



MODEL RP-205C-2

*Other models of RP-205 Series differ in appearance of turntable, pickup arm and stabilizer arm. Some models do not have a storage well for the centerpost.*

### SPECIFICATIONS

#### ALL MODELS

Turntable speed.....  $16\frac{2}{3}$ ,  $33\frac{1}{3}$ , 45 or 78 r.p.m.  
Record capacity..... Up to fourteen 7 inch  
or twelve 10 inch.  
or ten 12 inch.  
or ten 10 in. and 12 in.  
intermixed.

#### RP-205G-1

115 volts, 60 cycles, 2-pole balanced motor.  
Stock No. 106770 stereo ceramic pickup equipped with diamond/synthetic-sapphire stylus assembly. Different pickup arm assembly and other items necessary for "stereo;" otherwise same as RP-205C-2 and RP-205-2 except for motor-board finish.

### GENERAL DESCRIPTION

The RP-205 Series record changers are four-speed mechanisms designed to play, in automatic sequence, a stack of 7", 10" or 12" records, or 10" and 12" records intermixed. The mechanism will shut off automatically after playing of the last record.

Record separation is accomplished by movement of a finger in the center spindle. This finger directly separates records having a  $\frac{1}{4}$ " centerhole and actuates the knives and shelves of the centerpost used for the playing of records having a  $1\frac{1}{2}$ " centerhole.

The tripping method used is the acceleration or velocity type in which the trip lever causes a trip pawl to engage a projection on the turntable hub and start the mechanism into cycle. If the record being played causes the pickup arm to move inward at a constant rate without acceleration, a point will be reached where a constant-diameter trip is effected.

### CONTROLS

The record changer is provided with a dual control located in the right hand corner of the motor board and a stylus selector control located on the pickup arm.

The outer portion of the dual control provides a means of controlling the operation of the mechanism while the inner control governs the turntable speed.

By turning the outer control to the "ON" position, the turntable starts rotating. By turning the control one step further in a clockwise direction to the "REJ" position and permitting the knob to return to the "ON" position, the complete automatic operation of the mechanism is started.



# RCA VICTOR



STEREO

Automatic Record Changer

**RP-205 Series**

## SERVICE DATA

— 1958 No. 16 —

ISSUED BY

SERVICE DIVISION

RCA VICTOR COMPANY, LTD.

MONTREAL, CANADA

The mechanism will stop automatically after the last record has been played but if desired, can be stopped by turning the control counter-clockwise to the "OFF" position and placing the pickup on the rest.

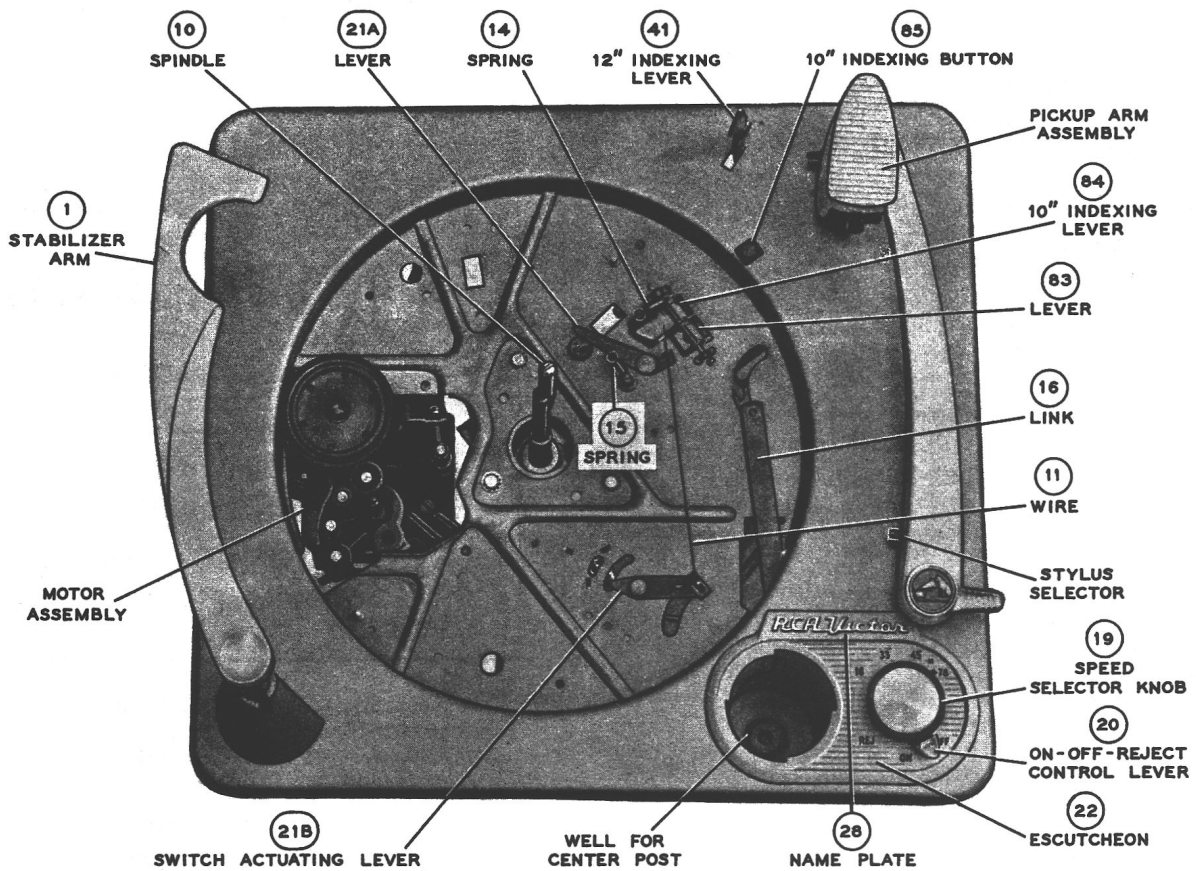
The inner or motor speed control makes possible the selection of one of four speeds, by rotating the knob to the proper position.

The speed control should be turned to the "N" position (midway between "45" and "78") to remove the force of the motor shaft against the idler wheel when the changer is not expected to be used for an extended period of time.

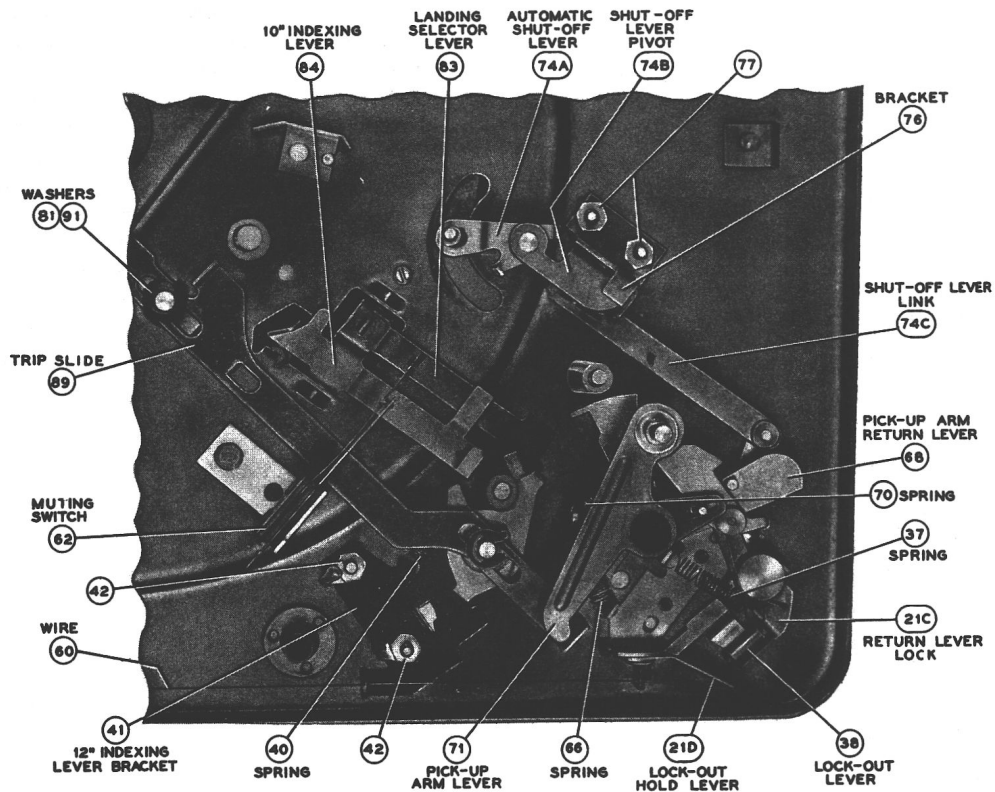
The removable centerpost is for use with  $16\frac{2}{3}$  or 45 r.p.m. records having the large centerhole. It must be placed over the center spindle with the word "FRONT" FACING to the FRONT. Care should be exercised in placing and removing centerpost so as to prevent damage to smaller spindle.

A well is provided on the motorboard for storage of the centerpost when not in use. The centerpost may be firmly secured, after placing it in the well, by pushing down until a slight "click" is heard. It may be necessary to twist slightly while pushing down. To remove centerpost from well, twist slightly until centerpost "pops up".

To load or remove records, lift and turn the record stabilizer arm off to the side. After loading, the stabilizer arm should be turned to the center so it rests on the stack of records.



*Figure 2—Top View of RP-205-2 with Turntable Removed*  
*Other models differ in appearance of pickup arm.*



*Figure 3—Partial Bottom View of RP-205-2 with Cycling Slide Removed*

## ADJUSTMENTS

### LANDING ADJUSTMENT (Fig. 4)

When the pickup arm is mounted the clamp screw should seat in the depression in the pickup arm lever shaft, then only one landing adjustment is necessary. The landing position of the stylus is adjusted by means of the slotted nut at the side of the pickup arm support bracket. When adjusted for correct landing on one size record (12" record preferably if convenient), the landing position for the other two sizes is automatically maintained.

Lift and turn the record stabilizer arm outward. Place a 12 inch or 78 rpm record on the turntable. Turn the speed control knob to the 78 rpm position and the control lever to the reject position. Rotate the turntable by hand until the stylus is just ready to set on the record. Then turn the landing adjustment screw so the stylus will set on the record midway between the outer edge and the starting groove.

Slight "touch up" or a compromise in this adjustment may be necessary so that the pickup will land correctly on all three size records when operating automatically.

### PICKUP ARM HEIGHT ADJUSTMENT (Fig. 4)

The pickup arm height during cycle is adjusted by means of the hex head screw, located in the pickup arm.

Turn control knob to "REJ" and rotate turntable by hand until arm has risen to its maximum height. Adjust screw so that stylus is  $1\frac{3}{8}$ " above turntable.

## RECORD DROPPING ADJUSTMENT

The eccentric stud (Ill. No. 101, Fig. 5) on the end of the cycling slide controls the time during cycle at which the record drops to the turntable.

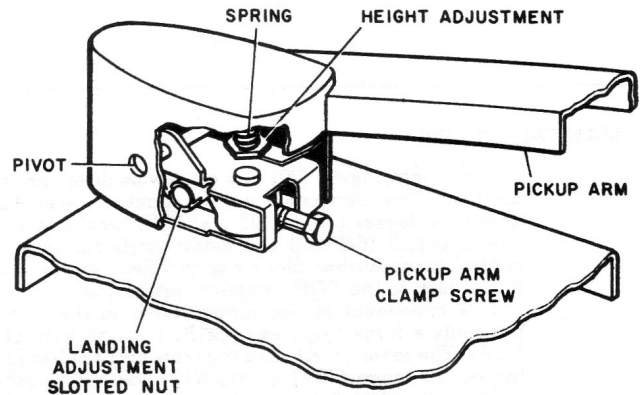
Adjust the position of the stud so that the record drops to the turntable when the pickup arm has moved to its maximum

outward travel. If the record drops too soon it will strike the pickup arm. If timed too late the record may not drop.

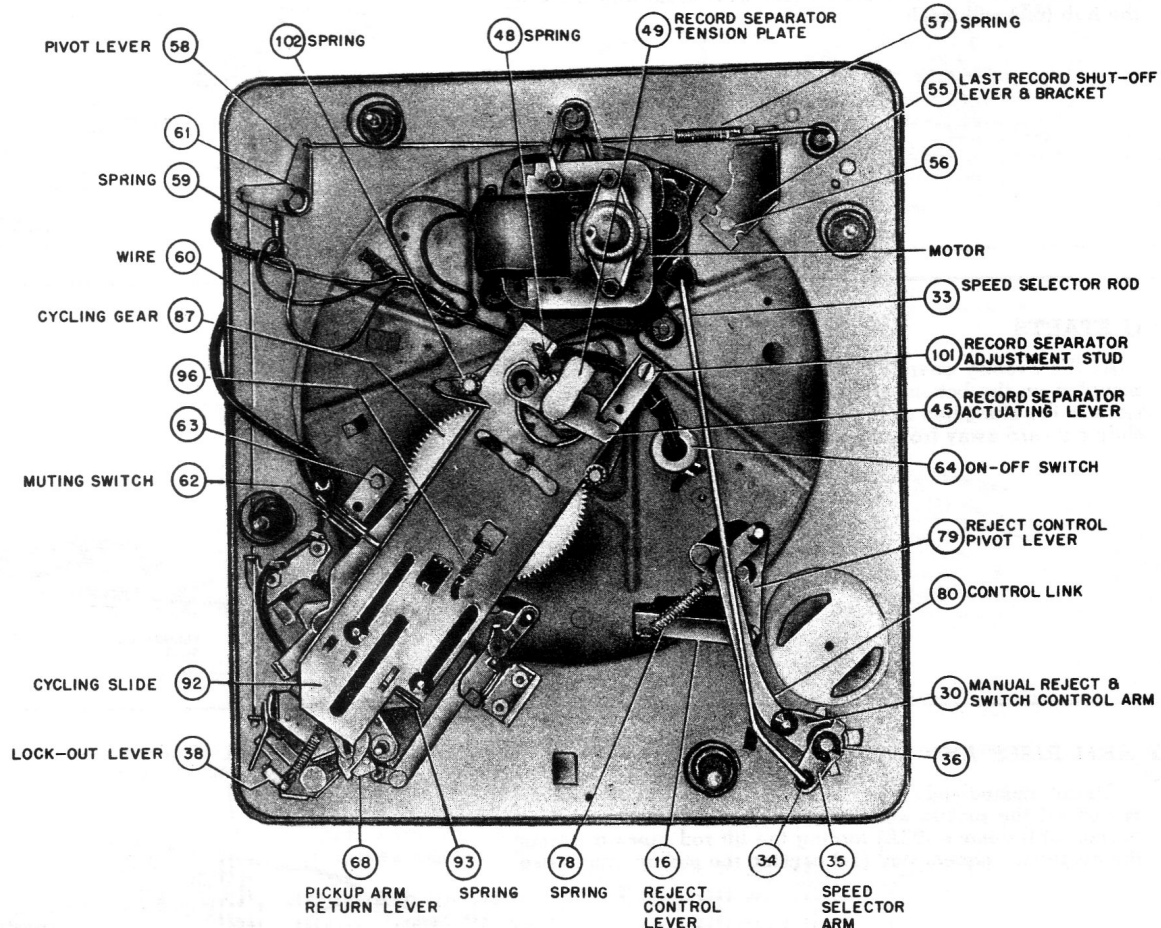
## 10" INDEXING LEVER ADJUSTMENT

The rubber tip (Ill. No. 85, Fig. 2) on the 10" indexing lever is molded onto a threaded shaft and provides a means of adjustment for proper indexing.

Adjust rubber tip so that it will be depressed at mid-cycle approximately  $\frac{1}{16}$ " by a 10" or 12" record when the record rests on the turntable. The rubber tip should not touch the record when the mechanism is out of cycle.



**Figure 4—Pickup Arm Height and Landing Adjustments**



**Figure 5—Bottom View of Mechanism RP-205-2**

## CYCLE OF OPERATION

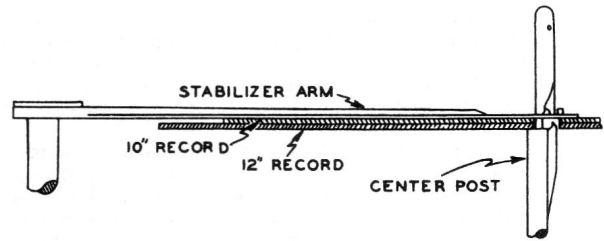
NOTE: In the cycle of operation it is assumed the mechanism has stopped automatically with the pickup arm on the rest.

### PRELIMINARY PROCEDURE

Place a stack of records (10" or 12") on the spindle (intermixed if so desired). Place the record stabilizer arm so it rest on the records.

OR

If playing 7 inch records first place the large centerpost over the regular spindle, then proceed as for large records.

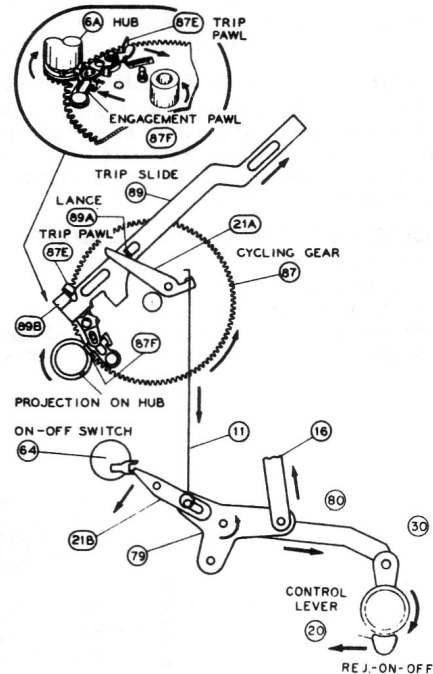


### MANUAL START

Push control lever (20) in a clockwise direction to the "On" position. This movement of the control lever through the linkage of levers (30, 80, 79 and 21B) results in actuating the power switch (64) and the motor starts running. Then push control lever further clockwise to "Rej." position and permit it to return to the "ON" position automatically.

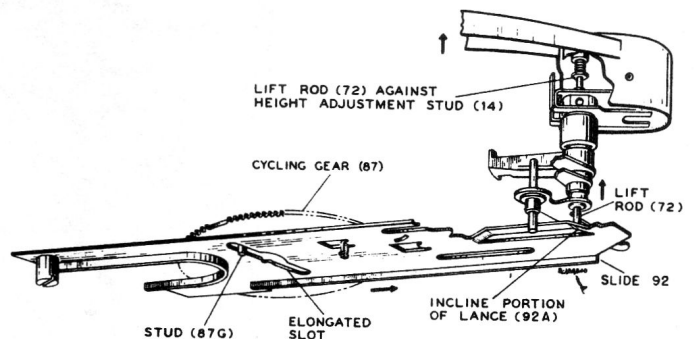
This movement of the control lever to the "Rej." position transmits a force from lever (21B) through wire (11) to lever (21A). The lever (21A) then contacts and applies force against turned up lance (89A) of trip slide (89) and pushes the trip slide in an outward direction away from the turntable spindle.

Tab (89B) of trip slide makes a contact with trip pawl (87E) thereby moving engagement pawl (87F) into position where it is in the path of the projection on the turntable hub. As the turntable rotates, the projection on its hub momentarily strikes the engagement pawl (87F) causing the cycling gear (87) to rotate sufficiently so that the cycling gear teeth and those of the hub (6A) will mesh.



### CYCLING STARTS

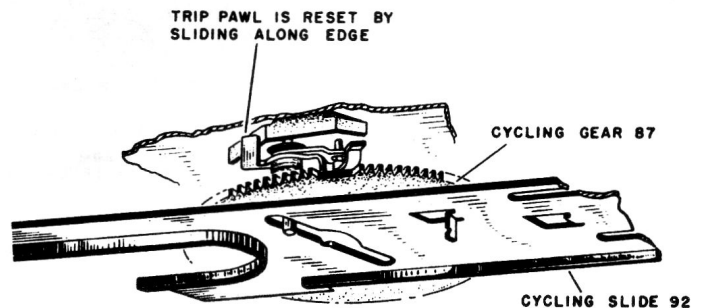
As the cycling gear (87) rotates, the stud (87G), which is mounted on the bottom of the gear and extends through and rides in the elongated slot in the cycling slide (92), pushes the slide outward away from the spindle.



### PICKUP ARM RISES AND MOVES OUT

Almost immediately after the slide starts on its outward movement the pickup arm lift rod (72) rides up the inclined portion of the lance (92A) forcing the lift rod upward against the height adjustment stud (14) causing the pickup arm to rise.

About this same time the cycling gear has rotated sufficiently for the trip pawl to slide over the edge of a small piece of metal extending from the bottom of the motor board and resets itself to prevent the mechanism from tripping continuously.

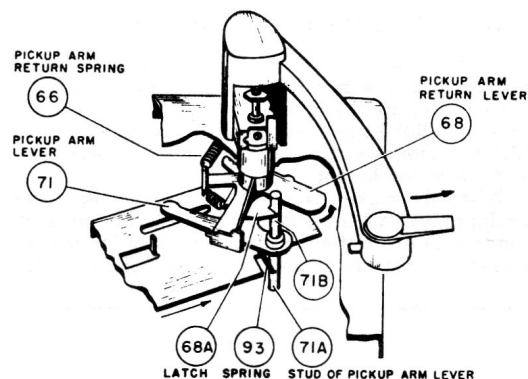




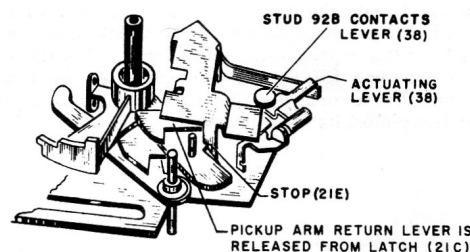
## CYCLE OF OPERATION (Cont.)

## PICKUP ARM RISES AND MOVES OUT (Cont.)

Further movement of the slide (92) results in a contact between the straight spring wire (93 attached to the slide) and the bottom stud (71A) on the pickup arm lever (71) thereby rotating the lever and starting the pickup arm on its outward movement. At this time the upper stud (71B) slides over latch (68A) and locks the pickup arm return lever (68) to the pickup arm lever (71). This locked condition causes both the pickup arm lever and the pickup arm return lever to rotate as a unit in opposition to the force applied by the pickup arm return spring (66). Since the pickup arm is connected to the pickup arm lever through the pickup arm shaft, the pickup arm follows.

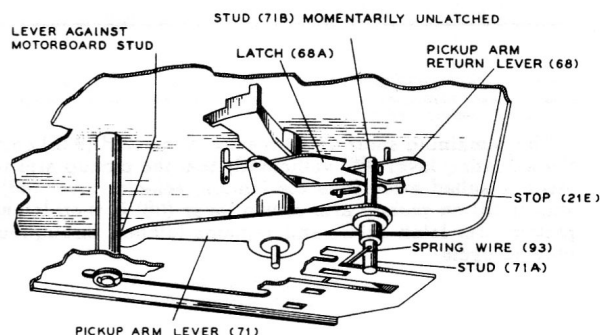


While the pickup arm lever and the pickup arm return lever are latching together, and the cycling slide is approaching the end of its outward travel the stud (92B) (mounted on cycling slide) contacts actuating lever (38) and unlatches (21C). It is important at this time to realize that the unlatching of (21C) is necessary for pickup to land on the record, it would otherwise land in the rest position.



As the slide reaches the extreme end of its outward travel (mid cycle position) the pickup arm lever (71) is pushed to a position where one end of the lever is against the stud (extending from the bottom side of the motor board) while the stud on the other end of the lever remains against the wire takeup spring (93).

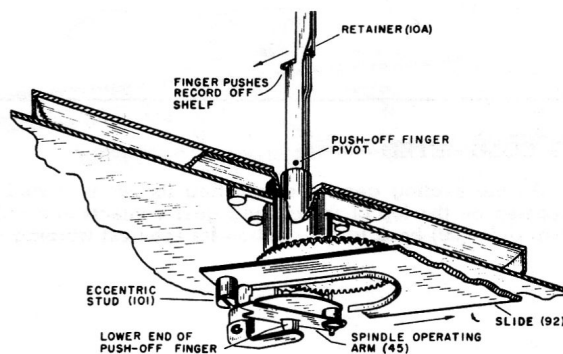
The pickup arm lever (71) held in this wedged position (when the pickup arm is in its outermost position) produces a positive stabilizing action for the pickup arm as the record drops to the turntable. However, to prevent erratic landing, it is necessary that latch (68A) remains latched so that pickup arm lever and pickup return arm lever remain coupled together as the pickup moves in for landing.



## RECORD DROPS TO TURNTABLE

Just before slide (92) reaches its maximum travel outward, the eccentric stud (101) (mounted on the under side of the slide) contacts and pushes spindle operating arm (45).

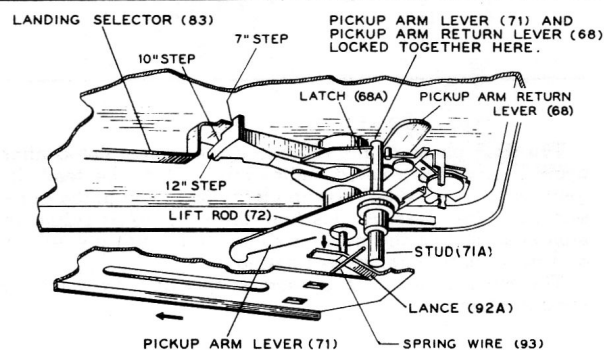
The lower end of the push-off finger, extending through the hole in the operating arm, rides along with the arm. Since the push-off finger is pivoted about a pin driven through the spindle, the upper end of the finger moves in a direction to push the record off the shelf of the spindle and the record drops to the turntable. The retainer (10A) effects record separation by blocking the adjacent record, thereby preventing it from being pushed off the shelf of the spindle. After the record drops to the turntable (mid-cycle position) the cycling slide (92) starts on its return trip to the normal out-of-cycle position.



## THE PICKUP LANDS ON RECORD

During the return travel of the cycling slide the wire spring (93) (attached to the slide) moves away from the stud (71A) (on the pickup arm lever) permitting the pickup arm lever and the pickup arm return lever (which are locked together) to direct the movement of the pickup arm inward.

The pickup arm is pushed inward by the pickup arm return lever, until the pickup arm return lever is blocked by the landing selector lever (83) which contacts one of three steps formed in the return lever. Each step corresponds to one of the three (7, 10 or 12 inch records) landing positions.

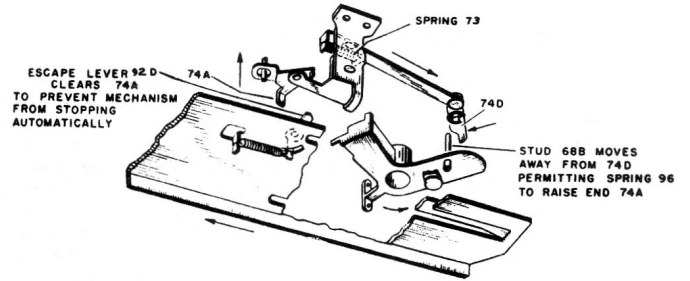


## CYCLE OF OPERATION (Cont.)

### THE PICKUP LANDS ON RECORD (Cont.)

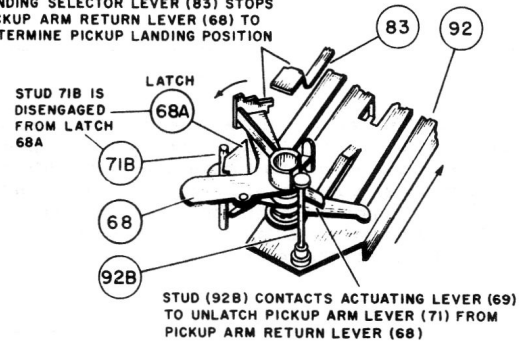
As the pickup arm return lever directs the movement of the pickup arm, the stud (68B) on the pickup arm return lever moves away and permits the spring (73) to raise the end (74A) (of switch link shut-off assembly) so as to clear the escape lever (92D). Otherwise the mechanism would actuate switch (64) and motor would stop.

When the pickup is directly above the landing position the cycling slide has returned sufficiently for the pickup arm lift rod to ride down the inclined portion of the lance in the slide and the pickup stylus sets on the start of the record.

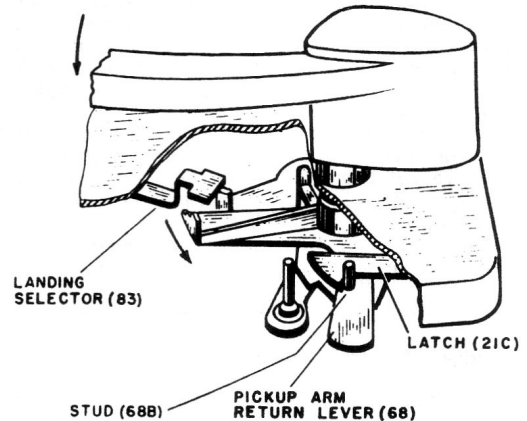


An instant before the pickup sets on the record, the stud (92B) located on the extreme end of the cycling slide contacts the end of the actuating lever (69), unlatching the pickup arm lever from the pickup arm return lever. This allows the pickup arm to become free in its movement at the time the stylus contacts the record. At this time the cycling cam has not quite completed its return travel.

LANDING SELECTOR LEVER (83) STOPS  
PICKUP ARM RETURN LEVER (68) TO  
DETERMINE PICKUP LANDING POSITION

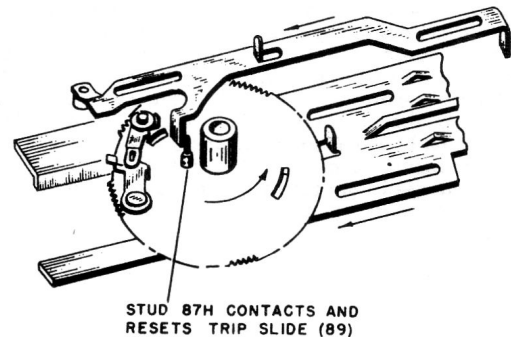


The remaining short travel results in the stud (92B) carrying the actuating lever (69) sufficiently that the pickup arm return lever is pulled away from the landing selector lever (83). The stud (68B) on pickup arm return lever (68) is then latched to pickup arm latch (21C) and remains latched throughout the playing cycle.



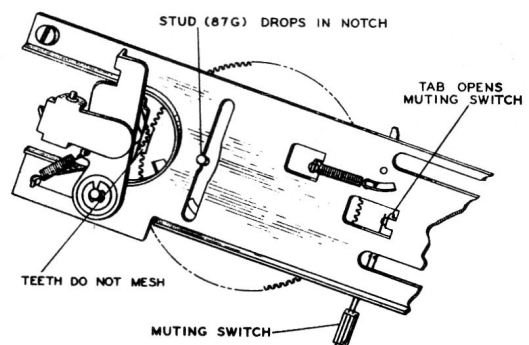
### CYCLING COMPLETED

As the cycling gear is completing its cycle, a stud (87H) located on the top of the cycling gear contacts and pulls the trip slide (89) back to the position for the next tripping.



The final phase of the change cycle is completed after the cycling gear has rotated sufficiently so that the teeth in the gear on the turntable hub run off the last tooth at the cut-away section of the gear. At this time the stud (87G) riding in the elongated slot in the cycling slide, drops into the stop notch and the cycling gear stops rotating.

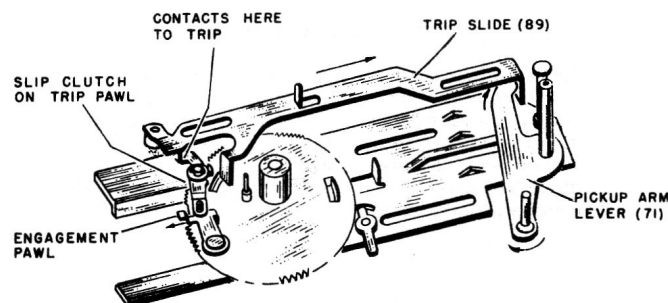
The muting switch is opened at this time by a tab on the cycling slide.



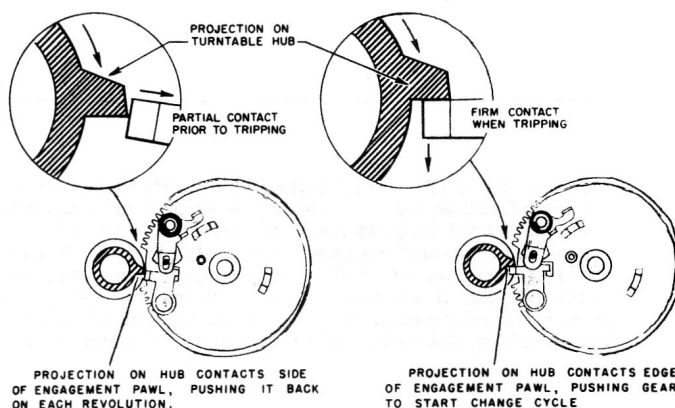
## CYCLE OF OPERATION (Cont.)

### RECORD PLAYS

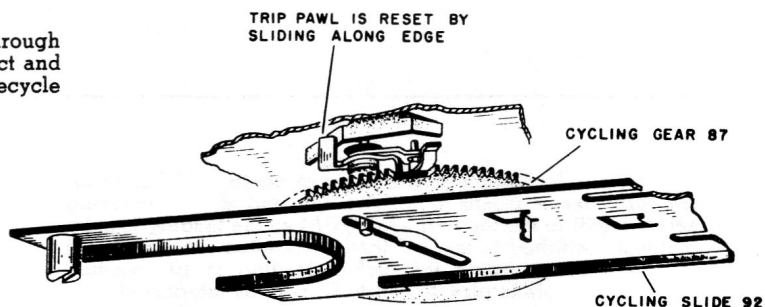
As the record plays and the pickup moves inward, the pickup arm lever (71) contacts trip slide (89) and pushes the slide outward away from the center post. The other end of the trip slide contacts and moves trip pawl which, through a friction clutch arrangement, moves trip engagement pawl.



While the record continues to play the pickup moves in at a constant rate of speed until the sloped side of the engagement pawl lightly contacts the projection on the turntable hub. When this contact occurs the engagement pawl is pushed back with each rotation of the turntable, providing the pawl has not moved in so far that the contact is made on the leading edge. If the inward movement of the pickup should accelerate rapidly, as it does when the stylus leaves the recorded section and enters the eccentric groove of the record, the trip engagement pawl moves in too far before the turntable has made a complete revolution; consequently the projection on the turntable hub makes contact on the side of the engagement pawl. This firm contact rotates the cycling cam sufficiently to have the teeth of the turntable hub and the cycling gear engage to start a change cycle. This tripping procedure is referred to as an acceleration trip. However if the pickup continues to move inward at a constant rate, there is a limit at which the edge of the engagement pawl will make a firm contact with the projection on the turntable hub and a constant diameter trip is effected.



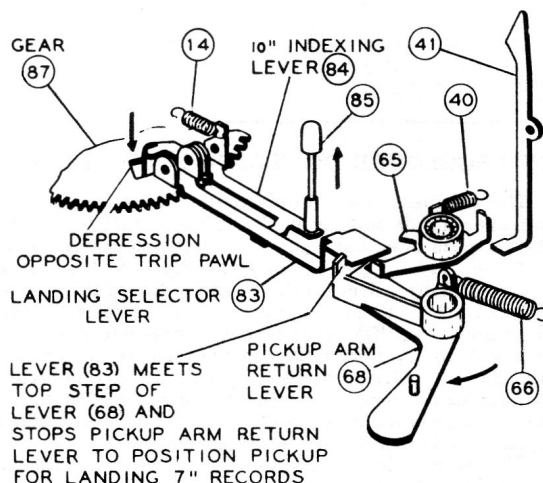
As the cycling cam is carrying the mechanism through cycle a tab on the bottom of the motorboard will contact and reset the trip pawl mechanism so the changer will not recycle without playing the next record.



### INDEXING FOR PICKUP LANDING POSITION

As stated previously the pickup landing position for 7, 10 and 12 inch records is determined by the contact of the landing selector lever (83) and the various steps in the pickup arm return lever.

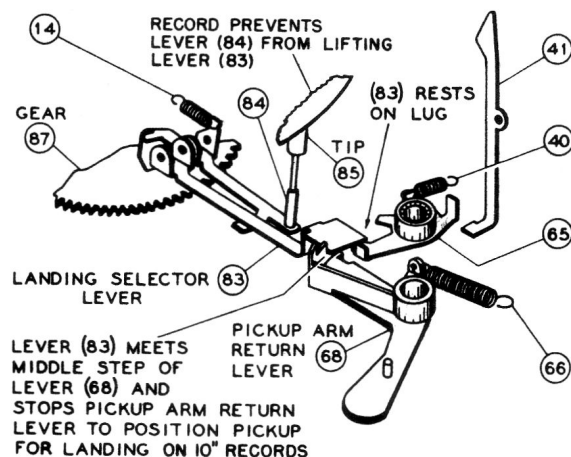
There are two depressions (lances) in the cycling cam that play an important function in pickup landing position indexing. The depression located adjacent to the trip pawl mechanism provides a means of indexing for 7" records. This is accomplished by permitting the end of the 10" indexing lever (84) to drop down in the depression as the cam rotates causing the other end to push the landing selector lever (83) upward as far as it will go. The pickup arm return lever will then make contact with the landing selector lever (83) on the upper step and the pickup will land on the start of a 7" record.



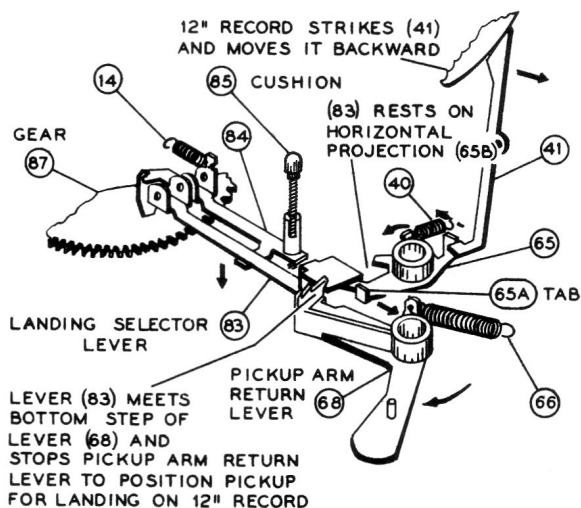
## CYCLE OF OPERATION (Cont.)

### INDEXING FOR PICKUP LANDING POSITION (Cont.)

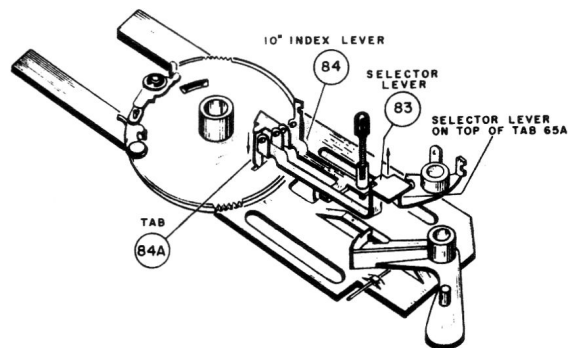
When either a 10" or a 12" record is lying on the turntable the rubber end of the 10" indexing lever (84) is prevented from rising even though the other end of the lever tends to drop into the depression in the cam. Consequently the landing selector lever is only pushed up far enough, that the pickup arm return lever makes contact with the second step and the pickup will land on a 10" record.



However if a 12" record drops to the turntable the edge of the record strikes the 12" indexing lever (41) and causes the other end of the lever to rotate the selecting lever (65) sufficiently to permit landing selector lever (83) to drop off the tab (65A) and land on tab (65B). With the landing selecting lever in this position, it will make contact with the lower step in the pickup arm return lever stopping the pickup arm on its inward movement, so the pickup will then land on the start of a 12" record.



The other depression (lance) opposite the trip pawl mechanism provides a means of raising the end of the indexing selector (83) to the top of the tab (65A) so the landing is automatically returned to the 10" landing position. This means of automatically returning the pickup landing to 10" position makes it possible to play 10" and 12" records intermixed.

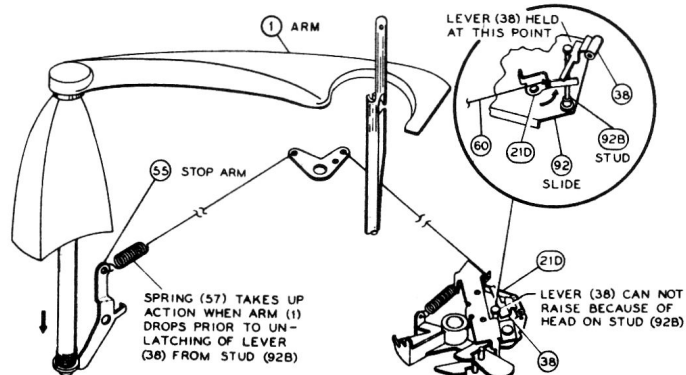


### STARTING PROCEDURE OF "LAST-RECORD-STOP"

The stabilizer arm not only performs the function of stabilizing the records setting on the spindle shelf but it also serves the purpose of actuating the automatic stopping feature.

As the last record of the stack drops to the turntable the record stabilizer arm (1) drops and actuates the stop arm (55). This stop arm in turn applies force to the stop lever (21D) through spring (57), lever 58 and connecting wire (60). At this moment the cycling slide has reached its outermost position and the end (21D) is pushing upward on escape lever (38) but is held from doing so by the knobbed end on the stud 92B which retards the movement of the escape lever (38) until the cycling slide has started on its return trip.

The escape lever then raises and the pickup lands and plays the last record.

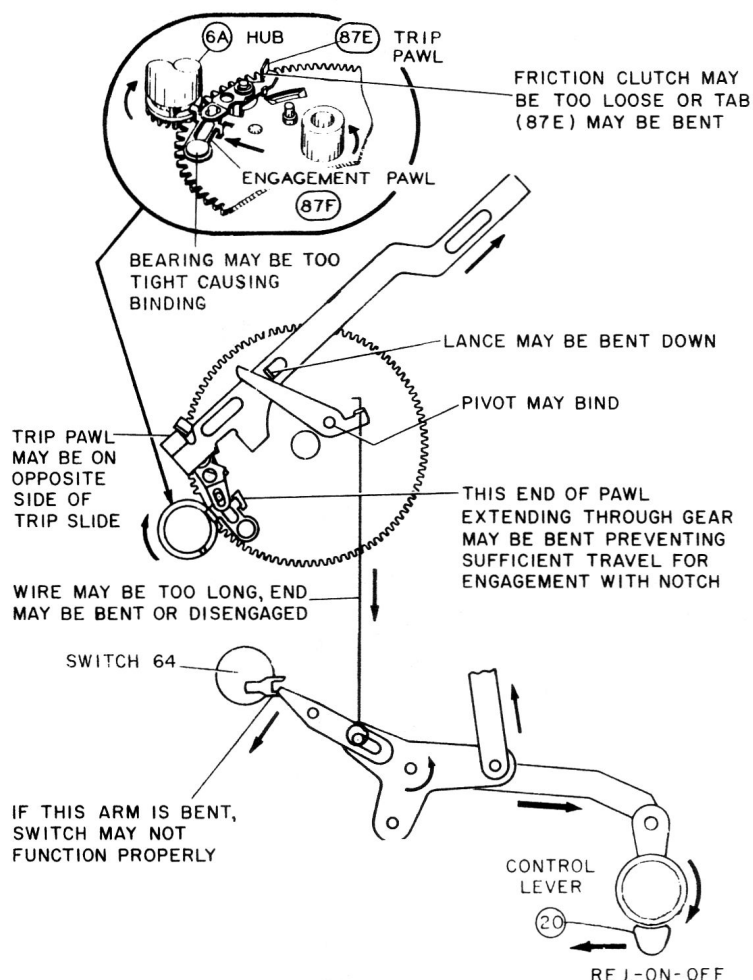




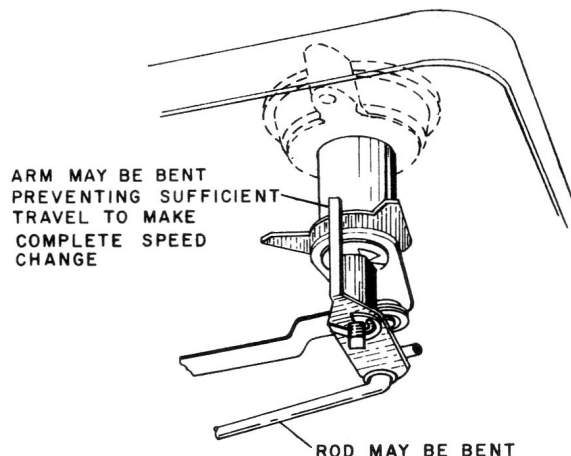


# SERVICE HINTS

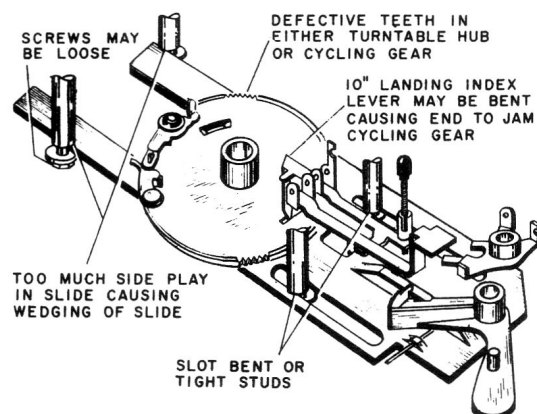
## REJECT CONTROL DOES NOT FUNCTION PROPERLY



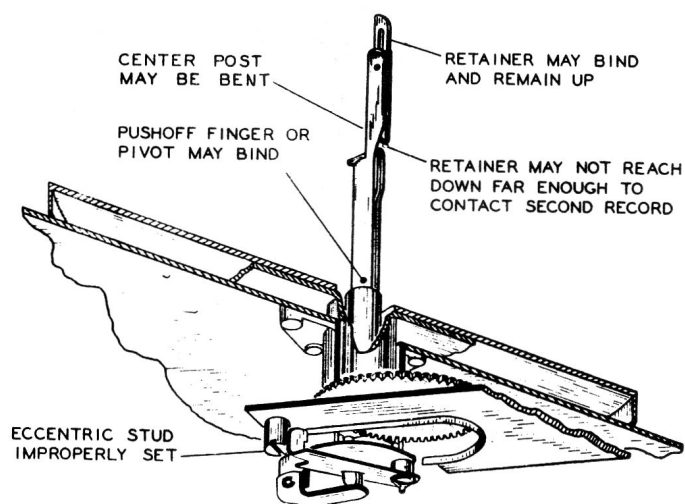
## ERRATIC SPEED CHANGE



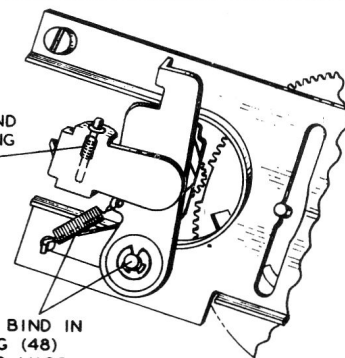
## MECHANISM JAMS



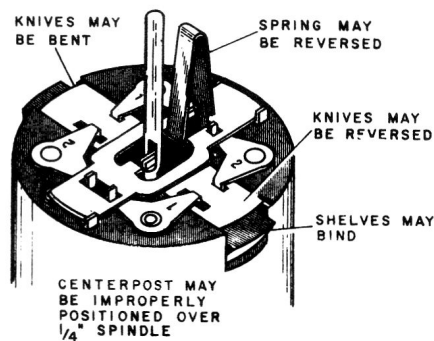
## RECORDS FAIL TO SEPARATE PROPERLY



THERE MAY BE A BIND IN SHAFT OR SPRING (52) MAY BE WEAK OR MISSING

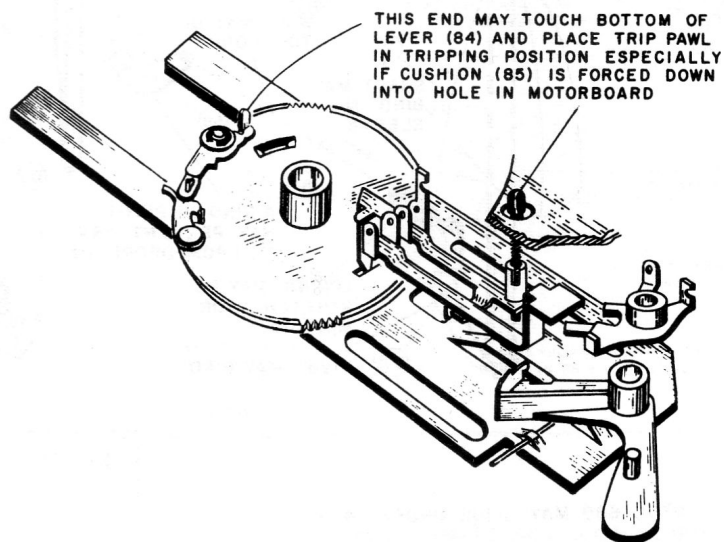
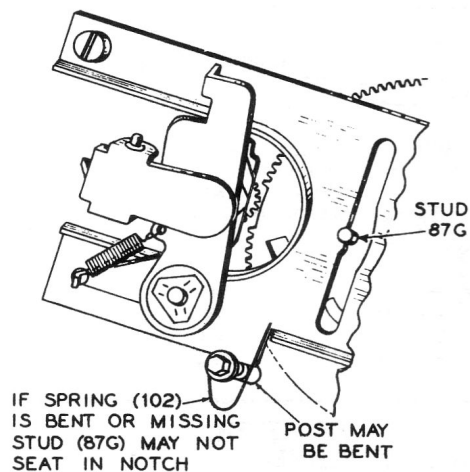
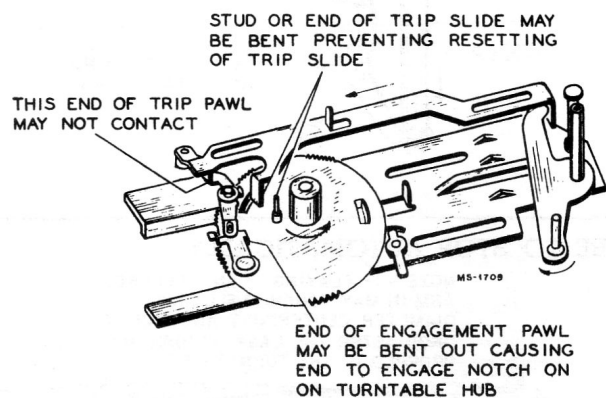
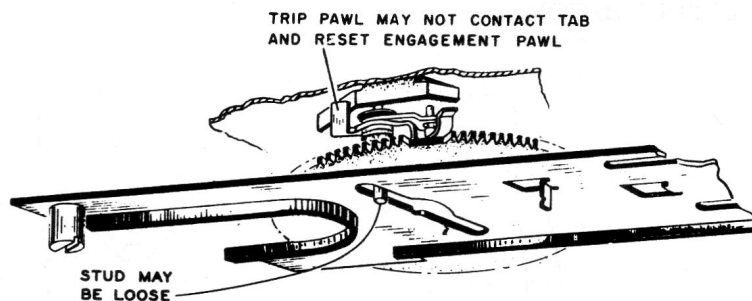
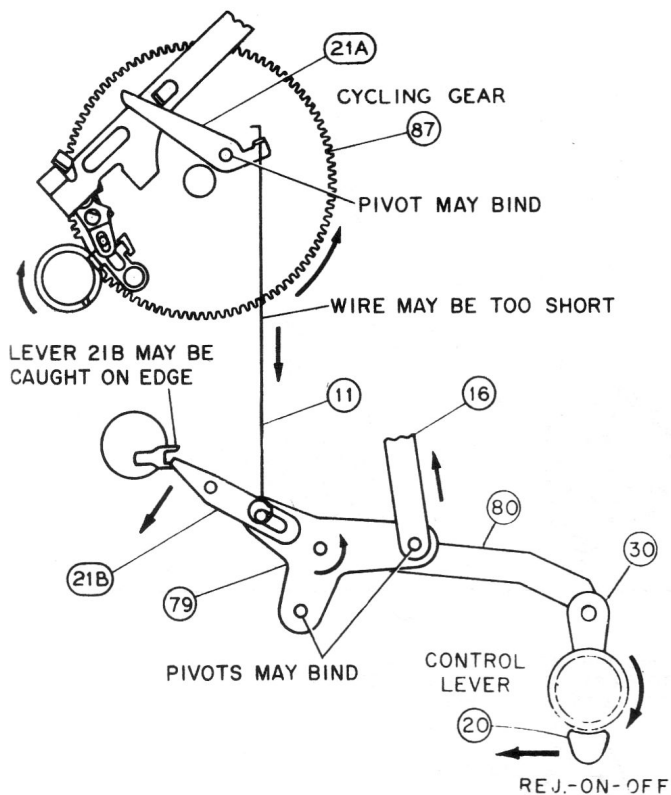


THERE MAY BE A BIND IN SHAFT OR SPRING (48) MAY BE WEAK OR MISSING

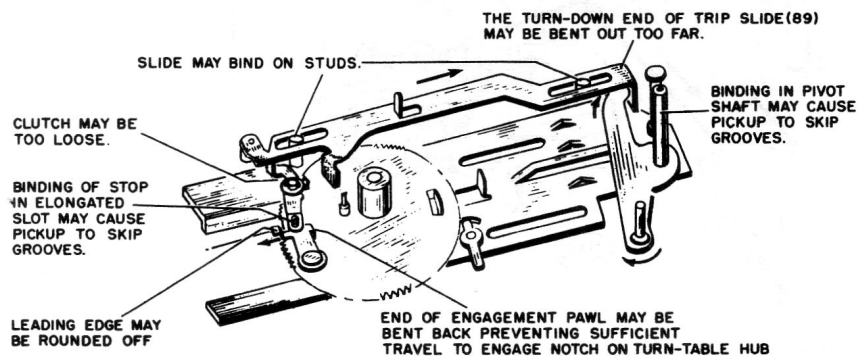
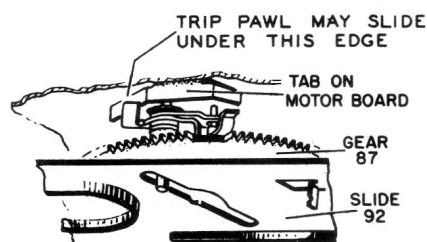


# SERVICE HINTS

## CONTINUOUS TRIPPING

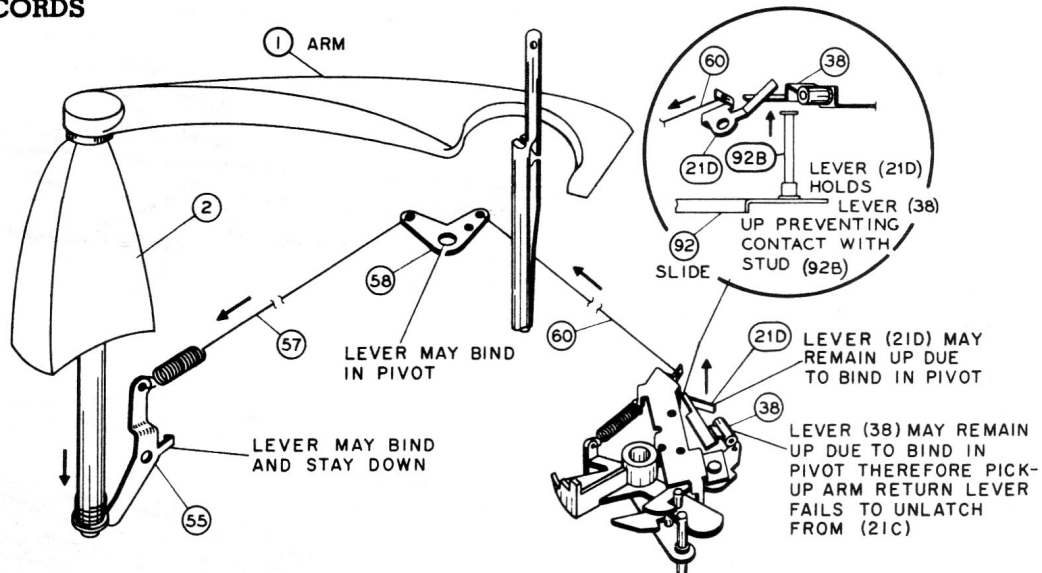


## FAILS TO TRIP AUTOMATICALLY



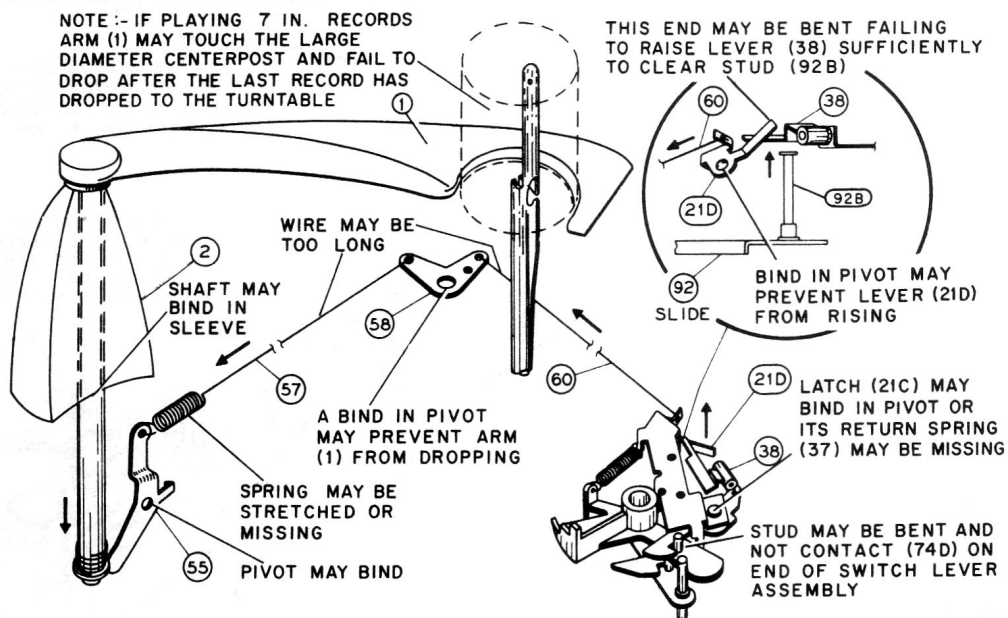
## SERVICE HINTS

### PICKUP SETS ON REST AND MECHANISM STOPS WITHOUT PLAYING RECORDS

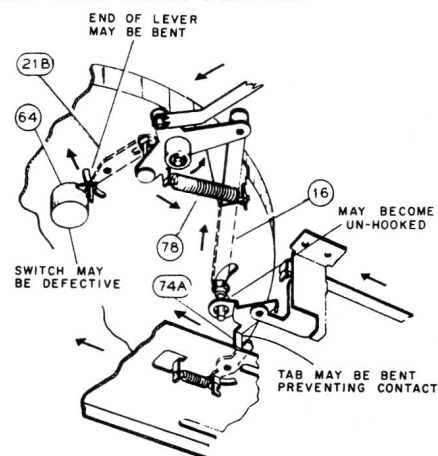
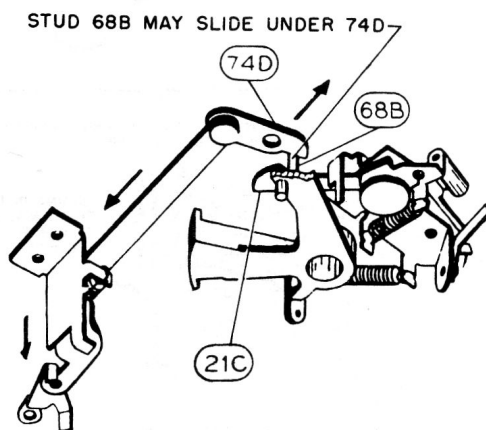


### FAILURE TO STOP AUTOMATICALLY

NOTE :- IF PLAYING 7 IN. RECORDS ARM (1) MAY TOUCH THE LARGE DIAMETER CENTERPOST AND FAIL TO DROP AFTER THE LAST RECORD HAS DROPPED TO THE TURNTABLE



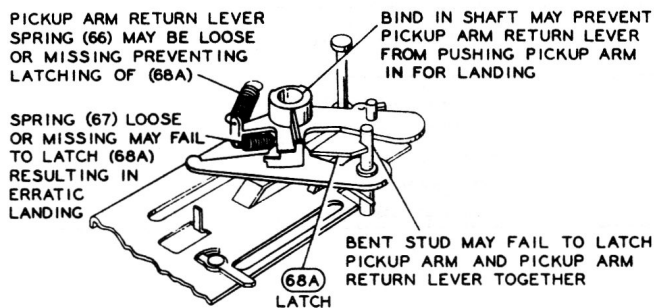
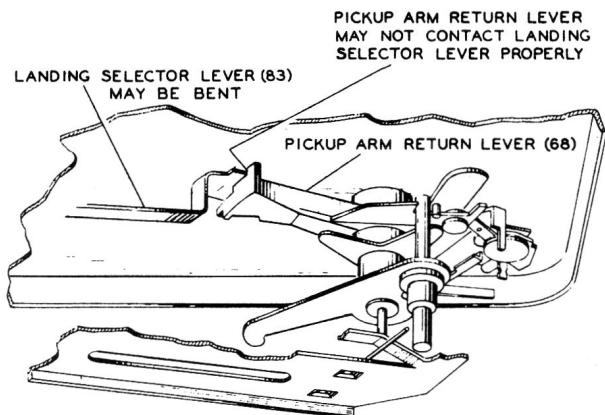
### MOTOR FAILS TO SHUT OFF AFTER LAST RECORD HAS BEEN PLAYED



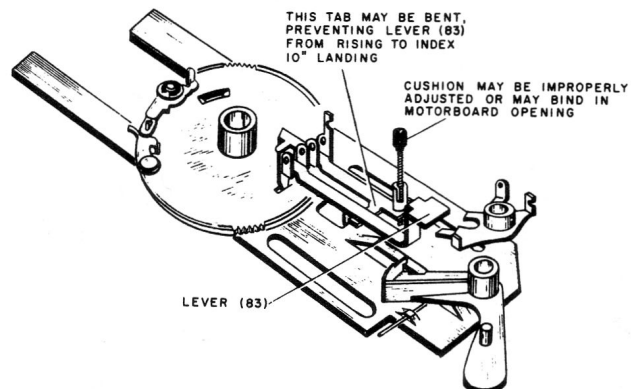


# SERVICE HINTS

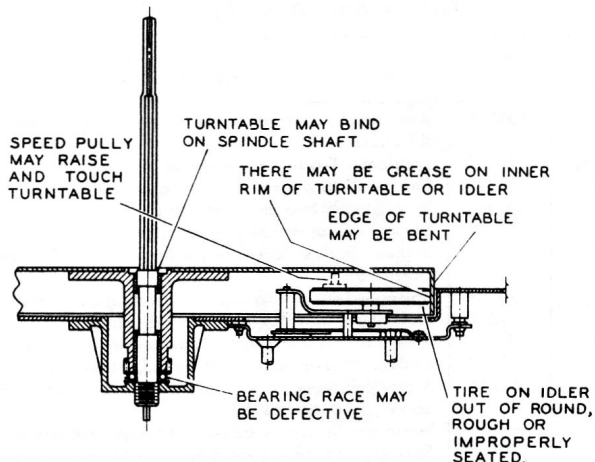
## PICKUP FAILS TO LAND PROPERLY ON 7"-10"-12" RECORDS



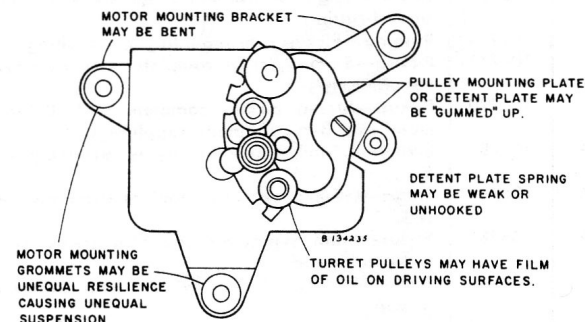
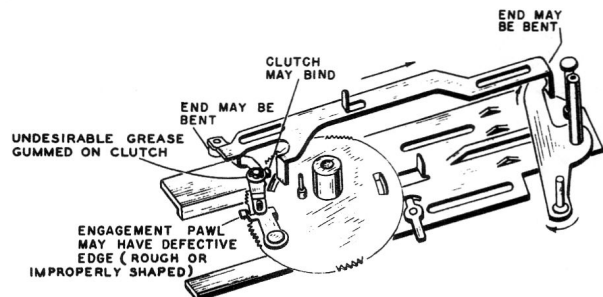
## PICKUP LANDS IN 12" POSITION WHEN PLAYING 10" RECORDS



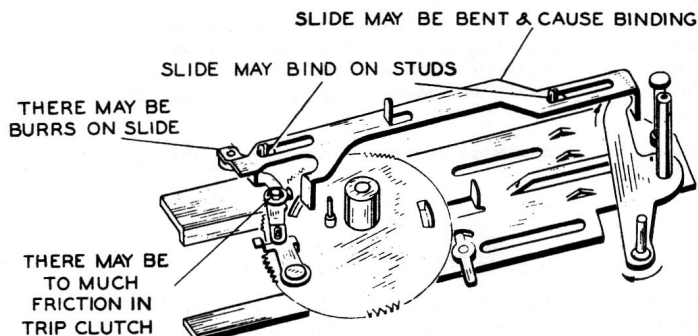
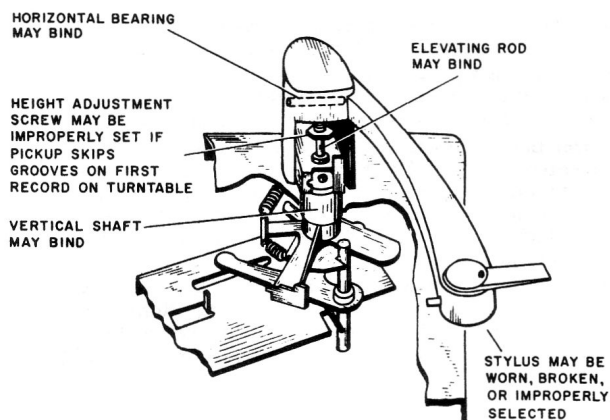
## "WOW" OR TURNTABLE SPEED VARIATION



## PREMATURE TRIPPING



## PICKUP SKIPS GROOVES



## RP-205G-1 RECORD CHANGER

The above record changer is made for use with stereophonic records in addition to monaural records. The following differences from monaural record changers will be found:

RP-205C-2	Monaural	RP-205G-1	Stereo
	Monaural pickup Standard motor Steel trip lever Trip lever slides on metal 7 to 9 grams stylus force		Stereo pickup Balanced motor Aluminum trip lever Trip lever slides on plastic bushings 4 to 5 grams stylus force

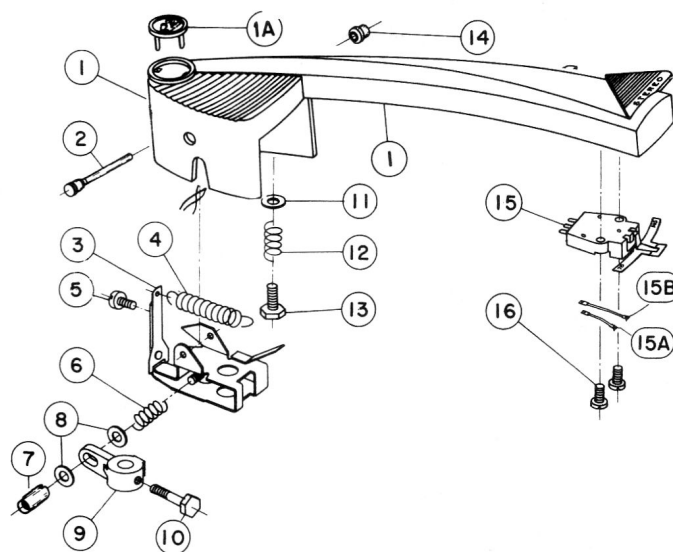
## REPLACEMENT PARTS

Replacement parts for the pickup and arm assemblies used with RP-205G-1 are listed and illustrated below.

## Pickup and Arm Assembly

ILLUS. No.	STOCK No.	DESCRIPTION
1	106820	Arm—Pickup arm shell with pickup cable—for RP-205G-1
1A	100162	Emblem—Trademark emblem
2	78742	Shaft—Pickup arm mounting pin
3	106448	Bracket—Pickup arm mounting bracket
4	106707	Spring—Counterbalance spring
5		Screw—Stylus force adjusting screw, #6-32x3/16" pan head
6	100999	Spring—Tension spring for landing adjustment screw
7	101270	Nut—Split nut for landing adjustment
8		Washer—Spacer washer for pickup arm collar
9	78732	Collar—Pickup arm landing adjustment collar
10	79245	Screw—Pickup arm mounting bracket retaining screw, #10-32 hex head.
11		Washer—Spacer washer for height adjustment screw
12	78738	Spring—Tension spring for height adjustment screw
13	106709	Screw—Height adjustment screw for RP-205G-1, #6 thread-cutting.
14	102474	Bushing—Pickup arm mounting pin bushing
15	106771	Pickup—Stereo pickup complete with two synthetic sapphire styli
15	106770	Pickup—Stereo pickup complete with 0.7-mil diamond and 3-mil synthetic sapphire styli
15A	106786	Stylus—0.7-mil diamond stylus assembly.—Coded black.
15A	106787	Stylus—0.7-mil synthetic sapphire assembly.—Coded red
15B	106788	Stylus—3-mil synthetic sapphire stylus assembly.—No color code
16		Screw—Fil. Hd. S. T. #4x3/8" long for mounting pickup

Pickup and Arm Assembly



MSC 2883

## STYLUS FORCE ADJUSTMENT

On the Stereo record changers, designed for the playing of stereophonic records, the stylus force must be adjusted to provide 4 to 5 grams pressure. Excess pressure will cause record wear. Insufficient pressure will result in grooves skipping and/or failure to trip at the end of the record.

The stylus force adjustment screw is accessible at the rear of the pickup arm.

## SERVICE HINTS FOR STEREO

The performance requirements for record changers used for the reproduction of stereophonic sound are far more rigid than for the reproduction of monaural sound.

The "MG" stylus on stereo record changers is 0.7 mil instead of 1 mil.

To minimize record wear when using a 0.7 mil stylus, the stylus force is reduced to 4 to 5 grams instead of 7 to 9 grams.

To prevent groove skipping with shallow grooves on stereo records and with light stylus force, an aluminum trip slide lever is used. Other bearing points must have a minimum of friction.

The pickup arm pivot shaft must not be driven in too far or it will result in excessive friction. To check, use a stylus force gauge and note the maximum force required to lift the end of the pickup arm and then note the minimum force necessary to prevent lowering of the pickup arm. The difference between the two forces must be less than 1 gram.

For stereo reproduction, vertical rumble must be held to a very low value. Turntable bearing lubrication is very important in this respect; a heavy oil, such as Staptol #320, is recommended. In all stereo record changers, a motor is used which has a carefully balanced rotor.

# REPLACEMENT PARTS

ILL. NO.	STOCK NO.	DESCRIPTION
		16 $\frac{2}{3}$ /45 R.P.M. CENTERPOST
1	79096C	Centerpost—Centerpost assembly complete
1	100499	Cap—Nose cap—red—polystyrene
1	100500	Cap—Nose cap—black—polystyrene
1A	100501	Spring—Nose cap spring, $\frac{5}{16}$ " wide
2	100498	Spring—Slide return spring, 1 $\frac{3}{64}$ " long, $\frac{1}{4}$ " wide
3	100494	Slide—Record separators actuator slide
4	100497	Sleeve—Actuating lever mounting sleeve
5 & 6	100495	Lever—Slide actuating pivot lever—L.H. & R.H. (1 set)
7	100493	Knife—Record separator knife (1 set)
8 & 9	100491A	Shelf—Record support shelves—L.H. & R.H. (1 set)
10	100492	Spring—Record support shelf spring
11	101566A	Body—Centerpost body assembly
12	100502	Screw—4-24 x 1 $\frac{3}{8}$ " S.T.
13	100503	Washer—Flat metal washer 1" O.D., .814 I.D., .005" thick
14	101567	Rotor—rotor
15	100504	Spring—Rotor lift spring (coil) 2 $\frac{3}{4}$ turns
16	100505A	Lift—Rotor lift—black metal
17	100506	Retainer—Rotor lift retainer (12 teeth)

## OPERATION OF 16 $\frac{2}{3}$ —45 R.P.M. CENTERPOST

In the out-of-cycle position (playing), the records with 1 $\frac{1}{2}$ " centerhole rest upon the protruding shelves of the centerpost (knives are retracted).

When the mechanism goes through cycle, the record push-off finger in the  $\frac{1}{4}$ " center spindle pushes against the actuator slide. This slide actuates two pairs of pivot levers. One pair of these levers pull the shelves inward (downward projections of pivot levers extend through long slots of knives and engage in short slots of the shelves). The other pair of levers push the separator knives outward (downward projections of pivot levers engage small holes in knives—long slot of shelves allow freedom of movement.)

Two small coil springs push outward on the shelves and thus return them to the normal outward position. A formed metal spring extending up into the nose cap returns the slide to its normal position.

In the normal position the stack of records is supported by the shelves. During cycle the separator knives are extended first and then the shelves are retracted. The knives extend into the opening between the bottom record and the one adjacent; thus supporting all but the bottom record. When the shelves retract the bottom record falls to the turntable.

Careless placement or removal of the centerpost on the center spindle may result in bending of the center spindle. The centerpost should be placed on or removed from the center spindle with a STRAIGHT VERTICAL MOTION. The word "FRONT" should always face to the front of the record changer.

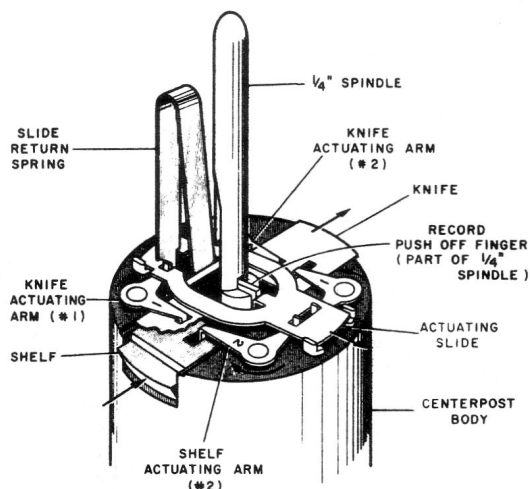


Figure 9—Centerpost Operation

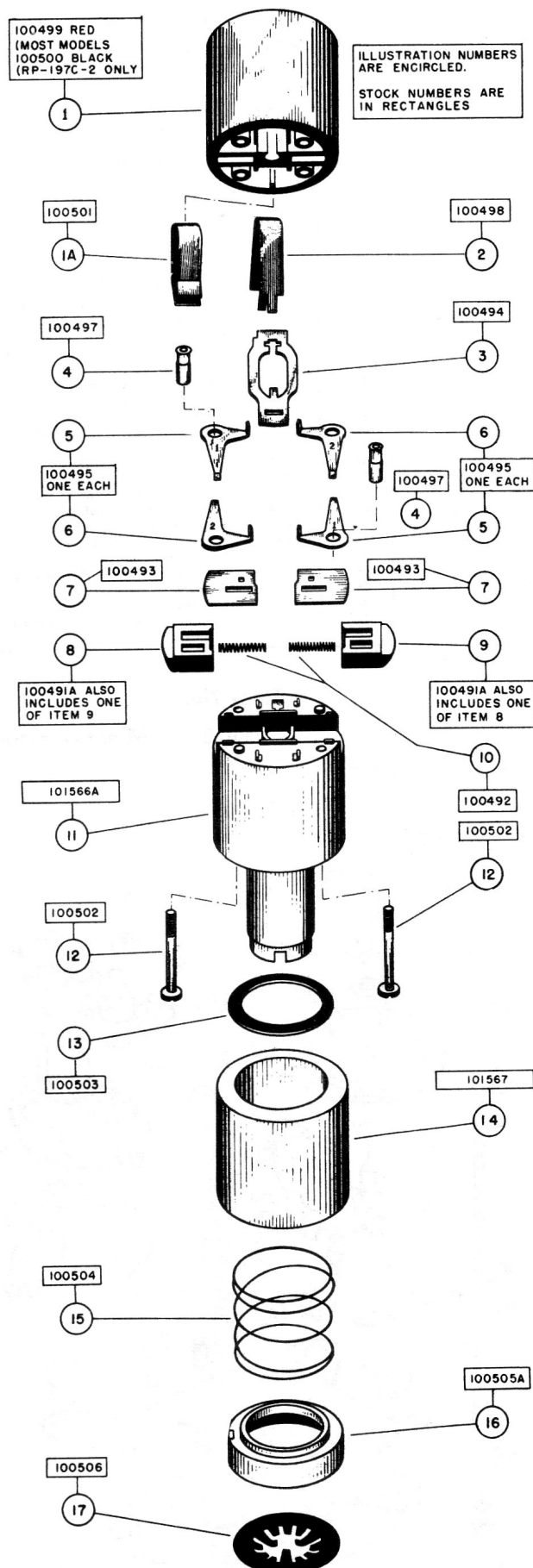


Figure 10—16  $\frac{2}{3}$ —45 r.p.m. Centerpost

## REPLACEMENT PARTS LIST

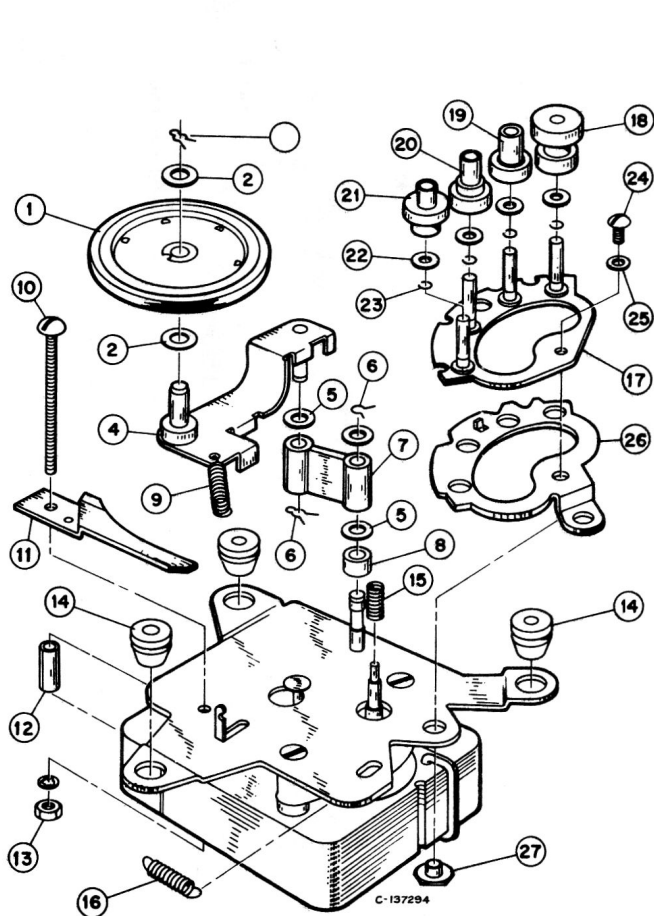
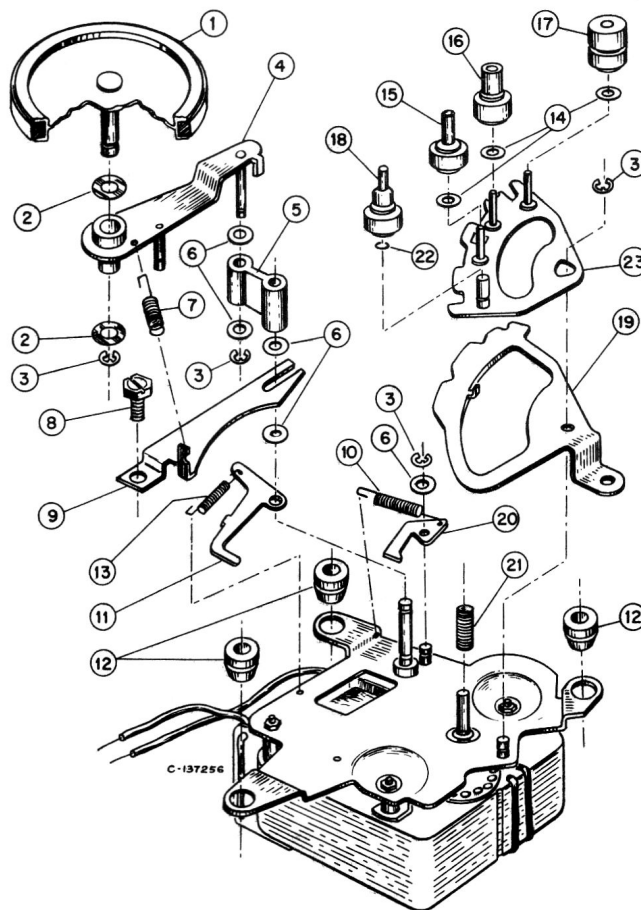
SYMBOL	STOCK NO.	DESCRIPTION	SYMBOL	STOCK NO.	DESCRIPTION
		MOTOR ASSEMBLY Stamped: 936173-2 190 (115 v., 60 cycle)			MOTOR ASSEMBLY Stamped: 936173-2 107 (115 v., 60 cycle)
1	102934	Wheel-Idler wheel	1	102968	Wheel-Idler Wheel
2	75433	Washer-Thrust washer	2	78509	Washer-Fiber Washer
3	102935	Retainer-Hairpin spring retainer for idler wheel	3	78652	Washer-"C" type retaining washer
4	102936	Plate-Idler wheel support plate	4	102969	Plate-Idler plate assembly
5	78647	Washer-Flat metal washer for idler wheel support	5	78517	Link-Idler link
6	78646	Retainer-Hairpin spring retainer for idler wheel support	6	78515	Washer-Metal washer
7	78648	Link-Idler wheel support link	7	78512	Spring-Idler spring
8	78664	Spacer-Idler support spacer	8	-	Screw-Hold down plate mounting screw (#6-32)
9	78374	Spring-Idler support spring	9	102970	Plate-Hold down plate
10	-	Screw-Turret pulley guide plate screw	10	78520	Spring-Shifter latch spring
11	102937	Guide-Guide for turret pulley mounting plate	11	78518	Arm-Pulley plate latch arm
12	102938	Spacer-Spacer for turret pulley mounting guide	13	78519	Spring-Pulley latch spring
13	-	Nut-Hex. head nut	14	78528	Washer-Speed pulley fiber washer
15	76749	Spring-Spring pulley for motor shaft	15	78525	Pulley-33-1/3 RPM pulley assembly
16	76755	Spring-Detent spring	16	78526	Pulley-45 RPM pulley assembly
17	102940	Plate-Speed pulley mounting plate (less pulleys)	17	78527	Pulley-78 RPM pulley assembly
18	102943	Pulley-78 RPM pulley	18	102972	Pulley-16 RPM pulley assembly
19	102942	Pulley-45 RPM pulley	19	102974	Lever-Speed shift lever
20	102941	Pulley-33 1/3 RPM pulley	20	78521	Lever-Latch arm lever
21	102944	Pulley-16 RPM pulley	21	79967	Sleeve-Sleeve pulley for 50 cycle operation
22	101584	Washer-Felt washer for turret pulleys	21	78522	Sleeve-Sleeve pulley for 60 cycle operation
23	75427	Retainer-"C" type retaining ring for speed pulleys	22	102973	Retainer-Pulley retainer ("C" ring)
24	-	Screw-For speed shift mounting plate	23	102971	Plate-Speed pulley mounting plate (less pulleys)
25	-	Washer-Lockwasher			
26	102939	Lever-Speed shift lever			
27	77134	Collar-Speed shift lever mounting collar (nut)			

## Stock No.

## Description

106619

Motor — 4-speed motor complete, 115 volts, 60 cycles

Motor Assembly Stamped 936173-2  
190Motor Assembly Stamped 936173-2  
107



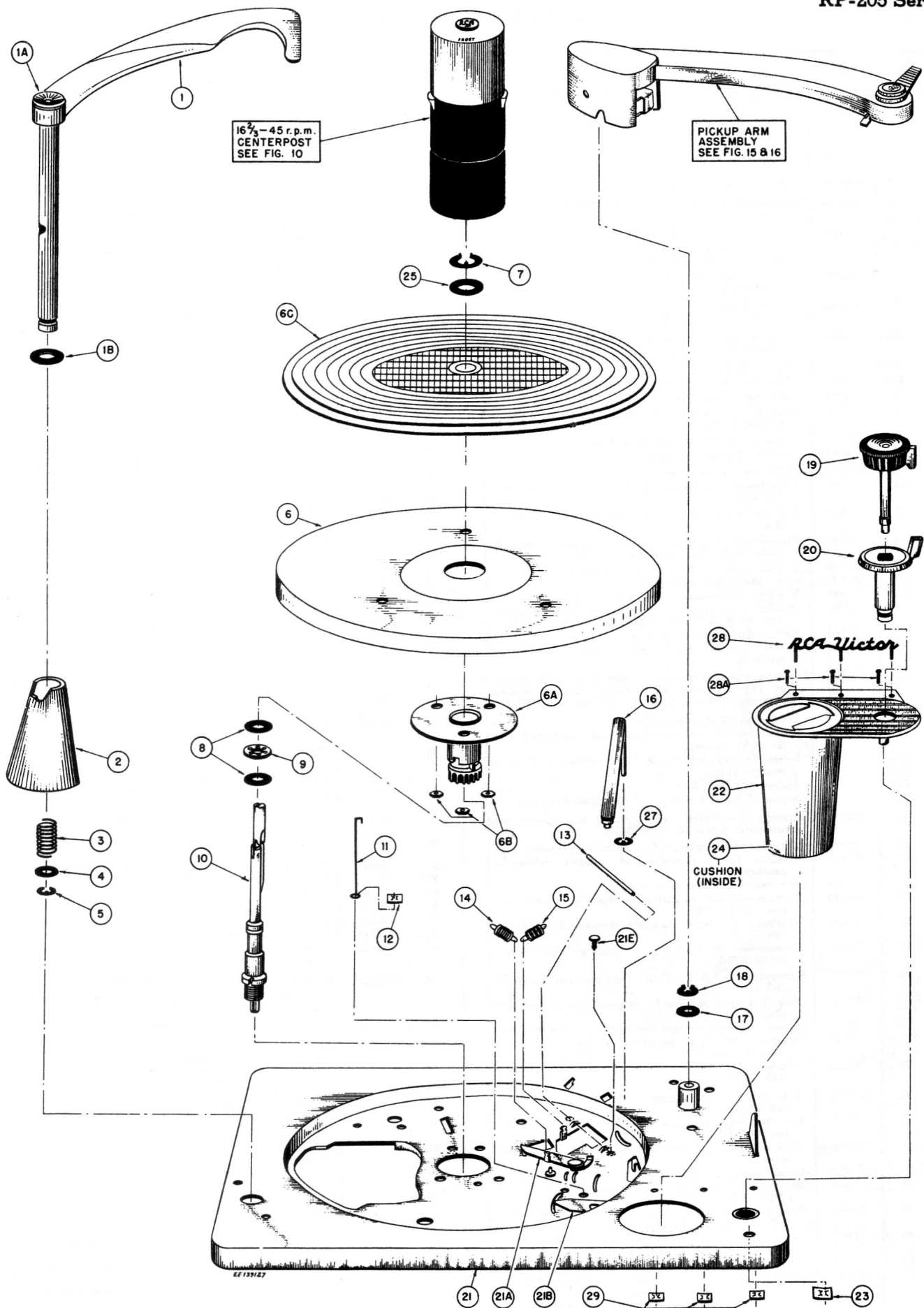


Figure 14A—Exploded View Showing Mechanism Parts Above Motor Board

ILL. NO.	STOCK NO.	DESCRIPTION
1	106665	Arm—Stabilizer arm assembly, die cast metal—complete with cap—for RP-205G-1
1A	102525	Cap—Aluminum cap—polished gold finish—for stabilizer arm
1B	100994	Ring—"O" type rubber cushion ring for stabilizer arm.
2	106705	Support—Stabilizer arm support parchment gold finish—for RP-205G-1
3	78708	Spring—Return spring for stabilizer arm.
4	.....	Washer—Flat washer for stabilizer arm shaft. (5/16" O.D. x .188" I.D. x .0625")
5	33726	Washer—"C" type retaining washer. (.406" O.D. x .125" I.D.)
6	106664	Turntable—Metal turntable, complete with support and mat—gold finish—for RP-205G-1
6A	102536	Support—Turntable support and pinion complete with brass bearing for turntable Stock No. 102535
6B	.....	Nut—#8-32 hex nut for mounting turntable support
6C	106663	Mat—Rubber mat for turntable—for RP-205G-1
7	78654	Ring—Retaining ring for turntable assembly
8	78720	Washer—Felt washer for turntable thrust bearing #78660 (2 req'd)
9	78660	Bearing—Thrust bearing for turntable
10	79242A	Spindle—Spindle assembly
11	102533	Wire—Reject operating wire
12	74337	Nut—Speed nut for switch & reject lever assembly Ill. #79
13	78659	Pin—Bearing pin for landing selector levers Ill. #88 & #84
14	78747	Spring—Coil spring for motorboard assembly (.200" O.D., .531" free length, 13 turns)
15	78709	Spring—Return spring for landing selector lever
16	102530	Link—Reject link with studs
17	78649	Washer—Flat washer for pickup arm pivot shaft
18	35969	Washer—"C" type retaining washer for pickup arm lever Ill. #71. (.500" O.D., .183" I.D.)
19	106451	Knob—Speed selector knob
20	102527	Lever—"On-Off Rej." control lever and shaft assembly
21	106706	Motorboard—Subassembly complete with stabilizer support and all welded and/or stacked parts—parchment gold finish—for RP-205G-1
21A	.....	Lever—(Pt. of Motorboard)
21B	102544	Lever—Switch actuating lever with mounting stud (Pt. of Motorboard)
21C	78669	Lever—Pickup arm latch lever assembly (Part of Motorboard)
21D	.....	Screw—H.H.S.T. #4 x 1/4"
21E	.....	Screw—S.T.F.T. hd. #8 x 3/4" (Pt. of Motorboard)
22	106662	Escutcheon—Polystyrene control escutcheon and centerpost well—for RP-205G-1
23	74340	Nut—Speednut, retainer for control escutcheon
24	102538	Cushion—Foam rubber pad—antique white—for centerpost well
25	103164	Washer—Black neoprene washer
26	101199	Bumper—Rubber insulating bumper for pickup arm rest—for RP-205-1
27	33726	Washer—"C" type retaining washer (2 req'd) for link Ill. #16
28	77033	Nameplate—"RCA Victor" nameplate—gold finish.—for RP-205-2,
28	——	Nameplate—"RCA Victor" nameplate—for RP 205G-1
29	77013	Nut—Speednut, retainer for nameplate or for retaining pins (3 req'd)
30	78668	Lever—Reject lever arm assembly complete with stud
31	76221	Washer—"C" type retaining washer for control lever Ill. #20
32	33726	Washer—"C" type retaining washer (.406" O.D. x .125" I.D.)
33	102926	Rod—Motor speed selector rod for RP-205-1, RP-205-3 and RP-205-4
33	102534	Rod—Motor speed selector rod for RP-205-2, RP-205A-1 and RP-205A-2
34	106620	Grommet—Rubber grommet for motor speed shift lever
35	102531A	Lever—Motor speed shift lever
36	35969	Washer—"C" type retaining washer for knob shaft (.500" O.D. x .183" I.D.)
37	78698	Spring—Return spring for pickup arm latch (.200" O.D. x .718" free length)
38	78658	Lever—Actuating lever for pickup arm latch
39	78651	Washer—"C" type retaining washer
40	78712	Spring—Index lever return spring
41	100723	Lever—Index lever assembly—chrome plated—12" records landing selection
42	.....	Nut—#6-32 Nut for mtg. index lever Ill. #41 (2 req'd)
43	78656	Bracket—Spindle mtg. bracket assembly complete with stud
44	100342	Nut—1/2" .32 retaining nut for spindle Ill. #10
45	78670	Arm—Spindle operating arm assembly
46	79092	Washer—Flat metal washer for spindle mtg. bracket Ill. #43 (9/16" O.D. x .158" I.D.)

ILL. NO.	STOCK NO.	DESCRIPTION
47	33726	Washer—"C" type retaining washer (.406" O.D. x .125" I.D.)
48	78711	Spring—Return spring for spindle operating arm
49	78657	Lever—Spindle reset lever
50	78694	Pin—Pivot pin for spindle reset lever
51	78651	Washer—"C" type retaining ring for pivot pin Ill. #50 (2 req'd)
52	78745	Spring—Actuating spring for reset lever
53	33726	Washer—"C" type retaining washer (.406" O.D. x .125" I.D.) (3 req'd)
53A	75749	Washer—Flat washer for motor mounting (3 req'd)
54	106620	Grommet—Rubber grommet for motor speed selector rod
55	78674	Lever—Shut-off lever assembly
56	.....	Screw—#8 x 3/8" hex head S.T. screw for shut-off lever assembly Ill. #55
57	78681	Spring—Shut-off lever spring
58	78675	Arm—Transfer arm for shut-off mechanism
59	78714	Spring—Return spring for transfer arm
60	78679	Wire—Shut-off wire
61	35969	Washer—"C" type retaining washer for transfer arm Ill. #58 (.500" O.D. x .183" I.D.)
62	78676	Switch—Muting switch assembly
63	.....	Screw—H.H.S.T. #8 x 3/8" screw for muting switch
64	76301	Switch—"On-Off" switch—SPST.
65	78661	Lever—Landing selector lever
66	78713	Spring—Return spring for pickup arm return lever
67	78699	Spring—Return spring for pickup arm return lever actuating lever
68	78655	Lever—Pickup arm return lever assembly
69	78724	Lever—Actuating lever assembly for pickup arm return
70	78653	Ring—Retaining ring for pickup arm return actuating lever Ill. #69
71	79091	Lever—Pickup arm lever
72	78672	Rod—Pickup arm lift rod
73	78698	Spring—Return spring for switch shut-off link
74	78695	Link—Switch shut-off link assembly
75	78651	Washer—"C" type retaining washer for switch shut-off link bracket Ill. #76
76	78664	Bracket—Switch shut-off link bracket
77	.....	Nut—#6-32 nut for mtg. switch shut-off link bracket Ill. #76 (2 req'd)
78	78710	Spring—Return spring for switch and reject lever
79	102529	Lever—Reject & switch control pivot lever with studs
80	102532	Link—Control link for "On-Off-Rej."
81	106708	Washer—Flat washer for mounting trip slide lever Ill. #89
82	35969	Washer—"C" type retaining washer for reject control pivot lever Ill. #79
83	78689	Lever—Landing selector lever
84	78690	Lever—Index lever for 10" records—with adjustable cushion
85	100913	Cushion—Rubber cushion & screw assembly for index lever (Ill. #84)
86	78721	Washer—Flat washer for landing control bearing pin Ill. #13 (3 req'd)
87	78691	Gear—Cycling gear—less pawl levers
87A	78651	Washer—"C" type retaining washer
87B	79240	Washer—Flat washer for trip pawl pressure spring
87C	78727	Spring—Trip pawl pressure spring
87D	78725	Lever—Trip pawl actuating lever
87E	78726	Lever—Trip pawl intermediate lever
88	35969	Washer—"C" type retaining washer for spindle mounting bracket Ill. #43 (.500" O.D. x .183" I.D.)
89	106447	Lever—Trip slide lever—aluminum
90	106708	Bushing—Teflon bushing for trip slide lever support studs
91	78651	Washer—"C" type retaining washer for bushings #81 and #90
92	79794	Slide—Cycling slide assembly
93	.....	Wire—Steel wire for slide (.059" dia. x 2 1/4")
94	75749	Washer—Flat washer for slide assembly (79794) (2 req'd)
95	33726	Washer—"C" type retaining washer (.406" O.D. x .125" I.D.) (2 req'd)
96	78705	Spring—Actuating spring for escape shut-off lever (Part of Ill. #92)
97	.....	Washer—#6 flat washer (3 req'd) for slide mounting
98	.....	Lockwasher—Ext. #6 for slide mounting (7 req'd)
99	.....	Screw—H.H. #6-32 x 5/16" screw for slide mounting (2 req'd)
100	74431	Washer—Spring retaining washer for eccentric stud (Part of Ill. #92)
101	78685	Stud—Eccentric stud for drop adjustment (Part of Ill. #92)
102	79352	Spring—Formed wire spring for slide assembly
103	100735	Support—Spindle bearing support
104	.....	Screw—#6-32 x 5/16" screw for mounting support Ill. #103
105	78653	Ring—Retaining ring for landing selecting lever Ill. #65
106	77586	Washer—"C" type retaining washer for link Ill. #74
107	100987	Spring—Tension spring for pickup arm latch actuating lever Ill. #38
108	100986	Plate—Spacer plate under switch shut-off link bracket Ill. #76

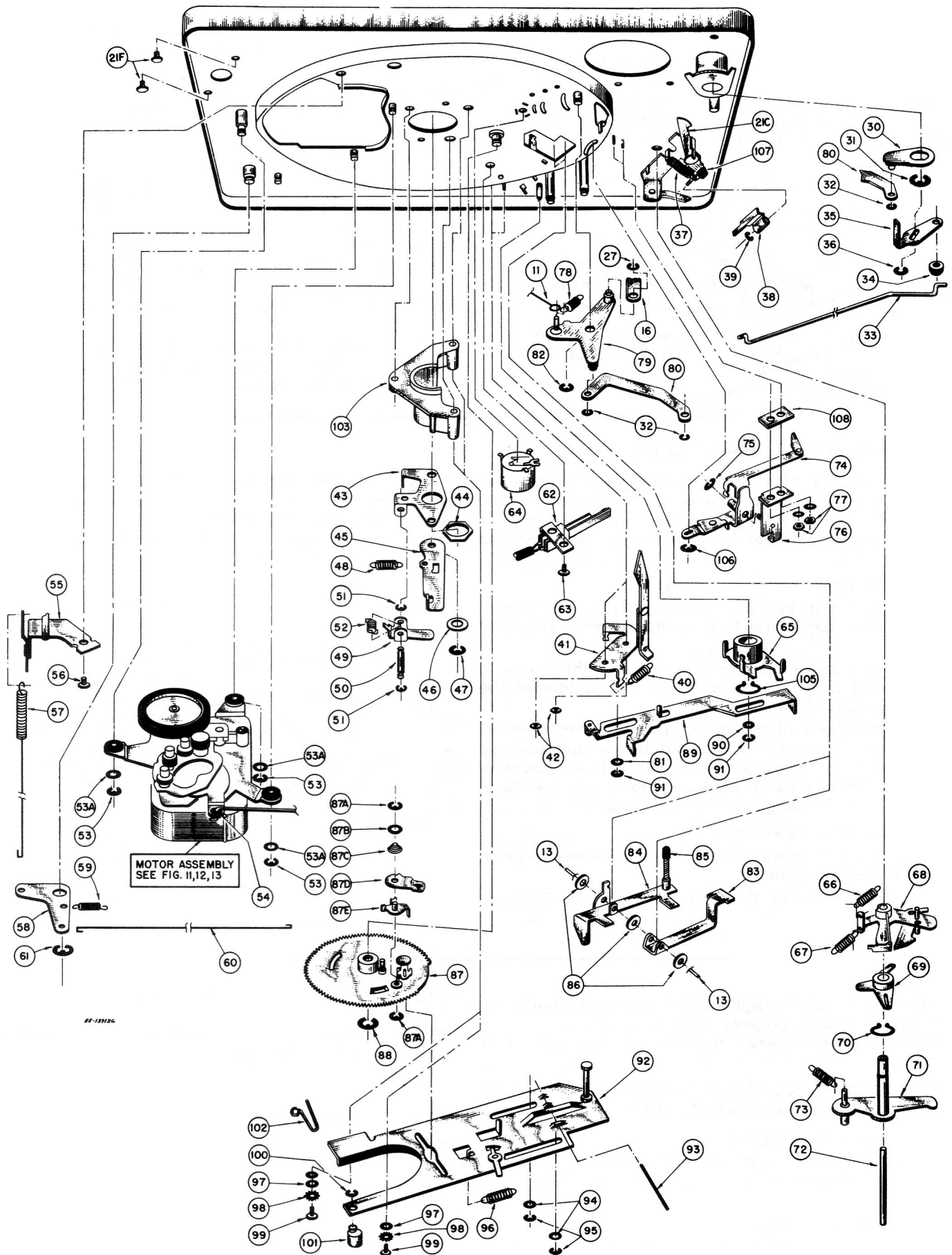
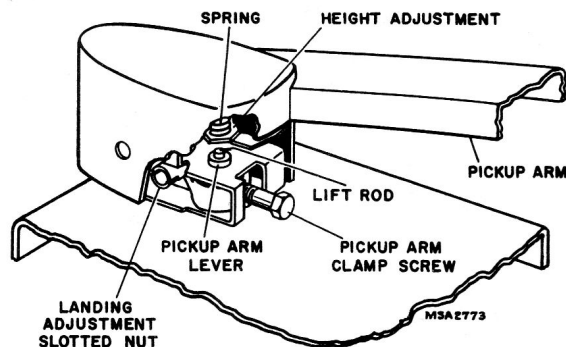


Figure 14B—Exploded View Showing Parts Below Motor Board

# SERVICE HINTS

## Removal of Pickup

For easy access to the pickup, remove the pickup arm assembly from its mounting. The pickup arm assembly is clamped to the vertical shaft of the trip lever. By loosening the clamping screw (illustrated below), the whole pickup arm assembly may be lifted upward and



off the trip lever shaft. It is then an easy matter to replace either the stylus or the pickup.

When reassembling the pickup arm to the shaft, it is necessary to position the arm so that the stylus will land at the correct distance in from the edge of the record. A locating hole in the vertical shaft of the trip lever enables the pickup arm assembly to be positioned for correct landing. It is only necessary that the arm be in the approximate correct position, tightening the clamp screw will then bring the arm to the correct position. Tighten the clamp screw securely and put the mechanism through several complete cycles while checking landing position. An adjusting screw at the side of the pickup arm permits close adjustment of landing position.

The pickup cable at the back of the pickup arm should be dressed in such manner that there is no restriction on pickup arm movement.

## Stylus Replacement In Stereo Pickups

The styli in this pickup are each mounted on short lengths of stainless steel tubing which are flattened at each end. The actual stylus is mounted at one end of the tubing and the other flattened end is cemented into a rubber block.

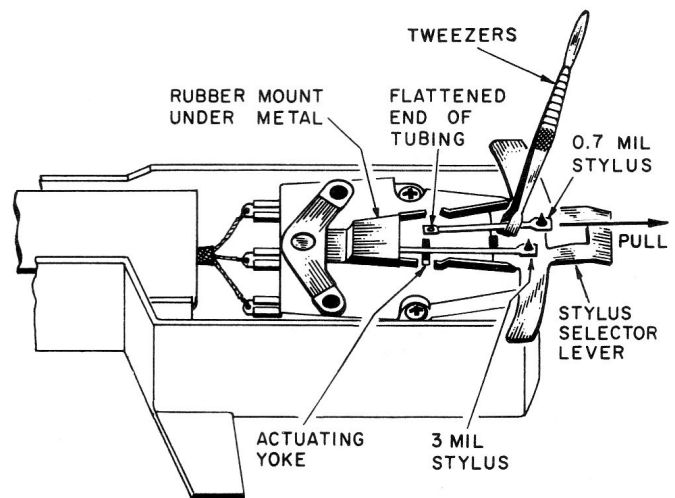
To remove either stylus assembly:

1. Remove the pickup arm assembly from the vertical shaft of the pickup arm lever in the manner described above.
2. Move the stylus selector lever so that the stylus to be removed is not in contact with the saddle of the actuating yoke.
3. Grip the shank of the stylus assembly with tweezers or needlenose pliers as illustrated below and pull the stylus assembly forward (out of the rubber mounting block). Twist slightly if necessary to break the bond between metal tubing and rubber block.

To Install Stylus Assembly:

1. Grip shank of stylus assembly with tweezers or pliers as illustrated at right.
2. Dip mounting end of stylus assembly into Pliobond cement.

3. Push flattened end of tubing into the slit in the rubber mounting block. Push in until the tubing "bottoms" in the mounting block.
4. Mount the pickup arm assembly on the vertical shaft of the pickup arm lever.



## NOTES:

Make certain that the stylus is in the correct position to contact the record grooves after installation.  
Make certain that tweezers or pliers do not contact actual stylus.

DO NOT EXERT ANY FORCE, EITHER DIRECTLY OR INDIRECTLY, ON THE ACTUATING YOKE

PICKUP STAMPED "200-1":

Has 3-mil synthetic sapphire stylus (no color identification) and 0.7-mil synthetic sapphire stylus (red color code).

PICKUP STAMPED "200-2":

Has 3-mil synthetic sapphire stylus (no color identification) and 0.7-mil diamond stylus (black color code).

## STOCK NO.

## DESCRIPTION

106770	Pickup-Stereo pickup assembly complete with 3-mil synthetic sapphire stylus and 0.7-mil diamond stylus.
106786	Stylus—0.7-mil diamond stylus assembly.
106787	Stylus—0.7-mil synthetic sapphire stylus assembly.
106788	Stylus—3-mil synthetic sapphire stylus assembly.