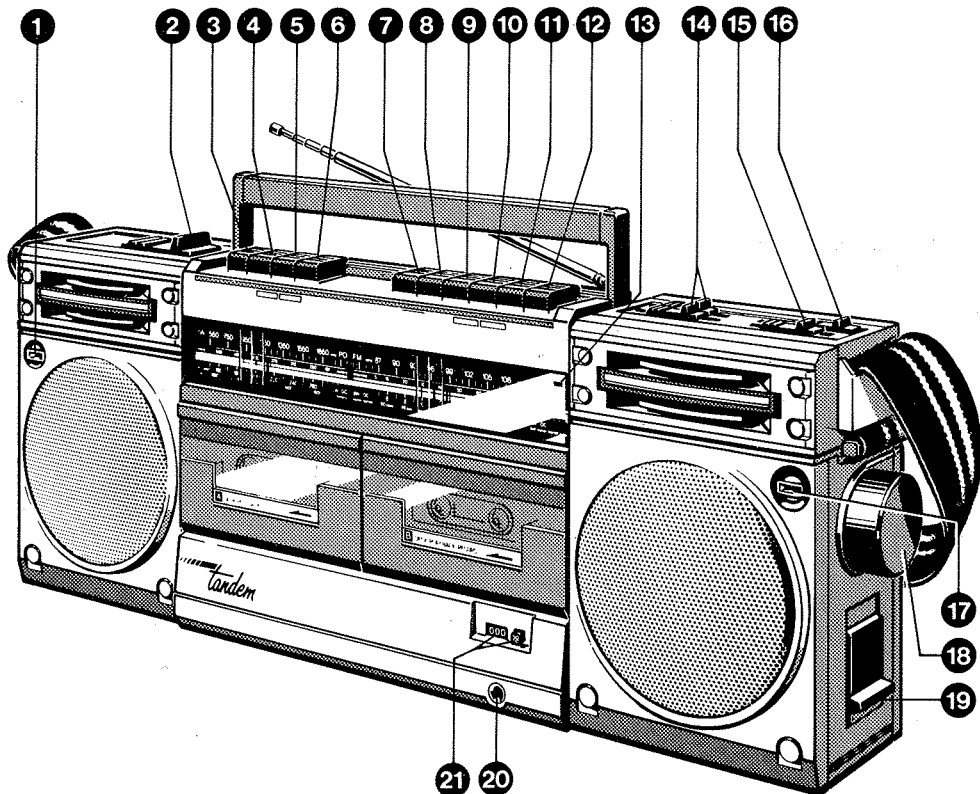


Service
Service
Service

For repair information of the cassette mechanism see
Service Manual of "Recorders tape deck RT-1", "RT-5"
and "RT-15"

Service Manual



34 464 A16

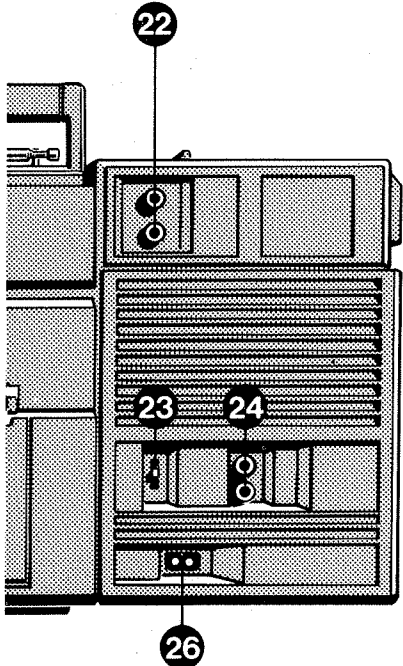
SPECIFICATION

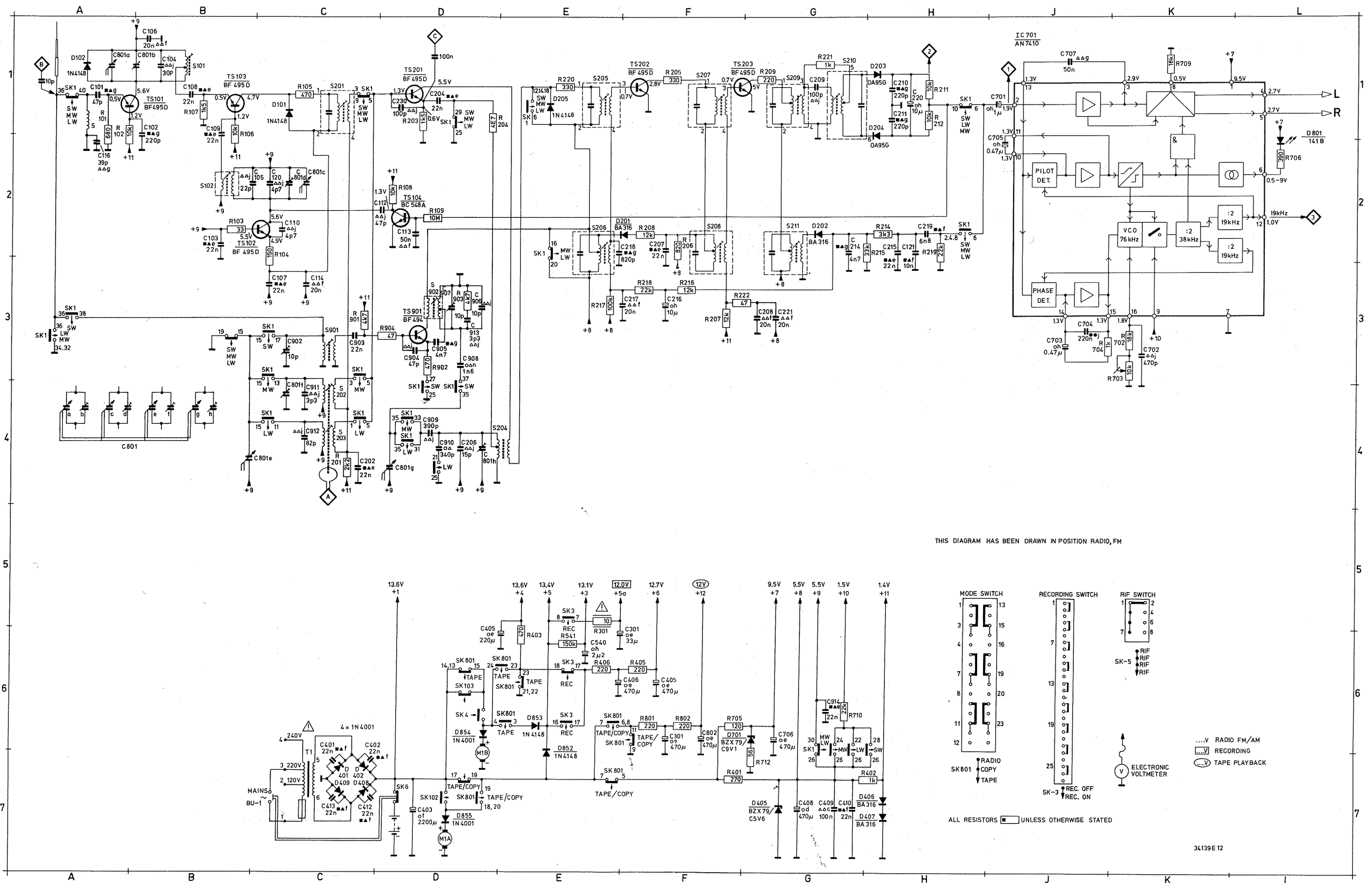
	: 9 V (6 x R20)
	: 220 V 50/60 Hz /00
	: 240 V 50/60 Hz /05
IF-AM	: 468 kHz ± 1 kHz
IF FM	: 10.7 MHz ± 0.1 MHz
FM	: 87.5 MHz ÷ 108 MHz
MW	: 520 kHz ÷ 1605 kHz
LW	: 150 kHz ÷ 255 kHz
SW	: 5.9 MHz ÷ 17.9 MHz

Tape speed	: 4.76 cm/sec. ±3%
Wow and flutter	: ≤ 0.35% Typ 0.18%
Signal to noise ratio	: ≥ 40 dB
Frequency range	: 250-6300 Hz (within 8 dB)
Bias frequency	: 73 kHz
Tape output	: 500 mV/220 Ω
Copy mode	
Frequency range	: 250-6300 Hz (within 10 dB)
Speed difference between deck A and B:	≤ 1%

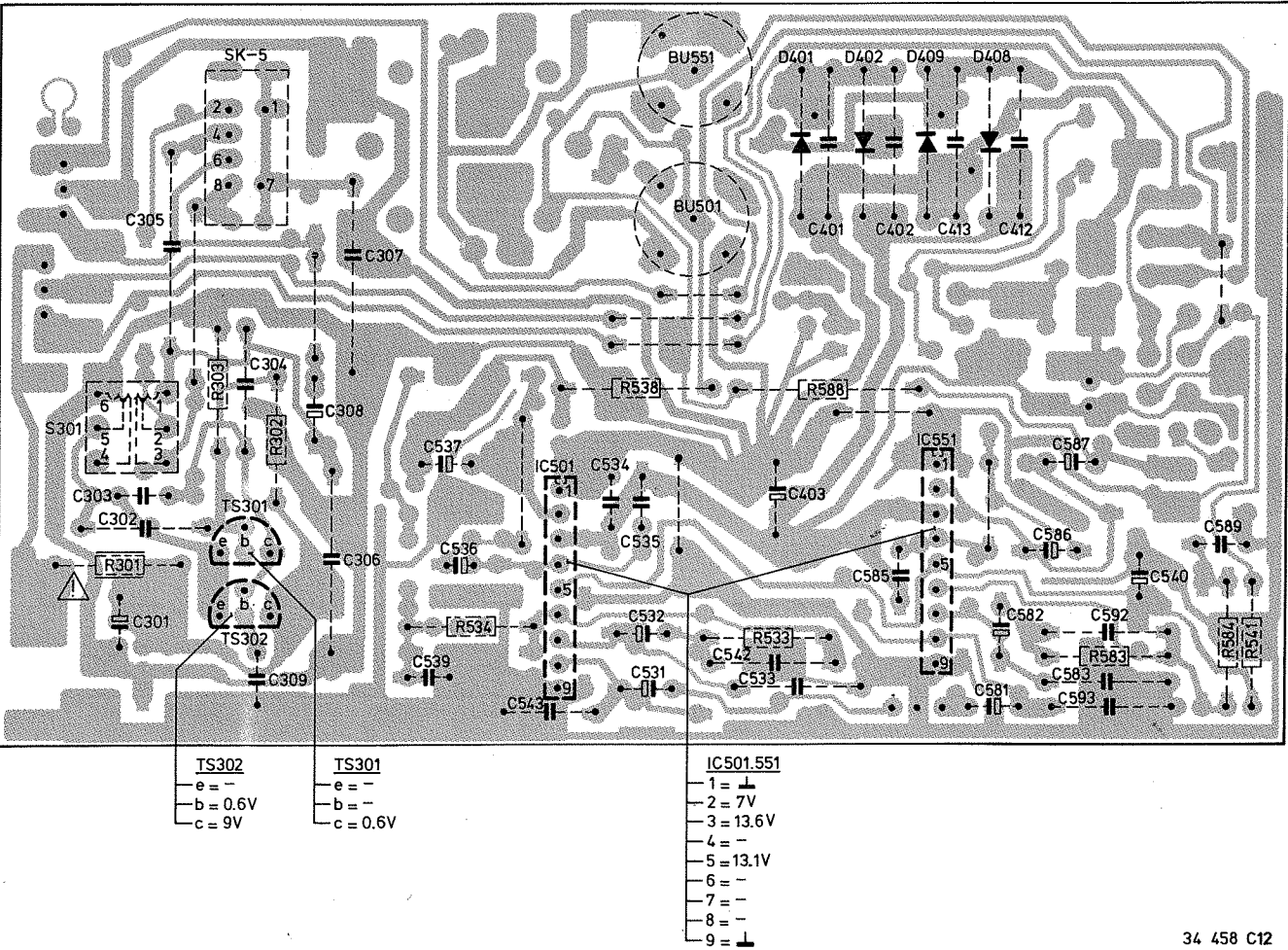
CONNECTIONS AND CONTROLS

1.	 L	„electret mic. left”	Mi-501	14.		„volume”	R531,R581
2.	Tape/radio/copy	„function switch”	SK-801	15.		„tone”	R530,R580
3.		„play”	SK-102,103	16.		„stereo control”	R540
4.		„stop/eject”	SK-102,103	17.	 R	„electret mic. right”	Mi-551
5.		„F.F.”	SK-102,103	18.		„tuning”	C801
6.		„rew”	SK-102,103	19.	FM,MW,LW, SW	„bandswitch”	SK-1
7.		„pause”		20.		„headphone”	BU13/SK13
8.		„play”	SK-4	21.		„tape counter”	
9.		„stop/eject”	SK-4	22.		„line in”	BU801/BU802
10.		„F.F.”	SK-4	23.		„R.I.F. switch”	SK-5
11.		„rew”	SK-4	24.		„line out”	BU501, BU551
12.		„rec”	SK-4	26.		„mains”	BU-1, SK-6
13.		„stereo indicator”	D801				





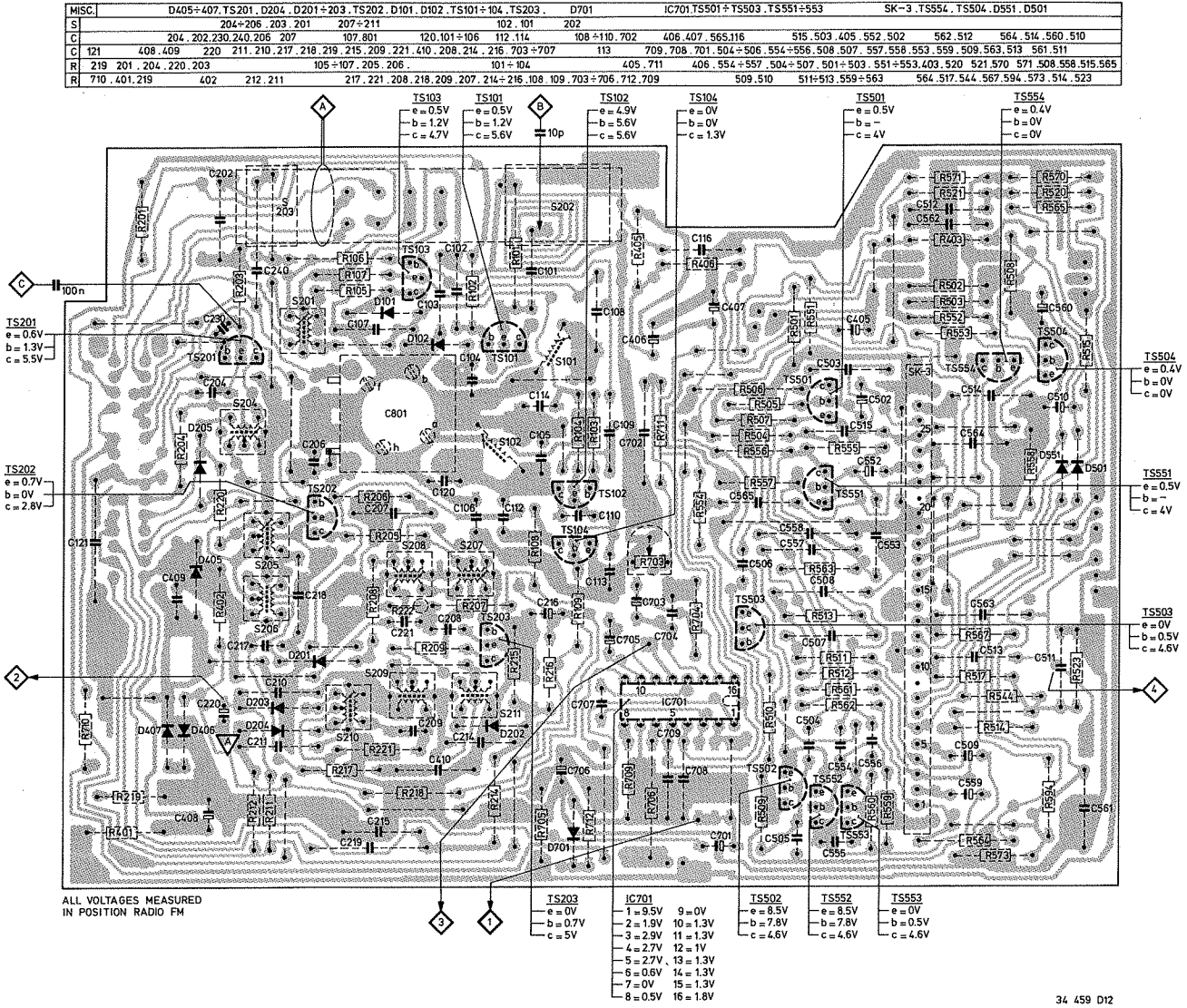
MISC.	SK-5.TS301.TS302	IC501	BU551.BU501	D401.D402.IC551.D409.D408.IC450	
S	301			450	
C	301+305	306+309.539.537.536.543	531+535	542	403.401.402.581+587.413.412.404.450.593.592.540.589
R	301+303	534	538	533.588	450+452
				583	584.541



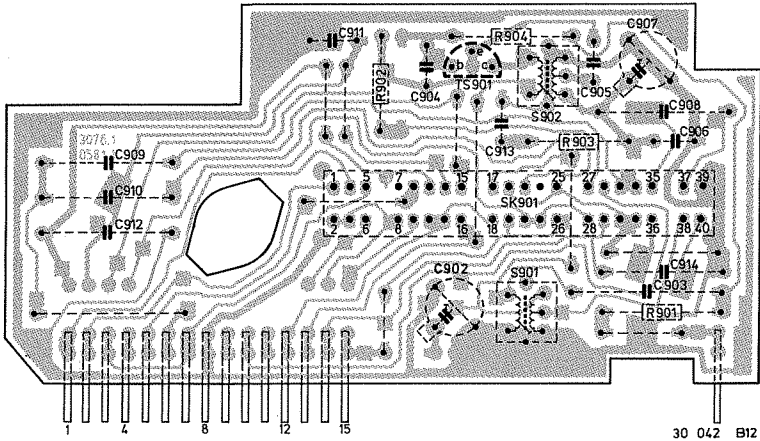
34 458 C12

Adjustment	Cassette	Recorder position	Measure on	Read on	Adjust with	Adjust to
Play back speed Deck A	3150 Hz of *SBC420	PLAY SK2 Play back Deck A	BU501 BU551	Wow- and flutter meter	Preset in motor	**a
Azimuth R/P head Deck A	8 kHz of *SBC420			mV-meter	Left screw R/PB head	Max. output
Play back speed Deck B	3150 Hz of *SBC420	PLAY SK2 Play back Deck B	BU501 BU551	Wow- and flutter meter	Preset in motor	**a
Azimuth R/P head Deck B	8 kHz of *SBC420			mV-meter	Left screw R/PB head	Max. output
Erase oscillator frequency	—	REC/PLAY SK2 TAPE SK5 "0"	MP-4	Frequency counter	S301	73 kHz ± 200 Hz

* 4822 397 30071
** The maximum permissible speed deviation is 3%. Moreover, the wow-and-flutter value can be read. This value should not exceed 0.35%. Speed difference between Deck A and Deck B should no exceed 1%.



34 459 D12



30 042 B12

SK-1						
MW	468 kHz *		Max Cap	S211 S208 S206		 Max.
SW 5.95 MHz ÷ 17.9 MHz	5.8 MHz *		Max Cap	S902		 Max
	18.2 MHz *		Min Cap	C907		 Max
	17.0 MHz *			C902		 Max
	6.2 MHz *			S901		 Max
MW 520-1605 kHz	1635 kHz *		Min Cap	C801h		 Max
	560 kHz *			S202		 Max
	1500 kHz *			C801f		 Max
LW 150-255 kHz	147 kHz *		Max Cap	S204		 Max
	200 kHz *			S203		 Max
FM 10,7 MHz $\Delta f=300$ kHz (50 Hz) 				S209		
				S207		
				S205 S201		
				S210		
FM 87,5-108 MHz	108 MHz Mod. 1 kHz Δf 22,5 kHz		Min Cap	C801d C801b		 Max
	87,35 MHz Mod. 1 kHz Δf 22,5 kHz		Max Cap	S101 S102		 Max

↑ Repeat-Herhalen-Répéter-Wiederholen-Repetera-Ricomminiare-Gentage

* Mod. 1 kHz 30% AM

SK-1		Counter
FM	R703	19 kHz ± 0.2

(F)

- 1 Régler au symétrie et maximum.
- 2 Ajuster la courbe en S pour un maximum de pente et de symétrie.
- 3 Ouvrir le pontet
- 4 Fermer le pontet

(I)

- 1 Regolare per pendenza massima e per simmetria.
- 2 Regolare per pendenza massima e per simmetria della curva ad "S".
- 3 Aprire il ponticello
- 4 Chiudere il ponticello

(D)

- 1 Auf maximale Höhe und Symmetrie der Bandkurve einstellen.
- 2 Die "S"-Kurve auf Symmetrie und maximale Linearität einstellen.
- 3 Brücke öffnen.
- 4 Brücke schließen.

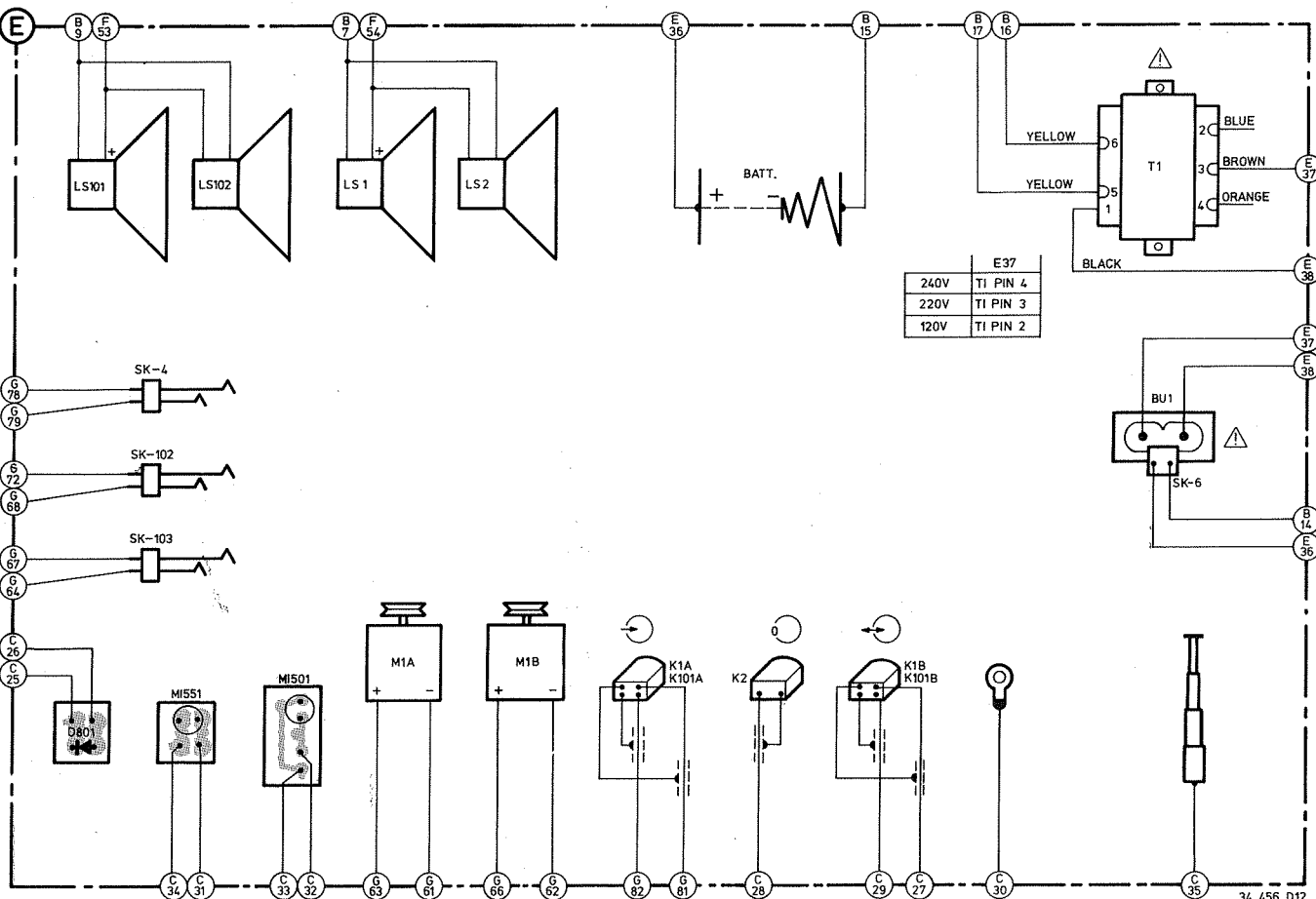
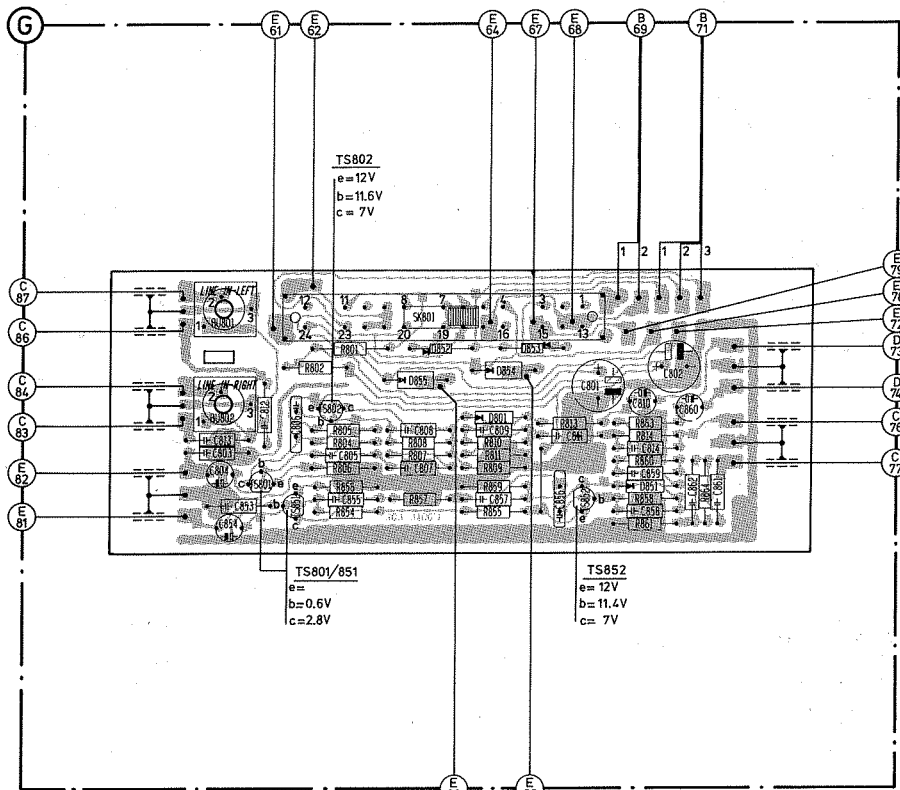
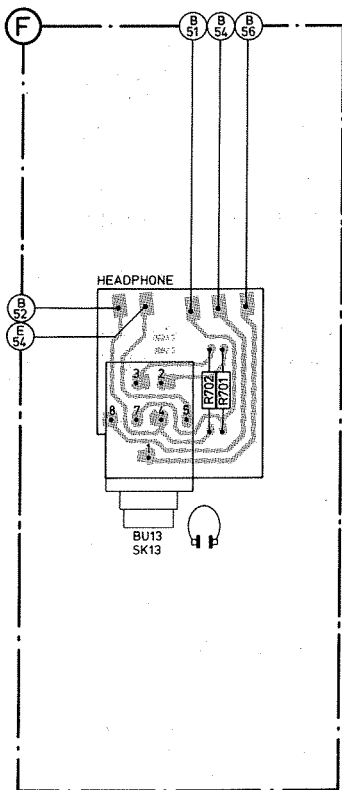
"Bei notwendigem Abgleich ist das Gerät auf die gesetzlich vorgeschriebenen Eckfrequenzen abzugleichen".

(GB)

- 1 Adjust for symmetry and max. height.
- 2 Adjust the "S"-curve for symmetry and max. linearity.
- 3 Open jumper
- 4 Close jumper

(NL)

- 1 Regel de band kromme af op symmetrie en max. hoogte.
- 2 Regel de "S"-kromme af op symmetrie en max. lineariteit.
- 3 Open brug
- 4 Sluit brug



GB DEMOUNTING

Cabinet, Fig. 1

- Remove the 6 screws in the backplate (do not loosen the black aerial screw).
- After removing 3 screws the printed panel can be raised tilted.

For removing the flap of the cassette compartment, first open the flap and then slightly press lugs in cassette flap inwards.

It is only possible to remove handgrip after the back part of the cabinet has been removed.

Turn handgrip to the front. Then slightly bend both sides of handgrip outwards and the handgrip will be released.

NL DEMONTAGE

Kast, Fig. 1

- Verwijder de 6 schroeven uit de achterwand. (Laat de zwarte antenne schroef zitten).
- Na het verwijderen van 3 schroeven kan de print opgetild en gekanteld worden.

De cassetteklep kan verwijderd worden door in de geopende stand de lippen in de cassetteklep iets naar binnen te drukken.

Het handvat kan verwijderd worden als de achterwand verwijderd is.

Het handvat naar de voorzijde draaien. Daarna beide zijken van het handvat iets naar buiten buigen waardoor het handvat vrijkomt.

F DEMONTAGE

Boîtier, Fig. 1

- Dévisser les 6 vis de la paroi arrière (laisser la vis noire de l'antenne)
- Après avoir enlevé les 3 vis, la platine peut être soulevée et être basculée.

Pour enlever le couvercle du logement cassette, ouvrir le couvercle et pousser un peu vers l'intérieur les languettes dans le couvercle.

La poignée ne sera enlevée qu'après avoir ôté le dos. Basculer la poignée vers le devant. La poignée se dégage, lorsqu'on plie légèrement vers l'extérieur les deux jambes de la poignée.

D ANWEISUNGEN ZUM AUSBAU

Gehäuse, Abb. 1

- Die 6 Schrauben in der Rückwand entfernen (die schwarze Antennenschraube nicht lösen).
- Nach der Entfernung von 3 Schrauben kann die Printplatte aufgehoben und gekantelt werden.

Cassettenklappe lässt sich abnehmen, dadurch dass in geöffneter Stellung die Zungen in der Cassettenklappe ein wenig einwärts gedrückt werden.

Handgriff lässt sich erst entfernen, wenn die hintere Gehäusehälfte abgenommen worden ist.

Der Tragegriff ist vorwärts zu drehen, anschliessend werden beide Seiten des Handgriffs ein wenig auswärts gebogen, wodurch dieser frei wird.

I SMONTAGGIO

Mobile, Fig. 1

- Svitare le 6 viti del pannello posteriore (lasciare stare la vite nera dell'antenna)
- Dopo aver tolto le 3 viti, la piastra potrà essere sollevata essere ribaltata.

Per la rimozione del copricassetta aprire anzitutto il copricassetta e poi premere leggermente le sue linguette ingiù.

L'unica maniera per togliere la maniglia è di levare prima il fondo del mobile.

Fare girare la maniglia verso dietro. Piegare poi un pò i due lati della maniglia verso l'esterno, la maniglia sarà così disinnestata.

451	4822 498 50158	474	4822 410 23307
452	4822 303 30242	475	4822 450 60365
453	4822 492 62234	476	4822 492 62962
454	4822 423 40734	477	4822 492 62334
455	4822 466 91486	478/A	4822 443 61208
456	4822 492 62233	478/B	4822 443 61209
457	4822 492 50824	479	4822 411 60994
458	4822 528 50116	481	4822 498 40512
459	4822 535 91325	482	4822 498 70064
461	4822 158 60494	483/00 △	4822 321 10105
462	4822 528 40219	483/05 △	4822 321 10235
463	4822 492 40799	484	4822 450 80892
464	4822 492 32338		
466	4822 413 51222		
467	4822 321 30244		
468	4822 413 31245		
469	4822 492 51374		
471	4822 411 60992		
472	4822 411 60993		
473	4822 535 70618		

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

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

NL ONDERHOUD

Aanbevolen wordt het apparaat na ca. 500 bedrijfsuren schoon te maken en op de belangrijkste punten te smeren

Schoonmaken met alcohol of spiritus:

- Wiskop
- Opneem-/weergeefkop
- Snaren
- Toonas
- Drukrol

D WARTUNG

Es empfiehlt sich, das Gerät nach ca. 500 Betriebsstunden zu reinigen und die wichtigsten Schmierpunkte zu schmieren

Reinigen mit Alkohol oder Spiritus:

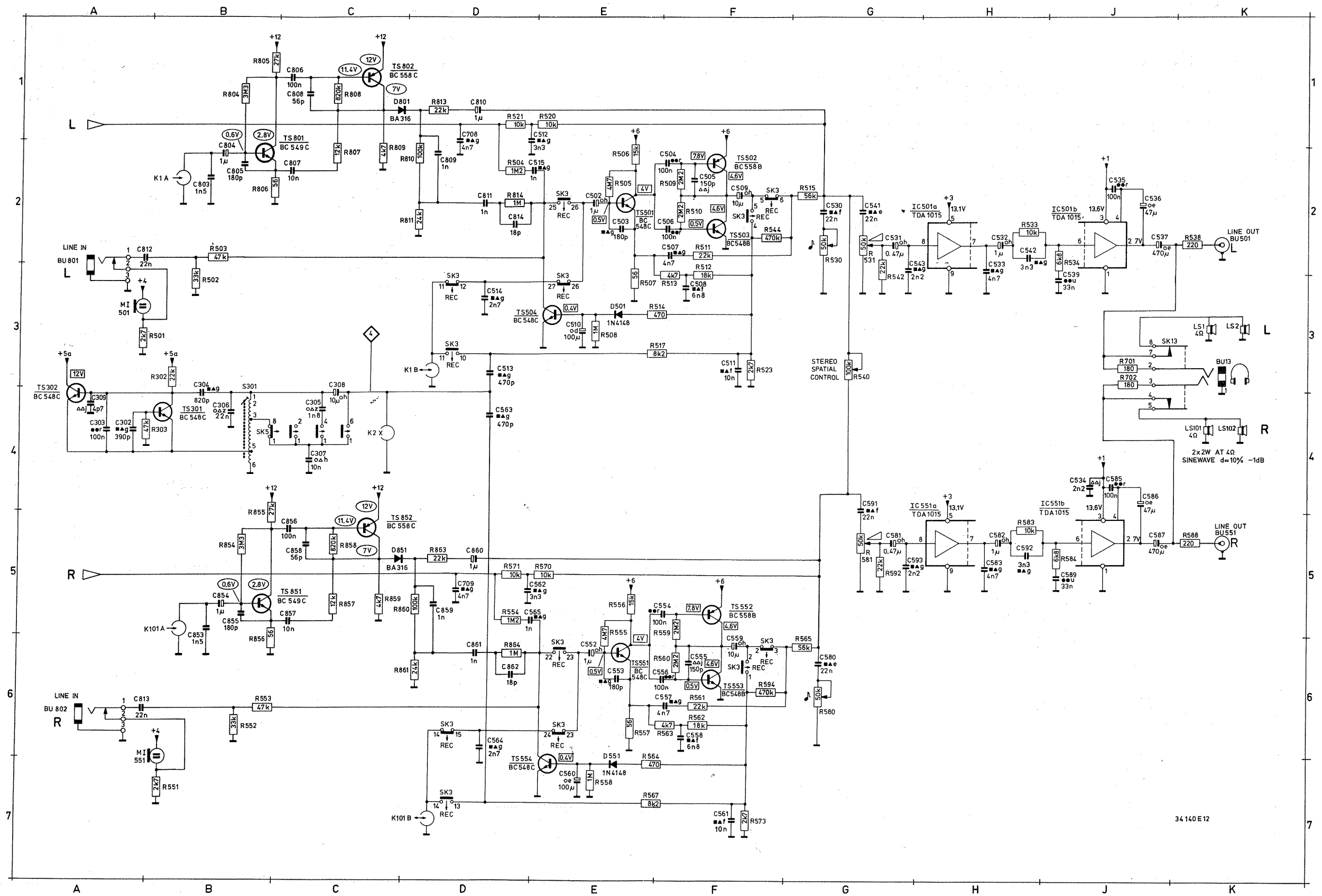
- Löschkopf
- Aufnahme/Wiedergabe-kopf
- Antriebsriemen
- Tonachse
- Andruckrolle

I MANUTENZIONE

E consigliabile pulire l'apparecchio dopo circa 500 ore di funzionamento e di lubrificarne i punti principali.

Pulire con alcool

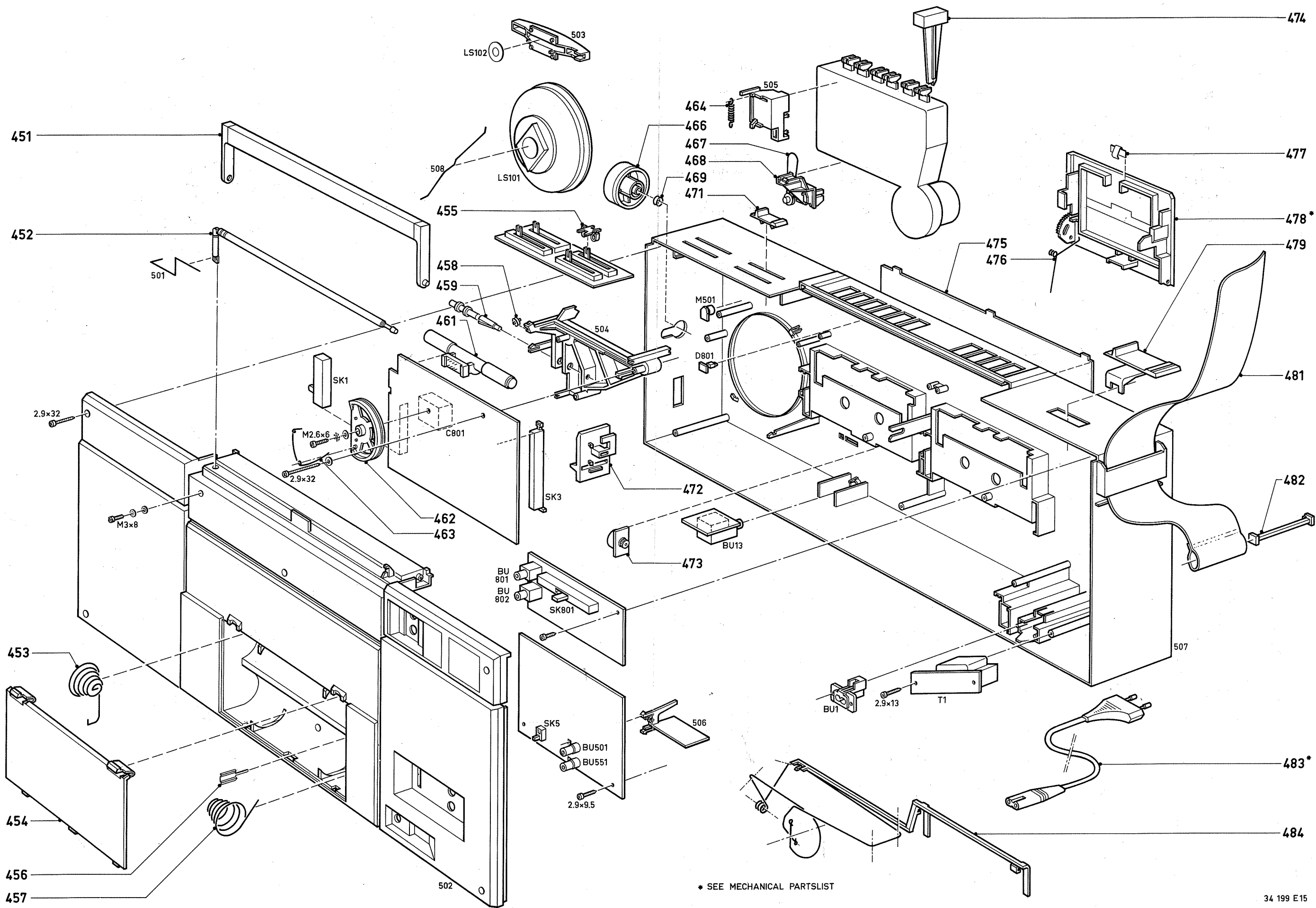
- Testina di cancellazione
- Testina di registrazione/riproduzione
- Cinghie
- Cabstan
- Rullo preminastro



34 140 E12

BU13	K03	C306	B04	C503	E02	C508	F03	C513	D03	C532	H02	C537	J02	C552	E06	C557	F06	C562	D05	C581	G05	C587	J05	C708	D01	C806	C01	C812	A02	C855	B05	C860	D05	D801	C01	K101A	B05	R503	B02	R508	E03	R513	F03	R521	D01	R534	J02	R551	B07	R556	E05	R561	F06	R567	E07	R581	G05
C302	A04	C307	C04	C504	F02	C509	F02	C514	D03	C533	H02	C539	J03	C553	E06	C558	F06	C563	D04	C582	H05	C589	J05	C709	D05	C807	C02	C813	A06	C856	C05	C861	D06	D801	C05	K101B	D07	R504	D02	R509	F02	R514	E03	R522	F03	R535	G03	R552	B06	R557	E06	R562	F06	R570	E05	R583	H05
C303	A04	C308	C04	C505	F02	C510	E02	C515	D02	C534	J04	C541	G02	C554	F05	C559	F05	C564	D06	C583	H05	C591	G04	C803	B02	C809	D02	C814	D02	C857	C05	C862	D06	K001A	B02	R302	B03	R505	E02	R510	F02	R515	G02	R520	F03	R532	F02	R553	B06	R558	E07	R563	F06	R571	D05	R584	J05
C304	B04	C309	A04	C506	F02	C511	F03	C530	G02	C535	J02	C542	H02	C555	F06	C560	E07	C565	D05	C585	J04	C592	H05	C804	B02	C810	D01	C853	B05	C858	C05	D501	E03	K001B	D03	R501	B03	R506	E02	R511	F02	R517	E03	R531	G02	R542	G03	R554	D05	R559	F05	R564	E06	R573	F07	R588	K05
C305	C04	C502	E02	C507	F02	C512	D01	C531	G02	C536	J02	C543	G02	C556	F06	C561	F07	C580	G06	C586	J04	C593	G05	C805	B02	C811	D02	C854	B05	C859	D05	D551	E06	K002	C04	R502	B03	R507	E03	R512	F03	R520	E01	R533	H02	R544	F02	R555	E05	R560	F06	R565	G06	R580	G06	R592	G05
R594	F06	R806	F02	R811	C02	R856	B06	R861	D06	BU551	K05	IC551A	H04	LS102	K04	TS501	E02	TS552	F05	TS852	C05																																				
R701	J03	R807	C02	R813	D01	R857	C05	R863	D05	BU801	A02	IC551B	J04	ML501	A03	TS502	F02	TS553	F06																																						
R702	J03	R808	C01	R814	D02	R858	C05	R864	D06	BU802	A06	LS001	K03	ML551	B07	TS503	F02	TS554	D07																																						
R804	B01	R809	C02	R854	B05	R859	C05	S301	B04	IC501A	H02	LS002	K03	TS301	B03	TS504	D03	TS802	C01																																						
R805	B01	R810	C02	R855	B05	R860	D05	BU501	K02	IC501B	J02	LS101	K04	TS302	A04	TS551	E06	TS851	C05																																						

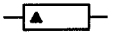
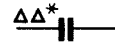
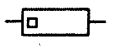
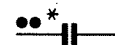
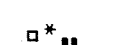
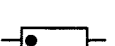
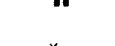
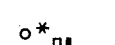
R594	F06	R806	B02	R811	C02	R856	B06	R861	D06	BU551	K05	IC551A	H04	LS102	K04	TS501	E02	TS552	F05	TS852	C05
R701	J03	R807	C02	R813	D01	R857	C05	R863	D05	BU801	A02	IC551B	J04	MI501	A03	TS502	F02	TS553	F06		
R702	J03	R808	C01	R814	D02	R858	C05	R864	D06	BU802	A06	LS001	K03	MI551	B07	TS503	F02	TS554	D07		
R804	B01	R809	C02	R854	B05	R859	C05	S301	B04	IC501A	H02	LS002	K03	TS301	B04	TS504	D03	TS802	C01		
R805	B01	R810	C02	R855	B05	R860	D05	BU501	K02	IC501B	J02	LS101	K04	TS302	A04	TS551	E06	TS851	C05		



* SEE MECHANICAL PARTSLIST

Fig. 1

-IC- 		-C- 	
AN7410	4822 209 80683	C801	Var. 4822 125 50208
TDA1015	4822 209 81161	C902	Trimm 10 pF 4822 125 50062
		C907	Trimm 10 pF 4822 125 50062
-TS- 		-R- 	
BC548A	4822 130 40948	R301 Δ	NFR25 10E 4822 111 30508
BC548B	4822 130 40937	R530	Slide 50k 4822 105 10461
BC548C	4822 130 44196	R531	Slide 50k 4822 105 10459
BC549C	4822 130 44246	R540	Slide 100k 4822 105 10458
BC558B	4822 130 44197	R581	Slide 50k 4822 105 10459
BF494B	4822 130 41376	R703	Trimming 10K 4822 100 10035
BF495D	4822 130 41498		
-D- 		-Miscellaneous-	
BA316	4822 130 30302	-----	Scale self adhesive 4822 333 50634
BZX79-B5V6	4822 130 34173	BU001 Δ	4822 265 20207
BZX79-B9V1	4822 130 30862	BU013	4822 267 40485
OA95	4822 130 30191	BU501	4822 267 10061
SLP141B	4822 130 31191	BU551	4822 267 10061
1N4001G	4822 130 31438	BU801	4822 267 30529
1N4148	4822 130 30621	BU802	4822 267 30529
		LS001	AD4072/X4 4822 240 40083
		LS002	4822 280 10144
		LS101	AD4072/X4 4822 240 40083
		LS102	4822 280 10144
		MI501	4822 242 10046
		MI551	4822 242 10046
		SK003	4822 277 20754
		SK005	4822 277 20885
		SK801	4822 277 20911
		SK901	4822 277 20843
		T001 Δ	4822 146 20795
-S- 			
S101	4822 158 10515		
S102	4822 158 10515		
S201	4822 153 50205		
S204	4822 156 30783		
S205	4822 156 30777		
S206	4822 153 10292		
S207	4822 153 50205		
S208	4822 153 10292		
S209	4822 153 50207		
S210	4822 153 50208		
S211	4822 153 10293		
S301	4822 156 50026		
S901	4822 156 30811		
S902	4822 156 30782		

 Carbon film 0.2 W 70°C 5%				 Ceramic plate Tuning ≤ 120 pF NP.0 2% Others -20/+80%			
 Carbon film 0.33 W 70°C 5%				 Polyester flat foil 10%			
 Metal film 0.33 W 70°C 5%				 Metalized polyester flat film 10%			
 Carbon film 0.5 W 70°C 5%				 Polyester flat foil small size (Mylar) 10%			
 Carbon film 0.67 W 70°C 5%				 Polysterene film/foil 1%			
 Carbon film 1.15 W 70°C 5%				 Tubular ceramic			
				 Miniature single			
 Chip component				 Subminiature tantalum $\pm 20\%$			

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

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.

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.

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.