BEETHOVEN Model A3348

General Description : Five-valve (including rectifier), three-waveband superheterodyne receiver. Models A3348 P1, P2, P3 and P4 incorporate A3348 chassis in small period-style cabinets. Models A3348RG and A3348ARG are radiogramophones with A3348 radio chassis. Released 1947.

Power Supplies : A.C. mains 100–115 volts and 200–250 volts. Consumption approximately 50 watts.

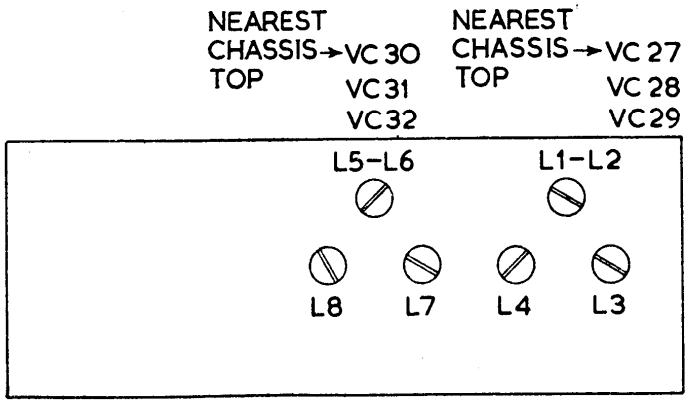
Wavebands : S.W. 16–50 m.; M.W. 200–550 m.; L.W. 1000–2000 m.

Intermediate Frequency : 465 kc/s.

Valves : (V1) 6K8G; (V2) 6K7G; (V3) 6Q7G; (V4) 6V6G; (V5) 5Z4G.

Pilot Lamps : 6·5 volts, 0·3 amp.

Alignment Procedure : Connect signal generator to grid (top cap) of V1 and adjust I.F. cores for maximum output at 465 kc/s.



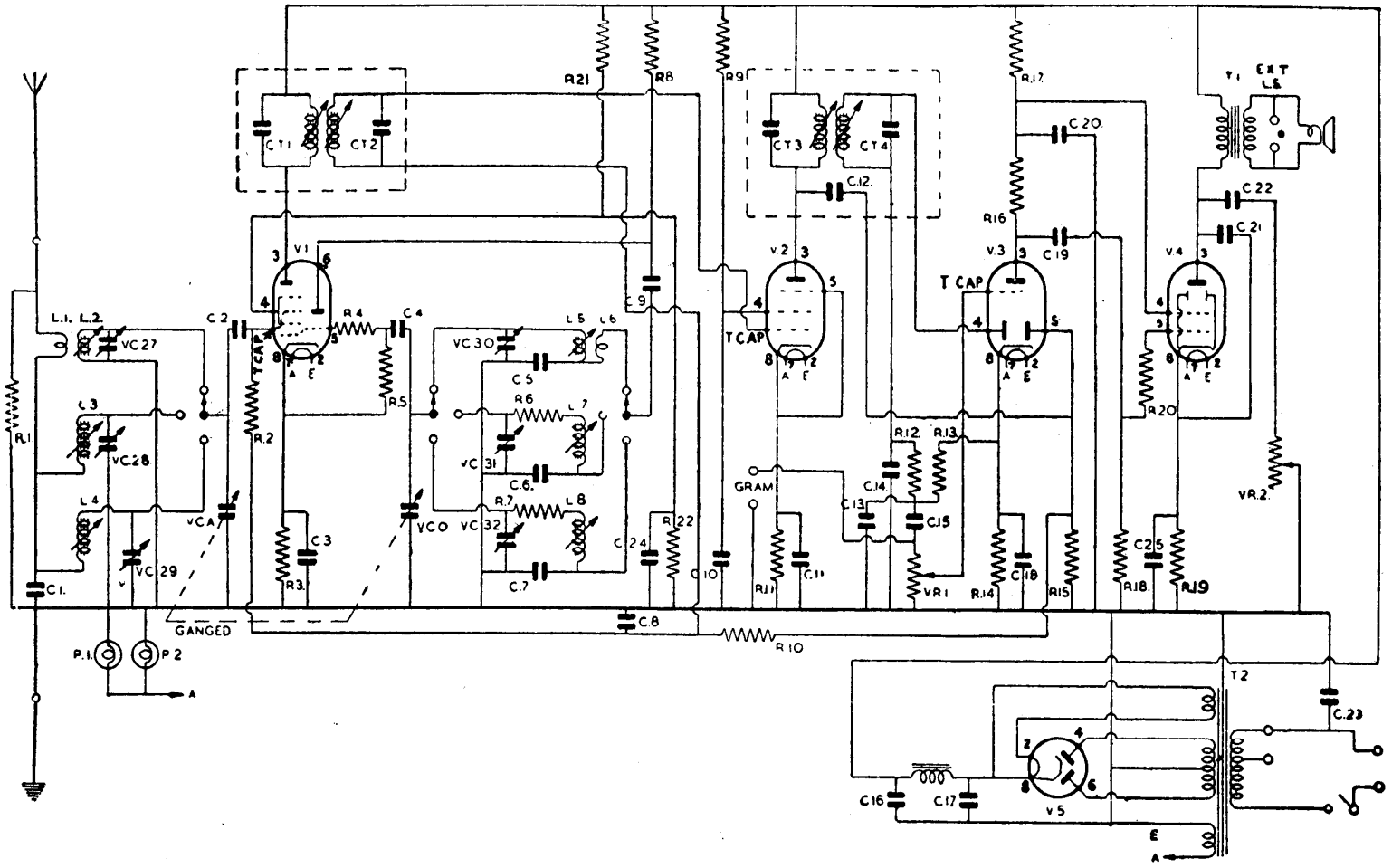
TRIMMER AND CORE LAY-OUT DIAGRAM

Connect signal generator to aerial socket via all-wave dummy aerial. Set pointer to 2000 m., inject 150-kc/s. signal, tune signal by adjusting core L8 and peak output by adjusting core L4. Set pointer to 1000 m., inject 300-kc/s. signal, tune signal by adjusting VC32 and peak output by adjusting VC29. Check at 2000 m. and re-align if necessary.

Repeat this process on M.W. band at 500 m. (600 kc/s.), adjusting L7 and L3, and 214 m. (1400 kc/s.), adjusting VC31 and VC28. Repeat also on S.W. band at 50 m. (6 Mc/s.), adjusting L5 and L2, and 15·8 m. (19 Mc/s.), adjusting VC30 and VC27.

Check Points :

V1	Anode (pin 3) 255 v., 2 mA.	Screen (pin 4) 85 v., 8 mA.	Osc. anode (pin 6) 85 v., 4·5 mA.	Cathode (pin 8) 2·7 v.
V2	Anode (pin 3) 255 v., 12 mA.	Screen (pin 4) 110 v., 2·5 mA.	Cathode 3·2 v.	—
V3	Anode (pin 3) 75 v., 0·4 mA.	Cathode (pin 8) 1·3 v.	—	—
V4	Anode (pin 3) 225 v., 45 mA.	Screen (pin 4) 220 v., 4 mA.	Cathode (pin 8) 9·5 v.	—
V5	Anodes (pins 4 and 6) 270 v. A.C.	Cathode (pin 8) 275 v. D.C.	—	—



CIRCUIT DIAGRAM—BEETHOVEN MODEL A3348

Capacitors.

C1	2000 pF. (1%)
C2	100 pF.
C3	0·1
C4	100 pF.
C5	0·005 (5%)
C6	335 pF. (1%)
C7	130 pF. (1%)
C8	0·1
C9	0·01 (1000 v.)
C10	0·1
C11	0·1
C12	10 pF.
C13	150 pF.
C14	150 pF.
C15	0·02 (1000 v.)
C16	16 (450 v.)
C17	16 (450 v.)
C18	25 (25 v.)
C19	0·05
C20	4 (350 v.)
C21	0·002 (1000 v.)
C22	0·05 (1000 v.)
C23	0·01 (1000 v.)
C24	0·1
C25	25 (25 v.)
CT1	100 pF. (2%)
CT2	100 pF. (2%)
CT3	100 pF. (2%)
CT4	100 pF. (2%)
VC27	3–30 pF.
VC28	3–30 pF.
VC29	20–75 pF.
VC30	3–30 pF.
VC31	3–30 pF.
VC32	20–75 pF.

Resistors.

R1	10k
R2	1M
R3	220
R4	20
R5	47k
R6	50
R7	180
R8	33k (½ W.)
R9	47k (½ W.)
R10	1M
R11	270
R12	33k
R13	0·47M
R14	4k
R15	1M
R16	200k
R17	6·8k
R18	0·47M
R19	220 (1 W.)
R20	47k
R21	20k (1 W.)
R22	100k
VR1	1M (Pot.)
VR2	50k (Pot.)