

The 45rpm Phono Gazette



**New RCA Victor System of Recorded Music
was available in stores everywhere starting
March 31, 1949**

The Workbench



Last time we had disassembled the rp-168 record changer. All removable parts should be cleaned and lubricated. Use oil on any pivot points and grease on any sliding metal parts. Replace any worn out rubber grommets holding the motor and also those supporting the sub frame.

This is also the time to replace or revitalize the idler wheel. Clean the inside of the rim on the turntable with alcohol. Turn the center shaft at the bottom of the spindle and see that it turns freely while the shelves and separators go through their motions. There are two different types of record dropping mechanisms available on the rp-168. These will be covered in the next issue.

Clean and relub the roller bearings on the turntable shaft and install the turntable. Next comes the star wheel adjustment. Insert the star wheel on the center shaft of the turntable leaving the set screws loose. Press the reject button and turn the turntable by hand starting the reject cycle. A lever will start moving towards the star wheel. Position one of the points on the star wheel so that it contacts the lever 1/16th of an inch from the end of the point. With the lever resting against the star wheel, tighten up the two set screws on the star wheel. Plug in the phono and put a stack of 45's on the spindle. Reject each one to make sure the records fall when they are supposed to. You do not need the tonearm for this test. If you're not happy with this setting, loosen the set screws and adjust slightly. I find this initial setting is correct 99 out of 100 times. (Continued on page 2)

This gorgeous color picture appeared on the April 1949 issue of Radio Age, a magazine published by RCA. It contains articles and numerous pictures of the RCA factory where the records and the phonos were manufactured. It is quite an interesting story how I acquired this magazine. About six months ago the magazine was up for auction on Ebay, the electronic auction on the Internet. There was no picture provided but it mentioned that one of the articles discussed the introduction of the 45 rpm system of recorded music. I was not the highest bidder. On an impulse, I emailed the winner and explained why I was interested in what was in the articles and wondered if he could mention what was covered in the articles. The winning bidder, who lives in Australia said, "People on the Internet have been so helpful to me, I would like to return the favor and you are the lucky recipient. When I am through examining the magazine I will send it to you at no charge!"

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Workbench (continued)

Now I should have mentioned this earlier but page 1 has already been printed! Before you install the turntable, check and see if your model has an air piston. The piston acts like a damper when the tonearm descends to the record. The 'lightning fast' change cycle causes the tonearm to literally fall onto the beginning of the record like a dead weight sometimes causing bouncing. The piston should be cleaned and honed with a good quality metal cleaner. Getting the piston to provide just the right amount of damping action can be a frustrating job. Refer to the pesky piston article in the October '96 issue.

If the turntable is stalling during rejecting, it means that the idler wheel is not getting a good bite on the inside of the turntable rim. This can be caused by hard rubber or a worn out return spring. There is also a felt or rubber grommet which mounts on the upper right corner of the top of the chassis. If this grommet is worn or missing, it can cause stalling. Now it's time to install the tonearm. Make sure you replace the cartridge while you have the arm out and free. Note that you may have to adjust the weight of the arm if you have installed a non stock cartridge. Some arms have an adjustable spring in the back while others have no adjustment. Obviously removing the spring will make an adjustment. Guide the wires through the tube from which they were removed in the upper right hand corner of the chassis. Turn the chassis over and mount the tonearm retaining clamp. Do not tighten too much at this time. This way you can adjust or move the clamp on the shaft until you get the proper adjustment. You want the tonearm to start the reject cycle when the needle is about an eighth of an inch from the final inside groove of the record. Keep adjusting the clamp until this is accomplished. Now you can adjust where the tonearm lands at the beginning of the record by turning the screw adjustment which is under the middle of the tonearm. The final adjustment is for the height of the tonearm during the reject cycle.

point on the tonearm (chassis top right). Once you are finished with all the adjustments, the last step is to solder the 3 thin cartridge wires back on to the mute switch.

If you have taken your time and followed the above instructions carefully, you should be happy with the results. Don't try to do the whole job in one sitting. It usually takes about 3 sittings.

New 45 rpm Records and Players Acclaimed by Industry



The rp-168 Record changer in an unusual portable phono for schools. There is no name on the outside. Inside on the amp it says Lavoie Labs.

The following comments were made by RCA Victor's Vice President in charge of Consumer Products, J. B. Elliot in the Spring of 1949. *"On the basis of the enthusiastic response from the country's phonograph retailers it is believed that between 2,500,000 and 3,000,000 instruments equipped to play the new RCA 45 rpm records will be produced and sold this year. To help meet this demand RCA Victor has planned for increased manufacturing facilities in its Indianapolis, Indiana plant. In addition, approximately 29 leading manufacturers are now incorporating 45 rpm record production mechanisms in their instruments, or plan to do so."*

While I don't have actual production numbers, these estimates seem mighty high considering lackluster sales until prices were dropped in September 1949.

"Merchandising meetings arranged by RCA Victor's field staff had capacity turnouts wherever they were held. Nearly 12,000 dealers have demonstrated their

approval with on-the-spot orders. Many

them liked, because of the sales potentialities inherent in the high quality, convenient size, colorful appearance, and low price of the 45 rpm records."

The multi colored records did seem like a nice idea but RCA stopped producing most of the colored disks within a short time. The only exception was the color red for classical records.

"A Unique feature of the new system is the unusual new record changer- the fastest ever developed- which has been designed to minimize the traditional problem of chipping, cracking, and breaking records during changer operation. In a marked departure from most conventional systems, the drop mechanism is housed in the player's center spindle, which has been enlarged to 1 1/2 inches. By centering the drop mechanism, RCA Victor found it possible to eliminate the usual outside record posts, speed up the changer cycle, simplify the changer mechanism, silence its action, reduce the oversize of the player, and eliminate costly and intricate moving parts."

Silent action? Boy this is a stretch. I find if I am dosing off listening to this changer, the reject cycle will wake me up! And within a year of introduction a newly designed record changer would be available that slowed down the reject cycle to a more manageable speed (model rp-190).

"The new 45 rpm records have been designed with a raised shoulder between the playing area and the center rim, providing air spaces between the playing surfaces and center rim of stacked records. In most conventional systems, the record separating blades are required to force their way between the stacked records. This forcing action is often the cause of record damage. With RCA Victor's new design, the blades move into the air spaces provided by the raised shoulders of the records."

This was truly one of the great ideas in this new design along with the larger center hole. It is the only record that's easy to carry without touching grooves.

On the next page you will see pictures of the Indianapolis plant showing how 45 rpm records were made. Next issue we will continue with this article and show factory pictures of the players being assembled and tested.



1) Sheets of translucent plastic are reduced to proper thickness

2) 45 rpm record complete with labels is removed from one of the powerful presses at Indianapolis plant



3) Excess plastic material called 'flash' is stripped from the outer rim.

4) Semi-automatic machines punch out large center hole at the rate of 30 discs a minute.



5) Exact centering of record is assured by checking the movement of the outer rim under a microscope.

6) Here the finished records are placed in envelopes, then packed in containers for shipment to dealers