

Emerson Radio & Phonograph Corp.

Model: CF255

Chassis:

Year: Pre August 1939

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

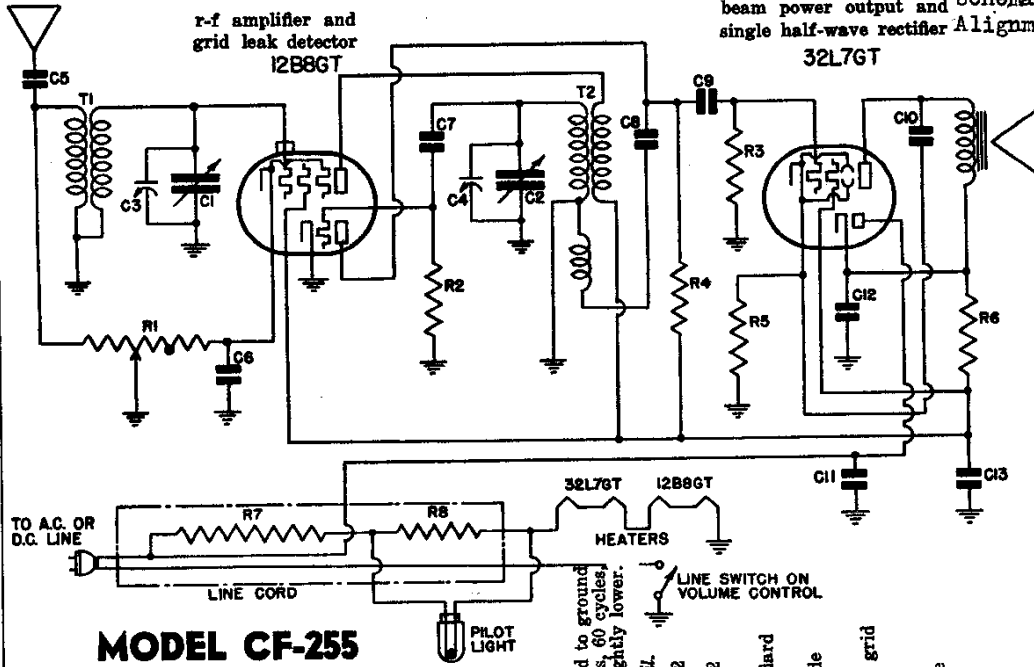
Riders Volume 10 - EMERSON 10-23

EMERSON RADIO & PHONOGRAPH CORP.

MODEL CF255

Chassis CF

beam power output and Schematic, Voltage Alignment, Parts
single half-wave rectifier



MODEL CF-255

CHASSIS MODEL CF

Item	Part No.	DESCRIPTION	Price
T1	6FT-461	Broadcast antenna coil	.50
T2	6FT-462	Volume control 75,000 ohms with 200 ohm bias stop and line switch	.50
R1	6FR-345	10 megohm 1/4 watt resistor	.16
R2	3KR-275	500,000 ohm 1/4 watt carbon resistor	.16
R3	KR-86	140 ohm 1/4 watt wire-wound resistor	.16
R4	3FR-298	2,400 ohm 1/4 watt carbon resistor	.16
R5	6FR-348	Resistance line cord with pilot light section	.80
R6	6FW-142	Two-gang variable capacitor	2.30
R7	6FC-422	Trimmers, part of variable capacitor	.20
C1	4XC-401	0.00055 mf mica condenser	.20
C2	EC-12	0.05 mf, 200 volt tubular condenser	.20
C3	COC-127	0.01 mf, 200 volt tubular condenser	.20
C4	4XC-394A	0.00022 mf mica condenser	.20
C5	LC-86	0.02 mf, 400 volt tubular condenser	.20
C6	XXC-207	0.006 mf, 400 volt tubular condenser	.20
C7	LC-84	0.05 mf, 400 volt tubular condenser	.20
C8	4HC-348B	Dual 20 mf, 160 volt dry electrolytic condenser	.90
C9	6FS-364	4" magnetic speaker	2.80
C10	6FD-67	Dial pointer	.06
C11	4BL-94	Pilot light, 6.3 volt, .25 amp, Mazda No. 44	.20
C12, C13	3RZ-519	Drive cord spring	.02
	4YZ-772	Dial drive cord	.02

When ordering replacement parts specify part numbers.

*Item number locates the article on the schematic diagram. †These condensers cannot be supplied separately.

VOLTAGE ANALYSIS

Readings should be taken with a 1000 ohms-per-volt meter. Voltages listed below are from point indicated to ground (chassis) with volume control turned on full and no signal. The line voltage for these readings was 117.5 volts, 60 cycles, a.c. All readings except cathodes and heaters were taken on 250 volt scale. Readings taken on d.c. will be slightly lower.

Tube	Plate	Screen	Control	Cathode	Fil.
12B8GT	95 (pin no. 3)	95 (pin no. 4)	2.1 (pin no. 1)	12	
	40 (pin no. 5)		0.0 (pin no. 6)		
32L7GT	125 (pin no. 3)	95 (pin no. 4)	4.5 (pin no. 8)	32	

Voltage at rectifier cathode—180 (pin no. 1)
The socket connections of the tubes used in the CF chassis are as follows, the numbering following standard designation R.M.A.

Tube 12B8GT: pin 1—r-f amplifier cathode
pin 2—heater
pin 3—r-f amplifier plate
pin 4—r-f amplifier screen grid
pin 5—detector plate
pin 6—detector cathode
pin 7—heater
pin 8—detector grid

Tube 32L7GT: pin 1—rectifier cathode
pin 2—heater
pin 3—output plate
pin 4—output screen grid
pin 5—output grid
pin 6—rectifier plate
pin 7—heater
pin 8—output cathode

R-f amplifier grid connection is made to grid cap.

ALIGNMENT PROCEDURE

An oscillator with a frequency of 1600 kc is required. Use as weak a test signal as possible. An output meter should be used across the voice coil or output transformer for observing maximum response.

Examine the condenser drive assembly bracket and locate five dots embossed along the front. Rotate the variable condenser to maximum capacity and set the pointer just below the bottom dot. Then rotate the condenser until the pointer is just below the second dot from the top. Feed 1600 kc to the antenna through a .0001 mf condenser and adjust both trimming condensers for maximum response.

A.C.-D.C. T.R.F. Receiver—Two Tubes
Voltage rating 105 to 125 volts, a.c. or d.c.
Power consumption 40 watts
Frequency range 540 to 1780 kc.