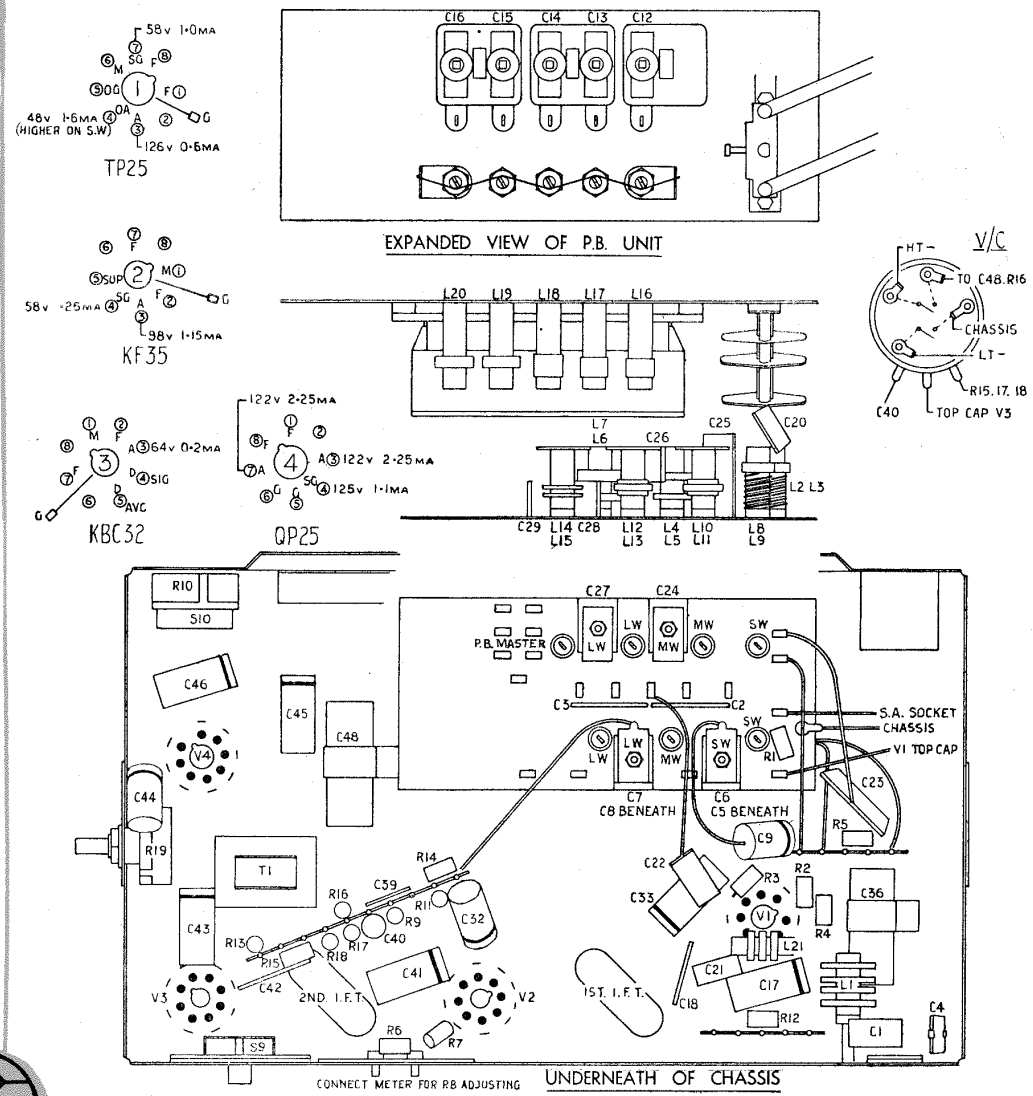
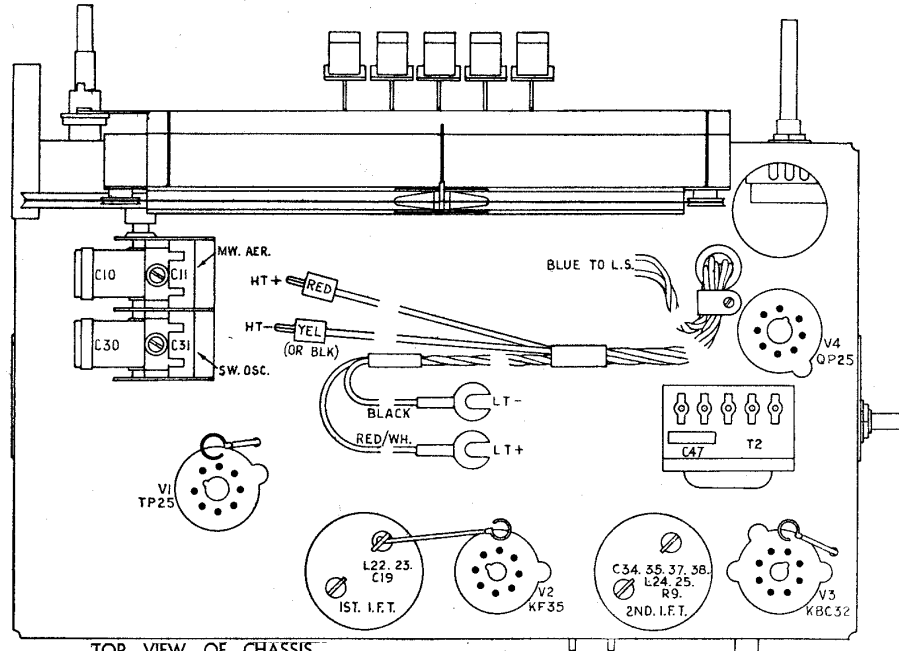
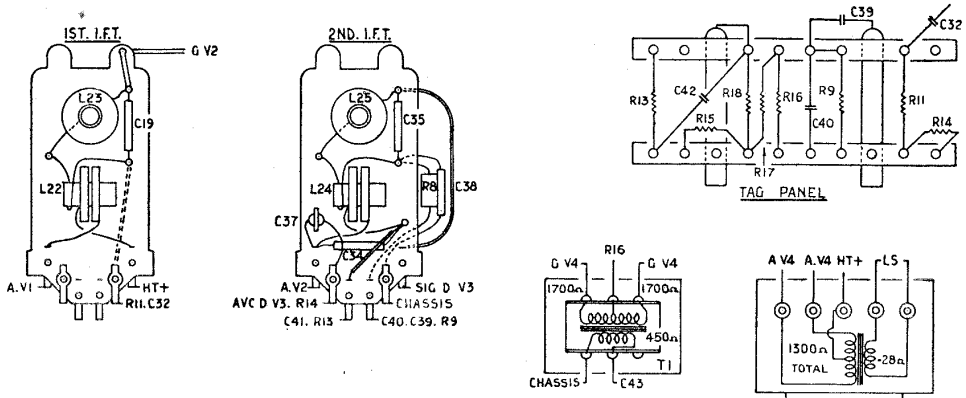


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# EKCO SERVICE DATA



**MODEL B25** is a 4-valve, battery operated, superheterodyne receiver with manual tuning on three wavebands, press-button control of three M.W. and two L.W. stations.

**BATTERIES:** H.T. 120-135 volts. L.T. 2 volts. No G.B. battery is required as the receiver is self-biased.

**CONSUMPTION:** H.T. 10.4 ma (at 135v.), 9ma (at 120v.). L.T. 0.5 amp.

**WAVE RANGES:** S.W. 19 metres — 50 metres.  
M.W. 200 metres — 550 metres.  
L.W. 1,000 metres — 2,000 metres.

**VALVES:** V1. Mazda TP25 Frequency Changer. V2. Mullard KF35 I.F. Amplifier. V3. Mullard KBC32 2nd Det. AVC, L.F. Amplifier. V4. Mazda QP25 L.F. Amplifier.

**INTERMEDIATE FREQUENCY:** 477 K/cs.

**SPEECH COIL IMPEDANCE:** 3 ohms at 400 c.p.s.

**CHASSIS REMOVAL:** Remove the back cover and the four control knobs. Removal of the escutcheon is not necessary. Disconnect and remove the batteries.

Remove the four 2BA base screws. Chassis can now be withdrawn to the extent of the speaker leads, which is ample for most servicing purposes.

**ALIGNMENT NOTE:** During alignment and calibration, the input from the signal generator to the receiver should be reduced to the

lowest level, consistent with a workable reading on the output meter.

**I.F. ALIGNMENT:** (1) Switch to M.W. and fully mesh the gang. (2) Connect a suitable output meter to the EXT.LS. sockets. (3) Inject a 477 K/cs. signal via a 0.1 mfd condenser to the grid (top cap) of V1. (4) Adjust the 2nd I.F.T. upper and lower cores, then the 1st I.F.T. upper and lower cores for maximum output.

**I.F. FILTER ADJUSTMENT:** Remove the 0.1 mfd condenser and inject the 477 K/cs. into the A and E sockets, then adjust L1 core for lowest meter reading.

**POINTER SETTING:** When the gang is fully meshed, the pointer should coincide with the small lines terminating the low frequency ends of all three wavebands. A slight error can be corrected by loosening the grub screws on the four-inch drive wheel and, with the gang held steady, rotating the drive until the pointer is correct. Tighten up the grub screws. A large error, half an inch or more, will mean refitting the drivecord as diagram, with the cursor tied at the mid-point of the cord.

**CALIBRATION:** Switch to S.W.

Adjust S.W. Osc. trimmer C31 at 20m, then adjust S.W. Osc. core at 50m. (When these are correctly adjusted, the 20m image should appear at 21.4 m.)

Switch to M.W.

Adjust M.W. Osc. trimmer C24 at 250m, then adjust M.W. Osc. core at 500m.

Adjust M.W. Aer. trimmer C11 at 250m, then adjust M.W. Osc. core at 500m.

Switch back to S.W.

Adjust S.W. Aer. trimmer C6 at 20m, then adjust S.W. Aer. core at 50m.

Switch to L.W.

Adjust L.W. Osc. trimmer C27 at 1,300m, then adjust L.W. Osc. core at 1,700m.

Adjust L.W. Aer. trimmer C7 at 1,300m, then adjust L.W. Aer. core at 1,700m.

**BUTTON SETTING:** Remove the escutcheon. Switch to P.B. (White). Band coverage for each button (from left to right) is:

Button 1 (L.W.) 1,430 — 1,986 metres.

Button 2 (L.W.) 1,160 — 1,640 metres.

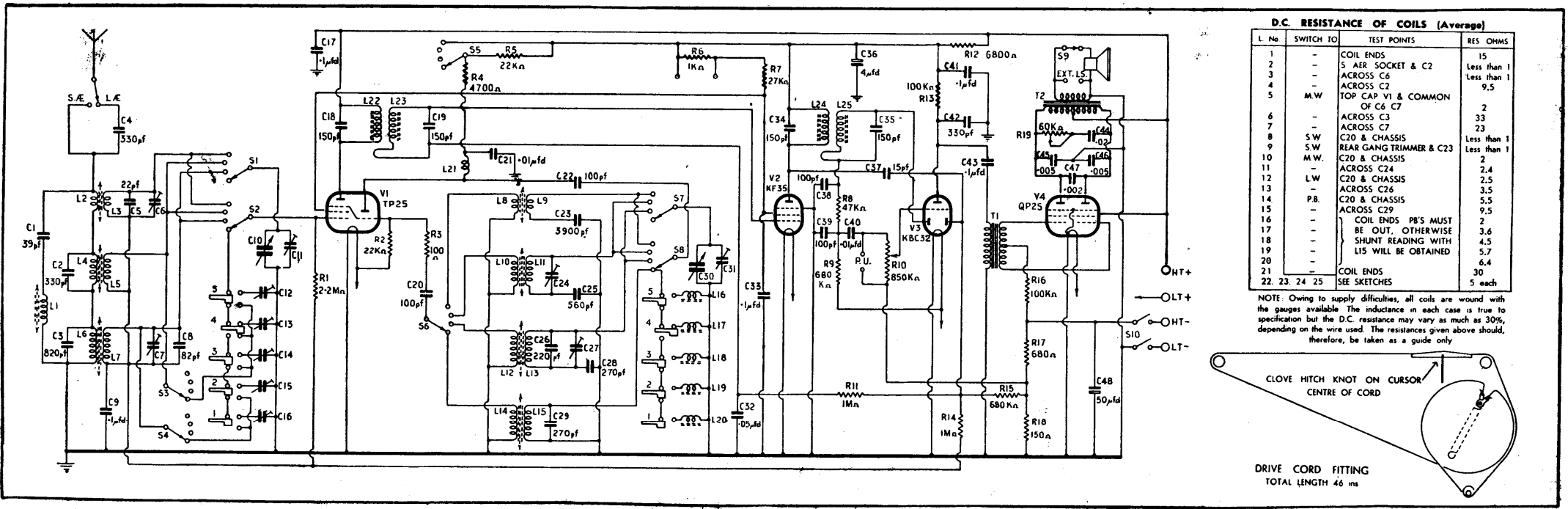
Button 3 (M.W.) 342 — 560 metres.

Button 4 (M.W.) 267 — 450 metres.

Button 5 (M.W.) 200 — 308 metres.

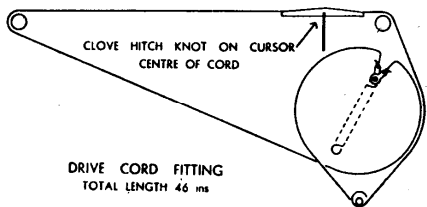
Tune in the new station by adjusting osc. shunt inductance (lower key) then increase strength by resonating grid shunt capacity (upper key). Slide in new station-name card.

**NOTE:** For accurate button setting, a 0-2 ma DC meter or a high resistance 0-2 v. meter can be connected to the two studs (across R6) projecting at the rear of the chassis. Tune for the lowest reading.



D.C. RESISTANCE OF COILS (Average)			
L. No	SWITCH TO	TEST POINTS	RES OHMS
1	-	COIL ENDS	15
2	-	S AER SOCKET & C2	Less than 1
3	-	ACROSS C6	Less than 1
4	-	ACROSS C2	9.5
5	M.W.	TOP CAP V1 & COMMON OF C6 C7	2
6	-	ACROSS C3	33
7	-	ACROSS C7	23
8	S.W.	C20 & CHASSIS	Less than 1
9	S.W.	REAR GANG TRIMMER & C23	Less than 1
10	M.W.	C20 & CHASSIS	2
11	-	ACROSS C24	2.4
12	L.W.	C20 & CHASSIS	2.5
13	-	ACROSS C26	3.5
14	P.B.	C20 & CHASSIS	5.5
15	-	ACROSS C29	9.5
16	-	COIL ENDS PB'S MUST BE OUT, OTHERWISE SHUNT READING WITH L15 WILL BE OBTAINED	2
17	-		3.6
18	-		4.5
19	-		5.7
20	-		6.4
21	-	COIL ENDS	30
22, 23, 24, 25	-	SEE SKETCHES	5 each

**NOTE:** Owing to supply difficulties, all coils are wound with the gauges available. The inductance in each case is true to specification but the D.C. resistance may vary as much as 30%, depending on the wire used. The resistances given above should, therefore, be taken as a guide only.



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