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# SERVICE MAN'S MANUAL

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## DECCA AWD47

Three-valve, plus half-wave rectifier, three waveband transportable with M. and L.W. frame aeri-als. Suitable A.C. or D.C. supplies. Made by Decca Radio and Television, Ltd., 1-3, Brixton Road, London, S.W.9.

**Circuit.**—There are loop serials for M.W. and L.W., and an external aerial lead coupling to the frames and also energising a S.W. transformer coil. There are trimmers for each of the aerial windings. A.V.C. is supplied to V1, the frequency-changer, through R1, C2 being a D.C. stopper.

The oscillator section is straightforward with anode coupling coils and fixed padders. A trimmer-tuned I.F. transformer feeds V2, the I.F. amplifier, and a similar I.F. transformer

energises two diodes incorporated in the V envelope.

V2 is used in a reflex arrangement. R10 is the diode load and the L.F. voltages are applied through R6 to the grid of V2. After amplification they are developed by R7 and fed through C11 to the volume control R12.

V3 is an output pentode with an anode stopper resistance R14 and shunt tone condenser C16. V4 is a full-wave rectifier with strapped anodes and cathodes with H.F. stopper resistances and condensers, C19 and C20, R15 and R16.

### GANGING

**I.F. CIRCUITS.**—Adjust I.F. trimmers at 380 kcs.

**M.W. BAND.**—Inject 200 metres and adjust T2. Adjust T3 at 220 m. Padding is fixed.

**L.W. BAND.**—Adjust T4 at 1,200 m. and T5 at 1,300 m. Padding is fixed.

**S.W. BAND.**—Adjust T1 while rocking gang. There are no oscillator adjustments.

### CONDENSERS

C.	Mfds.	C.	Mfds.
1	.01	10	.0002
2	.0001	11	.001
3	.02	12	.0002
4	821 mmfds.	13	.0001
5	335 mmfds.	14	.1
6	.0001	15	.50
7	.006	16	.01
8	.1	17, 18.	.32
9	.8	19, 20.	.02

### VALVE VOLTAGES

V.	Type.	Anode.	Screen.	Cathode.
1	X65	205	50	—
2	6B8G	50	50	1.5
3	KT35C	195	210	9.5
4	U31	—	—	250 D.C.

### RESISTANCES

R.	Ohms.	R.	Ohms.
1	.5 meg.	10	.5 meg.
2	40	11	1 meg.
3	100,000	12	.5 meg.
4	50,000	13	140
5	50,000	14	100
6	2 meg.	15	100
7	50,000	16	100
8	300	17	430
9	.5 meg.	18	70
		19	70

Instead of the usual chassis layout diagram we give two details showing the trimmer positions. The circuit includes an interesting reflex arrangement, V2 being both an I.F. and L.F. amplifier as well as incorporating the diodes.

