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THE CENTRAL SERVICE DIVISION  
N.V. Philips' Gloeilampenfabrieken  
Eindhoven

# PHILIPS

## SERVICE NOTES

for the receiver

### BX 335 B

1954

For battery supply.

#### Waveranges:

S.W.2 : 13.7 - 45.5 m { 21.89 - 6.59 Mc/s }  
S.W.3 : 44 - 136 m { 6.81 - 2.2 Mc/s }  
M.W. : 185 - 580 m { 1622 - 517 kc/s }

I.F.: 452 kc/s.

#### Bandwidth

The I.F. bandwidth measured from g3 of B1 is about 10.75 kc/s. The "overall" bandwidth measured from the aerial socket is about 10 kc/s at 1000 kc/s.

#### Battery voltages and currents

Vb = 90 V      Ib = 11.5 mA  
Vf = 1.4 V      If = 225 mA

Loudspeaker : 9766 X (Z = 5 Ω)

#### Valves

B1 : DK92  
B2 : DF96  
B3 : DAF96  
B4 : DL94  
B5 : DM71

#### Knobs

Left: Volume control + battery switch  
Tone switch.  
Right: Tuning.  
Waverange switch.

#### Dimensions

Width : 280 mm } knobs  
Height : 178 mm } in-  
Depth : 138 mm } cluded.

93 980 86.1.05

Trimming the receiver.

For all circuits the following applies:

Volume control to maximum.

Tone control to quality.

Connect a voltmeter via trimming transformer to the loudspeaker terminals.

Seal the cores and trimmers after the alignment.

I.F. bandfilters.

Waverange switch at M.W.

Tuning capacitor to minimum

Screw the cores of the bandfilters almost entirely out.

Apply a 452 kc/s modulated signal to g3B1 via a 33000 pF capacitor.

Trim for maximum output voltage: S19, S18, S14, S16.

R.F. Circuits

Trimming is done with the aid of trimming point on the dial. Trimming

point 1 refers to the left, point 2 to the right side of the dial.

Before starting to trim turn the tuning capacitor to minimum and adjust the pointer at trimming point 1.

Trim according the following table.

Waverange switch at	Pointer at trimming point	Modulated signal to the aerial socket via dummy aerial	Trim for maximum output
M.W.	2 1	550 kc/s 1630 kc/s	S13,S6) re- C12,C4) peat
S.W.3	2	2.335 Mc/s	S11,S4
S.W.2	2 1	7.02 Mc/s 22 Mc/s	S9, S2 C13 * *

\* For the S.W.2 alignment screw C13 almost entirely out.

Variable capacitor and pointer drive

The path and the length of the driving cables are indicated in fig.1.

Output transformer.

When the original output transformer becomes defective it must be replaced by the Service transformer mentioned in the electrical parts list.

For connections see fig.2.

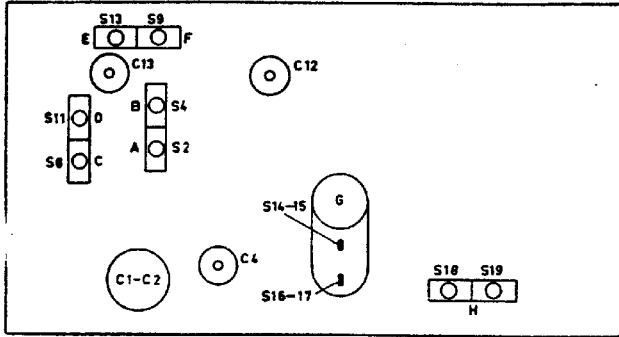
SPARE PARTS LIST

	Description	Code number
	Cabinet	A3 738 65.0
	Knobs (little)	A3 735 55.1
	Lever (waverange switch)	P4 076 73/19
	Lever (tone switch)	P4 076 74/19
	Knobs (big)	A3 738 62.0
	Bracket for fixing rear panel	A3 449 00.1
	Battery plug (ciroular)	A3 386 57.0
	Battery plug (square)	A3 381 05.0
	Valve holders (Noval)	B1 506 55.0
	Rubber grommets (Valve holder)	A3 642 19.0
	Spring clip for coilcans	A3 652 58.3
	Tone switch	A3 401 79.0
	Nut for potentiometer	49 758 21.0
	Tension spring in tuning capacitor drum	A3 646 26.0
	Valve holder (DM71)	B1 506 70.0
	Ornamental ring (DM71)	A3 360 54.0
	Dial (overseas)	A3 742 77.0
	Dial (Medeterranean)	A3 742 78.0
	DJ/MZ	

EX 335 B

S1			A3 125 27.0	C14	2100	pF	A9 999 05/2K +
S2							A9 999 05/100E
S3			A3 125 32.0	C15	487	pF	A9 999 04/470E
S4							A9 999 04/18E
S5			A3 125 35.0	C16			Spoelen
S6				C17			Coils
S10			A3 125 66.0	C18			Bobines
S11				C19			Spulen
S7			A3 125 55.0	C20	47000	pF	A9 999 06/47K
S8				C21	100	μF	A9 999 10/100
S9				C22	47000	pF	A9 999 06/47K
S12			A3 125 72.0	C23	100	pF	A9 999 04/100E
S13				C24	47	pF	A9 999 04/47E
S14			A3 121 94.2	C25	2200	pF	A9 999 06/2K2
S15				C26	47000	pF	A9 999 06/47K
S16				C27	1500	pF	A9 99 5/1K5
S17				C28	4700	pF	A9 999 06/4K7
C16	115	pF		C29	20	pF	A9 999 05/20E
C17	115	pF		C30	1.8	pF	A9 999 04/1E8
S18			A3 124 25.4	R1	0.1	MΩ	A9 999 00/100K
S19				R2	0.82	MΩ	A9 999 00/820K
C18	110	pF		R3	27000	Ω	A9 999 00/27K
C19	110	pF		R4	27000	Ω	A9 999 00/27K
S20			A3 168.75.1	R5	0.18	MΩ	A9 999 00/180K
S21				R6	560	Ω	A9 999 00/560E
C1	50	μF	48 317 59/50+	R7	1.5	MΩ	A9 999 00/1M5
C2	50	μF	50	R8	82000	Ω	A9 999 00/82K
C4	30	pF	28 212 36.4	R9	0.1	MΩ	A9 999 00/100K
C5	11-498	pF	49 001 56.1	R10	0.5	MΩ	48 900 00/DL50K
C6	11-498	pF					+450K
C7	0.47	μF	A9 999 06/470K	R11	4.7	MΩ	A9 999 00/4M7
C8	100	pF	A9 999 04/100E	R12	4.7	MΩ	A9 999 00/4M7
C9	470	pF	A9 999 04/470E	R13	1	MΩ	A9 999 00/1M
C10	100	pF	A9 999 04/100E	R14	1	MΩ	A9 999 00/1M
C11	56	pF	A9 999 04/56E	R18	12000	Ω	A9 999 00/12K
C12	30	pF	28 212 36.4	R25	5.6	MΩ	A9 999 00/5M6
C13	30	pF	28 212 36.4				

DJ/MZ



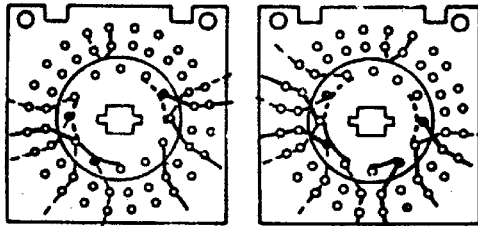
R14763

Fig.1



Fig.2

R14264

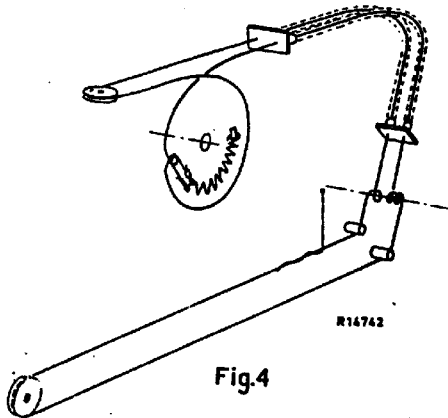
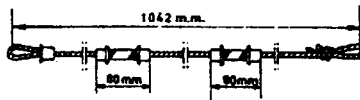


SK1

Fig.3

SK2

R14261

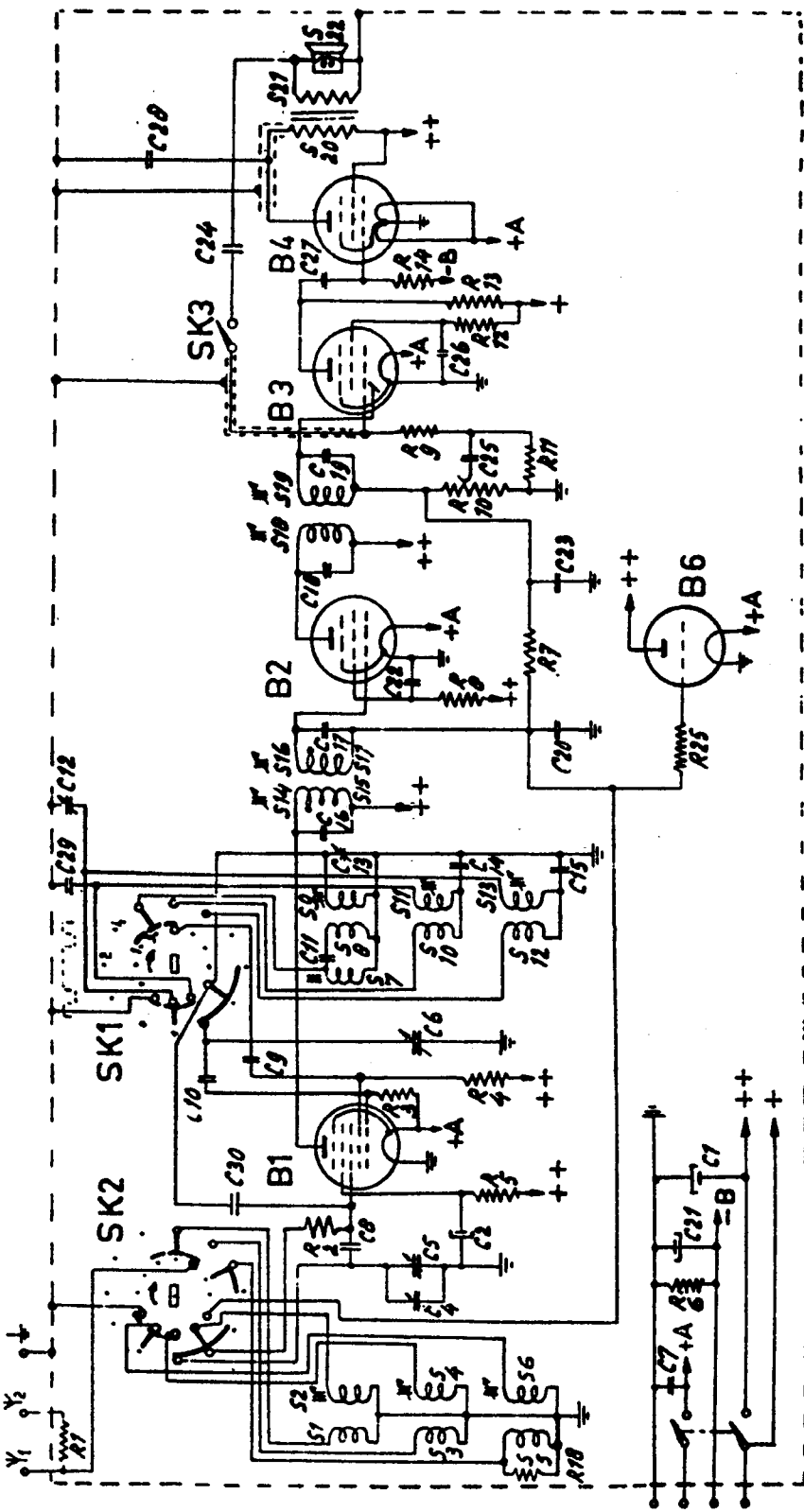


R14762

Fig.4

# BX 335 B

S: 1.2.3.4.5.6.	7.0.9.10.11.12.13. 14.15.16.17.	18.19. 20.21. 22.	23.24. 25.26. 27.28. 29.
C: 4.5.2.21.0.1.30. 10.0.6.	7.8.9.10.11.12.13. 14.15.16.17. 18.19. 20.21. 22.23. 24.25. 26.27.28. 29.	30.31. 32.33. 34.35. 36.37. 38.39. 40.41. 42.43. 44.45. 46.47. 48.49. 50.51. 52.53. 54.55. 56.57. 58.59. 60.61. 62.63. 64.65. 66.67. 68.69. 70.71. 72.73. 74.75. 76.77. 78.79. 80.81. 82.83. 84.85. 86.87. 88.89. 90.91. 92.93. 94.95. 96.97. 98.99. 100.	
R: 10.1.	2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31.32.33.34.35.36.37.38.39.40.41.42.43.44.45.46.47.48.49.50.51.52.53.54.55.56.57.58.59.60.61.62.63.64.65.66.67.68.69.70.71.72.73.74.75.76.77.78.79.80.81.82.83.84.85.86.87.88.89.90.91.92.93.94.95.96.97.98.99.100.		



R14741

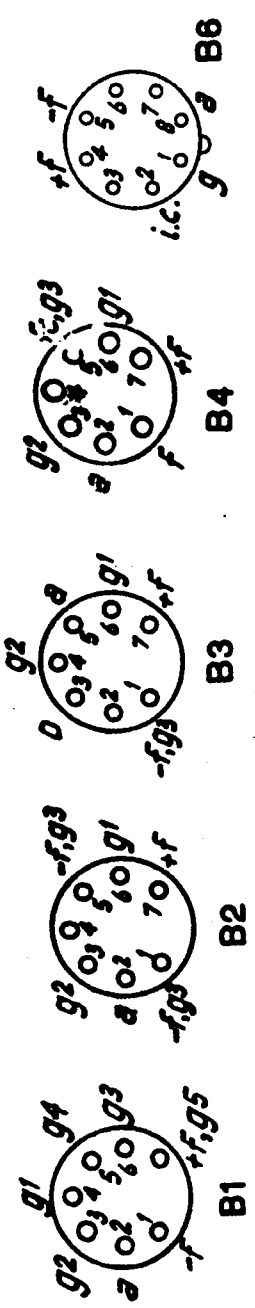


Fig.5



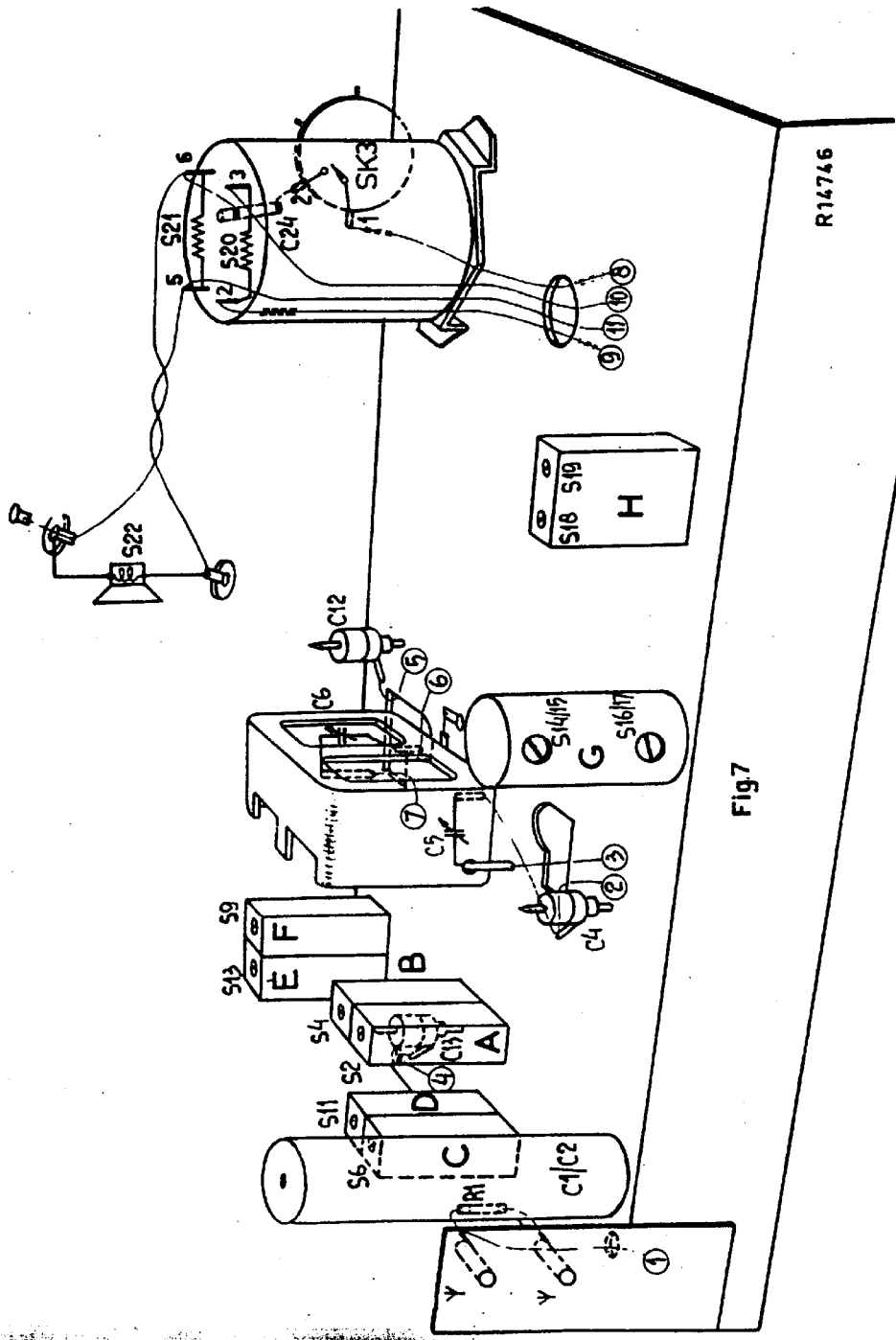


Fig. 7

R14746



Courants et tensions

Voltages and currents

Tensiones y corrientes

		Va	Vg2	Vg4	Ia	Ig2	Ig4
B1	DK92	85	29	67	0,45	1,7	0,1
B2	DF96	85	44	-	1,5	0,5	-
B3	DAF96	20	19	-	0,065	0,014	-
B4	DL94	79,5	85	-	6	1	-
		Volts	Volts	Volts	mA	mA	mA

VC1 = 85 V.

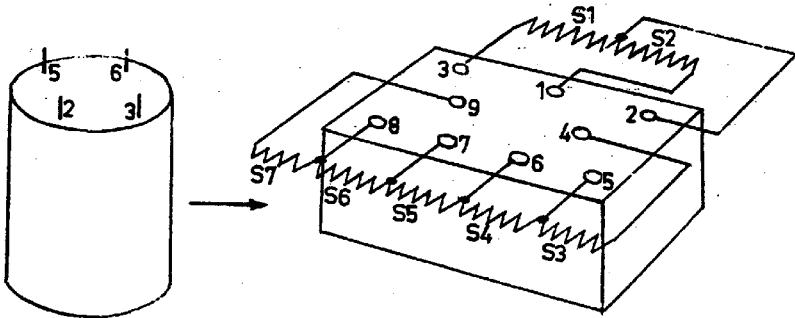


Fig.8

N.V. PHILIPS  
GLOERAMPEN.  
FABRIEKEN  
EINDHOVEN

# Service Information

No. Ba 44

DATE  
29-11-1954

CENTRAL  
SERVICE  
DIVISION

GROUP: Apparaturs  
ARTICLE: Radio  
TYPE: BX 335 B

DJ/RSw

RE: DM 71

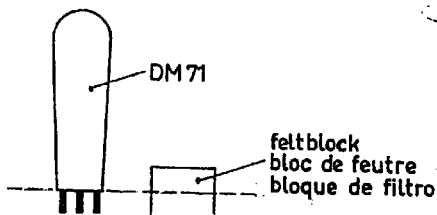
It has appeared that the DM 71 may be damaged during transport by the drum of the tuning capacitor. In order to prevent this, a feltblock is glued in the cabinet next to the DM 71. This feltblock will then absorb the shocks during transport.  
The feltblock is supplied by us under the code number A3 481 03.0

Il est apparu que le DM71 peut être endommagé pendant le transport par le tambour du condensateur variable. Pour éviter cela, un petit bloc de feutre a été collé dans le boîtier à côté du DM 71. Ce bloc de feutre amortira les coups pendant le transport.  
Pièce de feutre numéro de code A3 481 03.0

Ha resultado que el DM 71 puede dañarse durante el transporte por el tambor del condensador variable. Para evitar esto un pequeño bloque de filtro se ha encolado, al lado del DM 71 en el mueble.  
Esta pieza de filtro parará el golpe que el condensador variable pue de obtener durante el transporte.  
Pieza de filtra número de código A3 481 03.0

CENTRAL SERVICE DIVISION

A.v.Heulen



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CARAC. GÉNÉRIQUES	SCHEMATA	Suprahet.	Schéma	APPAREILS DERIVES
Spann. en voeding	V <sub>g</sub> = 90V <sub>e</sub>	V <sub>c</sub> = 1,5V <sub>e</sub>	Tension et aliment.	
Golgeb. st. 1	13,7 - 45,5 m		Gamme 1	BX335B, BX326B-01 in een nieuwe kast.
2	44 - 136 m		2	
3	185 - 580 m		3	BX335B-04 = BX335B, achter kast in oranje uitvoering.
4			4	
5			5	
6			6	
Bandbreedte			Bandbreedte	
Merck	PHILIPS		Mercure	
Waarmer type	AB3510Z (avt. 37667)		HP (Type)	
Extra luidere aansl.			Prise HP suppl.	
Luidere uitrech. aansl.			Inter. HP	
Pick-up aansl.			Prise PU	
Pick-up schak.			Commut. PU	
Kwaliteitschak.			qualite	
Tege-koppeling			Contre-réaction	
Klenkroegling	Ja, 2 st.		Réglage tonalité	
Ver. bandbreedte			Sélect. variable	
Afstemindicatie	Ja, m.e.		Indicateur d'accord	
Ingeb. antenne	Neen		Antenne incorporée	
Ingeb. act. uitrech. b.			Inter. antenne inc.	
Netzoel			Filtre réseau	
Tuigspeler. vast			F. suc./bouchon, inc.	
acuit.			facult.	
Fijnregeling			Réglage fin	
Temp. veiligheid			Fusible thermique	
Veilig. contact			Contact sécurité	
Spanningsaflezing			Indicateur tension	
Uitvoering	Tropensafe; niet stralingsvrij; met local tap		Exécution	
Mesleverten			Accessoires	
Aantal H.F. kringen	1+1		Circuits H.F.	
M.F.	2+2		M.F.	
M.F. in kHz	452		M.F. en kHz	
Selectiviteit (59)	MG: 80x LG:		Selectivité (59)	PG: GC:
Gevoeligheid st. 1	140 µV		Sensibilité G 1	
2	80 µV		G 2	
3	50 µV		G 3	
4			G 4	
5			G 5	
6			G 6	
B 1.6 in kHz	MG: 5,5 LG:		B1.6 en kHz	PO: GO:
Spaansverh. MG	125x		Rapport image PO	
LG			GO	
Verbruik 110V	I <sub>g</sub> = 1,5mA; I <sub>c</sub> = 225mA		Consom. 110V	
125V			125V	
220V			220V	
El. uitv. verm. 110V	150 mW voor f=1000 Hz		Watts sortie 110V	
(D=10%) 125V			(D=10%) 125V	
220V			220V	
Ac. uitv. verm. 110V	13 mW voor f=1000 Hz		KW. acoust. 110V	
(D=0%) 125V			(D=10%) 125V	
220V			220V	
H.F. buis	H		H.F.	
Mengbuis	C	DK92	Mélangeur	
Osc. buis	O		Oscillateur	
M.F. buis	M	DF96	M.F.	
Det. buis	D		Détecteur	
L.F. buis	L	DAF96	Pré-ampli. BF	
Eindbuis	E	DL94	BF de sortie	
Gelijkv. buis	G		Valve	
Faseomkeerb.	F		Déphaseur	
Afstembuis	A	DM71	Indicateur d'accord	
Verl. lampje(s)	V		Lamp(s) d'éclairage	
Soort schaal			Type de cadran	
Afmetingen in mm.			Dimensions en mm.	
Materiaal			Matériau	
Verlichting			Eclairage	
Ijking			Étalonnage	
Slaag v.d. wijsz.			Course de l'aiguille	
Wijsz.			Aiguille	
Golgebieden	Nieuwe philite kast. als BX230B		Gammes d'ondes	
Kast			Coffret	
Doek			Tissu	
Knoppen			Boutons	
Pleest v.h. embleem			Pièce de l'emblème	
Afmetingen in mm.			Dimensions en mm.	
REMARQUES				Uiterlijk en bediening als BX230B.

Série:	RECEPTEUR 5.4/5... PROGRAMME DE VENTE 5...../5.....	No. TYPE: <b>BX335B</b>	
% Dériv.:		FEUILLE: 41	DATE: 10-6-55
Prix orient.:	SPECIFICATION	REPLACE:	DATE: 6-5-55
Développement en: Ehv.			
Fabrication en: Ehv.			