

ALBA 730, 830

Four-valve, plus rectifier and tuning indicator, four-waveband A.C. superhet in table and radio-gram (730) versions. Made by A. J. Balcombe, Ltd., 52-58, Tabernacle Street, London, E.C.2.

Circuit.—The aerial input is through transformer coils, with a common primary on M.W. and L.W. A straight-forward arrangement of grid coils with separate reaction coils for each band is used in the oscillator circuit. Iron-dust core I.F. transformers couple the I.F. valve, V2, and double-diode triode, V3.

Demodulation and A.V.C. circuits are conventional, and V3 is resistance coupled to V4, the output pentode. V5 is a full-wave rectifier with modulation-hum suppression condensers across the anodes.

V6 is a tuning indicator controlled by the A.V.C. line in the usual way.

Wavebands : 12-35, 30-90, 200-560, 800-2,000 metres. Provision for P.U. and 3-ohm extension speaker.

GANGING

I.F. Circuits.—Adjust at 470 kcs.
M.W. Band.—Trim with T1 and T2 at 250 m., and pad with T3 at 500 m. Repeat operations.
L.W. Band.—Trim with T4 and T5 at 1,300 m., and pad with T6 at 1,900 m. Repeat.

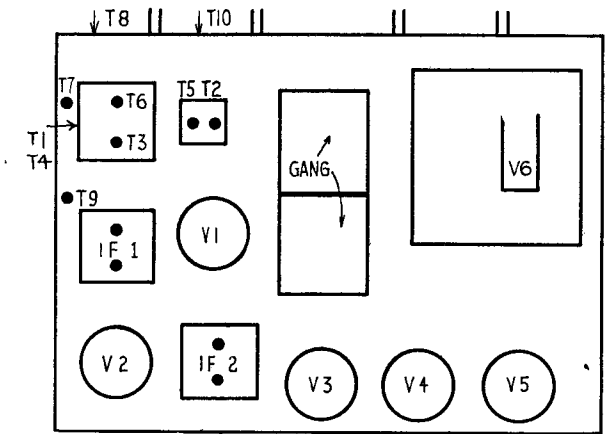
S.W.1 Band.—Trim with T7 and T8 at 25 m. Padding is fixed.
S.W.2 Band.—Trim with T9 and T10 at 50 m. Padding is fixed.

RESISTANCES

R	Ohms.	R	Ohms.
1	1 meg.	14	.5 meg.
2	25,000	15	1,500
3	40,000	16	2,500
4	150	17	15,000
5	.25 meg.	18	.75 meg
6	25,000	19	50,000
7	40	20	50,000
8	200	21	.25 meg.
9	90,000	22	.2
10	300	23	100
11	50,000	24	100
12	.25 meg.	25	.25 meg.
13	.25 meg.	26	.5 meg.

CONDENSERS

C	Mfds.	C	Mfds.
1	5 mmfds.	15	.005
2	.05	16	.75 mmfds.
3	.25 mmfcs.	17	.1
4	.1	18	.25
5	.1	19	.01
6	.0001	20	.02
7	.0001	21	.25
8	.1	22	.005
9	.25 mmfds.	23	16+16+8
10	.1	24	.02
11	.05	25	.02
12	.1	26	.0001
13	.0001	27	.01
14	.0001	28	.036



Refinements are an electronic tuning indicator, V6, and the provision of four wavebands and a switched pick-up connection. The demodulation diode load is reduced on M.W.

VALVE VOLTAGES

V	Type	Electrode	Volts	Ma.
1	ECH3	Anode	230	2.2
		Screen	90	3
		Osc. anode	90	4.8
2	EF9	Anode	230	7
		Screen	90	1.8
3	EBC3	Anode	170	2.5
4	EL6	Anode	200	.02
		Screen	230	8
5	AZ2	Cathode	295	91.3
6	EM1	Target	230	—
	(Mullard) Triode anode		20	—
	Pilot lamps, 4.5v.		.3 amp.	

WINDINGS

L	Ohms.	L	Ohms.
1	40	8	400
2	15	9	125
3	15	10	125
4	30	11	V. low
5	30	12	V. low
6	3	13	12
7	9	14	700
		I.F.s.	4

Parasitic Oscillation

PENTODE output valves would not last in a receiver. Checking for circuit faults failed to indicate any reason. Suspecting an intermittent, the set was brought in for a soak test. After a time, the valve was seen to be very hot, with a red anode. There was no apparent change in signal or volume except slight distortion. Voltage tests were about correct except for slightly increased bias.

It was remembered spurious oscillation causes excessive anode current. A grid stopper resistance, 50,000 ohms, effected a permanent cure.—F. DAY-LEWIS, Dublin.

