

**SIX** valve AC/DC table radio for reception of AM and FM transmissions, released August 1957 at 20gns. inclusive.

**Mains.** 200/250V DC or AC 50-100c/s.

**Consumption.** 57W AM, 62W FM.

**Wavebands.** LW, 150-250kc/s; MW, 550-1650kc/s; VHF, 86-100mc/s.

**Valves.** UCC85, UCH81, UF89, UABC80, UL84, UY85.

**Pilot lights.** Two 6-8V, 0.12A.

**IF frequencies.** AM, 470kc/s; FM, 10.7mc/s.

**Speaker.** 7 x 4in. elliptical, 3ohms.

**Output.** 3W.

**Aerial.** Directional ferrite rod is fitted for AM, with provision for connecting external aerial. On VHF an internal dipole is provided, with two pin socket for external feed.

**Manufacturer.** Ferranti Radio and Television Ltd.

**Service department.** 41/47, Old Street, London, EC1.

### CHASSIS REMOVAL

Remove back cover and pull off front control knobs, extract two screws securing rear chassis flange to cabinet. Loosen screw holding ferrite aerial bracket and lift bracket clear. Chassis may then be withdrawn to extent of speaker leads.

### SERVICE NOTES

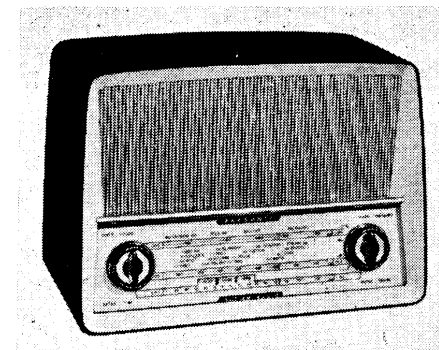
**Mains adjustment.** Care should be taken to set the mains input resistor for the mains supply in use. Chassis is connected to one side of the mains and should normally be associated with neutral. Speaker circuit is connected to earth terminal, thus providing safe connection for external speakers.

**Pickup.** Provision is made for connecting an external pickup, and to avoid hum trouble a two-core screened lead should be used, with the inner cores connected to the PU sockets and the braiding connected to the earth terminal.

**Rod aerial.** If screw securing ferrite rod aerial bracket to speaker baffle is replaced, a short one should be chosen to avoid protrusion through the baffle, as otherwise user might be exposed to shock.

### CIRCUIT DIFFERENCES

On some earlier models the following differences may occur:—R16 is 1M; C27 is 510 or 470pF; R34, R35, R36, C61, C62 and C64 are omitted; R3 is 22K; C45 is 8mF; C28 is 495pF; C54 is 0.3mF. Also, wire drives were used instead of nylon cord.



### COMPONENT RATINGS

#### Resistors

2W: R24 26  
1W: R2 5 6 7 19 34  
All others ½W.

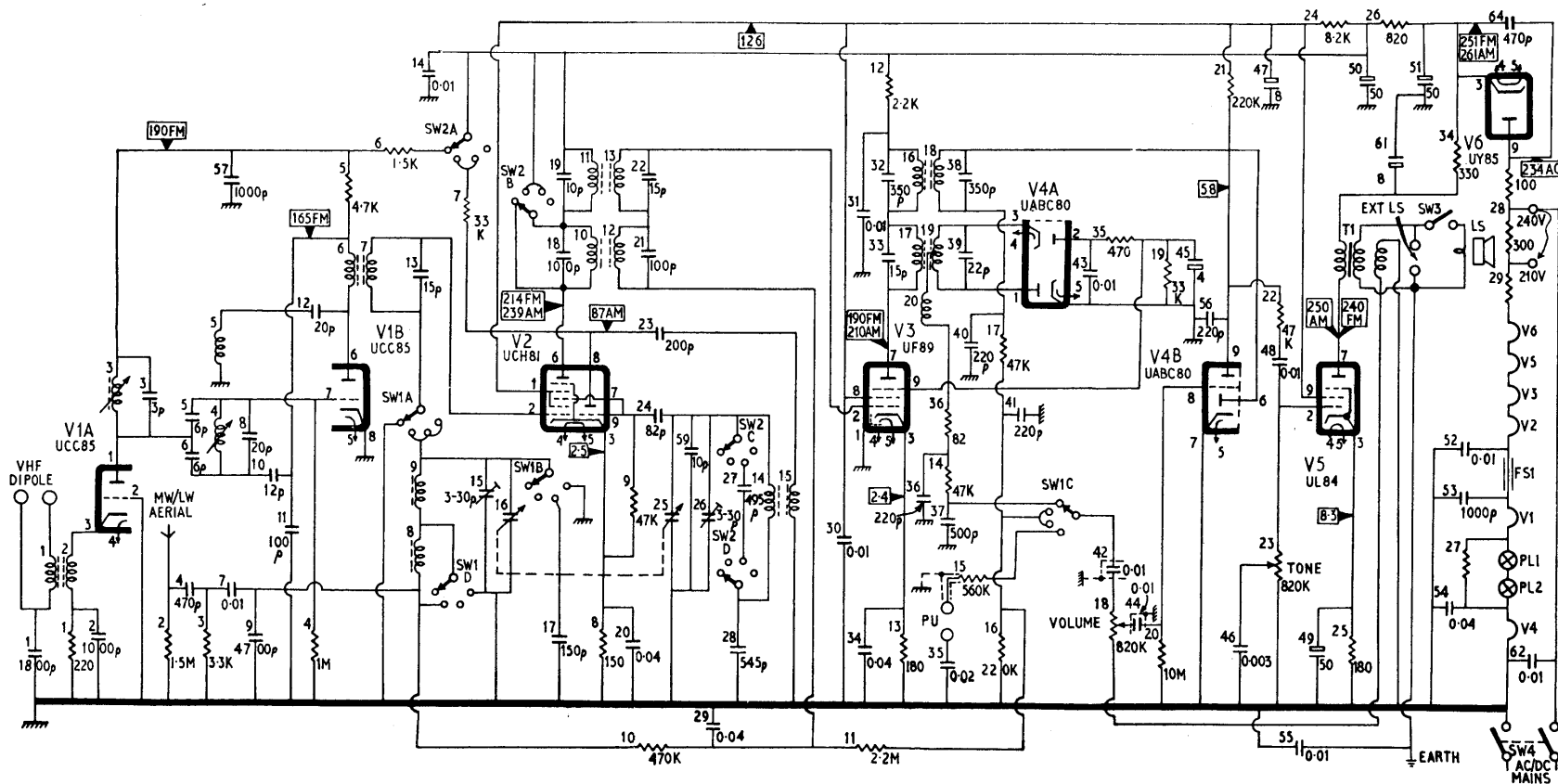
#### Inductors

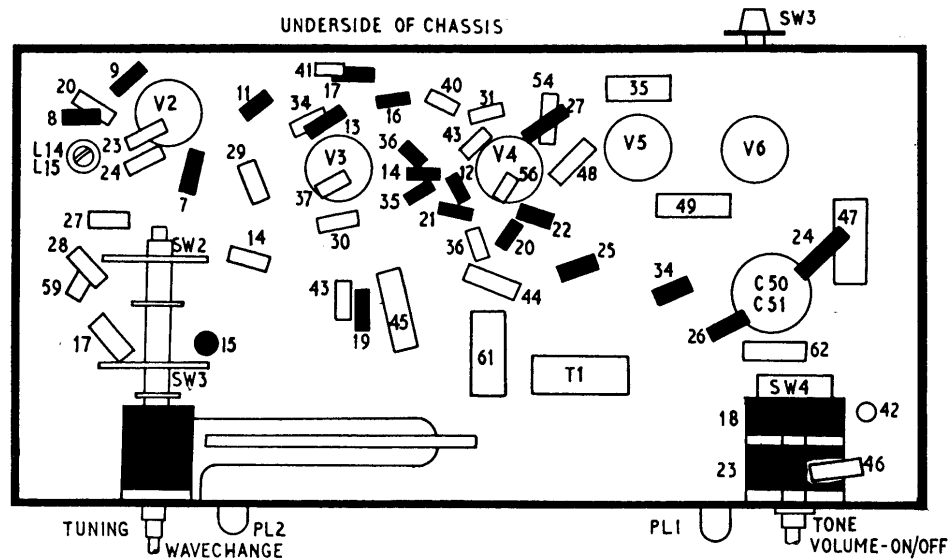
L	ohms
8 ...	1.5
9 ...	8
10 ...	10
12 ...	10
14 ...	2
15 ...	1
16 ...	6
18 ...	6
T1 ...	335

All others less than 1ohm.

#### Capacitors

400V: C14 30 31 46 52  
350V AC: C35 55 62  
150V: C7 20 29 34 43 54  
Electrolytic 350V: C47 61  
Electrolytic 275V: C50 51  
Electrolytic 150V: C45  
Electrolytic 12V: C49  
All others 350V wkg.





**ALIGNMENT**

**Equipment required.** AF output meter; two 220K matched resistors; 0-50 microamp DC meter; signal generator covering 10.7mc/s with  $\pm 25$ kc/s FM modulation and 470kc/s, LW/MW bands with 30 per cent. AM.

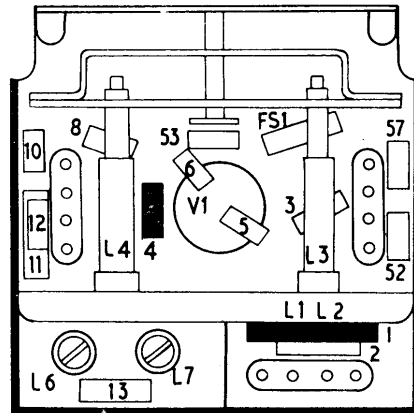
**IF, FM.** Connect audio meter across speaker leads and turn volume control fully up and tone to maximum brilliance. Connect the 220K resistors in series across R19 and the microammeter between their junction and chassis. Switch to FM and tune receiver to low frequency end of band.

Feed generator output at 10.7mc/s to pin 2 of V3 and adjust L17 for maximum on microammeter. Disconnect chassis end of this meter and reconnect to junction R14/C36; tune L19 for zero between positive and negative outputs.

Reconnect microammeter to chassis and feed input to pin 2 of V2; tune L11/L13 for maximum. Finally, connect generator via 0.001mF isolating condenser to junction R5/R6 and tune L6/L7 for maximum.

**IF, AM.** Feed 470kc/s, AM modulated, to pin 2 of V2 via 0.1mF and tune L18, L16, L12 and L10, in that order, for maximum output on audio meter; with receiver switched to AM.

**RF, FM.** Check that with gang fully closed, tuner carriage is 1/32 in. from fully open and that pointer coincides with datum mark at right-hand end of scale. Inject 91mc/s, FM modulated, at aerial socket, and tune dial to same frequency. Switch to FM and adjust

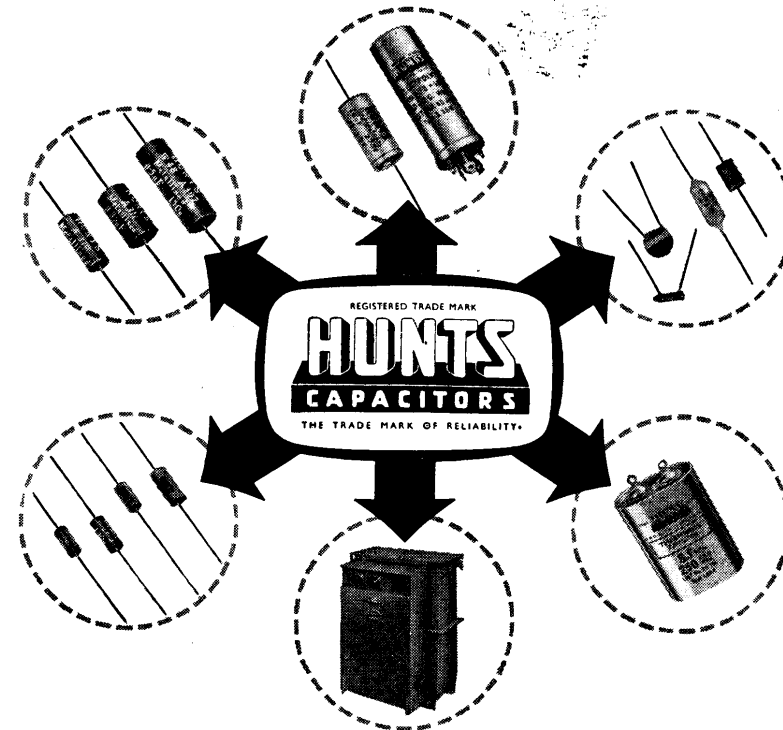


core of L4 for alignment and L3 for maximum output on audio meter. Check calibration at 87, 94 and 99mc/s, and ensure oscillator is working at end of the band by tuning to 100mc/s and identifying an image with an input at 78.6mc/s.

**RF, AM.** Switch to MW, tune to 500m, inject 600kc/s (AM modulated) at aerial socket and adjust L9 on ferrite rod for maximum output. Tune to 225m and 1333.3kc/s and adjust C26 for alignment and C15 for maximum output. Repeat as necessary.

Switch to LW, tune to 1400m and 214.3kc/s, and adjust L8 on ferrite rod for maximum output.

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