

**FERRANTI****Models 225, 425**

**General Description :** Five-valve (including rectifier), three-waveband superheterodyne receiver with switched aerial circuits to give independent operation from built-in frame aerials or from an external aerial. *Model 425 Radiogram* is fitted with the Garrard single-speed record changer, RC70B. *Model 425 LP Radiogram* has a Garrard three-speed record changer, RC72A.

**Power Supplies :** A.C. mains, 200–250 volts. *Model 225*, 50–100 c/s.; *Models 425 and 425 LP*, 50 c/s.

**Wavebands :** S.W. 16–50 m.; M.W. 190–570 m.; L.W. 1000–2000 m.

**Intermediate Frequency :** 470 kc/s.

**Alignment Procedure :** This is identical with that described for Model 215 (see pages 338 and 336).

**Valve Analysis :** The voltage (measured to chassis) and current readings given below are average and were measured under no-signal conditions with a Model 7 Avometer.

Valve	Anode Volts	Anode Current (mA.)	Screen Volts	Screen Current (mA.)	Osc. Anode Volts	Cathode Volts
V1 ECH42	255	2.4	75	2.8	103	—
V2 EF41	255	5.0	75	1.5	—	—
V3 EBC41	75	0.65	—	—	—	—
V4 EL41	250	30	230	5.0	—	4.7
V5 EZ40	—	—	—	—	—	287

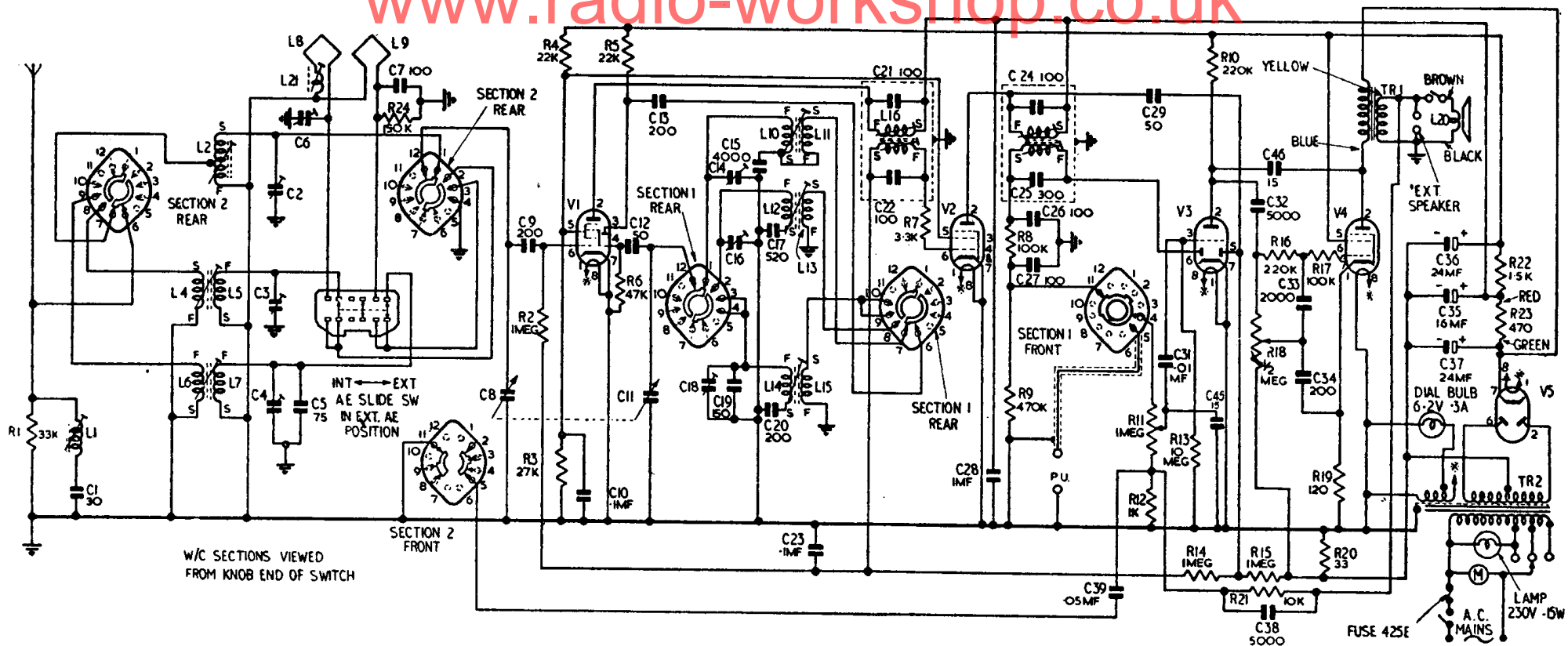
Unsmoothed H.T. at V5 cathode, 270 volts; part smoothed H.T. at low end of R23, 260 volts; smoothed H.T. at low end of R22, 230 volts; total H.T. current through R23, 57 mA.; bias across R20, 1.8 volts.

To check that the oscillator is functioning, earth its grid and note that the oscillator-anode volts fall by approximately 30.

**Circuit Differences :** C38, C39 and C40 are omitted in Model 225.

**D.C. Resistances.**

L1 18 ohms	L8 Under 1 ohm	L14 10 ohms	L20 2.6 ohms
L2 Under 1 ohm	L9 15 ohms	L15 1 ohm	L21 1 ohm
L4 30 ohms	L10 Under 1 ohm	L16 6.5 ohms	TR1 (Pri.) 450 ohms
L5 2.5 ohms	L11 Under 1 ohm	L17 6.5 ohms	TR2 (Pri.) 37 ohms
L6 48 ohms	L12 4 ohms	L18 7 ohms	(total)
L7 15 ohms	L13 Under 1 ohm	L19 3.5 ohms	(Sec.) 180 ohms.



CIRCUIT DIAGRAM—FERRANTI MODEL 425

(Model 225 is identical except for the omission of C<sub>38</sub>, C<sub>39</sub>, and C<sub>46</sub>.)

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