

# SERVICE NOTES

## for

# RCA Victor Models R-71 and R-72

### ELECTRICAL SPECIFICATIONS

Voltage Rating.....	105-125 Volts
Power Consumption.....	25-40 Cycles, 90 Watts; 50-60 Cycles, 80 Watts
Type of Circuit.....	Super-Heterodyne
Type and Number of Radiotrons.....	3 RCA-58, 3 RCA-56, 1 RCA-247, and 1 UX-280—Total 8
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 that tunes secondary of interstage transformer at "low" position
Type of Automatic Volume Control.....	RCA-56 controlling R. F. and I. F. stages by means of drop across resistor in plate circuit constituting bias on R. F. and I. F. stages. Manual volume control varies grid bias on A. V. C. tube
Number of Audio Stages.....	One—Single Pentode
Type of Rectifier.....	Full Wave, UX-280
Undistorted Output.....	2.25 Watts

### PHYSICAL SPECIFICATIONS—R-71

Height.....	18 <sup>1</sup> / <sub>4</sub> Inches
Depth.....	10 <sup>3</sup> / <sub>4</sub> Inches
Width.....	14 Inches
Weight Alone.....	34 Pounds
Weight Packed for Shipment.....	42 Pounds

### PHYSICAL SPECIFICATIONS—R-72

Height.....	38 <sup>1</sup> / <sub>2</sub> Inches
Depth.....	11 <sup>3</sup> / <sub>4</sub> Inches
Width.....	23 Inches
Weight Alone.....	58 Pounds
Weight Packed for Shipment.....	79 Pounds

RCA Victor Models R-71 and R-72 are eight tube Super-Heterodyne radio receivers incorporating such features as Automatic Volume Control, Pentode output, New R. F. Super Control Pentodes, High Efficiency General Purpose Radiotrons and the inherent sensitivity, selectivity and tone quality of the RCA Victor Super-Heterodyne.

Model R-71 is a table type receiver and the R-72 is of the Console type. Except for the loud-speaker, both models are identical. The R-71 uses a six inch speaker while the R-72 uses an eight inch unit.

A reference to the Service Notes already published on the R-11 and R-7 will give details of any service information required on these receivers. Figure 1 shows the schematic diagram and Figure 2 the wiring. The voltage readings are listed below and the replacement parts on the following pages.

### 120 VOLT A. 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.	**2.0	*1.2	110	280	0	2.5
2—1st Det.	0	*1.5	110	280	0	2.5
3—Osc.	—	—	—	90	5.5	2.5
4—I. F.	**2.0	*2.0	110	280	0	2.5
5—A. V. C.	—	1.0	—	10	0	2.5
6—2nd Det.	—	6.0	—	260	1.0	2.5
7—Pwr.	—	20.0	275	265	35.0	2.5
<b>VOLUME CONTROL AT MAXIMUM</b>						
1—R. F.	**4.0	*0.1	100	260	5.0	2.5
2—1st Det.	**10.0	*1.0	95	250	2.0	2.5
3—Osc.	—	—	—	75	4.5	2.5
4—I. F.	**4.0	*1.8	100	260	3.0	2.5
5—A. V. C.	—	2.0	—	20	0	2.5
6—2nd Det.	—	7.0	—	240	1.0	2.5
7—Pwr.	—	20.0	275	265	30.0	2.5

\* On 5 Volt, 1000 Ohm per Volt Meter.  
\*\* On 50 Volt, 1000 Ohm per Volt Meter.

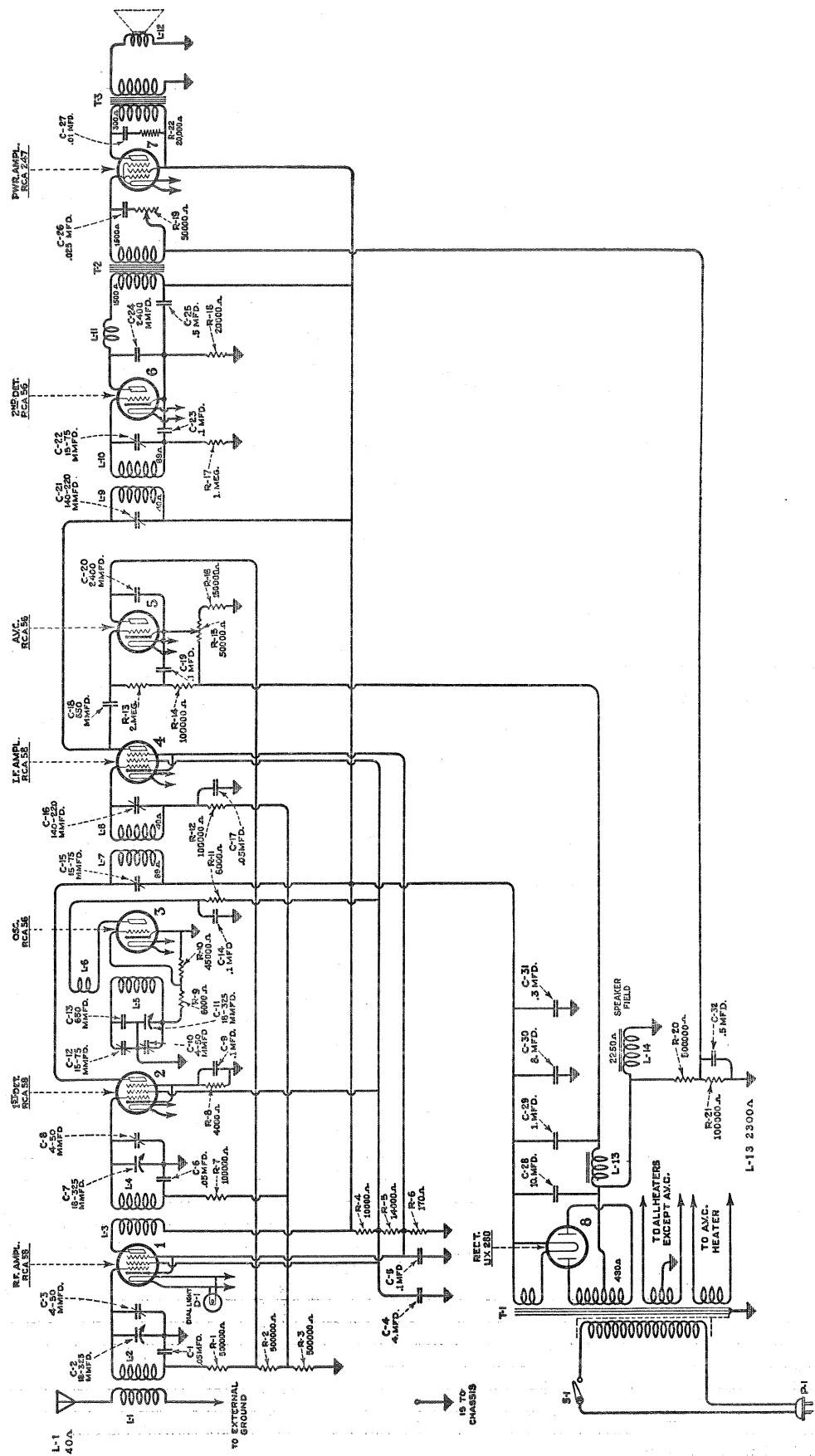


Figure 1—Schematic Circuit Diagram

# REPLACEMENT PARTS

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
<b>RECEIVER ASSEMBLIES</b>					
2563	Resistor—6,000 ohms—Carbon type—1 watt— Package of 5.....	\$3.00	7501	Capacitor—3-gang variable tuning capacitor—Less drive shaft and drum.....	\$5.20
2746	Socket—Dial lamp socket.....	.50	7502	Capacitor pack—Comprising one 10. mfd., one 1 mfd., two 0.5 mfd., one 8. mfd., five 0.1 mfd., one 0.3 mfd. and one 4. mfd. capacitors in metal con- tainer.....	8.25
2747	Cap—Grid connector cap—Package of 5.....	.50	7504	Coil—1st detector and oscillator coil complete with mounting bracket.....	3.50
2749	Capacitor—2,400 mmfd.....	1.50	8837	Support—Receiver chassis metal mounting support —Package of 4.....	.70
3003	Cushion—Sponge rubber cushion for mounting re- ceiver chassis—Package of 4.....	.50	8917	Transformer—Audio transformer assembly compris- ing interstage and output transformer in metal container.....	4.50
3048	Resistor—500,000 ohms—Carbon type—½ watt— Package of 5.....	2.50	8918	Transformer—Power transformer—110—120 volts— 50—60 cycles.....	8.00
3076	Resistor—1 megohm—Carbon type—½ watt— Package of 5.....	2.50	8922	Transformer—Power transformer—110—120 volts— 25—50 cycles.....	10.00
3252	Resistor—100,000 ohms—Carbon type—½ watt— Package of 5.....	2.75	8923	Transformer—Power transformer—220—240 volts— 50—60 cycles.....	7.00
3360	Resistor—150,000 ohms—Carbon type—½ watt— Package of 5.....	2.50	<b>R-71 CABINET ASSEMBLIES</b> (Prices Furnished Upon Application)		
6142	Resistor—6,000 ohms—Carbon type—½ watt— Package of 5.....	2.00	X118	Baffle board and grille cloth.....	
6186	Resistor—500,000 ohms—Carbon type—¼ watt— Package of 5.....	2.00	X119	Cabinet—Complete less equipment.....	
6188	Resistor—2 megohm—Carbon type—½ watt— Package of 5.....	2.00	6113	Foot—Cabinet felt foot—Package of 15.....	
6192	Spring—Condenser drive cord tension spring— Package of 10.....	.50	7441	Escutcheon—Station selector escutcheon with mounting screws.....	
6250	Resistor—4,000 ohms—Carbon type—½ watt— Package of 5.....	2.00	<b>R-72 CABINET ASSEMBLIES</b> (Prices Furnished Upon Application)		
6288	Knob—Station selector—Volume control or tone control knob—Package of 5.....	1.50	X64	Foot—Cabinet foot.....	
6298	Cord—Tuning condenser drive cord—Package of 5..	1.00	X109	Top—Cabinet top.....	
6300	Socket—4-prong radiotron socket—1 used.....	.55	X110	Panel—Control panel.....	
6301	Reactor—Filter reactor.....	2.00	X111	Stretcher assembly—Comprising 1 center and 2 end rails.....	
6302	Bracket—Dial lamp bracket assembly.....	.50	X112	Board—Baffle board and grille cloth.....	
6303	Resistor—20,000 ohms—Carbon type—½ watt— Package of 5.....	2.50	X113	Moulding—Control panel moulding.....	
6304	Resistor—170 ohms—Carbon type—½ watt—Pack- age of 5.....	2.50	X114	Moulding—Front end rail moulding—1 pair.....	
6306	Resistor—14,000 ohms—Carbon type—1 watt— Package of 5.....	2.50	X115	Ornament—Control panel ornament—1 pair.....	
6307	Tone control complete with mounting nut.....	1.60	X116	Moulding—Control panel bottom moulding.....	
6308	Coil—R. F. coil.....	1.90	X117	Cabinet—Complete less equipment.....	
6309	Transformer—1st intermediate transformer.....	3.00	7441	Escutcheon—Station selector escutcheon.....	
6310	Transformer—2nd intermediate transformer.....	3.00	<b>R-71 REPRODUCER ASSEMBLIES</b>		
6311	Board—Resistor board less resistors and capacitors..	1.75	2975	Rivet—Cone retaining ring mounting rivet—Pack- age of 100.....	.50
6312	Capacitor—650 mmfd.—Oscillator series capacitor— Package of 5.....	2.50	3237	Screw assembly—Reproducer mounting screw assem- bly—Comprising 4 screws, 8 nuts, 4 washers and 4 eyelets—Package of 1 set.....	.50
6315	Resistor—45,000 ohms—Carbon type—½ watt— Package of 5.....	2.50	6182	Board—Terminal board with three terminals—Pack- age of 5.....	.50
6317	Capacitor—0.05 mfd. capacitor.....	.70	8702	Ring—Cone retaining ring.....	.80
6318	Resistor—10,000 ohms—20 watt.....	1.00	8921	Cone—Reproducer cone with voice coil—Package of 5.....	7.50
6319	Capacitor—0.01 mfd.—Located on resistor board...	.60	9417	Coil—Reproducer field coil assembly—Comprising coil, cone housing and magnet.....	6.00
6321	Coil—2nd detector plate choke coil.....	1.10	<b>R-72 REPRODUCER ASSEMBLIES</b>		
6322	Volume control complete with mounting nut.....	1.65	3237	Screw assembly—Reproducer mounting screw assem- bly—Comprising 4 screws, 8 nuts, 4 washers and 4 eyelets—Package of 1 set.....	.50
6323	Shaft—Tuning condenser drive shaft complete with one flat washer and two "C" washers—Package of 2..	.85	6184	Board—Terminal board—3 terminals.....	.50
7054	Cord—Power cord.....	1.00	8919	Cone—Reproducer cone complete with voice coil— Package of 5.....	12.50
7062	Capacitor—Adjustable capacitor—15 to 70 mmfd..	1.00	8920	Ring—Cone retaining ring.....	.50
7362	Capacitor—0.025 mfd.—Located on resistor board...	1.00	9416	Coil—Reproducer field coil—Comprising coil, cone housing and magnet.....	5.00
7439	Drum—Dial drum with set screws.....	.50			
7440	Scale—Tuning dial scale.....	.75			
7484	Socket—5-contact radiotron socket—4 used.....	.65			
7485	Socket—6-prong radiotron socket—3 used.....	.70			
7487	Shield—Radiotron shield—6 used—Plain finish.....	.50			
7488	Shield—Radiotron shield top—1 used—Plain finish..	.50			

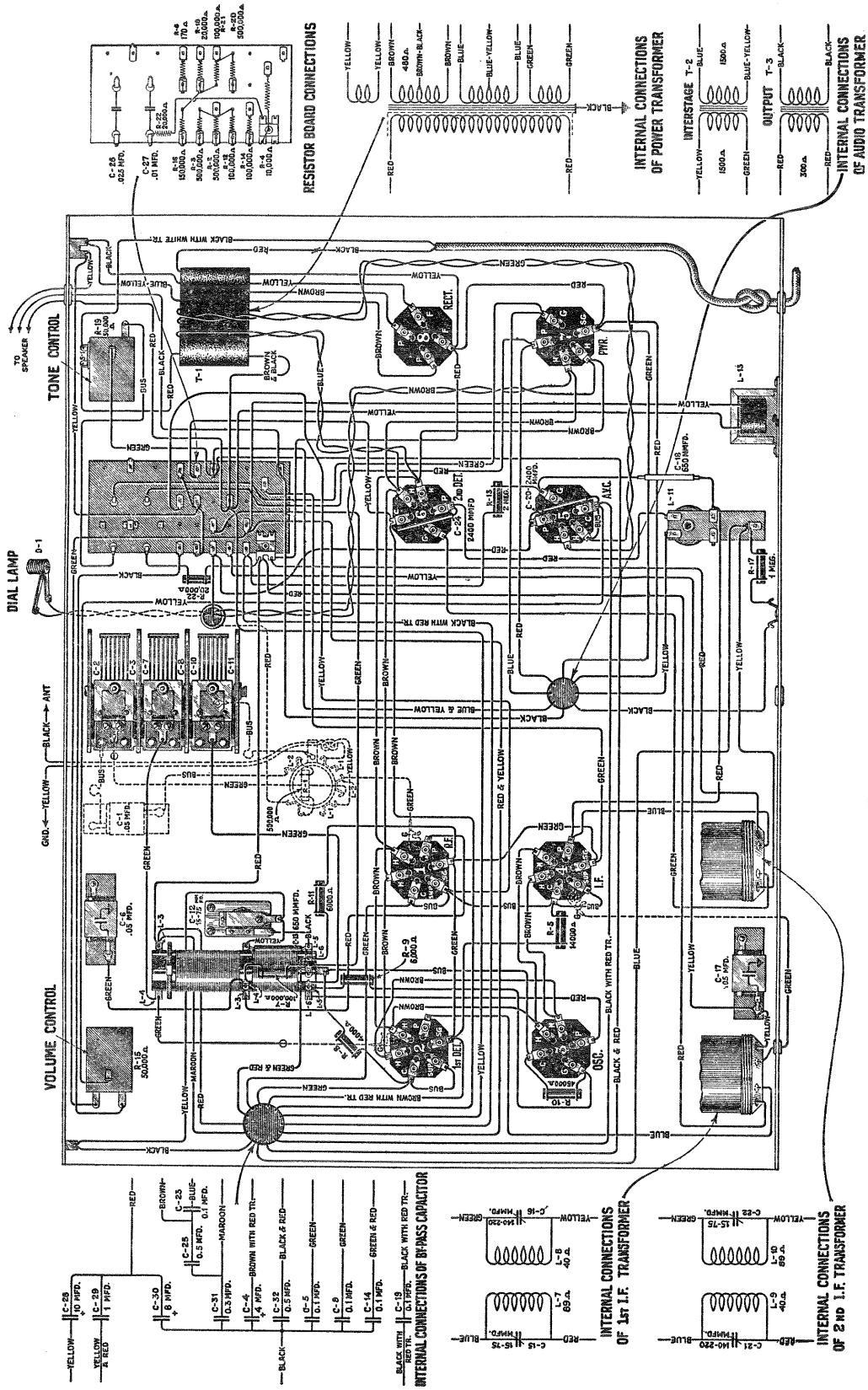


Figure 2—Wiring Diagram

**SERVICE DIVISION**  
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