

MODEL FG-330  
Chassis FG  
MODEL FG-400  
Chassis FC

EMERSON RADIO & PHONOGRAPH CORP.

DIAL CORD REPLACEMENT

Draw the cord snugly around the condenser pulley and knot it, with no slack, near the notch in the pulley, after which the spring may be hooked to the cord and pulley. The dial face should bear against the fibre washer when finally assembled.

- L1 Loop antenna assembly (FC)
- L1 Loop antenna assembly (FG)
- T4 Oscillator coil
- T2 Double-tuned 455 kc first i-f transformer
- T3 Double-tuned 455 kc second i-f transformer
- R1 20,000 ohm 1/4 watt carbon resistor
- R3 140 ohm 1/4 watt wire-wound resistor
- R4 3 megohm 1/4 watt carbon resistor
- R5 Volume control .5 megohm with line switch (FC)
- R5 Volume control .5 megohm with line switch (FG)
- R6, R2 15 megohm 1/4 watt carbon resistor
- R7, R8 500,000 ohm 1/4 watt carbon resistor
- R11 200,000 ohm 1/4 watt carbon resistor
- C1, C2 Two-gang variable condenser (FC)
- C1, C2 Two-gang variable condenser (FG)
- C3, C16 0.002 mf, 600 volt tubular condenser
- C4, C15 0.002 mf, 600 volt tubular condenser
- C5, C11 Trimmers, part of variable condenser
- C6, C7 } Trimmers, part of variable condenser
- C8, C9 } Trimmers, part of variable condenser
- C10, C27 0.05 mf, 200 volt tubular condenser
- C14 0.05 mf, 400 volt tubular
- C17, C18 0.02 mf, 400 volt tubular condenser
- C20, C21 Dual 20 mf, 150 volt dry electrolytic condenser (FC)
- C20, C21 Dual 20 mf, 150 volt dry electrolytic condenser (FG)
- C24 0.1 mf, 200 volt tubular condenser
- C26 0.2 mf, 200 volt tubular condenser
- 7BS-409 5" dynamic speaker

R-f Alignment

Set the dial pointer at 140. Set the signal generator at 1400 kc and feed its output into a loop of wire about 12 inches in diameter. Hold this radiating loop about 12 inches from and parallel to the receiver loop antenna. Advance the output of the signal generator until deflection is obtained on the output meter. Adjust first the oscillator trimmer (on front section of variable condenser) then the antenna trimmer (on rear section of variable condenser) for maximum response.

If the loop antenna has been replaced it may be necessary to adjust the loop inductance as follows. Align at 140. Set the pointer at 60 and feed 600 kc to the antenna lead. A portion of the outside turn of the loop may be swung to either side of the center to give maximum response. Realign at 140.

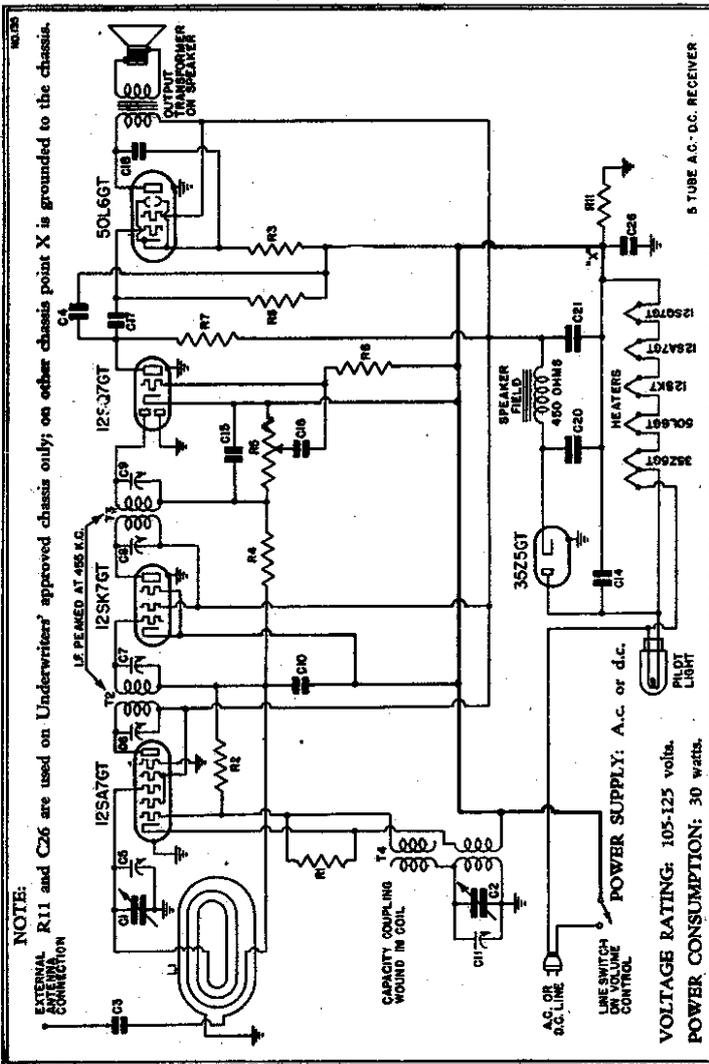
- TYPE: Single-band superheterodyne.
- FREQUENCY RANGE: 540-1600 kc.
- 12SA7GT, pentagrid oscillator-modulator
- 12SK7GT, first i-f amplifier
- 12SQ7GT, diode detector, a-f amplifier, a.v.c.
- 50L6GT, beam power output
- 3Z5Z5GT, half-wave rectifier.

MODEL: FC-400

CHASSIS MODEL: FC

MODEL: FG-330

CHASSIS MODEL: FG



Location of Coils and Trimmer Adjustments

The first i-f transformer is mounted on top of the chassis deck to the right of the variable condenser. The trimmers are accessible through holes in the top of the can.

The second i-f transformer is mounted on top of the chassis between the variable condenser and the speaker. The trimmers are accessible through holes in the top of the can.

The trimmers for the antenna and oscillator coils are located on the variable condenser. The trimmer on the front section is for the oscillator coil.

Readings should be taken with a 1000 ohms-per-volt meter. Voltages listed below are from point indicated to B minus (line switch) with the volume control turned on full and no signal. Line voltage for these readings was 117.5 volts, 60 cycles, a.c. All readings except heaters and cathodes were taken on 250 volt scale. Measurements made with 117.5 volts d.c. will be lower than those given below.

VOLTAGE ANALYSIS

- Voltage at 3Z5Z5 cathode—120 volts.
- Voltage across speaker field—32 volts.
- Voltage across pilot light—4.5 volts.

The oscillator coil is located underneath the chassis. The loop antenna coil is the antenna coil.

i-f Alignment

Swing the variable condenser to the minimum capacity position. Feed 455 kc to the grid of the 12SA7 tube through a .01 mf condenser and adjust the four i-f trimmers for maximum response.

Note: The grid of the 12SA7 tube is connected to the stator lug of the rear variable condenser section. Connection may be made with a test clip.

Tube	Plate	Screen	Cathode	Fil.
12SA7GT	88	88	0	12
12SK7GT	88	88	0	12
12SQ7GT	30	—	0	12
50L6GT	82	88	5.6	50