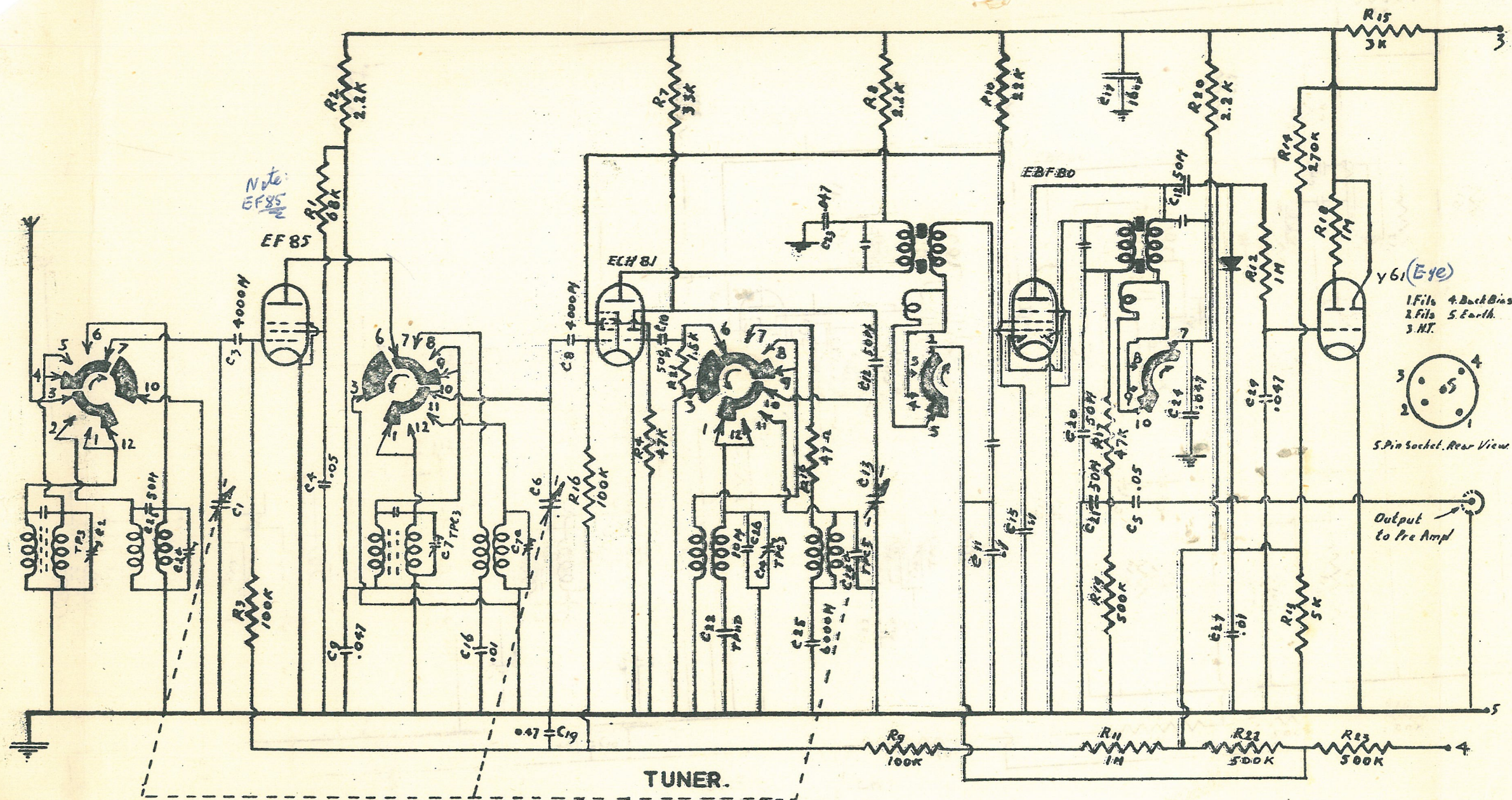
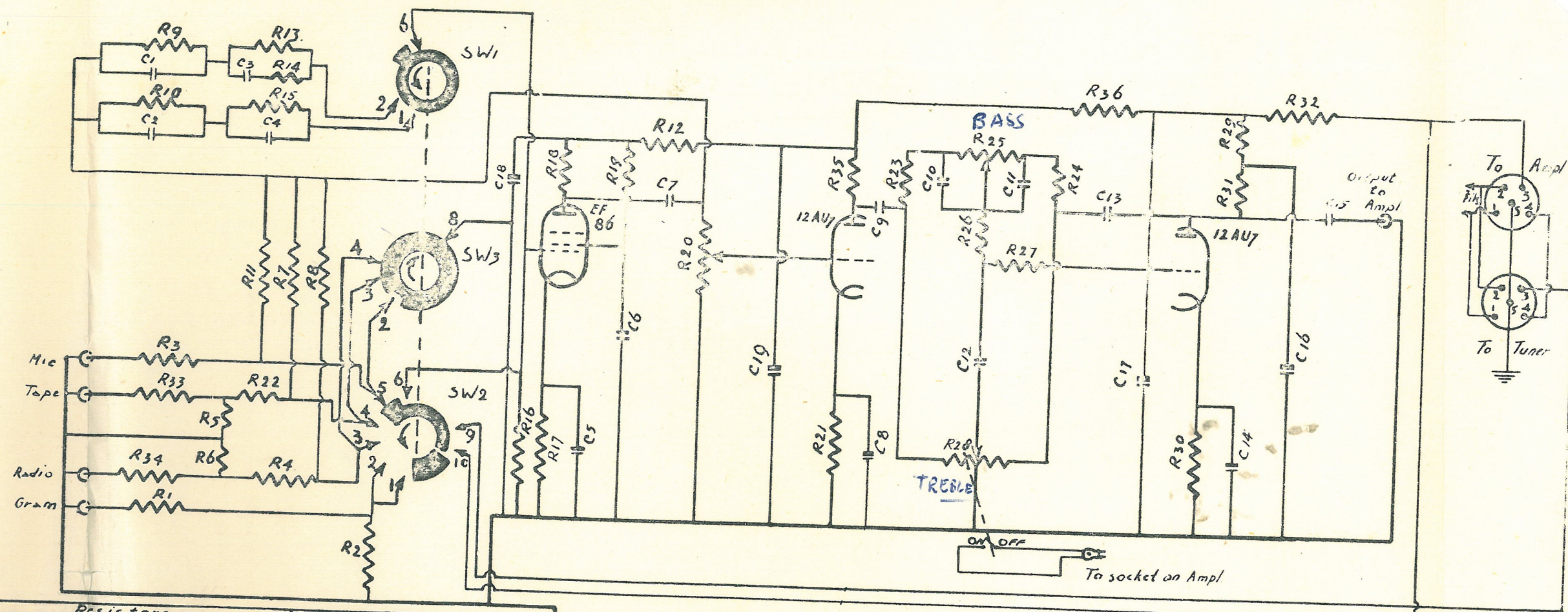






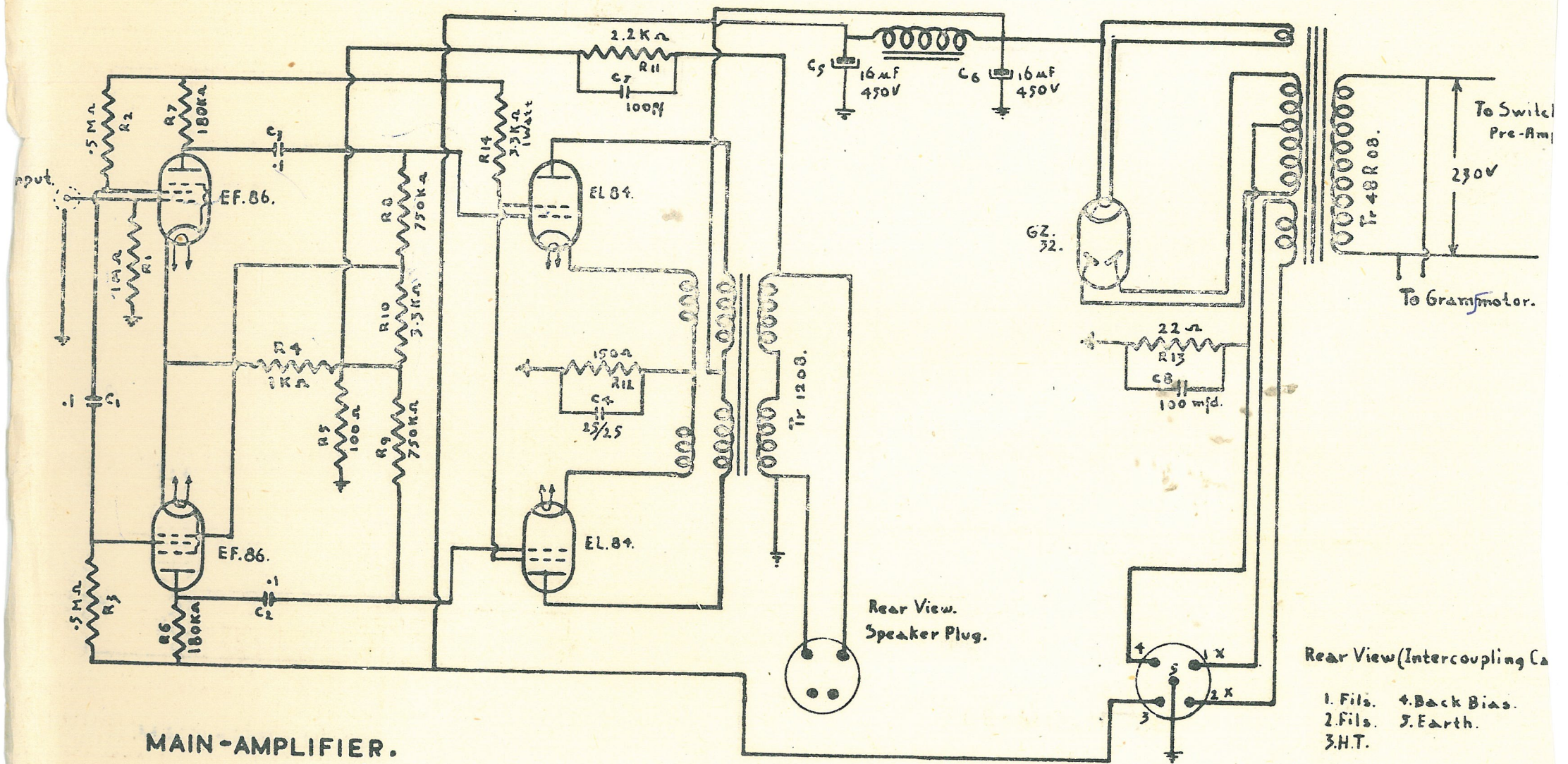
Resistors			Capacitors		
R1 82K	R17 2K H.S.	R35 68K	C1 1000p	C17 8mfd	
R2 68K	R18 250K H.S.	R34 68K	C2 470p	C18 8mfd	
R3 680K	R19 1.5M H.S.	R35 50K	C3 100p	C19 8mfd	
R4 120K	R20 500K	R36 47K	C4 100pf		
R5 27K	R21 22K		C5 25u/25m		
R6 27K	R22 100K		C6 .1m		
R7 100K	R23 100K		C7 .1		
R8 100K	R24 100K		C8 25u/25m		
R9 5.6M	R25 1M		C9 .1		
R10 6.8M	R26 470K		C10 .005		
R11 20M	R27 1K		C11 .005		
R12 100K	R28 500K		C12 100pf		
R13 680K	R29 47K		C13 .1		
R14 390K	R30 22K		C14 25u/25m		
R15 680K	R31 50K		C15 .1		
R16 2.2M	R32 25K		C16 8mfd		

Sw1. Front
Sw2 Rear
Sw3 Front) Wafer 1.

PRE-AMPLIFIER.

5601

1. Filts 4. Back Bias
2. Filts 5. Earth.
3. H.T.



MODEL 5601Power Supply - 230V. 50c/s.Consumption - 87 Watts.Power Output - 11 Watts.RADIO TUNER UNIT:

Signal is applied to the grid of V1, an EF85 R.F. Amplifier through a .004 mF condenser. V1 is inductively coupled and fed to the grid of V2, an ECH81 triode heptode, through a .004 mF condenser. The triode section of V2 is a conventional parallel-fed Meissner oscillator, operating above the signal frequency and producing an I.F. of 455Kc/s. The ECH81 is not electron coupled, so there is an external connection between the oscillator grid and G3 of the heptode section. The first I.F. transformer has an additional, or tertiary winding which is switched in or out for "Normal BC" or "Hi-Fi" respectively. Thus, in the "Hi-Fi" position, tuning is sharp and in the "Broadcast" position over-coupling is introduced producing the familiar flat topped curve.

V3 is an EBF80 double-diode pentode, the pentode section being used as an I.F. Amplifier and the two diodes strapped together as a second detector. There is a tertiary winding in the second I.F. Transformer similar to the first. AVC is applied to all three valves.

Part of the I.F. signal is fed via a 50 mmF condenser to the OA150 AVC germanium diode to which a delay voltage is applied from a potentiometer consisting of a 270K and a 5K resistor across the HT supply. A standing bias of -2 volts is obtained from the connecting socket via two .5 Meg ohm resistors. There is a Y61 magic eye tuning indicator. Output is taken from the junction of a 500K and a 47K resistor, the diode load to a co-axial socket mounted on the chassis.

I.F. ALIGNMENT:

1. Short out oscillator grid, pin 9 of ECH81.
2. (a) Measure AVC voltage with valve voltmeter or
(b) Measure screen voltage of EBF80 (pin.1).
3. Switch to "Normal BC" and open gang.
4. Inject 455Kc/s signal through a .1 mF condenser to grid (pin 2) of ECH81 mixer valve.
5. Starting from 2nd I.F. tune for maximum meter reading.
When this has been reached, readjust secondary (bottom slug) of second I.F. for minimum reading.
6. Switch to "Hi-Fi" BC.
7. Rock signal generator tuning gently to either side of 455Kc/s.
If alignment is correct two peaks will appear equal in amplitude and evenly spaced.

R.F. ALIGNMENT:

1. Switch to "Normal BC".
2. Check dial pointer position against reference mark on dial.
3. Connect signal generator to aerial and earth through dummy load.
4. Tune to 1400Kc/s inject 1400Kc/s signal. Adjust oscillator trimmer.
5. Peak aerial and R.F. trimmers.
6. Tune to 600Kc/s inject 600Kc/s and adjust oscillator padder.
7. Repeat 4 to 6 for best results.
8. Switch to "Normal SW".
9. Tune to 16 Mc/s and inject 16 Mc.s signal. Check aerial and oscillator trimmer and R.F. tuning.
10. Tune to 7 Mc/s inject 7 Mc/s signal. Check aerial and R.F. tuning.

PRE-AMPLIFIER:

An attenuation network provides for input of microphone, tape, gramophone or radio by means of 4 co-axial sockets mounted at the end of the box containing the unit, and clear four controls.

1. (a) Mic. (b) Tape. (c) Radio. (d). Gram. L.P. (e). Gram. 78.
2. Volume.
3. Bass cut/boost.
4. Treble.

Input is applied to the grid of an EF86 pentode which is RC coupled via a .1mF condenser to the grid of one half of a 12 AU7 double triode. On gram. part of the output of the EF86 is fed back to the tone compensating network for standard or L.P. recordings.

Between the two triodes of the 12AU7 is the tone control network. R25, a 1 Meg ohm potentiometer varies the low note input from the first triode and the feedback from the second triode. R28, a 500K potentiometer performs the same function with high notes.

Output from the second triode is RC coupled via a .1 condenser to the co-axial socket at the end of the metal case.

MAIN AMPLIFIER:

This chassis also contains the power supply for all three units.

Output from the pre amplifier is fed via a co-axial lead to the grid of an EF86 pentode. This is RC coupled to one of the EL84 output pentodes and part of this output is fed to the grid of the phase inverter, a second EF86. The two EF86 pentodes are connected in conventional push-pull. Inverse feedback is fed from the output transformer via a 2.2K resistor and a 100 mmF condenser to the cathodes of the two driver valves.

SPEAKER:

This is a Rola 8¹/₄ ohm high fidelity and is housed in a separate bass reflex cabinet.

GRAMOPHONE:

Gramophone unit is a Garrard 98H 3 speed autochanger.

PARTS LIST

RADIO TUNER UNIT:

<u>Part No.</u>	<u>Description</u>
TR.617	I.F. Transformer
TR.618	I.F. Transformer
SO.1206	Socket Co-axial
SO.1172	Socket 5 Pin
SO.331	Noval Socket
1400-AD6	EBF. 80 Valve
1400-AD	EF.85 Valve
1400-AD1	ECH.81 Valve
1400-AD7	Crystal Diode OA.150
1400-J7	Y.61 Valve
SO.322	Magic Eye Socket
WA.909	Wafer
WA.908	Wafer
WA.910	Wafer
CO.384	B/C. A.E. Coil
CO.385	B/C. R.F. Coil
CO.386	B/C. Oscillator Coil
CO.387	S/W. A.E. Coil
CO.388	S/W. R.F. Coil
CO.389	S/W. Oscillator Coil
SW.176	Clicker Ass. 3 Position
TA.604	Power Transformer

Part No.

Description

DR.93
SC.872

Dial Drum
Dial Scale

RESISTORS

1300-I9	68K Ohm	1 watt
1300-F9	2.2K Ohm	1 watt
1300-G7	100K Ohm	1 watt
1300-F8	47K Ohm	1 watt
1300-N3	33K Ohm	1 watt
1300-N7	22K Ohm	1 watt
1300-I8	1 Meg Ohm	1 watt
1300-D3	5K Ohm	1 watt
1300-H7	270K Ohm	1 watt
1300-D1	3K Ohm	1 watt
1300-P5	47 Ohm	1 watt
1300-I3	500K Ohm	1 watt
1300-S1	1.5K Ohm	1 watt

CONDENSERS

1500-R5	3 Gang Condenser
1500-F9	Trimmer TPC.3
1500-L	500 Pfd. Mica
1500-7	.004 Mfd. Mica
1500-A7	.05 Mfd. 350WV.
1500-J1	.1 Mfd. 350WV.
1500-F	50 Pfd. Silver Mica
1500-B5	.01 Mfd. 350WV.
1500-E4	16 Mfd. Electrolytic
1500-S1	.047 Mfd.
1500-O9	TP11D. Padder
1500-X	.006 Mfd. Mica
1500-M6	10 Pfd. Silver Mica

PRE-AMPLIFIER:

SO.1172	5 Pin Socket
SO.331	Noval Socket
SO.1206	Co-ax. Socket
1400-T7	12AU7 Valve
1400-AD4	EF.86 Valve
SW.911	Selector Switch
PL.765	2 Pin Flat Plug

RESISTORS

1300-Q7	250K Ohms (270K)	1 WHS.
1300-Q8	1.5 Meg Ohm	1 WHS.
1300-Q9	5.6 Meg Ohm	1 watt 5%
1300-R1	6.8 Meg Ohm	1 watt 5%
1300-R2	680K Ohm	1 watt 10%
1300-R3	390K Ohm	1 watt 5%
1300-R4	120K Ohm	1 watt 5%
1300-R5	20 Meg Ohm	1 watt 5%
1300-R6	82K Ohm	1 watt 10%
1300-I9	68K Ohm	1 watt 10%
1300-F5	27K Ohm	1 watt 10%
1300-R9	2000 Ohm	1 watt H.S.
1300-G7	100K Ohm	1 watt 10%
1300-J2	2.2 Meg Ohm	1 watt
1300-G7	100K Ohm	1 watt
1300-F9	2.2K Ohm	1 watt
1300-N2	470K Ohm	1 watt
1300-C4	1000 Ohm	1 watt

<u>Part No.</u>	<u>Description</u>
1300-L1	25K Ohm 1 w.
P0.252	500K Ohm Pot L/S. Log.
P0.1210	1 Meg Ohm Lin. Pot L/S.
P0.1211	$\frac{1}{2}$ Meg Ohm Lin. Pot. W/S. C.T.

CONDENSERS

1500-P7	1000 Pfd. S. Mica $\frac{+}{-}$ 5%
1500-Q4	470 Pfd. S. Mica $\frac{+}{-}$ 5%
1500-J4	100 Pfd. Ceramicon
1500-J1	.1 Mfd. 350 WV.
1500-X)	.005 Mfd. (.006) S. Mica
1500-O)	
1500-R6	8 Mfd. 450 WV. Electro
1500-L9	25 Mfd. 25 WV. Electro

MAIN AMPLIFIER:

TR.1103	Transformer 48-R-08
TR.1208	Output Transformer
CH.552	Choke 14H 60 Mill
SO.1172	5 Way Socket
SO.331	Noval Socket
SO.326	Octal Socket
SO.1206	Co-ax. Socket
	Valve U50/5V4
1400-AD3	Valve EL84
1400-AD4	Valve EF86
SO.323	4 Way Speaker Socket

RESISTORS

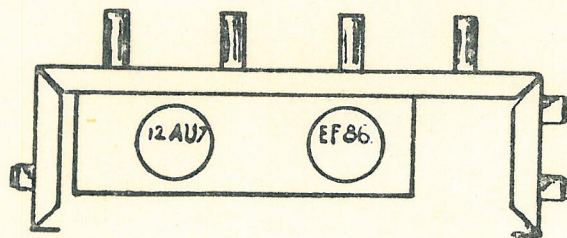
1300-I8	1 Meg Ohm $\frac{1}{2}$ watt
1300-C4	1000 Ohm $\frac{1}{2}$ watt
1300-M1	2200 Ohm 1 watt
1300-I3	500K Ohm $\frac{1}{2}$ watt
1300-L2	180K Ohm 1 watt
1300-E1	3300 Ohm 1 watt
1300-I7	750K Ohm 1 watt
1300-G	100 Ohm $\frac{1}{2}$ watt
1300-R8	150 Ohm 5 watt
1300-M4	22 Ohm 3 watt

CONDENSERS

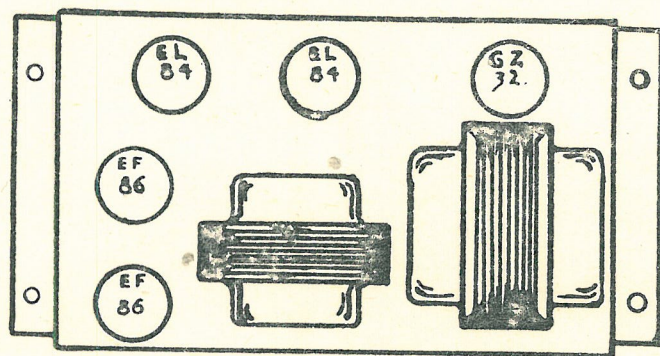
1500-C8	.1 Mfd. 500 WV.
1500-L9	25 Mfd. 25 WV. Electro
1500-E4	16 Mfd. 450 WV. Electro
1500-R	100 Pfd. Silver Mica
1500-S3	100 Mfd. 10 WV. Electro

MISCELLANEOUS:

SP.1205	12UX Rola Speaker
2011/36	3 Ft. Link Cable
KN.1347	Knobs
	98H. Garrard Changer

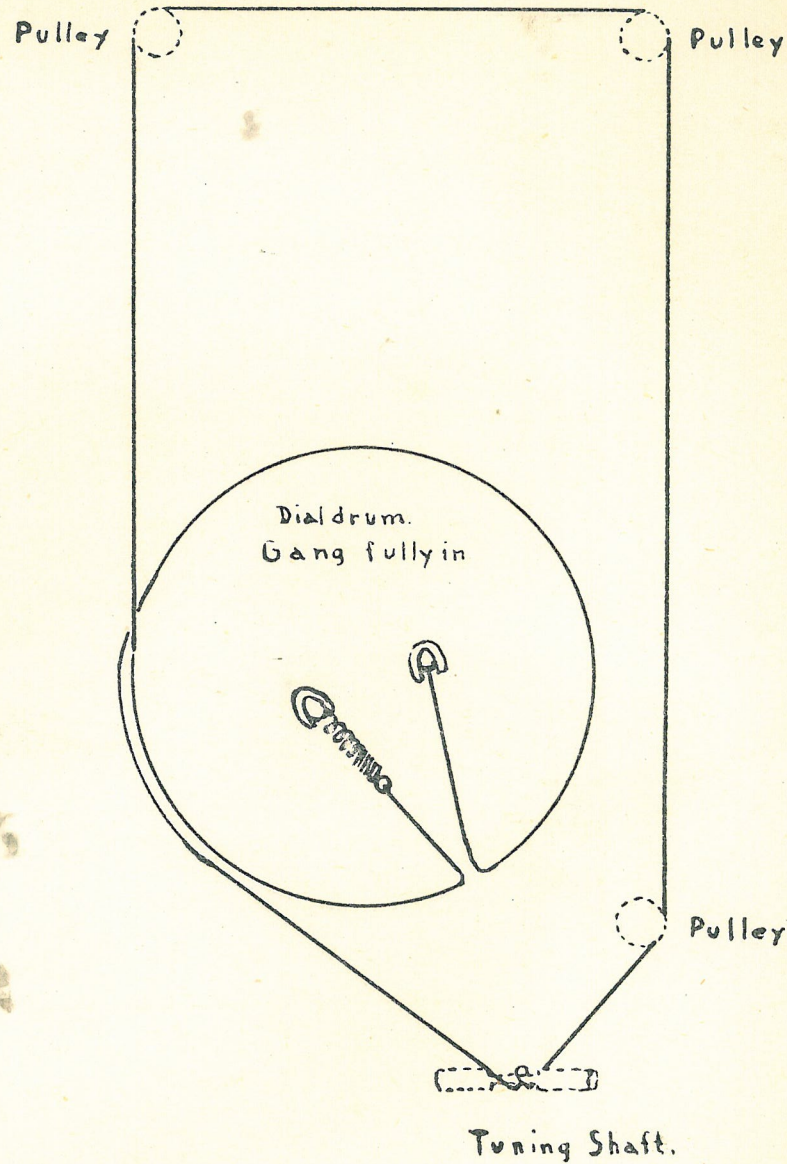


PRE-AMPLIFIER.

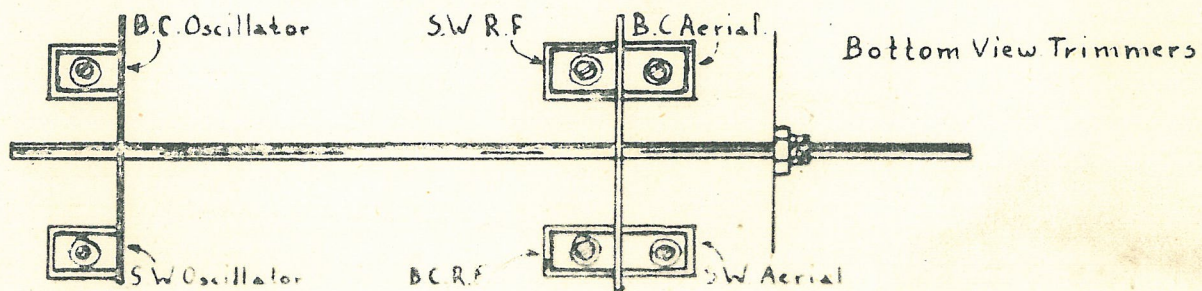
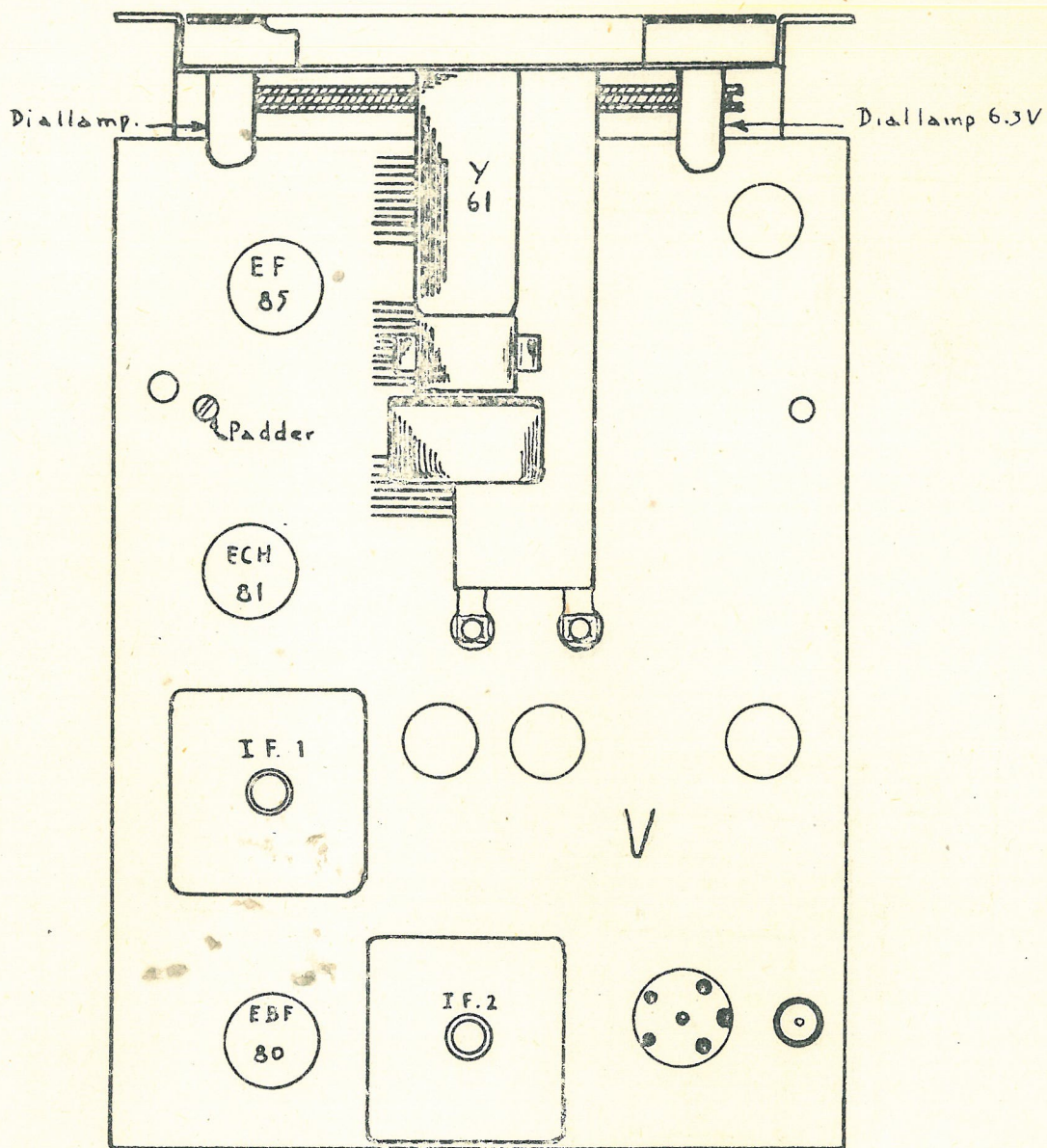


MAIN-AMPLIFIER.

VALVE-LAYOUT.



^{cord}
DIAL-STRINGING



VALVE & TRIMMER LAYOUT TUNER.

5601