

SELMER TRUVOICE 139

Four-valve, plus rectifier, three band superhet in small table cabinet. Suitable for A.C. or D.C. mains, 200-250 v., 40-100 cycles.

Circuit.—The aerial circuit has a shunt I.F. filter and feeds V1, the frequency changer, through transformer coils on each band. The oscillator and I.F. circuits are conventional, V2 being

the amplifier; V3, a double diode triode for demodulation, A.V.C. and L.F. amplification, resistance feeds V4, the output valve. V5 is a half-wave rectifier. The heaters and the line cord resistance, R19, are in series.

Wavebands: 16.5-50, 200-550, 1,000-2,000 metres.

R1, C35 and C37 are not included in all models. R10 may be 100,000 ohms. R19 is the mains cord.

GANGING

I.F. CIRCUITS.—Adjust at 450 kc. L.W. BAND.—Trim with C7 and C4 at 1,200 metres. Pad with C9 at 1,800 metres. Repeat operations.

M.W. BAND.—Trim with C6 and C3 at 200 metres. Pad with C8 at 500 metres.

S.W. BAND.—Trim with C5 and C2 at 19 metres.

If calibration is out at 50 metres, compensate by moving live oscillator grid wire relative to near-by coil.

I.F. FILTER.—Tune to 200 metres, inject strong 450 kc. signal to aerial and adjust C32 for minimum.

VALVE VOLTAGES

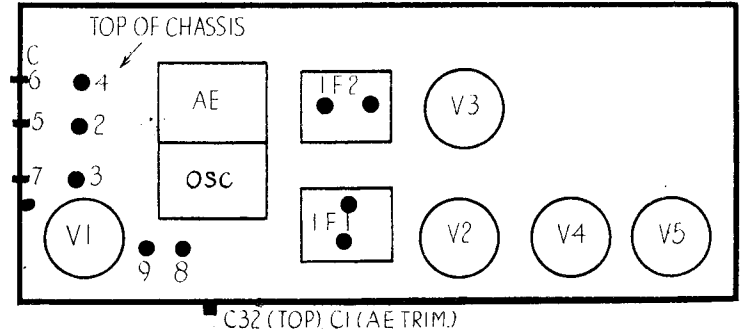
Measured with set on 250v. A.C.

V	Type	Anode	Screen	Cathode
1	X63	210	80	3.4
		100 (osc. anode approx. at 200 metres.)		
2	KTW61	210	80	3.7
3	DL63	100	—	1.75
4	KT33C	190	185	13.5
5	U31	—	—	260

Smoothed H.T., 200-210v. End of line cord, 80v.

RESISTANCES

R	Ohms.	R	Ohms.
1	.. 5 meg.	12	.. 1,500
2	.. 350	13	.. 100,000
3	.. 50,000	14	.. 1 meg.
4	.. 15,000	15	.. 25 meg.
5	.. 10,000	16	.. 50,000
6	.. 25,000	17	.. 250
7	.. 1 meg.	18	.. 3,000
8	.. 350	19	.. 460
9	.. 1 meg.	20	.. 100,000
10	.. 50,000	21	.. 100
11	.. .5 meg.	Field	.. 600



The Truvoice “Five” is a compact A.C./D.C. superhet covering three wavebands. The aerial condenser C1 is fixed in some models and the pilot lamps may be connected differently.

CONDENSERS

C	Mfds.	C	Mfds.
1	.. .0007	25	.. 25
8	.. .0006	26	.. .05
9	.. .0003	27	.. 25
12	.. .05	28	.. .003
13	.. .05	29	.. 8
14	.. .0001	30	.. 16
15	.. 4	31	.. .05
18	.. .05	33	.. .001
19	.. .05	34	.. .1
22	.. .00003	35	.. .0001
23	.. .0005	36	.. .05
24	.. .05	37	.. .0001

Earth Connection in a Flat

A CUSTOMER wanted a mains receiver installed in a flat which was very awkwardly placed for the erection of an outside aerial. A mains portable was tried, but, due to interference and fading, was not purchased.

An ordinary receiver with a mains aerial attachment was next tried, and worked very well on the mains aerial and with a long earth wire running to the nearest water-pipe. Due, however, to the long wire necessary, and having to bring it through another apartment, the client would not take the set unless the engineer could devise some other method of earthing.

As a last resort, the engineer thought of the electric system. But no earth or earthed casing was used here, and there only remained the earthed (or neutral) mains wire. The set was earthed via a condenser to this, and the mains plug permanently fixed into the socket to prevent the mains aerial becoming connected to the earthed main (and vice versa). This was found to be satisfactory in every way. Fuses were fitted as an additional safeguard.—F. DAY-LEWIS, Dublin.

