



RCA Victor

MODEL VR145

Five-Tube, Single-Band, A-C, Superheterodyne Radio Phonograph

TECHNICAL INFORMATION AND SERVICE DATA

— 1946 No. 2 —

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL



Electrical Specifications

Frequency Range540 to 1,600 k.c.
R.F. Alignment Frequency1,500 k.c. (osc., ant.)
Intermediate Frequency455 k.c.

LOUDSPEAKER..... CRL-515-2
Type 6 inch Permanent Magnet Dynamic
Voice-coil Impedance3 ohms at 400 cycles

Tube Complement

(1) Type 6SA7First-Det., Osc.
(2) Type 6SK7.....Intermediate Frequency Amp.
(3) Type 6SQ7.....Second-Det., A.V.C., A.F.

(4) Type 6K6-G.....Power Output
(5) Type 5Y4G.....Full Wave Rectifier

POWER SUPPLY RATING

Rating A.....105-125 volts, 50-60 cycle 90 watts
Rating B.....105-125 volts, 25-60 cycle 90 watts
MOTOR

TypeSelf Starting Rim Drive
Turntable Speed78 R.P.M.
Turntable diameter 9"

POWER OUTPUT

Undistorted1 watt
Maximum2 watts

PICKUP

TypeCrystal
Impedance100,000 ohms at 1000 cycles
Average Output Voltage.....1.5 volts at 1000 cycles
across a 250,000 ohm load.

Mechanical Specifications

	Height	Width	Depth
Cabinet Dimensions	11¾ inches	15¾ inches	13½ inches

General Description

The Model VR145 is a five tube Single Band Radio Phonograph combining the latest developments in Radio and Phonograph circuits. The mechanism is housed in a table type cabinet of medium design. Features of the radio include: a built-in loop antenna; Full AVC; Stabilized Oscillator Circuit; Aurally compensated Volume Control; Full Vision Dial; Radio-Phono Tone Switch and a six-inch Permanent Dynamic high efficiency Speaker. Features of the Phonograph include: A Rim Drive Motor; a new light weight Crystal Pick-up and an Automatic Motor Start-Stop Switch.

Alignment Procedure

Cathode-ray Alignment is the preferable method. Connections for the oscillograph are shown in the wiring diagram.

Output meter alignment. If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-oscillator. For all alignment operations, connect the low side of the test-oscillator to the receiver chassis, and keep the output as low as possible to avoid a-v-c action.

Pre-setting Dial. With gang condenser in full mesh position, move pointer to coincide with calibration mark at the low frequency end of dial.

Steps	Connect the high side of test-oscillator to—	Tune test-osc. to—	Tune radio dial to—	Adjust the following for max. peak output
No. 1	6SK7 I-F grid, in series with .01 mfd.	455 kc	Quiet point between 550-750 kc	C10 and C11 (2nd I-F Transformer)
No. 2	6SA7 1st-det. grid in series with .01 mfd.	455 kc		C7 and C8 (1st I-F Transformer)
No. 3	Antenna lead, in series with 300 ohms	1,500 kc	1,500 kc	C5 * (oscillator) C2 (antenna)

* Trimmer C21 on gang condenser should be unscrewed one complete turn before adjusting C5.

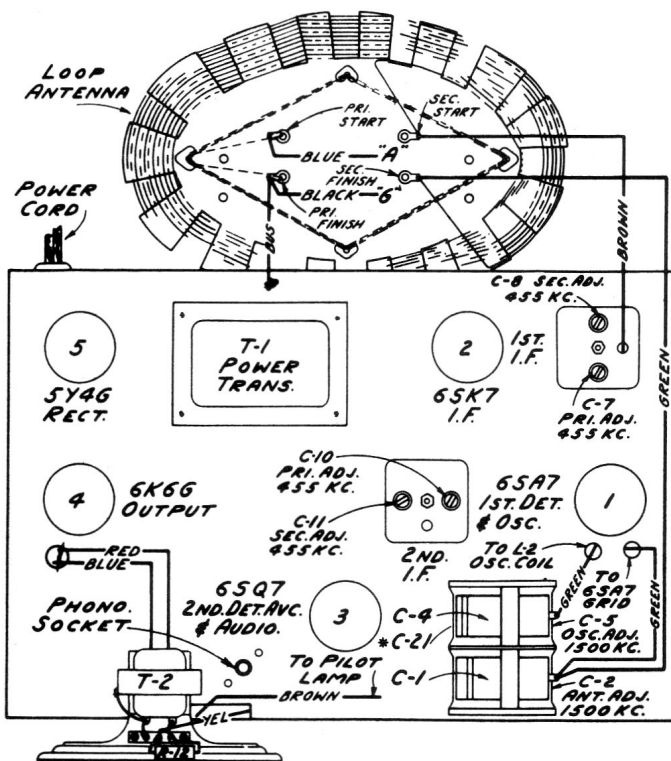


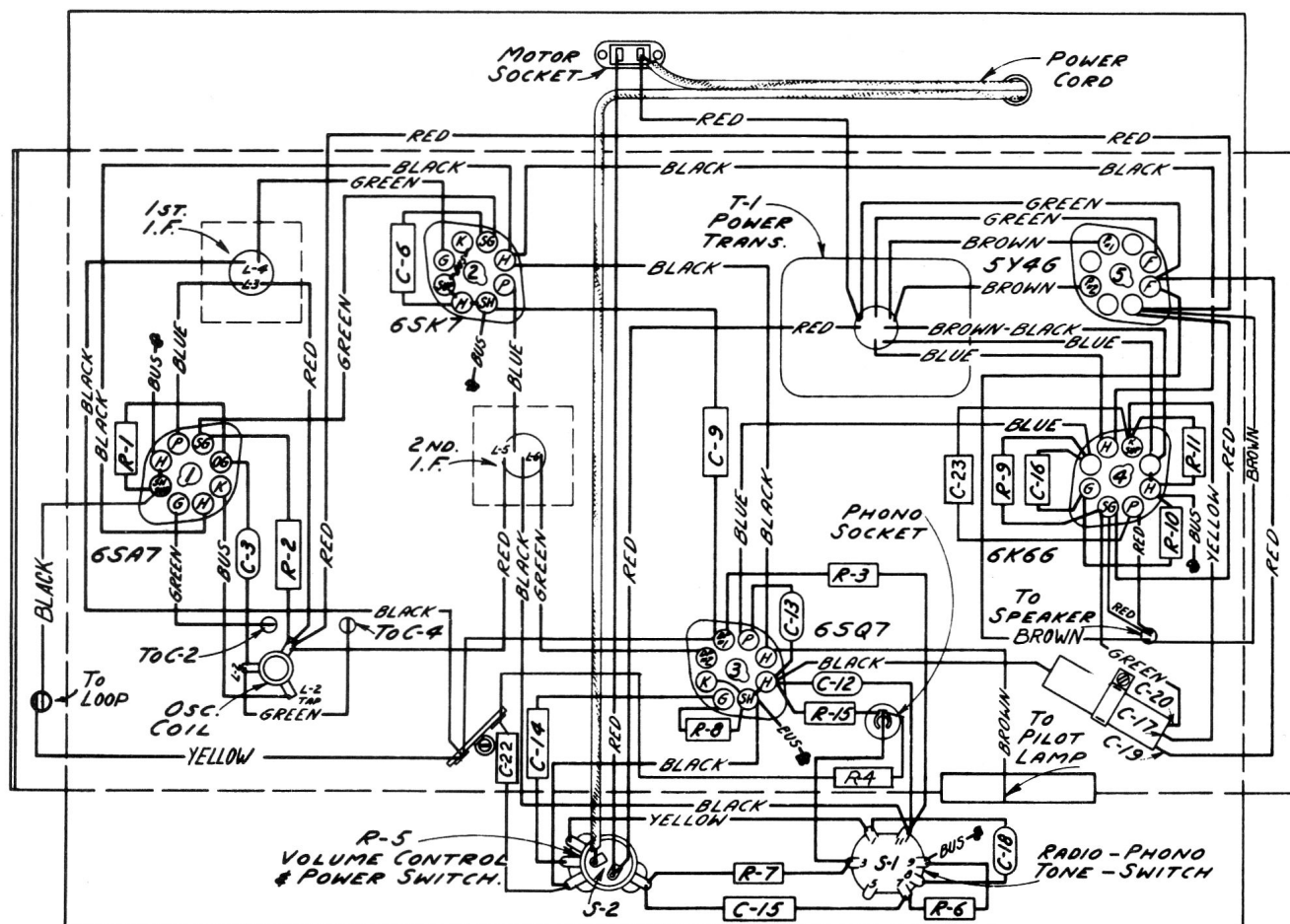
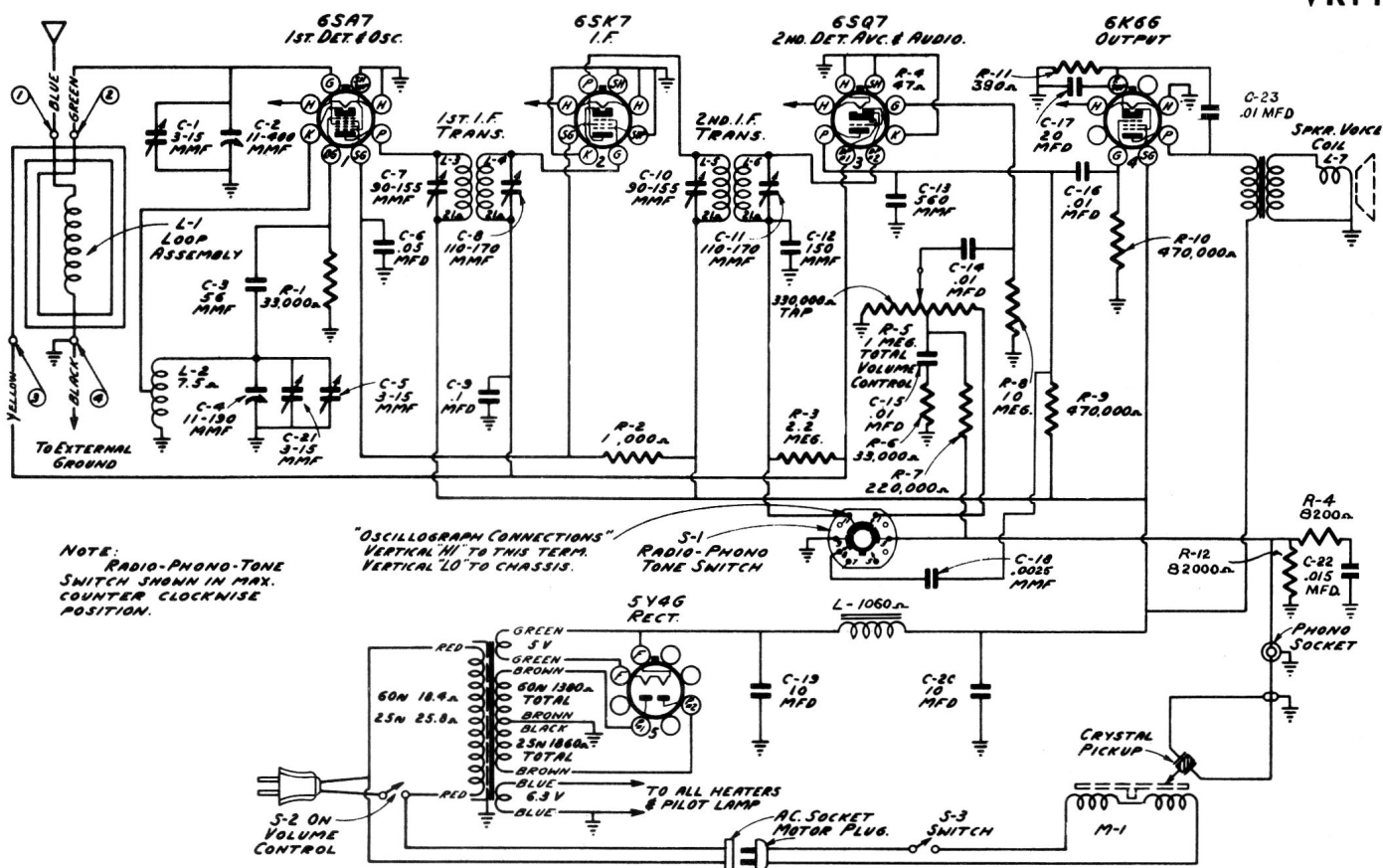
Fig. No. 1 Tube & Trimmer Locations

Radiotron Socket Voltages

Type	Plate	Screen Grid	Cathode	Filament
6SA7 det.	195 V	65 V	0.V	6.3 V. A.C.
6SA7 osc.	65 V	...	..	6.3 V. A.C.
6SK7	195 V	65 V	0.V	6.3 V. A.C.
6SQ7 amp.	62 V	...	0.V	6.3 V. A.C.
6K6G	185 V	195 V	12.5 V	6.3 V. A.C.
5Y4G	290/290 V	...	295 V	5 V. A.C.

The above measurements are all made to chassis. Measurements made with set tuned to quiet point, volume control set at minimum, using 1,000-ohm-per-volt meter, having ranges of 10, 50, 250, and 500 volts. (Use nearest range above the specified measured voltage.)

All the above values should hold within approximately $\pm 20\%$ for 115 volt, 25-60 cycle supply.



Precautionary Lead Dress

- (1) Keep a-c leads away from volume-control wiring.
- (2) Keep lead from high side of volume control away from plate circuit of 6SQ7 tube.
- (3) Dress speaker leads to front of chassis away from 6K6G tube.

REPLACEMENT PARTS FOR MODEL VR145

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers.

STOCK NO.	DESCRIPTION	STOCK NO.	DESCRIPTION
RECEIVER ASSEMBLIES		SPEAKER ASSEMBLIES	
12723	Capacitor-56 mmfd.....	35849	Cap-Dust Cap for Cone Center(Pkg. 3).....
12725	Capacitor-150 "	S-3566	Coil-Field Coil.....
30423	Capacitor-470 "		Cone-Speaker Cone Assembly.....
34459	Capacitor-.0025 mfd.....	S-3564	Speaker-Speaker complete.....
4937	Capacitor-.01 "	S-3565	Transformer-Output Transformer....
11315	Capacitor-.015 "		MOTOR ASSEMBLIES
32787	Capacitor-.05 "	S-3077	Motor-110 volt-60 cycle Motor.....
4839	Capacitor-.1 "	S-3078	Motor-110 " 25 " "
32240	Capacitor-Electrolytic comprising sections 20 Mfd-10 Mfd-10 Mfd....	S-3079	Spindle-Turntable spindle.....
S-2707	Coil-Oscillator Coil (L2).....	S-3080	Spring-Drive Wheel Tension Spring (Pkg.2).....
S-2708	Condenser-2 Gang Variable Cond....	S-3081	Turntable-Motor Turntable.....
S-2709	Cord-Tuning Drive Cord.....	S-3082	Wheel-Rubber Tired Drive Wheel....
S-2309	Drum-Drive drum assembly.....		AUTOMATIC SWITCH ASSEMBLIES
S-2713	Indicator-Station Selector Indicator Pointer.....	S-3083	Bracket-A.C. Switch Bracket and Hub (Pkg.2).....
11765	Lamp-Dial Lamp.....	S-3048	Screw-Set Screw for hub (Pkg.2)...
S-3273	Loop-Antenna Loop Assembly.....	S-3085	Switch-A.C. Motor Switch only.....
31388	Resistor-390 Ohms 1 watt.....		PICKUP ARM ASSEMBLIES
14250	Resistor-8200 Ohms 1/4 watt.....	S-3459	Arm-Pickup arm.....
33489	Resistor-15000 Ohms Wire Wound 1 watt.....	S-3512	Base-Pickup arm Base and Pivot shaft.....
12454	Resistor-33000 Ohms 1/4 watt.....	S-3461	Crystal-Pickup Crystal Cartridge..
14023	Resistor-82000 Ohms 1/4 watt.....	31054	Grommet-Pickup Base Rubber Grommet
14583	Resistor-220,000 Ohms 1/4 watt....	S-3465	Screw-Pickup Crystal Retaining Screw(Pkg.10).....
30648	Resistor-470,000 Ohms 1/4 watt....	S-3462	Screw-Pickup Needle Screw-Pkg.2...
12679	Resistor-2.2 Megohms 1/4 watt.....	S-3466	Spring-Pickup Cable Retaining Spring (Pkg.2).....
30992	Resistor-10 Megohms 1/4 watt.....		MISCELLANEOUS ASSEMBLIES
14887	Retainer-Drive Shaft or Pulley Retainer (Pkg.10).....	S-2706	Crystal-Dial Crystal.....
3903	Screw-Drive Drum Set Screw(Pkg.10)	S-3397	Dial-Station Selector Dial Scale..
S-3076	Shaft-Station Selector Drive shaft	S-2972	Knob-Volume control and Tuning Knob
S-2824	Socket-A.C. Socket.....	S-2971	Knob-Tone Control Knob.....
S-2719	Socket-Pilot Lamp Socket.....	30900	Spring-Knob Spring (Pkg.5).....
31251	Socket-Tube Socket		
35787	Socket-Phono Socket.....		
31418	Spring-Drive Cord Tension Spring..		
S-3001	Switch-Radio Phono Tone Switch...		
S-3272	Transformer-1st I.F. Transformer..		
S-2716	Transformer-2nd I.F. Transformer..		
S-2548	Transformer-Power Transformer 105/125 V. 25-60 cycle.....		
33618	Transformer-Power Transformer 105/125 volt 50-60 cycle.....		
S-2998	Volume Control and Power Switch...		

All parts and prices subject to change or withdrawal without notice.