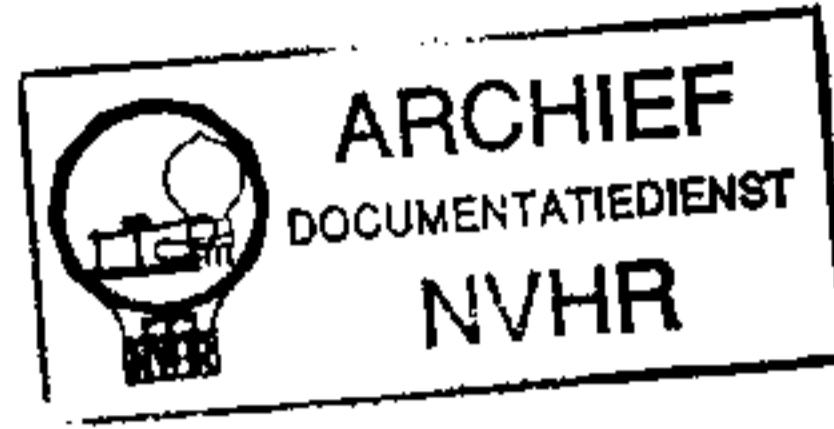


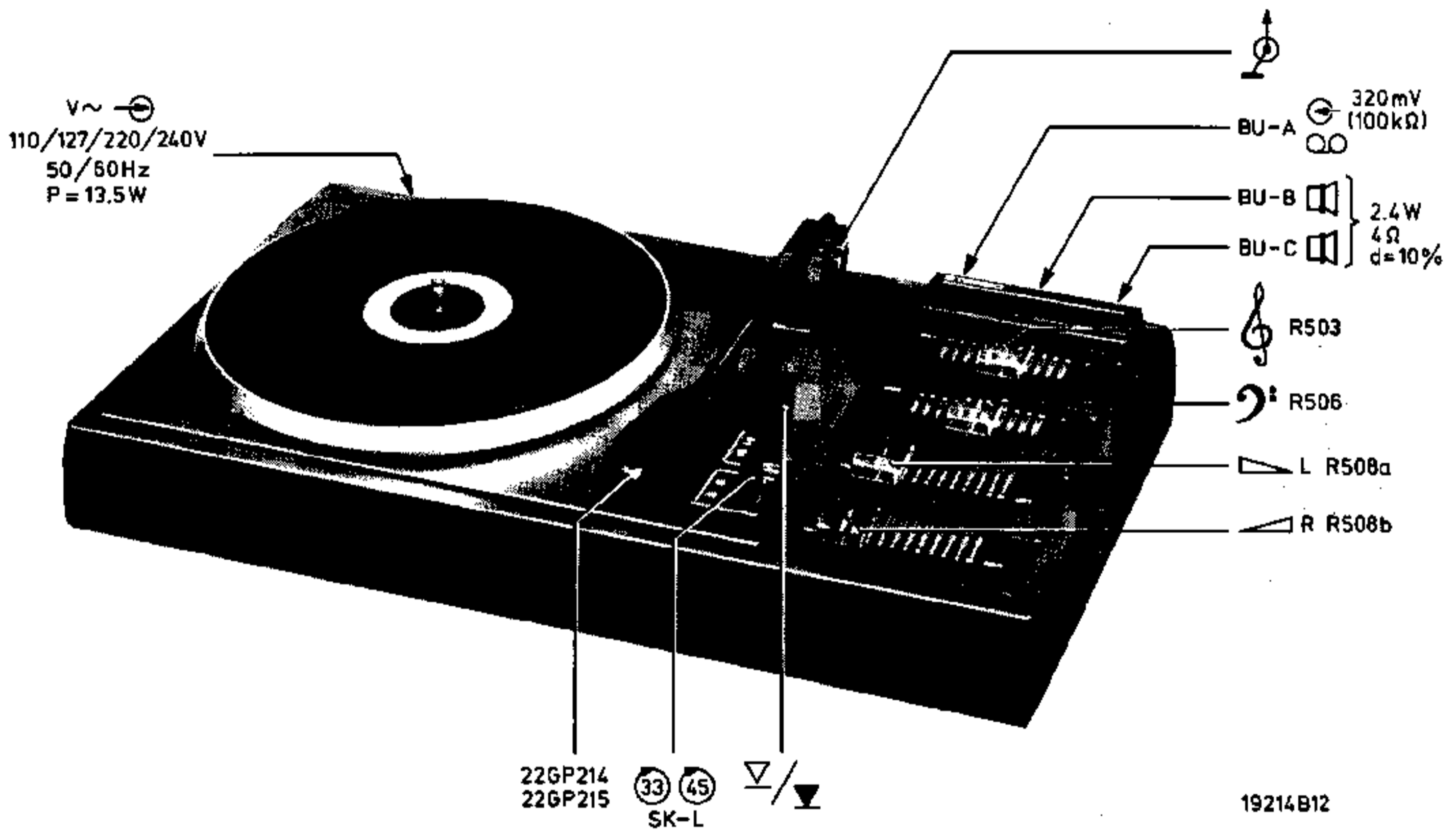
Service  
Service  
Service

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Ned. Ver. v. Historie v/d Radio



# Service Manual



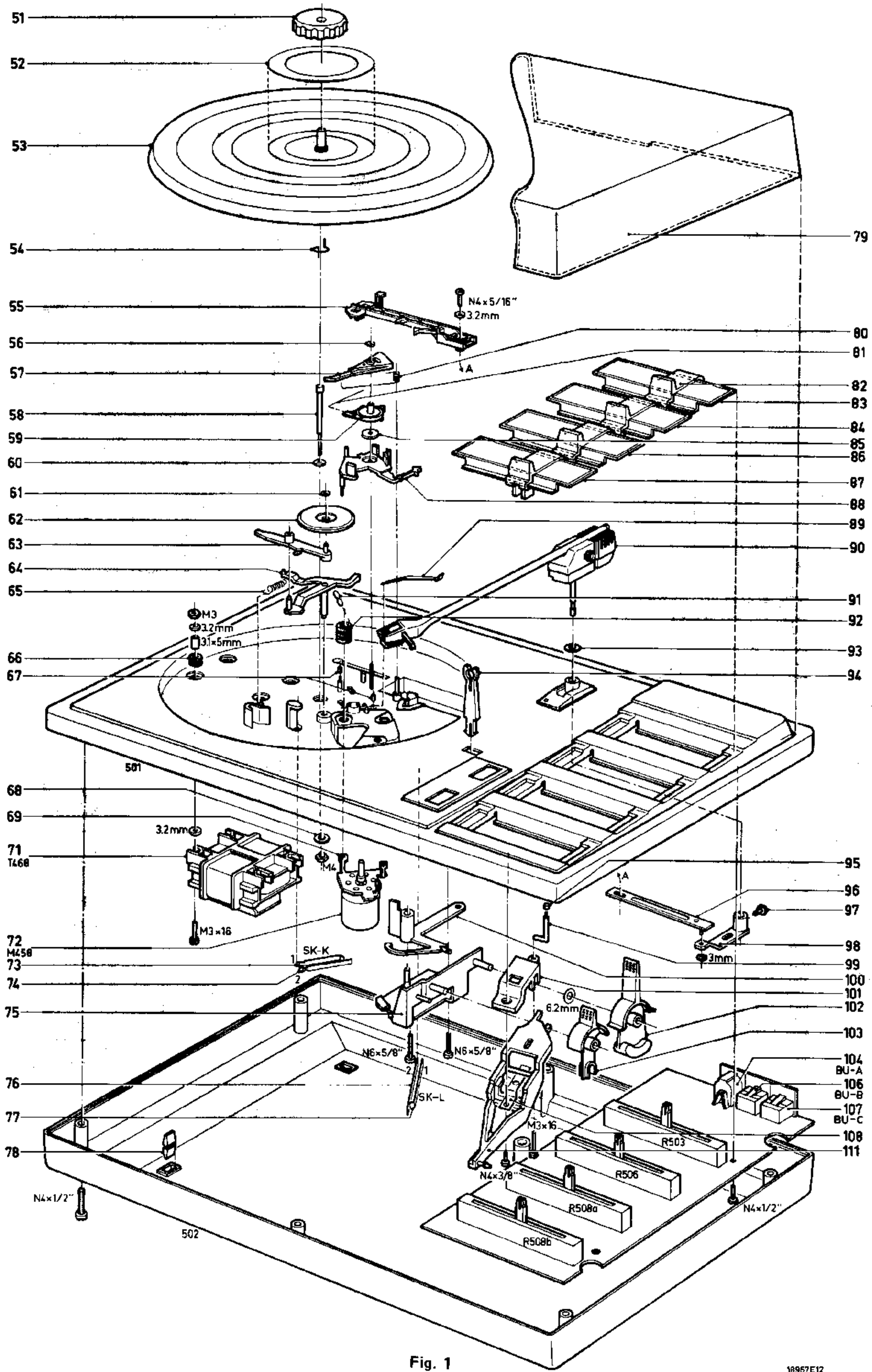
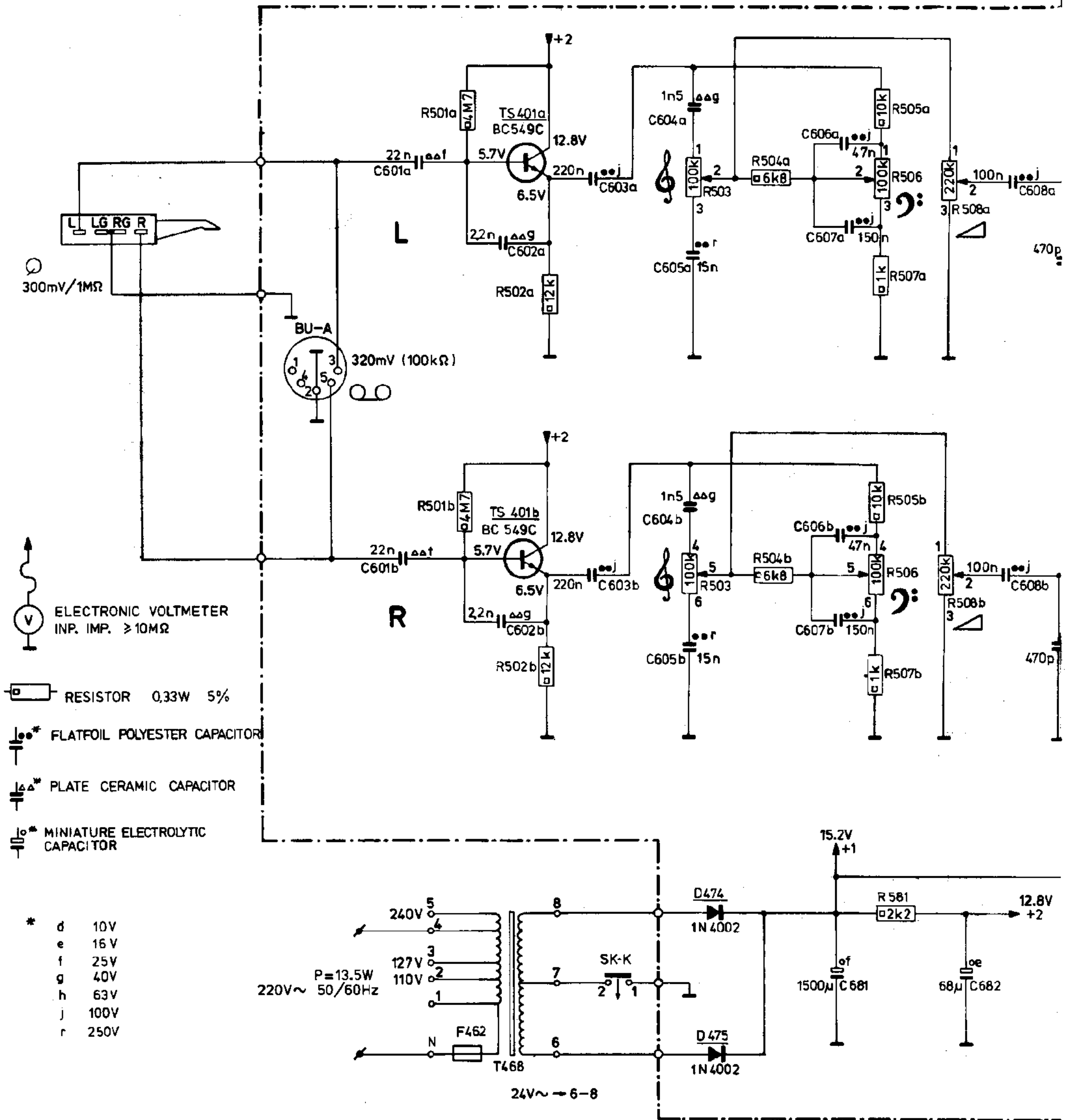


Fig. 1

R		501a 501b	502a 502b		503	504a 504b	505a 505b	506	507a 507b	581	581
C		601a 601b	602a 602b	603a 603b	604a 604b	605a 605b	606a 606b	607a 607b	681	682	608a 608b
MISC DIVERS		BU-A	46B 462	401a 401b	SK-K	474 475					



ELECTRONIC VOLTMETER  
 INP. IMP.  $\geq 10M\Omega$

RESISTOR 0.33W 5%

FLATFOIL POLYESTER CAPACITOR

PLATE CERAMIC CAPACITOR

MINIATURE ELECTROLYTIC CAPACITOR

- \* d 10V
- e 16V
- f 25V
- g 40V
- h 63V
- j 100V
- r 250V

-IC-TS-			
TS401a,b IC402a,b IC451	BC549C TDA1908 TDA1059B	4822 130 44246 4822 209 80672 4822 209 80361	
-D-			
D474, 475	1N4002	5322 130 30684	
-R-			
R503, R506 R508a R508b R566 R568 R569	100k LIN 220k Log. 220k Semi-log. 150 $\Omega \pm 2\%$ 220 $\Omega$ 2.2k $\Omega$	4822 105 10136 4822 105 10328 4822 105 10392 5322 116 54486 4822 100 10019 4822 100 10237	
-S-			
S426a,b	AD7080/XM4- (4 $\Omega$ )	4822 240 50074	

509a 509b	556 568	510a 567 510b	569	511a 511b
608a 608b	609a, 616a, 610a, 611a 609b, 616b, 610b, 611b	612a 612b	666	613a 613b
458	SK-L	402a 402b	451	BU-B, S426a BU-C, S426b

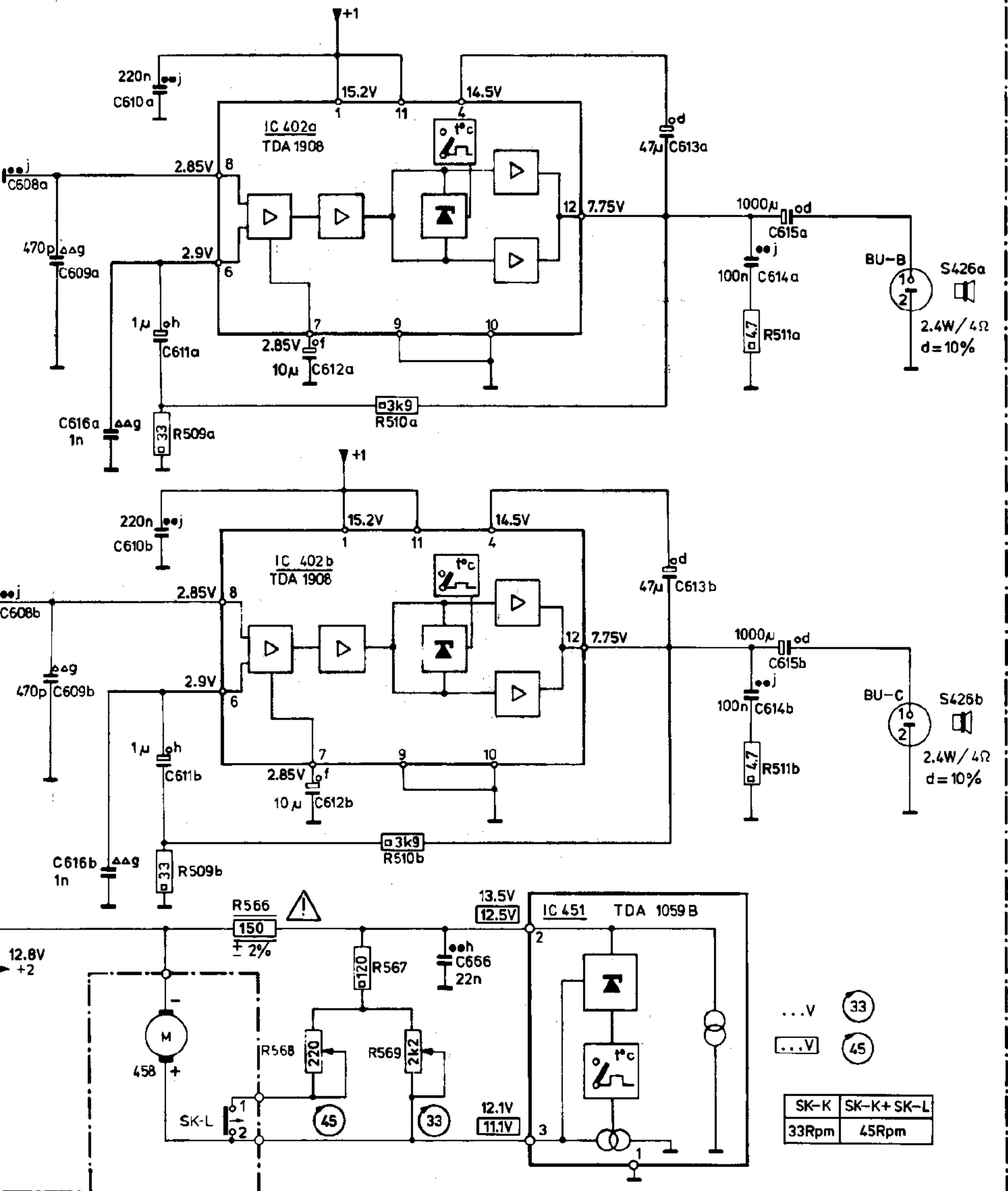


Fig. 2

18742D12

-SK-		
SK-K1-L1 (73,77)		4822 290 80226
SK-K2-L2 (74,76)		4822 290 80225
<b>-Miscellaneous-</b>		
BU-A	(104)	4822 267 40209
BU-B, C	(106, 107)	4822 267 30264
F462		4822 252 20017
T468	(71)	4822 146 50157
M458	(72 + 69)	4822 361 20175

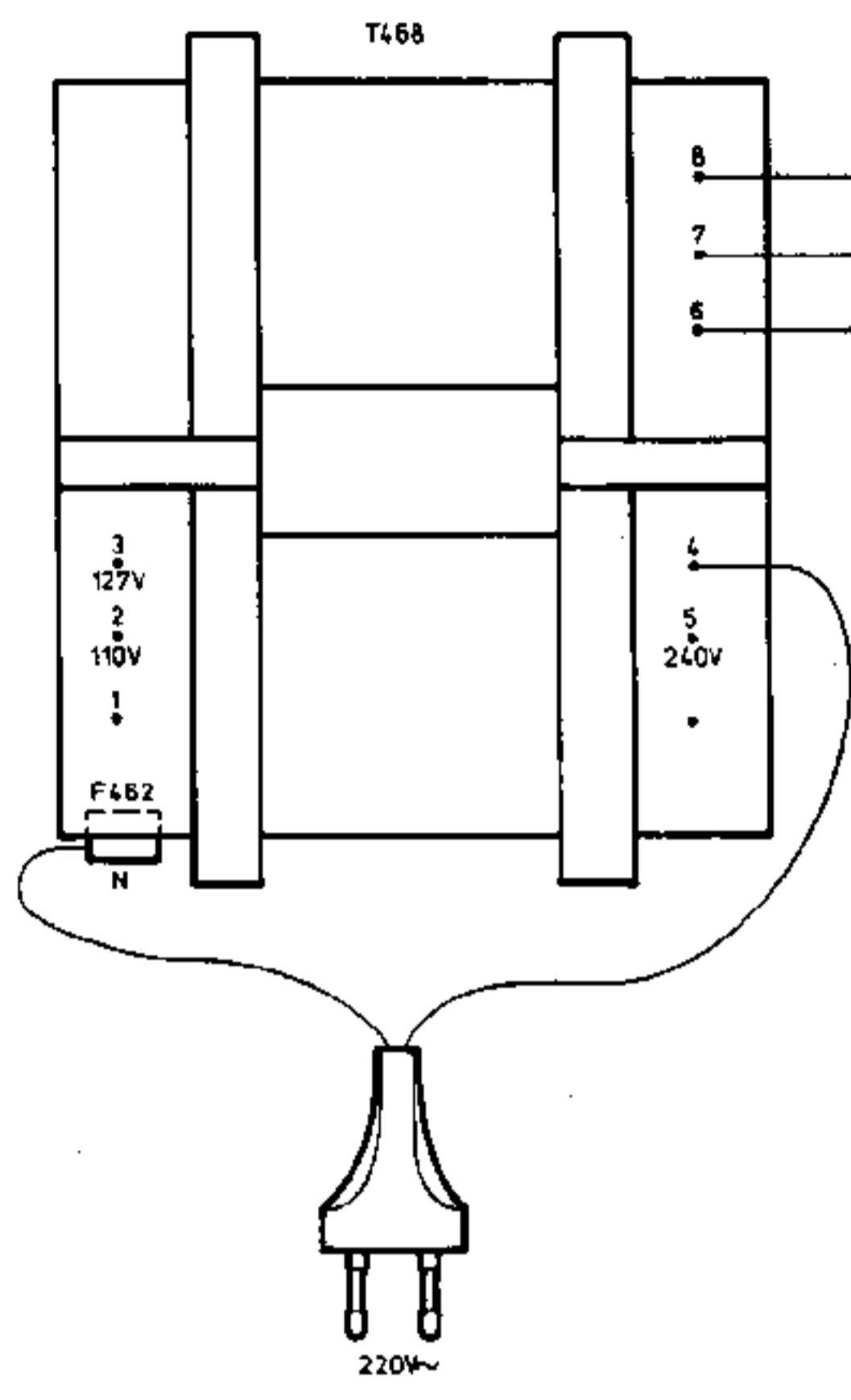
Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

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

Die Sicherheitsvorschriften erfordern, dass das Gerät sich nach der Reparatur in seinem originalen Zustand befindet und dass die benutzten Einzelteile den aufgeführten Teilen identisch sind.

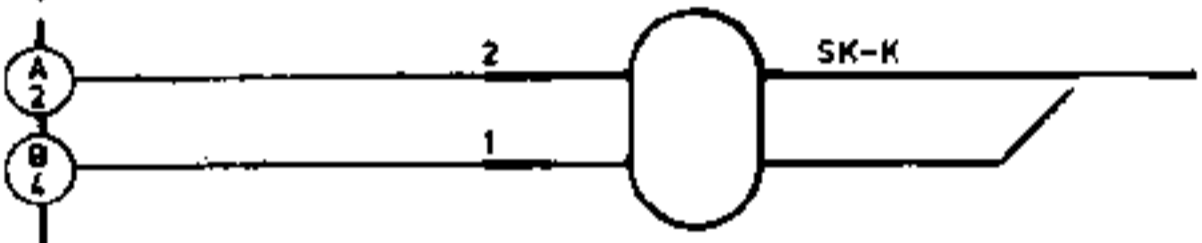
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

A

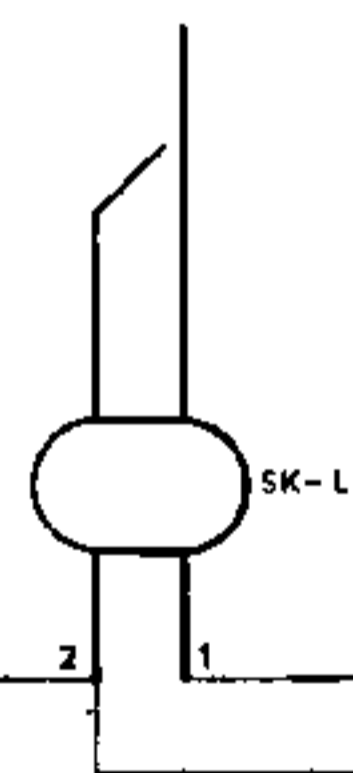
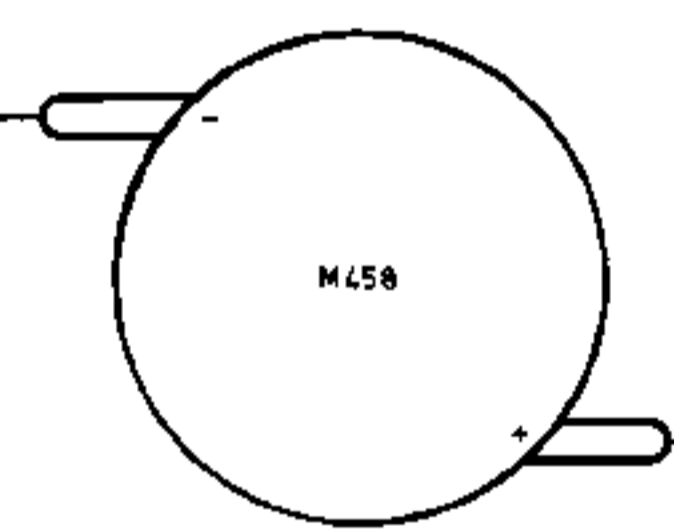


B1  
A2  
B3

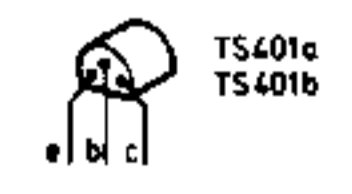
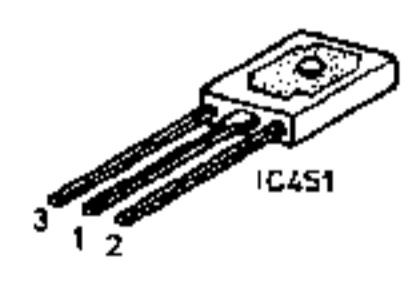
A2  
B4



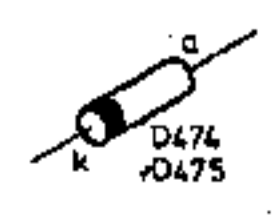
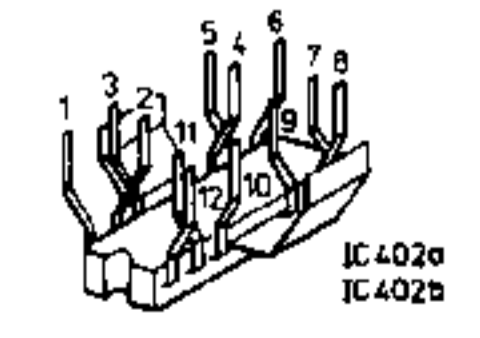
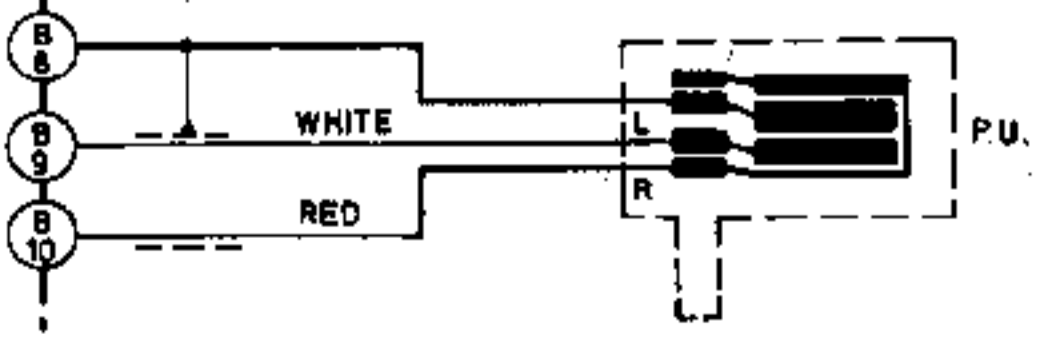
B5



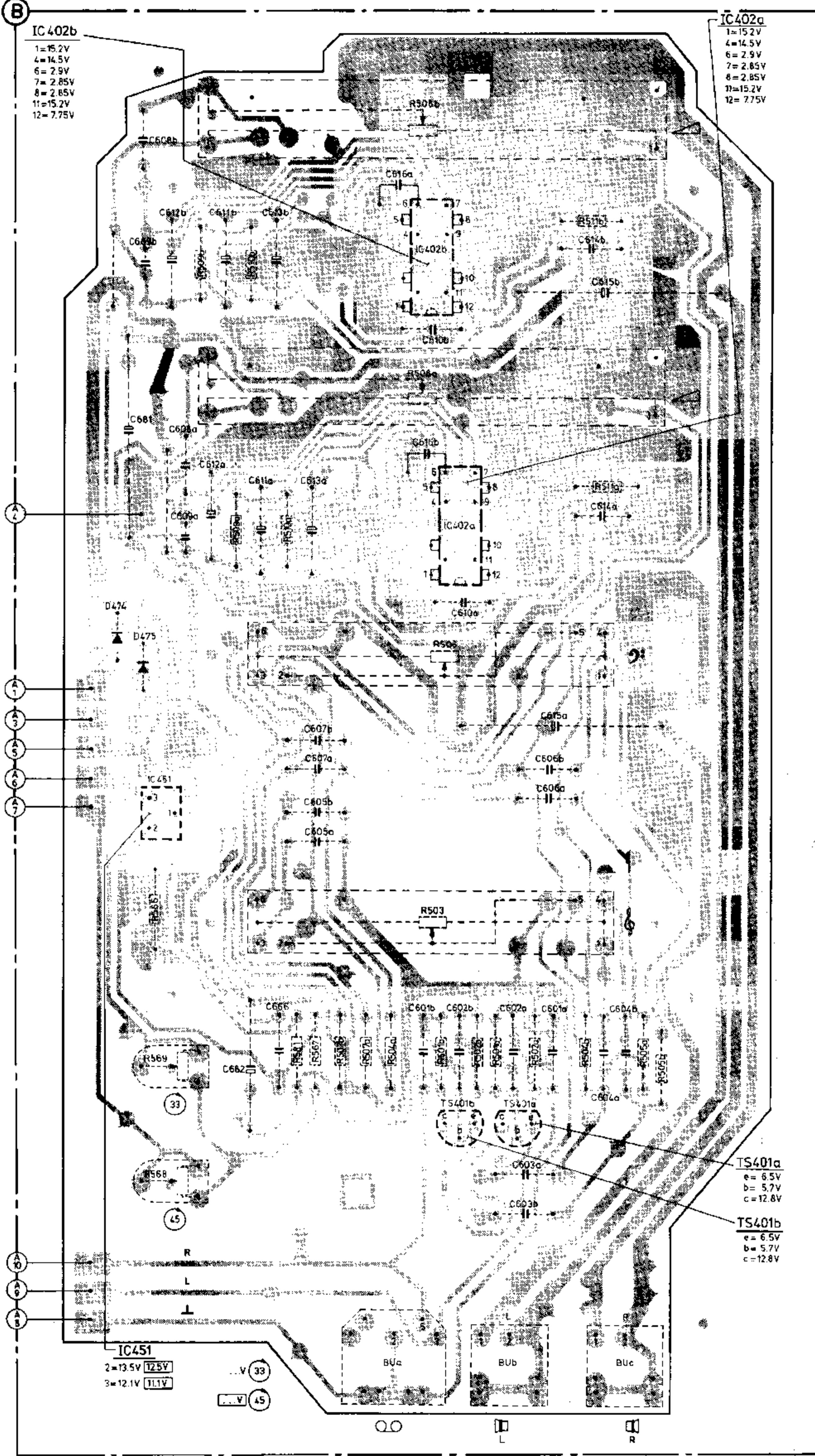
B7  
B6



B8  
B9  
B10



MISC	C	R
T468		R508b
	608b	
IC402b	616a 612b 611b 613b 614b 609b	511b 509b 510b
	610b	
	508a	
IC402a	611 606a 616b 612a 611a 613a 614a 609a	511a 509a 510a
D474	610a	
D475	608	
SK-K	615a 607b 607a 606b	
IC451	606a 605b 605a	
M458 SK-L	666 601b 602b 602a 601a 604b	581 587 507b 507a 504a 501b 502b 501a 502a 504b 505a 505b 569
TS401b TS401a	604a	
	603a	568
	603b	
BUa BUb BUc		
MISC	C	R



LIST OF MECHANICAL PARTS (Fig. 1)

51	4822 532 60624	72 + 69	M458	4822 361 20175	92	4822 325 80123
52	4822 532 51118	73	SK-K1	4822 290 80226	93	4822 532 51022
53 + 54	4822 528 10376	74	SK-K2	4822 290 80225	94	4822 402 60546
54	4822 492 40724	75		4822 402 60545	95	4822 462 40373
55	4822 402 60542	76	SK-L2	4822 290 80225	96	4822 402 60578
56	4822 532 51023	77	SK-L1	4822 290 80226	97	5322 502 10241
57	4822 402 60547	78		4822 462 40016	98	4822 402 60538
58	4822 535 91053	79		4822 444 20199	99	4822 535 60032
59	4822 402 60541	80		4822 492 51156	100	4822 402 30091
60	4822 532 10561	81		4822 492 40654	101	4822 520 10417
61	4822 532 50827	82		4822 410 22313	102	4822 411 50416
62	4822 528 70235	83	Treble	4822 450 30152	103	4822 411 50417
63	4822 528 80636	84	Bass	4822 450 30151	104	BU-A 4822 267 40209
64	4822 402 60548	85		4822 466 40121	106	BU-B 4822 267 30264
65	4822 492 30867	86	Vol.L	4822 450 30149	107	BU-C 4822 267 30264
66	4822 325 60177	87	Vol.R	4822 450 30148	108	4822 492 40652
67	4822 532 60626	88 + 85		4822 402 30089	111	4822 402 30097
68	4822 530 80187	89		4822 492 40653		
69	4822 402 60398	90		4822 251 70155		
71	T468 4822 146 50157	91		4822 460 20078		

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.

S

Säkerhetsbestämmelserna kräver att varje reparation skall utföras korrekt med hänsyn till ursprunglig placering av komponenter, ledningar etc. och med användning av föreskrivna reservdelar.

DK

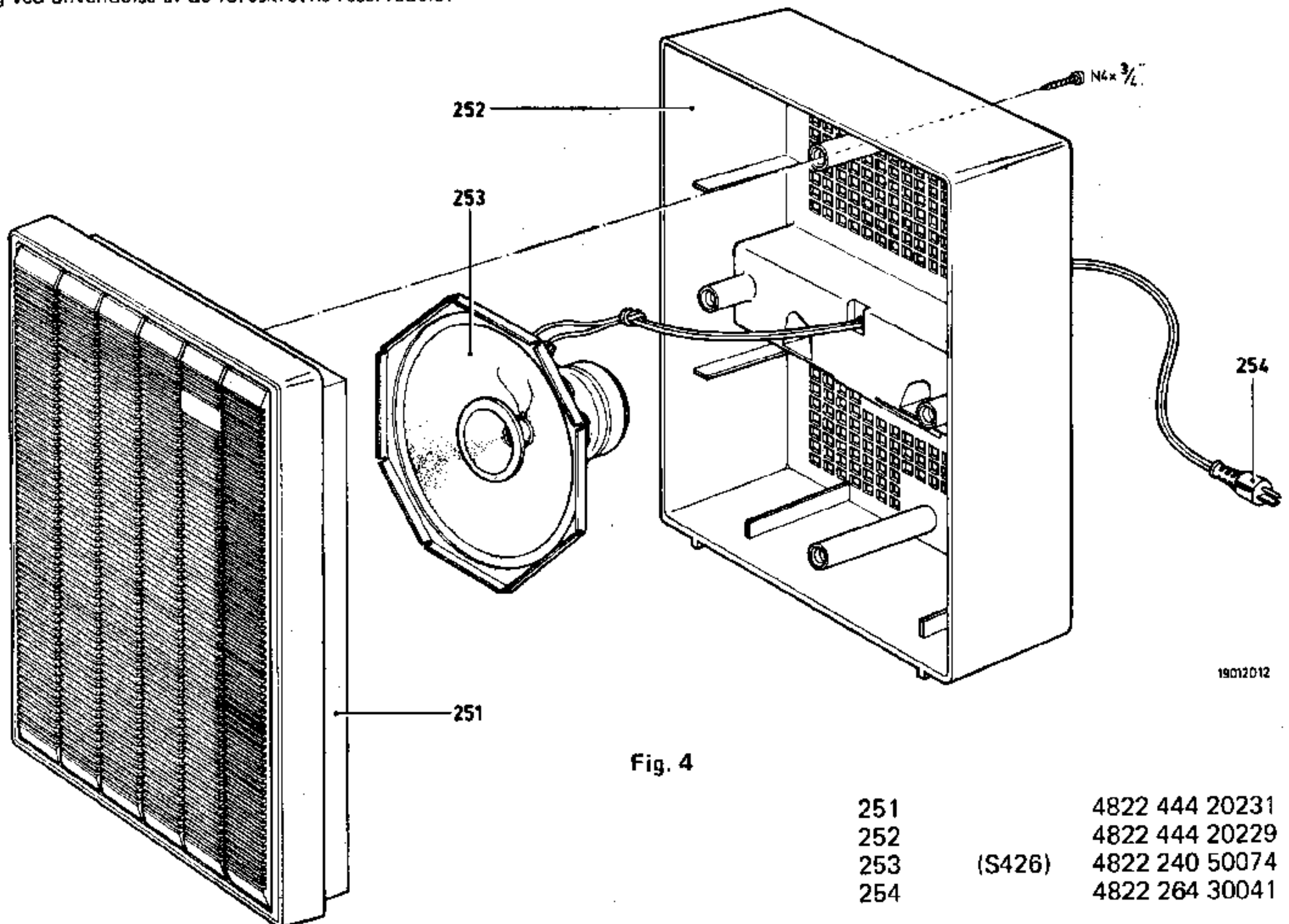
Myndighedernes sikkerheds- og radiostøjbestemmelser kræver, at enhver reparation skal udføres korrekt m.h.t. overholdelse af originalplacering og montering af komponenter, ledningsbundter, etc. og ved anvendelse af de foreskrevne reservedele.

N

Sikkerhetsbestemmelser kreves at apparatet blir gjenopprettet til original utførelse og at deler som er identiske med de som er spesifisert, blir benyttet.

SF

Korjatessa laitetta on turvallisuussyistä ehdottomasti eneteltävä oikein ja käytettävä tehtaan määräämiä alkuperäisvaraosia.



MISC	C	R
		508b
	608b	
	616a	
	613b	
	611b	
	612b	511b
	614b	
IC402b		510b
	509b	
	615b	
	610b	
		508a
	608a	
	681	
	616b	
	612a	
	613a	511a
	611a	
IC402a		510a
	609a	509a
		610c
D474 D475		506
	615a	
	607b	
	607a	
	606b	
IC451		606a
		605b
		605a
		566
		503
	604b	
	601a	
	602a	505a
	602b	504b
	601b	502a
	666	501a
	682	502b
		501b
		504a
		507a
		507b
TS401a TS401b		567
		581
		569
		505b
	603a	568
BUa BUb BUc		
MISC	C	R

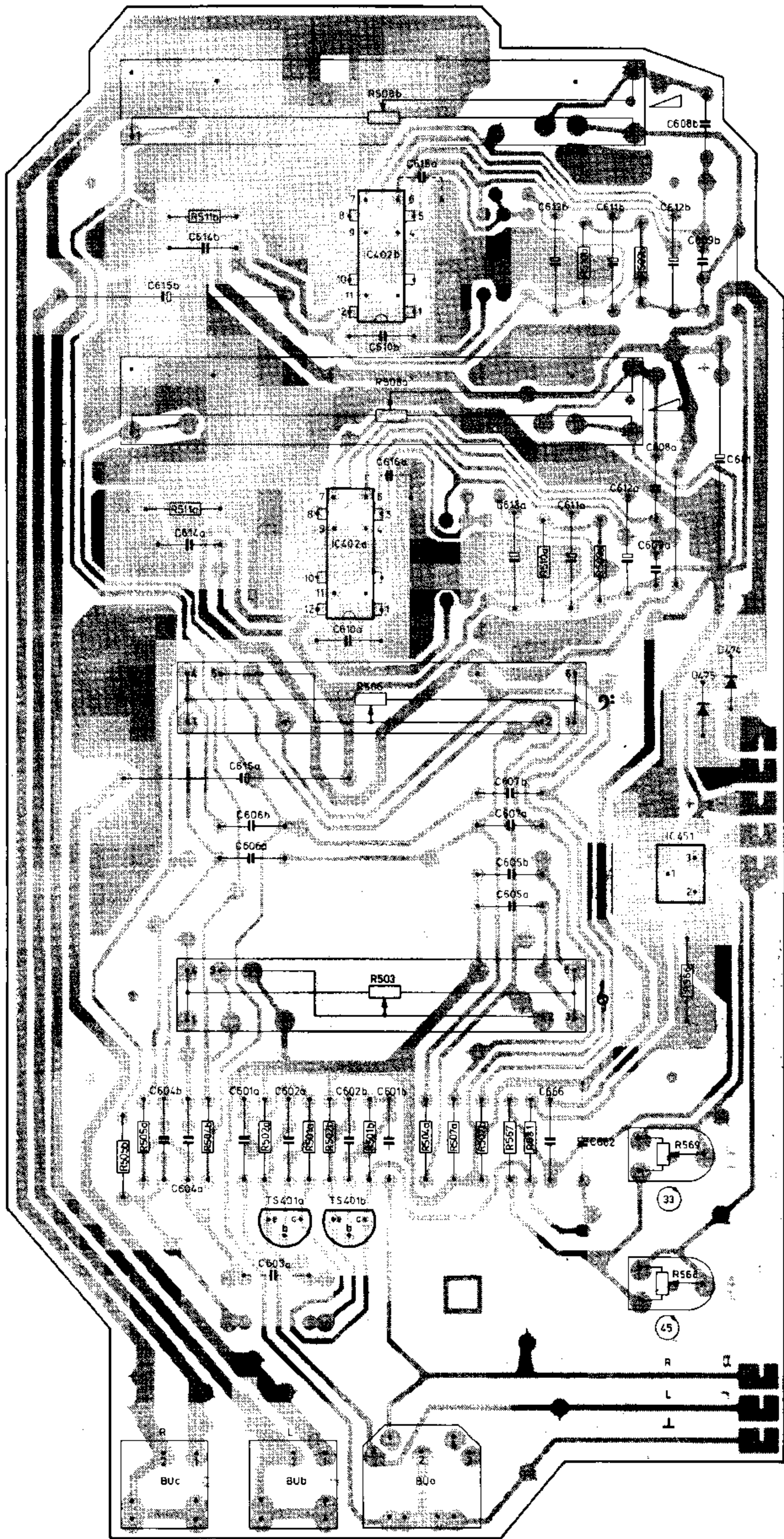
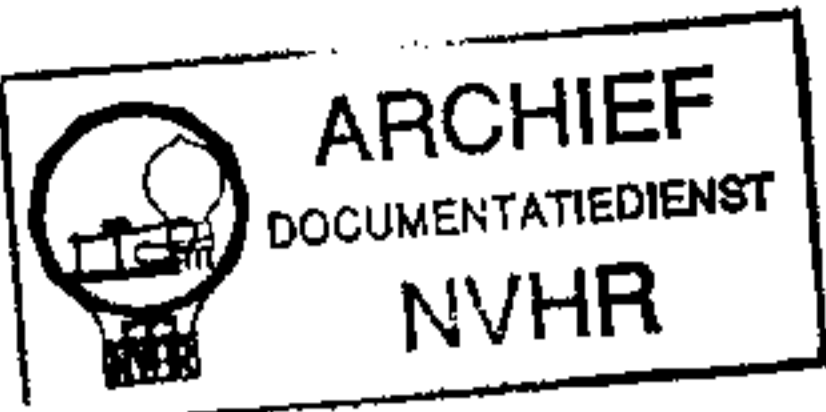


Fig. 5





# Service mededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN  
TECHNISCHE SERVICE

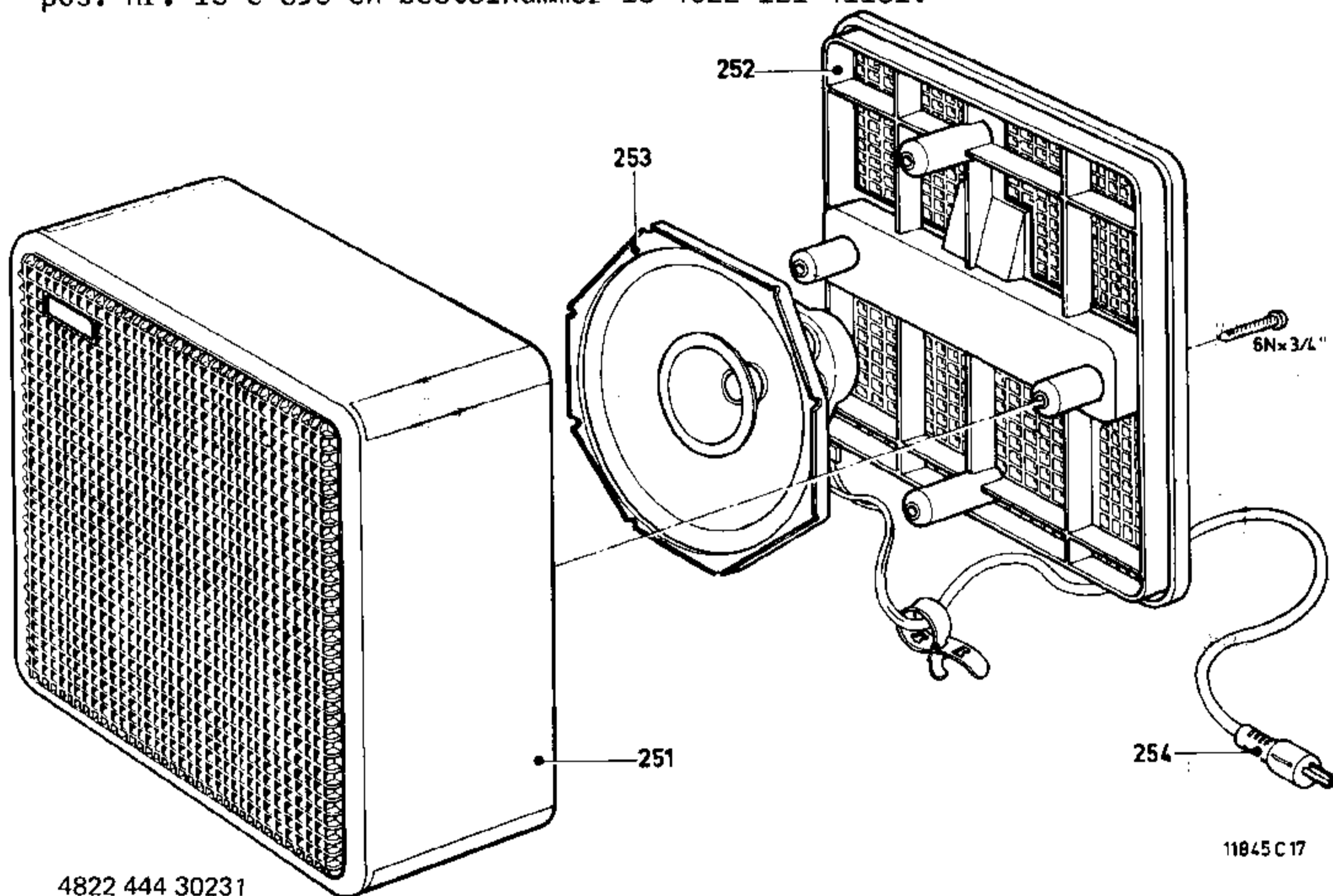
Met dank aan [www.radiomuseum-hengelo.nl](http://www.radiomuseum-hengelo.nl)

Ref. 336 PH

Type 22 AF 400

Datum juli 1980

- A. Apparaten met stempeling LF 01 zijn uitgevoerd met een andere versterker (zie fig. 1,2 en 3)
- B. Vanaf stempeling LF 02 - 005 zijn andere luidsprekerboxen toegepast. (zie fig. 4)
- C. Tijdens productie is parallel over M 458 een polyestercondensator van 100 nF - 250V geplaatst.  
pos. nr. is C 658 en bestelnummer is 4822 121 41161.

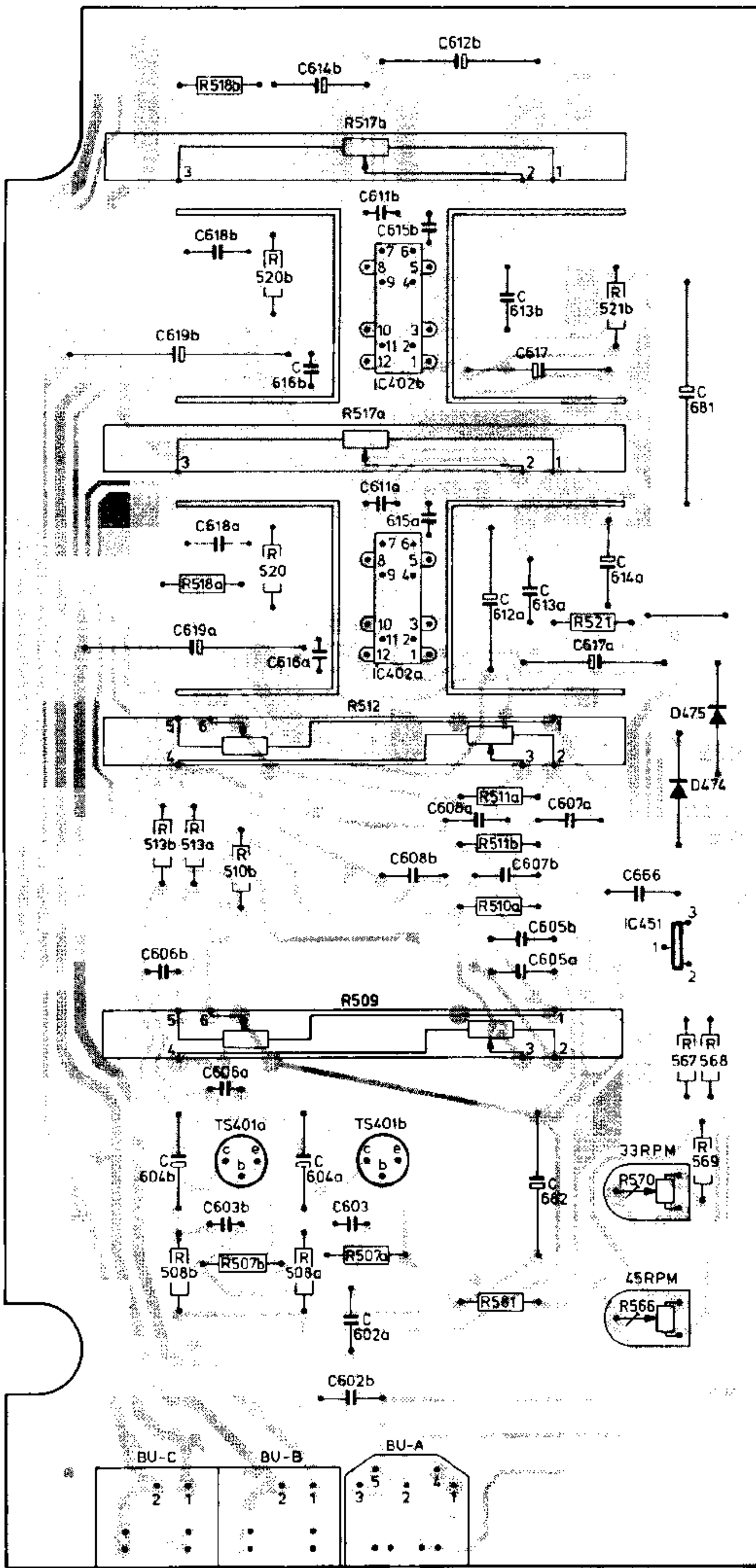


11845 C 17

251	4822 444 30231
252	4822 444 50263
253	4822 240 50074
254	4822 264 30041

Fig. 4





MISC	C	R
	612b	
	614b	518b
		517b
	611b	
	615b	
	618b	520b
		521b
	613b	
	619b	
	617	
IC402b	616b	517a
	681	
	611a	
	615a	
	618a	
	614a	520
		518a
	613a	
	612a	521
	619a	
	617a	
	616a	
IC402a		
D475		512
D474		
	607a	511a
	608a	
		511b
	608b	513a
	607b	513b
	666	510b
		510a
IC451	605b	
	606b	
	605a	
		509b
		567
	606	568
TS401b		
TS401a		
	604a	569
	604b	570
	682	
	603	507a
	603b	507b
		508a
		508b
		581
		566
	602a	
	602b	
BU-A		
BU-B		
BU-C		

20696C12

Fig. 1

MISC.	BU-A		TS401a										IC 402a				
MISC.			TS401b										IC 402b				
C			602a	603a	604a		608a	607a	606a	605a		611a	613a	612a	614a	615a	
C			602b	603b	604b		608b	607b	606b	605b		611b	613b	612b	614b	615b	
R				507a	508a		512	513a	511a	510a		509		517a		518a	521a
R				507b	508b			513b	511b	510b				517b		518b	521b

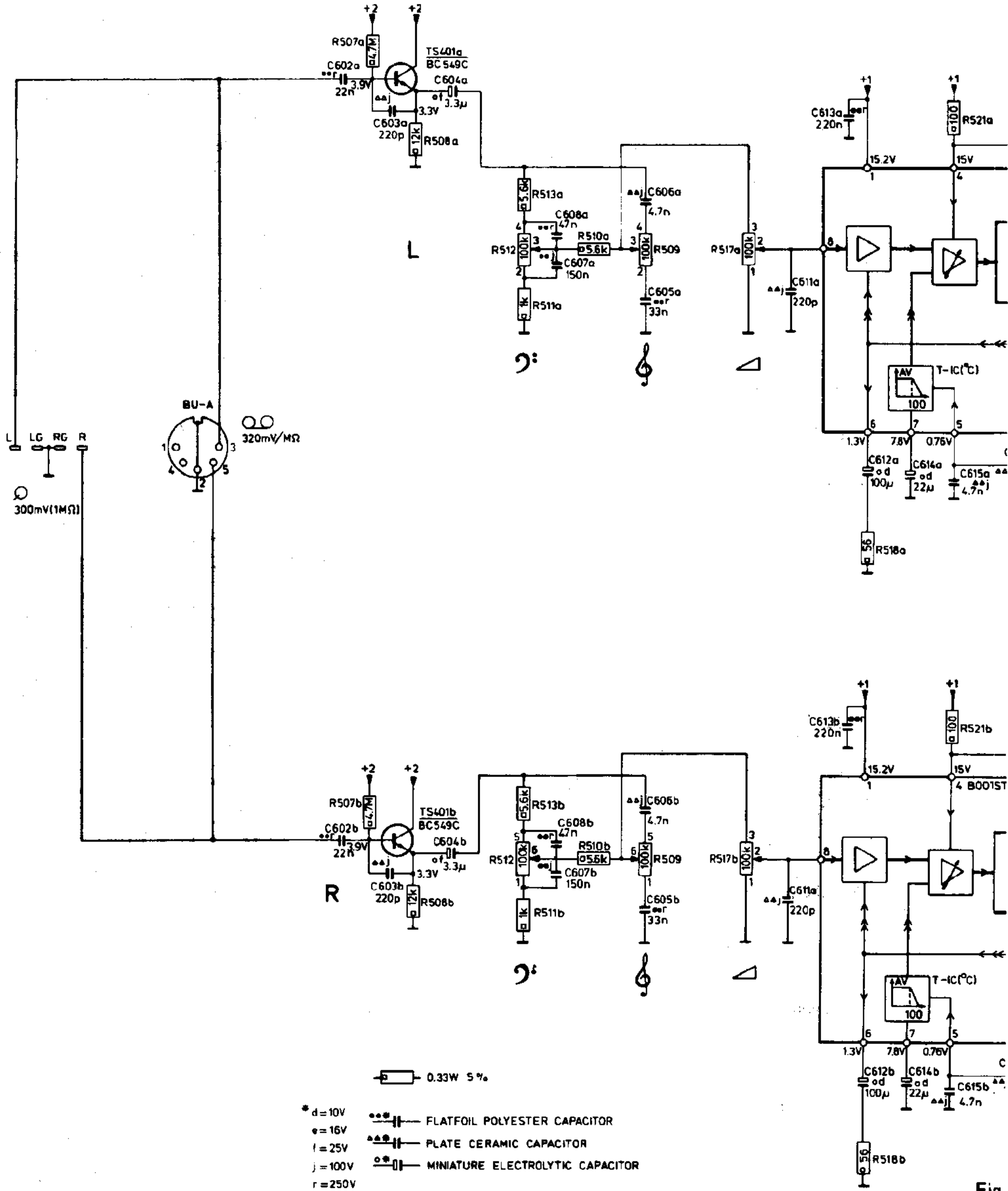
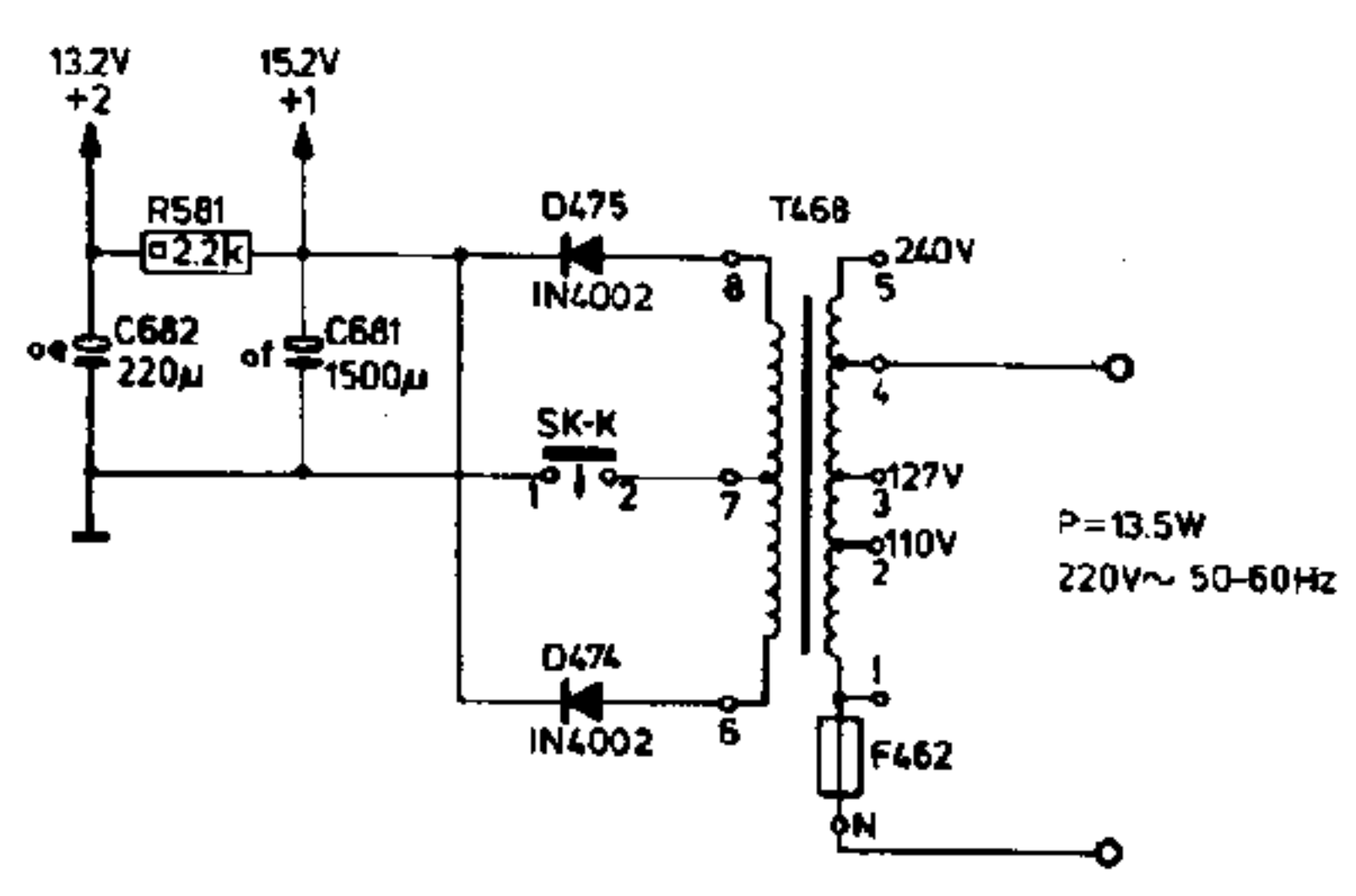
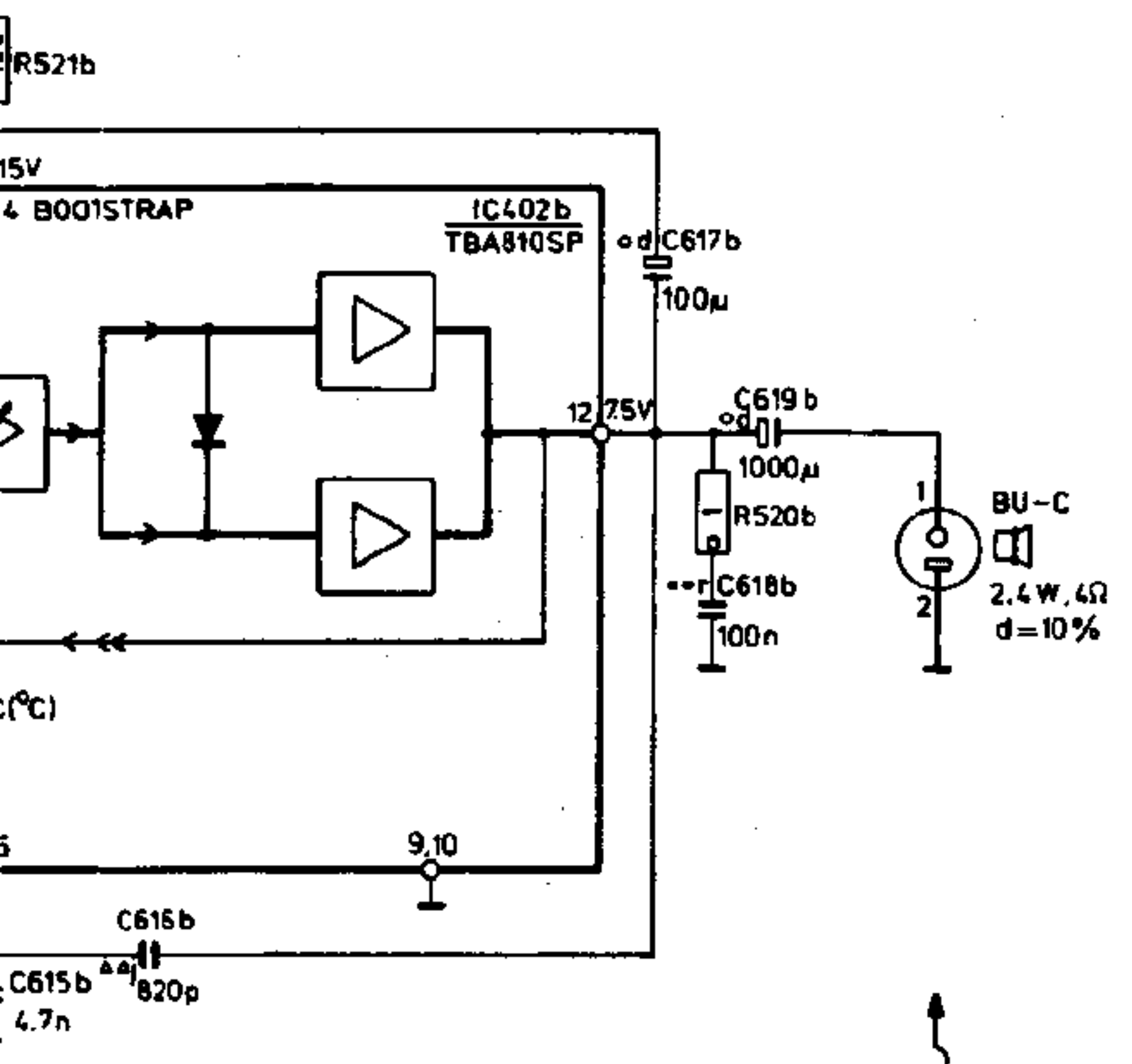
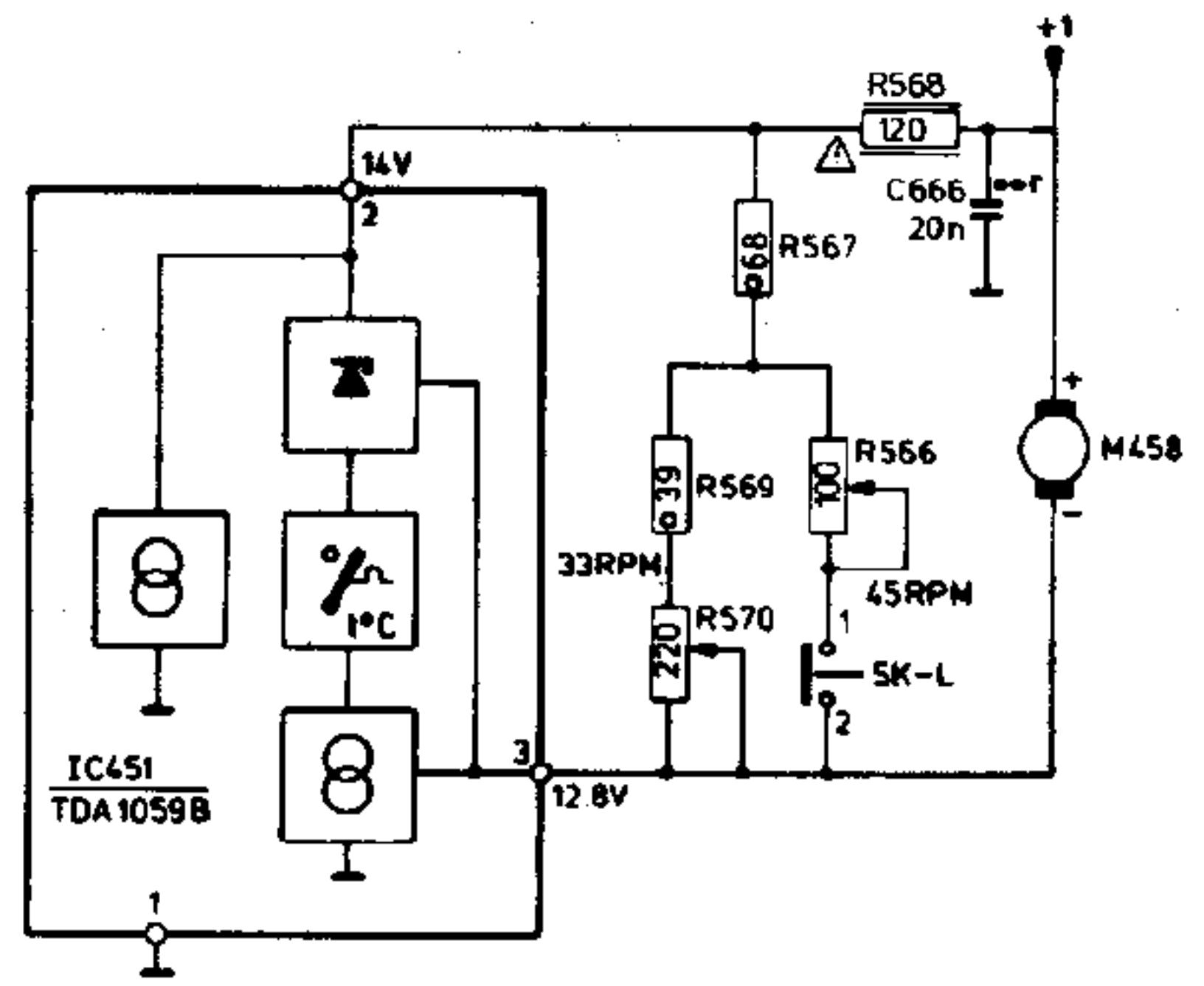
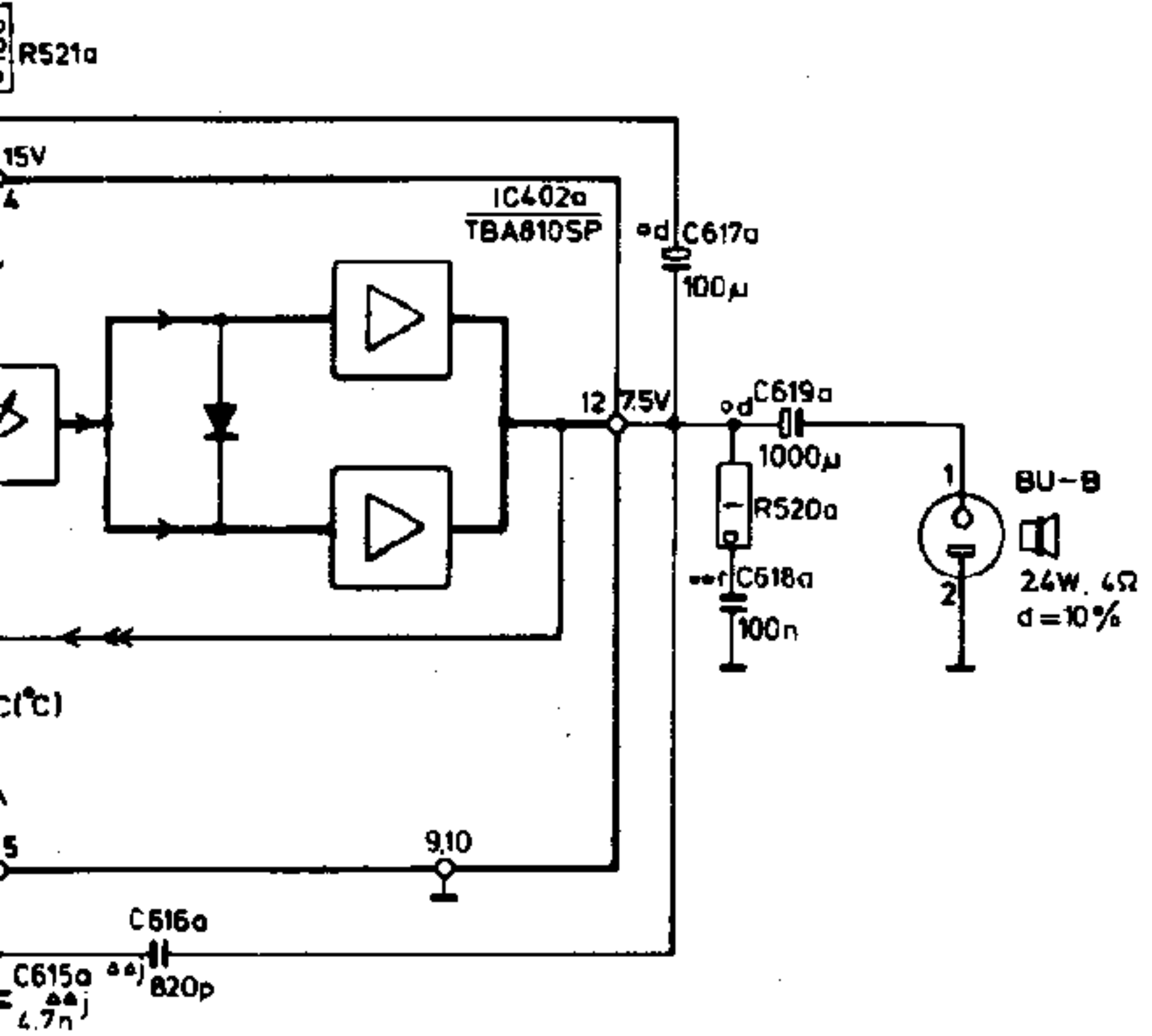


Fig. 1

-TS-IC-																	
TS401a,b	BC549C	5322	130	44246	R509	100K (lin)	4822	105	10136	SK-K1-L1							
IC402a,b	TBA810SP	4822	209	80324	R512	100K (lin)	4822	105	10136	SK-K2-L2							
IC451	TDA1059B	4822	209	80361	R517a,b	100K (log)	4822	105	10302								
-D-					R566	100 Ω	4822	100	10075								
D474,475	IN4002	5322	130	30684	R568	120 Ω ± 2%	5322	116	54426	-Miscellaneous-Divers-							
					R570	220 Ω	4822	100	10019	BU-A							
					-S-					BU-B.C.							
					S426a,b	AD7080 · 4 Ω	4822	240	50074	F462							
										T468							
										M458							

IC 402a	BU-B	IC451	SK-L	M458			
IC 402b	BU-C		D474, 475	SK-K	T468	F462	
615a	616a	617a	618a	619a			
615b	616b	617b	618b	619b	682	681	666
521a		520a			569, 570, 567, 566, 568		
521b		520b			561		



SK-K	SK-K+SK-L
33RPM	45 RPM

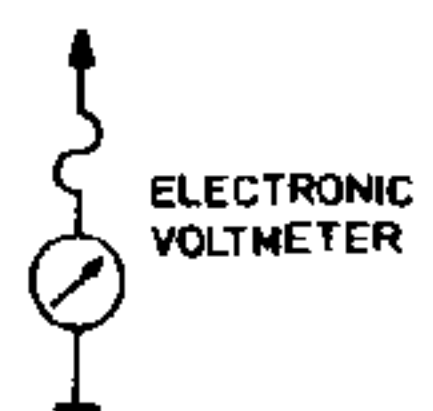
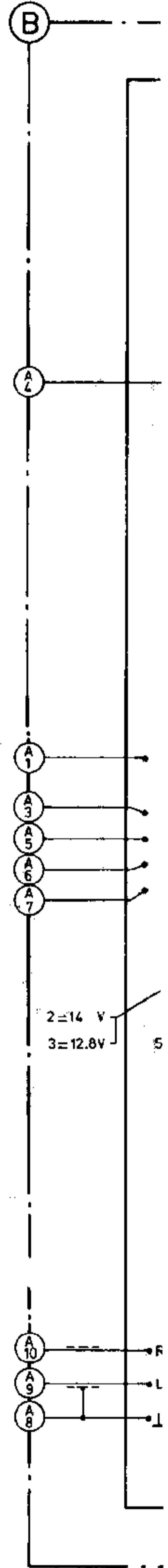
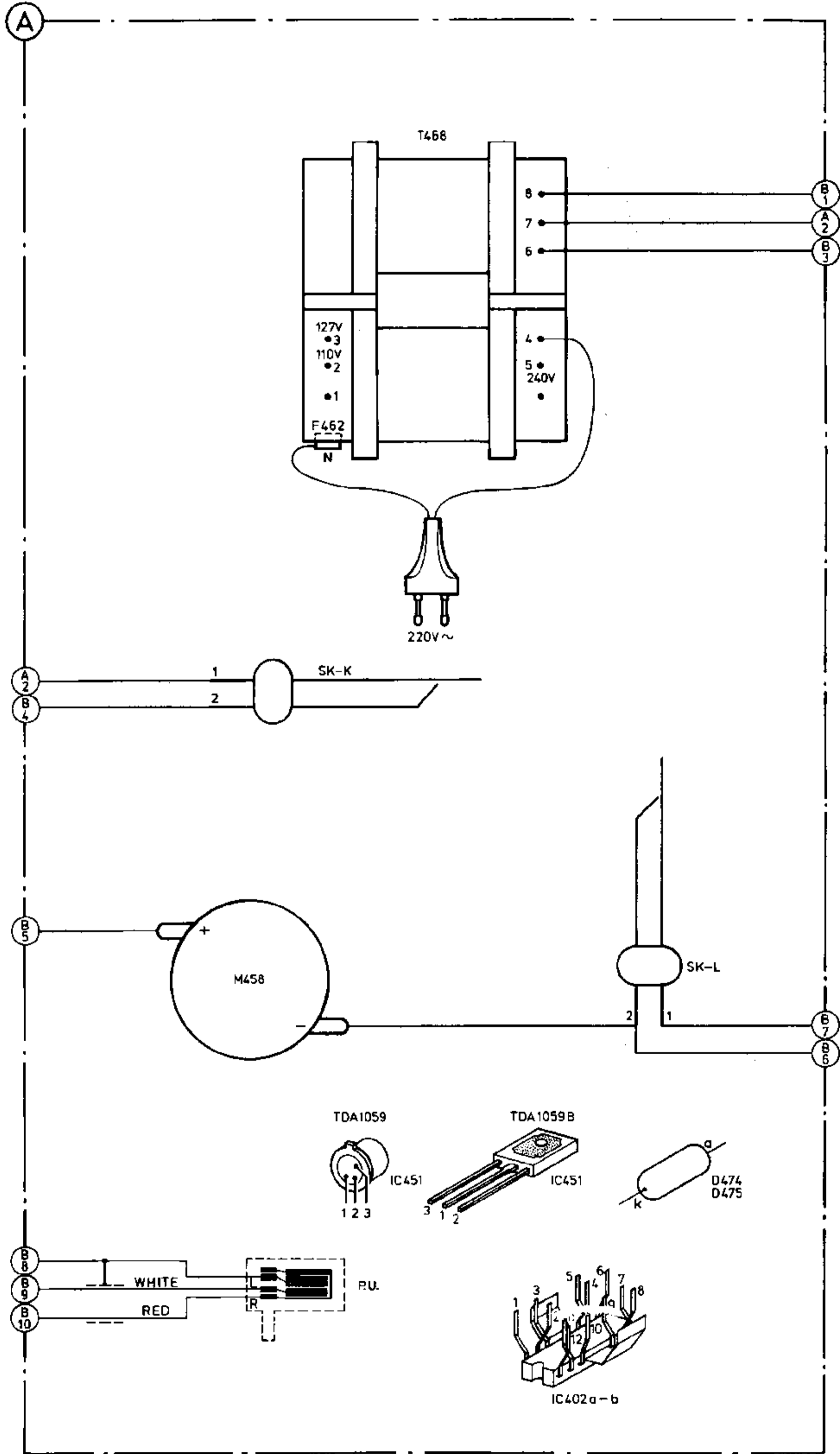
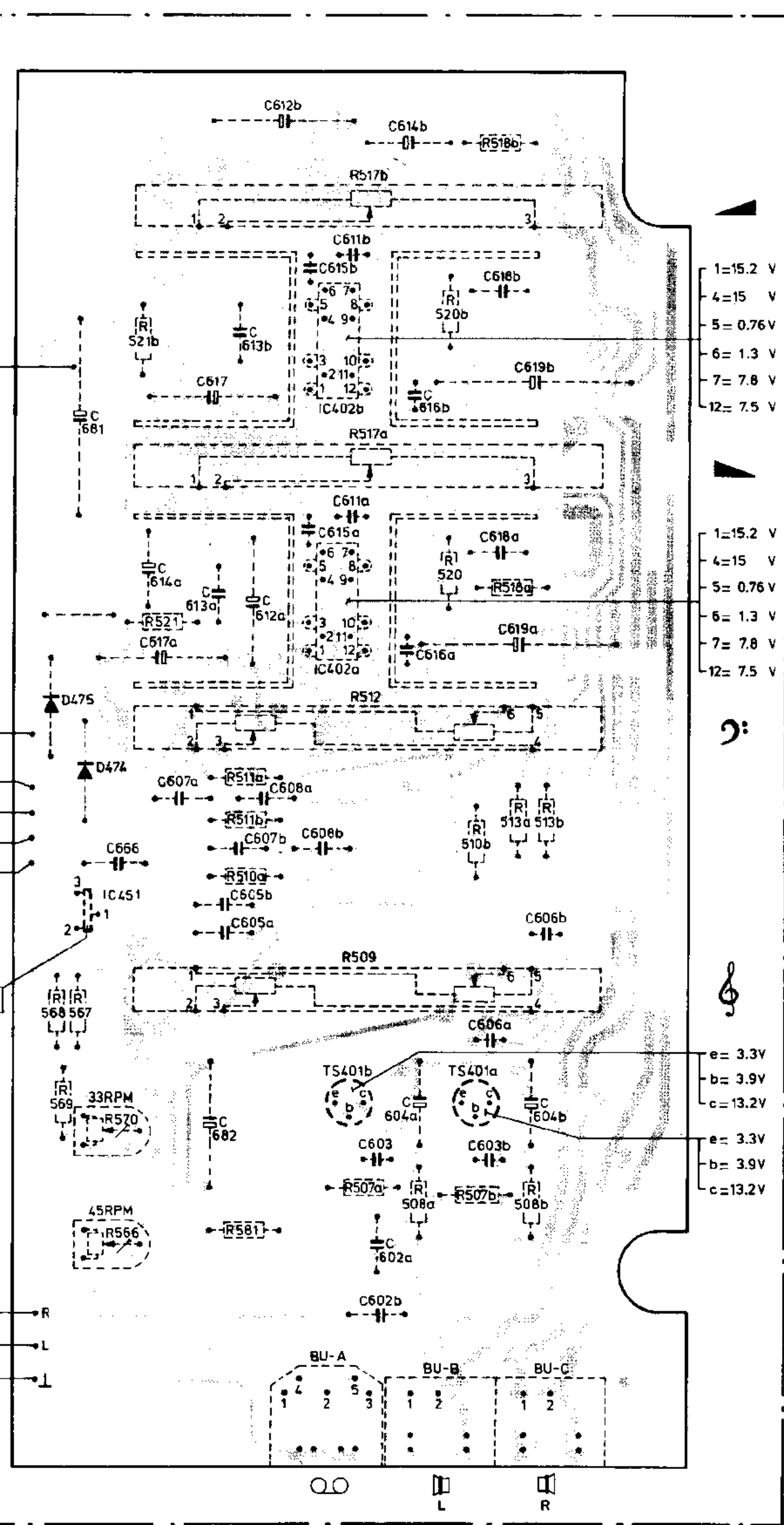


Fig. 2

20694E12

4822 290 80225
4822 290 80226
4822 267 40209
4822 267 30264
4822 252 20007
4822 146 50157
4822 361 30101





MISC	C	R
T468	612b 614b	518b 517b
	611b 615b 618b	520b
IC402b	613b 619b 617	521b
	616b 681	517a
F462	611a 615a 618a	
	614a	520 518a
IC402a	613a 612a 619a 617a 616a	521
D475 SK-K		512
D474	607a 608a	511a
		511b 513a 513b 510b
IC451	605b 606b 605a	510a
		509
SK-L M450	606a	567 568
TS401b TS401a	604a 604b	569 570
	582 603 603b	507a 507b 508a 508b 581 566
	602a	
	602b	
BU-A BU-B BU-C		

Fig. 3

# Service mededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN  
TECHNISCHE SERVICE

Ref. 383 PH

Type 22 AF 400

Datum februari 1981

Vanaf stempeling LF 04 - 045 is een veer (4822 492 40889) voor de dwarskrachtcompensatie gemonteerd tussen beugel 98 en montageplaat 501.

Beugel 98 is daartoe voorzien van een extra gat.

Het bestelnummer van deze beugel is niet gewijzigd.

A 80 - 430



# PHILIPS

# Service mededeling

PHILIPS NEDERLAND B.V. - EINDHOVEN  
TECHNISCHE SERVICE

Ref. 401 PH

Type 22 AF 400

Datum maart 1981

Vanaf stempeling LF 04 - 044 wordt een andere motor met motorbeugel pos. 72 (M 458) toegepast, het bestelnummer van de motor luidt: 4822 361 20205.

Tevens is een keramische condensator van 220 pF, 50 V  $\pm$  10% met bestelnummer 4822 122 10172 aan de motor toegevoegd.

De "oude" motor blijft leverbaar.

A 81 - 402



# PHILIPS