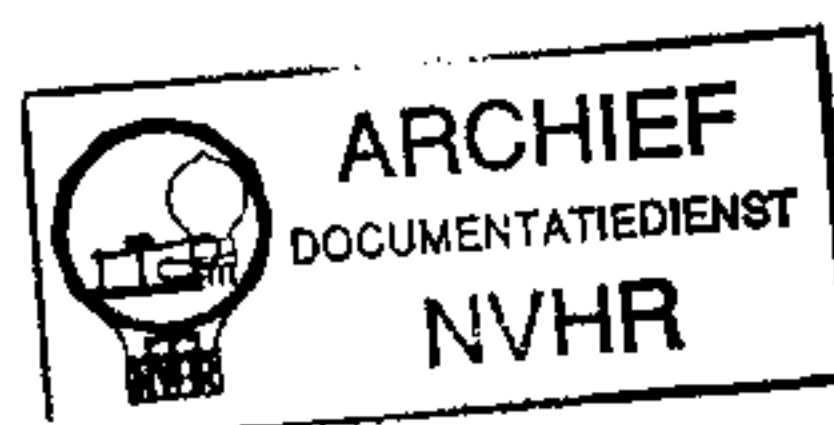


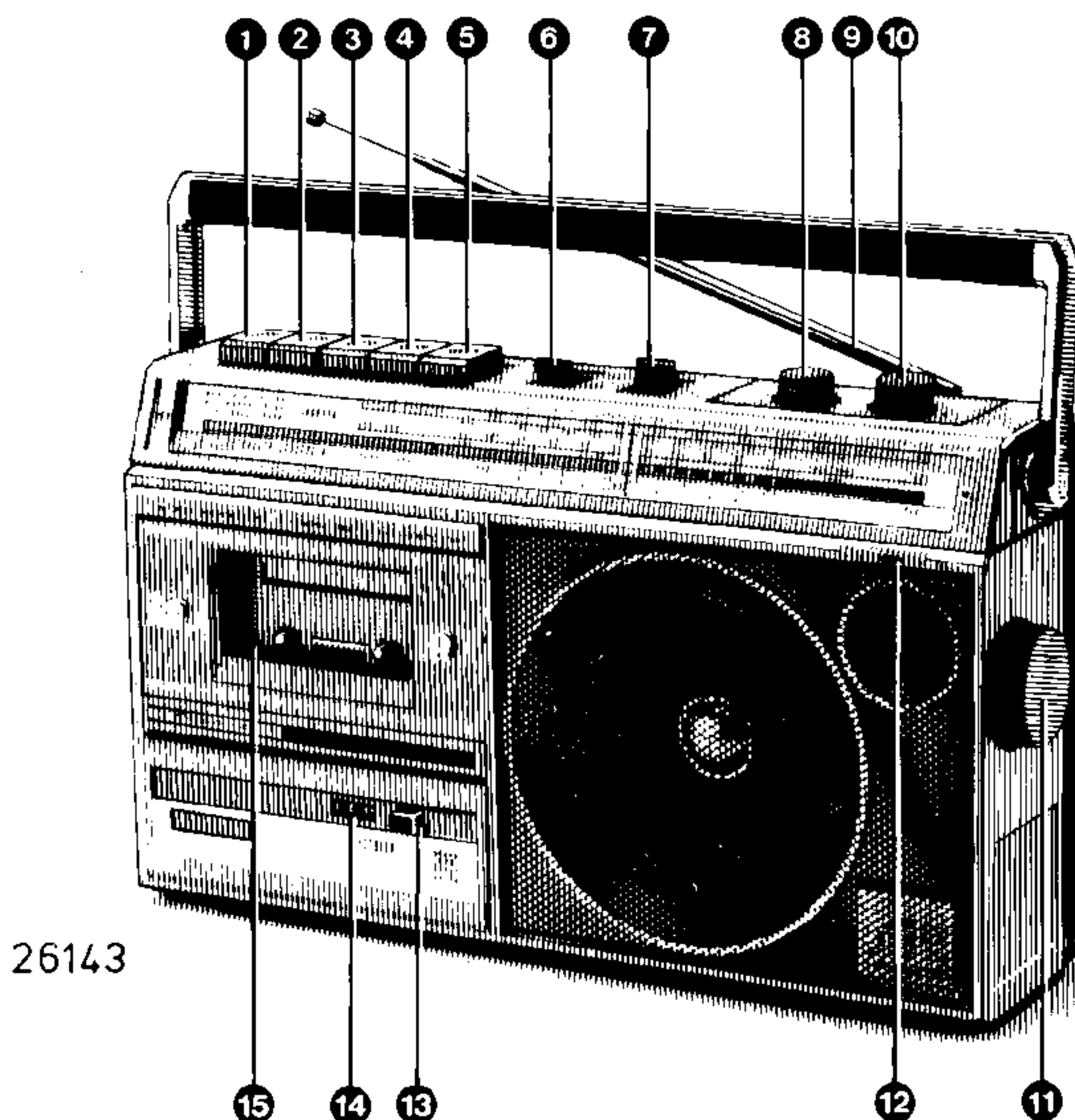
Service
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Ned. Ver. v. Historie v/d Radio



Service Manual



26143

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



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

Subject to modification

4822 725 14908

Printed in The Netherlands

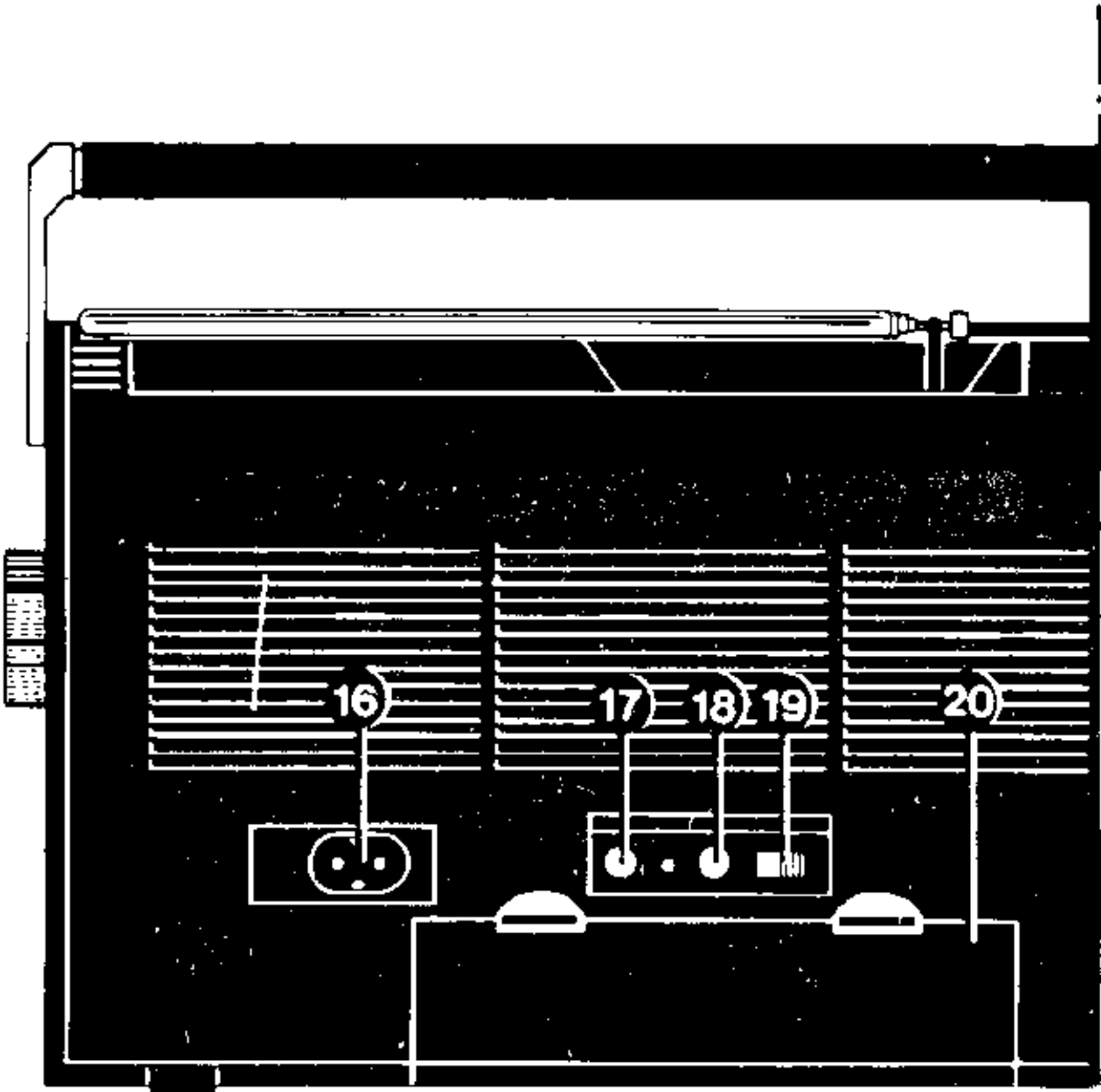
PHILIPS

CONNECTION AND CONTROLS

1			11	2000	
2	SK-E		12	4001	
3	SK-E		13	Counter reset	
4	SK-E		15	Cass comp.	
5	SK-E, SK-B		16	SK-F	
6	SK-C		17	BU-1	
7	SK-A	MW-SW-FM	18	BU-2	
8	3515		19	SK-D	
10	3518		20	Battery door	

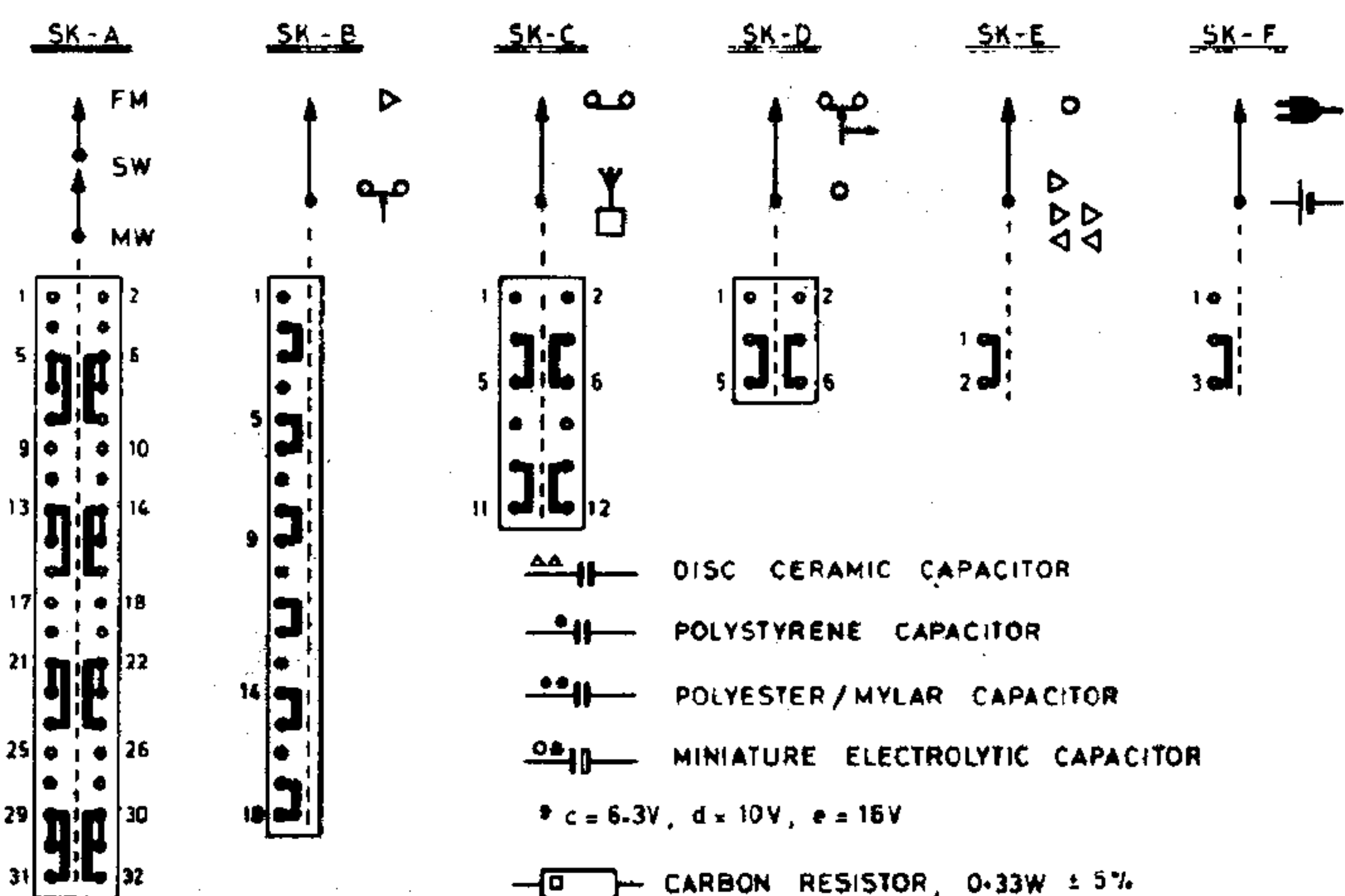
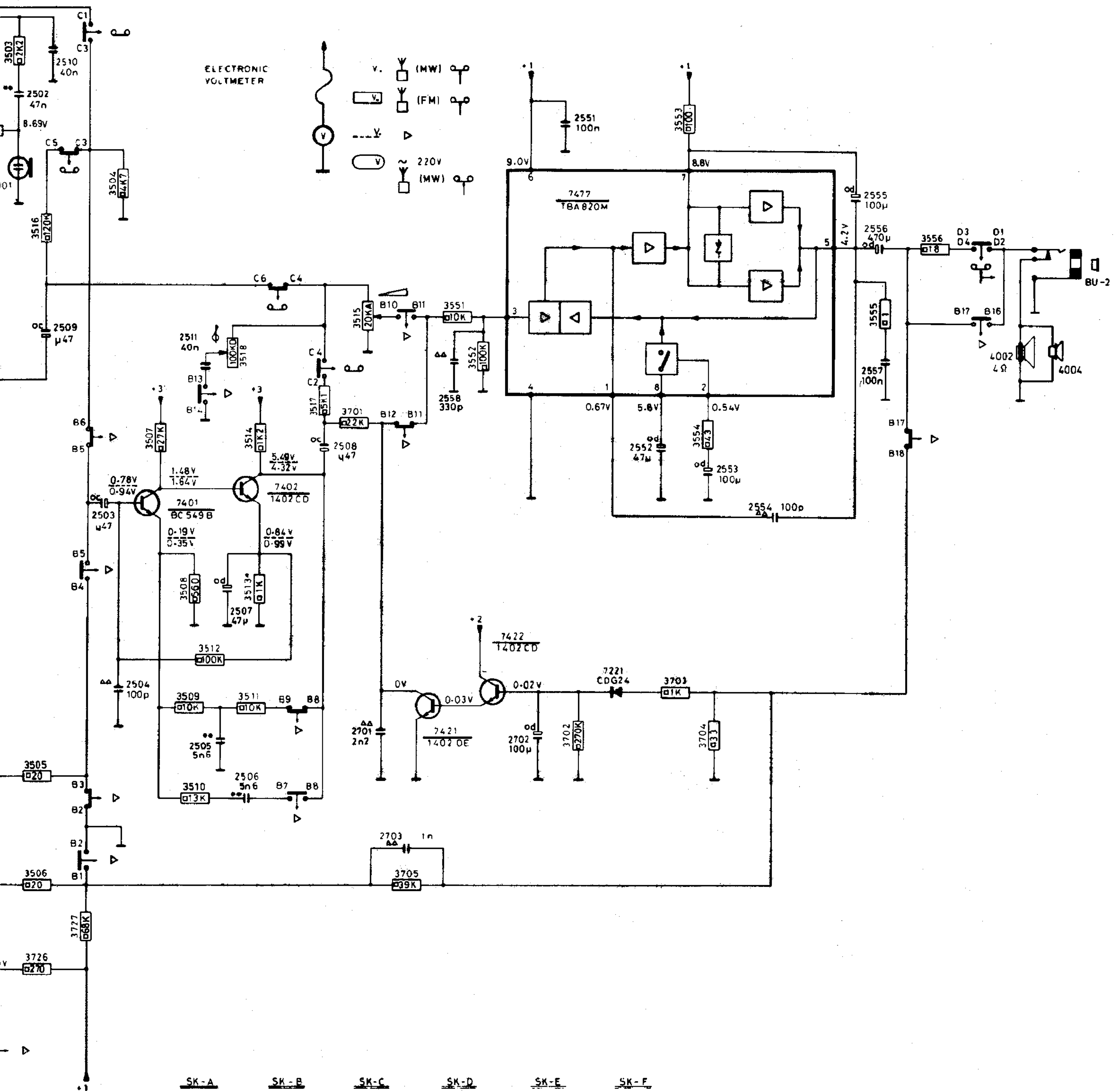
SPECIFICATIONS

	9V (6 x R20)	Signal to noise ratio	$\geq 35\text{dB}$ (TC-R)
	110-127V/ 50Hz	Frequency range (within 10dB)	125-6300Hz
	1400mW $\pm$ 1dB	AM-IF	/00-468KHz
	1000mW $\pm$ 1dB 4ohm (d=10%)	FM-IF	/01/10-455KHz
Tape speed	4.76cm/sec $\pm$ 3%	MW	10.7MHz
Wow and flutter $\leq$ 0.4%		SW	520-1605KHz
		FM	3.9-11.975MHz
			87.5-108MHz



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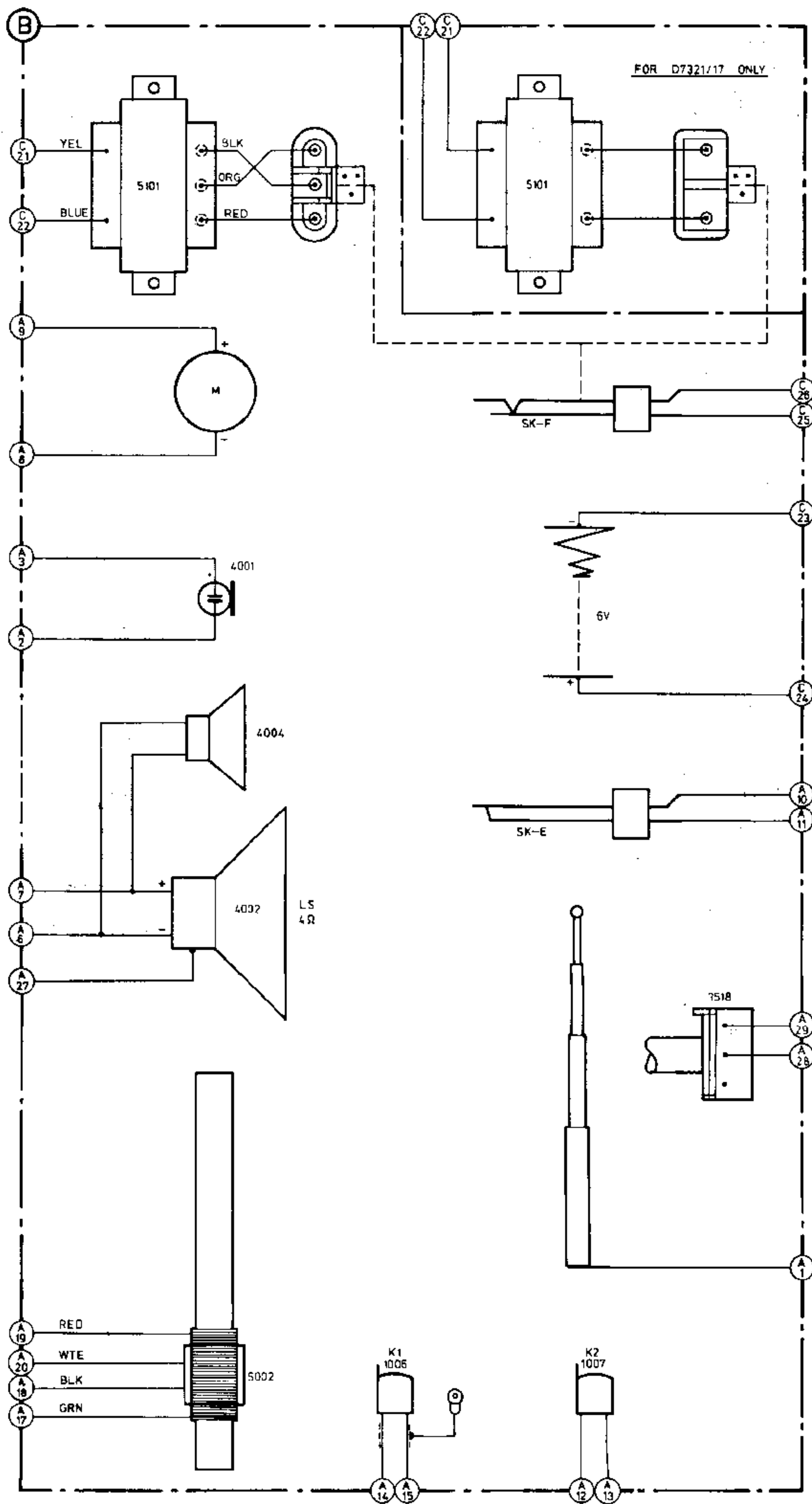
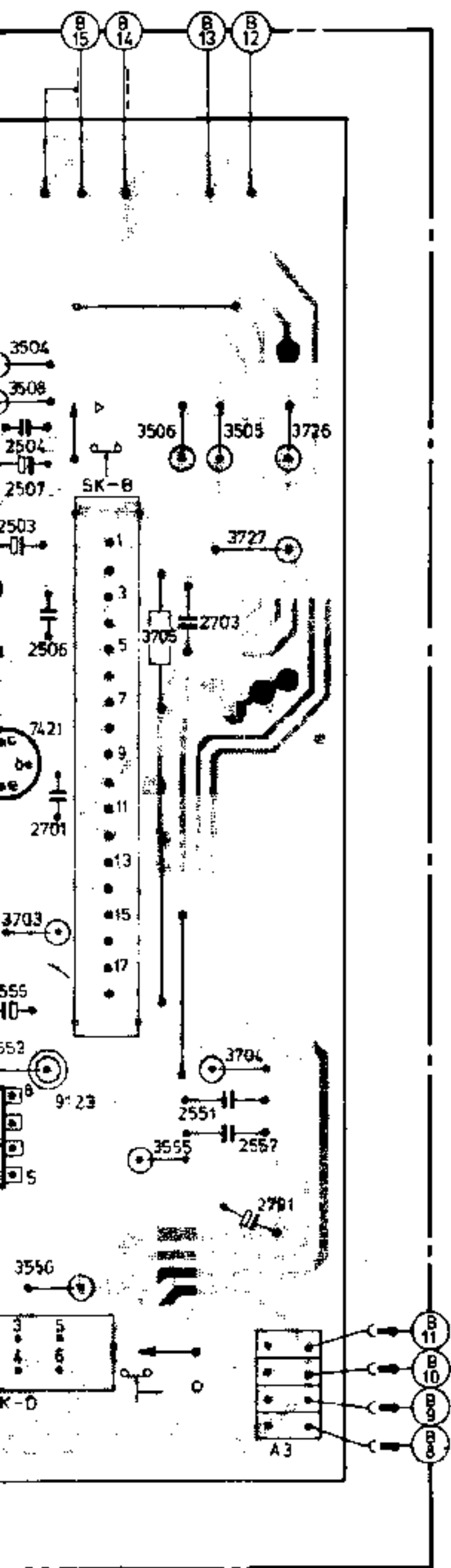
001	7401	7402	7421	7422	7477	7221	4002 BU-2
502	2510	2503	2504	2505	2507	2506	4004
509	2511			2508	2703	2558	
				2701		2702	2551
							2552
							2553
							2554
							2555
							2556
							2557
3503	3516	3505	3726	3504	3507	3508	3510
3108	3506	3727		3509	3512	3513	3518
					3701		
							3553
							3554
							3555
							3556
							3703
							3704



25086
11-01-82

- DISC CERAMIC CAPACITOR
- POLYSTYRENE CAPACITOR
- POLYESTER/MYLAR CAPACITOR
- MINIATURE ELECTROLYTIC CAPACITOR
- * c = 6.3V, d = 10V, e = 16V
- CARBON RESISTOR, 0.33W ± 5%

421.5K-D	SK-B	5101	4001	5002	4004	1006K1	SK-FE	1007K2
9123				4002				
+2507.2701	2703							
+2556	2791 2557 2551							
554-3514	3705	3727.3726						
+3556	3703	3704						



GB DISASSEMBLY

Cabinet, Fig. 3

- A. Remove the volume and tone knobs 402 and unscrew 5 screws from the rear cabinet 407.
- B. Place set on its front cabinet 433 and pull rear cabinet 407 carefully upwards at the bottom side before disconnecting power-supply wires from connector and aerial wire from tag.
- C. Detach the main pcb/deck unit by removing the 7 screws A, Fig. 1.
- D. Remove the two screws B, Fig. 1 if the tape deck is to be tilted.
- E. Unscrew 4 screws, remove tuning drum 419 and disengage pointer 421 before removing frame 501.
- F. The handle 437 can be detached by removing the fastener 439.
- G. The cassette door 441 can be removed by pressing the lugs of the door slightly inwards in the open position of the door.

Tape deck, Fig. 2

- H. *Remove pressure roller 68*
Remove plug 67, compression spring 69 and torsion spring 508.
- I. *Removing the head support bracket 52*
Remove tension spring 54.
Remove pressure roller 68.
By pushing the head support bracket slightly backwards it can be removed.
Remark. Mind the 2 balls 58, they now lie loose.
- J. *Removing the buttons 446, Fig. 3*
Bend the bracket retaining the relevant button upwards (see upper side of tape deck) and bend the button backwards.
For the recording button first remove the leaf spring ... by pushing it downwards.
- K. *Removing the buttons 59, 62, 63, 64, 66 (Fig. 2)*
Remove pressure roller 68.
Remove head support bracket 52.
Remove locking bracket 53 and switch bracket 56.
By pressing the locking tag of the relevant button slightly inwards this button is released and can be pushed from the chassis.
When doing this, mind pressure spring 61.
- L. *Removing switch SKE (111)*
This switch consists of 2 separate flat springs, directly fitted in the chassis.
Unsolder the two connecting wires and properly clean the soldering spots on the switch.
Remove circlip 87 so that reel disc 92 can be pushed upwards.
Remove lever 509 and unfasten the connection between brackets 91 and 93.
Unbend the locking tags of switch springs 111.
From the upper side the springs can be removed from the chassis.

ADJUSTMENTS AND CHECKS

Height of the recording/playback head K1, Fig. 2

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

Azimuth adjustment recording/playback head K1, Fig. 2

The azimuth is adjustable with socket screw 71. For this adjustment the testcassette SBC133 (4822 397 30039); part with 8 kHz may be used. Set the volume control to the mid position. If necessary, readjust volume control so that the output voltage is well readable. In start position the 8 kHz signal must be adjusted for maximum output voltage at BU-2 (tape).

Fast-wind friction 92

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

The measuring value must be:

- Fast-wind side 40-60 gcm. Permissible variation in between these values 10 gcm.
- Rewind side 4-8 gcm.
- The friction force is determined by the sloping up sides and the flat springs, Figs. 2A and B.
- The force is adjustable by catching the flat spring behind another stud.

Tape speed

With wow-and-flutter meter

- Connect the set to a wow-and-flutter meter (BU-2).
- Set in playback position, using the SBC133 testcassette and the part with 3150 Hz.
- Adjust the speed with the preset potentiometer (see hole at underside motor).
- Maximum permissible deviation $\pm 3\%$.
- Besides, the wow-and-flutter value can be read with this meter. It may be 0.4% maximum.

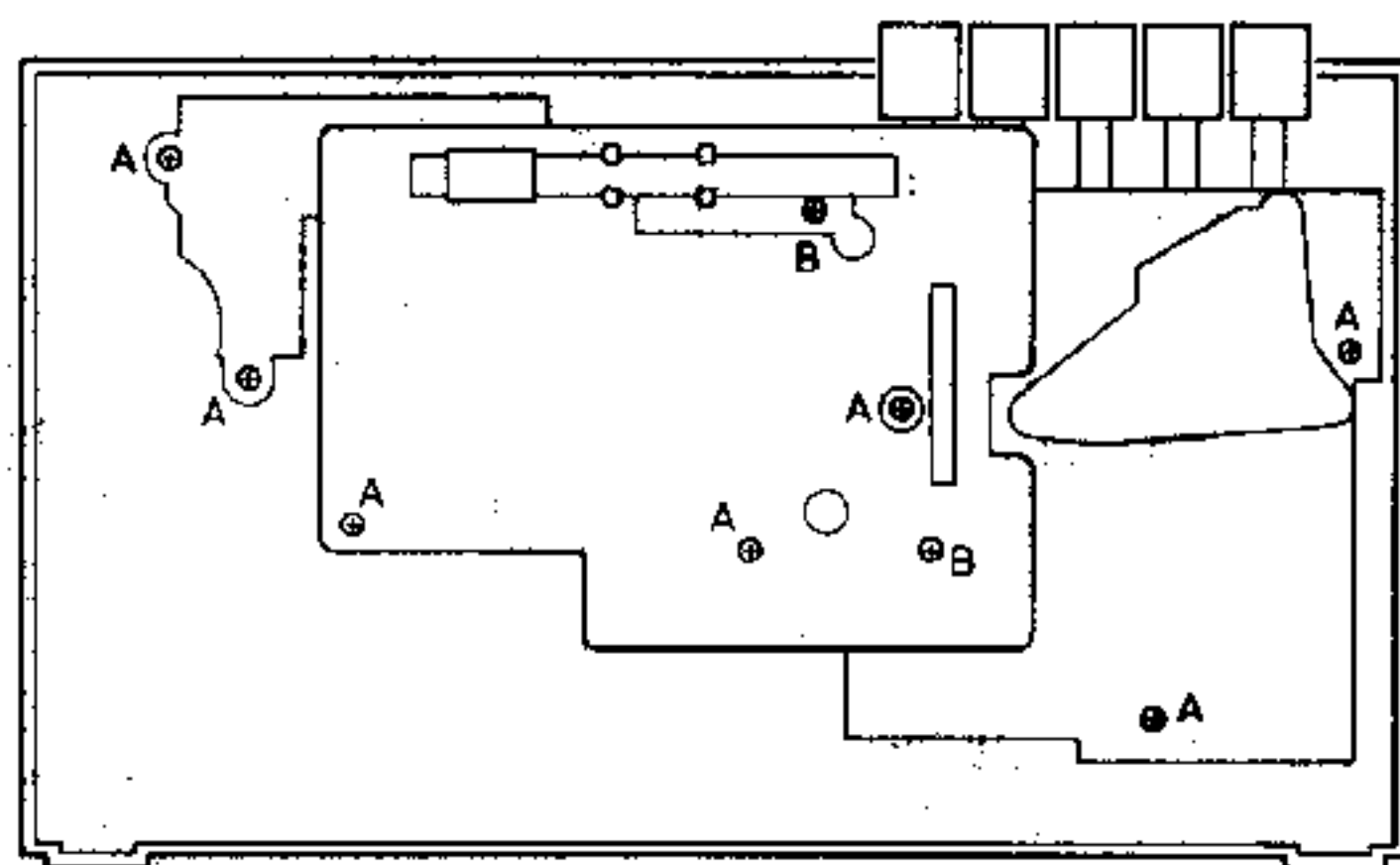
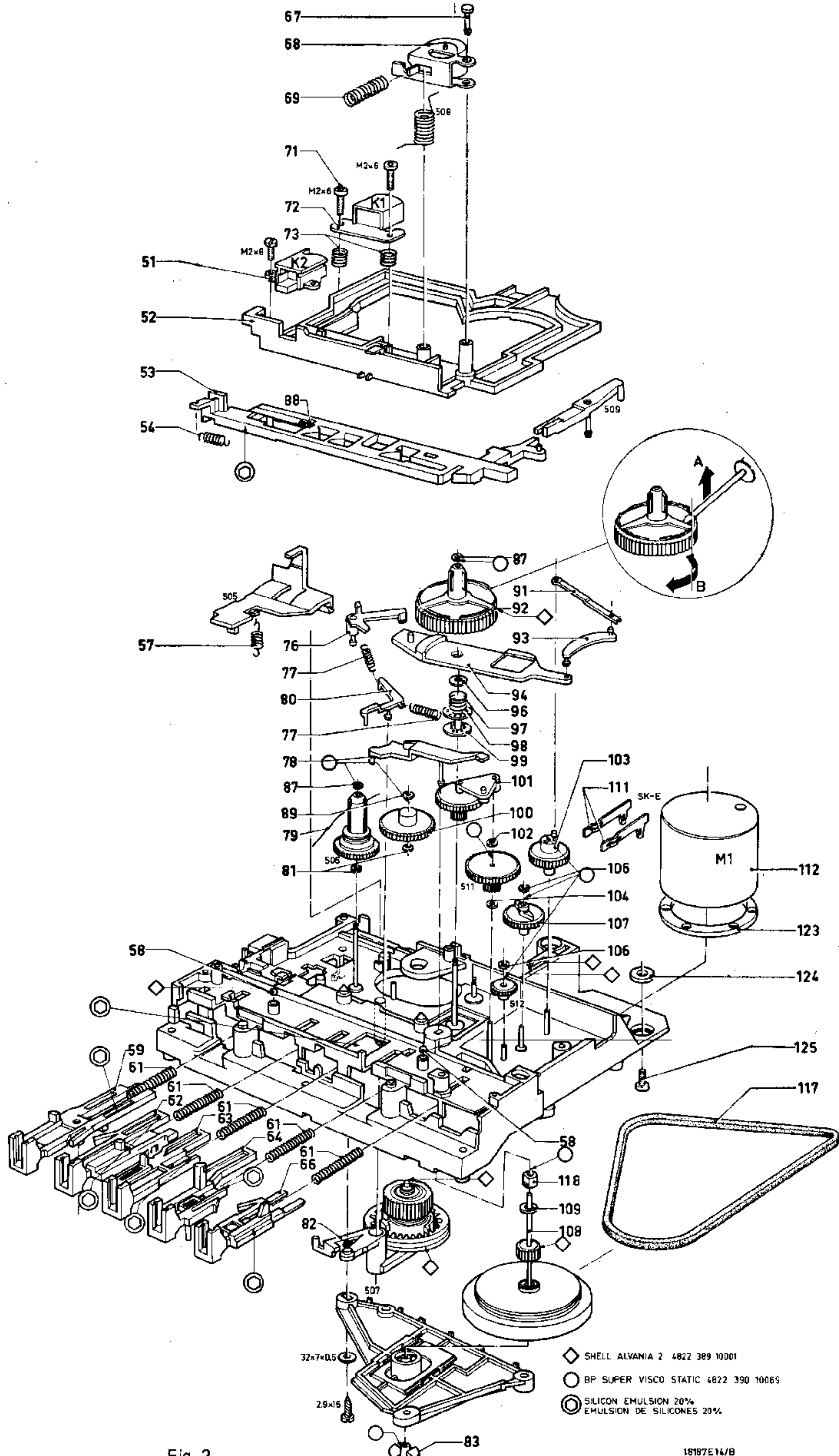


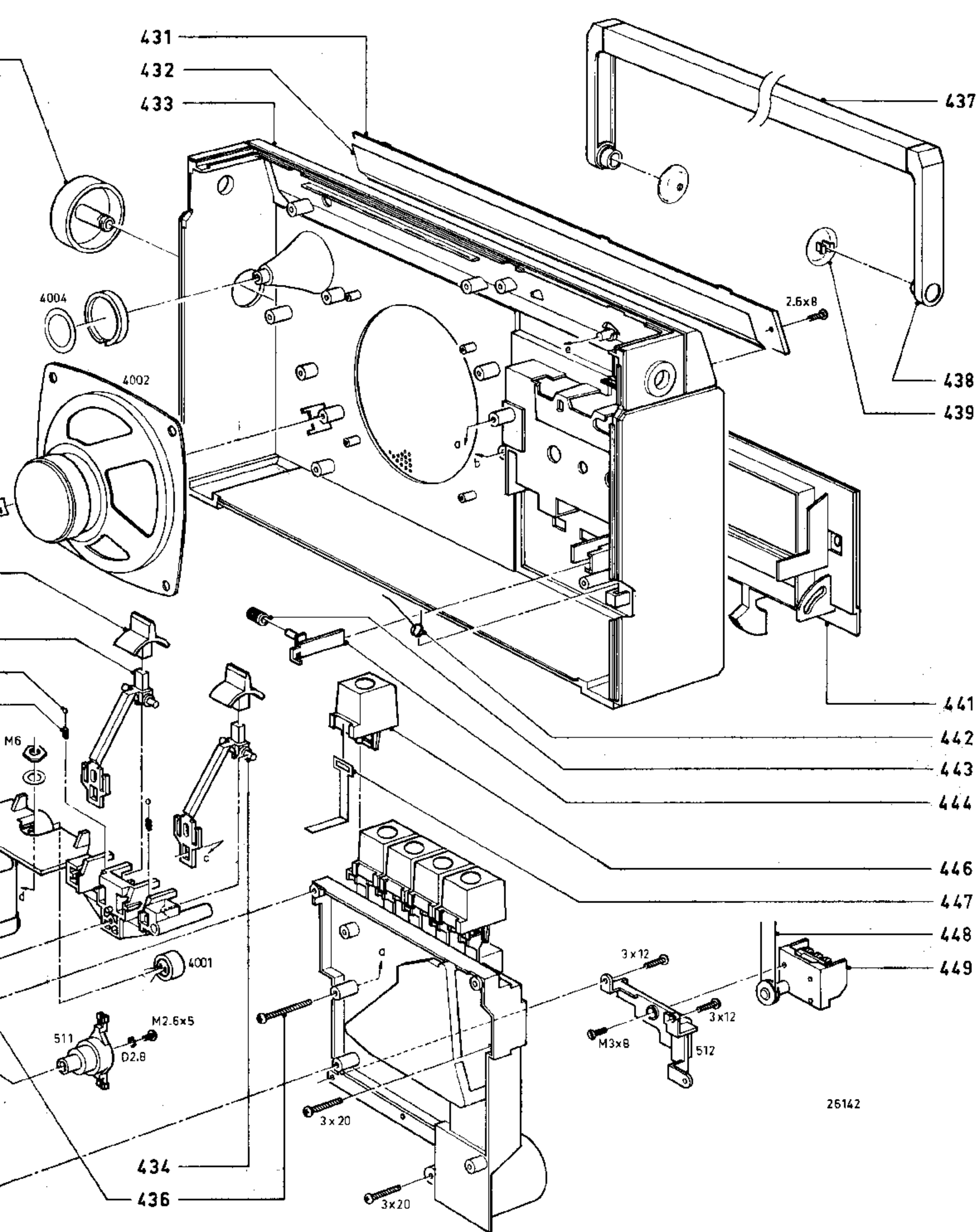
Fig. 1



- ◆ SHELL ALVANIA 2 4822 389 10001
- BP SUPER VISCO STATIC 4822 390 10069
- ◎ SILICON EMULSION 20%
EMULSION DE SILICONES 20%

Fig. 2

18187E14/B



51	4822 249 40123	71	4822 502 11454	92	4822 528 20213	109	4822 532 50993
52	4822 403 51281	72	4822 249 10101	93	4822 403 51051	111	4822 290 80345
53	4822 417 50134	73	4822 492 51229	94	4822 403 51047	112	4822 361 20167
54	4822 492 31268	76	4822 403 51067	96	4822 532 51067	117	4822 358 30223
57	4822 492 31264	77	4822 492 62134	97	4822 492 51217	118	4822 520 30296
58	4822 520 40134	78	4822 403 51068	98	4822 532 51055	123	4822 466 80728
59	4822 403 10149	79	4822 492 62035	99	4822 520 10423	124	4822 530 80198
61	4822 492 51228	80	4822 403 51048	100	4822 522 31263	125	4822 502 11434
62	4822 403 30284	81	4822 532 50692	101	4822 403 51069		
63	4822 403 30283	82	4822 528 70291	102	4822 532 51054		
64	4822 403 30282	83	4822 522 31212	103	4822 522 31272		
66	4822 403 10148	87	4822 532 51061	104	4822 532 51054		
67	4822 462 71108	88	4822 492 51137	106	4822 532 50262		
68	4822 403 51071	89	4822 532 50268	107	4822 522 31261		
69	4822 492 51227	91	4822 403 51049	108	4822 520 10418		

401	4822 321 30214	426	4822 403 51693
402	4822 528 80769	427	4822 520 20327
403	4822 492 40854	428	4822 492 40848
404	4822 303 30266	429*	4822 267 40349
406	4822 413 41074	431	4822 450 60243
407	4822 443 60931	432	4822 459 40484
408*	4822 423 40636	433	4822 443 60936
409	4822 502 11431	434	4822 403 40143
411	4822 492 51277	436	4822 502 10692
412	4822 492 51233	437	4822 498 40491
413	4822 443 60929	438	4822 498 50111
414	4822 290 80329	439	4822 462 71197
416	4822 502 11442	441	4822 443 60937
417	4822 466 70474	442	4822 492 62627
418	4822 528 80667	443	4822 532 80653
419	4822 413 51185	444	4822 403 51486
421	4822 450 80783	446	4822 410 40346
422	4822 403 51694	447	4822 492 62195
423	4822	448	4822 358 30148
424	4822 462 71277	449	4822 349 50117

* For /17 only

408	4822 423 40646
429	4822 267 40399

Checking the lace-up and the capstan adjustment

- Recorder in the position "playback" with the mirror cassette inserted.
- When the tape at the capstan moves upwards or downwards, adjust the capstan to be perpendicular by means of B on the flywheel pivot bearing (Fig. 4).
- The tape should be straight and smooth between the tape guides and along the capstan.
- Small deviations from this pattern are permissible, because they do not have an effect for normal cassettes.

Adjusting the flywheel play

- The flywheel play should be noticeable, but may not exceed 0.3 mm.
Adjust by turning A (Fig. 4).

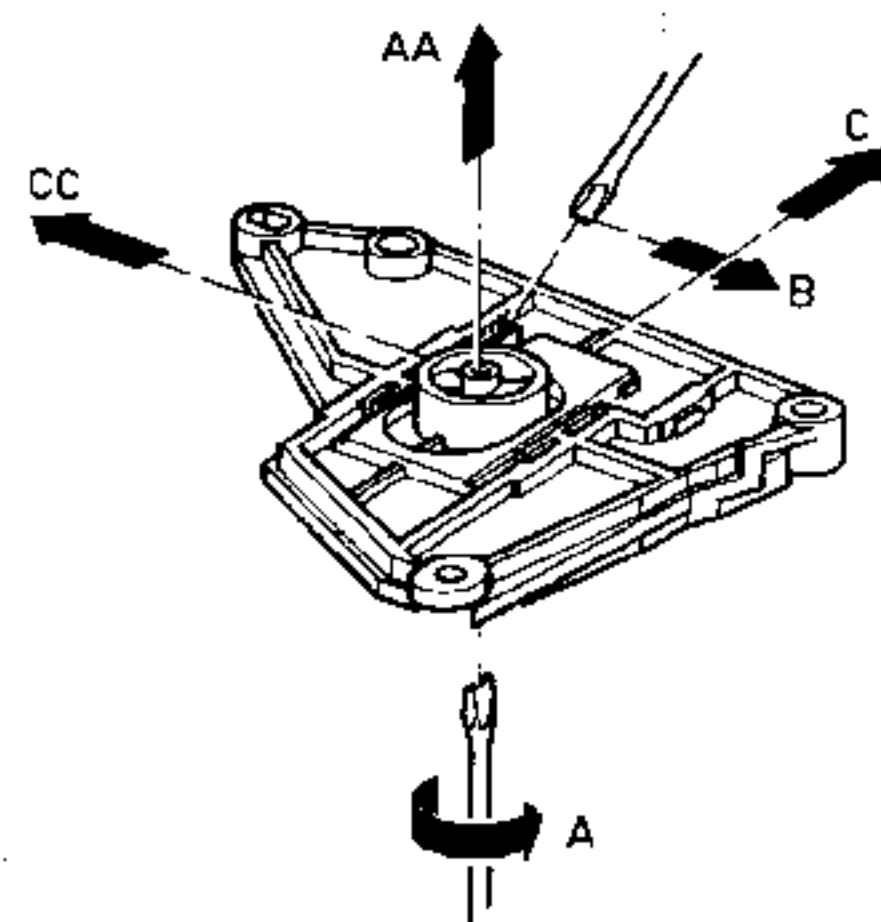
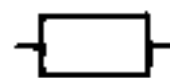


Fig. 4

																																			
2000	Varicon	4822 125 20226	3515	Potm 20KA	4822 101 30387																														
2002	Trimmer 10 pF	4822 125 50062	3518	Potm 100KD	4822 101 30405																														
2005	Trimmer 5 pF	4822 125 50077																																	
2006	2.2 nF 25 V	4822 121 50415																																	
2008	330 pF 2%	5322 121 54077																																	
2052	53 pF 50 V	4822 122 40136																																	
2054	20 pF 50 V	4822 122 31226																																	
2055,2058	4 pF 50 V	4822 122 31043																																	
2064,2551	100 nF 25 V	5322 122 30108																																	
2557																																			
2106,2109																																			
2510,2511	40 nF 25 V	4822 122 40114																																	
2793																																			
																																			
									1005/00	Cer filter	4822 242 70306																								
									1005	Cer filter	4822 242 70318																								
			5001	SW Ant coil	4822 156 40677																														
			5002	MW Ant coil	4822 157 50889																														
			5003	SW Osc coil	4822 156 20871																														
			5004	MW Osc coil	4822 156 30523																														
			5023,5043	FE ind 0.7 μH	4822 157 50791																														
			5041	IFT FM org	4822 156 30439																														
			5046	IFT FM blue	4822 156 30442																														
			5047	Fe ind 22 μH	4822 158 10435																														
			5048	IFT AM blk	4822 153 10232																														
5101	Transfo	4822 146 20728																																	
5101/17	Transfo	4822 146 20732																																	
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			
																																			

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.

SF

Korjatesa laitetta on turvallisuussyistä ehdottomasti eneteltävä oikein ja käytettävä tehtaan määäämiä alkuperäisvaraosia.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso ne le 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.