

G.E.C. 4055, 4051 4059

Four-valve, plus rectifier, three waveband superhet in table, console (4051), and radiogram (4059) models. Suitable for 200-250 volt, 25-100 cycle A.C. or D.C. supplies. Made by the General Electric Co., Ltd., Magnet House, Kingsway, London, W.C.2.

Circuit.—The aerial is loosely coupled to a single-tuned circuit feeding V1, the frequency-changer. Simple oscillator

circuits are employed with a coupled winding on S.W. only. Separate trimming and padding condensers are provided for each band. Band-pass I.F. transformers couple V2, the I.F. amplifier, and V3, the double-diode triode.

The A.V.C. diode is energised from the anode of V2. Both V1 and V2 are A.V.C. controlled on all bands, although the delay voltage is reduced on S.W.

Resistance-capacity coupling links the triode section of V3 to V4, the output valve. The coupling circuit is arranged for top and bass boost.

V4 drives a permanent-magnet speaker and is shunted by a continuously variable tone control. A choke is used for smoothing the output of V5, the U31 half-wave rectifier.

Heater current is regulated by V6, a 304 barretter.

WAVEBANDS. 16.5-50, 192-550 and 1,000-2,000 m. Provision for low-impedance extension speaker.

In 4059 the pick-up is across R35 and then via a switch across R19. Break-through is prevented by switching V2 screen to chassis and switching to S.W.

GANGING

NOTE.—As the chassis is at mains potential, care should be taken in handling to avoid shocks. The set should be run at least five minutes before starting ganging.

I.F. CIRCUITS.—Adjust I.F. trimmers at 456 kc.

M.W. BAND.—Trim with T5 and T2 at 1,400 kc. (214 m.) and pad with T8 at 600 kc. (500 m.). Readjust T5 and T2.

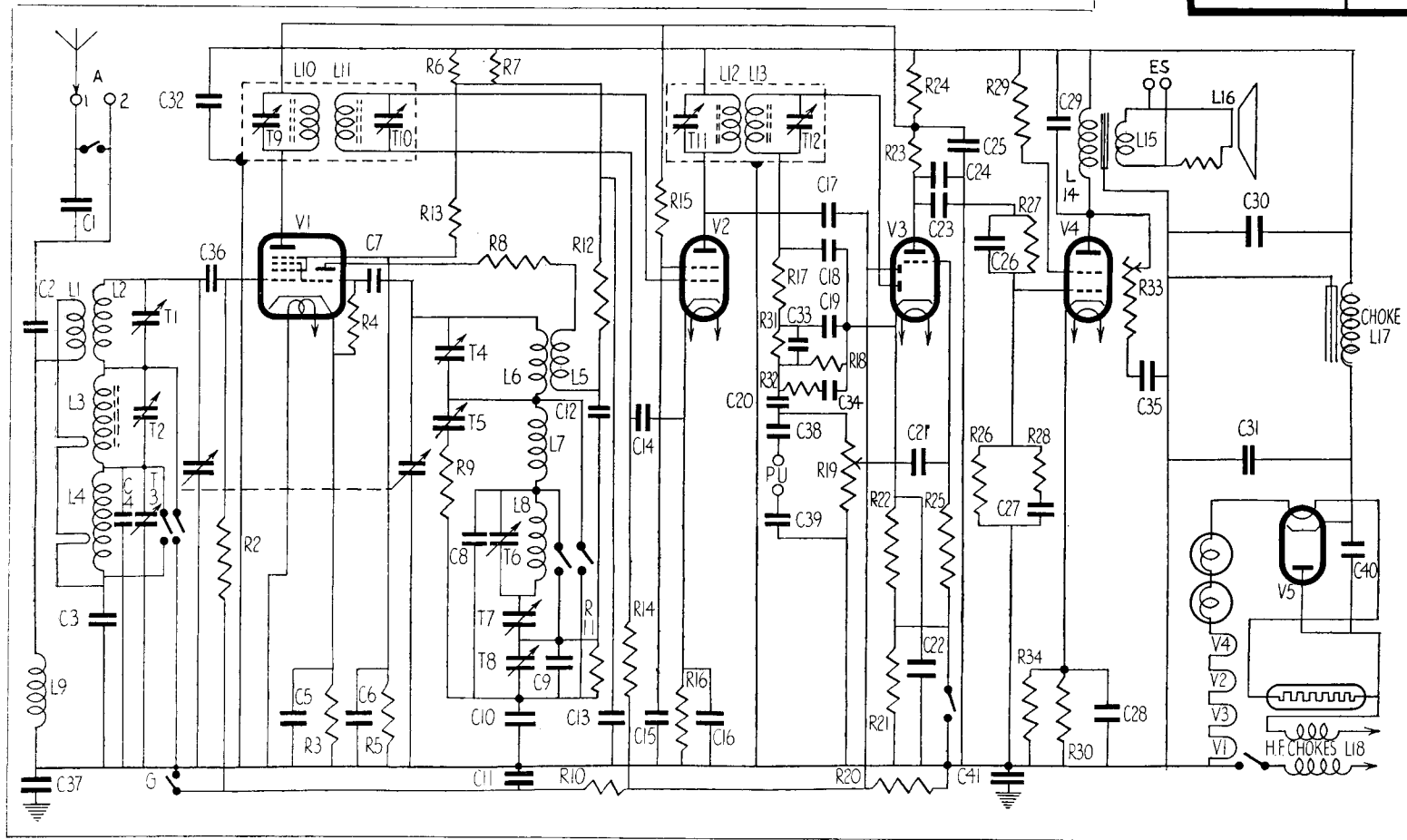
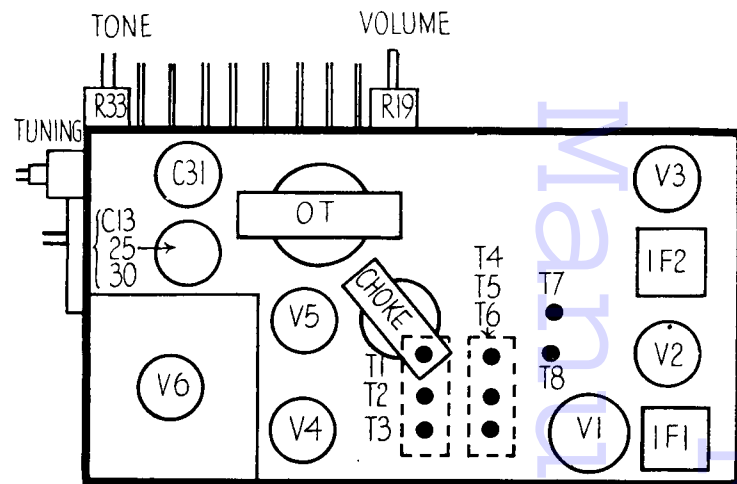
L.W. BAND.—Trim with T3 and T6 at 300 kc. (1,000 m.) and pad with T7 at 165 kc. (1,818 m.). Readjust T5 and T6.

S.W. BAND.—Trim with T4 and T1 at 18 mc. (16.7 m.), using lowest capacity of T4. Rock gang slightly if pulling is experienced.

VALVE VOLTAGES

V	Type	Electrode	Volts	Ma.
1	X31	Anode	171	1.45
		Screen	65	3.5
		Osc. anode	90	2.3
2	KTW61	Anode	200	6.2
		Screen	56	1.8
3	DL63	Anode	104	.93

(Continued in next col.)



V	Type	Electrode	Volts	Ma.
4	KT33C	Anode	188	52
		Screen	199	9
5	U31	Cathode	232	82
		(Barretter)		

Pilot lamps, 6.5v., .3 amp., type S, MES round.

RESISTANCES

R	Ohms.	R	Ohms.
2	2 meg.	19	1 meg.
3	200	20	440,000
4	99,000	21	15,000
5	22,000	22	2,200
6	22,000	23	55,000
7	15,000	24	6,600
8	300	25	2 meg.
9	75	26	330,000
10	1 meg.	27	220,000
11	5,500	28	150,000
12	8,800	29	75
13	6,600	30	400
14	2 meg.	31	150,000
15	66,000	32	220,000
16	300	33	55,000
17	55,000	34	400
18	330,000	35	22,000
		L17	380

CONDENSERS

C	Mfds.	C	Mfds.
1	20	21	.01
2	.005	22	.30
3	.003	23	.02
4	20 mmfds.	24	.001
5	.1	25	.04
6	.05	26	.0005
7	.0001	27	.0015
8	40 mmfds.	28	.30
9	.0001	29	.005
10	.00395	30	.32
11	.02	31	.16
12	.005	32	.1
13	.8	33	.0002
14	.1	34	.001
15	.05	35	.05
16	.1	36	.0005
17	20 mmfds.	37	.05
18	.0003	38	.01
19	.0001	39	.01
20	.02	40	.01
		41	.0005