

**MODEL X-510**

## AC-DC RADIO RECEIVER

# MODEL X-510

## SERVICE DATA

—1953 No. 19—

## HOME INSTRUMENT SERVICE DIVISION

**RCA VICTOR COMPANY, LTD.**

**MONTREAL, CANADA**

## ELECTRICAL AND MECHANICAL SPECIFICATIONS

### FREQUENCY RANGES

Standard Broadcast ("A" Band) ----- 540-1,600 kc.

INTERMEDIATE FREQUENCY -----455 kc.

### TUBE COMPLEMENT

(1)	RCA-12BE6	-----1st	Detector-Oscillator
(2)	RCA-12BA6	-----	IF Amplifier
(3)	RCA-12AV6	2nd	Detector, A.V.C. and A-F Amplifier
(4)	RCA-50C5	-----	Output
(5)	RCA-35W4	-----	Rectifier

### POWER SUPPLY RATINGS

105-125 volts ----- 30 watts

### POWER OUTPUT RATING

Undistorted ----- 1.0 watt

Maximum ----- 1.5 watts

## LOUDSPEAKER

Type -----4-inch Permanent-Magnet Dynamic

Voice Coil Impedance -----3.2 ohms at 400 cycles

Tuning Drive Ratio.....Direct Drive

**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.

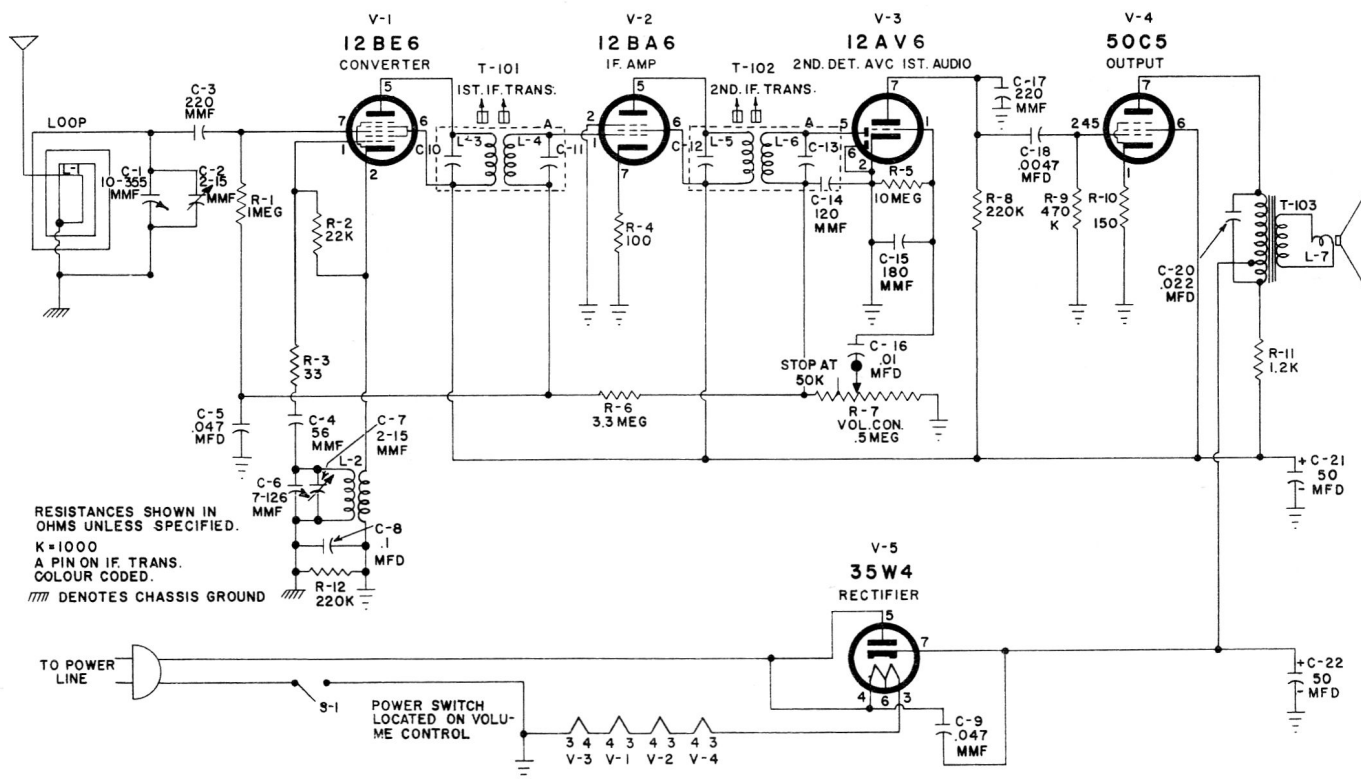
## REPLACEMENT PARTS LIST FOR MODEL X-510

**Insist on Genuine Factory Tested Parts, which are readily identified and may be purchased from Authorized Dealers.**

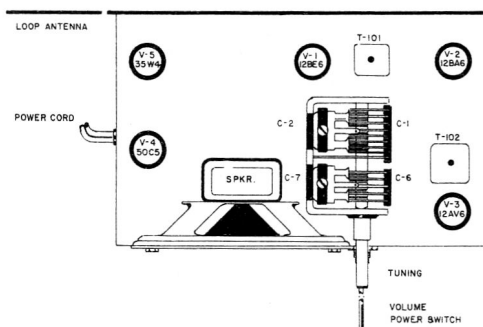
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**Only items listed under stock numbers are available as Replacement Parts.**

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



SCHEMATIC DIAGRAM



CHASSIS LAYOUT

## LEAD DRESS

1. Dress all capacitors down against chassis.
2. C-15 must be located so that connection to Pin #1 of 12AV6 is short as possible and condenser butts against rim of volume control.
3. Connect outside foil of all condensers as indicated in schematic diagram.
4. Dress Filament, B+ and B- leads down against chassis.
5. Dress R-4, 12BA6 cathode resistor, down against tube center post with leads to Pin 2 and Pin 7 as short as possible.

## Alignment Procedure

Before aligning the receiver, set the gang condenser for maximum capacity and then set the dial knob opposite 55 on left hand end of the dial.

When only a portion of the circuit is to be aligned select the required portion and perform all the remaining steps.

In order to obtain best results, it is advisable to align the 455

KC I.F.'s with the help of a cathode ray oscilloscope. The scope should be connected across the volume control. If this equipment is not available, use the method outlined below in the alignment chart.

NOTE: If the test-oscillator is ac/dc operated, it may be necessary to use an isolation transformer (117 v./117 v. for the receiver during alignment.)

## Alignment Chart

TEST OSCILLATOR					RECEIVER				
Order of Alignment	Connect "HI" Side To	Connect "LO" Side To	Dummy Antenna	Frequency Setting	Range Selector	Receiver Dial-Setting	Circuit To Adjust	Adjust Adjustment Symbols	Notes
I.F. ALIGNMENT	1	12BA6 Pin #1	Gnd.	.1 Mfd	455 KC	"HI" End	2nd I.F. Trans.	Top & Bottom cores	Max.Out.
	2	12BE6 Pin #7	Same	Same	Same	Same	1st I.F. Trans.	Top & Bottom cores	Same
S.B. ALIGNMENT	3	Radiate signal			1600 KC	1600 KC	Osc.	C-7	Same
	4	Same			1500 KC	1500 KC	Osc.	C-2	Same
	5	Repeat Steps 3 & 4.							