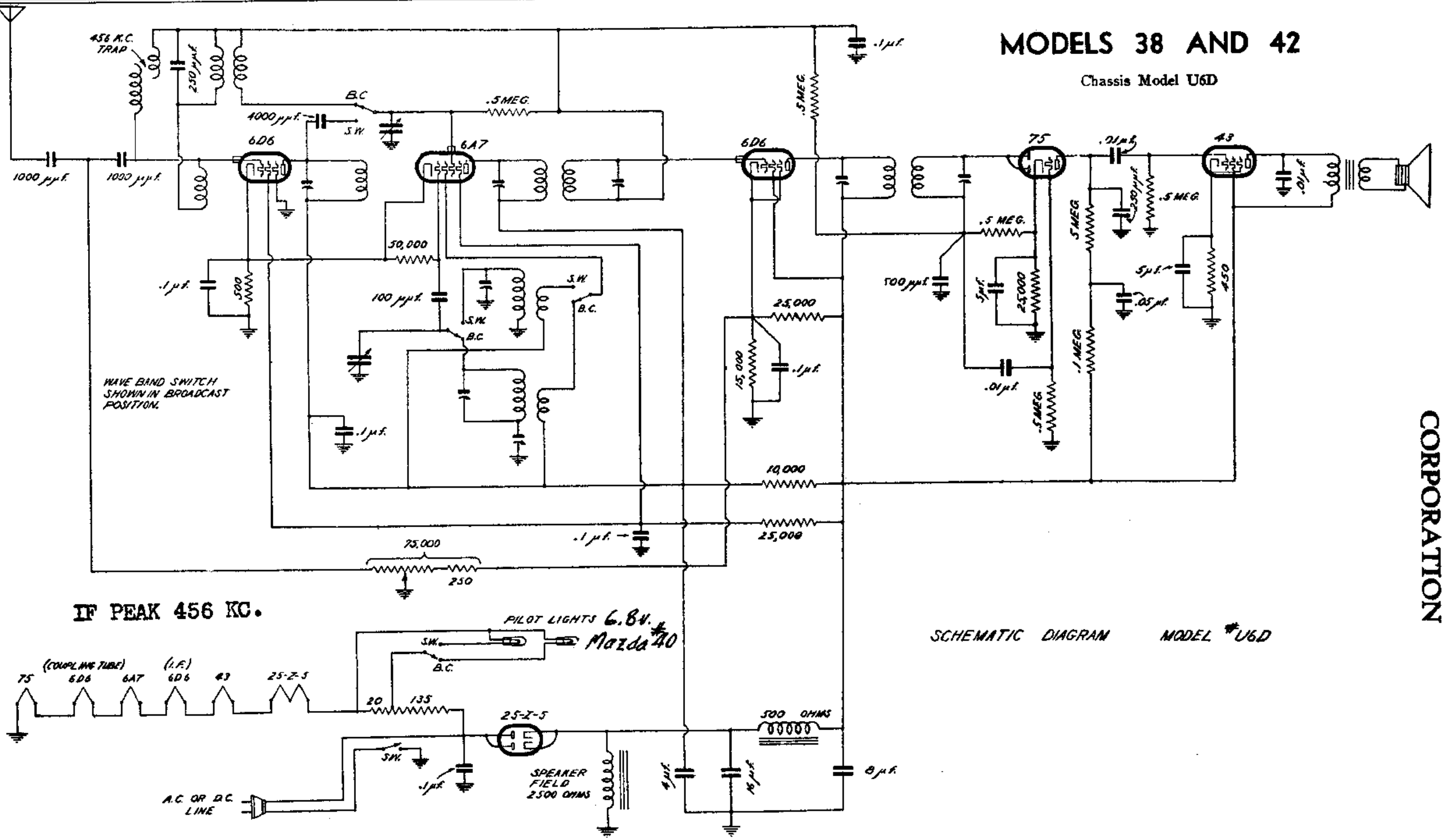
MODELS 38 AND 42

Chassis Model U6D



SCHEMATIC DIAGRAM MODEL #U6D

Voltages listed below are from the point indicated to ground.

	Plate	*Screen*	*Suppressor*	*Cathode*
6D6 R.f.	70	50	0	3
6A7 Oscillator-Modulator	70	50	—	3
6D6 I.f.	100	100	3.5	3.5
75 A.f.	60	—	—	1
43 Output	100	100	—	12.5

Voltage across field 125 volts.

Line voltage—117.5 volts a.c.

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MODEL 38,42 (U-6-D) Schematic,Voltage

MODEL 38,42 (U-6-D)
Parts List, Alignment

EMERSON RADIO AND PHONOGRAPH CORPORATION

Alignment procedure:

1. Short circuit oscillator stator of the variable condenser to ground.
2. Introduce the 456 kc signal on the grid of the 6D6 i-f tube.
3. Adjust the single tuned i-f transformer for maximum response on the output meter.
4. Remove the 456 kc signal from the 6D6 grid and put it on the 6A7 grid.
5. Adjust both trimmers on first i-f transformer for maximum response.
6. Remove 456 kc signal from 6A7 grid.
7. Remove the short circuit from the stator of the oscillator section of the gang condenser.
8. Set the range changing switch to the broadcast band.
9. Make sure that the needle on the dial reaches its extreme position at both ends of the broadcast band when the gang condenser is at maximum and minimum. If the needle does not do this, loosen the set-screw on the hub of the dial and rotate the gang condenser to maximum capacity. Then rotate the needle of the dial (by means of the selector knob) to its extreme position at the 550 kc end of the broadcast band. Tighten the set-screw securely and proceed to realign the set.
10. Set the needle on the dial to 1600 kc.
11. Introduce a 1600 kc signal into the antenna.
12. Adjust oscillator trimmer (the one farthest from the chassis on the oscillator coil) for maximum response.
13. Introduce a 600 kc signal into the antenna. Rock the gang condenser back and forth around the 600 kc dial reading and at the same time adjust the series padding condenser for maximum output. Leave the series padder set to the point of maximum sensitivity. The series padder is on the front of the chassis.
14. Check alignment on 1600 kc.
15. Now throw the range switch to short-wave position and introduce a 15 megacycle (mc) signal into the antenna.
16. Set the dial needle to 15 mc.
17. Adjust oscillator trimmer for maximum output. The short-wave oscillator trimmer is the one nearest the oscillator coil.
18. Connect the antenna to the set and adjust the interstage coil for maximum noise at 15 mc. The interstage coil is the one with only one trimmer on it. Before starting the adjustment turn the trimmer out so as to have minimum capacity and gradually increase it. A peak will be noticed and then as the capacity is increased the noise diminishes and disappears. When the capacity is increased further, the noise may increase again. The peak with the trimmer having less capacity than it has when the noise disappears is the proper peak.

Part No.	*Description*		
CCT-115	Composite broadcast short-wave antenna coil	CCC-124	Two-gang variable condenser
CCT-116	Short-wave r-f interstage tuning choke	BBC-121	250-500 mmf padding condenser
CCT-117	Composite broadcast—short wave oscillator coil	CCR-116	Special ballast resistor .....
CCT-118	Double-tuned 456 kc first i-f transformer	CCR-118	450 ohm 1 watt wire-wound resistor
CCT-119	Double-tuned 456 kc second i-f transformer	CCD-15	Dial assembly .....
KT-40	Iron-core filter choke	KL-6	Pilot lamp, Mazda No. 40
CCR-117	Volume control with switch	CCS-76	Range—change switch
CCC-125	4-8-16 mf, 150 volt d.c., electrolytic filter cond	CCS-75	5" dynamic speaker
HC-32	Dual 5 mf electrolytic condenser, 25 volts d-c		
CCC-126	.004 mfd. mica condenser		