

R.C.A. Victor Co., Inc.

Model: 214

Chassis:

Year: Pre November 1935

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

Riders Volume 6 - RCA 6-18

Riders Volume 6 - RCA 6-19

Riders Volume 6 - RCA 6-20

Riders Volume 6 - RCA 6-21

MODELS 117, 214
Circuit Notes

RCA MFG. CO., INC.

Loud Speaker Data
Voltage, Trimmers
Socket

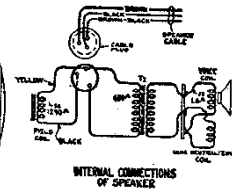
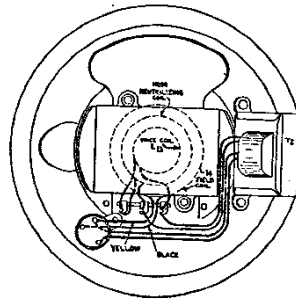
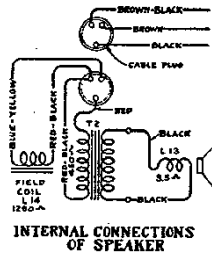
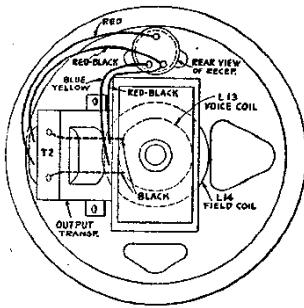


Figure 3—Loudspeaker Wiring (Table Model)

Figure 4—Loudspeaker Wiring (Console Model)

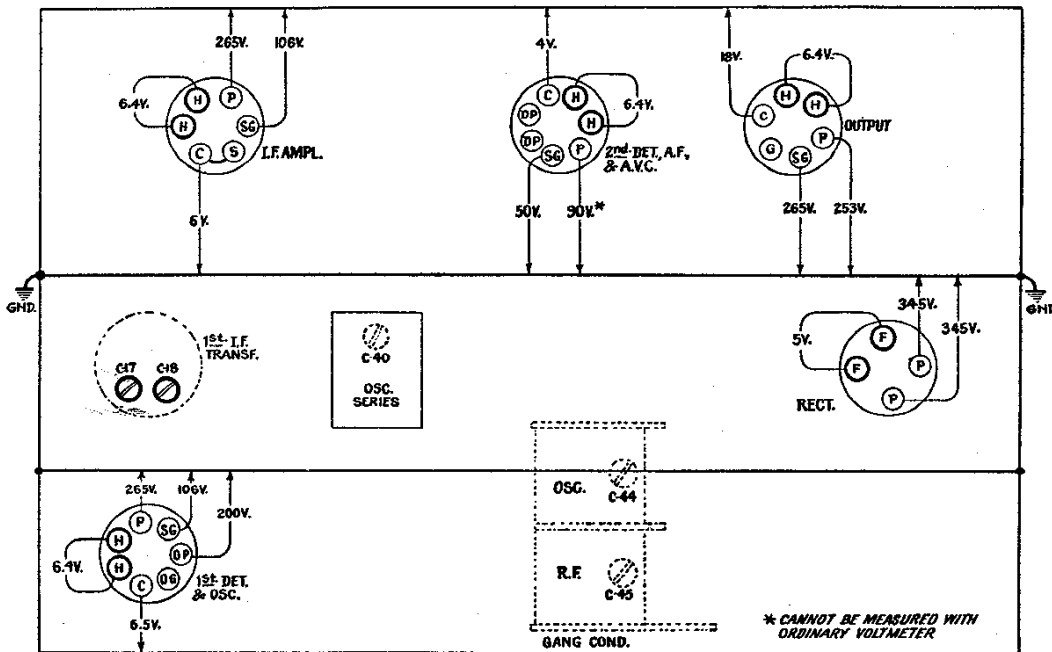


Figure 5—Trimmer Locations and Radiotron Socket Voltages

(Measured at 115 volts line supply—Maximum Volume Control—No Signal)

Five Radiotrons are associated in combination with a Superheterodyne circuit. Two of the Radiotrons are applied so as to obtain plural functions, thereby gaining more than the adequate results normally expected of a five-tube receiver. In the first stage of the circuit an RCA-6A7 pentagrid converter tube is employed as detector and local oscillator, the related external high-frequency circuits consisting of a tuned antenna transformer with a short-wave tap, and a three-winding oscillator coil assembly with changeover switches ganged to the antenna transformer s-w switch. Within the first detector tube, mixing of the signal and oscillator voltages is accomplished through electron coupling, the i-f appearing in the plate circuit.

The i-f system operates at 460 kc. as the basic frequency. The presence of the natural period transformer

at the i-f output should be especially noted. Its use minimizes the number of line-up adjustments.

The combined second detector-audio amplifier-a.v.c. stage utilizes an RCA-6B7, a duplex-diode pentode Radiotron. One diode connects directly to ground, the other is used for detection. Part of the detected signal is filtered to remove the audible fluctuations and is applied to the first and second stages as a means of providing automatic volume control. The audio component of the detected signal is amplified by the RCA-6B7 and conveyed to a resistance-capacitance coupling network.

A power amplifier pentode, RCA-41, is used in the output stage and is coupled by a transformer to the low impedance voice coil of the speaker.

Full-wave rectification is employed in the power-supply stage. The speaker field winding serves in the filter circuit as a reactor.

RCA MFG. CO., INC.

MODELS 117,214
Schematic

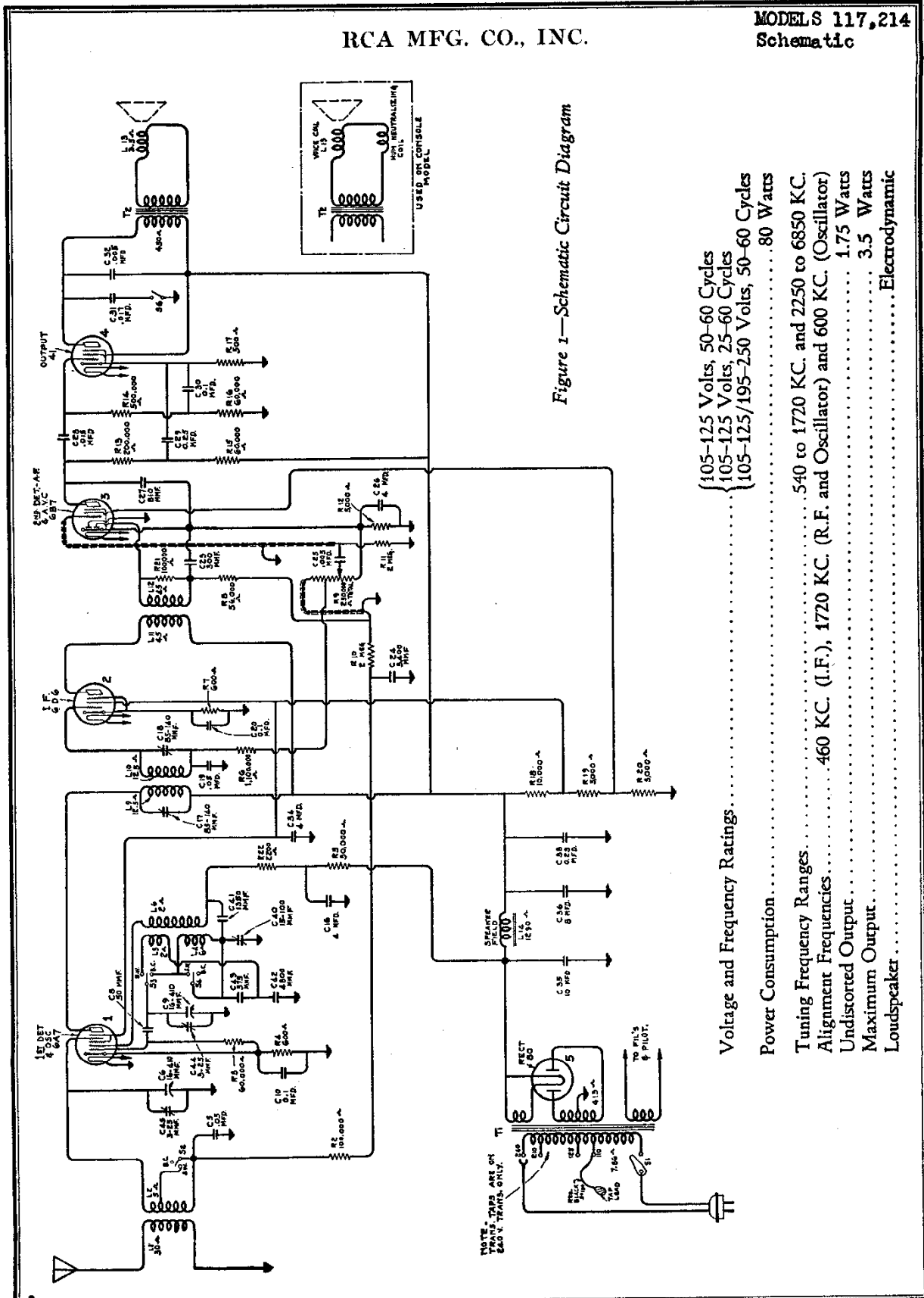
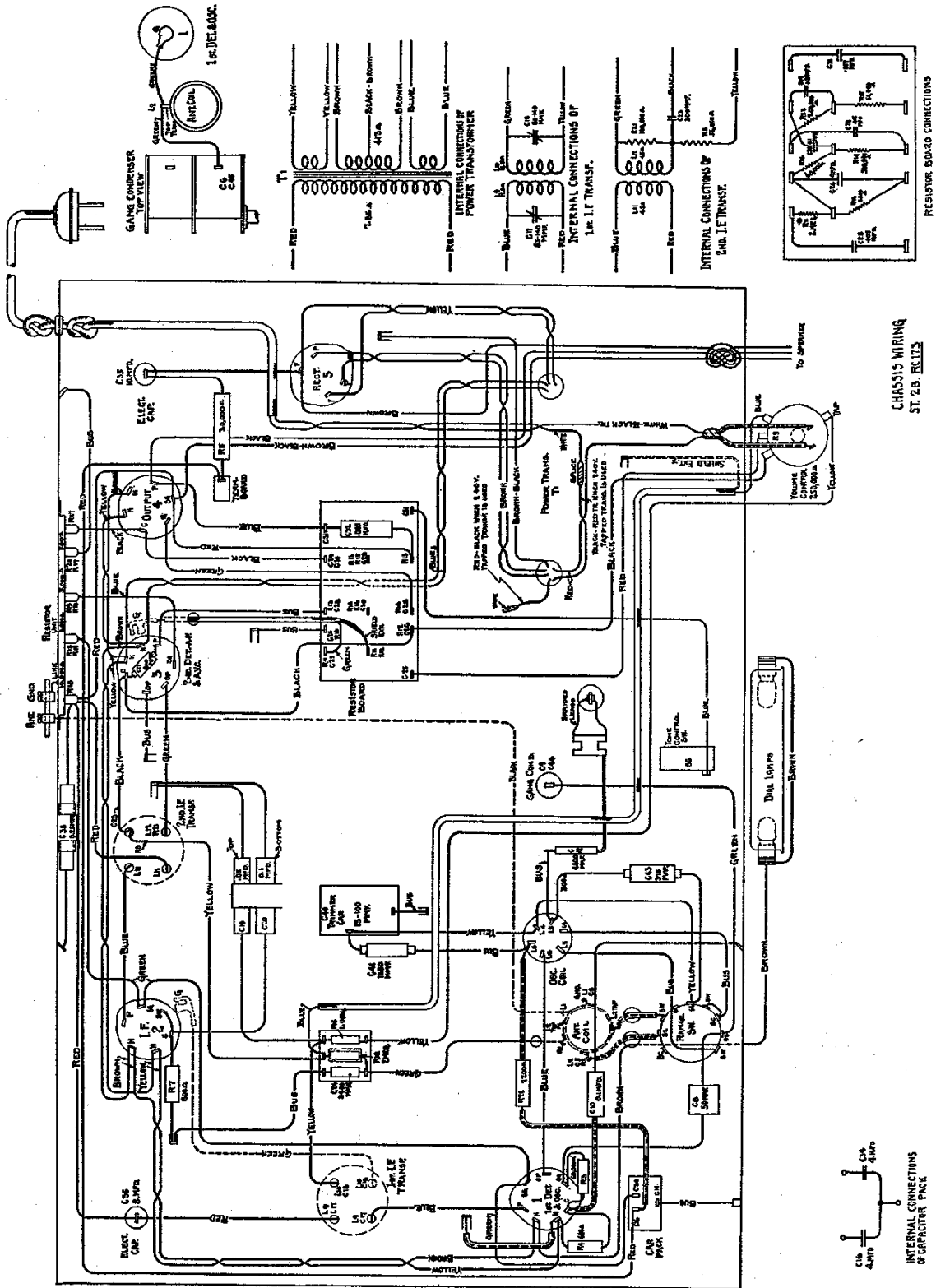


Figure 1—Schematic Circuit Diagram

Voltage and Frequency Ratings.....	{ 105-125 Volts, 50-60 Cycles 80 Watts
Power Consumption.....	{ 105-125 Volts, 25-60 Cycles	
Tuning Frequency Ranges.....	{ 105-125/195-250 Volts, 50-60 Cycles	
Alignment Frequencies.....	460 KC. (I.F.), 1720 KC. (R.F. and Oscillator) and 6850 KC. (Oscillator)	
Undistorted Output.....	1.75 Watts	
Maximum Output.....	3.5 Watts	
Loudspeaker.....	Electrodynamic	

MODELS 117,214
Chassis Wiring

RCA MFG. CO., INC.



CHASSIS WIRING
ST. 2B, RC. 173

