KOLSTER-BRANDES 808

Four-valve, plus rectifier, three waveband superhet, for 200–250 v. Made by Kolster-Brandes, Ltd., Cray Works, Sidcup, Kent.

Circuit.—There is a shunt static discharge resistor between aerial and earth. A condenser connects the aerial to single-tuned input circuits. Similar coils are used in the tuned-grid oscillator circuit of V1, the frequency-changer. Both I.F. transformers have fixed capacities, and the second transformer has iron-dust cored inductances.

The demodulation diode connections (V3) are straightforward with P.U. sockets across the volume control. The A.V.C. diode is fed in the usual way from V2 anode and controls V2 and, except on S.W., V1.

The resistance-capacity coupled output pentode V4 is followed by a full-wave rectifier.

Switching.—S.W., 1-2, 3-4-5, 7-8, 9-10-11. M.W., 1-3, 4-5, 7-9, 10-11. L.W., 1-4, 7-10.

Speaker Connections (top to bottom).—(1) Brown to yellow (field); (2) red to blue (field and trans. primary); (3) blue; (4) red to earth and hum bucking coil; (5) black to tag above; (6) speech coil lead.

GANGING

I.F. Circuits.—Inject 464 kc. to V1 grid through .1 condenser with set at 570 m. Move *outer* windings of I.F. coils very slightly. Do not touch inner windings.

M.W. Band.—Tune to 214 m., inject 1,400 kc and adjust T4 and T1. At 500 m. (600 kc.) check calibration.

L.W. Band.—Tune to 1,200 m., inject 250 kc. and adjust T5 and T2.

S.W. Band.—Tune to 20 m., inject 15 mc. and adjust T3.

VALVE VOLTAGES

V	Type	Electrode	Volts
1	15D2	Anode	245
		Screen	92
		Osc. anode	105
		Cathode	3
		Osc. grid	−7
2	9D2	Anode	245
		Screen	245
		Cathode	2.5
3	11D5	Anode	83
		Cathode	2
4	7D5	Anode	277
		Screen	245
		Cathode	15
5	R2	Anodes	305 A.C.
		Heater	340 D.C.

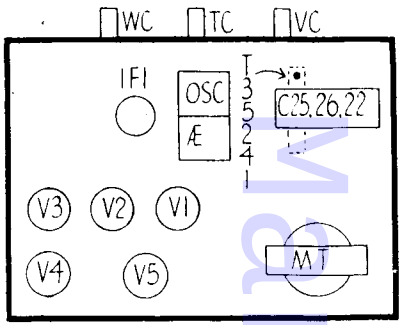
Pilot lamp, 12–16v. Valves, 13v.

RESISTANCES

R	Ohms.	R	Ohms.
1	5,000	11	50,000
2	.5 meg.	12	.5 meg.
3	.25 meg.	13	5,000
4	20,000	14	.25 meg.
5	50,000	15	.5 meg.
6	250	16	.5 meg.
7	50,000	17	.5 meg.
8	50,000	18	400
9	100	19	5,000
10	500	20	50,000
		VC	.5 meg.

CONDENSERS

C	Mfds.	C	Mfds.
1	.005	14	.1
2	.004	15	.00015
3	25 mmfds.	16	.00015
4	.01	17	.0005
5	.00028	18	.005
6	.00028	19	25
7	.1	20	25
8	.1	21	.02
9	.0001	22	25
10	.0005	23	.001
11	.0003	24	.03
12	.00028	25	16
13	.00008	26	8

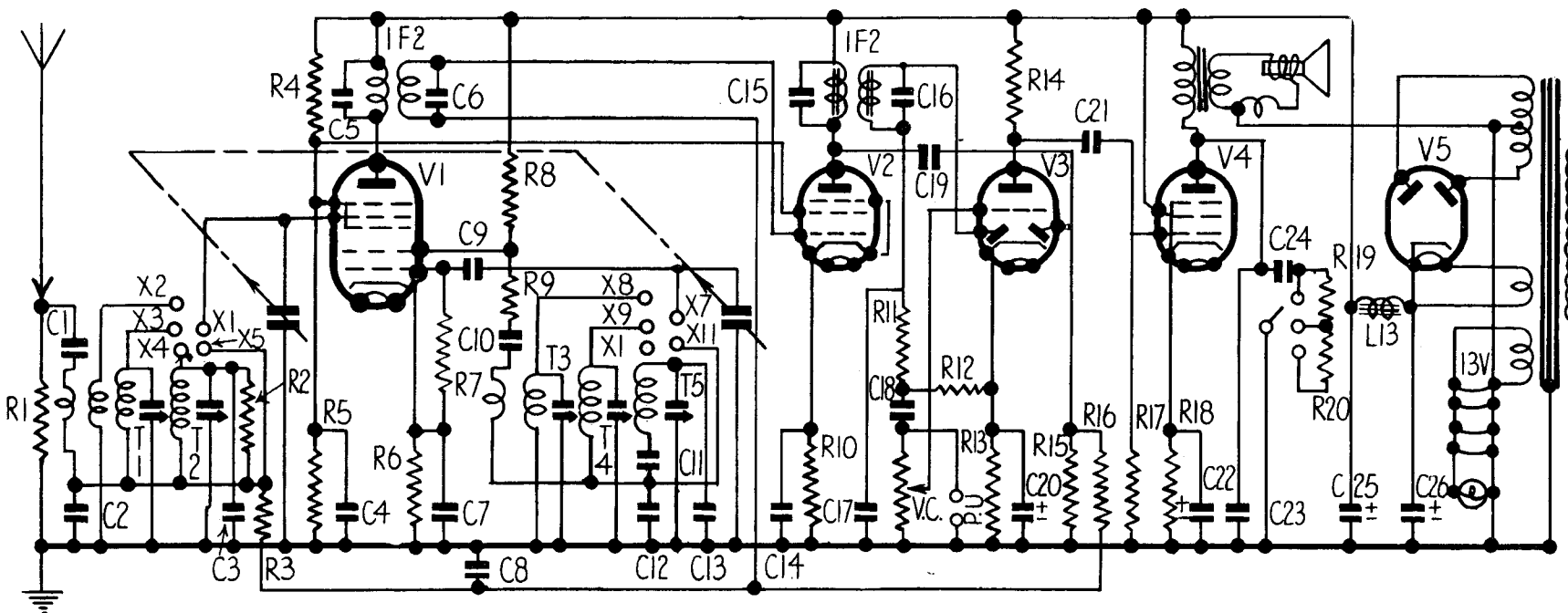


How to Trace Crackles

When crackles and bangs in a set are violent they are most likely caused by a leak or intermittent short in a circuit carrying a fair amount of current. Softer, rustling noises are generally caused by components, such as volume controls, carrying little if any current.

If careful inspection and gentle testing of connections with a probe does not reveal the cause of the trouble, short out different sections and components of the set working from aerial to output.

Grids can usually be shorted to chassis (although it is best to check this with the particular circuit) and anodes and screens can be shorted to H.T.—J. C. N.



The K.B. 808 is a straightforward A.C. superhet and the components are well placed from a service point of view on a roomy chassis. The switch contact connections for the different bands are given in the text.

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