

1424

'E R T' SERVICE CHART

PHILIPS 225

MAINS operated table model covering MW and LW. Housed in grey moulded cabinet. Design features printed circuit and high impedance moving coil speaker.

Mains. 200-250V AC/DC. 60W.

Valves. UCH81 frequency changer, UBF89 IF amplifier and detector, UCL82 audio amplifier and output, UY85 rectifier.

Wavebands. MW 187-500m (1620-600kc/s). LW 1175-2000m (275-150kc/s).

IF. 470kc/s.

Aerial. Internal ferrite rod for MW and LW.

Speaker. Circular 4in. 800ohm moving coil.

Output. 1W.

Dimensions. 12½x7½x6½ins.

Weight. 4½ lb.

Price at release. 12gns. including PT.

Manufacturer. Philips Electrical Ltd.

Service Department. Amalgamated Electric Services, Ltd., Waddon Factory Estate, Croydon, Surrey. Tel.: Croydon 7722.

DISMANTLING

Chassis removal. Pull off volume and wave-change knobs. Place receiver face down on protected surface and remove backplate. Remove two rear chassis screws and three screws securing chassis to front of cabinet. Unsolder speaker leads and withdraw chassis.

Assembly. Turn gang to maximum (fully closed) and set tuning drive coupling at 9 o'clock viewed from rear. Engage pin on gang with slot in tuner drive. Replace chassis screws, backplate and knobs.

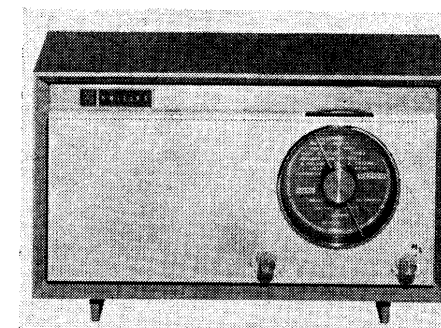
SERVICE NOTES

One side of mains is connected direct to chassis. Check that this is neutral.

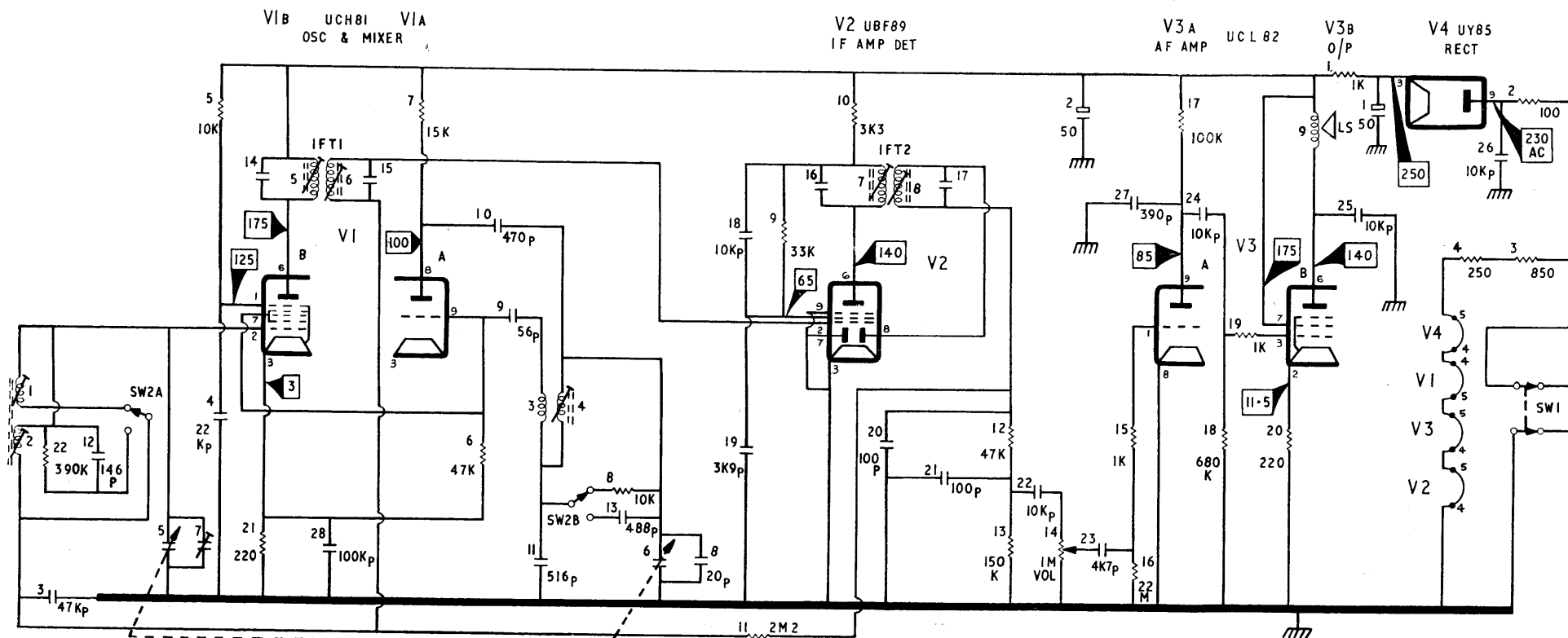
Mains dropper resistance. Top section is R4 250ohms, next R3 850ohms, third R2 100ohms. Bottom section R1 1K is isolated from rest of dropper.

Speaker. This receiver uses high impedance (800ohms) speaker. In the event of a replacement being fitted it must be of the same type. The speech coil is at HT potential.

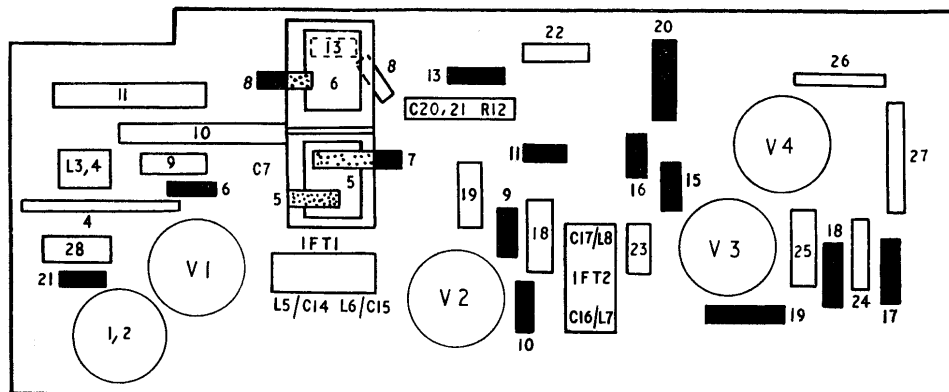
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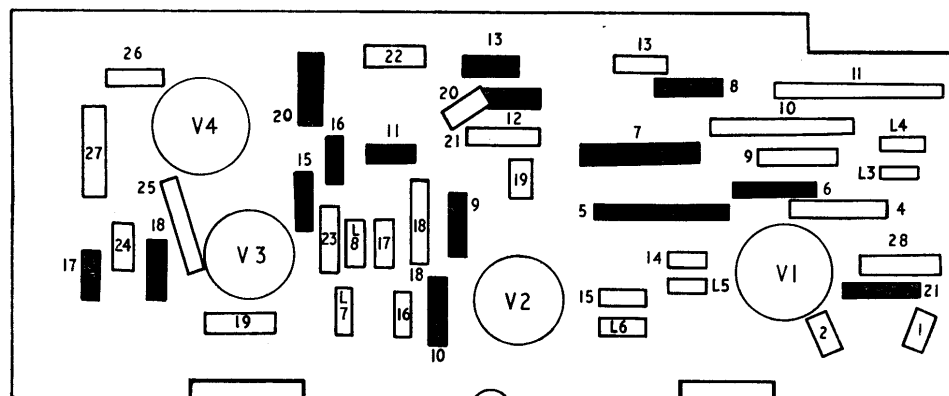
Maker's service and spares literature refers to this model as B2G25U



Voltage readings taken with 20,000 ohms/volt meter. Set switched to MW and operating on 240V mains under no-signal conditions



Above, top chassis component layout. Below, underside of printed circuit panel showing component layout



ALIGNMENT

Equipment required. Modulated signal generator covering MW, LW and IF, 10V AC voltmeter, two 47Kp capacitors, trimming tool.

Set volume control to maximum. Connect AC meter via 47Kp capacitor across speech coil.

IF. Turn gang to minimum. Connect generator to pin 2 of V1 via 47Kp capacitor. Inject 470kc/s modulated signal and adjust L8, L7, L6 and L5 in that order for maximum. Repeat operation until on further improvement is obtained.

MW RF. Switch to MW. Turn gang to maximum. With generator connected as for IF alignment inject 510kc/s. Adjust L4 for maximum. Loosely couple generator to receiver by few turns of insulated wire round ferrite rod aerial.

Tune set to 580kc/s and inject this frequency

from generator. Adjust position of L1 on ferrite rod for maximum output. Tune set to 1570kc/s and inject this from generator. Adjust C7 for maximum.

LW RF. Switch to LW. Tune set to 190kc/s. Inject this frequency from generator and adjust position of L2 on ferrite rod for maximum output. Switch to MW and recheck trimming.

TRADE MATTERS

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