



# RCA VICTOR



Model C-122

A-C Operated Clock Radio Receiver

## MODEL C-122

# SERVICE DATA

— 1956 No. 13 —

ISSUED BY

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

## ELECTRICAL AND MECHANICAL SPECIFICATIONS

Tuning Range ..... 540-1600 kc  
Intermediate Frequency ..... 455 kc  
(1) RCA 12BA6 ..... R.F. Amplifier  
(2) RCA 12BE6 ..... Converter  
(3) RCA 12BA6 ..... I.F. Amplifier  
(4) RCA 12AV6 ..... Det.-A.V.C.-A.F. Amp.  
(5) RCA 35C5 ..... Output  
(6) RCA 35W4 ..... Rectifier

### Power Supply Rating:

115 volts a.c., 60 cycles ..... 35 w

**CAUTION:—DO NOT OPERATE ON D.C.**

Appliance Rating ..... 115 volts, 10 a.

### Loudspeaker:

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

### Power Output:

Undistorted ..... 0.8 watts  
Maximum ..... 1.2 watts

Tuning Drive Ratio ..... 10 to 1 (5 turns of knob)

Weight ..... 6 lbs. net

### Cabinet Dimensions:

Height ..6 $\frac{3}{4}$ "      Width ..13 $\frac{1}{4}$ "      Depth ..7"

## OPERATING INSTRUCTIONS

FOR INSTRUMENTS HAVING "PUSH-PULL" ACTION ON FRONT CONTROL KNOBS. INSTRUCTIONS FOR INSTRUMENTS HAVING 4-POSITION "SERVICE" KNOB (WITHOUT "PUSH-PULL" ACTION) IS GIVEN ON PAGE 4.

**To Set Clock Time**—Turn TIME SET knob (at back of cabinet).

**To Set Alarm Time**—Pull out and turn ALARM knob. Leave knob "out" for buzzer to sound. Push "in" to silence buzzer.

### RADIO OPERATION

**To Play the Radio**—With PHONO-RADIO switch (at back of chassis) in "RADIO" position, turn SERVICE knob to "ON." Turn TUNING knob to select desired station and adjust VOLUME as desired. Turn SERVICE knob to "OFF" when through listening.

**To Set for "SLEEP" Operation**—Turn SERVICE knob toward "SLEEP" position for desired playing time (up to 60 minutes). Turn TUNING knob to select desired station and adjust VOLUME as desired.

"SLEEP" operation can be used in conjunction with "WAKE-UP" operation if desired.

**To Set for "WAKE-UP" Operation**—Tune in radio and adjust volume level as described above. Pull "out" on SERVICE knob in "OFF" position. Turn SERVICE knob toward "SLEEP" position if "SLEEP" operation is desired in conjunction with "WAKE-UP" operation.

If the ALARM knob is in the "out" position the buzzer will sound a few minutes after the radio starts to play.

### APPLIANCE OPERATION

**To Turn Appliance "ON" Automatically**—Turn ALARM

knob to desired starting time. Pull "out" on SERVICE knob in "OFF" position. Plug appliance into APPLIANCE outlet (at back of chassis).

If the ALARM knob is in the "out" position the buzzer will sound a few minutes after the appliance is started.

**To Turn Appliance "OFF" Automatically**—With SERVICE knob pushed "in" and turned toward "SLEEP" position for desired operating time (up to 60 minutes), plug appliance into APPLIANCE outlet.

The appliance can also be turned "ON" automatically if SERVICE knob is pulled "out" in "SLEEP" position.

### PHONOGRAPH OPERATION

**To Play Records**—With PHONO-RADIO switch in "PHONO" position and SERVICE knob turned to "ON"—plug phonograph attachment power cord into APPLIANCE outlet and its audio output cord into PHONO INPUT socket (at rear of chassis). Play records according to phonograph attachment instructions. Adjust VOLUME as desired.

**To Wake-Up to Record Music**—Turn ALARM knob to desired starting time. Before retiring, operate record player as described above to adjust volume level. Select and load records desired and start record player into automatic operation. Turn SERVICE knob to "OFF" position and pull "out" just as needle lands on first record.

**IMPORTANT**—Keep SERVICE knob "OFF" and pushed "in" when instrument is not in use.

## ALIGNMENT PROCEDURE

**Output Meter Alignment.**—If this method is used, connect the meter across the voice coil and turn the receiver volume control to maximum.

**Test Oscillator.**—Connect low side of test oscillator to common wiring in series with a .1 mf. capacitor. If the test oscillator is a.c. operated it may be necessary to use an isolation transformer for the receiver during alignment and the low side of the test oscillator connected directly to common wiring at the electrolytic capacitor. Keep the oscillator output low to prevent a-v-c action.

Step	Connect high side of sig. gen. to—	Sig. gen. output	Turn radio dial to—	Adjust for peak output
1	Pin No. 7 of 12BE6 (V2 conv.)	455 kc	Quiet point near 600 kc	Top and bottom cores of T3 and T4
2	"External Antenna" terminal	1620 kc	Gang open	C1-B Osc.
3		1400 kc	1400 kc signal	C1-A R.F. C1-C Ant.
4		Shunt C1-A with 22,000 ohm resistor		
		600 kc	600 kc	T2 Osc. (Rock gang)
5		Remove 22,000 ohm resistor from C1-A		
		600 kc	600 kc	T1 R.F.
6		Repeat steps 3, 4 and 5		

**To Remove Chassis**—First remove the volume and tuning control knobs by pulling off. Then pull out the push-fasteners from the back of the cabinet and remove the three screws on the underside of the cabinet. Do not remove the clock from the cabinet unless necessary for service. The leads from the clock to the chassis can be detached by simply removing three standard electrical connectors.

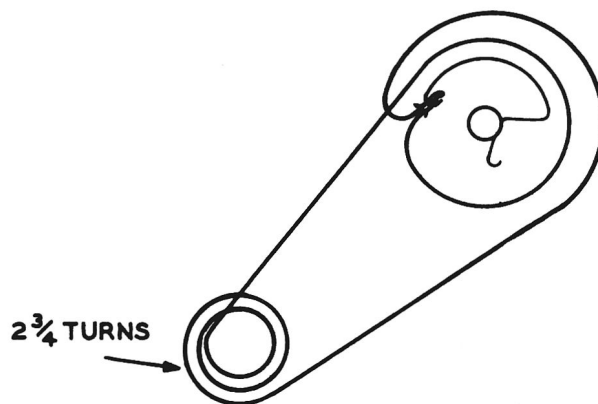
**To Remove Clock**—Assuming that the chassis has been removed from the cabinet. Remove the clock control knobs from the front of the cabinet by pulling off, taking care not to damage the clock control shafts. Then remove the four metal clips holding the clock.

### Attachment of Record Player

The audio output cable of the record player should be terminated with a pin plug.

Plug the cable into the receptacle which is accessible from the back of the cabinet.

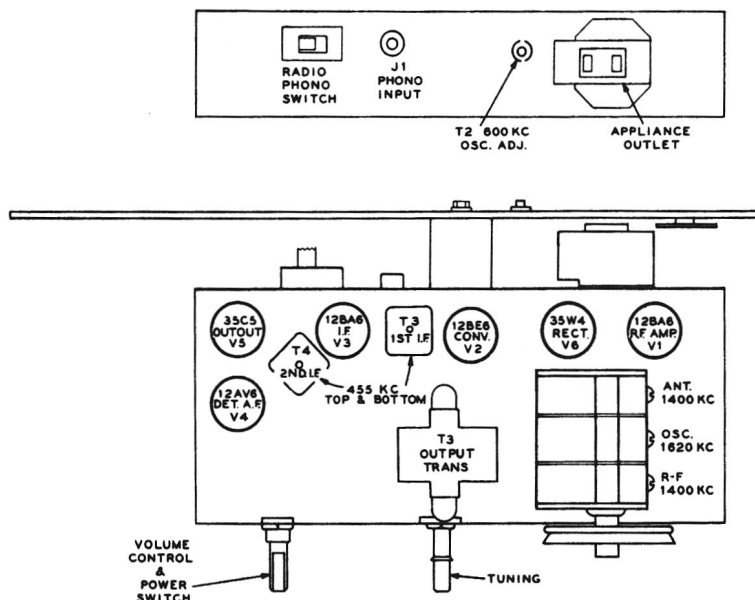
Insertion of the cable plug into the receptacle removes radio signal from the volume control. The record player cable must be removed from the receptacle to permit radio operation.



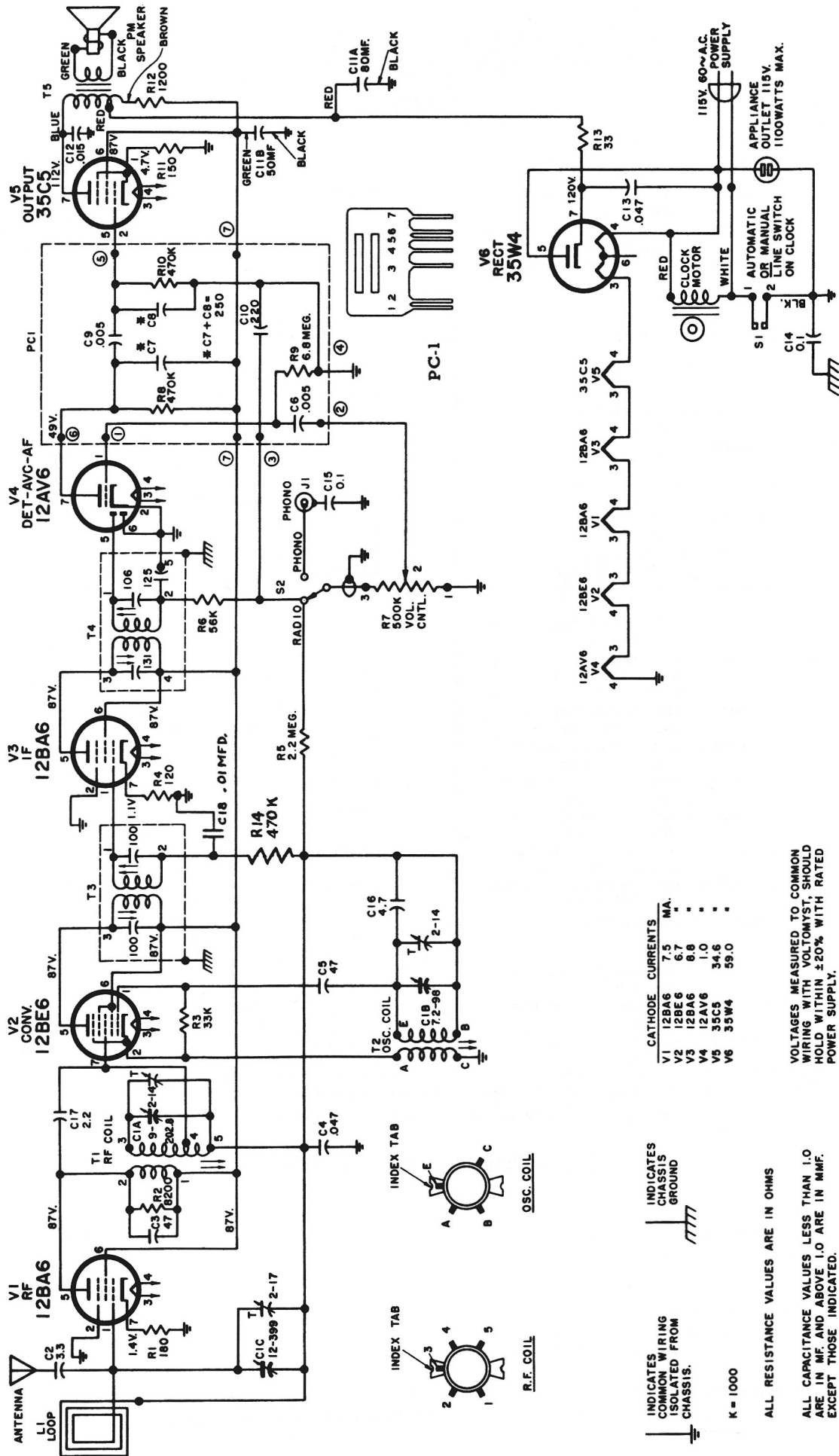
Tuning Drive Cord Diagram

## CRITICAL LEAD DRESS

1. Dress green lead to pin 7 of V-2 down near chassis and avoid excess lead length.
2. Dress blue lead to pin 5 of V-1 down near chassis and away from R-13. Avoid excess lead length.
3. Bend complete PC1 unit over and toward V-4 rather than back over IF transformer.
4. Keep filament leads down against chassis and under minus B wire.
5. Keep end of R5 nearest phono-switch as short as practical. Do not cut any wire off of end wired to 1st IF transformer.
6. Dress all leads away from hot resistors, R13 and R12.
7. Dress output plate lead down on chassis and away from V-5 output tube.



Tube and Trimmer Locations



C16, 4.7 mmf. capacitor, shown connected across the oscillator tuning capacitor C1B, has been relocated. In late production C16 is connected between pins 1 and 2 of V2 (12BE6 converter).

Schematic Circuit Diagram—Chassis No. RC1142

# 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
C1	*S-21022	Capacitor - Variable tuning	S2	79256	Switch - Phono-radio selector switch (SPDT)
C2	71503	Capacitor - Fixed, headed-lead, 3.3 mmf, 10% 500v	T1	S-20465	Coil - R. F. coil
C3		Capacitor - Fixed, ceramic, 47 mmf, 10% 500v	T2	79285	Coil - Oscillator coil
C4	73553	Capacitor - Fixed, paper, 0.047 mf, 10% 400v	T3	75486	Transformer - 1st I. F. transformer
C5		Capacitor - Fixed ceramic, 47 mf, 10% 500v	T4	73037	Transformer - 2nd I. F. transformer
C6 to C10 Incl.		Part of PC1	T5	77517	Transformer - Output transformer
C11	75980	Capacitor - Electrolytic, 80/50 mf, 150v		79304	Cable - Power cable and plug 84" long
C12		Capacitor - Fixed, paper, 0.015 mf, 10% 400v		73935	Clip - Mounting
C13	75071	Capacitor - Fixed, paper 0.047 mf, 20% 400v		79303	Connector - Appliance outlet
C14	73551	Capacitor - Fixed, paper 0.1 mf, 10% 400v		72953	Cord - Dial drive cord
C15		Capacitor - Fixed, paper 0.1 mf, 10% 400v		S-21020	Dial - Station selector dial complete with mtg. bracket
C16		Capacitor - Fixed, ceramic 4.7 mmf, 10% 500v		72283	Grommet - For mtg. variable capacitor
C17	71502	Capacitor - Fixed, headed lead, 2.2 mmf, 10% 500v		S-21019	Pointer - Dial selector pointer (complete assy.)
J1	79272	Connector - Phone input connector		S-21025	Shaft - Selector drive shaft
L1	79307	Antenna - Antenna loop and back cover complete with capacitor (Includes C2)		78263	Shield - Tube shield for V2, V4
PC1	*S-21017	Circuit - Printed circuit (Includes C6, C7, C8, C9, C10; R8, R9, R10)		73117	Socket - Tube socket, 7 pin miniature wafer type
R1		Resistor - Fixed, composition 180 ohms 10% 1/2w		76332	Spring - Dial drive cord spring
R2		Resistor - Fixed, composition 8200 ohm, 10% 1/2w			<b>SPEAKER ASSEMBLY</b>
R3		Resistor - Fixed, composition 33,000 ohm 10% 1/2w		S-21053	Speaker - 4" P. M. speaker (1.47 oz.) complete with cone and voice coil (3.2 ohms)
R4		Resistor - Fixed, composition 120 ohm 10% 1/2w			<b>MISCELLANEOUS</b>
R5		Resistor - Fixed, composition 2.2 megohm 10% 1/2w		S-21259	Cabinet - Plastic cabinet - gray - complete with window & bezel -
R6		Resistor - Fixed, composition 56,000 ohm 10% 1/2w		S-21260	Cabinet - Plastic cabinet - black & beige - complete with window & bezel -
R7	*S-21021	Control - Volume control		87831	Fastener - For mtg. top corners of back
R8 to R10 Incl.		Part of PC1		79300	Knob - Timer control knob - pearl gray - polystyrene -
R11		Resistor - Fixed, composition 150 ohm 10% 1/2w		79831	Knob - Timer control knob - beige - polystyrene -
R12		Resistor - Fixed, composition 1200 ohm 10% 1w		79305	Knob - Polystyrene gray knob for dial selector & volume control -
R13		Resistor - Fixed, composition 33 ohm 10% 1w		79832	Knob - Polystyrene beige knob for dial selector & volume control -
				*S-20466	Nameplate - RCA Victor nameplate
				79308	Shield - Shield for timer
				330720-92	Instruction Book
				*S-21284	Timer - 60 cycle clock timer
				*S-21283	Timer - 25 cycle clock timer

\* Indicates New Stock Items. Only items listed under stock numbers are available as Replacement Parts.

All parts subject to change or withdrawal without notice.

## Clock Mechanism Service

All clock mechanisms which are defective or require general repair, should be sent to the Service Depots listed with the following information:

"If the clock is within the warranty period, the dealer is to state the date of purchase by the customer, and the letter or purchase order should be marked "In Warranty"."

### SERVICE DEPOTS

FOR TELECHRON SERVICE DEPOTS NEAREST TO YOUR DISTRICT, PLEASE REFER TO RADIO SERVICE LETTER ISSUE 50.18

ONLY ITEMS LISTED UNDER STOCK NUMBERS ARE AVAILABLE AS REPLACEMENT PARTS.

ALL PARTS SUBJECT TO CHANGE OR WITHDRAWAL WITHOUT NOTICE.