

PHILIPS

SERVICE NOTES

for the
RECEIVER

BX 335 U

1954 For a.c. or d.c. mains supply

GENERAL

WAVERANGES

S.W.2 :	13.7 - 41 m	{	21.9 - 7.32 Mc/s
S.W.3 :	40.5 - 118 m	{	7.4 - 2.54 Mc/s
M.W. :	185 - 580 m	{	1622 - 517 kc/s

CONTROLS

Left: Mains switch and volume control
Tone controlRight: Tuning
Waverange - and p.u. switch

VALVE COMBINATION

B1 : UCH42
B2 : UF 41
B3 : UBC41
B4 : UL 41
B5 : UY 42

DIAL LAMP

L1 : 8097 D-00

I.F.: 452 kc/s

MAINS VOLTAGES

(110), 127, (200), 220 V

POWER CONSUMPTION

43 W (220 V)

LOUDSPEAKER

9766 X Z = 5 Ω

DIMENSIONS

Width :	295 mm	} knobs included
Height :	191 mm	
Depth :	147 mm	

WEIGHT: 2.7 kg

BANDWIDTH

The I.F. bandwidth (1:10) measured from g1 of B1 is about 13.5 kc/s. The "overall" bandwidth (1:10) measured from the aerial socket is about 11.5 kc/s at 1000 kc/s.

IMPORTANT

When connecting a receiver to a.c. mains supply for repairs or trimming, it is necessary to use a transformer with separate windings. The secondary winding must not be earthed and one set only should be connected to the transformer. The chassis can then be earthed. When connecting to d.c. mains check for the right polarity.

MAINS VOLTAGES

In the 220 V (127 V) position of the voltage adaptor the set can be used on 200 V (110 V) by short circuiting R3.

TRIMMING THE RECEIVERI.F. BANDFILTERS

Variable capacitor at minimum.

Waverange switch to M.W.

Volume control at maximum, tone switch at quality.

Connect a voltmeter via a trimming transformer to the loudspeaker terminals.

Screw the cores of the I.F. filters nearly full out.

Apply a modulated signal of 452 kc/s, via a capacitor of 33,000 pF, to g1 of B1.

Trim for maximum output voltage S18, S17, S15, S16.

Seal the cores of S18, S17, S15, S16.

R.F. CIRCUITS

Trimming is done with the aid of trimming points on the dial (see fig.2). Before starting to trim, turn the variable capacitor to minimum and set the pointer on the trimming point 1.

For all waveranges the following applies:

Volume control at maximum.

Tone control at "quality".

Connect a voltmeter via a trimming transformer to the extension loudspeaker sockets.

Trim as indicated in the following table, strictly observing the order given:

1	Waverange switch to	M.W.	S.W.3	S.W.2
2	Turn the pointer, by means of the tuning knob, to trimming point	2	2	2
3	Apply a modulated signal of via a dummy aerial to the aerial socket	545 kc/s	2.65 Mc/s	7.50 Mc/s
4	Trim for maximum output voltage	S14, S7	S12, S4	S10, S2
5	Turn the pointer by means of the tuning knob to trimming point	1	1	1
6	Apply a modulated signal of via a dummy aerial to the aerial socket	1630 kc/s	7.4 Mc/s	21.9 Mc/s
7	Trim for maximum output voltage	C16, C5	C10	C11, C6
8	Repeat the points	2-8	2-8	2-8
9	Seal the cores and trimmers	S14, S7, C16, C5	S12, S4, C10	S10, S2, C11, C6

REPAIRS AND REPLACEMENT OF PARTSREMOVING THE CHASSIS FROM THE CABINET

Turn the variable capacitor at maximum.
 Remove the knobs.
 Remove the rear panel.
 Unsolder the loudspeaker connections.
 Remove the pointer from the driving cable.
 Unscrew the 2 screws underneath the chassis.
 Take the chassis out of the cabinet.

POINTER AND CAPACITOR DRIVE

The path and the length of the driving cord are indicated in fig. 4, the variable capacitor being set to maximum.

OUTPUT TRANSFORMER

If the original output transformer of this apparatus becomes defective, it must be replaced by the standard transformer mentioned in the electrical parts list.

For connections see fig. 5.

VOLTAGES AND CURRENTS

Valves			Va	Vg2(+4)	Vk	Ia	Ig2(+4)
B1	UCH 42	Hexode	160	74	-	2.4	3.15
		Triode	85	-	-	3.4	-
B2	UF 41	Pentode	160	74	-	5.3	1.6
B3	UBC 41	Duo Diode Triode	50	-	-	0.5	-
B4	UL 41	Pentode	169	160	8.2	47	7.5
			Volts	Volts	Volts	mA	mA

VC1 = 185 Volts

VC2 = 160 Volts

I total = 195 mA (220 V~)

These values have been measured with the Universal Measuring Instrument GM 4257. Receiver connected to 220 V~, Waverange switch to M.W. and no signal to the aerial socket.

BX 335 U

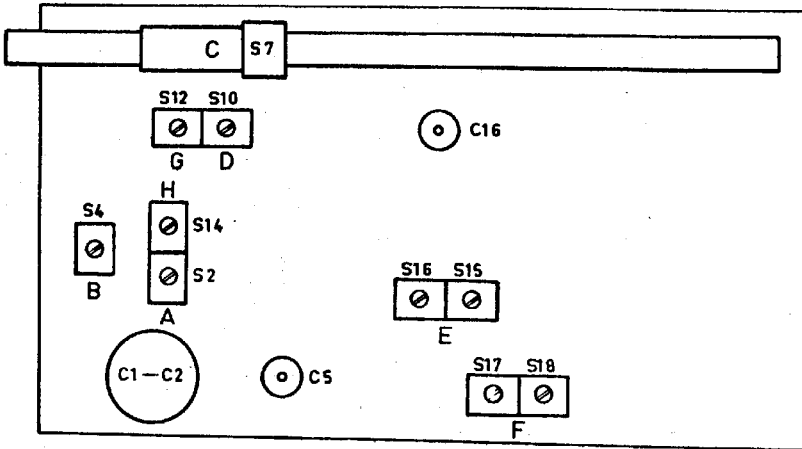


Fig 1

R14837

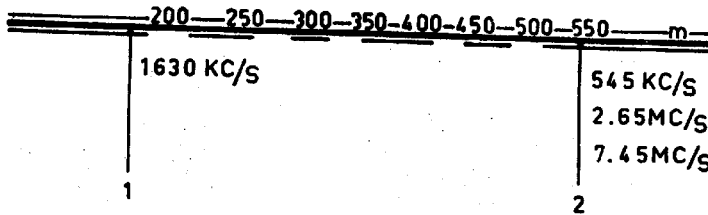
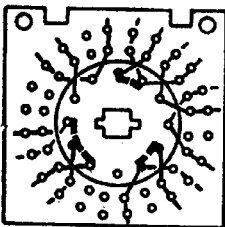
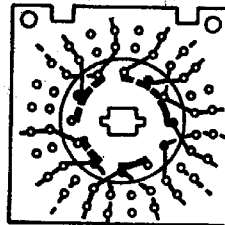


Fig 2

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sk1



sk2

R14836

Fig 3

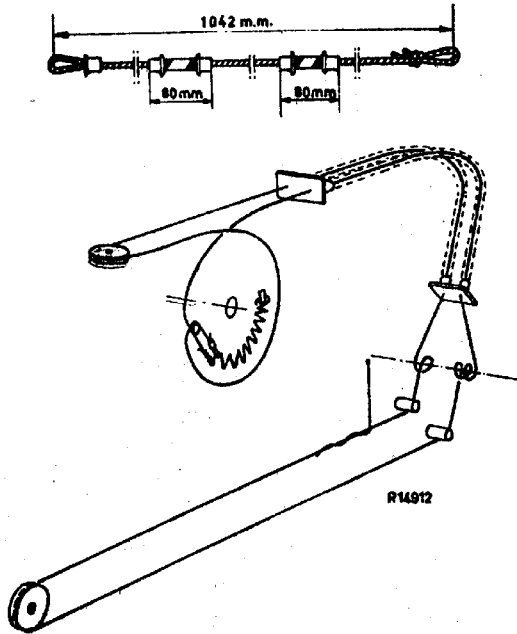


Fig 4

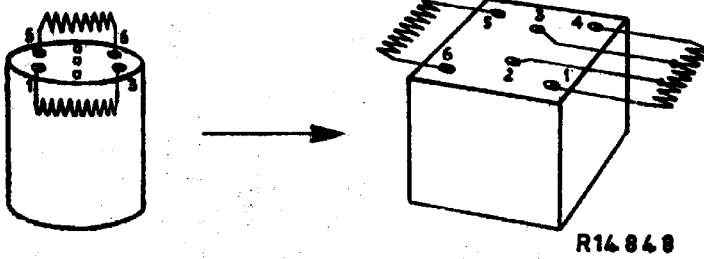


Fig 5

S:	7.	F.	E.	21.	D.H.A.2019.G.	B.
C:	32.	30.	31.3327.29.5.352612.82036919.	16.	14.7.34.	4.13.18.
R:	5.1.	11.14.13.	17.21.15.16.12.18.	10.24.	19.7.23.	8.6.22.
				9.	2.	3.20.4.50.

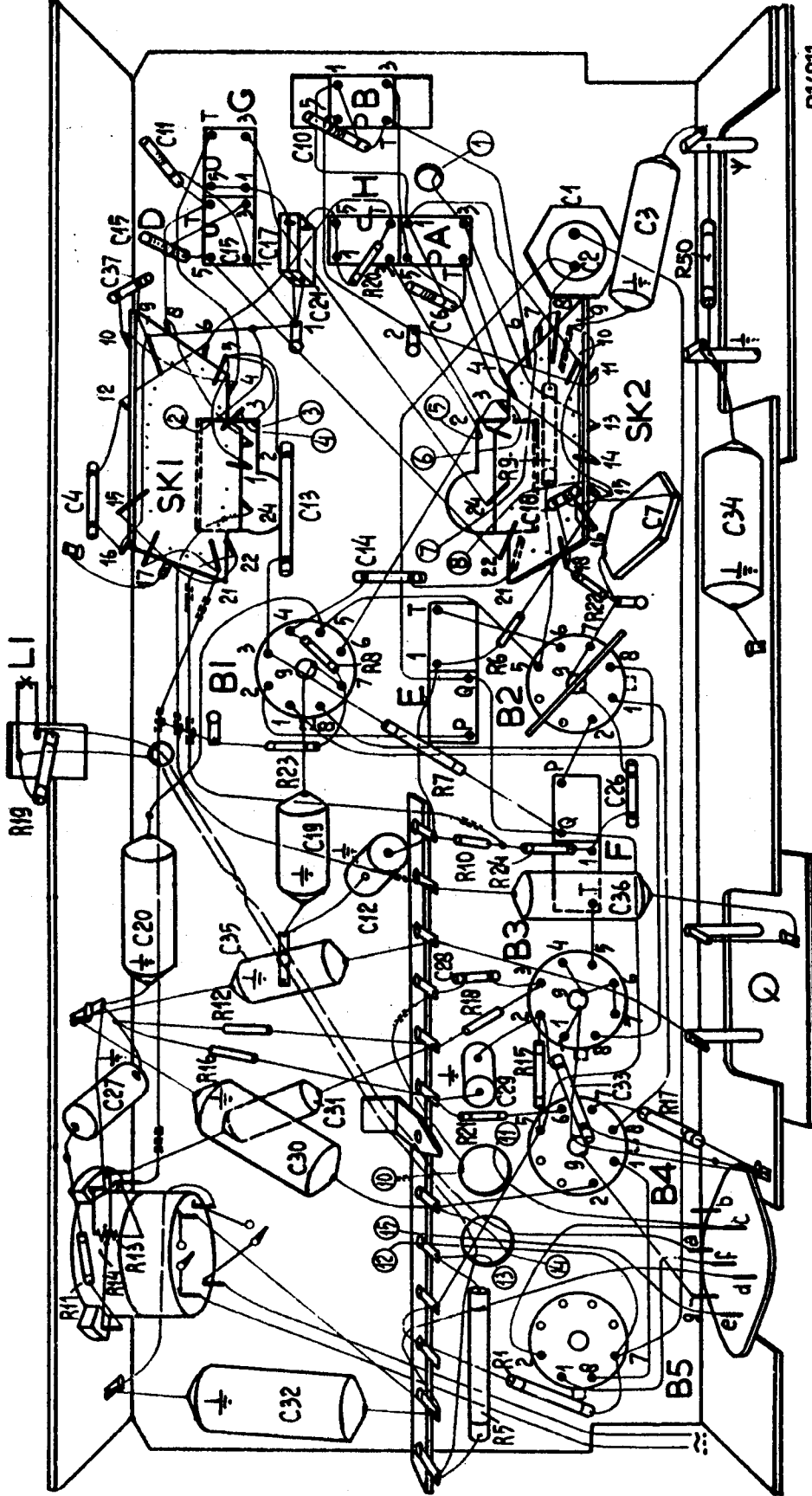
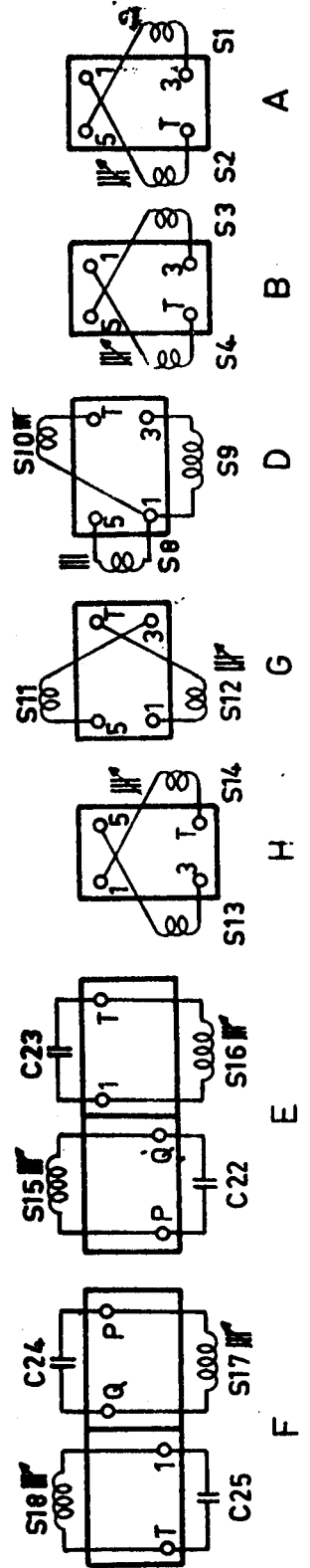
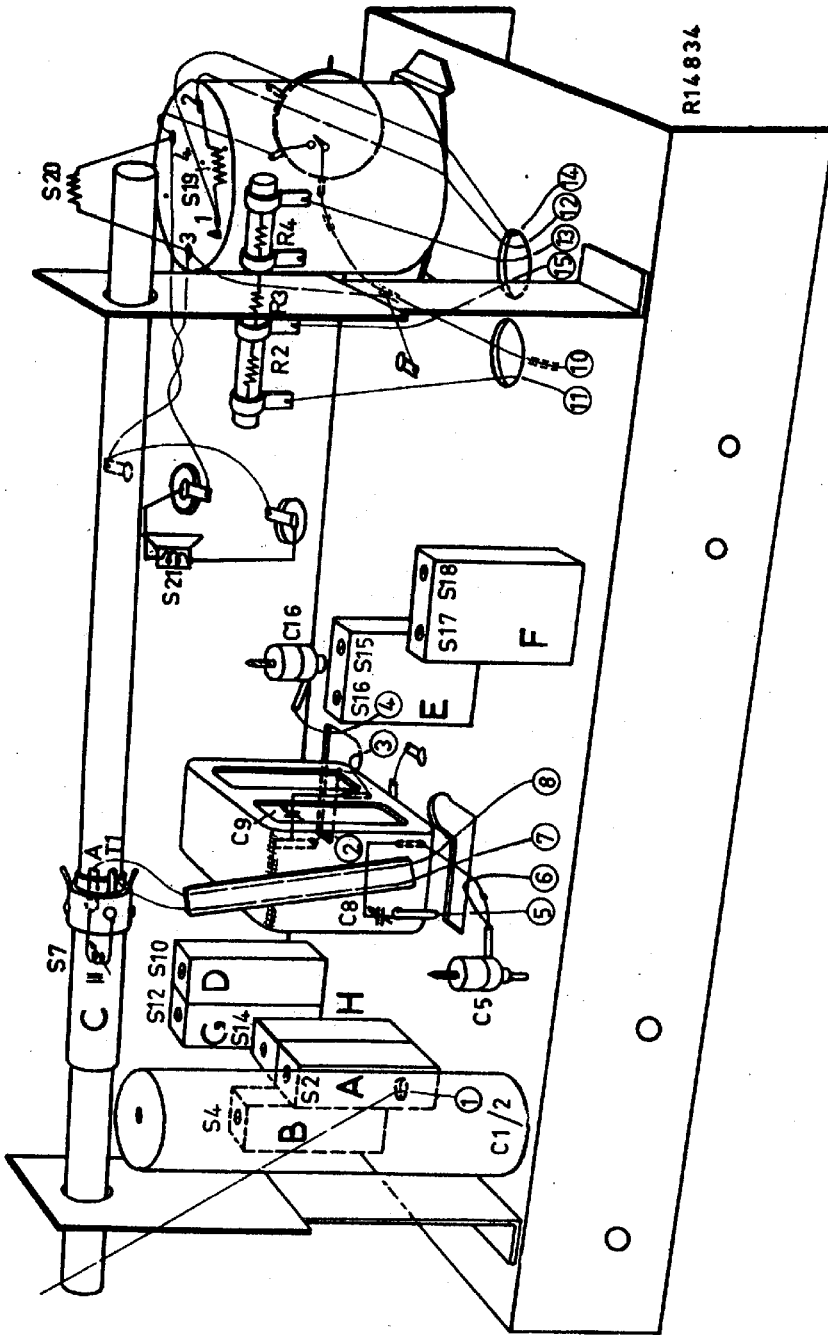


Fig 7





R14834

Fig 8