

# BUSH DAC71

Four-valve, plus rectifier, three-waveband superhet table model with mechanical Teleptic tuning and for operation on 200-250v. A.C. or D.C. supplies. Made by Bush Radio, Ltd., Power Road, Chiswick, London, W.4.

**Circuit.**—Two aerial connections are provided by means of input condensers, and there is also an internal aerial consisting of a loop with an R.F. choke in series. Input transformers are

used on each of the three bands, the M. and L.W. coils having iron dust cores. A.V.C. is applied on M. and L.W. only.

The oscillator section of V1, the frequency-changer, is tuned grid with separate anode reaction coils on each band.

Iron-cored I.F. transformers couple up V2, the I.F. amplifier, and V3, the double-diode triode. The A.V.C. diode is energised from I.F.2 primary and the demodulation diode has R9 for an I.F. stopper and R10 for load. L.F. is passed by C26 to the volume control, VR1, and hence to the triode.

Resistance-capacity coupling leads to V4, the output pentode. This has an anode shunt-tone control.

H.T. is obtained via V5, in the usual half-way circuit. The heaters are series run through an adjustment resistance, R21, and the dial lights.

**Warning.**—Remember the chassis may

be live and should not be touched. It must be earthed only through C4.

When connecting a pick-up and motor, the screening and "frame" of these must be connected to earth and not to chassis. The pick-up sockets, it will be observed, are isolated by C21 and C22.

**Notes.**—The fuse is a 1 amp. 1½ in. type. The consumption is 70 watts approx. An extension speaker should have 2 ohms impedance and the P.U. should be a low impedance type.

## GANGING

See that pointer registers with top wavelength lines with gang and maximum.

**I.F. Circuits.**—Inject 465 kcs. to V1 grid and adjust I.F. trimmers for maximum on output meter reducing input as circuits come into line.

**S.W. Band.**—Inject 16.67 mcs. to aerial, tune to 18 m., adjust T1 and T2. Check calibration at 50 m. (6 mcs.).

**M.W. Band.**—Inject 1,000 kcs., tune

to 300 m. and adjust T3 and T4. Check calibration at 500 m. (600 kcs.).

**L.W. Band.**—Inject 200 kcs., tune to 1,500 m. and adjust T5 and T6. Check calibration at 1,900 m. (157.6 kcs.).

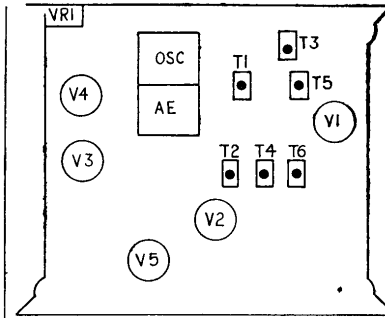
## VALVE READINGS

(Measured on 230 v. A.C.)

V	Type	Electrode	Volts.	Ma.
1	TH30C	Anode	210	1
		Screen	60	2.8
		Osc. anode	60	3.8
		Cathode	1.8	—
2	VP13C	Anode	125	5
		Screen	125	2
		Cathode	1.7	—
3	TDD13C	Anode	80	2
		Cathode	2	—
4	Pen 36C	Anode	185	36
		Screen	210	6
		Cathode	7	—
5	UR3C	Anodes	225 A.C.	—
		Cathode	280 D.C.	—

Total H.T. current 58.6

Pilot lamps: 4.5 v., .3 amp. (Osram) or 6.2v., .3 amp. (Philips).



A diagram of the underside of the chassis, indicating how the trimmers and valholders are located.

## RESISTANCES

R	Ohms.	R	Ohms.
1	20,000	13	50,000
2	1 meg.	14	1,000
3	250	15	1 meg.
4	30,000	16	500,000
5	50	17	100,000
6	1 meg.	18	170
7	10,000	19	75
8	250	20	75
9	250,000	21	400+100+100
10	1 meg.	VR1	500,000
11	100,000	VR2	50,000
12	10,000		

## WINDINGS

L	Ohms. $\Omega$	L	Ohms.
1	.1	10	1
2	V. low	11	2.7
3	.6	12	2.1
4	1.8	13	3.8
5	3.0	14	3.8
6	15	15	3.8
7	V. low	16	3.8
8	.1	17	700
9	1.7	18	1,000

## CONDENSERS

C	Mfds.	C	Mfds.
1	.005	18	.05
1A	50 mmfds.	19	100 mmfds.
2	50 mmfds.	19A	.1
3	800 mmfds.	20	50 mmfds.
4	.005	21	.03
5	.5	22	.1
6	30 mmfds.	23	100 mmfds.
7	.05	24	100 mmfds.
8	.05	25	100 mmfds.
9	30 mmfds.	26	.01
10	100 mmfds.	27	.2
11	100 mmfds.	28	50
12	20 mmfds.	29	.03
13	130 $\mu$ mfds.	30	50
14	318 mmfds.	31	.03
15	556 mmfds.	32	24
16	.50 mmfds.	33	16
17	.1	34	.01

