

MODEL X-511 (BANDSELL)



RCA VICTOR



AC-DC RADIO RECEIVER

MODEL X-511

SERVICE DATA

—1954 No. 1—

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 POLARITY—For operation on d-c, the power plug must be inserted in the outlet for correct polarity.

## 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

If the set does not function, reverse the plug. On a-c, reversal of the plug may reduce hum.

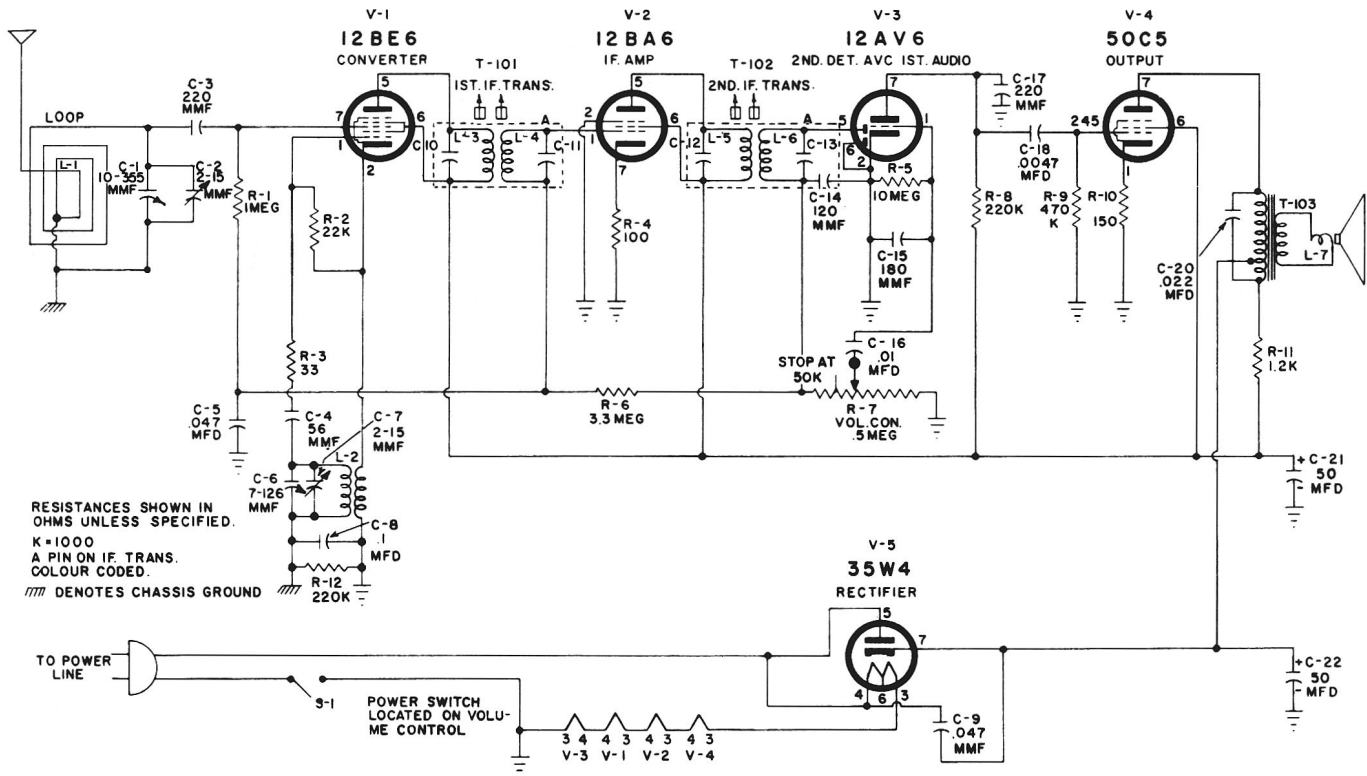
## REPLACEMENT PARTS LIST FOR MODEL X-511

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

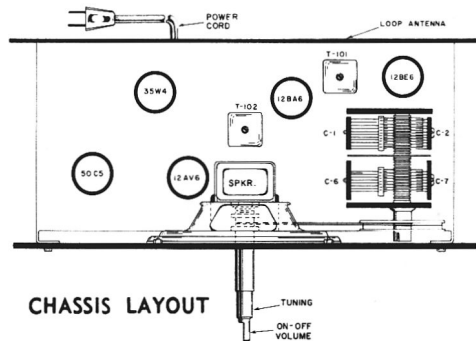
Symbol No.	Stock No.	Description	Symbol No.	Stock No.	Description
C-1	*S-20272	Capacitor - Variable Tuning	T-101	S-5682	Transformer - 1st I. F. Transf.
C-2			T-102	S-5683	" - 2nd I. F. "
C-3		Capacitor - 220 mmf. 20% 350 V.	T-103	*S-20282	" - Audio Output Transformer
C-4	S-4523	Capacitor - 56 mmf. 33 ohms.			SPEAKER ASSEMBLY
C-5		Capacitor - .047 mfd. 20% 220 V.			
C-6		" - 7-126 mmf.			
C-7		" - 2- 15 mmf.	S-20269		Speaker - 4" P. M. Complete with Cone and Voice Coil.
C-8		Capacitor - 0.1 mfd. 10% 400 V.			MISCELLANEOUS ASSEMBLY
C-9		" - .047 mfd. 20% 400 V.			
C-10		" - in 1st I. F.	*S-20273		Bezel - Dial Bezel
C-11		" - in 1st I. F.			
C-12		" - in 2nd I. F.	*S-20283		Cabinet - Blue
C-13		" - in 2nd I. F.	*S-20284		Cabinet - Red
C-14		" - 120 mmf. in 2nd I. F.	*S-20285		Cabinet - Yellow
C-15		" - 180 mmf. 20% 350 V.	*S-20286		Cabinet - Green
C-16		" - .01 mfd. 20% 200 V.	*S-20287		Cabinet - Ivory
C-17		" - 220 mmf. 20% 350 V.			
C-18		" - .0047 mfd. 20% 400 V.	*S-20268		Cord - Power Cord
C-19			S-4313		Cord - Dial Cord
C-20		" - .002 mfd. 10% 600 V.	*S-20274		Cover - Back Cover & Loop
C-21	*S-20204	" - Electrolytic, 60 mfd.			
C-22		" - " 40 mfd.			
L-1 )	*S-20288	Coil - Oscillator Coil	*S-20281		Grille - Cabinet Grille
L-2 )					
R-1		Resistor - 1 megohm 20% 1/2 W.	*S-20275		Knob - Blue (Volume & Power)
R-2		" - 22,000 ohms, 20% 1/2 W.	*S-20276		Knob - Red " "
R-3	S-4523	Capacitor - 33 ohms, 56 mmf.	*S-20277		Knob - Yellow " "
R-4		Resistor - 100 ohms, 20% 1/2 W.	*S-20278		Knob - Green " "
R-5		" - 10 megohms 20% 1/2 W.	*S-20279		Knob - Ivory " "
R-6		" - 3.3 megohms 20% 1/2 W.			
R-7	*S-20270	Resistor - Volume Control, 5 meg.	*S-20271		Knob - Tuning Knob
R-8		" - 220,000 ohms, 20% 1/2 W.	S-5661		Monogram - "RCA VICTOR"
R-9		" - 470,000 ohms, 20% 1/2 W.			
R-10		" - 150 ohms, 10% 1/2 W.	*S-20280		Pointer - Dial Pointer
R-11		" - 1200 ohms, 10% 1 W.			
R-12		" - 220,000 ohms, 20% 1/2 W.			

(\*) INDICATES NEW STOCK ITEMS.

Only items listed under stock numbers are available as Replacement Parts.  
All parts subject to change or withdrawal without notice.



SCHEMATIC DIAGRAM



## 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.							