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DEPARTEMENT SERVICE CENTRAL
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PHILIPS

DOCUMENTATION DE SERVICE

For the receiver.

B4X67Z

1956 For A.C. Mains supply and 6 V battery supply with vibrator AU1004.

Waveranges

M.W. : 185- 580 m (1622 - 517 kc/s)
S.W.2a: 11.45-19.95 m (26.2 - 15.05 Mc/s)
S.W.2b: 24.9 - 32.2 m (12.05- 9.32 Mc/s)
S.W.3 : 30 - 93 m (10 - 3.22 Mc/s)

Controls

Left : Mains switch + volume control.
Tone control.
Right : Waverange switch.
Tuning.

Valves

B1 : EF89
B2 : ECH81
B3 : EBF80
B4 : EBC41
B5 : EL42
B6 : EZ80
B7 : DM71

Dimensions

Length : 370 mm
Depth : 196 mm
Height : 275 mm

I.F. : 452 kc/s.

Mains voltages

90-110-127-180-200-220V

Consumption

38 Watt (220 V).

Loudspeaker

AD3700X (Z = 5 Ω).

Dial lamp

8045D-00.

Bandwidth

The I.F. bandwidth (1:10) measured from g1 of B2, is about 10.75 kc/s. The overall bandwidth (1:10) measured from the aerial socket is about 10 kc/s at 1000 kc/s and about 8.5 kc/s at 550 kc/s.

Imprimé en Hollande

93 986 74.1.05

TRIMMING THE RECEIVER

For all circuits the following applies:
Volume control to maximum.
Tone control at "quality".
Connect a voltmeter via a trimming transformer to the extension loudspeaker sockets.
Unless otherwise stated all signals are applied to the aerial socket via a dummy aerial.
Adjust the pointer at trimming point 1 (variable capacitor at minimum).
Seal the cores and trimmers after the alignment.

	Waverange switch at	Pointer at trimming point	Apply a modulated signal of	Trim for maximum output
I.F.band-filters	M.W.	1	452 kc/s to g1 of B2 via 33000 pF	S24,S23, S21,S22, S23
R.F. circuits	M.W.	2	550 kc/s	S20,S11, S8a } repeat
		Gang cap.min.	1630kc/s	C36,C8, C10 } repeat
	S.W.2a	2	14.87Mc/s	*S15 1e max. S9-S5 } repeat
		Gang cap.min.	26.5Mc/s	C34 1e max. C16, C8 } repeat
	S.W.2b	2	12.2 Mc/s	C29
		Tune the set	11.8 Mc/s	C20,C12
	S.W.3	2	3.36 Mc/s	S18,S10, S7 } repeat
		Gang cap.min.	10.18Mc/s	C35,C17, C9 } repeat

* Before starting to trim S15-C34 should be unscrewed and S9-C16 screwed in as far as possible.

REPAIRS AND REPLACEMENT OF PARTS

Taking the chassis from the cabinet.

1. Set the variable capacitor to maximum capacity.
2. Remove the rear panel.
3. Unsolder the loudspeaker connections.
4. Remove the knobs.
5. Remove the scale pointer from thecable.
6. Unscrew the two chassis-fixing bolts and take the chassis carefully out of the cabinet.

Replacing of the dial

1. Take the chassis out of the cabinet.
2. Remove the two dial-fixing clips.

Variable capacitor and pointer drive

The length and the path of the driving cables are indicated in fig.3 with the tuning capacitor in the maximum position.

Volume control drive

The path and length of the driving cords are indicated in fig.4.

LIST OF SPARE PARTS

When ordering always quote:

1. Code number and colour.
2. Description.
3. Type number of the set.

Description	Code number
Cabinet (Philite MC)	A3 750 84.0
Knob (large)	A3 769 66.0
Knob (tone control)	A3 752 34.0
Knob (tuning)	A3 769 34.0
Switch	A3 181 45.0
Radio-phono switch	A3 397 57.0
Drum (tuning cap.)	P4 095 01.0
Spring (in tuning capacitor drum)	A3 645 57.0
Spring (in pointer cable)	A3 646 14.0
Socket plate	A3 382 13.0
Spring clip for coilcans (large)	A3 652 58.3
Spring clip for coilcans (small)	A3 652 75.1
Voltage adaptor	A3 228 81.0
Dial (Z)	A3 744 45
Dial (OV)	A3 744 39
Lampholder	A3 360 59.0

WM/JH

S1)		
S2)		A3 142 35.3
S3)		
S4)		
S5)		A3 125 25.1
S6)		
S7)		A3 125 30.1
S8)		
S8a)		A3 116 92.0
S9		A3 125 38.1
S10		A3 125 44.1
S11)		
S12)		A3 125 35.0
S13)		
S14)		A3 125 50.1
S15)		
S16)		
S17)		A3 125 62 1
S18)		
S19)		
S10)		A3 125 72.0
S21)		
S22)		
C37)	110 pF	A3 126 84.0
C38)	195 pF	
S23)		
S24)		
C41)	110 pF	A3 126 84.0
C42)	195 pF	
S25)		
S26)		
S27)		A3 169 65.0
S28)		
C1)	50 pF	
C2)	50 pF	A9 999 12/ L50+50
C3)		
C4)		49 001 66.0
C5)		
C6	330 pF	A9 999 04/330E
C7	3000 pF	A9 999 05/3K
C8	30 pF	28 212 36.4
C9	30 pF	28 212 36.4
C10	10 pF	49 005 64.2
C11	710 pF	(A9 999 05/680E+ (A9 999 05/30E
C12	275 pF	A9 999 07/ 45E - 275E
C13	160 pF	A9 999 05/160E
C14	220 pF	A9 999 04/220E

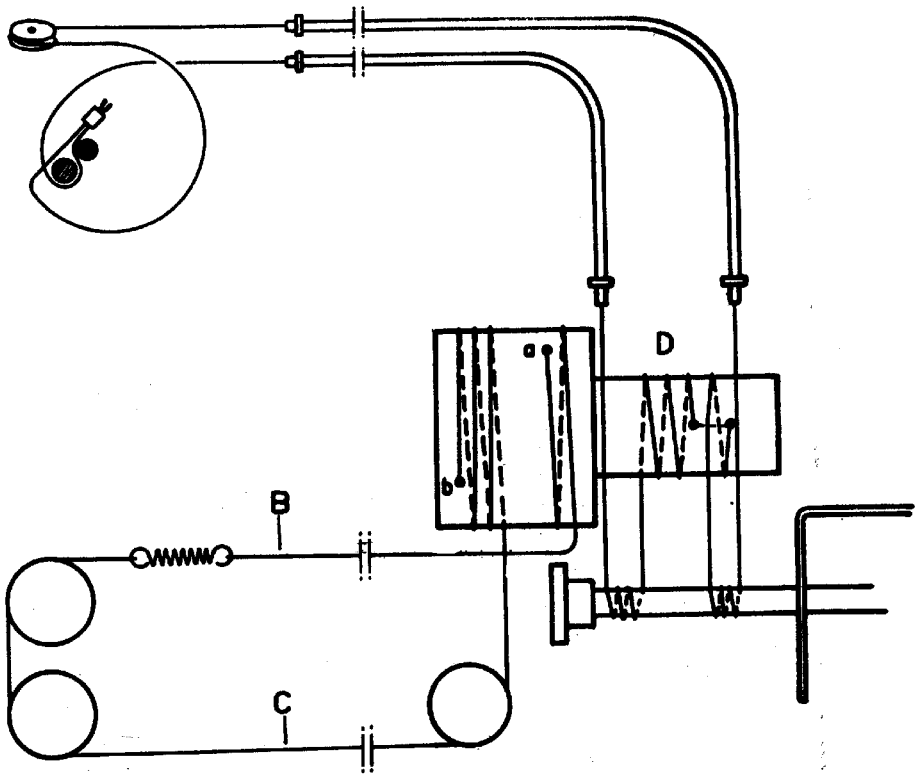
C15	150 pF	A9 999 04/150E
C16	20 pF	49 005 59.4
C17	20 pF	49 005 59.4
C18	20 pF	49 005 59.4
C19	3300 pF	A9 999 04/3K3
C20	175 pF	A9 999 05/ 45E-275E
C21)	710 pF	A9 999 05/680E+
)		A9 999 05/30E
C22	160 pF	A9 999 05/160E
C23	220 pF	A9 999 04/220E
C24	10000 pF	A9 999 04/10K
C25	0,1 µF	A9 999 06/100K
C26	470 pF	A9 999 04/470E
C27	160 pF	A9 999 05/160E
C28	56 pF	A9 999 04/56E
C29	320 pF	A9 999 07/ 45E-275E
C30	82 pF	A9 999 04/82E
C31	315 pF	A9 999 05/300E+ A9 999 05/15E
C32	390 pF	A9 999 05/390E
C33	760 pF	A9 999 05/750E+ A9 999 05/10E
C34	30 pF	28 212 36.4
C35	20 pF	49 005 59.4
C36	20 pF	49 005 59.4
C37)	zie spoelen	
C38)	see coils	
C41)	voir bobines	
C42)	véanse bobinas	
C39	22000 pF	A9 999 06/22K
C40	4700 pF	A9 999 06/4K7
C43	100 pF	A9 999 04/100E
C44	18000 pF	A9 999 06/18K
C45	10000 pF	A9 999 06/10K
C46	10000 pF	A9 999 06/10K
C47	10000 pF	A9 999 06/10K
C48	15000 pF	A9 999 06/15K
C49	0,1 µF	A9 999 06/100K
C50	3300 pF	A9 999 06/3K3
C51	100 µF	A9 999 10/C100
C52	2200 pF	A9 999 06/V2K2
C53	10000 pF	A9 999 04/10K
C54	150 pF	A9 999 04/150E
C55	100 pF	A9 999 04/100E
C56	1500 pF	A9 999 04/1K5
C57	1500 pF	A9 999 04/1K5
C58	1500 pF	A9 999 04/1K5
C59	1500 pF	A9 999 04/1K5
R1	1800 Ω	B1 636 10.0
R2	10000 Ω	A9 999 00/10K
R3	0,82 MΩ	A9 999 00/820K

B4X67Z

R4	10000 Ω	A9 999 00/10K
R5	15000 Ω	A9 999 00/15K
R6	0,82 MΩ	A9 999 00/820K
R7	47000 Ω	A9 999 00/47K
R8	47000 Ω	A9 999 00/47K
R9	0,82 MΩ	A9 999 00/820K
R10	220 Ω	A9 999 00/220E
R11	2,2 MΩ	A9 999 00/2M2
R12	6,8 MΩ	A9 999 00/6M8
R13	0,33 MΩ	A9 999 00/330K
R14	56000 Ω	A9 999 00/56K
R15)	1,6 MΩ	A9 999 16/
R16)	0,4 MΩ	DL400K+1M6
R17	4700 Ω	A9 999 00/4K7
R18	10 MΩ	A9 999 00/10M
R19	56000 Ω	A9 999 00/56K
R20	56000 Ω	A9 999 00/56K
R21	0,1 MΩ	A9 999 00/M1
R22	22000 Ω	A9 999 00/22K
R23)	1 MΩ	B1 639 19.0
R24)	1 MΩ	

R25	1000 Ω	A9 999 00/1K
R26	330 Ω	A9 999 00/330E
R27	390 Ω	A9 999 00/390E
R28	0,18 MΩ	A9 999 00/180K
R29	1000 Ω	A9 999 00/1K
R30	56 Ω	A9 999 00/56E
R31	3300 Ω	A9 999 00/3K3
R32	68000 Ω	A9 999 00/68K
R33	6800 Ω	A9 999 00/6K8

WM/JH



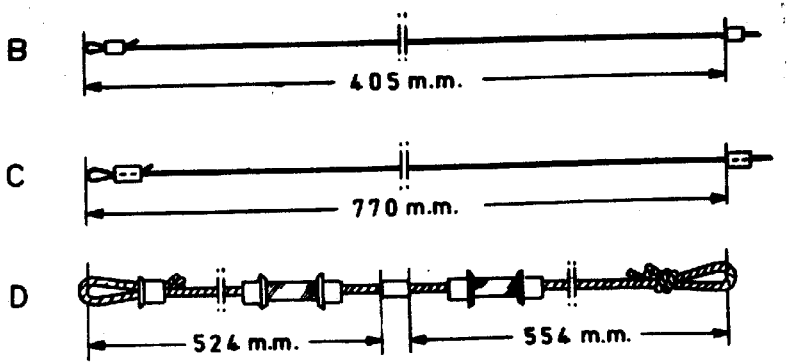


Fig.1

R15257

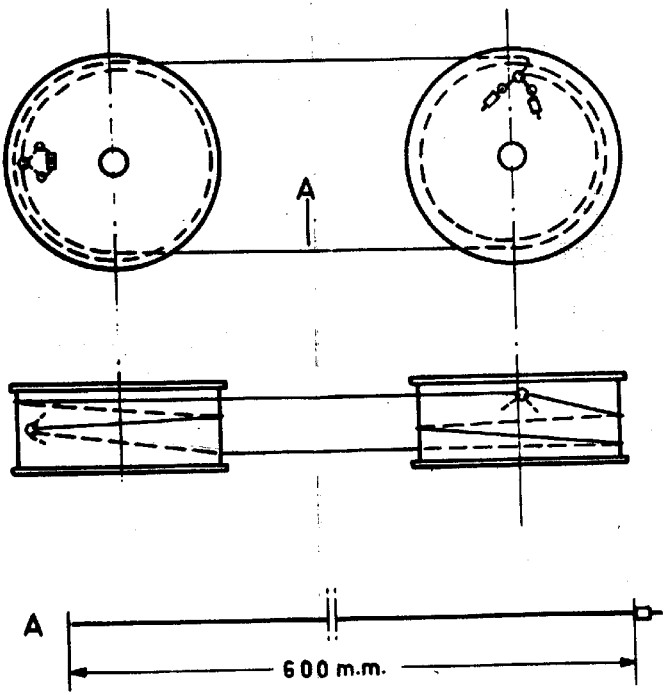


Fig2

R 1 5256

S:	K. H. C.
C:	48 50.51. 49. 44. 47. 45.25.46. 43.55. 36.35.39. 32.40.
R:	10. 24.23. 31. 14. 20.21.16.15.25.22.19. 26. 12. 18. 13.11. 17. 9. 5.32

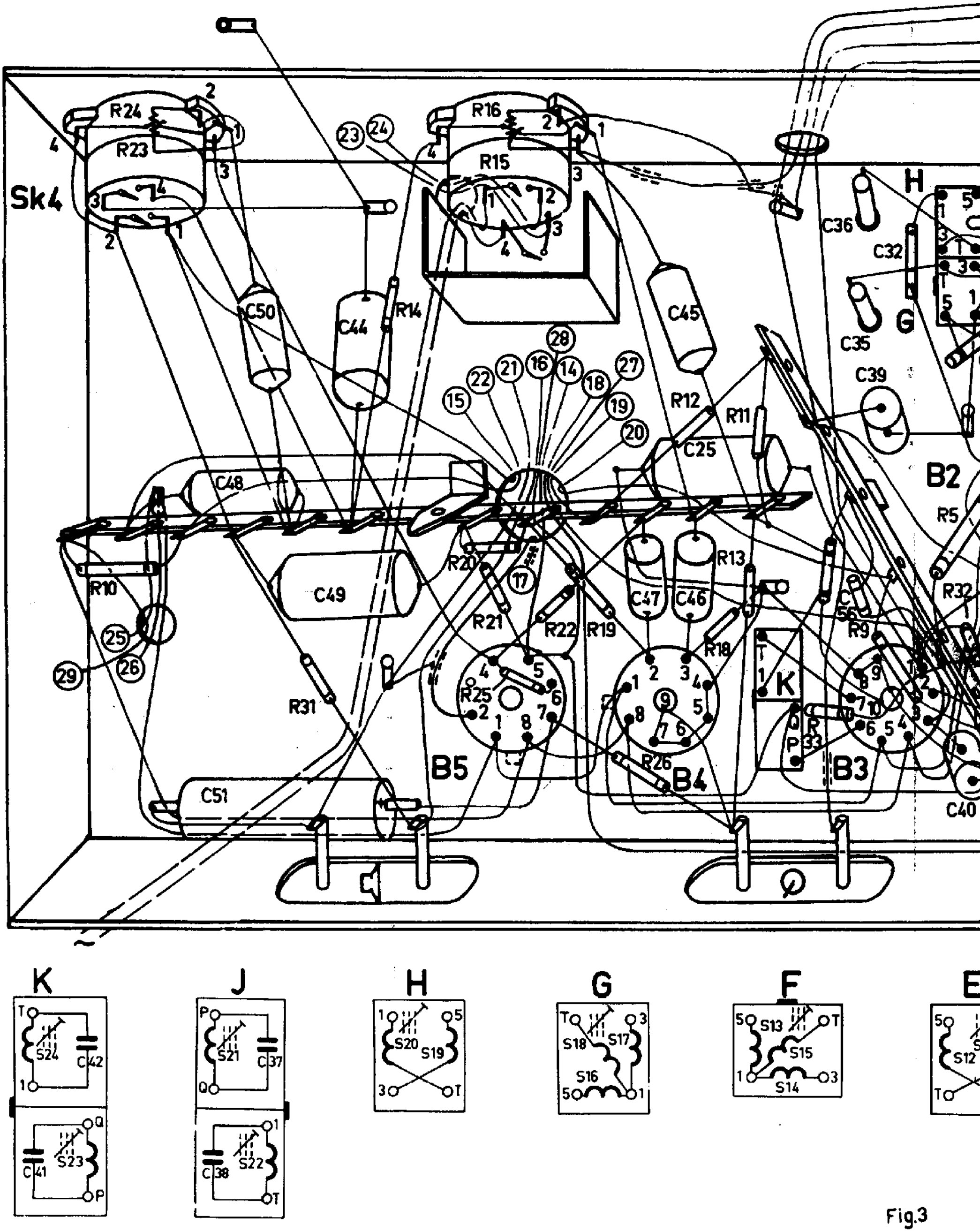
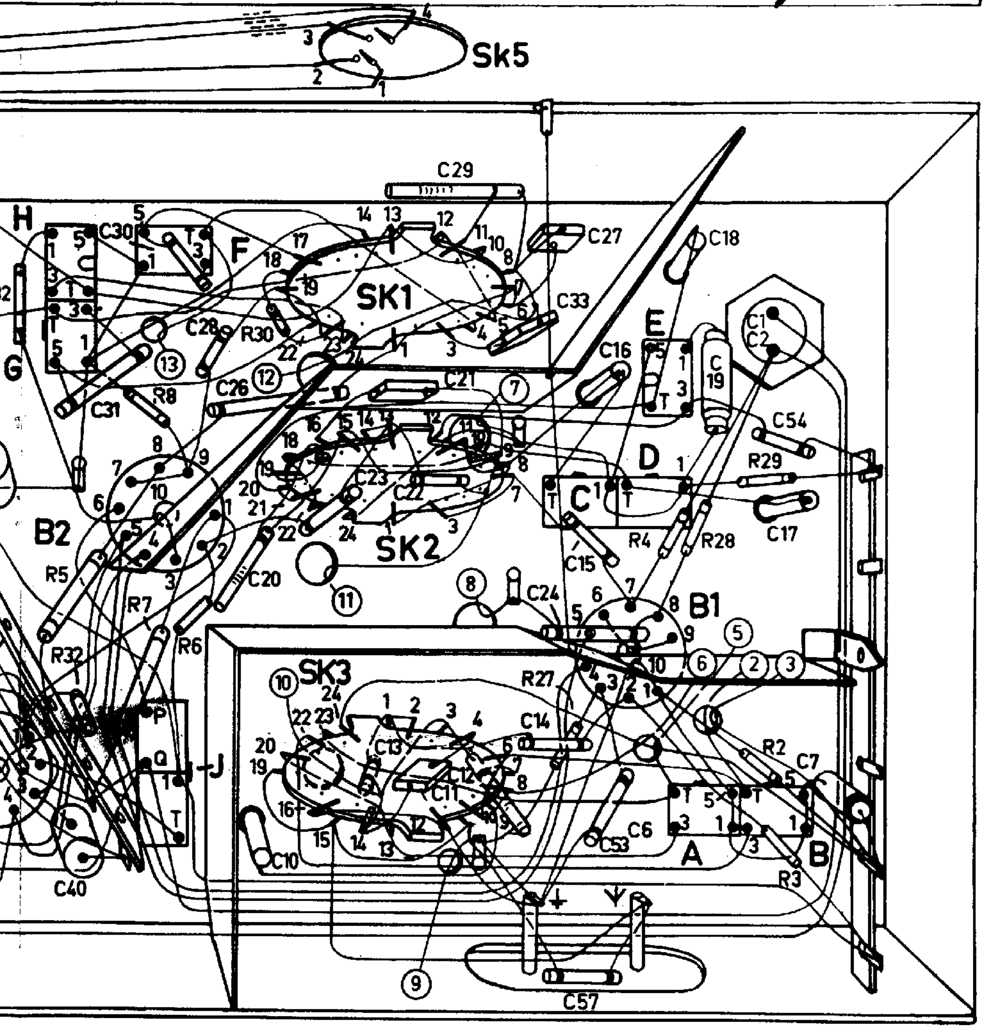


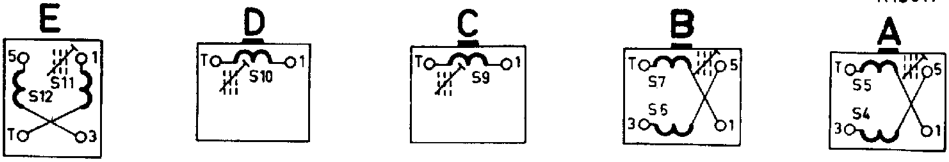
Fig.3

4 X 67 Z

H. C. J. F.		C.	E.D. A.	B.
39. 32.40. 31.	30. 28.26.20.10. 23. 13.21. 11 22. 29.12.-33.27.14.15.57.24.16		.53.18.19.1.2.54.17.7.	
5.32. 8.7. 6.	30.	27. 57	4. 28.	29.23.



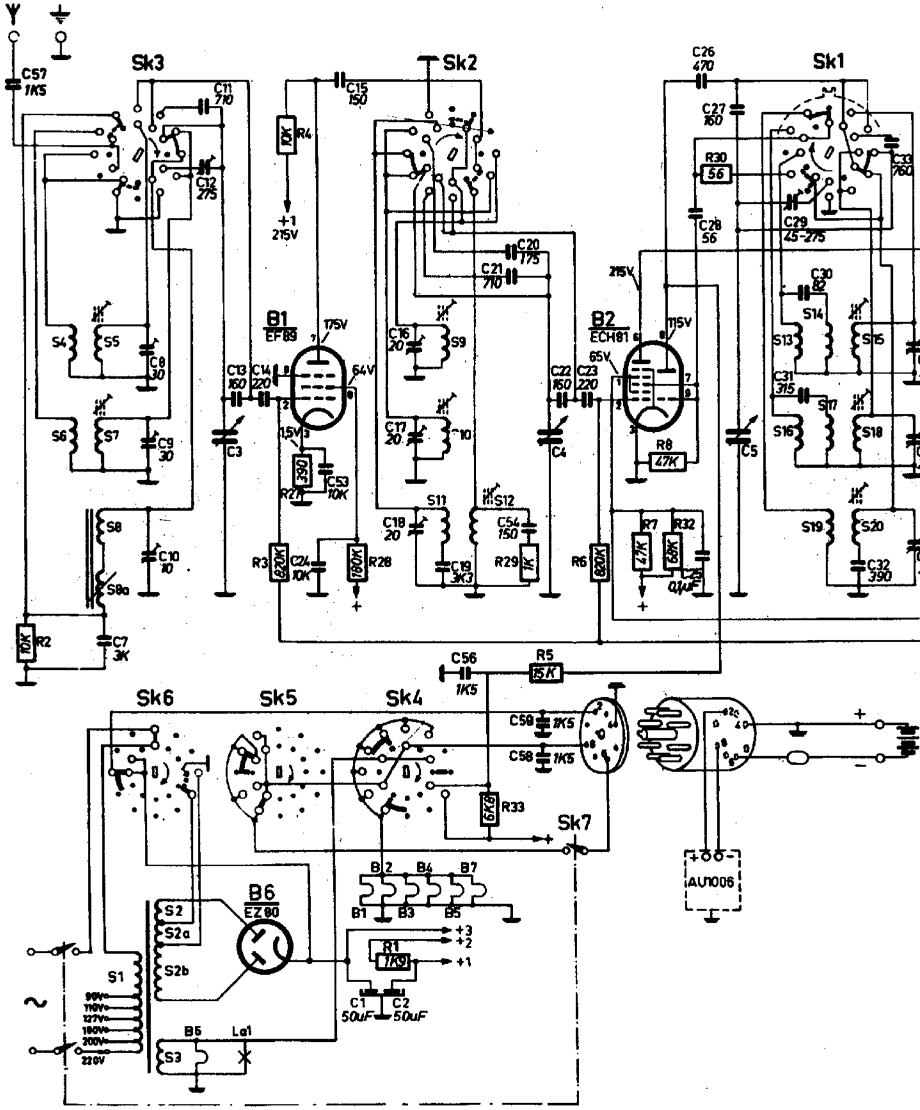
R15811



ig.3

B 4 X 67 Z

S: 4.6. 5.7.8.8a. 9.10.11.12. 13.16.14.17.19.15.18.20.
C: 57. 8.9.10. 11.12.3. 13. 14. 24.53. 15.1.2. 16.17.18.19. 56. 20.21. 4.22.23.58. 59. 26.28.25.27.5. 29 32. 33.34.3
R: 2 3.4.27. 28. 1. 33. 29.5. 6. 5.7. 8. 32. 30.



16.14.17. 19. 15. 18. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29.
29 32. 33.34.35.36. 37. 39.38. 40. 41. 43. 55. 44. 42. 45. 46. 49. 47. 48. 50. 26. 51. 52.
9. 10. 11. 12. 13. 14. 17. 15. 16. 18. 19. 20. 21. 22. 23. 24. 25. 31. 26.

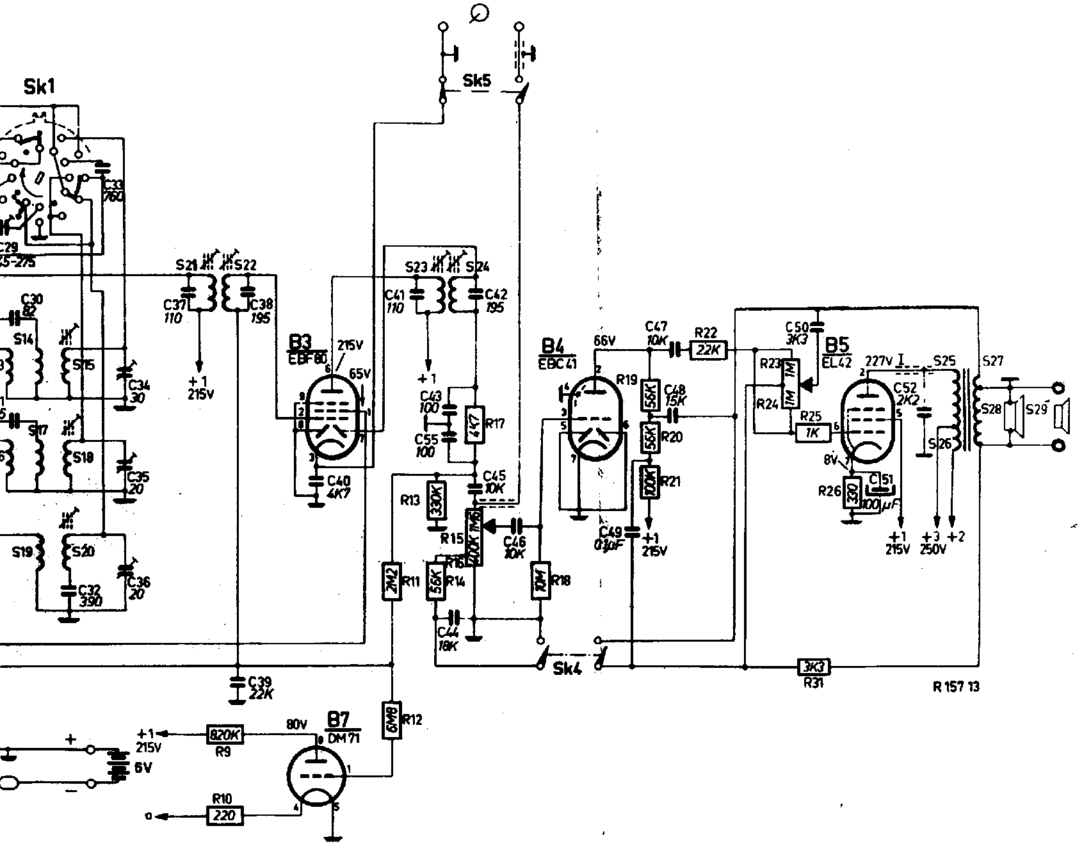
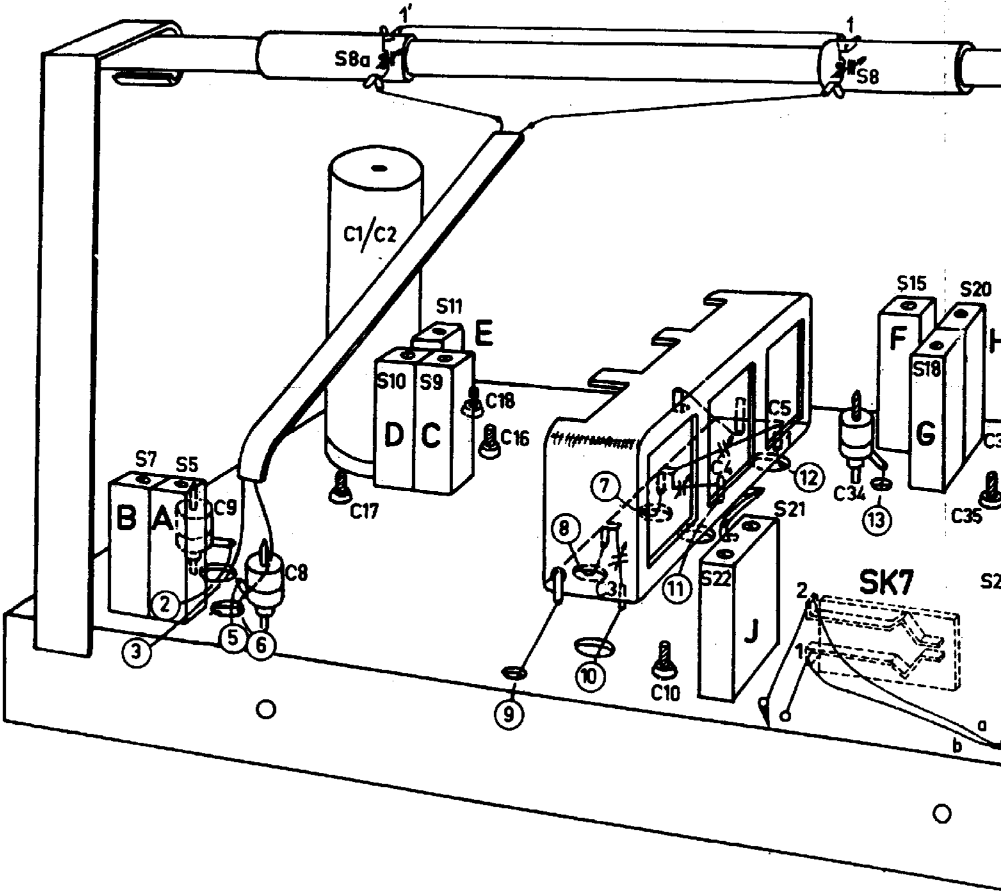


Fig.4


1'
S8a
1
S8
C1/C2
S11
E
S10
S9
D
C
C18
C16
C17
S7
S5
B
A
C9
C8
2
3
5
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7
8
9
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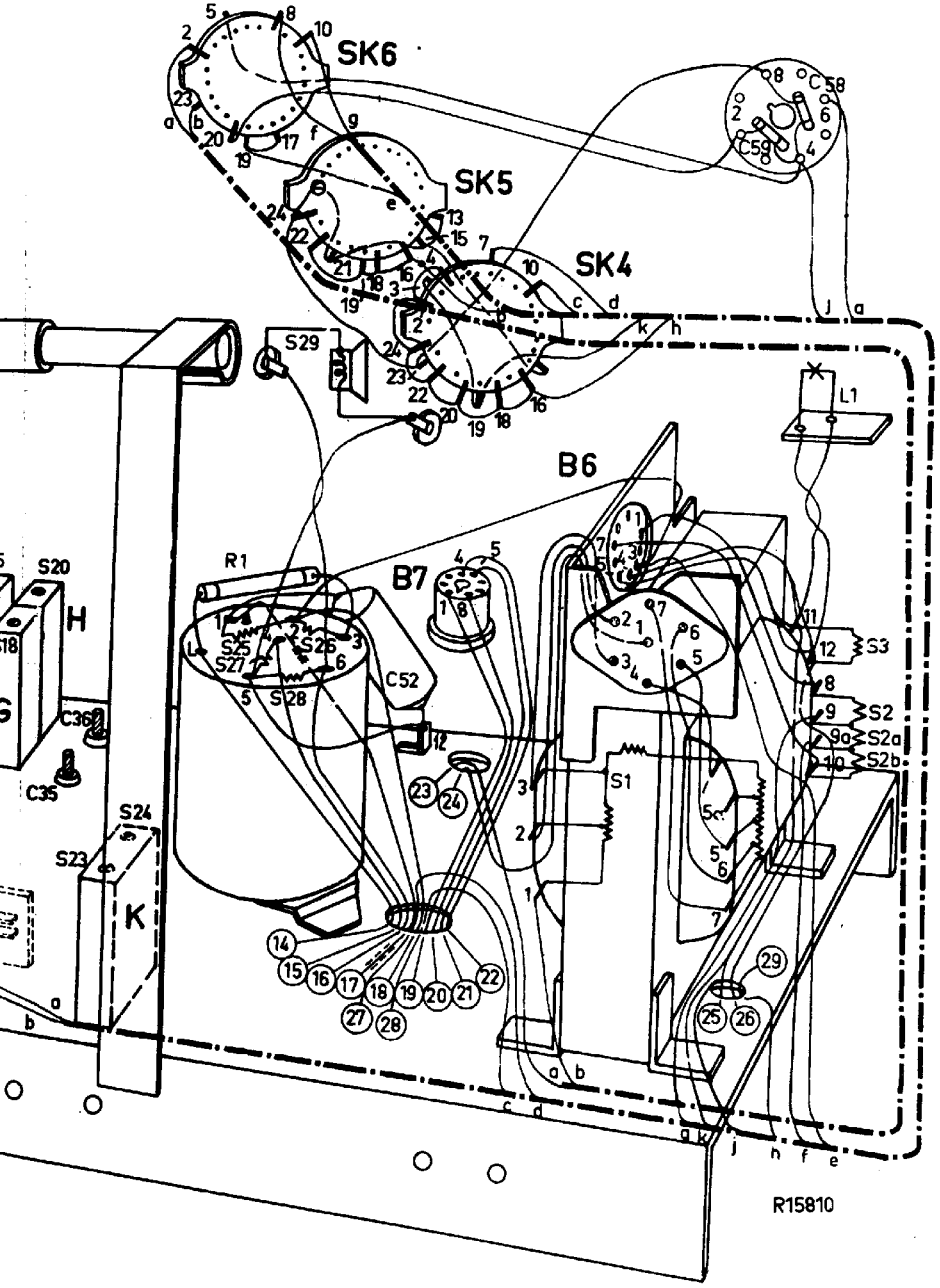
11
12
13
C5
C4
C3
S21
S22
J
C10
S15
S20
F
S18
G
C34
C35
SK7
a
b

Fig.5


SK6
SK5
SK4
B6
B7
R1
S29
L1
S20
H
S25
S26
S27
S28
C52
C36
C35
S24
S23
K
S1
S2
S2a
S2b
S3
C58
C59
R15810