



RCA Victor

MASTER NIPPER

Five-Tube, Single-Band, AC-DC Superheterodyne Receiver

TECHNICAL INFORMATION AND SERVICE DATA

— 1945 No. 6 —

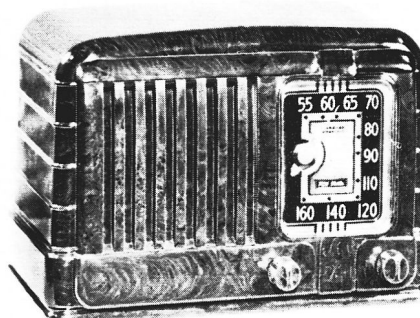
SERVICE DIVISION

RCA VICTOR COMPANY LIMITED

MONTREAL

General Description

The RCA Victor Master Nipper-A is a five-tube single band superheterodyne receiver housed in a cabinet of modern design. Features include: Magnete core I.F. transformers; built-in loop assembly with provision for use with an external antenna; beam power output tube; sensitive, five inch electrodynamic loudspeaker and a well filtered, rectifier network.



Electrical and Mechanical Specifications

FREQUENCY RANGE 540-1,600 kc
Intermediate Frequency 455 kc
TUBE COMPLEMENT
 (1) **Type 12SA7** 1st-Detector-Oscillator
 (2) **Type 12SK7** I-F Amplifier
 (3) **Type 12SQ7** 2nd-Detector, 1st A-F, and A.V.C.
 (4) **Type 35L6GT** Power Output
 (5) **Type 35Z5GT** Rectifier
 Dial Lamp (1) Mazda 51, 7.5 volts, .2 amp.

POWER SUPPLY RATINGS

A-C Rating.....105-125 volts, 25-60 cycles, 30 watts
D-C Rating.....105-125 volts, direct current, 30 watts

POWER OUTPUT (125 volt, 60 cycle supply)

Undistorted 1.0 watts
Maximum 1.5 watts

LOUDSPEAKER

Type 5-inch Electrodynamic

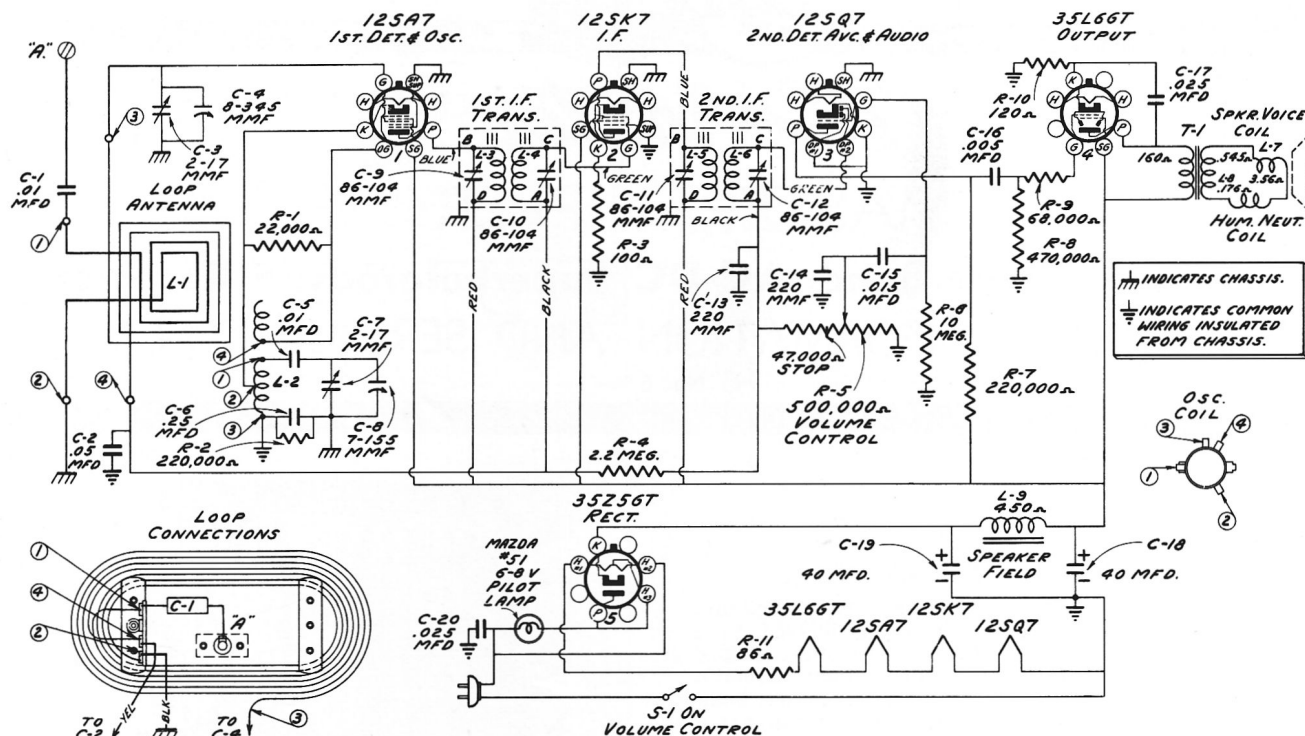
REPLACEMENT PARTS FOR MASTER NIPPER

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		30585	Spring-Drive cord tension spring (Pkg.2).....
12694	Capacitor-220 mmfd. (C13,C14).....	35346	Transformer-1st I.F. Transformer (L3,L4,C9,C10).....
4838	Capacitor-.005 mfd. (C16).....	35347	Transformer-2nd I.F. Transformer (L5,L6,C11,C12).....
4858	Capacitor-.01 mfd. (C1,C5).....	S-2774	Volume Control and Power Switch (R5,S1).....
11315	Capacitor-.015 mfd. (C15).....	SPEAKER ASSEMBLIES (CRL-503) 5"	
4870	Capacitor-.025 mfd. (C17,C20).....	32907	Cap-Dust Cap for cone centre(Pkg.5)
32787	Capacitor-.05 mfd. (C2).....	S-2775	Coil-Field Coil (L9).....
12484	Capacitor-.25 mfd. (C6)1.....	35440	Cone-Speaker Cone and Voice Coil(L7)
S-2421	Capacitor-Electrolytic consisting of two 40 mfd.sec. (C18,C19)1....	S-2777	Speaker-Complete,less output transformer.....
S-2776	Coil-Oscillator Coil (L2).....	35056	Transformer-Output Transformer(T1)
35534	Condenser-Two Gang Variable Condenser and Drum.....	MISCELLANEOUS ASSEMBLIES	
35063	Drum-Tuning Condenser Drum.....	S-2784	Cabinet-Moulded plastic (Walnut)..
11765	Lamp-Dial Lamp.....	32634	Cord-Condenser drum drive cord....
33558	Resistor-86 Ohm flexible type (R11)	35079	Crystal-Station selector dial crystal.....
32535	Resistor-120 ohm flexible type(R10)	35059	Dial-Station selector dial scale..
30540	Resistor-100 ohm 1/4 watt (R3)....	35062	Indicator-Station selector indicator pointer.....
30492	Resistor-22,000 ohm 1/4 watt (R1)..	S-2779	Knob-Volume or Tuning Control Knob
14138	Resistor-68,000 ohm 1/4 watt (R9)..	S-2772	Loop-Antenna Loop Assembly (L1)...
14533	Resistor-220,000 ohm 1/4 watt(R2,R7)		
30648	Resistor-470,000 ohm 1/4 watt (R8)..		
12679	Resistor-2.2 Megohm 1/4 watt (R4)..		
30992	Resistor-10 megohm 1/4 watt (R6)...		
35058	Shaft-Variable condenser drive shaft		
31319	Socket-Tube socket.....		
34449	Socket-Dial lamp socket.....		

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

Master Nipper



Schematic Circuit Diagram

CAUTION

Remove Power plug from outlet before servicing this receiver. Avoid contact of chassis or component parts to external ground.

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 adjusted so that pointer is vertical.

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.

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	12SK7 (I-F) grid in series with .01 mfd.	455 kc	Quiet point at 600 kc end of dial	C11, C12 (2nd I-F trans.)
2	Tuning condenser stator (ant.) in series with .01 mfd.			C9, C10 (1st I-F trans.)
3	Radiation loop consisting of two turns of wire 18 inches in diameter	1,600 kc	Full clockwise (out of mesh)	C7 (oscillator)
4		1,400 kc	Resonance on 1,400 kc signal	C3 (antenna)

Radiotron Socket Voltages

Type	Plate	Screen Grid	Cathode	Filament
12SA7 Det.	90V	90V	—	12V
12SK7	90V	90	1.1V	12V
12SQ7	40V	—	—	12V
35L6GT	84V	90V	5V	35V
35Z5GT	114V	—	112V	35V

Note:—All voltages are measured to common wiring insulated from chassis with a line voltage of 117 volts.

Precautionary Lead Dress

1. Audio coupling capacitor to volume control must be dressed under the terminal board and down against the corner of the chassis.
2. The voice coil leads from the output transformer to the speaker must be dressed away from the terminal-board to which the above audio coupling capacitor is connected.
3. The output tube bypass condenser must be dressed away from the 12SQ7 tube.