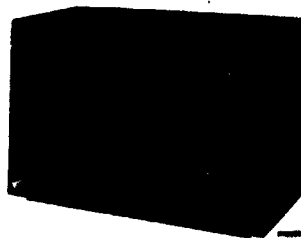


# PHILIPS

## SERVICE NOTES

for the receiver

### B6X66 A



1956. For A.C. mains.

Waveranges

M.W. : 185 - 580 m (1622 - 517 kc/s)  
 O.C.3 : 59 - 187 m (5.1 - 1.6 Mc/s)  
 O.C.2c: 25 - 60 m (12 - 5 Mc/s)  
 O.C.2b: 16.75 - 25.64m (17.9 - 11.7Mc/s)  
 O.C.2a: 11.4 - 16.94m (26.2 - 17.7Mc/s)

Knobs

From left to right:

Bass control

Volume control

Push buttons: mains switch

P.U. - M.W. - O.C.3 - O.C.2c - O.C.2b -  
O.C. 2a.

Ferroceptor

Tuning

Treble control

Valves

B1 : EF 89      B5 : EL 84  
 B2 : ECH81     B6 : EM 80  
 B3 : EBF80     B7 : EZ 80  
 B4 : EBC81     B8 : UL 41

Dial lamp

8024 N-91

Bandwidth

The I.F. bandwidth (1:10) measured from g1 - B2 is about 10.5 kc/s.  
 The overall bandwidth (1:10) measured from the aerial socket is about  
 9 kc/s at 1622 kc/s and about 7½ kc/s at 550 kc/s.

I.F. : 452 kc/sMains voltages

90-110-127-145-190-220 V

Consumption

ca. 60 W

Loudspeakers

AD 3690 (Z = 800 Ω)

AD 3500 AMS (Z = 800 Ω)

Dimensions

540 x 363 x 266 mm

Loop aerial

For the shortwave ranges a loop  
 aerial is used which is disconnect-  
 ed automatically when connecting  
 an outdoor aerial. The M.W. aerial  
 circuit is executed as ferroceptor.

S:5	67910Mo.														11-15				4616-24				30	25			
C:	66	64	7	60.13	12	811.14	174	15	16	19	8618	8	67.25	20.2	22.23	26	27.5	27.31	26	30.6.29	32.63	33.39	40.67	50.61	34	65	
R:	2			36				3.4	6	5	39	40.24			34		7		9	10							

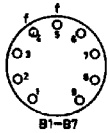
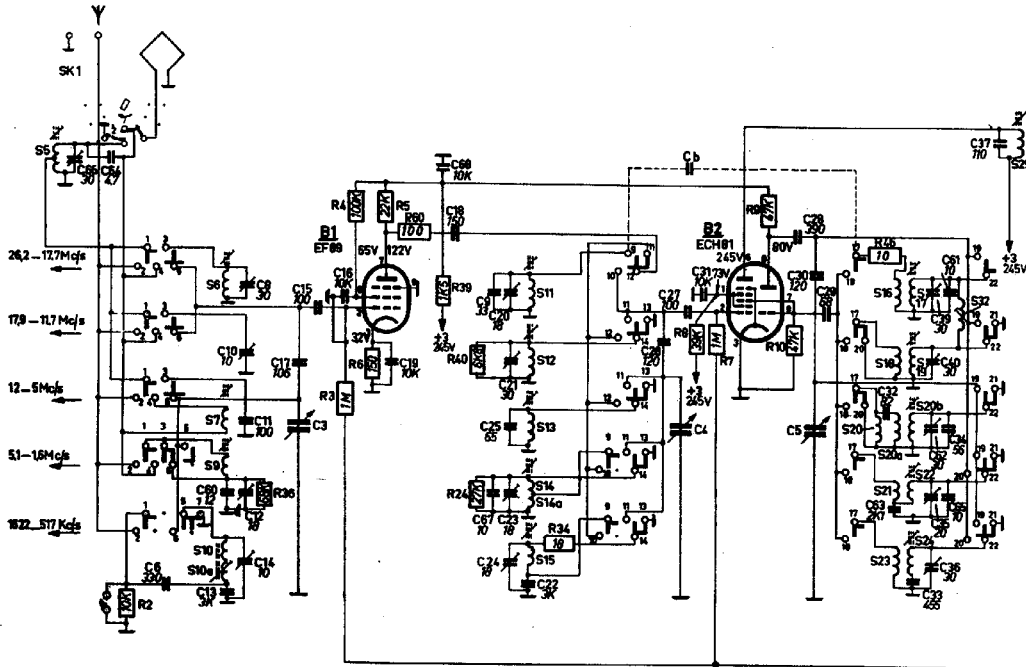


Fig.

32	25 26	27 28																4	35	34
52,35,36,61,34,65,37,38,41	42	68,43,50	45,44	48	46	47,48	62	251,57	10	51,1,59,56	54,55,70	71								
	11, 12	32, 38	37,18,13	15,	16	17, 14	19, 20	21,22	25, 27, 45	27, 31,31a,44,25	1	30,28,23,41,42,43,28,33							35	

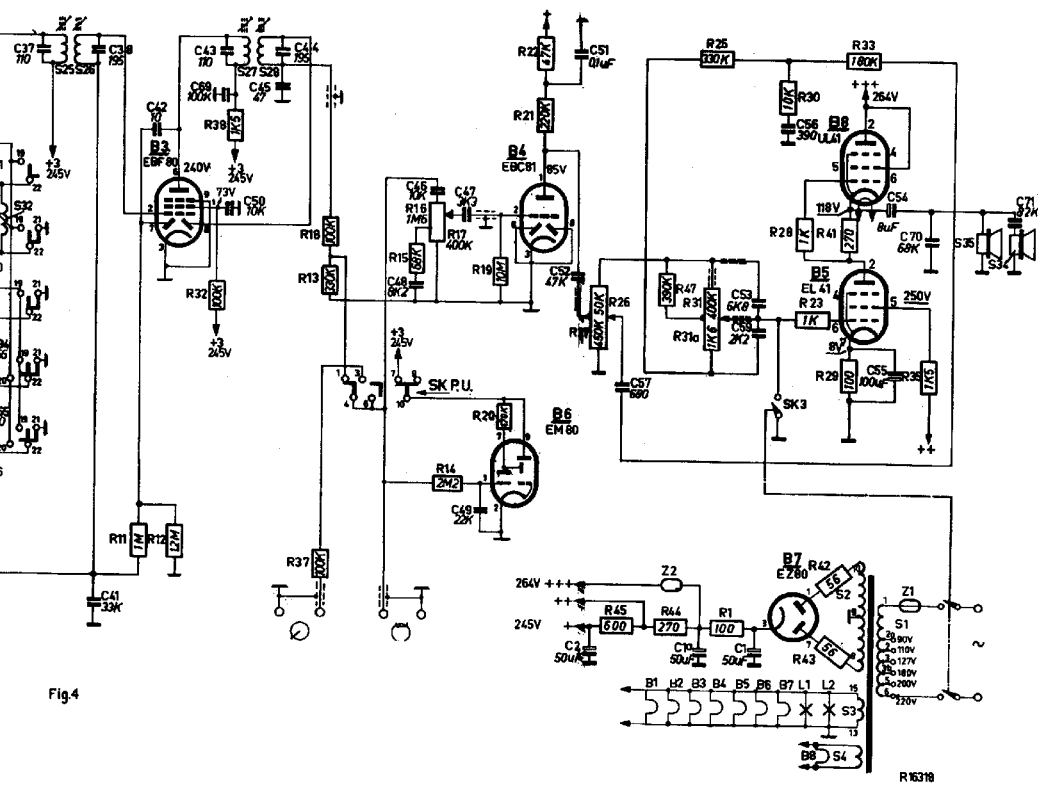


Fig.4

R 6318

S	3130										J O R D H N C G F I									
C	55.	4&	47	49,56,57,54.	70.	46.59.				53	52	51	63	33,12,14,24,22.	10,60,23,35,15,65,67,2.					
R	47	29	31,31a.	15	17	16	30	25	14	33	23	41	28	37	21,19,22,13,18,35.	36,34.			24	12.

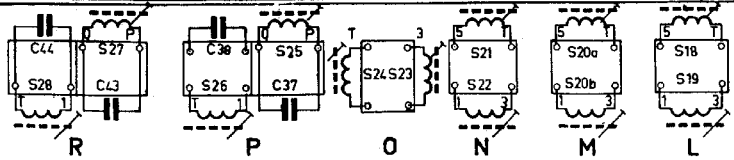
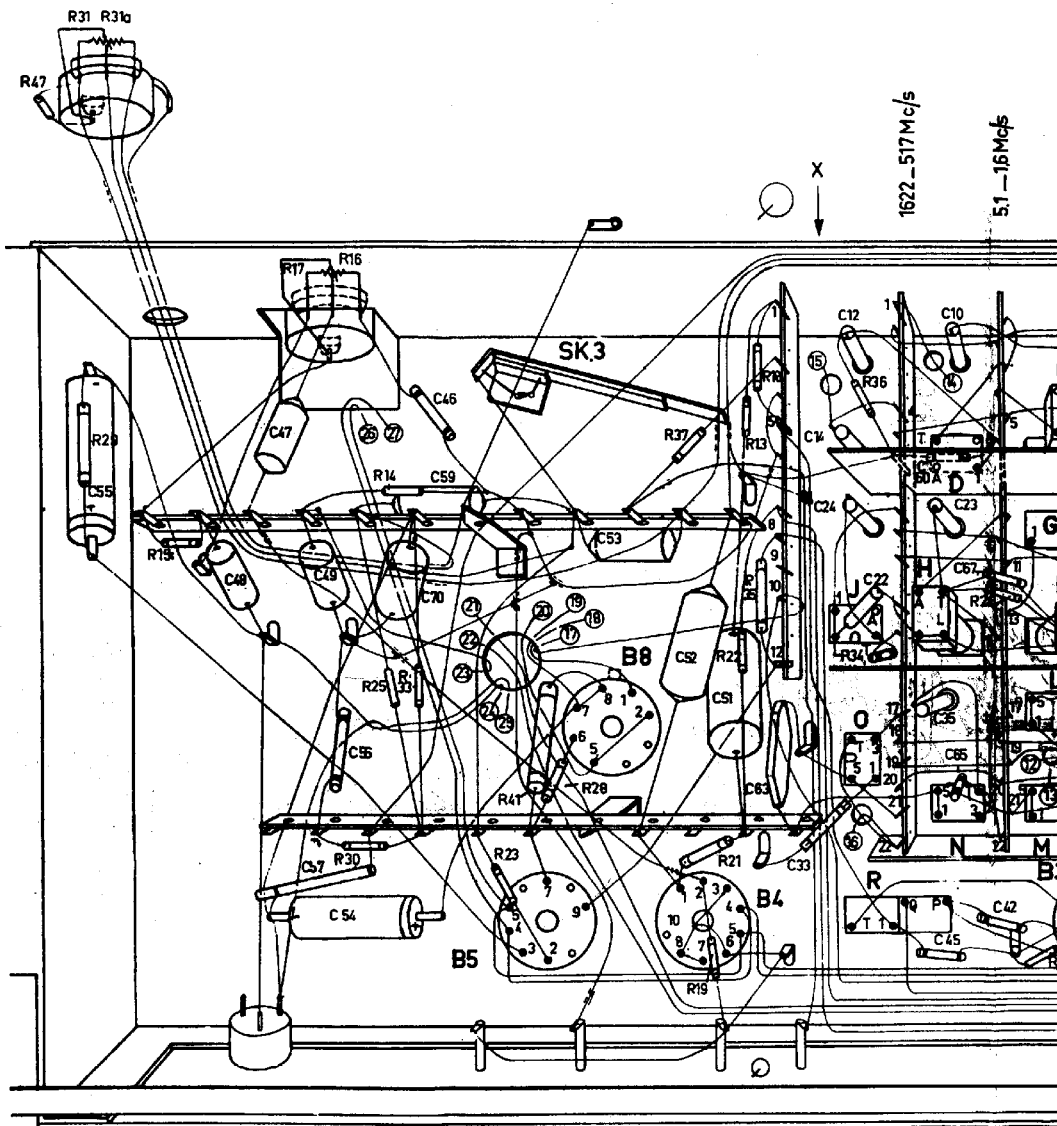


Fig.3

CGFLM	20	P	B	E	K	A	32
15,65,67,72,	32,50,25,17,26,30,34,11,	10,29,28,15,27,9,41,61,	20,31,19,	16,	68,	64, 1a, 2, 1,	69,
12, 11,	40, 32,	3, 7,	6, 60,	10,	5, 9, 4, 39,	8, 1, 38,45,44,45a,	26, 27,

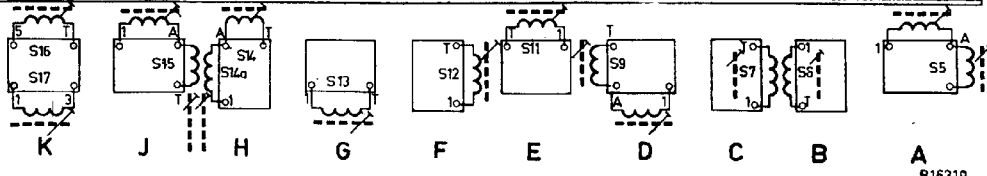
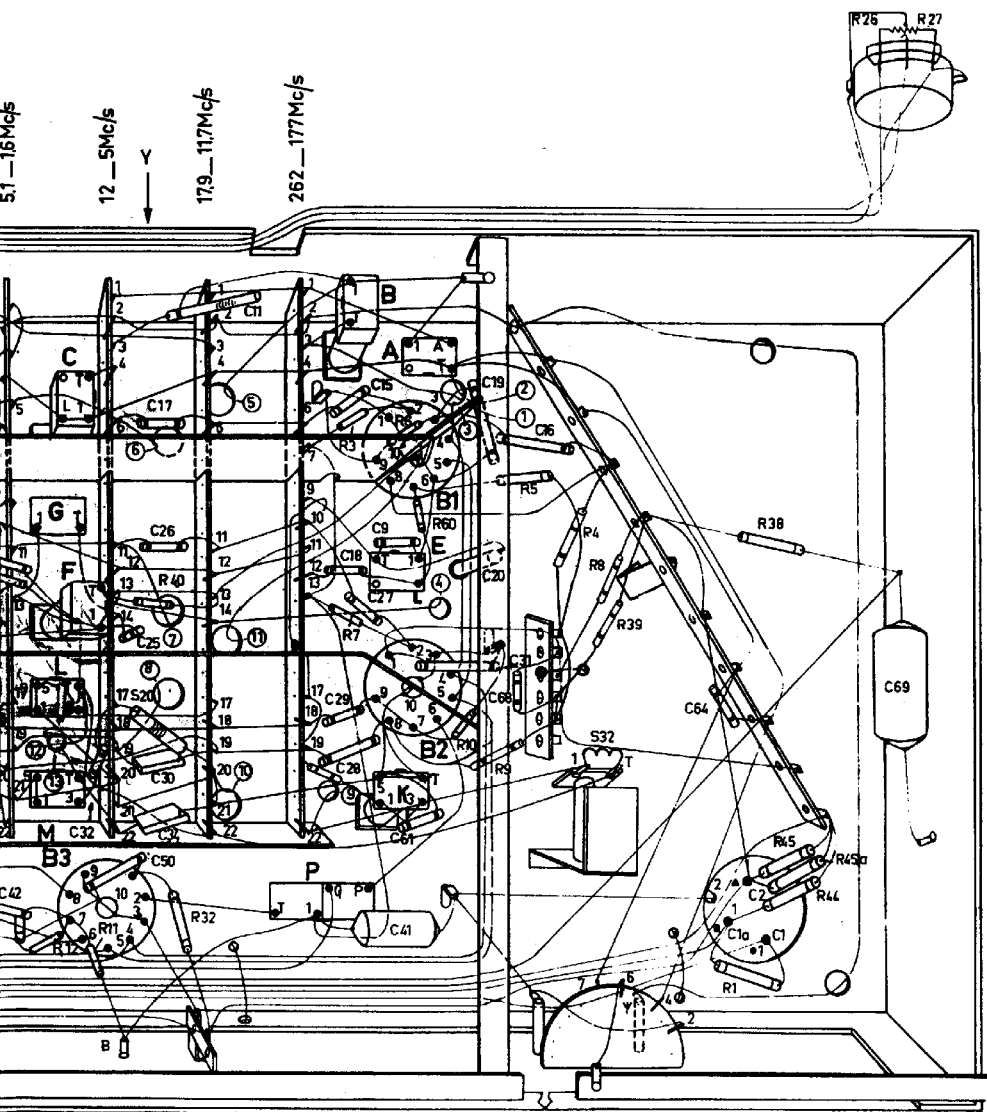


Fig.3

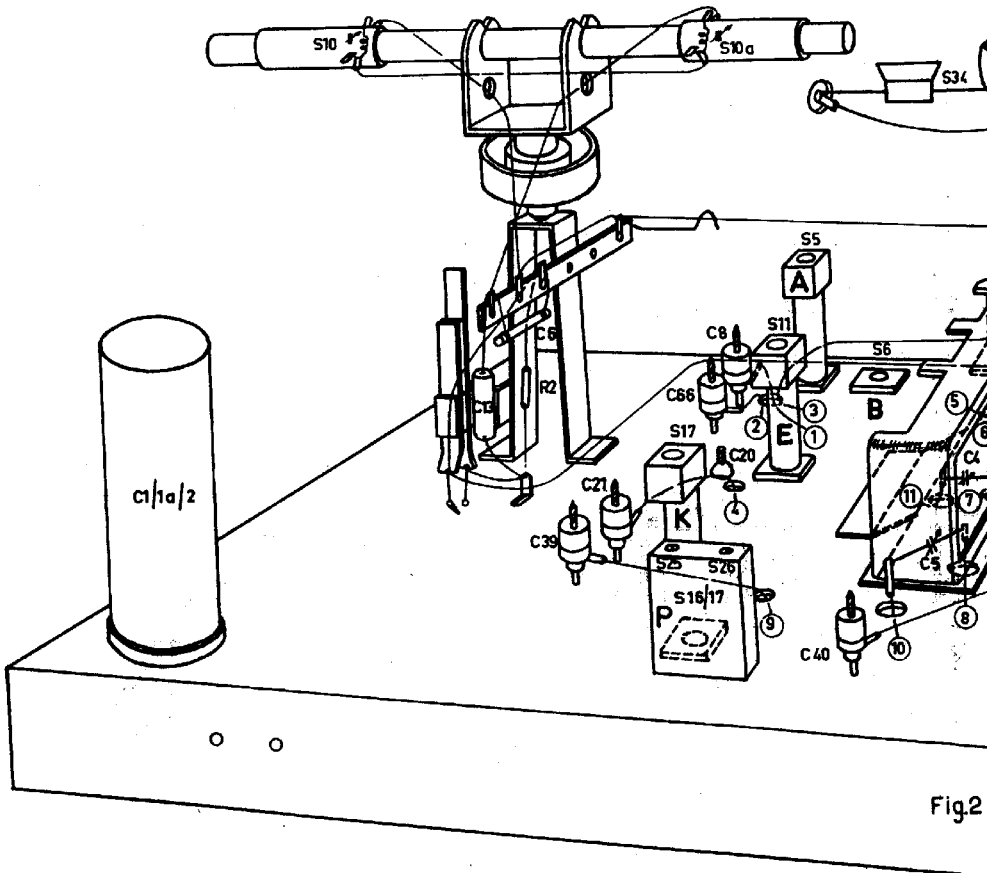


Fig.2

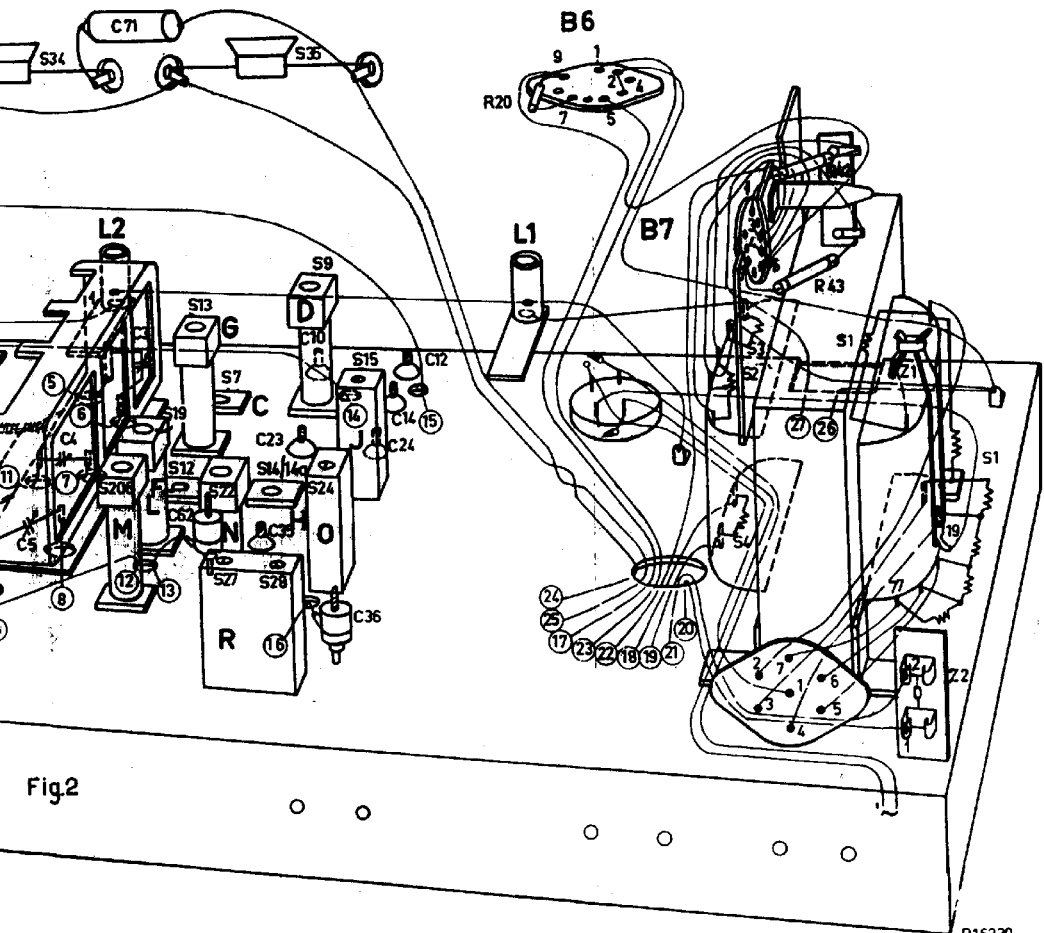


Fig.2

R16320

B6 X 66 A

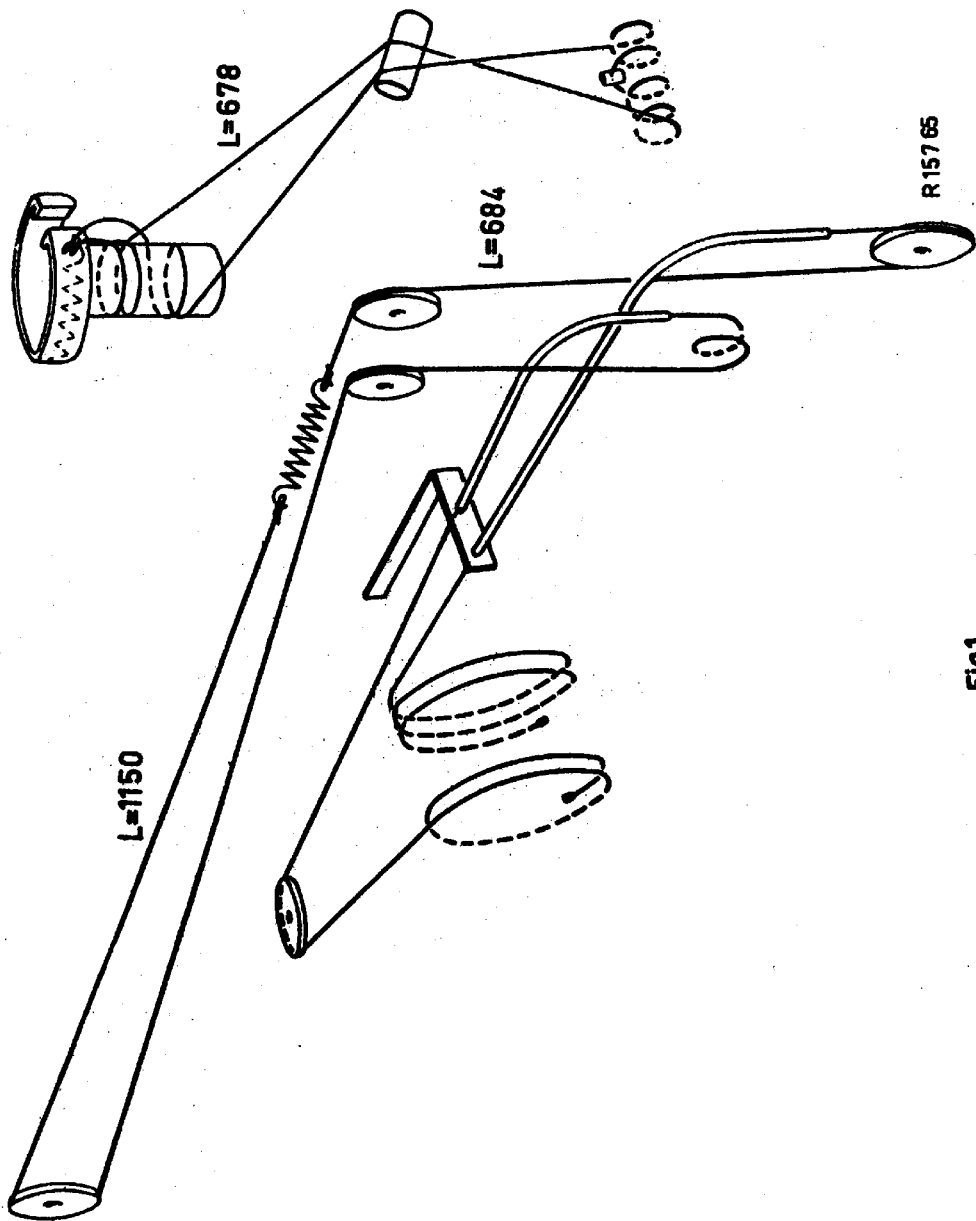


Fig 1





S1)			C11	100 pF	A9 999 07/100E
S2)			C12	22 pF	A9 999 08/22E
S3)		A3 141 37.5	C13	3000 pF	A9 999 05/3K
S5		A3 119 41.0	C14	22 pF	A9 999 08/22E
S6		A3 119 42.0	C15	100 pF	A9 999 04/100E
S7		A3 119 43.0	C16	10.000 pF	A9 999 04/10K
S9		A3 119 50.0	C17	106 pF	A9 999 05/100E
S10 )			C18	150 pF	A9 999 04/150E
S10a)		A3 118 35.0	C19	10.000 pF	A9 999 04/10K
S11		A3 119 53.0	C20	22 pF	A9 999 08/22E
S12		A3 119 49.0	C21	30 pF	A9 999 08/30E
S13		A3 119 44.0	C22	3.000 pF	A9 999 05/3K
S14 )			C23	22 pF	A9 999 08/22E
S14a)		A3 119 45.0	C24	22 pF	A9 999 08/22E
S15		A3 125 48.0	C25	65 pF	A9 999 04/47E
S16 )			C26	120 pF	A9 999 05/120E
S17 )		A3 119 77.0	C27	100 pF	A9 999 04/100E
S18 )			C28	390 pF	A9 999 04/390E
S19 )		A3 119 51.0	C29	68 pF	A9 999 04/68E
S20		A3 118 45.0	C30	120 pF	A9 999 05/120E
S20a)			C31	10.000 pF	A9 999 04/10K
S20b)		A3 119 51.0	C32	82 pF	A9 999 04/82E
S21			C33	455 pF <sup>2x</sup>	A9 999 05/910E
S22		A3 119 48.0	C34	56 pF	A9 999 05/56E
S23			C35	20 pF	49 005 59.4
S24		A3 125 93.0	C36	30 pF	28 212 36.4
S25			C37	Zie spoelen	véase bobinas
S26			C38	voir bobines	see coils
C37	110 pF	A3 126 84.0	C39	30 pF	28 212 36.4
C38	195 pF		C40	30 pF	28 212 36.4
S27			C41	33000 pF	A9 999 06/33K
S28			C42	10 pF	A9 999 04/10E
C43	110 pF	A3 126 84.0	C43	Zie spoelen	véase bobinas
C44	195 pF		C44	voir bobines	see coils
S32		A3 117 43.0	C45	47 pF	A9 999 04/47E
C1	50 μF	A9 999 13/	C46	10.000 pF	A9 999 04/10K
C1a	50 μF	M50+50+50	C47	3300 pF	A9 999 06/3K3
C2	50 μF		C48	8200 pF	A9 999 06/8K2
C3	12,5-489 pF		C49	22.000 pF	A9 999 06/22K
C4	12,5-489 pF	49 001 97.0	C50	10.000 pF	A9 999 04/10K
C5	12,5-511 pF		C51	0.1 μF	A9 999 06/100K
C6	330 pF	A9 999 04/330E	C52	47.000 pF	A9 999 06/47K
C8	30 pF	A9 999 08/30E	C53	6.800 pF	A9 999 06/6K8
C9	33 pF	A9 999 04/33E	C54	8 μF	A9 999 11/L8
C10	12 pF	A9 999 08/10E	C55	100 μF	A9 999 10/C100
			C56	390 pF	A9 999 04/390E
			C57	680 pF	A9 999 04/680E
			C58		
			C59	2200 pF	A9 999 06/2K2
			C60	12 pF	A9 999 04/12E
			C61	10 pF	A9 999 04/10E
			C62	30 pF	28 212 36.4
			C63	2100 pF	A9 999 05/1K8+30E
			C64	4.7 pF	A9 999 04/4E7

LIST OF PARTS

-4-

	Description	Code number
	Cabinet	A3 004 48
	Knob (small)	A3 751 59.0
	Knob (large, right)	A3 751 61.2
	Leaf spring for large knob	A3 650 18.0
	Leaf spring for small knob	A3 522 08.2
	Knob (large, left)	A3 752 27.2
	Push button	A3 417 70
	Knob for tone control	A3 769 68.0
	Mains switch	A3 182 78.0
	Tension spring for mains switch	A3 646 06.0
	Variable capacitor	49 001 97.0
	Voltage adaptor	A3 230 10.0
	Leaf spring for fixing coil	A3 651 89.0
	Spring for fixing double coil can	A3 652 58.3
	Spring for fixing single coil can	A3 652 75.1
	Tension spring in drum variable capacitor	89 312 10.3
	Spring for driving cable	A3 646 23.0
	Grommet (colour HA) dial fixing	P5 420 03/08
	Ferroceptor drum	P4 380 53.0
	Spring in ferroceptor drum	89 312 10.3
	Aerial ferroceptor switch	A3 186 83.0
	Strip waverange switches (5x)	A3 664 27.0
	Tension spring push button unit	A4 601 24.0
	Pressure spring push button unit	A3 644 99.0
	Dial (overseas)	A3 806 62.0
	Dial (Mediterranean)	A3 806 68.0
		<i>HL</i>
		WM/SR
N.V. PHILIPS GLOEILAMPEN- FABRIEKEN EINDHOVEN	<i>Service Information</i>	No. Ba 227
		14.2.1957
CENTRAL SERVICE DIVISION		GROUP: Apparatius ARTICLE: Radio TYPE: B5X65A, B6X66A.

Smeltveiligheid van de voedingstransformator.

De voeding transformatoren van bovengenoemde apparaten zijn voorzien van een smeltveiligheid Z1, welke onderbreekt, wanneer de temperatuur van de transformator te hoog geworden is, zoals bijv. kan voorkomen bij een kortsluiting in het apparaat.

Bij hoge omgevingstemperaturen kan het echter voorkomen dat deze veiligheid onderbreekt, ondanks het feit dat het apparaat geen enkel defect vertoont.

In zulke extreme gevallen kan de smeltveiligheid dan vervangen worden door een zekering van 2500 mA, codenummer A9 999 74/2500, welke over de smeltveiligheid gesoldeerd moet worden.

Waverange switch in position	Pointer at trimming point	Modulated signal			Trim for max. output voltage
		from	via	to	
O.C.2b	2	11.75 Mc/s	33.000 pF	g1B1	S19, C12
	1	18 Mc/s	33.000 pF	g1B1 X-Y	C40, C21 C10
O.C.2a	2	17.8 Mc/s	33.000 pF	g1B1	S17, S11
	1	26.4 Mc/s	33.000 pF	g1B1 X-Y	C39, C20 C8
Trimming of loop replacement coil					
O.C.2c	2	5.26 Mc/s	Dummy aerial	Aerial socket	S5
O.C.2a	1	26.4 Mc/s	Dummy aerial	Aerial socket	C66

Seal the cores and trimmers.

#### Mains transformer

If the original mains transformer gets defect, it should be replaced by the standard transformer mentioned in the electrical parts list. For the connections, see fig.2.

#### Cable drive

For the path and the lengths of the cables, see fig.1.

#### Voltages

The voltages are indicated in the circuit diagram and have been measured with the GM 4257.

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**GROUP:** Apparatus  
**ARTICLE:** Radio  
**TYPE:** B6X66A

#### Output valves

In the documentation of the B6X66A the output tubes are stated incorrectly.

This must be : B5 - EL84  
 B8 - UL41

Trimming of the receiverI.F. band filters

1. Set volume control to maximum.
2. Waverange switch to M.W.
3. Variable capacitor at minimum.
4. Unscrew the core of the I.F. band filters as far as possible.
5. Connect a voltmeter via a trimming transformer to the extension loudspeaker socket.
6. Apply a modulated signal of 452 kc/s via a capacitor of 33.000 pF to g<sup>1</sup> of B2.
7. Trim the I.F. filters for maximum output voltage in the order S28, S27, S25, S26, S27.
8. Seal the cores of the I.F. band filters.

R.F. and oscillator circuits

Trimming is done with the aid of the trimming points on the dial. Trimming point 1 at the left, trimming point 2 at the right. Adjust the pointer to trimming point 1 with the variable capacitor at minimum.

1. Volume control at maximum.
2. Connect a voltmeter via a trimming transformer to the extension loudspeaker sockets.
3. If it is indicated in the trimming table, that the signal must be applied to 2 points on the chassis, then the points X and Y are used indicated in fig.3. This because the current flowing in the mounting plate as a result of this, takes care of a weak coupling with the loop aerial. X - Y = 10 cm.

Waverange switch in position	Pointer at trimming point	Modulated signal			Trim for maximum output voltage
		from	via	to	
M.W.	2	550kc/s	dummy aerial	Aerial socket	S24, S15, S10-S10a
	1	1630kc/s	dummy aerial	Aerial socket	C36, C24, C14
O.C.3	2	1.72 Mc/s	33000 pF	g <sup>1</sup> B1	S22, S14-S14a S9
	1	5.15 Mc/s 5.15Mc/s	33000 pF 33000 pF	g <sup>1</sup> B1 X - Y	C35, C23 C12
O.C.2c	2	5.26Mc/s	33000 pF	g <sup>1</sup> B1 X - Y	S20, S13 S7
	1	12.1Mc/s	33000 pF	g <sup>1</sup> B1	C62

N.V. PHILIPS  
GLOEILAMPEN-  
FABRIEKEN  
EINDHOVEN

# Service Information

No. Ba190

5-10-56

CENTRAL  
SERVICE  
DIVISION

GROUP: Apparaatus  
ARTICLE: Radio  
TYPE: H5X68A, B6X66A, B5X65A.

WM/SR

## ALREADY PUBLISHED:

**RE: Supply transformer for B5X65A; B6X66A; H5X68A.**

The code number of the standard transformer S1,2,3,4 in the electrical parts'list of the above sets, is not correct. S1,2,3,4 should be A3 142 75.

- - - - -

**Voedingstransformator B5X65A; B6X66A; H5X68A.**

In de elektrische stuklijst van bovengenoemde apparaten is het code nummer van de standaard transformator, S1,2,3,4 is niet juist. S1,2,3,4 moet zijn A3 142 75.

- - - - -

**Transformateur d'alimentation pour le B5X65A; B6X66A; H5X68A.**

Dans la liste de pièces électriques des appareils susmentionnés le numéro de code du transformateur standard S1,2,3,4 n'est pas juste. S1,2,3,4 doit être A3 142 75.

- - - - -

**Transformador de alimentación para el B5X65A; B6X66A; H5X68A.**

En la liste de piezas eléctricas de los aparatos mencionados arriba, el número de código del transformador standard S1,2,3,4 no es correcto. S1,2,3,4 debe ser A3 142 75.

- - - - -

CENTRAL SERVICE DEPARTMENT

A.v. Heuler