ROCK-OLA Tempo 1

Service Manual & Parts Catalog

LEGEND

Pages

ROCK-OLA

INSTALLATION MANUAL
AND
OPERATING INSTRUCTIONS
FOR
MODEL 1475

ROCK-OLA Manufacturing Corporation

800 N. KEDZIE AVE., CHICAGO 51, ILLINOIS

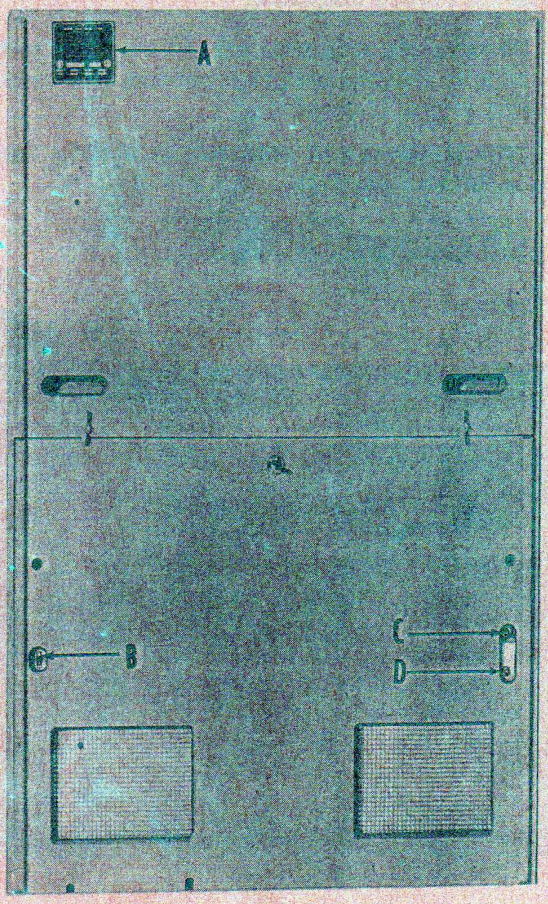


FIG. 1--Rear of Cabinet

117 V. LINE CORD

Check location power line outlet before plugging phonograph. Make certain that outlet provides electrical requirements stamped on serial plate (A-Fig. 1) affixed to rear of phonograph cabinet. Power line should supply 117 volts - 60 cycles - 360 watts (max.) - single phase.

POWER AND LIGHT SWITCH

Master line switch (B-Fig. 1) is located on rear of phonograph.

Up position - ON
Down position - OFF

This switch controls all power to mechanism and lights. If coins are inserted for play credits while master switch is in "OFF" position, credits will not accumulate.

REJECT SWITCH

Location of this switch is on rear of phonograph (C-Fig. 1). To reject a record that is being played, depress plunger momentarily.

VOLUME CONTROL

Volume is adjusted by slotted shaft (D-Fig. 1) at rear of phonograph. Use key supplied or small screw driver.

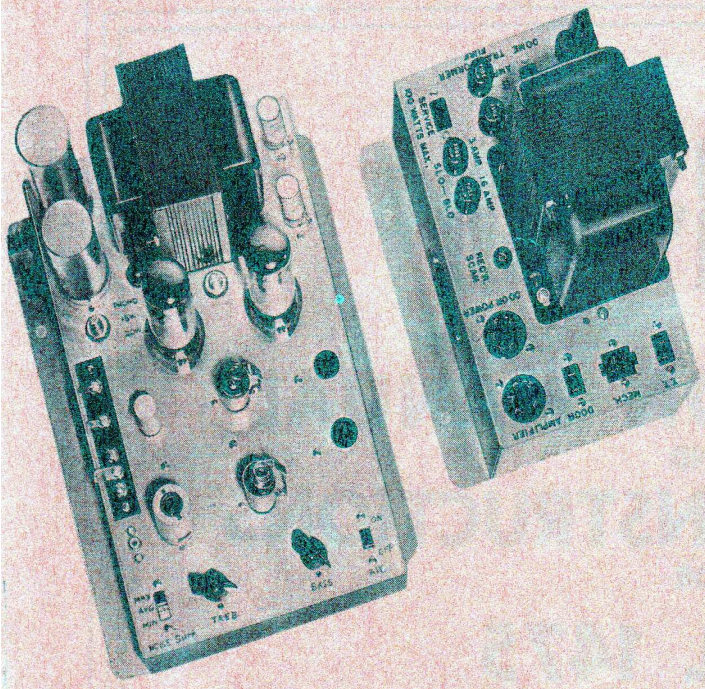


Fig. 2–View of Amplifier and Power Distribution Panel

AMPLIFIER AND POWER PANEL

1. Make sure that tubes are tight in sockets.
2. Check tightness of plugs in receptacles.
3. At no time should tubes be removed from amplifier while phonograph is on.
4. The "PLAY CONTROL RELAY" and "RECTIFIER" are found on the power panel which contains the power circuits for the entire phonograph.

LIGHTING EFFECT

1. One 20-watt fluorescent tube supplies lighting to the front door. The fluorescent tube is located under the selector key switches (A-Fig. 3). The fluorescent light starter is under the right hand side of the fluorescent tube, adjacent to the ballast (B-Fig. 3).
2. Cabinet lighting is accomplished with two 20 watt fluorescent tubes located in the dome at (A-Fig. 4) and (C-Fig. 4). The fluorescent light starters are on the dome rail panel at (B-Fig. 4).

TO INSTALL TITLE STRIPS

1. To facilitate programming, raise the dome window to the full extent of the latching bar.
2. The five sections on the program drum each contain 40 selections and each selection is coded by a large number and a small number. The large number refers to the number of the record on the program drum and the small number locates the record in the magazine, to facilitate changing records and title strips.

   To assure correct programming, install title strips into the same record numbers on the program drum matching the record numbers in the record magazine.

   To complete programming, rotate drum manually to the next program section and install title strips as required.

   Title strips can be removed by sliding them out to the right side.

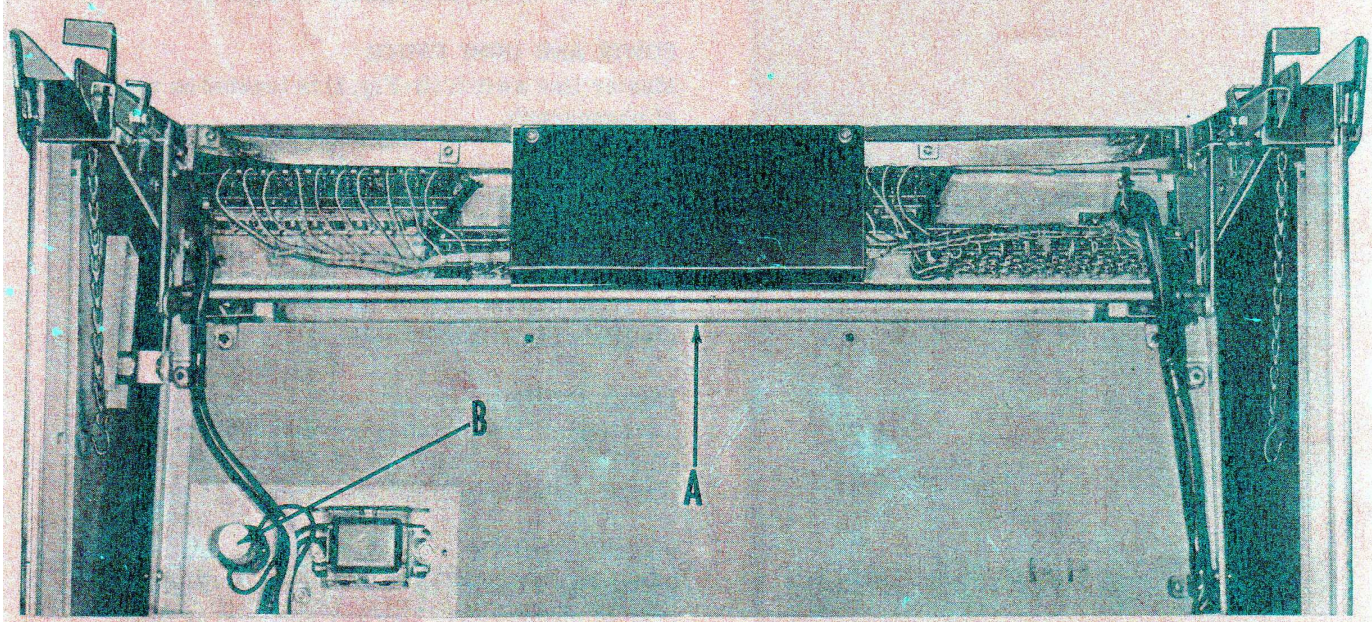


FIG. 3–Inside View of Front Door Panel

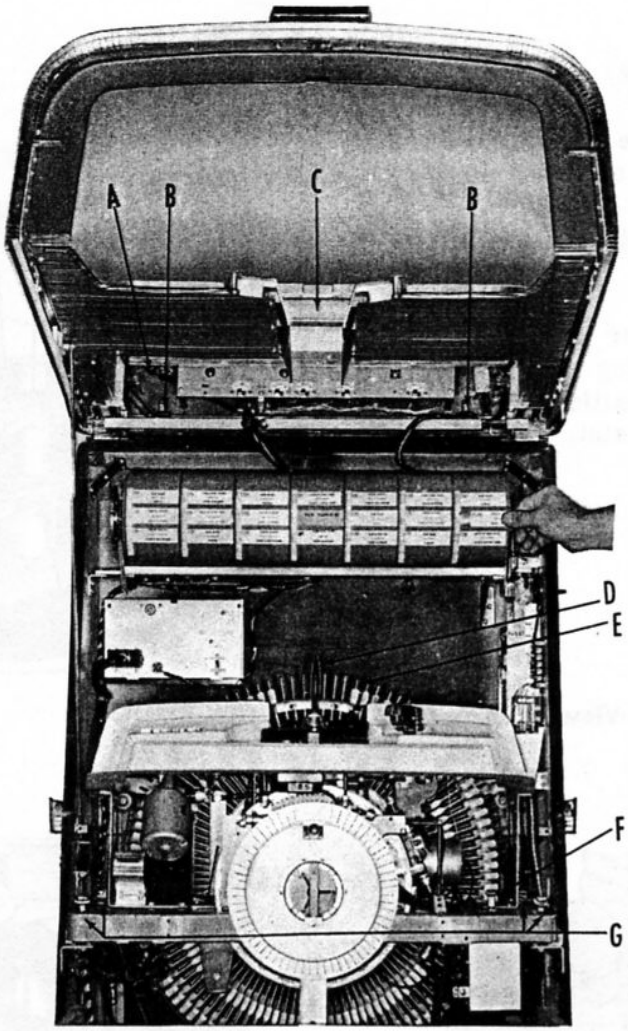


FIG. 4—Inside View of Cabinet

MECHANISM ANCHOR LOCKS

Four anchor bolts (G-Fig. 4) must be unscrewed as far as possible before operating phonograph. These bolts must be tightened securely whenever the phonograph is transported.

IMPORTANT: REMOVE WOODEN PACKING BLOCKS FROM UNDERNEATH MECHANISM CHASSIS BEFORE SETTING PHONOGRAPH IN OPERATION.

SERVICE SCAN SWITCH

The "service scan switch" (F-Fig. 4) located on the right front chassis above control box, may be operated at any time to stop mechanism at any point of operation. For service purposes, make certain that switch is in "Operate" position after servicing mechanism.

Moving service scan switch (F - Fig. 4) to the left to "scan" position, causes the record magazine (E-Fig. 4) to rotate. Releasing the service scan switch will stop the record magazine in any position to install or remove records.

TO INSTALL RECORDS

1. Raise the dome and open the front door.
2. Move service scan switch (F-Fig. 4) to "scan" position and hold there until record magazine rotates.
3. If record magazine does not rotate due to phonograph being in "Music play" position, place tone-arm in record cut-off groove and allow grip arm (D-Fig. 4) to return record to record magazine. The record magazine will then rotate.
4. After record magazine begins to rotate, move service scan switch (F-Fig. 4) to "OFF" position.
5. Release service scan switch in position desired to stop record magazine to install records.
6. After records have been installed, reset mechanism power switch to "operate" position.
7. Close the front door and lower the dome.

TO REMOVE SLUG REJECTOR

1. Move lever on right side of slug rejector housing to release lower mounting pins.

2. Lift up slug rejector, pull forward and remove.

3. To replace, insert lower pivot pins into lower housing slots. Swing upper part of slug rejector back into position, so that upper pins fall into housing slot.

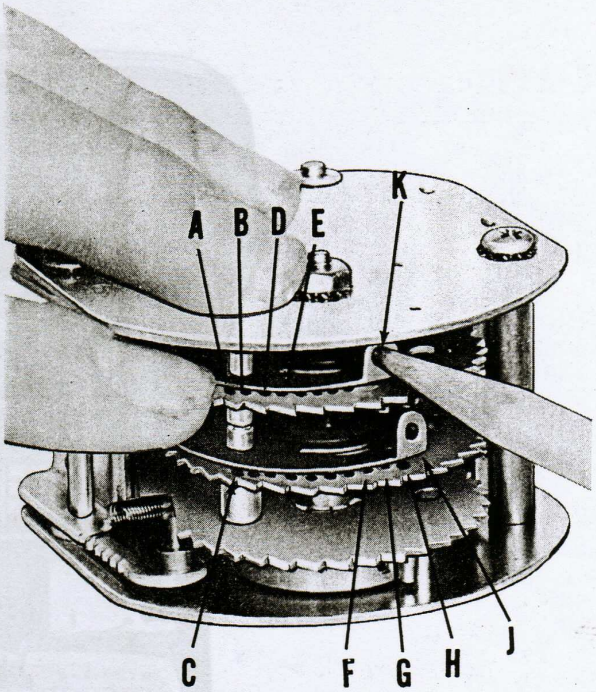
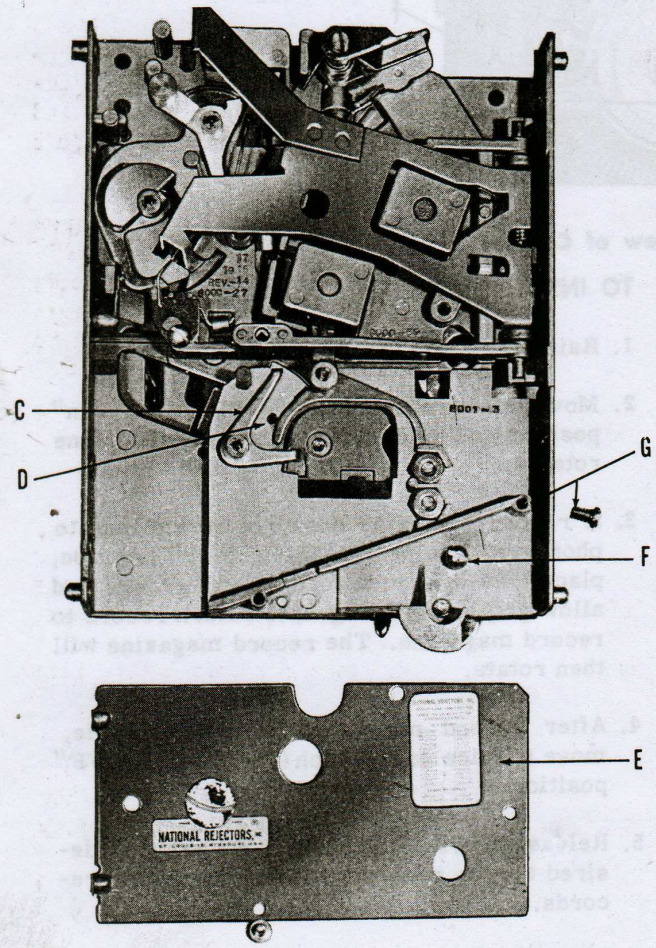
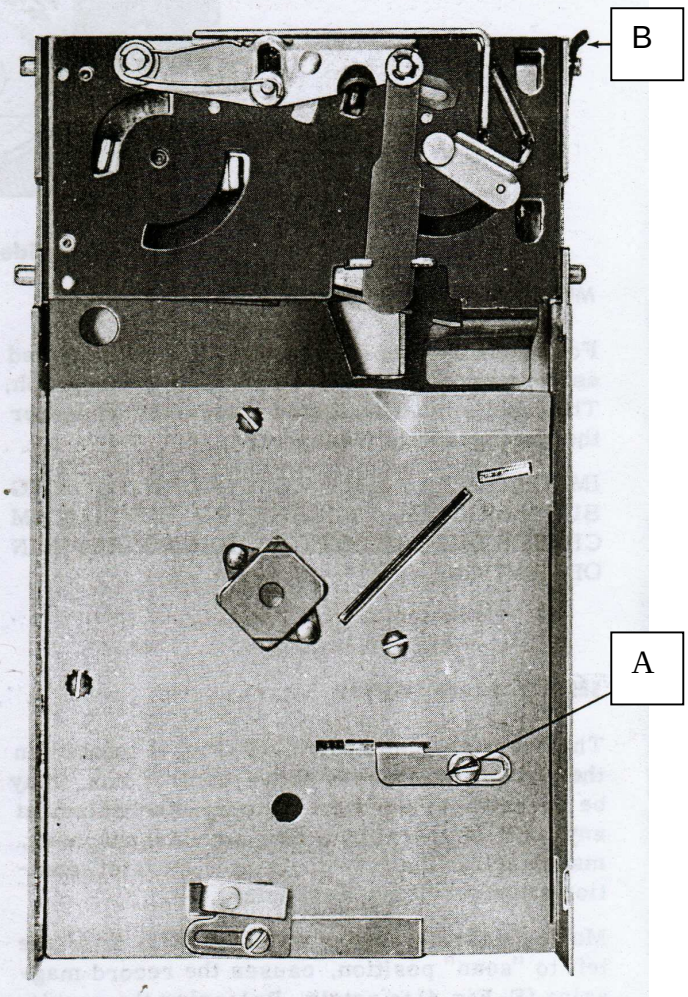


FIG. 5—View of Accumulator



5¢-10¢-25¢

FIG. 6—SLUG REJECTOR



50¢ SLUG REJECTOR & HOUSING

FIG. 7—SLUG REJECTOR

COIN CONVERSION INSTRUCTIONS

NOTE: THE MODEL 1468 IS PRE-SET AT THE FACTORY FOR "ONE PLAY FOR 2 NICKELS OR ONE DIME, THREE PLAYS FOR QUARTER AND SEVEN PLAYS FOR HALF DOLLAR."

TO ADJUST ACCUMULATOR AND SLUG REJECTOR FOR:

1. "1 PLAY FOR 2 NICKELS OR ONE DIME, 3 PLAYS FOR QUARTER AND 8 (9 OR 10) PLAYS FOR HALF DOLLAR."

   A. Insert pointed tool into ear of wafer on center ratchet (J-Fig. 5) lift slightly, raising wafer pin from hole.

   B. Keep ratchet wheel from rotating and move wafer on center ratchet until pin drops into 8 play hole (F-Fig. 5) or 9 or 10 play holes (G-H Fig. 5).

   C. Leave pricing switch in 10¢-25¢ & 50¢ position.

   D. Replace pricing tab with one to match the pricing combination.

2. "1 PLAY FOR 2 NICKELS OR ONE DIME, 4 PLAYS FOR QUARTER AND 9 (OR 10) PLAYS FOR A HALF DOLLAR."

   A. Insert a pointed tool into ear of wafer on center ratchet (J-Fig. 5) lift slightly, raising wafer pin from hole.

   B. Keep ratchet wheel from rotating and move wafer on center ratchet until pin drops into 9 play hole (G-Fig. 5) 9 or 10 play hole (H-Fig. 5).

   C. Insert a pointed tool into ear of wafer upper ratchet (K-Fig. 5) lift slightly, raising wafer pin from hole.

   D. Keep ratchet wheel from rotating and move wafer on upper ratchet until pin drops into 4 play hole (B-Fig. 5).

   E. Leave pricing switch in 10¢-25¢ & 50¢ position.

   F. Replace pricing tab with one to match the pricing combination.

3. "1 PLAY FOR 2 NICKELS OR ONE DIME, AND 3 (OR 4) PLAYS FOR QUARTER."

   A. Remove complete slug rejector unit from phonograph.

   B. Remove top 50¢ rejector unit and lower 5¢-10¢-25¢ unit, exposing the inside housing, which is part of the 50¢ rejector. At (A-Fig. 7) loosen screw and move lever to the extreme left side. This will automatically reject 50¢ coins.

   C. Replace both rejector units into housing and install complete slug rejector unit into the phonograph.

   D. On upper ratchet, lift upper wafer (K-Fig. 5) until pin drops into 3 play hole (A-Fig. 5) or 4 play hole (B-Fig. 5).

   E. Leave pricing switch in 10¢-25¢ & 50¢ position.

   F. Replace pricing tab with one to match the pricing combination.

4. "1 PLAY FOR NICKEL, 2 PLAYS FOR DIME AND 5 PLAYS (OR 6) FOR QUARTER."

   A. Remove complete slug rejector unit from phonograph.

   B. Remove top 50¢ rejector unit and lower 5¢ - 10¢ - 25¢ unit, exposing the inside housing, which is part of the 50¢ rejector. At (A - Fig. 7), loosen screw and move lever to the extreme left side. This will automatically reject 50¢ coins.

   C. On the 5¢-10¢-25¢ slug rejector, transpose screw (G-Fig. 6) with screw (F-Fig. 6). This will cause each 5¢ coin deposited to be registered, as the toggle is now free to operate on every 5¢ coin.

   D. Replace both rejector units into housing and install complete slug rejector into phonograph.

   E. At the accumulator on the center ratchet, insert a pointed tool into ear of center wafer (J - Fig. 5) lift slightly, raising wafer pin out of hole. Keep ratchet wheel from rotating and move wafer on center ratchet until pin drops into 2 play hole (C-Fig. 5).

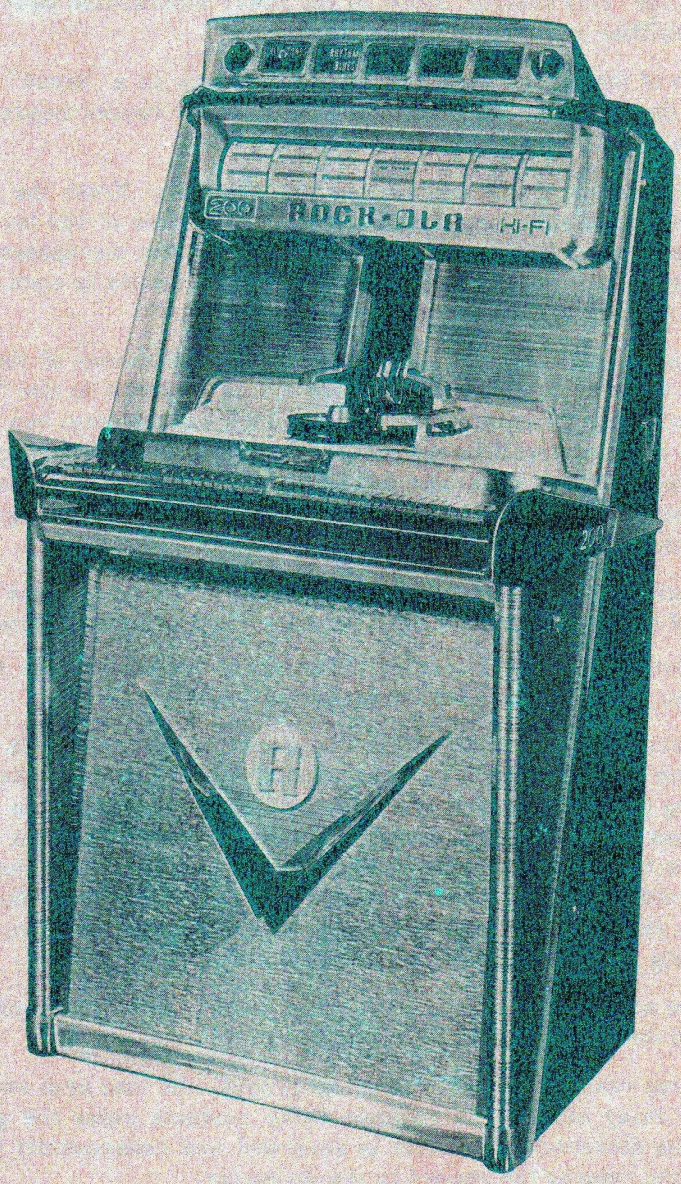
   F. On the upper ratchet, lift upper wafer (K-Fig. 5) slightly, raising wafer pin from hole and moving the wafer until the pin drops into the 5 play (D-Fig. 5) or 6 play (E-Fig. 5) hole.

   G. Move pricing switch to 5¢ - 10¢ & 25¢ position.

   H. Replace pricing tab with one to match the pricing combination.

ROCK-OLA

INSTRUCTION MANUAL



MODEL 1475 PHONOGRAPH

(200 SELECTION HI-FIDELITY)

ROCK-OLA MANUFACTURING CORPORATION
800 NORTH KEDZIE AVENUE CHICAGO 51, ILLINOIS

OPERATING INSTRUCTIONS

PHONOGRAPH CYCLE OF OPERATION

The phonograph cycle begins with the dropping of a coin which accumulates plays on the master ratchet wheel in the accumulator assembly.

When a key switch button is pressed to make a selection, a credit is removed from the master ratchet wheel and the associated blade switches that are actuated momentarily, energize a selector coil and the scan control solenoid.

The momentarily energized selection coil moves a selection lever to the outer edge or "play" position on the selector. The energized scan control solenoid allows the micro switch to close a circuit to the "play control" relay in the power distribution panel, which turns on the turntable motor, amplifier and magazine motor.

Standby position of the record magazine always remains in a "home" or "zero" position. From this position, the magazine motor will always start the record magazine and selector arm in the counterclockwise direction.

The selector arm moves a carriage around the selector. From the selector radiate 200 levers, one for each record side, arranged in two parallel rows of 100 levers each. Levers for playing the even numbers are in the row toward the rear of the mechanism, and the levers for playing the odd numbers are toward the front. Selections sequence is such that odd numbers are selected from 1 to 199 and even numbers from 2 to 200.

Rotation of the magazine continues until a contact on the bottom of the carriage assembly strikes the selected lever in its path. This action closes a circuit to the "interlock relay trip coil", thereby repositioning its associated contact, which will perform two functions simultaneously. It will create a short circuit on the magazine armature which will dynamically brake the motor causing the magazine to stop, and secondly, a circuit is closed to the gripper motor. This revolves the cam shaft and causes the jaws of the gripper arm to grasp the record and proceed to place it on the turntable.

During the rotation of the magazine a mechanical action took place that determined the proper positioning of the record gripper arm for either odd or even selection.

At this point micro switch No. 1 located to the left of and adjacent to the gripper housing, is operated by a cam. This disconnects the magazine motor armature.

Then, No. 2 micro switch lever falls into the groove of the cam. This micro switch closes a circuit to the proper "selector lever cancel solenoid" located on top of the carriage assembly, and causes the spring plunger to strike the selector lever, resetting it to its normal position. The solenoid continues to be energized until No. 3 micro switch lever falls into the cam groove. This action opens the circuit to the energized solenoid, thus releasing the spring plunger. In addition, the grip motor circuit is interrupted and a circuit to the "interlock relay release coil" is completed. This releases the interlock relay to its original position, and places a short circuit across the grip motor armature, which causes it to stop.

During the above actions, the tone arm cam has placed the tone arm on the record, and the machine has reached the music cycle.

When the tone arm reaches the record cut-off groove, the tone arm switch closes the circuit to the "reverse relay coil". The reverse relay contacts close the grip motor circuit in such a manner that its direction of rotation is reversed and consequently the grip jaws engage the record and the arm returns the record to the magazine.

As the grip jaws release the record, No. 1 micro switch lever again is operated to its original position. This action disrupts the grip motor circuit allowing it to stop and starts the magazine motor. The record magazine continues to rotate even though additional selection may not be registered and continues to do so until the scan control micro switch lever is actuated to its original position.

At this point the circuit is broken to the "play control" relay providing no additional selections are registered, allowing the contacts to open, making the turntable motor and amplifier inoperative. With all circuits now open, the record magazine is again in "home" or "zero" position which completes the mechanism cycle.

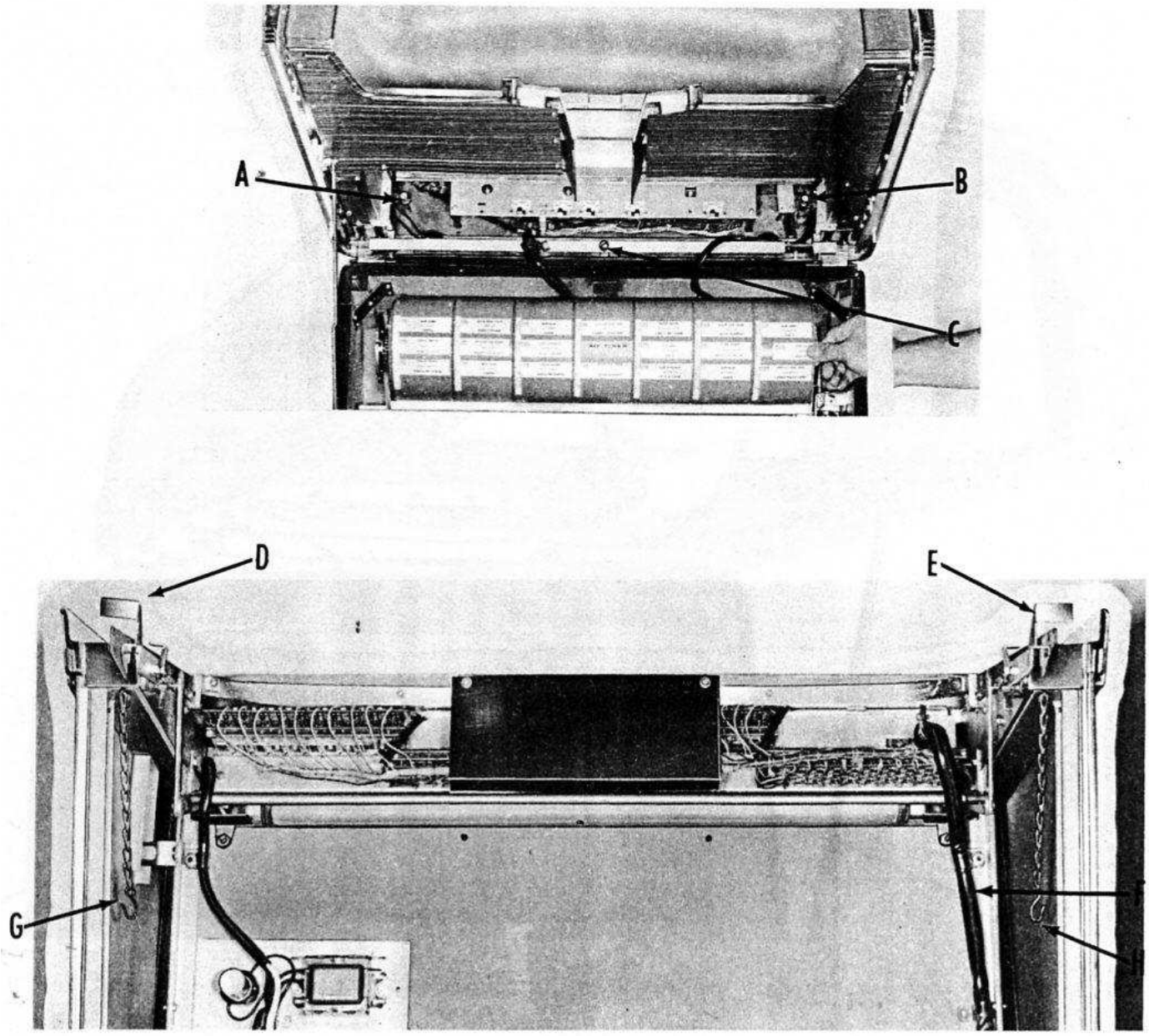


FIG. 1 REMOVAL OF DOME HOOD AND FRONT DOOR

REMOVAL OF DOME HOOD AND FRONT DOOR

REMOVAL OF DOME HOOD

The dome hood assembly is fastened securely by three machine screws (A-B-C). Disengage cable clamp and disconnect the 15 prong Jones plug. Remove the three dome screws and lift out dome hood.

REMOVAL OF FRONT DOOR

1. Unlock the front door and riase dome to the full extent of the latching bar. Depress left and right hand front door latches (D-E) and open front door. Disconnect the 27 contact Jones plug leading from the key switch cable (F) to the left side of the cabinet. Also, remove the door lite cable which leads from the front door to the power distribution panel.
2. Release the door chains (G-H) from the cabinet and raise door off two locating brackets at the bottom of the cabinet. Set door aside.

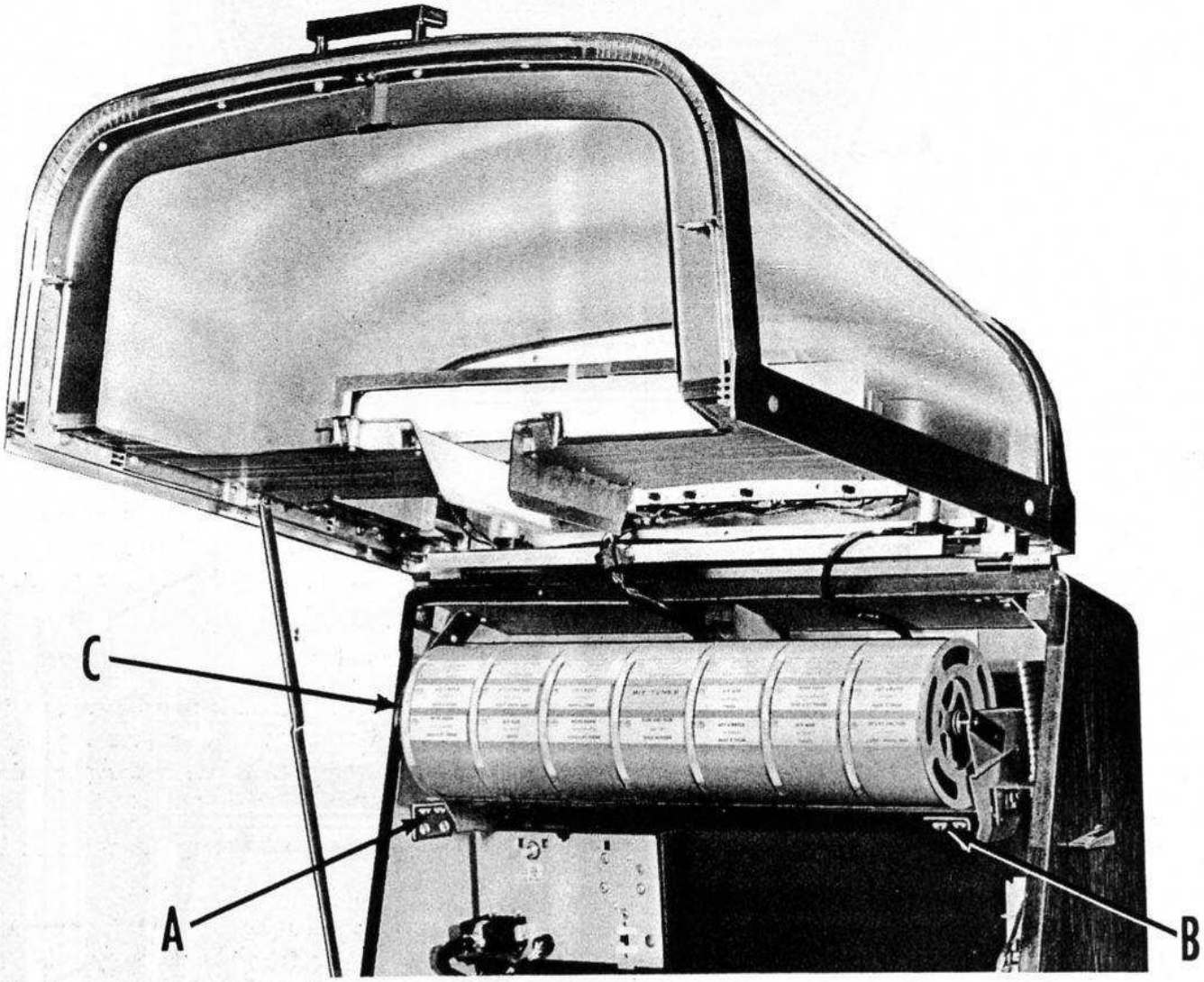


FIG. 2 PROGRAM HOLDER ASSEMBLY

REMOVAL OF PROGRAM HOLDER ASSEMBLY

The program holder assembly Fig. 2, may be removed for servicing by observing the following procedure:

1. Raise the dome to the uppermost position of the latching bar.
2. Apply slight outward pressure with the right thumb and forefinger, to the spring steel latch at the right hand side of the program drum, releasing the shaft. Pull forward slightly and to the right to remove complete program drum.
3. Disconnect the 8 position socket from the program.
4. Remove two screws at (A) and two screws at (B) and lift out complete program panel rail. For servicing, motor, switches and all parts are readily accessible.

CAUTION: When inserting program drum into program panel rail, make certain that the small rectangular locator on the left side of the program drum locks into the notch on the program drive gear (C).

NOTE: Detailed instructions on the operation of the Program Holder Assembly are to be found under heading "PROGRAM PANEL OPERATION".

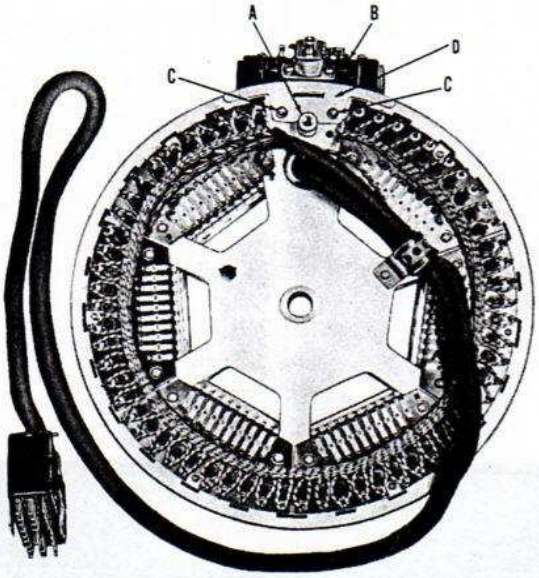


FIG. 3 SELECTOR UNIT

REMOVAL OF SELECTOR UNIT

The selector unit is suspended in the mechanism by a shaft inserted through the center of the selector unit into a hollow shaft which supports the record magazine. The selector unit is positioned and kept from rotating by means of the shoulder bushing (A) which is located at the upper right hand side behind the popularity meter.

The procedure for removing the selector unit is outlined below:

1. Unlock the front door and raise dome to the full extent of the latching bar. Depress left and right hand front door latches and open front door. Disconnect the 27 contact Jones plug leading from the key switch cable to the left side of the cabinet. Also, remove the door lite cable which leads from the front door to the power distribution panel.
2. Release the door chains from the cabinet and raise door off two locating brackets at the bottom of the cabinet. Set door aside.
3. On the mechanism, move the "service scan switch" on the control box to the left to "SCAN" position. Rotate the record magazine until the gripper arm is centered directly over the blank separation on the record magazine. At this point, move the mechanism switch to "OFF" position. In this position, the two allen set screws in the collar of the popularity meter will be accessible for removal, and the carriage assembly (B) will be located opposite to the selector rail segment (D).
4. Remove the two allen set screws from the popularity meter. Grasp popularity meter firmly and pull forward and off of shaft.
5. Take out 2 screws holding selector rail segment at (C) and slide out carriage assembly (B). Do not remove cable wiring from carriage assembly.
6. Remove selector retaining spring from mounting stud (A). Disengage selector cable from cable clamp and disconnect the 27 prong Jones plug at the end of the selector cable.
7. Loosen two allen set screws on external shaft at rear of mechanism. Place hand under selector unit for support and remove the internal shaft from the front of the phonograph.
8. Remove hex nut from shoulder bushing (A). Lower selector unit and remove.

To re-install selector unit, the reverse order of procedure should be used. Caution must be taken when replacing popularity meter, to properly record the playing selection. Before the two allen set screws are tightened on the collar of the popularity meter, move the service scan switch on the control box to "OPERATE" position and select #1 record. Allow the mechanism to index and immediately shut mechanism power off. Rotate the popularity meter, so that the tooth portion of the #1-2 lever is located directly opposite and centered with the phosphor bronze arm which actuates the lever. Now tighten the two allen set screws. Recheck the setting by selecting #3 record and make certain that the #3-4 lever is actuated.

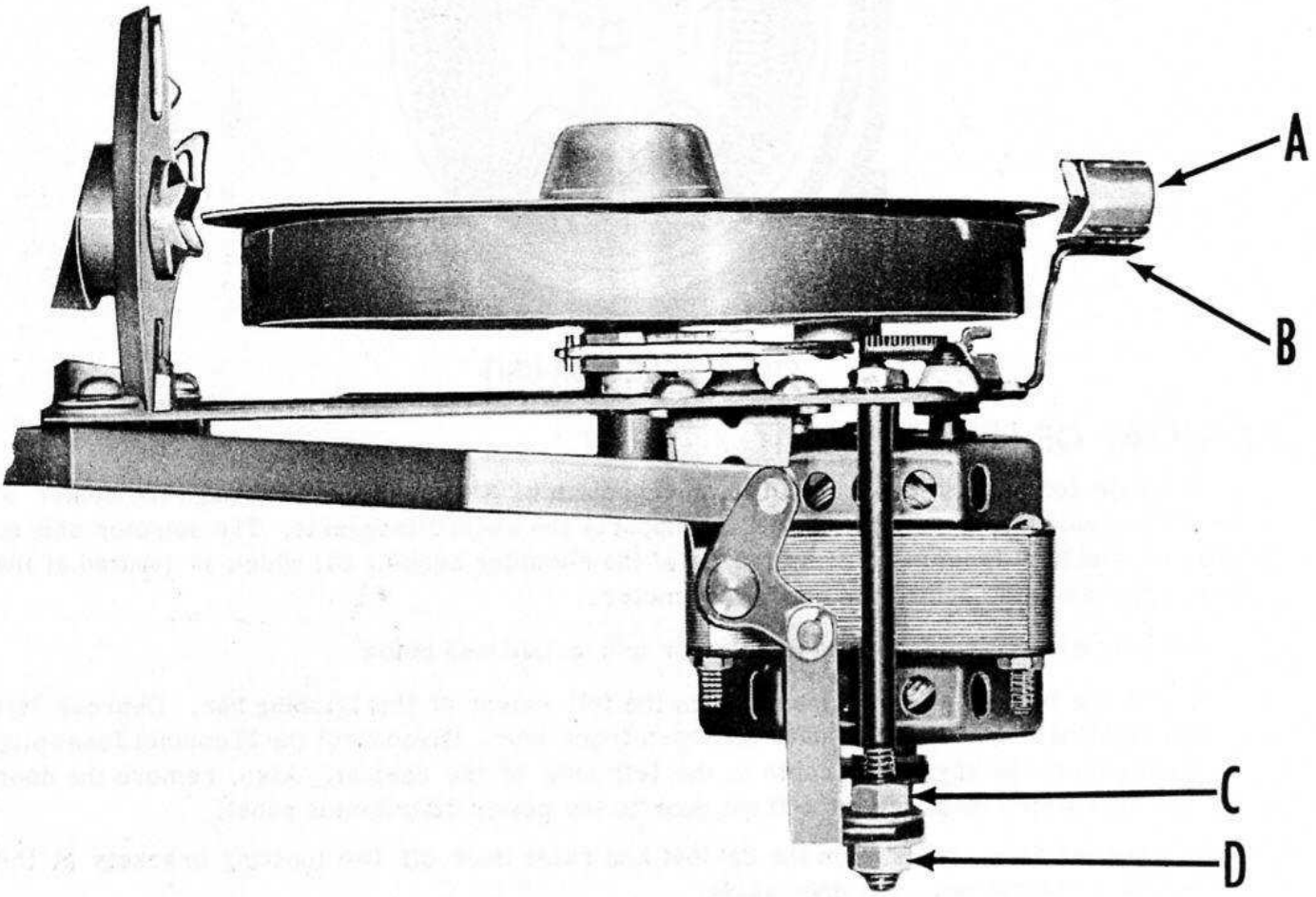


FIG. 4 TURNTABLE AND ASSOCIATED PARTS

TURNTABLE HEIGHT AND CENTERING

TURNTABLE HEIGHT

The height of the turntable is predetermined when the turntable mounting plate is positioned and fastened by two mounting screws to the gripper housing casting. Then, before tightening the hex lock nuts (C & D) make sure that the mounting plate is perfectly level.

Allow the gripper arm (A) to place a record on the turntable. In this playing position, the record edge must be either slightly below or even with the "V" or center line of the outer gripper arm. If condition needs correction, the gripper arm stop (B) can be adjusted by bending the stop up or down for proper alignment. In making the necessary correction, make sure there is at least 1/8 inch up and down play between gripper arm and gripper stop (A & B). If this condition does not exist, it means that the turntable mounting plate is not level.

TURNTABLE CENTERING

To center a record over the turntable center locator, allow the gripper arm to lift a record from the record magazine. Before the record is placed on the turntable, move the mechanism service switch to "OFF" position. By rotating the gripper motor armature manually, lower the record to the turntable, and carefully observe the relationship of the turntable center locator to the center hole of the record. If adjustment is necessary, unloosen the two mounting screws and the two hex nuts (D), and shift the turntable plate in the direction necessary for perfect alignment. Then tighten the screws and nuts carefully, so that the mounting plate does not shift out of position.

CHANGING NEEDLES

1. Lift and hold tone arm in palm of hand.
2. Through hole on top of tone arm, use paper clip to push out needle holder.
3. Slip old needle from holder and replace with new.
4. Insert holder in hole of pick-up and push completely in with thumbnail.
5. Care must be exercised so that the needle tip is centered between the pole pieces, otherwise distortion will be created if any portion of the needle touches the poles.

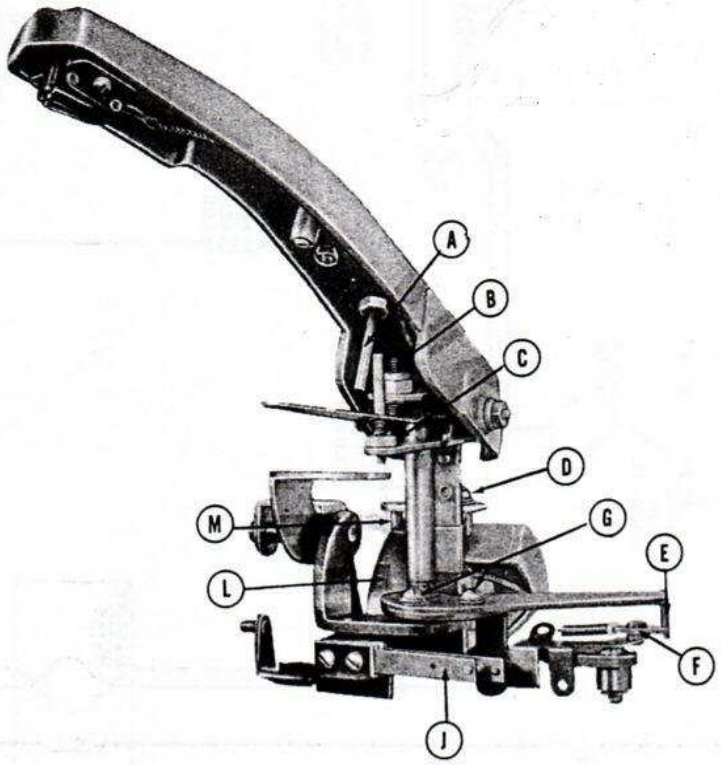


FIG. 5 TONE ARM ASSOCIATED PARTS

TONE ARM ADJUSTMENTS

The "Set Down" position of the needle on a record is 3/32 inch from the edge of the record. To obtain this position, cycle the mechanism until the tone arm needle is above the record. At this point move the mechanism service switch to "OFF" position. Rotate the knurled end of the gripper motor armature manually until the needle almost makes contact with the record. Hold the inside cam plate stop in (M) against inside of tone arm cam (L). Loosen screw at (D) and move tone arm so that needle rests 3/32 inch from edge of record. Then carefully tighten screw (D).

The record "cut-off" position is 2-1/32 inches from the outer edge of the record toward the center. Move the tone arm slowly to this cut-off position and make certain that at that point, tone arm switch (J) makes contact. To make any adjustments simply readjust blade switches.

The trip dog (F) is a safety device to prevent re-playing the same record by jarring the tone arm back across the record. The trip dog (F) should release from bracket (E) slightly before the needle reaches the record cut-off position. To obtain this condition, loosen 2 screws (G) and move bracket.

The needle pressure on the record is eight grams. When adjusting for needle pressure, turn adjusting screw (B) accessible through the top of the tone arm, "clockwise" to reduce needle pressure. Needle pressure readings must be taken at the point of contact of the needle on the record.

The tone arm height must be adjusted so that the body of the pick up just touches the rubber ring on the turntable. Loosen nut which locks adjustment screw (C). Turn screw "in" to increase height and "out" to decrease the height of the needle with respect to the rubber ring on the turntable.

There should be at least 3/16 inch to 1/4 inch clearance between the tone arm needle and the bow of the gripper arm as the tone arm passes over the gripper arm to "set down" position on the record. Adjustment screw (A) can be turned "in" to decrease the clearance and "out" to increase the clearance between the gripper arm and the needle. Select even numbered record before making adjustments.

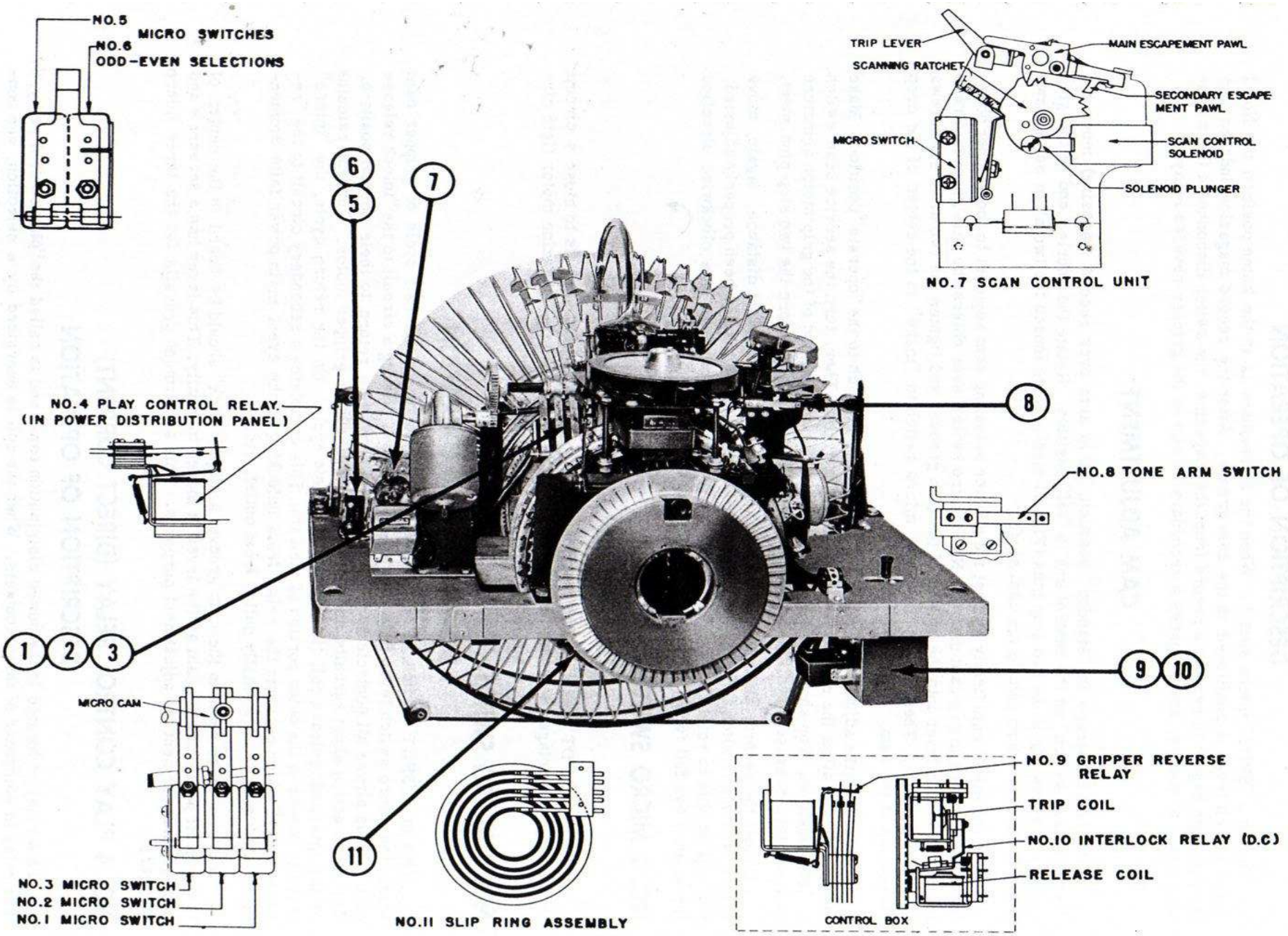


FIG. 7 PICTORIAL DIAGRAM OF MECHANISM AND ASSOCIATED PARTS

NO. 1 MICRO SWITCH

DESCRIPTION OF OPERATION

This is a "SPDT" micro switch. When the mechanism is in the home position the No. 1 micro switch lever is positioned in the cam groove. After the record magazine indexes and the grip arm begins to remove a record from the magazine, the switch disconnects the magazine motor armature, and prepares a secondary circuit to the gripper reverse relay.

CAM ADJUSTMENT

With the phonograph in "standby" position, (grip arm over record magazine) move the "service scan switch" on the control box to "off" position. Rotate the knurled end of the grip motor clockwise, until the two stop pins (Fig. 7) meet. Then loosen the two allen set screws which fasten the micro cam to the cam shaft.

Hold the micro cam firmly against the counter actuating arm adjacent to the gripper housing, and rotate the micro cam until the No. 1 micro switch lever enters the cam groove. Press the micro switch lever into the bottom of the cam groove, and tighten the two allen set screws on the micro cam. Then, adjust the No. 1 micro switch to "make" in the center of the drop off portion of the cam.

To-recheck the adjustment, move the service scan switch to the "operate" position. Make a selection and allow the record to be in the music cycle. Then, turn the service scan switch to "off" position. You should now be able to rotate the knurled end of the grip motor armature in a counterclockwise direction for at least two full revolutions before the two stop pins meet.

Cancel the record, and allow the record magazine to scan a short distance. Again, move the service scan switch to "off" position. If the No. 1 micro switch has been properly adjusted, you will be able to rotate the knurled end of the grip motor armature in a clockwise direction for at least two full turns before the stop pins meet.

NO. 2 MICRO SWITCH

DESCRIPTION OF OPERATION

This is a "SPDT" switch. The function of this switch when actuated, is to close a circuit to the proper carriage "selector lever reset solenoid", and open the magazine motor field circuit.

NO. 3 MICRO SWITCH

DESCRIPTION OF OPERATION

This is a "SPDT" switch. Prior to the completion of the 1st half cycle of gripper cam shaft, the micro switch lever falls into the cam groove, closing a circuit to the "inlock release coil." This allows all contacts on the interlock assembly to return to their normal position. The above action short curcuits and dynamically brakes the gripper motor. Current remains on the interlock release coil throughout the music cycle. On the return cycle, the "micro" lever is moved to the outer portion of the cam. This completes a secondary circuit to the "reverse relay" which prevents the relay from unlocking in the event main power fails momentarily, line plug is accidentally pulled from outlet, etc.

When the lever rests in the cam groove, a slight "click" should be heard in the center of the drop off portion of the cam as the lever is moved manually. This lever has a set screw and lock nut arrangement for adjustment purposes. This adjustment prevails for the three micro switches.

NO. 4 PLAY CONTROL RELAY (DIRECT CURRENT)

DESCRIPTION OF OPERATION

This relay is located in the power distribution panel and is called the "play control relay." The relay is composed of three contacts. When the coil is energized by a selection, one contact closes a 117 V.A.C. circuit to the turntable motor. The second closes a 35 V.D.C. circuit to the mechanism D.C. motors, and the third completes a high voltage winding of 170 V. A.C. from the control circuit transformer on the power distribution panel to the amplifier.

NO. 5 & 6 ODD-EVEN SELECTION MICRO SWITCHES

DESCRIPTION OF OPERATION

These two "SPDT" micro switches transfer the indexing and cancel solenoid circuits for and odd or even selection, through the printed circuit disc located behind the selector.

The micro switch towards the rear of the mechanism (No. 5) operates the proper cancel solenoid, and the front micro switch (No. 6) closes the proper circuit for the carriage contact.

At the proper cycle of the magazine rotation, an arm is operated that actuates the micro switch lever. This lever operates the two micro switches which will close the proper circuits to the selector carriage.

ADJUSTMENT

Make certain that when the micro switch lever is operated, both switches operate simultaneously. This can be determined by making sure that the "clicks" on both micro switches operate in unison. The lever provides a set screw for each micro switch for proper adjustment.

NO. 7 SCAN CONTROL UNIT

DESCRIPTION OF OPERATION

This unit functions when a selection is made. The scan control solenoid plunger actuates the scanning ratchet which allows the micro switch to operate. The micro switch in turn closes a circuit to the play control relay, allowing the magazine motor to rotate the record magazine. This rotation continues until the scan control trip lever resets the scanning ratchet so that both the ratchet and micro switch are actuated to their original position.

The operation of the scan control trip lever is done mechanically by an actuating arm that allows one of two teeth to escape on the scanning ratchet, once every 360° of the magazine rotation, providing no other selections are made. The second revolution of the magazine will reset the scan mechanism and allow the micro switch to open, breaking the circuit to the play control relay. This cuts off power to the D.C. motors and also opens the amplifier and turntable circuits.

NO. 8 TONE ARM SWITCH

When the tone arm has reached the record cut-off groove, the tone arm switch is actuated, completing the circuit to the grip motor through the gripper reverse relay contacts. See Fig. 5 for Tone Arm Adjustment.

NO. 9 GRIPPER REVERSE RELAY (DIRECT CURRENT)

DESCRIPTION OF OPERATION

The relay, which is located in the control box, consists of three sets of contacts. One set is a "SPDT" and the other two are normally open. In the relaxed position, one side of the "SPDT" switch prepares a circuit to the grip motor, so that when the interlock trip coil is energized, the circuit is completed to the motor causing the grip arm to move a record from the magazine.

When the relay coil is energized by tripping of the tone arm switch, all contacts are repositioned, so now the other side of the "SPDT" switch reverses the direction of the grip motor allowing the record to be returned to the magazine. With both of the normally open switches now closed, one serves as a mute switch for the final cycle of the phonograph, and the other serves as locking contacts for the gripper reverse relay coil.

NO. 10 INTERLOCK RELAY (DIRECT CURRENT)

DESCRIPTION OF OPERATION

This relay, also located in the control box is a mechanically latching type, having two coils which are termed the "Trip" and "Release" coils. The "Trip" armature has two single throw

contacts, and the release armature has two sets of double-throw contacts which are connected in parallel to insure positive operation, should one set become dirty or fail to function.

In the normal position, (Prior to Indexing), the trip armature is relaxed and the release armature is mechanically latched down by an arm extending from the trip armature; with neither coil being energized. In this position, the two contacts on the trip armature are open and the forward contacts on the release armature are closed and condition the power motor circuits. The action of the device is as follows:

1. Carriage Indexing contacts strike a registered selector key and momentarily energize the interlock trip coil.
2. Trip armature operates, closing its two contacts which provide a locking circuit to the trip coil and also conditions a circuit for the proper "selector lever cancel solenoid."
3. As the trip armature completes its stroke, the release armature relaxes, thereby repositioning its contacts and mechanically latching down the trip armature. The release armature contacts short-circuit the magazine motor armature and apply power to the grip motor. This action results in the grip arm removing the record from the magazine and placing it on the turntable.
4. The device remains in this position until "micro switch No. 3" operates, at which time the release coil is energized.
5. The release armature operates, placing its contacts in the forward position. This short circuits the grip motor, causing it to stop.
6. After the release armature completes its stroke the trip armature relaxes, mechanically latching down the release armature, and opening its two contacts.

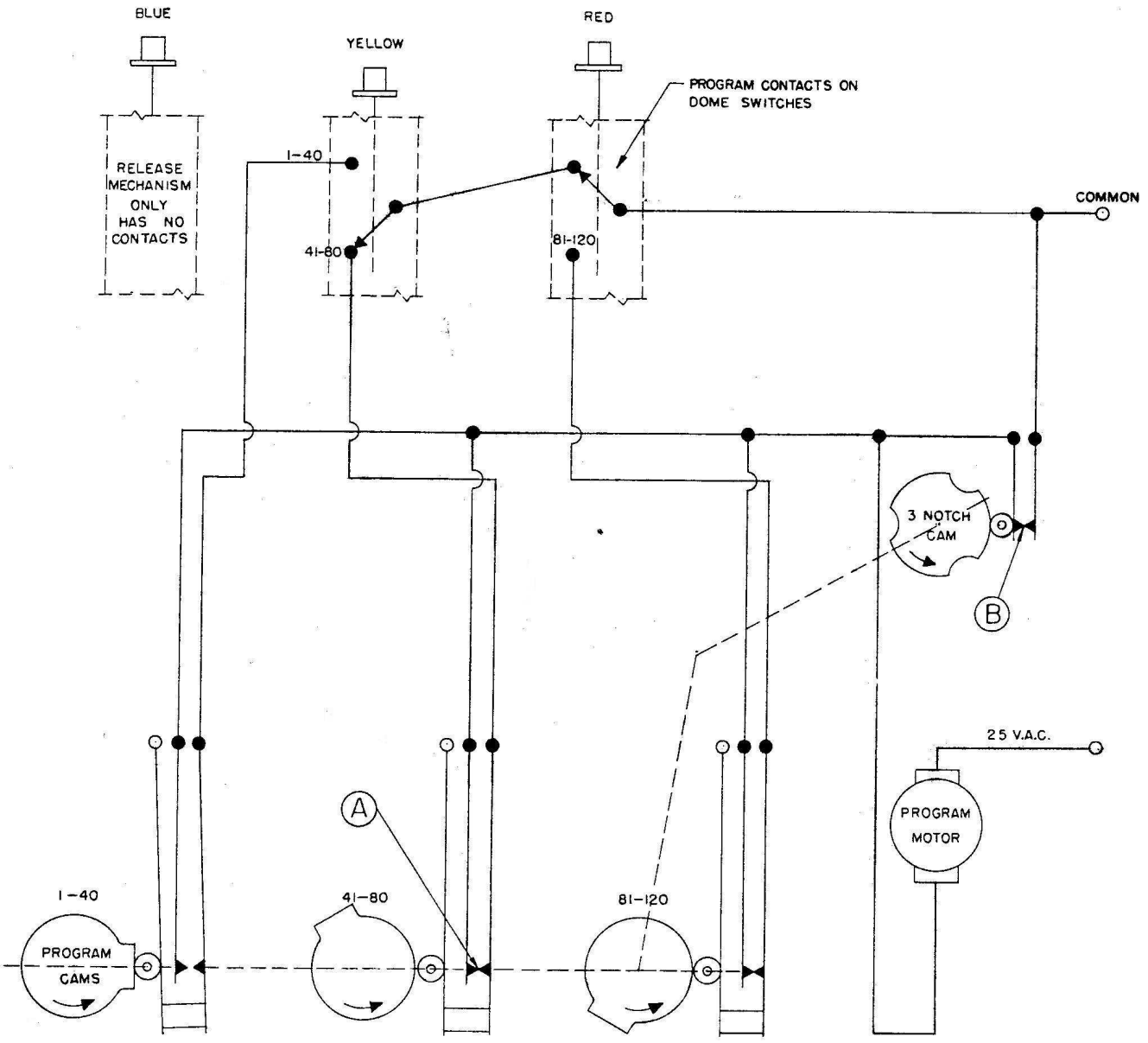
NO. 11 SLIP RING ASSEMBLY (PRINTED CIRCUIT DISC)

The disc is riveted to the selector arm and rotates with the arm whenever it is in motion. Adjacent to and fastened to the gripper housing is a five blade bifurcated wiper assembly. The wiper assembly is in constant contact with the five contact rings on the disc.

The function of the entire assembly is to relay circuit changes from the odd-even selection micro switches to the selector carriage.

ADJUSTMENTS

The blade contacts on the wiper assembly must be centered on the disc ring tracks. The two wiper assembly bracket holes are elongated to allow for proper adjustment. The pressure of the wiper blades against the disc rings should be between 20 to 30 grams.



PROGRAM PANEL OPERATION

The rotating program is composed of three separate panels, with 40 selections on each. Above this are 3 colored buttons which correspond to the selection panels. From left to right they are - Blue, Yellow and Red. (HIT TUNES, RHYTHM & BLUES, FAVORITES)

Any group button depressed will complete a circuit to the program motor which will rotate the program, providing that the program chosen is not already shown. This rotation continues until the proper panel corresponding to the group button depressed, is positioned properly for selection viewing.

In the case of the blue group button depressed, this merely releases any other depressed button to its normal position. This condition allows circuits to be completed so that the first 40 selection panel is shown. (See Diagram).

The program panel operation diagram shows the yellow dome switch depressed. A ground circuit is completed through program switches at (A) and program motor. The rotating cams allow a secondary carry over circuit to the program motor to be completed at (B). As the program is rotated, the cam action will eventually open the blade switches at (A). Carry over switch (B) will continue to operate program motor until the circuit is broken by the 3 notch cam. This serves only for exact positioning of the program panel.

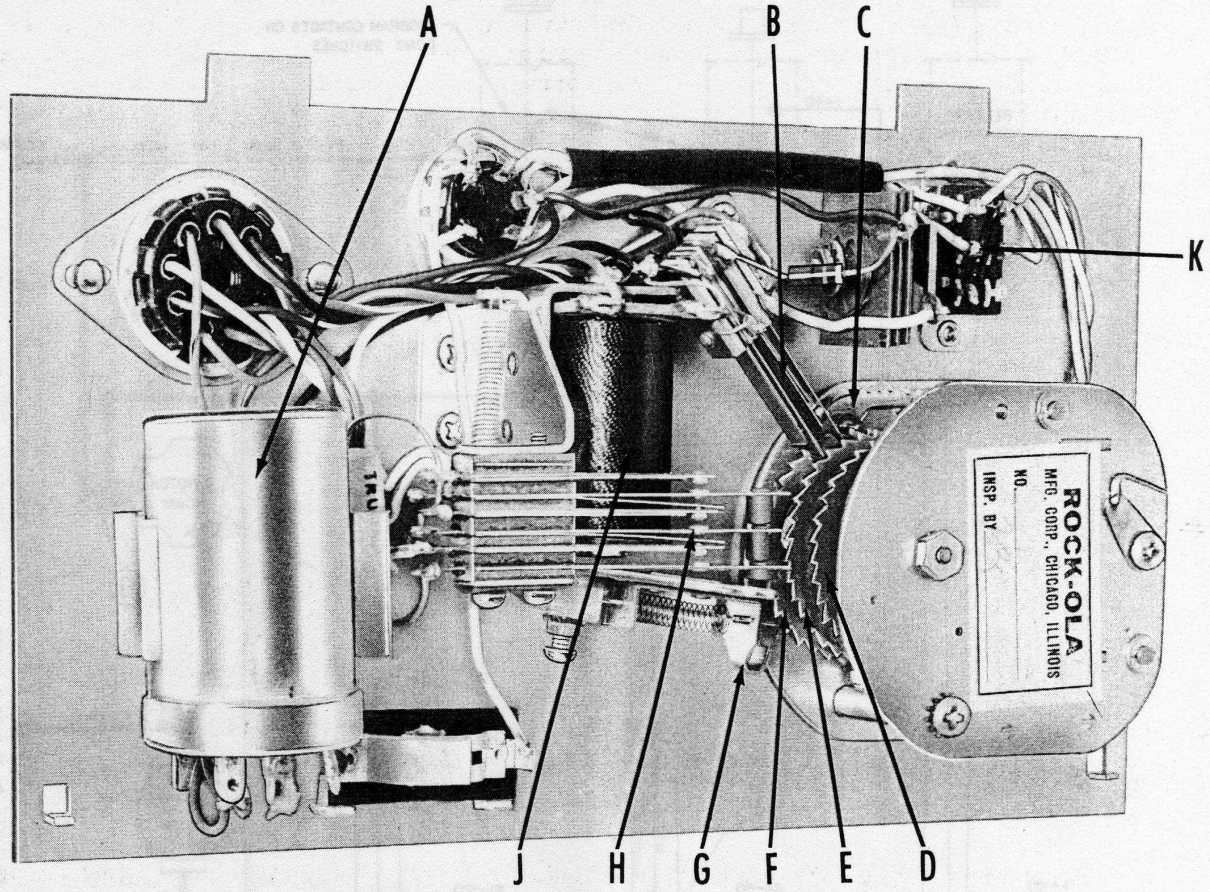


FIG. 8

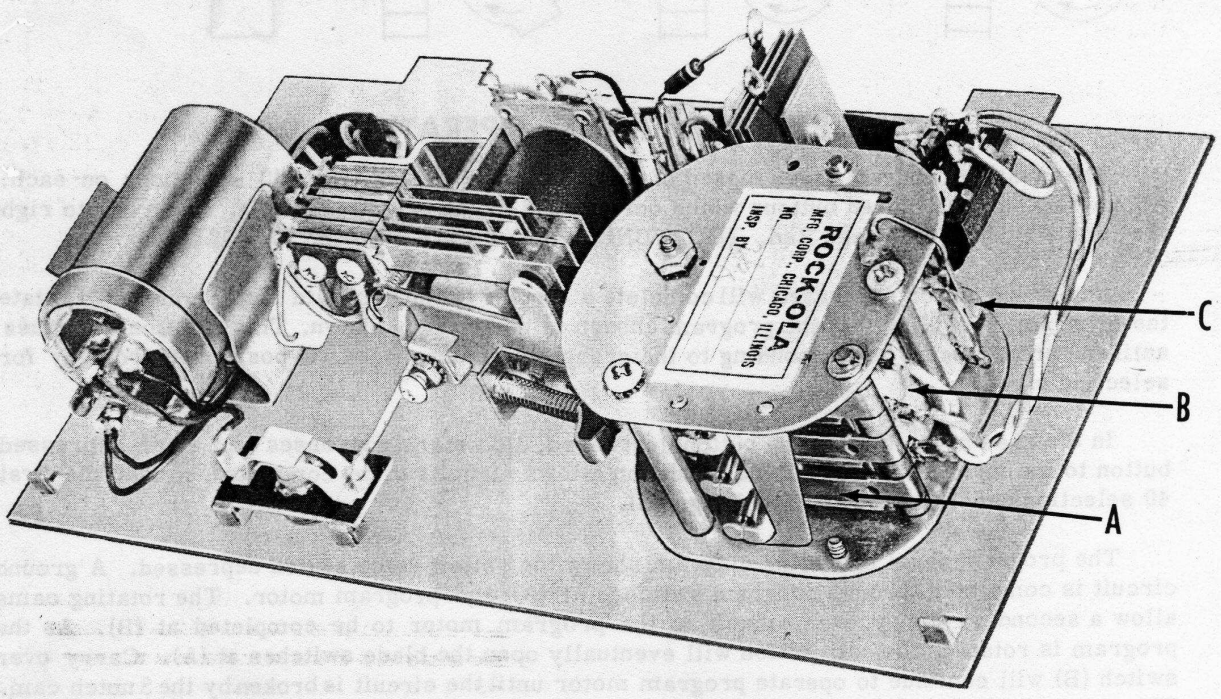


FIG. 9 ACCUMULATOR ASSEMBLY

ACCUMULATOR ASSEMBLY

The accumulator assembly is designed to accumulate any number of credits up to 26 plays maximum. After a coin strikes one of the four coin switches located below the slug rejector, a D.C. circuit is completed to the proper electro magnet (B-Fig. 9). During the short period the electro magnet remains energized, the corresponding armature ratchet detent (A-Fig. 9) and the ratchet escapement armature (C-Fig. 8) are drawn to the pole-piece of the electro magnet. The corresponding ratchet detent locks the ratchet and hub assembly, and releases the escapement armature stud.

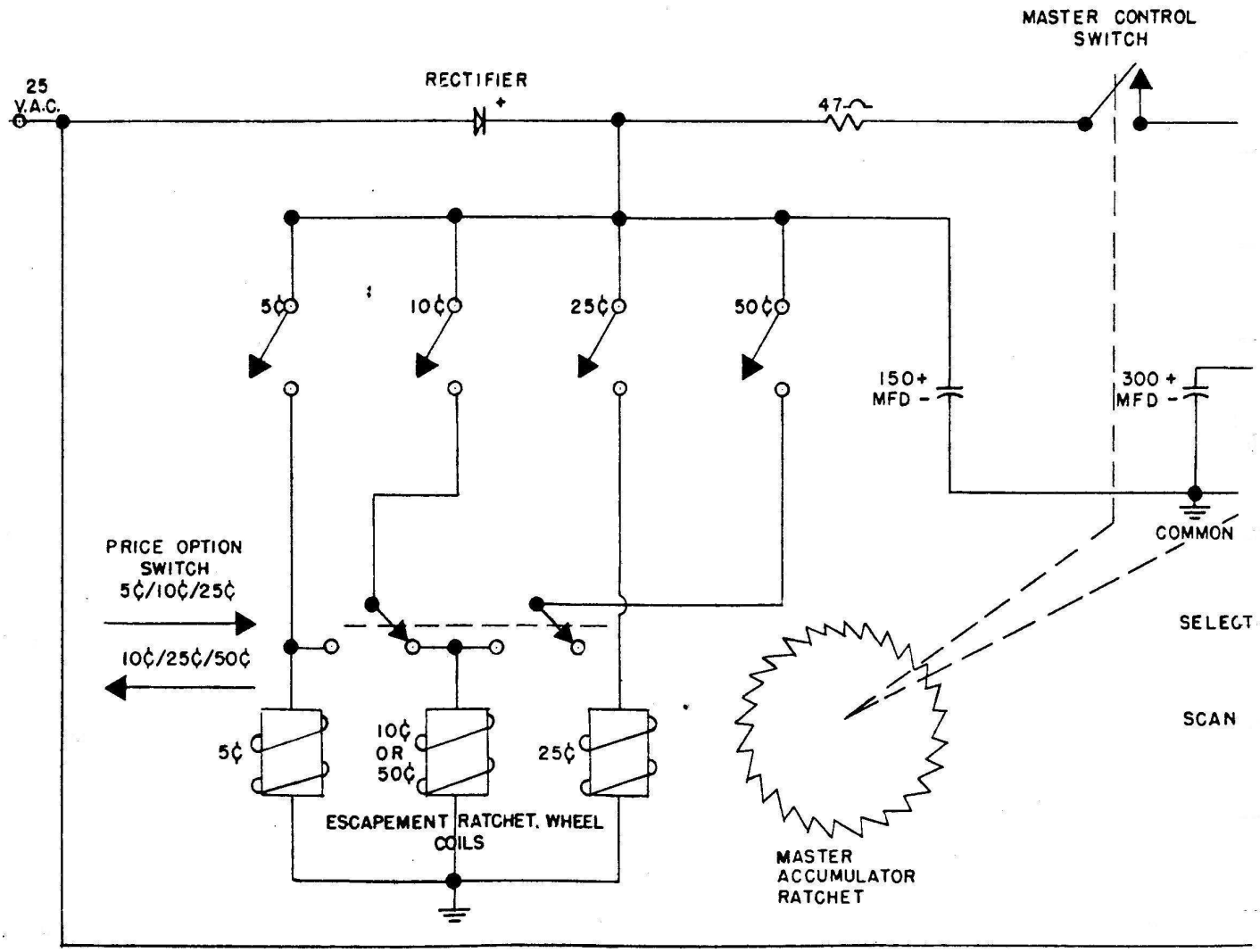
This sequence is repeated for every coin dropped. The circuit is such that both the 5¢ and 10¢ coin switch operate the master ratchet (F-Fig. 8). The 50¢ switch operates the center ratchet (E-Fig. 8) and the 25¢ coin switch operates the outer ratchet (D-Fig. 8). The stud which is staked to the master ratchet extends through the center and outer ratchet discs. It will be noted that the openings in these two ratchets are adjustable. These openings determine the amount of plays that can be accumulated on the master ratchet wheel. Various incentive coin combinations can be made by making the necessary adjustments. (See installation manual for instructions).

The price option switch (K-Fig. 8) merely accommodates a proper circuit for the usage of a 50¢ coin.

As the master ratchet rotates, the stud which was holding the control switch (B-Fig. 8) open, is rotated away from the control switch, and allows it to close. The top blades complete the circuit from the D.C. supply, through the reset contacts of the front door selection switches, to the 300 MFD. section of the electrolytic capacitor (A-Fig. 8). This charge on the electrolytic capacitor is dissipated in energizing the reset coil (J-Fig. 8) when a selector button is pressed. The gram pressure of the two top blades of the control switch is 35 to 40 grams, and the air gap is .015. The circuit to the "Select" light is completed when the two lower blades of the control switch close. The gram pressure of these blades is 10 to 15 grams, with a visible air gap between the blades.

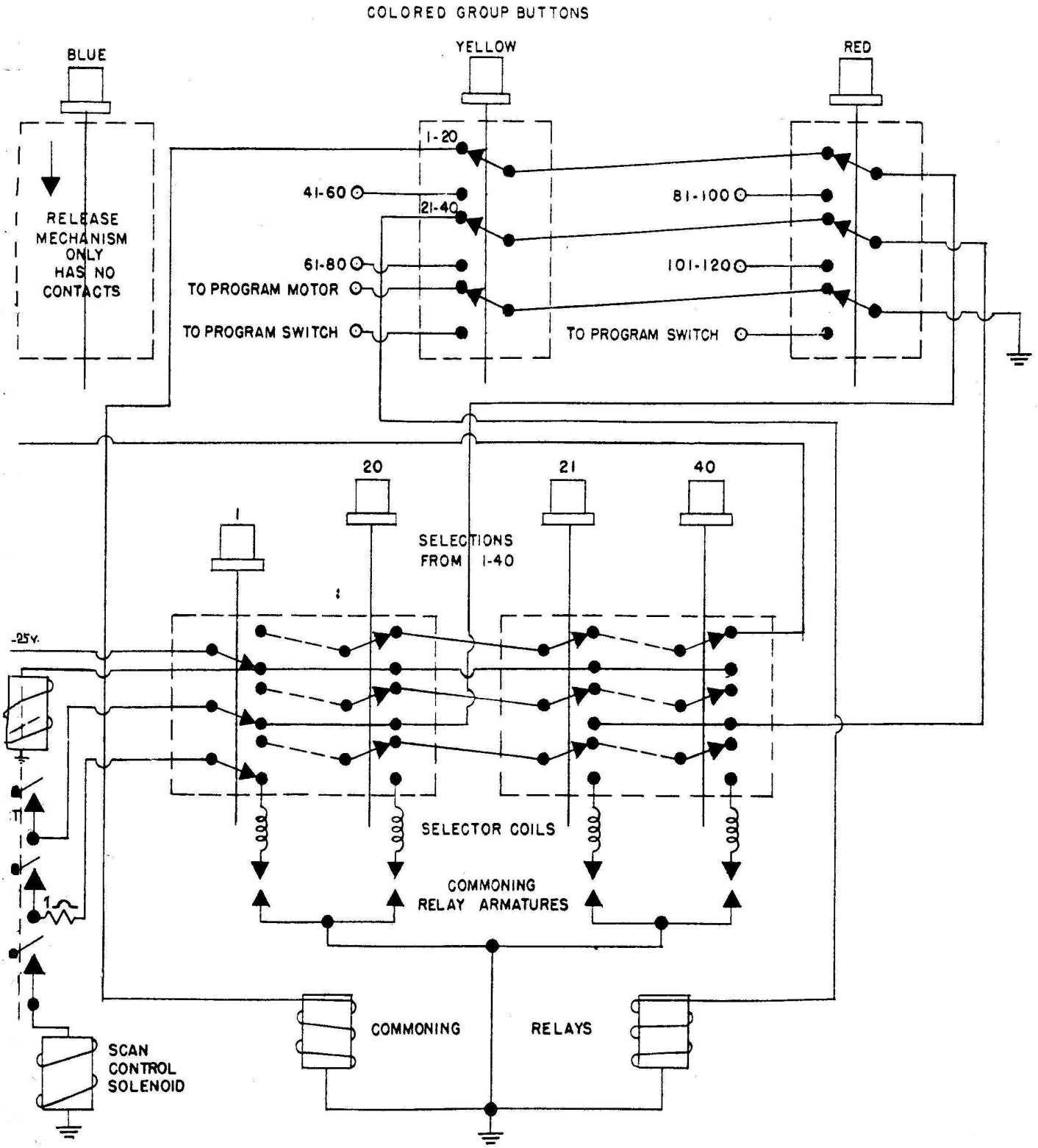
When the reset coil (J-Fig. 8) is energized, the reset armature is pulled against the pole-piece of the reset coil. The reset pawl (G-Fig. 8) engages the master ratchet (F-Fig. 8) and moves the master ratchet back one tooth. The reset coil assembly (J-Fig. 8) must be adjusted so that the reset pawl engages the master ratchet tooth approximately one-half of the tooth depth, and the stud on the ratchet escapement armature (C-Fig. 8) has about one-third of one tooth-length overtravel.

As the reset coil armature moves against the pole piece of the coil it closes the ganged section of three impulse switches (H-Fig. 8). In closing, the middle section of the switch should close slightly before the right section of the switch. The circuit through the middle section of the switch is completed through the program selection switches to a particular commoning relay coil in the selector unit assembly. The right section of the switch also completes a circuit through the program selection switches to a particular selector coil also in the selector unit assembly, corresponding to the selection made. The left section of the impulse switches closes a circuit to the scan control coil, allowing the magazine to scan. At the same time, the reset pawl (G-Fig. 8) moves the master ratchet back one tooth, and cancels one credit. When the last credit is cancelled the stud which is riveted to the master ratchet opens both sections of the control switch (B-Fig. 8) and breaks the circuit to the program selection switches, the selector unit assembly, and the "Select light".



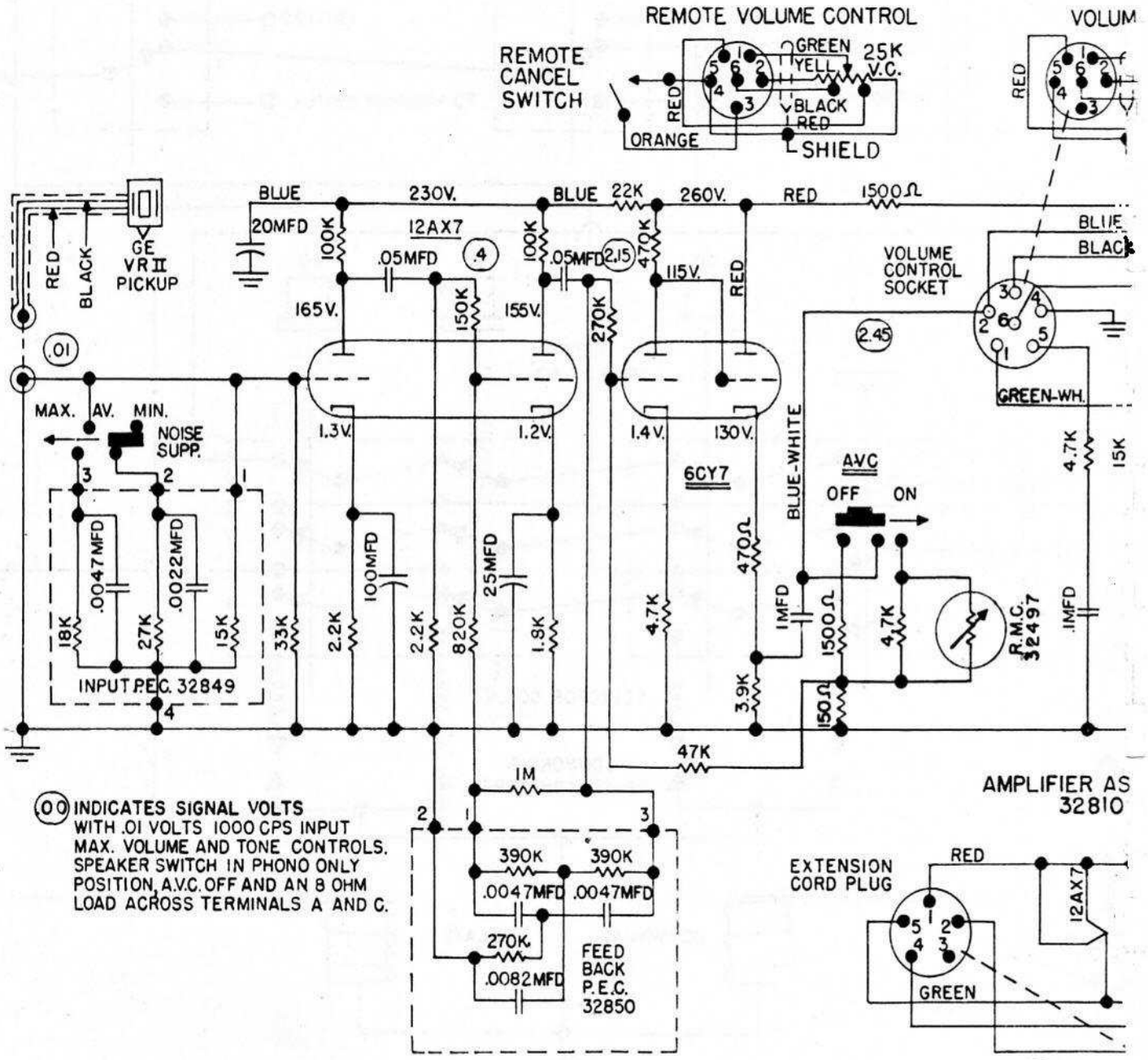
SCHEMATIC DIAGRAM OF SELECTION SYSTEM

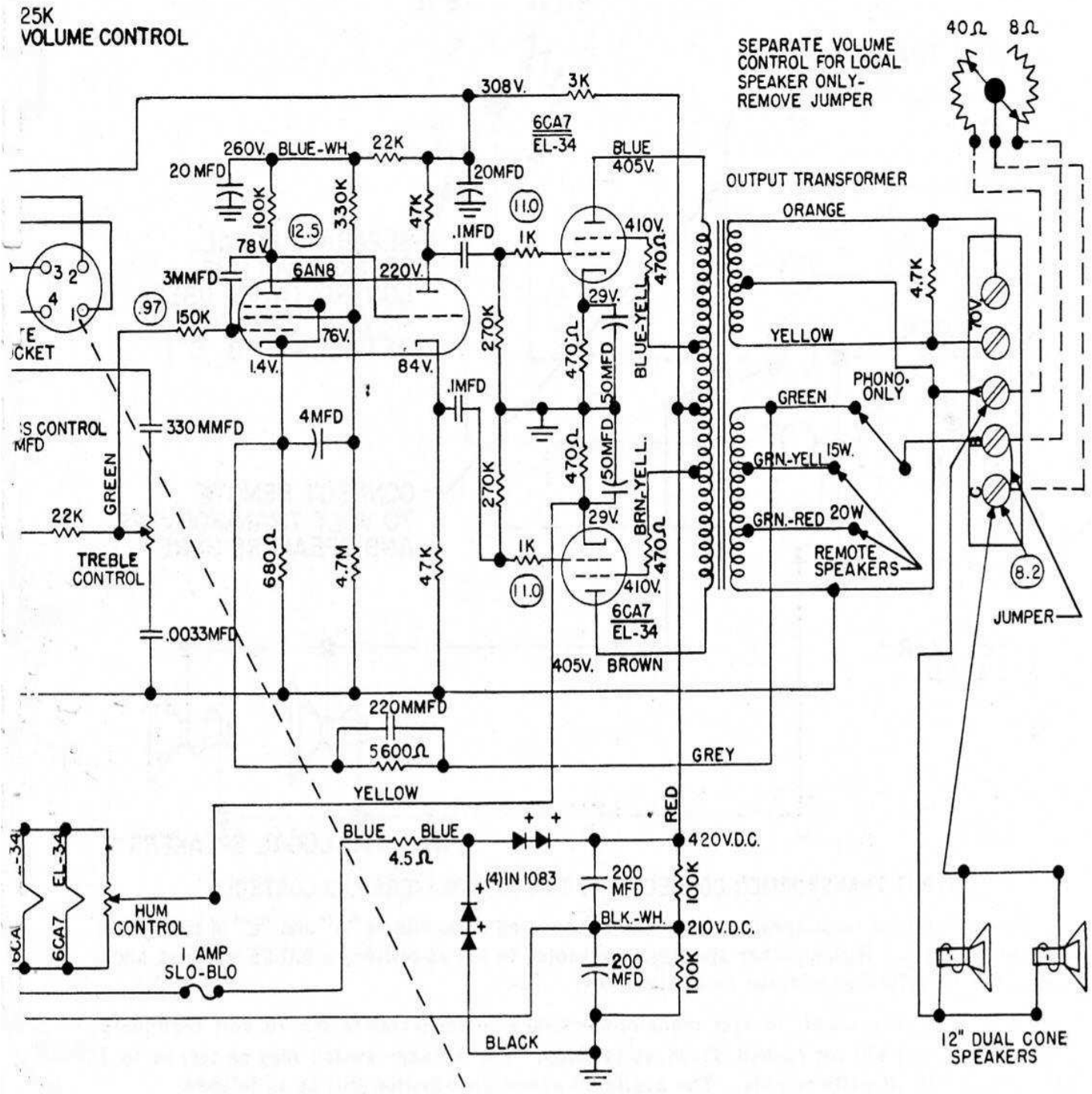
When a deposited coin strikes the 5¢ - 10¢ - 25¢ or 50¢ lever of the coin switch which is located below the slug rejector, a D.C. circuit is completed to the corresponding electro-magnet coil in the accumulator, releasing the master ratchet wheel. As the ratchet wheel rotates, the stud which was holding the control switch open, is rotated away from the control switch allowing it to close. A circuit is completed from the D.C. supply through the top level of the key switch and to the 300 MFD. section of the electrolytic capacitor.



SCHEMATIC DIAGRAM OF SELECTION SYSTEM

When a selector button is pressed, the reset coil is energized. The reset coil armature closes the commoning relay, selector coil and scan control coil contacts. A 25 V.A.C. circuit is completed through the commoning relay coil contact, the middle level of key switch, and the program switch energizing the proper commoning relay. Another circuit is completed through the selector coil contact and the lower level of the key switch to the proper selector coil. The final circuit is completed through the scan control contact energizing the scan control coil, allowing the magazine to scan.


REMOTE VOLUME CONTROL
REMOTE CANCEL SWITCH
GREEN
YELL
25K V.C.
BLACK
RED
ORANGE
SHIELD
VOLUM
RED
BLUE
230V.
20MFD
100K
12AX7
.4
.05MFD
165V.
150K
BLUE
22K
260V.
RED
1500Ω
100K
.05MFD
2.15
470K
115V.
155V.
270K
RED
GE VR II PICKUP
RED
BLACK
.01
MAX.
AV.
MIN.
NOISE SUPP.
3
2
1
.0047MFD
.0022MFD
18K
27K
15K
INPUT P.E.C. 32849
4
33K
2.2K
100MFD
2.2K
820K
25MFD
1.8K
1.3V.
1.2V.
1.4V.
130V.
6CY7
4.7K
470Ω
3.9K
150Ω
1MFD
1500Ω
4.7K
R.M.C. 32497
1MFD
AVC
OFF
ON
BLUE-WHITE
2.45
VOLUME CONTROL SOCKET
BLUE
BLACK
GREEN-WH.
4.7K
15K
47K
1M
2
1
3
390K
390K
.0047MFD
.0047MFD
270K
.0082MFD
FEED BACK P.E.C. 32850
.00 INDICATES SIGNAL VOLTS WITH .01 VOLTS 1000 CPS INPUT MAX. VOLUME AND TONE CONTROLS. SPEAKER SWITCH IN PHONO ONLY POSITION, A.V.C. OFF AND AN 8 OHM LOAD ACROSS TERMINALS A AND C.
AMPLIFIER AS 32810
EXTENSION CORD PLUG
RED
12AX7
GREEN

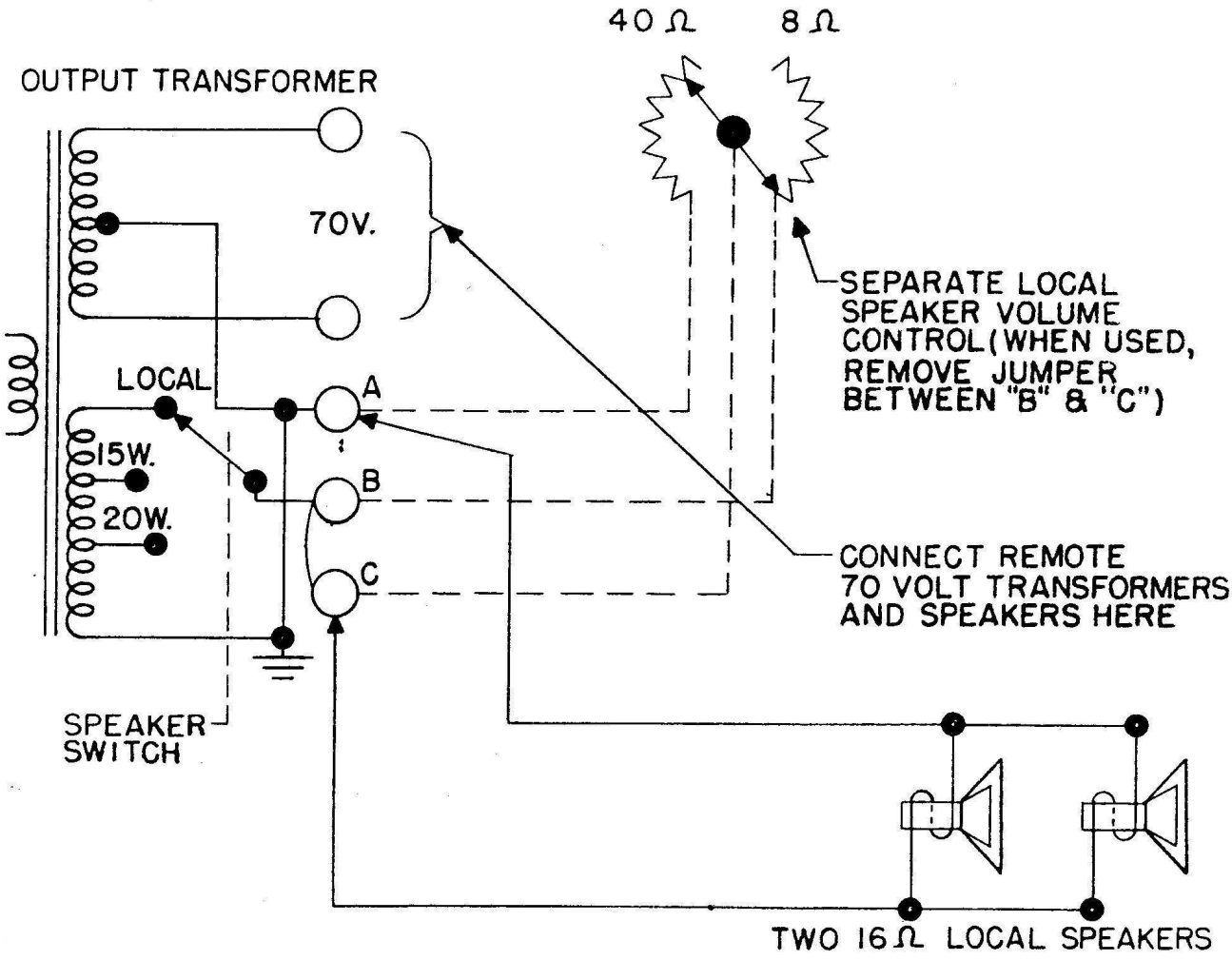

25K
VOLUME CONTROL
SEPARATE VOLUME CONTROL FOR LOCAL SPEAKER ONLY- REMOVE JUMPER
40Ω 8Ω
OUTPUT TRANSFORMER
308V.
3K
6CA7
EL-34
260V.
BLUE-WH.
22K
20 MFD
100K
330K
47K
.1MFD
1K
410V.
470Ω
BLUE
405V.
ORANGE
YELLOW
GREEN
PHONO. ONLY
GRN.-YEL.
15W.
GRN.-RED
20W
REMOTE SPEAKERS
4.7K
70V.
8.2
JUMPER
78V.
6AN8
220V.
3MMFD
150K
76V.
1.4V.
84V.
270K
29V.
BLUE-YELL.
50MFD
BRN.-YEL.
330 MMFD
4MFD
22K
TREBLE CONTROL
680Ω
4.7M
47K
.0033MFD
405V. BROWN
220MMFD
5600Ω
GREY
YELLOW
RED
BLUE
4.5Ω
420V.D.C.
(4)IN 1083
200 MFD
BLK.-WH.
210V.D.C.
HUM CONTROL
1 AMP SLO-BLO
BLACK
12" DUAL CONE SPEAKERS

ROCK-OLA
MODEL 1468 HIGH FIDELITY AMPLIFIER

The ROCK-OLA high fidelity amplifier makes available 25 watts of audio power to the loud speaker system.

SPEAKER SYSTEM AND OUTPUT TRANSFORMER

The output transformer has been designed to distribute the audio power to various loud speakers, as desired.



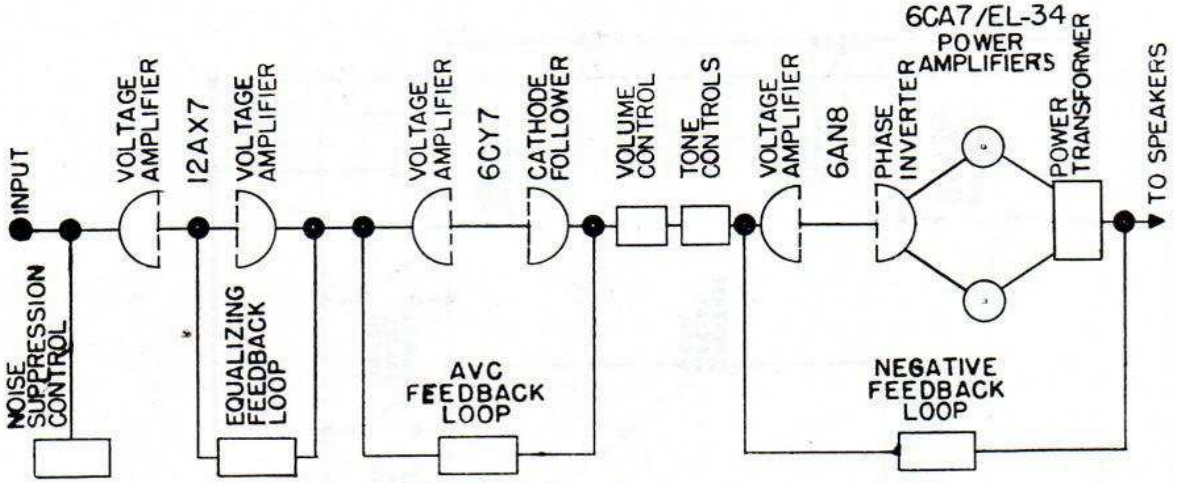
OUTPUT TRANSFORMER CONNECTIONS TO LOUDSPEAKERS AND CONTROLS

The two 16 ohm local speakers have been connected to terminals "A" and "C" of the speaker terminal strip. With no other speakers connected to the amplifier, a full 25 watts of audio power may be delivered to these local speakers.

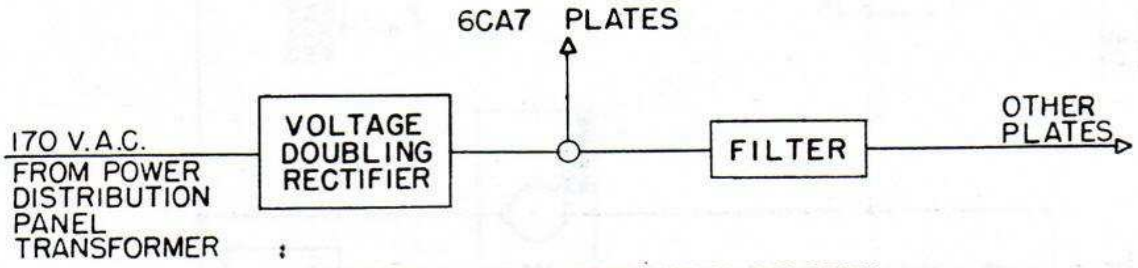
Remote speakers with 70 volt transformers may be connected to the 70 volt terminals. Voltage to ground will not exceed 35. 35. volts **RMS.** The speaker switch may be turned to 15 watts remote or 20 watts remote. The available power distribution will be as follows:

SPEAKER SWITCH POSITION	LOCAL SPEAKERS	REMOTE SPEAKERS
Local	25 watts	0
15 watts remote	10 watts	15 watts
20 watts remote	5 watts	20 watts

If greater load division is required, a separate local speaker volume control, in addition to the amplifier volume control may be obtained and connected across terminals "A", "B" and "C", in which case the jumper across terminals "B" and "C" is removed. The separate local speaker volume control will reduce the volume of the local speakers, while maintaining the volume at the remote speakers.



AMPLIFIER FUNCTIONAL DIAGRAM



B+ POWER SUPPLY FUNCTIONAL DIAGRAM

TUBE LINE UP

The Model 1468 amplifier utilizes the readily available 6 CA 7/ EL 34 power pentodes in a push-pull stage, driven by the triode section of a 6 AN 8 as a phase inverter. The pentode section of the 6 AN 8 serves as a voltage amplifier with negative feed-back applied to its cathode from the secondary of the output transformer to obtain low distortion.

The bass and treble controls together with a volume control are fed from a low impedence cathode follower arrangement of a 6 CY 7 triode section. Either the volume control provided on the machine or a remote volume control as far as a hundred feet from the phonograph may be used. The low impedence circuitry minimizes hum or other extraneous pickup. The cathode follower also drives a thermistor controlled AVC feed-back loop to the voltage amplifier triode section of the 6 CY 7. Dynamic range of the recorded music is preserved, but the average level of the output for different records is kept within an optimum range by this circuitry.

A mute socket provides connection of the volume control to the external circuitry which blocks the amplifier during all cycles but the music cycle of operation.

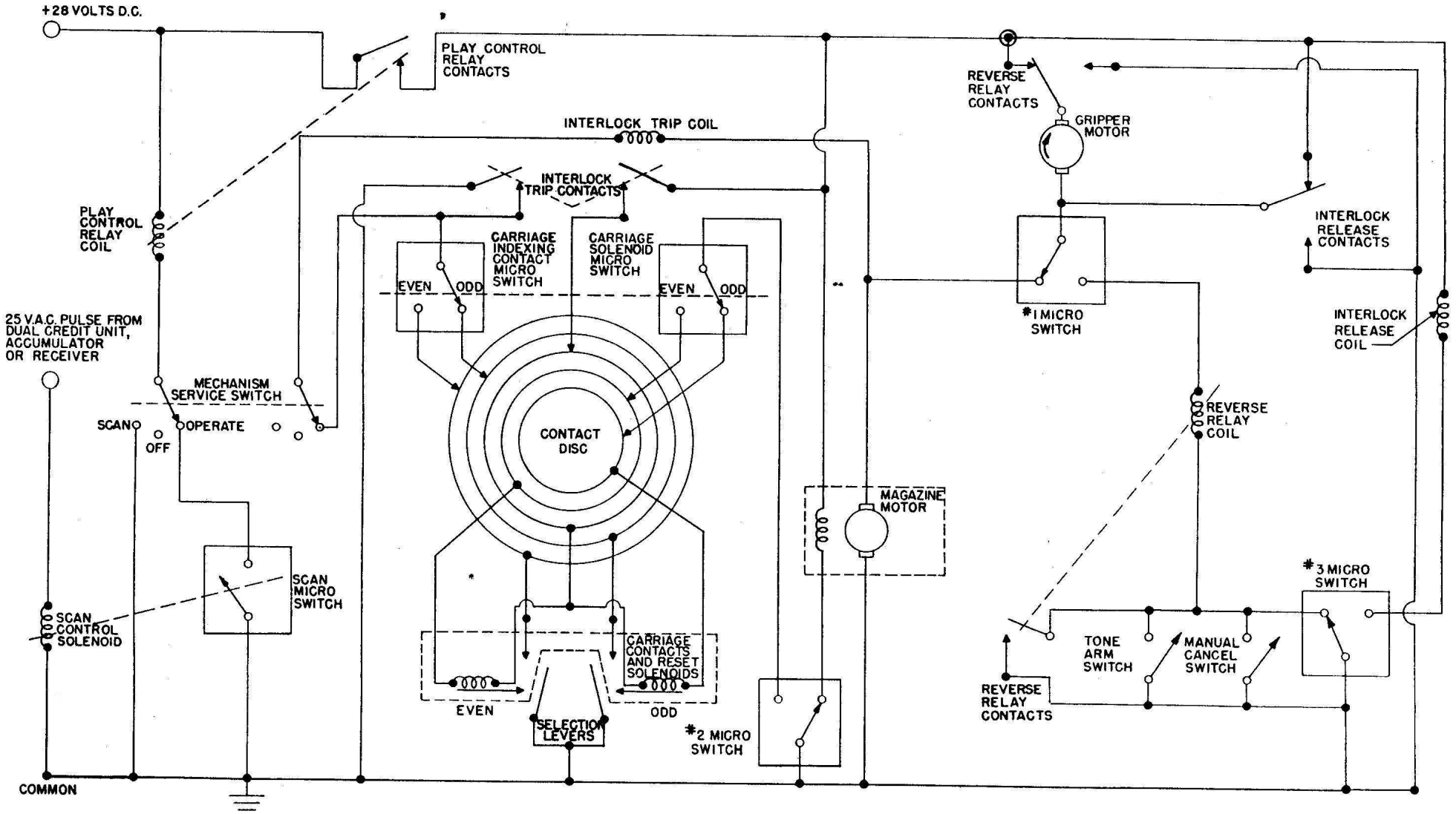
A 12 AX 7 pre-amplifier utilizes further negative feed-back for equalization of the pickup characteristics and minimum distortion. A noise suppression switch introduces circuitry at the imput of the pre-amplifier to suppress the "scratch" of worn records. When records are new, the switch should be in the "min." position.

PICKUP

A General Electric VR II magnetic pickup provides frequency response from 30 to 20,000 c/s with minimum record wear. The sapphire needle may be replaced with a new one, when distortion becomes apparent.

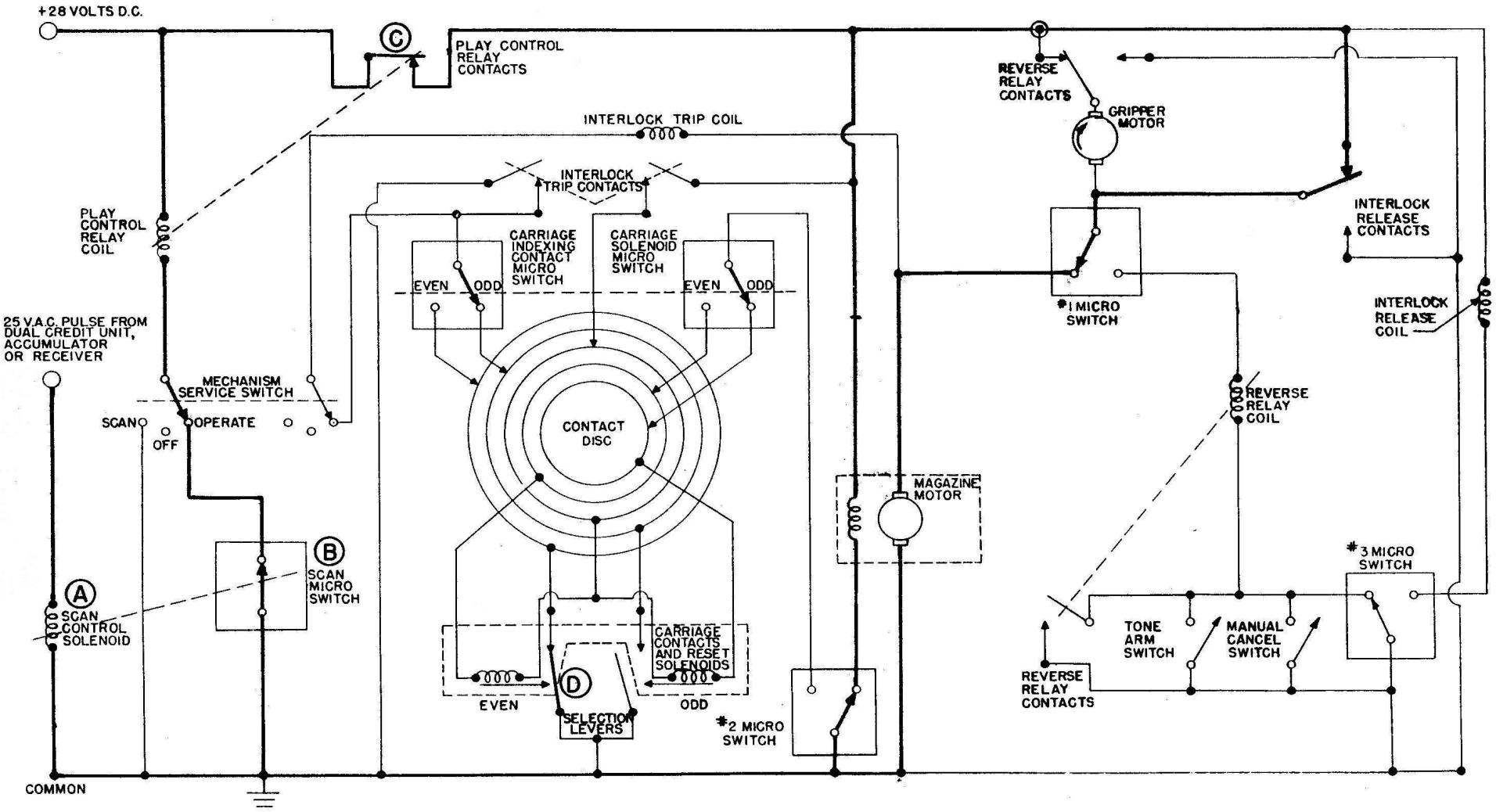
AMPLIFIER POWER SUPPLY

B plus power from the amplifier is obtained from a voltage doubler circuit, utilizing silicon rectifiers and a total of 400 microfarads of electrolytic capacitors. This circuit is protected by a 1 ampere slo-blo fuse.



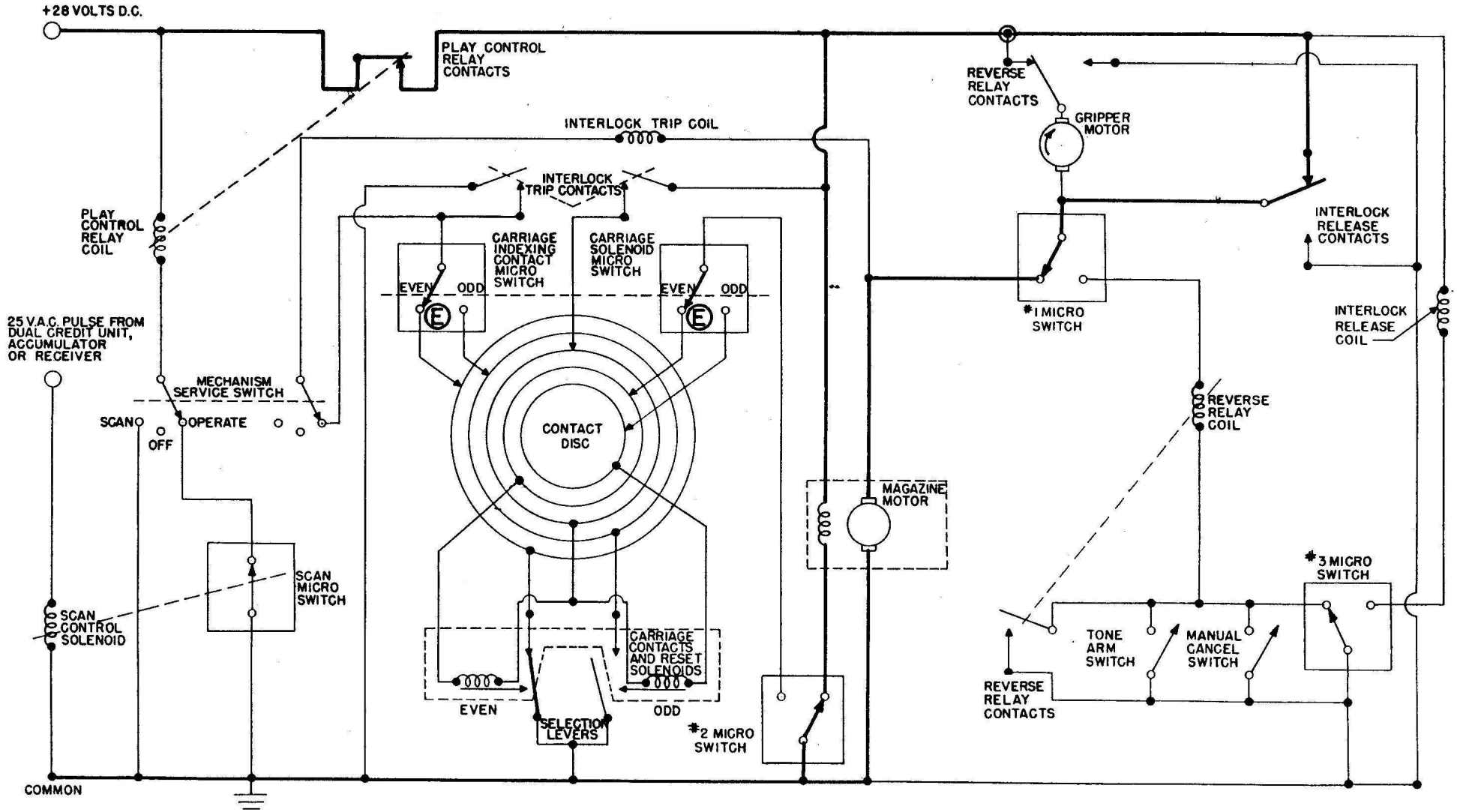
Sequence No. 1 POWER ON - NO SELECTIONS REGISTERED

Grip arm over magazine.



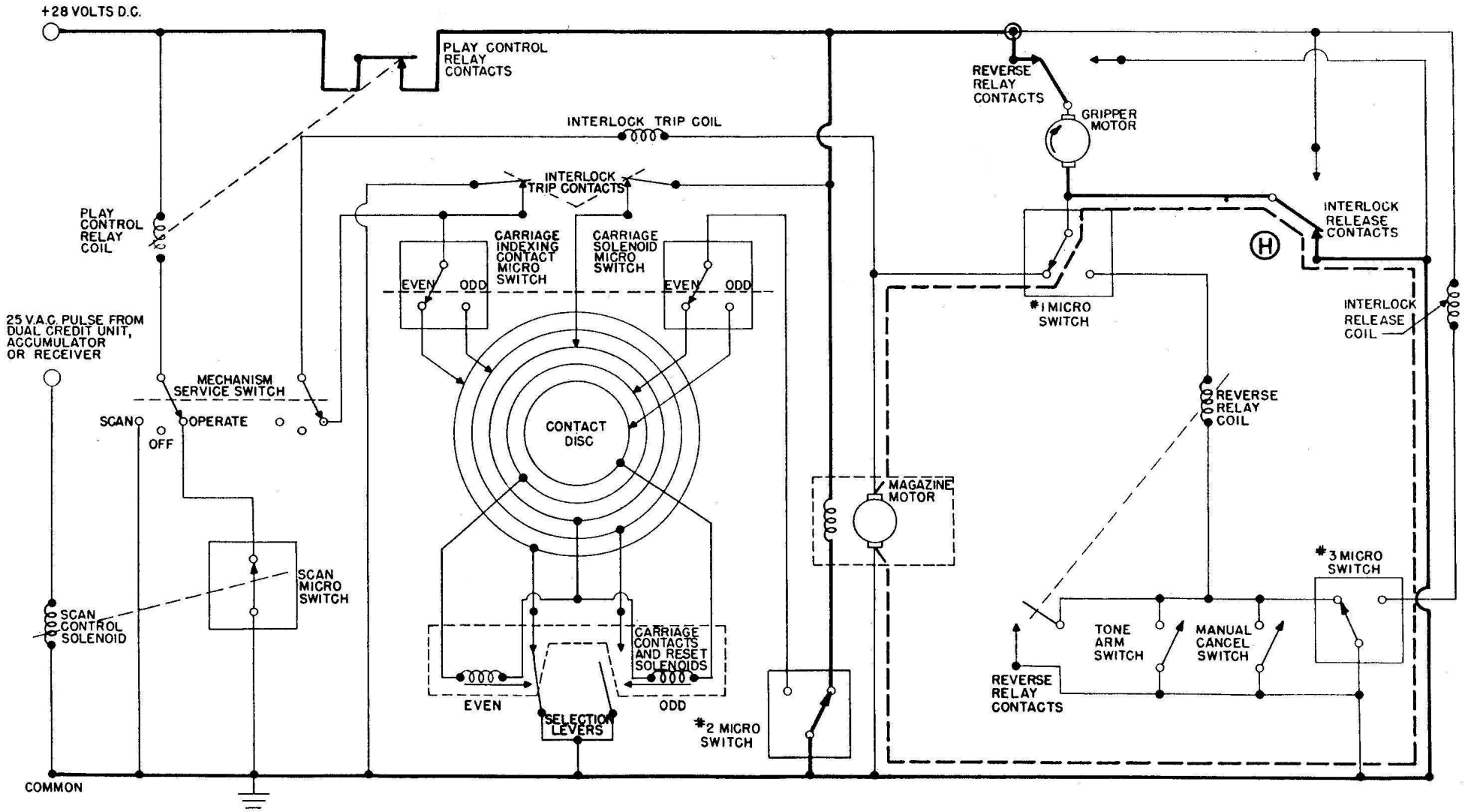
Sequence No. 2 SELECTION REGISTERED

The "Scan control solenoid" (A) is momentarily energized by a pulse from the dual credit unit, accumulator or receiver unit, actuating the scan control ratchet. This operates the "Scan micro switch" (B) completing the circuit to the "Play control relay". Relay operates, starting amplifier and turntable motor (circuit not shown) and contact "C" closes circuit to magazine motor. Record magazine begins to rotate. Simultaneously, selector coil is energized, causing selector lever (D) to move to "play" position.



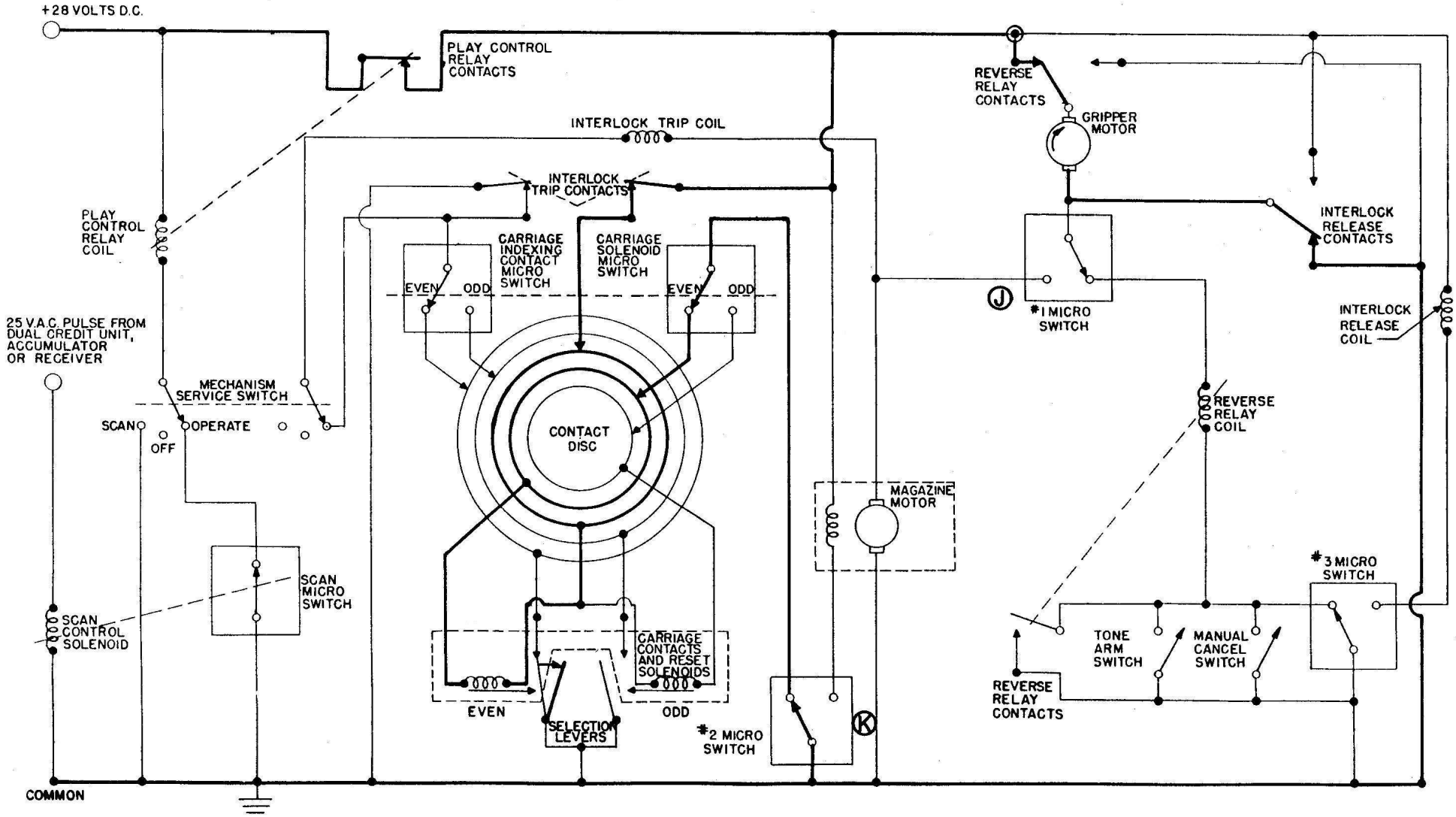
Sequence No. 3 EVEN NUMBERED SELECTIONS REGISTERED

From a standby position, the ODD-EVEN micro switch circuits are conditioned to select the odd numbered selections first. As the record magazine cycles and fails to locate an odd numbered selection, the two ODD-EVEN micro switches then connect circuits for even numbered selections (E), through a mechanical action that is caused by the cycling of the record magazine.



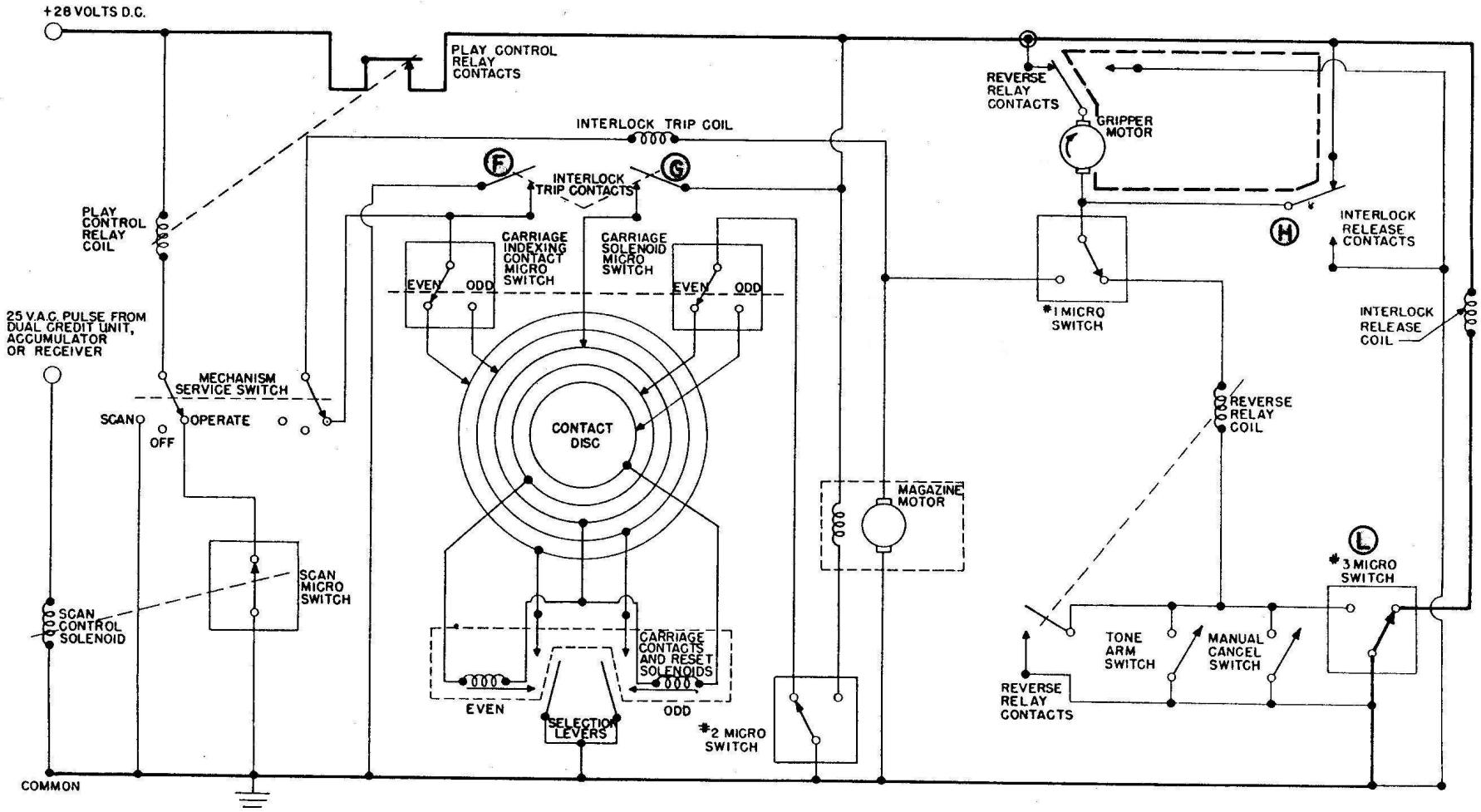
Sequence No. 5 RECORD INDEXED

As the trip armature of the interlock completes its stroke, the release armature relaxes, repositioning contact (H). This short circuits the magazine motor armature (dotted lines), dynamically braking the magazine and bringing it to a quick stop. A circuit is simultaneously completed to the gripper motor through the contact (H), causing it to engage the indexed record.



Sequence No. 6 SELECTION LEVER RESET

Just prior to the grip jaws engaging the record, the "micro switch cam cluster" operates the "No. 1 micro switch" (J) which is closest to the gripper housing, thereby disconnecting the magazine motor armature. The gripper motor continues to operate and places the record on the turntable. At this point, the "No. 2 micro switch" (K) (which is the center micro switch) operates and closes the circuit to the proper "Selection lever reset solenoid". This causes a spring plunger to push the registered selection lever to its normal position. Also, the field circuit of the magazine motor is disconnected.

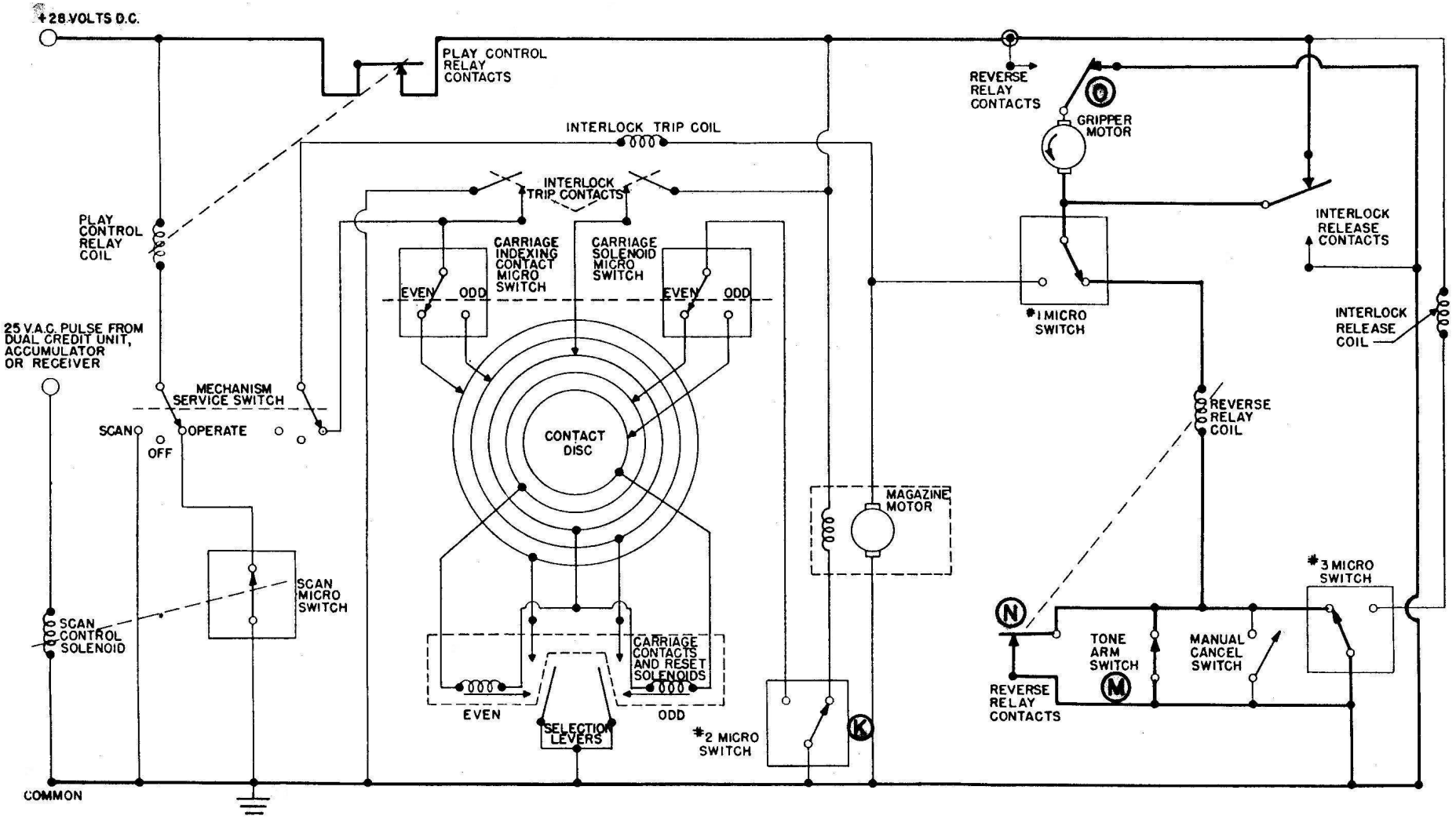


Sequence No. 7 RECORD TRANSFER CYCLE COMPLETED. GRIP MOTOR STOPS.

Continued operation of the gripper motor opens the grip arm jaws and places the tone arm into the record entry groove. At this point, the "micro switch cam cluster" operates the "No. 3 micro switch" (L) (which is farthest away from the gripper housing) completing a circuit to the "Interlock release coil".

The energized "interlock release armature" places contact (H) in its original position. This places a short circuit across the gripper motor, dynamically braking it and stopping the grip mechanism. As the "Interlock release armature" completes its stroke, the "Interlock trip armature" relaxes, opening contacts (F) and (G). The opening of contact (G) breaks the circuit to the "Selection lever reset solenoid".

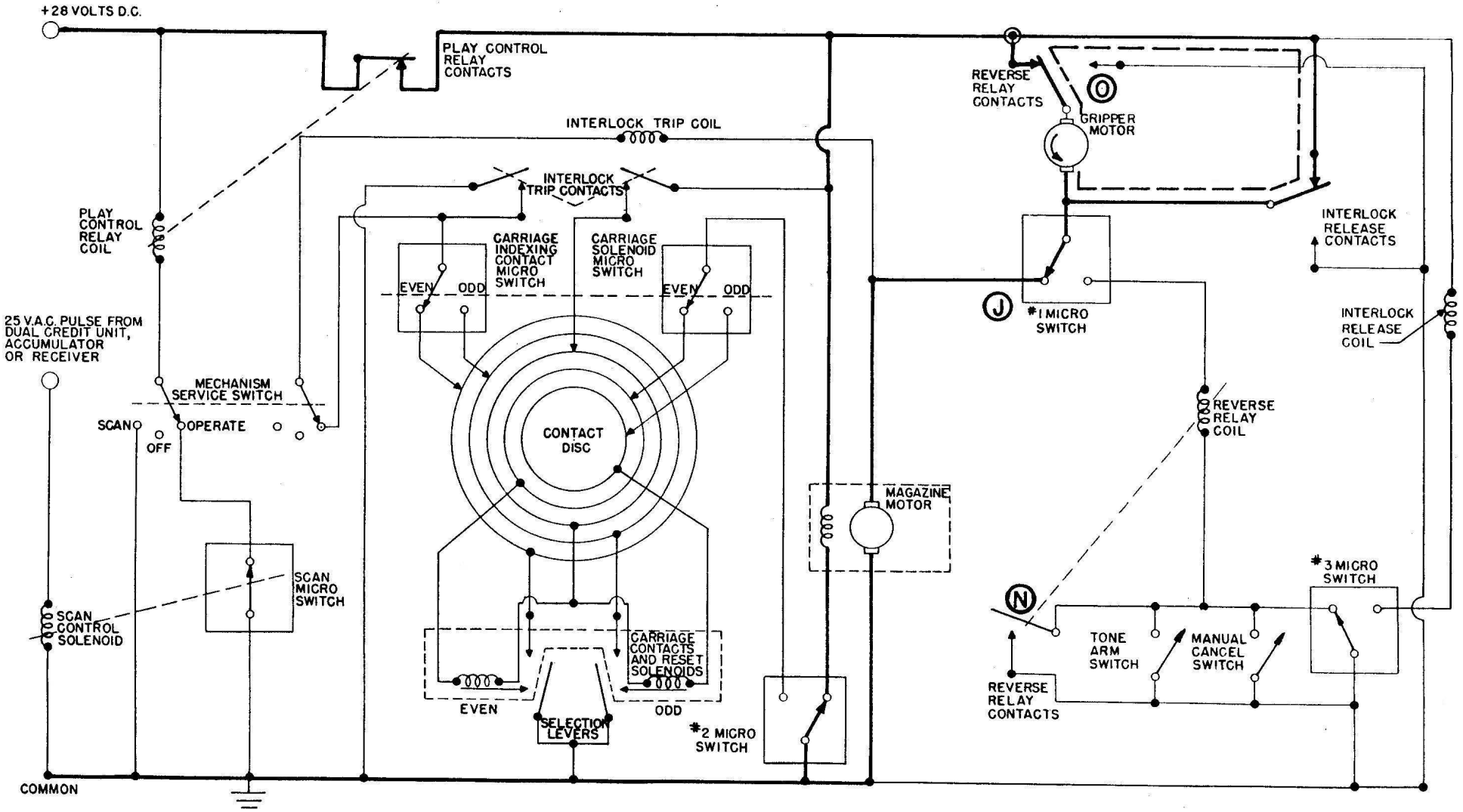
The music cycle now begins.



Sequence No. 8 MUSIC CYCLE ENDED

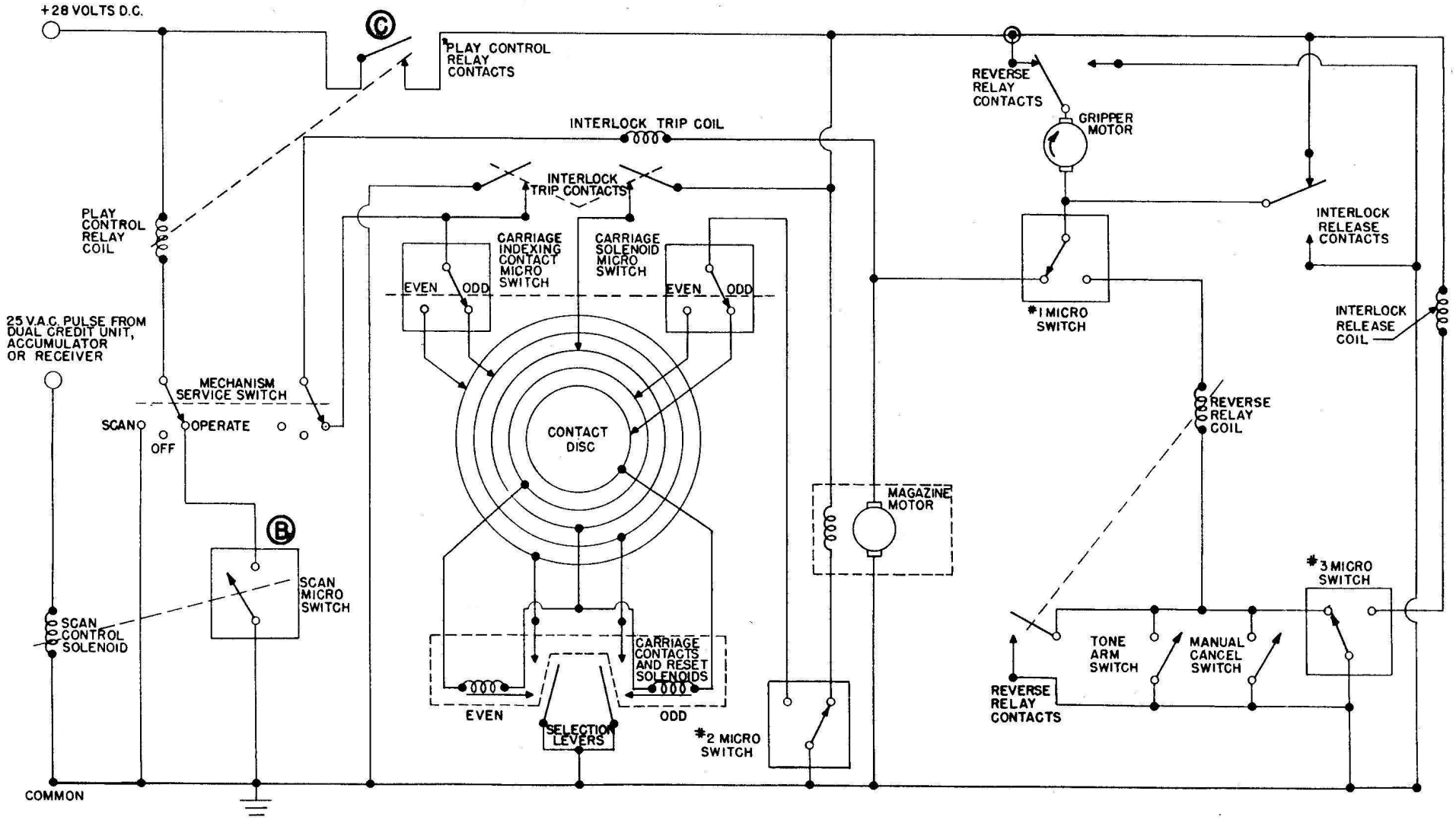
As record play is ended, the tone arm moves into the cut-off groove and operates the tone arm switch (M). This completes a circuit to the "Reverse relay", thereby closing contact (N) and repositioning contact (O). Contact (N) serves as a locking contact for the "Reverse relay coil" to provide for momentary energizing. Contact (O) completes the gripper motor circuit in such a manner that is direction of rotation is reversed, closing the grip jaws on the record.

At this point "No. 3 micro switch" is operated by the "Micro switch cam cluster", and places a holding circuit to the "reverse relay coil" in parallel with the locking contact (N). As the gripper proceeds to return the record to the magazine, "No. 2 micro switch" (K) is operated by the "Micro switch cam cluster".



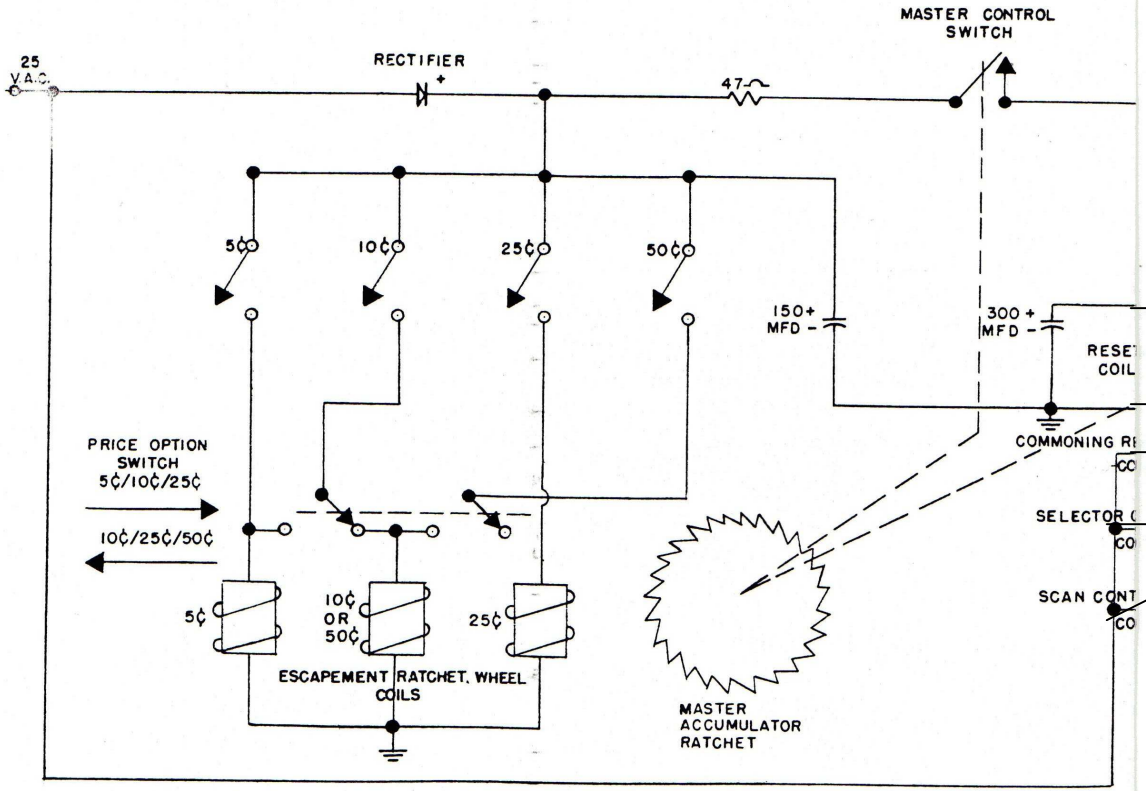
Sequence No. 9 RECORD RETURNED TO MAGAZINE

As the grip arm jaws begin to release the record in the magazine, the continued operation of the camshaft operates the "No. 1 micro switch" (J). This opens the circuit to the "Reverse relay", repositioning contact (O) and causes "Reverse relay contact" (N) to relax. The repositioning of contact (O) places a short circuit on the gripper motor. Simultaneously, a circuit is completed to the magazine motor armature through the "No. 1 micro switch" (J), which causes the record magazine to rotate.



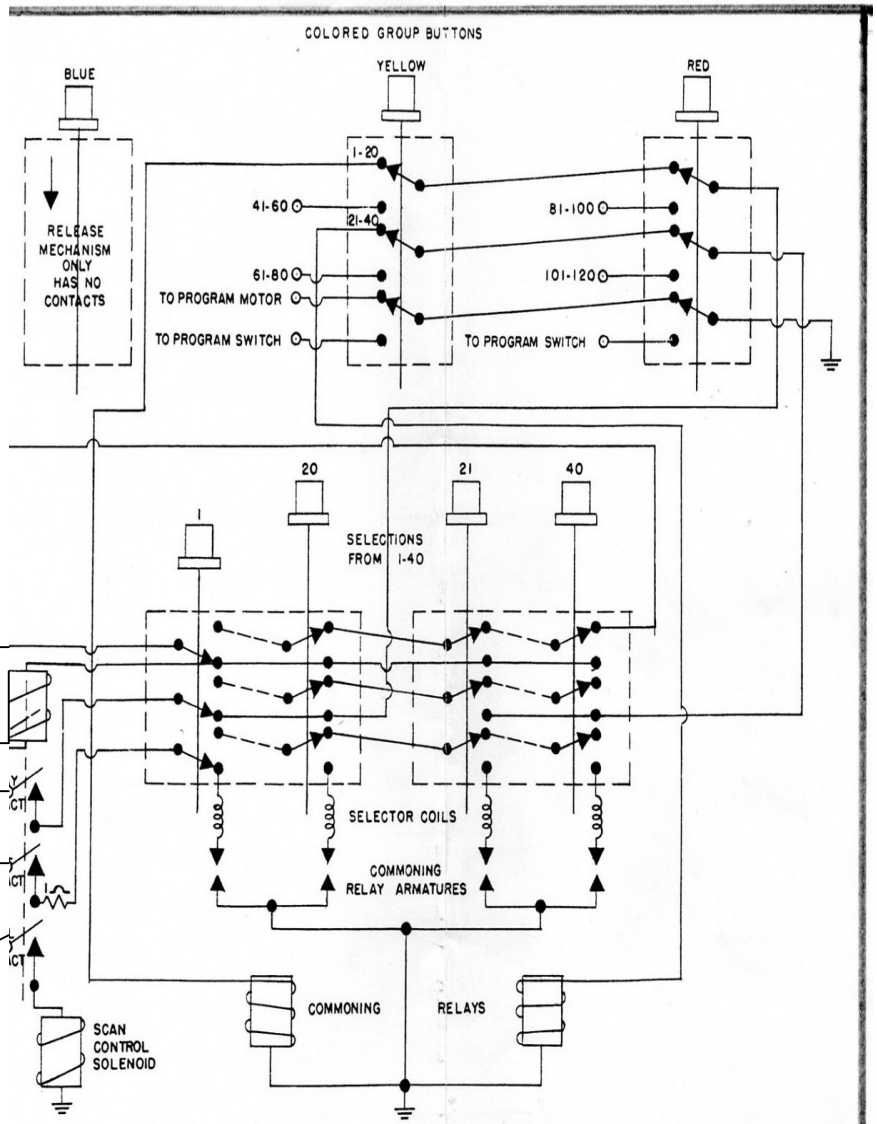
Sequence No. 10 SCAN CYCLE COMPLETED

Each time the record magazine completes one revolution, it resets the "scan control ratchet" one tooth. The second revolution will reset the "scan mechanism" and allow the "Scan micro switch" (B) to open, breaking the circuit to the "Play control relay". This opens contact (C) thus shutting off power to the D.C. motors and also opens the amplifier and turntable circuits.



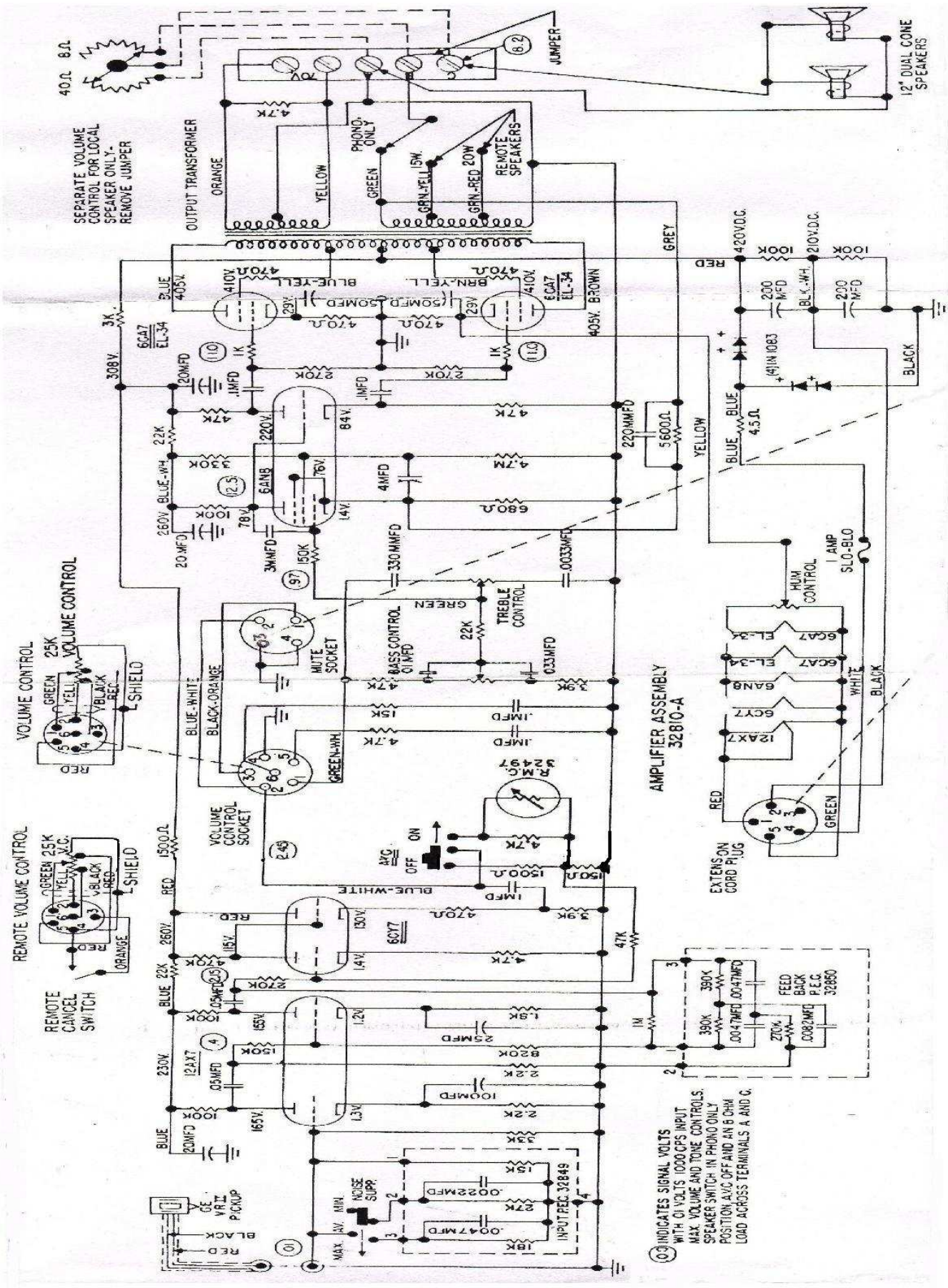
SCHEMATIC DIAGRAM OF SELECTION SYSTEM

When a deposited coin strikes the 5¢ - 10¢ - 25¢ or 50¢ lever of the coin switch which is located below the slug rejector, a D.C. circuit is completed to the corresponding electro-magnet coil in the accumulator, releasing the master ratchet wheel. As the ratchet wheel rotates, the stud which was holding the control switch open, is rotated away from the control switch allowing it to close. A circuit is completed from the D.C. supply through the top level of the key switch and to the 300 MFD. section of the electrolytic capacitor.

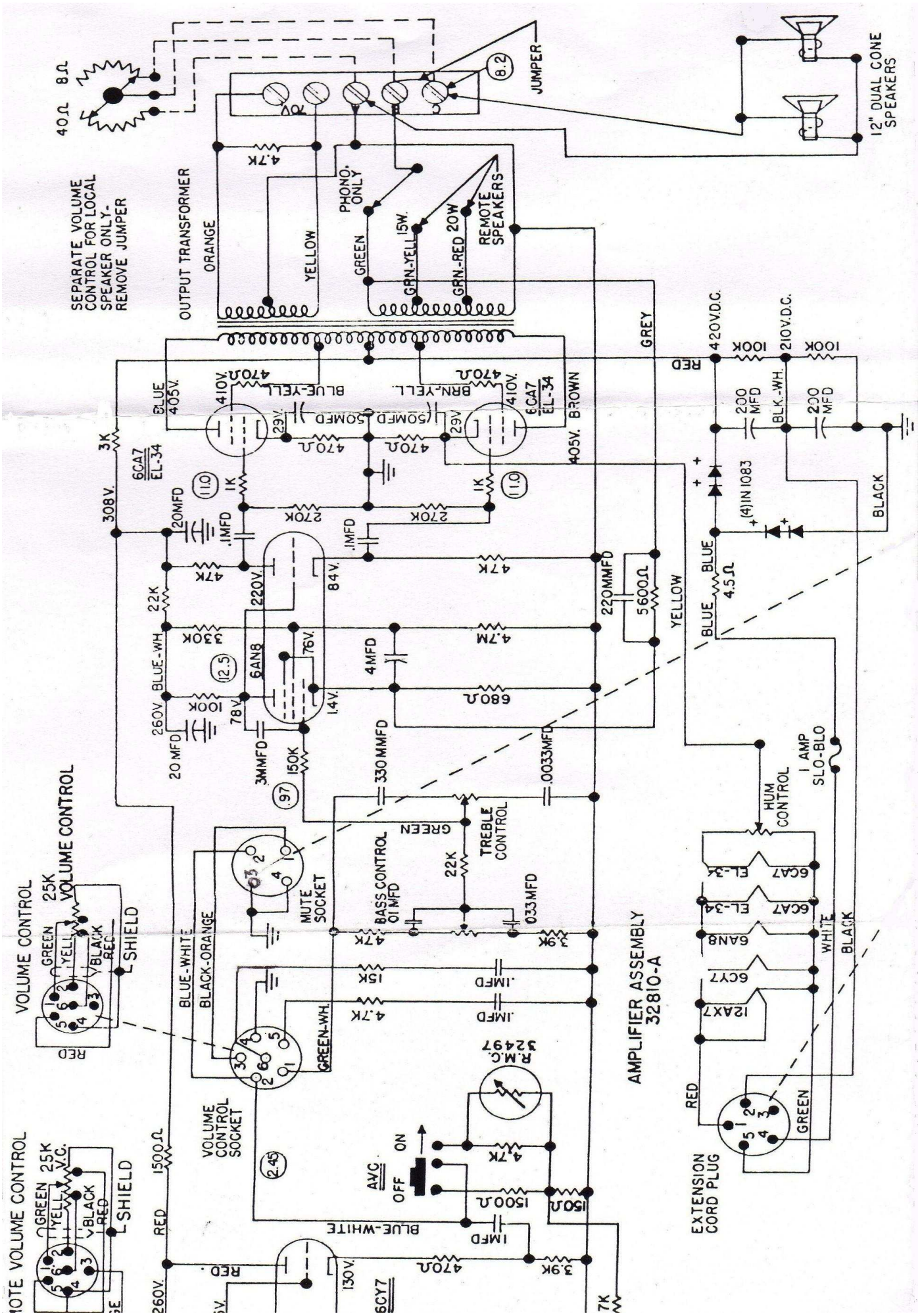


SCHEMATIC DIAGRAM OF SELECTION SYSTEM

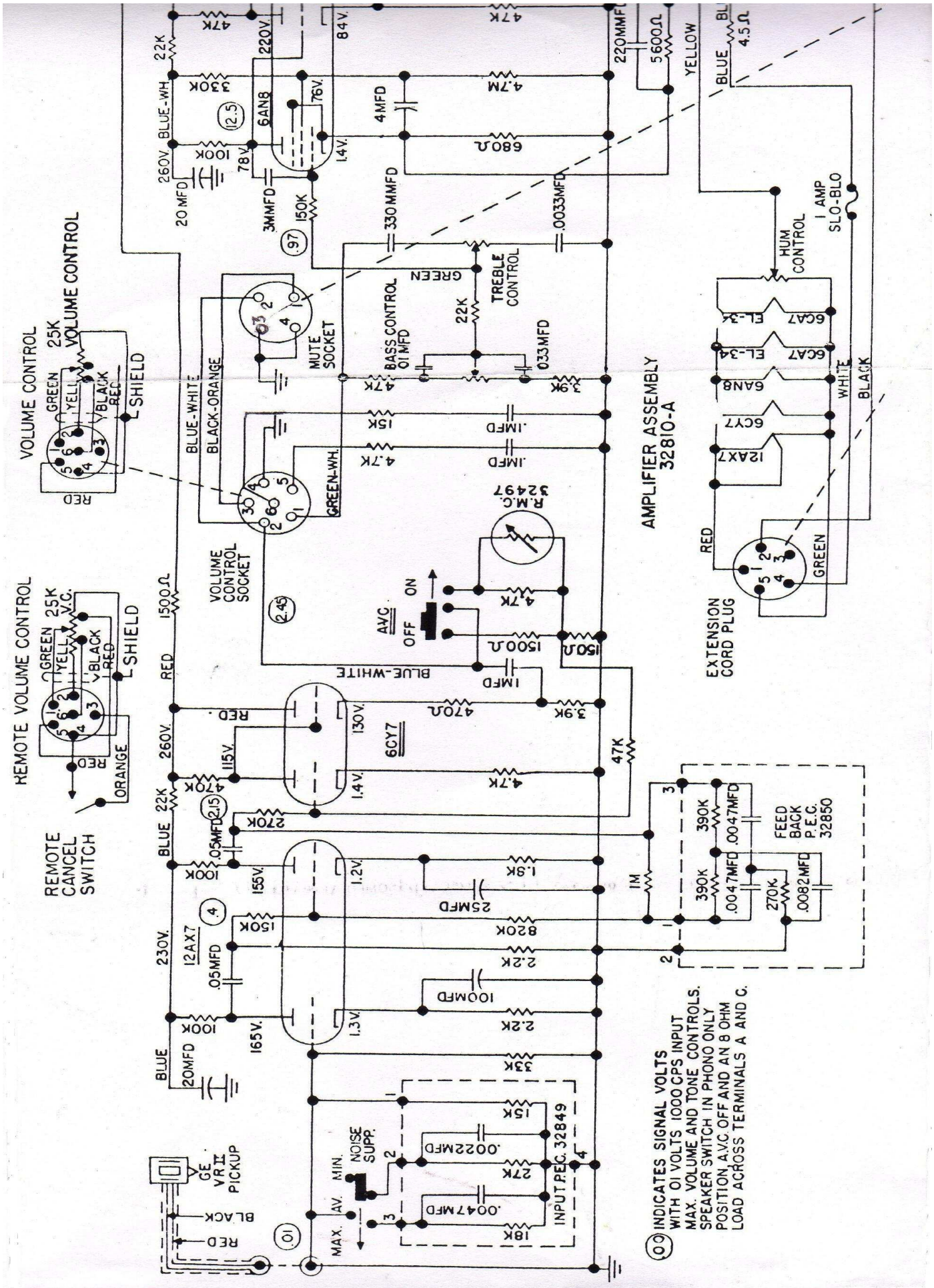
When a selector button is pressed, the reset coil is energized. The reset coil armature closes the commoning relay, selector coil and scan control coil contacts. A 25 V.A.C. circuit is completed through the commoning relay coil contact, the middle level of key switch, and the program switch energizing the proper commoning relay. Another circuit is completed through the selector coil contact and the lower level of the key switch to the proper selector coil. The final circuit is completed through the scan control contact energizing the scan control coil, allowing the magazine to scan.



COMPLETE MONO AMPLIFIER SCHEMATIC



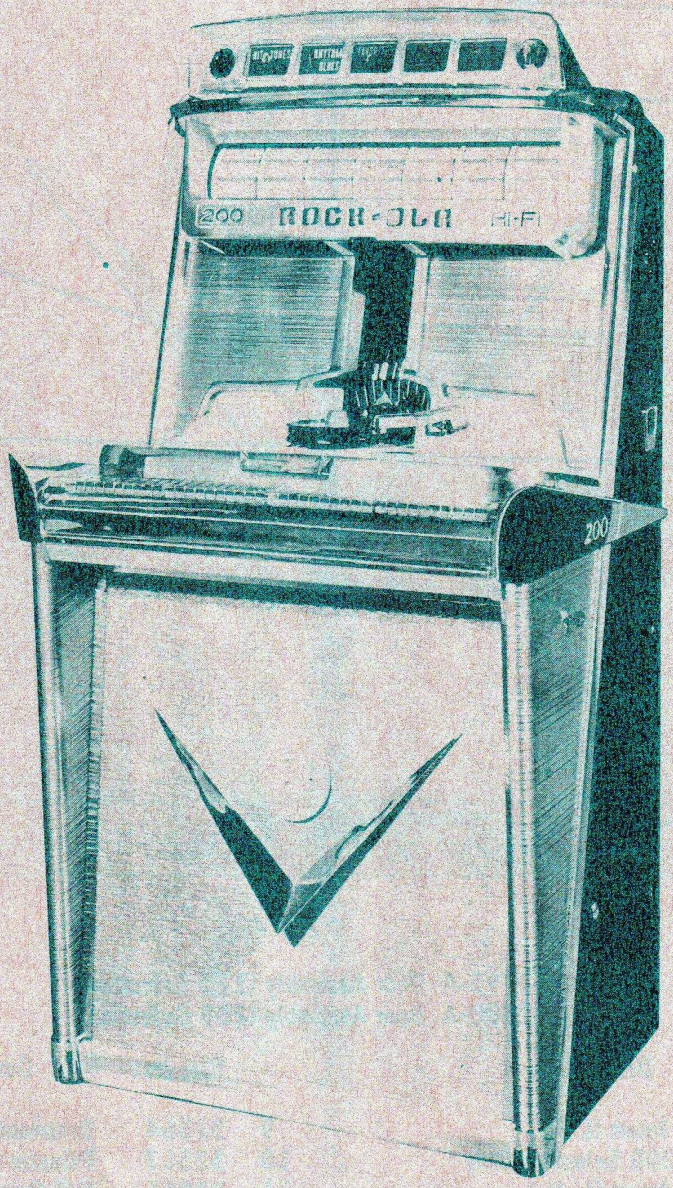
MONO AMPLIFIER SCHEMATIC- Right side



MONO AMPLIFIER SCHEMATIC- Left side

ROCK-OLA

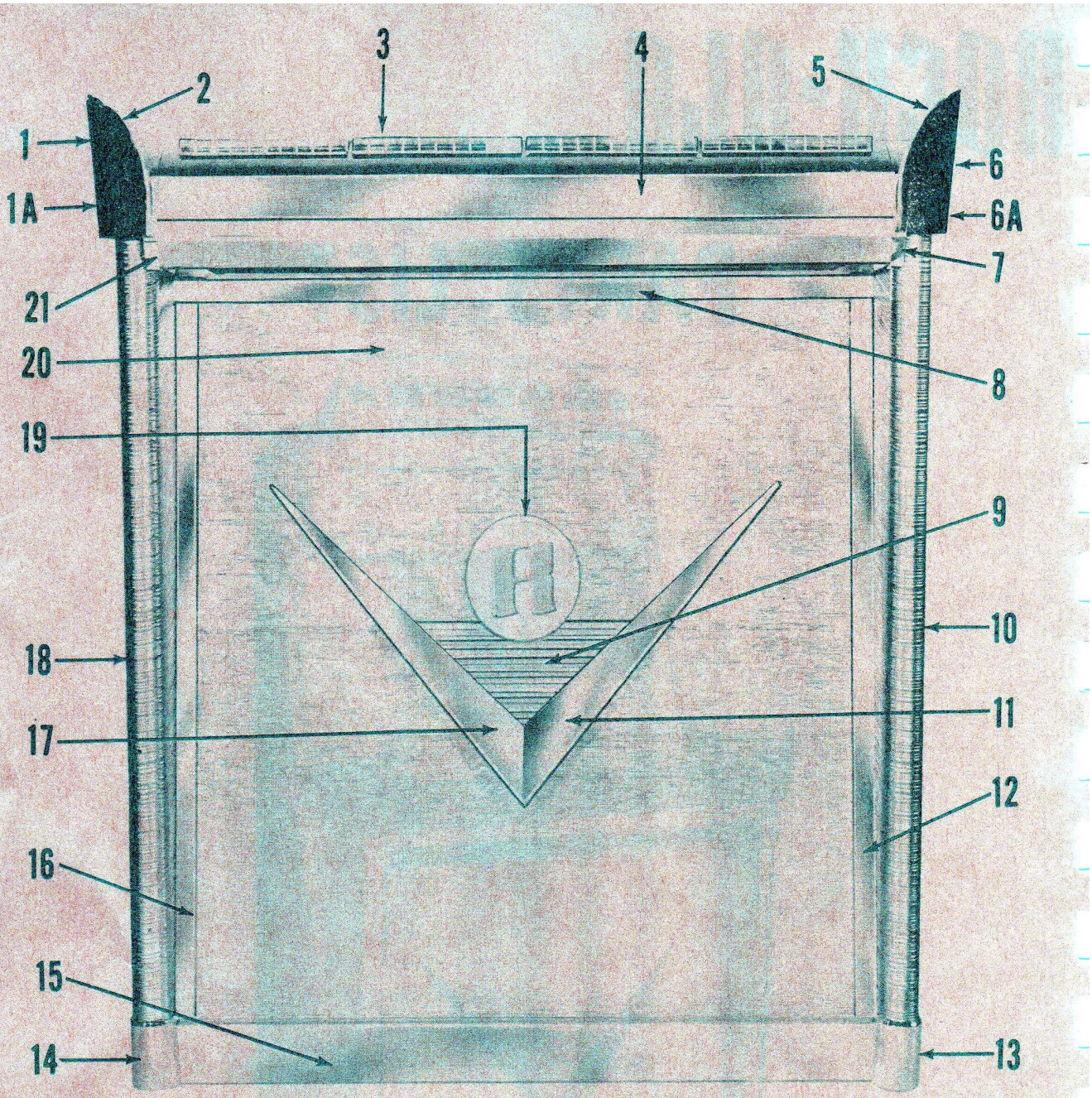
PARTS LIST



MODEL 1475 PHONOGRAPH

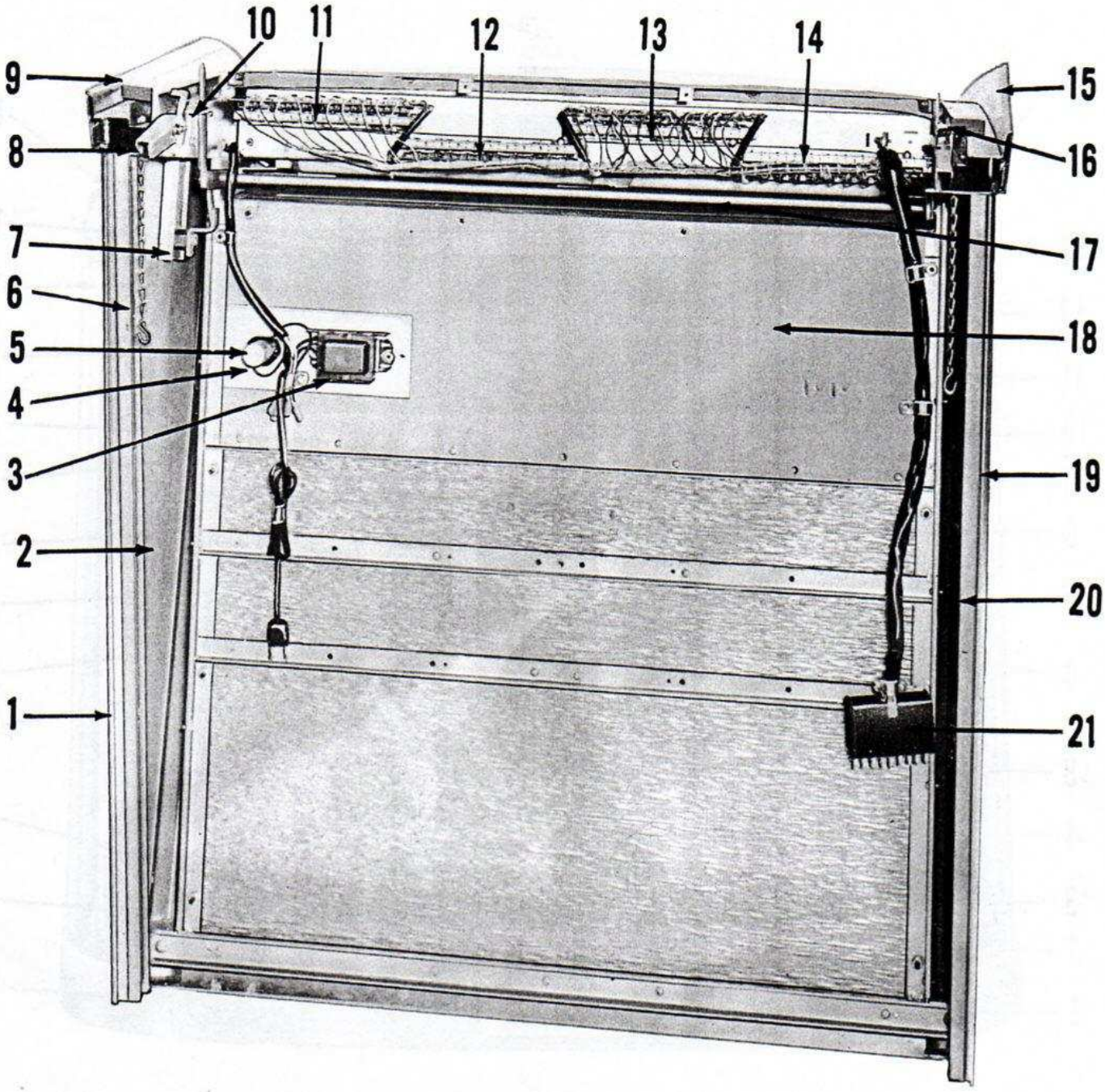
200 SELECTION

ROCK-OLA MANUFACTURING CORPORATION
800 NORTH KEDZIE AVENUE
CHICAGO 51, ILLINOIS



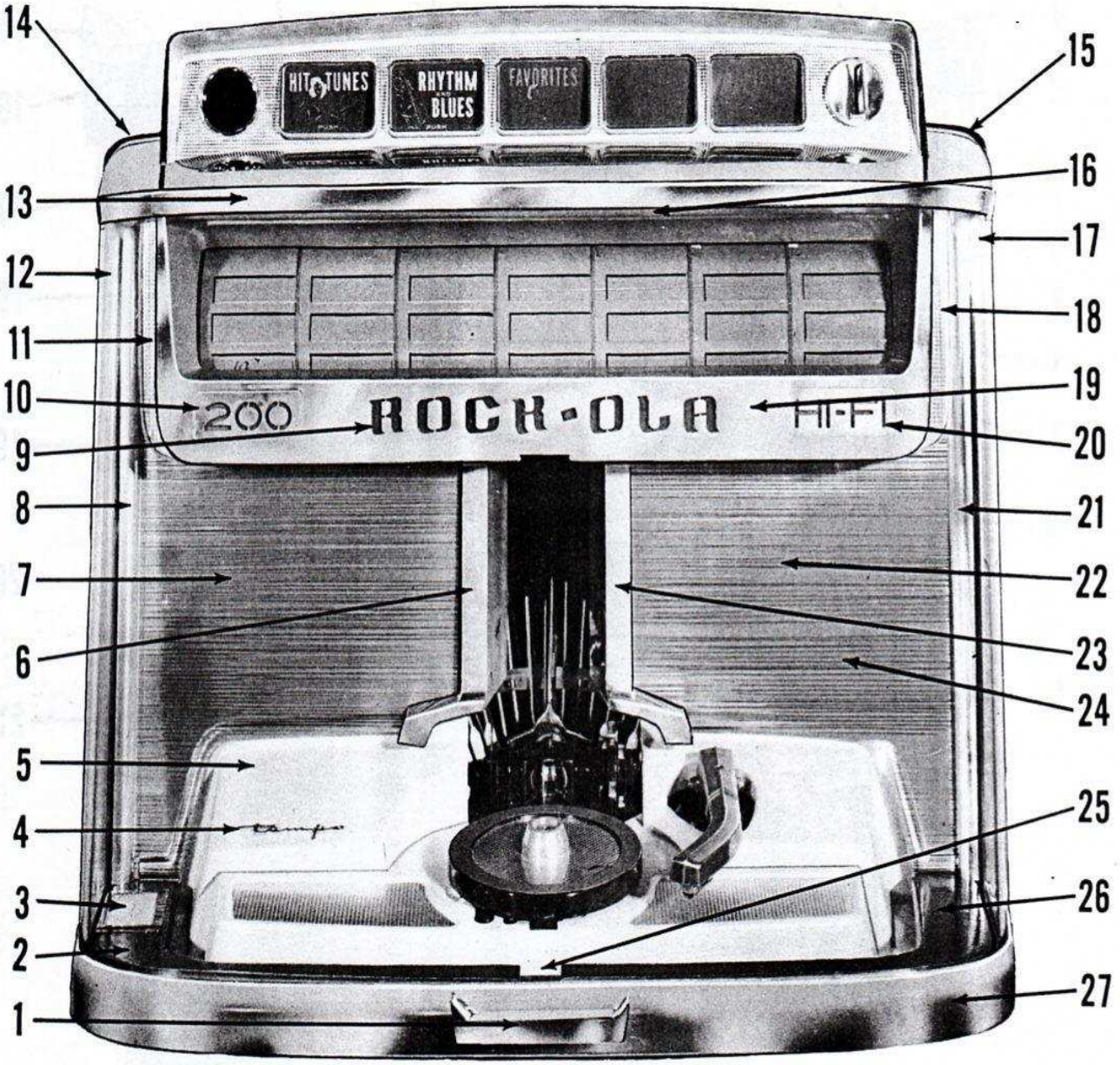
No. 32795-A Door Assembly (120 Selection)
No. 32800-A Door Assembly (200 Selection)

	Part No.	Description		Part No.	Description
1	32375	Fin Insert (L.H.) 200 Selection Only	9	32864	Ornament Plate
1A	32612	Fin Insert (L.H.) 120 Selection Only	10	32517	Pilaster (R.H.)
2	32373	Front Fin Casting (L.H.)	11	32866	"V" Ornament (R.H.)
3	32303	Selector Button (Specify Number)	12	32520	Moulding Side
4	32384	Front Main Casting	13	32386	Pilaster Cap Casting (R.H.)
5	32372	Front Fin Casting (R.H.)	14	32387	Pilaster Cap Casting (L.H.)
6	32374	Fin Insert (R.H.) 200 Selection Only	15	32466	Grille Extrusion
6A	32611	Fin Insert (R.H.) 120 Selection Only	16	32520	Moulding Side
7	32549	Fin Cover Casting (R.H.)	17	32867	"V" Ornament (L.H.)
8	32519	Moulding Top	18	32518	Pilaster (L.H.)
			19	32860	Monogram
			20	32515	Grille
			21	32550	Fin Cover Casting (L.H.)



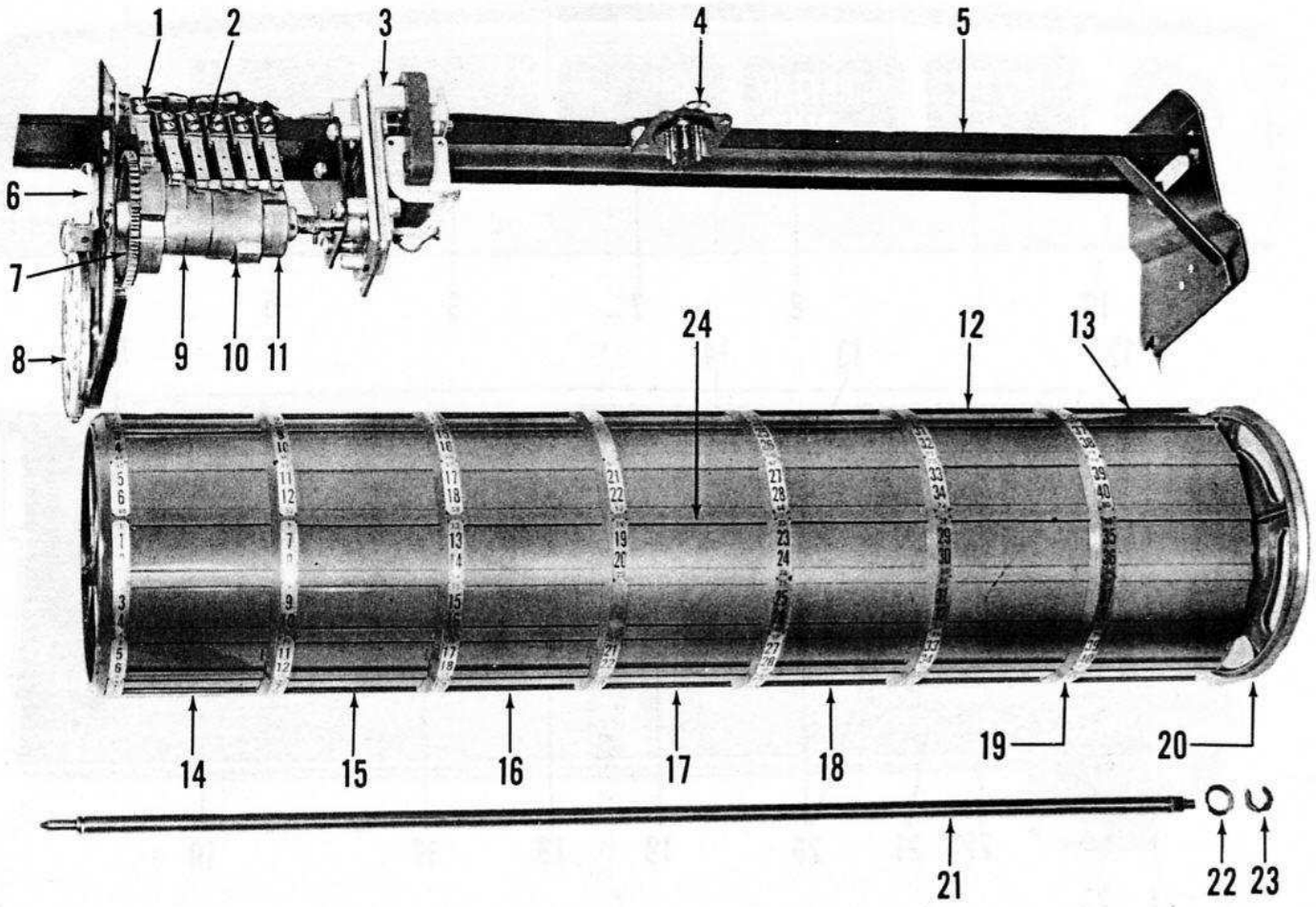
No. 32795-A Door Assembly (120 Selection)
No. 32800-A Door Assembly (200 Selection)

	Part No.	Description		Part No.	Description
1	32381	Side Extrusion (R.H.)	12	32454	Key Switch Rear
2	32840	Pilaster Insert (R.H.)	13	32455	Key Switch Front
3	17693	Ballast	14	32454	Key Switch Rear
4	11556	Fluorescent Light Starter	15	32373	Front Fin (L.H.)
5	32859	Fluorescent Light Starter Socket	16	32476	Door Latch (L.H.)
6	32959-A	Chain and Hook Assembly	17	32955-A	Lock Cam and Bar Assembly
7	ST-7408	Lock	18	32565	Grille Backing Plate
8	32475	Door Latch (R.H.)	19	32382	Side Extrusion (L.H.)
9	32372	Front Fin (R.H.)	20	32841	Pilaster Insert (L.H.)
10	32471	Lock Arm Guide	21	15411	27 Contact Plug
11	32455	Key Switch Front			



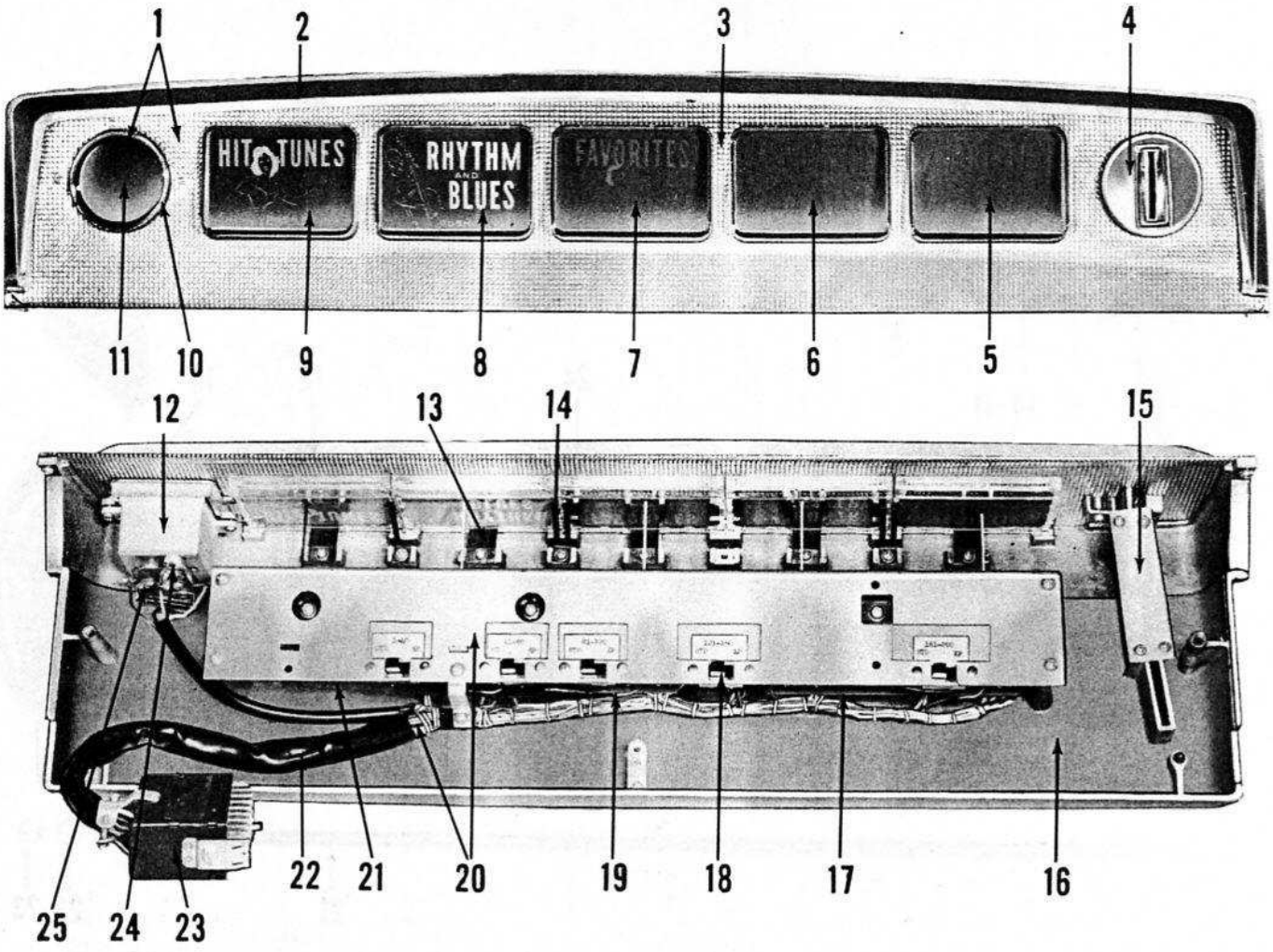
Dome and Related Parts

	Part No.	Description
1	32622	Hand Grip
2	32545	Dress Cap Trim (L.H.)
3	32906	Card Holder
4	33056	Tempo Logo
5	32886-A	Dress Cap Assembly
6	32545	Trim Casting (L.H.)
7	32578	Dress Panel (L.H.)
8	32465	Inner Trim Extrusion (L.H.)
9	32649	Center Glass
10	32648	Side Glass
11	32639	Dress Panel Extension
12	32463	Side Extrusion (L.H.)
13	32378	Front Casting
14	32968-A	Side Casting Assembly (L.H.)
15	32967-A	Side Casting Assembly (R.H.)
16	32445	Light Shield
17	32462	Side Extrusion (R.H.)
18	32639	Dress Panel Extension
19	32380	Program Cover Casting
20	32648	Side Glass
21	32464	Inner Trim Extrusion (R.H.)
22	32577	Dress Panel (R.H.)
23	32544	Trim Casting (R.H.)
24	32444	Dome Front Glass
25	32557	Dress Cap Trim Bracket
26	32544	Dress Cap Trim (R.H.)
27	32419	Lower Extrusion



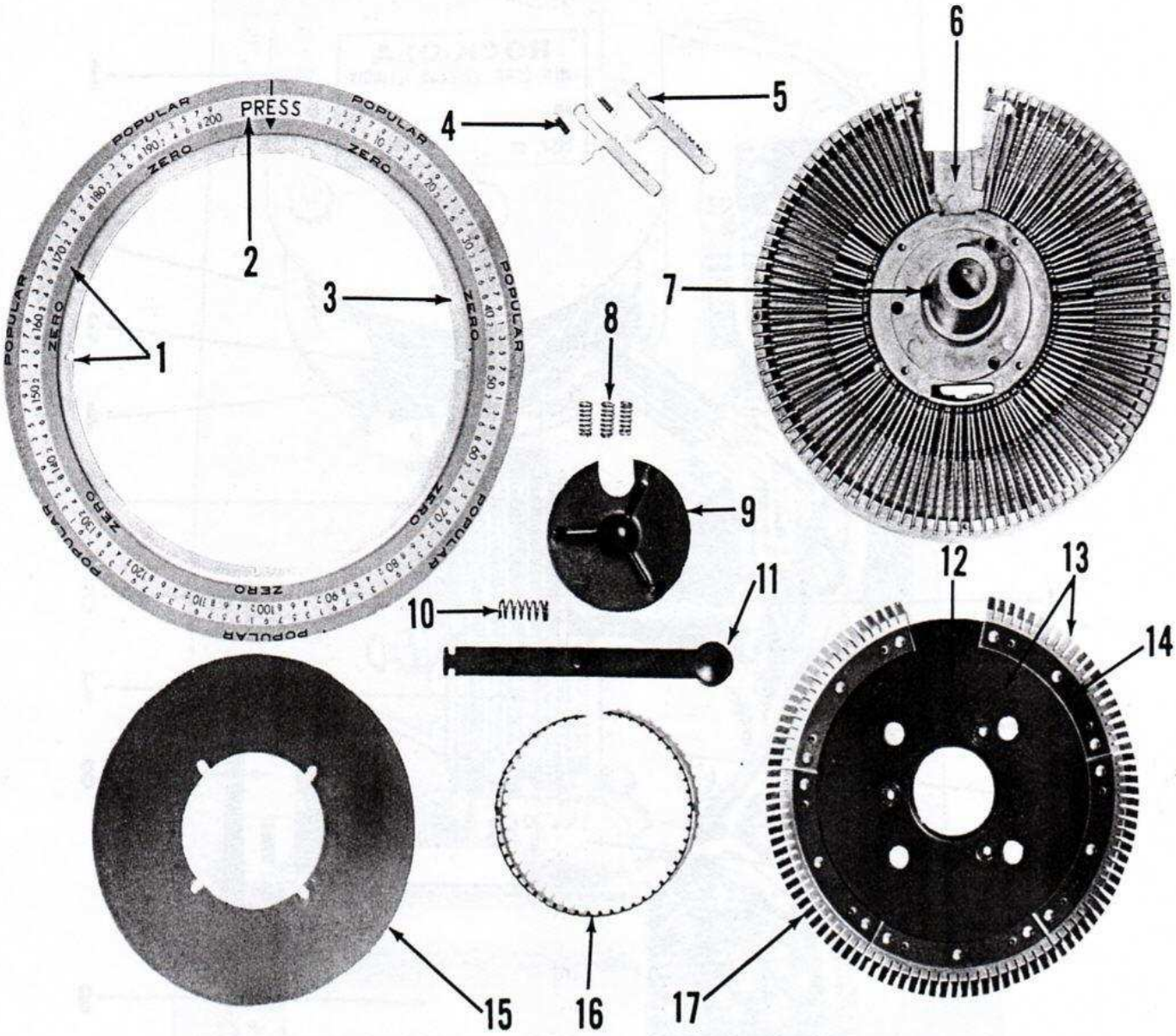
No. 32785-A Program Holder Assembly

	Part No.	Description
1	32776	Program Register Switch
2	32781	Program Position Switch
3	32780	Program Drive Motor
4	32768-A	Plug Mounting Bracket Assembly
5	32763-A	Program Bracket Welding Assembly
6	32770-A	Brake Arm Assembly
7	32314	Program Motor Gear
8	32579	Program Cam
9	19946	Inner Cam
10	19946	Inner Cam
11	19947	Outer Cam
12	32304	Program Drum
13	32304	Program Drum
14	32304	Program Drum
15	32304	Program Drum
16	32304	Program Drum
17	32304	Program Drum
18	32304	Program Drum
19	32961	Program Tab (Set)
20	32305	Program Drum End
21	32329	Main Shaft
22	ST-4836	Spring Washer
23	PH-6029	Keeper
24	32790-A	Drum Assembly



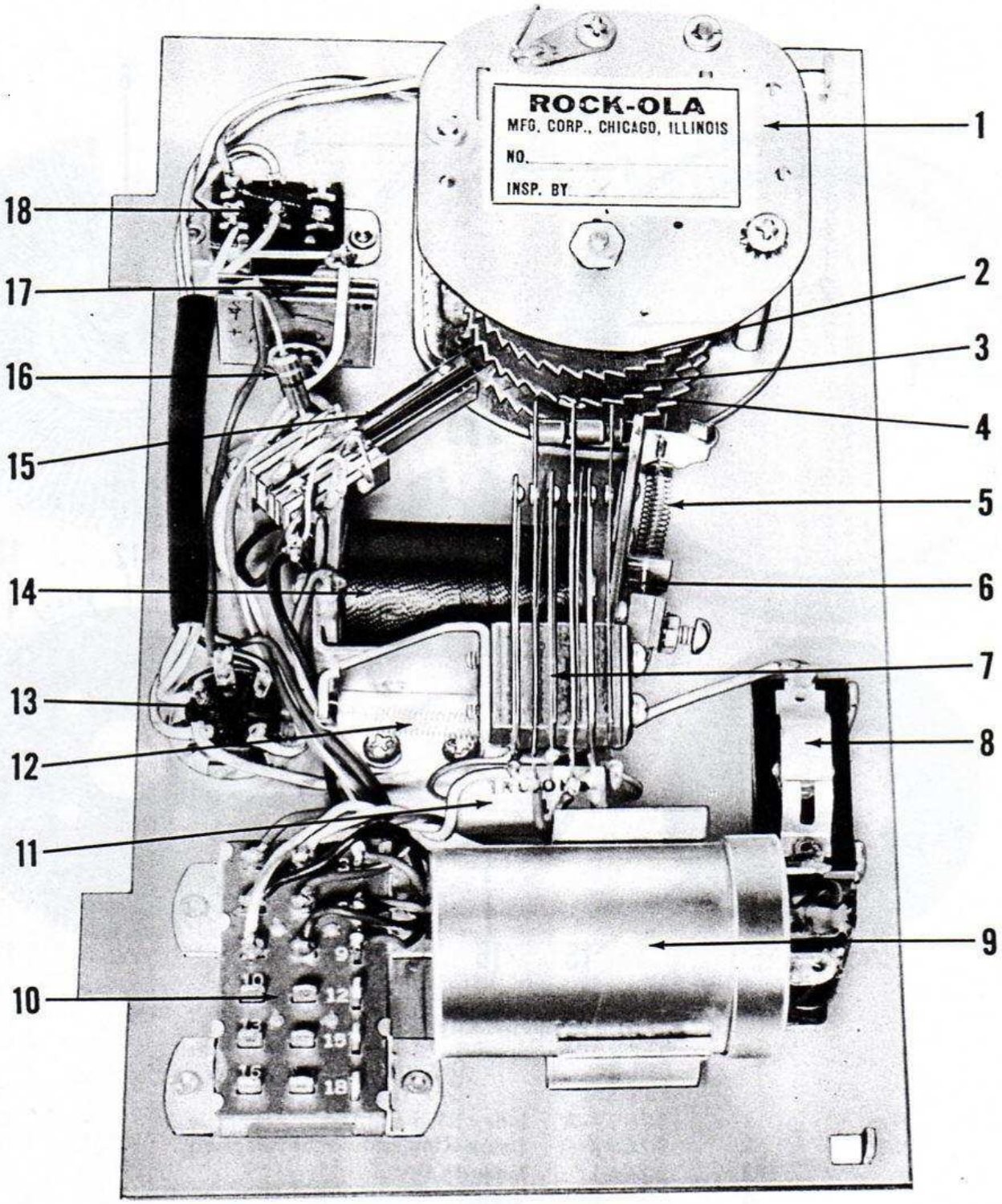
No. 32987-A Dome Hood Casting Assembly

	Part No.	Description
1	32989-A	Dome Front Panel Riveting Assembly
2	32379	Dome Hood Casting
3	32548	Dome Front Panel
4	32537	Coin Slot Casting
5	33074-A	Varieties Button Assembly
6	33073-A	Country and Western Button Assembly
7	33072-A	Favorites Button Assembly
8	33071-A	Rhythm and Blues Button Assembly
9	33070-A	Hit Tunes Button Assembly
10	32588	Select Light Frame
11	32596	Select Glass
12	32589	Select Light Housing
13	32389	Program Button Retaining Spring
14	32499	Program Button Return Spring
15	32539	Coin Chute Cover
16	32379	Dome Hood Casting
17	33001	Picture Window Switch
18	30277	Slide Switch
19	33001	Picture Window Switch
20	33035-A	Switch Mounting Plate Assembly
21	32458	Program Release Mechanism Switch
22	33078-A	Dome Switch Cable Assembly
23	33005	24 Prong Plug and Shell
24	ST-3046	Type 44 Bulb
25	32777	Bayonet Socket



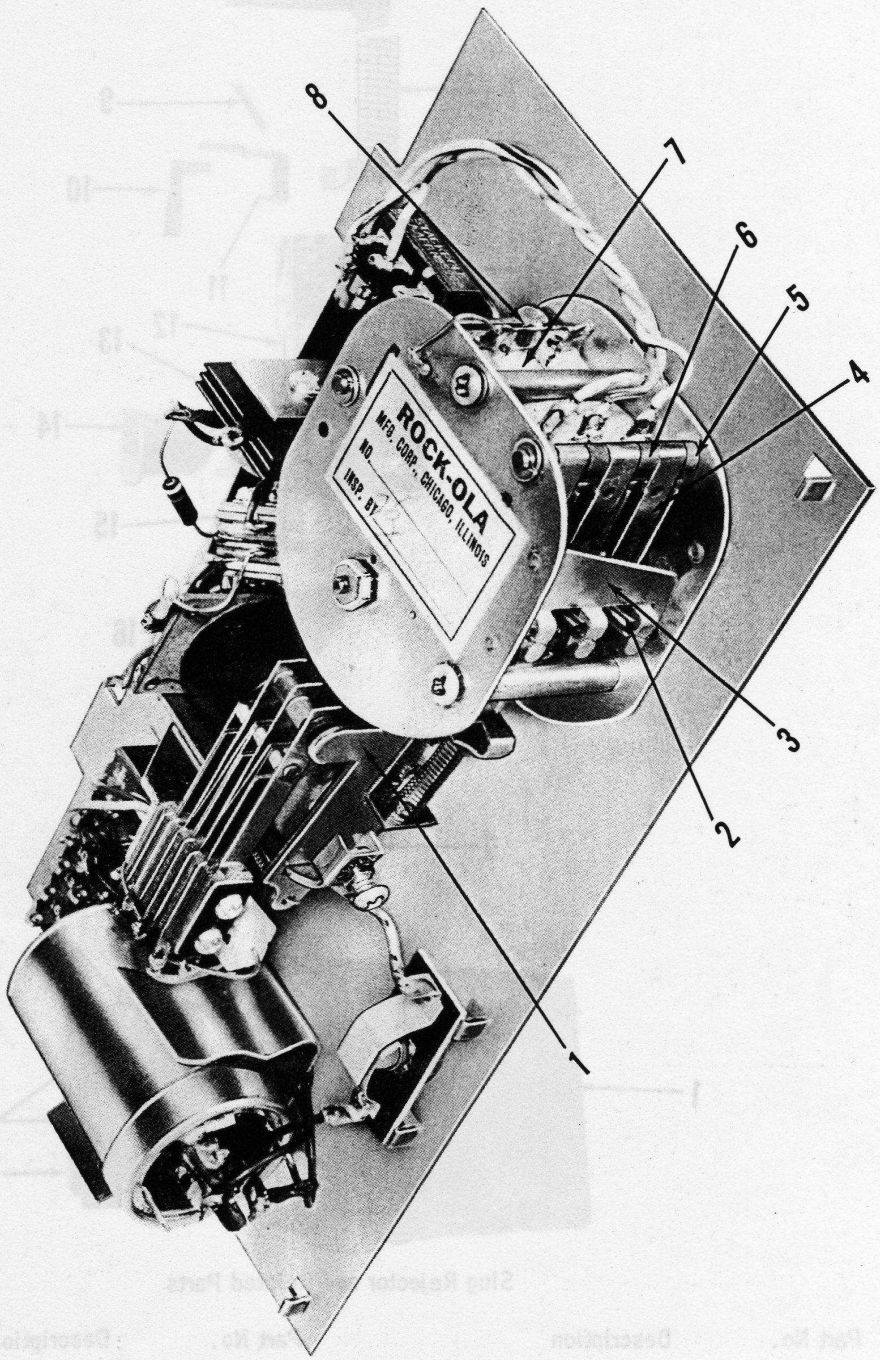
No. 32696-A Popularity Counter Assembly

	Part No.	Description
1	32697-A	Index Ring and Decal Assembly
2	32441	Counter Decal
3	32440	Index Ring
4	32754	Spring
5	32598	Indicator
6	32369	Counter Casting Only
7	ST-2293	Allen Set Screw
8	32753	Spring
9	32669-A	Reset Button Assembly
10	33059	Reset Spring
11	32599	Reset Lever
12	32438	Reset Ring
13	32698-A	Reset Ring Assembly Complete
14	32431	Comb Retainer
15	32592	Retaining Ring
16	32601	Spring Retaining Ring
17	32429	Comb



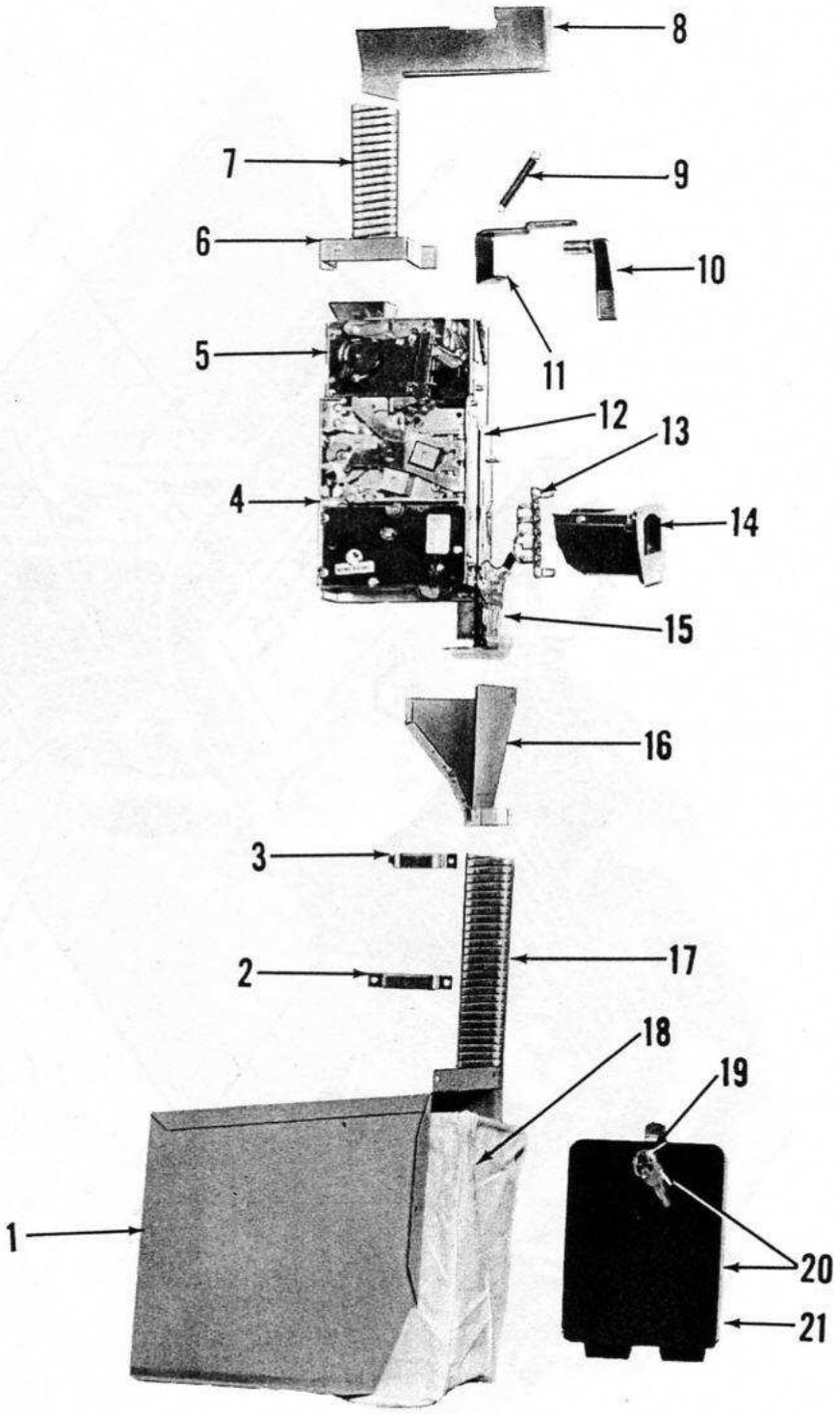
No. 32933-A Accumulator Assembly Complete

	Part No.	Description		Part No.	Description
1	31200-A	Accumulator Assembly	9	14416	Accumulator Capacitor
2	31214-A	Ratchet and Hub Assembly (7 - 50¢)	10	19388	18 Prong Male Plug
			11	30583	1 Ohm 5 Watt Resistor
3	31258-A	Ratchet and Hub Assembly (3 - 25¢)	12	19216	Tension Spring
			13	17275	5 Prong Miniature Socket
4	14693-A	Ratchet and Hub Assembly	14	14030	Coil - Reset
5	14028	Compression Spring	15	15392	Control Switch
6	17982	Pawl - Reset	16	14097	47 Ohm 1/2 Watt Resistor
7	30314	Switch - Selection Impulse	17	16812	Rectifier
8	15159	Momentary Push Switch	18	31192	Slide Switch



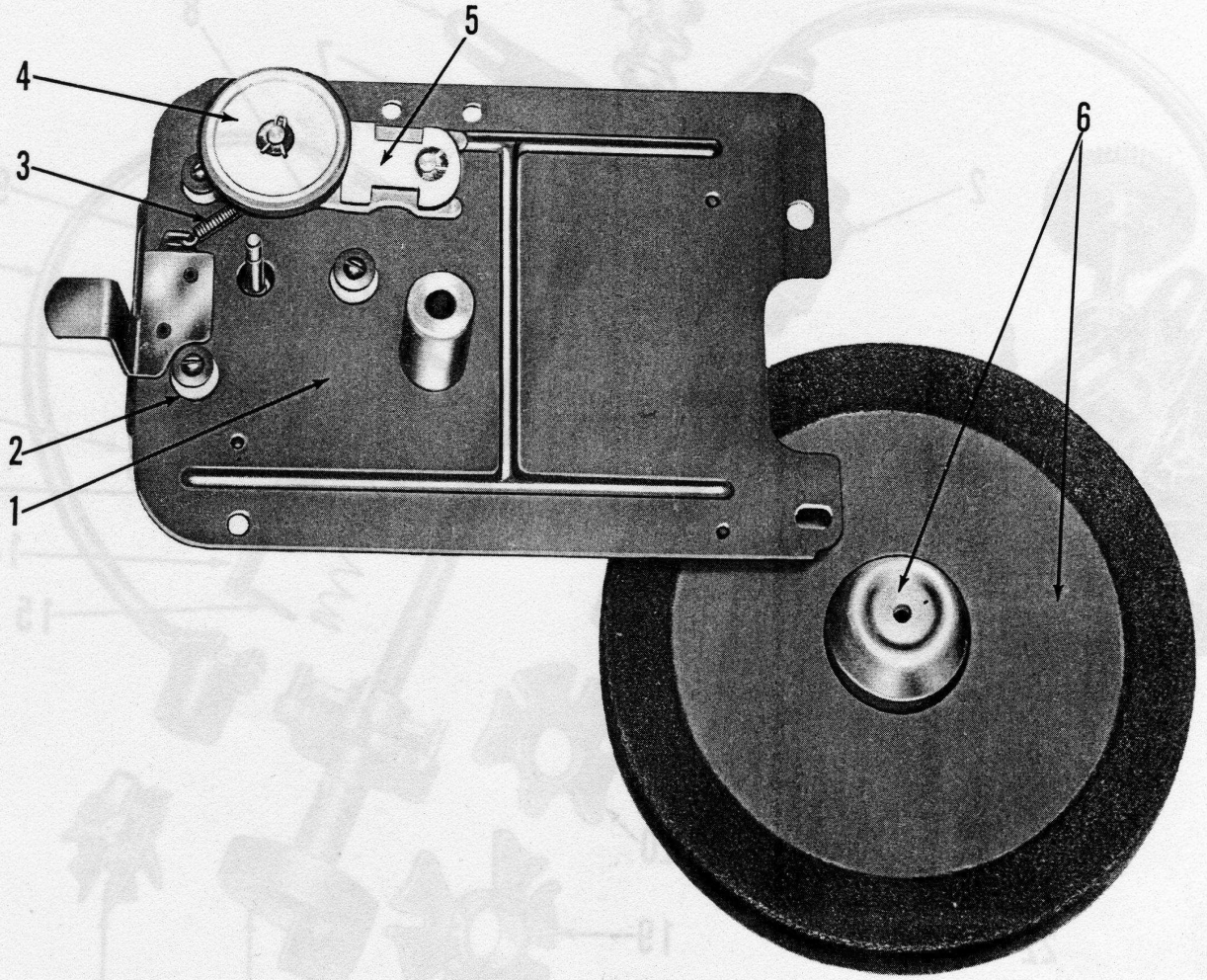
No. 32933-A Accumulator Assembly Complete

	Part No.	Description
1	19763-A	Reset Armature Riveting Assembly
2	14570	Tension Spring
3	14567	Spring Anchor
4	14014	Armature - Ratchet Detent
5	14017	Spacer - Ratchet Detent
6	14018	Spacer
7	14011	Coil - Electromagnet
8	14579-A	Ratchet Escapement Armature Assembly



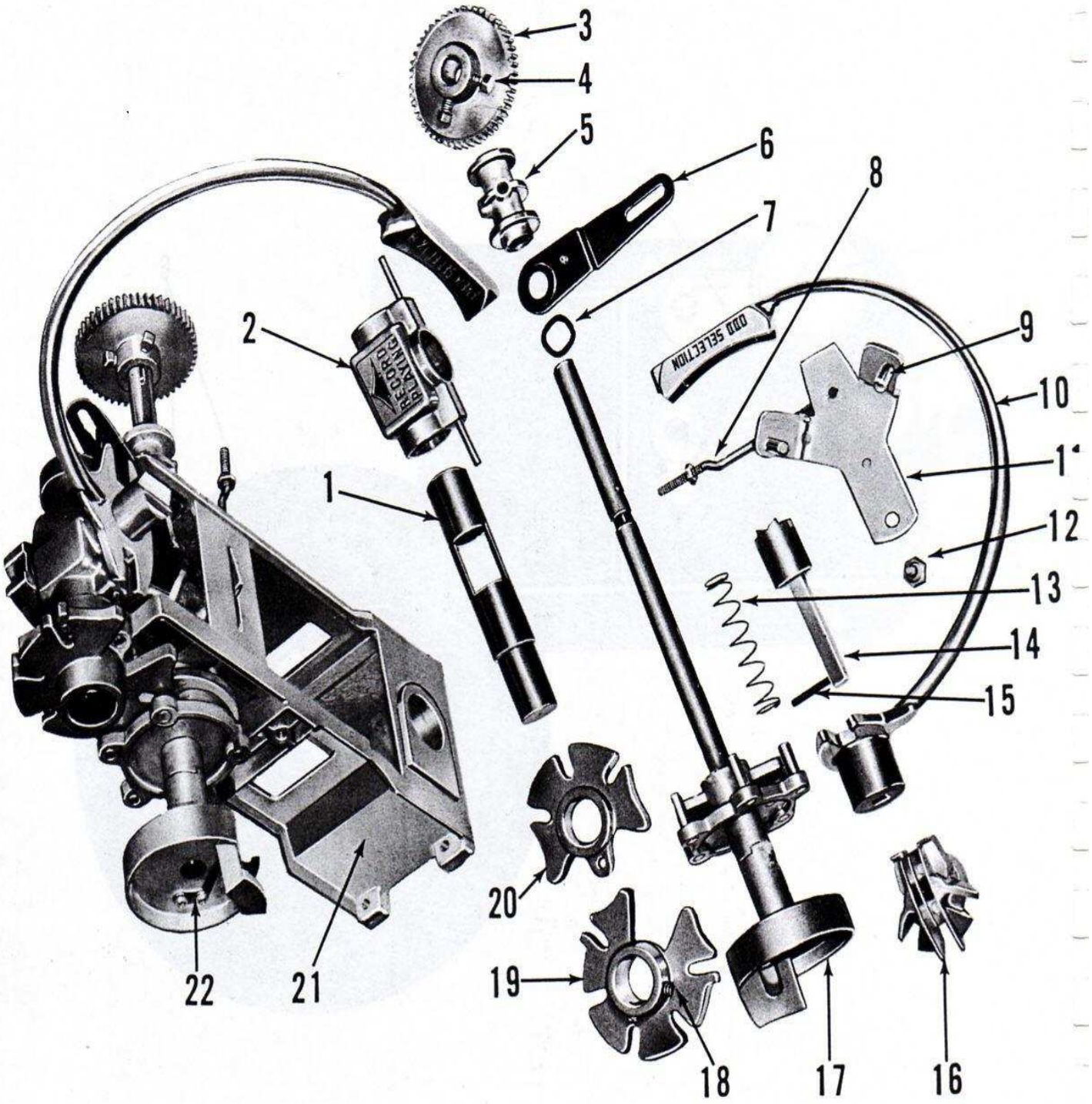
Slug Rejector and Related Parts

	Part No.	Description		Part No.	Description
1	32342	Cash Box Housing	12	33018-A	Slug Rejector Housing Complete Assembly
2	32965	Clamp			
3	13201	Chute Bracket	13	32113	5 Lug Terminal Strip
4	31317	5¢ - 10¢ - 25¢ Coin Chute	14	31965-2	Coin Return Cup
5	31711	50¢ Coin Chute	15	14860	Coin Switch
6	32540	Bracket	16	32626	Coin Chute Lower
7	32879	Flexible Coin Chute	17	32807	Flexible Coin Chute
8	32538	Coin Chute Upper	18	32343	Cash Bag
9	32609	Coin Return Spring	19	ST-7379	Cash Door Lock (W/ST-7407 Latch)
10	32551	Coin Return	20	32880-A	Cash Door and Lock Assembly
11	32553	Coin Return Lever	21	32354	Cash Door Only



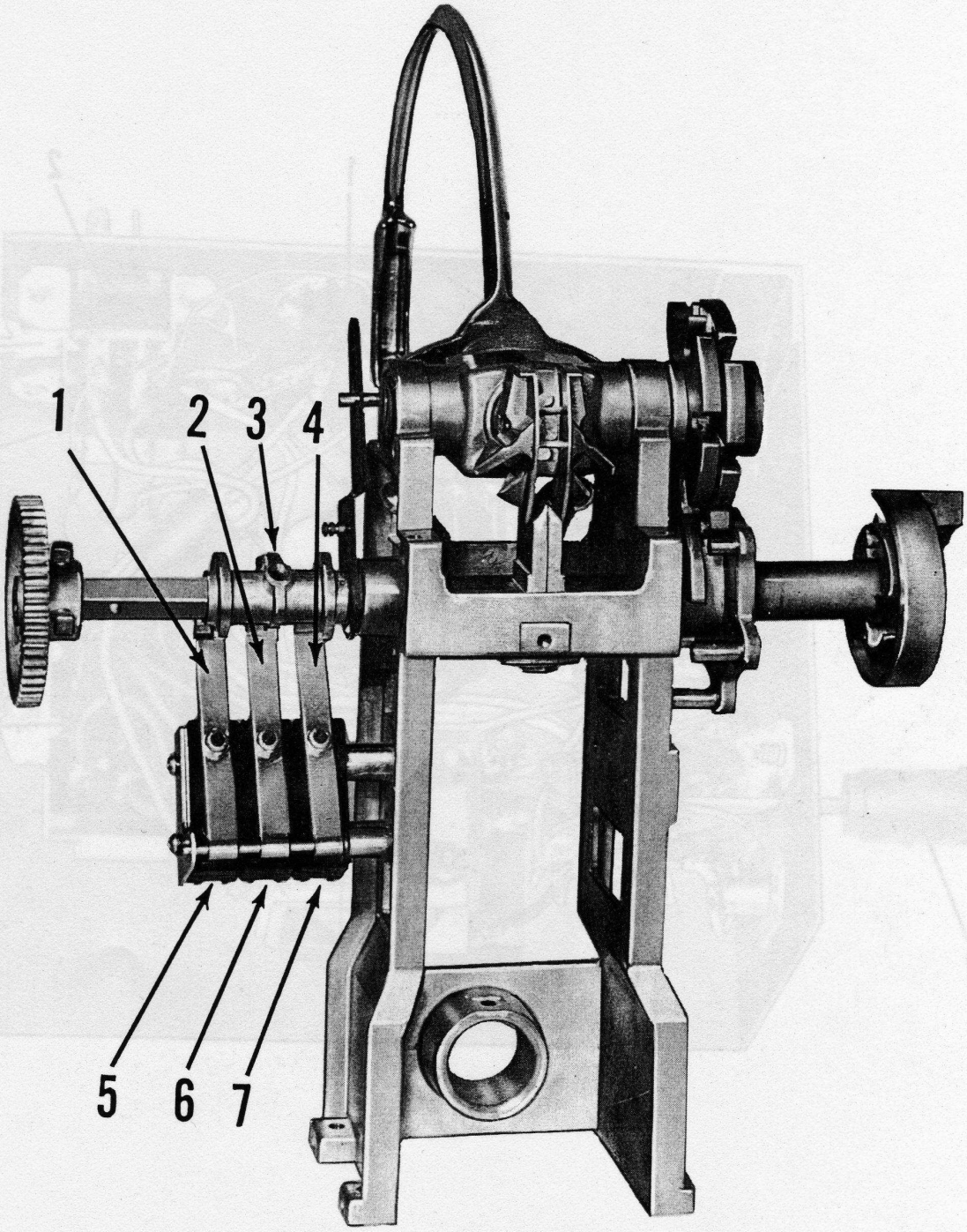
No. 32636 (45 R.P.M.) Turntable Motor Complete

	Part No.	Description
1	32636	Turntable Motor and Mounting Plate
2	18849	Rubber Grommet
3	30788	Idler Tension Spring
4	30789	Idler Wheel Assembly
5	17150	Spring Plate Assembly
6	32919	Turntable Complete (Less Motor)



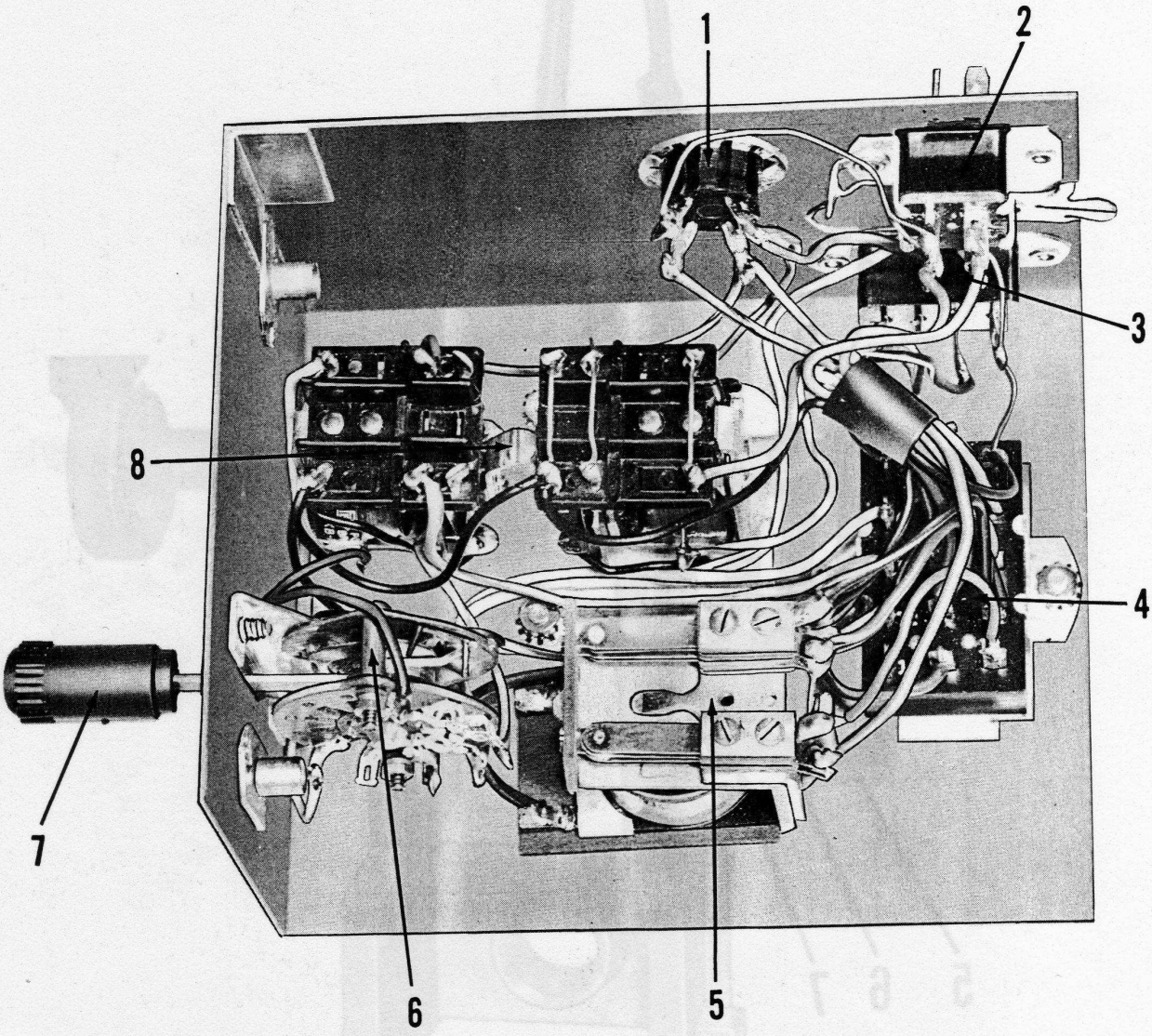
No. 32701-A Gripper Unit Assembly

	Part No.	Description		Part No.	Description
1	30006	Trunion Shaft	12	16281	Shoulder Screw
2	32702-A	Gripper Spider Assembly	13	30001	Gripper Spring
3	17470	Gripper Shaft Gear	14	19888	Inner Gripper Casting
4	ST-2244	Square Head Set Screw	15	ST-523	Spirol Pin
5	19949	Micro Cam	16	19890-2	Gripper Arm Reversing Cam
6	30111-A	Totalizer Arm and Stud Assembly	17	32703-A	Drive Shaft Assembly
7	ST-4828	Spring Washer	18	ST-2285	Allen Set Screw
8	19953	Gripper Connecting Rod	19	19887-2	Geneva Gripper Release
9	30637	Reversing Bracket Pin	20	19886-2	Geneva Gripper Turn-Over
10	19853-2	Gripper Arm	21	19851-3	Gripper Housing
11	30107-A	Reversing Bracket Assembly	22	17524	Tone Arm Cam Keeper Spring



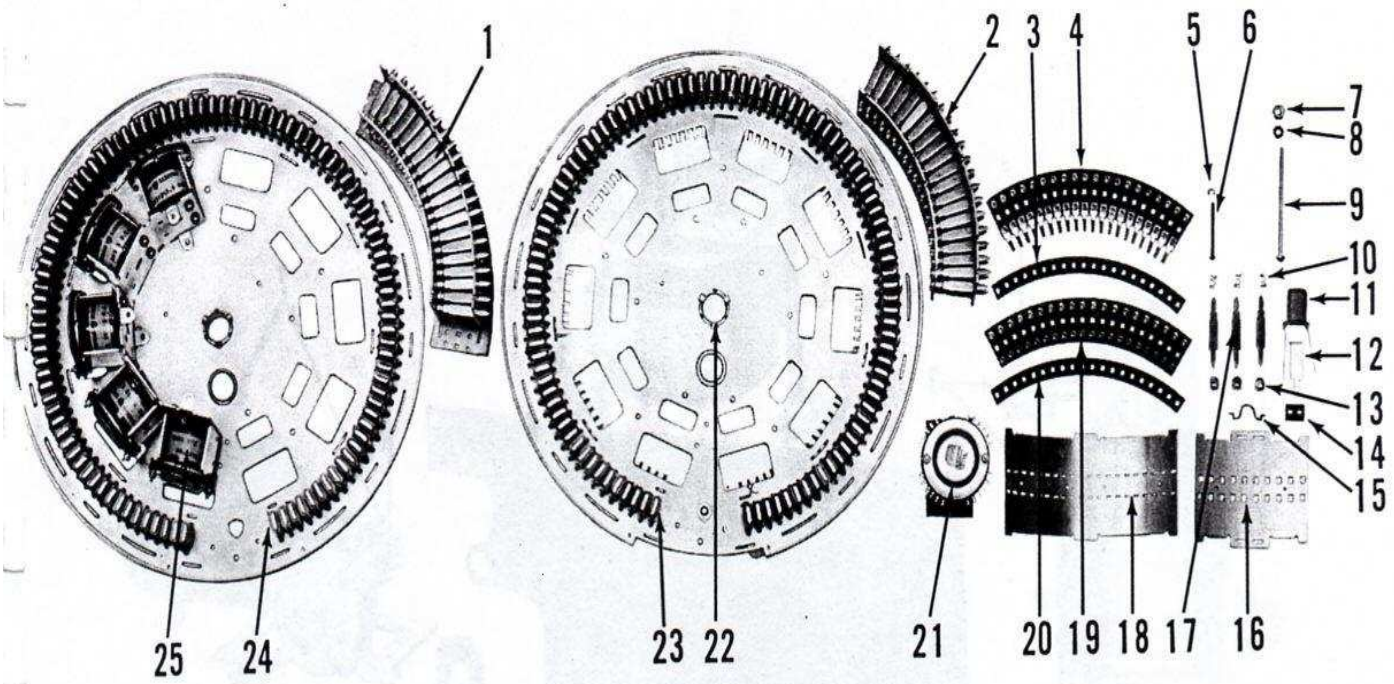
Switches and Related Parts

	Part No.	Description
1	30132-A	Micro Switch Lever Assembly
2	30132-A	Micro Switch Lever Assembly
3	19949	Micro Cam
4	30132-A	Micro Switch Lever Assembly
5	11609	Micro Switch
6	11609	Micro Switch
7	11609	Micro Switch



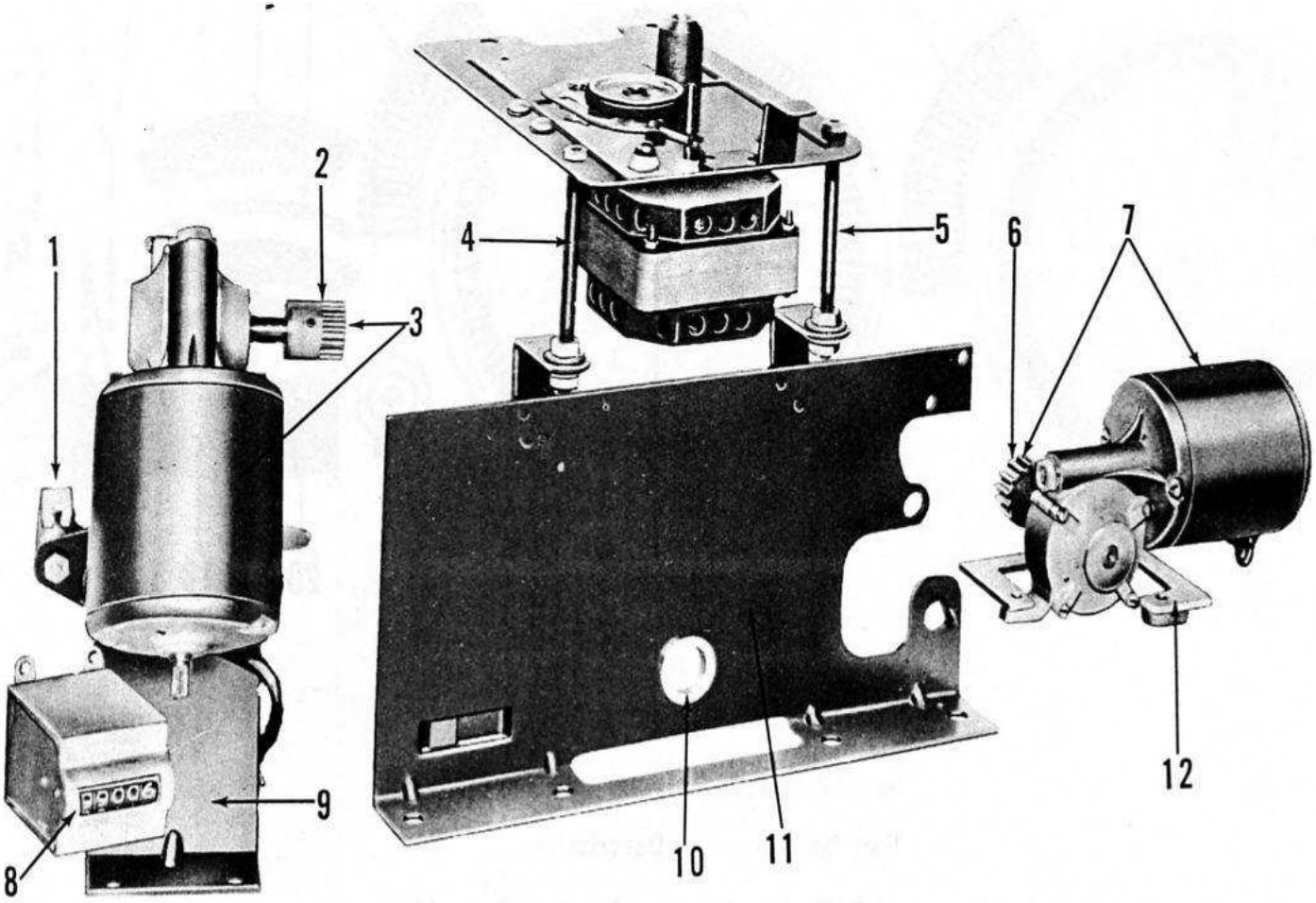
No. 32747-A Control Box Assembly

	Part No.	Description
1	16810	4 Prong Miniature Socket
2	17595	4 Prong Plug
3	32943	4 Contact Miniature Socket
4	30288	15 Contact Socket
5	32755	Gripper Reverse Relay
6	30368	Service Scan Switch
7	30261	Switch Knob
8	31040	Interlock Relay



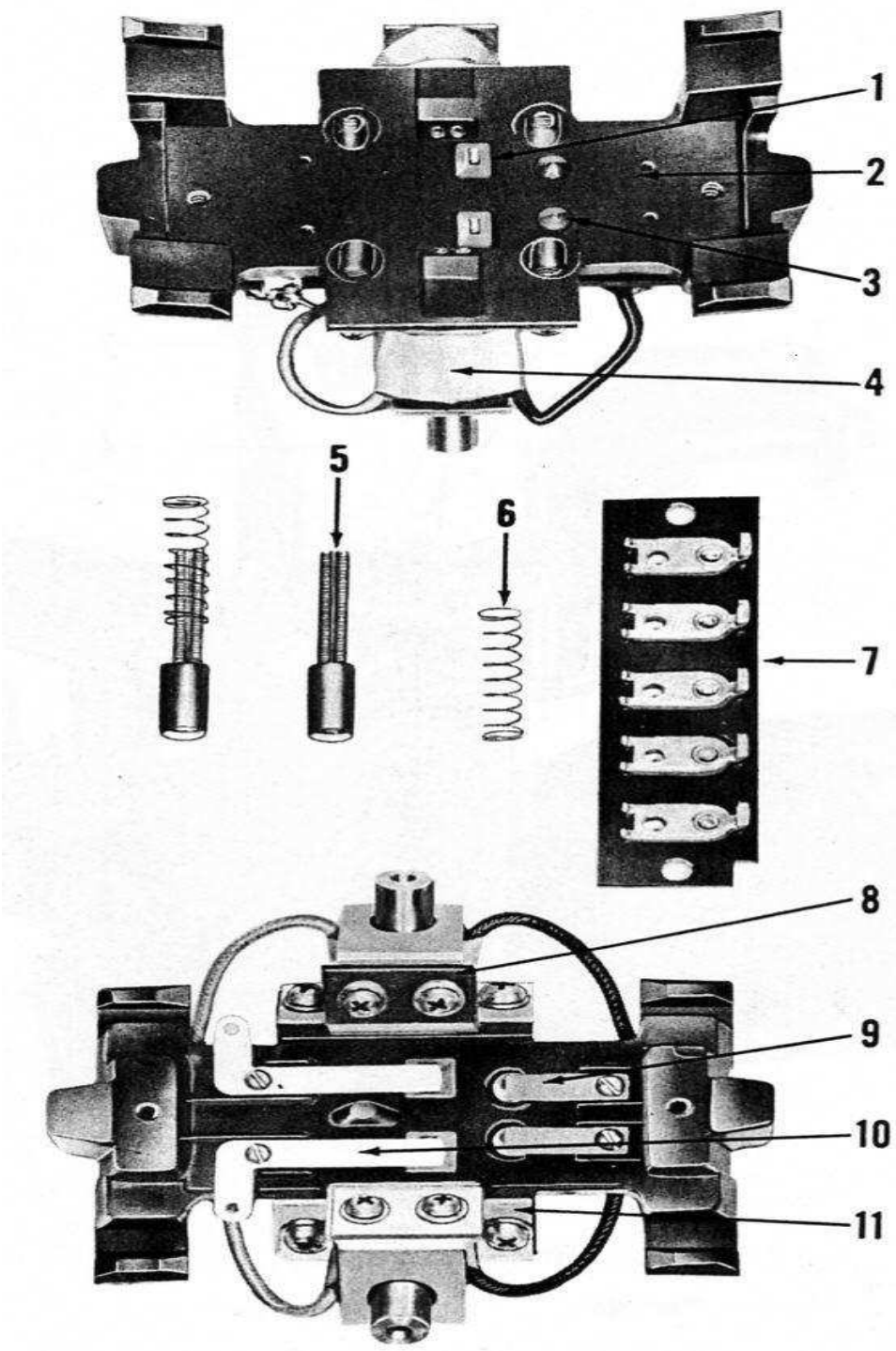
No. 32715-A Selector Unit Assembly

	Part No.	Description
1	31900-A	Selector Armature Assembly
2	31900-A	Selector Armature Assembly
3	30049	Selector Insulator Top
4	30431-A	Terminal Strip and Contact Assembly
5	ST-9191	Fastener
6	30334	Locator Stud
7	ST-403	Hex Nut
8	ST-305	Lockwasher
9	ST-6514	Screw
10	30023	Spring
11	30047	Selector Coil
12	19980	Coil Core
13	32016	Contact Plate
14	ST-1396	Speed Nut
15	30409	Keeper
16	30042	Locator Plate (Top)
17	32017	Selector Lever
18	30041	Pivot Plate
19	30439-A	Terminal Strip and Lug Assembly
20	30049	Selector Insulator Top
21	30829-A	Group Common Relay (Red)
22	19014	Selector Plate Bearing
23	30047	Selector Coil
24	30047	Selector Coil
25	30830-A	Group Common Relay (Yellow)



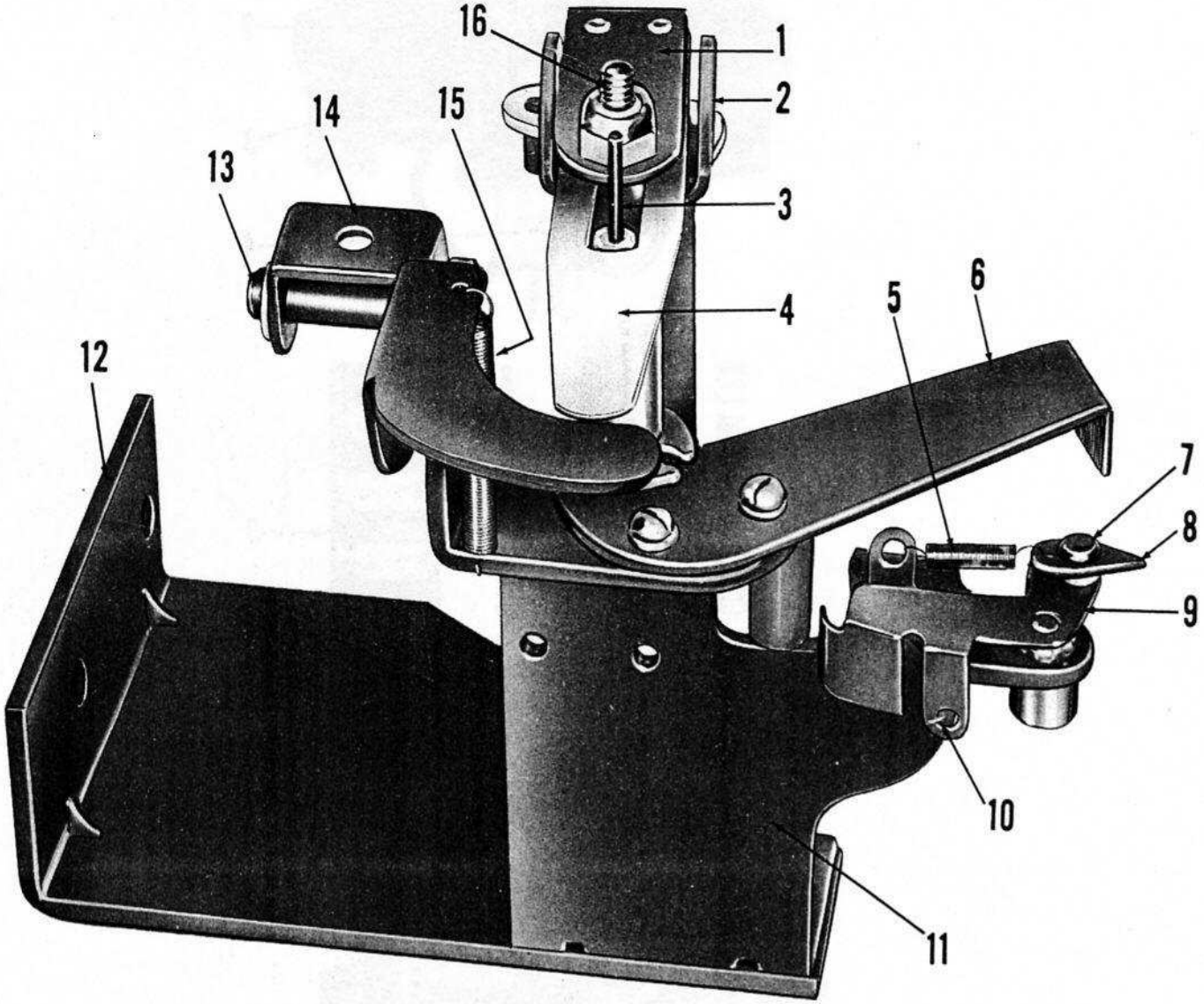
Motors and Related Parts

	Part No.	Description
1	32567	Connecting Rod
2	16279-1	Gripper Motor Gear
3	32732-A	Gripper Motor Assembly
4	30036	Turntable Mounting Stud
5	30036	Turntable Mounting Stud
6	16440-1	Magazine Drive Pinion
7	18960-A	Magazine Motor Assembly
8	31172	Electric Counter
9	19977-1	Motor Mounting Bracket
10	19014	Selector Plate Bearing
11	32733-A	Mounting Bracket Assembly
12	17170	Motor Clamping Plate



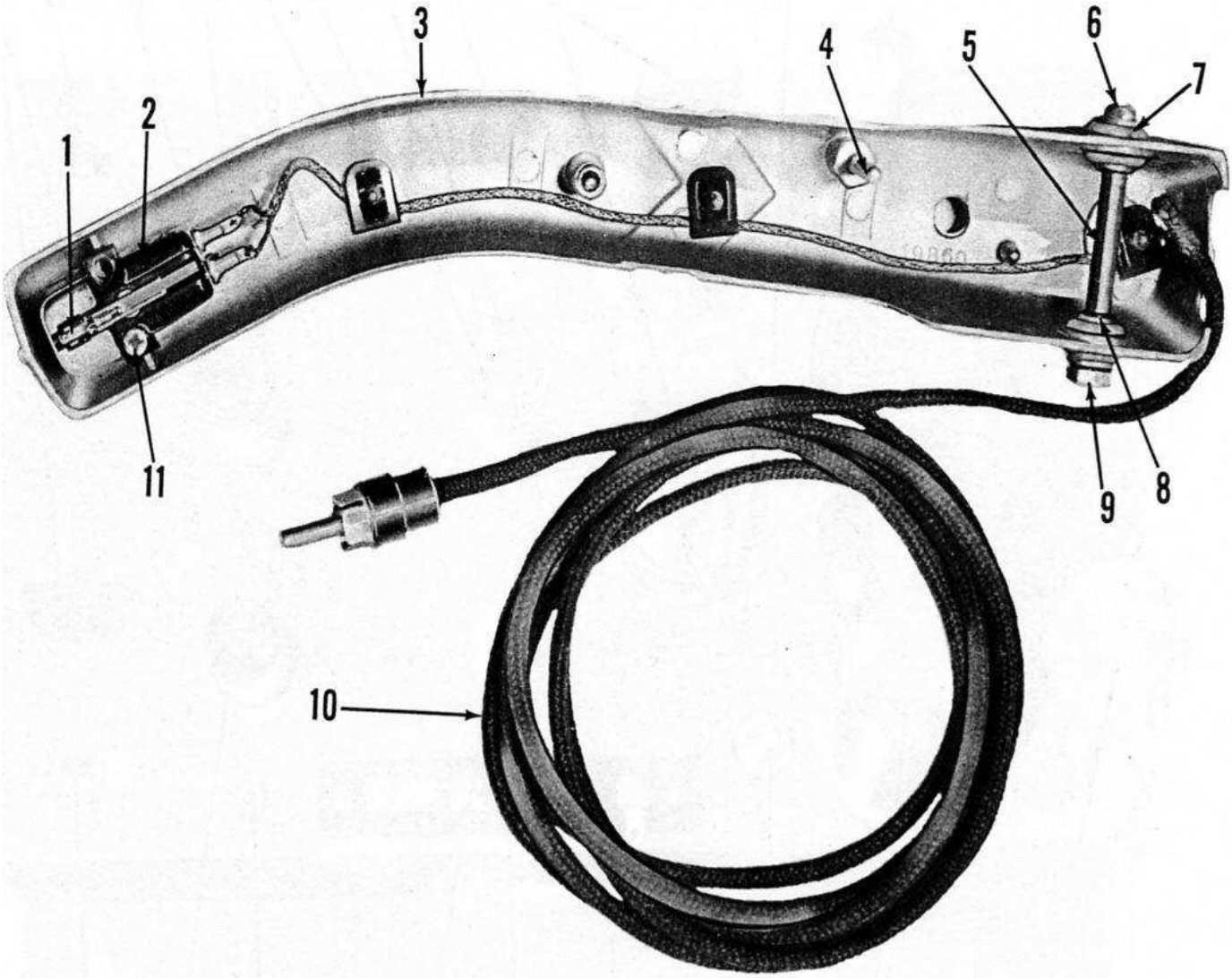
No. 32680-A Carriage Assembly

	Part No.	Description
1	17946-A	Contact Assembly
2	32307	Carriage Housing
3	16344	Spacer Pin
4	18019	Cancel Coil (D.C.)
5	18018-A	Coil Plunger Assembly
6	16346-1	Plunger Return Spring
7	32580	Terminal Strip
8	16348	Coil Mounting Bracket (Rear)
9	19607	Spacer Pin Retainer
10	19608	Contact Retainer
11	16347	Coil Mounting Bracket (Front)



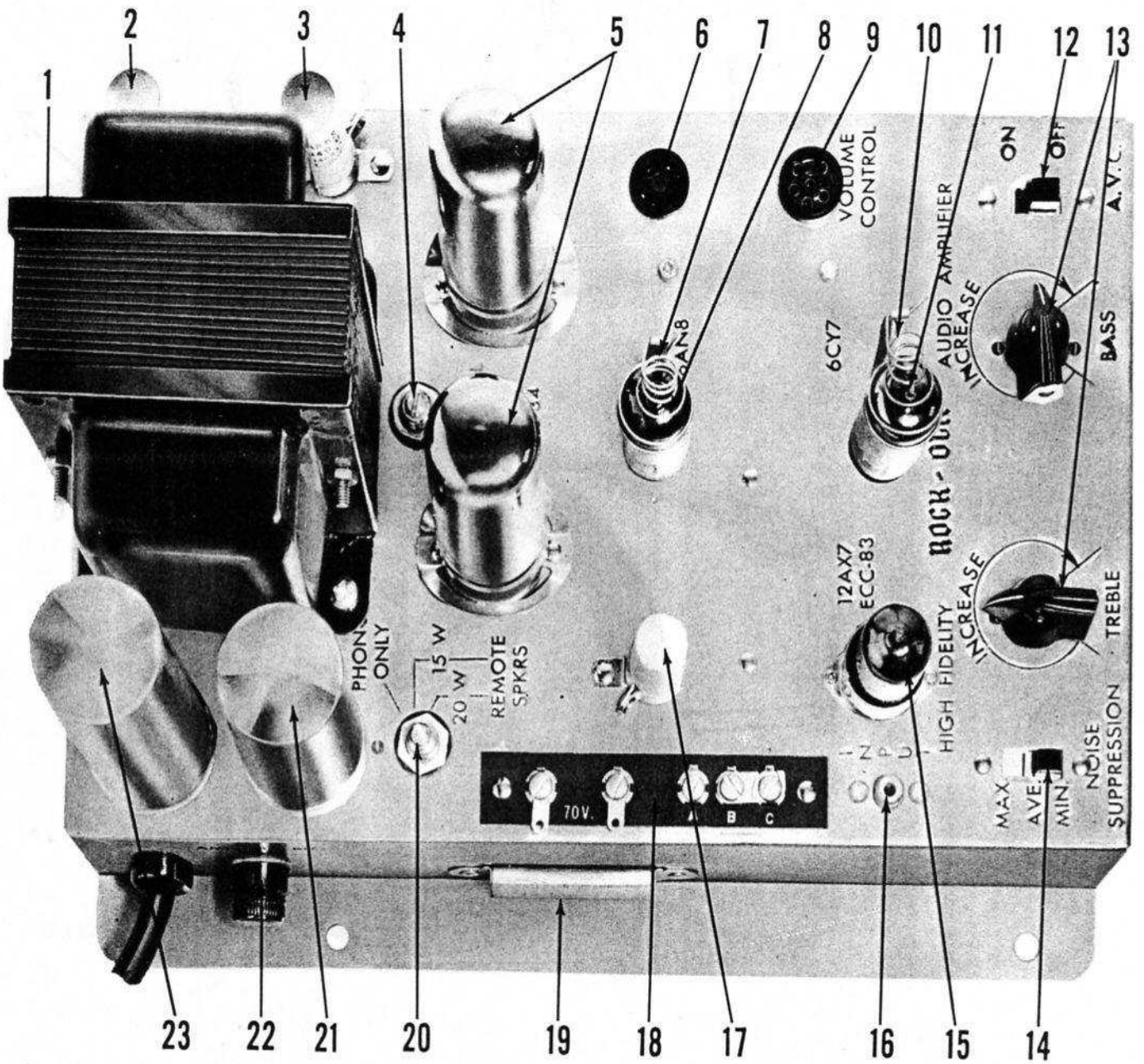
Tone Arm Mounting

	Part No.	Description
1	30124-A	Pivot Plate Assembly
2	17521	Tone Arm Pivot Plate
3	17547	Tone Arm Rest Pin
4	19960	Tone Arm Spring
5	10901	Tension Spring
6	17616	Ratchet Plate
7	17540	Pawl Stud
8	17475	Tone Arm Pawl
9	17776-A	Lever and Pawl Assembly
10	17543	Pawl Lever Spring
11	17774-A	Tone Arm Bracket Assembly
12	32621	Tone Arm Mounting Plate
13	17539	Lifter Lever Stud
14	30113-A	Lifter Lever and Pin Assembly
15	17749	Lifter Lever Spring
16	ST-2279	8/32 x 1/2 Hollow Set Screw



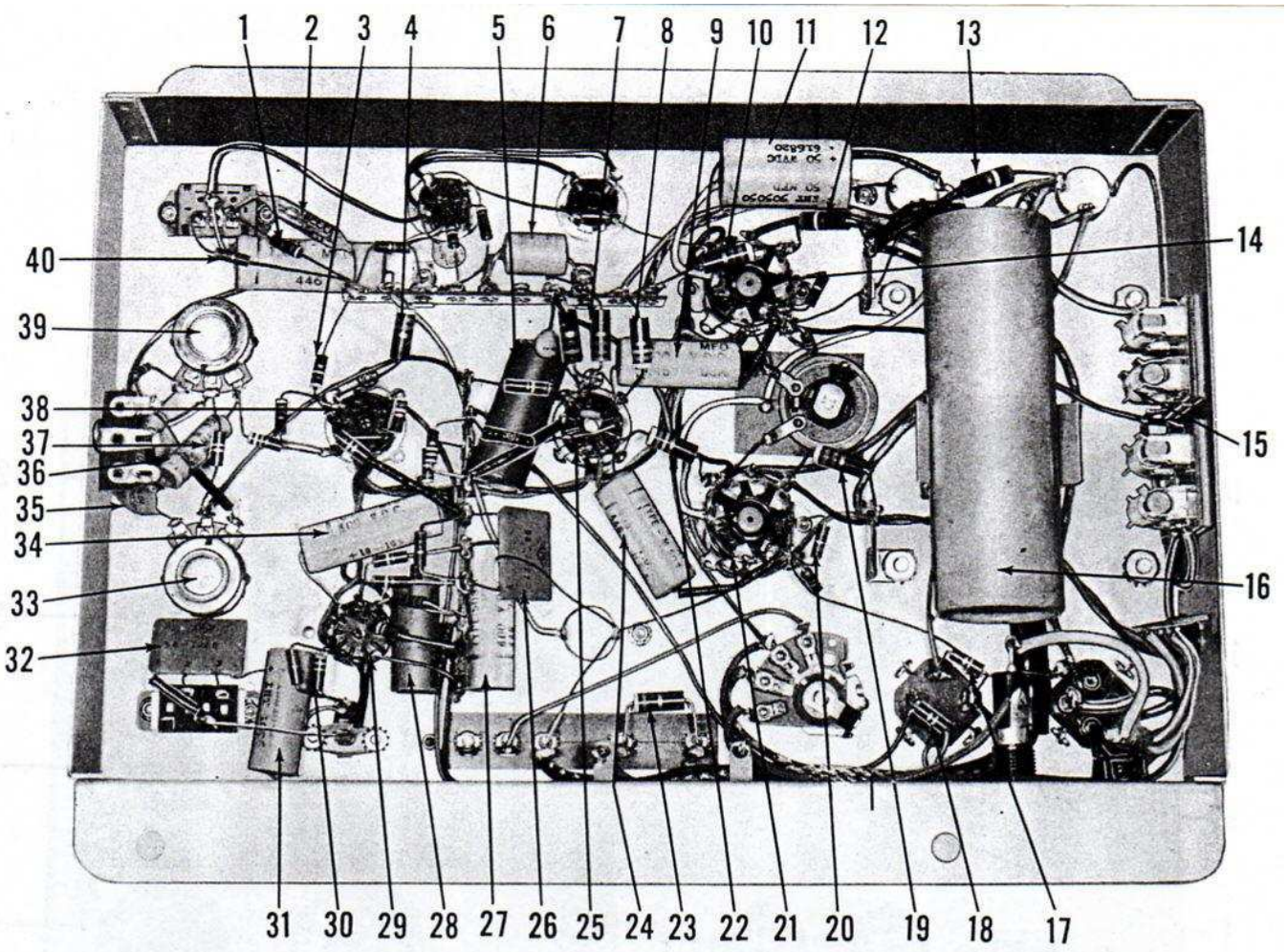
No. 32727-A Tone Arm Assembly

	Part No.	Description
1	33133	Needle
2	32632	Pickup Cartridge
3	32728-A	Tone Arm Casting Assembly
4	30801	Tone Arm Rest Pin
5	17549	Tone Arm Bearing
6	ST-4524	6-32 x 1-3/4 R.H. Machine Screw
7	17697	Tone Arm Grommet
8	17546	Tone Arm Bushing
9	ST-403	6-32 Hex Nut
10	32631	Input Cable
11	ST-6546	4-40 x 1/4 Screw



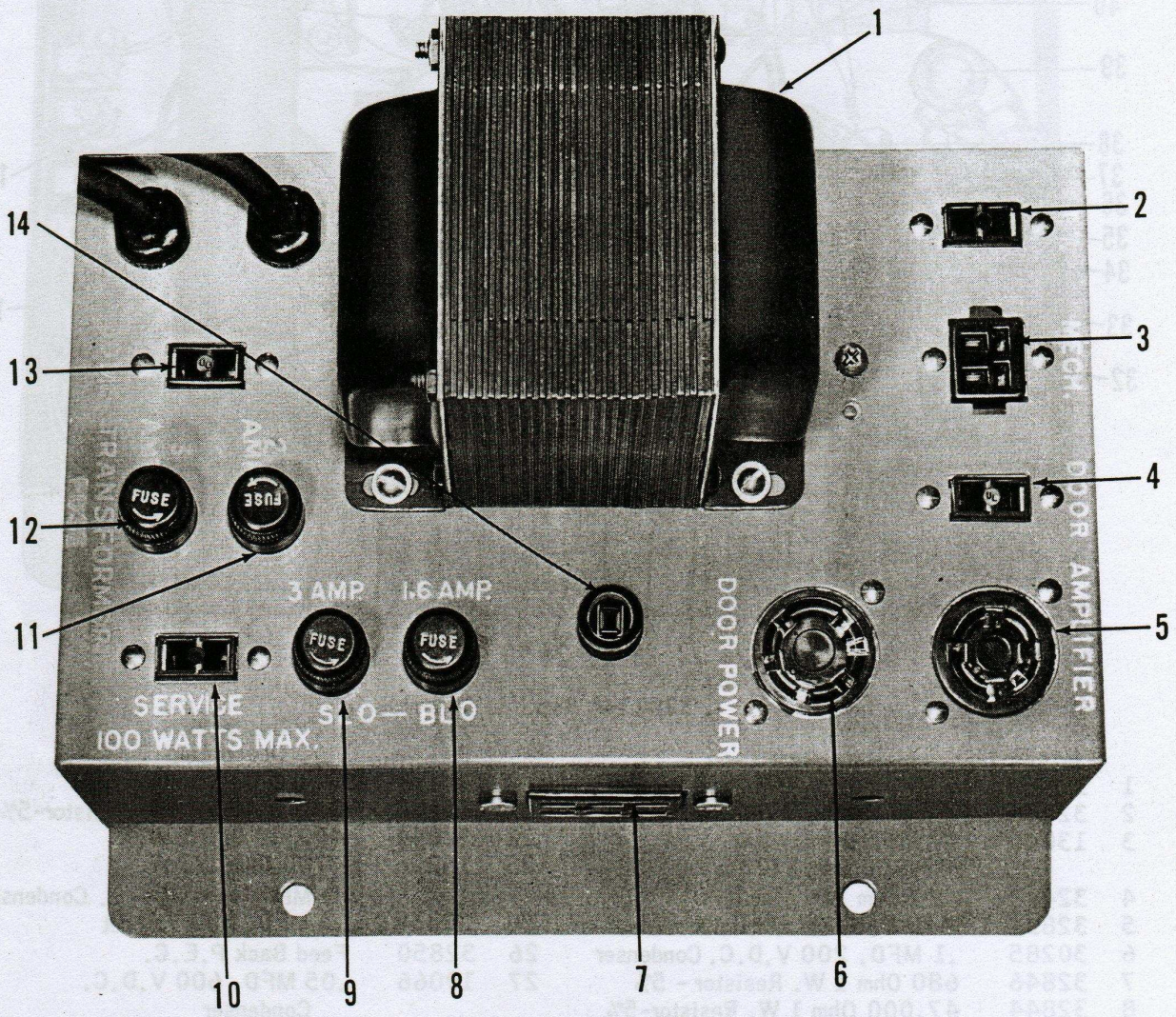
No. 32811-A Amplifier Assembly (Less Tubes)

	Part No.	Description		Part No.	Description
1	32320	Output Transformer	13	11578	Pointer Knob
2	32817	4500 Ohm Standee Resistor	14	32819	3 Position Slide Switch
3	32818	940 Ohm Standee Resistor	15	32852	12AX7 Tube
4	32489	Hum Control	16	18402	Input Socket
5	32854	6CA7 Tube	17	32486	3900 Ohm Standee Resistor
6	16810	4 Prong Miniature Socket	18	32816	Speaker Terminal Strip
7	32139	Mini-Spring Short	19	33083	4.5 Ohm Resistor
8	32853	6AN8 Tube	20	32823	Speaker Switch
9	18634	6 Prong Miniature Socket	21	30316	Filter Capacitor
10	32822	Mini-Spring Long	22	ST-4332	1 Amp. Slo-Blo Fuse
11	32498	6CY7 Tube	23	32824	Grounded Can Capacitor
12	18403	Slide Switch			



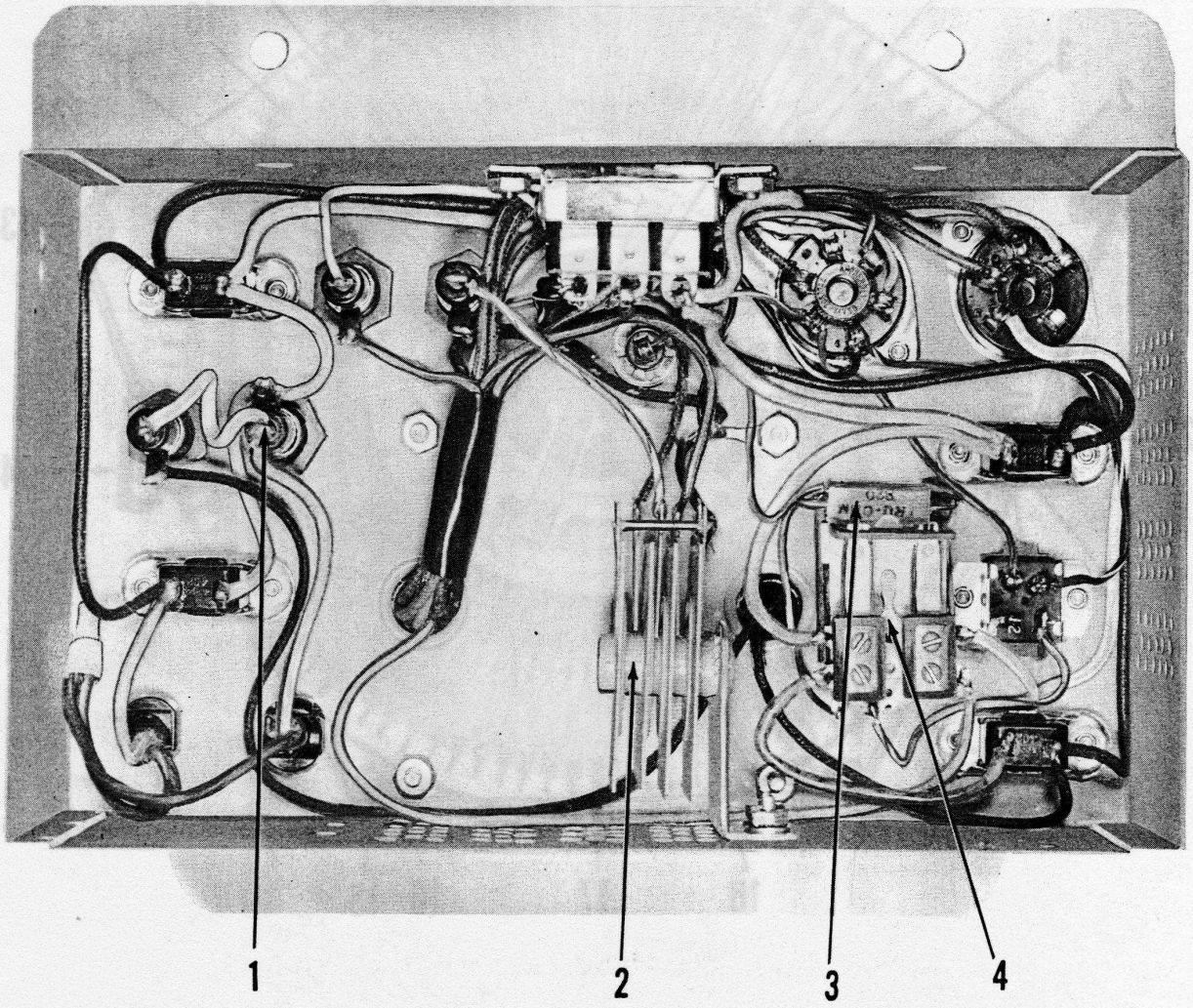
No. 32811-A Amplifier Assembly

	Part No.	Description		Part No.	Description
1	32832	4700 Ohm 1/2 W. Resistor-5%	21	13188	Octal Tube Socket
2	32497	Thermister	22	32844	47,000 Ohm 1 W. Resistor-5%
3	13015	47,000 Ohm 1/2 W. Resistor - 5%	23	16226	4700 Ohm 1/2 W. Resistor - 10%
4	32494	470 Ohm 1 W. Resistor - 5%	24	32838	.1 MFD. 600 V.D.C. Condenser
5	32837	4 MFD. 450 V.D.C. Condenser	25	14799	9 Contact Tube Socket
6	30285	.1 MFD. 200 V.D.C. Condenser	26	32850	Feed Back P.E.C.
7	32846	680 Ohm 1 W. Resistor - 5%	27	19066	.05 MFD. 600 V.D.C. Condenser
8	32844	47,000 Ohm 1 W. Resistor-5%			
9	32838	.1 MFD. 600 V.D.C. Condenser	28	19067	25 MFD. 15 V.D.C. Condenser
10	32494	470 Ohm 1 W. Resistor - 5%	29	30269	9 Pin Miniature Socket
11	32835	50-50 MFD. 50 V.D.C. Condenser	30	33086	33,000 Ohm 1/2 W. Resistor - 10%
12	16228	100,000 Ohm 1/2 W. Resistor - 10%	31	32836	100 MFD. 6 V.D.C. Condenser
			32	32849	Input P.E.C.
13	16228	100,000 Ohm 1/2 W. Resistor - 10%	33	18651-1	Tone Control
			34	19066	.05 MFD. 600 V.D.C. Condenser
14	13188	Octal Tube Socket			
15	32851	Rectifier Cartridge	35	30580	.0033 MFD. Ceramic Condenser
16	32825	Insulated Capacitor	36	19182	.033 MFD. 200 V.D.C. Condenser
17	16227	22,000 Ohm 1/2 W. Resistor - 10%	37	16227	22,000 Ohm 1/2 W. Resistor - 10%
18	16227	22,000 Ohm 1/2 W. Resistor - 10%	38	14799	9 Contact Tube Socket
			39	18651-1	Tone Control
19	32844	47,000 Ohm 1 W. Resistor - 5%	40	32830	1500 Ohm 1/2 W. Resistor
20	16224	1,000 Ohm 1/2 W. Resistor - 10%			



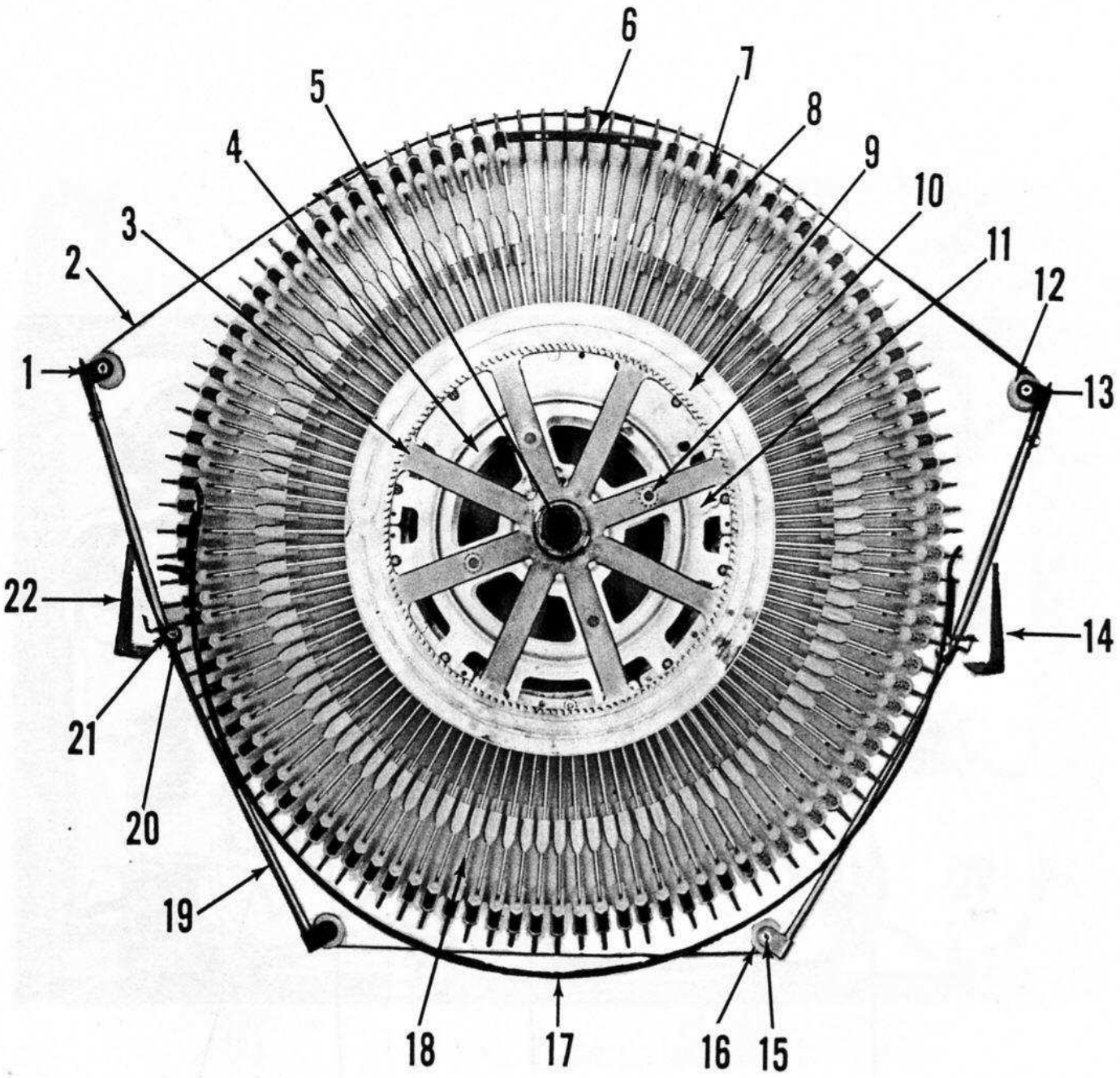
No. 32885-A Power Distribution Panel Assembly

	Part No.	Description
1	32808	Power Transformer
2	19272	Miniature Outlet
3	17596	4 Prong Socket
4	19272	Miniature Outlet
5	PH-3740	5 Prong Socket
6	18414	6 Prong Socket
7	19008	6 Prong Jones Socket
8	ST-4321	1.6 Amp. Fuse
9	ST-3090	3 Amp. Slo-Blo Fuse
10	19272	Miniature Outlet
11	ST-4314	2 Amp. Fuse
12	ST-4333	3 Amp. Fuse
13	19272	Miniature Outlet
14	31242	Tip Jack



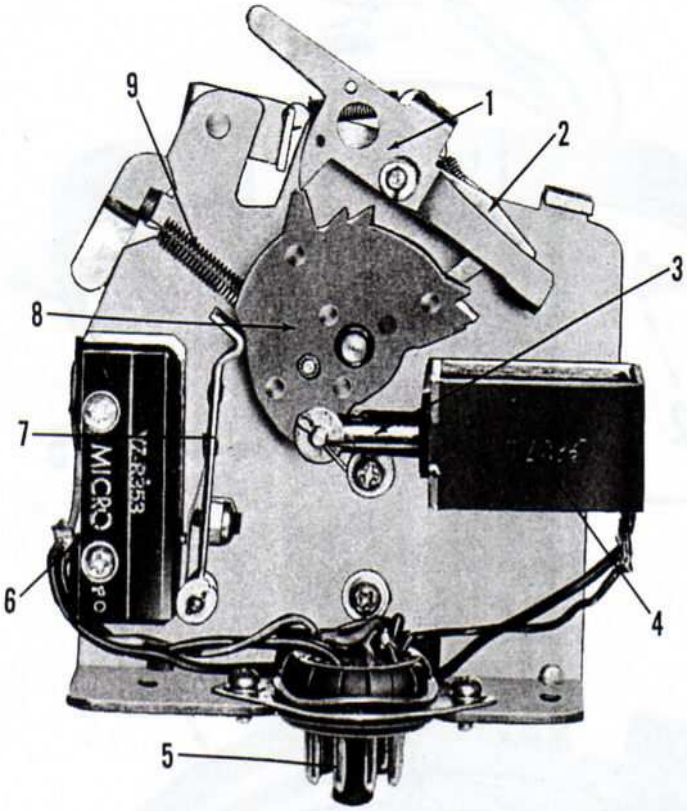
No. 32885-A Power Distribution Panel Assembly

	Part No.	Description
1	11555	Fuse Holder
2	31225	Power Rectifier
3	30574	820 Ohm 5 Watt Resistor
4	32996	Play Control Relay



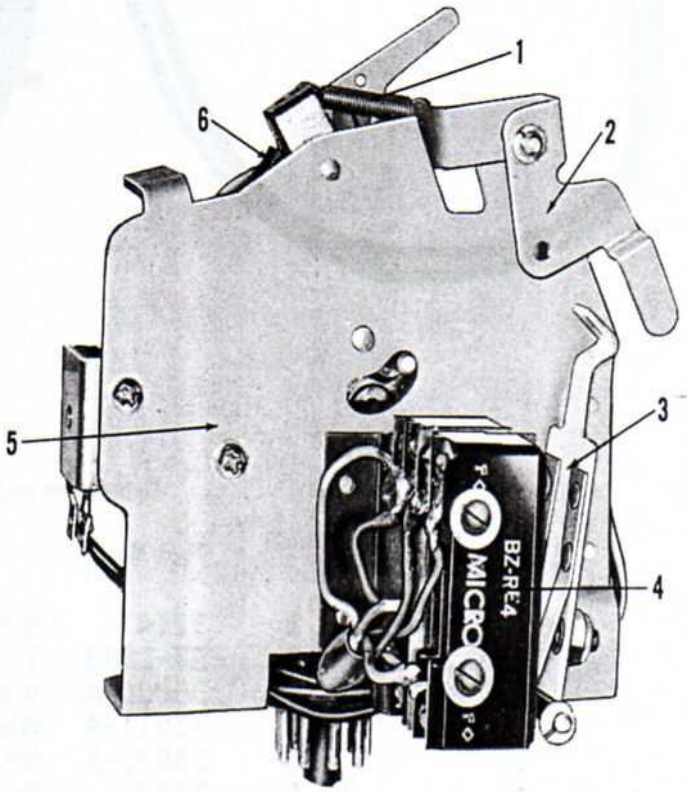
Record Magazine and Related Parts

	Part No.	Description		Part No.	Description
1	32395	Roller Mounting Bracket	12	32368	Roller
2	32367	Belt	13	32461	Shaft Bearing
3	31137	Spacer Stud	14	32396	Mounting Bracket
4	31044	Rear Mounting Plate	15	32461	Shaft Bearing
5	32411	Main External Shaft	16	32368	Roller
6	32399	**Balance** Plate	17	32735-A	Record Guard Front Assembly
7	32619	Tray Decal (Set)	18	32618	Separator Wire Welded Unit
8	32617	Separator Wire Welded Unit	19	32736-A	Roller Support Bracket Assembly
9	32385	Drive Gear	20	32869	Center Roller Shaft Bearing
10	30874	Spacer Shaft	21	32302	Center Roller
11	30882	Front Mounting Plate	22	32396	Mounting Bracket



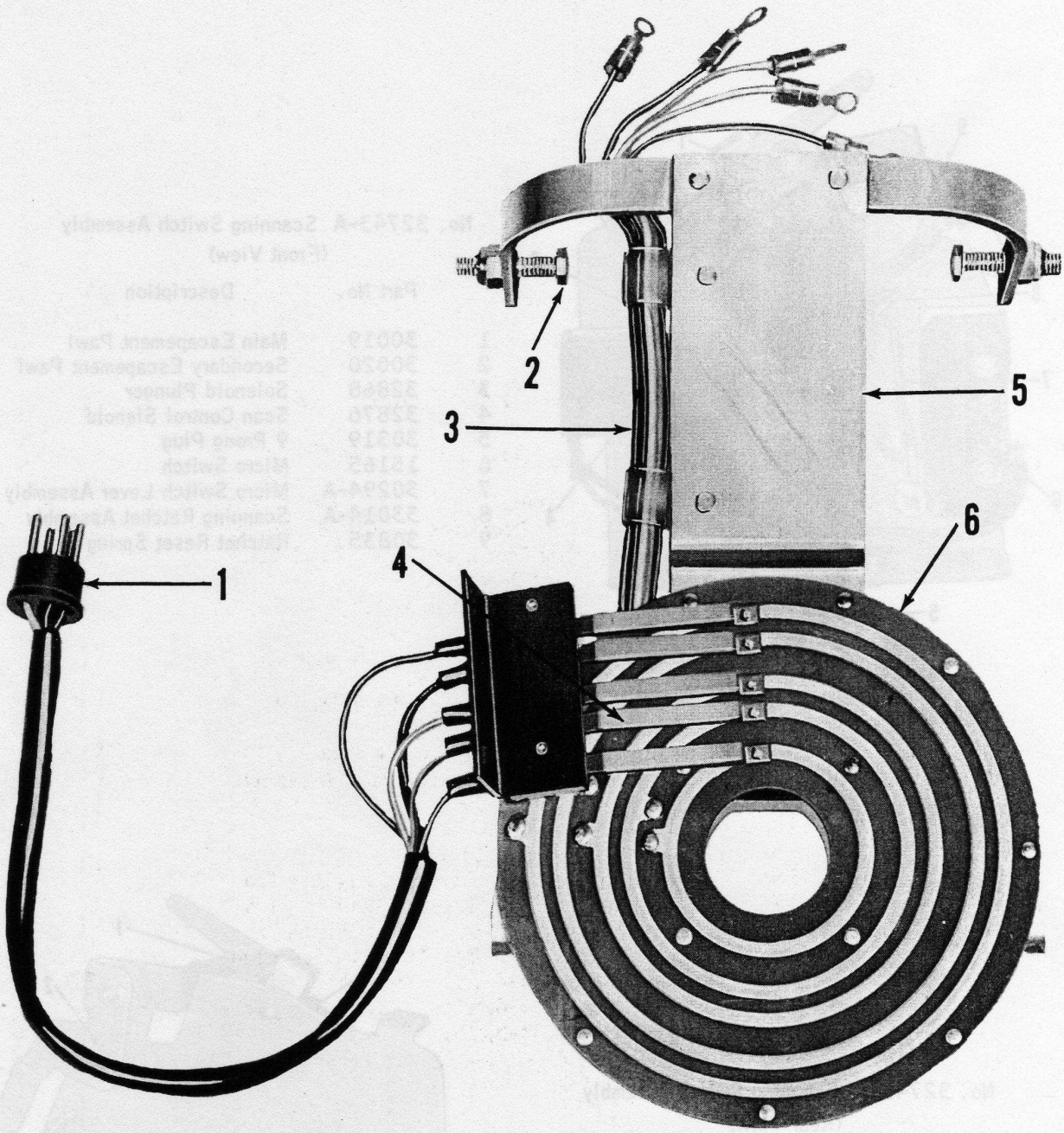
No. 32743-A Scanning Switch Assembly
(Front View)

	Part No.	Description
1	30019	Main Escapement Pawl
2	30020	Secondary Escapement Pawl
3	32868	Solenoid Plunger
4	32876	Scan Control Slenoid
5	30319	9 Prong Plug
6	15165	Micro Switch
7	30294-A	Micro Switch Lever Assembly
8	33014-A	Scanning Ratchet Assembly
9	30835	Ratchet Reset Spring



No. 32743-A Scanning Switch Assembly
(Rear View)

	Part No.	Description
1	30245	Scanning Switch Spring
2	32404	Scanning Switch Trip Lever
3	19042-A	Switch Lever Assembly
4	11609	Micro Switch
5	33012-A	Mounting Plate Assembly
6	30779	Scan Pawl Spring



Drive Arm and Related Parts

	Part No.	Description
1	32147	5 Prong Miniature Plug
2	ST-1503	1" Hex Head Machine Screw
3	33020-A	5 Conductor Cable
4	33011-A	Wiper and Bracket Assembly
5	33022-A	Driver Arm Assembly
6	33025	Printed Circuit Disc

ADDITIONAL PARTS LISTING

	Part No.	Description
1	ST-6028	Caster
2	ST-7379	Cash Door Lock (W/ST-7407 Latch)
3	ST-7399	Rear Door Lock (W/ST-7393 Latch)
4	ST-7408	Front Door Lock
5	15159	Momentary Push Switch
6	17008	Needle Brush
7	31049	Volume Control Potentiometer
8	32355-1	Cash Door Frame
9	32521	Lower Front Door Hinge Bracket
10	32609	Coin Lever Spring
11	32809-A	Volume Control Cable Assembly
12	32875	Mute Switch and Bracket Assembly
13	32877	Brush Holder
14	32878	12" Speaker
15	32963	Operators Card
16	33040	1/10¢-3/25¢-7/50¢ Pricing Tab
17	33041	1/10¢-3/25¢-8/50¢ Pricing Tab
18	33042	1/10¢-3/25¢-9/50¢ Pricing Tab
19	33043	1/10¢-3/25¢-10/50¢ Pricing Tab
20	33044	1/10¢-4/25¢-9/50¢ Pricing Tab
21	33045	1/10¢-4/25¢-10/50¢ Pricing Tab
22	33046	1/10¢-3/25¢ Pricing Tab
23	33047	1/5¢-2/10¢-5/25¢ Pricing Tab

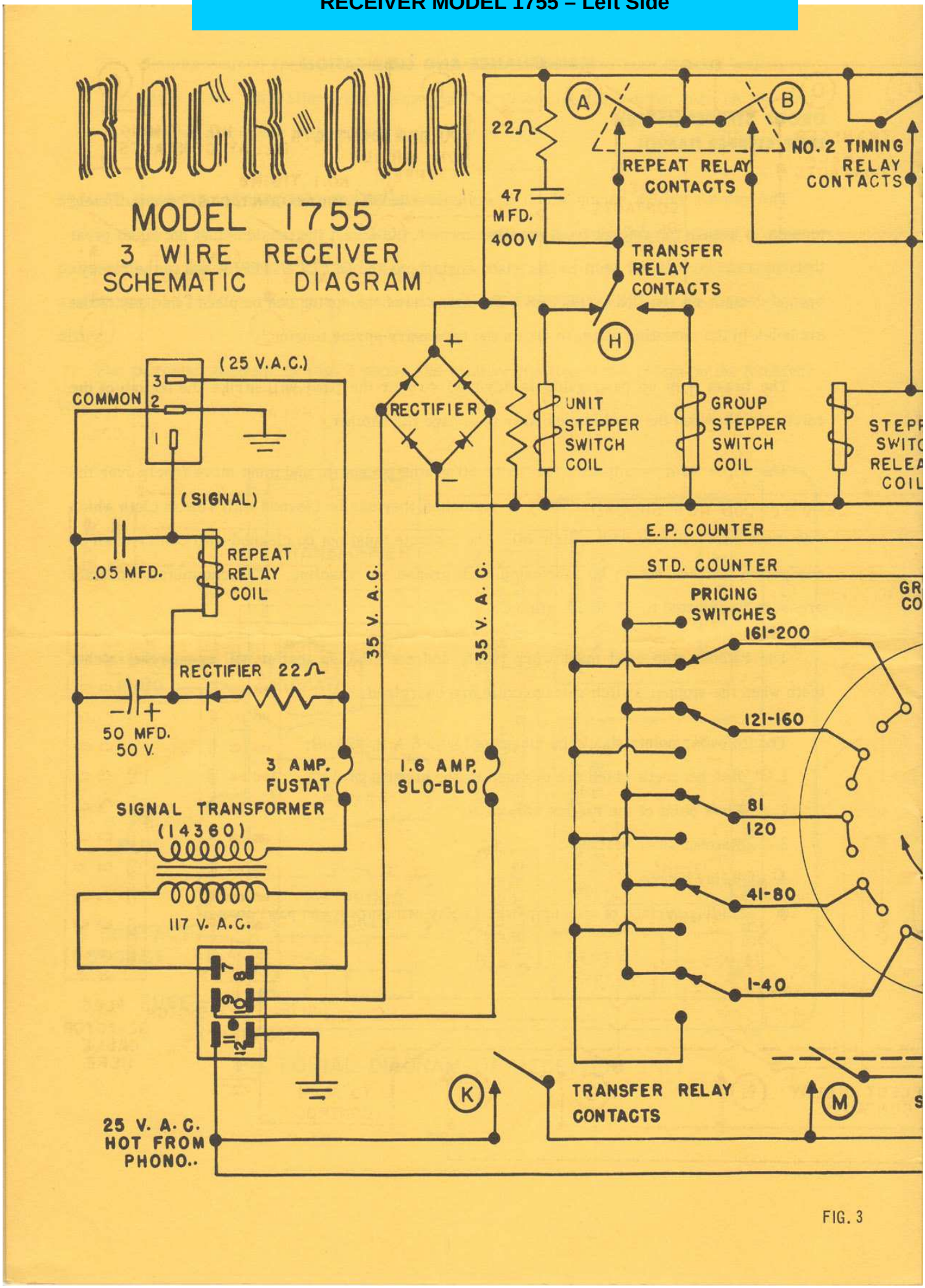
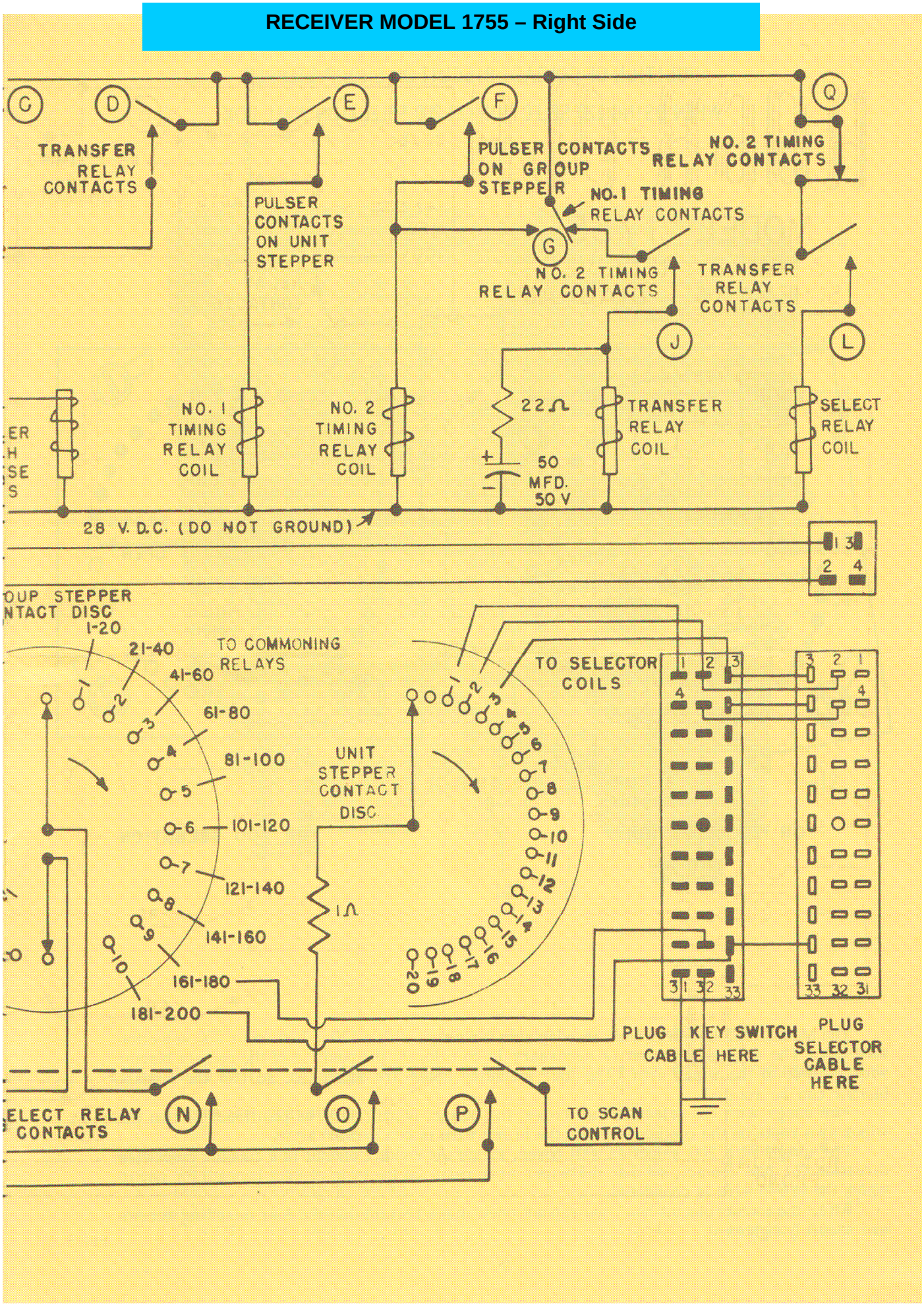
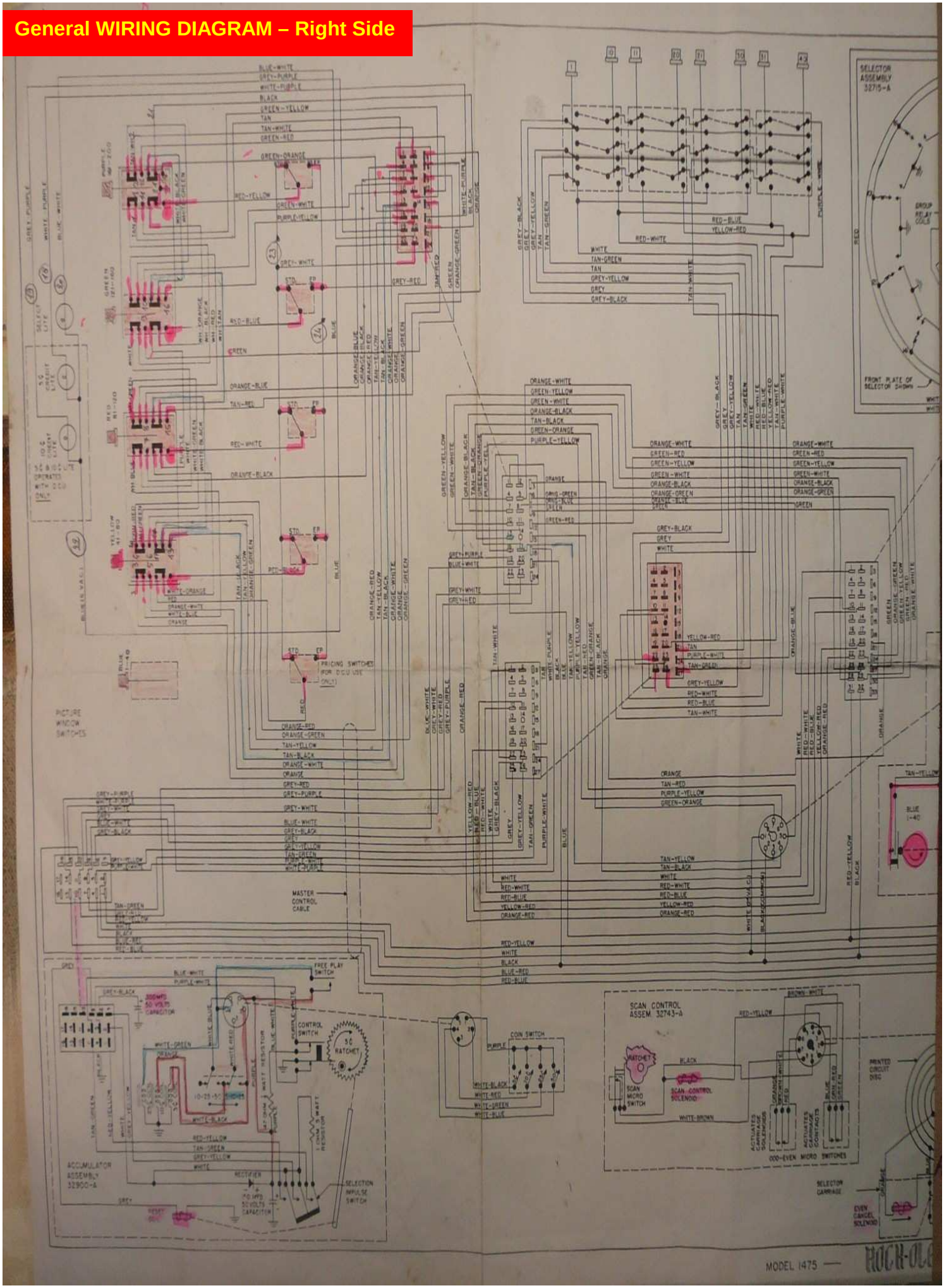

ROCK-OLA
MODEL 1755
3 WIRE RECEIVER
SCHEMATIC DIAGRAM
22Ω
47 MFD. 400V
A
B
REPEAT RELAY CONTACTS
NO. 2 TIMING RELAY CONTACTS
TRANSFER RELAY CONTACTS
H
(25 V.A.C.)
COMMON
3
2
1
(SIGNAL)
.05 MFD.
REPEAT RELAY COIL
RECTIFIER
UNIT STEPPER SWITCH COIL
GROUP STEPPER SWITCH COIL
E.P. COUNTER
STD. COUNTER
PRICING SWITCHES
161-200
121-160
81
120
41-80
1-40
RECTIFIER 22Ω
50 MFD. 50 V.
3 AMP. FUSTAT
SIGNAL TRANSFORMER (14360)
117 V. A.C.
35 V. A. C.
35 V. A. C.
1.6 AMP. SLO-BLO
K
TRANSFER RELAY CONTACTS
M
25 V. A. C. HOT FROM PHONO..

FIG. 3

RECEIVER MODEL 1755 – Right Side



General WIRING DIAGRAM – Right Side



General WIRING DIAGRAM – Left Side