

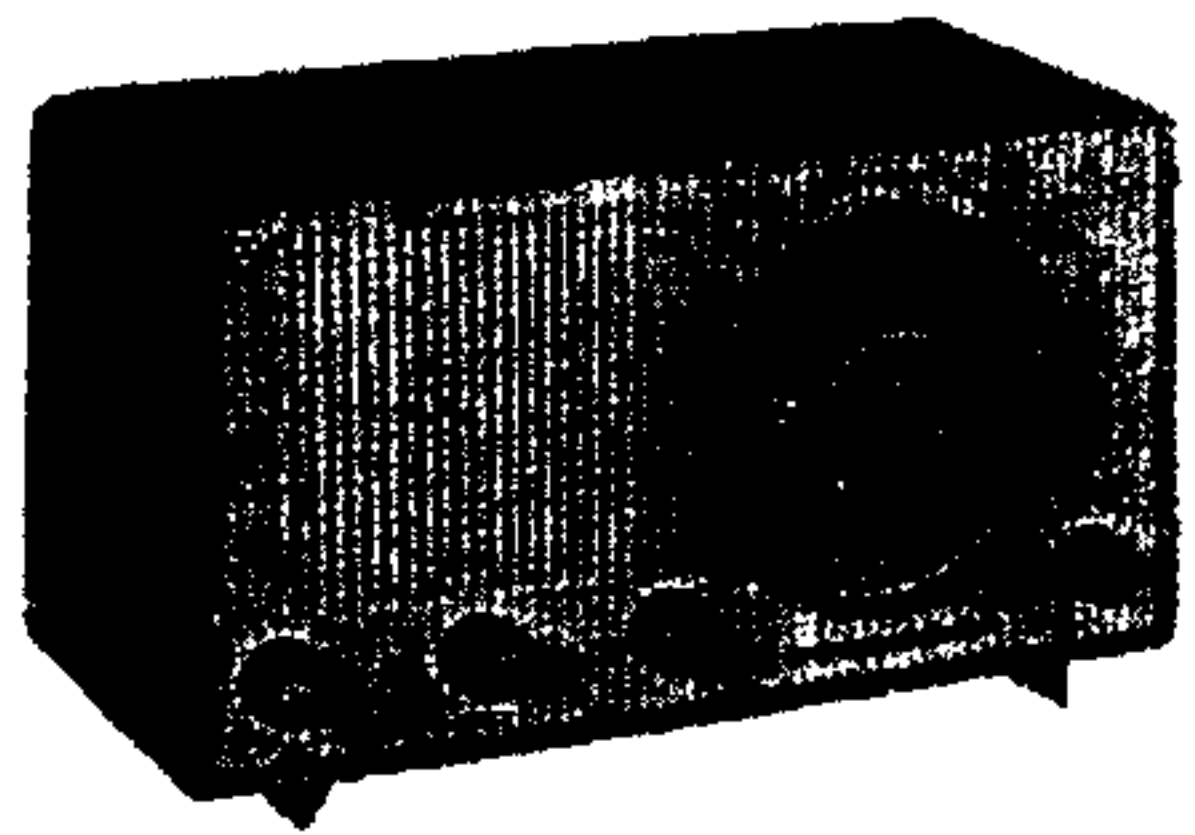
PHILIPS RADIOPLAYER

MODEL 172

SPECIFICATIONS

(Subject to alteration without notice)

Power Supply	.....	200-250, 40-50 c/s
Tuning Range	.....	530-1620 Kc/s
Tuning Type	.....	Permeability
Intermediate Frequency	.....	455 Kc/s
Cabinet	.....	Plastic mantel



VALVE EQUIPMENT AND VOLTAGE ANALYSIS

Valve Function	Valve No.	Valve Type	Plate Volts	Screen Volts	Osc. Plate Volts	Cath. Volts
Frequency Converter	V1	6AN7	225	43	98	—
I.F. Amplifier	V2	6BH5	225	43	—	—
Audio Amplifier, A.V.C. and Demodulator	V3	6BD7	72	—	—	—
Power Amplifier	V4	6M5	219	225	—	6.75
Rectifier	V5	6V4	227/227	—	—	—
Dial Lamp	V11	6.3V 0.32A tubular screw				
Unfiltered: B+ 237 Filtered: B+ 225			Across R18, 1.9V. Filaments 6.4V.			

NOTE: These voltages are measured with an "1,000 ohms per volt" meter and may vary $\pm 10\%$ from the figures quoted. They are measured from the socket points indicated to chassis, or across the resistor listed. The receiver should be in a "no signal" condition.

TO REMOVE CHASSIS FROM CABINET

Remove four control knobs (a firm pull is all that is necessary). Remove cabinet back (4 screws), unsolder plate aerial lead from clip and unscrew the dial window securing clamp from inside cabinet. Release dial lamp-holder assembly from its mounting post. The dial window may now be removed. Withdraw top section of window from cabinet first until the angle allows release of leg at the bottom. Remove cursor from tuner spindle. Release of the two chassis mounting screws (chassis front to cabinet near tuning spindle and volume control respectively) allows removal of chassis.

Note: When removing chassis from cabinet, care should be exercised with regard to the speaker voice coil leads. Speaker lead length is sufficient if service work to be undertaken permits chassis to be in close proximity to cabinet, otherwise voice coil leads should be unsoldered at lug strip. The chassis may be replaced by a reversal of the above procedure.

MAINS VOLTAGE ADJUSTMENT

The power transformer is provided with two primary winding tapings—200/230 volts and 240/250 volts—for adjustment of the receiver to the supply voltage at the point of installation. The receiver is adjusted at the factory to the 240/250 volts tapping.

DIAL CALIBRATION ADJUSTMENT

If dial calibrations are incorrect over the dial scale by an equal amount, the error can be corrected by moving the cursor on the tuning spindle.

POSITIONING OF CONTROL KNOBS ON SPINDLES

Correct position of knob in respect to flat on spindle is indicated by two pips on the bush of the knob. The section between the two identification marks should line up with the flat section on the spindle.

ALIGNMENT

By making use of short length tools, alignment can be undertaken with the chassis in the cabinet.

I.F. Alignment

Set volume control at maximum, tone control to high position and tuner inductance to minimum (anti-clockwise).

Peak the I.F. transformers in the following order.

Second I.F.T. secondary—front screw

Second I.F.T. primary—rear screw

First I.F.T. secondary—screw nearer 6BH5

First I.F.T. primary—screw nearer 6AN7

R.F. Alignment

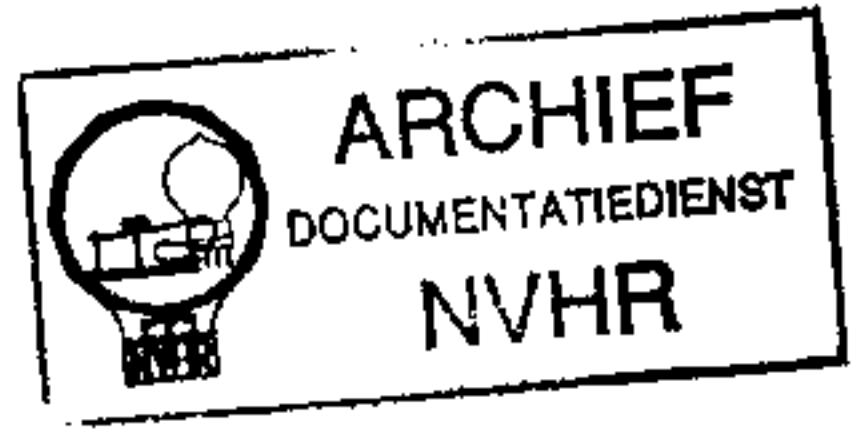
With tuner closed (clockwise) adjust pointer to stop mark (small triangle located extreme outside of scale slightly to right of letter "W" of state designation, N.S.W.).

Connect generator through standard I.R.E. dummy to aerial and earth leads and set trimmers to approximately the centre of their adjustment range.

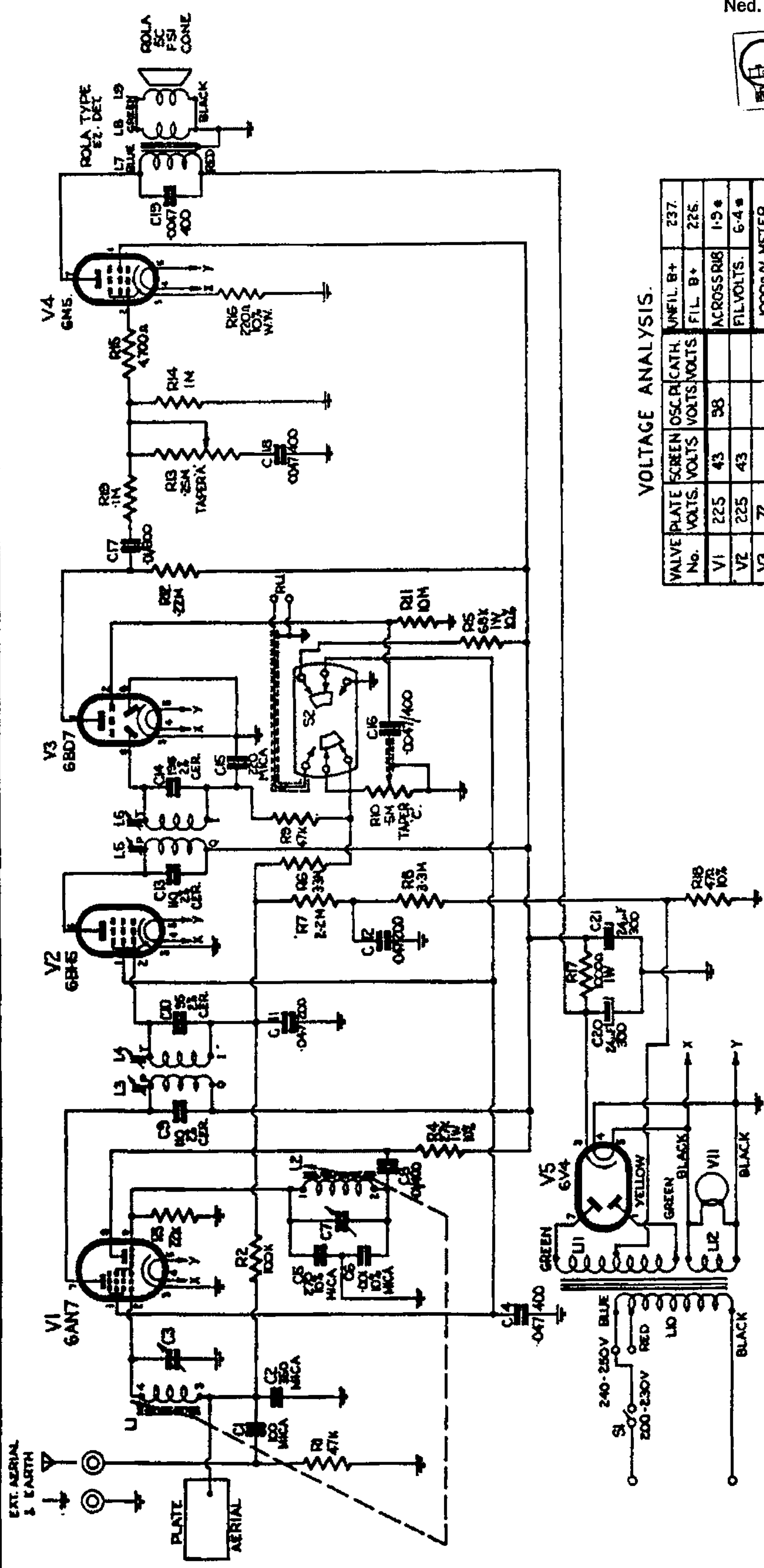
With generator set at 530 Kc/s, peak oscillator trimmer (near tuner). Adjust dial pointer and generator to 1,500 Kc/s (3AK) and peak aerial trimmer (near 6AN7).

Repeat checks at 530 Kc/s and 1,500 Kc/s.

Ned. Ver. v. Historie v/d Radio



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19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1



VOLTAGE ANALYSIS.

VALVE No.	PLATE VOLTS	SCREEN VOLTS	OSC. CATH. VOLTS	LINEIL. B+ FIL. B+ ACROSSRIBS	FIL. VOLTS.	237.
V1	225	43	58			225.
V2	225	43				1-9 *
V3	72					6-4 *
V4	219	225	6-75 *			1000V METER 250V SCALE. INDICATES 10V SCALE.
V5	227/227V. AC.					

NOTES

- CAPACITOR VALUES - WHOLE Nos. - pF. DECIMALS - μF. SECOND FIGURE = D.C. V.W. TOLERANCE 20% UNLESS OTHERWISE SHOWN.
- RESISTORS ARE 1/4W 20Ω UNLESS OTHERWISE SHOWN.
- MAINS SWITCH S1 IS MOUNTED ON VOLUME CONTROL RD.
- SWITCH S2 (RADIO - RU) IS DRAWN IN POSITION RADIO AS VIEWED FROM REAR.

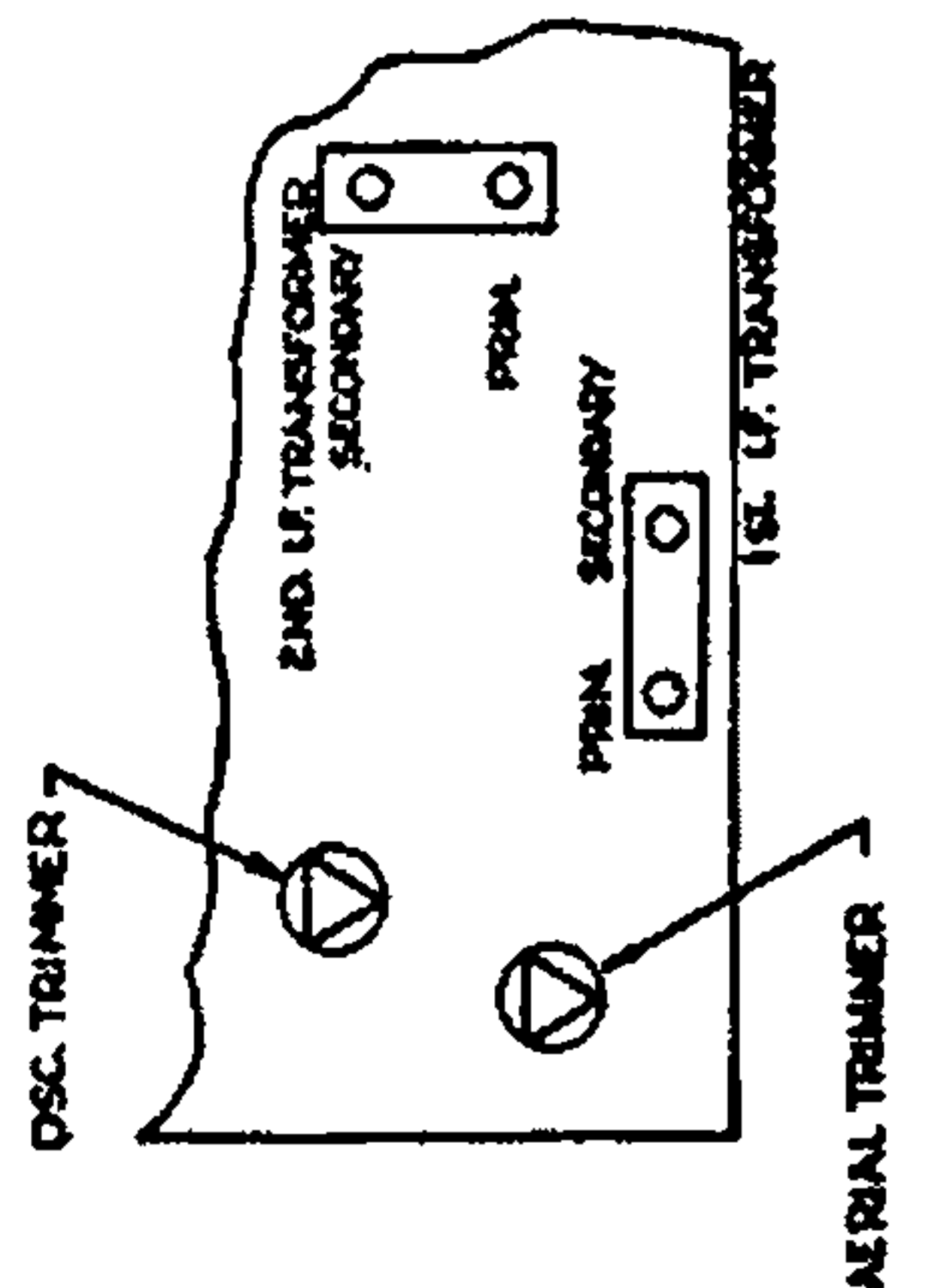
IF. TRANSFORMER BASE



VIEW OF LUGS



VIEW OF LUGS. PERMEABILITY TUNER BASE



PARTS LIST

SERVICE DATA

CAPACITORS

No.	Description	Code No.
C1	100pF mica	
C2	350mf mica	
C3, 7	60pF air trimmer	49.005.58
C4	0.047mf 400V paper	
C5	270pF mica 10%	
C6	0.001mf mica 10%	
C8	0.01mf 400V paper	
C9, 10, 13, 14	Part of I.F. transformers	
C11, 12	0.047mf 200V paper	
C15	220pF mica	
C16, 18, 19	0.0047mf 400V paper	
C17	0.01mf 600V paper	
C20, 21	24mf 350V electrolytic	

Unless otherwise specified, all tolerances are $\pm 20\%$.

RESISTORS

No.	Description	Code No.
R1, 9	47,000 ohms $\frac{1}{2}$ W carbon	
R2, 19	0.1 megohm $\frac{1}{2}$ W carbon	
R3	22,000 ohms $\frac{1}{2}$ W carbon	
R4	27,000 ohms 1W carbon 10%	
R5	68,000 ohms 1W carbon 10%	
R6, 8	3.3 megohms $\frac{1}{2}$ W carbon	
R7	2.2 megohms $\frac{1}{2}$ W carbon	
R10	0.5 megohm carbon potentiometer with S.P.S.T. switch CZ.032.027	
R11	10 megohm $\frac{1}{2}$ W carbon	
R12	0.22 megohm $\frac{1}{2}$ W carbon	
R13	0.25 megohm carbon potentiometer CZ.029.096	
R14	1 megohm $\frac{1}{2}$ W carbon	
R15	4,700 ohms $\frac{1}{2}$ W carbon	
R16	220 ohms $\frac{1}{2}$ W carbon 10%	
R17	1,000 ohms 1W carbon	
R18	47 ohms $\frac{1}{2}$ W W/W 10%	

Unless otherwise specified, all tolerances are $\pm 20\%$.

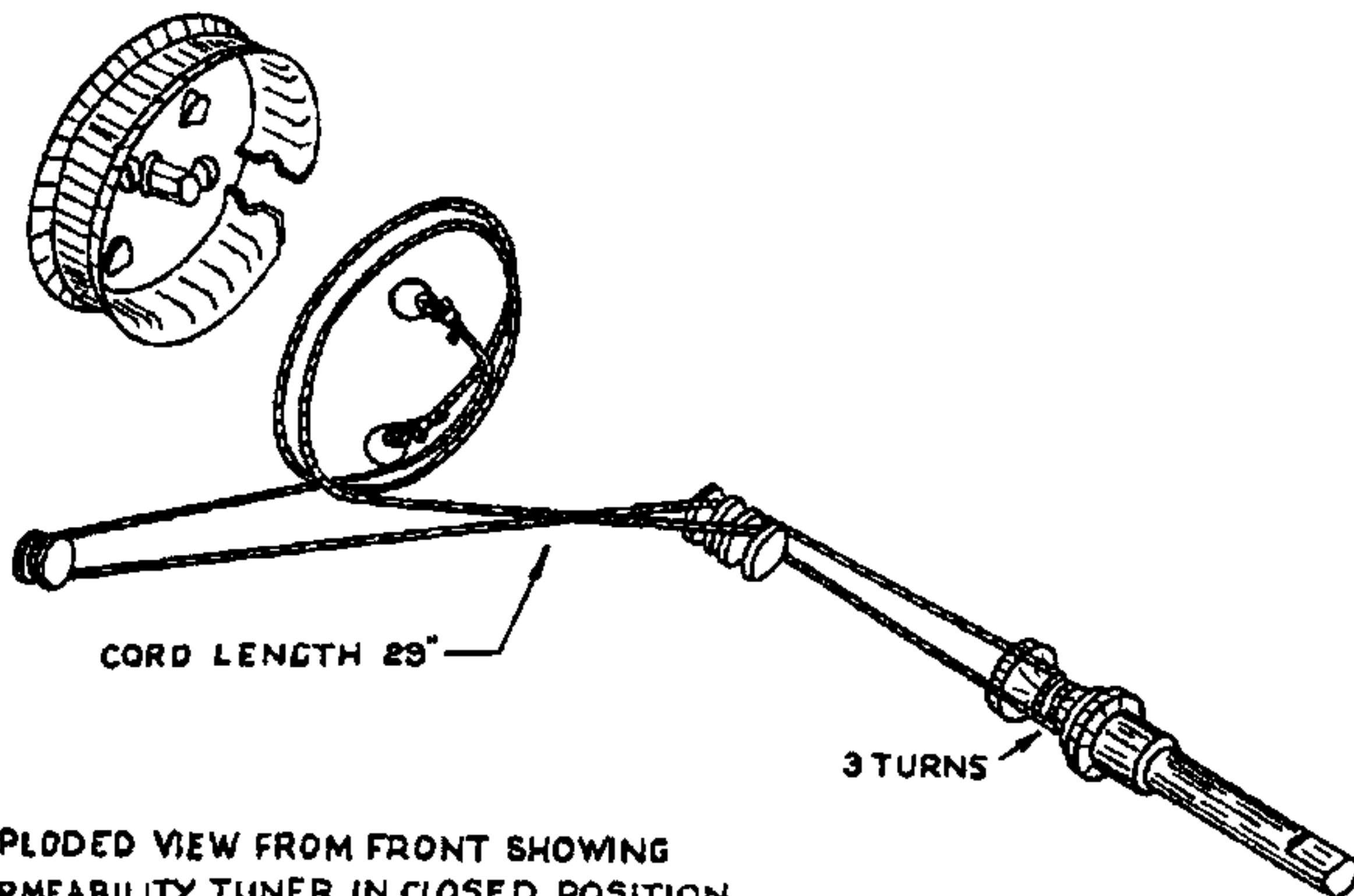
COILS

No.	Ohms	Description	Code No.
L1	15-16	Permeability Tuner	CZ.109.002
L2	5.8-6.2		
L3	8.0-9.0	1st I.F. transformer	A3.126.84
L4	4.7-5.2		
L5	8.0-9.0	2nd I.F. transformer	A3.126.84
L6	4.7-5.2		
L7		Output transformer 7,000 ohms	Type (EBG96) E2-DET CZ.345.035
L8			
L9		Speaker	Type 5C, F51
L10	55-75	Power transformer	CZ.344.084
L11	630-850		
L12	<1		

IMPORTANT! When ordering spare parts, quote **CODE NUMBER** of part and **MODEL NUMBER** of Receiver. In claiming free replacement under **GUARANTEE**, return defective part **PROMPTLY** and quote **MODEL** and **SERIAL NUMBER** of Receiver and **DATE OF PURCHASE**.

MISCELLANEOUS COMPONENTS

Description	Code No.	Description	Code No.
Back assembly, cabinet black	CR.572.149	Cord, dial drive (29") (bulk)	06.606.28
Back assembly, cabinet claret	CR.572.150	Cursor assy.	CR.480.667
Back assembly, cabinet coral	CR.572.152	Dial scale	CS.412.016
Back assembly, cabinet primrose	CR.572.153	Drum, dial	CS.360.015
Back assembly, cabinet starlight grey	CR.572.151	Knob assembly, burgundy, x4	CR.523.750
Back assembly, cabinet white	CR.572.154	Knob assembly, black, x4	CR.523.764
Badge, Philips	A3.357.10	Knob assembly, red, x4	CR.523.756
Bracket, cabinet back, x3	CH.629.211	Knob assembly, white, x4	CR.523.758
Cabinet assembly, black	CR.570.678	Lampholder assembly	CZ.367.945
Cabinet assembly, carmen red	CR.570.676	Name, Philips	CS.436.446
Cabinet assembly, coral	CR.570.675	Plate, aerial	CS.108.023
Cabinet assembly, grey	CR.570.674	Plate assembly, pick-up socket	CR.122.206
Cabinet assembly, primrose	CR.570.677	Spindle, tuning	CR.371.229
Cabinet assembly, white	CR.570.679	Spring, dial drive	CS.210.061
Clamp, dial window	CS.231.256	Spring, I.F. mounting, x2	A3.652.58
Clamp, speaker mounting, x2	CS.233.579	Switch, pick-up	CZ.200.079
Clip, aerial	CS.104.259	Washer, felt, x4	CS.467.127
		Window assembly, dial	A3.410.46

**NOTE :**

EXPLODED VIEW FROM FRONT SHOWING
PERMEABILITY TUNER IN CLOSED POSITION.

Philips Electrical Industries Pty. Ltd.

Sydney — Melbourne — Brisbane — Adelaide — Perth — Hobart