RCA Victor

Model 40X-50 Series (Chassis No. RC-436)

Five-Tube, Single-Band, AC-DC Superheterodyne Receiver with Built-in Loop Antenna

TECHNICAL INFORMATION AND SERVICE DATA

—1939 No. 24—

SERVICE DIVISION • RCA MANUFACTURING COMPANY, INC. • CAMDEN, N. J., U. S. A.

A Service of the Radio Corporation of America

Electrical and Mechanical Specifications

FREQUENCY RANGE ..... 540-1,720 kc
Intermediate Frequency ..... 455 kc

TUBE COMPLEMENT

(1) RCA-12SA7 ..... 1st-Detector-Oscillator
(2) RCA-12SK7 ..... I-F Amplifier
(3) RCA-12SQ7 ..... 2nd-Detector, 1st A-F, and A.V.C.
(4) RCA-35L6GT or 50L6GT (see schematic) .... Power Output
(5) RCA-35Z5GT ..... Half-Wave Rectifier

Dial Lamp (1) ..... Mazda 47, 6.3 volts, .15 amp.

POWER SUPPLY RATINGS

A-C Rating ..... 105-125 volts, 50-60 cycles, 30 watts
D-C Rating ..... 105-125 volts, direct current, 30 watts

POWER OUTPUT (125 volt, 60 cycle supply)

Undistorted ..... .6 watts
Maximum ..... 2.0 watts

LOUDSPEAKER

Type ..... 4-inch Electrodynamic

General Description

Model 40X-50

The following models comprise the 40X-50 Series—all contain the No. RC-436 chassis.

Model	Description	Cabinet Dimensions Height	Width	Depth
40X-50	"MODERN BLONDE" Blonde mahogany finish	6½	9	5¾
40X-51	COLONIAL MODEL Maple finish	6½	9	5¾
40X-52	IVORY MODEL Ivory finish	6⅛	9	5¾
40X-53	"LA SIESTA" MODEL Mexican Scene	6⅛	9	5¾
40X-54	TREASURE CHEST MODEL Weathered walnut finish	6⅛	9⅜	6⅛
40X-55	HONEY MAPLE MODEL Honey maple finish	6⅛	9	5¾
40X-56	WORLD'S FAIR MODEL New York World's Fair scene	6⅛	9⅜	5⅞
40X-57	GOLDEN GATE MODEL San Francisco Exposition scene	6⅛	9⅜	5⅞

Features of design include: New Type, single-ended tubes (12SA7, 12SK7, and 12SQ7); edge-lighted dial; dust proof electrodynamic loudspeaker; "Magic Loop"; Television-Victrola Jack; and Beam Power Output.

Replacement Parts

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

STOCK No.	DESCRIPTION	Unit List Price	STOCK No.	DESCRIPTION	Unit List Price
	CHASSIS ASSEMBLIES (RC-436)		31480	Lamp—Pilot lamp	.20
			33663	Loop—Complete antenna loop	1.20
33745	Cable—Phono. cable	.30	33558	Resistor—86 ohms	.15
13057	Capacitor—60 mmfd.	.35	12071	Resistor—120 ohms, ½ watt	.20
12488	Capacitor—250 mmfd.	.35	13428	Resistor—150 ohms, ½ watt	.20
12952	Capacitor—300 mmfd.	.35	14561	Resistor—220 ohms, ½ watt	.20
4838	Capacitor—.005 mfd.	.25	13998	Resistor—22,000 ohms, ½ watt	.20
4870	Capacitor—.025 mfd.	.20	12412	Resistor—47,000 ohms, ½ watt	.20
32787	Capacitor—.05 mfd.	.20	12264	Resistor—220,000 ohms, ½ watt	.20
4839	Capacitor—.1 mfd.	.30	12285	Resistor—470,000 ohms, ½ watt	.20
12484	Capacitor—.25 mfd.	.30	12679	Resistor—2.2 meg., ½ watt	.20
32576	Capacitor—Electrolytic, 20-12 mfd.	.90	13601	Resistor—10 meg., ½ watt	.20
32968	Capacitor—Variable tuning	2.25	33061	Shaft—Drive shaft	.20
32962	Coil—Oscillator coil	.60	30585	Spring—Drive cord spring	.06
32634	Cord—Drive cord	.10	33557	Socket—Dial light socket	.30
33743	Drum—Drive drum	.40	32537	Socket—Tube socket	.20
			32966	Transformer—I-F input transformer	1.25

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Replacement Parts (Continued)

STOCK No.	DESCRIPTION	Unit List Price	STOCK No.	DESCRIPTION	Unit List Price
32967	Transformer—I-F output transformer.....	1.05	32895	Knobs—Tuning and volume—Models 40X50, 40X51, 40X52, 40X55, 40X56, 40X57 (Walnut)	.15
32545	Volume control.....	1.50			
	SPEAKER ASSEMBLIES (39105-2)		32893	Knobs—Tuning and volume—Model 40X53 (Red)	.15
32963	Speaker—Complete with transformer	3.95			
32964	Transformer—Output transformer	1.25	32571	Knobs—Tuning and volume—Model 40X54 (Tan)	.15
	MISCELLANEOUS ASSEMBLIES				
33744	Dial—Glass dial scale	.50	33742	Socket—Phonograph input socket	.20

ALL PRICES ARE SUBJECT TO CHANGE OR WITHDRAWAL WITHOUT NOTICE.

Alignment Procedure

Output Meter Alignment.—Connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-Oscillator.—Connect the low side of the test-oscillator to the receiver chassis, through a .01 mfd. capacitor, and keep the output as low as possible.

Pre-setting Dial.—With gang condenser in full mesh, the pointer should be horizontal.

Antenna.—The set is equipped with a built-in loop antenna. If an outdoor antenna is used, it may be connected to the "ANT" terminal on rear of cabinet. It should not be longer than 100 feet, including lead-in. If it is longer, connect a 100 to 200 mmf. capacitor in series with the lead-in.

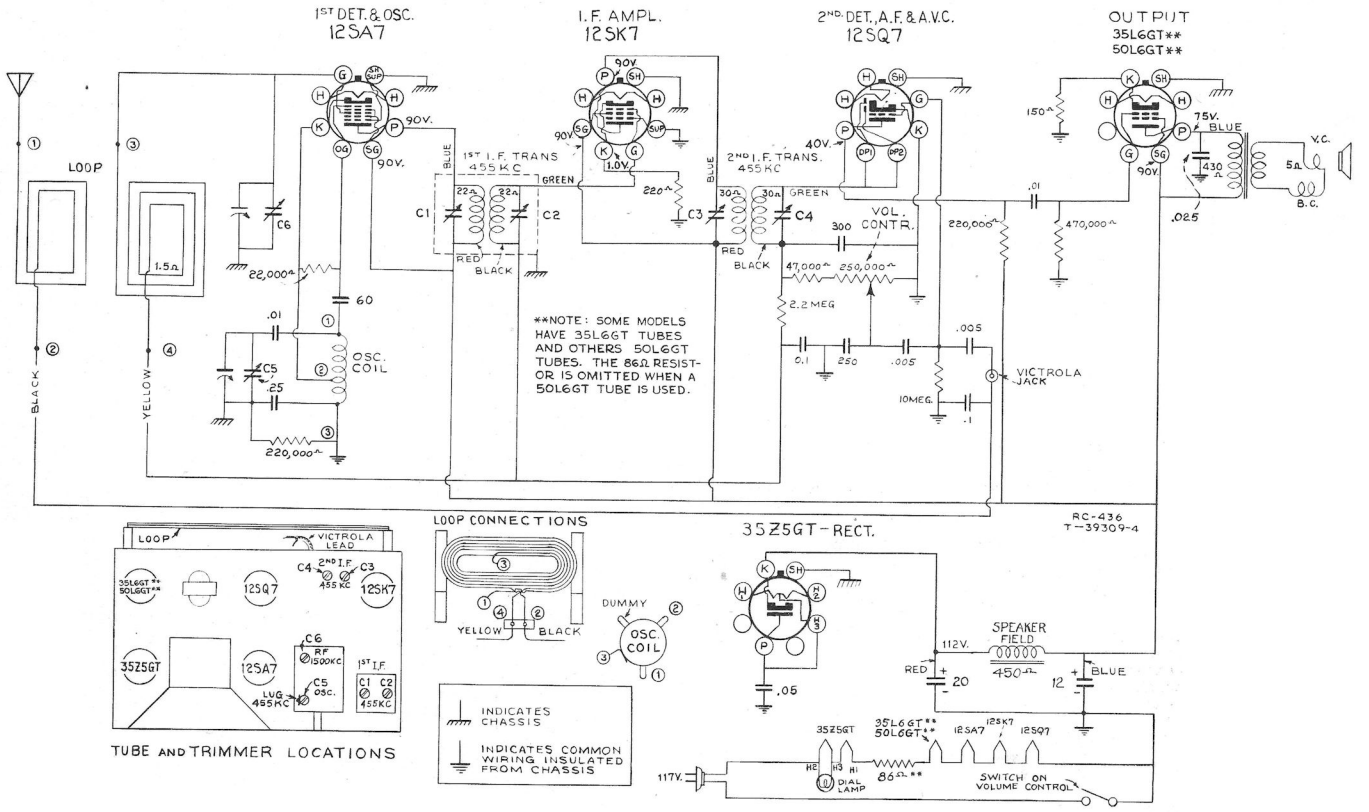
Power-Supply Polarity.—For operation on d-c, the power plug must be inserted in the outlet for correct polarity. If the set does not function, reverse the plug. On a-c, reversal of the plug may reduce hum.

Victrola Attachment.—A jack is provided on the rear of cabinet for connecting a Victrola Attachment into the audio-amplifying circuit. The cable from the Victrola Attachment should be terminated in a Stock No. 31048 plug to fit the jack.

Steps	Connect the high side of test-oscillator to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. peak output—
1	Tuning condenser stator (osc.) in series with .01 mfd.	455 kc	Quiet point at 1,600 kc end of dial	C1, C2, C3, C4 (1st and 2nd I-F transformers)
2	Antenna term. of ant. loop in series with 100 mmfd.	1,720 kc	Full clockwise (out of mesh)	C5 (oscillator)
3		1,500 kc	Resonance on 1,500 kc signal	C6 (antenna)

Precautionary Lead Dress

1. Dress 2nd I-F green lead close to chassis and under other parts.
2. Dress lead from gang condenser to grid of 12SA7 close to chassis and away from 12SQ7 socket.
3. Dress blue 1st I-F lead under volume control close to chassis.
4. Dress blue 2nd I-F lead close to chassis and behind 12SK7 socket.



Schematic Circuit Diagram

NOTE: Output cathode resistor is 120 ohm when 50L6GT tube is used.