 208, 211, 207, 263, 206, 256			
	201	202	255, 205						262	212	253	203	204, 254	209	210, 208, 211, 207, 263, 206, 256			
	553, 560	555		556	557, 558, 561, 562				269-273				504, 502, 501, 503	822, 802, 287, 276, 297				296, 2
R	201, 202, 208, 210	248	258, 260	238	211, 281	259, 209, 257, 254, 267, 204, 262, 265				214	266, 216	268, 222, 217, 282, 232		801, 811	294	289		231
	249	262, 233, 283	279, 229, 280, 230	231, 281		235, 285, 284, 234, 255, 205, 206, 256, 212, 212, 215				218-221, 223, 242, 236, 293, 292, 240, 290, 241, 274, 228, 278, 239, 291, 286, 277, 267, 275, 225-		2						



D102, D101, S102, S105	S140, SK4, SK5	S123, D140, S120, SK6, S141, S143, S125, S124, SK7, D146, D180, S145	S144, D142, D141	D145	MISC.
SK-10 IC201	SK-11			IC180, D144, D143	
267, 271, 273, 269, 282, 162, 105, 114, 226, 143, 144, 163, 101, 122	124, 141, 132	150, 142, 164, 145, 148	136, 154	151, 153, 155, 149, 158, 157, 182, 181, 184, 195, 196	C
232, 279, 229, 211, 212, 261, 262, 102, 217, 223, 234, 236	123, 120, 129, 131, 140, 156, 127, 135, 125, 126, 134	133, 152	185, 188, 160, 165, 159, 180, 183, 181, 197, 189, 194		
103, 101, 102	104, 140, 143	120, 141, 146, 142	145, 144, 180, 147		TS
213					
296, 295, 288, 250, 106, 170, 107	143, 105, 103	110, 108, 144, 140, 142, 141, 153, 155	145, 162, 146, 150	166, 151, 156, 152, 157	155, 164, 182
238, 245	244, 164, 246, 247			180, 181, 159, 163, 158, 161, 187, 168, 160, 169	171, 193, 194
225, 227, 224	237, 243			125, 121, 120, 123, 124, 188, 166, 184, 195	167, 185, 183, 189, 192

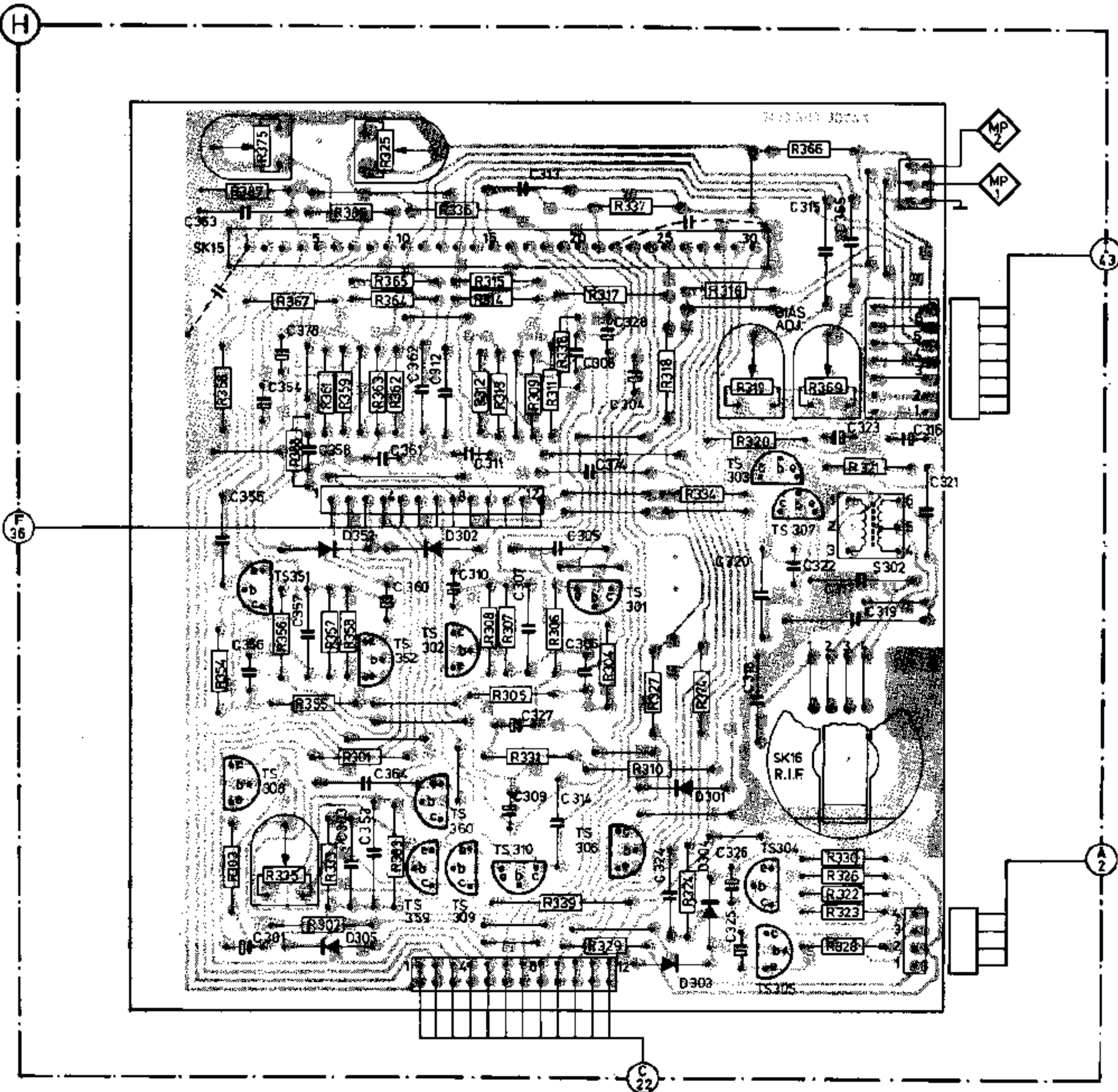
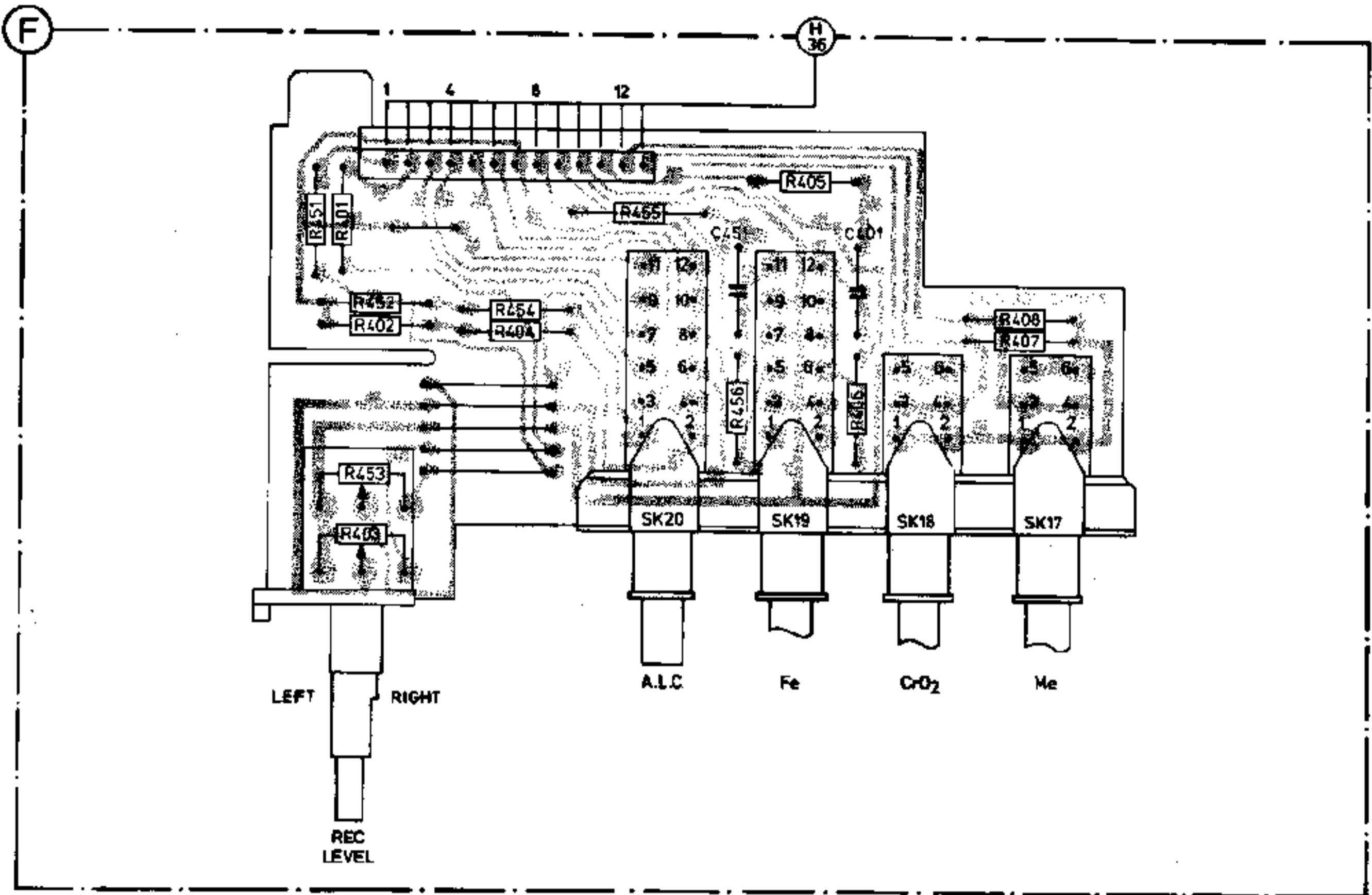


MISC.	D707	D701	SK27	SK13	SK26	IC701	SK25	D703-D706	SK24	S701	D711	SK23	D716	D719	SK22	D721					
	D713	D714	T1	D710	D715	D716	D717	D708	D601	SK12	D602	F601	D720			D709					
C	718	701	717					702					723			722					
	716				715	708	719-D721	602	604	601	603		713	705	714	706					
TS	711			705			712						715	714	717	718	724	725			
	709	706	710	707	706			716	719				715	714	717	718	724	725			
	767	768					701	710	709			711	759	707			706	705	756	757	755
R				703	708	718	702			717	716	734	739	735	740				754	753	
	727	725	728	723	720		729	719		743	733	744	704	738	736		737	746	749	748	758



** ONLY FOR D8614/05

D305	SK20	D303	SK19	D304	SK18	SK17, SK16	MISC.
D352	D302	SK15	D301	S 302			
301, 356	357, 303, 353, 364, 360, 310	327, 309, 307, 314, 451, 306	324, 401, 325, 326, 318, 320	322, 319, 317, 321			C
355, 354, 363, 378, 358, 361, 362, 312, 311, 313, 305, 374, 308, 328, 304			316, 315, 323, 365				
308	359, 360, 309, 310	306	305, 304				TS
351	352	302	301	303, 307			
401, 451, 405, 403, 453, 402, 452, 404, 454	455	456	405, 406	408, 407, 328, 323, 322, 326, 330			R
351, 303, 335, 355-358, 302, 333, 301, 363	304-308, 331, 339, 329	310, 327, 324, 374					
368, 387, 375, 367, 388, 359, 361-365, 386, 325, 312, 313, 336, 315, 314	309, 311, 338, 317, 337, 318, 334, 320, 319, 316, 369, 321, 366						



27312E13

Replacement of the tape-transport parts (refer to Fig. 6)

To replace the pressure roller, remove item 63 and item 66.

To replace the head plate, depress the plate near the lugs and take it out in an oblique upward direction.

Note:

See to it that the 3 balls (item 60) do not get lost.

ADJUSTMENTS AND CHECKS**Height of the recording/playback head K1, Fig. 6**

- Switch off the supply voltage.
- Slide adjusting jig 4822 402 60245 over the capstan while pressure roller 62 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.

Friction take-up

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

The measuring value must be:

- Take up side 40-50 gcm.
- Counter side: 2-5 gcm.
- The play take-up torque is adjusted with R758.

Attention:

The voltage across motor M2 is not allowed to exceed 3 V.

Checking the lace-up and the capstan adjustment

- Recorder in 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 item 74 on the flywheel pivot bearing (Fig. 6).
- 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 0.2 mm. Adjust by turning item 73 (Fig. 6).

Loopwerkonderdelen (Fig. 6)

De drukrol is te vervangen na verwijderen van pos. 63 en pos. 66.

De koppenschuif is te vervangen door de schuif bij de lipjes in te drukken en schuin naar voren van het loopwerk te nemen.

Opmerking:

Pas op dat de 3 kogeltjes pos. 60 niet zoekraken.

INSTELLINGEN EN KONTROLES**Kophoogte o/w kop K1, Fig. 6**

- Schakel de voedingsspanning van het apparaat uit.
- Schuif de instelmal 4822 402 60245 over de toonas 72

terwijl de drukrol 62 iets teruggetrokken wordt.

- De mal moet zover over de toonas geschoven worden, dat deze zich in het verlengde van de wiskopbandgeleiders bevindt.
- De o/w-kop moet zodanig ingesteld worden, dat de mal precies tussen de bandgeleiders van beide koppen schuift.

Opspoelfrictie

De frictiekracht kan worden gemeten met de frictie-meet-cassette 4822 395 30054 (811/CTM) in positie "start".

De meetwaarde moet zijn:

- Opspoelzijde 40-50 gcm.
- Afspoelzijde: 2-5 gcm.
- De opspoelfrictie wordt met R758 afgeregeld.

Let op!

De spanning over motor (M2) mag de 3 V niet overschrijden.

Kontrole van de bandloop en toonasinstelling

- Apparaat in stand weergave met de spiegelcassette.
- Wanneer de band bij de toonas naar boven of naar beneden gaat moet de toonas loodrecht worden ingesteld op het vliegwieltaatslager m.b.v. pos. 74, fig. 6
- De band moet recht en gestroomlijnd tussen de bandgeleiders en langs de toonas lopen. Kleine afwijkingen in dit patroon zijn toelaatbaar, omdat dit bij normale cassettes geen invloed heeft.

Instelling van de vliegwielspeling

- De vliegwielspeling moet voelbaar zijn maar mag niet meer dan 0,2 mm bedragen. Instellen door pos. 73 te verdraaien (Fig. 6).

Pièces de la mécanique (fig. 6)

Après avoir enlevé le rep. 63 et 66 le galet presseur pourra être ôté.

La coulisse des têtes peut être enlevée en la pressant à l'endroit des languettes et en l'extrayant obliquement devant la mécanique.

Remarque:

Faire attention de ne pas perdre les 3 billes rep. 60.

REGLAGES ET CONTROLES**Réglage de la hauteur de la tête enreg./repro., Fig. 6**

- Couper la tension d'alimentation.
- Glisser le gabarit de réglage 4822 402 60245 sur le cabestan tout en repoussant légèrement la galet presseur 62.
- Le gabarit doit être glissé sur le cabestan 72 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

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 40-50 gcm.

- Côté dévidé: 2...5 gcm.
- La friction de bobinage est réglable par R758.

Attention:

La tension sur le moteur (M2) ne doit pas dépasser les 3 V.

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 sur le cabestan s'élève ou s'abaisse, le cabestan doit être réglé perpendiculairement à l'aide du rep. 74 (fig. 6) sur le palier de volant.
- 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 0,2 mm. A régler à l'aide de rep. 73 (Fig. 6).

D ANWEISUNGEN ZUM AUSBAU

Laufwerkteile (Bild 6)

Die Andruckrolle lässt sich nach Beseitigung der Positionen 63 und 66 auswechseln.

Der Kopfschieber lässt sich auswechseln, dadurch dass der Schieber an den Zungen eingedrückt und schräg vorwärts vom Laufwerk genommen wird.

Bemerkung:

Darauf achten, dass die 3 Kügelchen Pos. 60 nicht verlorengehen.

EINSTELLUNGEN UND PRÜFUNGEN

Kopfhöhe des A/W-Kopfes K1, Abb. 6

- Die Speisespannung des Apparats ausschalten.
- Die Einstelllehre 4822 402 60245 auf die Tonachse 72 schieben, während die Andruckrolle 62 etwas zurückgezogen wird.
- Die Lehre ist so weit auf die Tonachse zu schieben, dass sie sich in der Verlängerung der Löschkopfbandführungen befindet.
- Der A/W-Kopf ist so einzustellen, dass die Lehre genau zwischen die Bandführungen der beiden Köpfe schiebt.

Aufwickelfriction

Die Friktionskraft kann mit der Friktionsmesscassette 4822 395 30054 (811/CTM) in der Start-Stellung gemessen werden.

Der Messwert soll betragen:

- Aufwickelseite 40 ... 50 g.cm.
- Abwickelseite 2 ... 5 g.cm.
- Die Wiedergabe-Aufwickelfriction wird mit R758 eingestellt.

Achtung:

Die Spannung über Motor M2 soll 3 Volt nicht überschreiten.

Kontrolle des Bandlaufs und der Tonwelleneinstellung

- Gerät in Stellung Wiedergabe, mit der Spiegelcassette.
- Falls das Band bei der Tonwelle nach oben oder nach

unten geht, muss die Tonwelle mit pos. 74 auf dem Schwungradlager (Abb. 6) senkrecht eingestellt werden.

- Das Band muss gerade und genau fluchtend zwischen den Bandführungen und an der Tonwelle entlang laufen.
- Minimale Abweichungen sind hierbei zulässig, weil dies bei normalen Cassetten keine nachteiligen Folgen hat.

Einstellung des Schwungradspiels

- Das Schwungradspiel muss fühlbar sein aber darf nicht mehr als 0.2 mm betragen. Einstellen mit pos. 73, fig.6.

I SMONTAGGIO

Sostituzione di parti relative al trasporto nastro (vedi Fig. 6)

Per sostituire il rullo pressore, togliere pos. 63 e pos. 66. Per sostituire la piastra della testina, premere la piastra vicina alle linguette e toglierla sollevandola obliquamente.

Nota:

Fare attenzione di non perdere le 3 sferette (pos. 60).

REGOLAZIONE E CONTROLLI

Regolazione dell'altezza della testina di reg/rip K1, Fig. 6

- Togliere la tensione d'alimentazione.
- Far slittare la dima 4822 402 60245 sul capstan 72 mentre il rullo pressore 62 è leggermente spinto indietro.
- La dima deve essere fatta slittare in modo che il suo prolungamento si trovi in linea con le guide delle testine di cancellazione.
- La testine reg/rip può ora essere regolata. La dima deve trovarsi tra le guide delle due testine.

Frizione d'avvolgimento veloce

La forza della frizione deve essere regolata con la cassetta 4822 395 30054 (811/CTM) in posizione "riproduzione" Il valore deve essere:

- Bobina di destra 40-50 grcm.
- Bobina di sinistra 2-5 grcm.
- La frizione di avvolgimento è regolabile con R758.

Nota:

La tensione sul motore (M2) non deve essere superiore ai 3 V.

Controllo del bloccaggio e regolazione del cabestan

- Piastra di registrazione in posizione "riproduzione" con la cassetta a specchio inserita.
- Quando il nastro sul capstan si muove o verso l'alto o verso il basso, regolare il capstan afin che sia perpendicolare per mezzo della pos. 74 (fig. 6) sulla bussola del perno del volante.
- Il nastro deve scorrere diritto e piatto tra le guide nastro e il capstan. Piccole variazioni di questo tipo sono ammesse perchè non hanno alcun effetto su cassette normali.

Regolazione del gioco del volante

- Il gioco deve essere visibile ma non deve superare i 0,2 mm. Regolare ruotando pos. 73 (fig. 6).

51 4822 502 11454
52 4822 249 10157
53 4822 492 51229
54 4822 249 40107
56 4822 403 51378

57 4822 358 30138
58 4822 492 62302
60 4822 520 40005
61 4822 528 20301
62 4822 403 51071

63 4822 462 71108
64 4822 403 51381
66 4822 492 51334
67 4822 492 62304
68 4822 522 31317

69 4822 520 30296
71 4822 532 50993
72 4822 528 60142
73 4822 502 11462
74 4822 528 30236

75 4822 277 10613
76 4822 403 40117
77 4822 522 31318
78 4822 403 51379
79 4822 492 40894

80 4822 522 31319
81 4822 530 70043
82 4822 492 62367
83 4822 218 10133
84 4822 492 62301

85 4822 325 60038
86 4822 492 61989
87 4822 492 62303
88 4822 358 30223
89 4822 520 10446

401 4822 280 10135
402 4822 535 70618
403 4822 321 10105
403 4822 321 10235 D8614/05
404 4822 462 40444

406 4822 450 60205
407 4822 423 40579
408 4822 492 62394
451 4822 498 50125
452 4822 303 30215

453 4822 421 40106
454 4822 267 30384
456 4822 264 40175
457 4822 492 62234
458 4822 492 62233

459 4822 423 40578
461 4822 321 30214
462 4822 443 60808
462 4822 443 60821 D8614/18
463 4822 526 10182

464 4822 450 80713
466 4822 410 22573
467 4822 528 90335
468 4822 462 71247
469 4822 492 40799

470 4822 267 50349
471 4822 492 62395
472 4822 413 40992
473 4822 267 40417
474 4822 492 50824

476 4822 528 50116
477 4822 460 10498
478 4822 492 62247
479 4822 413 40993
481 4822 492 51374

482 4822 413 30982
483 4822 413 30984
484 4822 413 30983
486 4822 410 22569
487 4822 492 40919

488 4822 403 51587
489 4822 410 22571
491 4822 410 22572
492 4822 349 50136
493 4822 358 30138

494 4822 403 51506
495 4822 255 40179
496 4822 492 40921
497 4822 413 30981
498 4822 413 30985

499 4822 462 71146

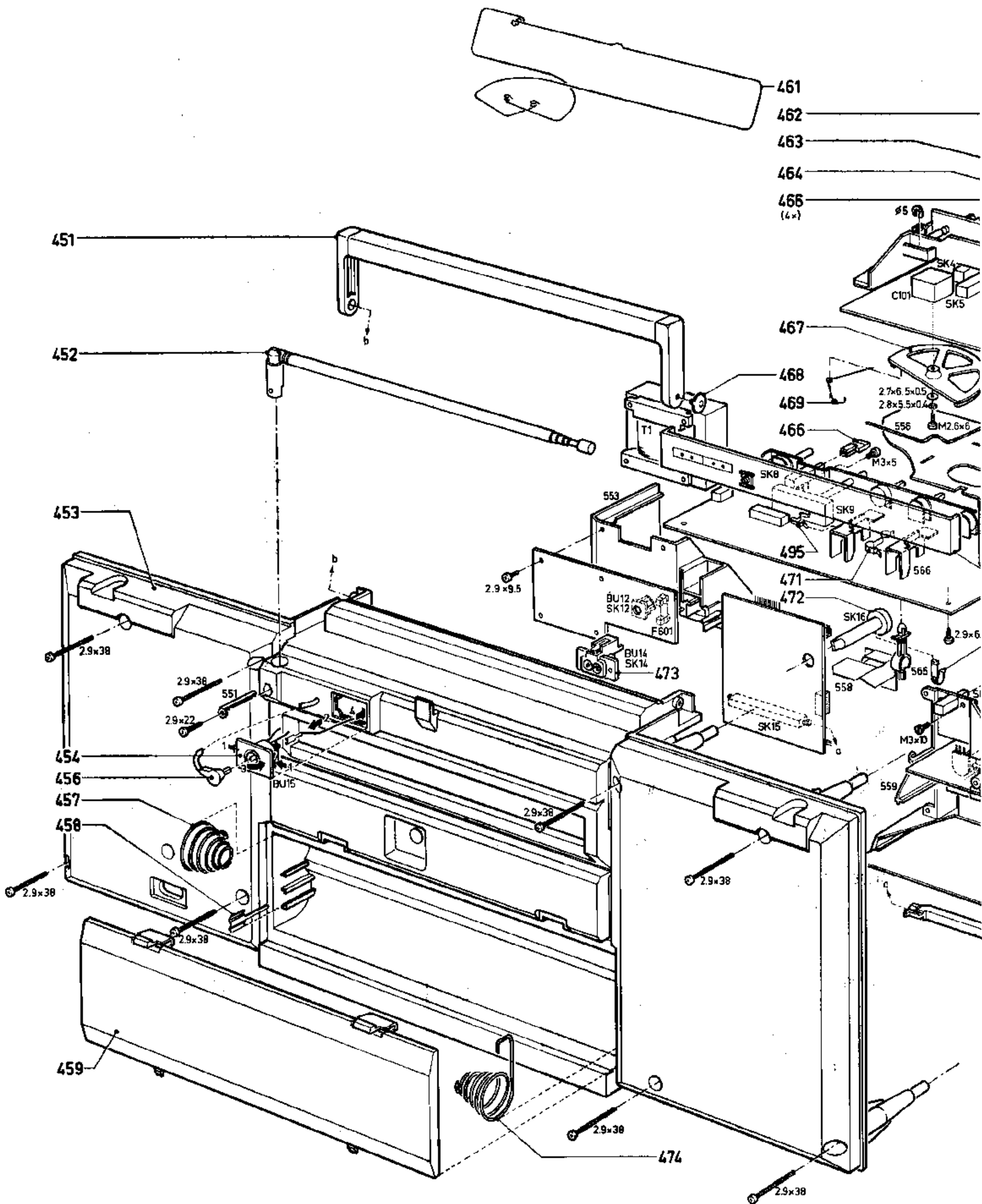
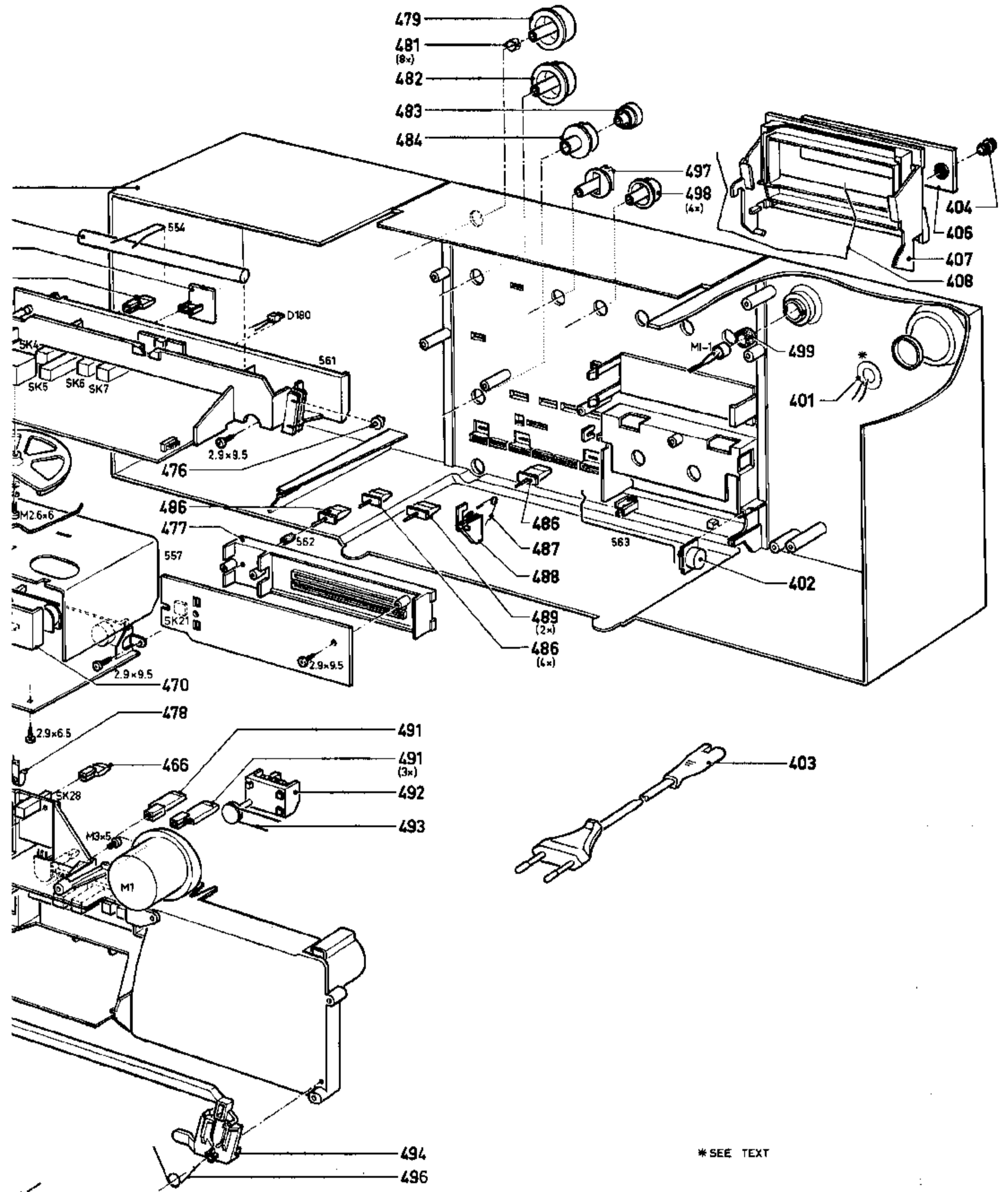
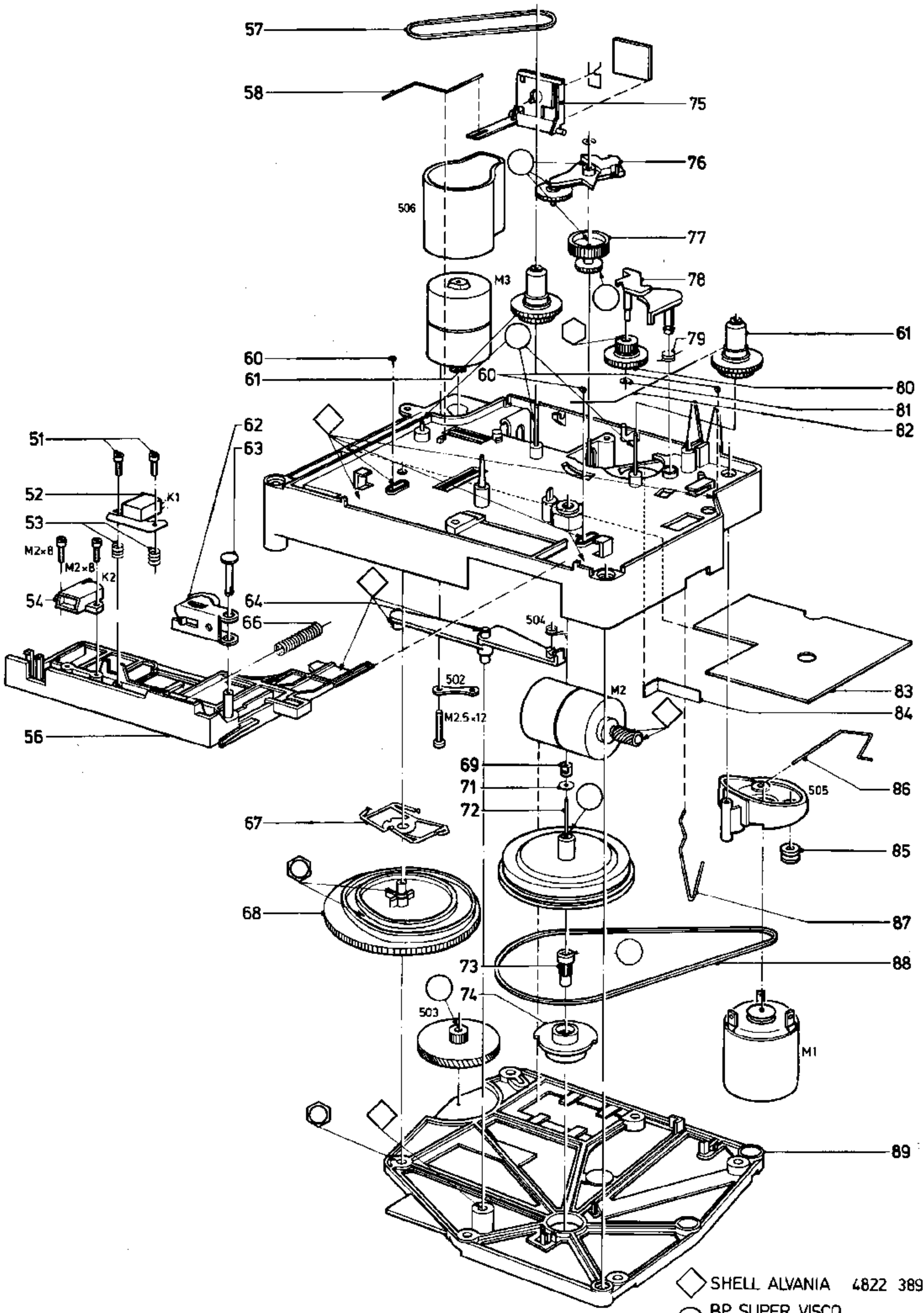


Fig. 5

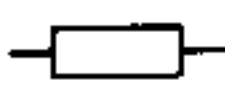
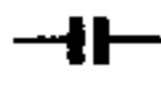








24583 F19



- ◇ SHELL ALVANIA 4822 389 10001
- BP SUPER VISCO 4822 815 30022
STATIC
- ⬡ SILICON OIL 4822 390 10068
AK30.000
- ⊗ SILICON EMULSION 7/22

Fig. 6

-R-							
R188	4.7 kΩ lin.	4822	100	10036			
R225/275	100 kΩ "Bass"	4822	102	10176			
R228/278	100 kΩ "Treble"	4822	102	10176			
R230/280	100 kΩ "Volume"	4822	102	10175			
R236	50 kΩ "Stereo-control"	4822	100	20077			
R237	20 kΩ "Balance"	4822	100	20076			
R319/369	100 kΩ lin.	4822	100	10052			
R325,R375	470 Ω lin.	4822	100	10038			
R335	47 kΩ lin.	4822	100	10079			
R403/453	20 kΩ	4822	100	30035			
R758	47 kΩ lin.	4822	100	10079			
-C-							
C101	Varco	4822	125	50134			
C108	20 nF - 25 V	4822	122	10205			
C114,C197	50 nF - 25 V	4822	122	10206			
C120,C151	1 nF - 50 V	4822	122	31356			
C122,C128	Trim. cap. 22 pF	4822	125	50045			
C129	4.3 nF - 63 V - 1 %	5322	121	54062			
C133	330 pF - 50 V	4822	122	10163			
C134	340 pF - 630 V - 1 %	4822	121	50615			
C135	390 pF - 630 V - 1 %	5322	121	54128			
C188	680 pF - 50 V	4822	122	31381			
C153,C155, C156,C204, C254,C306, C356	100 nF - 25 V	4822	122	10207			
C193,C194	2.2 nF - 50 V	4822	122	10164			
C226	3300 μF - 25 V	4822	124	40378			
C317	5.6 nF - 63 V - 1 %	4822	121	50543			
C318	1 nF - 50 V	4822	122	31356			
C319	12 nF - 63 V - 1 %	5322	121	54162			
Condensators	22 nF - 16 V	4822	122	10166			
-S-							
S103		4822	158	10515			
S104		4822	158	10515			
S105		4822	153	50206			
S120		4822	156	30811			
S121	Ferroceptor coil MW	4822	158	60458			
S122	Ferroceptor coil LW	4822	158	60461			
S123		4822	153	10292			
S124		4822	153	40008			
S125		4822	156	30625			
S140	Ceramic 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			
S701		4822	157	51372			
-D-							
D202	BZV46-C1V5	5322	130	34865			
D206,D701	BZX79-B4V7	4822	130	34174			
D501	2Z062	4822	130	31581			
D707	BZX79-B9V1	4822	130	30862			
D141,142,207	OA95	4822	130	30191			
D708,D180	GL9NG9 (led-green)	4822	130	31433			
D709	GL9HY9 (led-yellow)	4822	130	31468			
-D-							
D710	GL9PR9 (led-red)	4822	130	31432			
D503,553	Led bar 7x green	4822	130	31471			
D504,554	Led bar 3x red	4822	130	31469			
D601	BY225-100	4822	130	50312			
D602	1N4001	4822	130	31438			
Diode	1N4148	4822	130	30621			
-TS-							
TS209	BD140	4822	130	40824			
TS101	BF410A	5322	130	44905			
TS142	BF451	4822	130	41395			
TS120	BF494B	4822	130	41376			
	BF495D	4822	130	41498			
	BC548	4822	130	40938			
	BC548A	4822	130	40948			
	BC548B	4822	130	40937			
	BC548C	4822	130	44196			
	BC558	4822	130	40941			
	BC558A	4822	130	40962			
	BC558B	4822	130	44197			
	BC327-40	4822	130	41327			
	BC337-40	4822	130	41344			
-IC-							
IC180	BA1330	4822	209	80771			
IC201,IC251	TDA1011A/S1	4822	209	80934			
IC501,IC551	UAA180	4822	209	80883			
IC701	C.O.P. 410L	4822	209	80785			
-SK-							
SK4÷SK7	Supplied together	4822	276	40287			
SK8		4822	276	10897			
SK9		4822	273	10095			
SK15		4822	276	10945			
SK17÷SK20	Supplied together	4822	276	40281			
SK21÷SK27		4822	277	30683			
SK28		4822	276	10898			
-Miscellaneous-							
M1		4822	361	20223			
M2		4822	361	20197			
M3		4822	361	20198			
T1	for D8614/00/18	4822	146	20638			
T1	for D8614/05	4822	146	20677			
F1		4822	252	20007			
F601		4822	253	30021			
Fuse holder		4822	492	62373			
Mi1, Mi101		4822	242	30087			
LS1, LS3		4822	240	50197			
BU12/SK12		4822	265	20174			
BU13/SK13		4822	267	30385			
Screw selftap	2.9x38	4822	502	30235			

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.

GB

Because, generally speaking, MOS IC's are very sensitive to overload and too high voltages, measurements should be carried out with greatest possible care.
For further instructions, see the directions enclosed in the separate IC-packages.

NL

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

F

Parce qu'en général, les IC MOS sont très sensibles à la surcharge et à des tensions trop élevées, il faudra procéder aux mesures avec le plus grand soin.
Pour plus de détails, voir les instructions accompagnant l'emballage des IC.

D

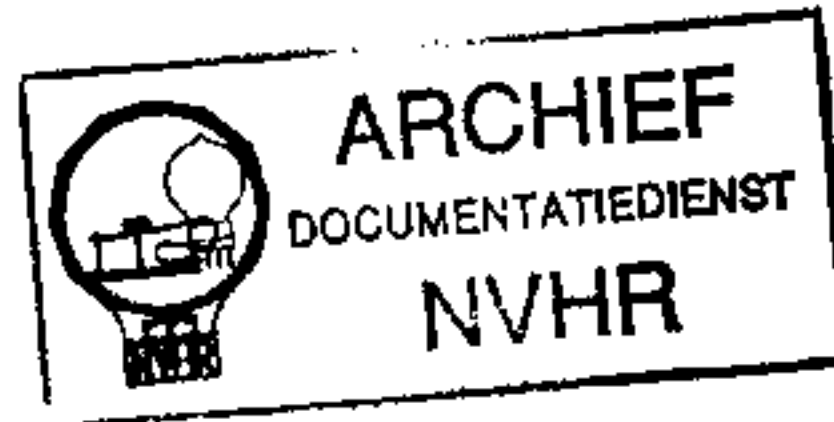
Da MOS IC's im allgemeinen sehr empfindlich gegen Überbelastung und zu hohe Spannung sind, muss man beim Messen äusserst vorsichtig vorgehen.
Für weitere Weisungen siehe den beigelegten Zettel in der Verpackung der IC's.

I

Dato che gli IC MOS sono molto sensibili alla sovraccarica e alle tensioni troppo alte, occorrerà procedere alle misure con particolare cautela.
Per altri particolari riferirsi alla istruzioni comprese nell'imballaggio di ogni IC.

Service
Service
Service

Ned. Ver. v. Historie v/d Radio



Met dank aan www.radiomuseum-hengelo.nl

Service Manual

For D8614/00B/05B refer to D8614/00/05 Supplement however with following modifications.

CONNECTIONS AND CONTROLS

13. tuning meter	"led bar"	D501÷D506
vu-meter L and R		D551÷D556
battery check meter		

POWER SUPPLY CIRCUIT DIAGRAM

Replace item number D503a by D501
Replace item number D553a by D551

LED BAR CIRCUIT DIAGRAM

For the new situation refer to the circuit diagram as shown in Fig. 1.

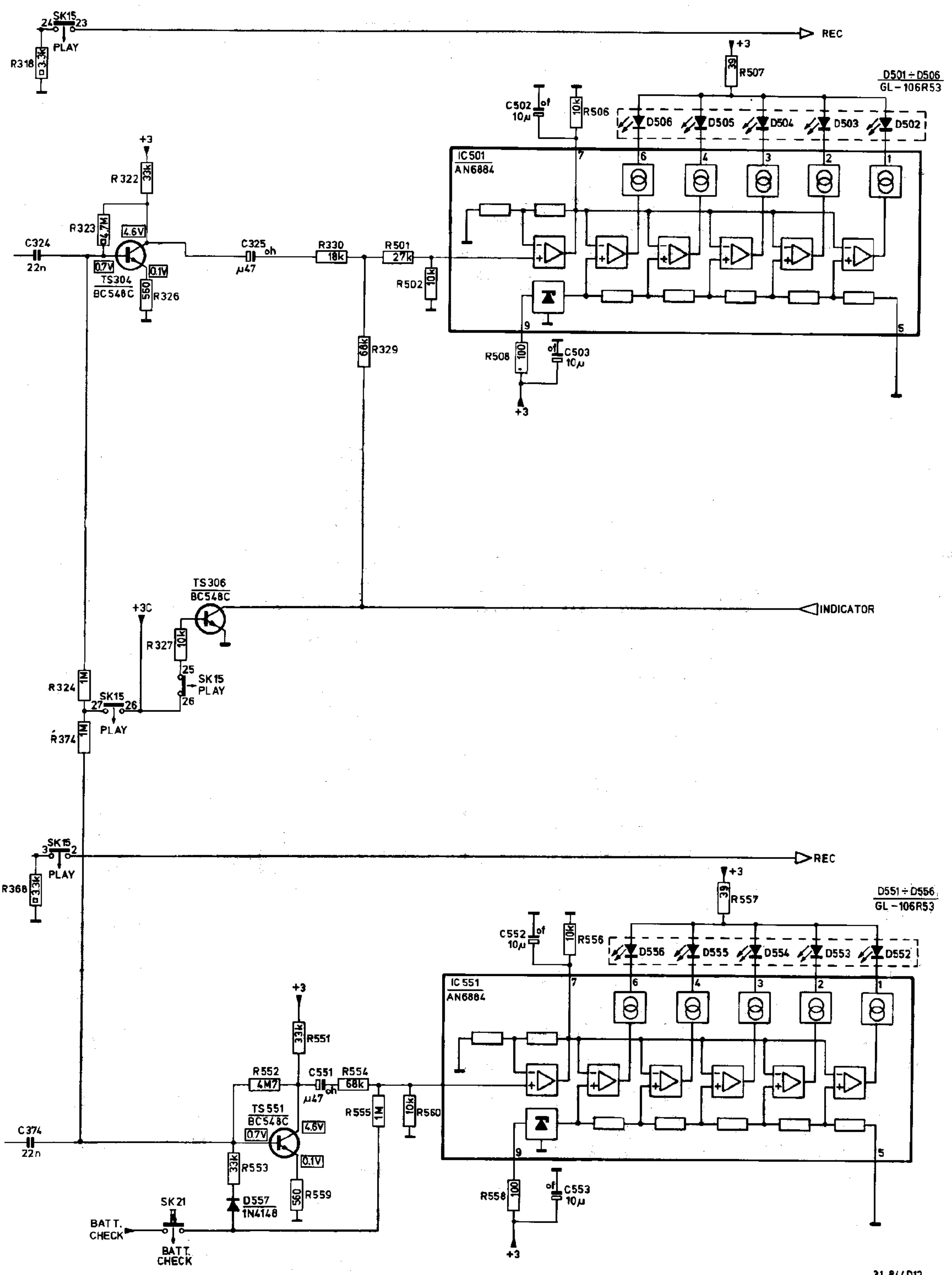
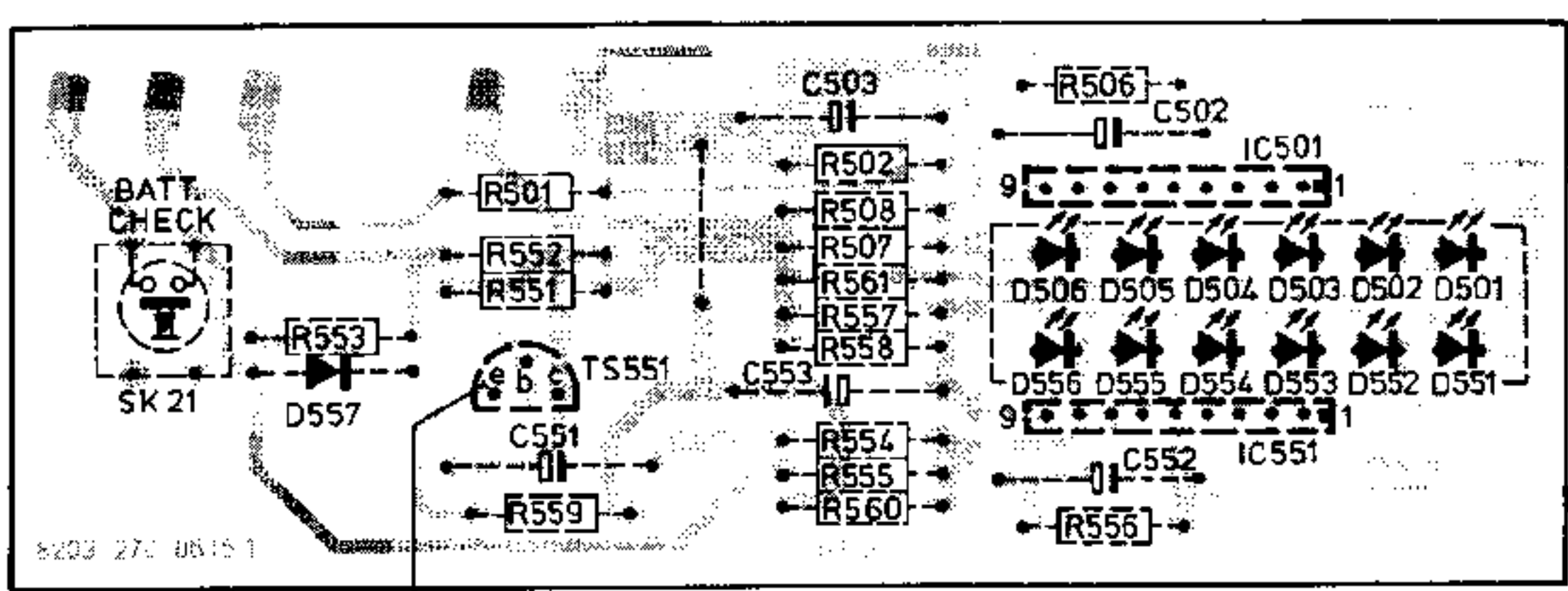
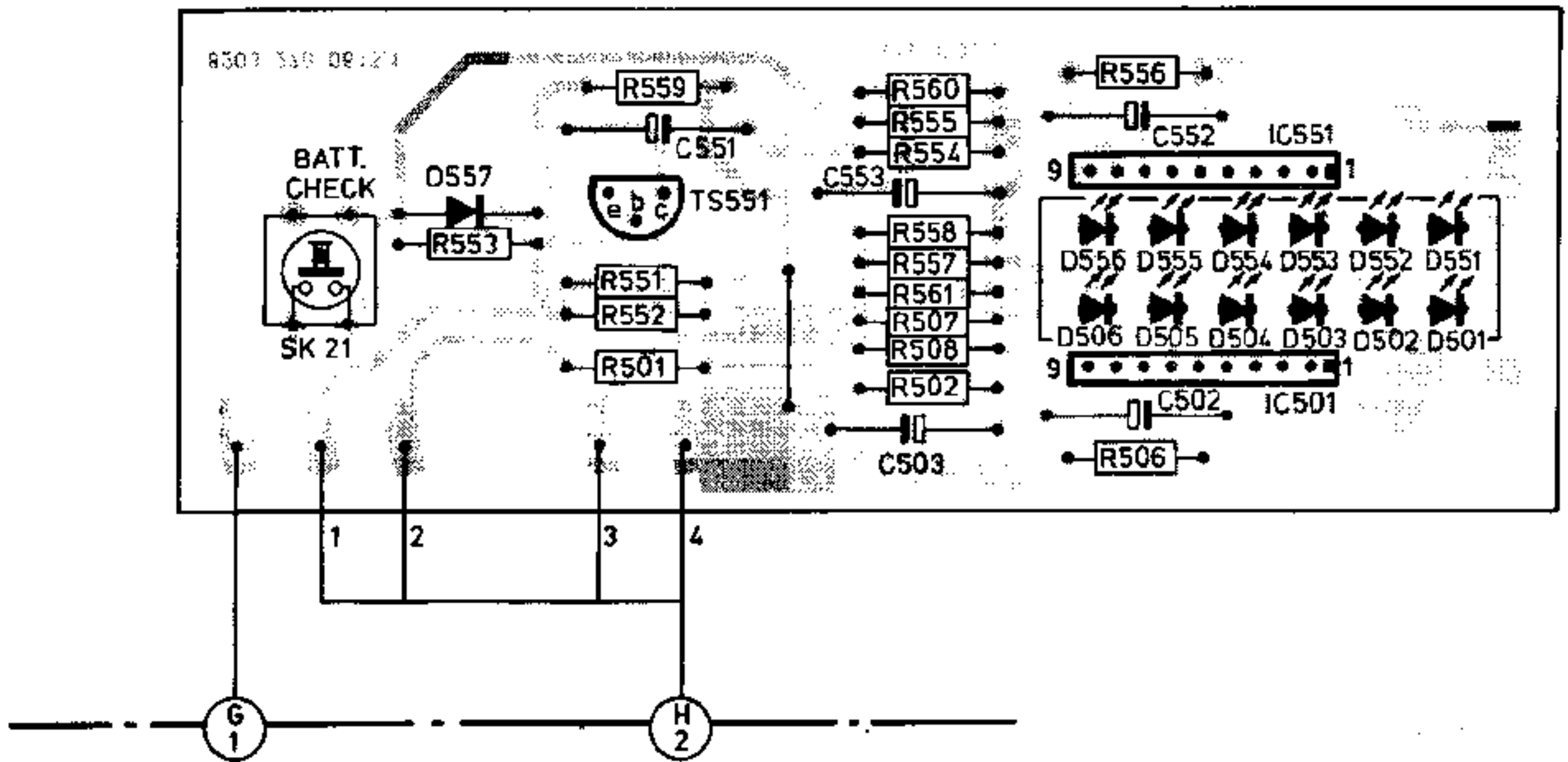


Fig. 1

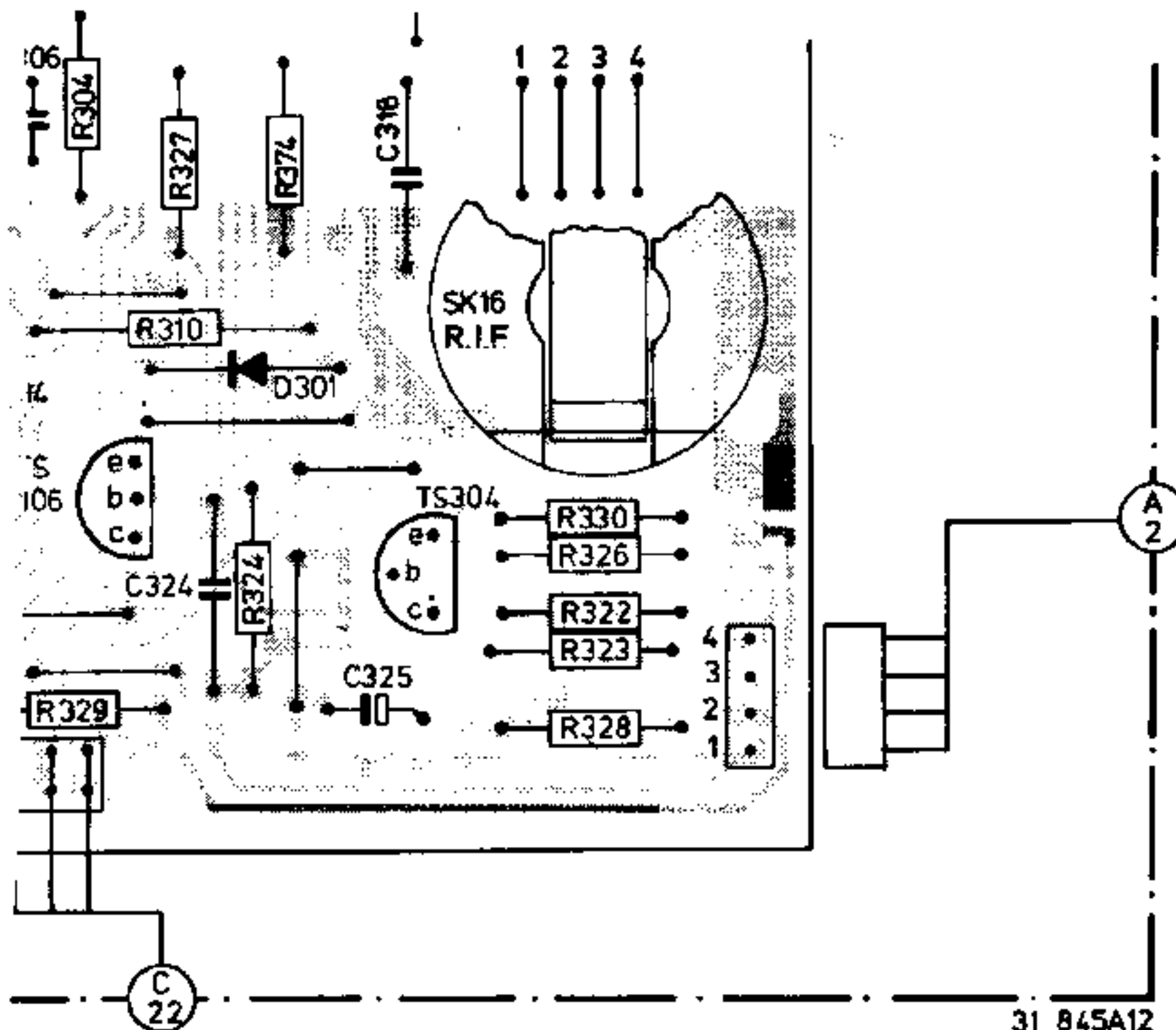
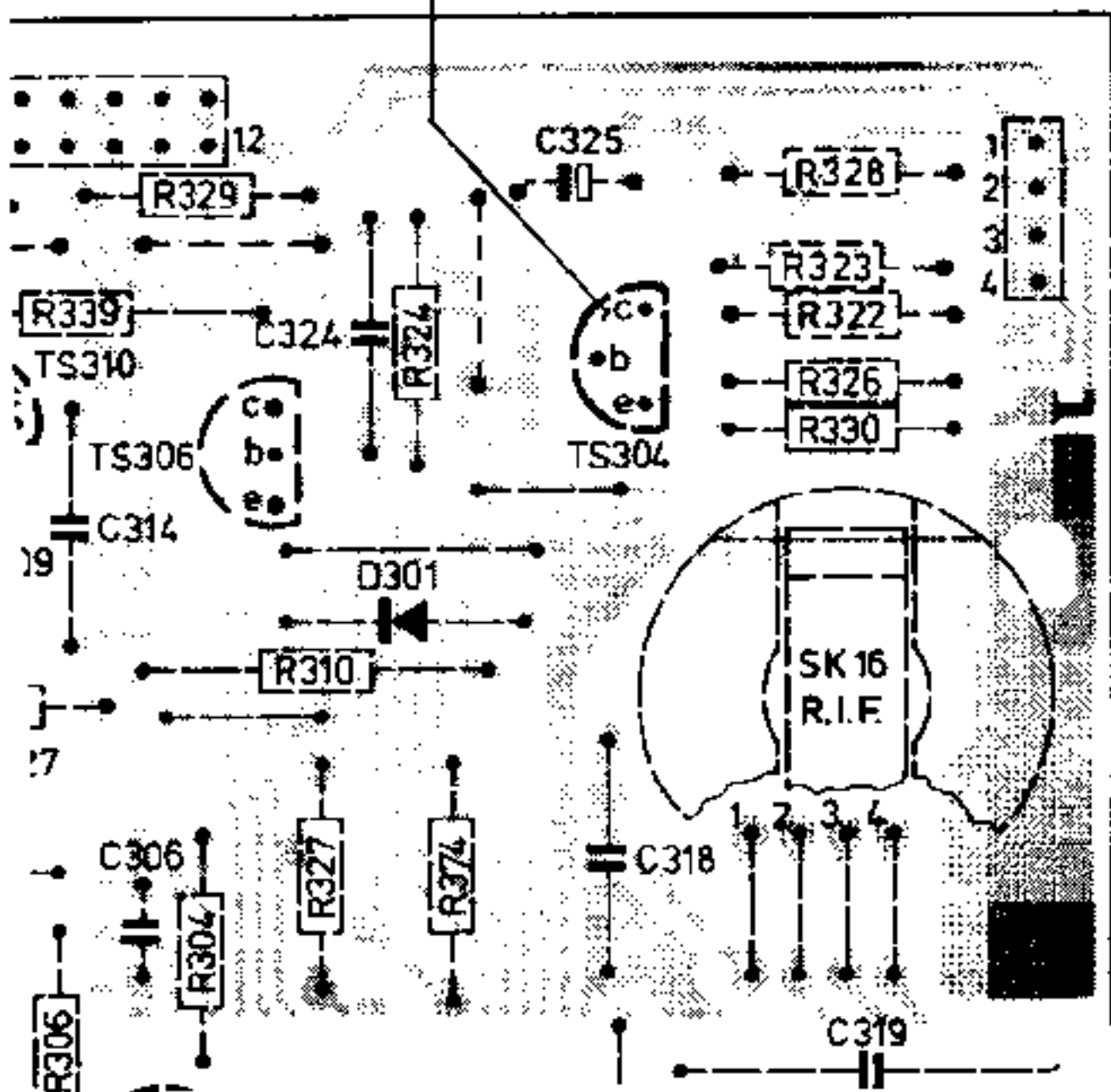
31 844D12

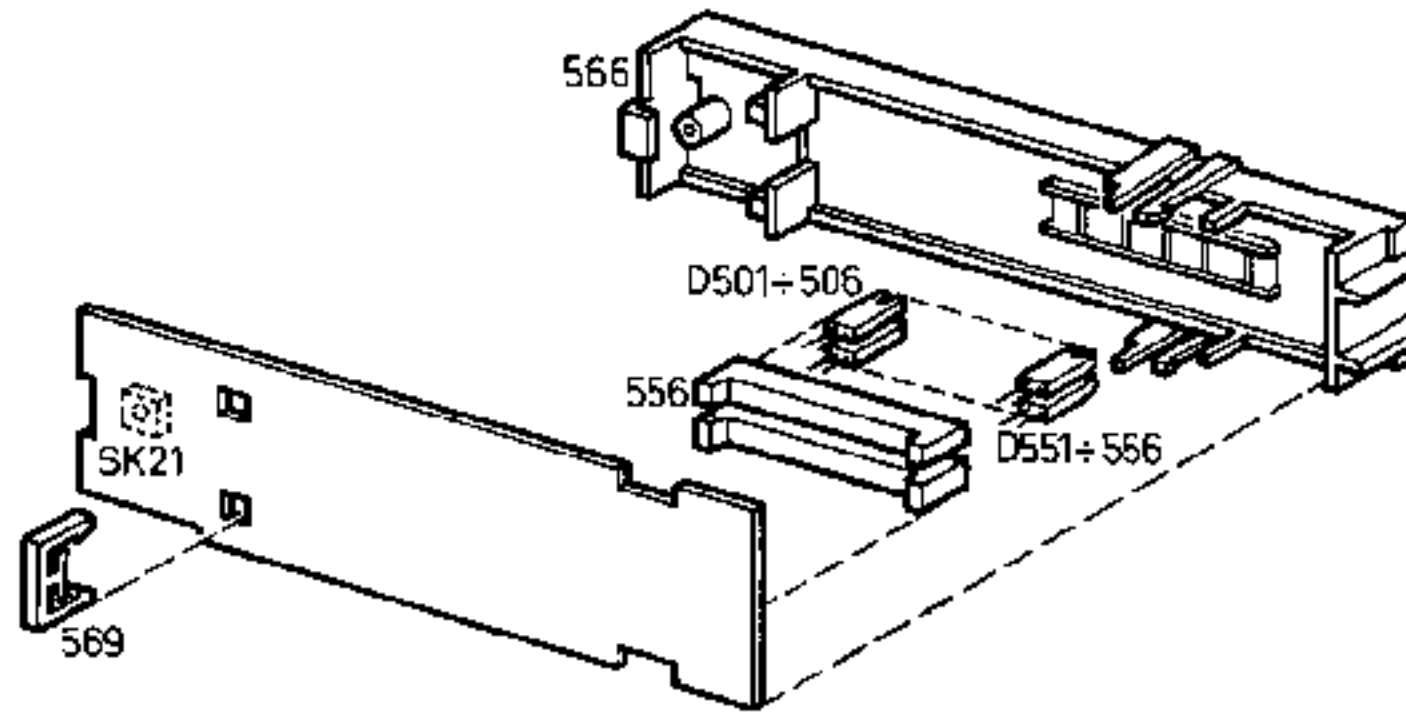
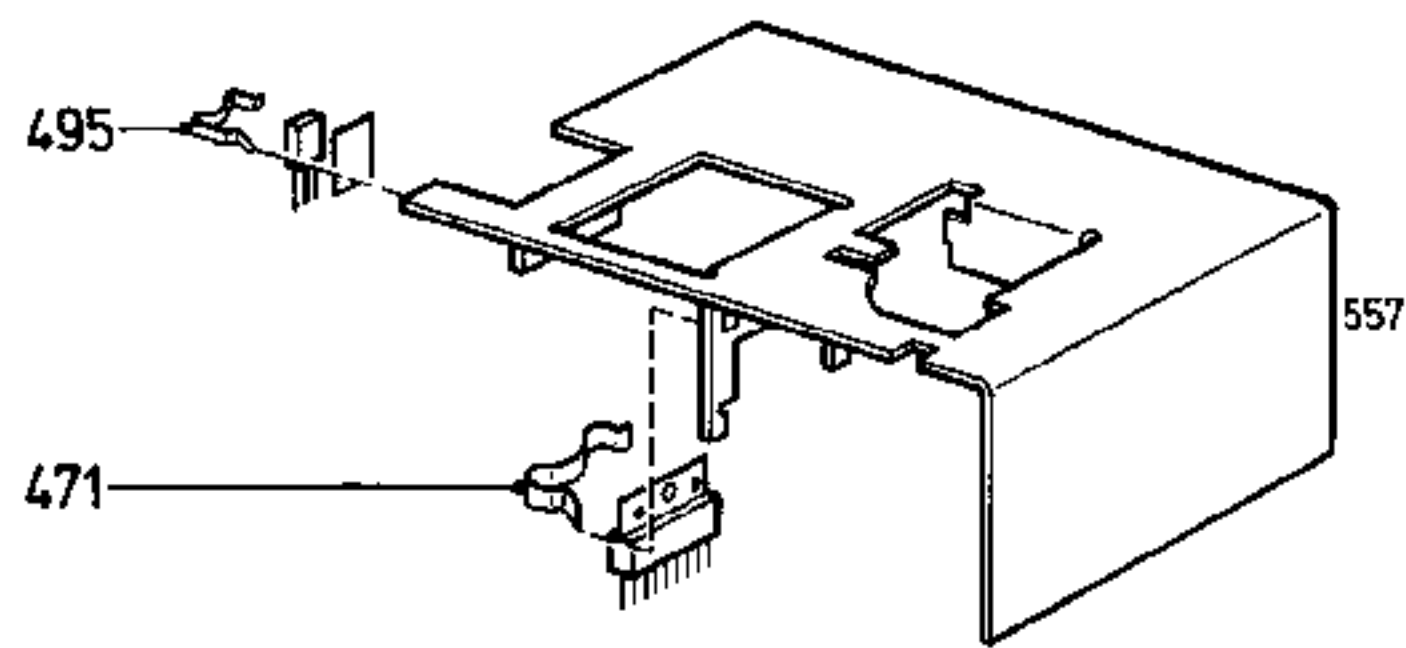


A


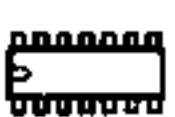


TS304
e = 0.1V
b = 0.7V
c = 4.6V





31 885 B15

-D-				-Miscellaneous-	
LED bar	6x green	4822 130 32067		LS1	AD77721/X4 4822 240 50217
				LS3	AD77721/X4 4822 240 50217
-IC-					
IC501	AN6884	4822 209 81552			
IC551	AN6884	4822 209 81552			

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

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.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie 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 ricambio identici a quelli specificati.