

# Service Notes for RCA Victor R-8 D. C. (220 volt)

## ELECTRICAL SPECIFICATIONS

Voltage Rating.....	200-230 Volts
Power Consumption.....	75 Watts
Type of Circuit.....	Super-Heterodyne
Type and Number of Radiotrons.....	2 RCA-237, 2 RCA-239, 1 RCA-236, 2 UX-171-A, Total 7
Number of R. F. Stages.....	One
Number of I. F. Stages.....	One
Type of Second Detector.....	Power Self Biasing
Type of Tone Control.....	Variable Resistance in series with condenser across secondary of input transformer. Reduces high and increases low frequency output at "low" position.
Number of Audio Stages.....	One—Push-Pull UX-171-A
Undistorted Output.....	1.5 Watts

## PHYSICAL SPECIFICATIONS

Height.....	19 inches	Width.....	14 inches
Depth.....	10 $\frac{1}{4}$ inches	Weight Alone.....	38 pounds
Weight Packed for Shipment.....		44 pounds	

RCA Victor R-8 D.C. (220 volt) is a table model Super-Heterodyne radio receiver similar in performance to the standard R-8 A. C. but using a chassis designed for 220 volt direct current only. Features such as low power consumption, use of automobile type Radiotrons, protected resistors and all the features of the A. C. model are included in this instrument.

Service information in regard to R.F. and I.F. line-up adjustments, will be found in the R-7 Superette Service Notes. The replacement parts are listed below and the voltage readings and circuit diagrams on the reverse side.

## REPLACEMENT PARTS

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
<b>RECEIVER ASSEMBLIES</b>					
2240	Resistor—30,000 ohms—Carbon type—1 watt.....	\$0.70	6295	Resistor—Dial lamp resistor—34 ohms—20 watt.....	\$0.90
2546	Resistor—1 megohm—Carbon type—1 watt—Package of 5.....	3.00	6296	Resistor—Filament and field supply resistor—2 used.....	1.10
2563	Resistor—6000 ohms—Carbon type—1 watt—Package of 5.....	3.00	6299	Switch—Operating switch.....	1.50
2731	Resistor—10,000 ohms—Carbon type—1 watt—Package of 5.....	2.00	7054	Cord—Power cord and plug.....	1.00
2734	Capacitor—745 mmfd.—Oscillator grid capacitor—Package of 5.....	2.20	7062	Condenser—Adjustable oscillator trimming condenser.....	1.00
2746	Socket—Dial lamp socket.....	.50	7238	Capacitor pack—Comprising one 0.05, four 0.5, one 0.1 mfd. and one 1.0 mfd. capacitors in metal container.....	3.50
2747	Contact Cap—Package of 5.....	.50	7239	Transformer—A.F. transformer assembly in metal container.....	6.00
2749	Capacitor—2400 mmfd.—Used as 2nd detector R.F. by-pass capacitor.....	1.50	7240	Reactor—Filter reactor.....	5.50
2875	Knob—Station selector, tone control or volume control knob—Package of 5.....	1.50	7241	Condenser—3 gang tuning condenser with mounting screws and washers.....	8.00
2881	Bracket—Dial lamp bracket—Pkg. of 5.....	.50	7493	Coil—R.F. coil complete with mounting washer and nut.....	1.90
2882	Socket—5 prong Radiotron socket with insulating shield—5 used.....	.50	7494	Coil—1st detector and oscillator coil assembly complete with mounting, washers and screws.....	2.85
2963	Resistor—8000 ohms—Carbon type—1 watt—Package of 5.....	2.50	7495	Scale—Dial scale with drum and set screws.....	.60
2968	Socket—4 prong Radiotron socket with insulating shield—2 used.....	.50	7496	Shield—Metal shield for Radiotrons—3 used.....	.50
2973	Board — Magnetic pickup terminal board complete with terminals and screws—Package of 2.....	.50	<b>CABINET ASSEMBLIES</b> (Prices Furnished Upon Request)		
2991	Transformer—1st I.F. transformer complete with shield and mounting screws.....	3.00	X-32	Baffle board and grille cloth.....	
2992	Transformer—2d I.F. transformer complete with shield and mounting screws.....	3.00	6113	Foot—Cabinet felt foot—Package of 15.....	
2993	Board—Resistor mounting board complete with terminals and mounting brackets—Less resistors.....	1.00	7497	Escutcheon — Tuning dial escutcheon with mounting screws.....	
2995	Volume control—Complete less knob—Package of 5.....	6.00	9415	Cabinet—Complete less equipment.....	
2996	Tone control—Complete less knob—Package of 5.....	6.00	<b>REPRODUCER ASSEMBLIES</b>		
2999	Shaft—Dial scale drive shaft complete with mounting screws, washers and nuts.....	.50	6174	Screw assembly—Reproducer mounting screw assembly—Comprising 4 screws 8 nuts, 4 washers and 4 eyelets—Package of one set.....	.50
3003	Cushions—Sponge rubber cushions—Package of 4.....	.50	6184	Board—Terminal complete with three terminals and mounting rivets.....	.50
3045	Resistor—40,000 ohms—Carbon type—1 watt—Package of 5.....	2.50	7308	Coil assembly—Reproducer field coil assembly—Comprising field coil, cone bracket and magnet.....	6.00
3050	Resistor—14,000 ohms—Carbon type—3 watt.....	.60	8559	Ring—Cone retaining ring.....	.80
			8601	Cone—Reproducer cone with voice coil—Package of 5.....	15.00

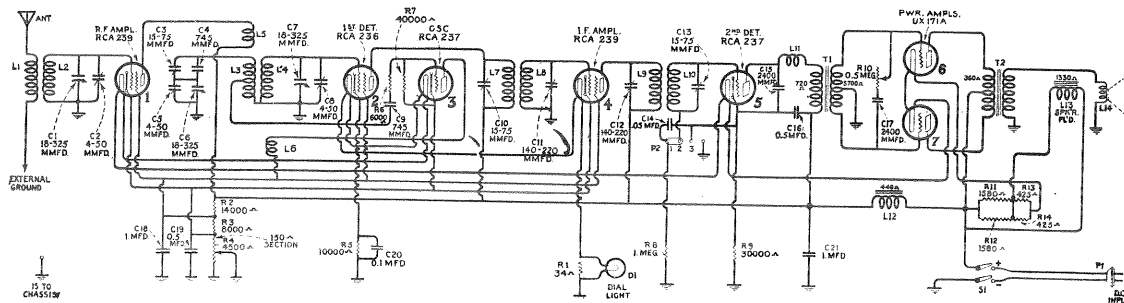


Figure 1—Schematic Circuit Diagram

230 Volt D. C. Line

Radiotron No.	Cathode to Heater, Volts, D. C.	Cathode or Filament to Control Grid, Volts, D. C.	Cathode or Filament to Screen Grid, Volts, D. C.	Cathode or Filament to Plate, Volts, D. C.	Plate Current, M. A.	Heater or Filament, Volts, D. C.
<b>VOLUME CONTROL AT MINIMUM</b>						
1—R. F.	+16	35	55	180	0	6.4
2—1st Det.	-12	4.5	80	210	0.5	6.4
3—Osc.	+18	—	—	60	2.0	6.4
4—I. F.	+26	35	55	175	0	6.4
5—2nd Det.	-10	5.0	—	180	0.5	6.4
6—Pwr.	—	46	—	175	17	5.0
7—Pwr.	—	36	—	180	30.0	5.5
<b>VOLUME CONTROL AT MAXIMUM</b>						
1—R. F.	-22	2.5	60	210	2.5	6.4
2—1st Det.	-14	3.0	60	205	0.5	6.4
3—Osc.	-20	—	—	65	2.5	6.4
4—I. F.	-10	2.5	60	210	3.0	6.4
5—2nd Det.	-10	5.0	—	175	0.5	6.4
6—Pwr.	—	46	—	170	17	5.0
7—Pwr.	—	35	—	180	30.0	5.5

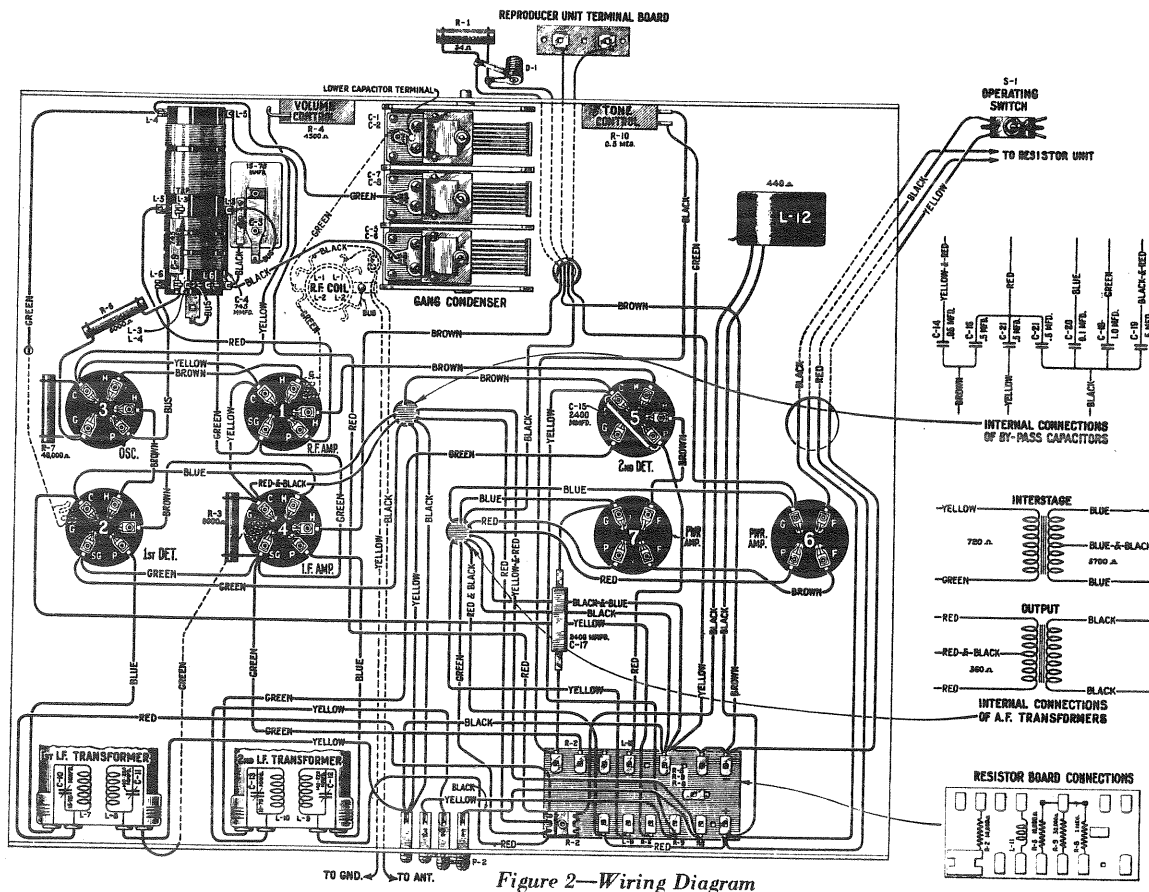


Figure 2—Wiring Diagram

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