

# KOLSTER- BRANDES 885

Four-valve, plus rectifier, table model superhet covering three wavebands and for operation from A.C. or D.C. mains of 200-250 volts. Made by Kolster-Brandes, Ltd., Sidcup, Kent.

**Circuit.**—Aerial connections include R1 to reduce the input when required, and a "static discharger," R2. The aerial is inductively coupled to the grid circuit of V1 on S.W. and on medium and long waves there is "bottom coupling" due to the impedance of C3 and R5.

As the set is A.C./D.C., the chassis may be "live" and it is isolated from earth by C2.

The oscillator circuit of V1, the frequency changer, is very similar to the aerial circuit. The M. and L.W.

coils have iron-dust cores. Energy is fed back from the anode and injected across the padding condenser, C12.

Iron-dust cored I.F. transformers, permeability adjusted, connect V1 to V2, the I.F. amplifier, and V2 to V3, the double-diode triode.

R13 is the signal diode load with R12 as I.F. filter. L.F. is fed to the volume control by C17. A pick-up switch connection is incorporated.

The A.V.C. diode is energised from V2 anode via C18 and the voltage developed across R17 is fed back to V2 and V1 through R16.

Resistance-capacity coupling leads to V4, the output pentode. This has both fixed and variable tone components in shunt.

Mains arrangements follow the usual half-wave rectifier lines for A.C./D.C. sets. H.F. chokes and C28 form a mains noise filter. All the heaters are in series with V6, a type 301 barretter, and the pilot lamp has a surge reducing resistance, R24, in parallel.

H.T. is smoothed by a low-resistance choke with electrolytics C27 and C23.

**Extension Speaker.**—A switched connection is provided for a 2.5 ohms extension speaker.

### GANGING

**I.F. Circuits.**—Tune to 580 m., inject 464 kc. to V1 grid and adjust I.F.

trimmers. Reduce input to prevent A.V.C. operating.

**M.W. Band.**—Tune to 500 m., inject 600 kc. and adjust M.W. tracker, core of M.W. osc. coil.

Tune to 214 m., inject 1,400 kc. and adjust T1 and T2.

Readjust padding at 500 m., rocking gang slightly. Readjust T1 and T2.

**L.W. Band.**—Tune to 1,714 m., inject 175 kc. and adjust L.W. core.

Tune to 857 m., inject 350 kc. and adjust T3 and T4.

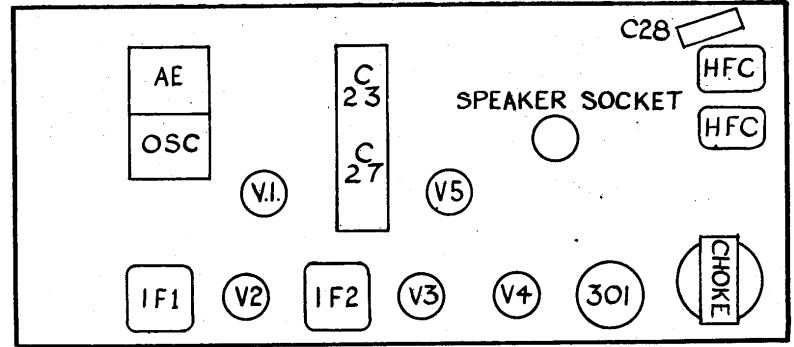
Readjust padding at 1,714 m., rocking gang slightly. Readjust T3 and T4 at 857m.

**S.W. Band.**—Tune to 20 m., inject 15 mc. and adjust T5 and T6.

### VALVE READINGS

V	Type	Electrode	Volts
1	6K8G	Anode	245
		Screen	80
		Osc. anode	55
2	6U7G	Cathode	1.8
		Anode	245
		Screen	80
3	6Q7G	Cathode	2.1
		Anode	50
		Cathode	.4
4	25A6G	Anode	210
		Screen	150
		Cathode	18
5	25Z6G	Anodes	224 A.C.
		Cathode	260 D.C.
6	301Barretter	—	—

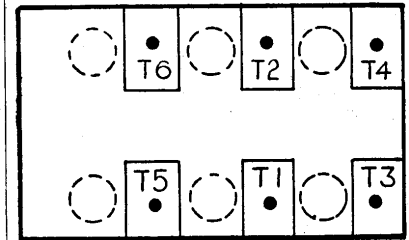
Current through smoothing choke 67 ma.



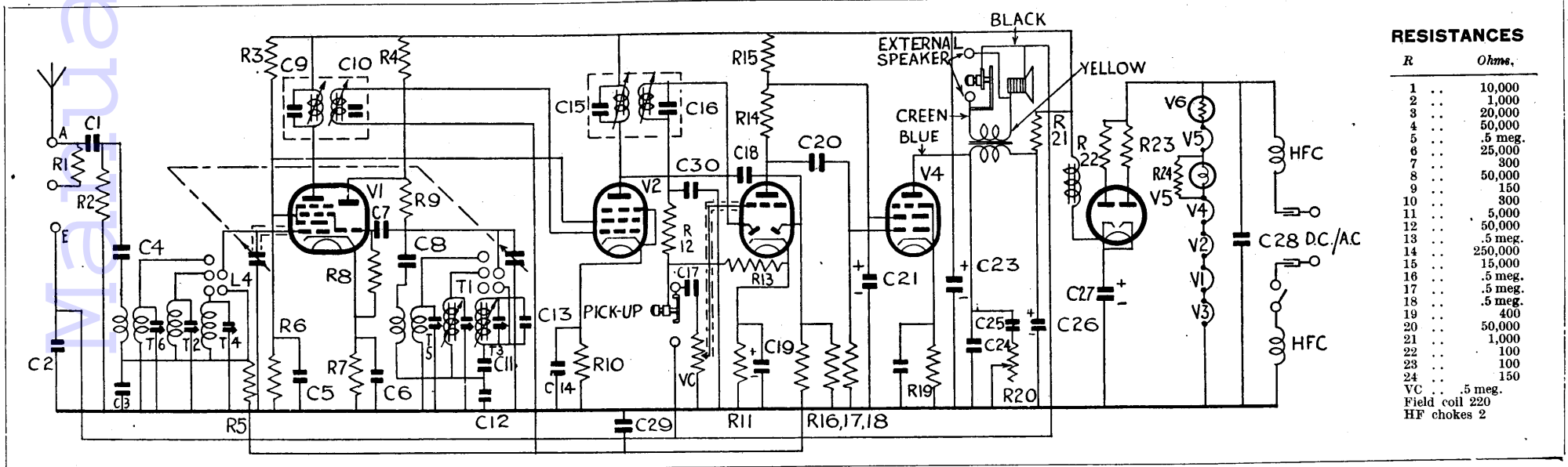
Top of chassis layout diagram of the Kolster-Brandes model 885.

### CONDENSERS

C	Mfds.	C	Mfds.
1	.001	16	250 mmfds.
2	.01	17	.005
3	.004	18	25 mmfds.
4	.005	19	25 mmfds.
5	.1	20	.02
6	.1	21	.2
7	50 mmfds.	22	.25
8	.001	23	.16
9	150 mmfds.	24	.001
10	150 mmfds.	25	.03
11	230 mmfds.	26	.2
12	400 mmfds.	27	.16
13	25 mmfds.	28	.01
14	.02	29	.1
15	150 mmfds.	30	.0005



The trimmers are located on a special coil sub-assembly, a feature of many K.B. models.



### RESISTANCES

R	Ohms.
1	10,000
2	1,000
3	20,000
4	50,000
5	.5 meg.
6	25,000
7	300
8	50,000
9	150
10	300
11	5,000
12	50,000
13	.5 meg.
14	250,000
15	15,000
16	.5 meg.
17	.5 meg.
18	.5 meg.
19	400
20	50,000
21	1,000
22	100
23	100
24	150

VC . . . .5 meg.  
Field coil 220  
HF chokes 2