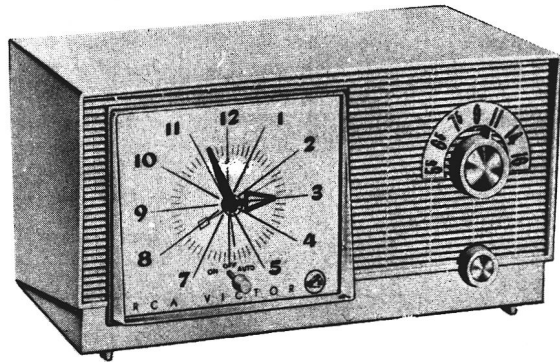




RCA VICTOR



The "Roomate"
Model C-123

A-C Operated Clock-Radio

Model C-123

Chassis No. RC-1157A

SERVICE DATA

— 1956 No. 24 —

ISSUED BY

**GENERAL SERVICE DEPARTMENT
RCA VICTOR COMPANY, LTD.
MONTREAL, CANADA**

ELECTRICAL & MECHANICAL SPECIFICATIONS

TUNING RANGE 540-1,600 kc

INTERMEDIATE FREQUENCY 455 kc

TUBE COMPLEMENT:

- (1) RCA 12BE6 Converter
- (2) RCA 12BA6 I.F. Amplifier
- (3) RCA 12AV6 Det.-AVC-A.F. Amp.
- (4) RCA 50C5 Output
- (5) RCA 35W4 Rectifier

POWER SUPPLY RATING:

115 volts, 60 cycles a. c. 35 watts

NOTE Do not operate on D.C.

LOUD SPEAKER:

Size and type 4 in. P.M.
Voice Coil impedance 3.2 ohms at 400 cycles

POWER OUTPUT:

Undistorted 1.0 watts
Maximum 1.3 watts

TUNING DRIVE RATIO 1:1 (direct drive)

WEIGHT 3¾ lbs. net

CABINET DIMENSIONS:

Height 6¼" Width 12¾" Depth 6"

GENERAL DESCRIPTION

The C-123 is a five-tube (including rectifier) table model clock-radio designed for operation on 105 to 125 volts, power supply. The cabinet is a one-piece polystyrene molding with a speaker grille located at the center of the case front. A conventional superheterodyne circuit is employed using 150-milliampere series-string miniature tubes.

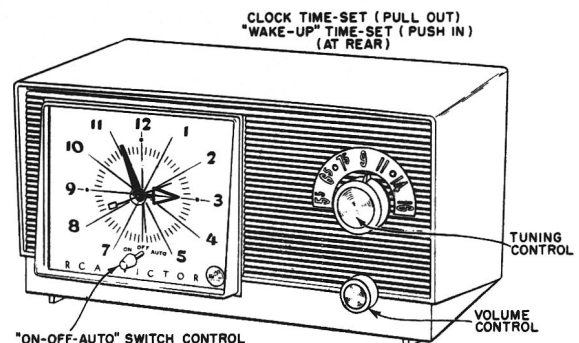
The chassis is of the "printed wiring" type in which all components, except loop antenna and speaker, are mounted on an insulation plate. All wiring, except for two short jumpers, is "printed" on the underside of the insulation plate.

The clock operates continuously when connected to a source of 105 to 125 volts, 60 cycle electric power. A moving sweep-second hand indicates that the clock is in operation.

A built-in timer with switch can be used to turn the radio on automatically. The timer can be set up to 11 hours in advance.

The power supply attachment cord is fastened to the cabinet back cover and becomes disconnected from the chassis

when the back cover is removed. The chassis fits into two grooves molded into the cabinet and is held in position by one screw.



Controls

Alignment Procedure

Test-Oscillator—For all alignment operations, connect the low side of the test-oscillator through an isolating capacitor to the "common negative wiring." Keep the oscillator output as low as possible to avoid a-v-c action.

An isolation transformer (115 v./115 v.) may be necessary for the receiver if the test-oscillator is also a.c. operated.

TO REMOVE BACK COVER

1. Slip out of upper groove while pressing upward on top edge of cabinet.
2. Tilt outward to free interlock contacts, then lift from bottom grooves.

Avoid strain on loop connections.

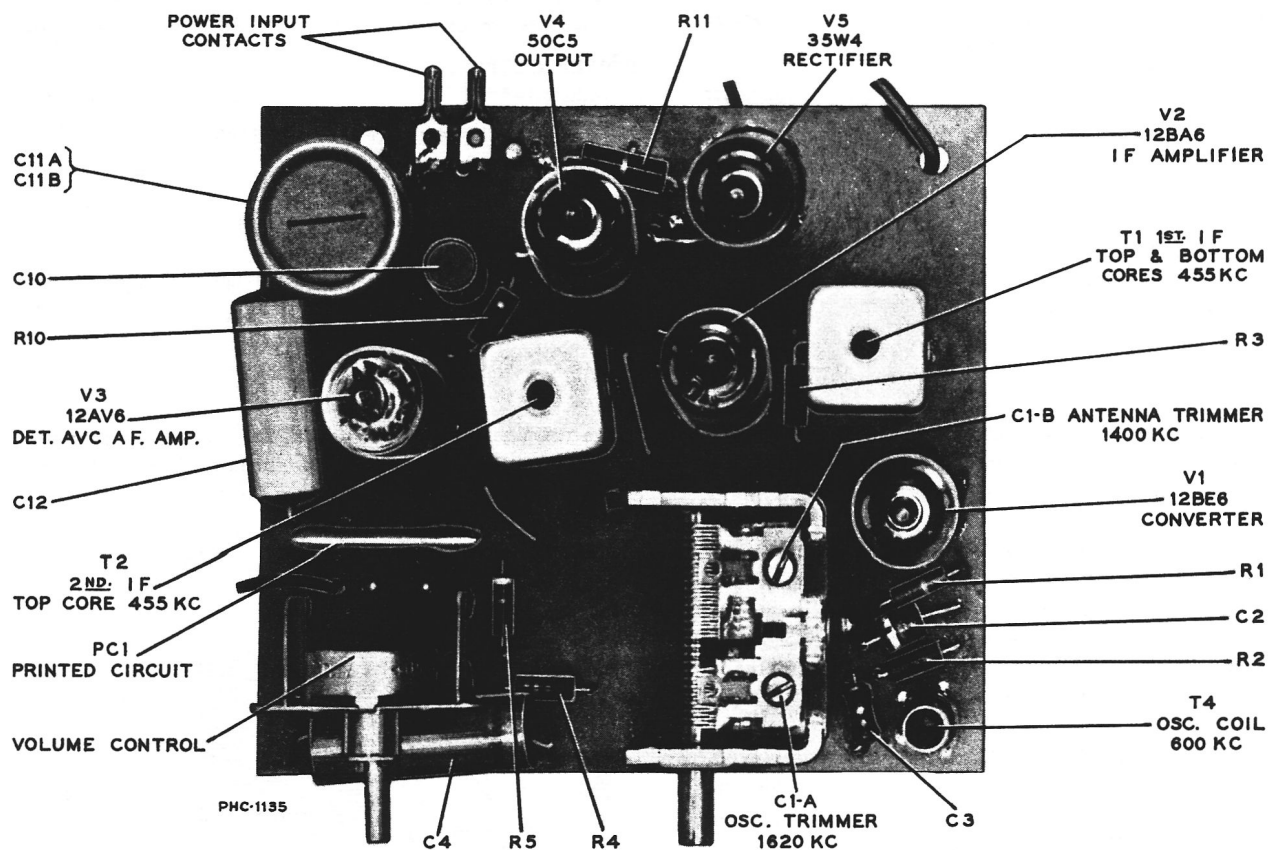
REMOVAL OF CHASSIS

1. Pull off volume control and tuning knobs.
2. Remove back cover.
3. Remove one screw (near volume control) holding chassis to cabinet.

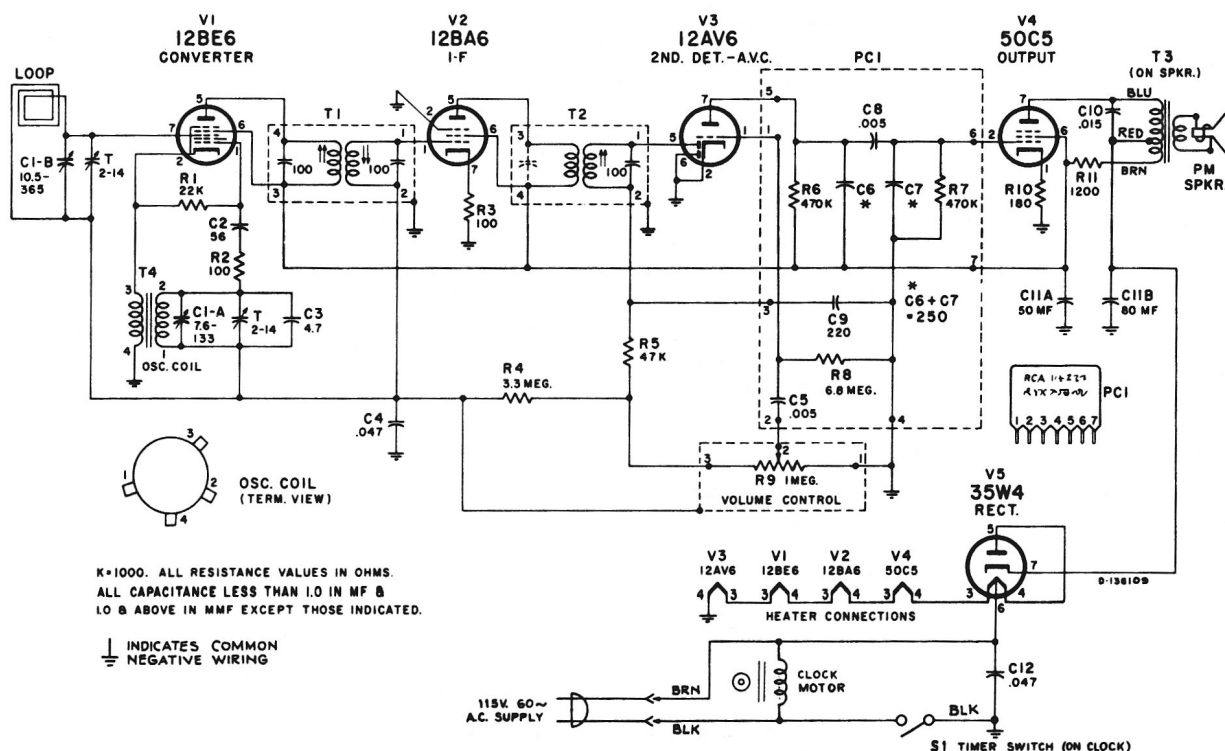
LEAD DRESS

1. The red, brown, and blue leads to the speaker should be dressed between the electrolytic capacitor and the bottom of the chassis.
2. The blue lead to the loop antenna should be dressed through the blank hole at upper rear of chassis.

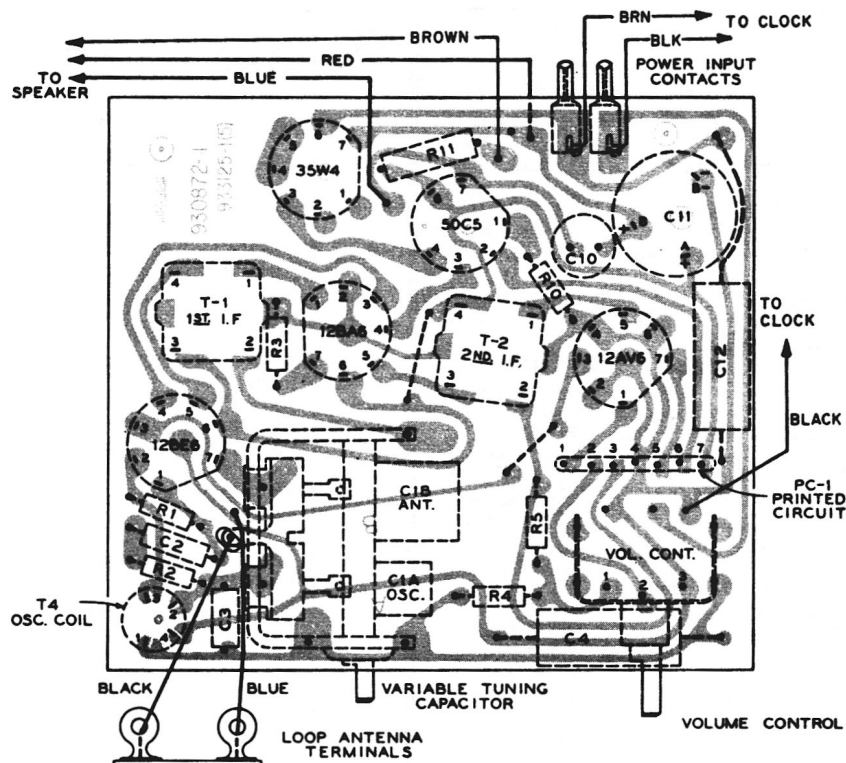
Step	Connect the high side of test-oscillator to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. output
1	12BA6 I-F grid through .01 mfd. capacitor	455 kc	Quiet-point 1,600 kc end of dial	T2 (top) 2nd I-F trans.
2	Stator of C1-B through .01 mfd.			T1 (top and bottom) 1st I-F trans.
3	Short wire placed near loop to radiate signal	1,620 kc	Max. clockwise	osc. trimmer C1-A
4		1,400 kc	1,400 kc signal	ant. trimmer C1-B
5		600 kc	600 kc signal	osc. coil T-4 (rock gang)
6		Repeat steps 3, 4, and 5		



Tube and Trimmer Locations



Schematic Diagram



The assembly represented above is viewed from the wiring side of the board.

The printed wiring, on the near side of the board, is presented in "phantom" view superimposed on the component layout of the reverse side.

Component replacement, when necessary, should be made following the techniques outlined in Printed Circuit Board Information — 1956 No. T-2.

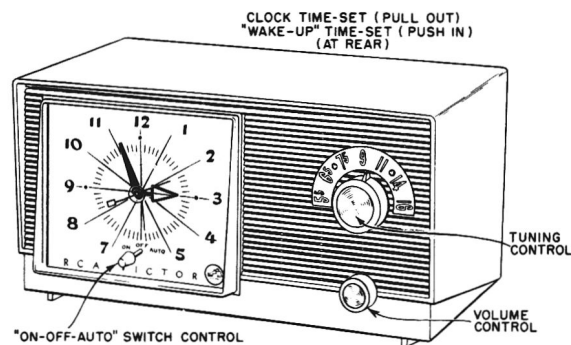
Chassis Wiring and Components
View from Wiring Side

The Clock—Self-starting mechanism will operate (indicated by moving sweep-second hand) as soon as power cord is connected to the power supply. To set time, pull out and turn knob at back of cabinet.

The Radio—For manual operation, turn front ON-OFF-AUTO knob to "ON" and allow approximately 30 seconds for warm-up. Turn VOLUME knob to middle of range for medium volume. Select desired station by turning TUNING knob, then adjust VOLUME as desired. Turn ON-OFF-AUTO knob "OFF" when through listening.

Wake-Up Music—To be awakened by music, turn ON-OFF-AUTO knob "ON", tune in desired station and adjust VOLUME, then turn knob to "AUTO". Push in and turn knob at back of cabinet to rotate pointer on clock face to desired awakening time. Turn ON-OFF-AUTO knob "OFF" when through listening after awakening.

For clock mechanism please refer to service letter issue No. 50.19.



REPLACEMENT PARTS LIST

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

SYMBOL	STOCK NO.	DESCRIPTION	SYMBOL	STOCK NO.	DESCRIPTION
CHASSIS ASSEMBLY					
C-1A	*S-21348	Capacitor - Variable Tuning Capacitor	T-2	*S-21346	Transformer - 2nd IF Transformer
C-1B		Capacitor - Fixed, ceramic, 56 mmf.	T-3	*S-21328	Transformer - Output Transformer
C-2	100085	10%, 500V	T-4	*S-21351	Coil- Oscillator Coil
C-3	73553	Capacitor - Fixed, ceramic, 5.7 mmf.	SPEAKER ASSEMBLY		
C-4		10%, 50V	*S-20491	Speaker - 4" PM speaker complete with cone & voice coil	
C-5		Capacitor - Fixed, paper, .047 mfd.	MISCELLANEOUS ASSEMBLIES		
C-6		20%, 400V	*S-21343	Antenna - Antenna Loop & Back Cover	
C-7	S-21231	Capacitor - .005 mfd. } Part of PC1	*S-21357	Book - Instruction Book	
C-8		Capacitor - .005 mfd. }	*S-21353	Cabinet - Plastic cabinet - black	
C-9		Capacitor - 220 mmf. }	*S-21355	Cabinet - Plastic cabinet - green	
C-10		Capacitor - Fixed, tabular, .015 mfd.	*S-21356	Cabinet - Plastic cabinet - pink	
C-11A	73553	10%, 400V	*S-21354	Cabinet - Plastic cabinet - white	
C-11B		Capacitor - electrolytic - 80 mfd.	101064	Cord -AC power cord and plug	
C-12	101065	Capacitor - electrolytic - 50 mfd.	*S-21331	Knob Ass'y - Timer control knob - black	
PC1		Capacitor - Fixed, paper, .047 mfd.	*S-21337	Knob Ass'y - Timer control knob - green	
R-1	*S-21347	20%, 400V	*S-21340	Knob Ass'y - Timer control knob - pink	
R-2		Circuit - Printed Circuit consisting of C-5, C-6, C-7, C-8, C-9, R-6, R-7, R-8.	*S-21334	Knob Ass'y - Timer control knob - white	
R-3		Resistor - 22,000 ohms, 5%, 1/2 w	*S-21330	Knob Ass'y - Tuning control knob - black	
R-4		Resistor - 100 ohms, 5%, 1/2 w	*S-21336	Knob Ass'y - Tuning control knob - green	
R-5		Resistor - 100 ohms, 5%, 1/2 w	*S-21339	Knob Ass'y - Tuning control knob - pink	
R-6		Resistor - 3.3 megohms, 5%, 1/2 w	*S-21333	Knob Ass'y - Tuning control knob - white	
R-7		Resistor - 47,000 ohms, 5% 1/2 w	*S-21329	Knob Ass'y - Volume Control Knob - black	
R-8		Part of PC1	*S-21335	Knob Ass'y - Volume Control Knob - green	
R-9		Control - Volume Control	*S-21338	Knob Ass'y - Volume Control Knob - pink	
R-10		Resistor - 180 ohms, 10%, 1/2 w	*S-21332	Knob Ass'y - Volume Control Knob - white	
R-11		Resistor - 1200 ohms, 10%, 1 w	*S-21345	Shield - Heat Shield	
T-1	*S-21349	Transformer - 1st IF Transformer	*S-21341	Timer - 60 cycle Timer - (black, white, green sets)	
			*S-21342	Timer - 60 cycle Timer - (pink sets)	
			*S-21648	Timer-25 cycle Timer-(Black, white & green sets)	
			*S-21649	Timer-25 cycle Timer-(Pink sets)	
			*S-21344	Window - Clock window - clear polystyrene	

* Indicates New Stock Items.

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

All parts subject to change or withdrawal without notice.