



RCA Victor

LITTLE NIPPER

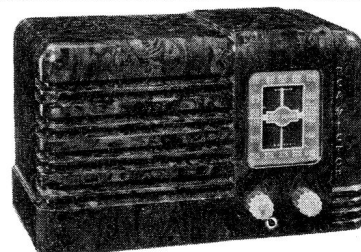
Five-Tube, Single-Band, AC-DC Superheterodyne Receiver

TECHNICAL INFORMATION AND SERVICE DATA

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL

General Description

The "Little Nipper" is a compact, five tube, superheterodyne receiver designed for 110 volt, A.C. or D.C. operation and housed in a molded, plastic cabinet. Features of design include: Stabilized oscillator circuit; full A.V.C. action in the R.F. and I.F. circuits; Phono input socket; beam power output stage and a four-inch, electrodynamic loudspeaker.



Little Nipper, Molded Cabinet

Electrical and Mechanical Specifications

FREQUENCY RANGE ----- 530-1,720 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 ----- Half-Wave 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

INTERMEDIATE FREQUENCY ----- 455 kc
POWER OUTPUT (125 volt, 60 cycle supply)
Undistorted ----- 1.5 watts
Maximum ----- 2.0 watts
LOUDSPEAKER
Type ----- 4-inch Electrodynamic
Cabinet Dimensions ----- Height 5 1/8 inches ----- Width 8 3/8 inches ----- Depth 4 1/4 inches
Weight (net) ----- 4 3/4 pounds
Shipping Weight ----- 6 pounds

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.

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	C10, C11, C12, C13 (1st and 2nd I-F transformers)
2	Antenna term. of ant. trans. in series with 100 mmfd.	1,720 kc	Full clockwise (out of mesh)	C8 (oscillator)
3		1,500 kc	Resonance on 1,500 kc signal	C4 (antenna)

Radiotron Socket Voltages

Type	Plate	Screen Grid	Cathode	Filament
12SA7 Det.	90V	90V	—	12V
12SK7	90V	90	1.5V	12V
12SQ7	40V	—	—	12V
35L6GT	75V	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.

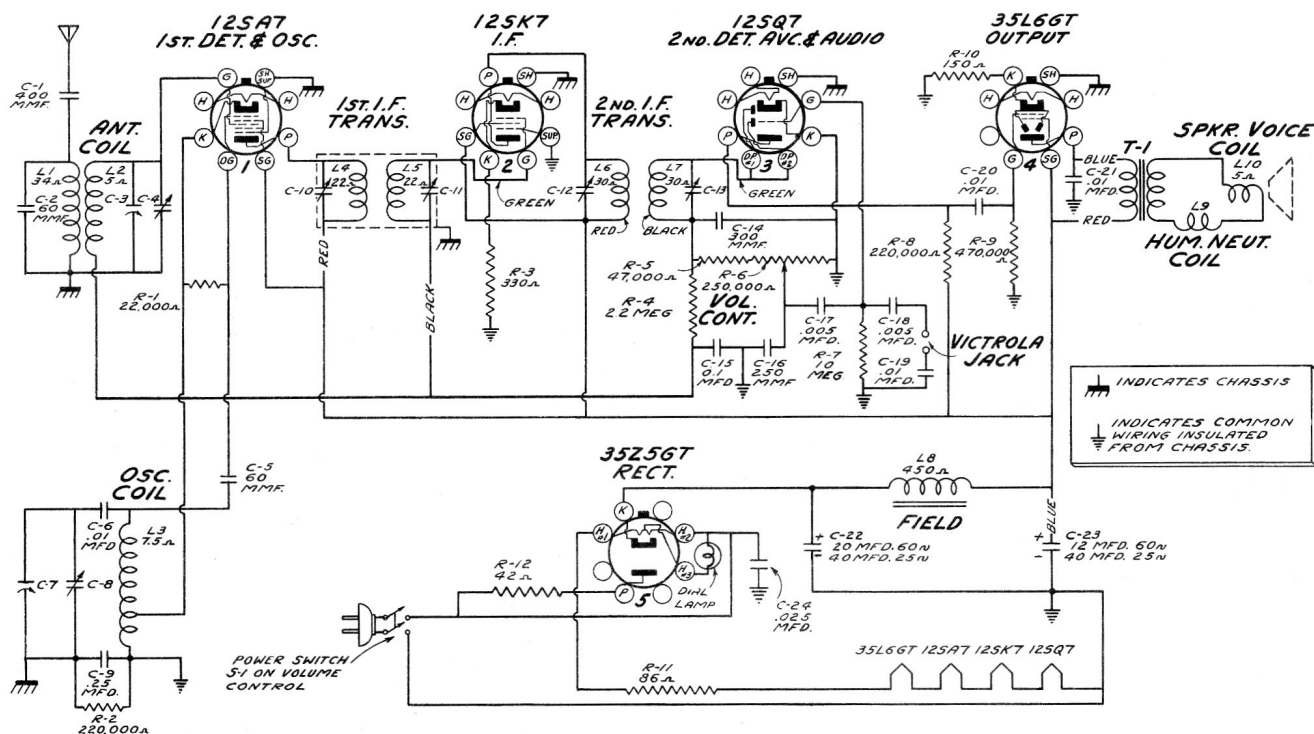
Precautionary Lead Dress

1. Dress 1st I-F plate and grid leads against chassis and away from each other. Dress plate lead from 12SK7 close to chassis.
2. Dress electrolytic capacitor against rear apron.

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.

Antenna.—The set is equipped with a length of antenna wire. Do not connect the antenna direct to ground. If an outdoor antenna is used, 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.

Victrola Attachment.—A jack is provided on the rear of chassis 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.



Schematic Circuit Diagram

REPLACEMENT PARTS FOR MODEL "LITTLE 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			
S-2419	Antenna-Antenna Lead.....	12679	Resistor-2.2 meg., 1/4 watt (R4)....
13057	Capacitor-60 mmfd. (C2, C5).....	13601	Resistor-10 meg., 1/4 watt (R7)....
12488	Capacitor-250 mmfd. (C16).....	32943	Retainer-Dial scale retaining clip & washer (Pkg. 10).....
12952	Capacitor-300 mmfd. (C14).....	32945	Shaft-Station selector drive shaft.....
30433	Capacitor-400 mmfd. (C1).....	32537	Socket-Radiotron socket.....
4838	Capacitor-.005 mfd. (C17, C18).....	S-2425	Socket-Pilot lamp socket and lead.
14393	Capacitor-.01 mfd. (C6, C19, C20).....	14278	Socket-Phono input socket.....
4858	Capacitor-.01 mfd. (C21).....	30585	Spring-Drive cord tension spring (Pkg. 2).....
4839	Capacitor-0.1 mfd. (C15).....	32966	Transformer-1st I.F. transformer (L4, L5, C10, C11).....
4870	Capacitor-.025 mfd. (C24).....	32967	Transformer-2nd I.F. transformer (L6, L7, C12, C13).....
12484	Capacitor-0.25 mfd. (C9).....	S-2426	Volume control and power switch (R6, S1, S2).....
S-2420	Capacitor-Electrolytic capacitor comprising one 20 mfd. and one 10 mfd. 60 cy. (C22, C23).....	REPRODUCER ASSEMBLIES	
S-2421	Capacitor-Electrolytic capacitor comprising two 40 mfd. sections 25 cycle (C22, C23).....	S-2427	Cone-Reproducer cone & voice coil (L10).....
32572	Coil-Antenna coil (L1, L2).....	S-2428	Coil-Field Coil (L8).....
32962	Coil-Oscillator coil (L3).....	S-2429	Reproducer complete.....
32968	Condenser-2 gang variable tuning condenser (C3, C4, C7, C8).....	S-2430	Transformer-Output transformer (T1)
S-2432	Cord-Indicator drum drive cord.....	MISCELLANEOUS ASSEMBLIES	
35124	Dial-Station selector dial scale....	S-2755	Cabinet-Molded plastic cabinet (Walnut).....
35117	Drum-Indicator drum assembly.....	S-2762	Cabinet-Molded plastic cabinet (Ivory).....
31480	Lamp-Dial lamp.....	S-2763	Cover-Cabinet back cover.....
32971	Resistor-42 ohm flexible type (R12)...	32571	Knob-Volume or tuning control knob (Tan).....
33558	Resistor-86 ohm flexible type (R11)...	32447	Knob-Volume or tuning control knob (Ivory).....
13428	Resistor-150 ohm, 1/4 watt (R10)....	32667	Spring-Retaining spring for knobs or drum (Pkg. 5).....
30538	Resistor-330 ohm, 1/4 watt (R3).....		
13998	Resistor-22,000 ohm, 1/4 watt (R1)....		
12412	Resistor-47,000 ohm, 1/4 watt (R5)....		
12264	Resistor-220,000 ohm, 1/4 watt (R2, R8)		
12285	Resistor-470,000 ohm, 1/4 watt (R9)....		
12679	Resistor-2.2 meg., 1/4 watt (R4).....		