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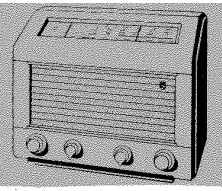
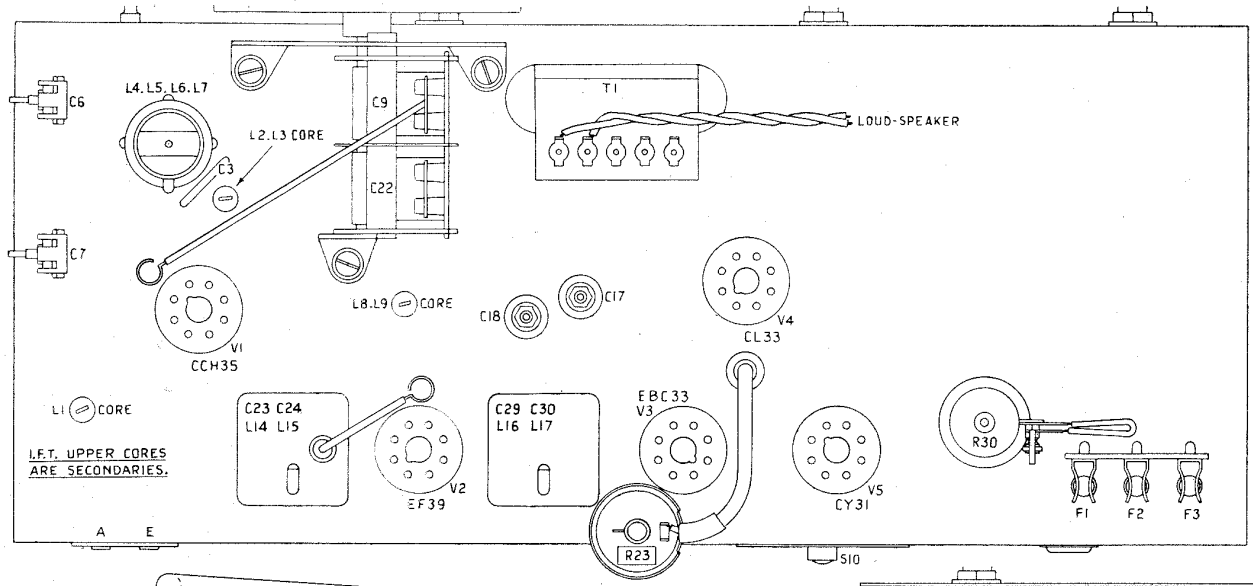
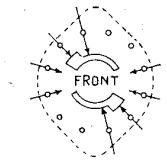
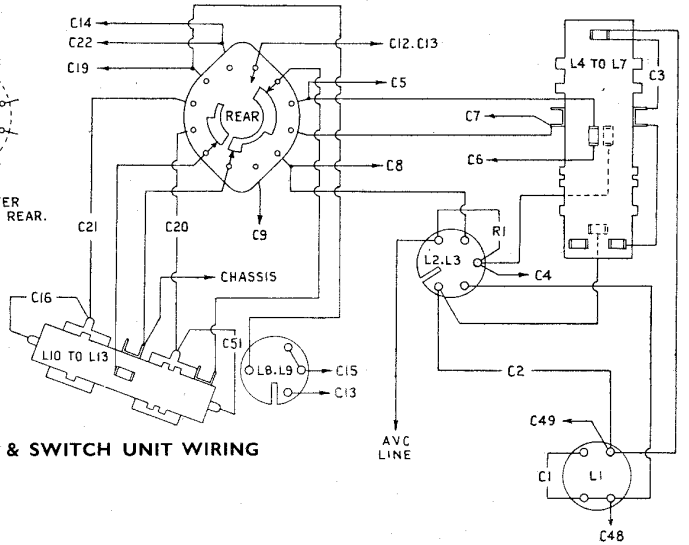
EKCO SERVICE DATA
MODEL U75



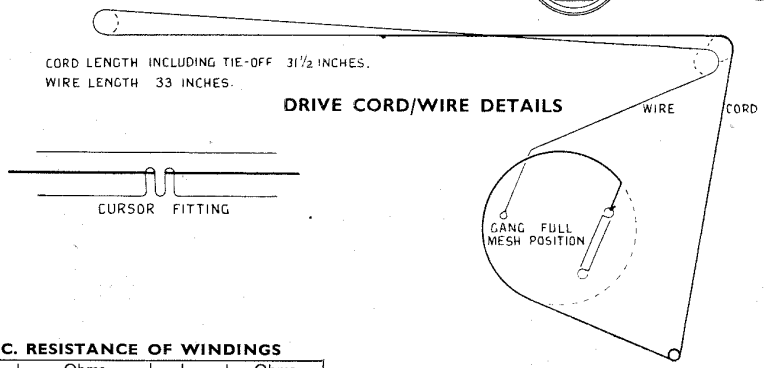




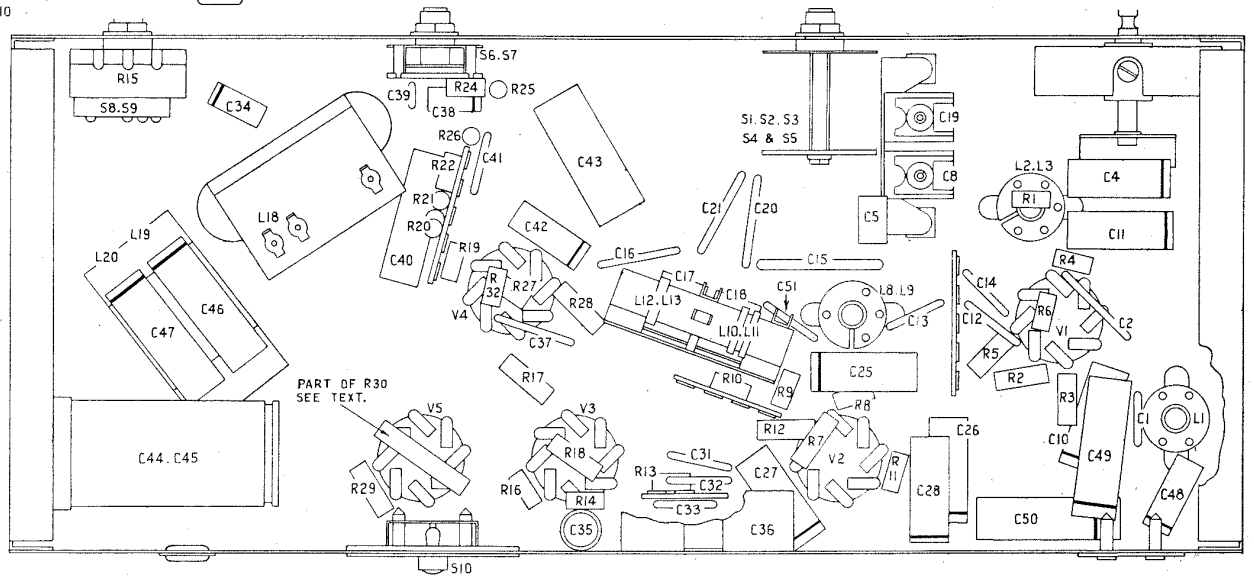
BOTH SIDES OF WAFER VIEWED FROM THE REAR.



COIL & SWITCH UNIT WIRING



DRIVE CORD/WIRE DETAILS



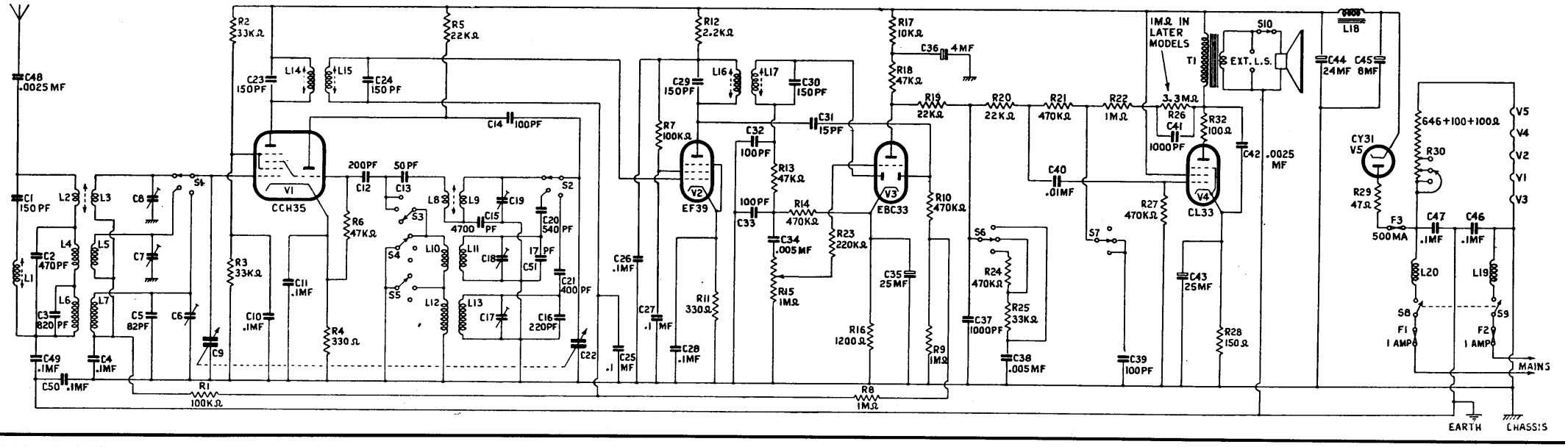
D.C. RESISTANCE OF WINDINGS

L	Ohms	L	Ohms
1	9	12	1.5
2	less than 1	13	5.5
3	less than 1	14	9
4	12	15	9
5	4	16	9
6	36	17	9
7	28	18	520
8	less than 1	19	1.3
9	less than 1	20	1.3
10	1	T1 PRI	340
11	3	T1 SEC	less than 1

VOLTAGE AND CURRENT DATA

Valve	Anode		Screen		Cathode	
	Volts	M.A.	Volts	M.A.	Volts	M.A.
1	192	1.0	70	1.4	1.5	5.3
2	183	3.55	67	1.1	1.5	6.5
3	90	1.6			1.4	1.6
4	176	42.5	195	4.5	7.1	47
5	212 AC	83			229	60.4

Conditions. 225V A.C. input. Set tuned to 1000 Kc/s and quiescent. 1000 ohms/volt meter.



MODEL U75 is a 5-valve including rectifier, superheterodyne receiver, covering S.W., M.W., and L.W. bands for operation on A.C. or D.C. mains. It is manually tuned and has four controls spaced across the lower front of the cabinet. From left to right these are, Volume ON/OFF, Tone, Waveband switch, Tuning.

MAINS SUPPLY. A.C. 200-250 volts. 40-100 c.p.s.
D.C. 200-250 volts.

CONSUMPTION. A.C. 300 m.a. at 225V input.
D.C. 260 m.a. at 220V input.

FUSES. F1 and F2. 1 amp. F3. 500 m.a.

WAVE RANGES. S.W. 16-51 metres 18.75-5.88 Mc/s. M.W. 197-568 metres 1523-531 Kc/s. L.W. 1000-2100 metres 300-143 Kc/s.

VALVES. V1—CCH35, frequency changer. V2—EF39, I.F. amplifier. V3—EBC33, demodulator A.V.C. L.F. amplifier. V4—CL33, L.F. amplifier. V5—CY31, half-wave rectifier.
All are Mullard with international octal bases.

INTERMEDIATE FREQUENCY. 460 Kc/s.

LOUD-SPEAKER IMPEDANCE. 3 ohms at 400 c.p.s.
The external speaker, if used, should have a similar impedance, suitable types being (1) as fitted in the receiver (2) Ekco types ES73 and ES31 extension speakers. The internal speaker muting screw switch S10 is fitted at the rear, below the EXT.L.S. sockets.

WARNING. As the chassis is " alive ", great care must be taken in handling when the back cover is removed, or when the chassis is removed from the cabinet for test purposes. This particularly applies to sets working on A.C. mains, or in the case of D.C. mains, where the positive main is earthed.
When working on A.C. it is necessary as an extra precaution to insert the plug in the mains socket so that the chassis is connected to the earthed side of the mains supply. Test by connecting a capacitor of about 0.1 mfd (250 volts A.C. working) in series with the earth lead and touching the chassis with the free end of the capacitor. If sparks occur, reverse the mains plug.

IMPORTANT. This test must NOT be carried out unless the capacitor is fitted as above, otherwise, should polarity of the mains be such that the chassis is alive, one of the filter coils will be burned out on touching the chassis with the earth wire.
Do not forget (*a*) to replace the back cover ; (*b*) to fill grub screw holes in the control knobs with wax after re-fitting.

I.F. ALIGNMENT (1) Switch to M.W. and fully mesh the gang. (2) Inject a 460 Kc/s signal via a 0.1 mfd condenser to the top cap of V1. Connect an output meter to the EXT.L.S. sockets.
Adjust the cores of the I.F.T.'s as follows : 2nd I.F.T. upper and lower, then 1st I.F.T. upper and lower for maximum output.

I.F. FILTER ADJUSTMENT. Replace the 0.1 mfd condenser with a 200 pf condenser and inject the 460 Kc/s signal into A and E, then adjust the core of L1 for minimum output.

POINTER SETTING. Fully mesh the gang then, if necessary, slide the cursor along the drive *cord* until the pointer coincides with the lines at the L.F. end of the scale. This operation should only be effected when the chassis is screwed into the cabinet.

CALIBRATION. Chassis must be fitted into cabinet.
Switch to S.W.
Tune to and inject 15 Mc/s (20 metres) signal and adjust C19 and C8 (through cabinet base) for maximum output.
Tune to and inject 6 Mc/s (50 metres) signal and adjust cores of L9 and L3 for maximum output.
Repeat both these adjustments until there is no further improvement.
Switch to M.W.
Tune to and inject 1500 Kc/s (200 metres) signal and adjust C18 for maximum output.
Tune to and inject 1300 Kc/s (231 metres) signal and adjust C7 for maximum output.
Switch to L.W.
Tune to and inject 250 Kc/s (1200 metres) signal and adjust C17 and C6 for maximum output.

CHASSIS REMOVAL. Remove the back cover and four control knobs. Inside, remove the light screen, at the rear of the scale, by unscrewing the 4BA screw securing each end. Remove the wood screws securing the extreme ends of the cursor guide rail, then the four 2BA chassis fixing screws in the base of the cabinet. Draw chassis clear to the extent of the speaker leads.

MAINS RESISTOR. R30. Approx. 1000 sets have mains resistors fitted with a 583 ohms section instead of the 646 ohms section called for.
In such cases an additional 63 ohms 6 watt resistor is added in series with the 583 ohms section.
When replacing the mains resistor check to ensure whether or not the additional resistor is required.

CHASSIS INSTALLATION. Care must be taken to ensure that the chassis does not contact any part of the speaker frame as the speech coil is at EARTH potential. With chassis at the " high " side of the mains a flashover may occur.

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