



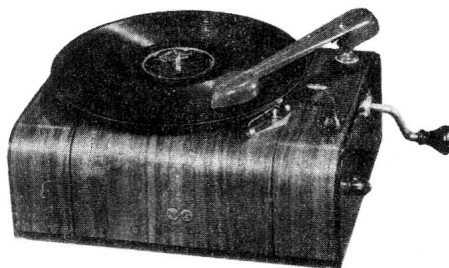
# RCA Victor

## MODEL V-3A

## RECORD PLAYER

### TECHNICAL INFORMATION AND SERVICE DATA

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL



### General Description

The RCA Victor Model V-3A Record Player attachment is designed for use with a battery-operated receiver where a mechanical type unit is required having the characteristics necessary for record fidelity. The motor is of the mechanical, spring wound, variable

speed type completely governed to maintain a constant speed. The pickup assembly is of the crystal type and incorporates a permanent point stylus. A volume control is placed across the pickup output terminals providing a means of controlling the output voltage.

### Motor Service Data

**Motor.**—The drive motor is of simple design and substantial construction. It should require little or no service if properly maintained. Attention to lubrication of the moving parts and occasional cleaning of the mechanism will go far to prevent faulty operation. Should it become necessary to repair the motor, the following procedure should be applied: CAUTION.—Allow the motor mechanism to run down completely before attempting adjustment, repairs, or replacements.

**Removing Motor from Cabinet.**—Remove the winding key. To dismount the motor, unscrew the spindle cap and remove turntable, slightly tapping the spindle while exerting an upward lift on the turntable. Loosen the screw holding the speed-regulating lever and remove the latter. The three screws holding motor to motor board should then be loosened to permit removal of motor assembly.

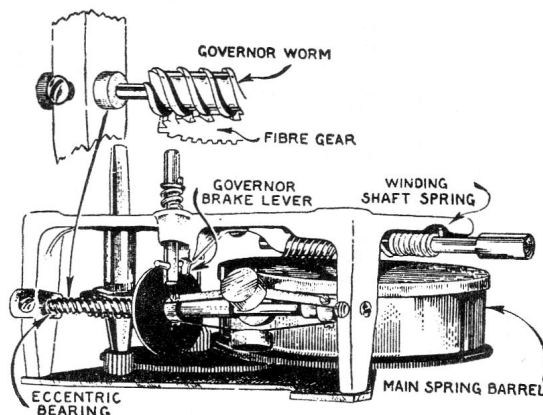
**Replacing Main Spring Barrel.**—In case of main spring failure, the entire spring barrel and gear should be replaced. Remove the spring-barrel spindle screw by **unscrewing to right**. Remove the C washer and two pillar screws holding bottom plate. Remove bottom plate, intermediate spindle shaft, and spring barrel. Reassemble parts in reverse sequence.

**Winding Shaft Spring.**—This spring functions as a friction ratchet. It may be removed as follows: remove pin holding winding worm on shaft; remove winding shaft; then remove screw holding spring. Replace in reverse sequence.

**Governor Adjustments.**—The mesh of the worm and fiber gears is adjusted by rotation of the eccentric spindle bearings. The adjustments should be made so that the worm meshes properly with the fiber gear and rotates freely without binding. The

bearings should be accurately aligned with each other. The minimum of spindle end-play which permits smooth operation should be used.

**Speed Regulator Lever.**—After assembly, adjust the speed regulator until the turntable rotates at 78 r. p. m.; loosen the speed regulator screw and set pointer to center of speed indicator scale; tighten screw and re-check turntable speed.



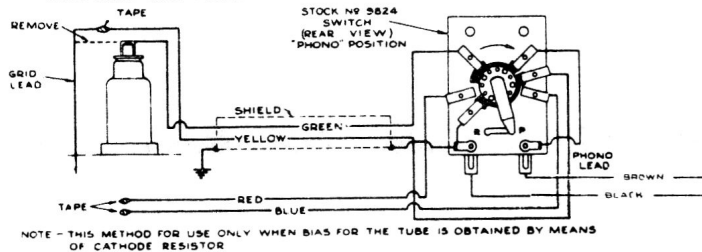
**Lubrication.**—All moving parts of the motor should be thoroughly cleaned and lubricated every six months to prevent excess wear and to assure proper operation. A small amount of grease should be applied to the worm gear of the governor, the gear of the winding shaft, and on the small pinion gear. All other points, including regulator friction pad, should be lubricated with light oil. All motor parts should be covered with a light film of oil to prevent rusting.

# Connecting Record Player Attachment to Radio Receivers

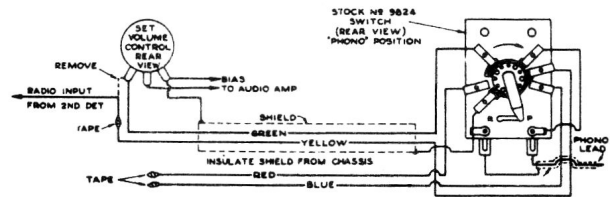
In general, the Record Player Attachment must be used with radio receivers having at least two stages of high-gain audio amplification. The output of the Record Player Attachment should be connected to the input of the first audio tube, and at the same time the output of radio receiver portion of the chassis should be shorted or opened, to prevent radio signals being heard while the Record Player Attachment is in operation.

Methods of connecting the Record Player Attachment to various types of audio systems are given in the accompanying diagrams. The data given requires that an RCA Stock No. 9824 Radio-Phono switch be used for switching from radio to phonograph. For ease in connecting the "phono" lead to the Stock No. 9824 switch, the male plug on the end of the lead should be removed by unsoldering or by cutting it off.

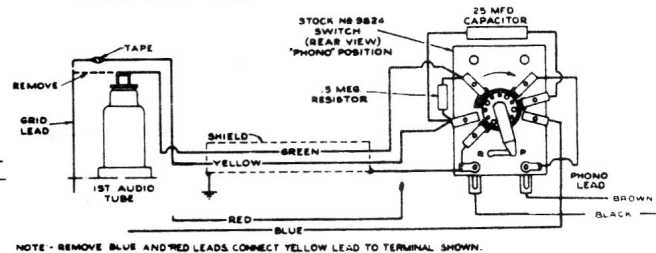
## RADIO RECEIVERS WHOSE FIRST AUDIO AMPLIFIER TUBE IS OF THE GRID CAP TYPE.



## RADIO RECEIVERS WHERE THE VOLUME CONTROL IS IN THE AUDIO INPUT CIRCUIT.

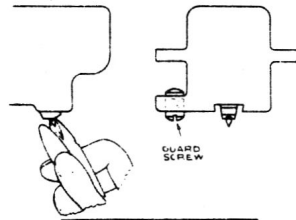


## RADIO RECEIVERS WHOSE FIRST AUDIO TUBE IS OF THE GRID CAP TYPE, AND FIXED BIAS FOR TUBE IS OBTAINED THROUGH GRID LEAD.



## Replacement of Pickup Stylus

As an additional precaution against rough handling, the top of the stylus is dipped in a rubber cement before being inserted in the pickup. To remove the stylus, grasp it firmly with a pair of tweezers, give it a few turns to loosen the cement and then pull it out. Much easier handling of the stylus will result if the tweezers are



notched with a file as shown. Naphtha may be used as a thinner should difficulty with the rubber cement be experienced. Before inserting the new stylus it should be dipped in the rubber cement previously thinned with naphtha. After insertion clean the point with naphtha if there is any doubt as to the presence of cement.

### To Remove Pickup Arm.—

One of the tone arm bearings has a slotted head and can be turned out to facilitate removal of the tone

arm. Raise the tone arm and loosen the bearing set screw. Turn the bearing partly out through the hole in the side of the tone arm and lift the arm off.

## REPLACEMENT PARTS FOR MODEL V-3A

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers.

STOCK NO.	DESCRIPTION	STOCK NO.	DESCRIPTION
<b>MOTOR ASSEMBLIES</b>			
33682	Brake-Turntable brake complete.....	31054	Grommet-Pickup base rubber grommet
33371	Cap-Turntable spindle cap.....	38458	Nut-Speed nut to hold cable in arm (Pkg.2).....
33366	Gear-Intermediate drive gear and shaft.....	39387	Plate-Bottom plate for pickup arm, less screws.....
13858	Gear-Winding worm gear-located on spring barrel shaft.....	38609	Screw-No.4-40x1/4 in.headless set screw for pickup arm (Pkg.10)....
13859	Gear-Winding gear-located on spring barrel shaft.....	38605	Screw-No.4-40x1/4 in.screw to mount crystal (Pkg.25).....
13857	Governor-Governor assembly complete	38611	Screw-No.4-40x3/16 in.headless set screw for pickup crystal (Oval point) (Pkg.5).....
33679	Indicator-Speed regulator arm and pointer.....	39388	Screw-No.4-40x3/16 in.screw for pickup arm bottom plate (Pkg.25)....
33685	Key-Winding key.....	38608	Screw-No.6-32x9/32 in.headless set screw for pickup arm (Pkg.15)....
13854	Motor-Spring motor complete.....	30585	Spring-Pivot arm spring (Pkg.2)...
13860	Shaft-Winding key shaft and socket.	39564	Stylus-Permanent stylus.....
33367	Spindle-Motor spindle and two gears assembled.....	<b>MISCELLANEOUS ASSEMBLIES</b>	
13835	Spring-Mainspring, spring barrel and drive gear.....	9824	Cable-Radio Record switch and cable assembly.....
33369	Turntable-Motor turntable complete.	33681	Escutcheon-Speed lever escutcheon.
33372	Washer-Turntable driver washer and rubber bushing.....	S-3407	Knob-Volume control knob.....
13862	Weight-Governor weight and spring..	31048	Plug-Pickup cable plug.....
<b>PICKUP ASSEMBLIES</b>		31041	Tip-Pickup rest rubber tip (Pkg.2)
38602	Arm-Pickup arm-shell only.....	S-2612	Volume Control.....
S-3403	Base-Pickup arm base and pivot shaft		
S-3405	Crystal-Crystal cartridge with permanent stylus.....		
39949	Damper-Viscoid damper.....		