



# TI-2 phonograph

## SERVICE MANUAL

## PARTS CATALOG

### WARRANTY

Rowe extends to the original operator of this equipment the following warranty:

All parts are guaranteed to be free of defects in material and workmanship. Rowe agrees to repair or replace any part which proves defective without charge, f.o.b. factory as follows:

	MOVING PARTS	NON-MOVING PARTS
Search Unit	5 years	5 years
Record Changer	5 years	2 years
Other Components	5 years	1 year

In the case of parts supplied to Rowe as components, Rowe extends the same warranty period as extended by the original manufacturer.

The above warranty applies provided that all parts of the machine have been serviced properly as recommended in the service manual, and provided the alleged defective part, upon examination by Rowe, shall prove to be thus defective. This warranty will not apply to any machine or any part thereof which has been subjected to any accident, abuse, or misuse.

ROWE INTERNATIONAL, INC., EXTENDS NO WARRANTY, EXPRESS OR IMPLIED, TO PURCHASERS OR USERS OF ITS PRODUCTS EXCEPT AS HEREIN SET FORTH, WHETHER BY OPERATION OF LAW OR OTHERWISE.

PART NO. 201-17309

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Printed in U.S.A.



**Rowe international, inc.**

A SUBSIDIARY OF TRIANGLE INDUSTRIES, INC.

78 TROY HILLS RD., WHIPPANY, N.J. 07981, TEL. (801) 887-0400, CABLE: ROWEINT

**GENERAL**

DEPTH . . . . .	26-3/4 in.
WIDTH . . . . .	41-13/16 in.
HEIGHT . . . . .	50-7/8 in.
SHIPPING WEIGHT (DOMESTIC) . . . . .	425 lbs.
SHIPPING WEIGHT (EXPORT) . . . . .	440 lbs.
NET WEIGHT . . . . .	385 lbs.
POWER REQUIREMENTS . . . . .	115 vac, 50/60 Hz., 350 watts

**RECORD CHANGER MECHANISM**

CAPACITY . . . . .	100 records
RECORD SIZE . . . . .	7 inches
SPEED . . . . .	33 and 45 rpm

**CREDIT AND PRICING SYSTEM**

ACCUMULATOR TYPE CREDIT UNIT--DOLLAR BILLS OPTIONAL

COINS ACCEPTED . . . . .	Nickels Dimes Quarters Half-Dollars
TOTAL CREDIT ACCUMULATIONS . . . . .	\$3.00
PRICING . . . . .	See pricing chart

**SOUND SYSTEM**

CARTRIDGE

TYPE . . . . .	Shure Dynetic variable reluctance
FREQUENCY RESPONSE . . . . .	20 to 20,000 Hz
CHANNEL SEPARATION . . . . .	25 db @ 1,000 Hz
NOMINAL COMPLIANCE . . . . .	$7.5 \times 10^{-6}$ cm/dyne
TRACKING FORCE . . . . .	4 grams
OUTPUT . . . . .	7 mv.
STYLUS . . . . .	0.7 mil, diamond

PREAMPLIFIER AND AMPLIFIER

POWER OUTPUT PER CHANNEL . . . . .	25 watts rms (70-volt output)
SIGNAL INPUT FOR FULL UNDISTORTED OUTPUT . . . . .	0.8 to 1.1 volts
MINIMUM INPUT IMPEDANCE . . . . .	100K ohms
DISTORTION AT FULL OUTPUT . . . . .	less than 2% @1,000 Hz
FREQUENCY RESPONSE . . . . .	20 to 20,000 Hz - 3 db
HUM AND NOISE . . . . .	60 db from signal level
AVC CONTROL RANGE . . . . .	40 db
TREBLE CONTROL . . . . .	12 db/octave 10,000 Hz full 6,000 Hz moderate 3,000 Hz low
BASS CONTROL . . . . .	Compensates for bass loss at low volume levels 12 db per octave

## SELECTION SYSTEM

CAPACITY . . . . . 200 selections

## TRANSFORMER PACKAGE (100 WATT AMPLIFIER ONLY; INTEGRAL PART OF 50 W AMPLIFIER)

POWER LEVELS FOR PHONOGRAPH SPEAKERS. . . . . 0.3, 1.5, 6, 24 watts  
 PROVIDES 70-VOLT LINE FOR EXTENSION SPEAKERS

SPEAKER SYSTEM	LOW FREQUENCY	MID FREQUENCY	HIGH FREQUENCY
SPEAKER DIAMETER . . . . .	10 inches	6 inches	3 inches
VOICE COIL DIAMETER . . . . .	1-1/2 inches	1 inch	9/16 inch
IMPEDANCE . . . . .	15 ohms	10 ohms	10 ohms
CROSSOVER . . . . .	600 Hz	5,000 Hz	
SYSTEM FREQUENCY RESPONSE . . . . .	50 to 17,000 Hz		

## LIGHTING

SIDES (Blue Model and Black Models Only) . . . . .	Fluorescent, 6 watts, 9 inches (2) 703-00601
SELECTOR . . . . .	Fluorescent, 30 watts, 36 inches, 712-00601
TITLE PANEL . . . . .	Fluorescent, 30 watts, 36 inches, 712-00601
FRONT DOOR . . . . .	Fluorescent, 30 watts, 36 inches, 706-00601
CREDIT WINDOW . . . . .	Incandescent, No. 757, (2) 28 V, 200-50763

## FUSES AND CIRCUIT BREAKERS

JUNCTION BOX	
120 VAC CIRCUIT . . . . .	2 Amp Circuit Breaker, 715-00733
120 VAC CIRCUIT . . . . .	10 Amp Circuit Breaker, 715-00734
30 VDC CIRCUIT . . . . .	2 Amp Circuit Breaker, 715-00733
AMPLIFIER	
Stereo 50W	
120 VAC CIRCUIT . . . . .	2 amp, Circuit Breaker, 715-00733
Stereo 100W	
120 VAC CIRCUIT . . . . .	3.2 amp, GMZ, 200-11445
B+ CIRCUIT . . . . .	2 amp, AGC, (2), 701-00720
CREDIT UNIT . . . . .	6/10 amp, MDL Slo-Blo, 703-00721

## SECTION 2 - INSTALLATION

### GENERAL

This section contains instructions for unpacking the phonograph and installing it on location. The phonograph is shipped with all major components in place. Installation is quickly and easily accomplished. Save all tie-down hardware should it be necessary to move the phonograph to another location.

### ENVELOPE ASSEMBLY AND ACCESSORIES BAG ASSEMBLY

Packed with each phonograph is an envelope assembly containing a schematic diagram for aid in troubleshooting, a price of play programming chart for changing phonograph pricing, sound system chart and speaker power charts for connecting extension speakers and accessories and a chart explaining the use of amplifier controls. Also included is a plastic bag containing slip-on terminals connecting accessories, a quality control card, an assortment of spare fuses and spare contacts for MATE-N-LOK connectors. It is recommended that you leave this Service Manual, the envelope assembly and the accessory bag assembly in the phonograph cabinet in case they are needed.

### WARRANTY REGISTRATION CARD

A postage-paid warranty registration card is included with the phonograph. Use this card to register the phonograph for in-warranty repairs. Fill in both sides of the card before mailing.

### UNPACKING INSTRUCTIONS

The phonograph is shipped in one carton, ready for installation. The shipping carton should be opened carefully to prevent the phonograph from being damaged or scratched. Inspect the exterior and interior of the cabinet for evidence of damage.

In case of damage, please notify the delivering carrier at once to call and examine the phonograph regardless of the external condition of the boxes. Under U.S. regulations, damage claims must be collected

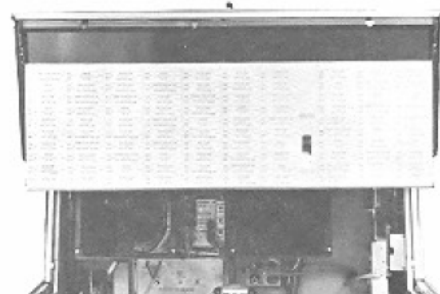
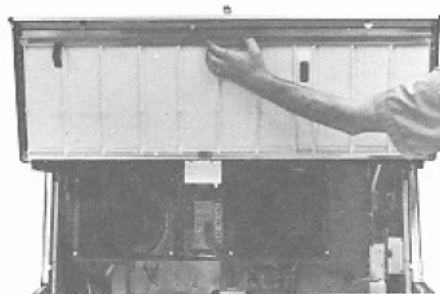
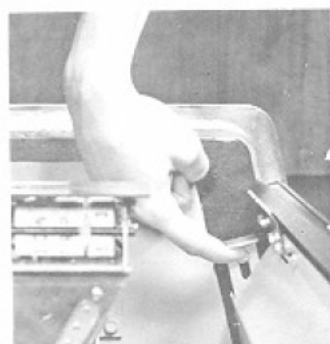
by the consignee. Do not return shipping-damaged merchandise until after your claim has been established. Once your claim is established, damaged merchandise may be returned to the Rowe/AMI distributor for repair. The invoice for repair charges may then be collected from the carrier. Do not destroy packing material or boxes until the carrier's agent has examined them. Unpack the phonograph as follows. Items used for tie-down during shipping are identified by red color.

#### Remove packing case and shipping carton.

- a. Carefully open packing case. Do not use shipping hooks or other sharp instruments.
- b. Remove plastic bag from phonograph cabinet.

#### Open phonograph cabinet.

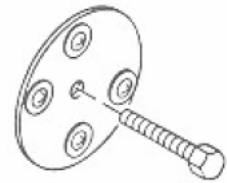
- a. Locate red key bag and open top door.
- b. Release latches and open front door.
- c. Release title panel by pressing in on latches as shown. Pull panel out and down. Remove tape and shipping block from title panel.



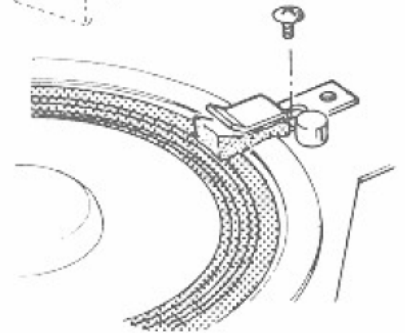
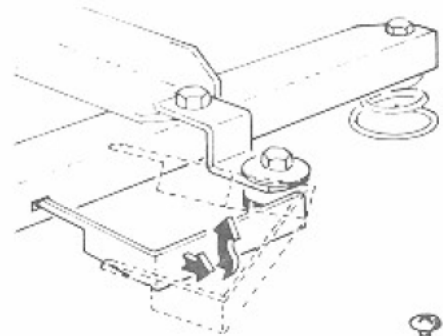
## UNPACKING INSTRUCTIONS (CONTINUED)

### **Remove record changer mechanism tie-down bolts.**

- a. Remove shipping bolt from rear of cabinet.
- b. Rotate record changer tie-down brackets away from mechanism support frame as shown. Lift up and remove.
- c. Remove rubber bands and shipping block from tone arm and toggle shifter plunger.
- d. Remove turntable hold-down clip. Replace screw.
- e. Remove turntable by inserting fingers into two holes and pulling turntable straight up. Remove rubber band and shipping block from idler wheel.
- f. Replace turntable, making sure that idler wheel rides on inside of turntable rim. This is accomplished by manually rotating turntable clockwise.
- g. Remove stylus cover from cartridge and stylus.
- h. Save shipping hardware for future use.
- i. Remove adhesive tape from credit unit, search unit and other parts.
- j. Check that all plugs are firmly seated in their respective receptacles and that all tubes on amplifier chassis are firmly seated in tube sockets.



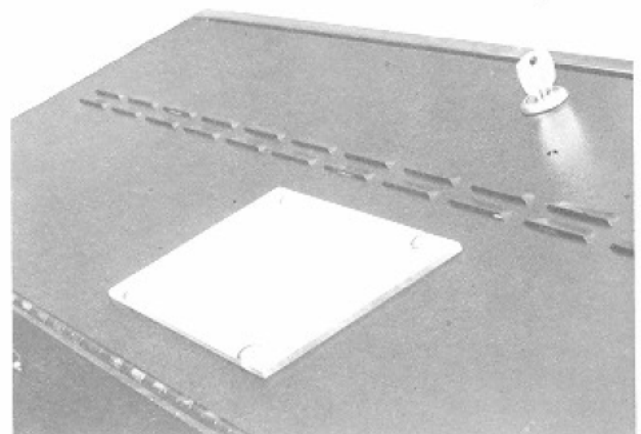
PHONOGRAPH REAR



## INSTALL LICENSE CARD

For locations where a license must be displayed, a license card holder has been provided on the rear of the top access door. To install license card, follow this procedure:

- a. Unlock and open top access door.
- b. Remove four wingnuts from inside of door to remove the plastic license card shield.
- c. Install license card under plastic shield and replace the four wingnuts. Close and lock top access door.



USE OF AMPLIFIER TONE CONTROLS FOR ACOUSTICAL COMPENSATION						
SOUND LEVEL IN ROOM	ROOM ACOUSTICS					
	DEAD OR SOFT, HIGHLY ABSORBENT		AVERAGE - MODERATELY ABSORBENT		LIVE OR HARD NON-ABSORBENT	
	SET BASS BOOST CONTROL	SET TREBLE RANGE CONTROL	SET BASS BOOST CONTROL	SET TREBLE RANGE CONTROL	SET BASS BOOST CONTROL	SET TREBLE RANGE CONTROL
LOUD	LOW	MOD/MAX	LOW	MOD/MAX	MOD	LIM
MODERATE	LOW	MAX	MOD	MOD/MAX	MAX	LIM
SOFT	MOD	MAX	MAX	MAX	MAX	MOD

NOTE: Reduce Treble Range setting as required by record noise (scratch) conditions.

#### ACOUSTICAL COMPENSATION

## AMPLIFIER SET-UP

### ACOUSTICAL COMPENSATION (BASS AND TREBLE CONTROLS)

The pre-amplifier contains treble range and bass boost controls to compensate for room acoustics in various locations. On 100W amplifiers, these controls are on the amplifier chassis. The sound level at which the phonograph will be operated and the room furnishings determine the settings of these controls. A room with carpeting and drapery is a soft or highly-absorbent location. A crowded room is also highly-absorbent. These locations require higher sound levels. A room with paneled walls and a bare or tiled floor is a hard non-absorbent location. Bass boost and treble range control settings are listed in the above table. Note that more bass boost is required at low volume levels. The amplifier incorporates circuitry that provides extra bass compensation at low volume levels.

### STEREO BALANCE

The stereo balance control is provided to equalize left and right channel amplifier output. This control affects only the side speakers; the center, low-frequency speakers are not affected. This control is factory-adjusted for best performance. If adjustment is required, play a monaural selection and adjust the control for equal sound from each side speaker. When balanced, the sound will seem to come from the center of the phonograph.

### AMPLIFIER OPERATION WITH HIGH LINE VOLTAGE

In locations where input line voltage to the phonograph exceeds 125 volts, use the black/red primary lead of the amplifier power transformer instead of the black/yellow lead. This results in a 10% reduction in secondary voltage. Both the 50 and 100-watt amplifiers incorporate this feature.

## EXTENSION SPEAKER, REMOTE VOLUME CONTROL, AND WALLBOX CONNECTIONS

### 70-VOLT CONSTANT VOLTAGE EXTENSION SPEAKER OPERATION

Where sound coverage is required in rooms or areas not covered by the phonograph, extension speakers are required. Rowe recommends using the amplifier 70-volt output with 70-volt extension speakers to provide trouble-free operation. Each Rowe/AMI 70-volt speaker has a matching transformer. The matching transformer has power taps so that power consumed by each speaker in the system can be adjusted. To obtain the total power required for the entire system, simply add the wattage settings of each extension speaker to the wattage setting of the phonograph speaker system. The total wattage must not exceed the rated wattage of the amplifier; otherwise the amplifier will be overloaded. Overloading the amplifier will result in distorted sound and reduced loudness. However, it is always advantageous to approximately match the total speaker power to the power rating of the amplifier because in low volume installations, the amplifier can be operated with a reduced volume control setting. This results in greater bass boost and a more pleasing tonal balance.

#### CAUTION

To avoid damage to the amplifier, do not connect speakers to the four-terminal terminal strip in the upper left corner of the chassis; these terminals are for test purposes only.

### NON-70-VOLT EXTENSION SPEAKER OPERATION

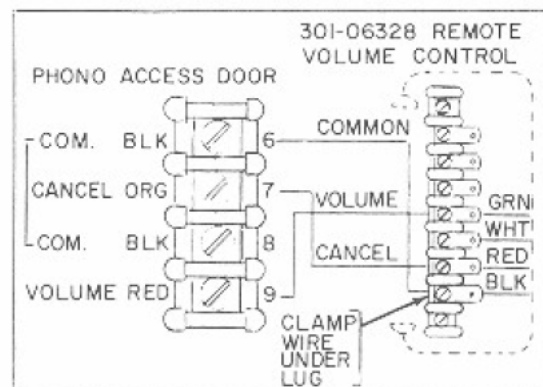
Though less desirable than 70-volt operation, speakers may be connected to impedance taps on the output transformer package. Speaker power ratings and impedance must be considered so that each speaker

will get the proper proportion of power. Three requirements must be met:

1. The speakers must be wired so that the power consumed by the phonograph and extension speakers does not exceed the amplifier power rating.
2. Each speaker must get the right amount of audio power to have equal loudness to the other speakers in the system or have higher or lower loudness as required.
3. All speakers must be connected with the proper polarity.

### REMOTE VOLUME AND CANCEL CONTROL

Connect the 301-06322 remote volume and cancel control to the Phonograph as shown.



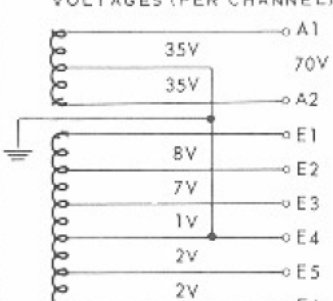
REMOTE VOLUME AND CANCEL  
CONTROL CONNECTIONS

## FULL COVERAGE SOUND SYSTEM CONNECTION CHART

See next page for Stereo Sound system connection chart. Observe the following notes when making connections:

- Connections shown for 70-volt extension speakers are for Models EX-400, EX-401, EX-600 and EX-700.
- Connections shown for 8-ohm extension speakers are for 6-watt level. See the table below for information on other power levels and for use of speakers having other impedances.
- Polarity of connections between amplifier, wallbox speakers, and extension speakers must be observed for correct phasing of extension speakers, wallbox speakers, and Phonograph speakers.
- Amplifier watts per channel for speakers connected across both channels (for monaural extension of sound) is one half watts per speaker power.
- Allow one watt per channel for each Wallethe wallbox connected.
- Connect remote volume control to barrier strip on rear access door.

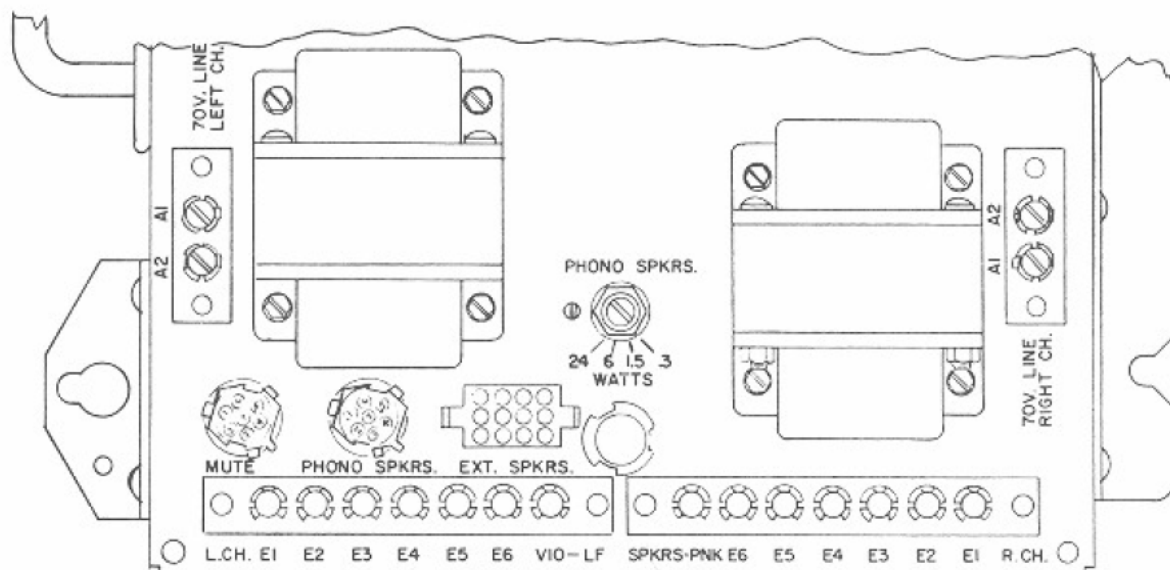
### EXTENSION SPEAKER CONNECTIONS AND POWER LEVELS

CHART NO. 1 SPEAKERS CONNECTED TO EITHER LEFT CHANNEL OR RIGHT CHANNEL - USED IN PAIRS FOR STEREO EXTENSION OF SOUND.			CHART NO. 2 SPEAKERS CONNECTED ACROSS BOTH CHANNELS - FOR MONAURAL EXTENSION OF SOUND.			
	TERMINALS	WATTS PER SPEAKER		TERMINALS	WATTS PER SPEAKER	
8 OHM SPEAKERS	E4 - E5	0.5	8 OHM SPEAKERS	E3 - E3	0.5	
	E3 - E5	1		E5 - E5	2	
	E4 - E6	2		E6 - E6	8	
	16 OHM SPEAKERS	E3 - E6	3	16 OHM SPEAKERS	E5 - E5	1
		E2 - E4	8		E6 - E6	4
		E2 - E5	12		E2 - E2	16
		500 OHM SPEAKERS	E2 - E6	18	500 OHM SPEAKERS	E2 - E2
E3 - E5			0.5	E1 - E1		2
E4 - E6			1	A1 - A2		10
E3 - E6	1.5		or	A2 - A1	10	
E2 - E4	4		CONSTANT VOLTAGE SPEAKERS	A1 - A2	DETERMINED BY SPEAKER SWITCH POSITION OF TAP CONNECTION	
E2 - E5	6			or		
E2 - E6	9	A2 - A1				
500 OHM SPEAKERS	E1 - E4	0.5	AMPLIFIER FULL POWER OUTPUT VOLTAGES (PER CHANNEL) 			
	E1 - E6	0.8				
	A1 - E4	2.5				
	A2 - E4	2.5				
CONSTANT VOLTAGE SPEAKERS	A1 - A2	10				
	A1 - A2	DETERMINED BY SPEAKER SWITCH POSITION OF TAP CONNECTION				

NOTE: Watts per channel for speakers connected across both channels (for monaural extension of sound) is one half of "Watts Per Speaker" indicated in chart #2.







PHONO. SPKR. POWER SWITCH	POWER PER CHANNEL FOR EXT. SPEAKERS	
	50 Watt Amplifier	100 Watt Amplifier
24 watts	13 watts	38 watts
6 watts	22 watts	47 watts
1.5 watts	24 watts	49 watts
0.3 watts	25 watts	50 watts

**CAUTION:** Total power rating of load must not exceed 50 watts per channel for 100 watt amplifier and 25 watts per channel for 50 watt amplifier.

#### POWER LEVEL SETTINGS

### SPECIAL CONSIDERATIONS FOR WALLETTTE INSTALLATIONS

The phonograph bass speaker can be disconnected from the power level switch and given a selected bass level regardless of switch position. This feature is especially valuable when the phonograph speakers are operated at low level to operate WalleTTte speakers. However, increased bass from the phonograph is desirable to balance the total sound outputs of the WalleTTtes.

To perform this change, disconnect the violet and pink wires from the output terminal strips on the amplifier or output transformer assembly (100 W only). Reconnect these wires according to the chart below to give a bass speaker wattage approximately equal to the total one-channel wattage of the WalleTTte speakers.

BASS SPEAKER POWER FROM BOTH CHANNELS	VIOLET LEAD	PINK LEAD
0.3 watts	E3-L. Ch.	E3-R. Ch.
1.5 watts	E5-R. Ch.	E5-L. Ch.
6 watts	E6-R. Ch.	E6-L. Ch.
24 watts	E2-L. Ch.	E2-R. Ch.

BASS SPEAKER POWER LEVELS FOR WALLBOX OPERATION

## **CHECKOUT AND PRICING**

### **LEVEL PHONOGRAPH**

Level the phonograph cabinet left-to-right and front-to-back to ensure proper slug rejector operation. This is done by placing spacers under the caster wheels or installing washers on the mounting screws between the casters and the cabinet bottom.

### **PRICING**

The credit and pricing system of the phonograph can be adapted to a wide variety of pricing combinations. Pricing for each phonograph as set at the factory is indicated by the price card installed in the price window. If a change of pricing is desired, refer to the price of play programming procedure on the following pages. Locate the desired price combination at the top of the chart, then order the required price card and pricing accessories, if required, from your Rowe Distributor.

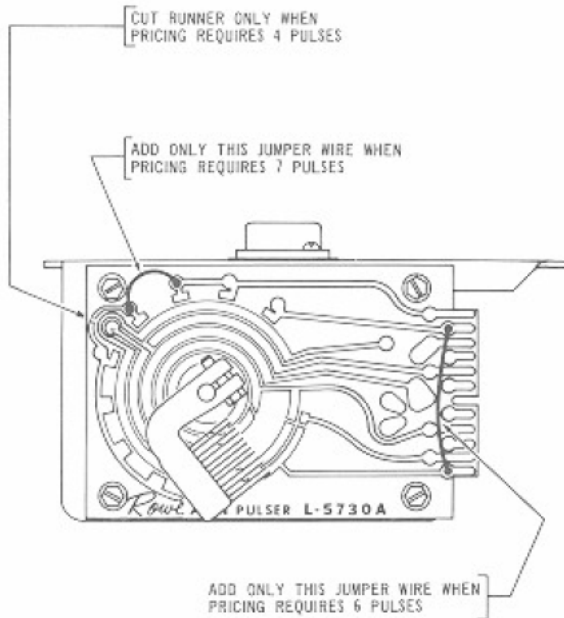
To set any group for premium (album) price, open the top access door to gain access to the premium pricing slide switches. Each switch represents one number selection group. Set switches for premium or regular price as desired.

### **INSTALLING RECORDS AND TITLE STRIPS**

The phonograph will play both 45 rpm and 33 rpm (Little LP) records. If only 45 rpm records will be played, order and install hub spacer, part no. 725-01214. Load records and install title strips as directed in Section 3 - Routine Service.

### **A FINAL CHECK**

To see that the installation has been properly performed, deposit coins and make selections. Check that the record changer cycles smoothly and that sound is not distorted.



NOTE:  
OTHER PRICE COMBINATIONS ARE POSSIBLE.  
SWITCH POSITION FUNCTIONS ARE INDICATED HERE.

SWITCH #1 CREDIT LIGHTS AND SELECTOR CONTROL  
 POSITION 1 1 STEP STANDARD, 2 STEPS PREMIUM  
 POSITION 2 1,2 STEPS STANDARD, 3 STEPS PREMIUM  
 POSITION 3 3,4,5 STEPS STANDARD, 6 STEPS PREMIUM

SWITCH #2 COIN SWITCH CONNECTIONS

COIN SWITCH AND WIRE COLOR	SWITCH POSITION		
	4	5	6
5¢ ORANGE	FIXED STOP	FIXED STOP	FIXED STOP
10¢ SLATE/WHITE	FIXED STOP	FIXED STOP	ADJUST. STOP
25¢ SLATE	ADJUST. STOP	STOP SCREW	STOP SCREW
50¢ BLUE	STOP SCREW	BONUS RELAY	BONUS RELAY

\* THIS PRICING REQUIRES CREDIT UNIT WIPER TO BE ADJUSTED TO MINUS ONE CREDIT WHEN TURNED ALL THE WAY COUNTER-CLOCKWISE MANUALLY.

\*\* IF M.A.F. MONEY METER IS USED NO BONUS RELAY IS REQUIRED. PUT MONEY METER EXTRA PLAY SWITCH IN YES POSITION IF PRICING CALLS FOR BONUS RELAY.

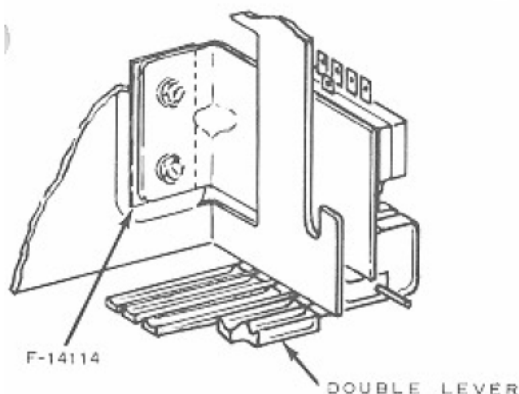
STEP		1
1	SELECT PRICE CARD FROM COMBINATIONS SHOWN	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR..5 PLAYS  ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR..2 PLAYS PLUS 1 STANDARD PLAY  201-15279
2	CREDIT UNIT - FRONT VIEW  CREDIT UNIT - REAR VIEW 	4 CREDIT STOP COIL SLOT 3 2  O9 O8 O7 CREDIT STOP SCREW HOLE O6 O5 O4 O3 O2  3 CANCEL STOP COIL SLOT 2 1  O6 O5 O4 CANCEL STOP SCREW HOLE O3 O2 O1
3	NICKEL DIVERTER POSITION COIN ACCEPTORS 	FREE OR BLOCKED
4	NICKELS AND DIMES REJECTED? SEE SUPPLEMENT SHEET F-14097	YES
5	PRICE SWITCH SETTINGS	SWITCH # 1 SWITCH # 2
6	IS BONUS RELAY REQUIRED? **	NO
7	200-66390 2-QUARTER CREDIT WHEEL REQUIRED?	NO

# G PROCEDURE

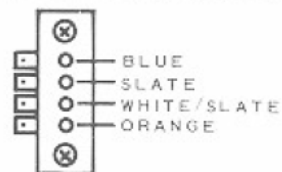
2	3	4	5	6	7	8
STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR...5 PLAYS DOLLAR BILL...14 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR...2 PLAYS DOLLAR BILL...7 PLAYS  201-15711	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...5 PLAYS DOLLAR BILL...12 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR OR 2 QUARTERS...2 PLAYS PLUS 1 STANDARD PLAY DOLLAR BILL...6 PLAYS  201-66622	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...5 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR OR 2 QUARTERS...2 PLAYS PLUS 1 STANDARD PLAY  201-15721	STANDARD PLAYS QUARTER.....2 PLAYS  2 QUARTERS...5 PLAYS  4 QUARTERS...11 PLAYS  201-66623	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...5 PLAYS DOLLAR BILL...11 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR OR 2 QUARTERS...2 PLAYS PLUS 1 STANDARD PLAY DOLLAR BILL...5 PLAYS PLUS 1 STANDARD PLAY  201-75721	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...5 PLAYS  201-66624	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...6 PLAYS DOLLAR BILL...14 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR OR 2 QUARTERS...3 PLAYS DOLLAR BILL...7 PLAYS  201-66625
	THIS PRICING REQUIRES 401-05601 2-QUARTER ADAPTER SWITCH SETTING - 2	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...5 PLAYS DOLLAR BILL...14 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR OR 2 QUARTERS...2 PLAYS PLUS 1 STANDARD PLAY DOLLAR BILL...7 PLAYS  201-66628	STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...5 PLAYS  201-66629		STANDARD PLAYS QUARTER.....2 PLAYS HALF DOLLAR OR 2 QUARTERS...6 PLAYS ALBUM SIDES QUARTER.....1 PLAY HALF DOLLAR OR 2 QUARTERS...3 PLAYS  201-66631	
THIS PRICING REQUIRES WIRING CHANGE IN BILL ACCEPTOR FOR 7 PULSES SEE AT LEFT	THIS PRICING REQUIRES WIRING CHANGE IN BILL ACCEPTOR FOR 5 PULSES SEE AT LEFT			THIS PRICING REQUIRES WIRING CHANGE IN BILL ACCEPTOR FOR 4 PULSES SEE AT LEFT	STANDARD PLAYS QUARTER...2 PLAYS 2 QUARTERS...6 PLAYS 4 QUARTERS...14 PLAYS  201-66632	THIS PRICING REQUIRES WIRING CHANGE IN BILL ACCEPTOR FOR 4 PULSES SEE AT LEFT
<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4*</b>	<b>4*</b>
<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>8*</b>	<b>8*</b>
<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>FREE OR BLOCKED</b>	<b>FREE OR BLOCKED</b>	<b>FREE OR BLOCKED</b>	<b>FREE OR BLOCKED</b>	<b>FREE OR BLOCKED</b>	<b>FREE OR BLOCKED</b>	<b>FREE OR BLOCKED</b>
<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>
<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
<b>NO</b>	<b>NO</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>YES</b>

201-17314

# SUPPLEMENT TO: PRICE OF PLAY PROGRAMMING PROCEDURE



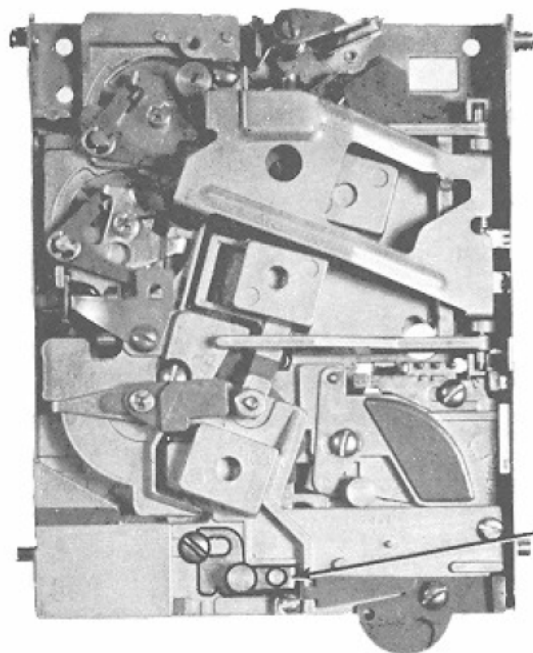
CA SLUG REJECTOR CAN BE INTERCHANGED WITH NRI SLUG REJECTOR WHEN COIN SWITCH HAS DOUBLE WIDTH NICKEL LEVER. F-14114 SPACER MUST BE ADDED FOR ALIGNMENT. NOTE: COIN SWITCH WIRING MUST BE CHANGED IF REJECTOR IS REPLACED WITH DIFFERENT PART NUMBER.



WIRING FOR  
L-5470  
NRI  
SLUG REJECTOR



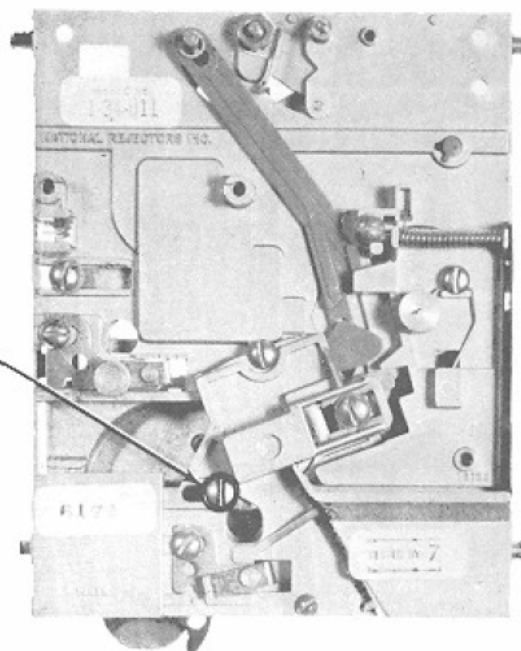
WIRING FOR  
L-5476  
CA  
SLUG REJECTOR



## NATIONAL

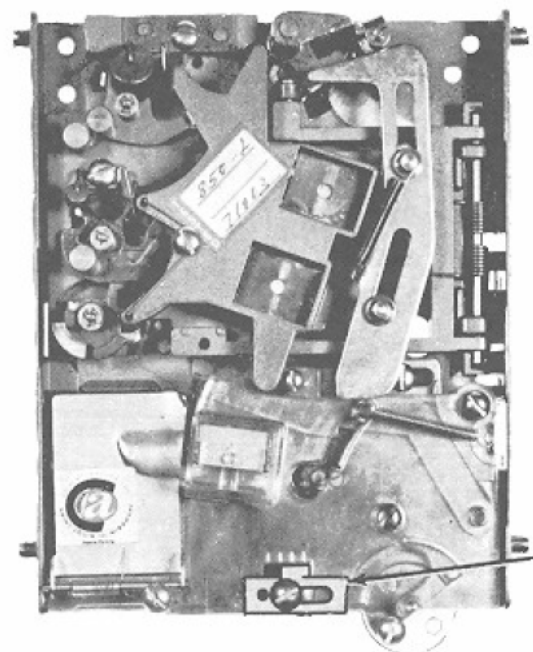
Move this screw to right to reject dimes (or just far enough to left to accept dimes).

Move this bracket to right to reject nickels (or just far enough to left to accept nickels).



FRONT VIEW

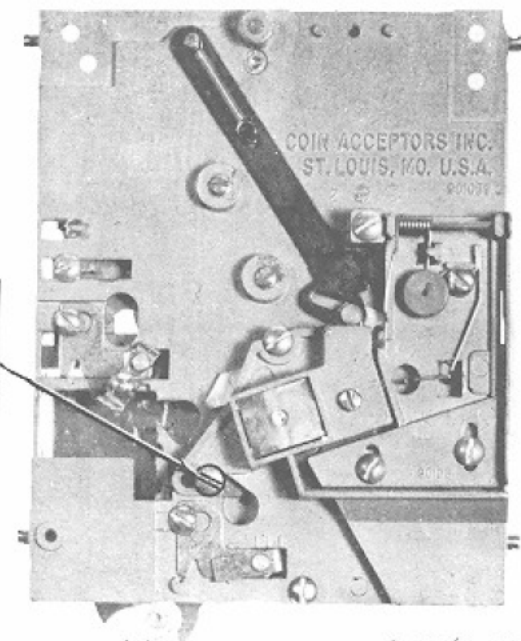
REAR VIEW



## COIN ACCEPTORS

Move this screw to right to reject dimes (or just far enough to left to accept dimes).

Move this bracket to right to reject nickels (or just far enough to left to accept nickels).



## SECTION 3 - ROUTINE SERVICE

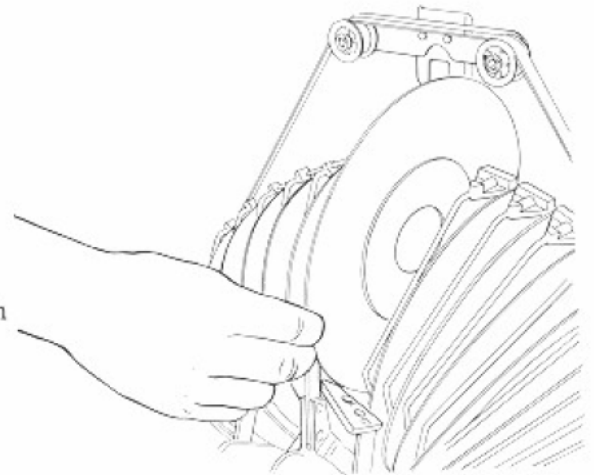
### GENERAL

This section contains instructions to enable the route man to perform routine service tasks such as changing records, making collections, and cabinet cleaning.

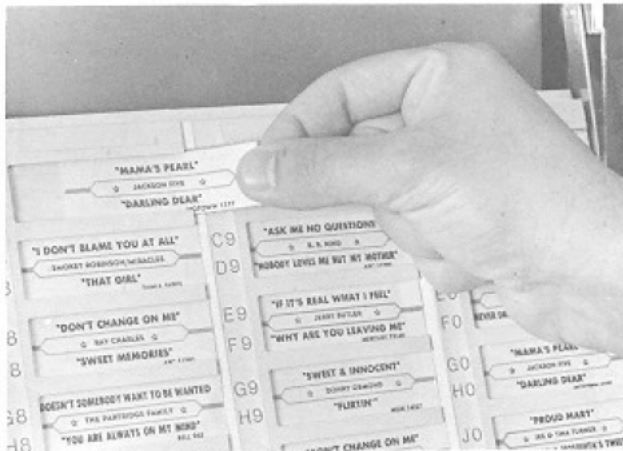
### CHANGING RECORDS

The phonograph will play both 45 rpm and 33 rpm (Little LP) records. If only 45 rpm records will be played, order and install hub spacer, part no. 725-01214. Load records as follows:

- Unlock and open top door.
- Use scan service switch on the control console to position magazine slot to the left or right of the transfer arm.
- Install record in magazine as shown.



### CHANGING TITLE STRIPS



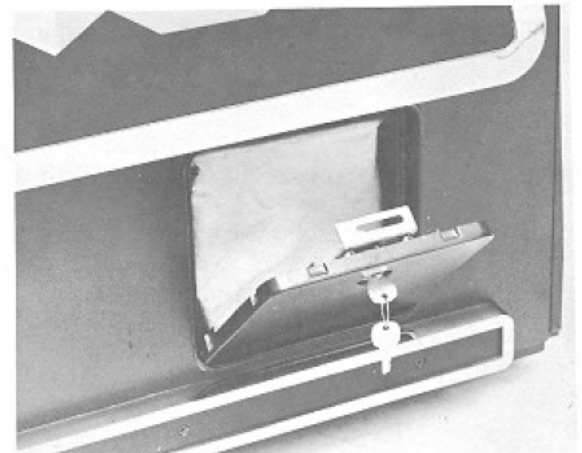
Each time new records are installed, corresponding title strips must also be installed. Install the title strips as follows:

- Open top door and swing out title panel as shown on page 2-1.
- Install new title strips by sliding the strips into the open right ends of the racks as shown.
- Check to make sure that each title strip corresponds to the correct record.

### REMOVING CASH BAG

Remove the cash bag from the bottom right hand side of the cabinet in the following manner:

- Unlock cash bag door and pull door away from cabinet.
- Slide cash bag straight out on its runners.

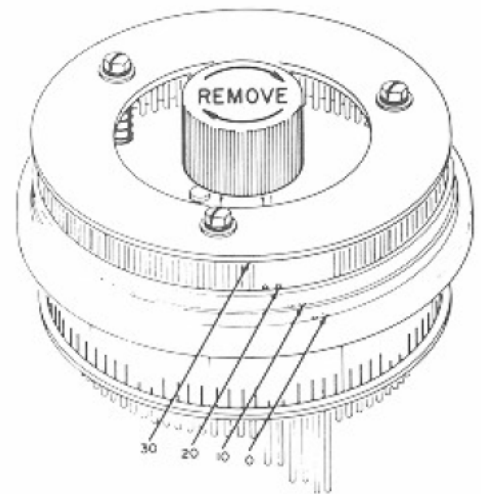


## READING AND RESETTING POPULARITY METER

The popularity meter keeps a tally on the number of times each record is played. Reading the popularity meter is the best way to tell which records are played most often or which records should be changed.

Read and reset the popularity meter as follows:

- a. Determine which records have been played most by observing the popularity meter pins. The pins nearest the reset plate have been played most often. Each pin registers a maximum of thirty plays. Each play moves the pin 1/32-inch toward the reset plate.
- b. Reset the popularity meter by pushing the reset plate against the play meter.

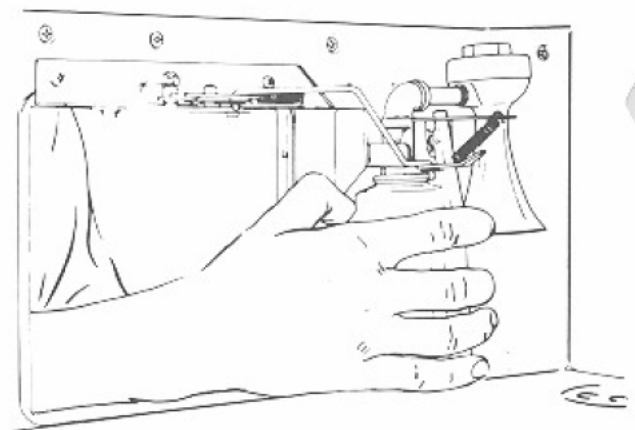


## REARMING BURGLAR ALARM

- a. Open cash box door and remove cash bag.
- b. Unscrew used Freon can. Avoid Freon contact with skin and eyes.

KEEP CAN POINTED AWAY FROM YOU.  
DO NOT SHAKE FROZEN CANS.

- c. Reset valve lever down until it clicks into place as shown.
- d. Install new Freon can and screw firmly into place.



## REPLACING LAMPS

Replacing cabinet lamps immediately if they burn out helps to maintain the attractive appearance of the phonograph. Fluorescent tubes, starters and incandescent lamps are located within the cabinet as shown below.

Remove fluorescent tubes as follows:

- a. Press tab on one lamp socket as shown.
- b. Push lamp against opposite socket and swing lamp out.  
LAMP SOCKETS ARE QUICK-RELEASE TYPE - DO NOT ROTATE LAMP IN SOCKET.



## REPLACING LAMPS

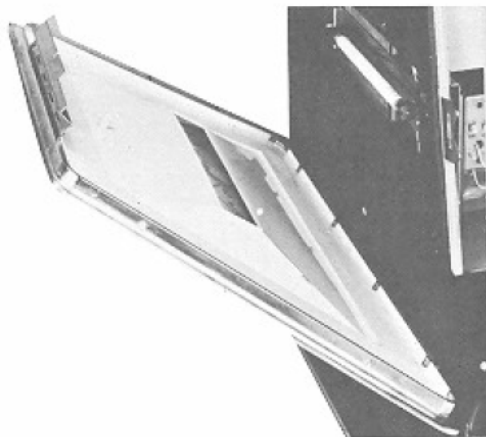
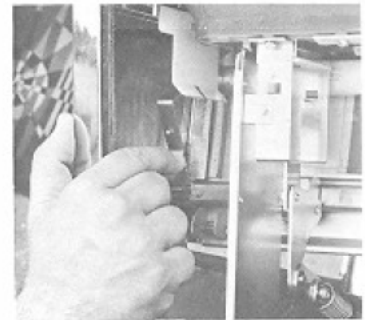
To remove selector fluorescent lamp and starter, or credit window incandescent lamps:

DO NOT USE #47 OR #755 6-VOLT LAMPS FOR THIS APPLICATION

- Unlock and open top access door.
- Fluorescent lamp and starter are located on top access door as shown. Incandescent lamps are located immediately behind credit window.

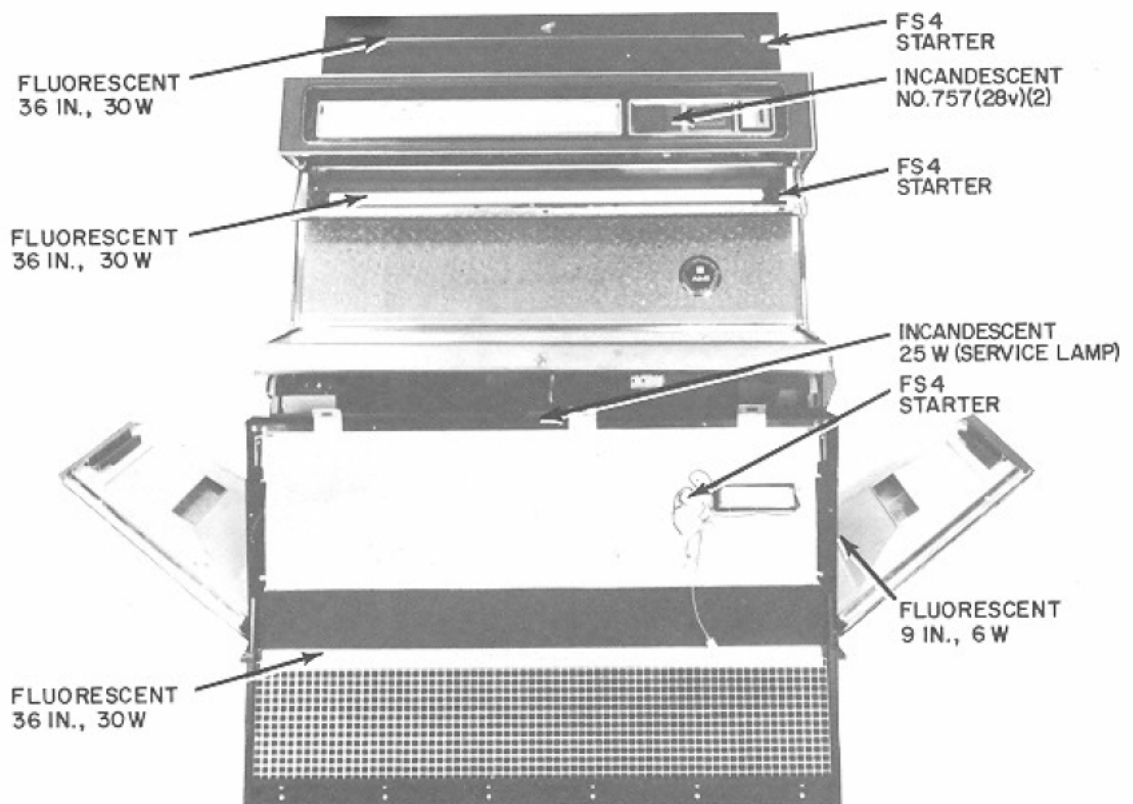
To remove title panel fluorescent lamp:

- Unlock and open top access door as above.
- Release latches on each side of top opening as shown.
- Bottom access door will swing down to provide access to fluorescent lamp and starter.

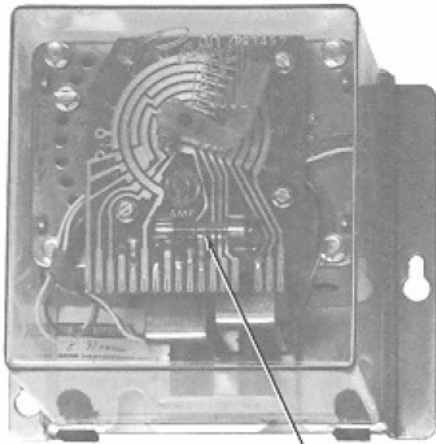


To remove side panel lamp, proceed as follows:

- Loosen 1 screw holding hinged retaining bracket at top of side panel.
- Slide retaining bracket up and out. Side panel will open, allowing access to fluorescent tube.



# CHANGING PHONOGRAPH FUSES



6/10A MDL FUSE

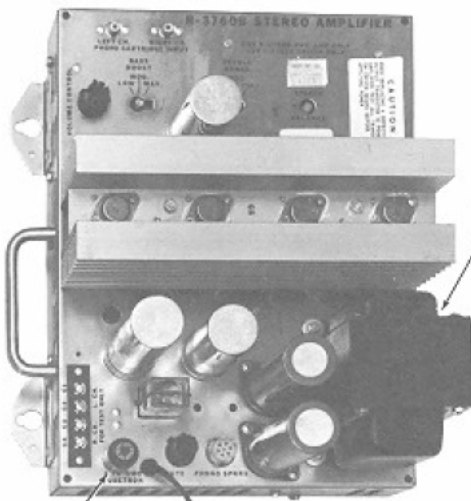
CREDIT UNIT



2 AMP CIRCUIT BREAKER

10AMP CIRCUIT BREAKER

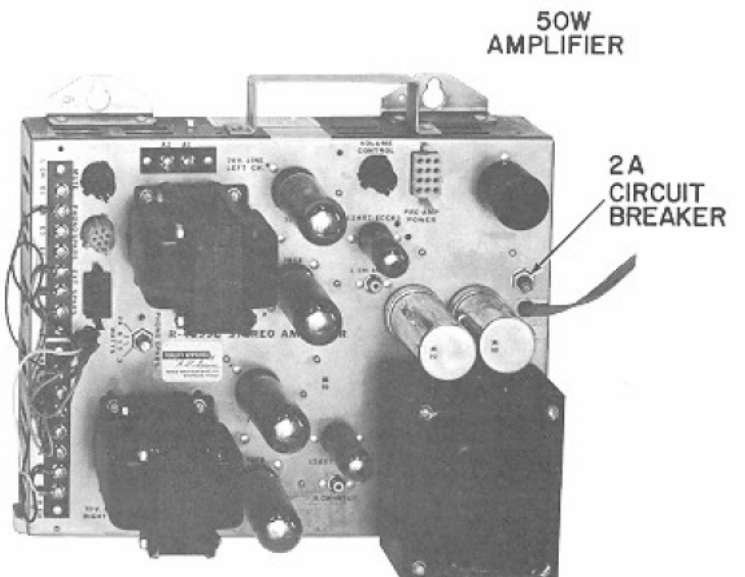
JUNCTION BOX



(2) 2 AMP AGC FUSES UNDER CHASSIS

3.2A GMD FUSE

100 W AMPLIFIER



50W AMPLIFIER

2A CIRCUIT BREAKER

## CABINET CLEANING

ACTION REQUIRED	PROCEDURE
1. Clean glass	1. a. Clean all glass with a paper towel and a glass cleaner such as Windex. b. Dry with a clean, lint-free cloth.
2. Clean painted wood and metal surfaces	2. a. Clean all painted wood and metal surfaces with mild soap and water. <b>DO NOT USE SOLVENTS.</b> b. Apply a good quality auto or furniture wax to protect the finish.
3. Clean chrome trim	3. a. Use a damp or dry cloth to remove any dust or dirt. b. Use mild soap and water to remove stubborn deposits. Do not use strong detergents or abrasives of any kind. c. Apply a good quality auto or furniture wax to protect the finish.
4. Clean plastic trim	4. a. Wipe all plastic surfaces with a damp or dry cloth only. <b>DO NOT USE SOLVENTS.</b>
5. Clean electrical components	5. a. Clean all electrical components with a clean, dry, lint-free cloth or a soft bristled brush only.

## SECTION 4 - TROUBLESHOOTING

### INTRODUCTION

This section contains troubleshooting charts listing probable trouble causes and corrective procedures. Seventeen sequence of operation schematic diagrams plus a complete, detailed explanation of the operation of each Phonograph component are included to aid in isolating and correcting equipment malfunctions easily and rapidly. Use the instructions in this section in conjunction with the adjustment and repair and replacement instructions in Section 5 - Maintenance to isolate and correct Phonograph malfunctions.

### TROUBLESHOOTING CHARTS

It is important to troubleshoot logically so that effort is not wasted in removing and replacing the wrong parts. Most failures are caused by minor defects, such as loose connections or dirty contacts. Check the following before replacing any parts:

- a. Check that all plugs are firmly seated in their receptacles.
- b. Check that connector pins are not bent, broken, or pushed through the back of the connector or receptacle when mated.
- c. Check that wires are not broken at connector pins.
- d. Check that the area of the search unit and credit unit commutator boards that mate with harness edge connectors are clean and intact. Make sure that the connectors are firmly seated.
- e. Check that commutator segments are clean and that all wiper blades are properly positioned on their respective commutator segments.

The possible malfunctions of the Phonograph, their probable causes and remedies are listed in tables 4-1 through 4-3. The TROUBLE column contains specific failures. Each failure has one or more corresponding causes in the PROBABLE CAUSE column. If more than one probable cause and remedy are listed for a particular trouble, perform the procedures in the REMEDY column in the order listed.

TABLE 4-1. CREDIT AND SELECTION SYSTEM TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
Valid coins fail to pass through slug rejector into cash box. Coins remain jammed in rejector.	Dirt or foreign matter clogging coin passages in rejector.	Refer to coin rejector service manual for cleaning procedure. Clean in accordance with instructions.
	Scavenger binding, rejector out of adjustment.	Refer to coin rejector service manual for adjustment procedure.
Valid coins pass through rejector into coin box but credit is not established.	Coin switch contacts dirty, bent, or broken.	Adjust coin switches. Check for bent or broken contacts. Clean contacts.
	Incorrect alignment of slug rejector or coin switches. Coins drop between switch levers.	Be sure that slug rejector is firmly clamped in place. Adjust coin switches as necessary.

TABLE 3-1. CREDIT AND SELECTION SYSTEM TROUBLESHOOTING (CONTINUED)

TROUBLE	PROBABLE CAUSE	REMEDY
Valid coins pass through rejector into coin box but credit is not established. (continued)	Credit coil plunger binding.	Check credit coil plunger for binding due to dirt. Check coil windings for continuity.
	Blown 0.6A fuse in credit unit.	Check for binding coin switch.
	Coin switch connector not seated.	Check that connector is firmly seated. Check for broken wire in common line.
Valid coins are accepted but credit lamp does not light.	Lamp burned out.	Replace lamp. Check for broken wires.
	Broken wiper blade on credit unit wiper arm assembly.	Replace wiper blade. Check that credit unit edge connector is firmly seated.
Coins accepted; credits not registered properly-credit unit fuse blows.	Coin hanging up on coin switch. Coin switch not opening.	Check for jammed coin. Free binding coin switch.
	Coin switch contacts closed by metallic foreign matter.	Clean contacts and replace fuse.
Continuous free play. Credit light remains on.	Credit coil plunger binding in raised position.	Free credit coil plunger. Replace credit coil if necessary.
	Cancel coil burned out.	Check cancel coil for continuity. Check for burned appearance. Replace defective coil.
	Cancel circuit open.	Check credit cancel coil.
More than normal number of credits established for coin deposited.	Appropriate stop coil not being energized.	Check for intermittent open circuits, loose wires, or poor solder connections.
	Appropriate stop coil plunger sticking.	Manually actuate plunger to check for free operation. Clean or replace plunger or spring if necessary.
	Improper credit set-up.	Check pricing against credit and pricing chart. See page 2-9
Valid coins accepted, credits are established, pushbuttons do not latch in.	Latch coil not operating. Select pulse and latch relay R1 not picking up.	Check coil for continuity. Check relay contacts for closure. Replace relay or coil if necessary.
	Select pulse and latch relay R1 contacts broken, dirty, or out of adjustment. R1 not picking up after credit is established.	Clean and adjust relay contacts.
	Open circuit between credit unit and select pulse and latch relay R1. R1 not picking up after credit is established.	Check for open circuit. Refer to sequence of operation, page 4-9.

TABLE 3-1. CREDIT AND SELECTION SYSTEM TROUBLESHOOTING (CONTINUED)

TROUBLE	PROBABLE CAUSE	REMEDY
Pushbuttons latch in, but release prematurely; no selection played.	Select pulse and latch relay R1 time delay circuit giving short pulse.	Check diode on selector assembly. Check relay R1 for dirt between core and armature. Replace parts if necessary.
Pushbuttons latch in; no further action.	Open circuit to search unit motor.	Check wiring. See page 3-34.
Pushbuttons latch in, search unit motor starts, but runs continuously.	Open circuit in selector assembly, wiring from pushbutton switches to search unit printed board segments.	Check wiring against selector assembly wiring diagram. See page 3-31.
	Contacts on mechanism control relay R dirty, broken, or out of adjustment.	Check mechanism control relay R for proper operation. Replace if necessary. This relay is nonrepairable.
Selection is registered, magazine rotates one complete scan cycle and stops. No record is played.	No circuit through stop switch.	Check wiring to stop switch. See page 3-28.
	Selected pin not pushed far enough; select coil not properly positioned.	Check inside and outside row select coils for proper operation. Adjust select coil arm assembly. See page 4-27.
Wrong selection is played every time.	Search unit select coil arm assembly out of adjustment.	Adjust search unit select coil arm assembly. Check search unit wiper adjustment. See page 4-25.
	Stop switch out of adjustment.	Check stop switch alignment. See page 4-6.
	Stop switch gear not properly installed.	Check stop switch gear alignment. See page 4-6.
One particular letter or number, in combination with all letters and numbers, will not register.	Open circuit in the particular letter or number wiring.	Check for dirt on search unit commutator board or wiper contacts. Clean with alcohol, if necessary. To locate the open circuit, make 20 selections in the following order: A1, B1, C2, D2, E3, F3, G4, H4, J5, K5, L6, M6, N7, P7, Q8, R8, S9, T9, U0, V0. This test combination will determine which letter or number has an open circuit.
Search unit motor energized but does not run.	Search unit gears binding.	Check for dirt or foreign matter lodged in gear teeth. Check backlash adjustment. See page 4-20.
	Tip of select coil plunger hung up on side of pin, excessive backlash causing select coil arm overtravel.	Adjust search unit gears for proper backlash. See page 4-20.

TABLE 3-1. CREDIT AND SELECTION SYSTEM TROUBLESHOOTING (CONTINUED)

TROUBLE	PROBABLE CAUSE	REMEDY
Only one selection is made but two selections play.	Select coil plunger hitting two adjacent pins; select coil arms out of adjustment, or overtravel caused by excessive gear backlash.	Adjust select coil arm assembly. Adjust search unit gears for proper backlash. See pages 4-20 and 4-27.
50-cent coin establishes only 25-cent credit (50¢ bonus relay being used).	50¢ bonus relay not picking up, or picking up and dropping out prematurely.	Replace 50¢ bonus relay. Check that relay is firmly seated in socket.

TABLE 3-2. RECORD CHANGER MECHANISM TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
All selections register properly but magazine does not rotate.	Scan Assembly not operating.	Check scan coil for open, check for binding linkage.
	Scan switch defective or out of adjustment.	Check scan switch for proper operation, adjust switch position.
	Diode D-1 open.	Check by shorting across diode.
	Cam switch CS2 faulty or out of adjustment.	Check switch for proper operation or adjust switch position.
	Magazine detent coil open or binding detent linkage.	Check coil for continuity, free linkage.
	Relay contact 1 & 9 faulty.	Check relay, replace if necessary.
	Detent switch faulty or out of adjustment.	Check switch for proper operation or adjust switch position.
	Magazine motor faulty or drive gears binding.	Check motor and gear train for proper operation.
Scan linkage operates, magazine one complete scan cycle and stops - no record is played. Stop switch jumps pins.	No circuit through step switch.	Check stop switch and wipers on back of stop switch.
	Diode D-2 defective.	Check diode.
	Short circuit in 50 MFD capacitor.	Check capacitor resistance.
	Faulty mech. relay. (R)	Replace relay.
	CS5 cam switch defective or out of adjustment.	Check cam switch for proper operation - replace if necessary, adjust switch position.
	Short circuit on common side of magazine detent coil.	Check detent coil circuit.

TABLE 3-2. RECORD CHANGER MECHANISM TROUBLESHOOTING (CONTINUED)

TROUBLE	PROBABLE CAUSE	REMEDY
Magazine stops at proper selection, but record transfer assembly does not operate. Relay (R) picked up.	Open circuit to transfer motor.	Check relay contacts 6 and 10, 7 and 11, for proper operation.
	Defective transfer motor.	Check motor, replace if necessary.
Transfer arm stops in mid travel between magazine and turntable. Phono power is on.	Cam switch CS2 faulty or out of adjustment.	Check for proper operation of switch. Replace if necessary. Adjust as required.
	Blown fuse in junction box.	Check 2-8/10 and 6-1/4 Amp fuse in junction box. Replace if necessary.
Transfer arm moves each selection record from magazine to turntable and back without being played, all other functions normal.	Diode D-3 shorted.	Check for short.
	Short circuit in cancel line, cut off switch or automatic cancel circuit.	Check for short.
	Cam switches CS4 or CS5 faulty or out of adjustment.	Check switches - adjust or replace if necessary.
	Needle height improperly adjusted.	Adjust height of needle.
Wrong side of record plays; selection is improperly registered.	Center slip ring wiper broken or out of adjustment.	Adjust or replace.
	Left side switch in stop switch assembly faulty.	Check left side switch - replace if necessary.
	Toggle switch coil open or linkage binding.	Check coil and linkage. Replace or free if necessary.
	Diode D-3 open.	Check diode.
	Cam switch CS4 faulty or out of adjustment.	Check switch, replace or adjust if necessary.
	Mechanism relay (R) contacts 5 and 9, not making connection.	Check relay - replace if necessary.
Wrong record played, selection is properly registered.	Stop switch gear out of adjustment.	Align 200 mark on stop switch gear with step in search unit mounting bracket. See page 4-6.
	Stop switch out of alignment.	Align stop switch. See page 4-6.
Selections play over and over, pins not being reset.	Slip ring wipers No. 2 or 3 broken or out of adjustment.	Adjust or replace slip ring wiper blade assembly.
	Cam switch CS3 or CS4 faulty or out of adjustment.	Check switches - replace or adjust if necessary.
	Reset pawl out of adjustment.	Adjust reset pawl. See page 4-5.
Magazine scans continuously after last selection is played.	Detent coil plunger binding or detent assembly out of adjustment.	Manually operate plunger to check that the detent pawl locks the detent wheel. Adjust or replace if necessary.
	Scan switch faulty or out of adjustment.	Check switches, repair or replace if necessary.



TABLE 3-3. SOUND SYSTEM TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	REMEDY
No sound. Phonograph mechanical operation normal.	Blown amplifier fuse.	Check for short or overload condition which caused fuse to blow. Replace fuse after this condition is corrected.
	Faulty mute relay.	Check operation of mute relay; replace if necessary. This relay is nonrepairable.
	Cartridge leads broken or shorted.	Check that both cartridge leads are intact and that all connectors and plugs are firmly seated.
Partial or distorted sound.	Damaged stylus.	Carefully check stylus, replace if necessary.
	Incorrect remote speaker hookup.	Check remote speaker connections. See page 2-6.
	Defective output transistors or tubes in either channel.	Check output transistors or tubes. Replace if defective. See page 4-31/4-32.
	Partial short in local or remote volume control. Incorrect speaker hookup. Incorrect remote volume control hookup.	Check volume control and speaker connections as shown in sound system connection diagram. See page 2-6.
Low volume apparent in one channel.	Cartridge defective.	Replace cartridge if necessary. Check by substituting a cartridge that is known to be good.
	Faulty preamplifier board.	Replace preamplifier board.
	Faulty driver board. (Solid-State Models Only)	Replace driver board.
	Balance control not properly adjusted.	Adjust balance control for equal sound from each stereo channel. See page 2-3.
Constant high volume, cannot be adjusted at volume control.	Short in volume control circuit.	Check wiring. See sound system connection diagram. See page 2-6.
Excessive record scratch evident through speakers.	Scratched or worn records.	Replace records.
	Damaged stylus.	Check stylus force. Replace stylus.
	Treble range control set too high for condition of records.	Reduce treble range control setting. See page 2-3.
Intermittent sound. Amplifier cycles on and off. (Solid-State Models Only)	Overheated output transistors cause heat sensitive semi-conductors on heat sink to clamp amplifier input.	Check for shorted or partially shorted speaker lines.
		Check for component failure that may cause high heat dissipation in output stages.
Excessive hum-low volume.	Broken shield on cartridge leads.	Be sure that shielding or wires are not broken at any point between the cartridge and amplifier input plug.
	7868 tube failure.	Replace tube.

## SEQUENCE OF OPERATION

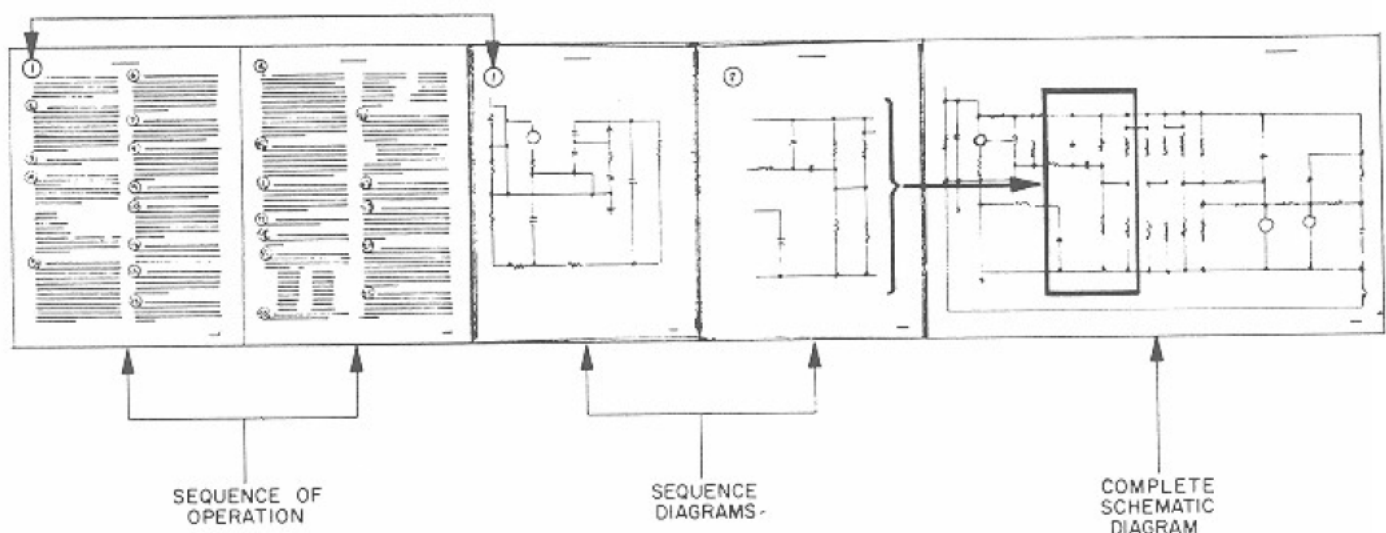
If the trouble is not listed in Tables 3-1 through 3-3, or is not corrected by performing the procedure in the REMEDY column, refer to the seventeen sequence of operation schematic diagrams. Each diagram is a partial, simplified schematic of the phonograph schematic diagram, figure 3-1. Only the circuits under discussion for the particular sequence are shown. The accompanying text on each diagram explains circuit operation.

If an open circuit or loose connection is suspected, wiring can be traced using the wiring diagrams. Wiring diagrams and schematic diagrams can be found immediately following the sequence of operation diagrams, starting on page 3-25.

### USING THE SEQUENCE OF OPERATION DIAGRAMS

To enable you to read the sequence of operation while simultaneously viewing the sequence diagrams and complete schematic, proceed as follows:

The text for the sequence diagrams begins on the following page; fold this page out to the left. Locate the vendor schematic diagram on page 3-25; fold this page out to the right. The sequence diagram pages, located between the two folded out pages are keyed to the sequence of operation text.



## SEQUENCE OF OPERATION

### ① Standby

1. Phonograph plugged into power receptacle.
2. Mechanism service switch set to ON position.
3. Cabinet lamps lit (not shown).
4. Amplifier mute relay energized by 30 V. D. C. Mute relay keeps amplifier quiet during record transfer cycle.

### ② Customer Inserts Quarter

1. Quarter passes through slug rejector.
2. Quarter operates 25¢ coin switch level closing 25¢ coin switch.
3. The coin switch applies 30 V. D. C. to credit coil and credit stop coil in credit unit through pricing switch.
4. Credit coil and adjustable credit stop coil advance credit wiper arm two steps on commutator board corresponding to a quarter.

### ③ Credit Established

1. Wiper assembly completes a circuit from the 25¢ two-step credit ring to the 30 V. D. C. ring to energize select pulse latch relay R1 through switch 1.
2. Premium price lamp connected to credit unit commutator board common ring; lamp lights.
3. Circuit completed through latch relay, contacts 5 and 6 to energize latch coil. Pushbuttons will latch into position when pressed.

### ④ Customer Makes First Selection

1. Customer pushes letter pushbutton V and number pushbutton 8.
2. Letter pushbutton switch V completes a circuit to search unit commutator segment UV (rear side of board).
3. Number pushbutton switch 8 completes a circuit to search unit commutator segment 8 (front side of board).
4. Letter pushbutton switch V also opens the circuit to outside row select coil and closes the circuit to inside row select coil.
5. Letter pushbutton switch V and number pushbutton switch 8 complete a circuit to energize start relay R5.

6. Circuit to relay R1 is maintained through letter switch bank.

### ⑤ Search Wipers Locate Number

1. When the number search unit wiper (front of commutator board) runs onto segment 8, a circuit is completed to energize sprag relay S1.
2. The sprag tooth on relay S1 stops rotation of search wipers and select coils.
3. Relay S1, contacts 1 and 2, complete a circuit to energize search unit relay R2.

### ⑥ Search Continues

1. Search unit relay R2, contacts 7 and 11, transfer the common side of the circuit from sprag relay S1 to sprag relay S2.
2. Search unit relay R2 holds itself in through contacts 8 and 12.
3. Search unit relay R2, contacts 5 and 9, transfer the positive side of the selection circuit from the number pushbutton switches to the letter pushbutton switches.
4. Sprag relay S1 drops out, contacts 3 and 4 energize search unit motor.
5. When the letter wiper runs onto the UV segment on the rear of the commutator board, sprag relay S2 is energized.

### ⑦ Selection Registered, Credit Removed, and Scan Control Operated

1. Sprag relay S2 locks the search wipers and select coils in place with the select coils aligned with pins representing selections U8 and V8.
2. Sprag relay S2, contacts 1 and 2, deenergize search unit motor.
3. Sprag relay S2 holds itself in through contacts 6 and 7.
4. Sprag relay S2, contacts 3 and 4, deenergize select pulse and latch relay R1.
5. Select pulse and latch relay R1, contacts 1 and 2, complete a circuit to common to energize scan coil, credit cancel coil and credit cancel stop coil in credit unit, inside row select coil, and total play counter.
6. Inside row select coil pushes pin into select position on the credit unit pinwheel assembly.
7. Credit cancel coil drives the credit wiper arm counterclockwise one step leaving credit for one standard selection.
8. Select pulse and latch relay R1 is held closed for a short time after being deenergized due to

a diode connect delay determine to the scan coil unit, and inside time, search unit are held closed pushbutton circuit.

### ⑧ Pushbuttons

1. The time delay relay R1 runs out. This ends.
2. The latch coil is.
3. The latch coil and 8.
4. The circuit is sprag relay S2, drop out ending.
5. The customer price selection.
6. When the scan scan control gear.
7. The scan switch coil through contacts 1 and 9.
8. The amplifier through cam switch.

### ⑨ Customer Makes Selection

1. After credit is the credit wiper first step.
2. Wiper assembly step standard selection ring to energize.
3. Standard price commutator board.
4. Circuit completed 7 and 8, to energize will latch into position.

### ⑩ Record Magazine

1. Magazine detent trips magazine.
2. The magazine zine.

## SEQUENCE OF OPERATION

6. Circuit to relay R1 is maintained through letter switch bank.

### ⑤ Search Wipers Locate Number

1. When the number search unit wiper (front of commutator board) runs onto segment 8, a circuit is completed to energize sprag relay S1.
2. The sprag tooth on relay S1 stops rotation of search wipers and select coils.
3. Relay S1, contacts 1 and 2, complete a circuit to energize search unit relay R2.

### ⑥ Search Continues

1. Search unit relay R2, contacts 7 and 11, transfer the common side of the circuit from sprag relay S1 to sprag relay S2.
2. Search unit relay R2 holds itself in through contacts 8 and 12.
3. Search unit relay R2, contacts 5 and 9, transfer the positive side of the selection circuit from the number pushbutton switches to the letter pushbutton switches.
4. Sprag relay S1 drops out, contacts 3 and 4 energize search unit motor.
5. When the letter wiper runs onto the UV segment on the rear of the commutator board, sprag relay S2 is energized.

### ⑦ Selection Registered, Credit Removed, and Scan Control Operated

1. Sprag relay S2 locks the search wipers and select coils in place with the select coils aligned with pins representing selections U8 and V8.
2. Sprag relay S2, contacts 1 and 2, deenergize search unit motor.
3. Sprag relay S2 holds itself in through contacts 6 and 7.
4. Sprag relay S2, contacts 3 and 4, deenergize select pulse and latch relay R1.
5. Select pulse and latch relay R1, contacts 1 and 2, complete a circuit to common to energize scan coil, credit cancel coil and credit cancel stop coil in credit unit, inside row select coil, and total play counter.
6. Inside row select coil pushes pin into select position on the credit unit pinwheel assembly.
7. Credit cancel coil drives the credit wiper arm counterclockwise one step leaving credit for one standard selection.
8. Select pulse and latch relay R1 is held closed for a short time after being deenergized due to

a diode connected across the coil. This time delay determines the length of the select pulse to the scan coil, credit cancel coil in the credit unit, and inside row select coil. During this time, search unit relay R2 and start relay R are held closed through the letter wiper and pushbutton circuit.

### ⑧ Pushbuttons Unlatch and Record Changer Starts

1. The time delay across select pulse and latch relay R1 runs out and the relay contacts transfer. This ends the select pulse.
2. The latch coil is deenergized.
3. The latch coil plunger releases pushbuttons V and 8.
4. The circuit is opened to search unit relay R2, sprag relay S2, and start relay R5. The relays drop out ending the selection cycle.
5. The customer can now make one more standard price selection. See sequence 9.
6. When the scan coil was energized, it tripped the scan control gear closed scan switch.
7. The scan switch energizes the magazine detent coil through mechanism control relay R, contacts 1 and 9.
8. The amplifier mute relay remains energized through cam switch CS-5.

### ⑨ Customer Makes Second Selection

1. After credit is removed for the first selection, the credit wiper moves counterclockwise to the first step.
2. Wiper assembly completes circuit from one-step standard selection credit ring to 30 V.D.C. ring to energize select pulse latch relay R1.
3. Standard price lamp connected to credit unit commutator board common ring; lamp lights.
4. Circuit completed through latch relay, contacts 7 and 8, to energize latch coil. Pushbuttons will latch into position when pressed.

### ⑩ Record Magazine Rotates

1. Magazine detent coil unlocks the magazine and trips magazine detent switch.
2. The magazine motor rotates the record magazine.

### 11 Stop Switch Pawl Hits Selected Pin-Transfer Motor Starts

1. Inside row stop pawl hits selected pins (V-8).
2. Stop switch operates.
3. Stop switch completes a circuit to energize mechanism control relay R and hub shift coil.
4. Mechanism control relay R, contacts 1 and 9, open deenergizing magazine detent coil.
5. The magazine detent coil releases a linkage that locks the record magazine in position with record UV-8 aligned with the transfer arm.
6. Magazine detent coil linkage also operates magazine detent switch.
7. The magazine detent switch opens the circuit to the magazine motor.
8. Mechanism control relay R, contacts 6 and 10, 11 and 7, energize transfer motor.
9. The hub shift coil raises the turntable 45 rpm hub.
10. If the selection had been a left side or outside row selection, the toggle shift coil would be energized through the left side switch and relay R contacts 5 and 9.

### 12 Record Picked Up

1. The transfer motor drives the transfer assembly and the cam that operates the cam switches.
2. As the transfer assembly begins to move, the cam closes cam switch CS-1 applying power to the turntable motor.
3. Cam switch CS-2 transfers to hold in hub shift coil and mechanism control relay R.
4. The transfer arm picks the record out of the magazine.

### 13 Record Approaches Turntable

1. As the transfer motor continues to operate, cam switch CS-3 closes.
2. Cam switch CS-3 operates right side annunciator coil and right side reset coil.
3. Right side reset coil plunger resets pin V-8 in the search unit pinwheel assembly.
4. A short time later, cam switch CS-3 opens and cam switch CS-4 transfers to the position opposite that shown.
5. At this time, if selection had been left hand, the toggle shift coil would be deenergized and the left side reset and annunciator coils would be operated by cam switch CS-4.

### 14 Record Placed On Turntable

1. When the selected pin is reset by the reset coil, the stop switch returns to normal position deenergizing reset coil and right side annunciator coil.
2. Assuming that selection V-8 is a 33-rpm, 7-inch LP record, the center of the record strikes the hub switch sensing wire as the record is placed on the turntable. If V-8 was a 45-rpm record, the hub switch sensing wire would not be operated.
3. The hub switch sensing wire actuates the hub switch which deenergizes the hub shift coil and energizes the speed shift coil. This drops the large 45-rpm hub and changes turntable speed to 33-1/3 rpm.
4. When the transfer assembly operates far enough to release the record, cam switch CS-5 operates deenergizing mechanism control relay R and the amplifier mute relay is deenergized by tone arm cutoff.
5. Mechanism control relay R, contacts 6 and 10, 7 and 11, deenergize the transfer motor by disconnecting it from the common line.
6. The transfer linkage stops moving and the record plays.

### 15 Record Ends

1. When the magnet on the underside of the tone arm operates the tone arm cutoff switch, as the tone arm tracks into the cutoff groove, the amplifier mute relay and mechanism control relay R are energized. The parallel capacitor and series resistor in the mechanism control relay circuit is to delay the pickup of the mechanism.
2. Mechanism control relay contacts 6 and 10, 7 and 11, complete a circuit to common to energize the transfer motor.

### 16 Record Replaced In Magazine, Magazine Scans

1. As the transfer arm places the record in the magazine, the cam operates cam switches CS-1 and CS-2.
2. Cam switch CS-1 deenergizes the turntable motor.
3. Cam switch CS-2 deenergizes mechanism control relay R and the hub shift coil and operates the detent switch.
4. The magazine motor operates until the scan control switch or stop switch operates.

### 17 Premium Pricing

1. Assume that selection V-8 is a 33-rpm, 7-inch LP record, the center of the record strikes the hub switch sensing wire as the record is placed on the turntable. If V-8 was a 45-rpm record, the hub switch sensing wire would not be operated.
2. When the transfer assembly operates far enough to release the record, cam switch CS-5 operates deenergizing mechanism control relay R and the amplifier mute relay is deenergized by tone arm cutoff.
3. The hub switch sensing wire actuates the hub switch which deenergizes the hub shift coil and energizes the speed shift coil. This drops the large 45-rpm hub and changes turntable speed to 33-1/3 rpm.
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5. Mechanism control relay R, contacts 6 and 10, 7 and 11, deenergize the transfer motor by disconnecting it from the common line.
6. The transfer linkage stops moving and the record plays.

#### ⑭ Record Placed On Turntable

1. When the selected pin is reset by the reset coil, the stop switch returns to normal position deenergizing reset coil and right side annunciator coil.
2. Assuming that selection V-8 is a 33-rpm, 7-inch LP record, the center of the record strikes the hub switch sensing wire as the record is placed on the turntable. If V-8 was a 45-rpm record, the hub switch sensing wire would not be operated.
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5. Mechanism control relay R, contacts 6 and 10, 7 and 11, deenergize the transfer motor by disconnecting it from the common line.
6. The transfer linkage stops moving and the record plays.

#### ⑮ Record Ends

1. When the magnet on the underside of the tone arm operates the tone arm cutoff switch, as the tone arm tracks into the cutoff groove, the amplifier mute relay and mechanism control relay R are energized. The parallel capacitor and series resistor in the mechanism control relay circuit is to delay the pickup of the mechanism.
2. Mechanism control relay contacts 6 and 10, 7 and 11, complete a circuit to common to energize the transfer motor.

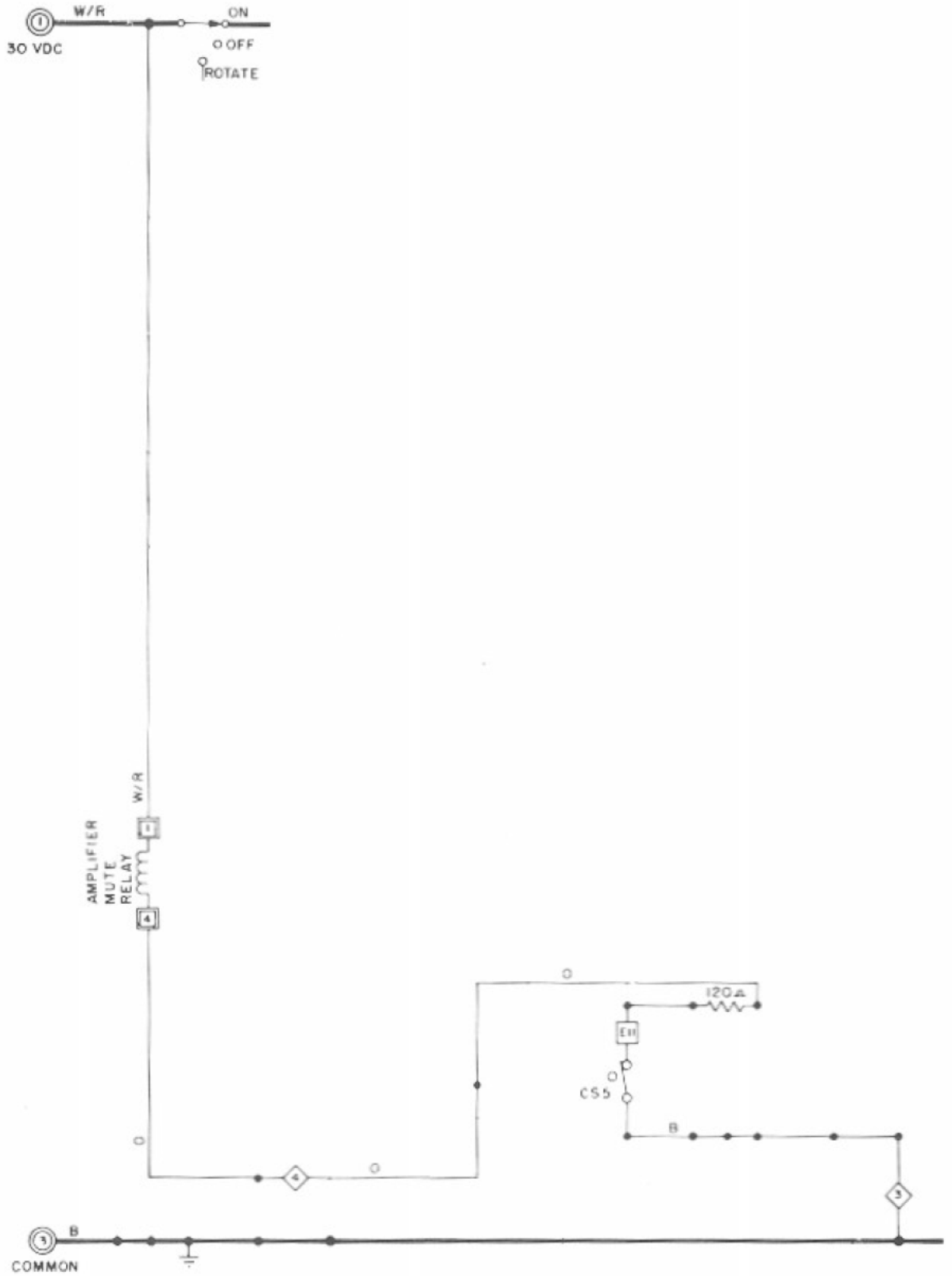
#### ⑯ Record Replaced In Magazine, Magazine Scans

1. As the transfer arm places the record in the magazine, the cam operates cam switches CS-1 and CS-2.
2. Cam switch CS-1 deenergizes the turntable motor.
3. Cam switch CS-2 deenergizes mechanism control relay R and the hub shift coil and operates the detent switch.
4. The magazine motor operates until the scan control switch or stop switch operates.

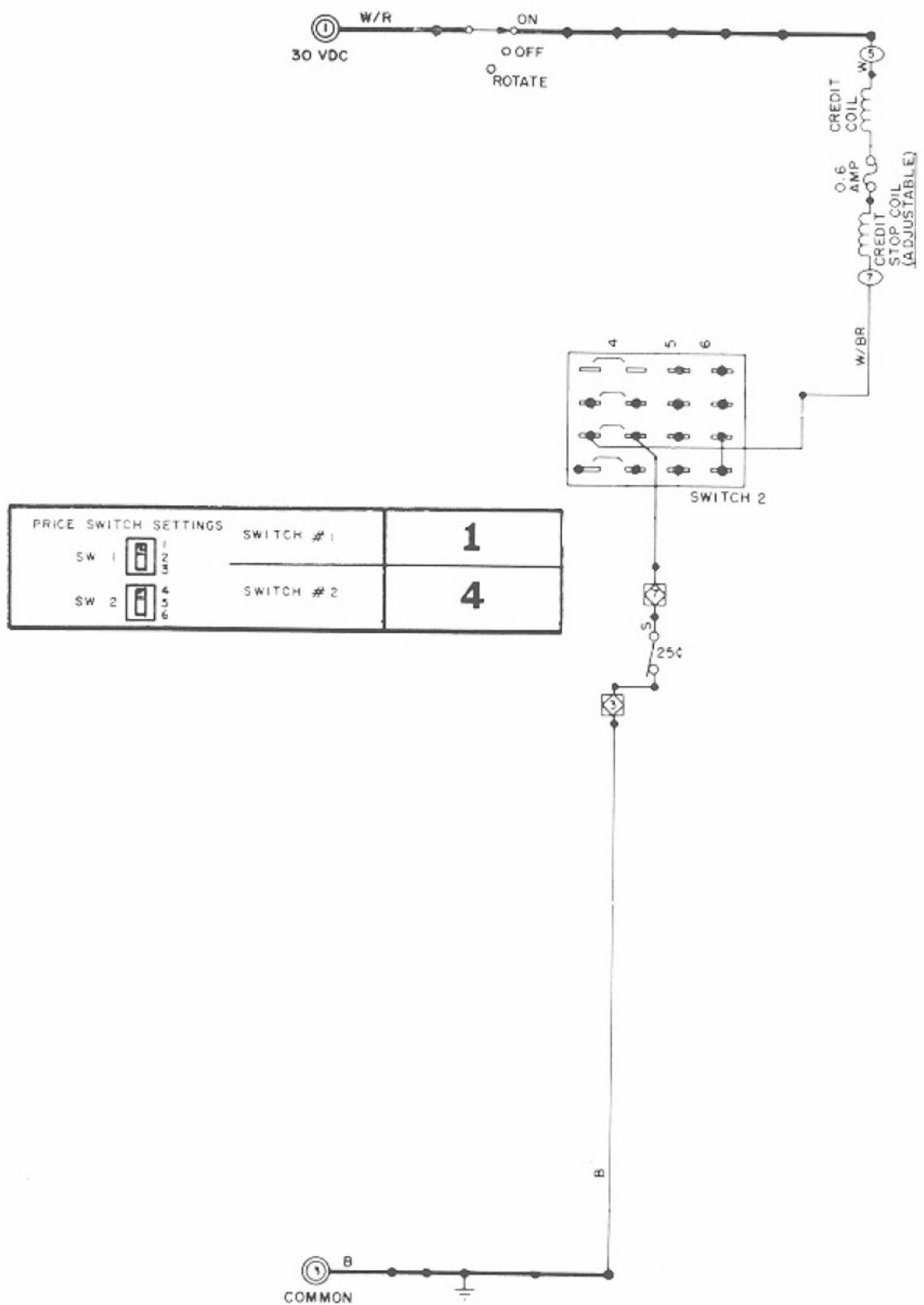
#### ⑰ Premium Price Credit and Selection

1. Assume that selections 8A through 8V are all premium price. This is done by moving premium pricing slide #8 to premium price position.
2. When the customer inserts a quarter, twenty-five cents credit is established as in sequence 2 and 3.
3. The positive line is connected at number pushbutton switch directly to select pulse and latch relay R1.
4. Selection occurs as in sequences 4 through 7.
5. Credit removal bypasses cancel stop coil through premium price slide switch #8 and pushbutton switch 8, and two credits are removed.
6. The credit wipers are returned to zero credit position when sprag relay S2 is energized.

# ① STANDBY

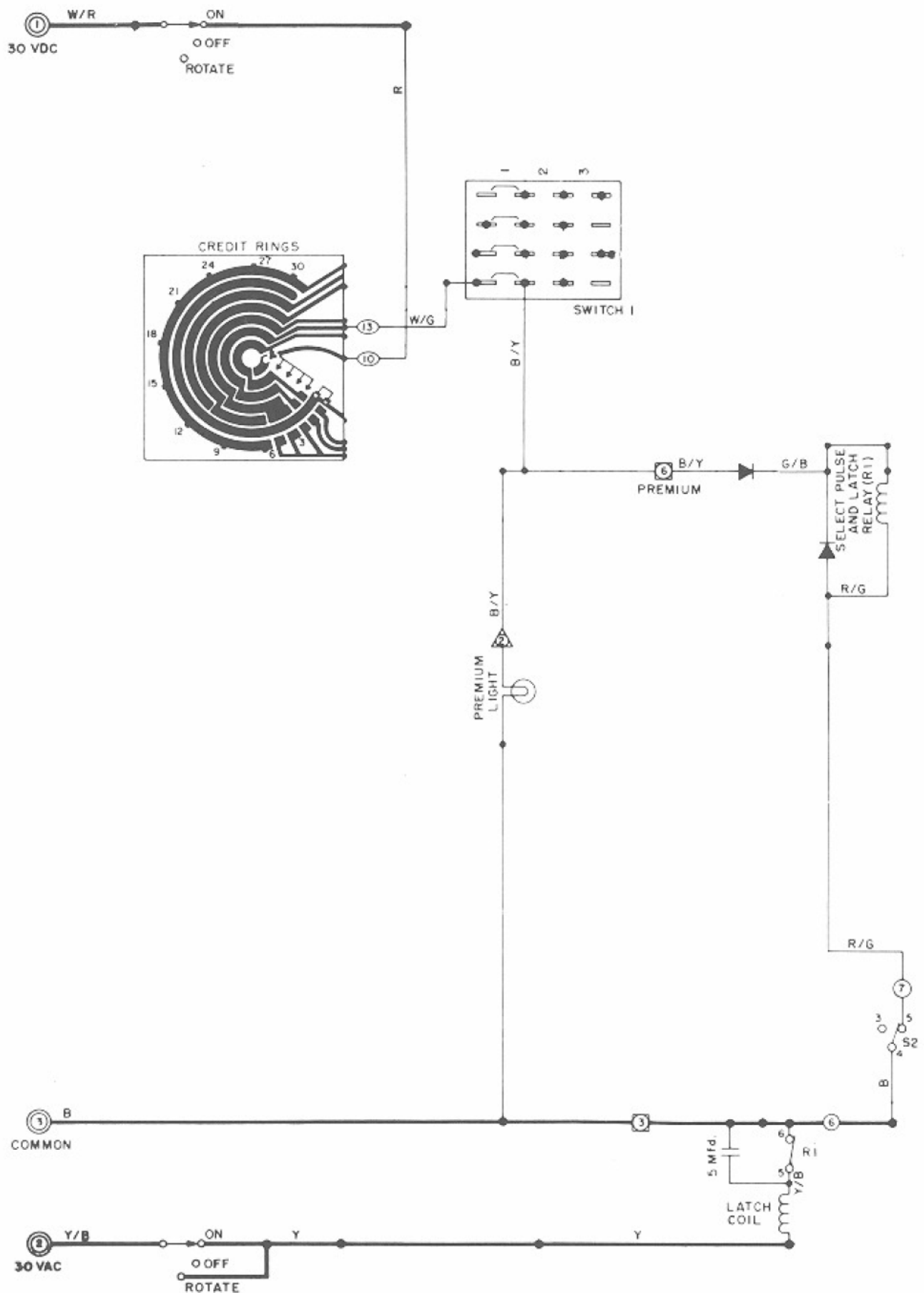


## 2 CUSTOMER INSERTS QUARTER



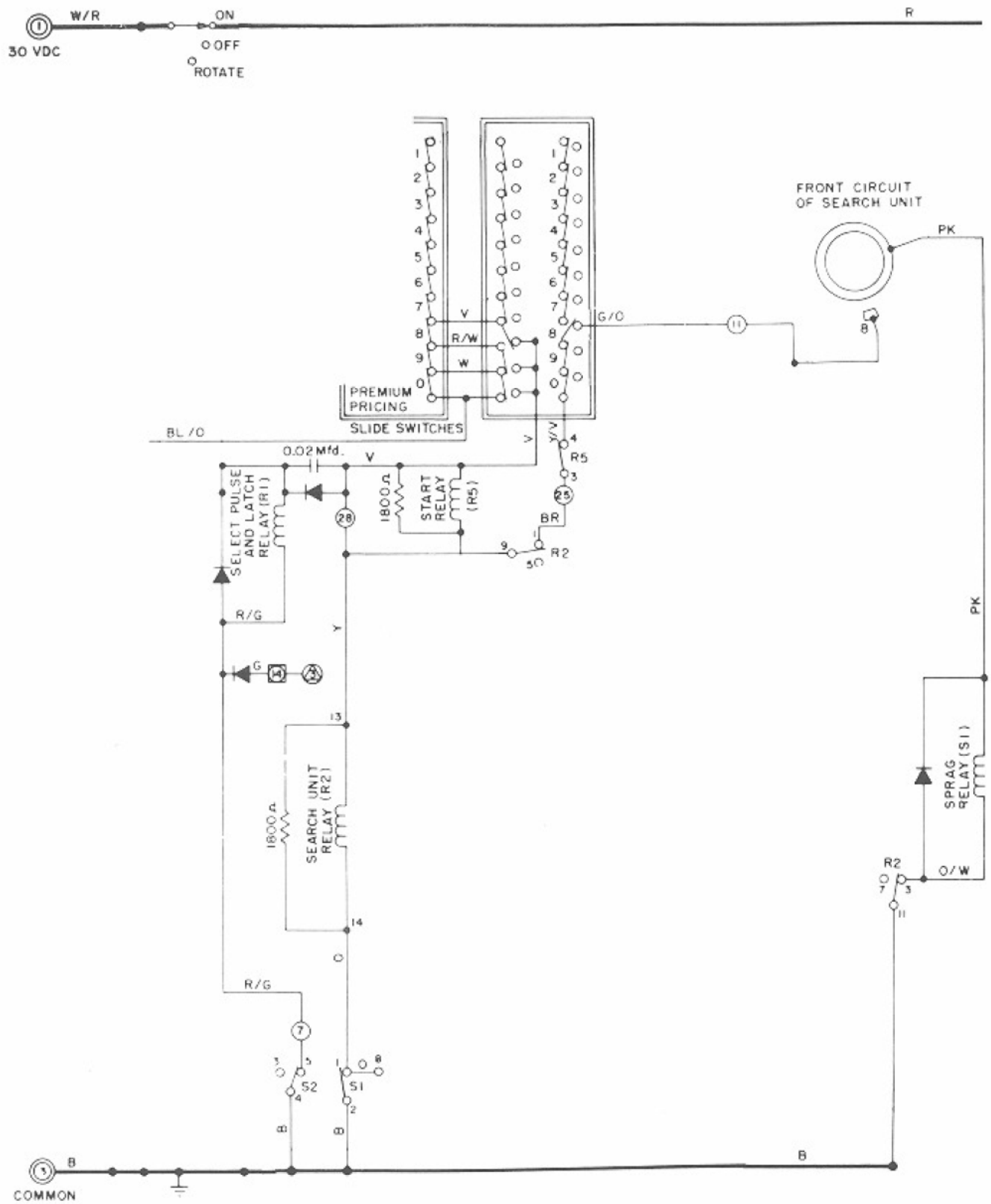


### 3 CREDIT ESTABLISHED

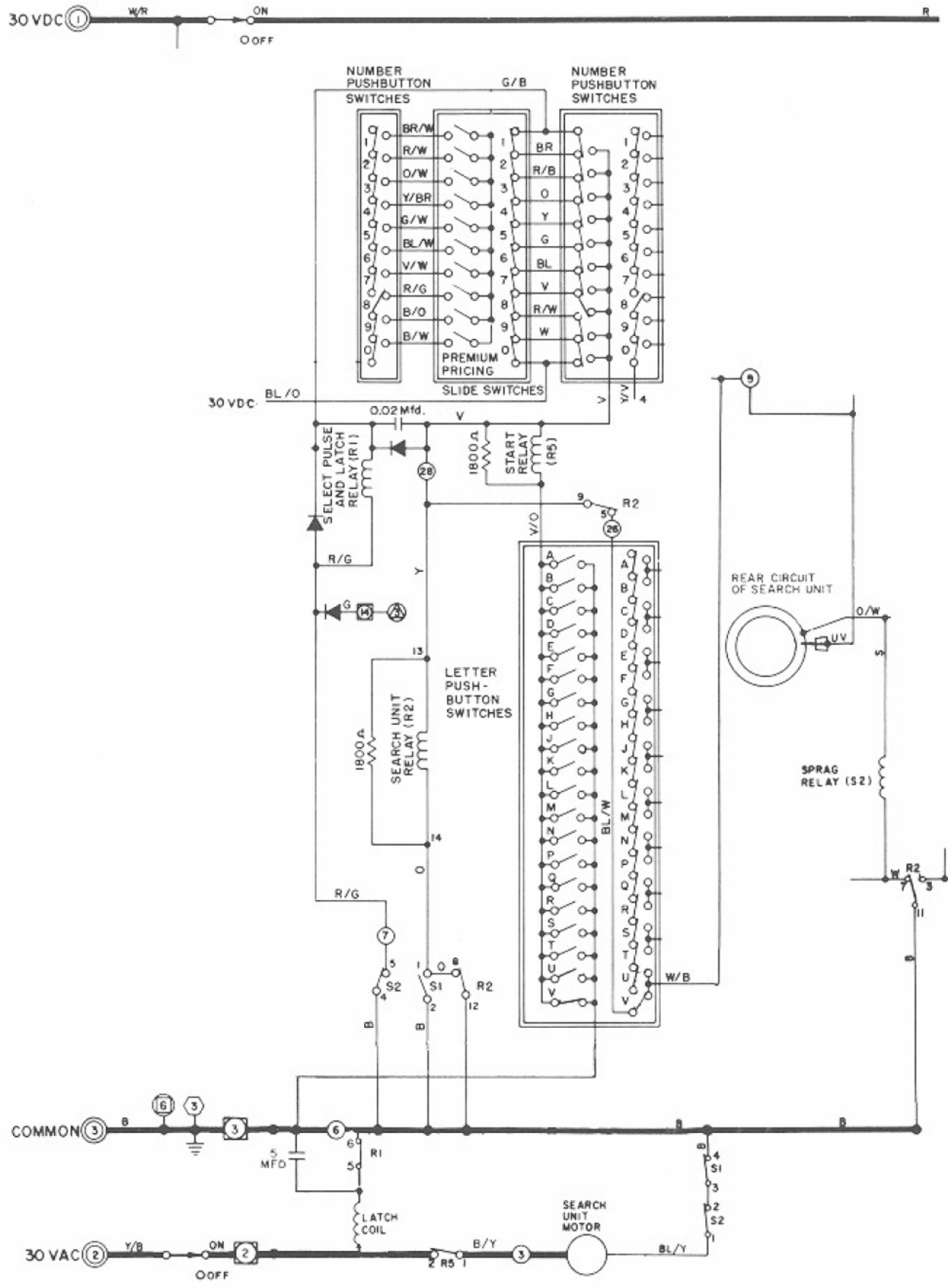




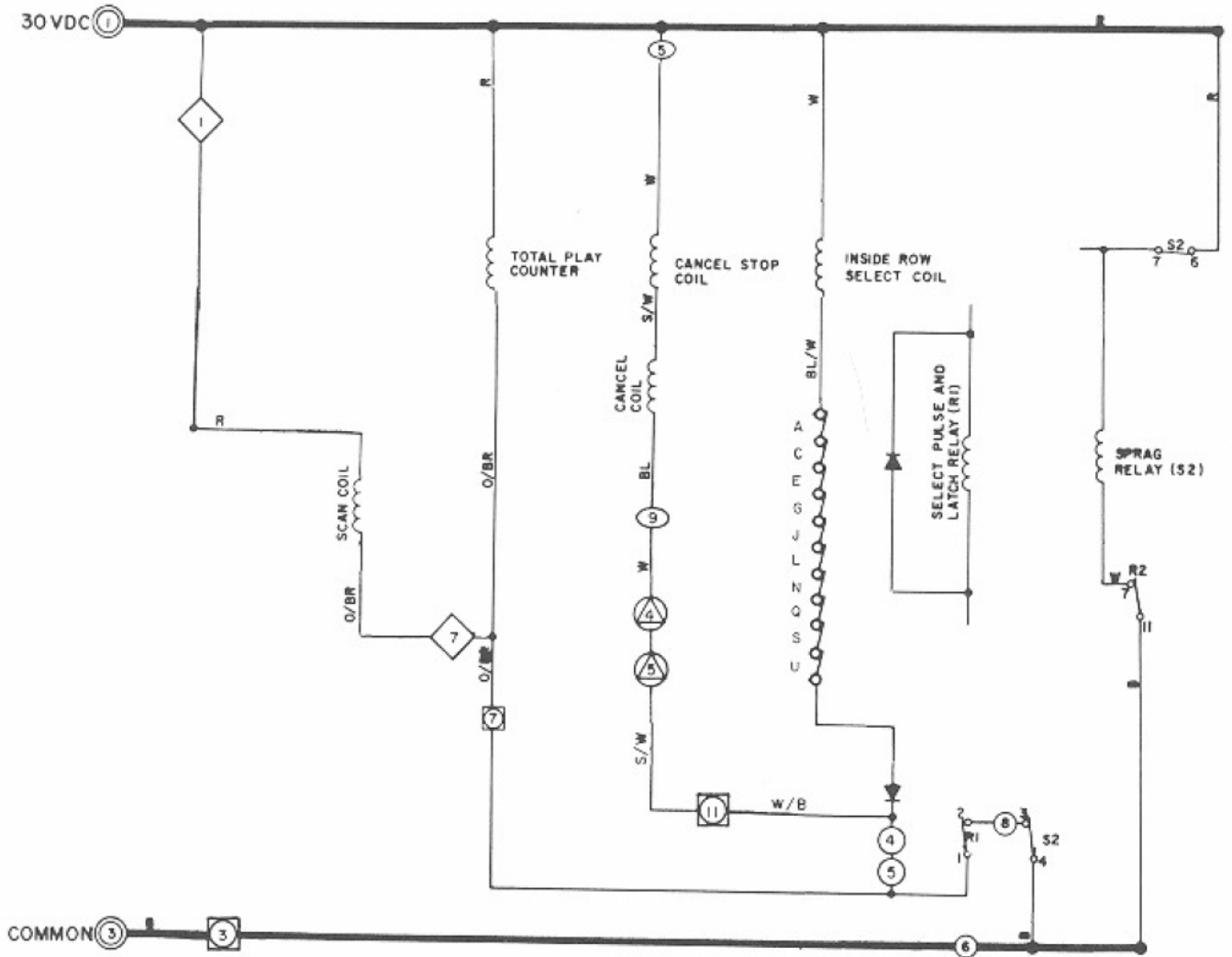
# 5 SEARCH WIPERS LOCATE NUMBER



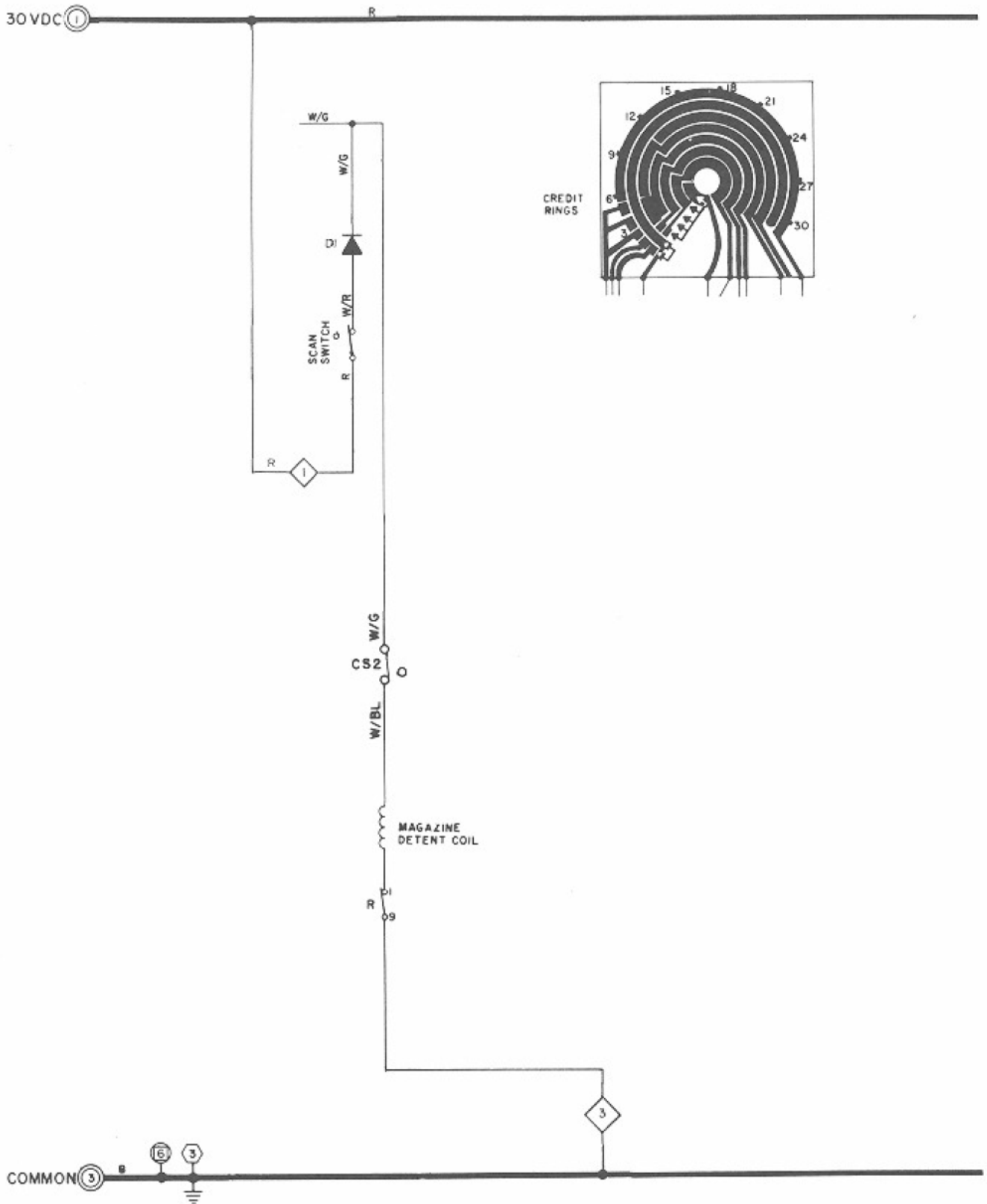
# 6 SEARCH CONTINUES



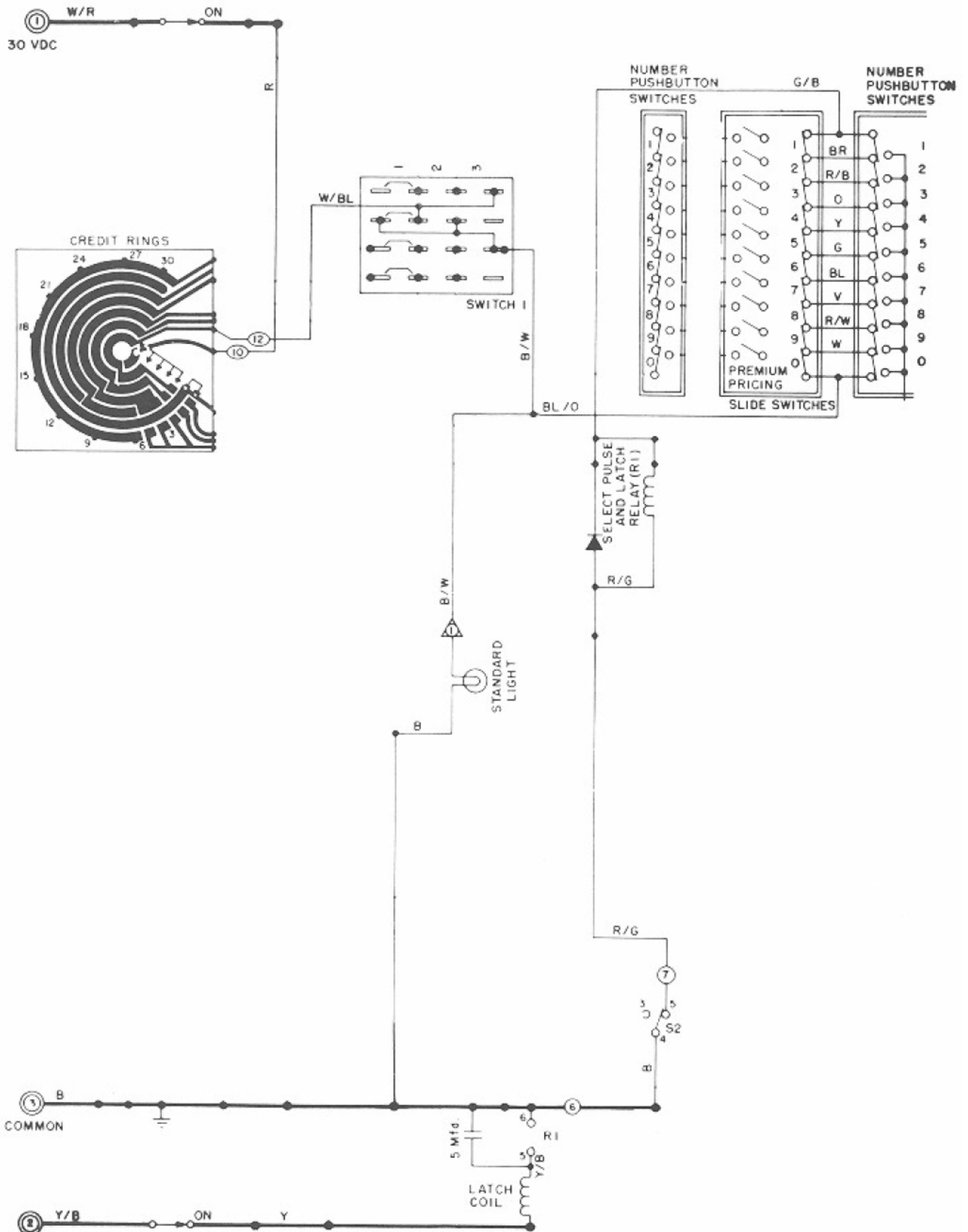
7 SELECTION REGISTERED, CREDIT REMOVED, AND SCAN CONTROL OPERATED



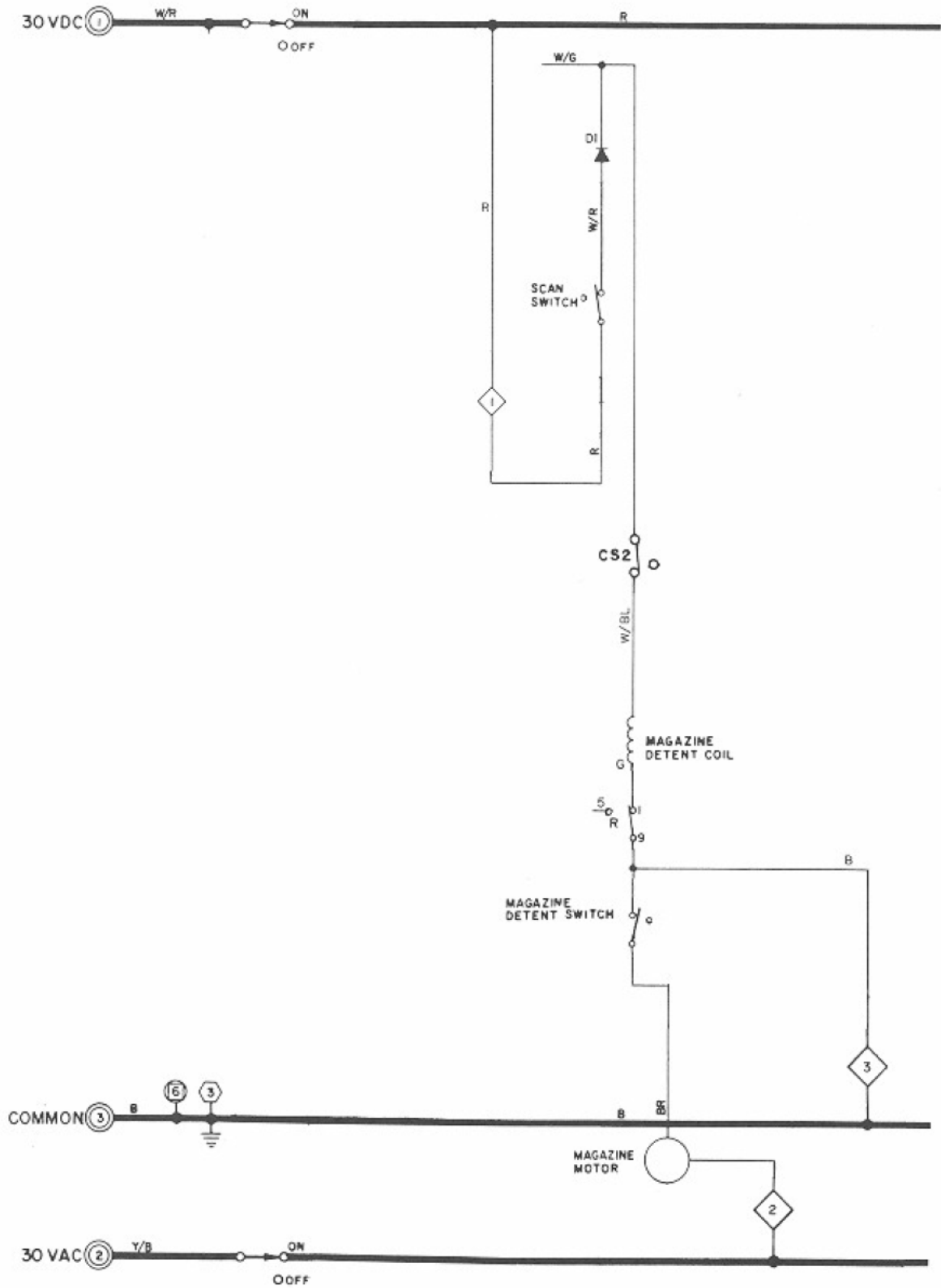
# 8 PUSHBUTTONS UNLATCH AND RECORD CHANGER STARTS



# 9 CUSTOMER MAKES SECOND SELECTION

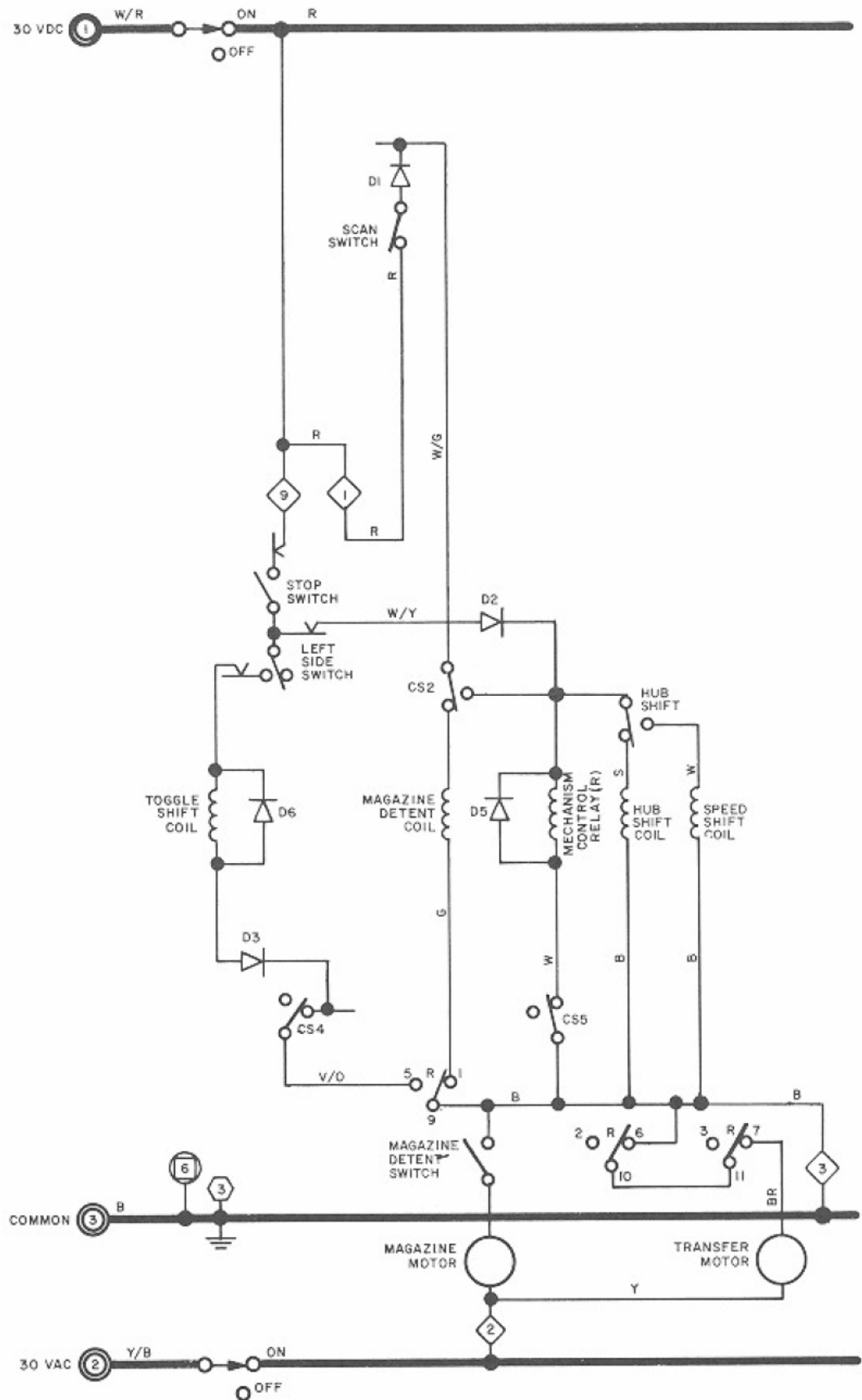


10 RECORD MAGAZINE ROTATES

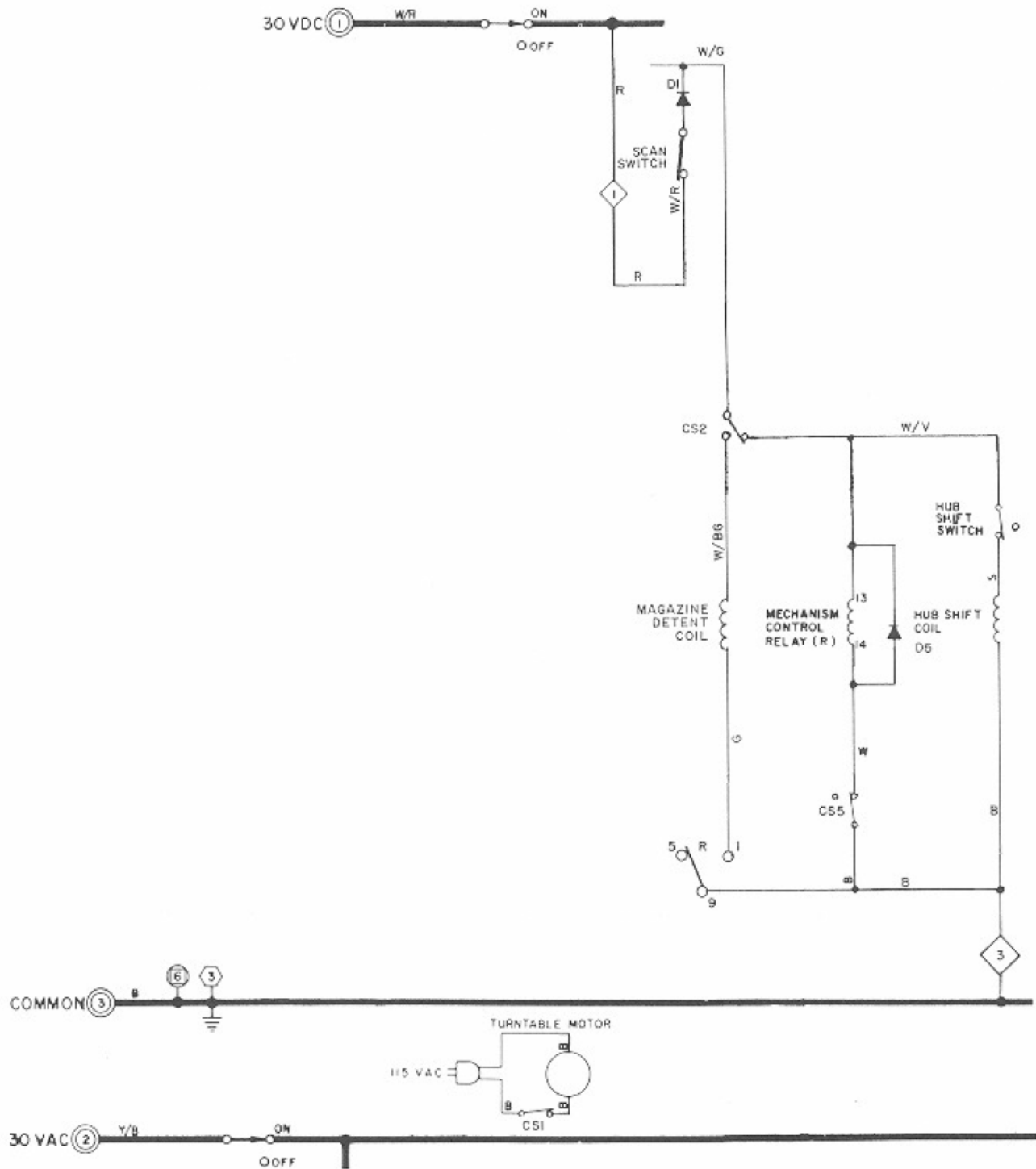




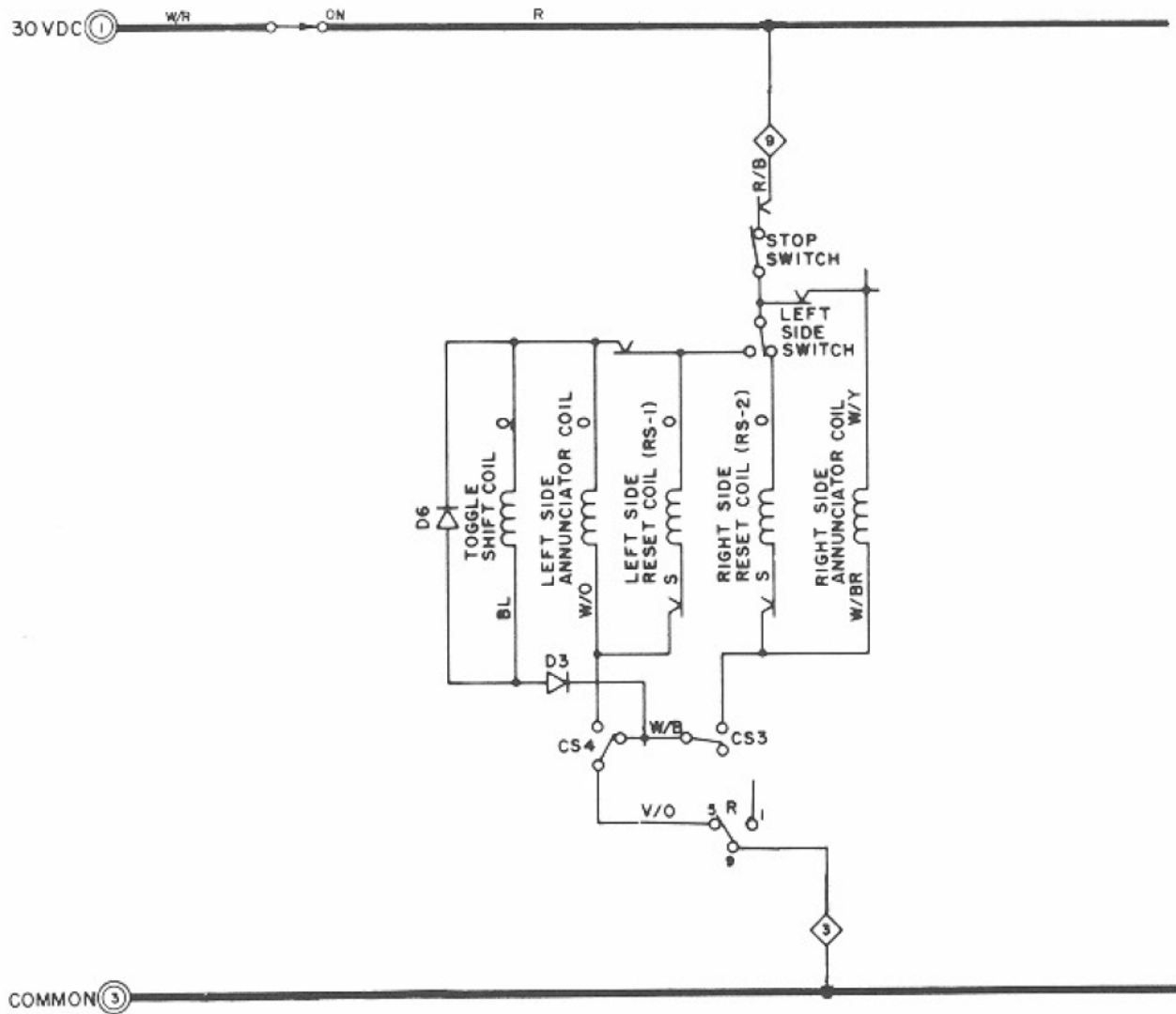
11 STOP SWITCH PAWL HITS SELECTED PIN-TRANSFER MOTOR STARTS



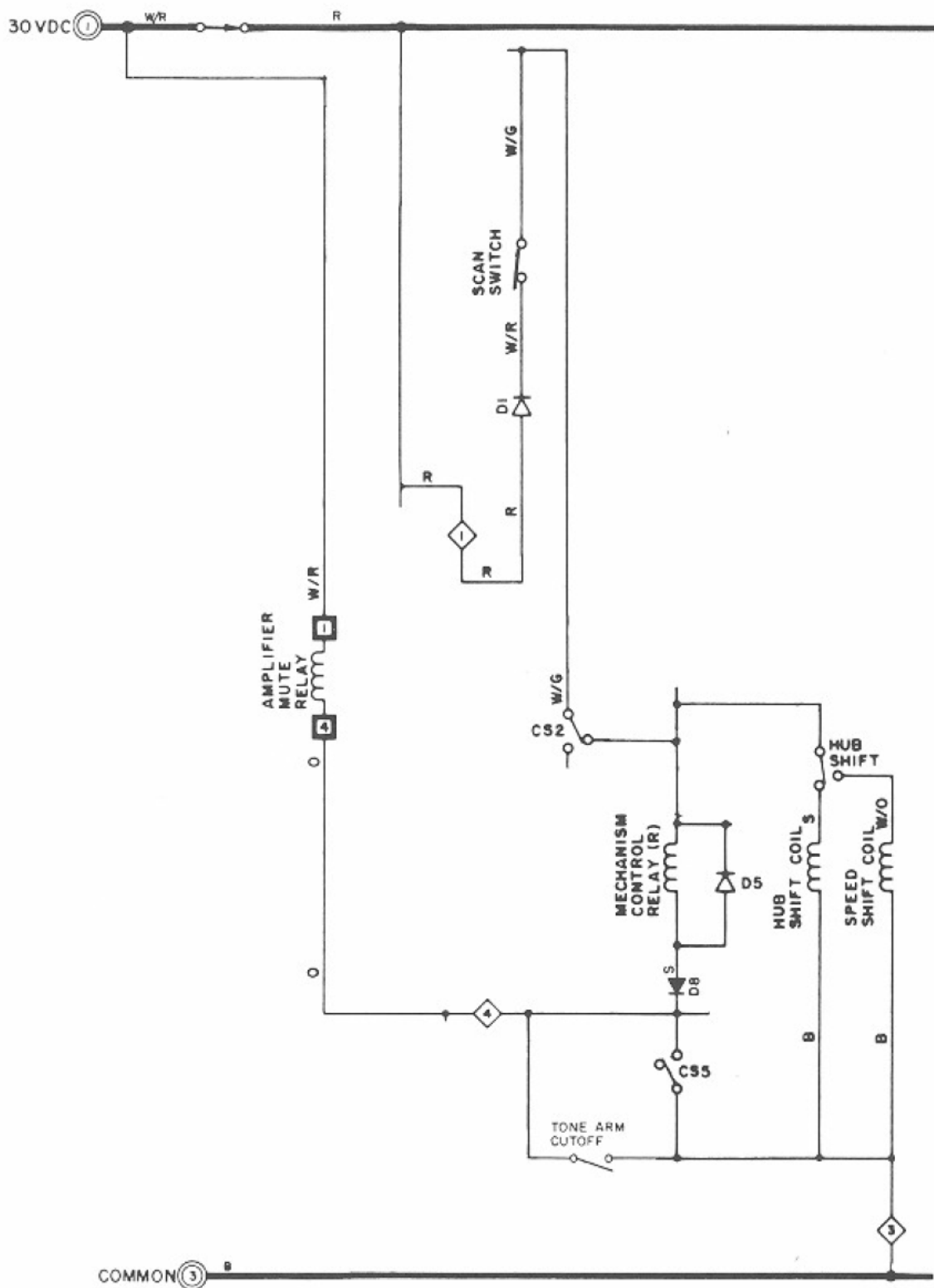
12 RECORD PICKED UP



13 RECORD APPROACHES TURNTABLE



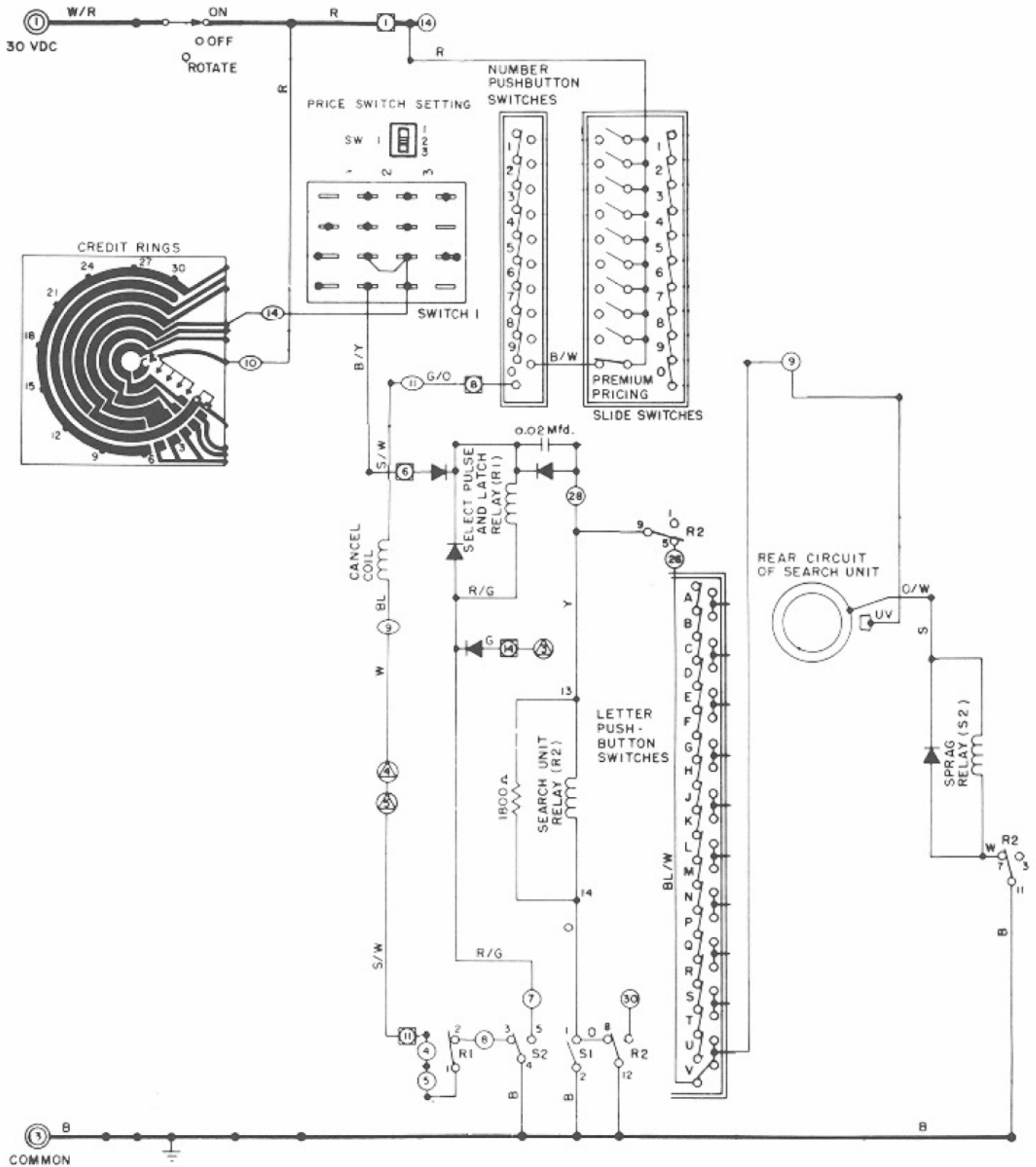
14 RECORD PLACED ON TURNTABLE







# 17 PREMIUM PRICE CREDIT AND SELECTION



## SECTION 5 - MAINTENANCE

### GENERAL

This section contains cleaning, lubrication, adjustment, and repair and replacement procedures for the phonograph. Cleaning and lubrication procedures should be performed at regular intervals. Adjustment and repair and replacement procedures should be performed only when necessary.

### PREVENTIVE MAINTENANCE

#### CLEANING

In addition to cleaning the cabinet exterior each time the location is visited, clean the cabinet interior every three to six months, as required. Keeping the cabinet interior clean reduces dust, resulting in increased record and component life. Always clean the phonograph cabinet prior to lubrication.

a. Use a vacuum cleaner, if available, to remove heavy dust deposits.

#### WARNING

Use solvents in a well-ventilated area only; do not use solvents of any type on plastic parts.

b. Use a clean, lint-free cloth saturated in denatured alcohol to clean mechanical parts.

c. Clean electrical parts using a clean, dry cloth or camel's hair brush.

d. Clean the slug rejector as specified in the applicable slug rejector manual.

e. Clean the credit unit and search unit commutator boards with alcohol. Remove caked-on dirt using a pencil eraser or light abrasive cleaner.

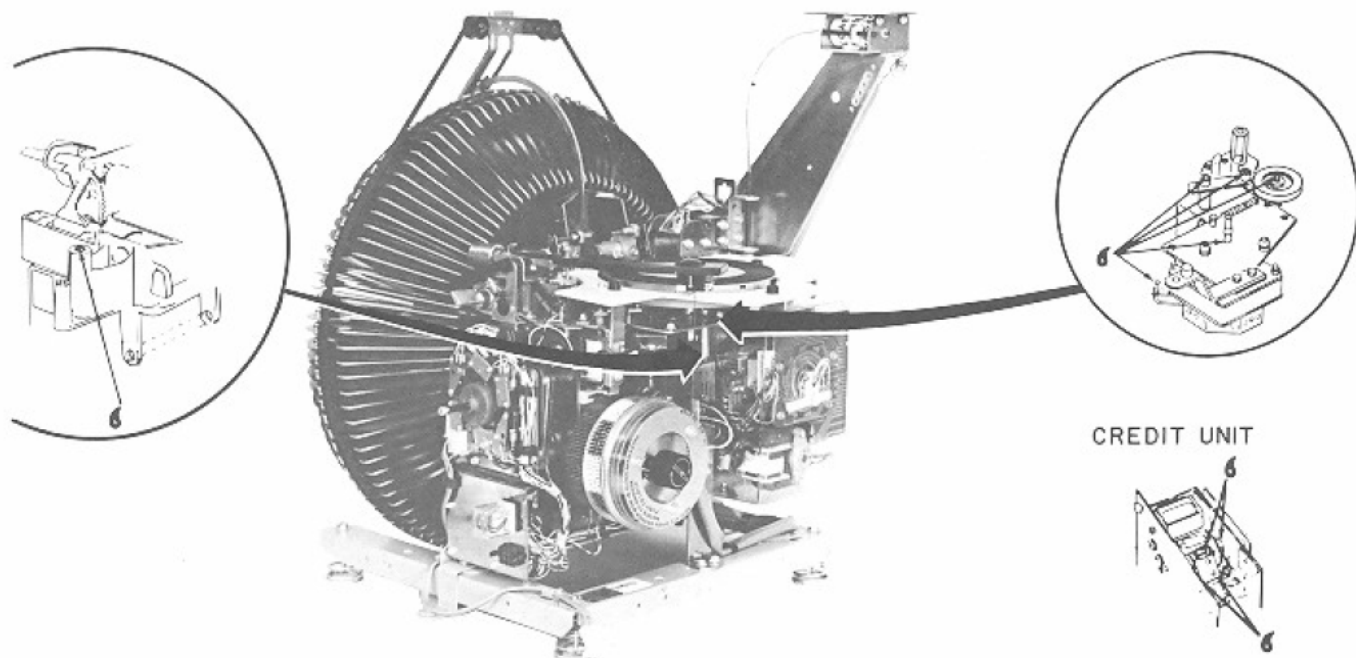
#### FIVE-YEAR LUBRICATION

Your phonograph requires lubrication only twice a decade - every five years - to maintain smooth, trouble-free operation. Lubricate the credit unit and record changer mechanism as shown:

⑥ One Drop F-1379 Light Machine Oil

Do Not Over-Lubricate

Do Not Use Oil or Grease on Solenoid Plungers





## ADJUSTMENTS

Phonograph adjustments are listed in Table 5-1. Amplifier adjustments are contained in Section 2. Perform adjustments when indicated by troubleshooting procedure, Section 4.

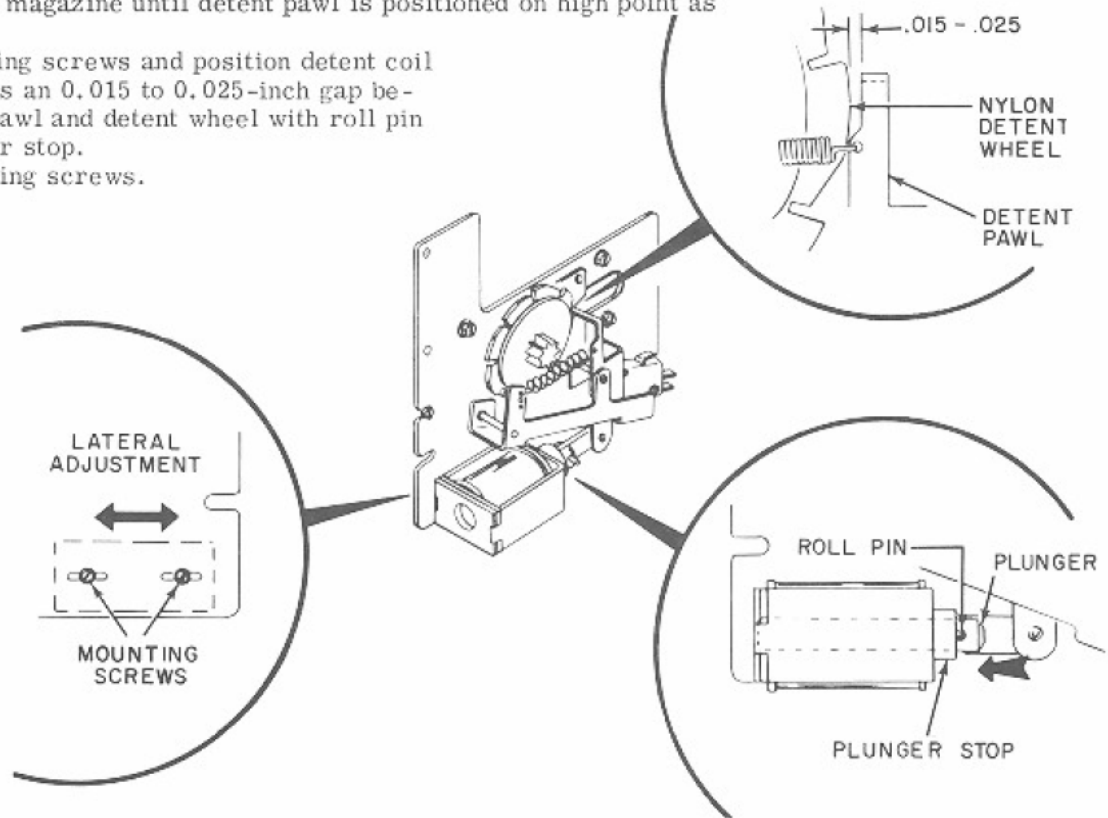
TABLE 5-1. PHONOGRAPH ADJUSTMENTS

<u>ADJUSTMENT</u>	<u>PAGE</u>
<u>RECORD CHANGER MECHANISM</u>	
Magazine Motor and Detent Assembly	5-3
Cam Switch	5-4
Stop Switch	5-5
Sector Gear	5-8
Tone Arm Cam	5-9
Cam and Trunnion Drive Gear	5-10
Toggle Shifter Link	5-10
Record Magazine Transfer Arm Support	5-11
Magazine Belt	5-12
Aligning Magazine Stopping Position with Transfer Arm	5-13
Popularity Meter Alignment	5-14
Scan Control	5-15
Tone Arm	5-16
Automix	5-19
<u>SEARCH UNIT</u>	
Search Unit Gear	5-20
Sprag Relay	5-22
Search Wiper	5-25
Select Coil	5-27
<u>CREDIT AND PRICING SYSTEM</u>	
Coin Switch	5-28
Credit Unit	5-29

## MAGAZINE MOTOR AND DETENT ASSEMBLY ADJUSTMENTS

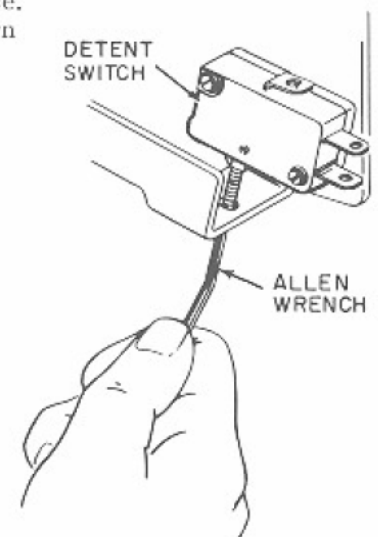
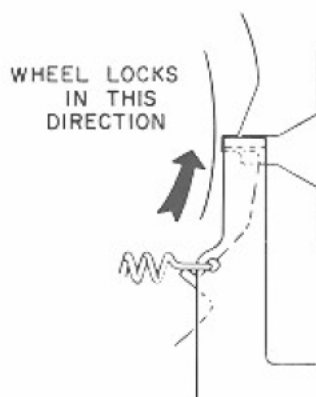
Obtain 0.015 to 0.025 — inch gap between detent pawl and high point of detent wheel.

- Release detent pawl from detent wheel.
- Rotate record magazine until detent pawl is positioned on high point as shown.
- Loosen mounting screws and position detent coil so that there is an 0.015 to 0.025-inch gap between detent pawl and detent wheel with roll pin against plunger stop.
- Tighten mounting screws.



### Adjust magazine detent switch.

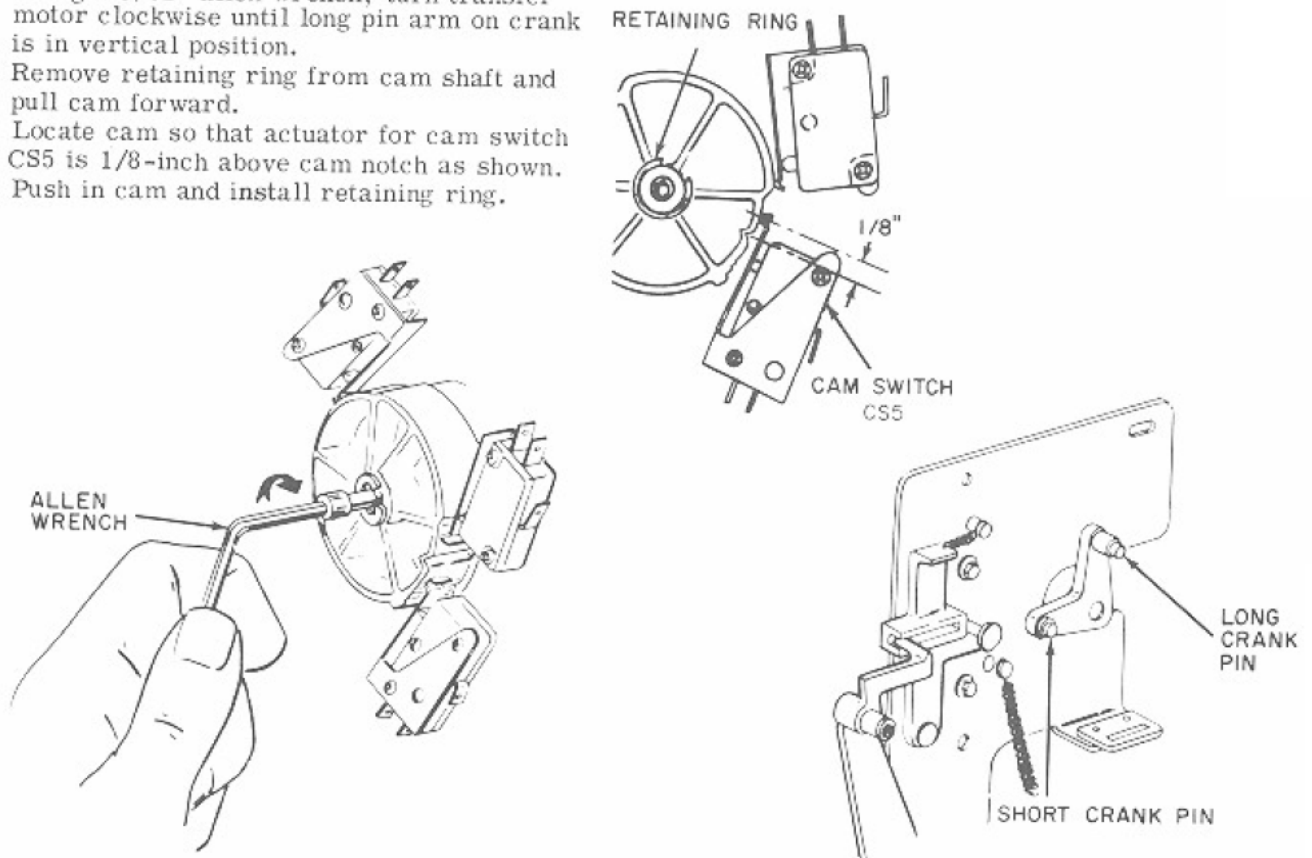
- Rotate detent wheel until pawl is seated in notch, locking wheel in place.
- Turn detent switch actuating screw in until switch just clicks, then turn screw in  $1/2$  turn more for stable adjustment.



## CAM SWITCH ADJUSTMENTS

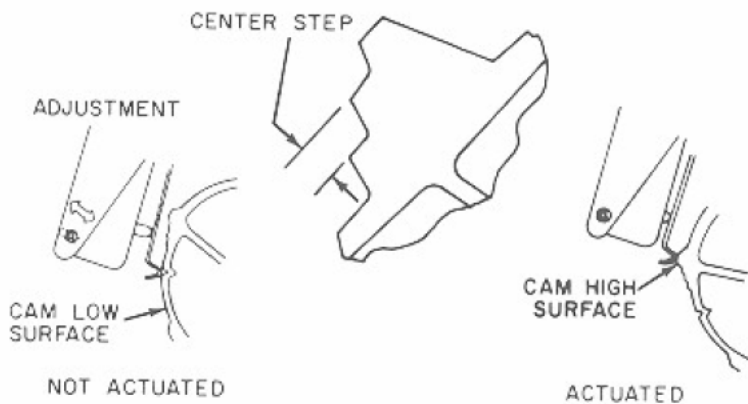
### Locate Cam in Proper Position

- Using a 5/32" allen wrench, turn transfer motor clockwise until long pin arm on crank is in vertical position.
- Remove retaining ring from cam shaft and pull cam forward.
- Locate cam so that actuator for cam switch CS5 is 1/8-inch above cam notch as shown.
- Push in cam and install retaining ring.



### Check and Adjust Cam Switch Operation

- Check that each cam switch operates (on and off) center cam step.



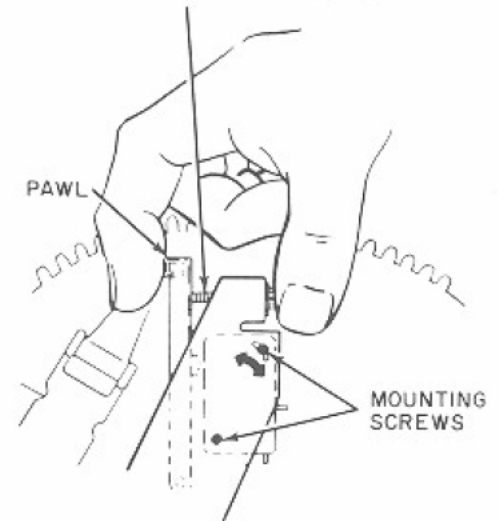
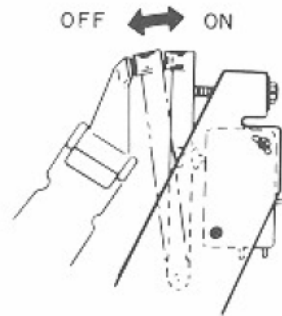
- To adjust a switch, loosen mounting screw closest to actuator end and move switch housing accordingly.
- Tighten mounting screw and recheck operation.

## STOP SWITCH ASSEMBLY ADJUSTMENTS

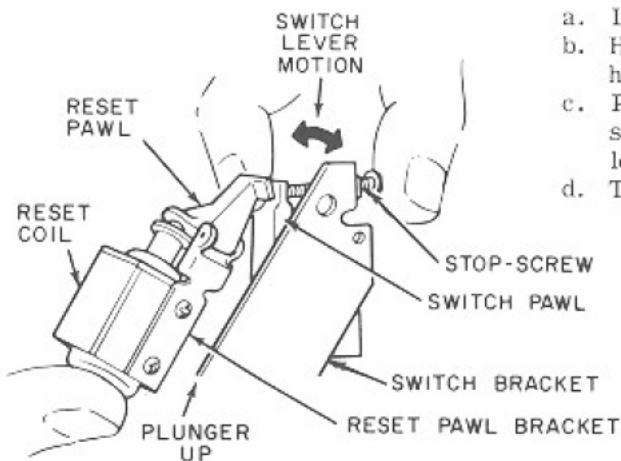
### Adjust left side switch.

- Hold pawl against stop screw using thumb and fore-finger.
- Loosen mounting screw nearest stop screw and move switch against pawl as far as it will go.
- Tighten mounting screw.
- Release pawl and stop screw, check that switch releases.
- If switch does not release, loosen mounting screw and adjust switch position so that it actuates and releases as pawl is moved back and forth.

NOTE: DO NOT TRY TO ADJUST STOP-SCREW  
IT IS FACTORY ADJUSTED



### Adjust reset coil.

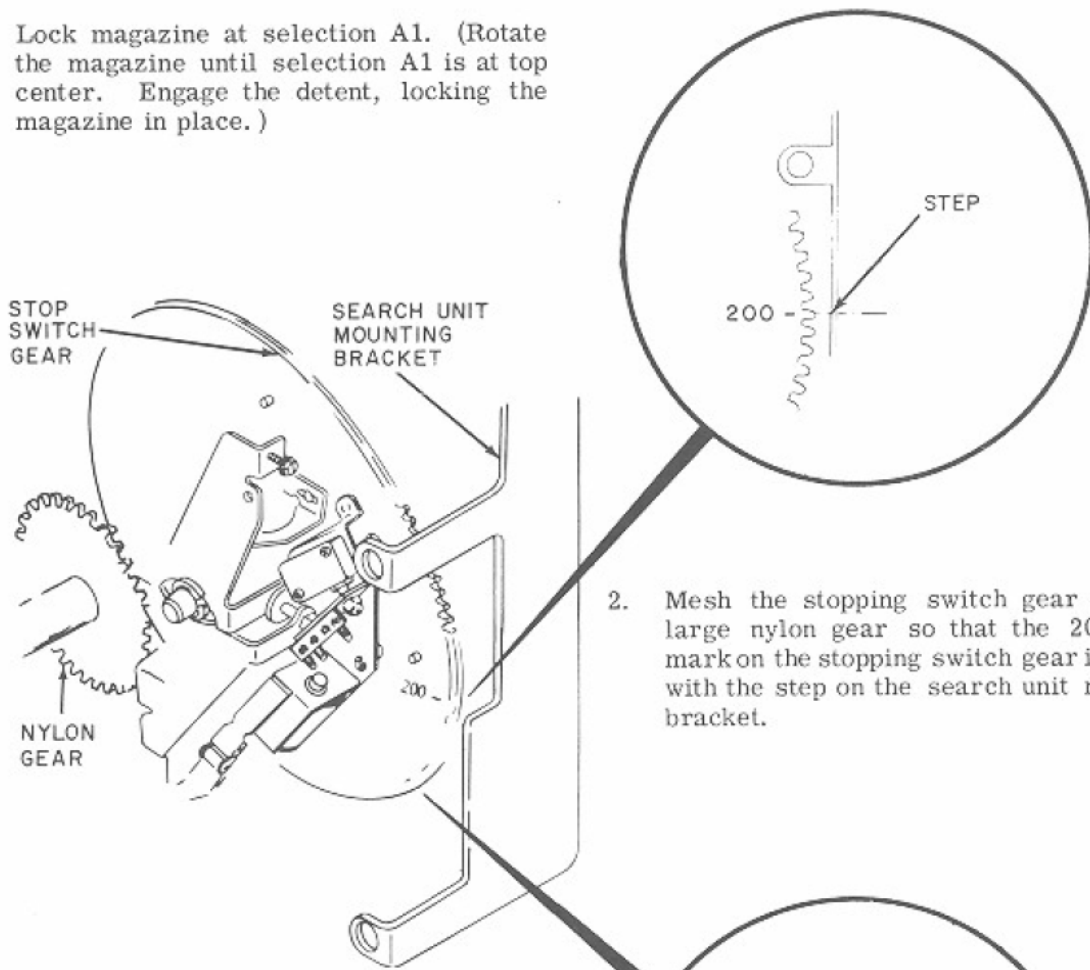


- Loosen screws holding reset pawl bracket.
- Hold reset coil plunger flush with bottom of coil, and hold left side switch pawl against stop screw.
- Position reset pawl bracket so tips of reset pawl and switch pawl will just miss each other as stopping switch lever is pivoted through its entire range of motion.
- Tighten screws and recheck switch operation.

## STOP SWITCH ASSEMBLY ADJUSTMENTS (CONTINUED)

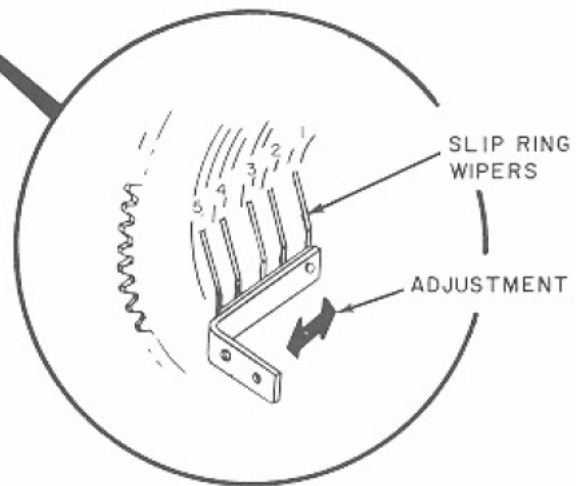
Align stop switch.

1. Lock magazine at selection A1. (Rotate the magazine until selection A1 is at top center. Engage the detent, locking the magazine in place.)



2. Mesh the stopping switch gear with the large nylon gear so that the 200 index mark on the stopping switch gear is in line with the step on the search unit mounting bracket.

3. Check to see that the slip ring wipers are properly aligned with their respective slip rings. If necessary loosen the slip ring wiper assembly mounting screw and move the entire assembly horizontally until the ends of the wipers are tracking in the center of the rings.



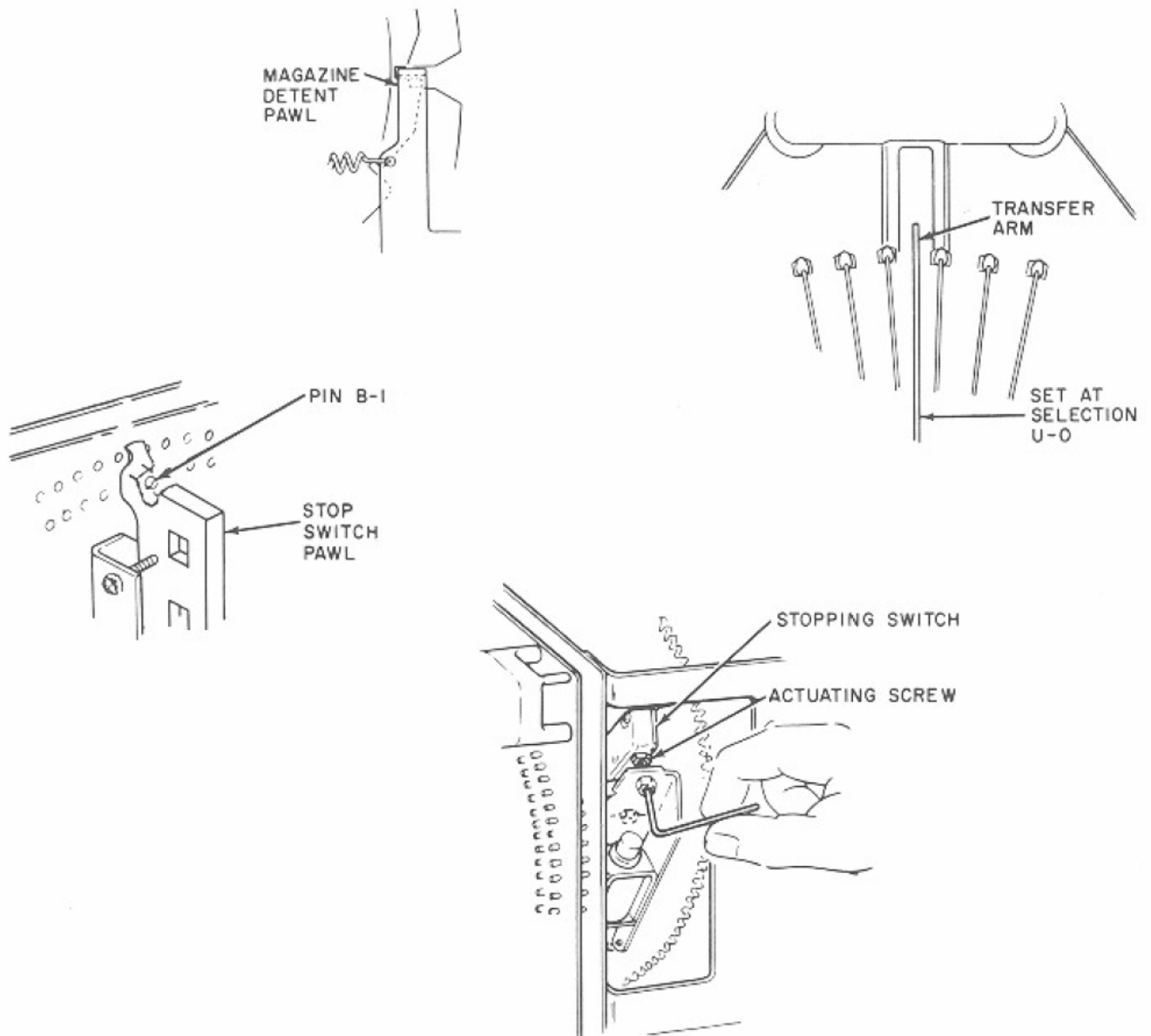
**NOTE:** When installing a replacement stop switch be sure to perform the procedures on the following page.

## STOP SWITCH ASSEMBLY ADJUSTMENTS (CONTINUED)

Adjust stop switch actuating screw.

NOTE: This adjustment requires that the search unit is properly adjusted

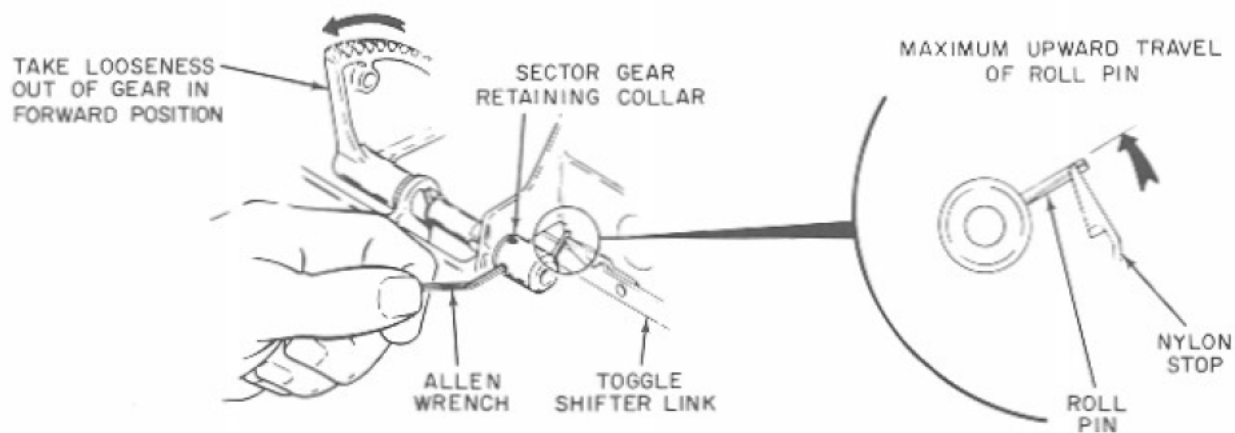
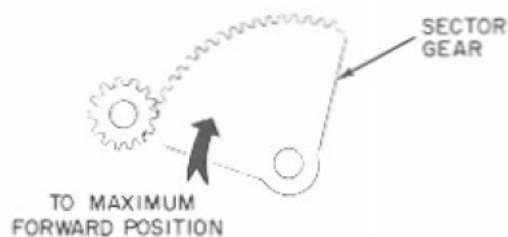
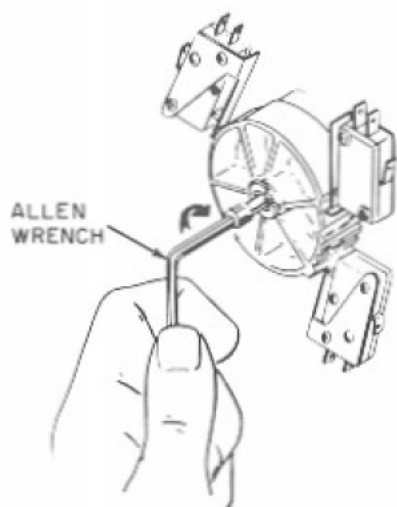
- a. Manually rotate record magazine and lock in position at selection U-O.
- b. Manually set search unit at pin B1.
- c. Locate stop switch pawl on pin B1 as shown.
- d. Back stopping switch actuating screw out past the point where switch clicks (releases).
- e. Turn stopping switch actuating screw in until switch just clicks (actuates); then turn screw in 1-2/3 turns further.
- f. Turn on mechanism service switch and cycle record changer at least twice to check stopping switch adjustment.



## SECTOR GEAR ADJUSTMENTS

### Adjust the Sector Gear Retaining Collar

- Using a 5/32-inch allen wrench, turn transfer motor shaft clockwise until sector gear is in maximum up, or forward position.
- Set retaining collar so that roll pin is flush with top surface of toggle shifter link nylon stop. Take all looseness out of sector gear in forward direction.
- Check that there is no end play in sector gear shaft.

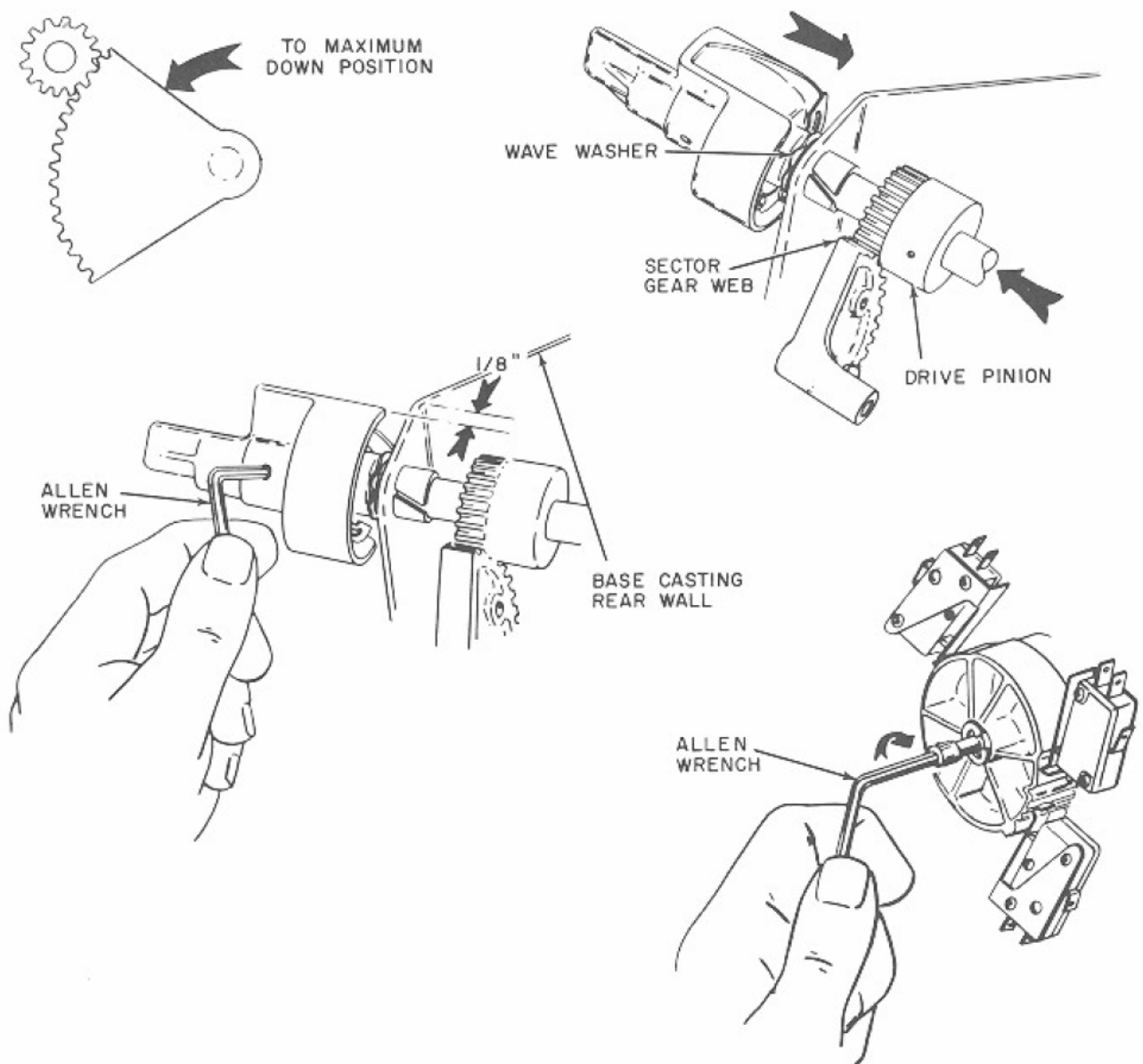


## TONE ARM CAM ADJUSTMENTS

### Adjust Tone Arm Cam.

- Using a 5/32-inch allen wrench, turn transfer motor shaft clockwise until sector gear is in maximum down position. Remove all looseness in upward direction.
- Loosen allen screws and position tone arm cam so straight cutout in cam surface is 1/8-inch from base casting rear wall front surface plane. Use a 1/8-inch allen wrench to gauge this distance.
- Remove end play from shaft and tighten allen screws.

NOTE: Pinion gear teeth must not ride on sector gear web.

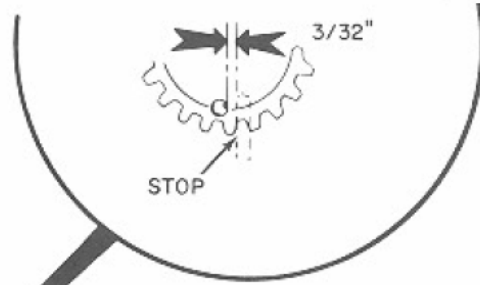
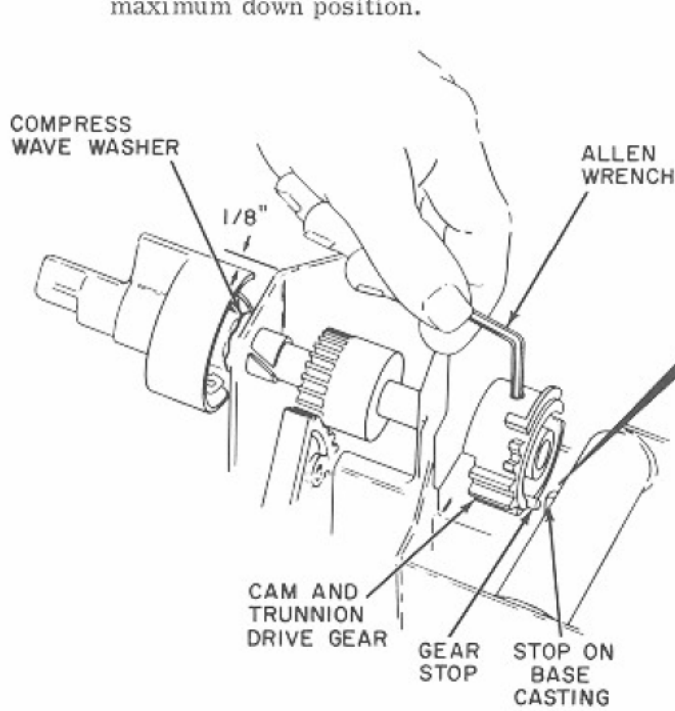




## CAM AND TRUNNION DRIVE GEAR ADJUSTMENT

### Adjust Cam and Trunnion Drive Gear.

- a. Using a 5/32-inch allen wrench, turn transfer motor shaft clockwise until sector gear is in maximum down position.

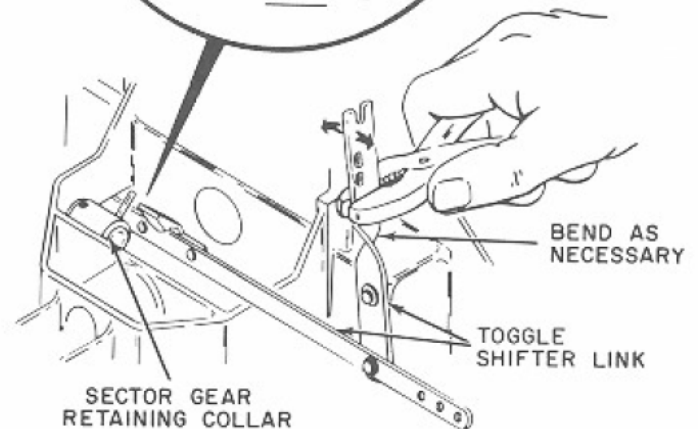
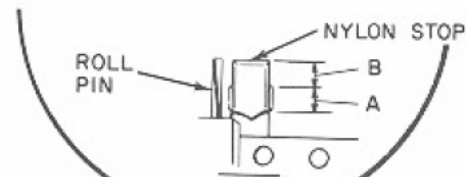


- b. Loosen allen-head setscrew.
- c. Position cam and trunnion drive gear so there is a 3/32-inch gap between gear stop and base casting stop front surface.
- d. Make sure that wave washer is compressed, that drive gear clears sector gear web, and that shaft has no end play.
- e. Tighten setscrew.

## TOGGLE SHIFTER LINK ADJUSTMENT

### Adjust Toggle Shifter Link.

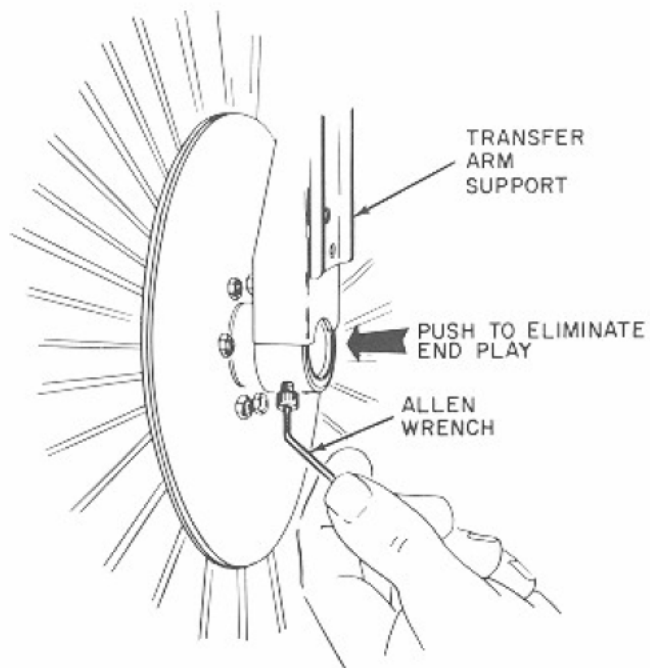
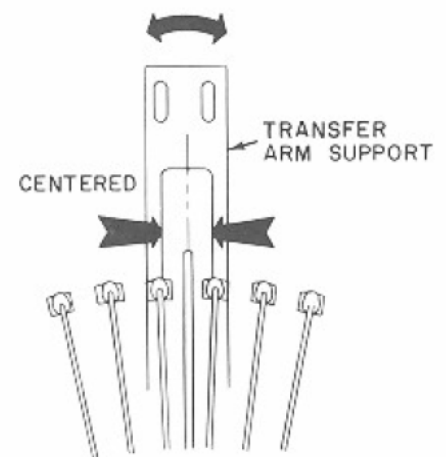
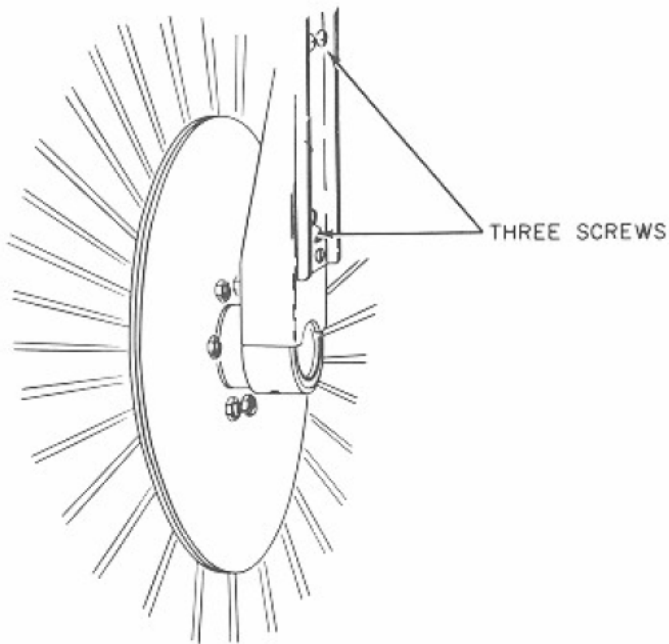
- a. Bend toggle shifter link vertical member so sector gear retaining collar roll pin will contact nylon stop in area "A", but not area "B" as transfer motor cycles.
- b. Check adjustment with toggle shifter pins in both positions.



## RECORD MAGAZINE TRANSFER ARM SUPPORT ADJUSTMENT

Eliminate Magazine End Play and Center Transfer Arm Support.

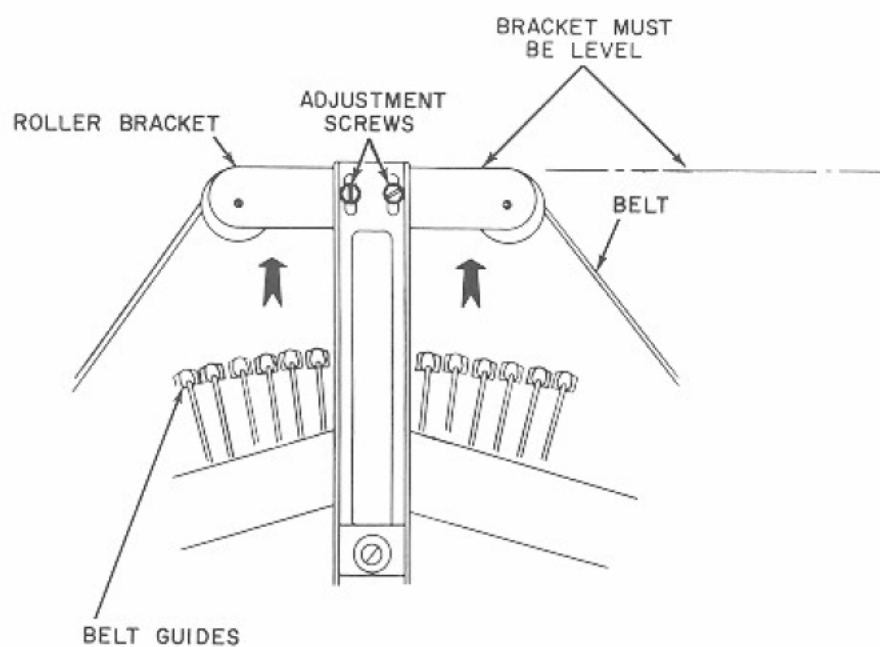
- Loosen setscrews in transfer arm support.
- Push transfer arm support onto magazine shaft to eliminate end play and adjust it so transfer arm will not rub on either side of opening.
- Tighten setscrews.
- If slight adjustment is necessary after setscrews are seated, loosen three screws on rear of transfer arm support, adjust, and tighten screws.



## MAGAZINE BELT ADJUSTMENT

### Tighten Magazine Belt.

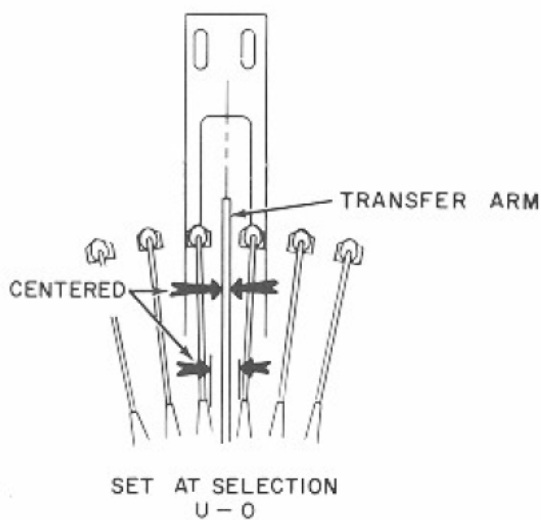
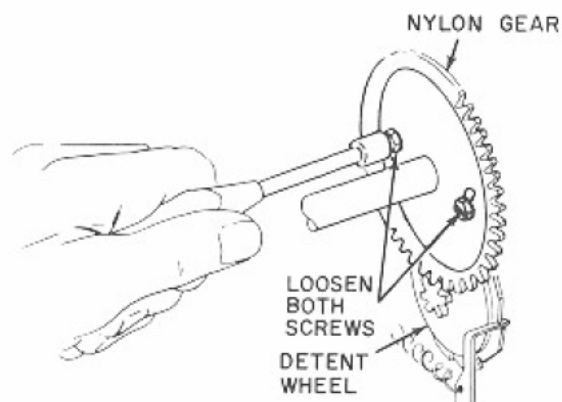
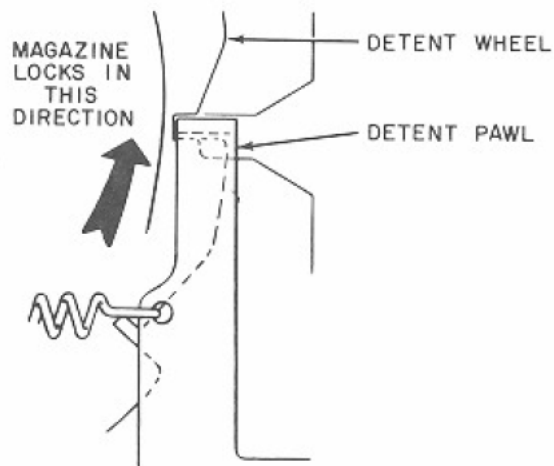
- Loosen two adjustment screws shown.
- Raise bracket to tighten belt around magazine.
- Check that belt rides evenly in center of belt guides, all the way around the magazine.



## ALIGNING MAGAZINE STOPPING POSITION WITH TRANSFER ARM

### Align Stopping Position of Magazine with Transfer Arm.

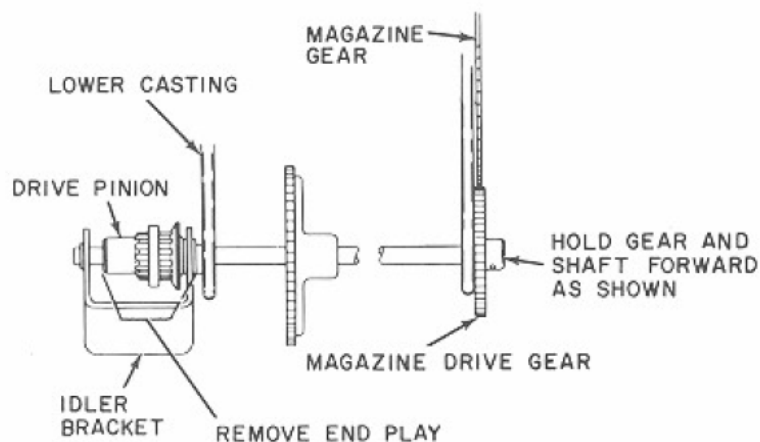
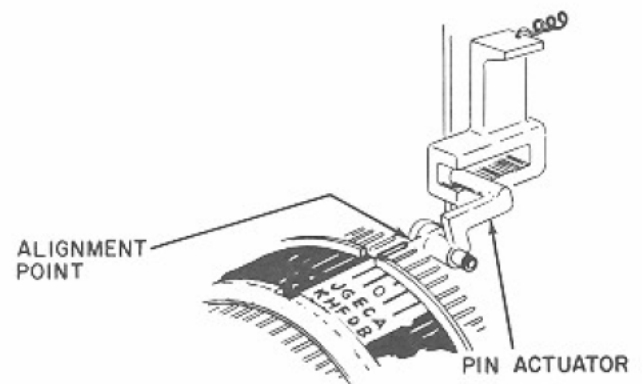
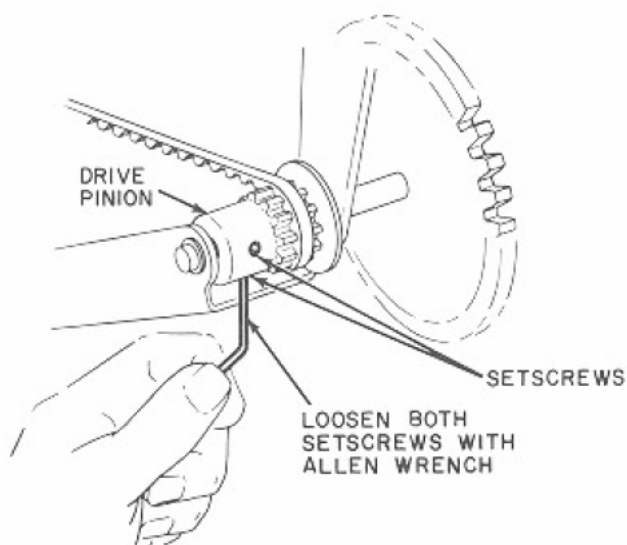
- Rotate magazine until selection is at top center. Allow magazine detent to engage and lock magazine in place.
- Loosen two screws in large nylon gear.
- With detent wheel locked, move magazine until transfer arm is centered in record slot.
- Tighten two screws in large nylon gear securely.



## POPULARITY METER ALIGNMENT

### Align Popularity Meter.

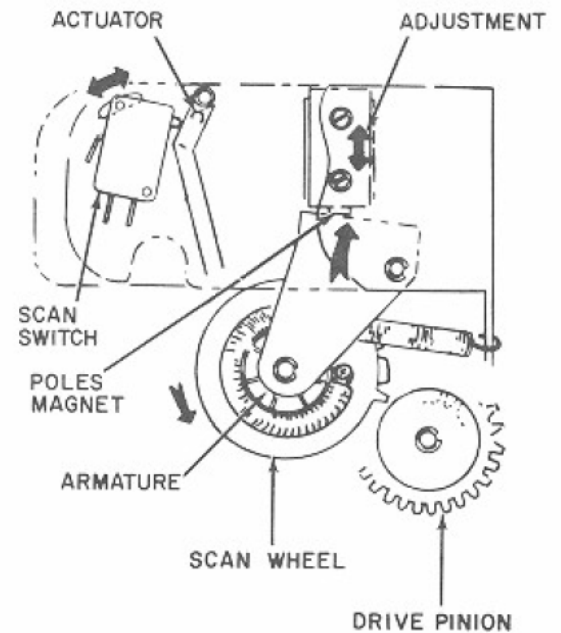
- Remove popularity meter.
- Loosen setscrews in popularity meter drive pinion.
- Release magazine detent. Rotate magazine until selection U-O is at top center.
- Allow detent to engage, locking magazine in place.
- Install popularity meter and rotate until pin marked U-O is centered over pin actuator.
- Be sure that crank is properly aligned and that popularity meter is all the way on the shaft.
- Remove all end play. Tighten two setscrews.



## SCAN CONTROL ADJUSTMENTS

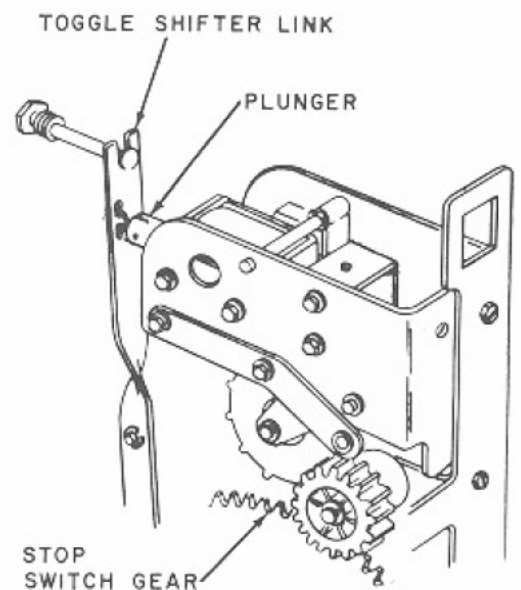
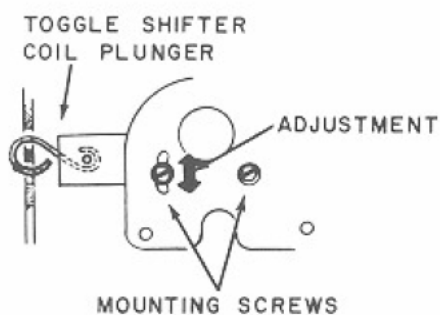
### Adjust Scan Control.

- Rotate magazine until scan wheel is in maximum counterclockwise position as shown.
- Loosen scan switch top mounting screw.
- Move switch against actuator until switch has operated, and switch button is almost bottomed.
- Tighten top mounting screw.
- With armature held against magnet pole pieces, scan wheel should barely clear drive pinion. Rotate scan wheel one full turn to check this adjustment.



### Adjust Toggle Shifter Coil.

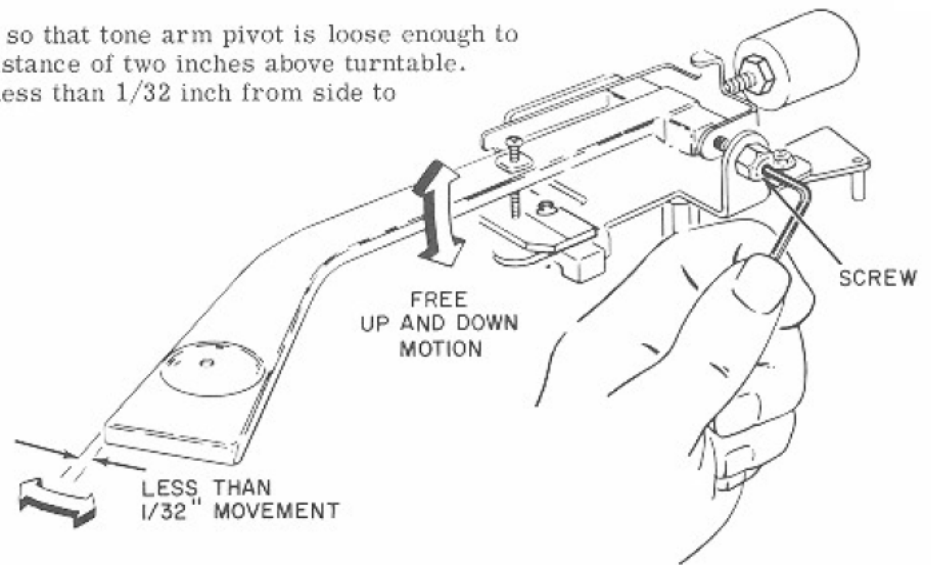
- Loosen two mounting screws for toggle shifter coil.
- Adjust coil until it is level and plunger mover freely in and out.
- Make sure that drive pinion is meshed properly with stop switch gear.
- Tighten two screws.



## TONE ARM ADJUSTMENTS

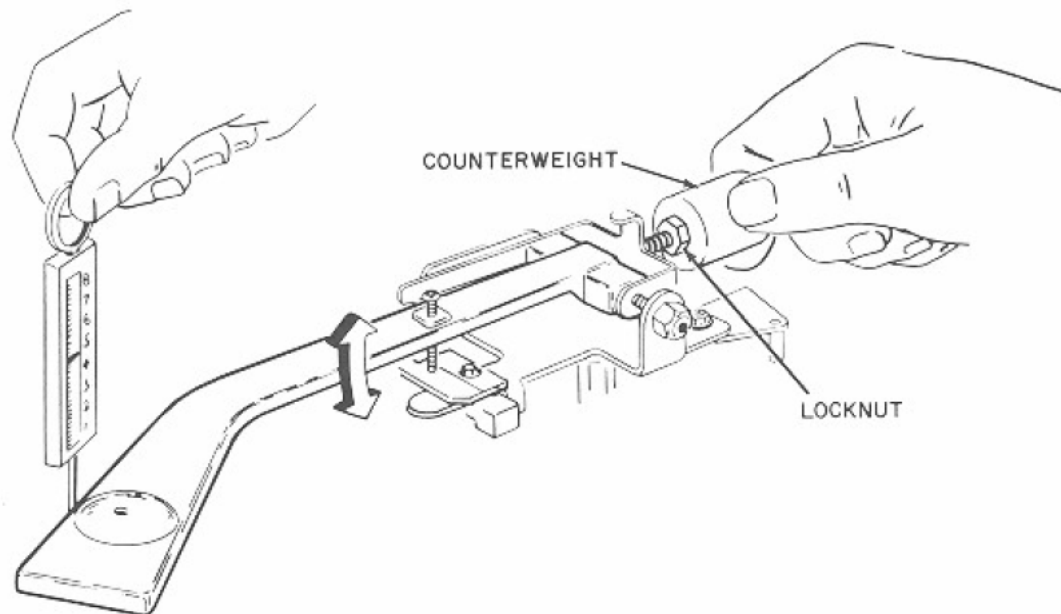
### Adjust Vertical Pivot.

- Adjust tone arm pivot screw so that tone arm pivot is loose enough to move free vertically for a distance of two inches above turntable.
- Check that tone arm moves less than  $1/32$  inch from side to side.



### Set Stylus Force.

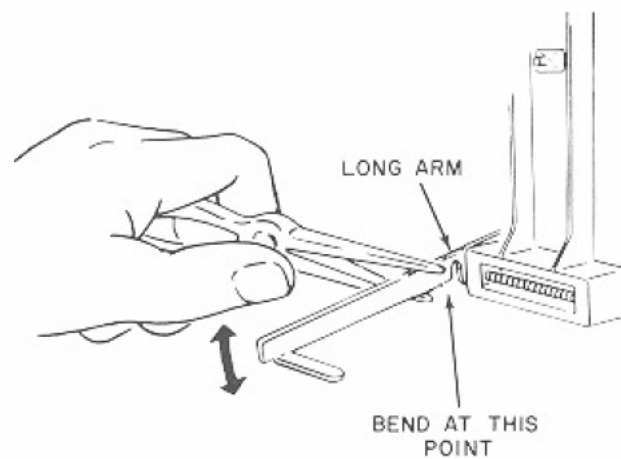
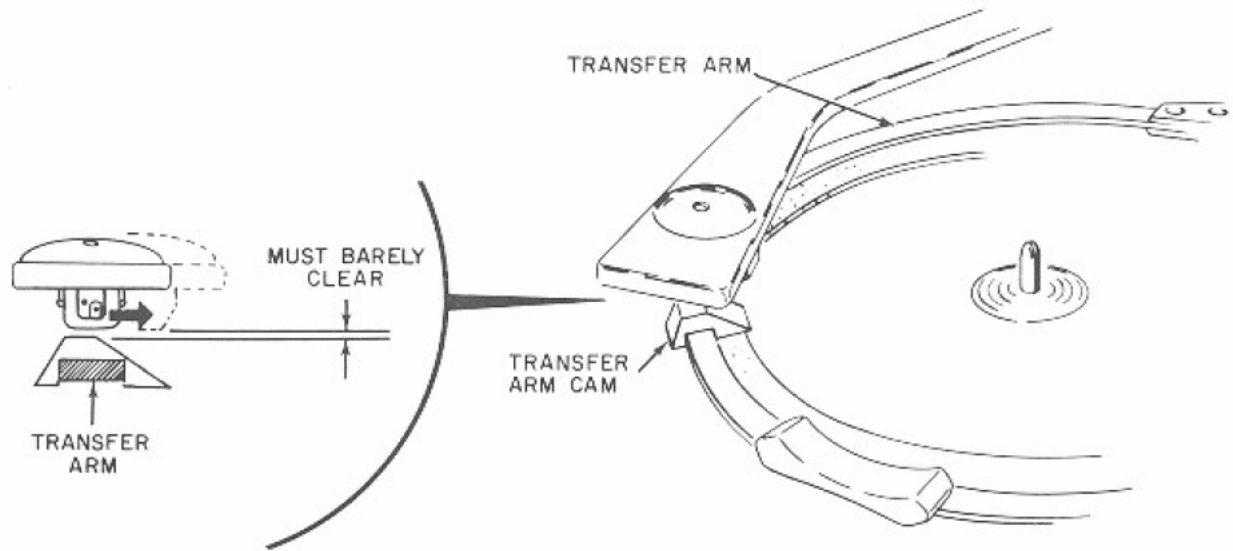
- Loosen lock nut.
- Attach a suitable gram gauge to tone arm as shown. Adjust counterweight for 4 to 5 grams pressure.
- Tighten lock nut against counterweight and recheck adjustment.



## TONE ARM ADJUSTMENTS (CONTINUED)

### Set Stylus Clearance.

- Operate transfer assembly to place transfer arm next to tone arm.
- Stylus must barely clear transfer arm as tone arm swings over it. Adjust clearance by bending long arm of tone arm rest, as necessary, at point shown.



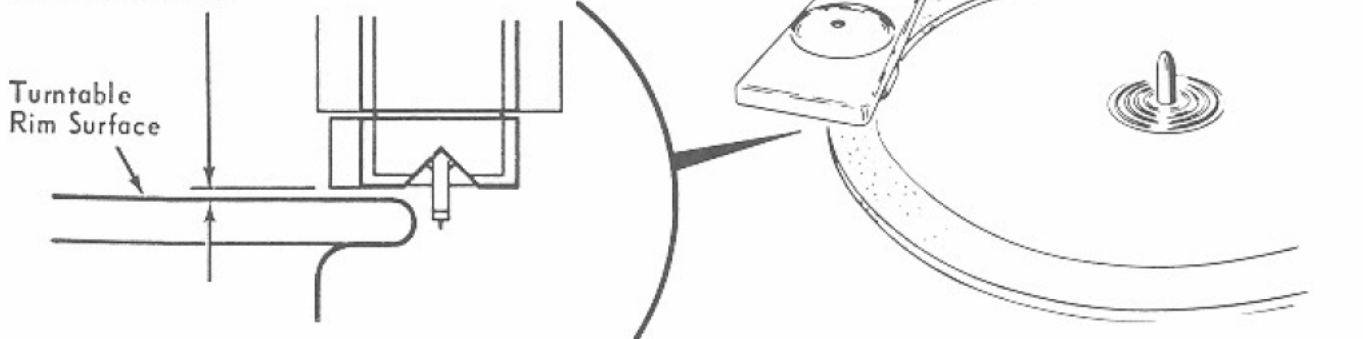


## tone arm adjustments (CONTINUED)

### Set Stylus Height.

- Operate transfer assembly to position tone arm over turntable rim.
- Turn adjustment screw until stylus tip is  $1/32$  inch below rim surface with tone arm in play position.

$1/64$  to  $1/32$  Inch



### Set Stylus Setdown Position and Tone Arm Cutoff Switch.

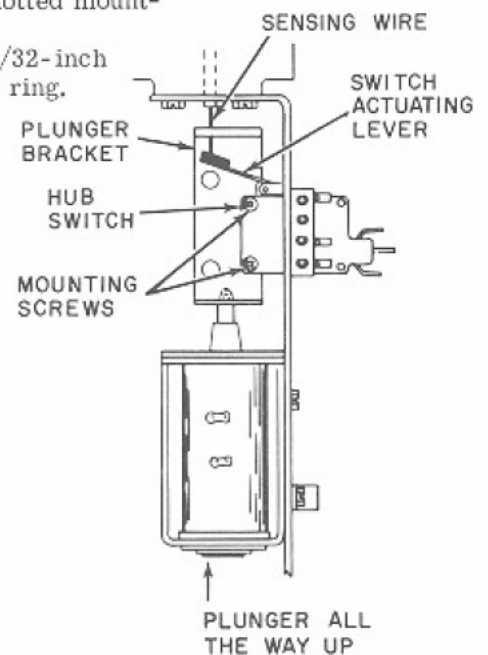
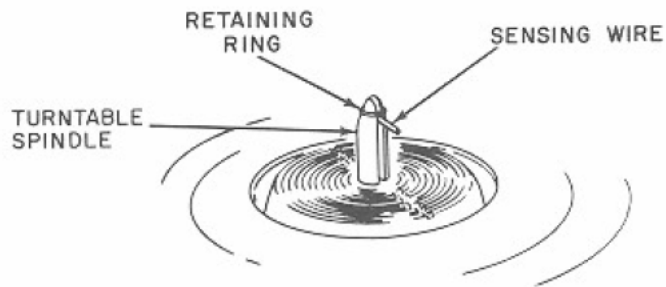
- Place undersize ( $6-13/16$ -inch diameter) record on turntable.
- Operate transfer assembly to bring tone arm to play position.
- Loosen mounting screw.
- While holding cam follower plate against tone arm cam, move tone arm, as required, until stylus is  $3/64$ -inch from record edge.
- Tighten mounting screw and check adjustment.
- Locate tone arm stylus in record cutout groove.
- Loosen two mounting screws on cutoff reed switch mounting plate.
- Position mounting plate, as necessary, until reed switch is closed. The magnet on the under side of the tone arm operates the cutoff switch. Adjust switch so it operates before stylus enters "closed" record groove.



## AUTOMIX ADJUSTMENTS

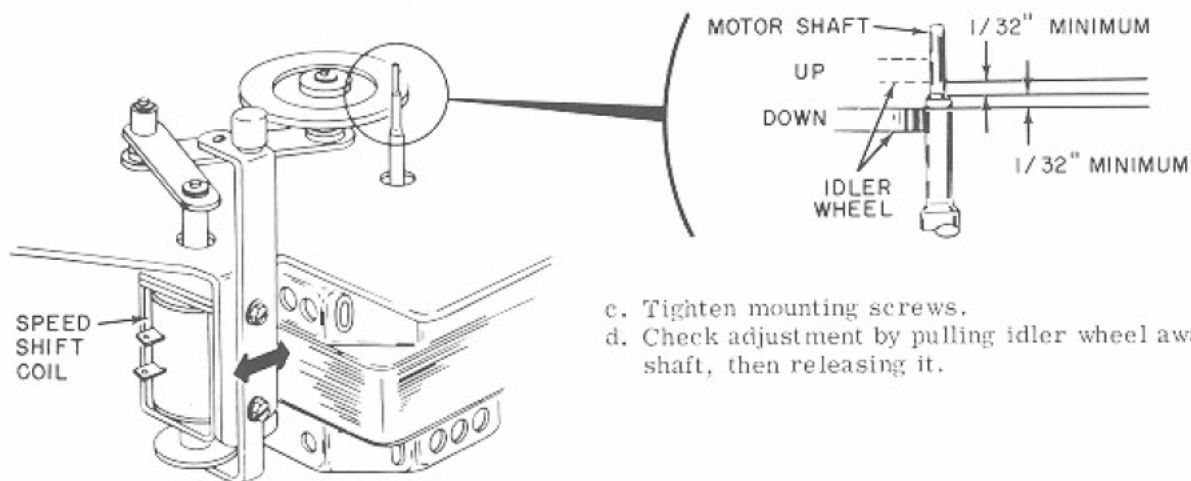
### Obtain 1/32-inch Gap between Sensing Wire and Turntable Spindle Retaining Ring.

- Loosen mounting screws and move hub switch down as far as slotted mounting holes will allow.
- While holding plunger all the way up, raise hub switch until a 1/32-inch gap exists between sensing wire and turntable spindle retaining ring.
- Tighten switch mounting screws.



### Adjust Speed Shift Coil so that Idler Wheel Rim Clears Motor Shaft Step by at Least 1/32 inch.

- Loosen speed shift coil mounting screws.
- Adjust speed shift coil so that idler wheel rim clears motor shaft step by at least 1/32 inch in both full up and full down coil plunger position. The coil frame will pivot slightly about the top mounting screw hole, just enough to allow up and down adjustment of the idler linkage.

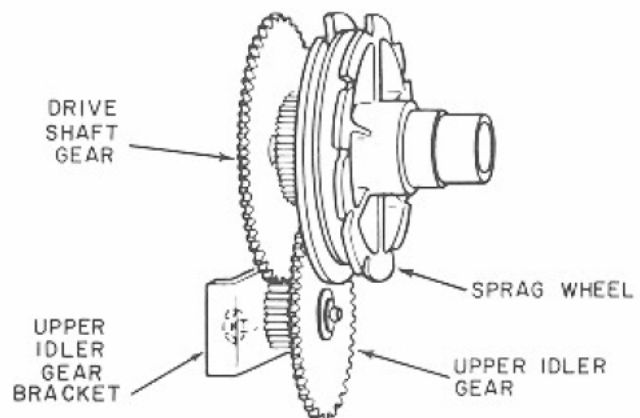
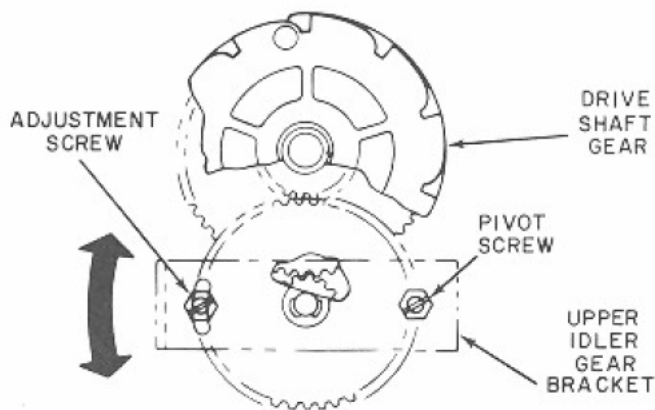


- Tighten mounting screws.
- Check adjustment by pulling idler wheel away from motor shaft, then releasing it.

## SEARCH UNIT GEAR ADJUSTMENT

### Mesh Drive Shaft Gear, Upper Idler Gear, and Sprag Wheel Pinion.

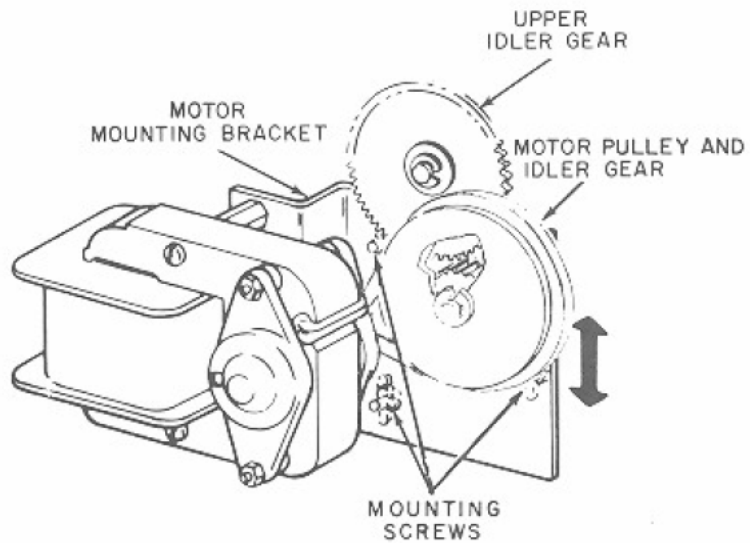
- a. Loosen upper idler gear bracket pivot screw and adjustment screw.
- b. Pivot bracket, as shown, until all gears move freely with a minimum of backlash.
- c. Tighten screws and recheck adjustment.



## SEARCH UNIT GEAR ADJUSTMENTS (CONTINUED)

### Align Motor Idler Gear To Upper Idler Gear.

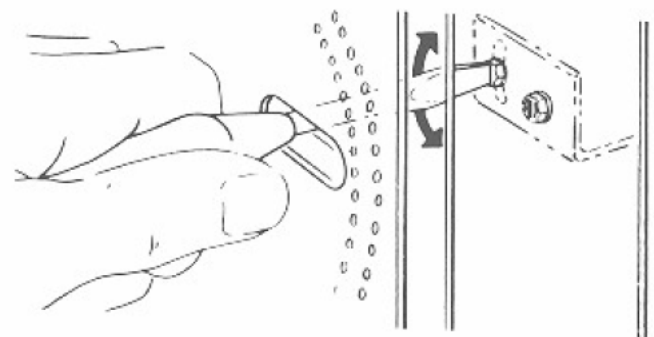
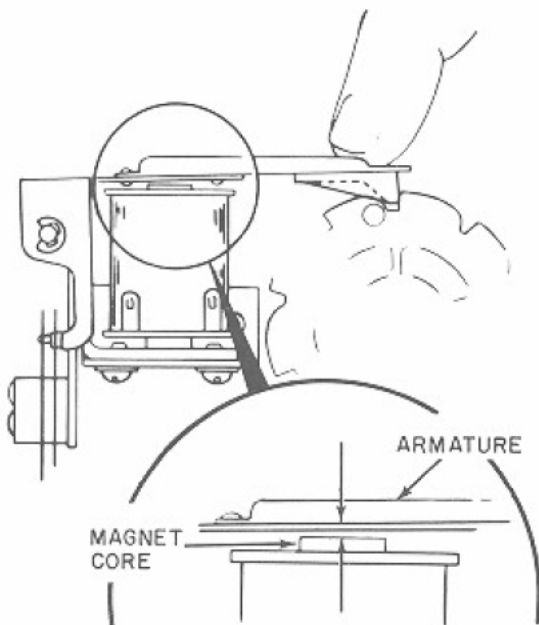
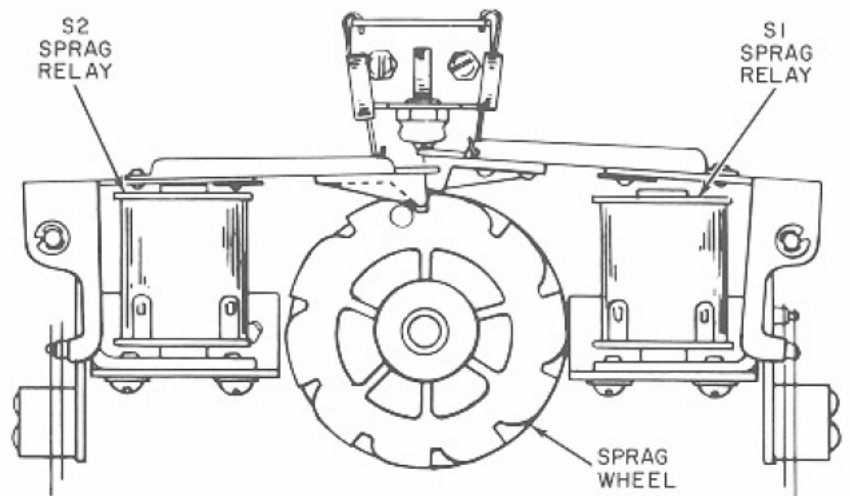
- a. Loosen three motor mounting screws in motor mounting bracket.
- b. Move motor assembly as shown until motor meshes with upper idler gear without binding and with minimum backlash.
- c. Tighten screws and recheck adjustment.



## SPRAG RELAY ADJUSTMENTS

### Adjust Sprag Relay Core Gap.

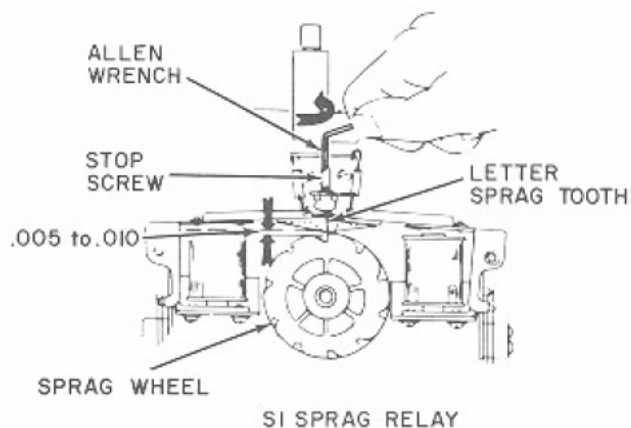
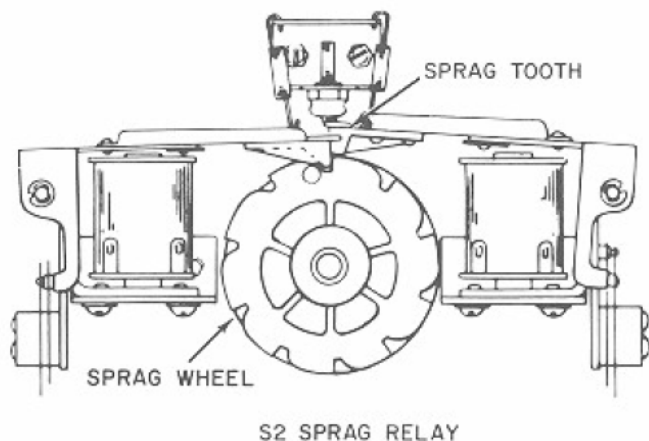
- Bottom sprag relay S2 tooth in any one sprag wheel notch.
- While holding tooth in notch, check clearance between sprag relay armature and magnet core. A piece of ordinary bond paper should just pass through this gap.
- To adjust clearance, loosen sprag relay mounting and pivot screws and move relay as required.
- Tighten screws and recheck adjustment.
- Repeat steps a through d to adjust sprag relay S1.



## SPRAG RELAY ADJUSTMENTS (CONTINUED)

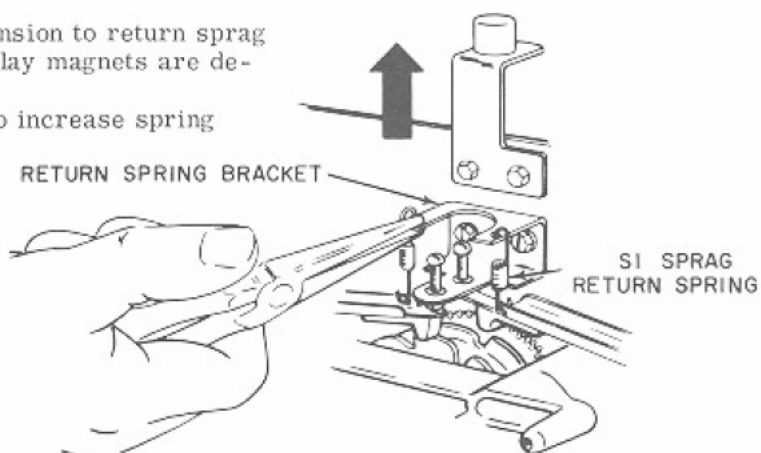
### Adjust Sprag Tooth-To-Wheel Clearance.

- Align sprag relay S2 tooth with high point on sprag wheel.
- Turn in stop screw until sprag relay tooth binds against sprag wheel. Do not force sprag wheel around when checking binding.
- Back stop screw off 1/4-turn for 0.005- to 0.010- inch clearance as shown.
- Repeat steps a through c to adjust sprag relay S1 for 0.018- to 0.030- inch clearance.



### Adjust Return Spring Force.

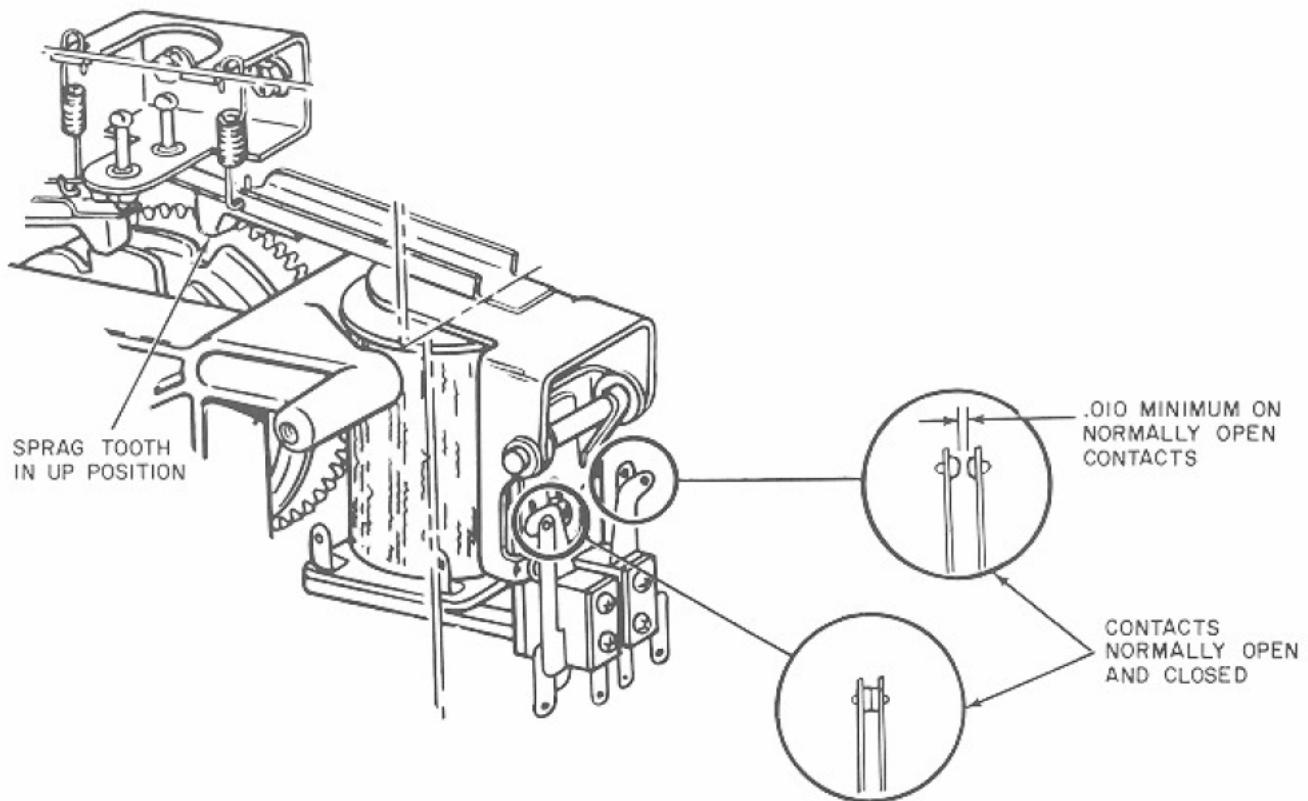
- Check that return springs have enough tension to return sprag relay armatures to rest position when relay magnets are de-energized.
- Bend return spring bracket, as shown, to increase spring tension. Do not bend S1 arm more than 1/16 inch; do not bend S2 arm more than 1/64 inch.
- If proper tension cannot be obtained, replace return spring.



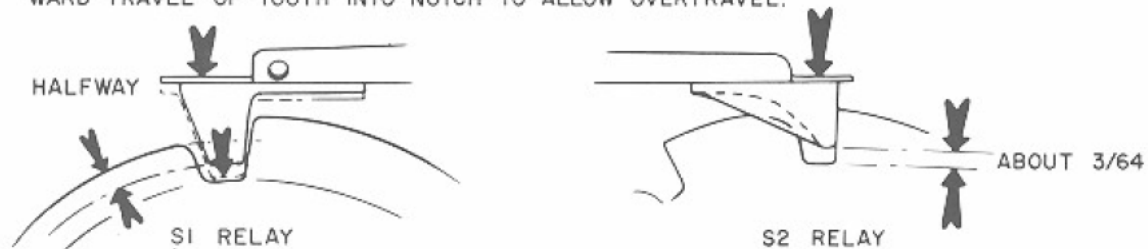
## SPRAG RELAY ADJUSTMENTS (CONTINUED)

### Adjust Relay Contact Make and Break Position.

- Slowly bottom sprag relay S1 tooth in a sprag wheel detent while observing relay contacts.
- Check that contacts make before break halfway down into detent. Bend contact arms as required.
- Repeat steps a. and b. for sprag relay S2. The contacts should make and break about  $3/64$  inch from detent bottom.



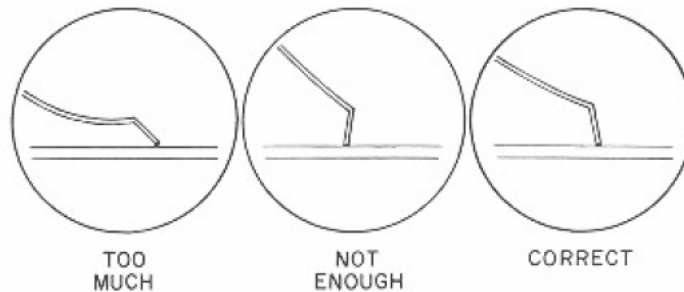
CONTACT SHOULD MAKE OR BREAK AT THIS POINT OF DOWNWARD TRAVEL OF TOOTH INTO NOTCH TO ALLOW OVERTRAVEL.



## SEARCH WIPER ADJUSTMENTS

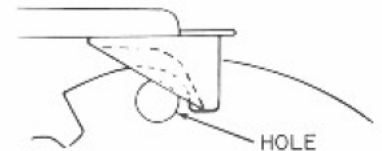
### Adjust Wiper Blade Contact Force.

- Loosen wiper arm hub setscrew and back wiper arm assembly away from commutator board.
- Move wiper arm assembly toward board until blades just touch segments, then move wiper arm assembly toward circuit board  $1/16$ - to  $1/32$ -inch. The blades should be formed as shown.
- Check wiper position on segments, then tighten hub setscrew.

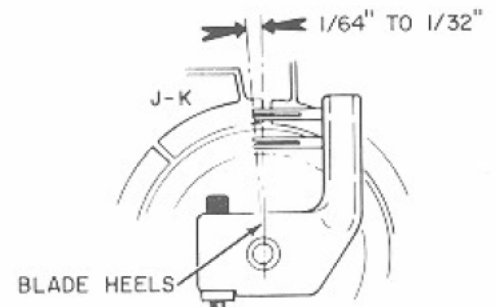


### Position Inside (Letter) Wiper on Commutator Board.

- Bottom sprag relay S2 tooth in sprag wheel notch closest to sprag wheel hole.
- Check that outer wiper on inside circuit board is positioned on segment J-K. Segment J-K is located to the left of the board top center (facing the circuit board back side).
- If wiper arm and wipers of inside circuit board are not properly aligned as shown, loosen hub setscrew, and while holding sprag relay S2 tooth in position as in step a, rotate wiper arm assembly to align wipers.
- Tighten setscrew.



NOTE: When changing position of wiper arm assembly, be sure to maintain proper contact pressure.



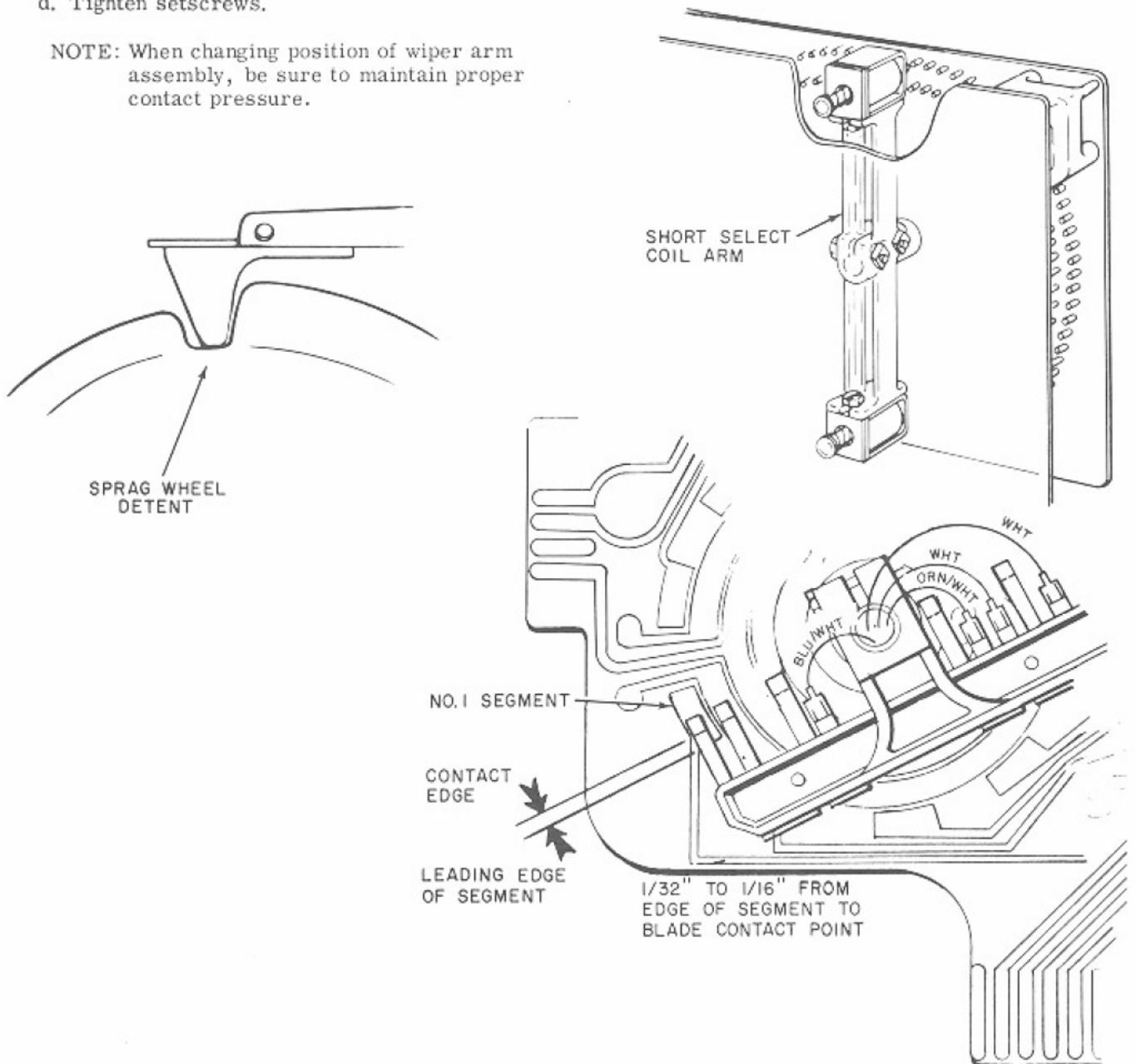


## SEARCH WIPER ADJUSTMENTS (CONTINUED)

Position Outside (Number) on Commutator Board.

- Bottom sprag relay S1 tooth in sprag wheel notch. Check that short select coil arm is up.
- Check that wiper arm side with three blades on it is positioned on segment 1, as shown.
- If adjustment is necessary, loosen the hub setscrew and, while holding sprag relay S1 tooth in position as in step a, rotate wiper arm assembly to align wipers.
- Tighten setscrews.

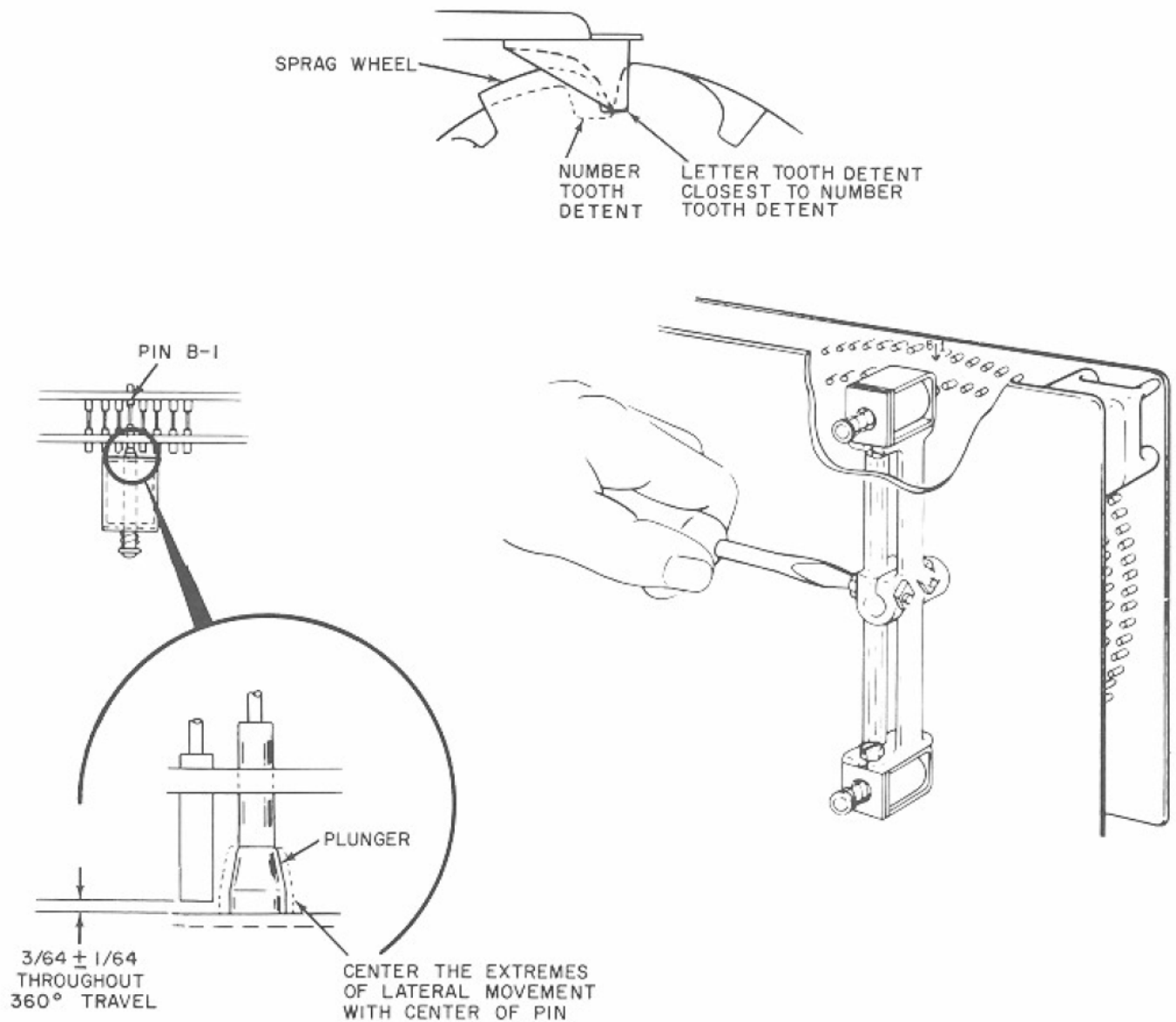
NOTE: When changing position of wiper arm assembly, be sure to maintain proper contact pressure.



## SELECT COIL ADJUSTMENTS

### Plunger-To-Pin Alignment.

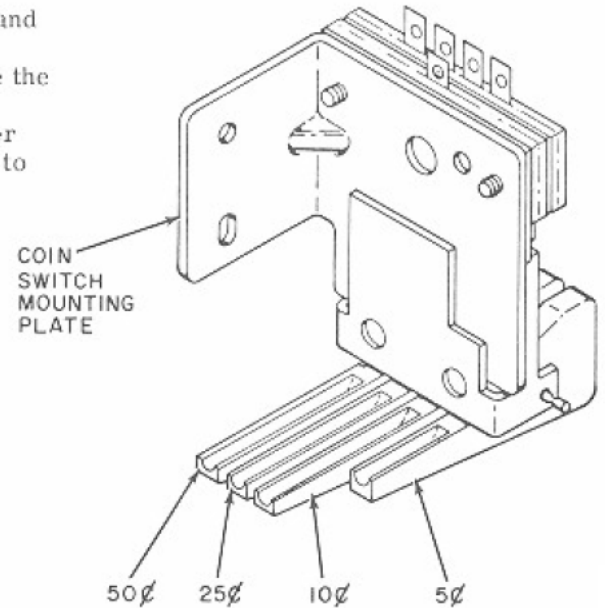
- Bottom sprag relay S1 (numbers) tooth in any number detent.
- Bottom sprag relay S2 (letters) tooth in sprag wheel detent closest to the chosen number detent.
- Push out the pins above B-1 to facilitate viewing.
- Check that select coil plunger on short select coil arm is aligned with pin B-1 on pinwheel assembly.
- If adjustment is required, loosen select coil arm assembly mounting screws just enough to center plunger over pin B-1 without moving forward or back along drive shaft.
- Check for a clearance of  $3/64 \pm 1/64$  inch between the coil frames and pins for 360-degree select coil arm travel.



## COIN SWITCH ADJUSTMENTS

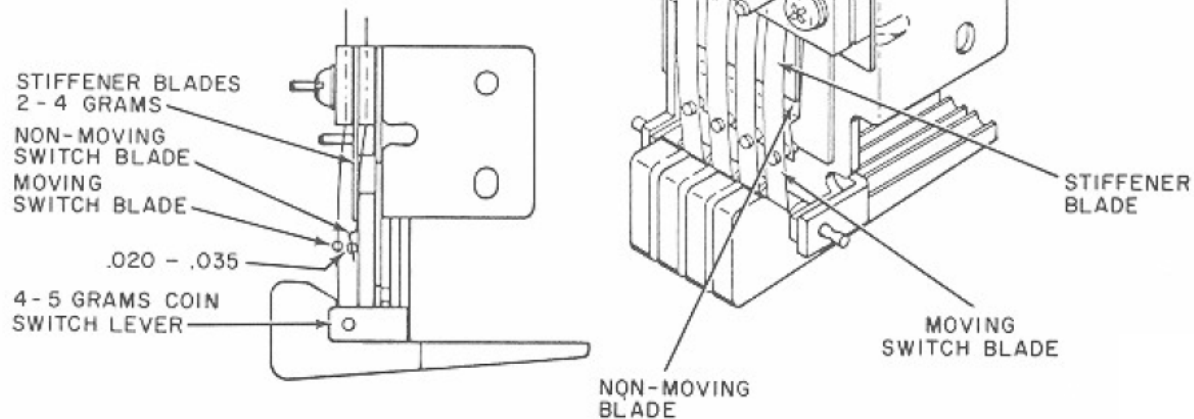
### Operational Check.

- Hold plastic coin switch lever in normal position and drop a coin through slug rejector.
- When the coin comes to rest on the lever, release the lever slowly.
- Check that the weight of the coin operates the lever enough to close the coin switch and allow the coin to fall free.
- Repeat steps a, b, and c for other three levers.



### Contact Pressure and Gap.

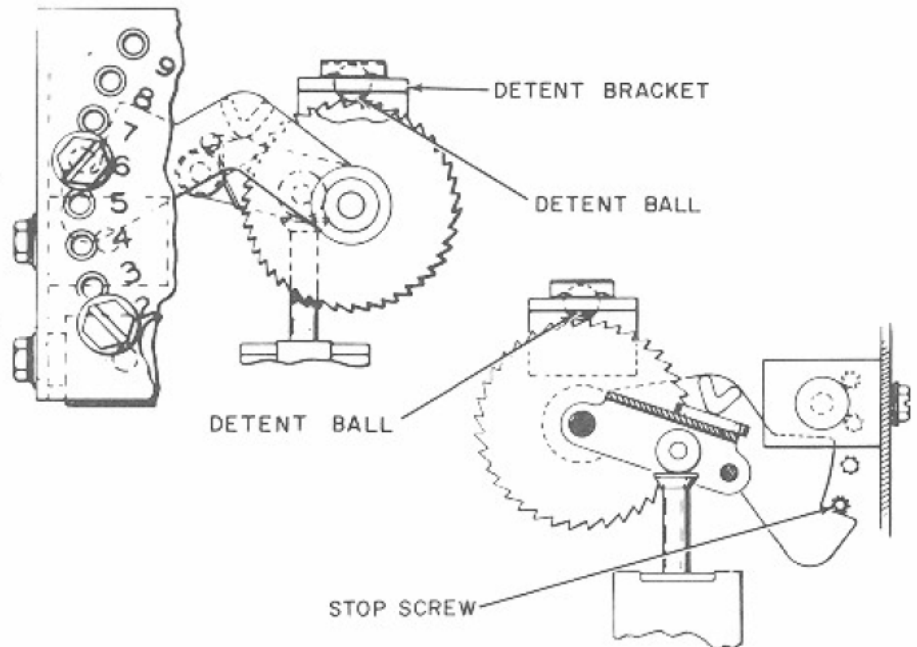
- Check that each moving switch blade pushes against its lever with 4- to 5-grams force to hold lever against cushion.
- Check that each non-moving blade pushes against its stiffener blade with 2- to 4- grams force.
- Adjust contact pressure by bending contact blade near fiber insulator.
- Check that gap between contacts at each switch is 0.020 to 0.035-inch (about 1/32).
- Adjust gap by bending stiffener blade.



## CREDIT UNIT ADJUSTMENTS

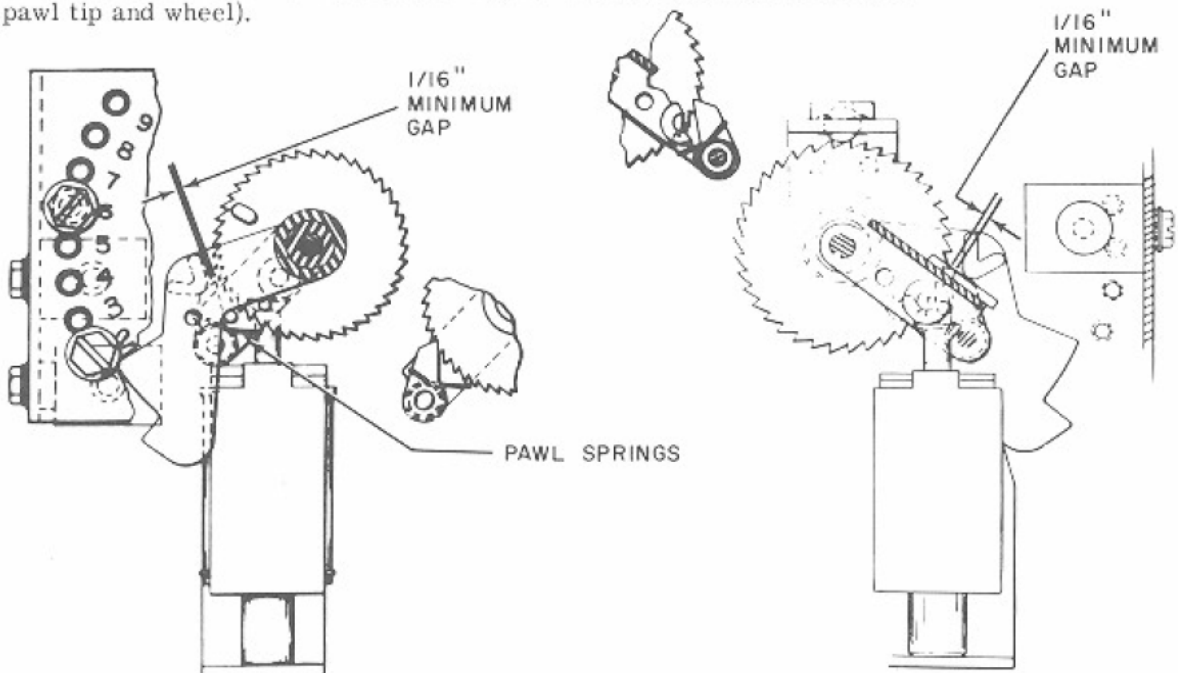
### Adjust Detent Bracket

- Loosen two screws holding detent bracket to credit unit back plate.
- Push credit or cancel coil plunger upward until corresponding stop arm strikes its stop screw or stop coil plunger.
- Adjust detent bracket until detent ball is seated between teeth. Check that there is no under travel.
- Tighten screws to secure bracket.



### Adjust Pawl Springs

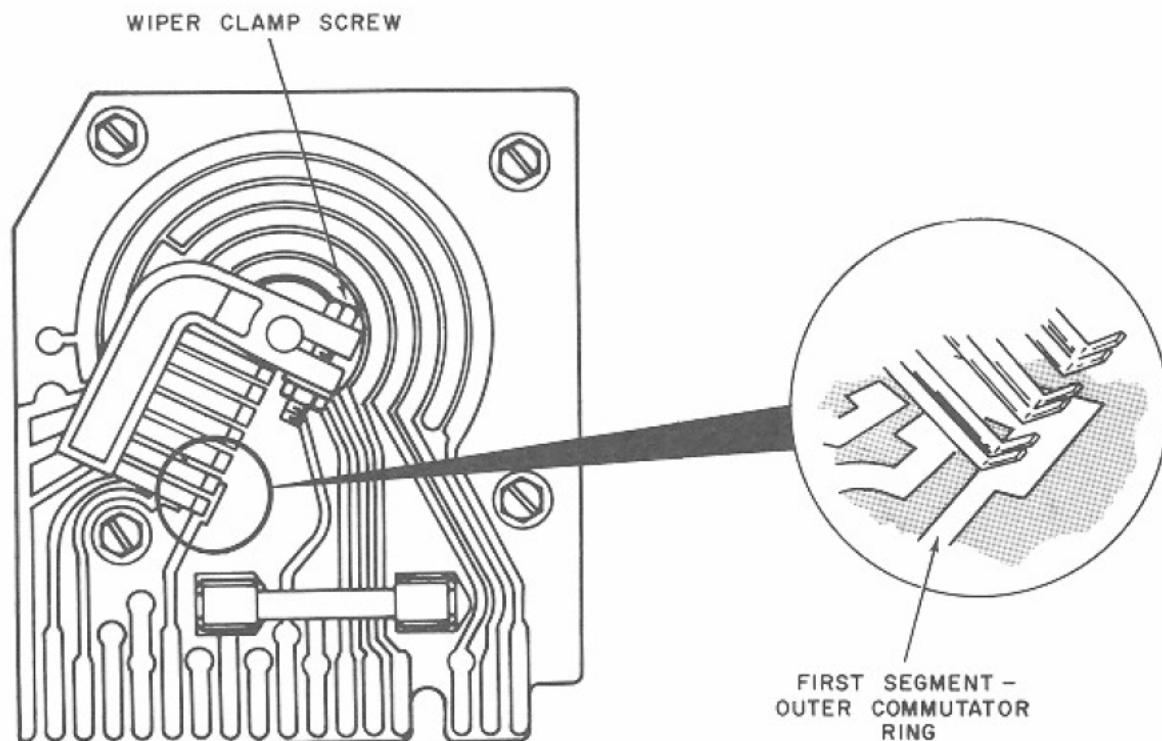
- Check that pawl springs provide about 4 grams force between pawl tips and credit wheel when assembly has lifted far enough to permit engagement of pawl and wheel.
- Check that this force provides positive engagement and yet permits roller and bracket to return to rest position (1/16-inch minimum gap between pawl tip and wheel).



## CREDIT UNIT ADJUSTMENTS (CONTINUED)

### Adjust Wiper Assembly

- a. Loosen wiper clamp screw and remove wiper assembly from shaft.
- b. Sight along profile of blades to make sure that all blade tips lie in the same plane (even with each other).
- c. Bend blades as required.
- d. Slide wiper assembly onto shaft with clamping screw just tight enough to hold it in position.
- e. Push wiper assembly down shaft until wipers just touch commutator board.
- f. Continue to slide wiper assembly about 1/16-inch more, until wiper is flush with end of shaft. Do not tighten screw.
- g. While holding credit unit in normal operating position, rotate credit wheel counterclockwise as far as it will go. This is home position.
- h. Rotate wiper assembly on shaft until blade heels line up with first segment leading edge as shown.
- i. Check wiper force again as in step f.
- j. Tighten wiper clamp screw to hold wiper assembly in this position.
- k. Check wipers for tracking on their respective commutator rings.



## REPAIR AND REPLACEMENT

Most of the repair and replacement procedures for the phonograph are of an obvious nature and may be performed without the use of special tools and techniques. Before attempting to perform any repair or replacement of parts, check for obvious faults as described on page 4-1.

When replacing a part, use only the correct ROWE part. Refer to the Parts Catalog section manual for correct ROWE part number and description. Order all parts from your authorized ROWE Distributor.

## TESTING TRANSISTORS

Test transistors using a volt-ohm-milliammeter as follows:

- Set the meter function switch to OHMS and the range switch to a medium scale (such as X10 on Simpson 260).
- Connect ohmmeter to transistor leads to check NPN silicon transistors as follows:

**NOTE**

Some meters use the black or negative lead as the positive lead for ohms scale, Triplet being one of these.

- |                |                |                                |
|----------------|----------------|--------------------------------|
| + to emitter   | - to collector | - no reading                   |
| + to collector | - to emitter   | - no reading                   |
| + to base      | - to collector | - low reading (about 500 ohms) |
| + to collector | - to base      | - no reading                   |
| + to emitter   | - to base      | - no reading                   |
| + to base      | - to emitter   | - low reading (about 500 ohms) |

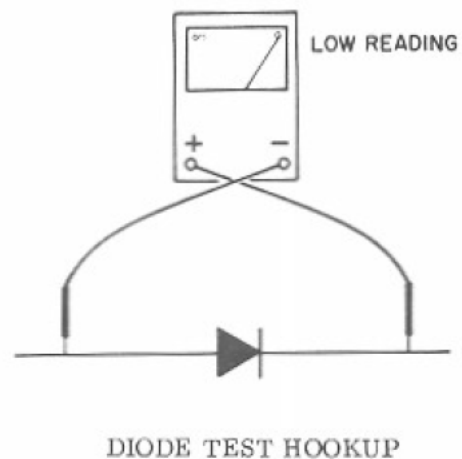
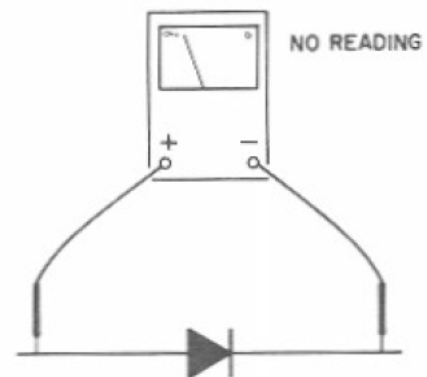


TRANSISTOR LEAD LOCATION

- With positive meter lead on collector and negative lead on emitter, touch base to collector. Check that the meter shows a low reading to indicate that the transistor is conducting.
- All previous tests indicate a good transistor. Any deviation from these conditions indicates a defective transistor.
- For PNP transistors, reverse the polarities and proceed as in the previous steps.

Test silicon diodes as follows:

- Set the meter function switch to OHMS and the range switch to a medium scale.
- Connect the diode as shown.



DIODE TEST HOOKUP



**TI-2**  
**phonograph**

**PARTS CATALOG**

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STANDARD HARDWARE LIST

6-61/6-62



## SECTION 6 - PARTS CATALOG

### INTRODUCTION

This parts catalog lists procurable replacement parts for the TI-2 phonograph including both 50 and 100-watt models.

The purpose of this parts catalog is to locate and identify replacable components and to supply ordering information.

### DESCRIPTION

The parts catalog is divided into 29 major assemblies called "FIGURES" corresponding to the illustrations used. In some instances major assemblies require more than one illustration to identify the procurable parts. In this case sheet numbers are assigned to the figure, i.e. Figure 1, Sheet 1, Figure 1, Sheet 2.

Parts of riveted or welded units are not listed since repair of these parts is normally impractical in the field, however these parts are available as assemblies.

Standard hardware is indicated on each illustration by code letters which are defined in the Standard Hardware List at the rear of the catalog.

To be sure that this parts catalog contained the latest information, last minute revisions were made. In these instances the additions were added in sequence with a letter added to the identification numbers both in the parts list and corresponding illustration i.e. 1A, 1B, 1C.

The Parts List contains five columns:

Fig. and Index No. - The first entry in this column lists the figure number of the corresponding illustration. An index number when listed corresponds to the index number appearing on the illustration. Index numbers are not used when:

- Items are listed for reference purposes only.
- The assembly listed has all piece parts indexed

below.

- The item listed is an alternate part.
- Two or more assemblies are listed together in one illustration and the same parts are used but in different quantities.

ROWE Part No. - This column lists the part number of the item which should be specified for ordering purposes.

Description - This column contains a brief word description of the assembly or part. Each item is indented to show its proper relationship to the unit of which it is a part or to its next higher assembly.

Qty Per Assy - This column contains the quantity of the part used in the assembly.

### ORDERING REPLACEMENT PARTS

All replacement parts must be ordered directly from an authorized ROWE Distributor.

Once the replacement item is determined, complete a standard parts order form available from your ROWE distributor at no charge. Very often parts orders are delayed, because of inadequate or incomplete information. To insure prompt parts delivery always specify the following information:

- Part Number and Description. State color if applicable.
- Quantity required.
- Model and Serial Number of machine for which the repair part is needed.
- Complete shipping address including ZIP code.
- Shipping Instructions must be specified. If the shipping method selected is Parcel Post, Air Parcel Post, United Parcel Service or Air UPS, Indicate an alternate shipping method if there is a possibility the packages may exceed the size and weight limits established by these services. If you would like ROWE to select the best way to ship your parts order, specify "Best Way". If fastest delivery is the requirement, specify "Fastest Way". ROWE will select the carrier for those orders which justify shipment by truck.

**FIGURE**  
**1**

# Phonograph Final Assembly Sheet 1

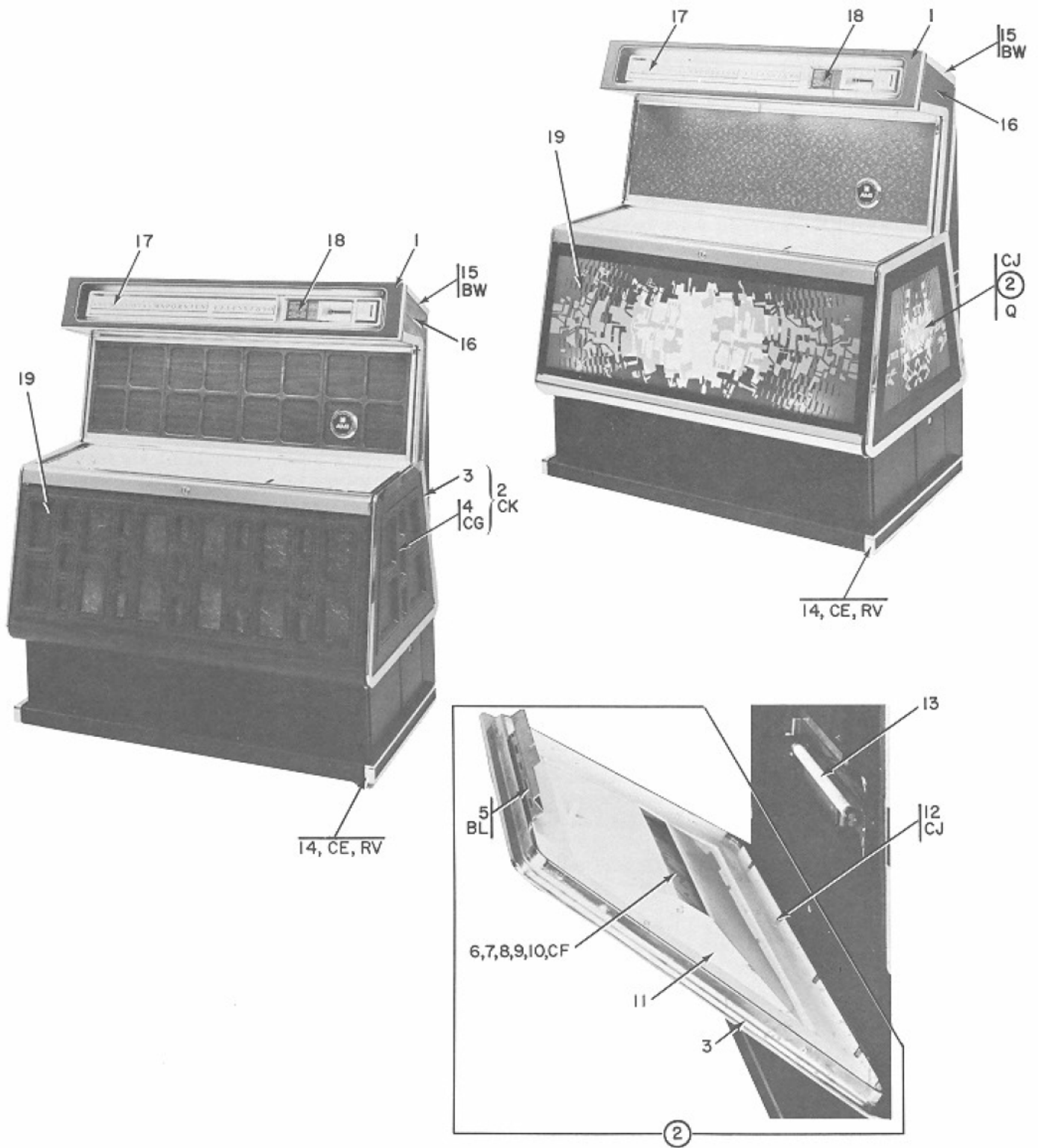


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
1-	601-07001	Phonograph Final Assembly, TI-2, Blue Model, 50W Amplifier	
1-	602-07001	Phonograph Final Assembly, TI-2, Black Model, 50W Amplifier	
1-	603-07001	Phonograph Final Assembly, TI-2, Wood Model, 50W Amplifier	
1-	613-07001	Phonograph Final Assembly, TI-2, Blue Model, 100W Amplifier	
1-	614-07001	Phonograph Final Assembly, TI-2, Black Model, 100W Amplifier	
1-	615-07001	Phonograph Final Assembly, TI-2, Wood Model, 100W Amplifier	
	201-17305	. Accessories Bag Assembly, 50W Amplifier	1
	202-17305	. Accessories Bag Assembly, 100W Amplifier	1
	703-00721	. . Fuse, Cartridge, Type MDL, 0.6 Amp, (Used on credit unit)	1
	200-11445	. . Fuse, Cartridge, Type GMQ, 3.2 Amps (100W x Amplifier)	1
	703-00926	. . Contact, Socket	1
	704-00926	. . Contact, Pin	1
	716-00913	. . Terminal, Slip-on	10
	710-00926	. . Contact, Pin	1
	711-00926	. . Contact, Socket	1
1	601-07060	. Selector Panel Assembly, Blue Model (See Figure 3)	1
1	602-07060	. Selector Panel Assembly, Black Model (See Figure 3)	1
1	603-07060	. Selector Panel Assembly, Wood Model (See Figure 3)	1
1	604-07060	. Selector Panel Assembly, Blue Model with Bill Acceptor (See Figure 3)	1
1	605-07060	. Selector Panel Assembly, Black Model with Bill Acceptor (See Figure 3)	1
1	606-07060	. Selector Panel Assembly Wood Model with Bill Acceptor (See Figure 3)	1
2	601-07061	. Side Panel Assembly, Blue Model	2
2	602-07061	. Side Panel Assembly, Black Model	2
2	603-07061	. Side Panel Assembly, Black Model	2
3	601-07062	. . Trim, Side Panel	1
4	601-07063	. . Insert, Decorative (Wood Model Only)	1
5	301-07304	. . Hinge Top (Lighted Models Only)	1
6	401-06706	. . Window Side (Lighted Models Only)	1
7	724-02123	. . Strip, Cork (Lighted Models Only)	1
8	725-02123	. . Strip, Cork (Lighted Models Only)	2
9	726-02123	. . Strip, Cork (Lighted Models Only)	1
10	401-06707	. . Scene, Side (Blue Model Only)	1
10	402-06707	. . Scene, Side (Black Model Only)	1
11	601-07054	. . Reflector, Side (Lighted Models Only)	1
12	301-07300	. Hinge, Side Panel (Lighted Models Only)	2
13	703-00601	. Lamp, Fluorescent, Type T-5, 6W, 9"	2
14	601-06558	. Trim, Lower Side	2
15	601-06572	. Support, Upper Side (R. H.)	1
15	601-06571	. Support, Upper Side (L. H.)	1
16	401-06498	. Inlay, Upper R. H. (Lighted Models Only)	1
16	401-06497	. Inlay, Upper L. H. (Lighted Models Only)	1
16	401-06702	. Inlay, Upper R. H. (Wood Model Only)	1
16	401-06701	. Inlay, Upper L. H. (Wood Model Only)	1
17	602-06596	. Selector Assembly (See Figure 4)	1
18	201-15720	. Price and Credit Card	1
18	201-15721	. Price and Credit Card	1
18	201-15722	. Price and Credit Card	1
18	201-15723	. Price and Credit Card	1
19	601-07059	. Front Door Assembly, Blue Model (See Figure 2)	1
19	602-07059	. Front Door Assembly, Black Model (See Figure 2)	1
19	603-07059	. Front Door Assembly, Wood Model (See Figure 2)	1

**FIGURE 1**

# Phonograph Final Assembly Sheet 2

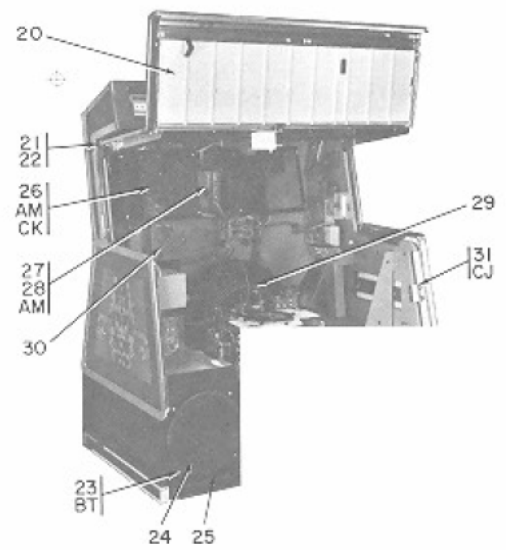
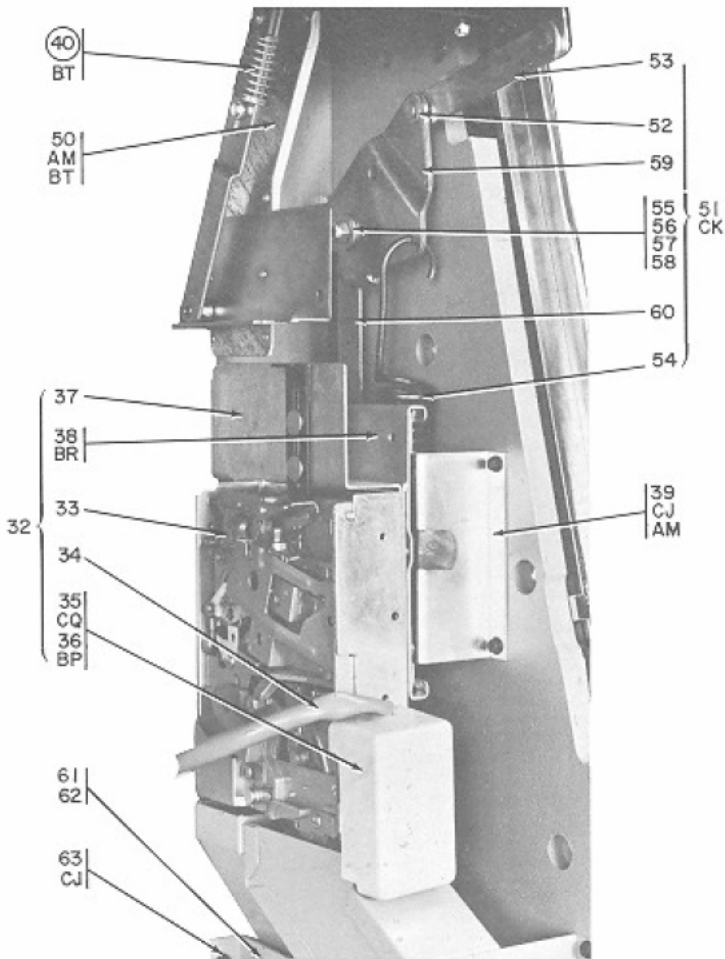
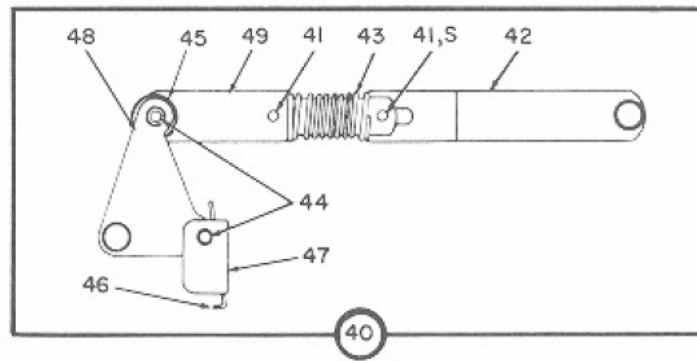


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
1-		Phonograph Final Assembly, TI-2 (continued)	
20	601-07058	. Top Door Assembly, Blue (Blue Model Only), (See Figure 5)	1
20	602-07058	. Top Door Assembly, Bronze (Black Model Only), (See Figure 5)	1
20	603-07058	. Top Door Assembly, Wood (Wood Model Only), (See Figure 5)	1
21	703-01430	. Ring, Retaining	2
22	201-15727	. Pin, Hinge	2
23	201-08795	. Bracket, Retainer (2 on rear of cabinet)	10
24	401-06480	. Speaker, Low Frequency	2
25	201-15804	. Pad, Acoustical, 12-3/4" x 12-3/4"	1
25	201-15803	. Pad, Acoustical, 12-3/4" x 22"	1
26	401-06487	. Speaker Assembly, L. H. (See Figure 19)	1
26	401-06488	. Speaker Assembly, R. H. (See Figure 19)	1
27	401-06703	. Junction Box Assembly (See Figure 26)	1
28	200-09256	. Bracket, Junction Box Mounting	1
29	601-03060	. Record Changer Mechanism Assembly (See Figure 6)	1
30	201-09257	. Tone Arm Cable and Plug Assembly	1
	200-03860	. . Plug, Miniature	1
	200-03861	. . Head	1
	200-13086	. . Plug, Phono	2
	200-13085	. . Sleeve, Grounding	2
31	201-12301	. Catch, Front Door	2
32	402-06500	. Rejector and Coin Switch Assembly	1
33	400-05476	. . Rejector, Slug (50¢)	1
33	400-05470	. . Rejector, Slug	ALT
34	305-06568	. . Harness Assembly, Slug Rejector	1
	205-12445	. . . Housing, Pin (15 Circuit)	1
35	301-07053	. . Cover, Coin Switch	1
36	303-05745	. . Coin Switch Assembly (4 coin)	1
	200-14114	. . Spacer (Used on 400-05476 Rejector Only)	1
37	401-05793	. . Mounting Bracket Assembly, Slug Rejector	1
38	301-07033	. . Rejector Plate and Pin Assembly	1
39	301-07028	. Rejector Mount Assembly	1
40	301-07024	. Scavenge Assembly	1
41	202-09225	. . Spacer	2
42	201-15747	. . Shaft and Knob Assembly	1
43	200-14408	. . Spring, Compression	1
44	704-01430	. . Ring, Retaining	2
45	202-11100	. . Washer, Thrust	1
46	201-15746	. . Spring	1
47	201-15739	. . Bracket, Actuator Mounting	1
48	201-15745	. . Actuator and Pivot Assembly	1
49	201-15757	. . Link, Scavenger	1
50	401-06499	. Upper Coin Chute Assembly	1
51	301-07009	. Spring Assembly, R. H.	1
51	301-07008	. Spring Assembly, L. H.	1
52	710-01430	. . Ring, Retaining	1
53	201-15691	. . Link and Pin Assembly	1
54	301-06994	. . Spring	1
55	204-13578	. . Nut, Elastic Stop	1
56	200-13900	. . Pin, Lever	1
57	719-01208	. . Washer, Flat	1
58	708-01214	. . Washer, Flat	1
59	201-15672	. . Lever, Spring, L. H.	1
59	201-15673	. . Lever, Spring, R. H.	1
60	301-06988	. . Support, Spring, L. H.	1
60	301-06989	. . Support, Spring, R. H.	1
61	202-13578	. Nut, Stop	1
62	702-01200	. Washer, Plain	1
63	202-15763	. Bracket, Slug Cup Mounting	1

**FIGURE 1**

# Phonograph Final Assembly Sheet 3

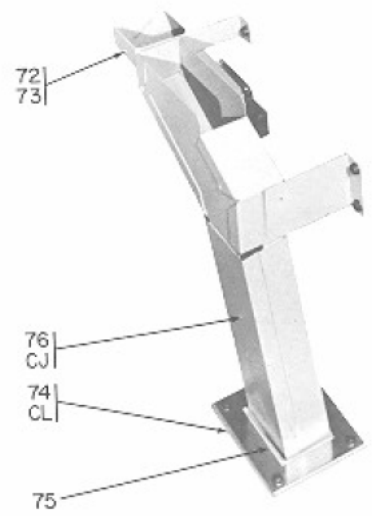
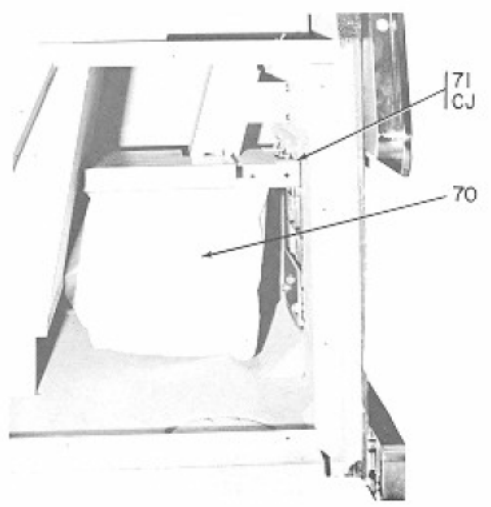
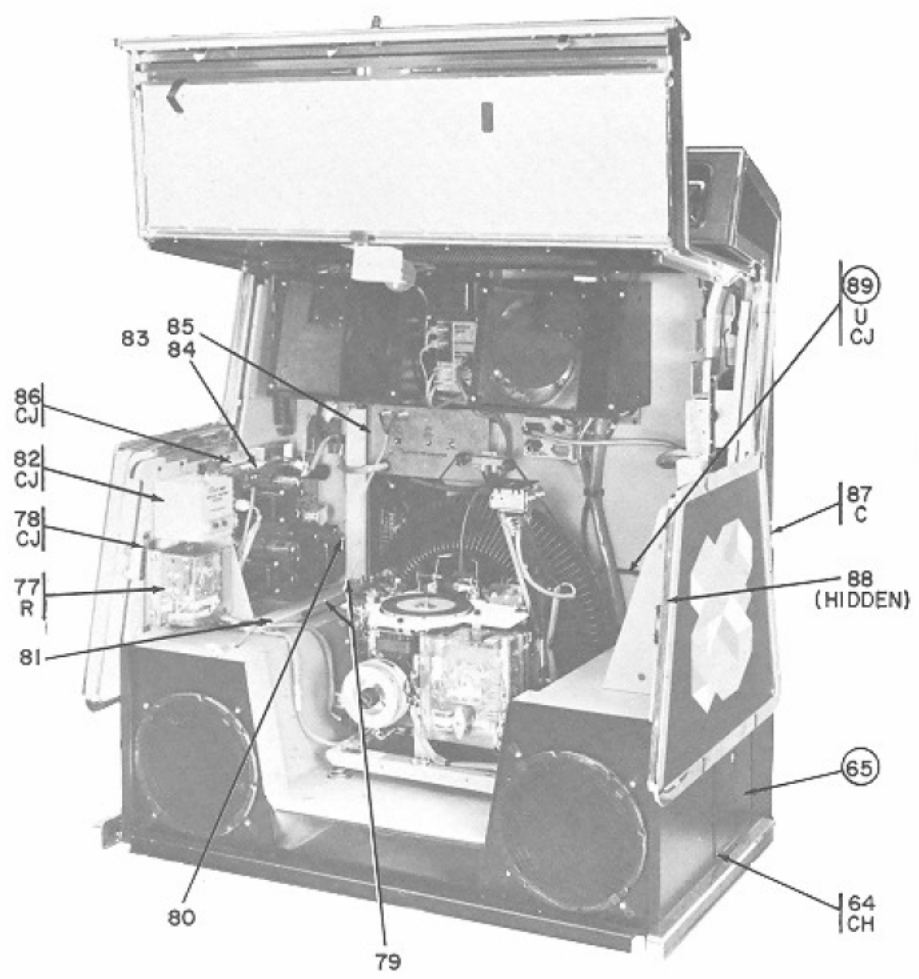
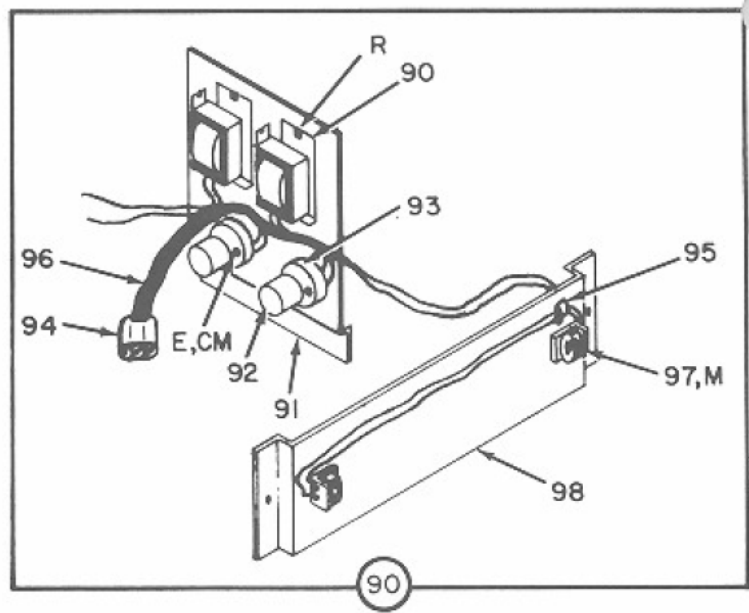
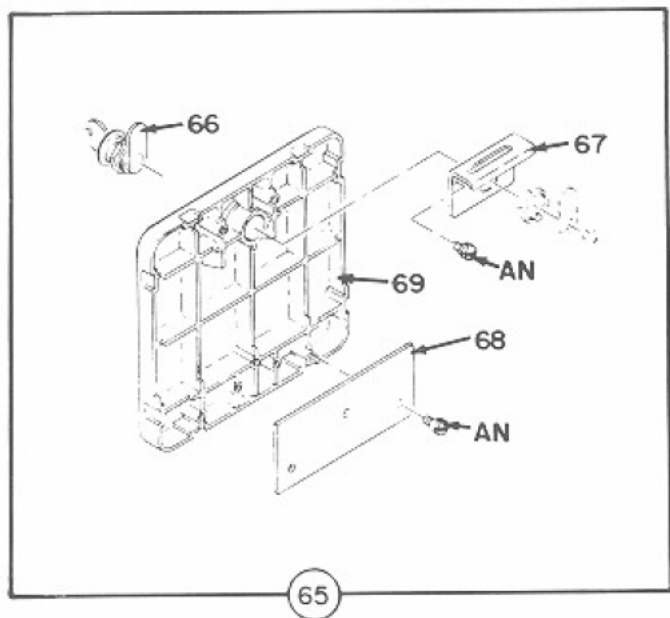


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
1-		Phonograph Final Assembly, TI-2 (Continued)	
64	406-05276	. Frame, Cash Box Door	1
65	205-11866	. Cash Box Door Assembly	1
66	716-01600	. . Lock, Cylinder (Individual Keying)	1
67	200-06695	. . Support, Lock	1
68	200-07703	. . Bracket, Catch	1
69	605-03267	. . Door, Cash Box	1
70	401-07026	. Bag, Cash	1
71	401-06495	. Support, Cash Bag	1
72	200-07545	. Clip	1
73	301-07021	. Slug Chute Assembly	1
74	200-14847	. Collar, Coin Chute	1
75	200-14855	. Gasket, Coin Chute	1
76	401-06496	. Lower Coin Chute Assembly	1
77	603-03300	. Credit Unit Assembly (See Figure 27)	1
78	301-07306	. Bracket, Credit Unit Mounting	2
79	201-17326	. Cover, Harness	2
80	301-07319	. Channel, Harness	1
81	301-07320	. Channel, Harness	1
82	602-06595	. Harness and Console Assembly (See Figure 29)	1
	604-06595	. Harness and Console Assembly, Dual Volume Control (See Figure 29)	ALT
83	602-04358	. Stereo Amplifier Assembly, 50W	1
84	601-04359	. . Power Amplifier Assembly, 50W (See Figure 18)	1
85	602-04372	. . Pre-Amplifier Assembly, 50W	1
	301-06500	. . . Connector and Cable Assembly	1
	705-00931	. . . Clamp, Cable	1
	200-03068	. . . Receptacle, Phono Plug	2
	200-09295	. . . Bracket, Retaining	2
	200-10898	. . . Nut, Push-on	4
	602-03758	. . . Pre-Amplifier Assembly (See Figure 25)	1
	402-06016	. . . Chassis Assembly	1
85	602-04195	. Stereo Amplifier and Transformer Assembly, 100W	ALT
	601-03774	. . Output Transformer Assembly, 100W (See Figure 24)	1
	602-03760	. . Stereo Amplifier Assembly, 100W (See Figure 21)	1
86	401-06715	. Amplifier Mounting Bracket Assembly	1
87	201-06463	. Slug Cup and Door Assembly	1
88	201-17300	. Hook, Fall Stop (Not Visible)	1
89	401-06700	. Side Light Harness Assembly	1
90	201-17308	. . Ballast	2
91	301-07302	. . Bracket, Ballast Mounting	1
92	702-00800	. . Starter, Fluorescent	2
93	200-00295	. . Socket, Starter	2
94	202-17323	. . Housing, Pin (3 Circuit)	1
95	703-00931	. . Clamp, Cable	2
96	701-00513	. . Cord, Electric, 3 Conductor	1
97	200-50608	. . Holder, Lamp	4
98	301-07303	. . Bracket, Light	1

**FIGURE 1**

# Phonograph Final Assembly Sheet 4

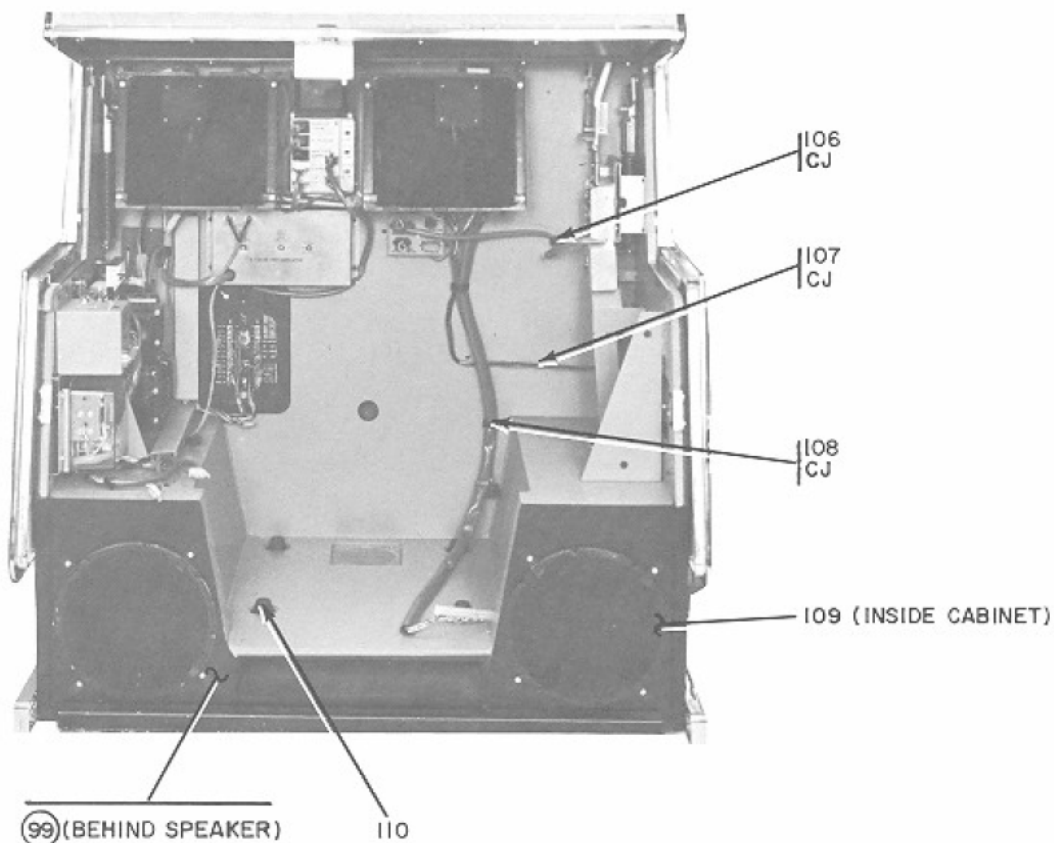
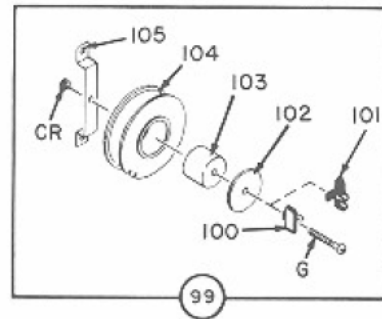
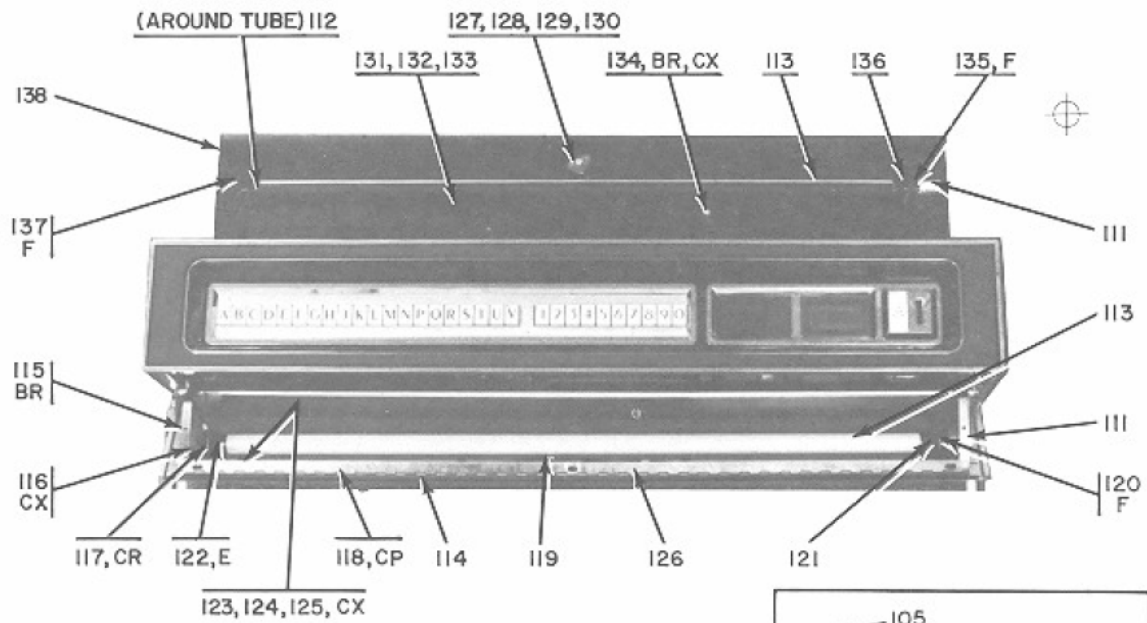




Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
1-		Phonograph Final Assembly, TI-2 (Continued)	
99	301-07060	. Speaker Inductor Assembly	1
100	200-13244	. . Strip, Terminal	1
101	200-12105	. . Strip, Terminal	1
102	704-01200	. . Washer, Flat	1
103	710-01211	. . Spacer	1
104	201-15800	. . Inductor	1
105	200-09297	. . Bracket, Inductor Mounting	1
106	705-00931	. Clamp, Cable, 3/8"	2
107	702-00931	. Clamp, Cable, 3/16"	2
108	702-00934	. Clamp, Cable, 13/16"	4
109	602-04450	. Burglar Alarm Assembly (See Figure 17)	OPT
110	200-11537	. Support, Lower Spring	4
111	704-00800	. Starter, Fluorescent, FS-4	2
112	203-14564	. Shield, Light	1
113	712-00601	. Lamp, Fluorescent, Type T-8, 36", 30W	2
	601-07068	. Lamp Access Door Assembly	1
114	722-02202	. . Tape, Foam	1
115	201-15791	. . Latch	2
116	201-15726	. . Cable, Fall Stop	1
117	201-15676	. . Bracket, Lamp	2
118	301-06992	. . Hinge, Latch (Lower)	1
119	200-07545	. . Clip	4
	301-07308	. . Lamp Harness Assembly	1
120	200-00295	. . . Socket, Fluorescent Starter	1
121	203-15808	. . . Socket, Fluorescent Lamp (R. H.)	1
122	204-15808	. . . Socket, Fluorescent Lamp (L. H.)	1
	202-17323	. . . Housing, Pin (3 Circuit), (Not Shown)	1
123	301-06995	. . Retainer	1
124	301-07020	. . Diffuser, White	1
125	301-07019	. . Window, Lamp Access Door	1
126	601-06593	. . Access Door Welded Assembly	1
	601-07067	. Selector Door Assembly	1
127	719-01630	. . Lock, Cylinder, Common Keying	1
128	201-15718	. . Link, Latch Bar	1
129	201-14228	. . Lock Bolt Assembly	1
130	703-01430	. . Ring, Retaining	1
131	201-15790	. . Nut, Wing	4
132	200-08144	. . Bolt, Truss Head, Knurled	4
133	401-06494	. . Holder, License	1
134	202-15726	. . Cable, Fall Stop	1
	401-06708	. Selector Lamp Harness Assembly	1
135	200-00295	. . . Socket, Fluorescent Starter	1
136	202-15808	. . . Socket, Fluorescent Lamp (R. H.)	1
137	201-15808	. . . Socket, Fluorescent Lamp (L. H.)	1
	201-15693	. . . Ballast (Not Shown)	2
	202-17323	. . . Housing, Pin (3 Circuit), (Not Shown)	1
	202-17322	. . . Housing, Socket (3 Circuit), (Not Shown)	1
	722-02202	. . Tape, Foam, 39 1/2" Lg.	1
	723-02202	. . Tape, Foam, 7 1/2" Lg.	2
	725-02119	. . Strip, Sponge Rubber, 39 1/2" Lg.	1
	200-07545	. . Clip, Wire	4
138	601-06591	. . Selector Door Welded Assembly	1

FIGURE  
1

# Phonograph Final Assembly Sheet 5

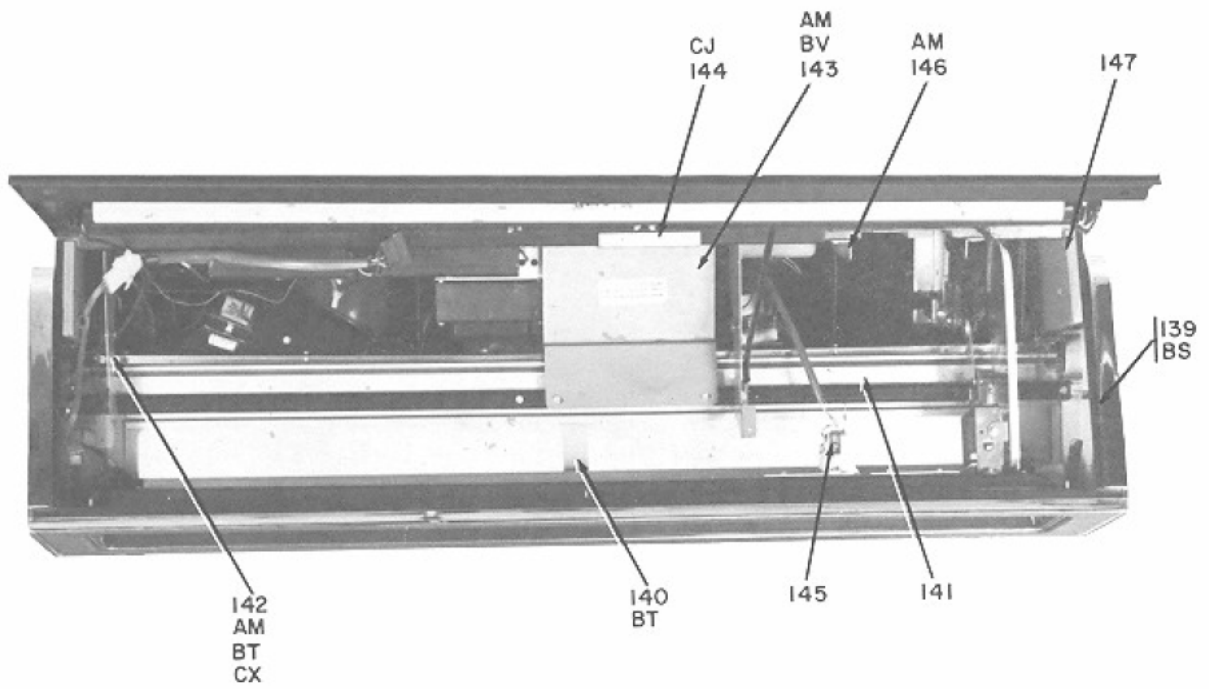


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
1-		Phonograph Final Assembly, TI-2 (Continued)	
139	201-15664	. Retainer	2
140	201-15787	. Restrainer	1
141	301-07023	. Channel, Support	1
142	401-06484	. Bracket Assembly, Selector Mounting (L. H.)	1
142	401-06485	. Bracket Assembly, Selector Mounting (R. H.)	1
143	301-07046	. Gusset, Upper	1
144	201-15768	. Clamp, Hinge	1
145	200-50562	. Lamp, Pilot (Credit Lights)	2
146	201-15772	. Bracket, Bill Acceptor Mounting	2
147	601-07050	. Shell Assembly (See Figure 23)	1

**FIGURE**  
**2**

# Front Door Assembly

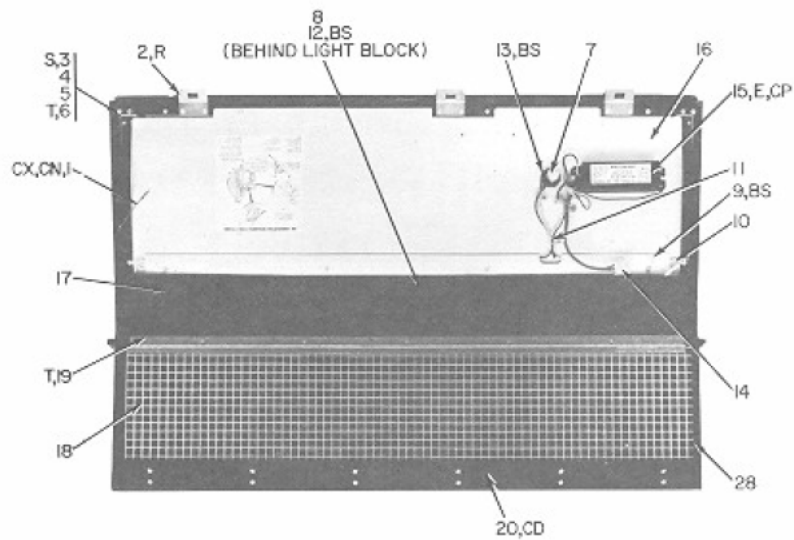
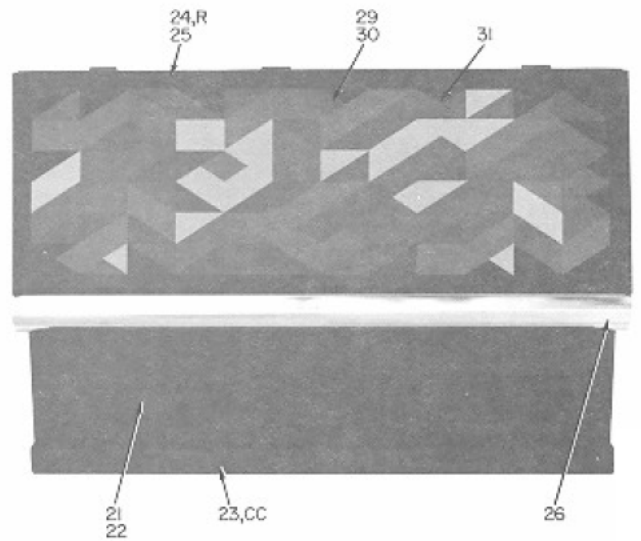
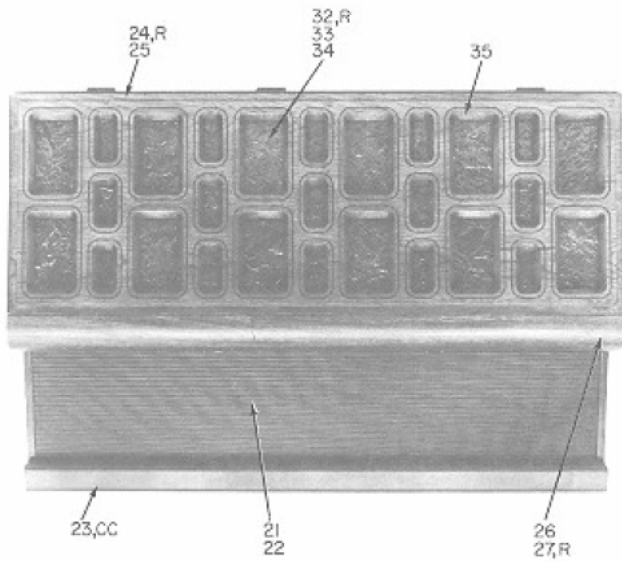


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
2-	601-07059	Front Door Assembly, Blue Model (Figure 1, Item 19)	REF
2-	602-07059	Front Door Assembly, Black Model (Figure 1, Item 19)	REF
2-	603-07059	Front Door Assembly, Wood Model (Figure 1, Item 19)	REF
1	201-15726	. Cable, Fall Stop	1
2	201-15702	. Plate, Strike	3
3	301-07014	. Latch Assembly	2
4	202-09225	. Spacer	4
5	202-11100	. Washer, Thrust	4
6	200-14941	. Spring, Tension	2
7	704-00800	. Starter, Fluorescent, FS-4	1
8	712-00601	. Lamp, Fluorescent, Type T-8, 36", 30 W	1
	403-06716	. Reflector Panel Assembly (Blue, Black Models Only)	1
	401-06716	. Reflector Panel Assembly (Wood Model Only)	1
9	301-07055	. . Stiffener, Reflector Panel	1
10	703-00931	. . Clamp, Cable	4
11	704-00931	. . Clamp, Cable	2
	701-02203	. . Tape, Foam, 35-1/2" long	1
	401-06717	. . Harness Assembly, Front Door	1
12	701-00701	. . . Lampholder, Fluorescent Lamp (R.H.)	1
12	702-00701	. . . Lampholder, Fluorescent Lamp (L.H.)	1
13	200-00295	. . . Socket, Starter	1
14	202-17323	. . . Housing, Pin (3 Circuit)	1
15	201-15693	. . . Ballast, 30 Watt	1
16	601-06662	. . Panel, Reflector (Blue, Black Models Only)	1
16	601-06589	. . Panel, Reflector (Wood Model Only)	1
17	301-07051	. Block, Light	1
	201-15815	. Pad, Foam	1
18	601-06588	. Support, Grille	1
19	201-15701	. Retainer, Grille Support	1
20	601-06575	. Support, Door, Bottom	1
21	301-07013	. Pad, Grille	1
22	401-06490	. Grille, Bottom	1
23	601-06574	. Trim, Bottom Front	1
24	601-06577	. Top, Front Door	1
25	724-02202	. Tape, Foam	1
26	602-07075	. Rail, Bottom, Front Door (Wood Model Only)	1
26	601-07075	. Rail, Bottom, Front Door (Blue, Black Models Only)	1
	201-15793	. Diffuser (Riveted to Bottom Rail, Item 26)	1
27	601-07071	. Overlay, Front Door (Wood Model Only)	1
28	601-06565	. Support, Side (L. H.)	1
28	601-06566	. Support, Side (R. H.)	1
29	301-07012	. Window, Front Door, 14-3/32" x 40-13/32" x .178- .198" Fully Tempered Clear Sheet Glass (Blue, Black Models Only)	1
30	701-00620	. Channel, Window	2
31	601-07069	. Decorative Insert - Blue (Blue Model Only)	1
31	601-07070	. Decorative Insert - Black (Black Model Only)	1
32	401-06711	. Retainer, Window (Wood Model Only)	2
33	201-17312	. Screw, Self Tapping, Hex Hd. with Extended Washer, #8 x 3/4 (Wood Model Only)	18
34	401-06710	. Window, Decorative (Wood Model Only)	1
35	601-07065	. Insert, Wood (Wood Model Only)	1

**FIGURE**  
**3**

# Selector Panel Assembly

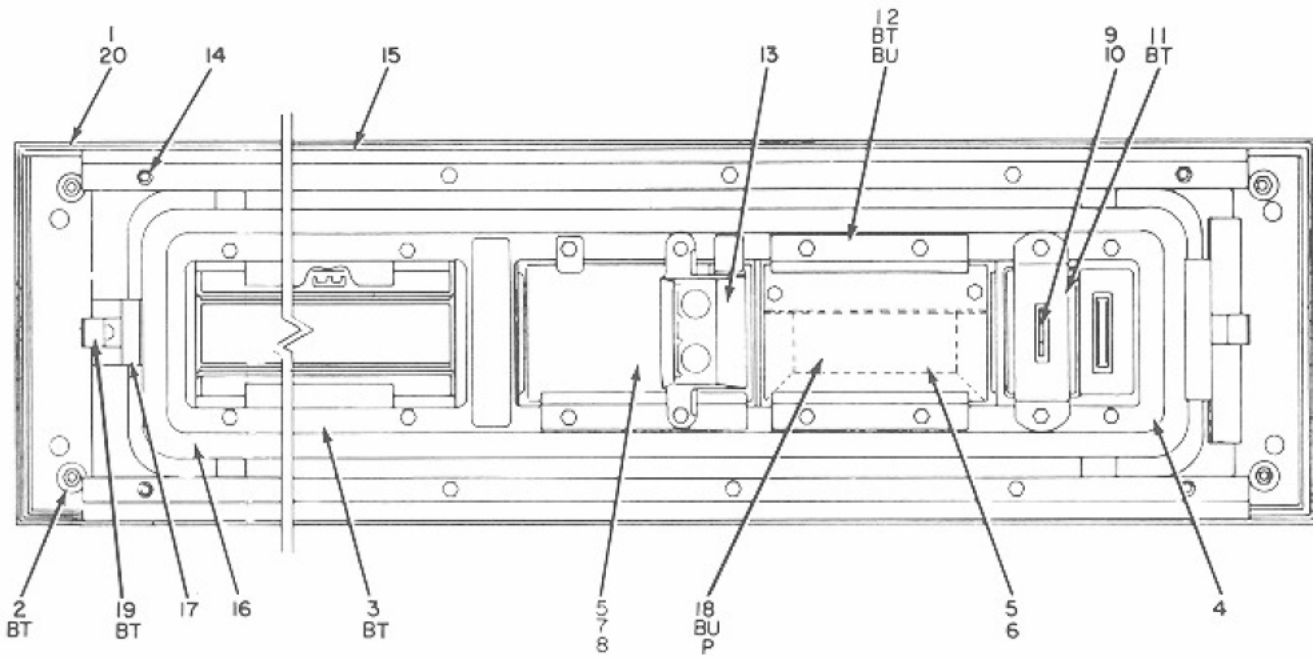


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
3-	601-07060	Selector Panel Assembly, Blue Model (Figure 1, Item 1)	REF
3-	602-07060	Selector Panel Assembly, Black Model (Figure 1, Item 1)	REF
3-	603-07060	Selector Panel Assembly, Wood Model (Figure 1, Item 1)	REF
3-	604-07060	Selector Panel Assembly, Blue Model with Bill Acceptor (Figure 1, Item 1)	REF
3-	605-07060	Selector Panel Assembly, Black Model with Bill Acceptor (Figure 1, Item 1)	REF
3-	606-07060	Selector Panel Assembly, Wood Model with Bill Acceptor (Figure 1, Item 1)	REF
1	601-07055	. Decorative Insert, Blue Model	1
1	602-07055	. Decorative Insert, Black Model	1
1	603-07055	. Decorative Insert, Wood Model	1
2	708-01355	. Nut, #3/16	12
3	601-06557	. Trim, Pushbutton	1
4	601-06567	. Trim, Coin Inlet and Window	1
5	201-015710	. Window (Models without Bill Acceptor)	2
5	201-015710	. Window (Models with Bill Acceptor)	1
5	301-06999	. Window - Legend (Models with Bill Acceptor Only)	1
6	201-66650	. Panel, Decorative (Stereo) (Blue, Black Model w/o Bill Acceptor)	1
6	301-07312	. Panel, Decorative (Stereo) (Wood Model w/o Bill Acceptor)	1
7	201-15719	. Card, Price (Models without Bill Acceptor)	1
7	201-15711	. Card, Price (Models with Bill Acceptor)	1
8	201-15712	. Background Price Card, Magenta (Blue Model Only)	1
8	202-15712	. Background, Price Card, Orange (Black Model Only)	1
8	203-15712	. Background, Price Card, Red (Wood Model Only)	1
	201-15715	. Button and Shaft Assembly	1
9	301-06996	. Button, Coin Return	1
10	201-15717	. Shaft, Coin Return Button	1
11	301-07015	. Bracket, Guide	1
12	201-15714	. Retainer (Models without Bill Acceptor)	3
12	201-15714	. Retainer (Models with Bill Acceptor)	1
13	400-06132	. Shield	1
14	201-15770	. Stud	6
15	301-06998	. Stop, Lamp Access Door	2
16	603-06570	. Panel, Intermediate Trim, Blue (Blue Model Only)	1
16	604-06570	. Panel, Intermediate Trim, Yellow (Black Model Only)	1
16	605-06570	. Panel, Intermediate Trim, Red (Wood Model Only)	1
17	201-15807	. Retainer	2
18	601-06580	. Trim, Bill Acceptor (Models with Bill Acceptors Only)	1
19	201-15716	. Catch, Lower Door	2
20	601-06560	. Panel, Outer Trim	1

**FIGURE**  
**4**

# Selector Assembly

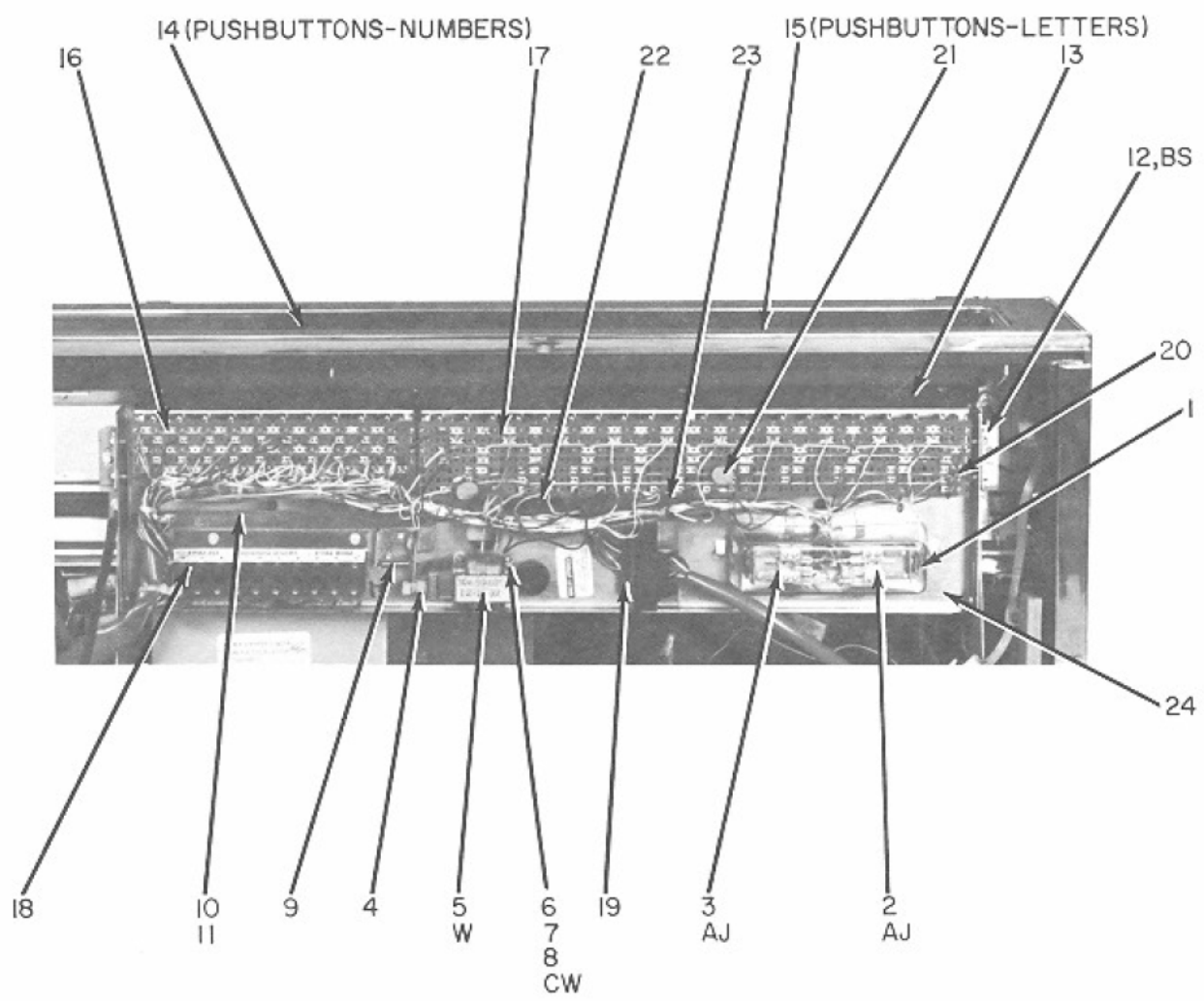




Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
4-	602-06596	Selector Assembly (Figure 1, Item 17)	REF
1	300-05572	. Cover, Relay	1
2	200-14827	. Relay	1
3	200-14508	. Relay	1
	201-17137	. Solenoid and Push Rod Assembly	1
4	200-14754	. . Push Rod	1
5	201-17100	. . Solenoid, AC	1
6	200-14756	. Bushing, Grommet	4
7	200-14828	. Grommet	5
8	210-13578	. Elastic Stop Nut	4
9	201-15760	. Spring, Extension	1
10	705-01430	. Ring, Retaining	2
11	301-07043	. Release Lever Assembly	1
12	201-15752	. Bracket, Selector Alignment	2
13	301-07032	. Shield, Light	1
14	301-06778	. Pushbutton (1)	1
	302-06778	. Pushbutton (2)	1
	303-06778	. Pushbutton (3)	1
	304-06778	. Pushbutton (4)	1
	305-06778	. Pushbutton (5)	1
	306-06778	. Pushbutton (6)	1
	307-06778	. Pushbutton (7)	1
	308-06778	. Pushbutton (8)	1
	310-06778	. Pushbutton (9)	1
	311-06778	. Pushbutton (0)	1
15	301-06777	. Pushbutton (A)	1
	302-06777	. Pushbutton (B)	1
	303-06777	. Pushbutton (C)	1
	304-06777	. Pushbutton (D)	1
	305-06777	. Pushbutton (E)	1
	306-06777	. Pushbutton (F)	1
	307-06777	. Pushbutton (G)	1
	308-06777	. Pushbutton (H)	1
	310-06777	. Pushbutton (J)	1
	311-06777	. Pushbutton (K)	1
	312-06777	. Pushbutton (L)	1
	313-06777	. Pushbutton (M)	1
	314-06777	. Pushbutton (N)	1
	316-06777	. Pushbutton (P)	1
	317-06777	. Pushbutton (Q)	1
	318-06777	. Pushbutton (R)	1
	319-06777	. Pushbutton (S)	1
	320-06777	. Pushbutton (T)	1
	321-06777	. Pushbutton (U)	1
	322-06777	. Pushbutton (V)	1
	602-06652	. Switch and Harness Assembly	1
16	401-06510	. . Pushbutton Switch, Number	1
17	401-06508	. . Pushbutton Switch, Letter	1
18	303-05947	. . Slide Switch Assembly	1
19	205-12444	. . Socket Housing	1
20	706-00104	. . Resistor, Carbon, 1800 ohms, 1/2 W	1
21	703-00222	. . Capacitor, Ceramic, 0.02 MFD, 500 V	2
22	714-00231	. . Capacitor, Electrolytic, 5 MFD, 400 V	1
23	702-00350	. . Rectifier, Silicon	5
	300-05210	. . Edge Connector (To Search Unit)	1
24	402-06509	. Frame and Pivot Assembly	1

# Top Door Assembly

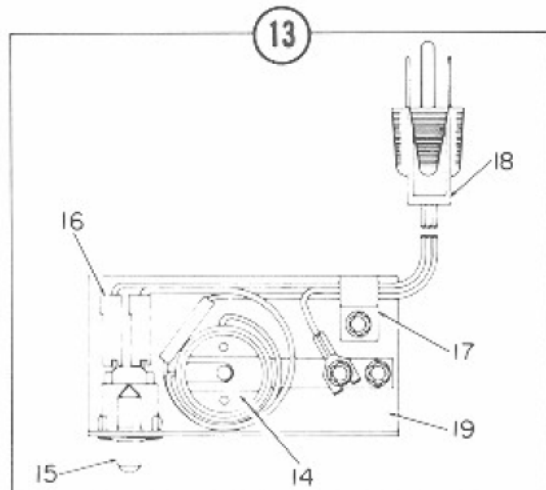
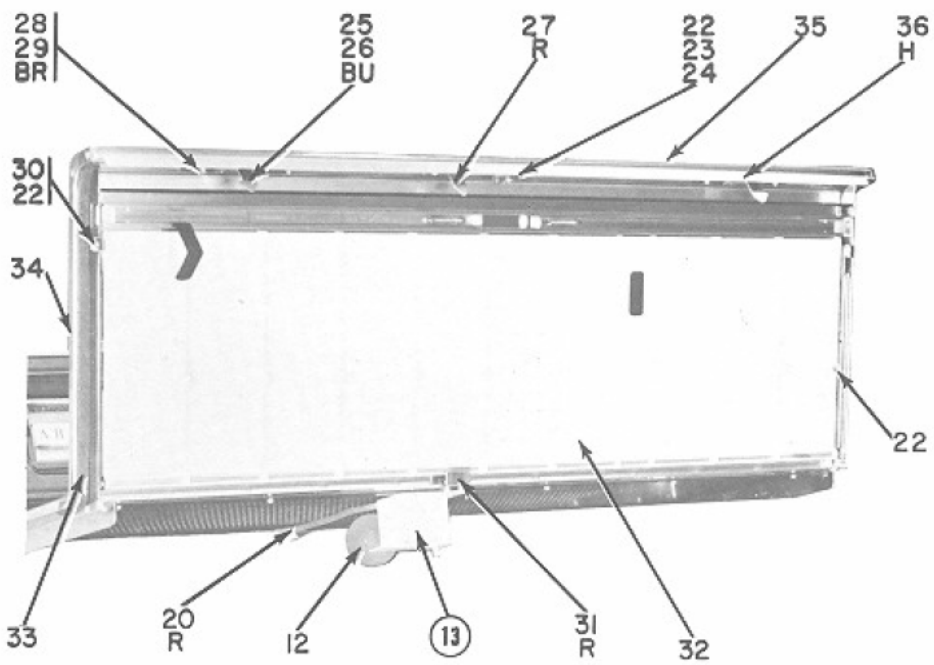
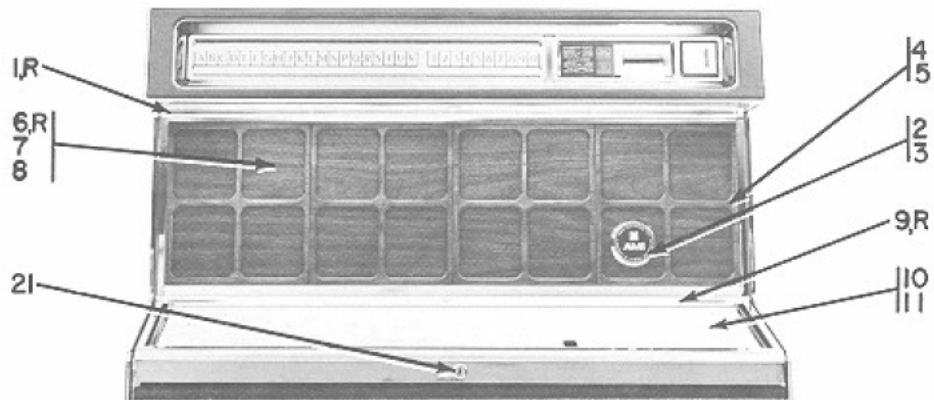


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
5-	601-07058	Top Door Assembly, Blue (Blue Model Only) (Fig. 1, Item 20)	REF
	602-07058	Top Door Assembly, Bronze (Black Model Only) (Fig. 1, Item 20)	REF
	603-07058	Top Door Assembly, Wood (Wood Model Only) (Fig. 1, Item 20)	REF
1	401-06477	. Trim, Top	1
2	201-17125	. Nameplate Assembly	1
3	708-01355	. Palnut, Self-Threading, #3-16	4
4	601-07056	. Trim, Grille (Wood Models Only)	4
5	708-01355	. Palnut, Self-Threading, #3-16 (Wood Model Only)	36
6	601-07074	. Plate, Back	1
7	301-07005	. Backing, Grille	1
8	401-06705	. Grille, Top Door, Blue (Blue Models Only)	1
8	402-06705	. Grille, Top Door, Bronze (Black Models Only)	1
8	403-06705	. Grille, Top Door, Wood (Wood Models Only)	1
9	401-06478	. Trim, Center	1
10	201-15794	. Channel	2
10	202-15794	. Channel	2
11	301-06981	. Window, Top Door	1
12	No Number	. Lamp, Incandescent, 25 W	1
13	301-07314	. Service Light Assembly	1
14	201-17319	. . Lampholder, Medium Base	1
15	201-17317	. . Switch, Pushbutton	1
16	202-14086	. . Insulator	2
17	703-00931	. . Clamp, Cable	1
18	701-00502	. . Cord and Plug	1
19	301-07313	. . Shield, Light	1
20	703-00931	. Clamp, Cable	1
21	719-01630	. Lock, Cylinder, Common Keying	1
22	703-01430	. Ring, Retaining	6
23	201-14228	. Lock Bolt Assembly	1
24	201-14920	. Link, Lock Bar	2
25	201-15686	. Lock Bar Assembly (L. H.)	1
25	201-15687	. Lock Bar Assembly (R. H.)	1
26	202-09225	. Spacer	4
27	201-15781	. Guide	1
28	200-12562	. Spring, Extension	2
29	201-15674	. Retainer, Spring	2
30	201-15690	. Link and Pin Assembly	2
31	201-17307	. Support, Title Panel	1
32	601-07073	. Title Rack Assembly (See Figure 28)	1
33	702-02203	. Tape, Foam, 15-1/2" Lg.	2
34	601-06562	. Support, Door (L. H.)	1
34	601-06563	. Support, Door (R. H.)	1
35	301-07301	. Overlay, Front Trim	1
36	401-06475	. Trim, Front	1



Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
6-	601-03060	Mechanism Assembly (Figure 1, Item 29)	REF
1	303-05465	. Playmeter Wheel Assembly (See Figure 8)	1
2	301-05237	. Turntable Assembly (See Sheet 2)	1
8	725-01208	. Washer, Plain	1
9	300-06649	. Trim, Mechanism	1
10	701-00931	. Clamp, Cable	1
11	306-05124	. Tone Arm Assembly (See Figure 10)	1
12	200-02182	. Brush	1
13	200-11569	. Clip, Brush	1
14	201-10891	. Cutoff Switch Assembly	1
15	200-10726	. . Switch, Reed	1
16	201-10917	. . Terminal Board and Bracket Assembly	1
17	401-05074	. Turntable Motor and Plate Assembly (See Fig. 9)	1
18	702-00931	. Clamp, Cable	1
19	200-12869	. Spring, Relay	1
20	200-12751	. Relay Assembly	1
21	401-05073	. Cam Switch and Motor Assembly (See Figure 15)	1
22	200-10789	. Bolt, Mounting, #1/4-20	3
23	200-11587	. Speednut, #1/4-20	2
24	406-05012	. Search Unit and Pin Wheel Assembly (See Figure 12)	1
25	702-01430	. Ring, Retaining	2
26	401-05024	. Stop Switch Assembly (See Figure 14)	1
27	300-05149	. Pulley, Playmeter	1
28	200-10896	. Spring, Tension	1
29	200-10880	. Pulley	1
30	201-10878	. Belt, Timing	1
31	201-11012	. Idler Bracket Assembly (See Sheet 2)	1
38	704-01222	. Washer, External Tooth	2
39	301-05181	. Pinion and Plate Assembly	1
40	200-10826	. Hub, Gear	1
41	706-01130	. Pin, Roll	2
42	201-11000	. Magazine Drive Shaft Assembly	1
43	403-05022	. Sprag Assembly (Magazine Motor) (See Figure 16)	1
44	301-05125	. Motor Bracket Assembly	1
45	300-06452	. Trim, Annunciator	1
46	302-07045	. Cable and Annunciator Assembly (See Figure 11)	1
47	201-15777	. Strap	1
48	201-11596	. Annunciator Drive and Bracket Assembly (See Sheet 2)	1
53	401-06515	. Annunciator Bracket Assembly	1
54	704-00931	. Clamp, Cable	1
55	702-00934	. Clamp, Cable	1
56	200-11513	. Link, Toggle Plunger	1
57	201-11515	. Plunger Assembly	1
58			
64	303-05111	. Scan Control Assembly (See Figure 7)	1
65	303-05169	. Guide and Belt Support Assembly (See Sheet 2)	1
71	201-10895	. Belt	1
71A	200-10792	. Pin Trunnion	2
72	401-05390	. Gripper Bow and Trunnion Assembly (See Sheet 2)	1
88	602-03010	. Magazine Assembly (See Sheet 2)	1

**FIGURE 6**

# Mechanism Assembly Sheet 2

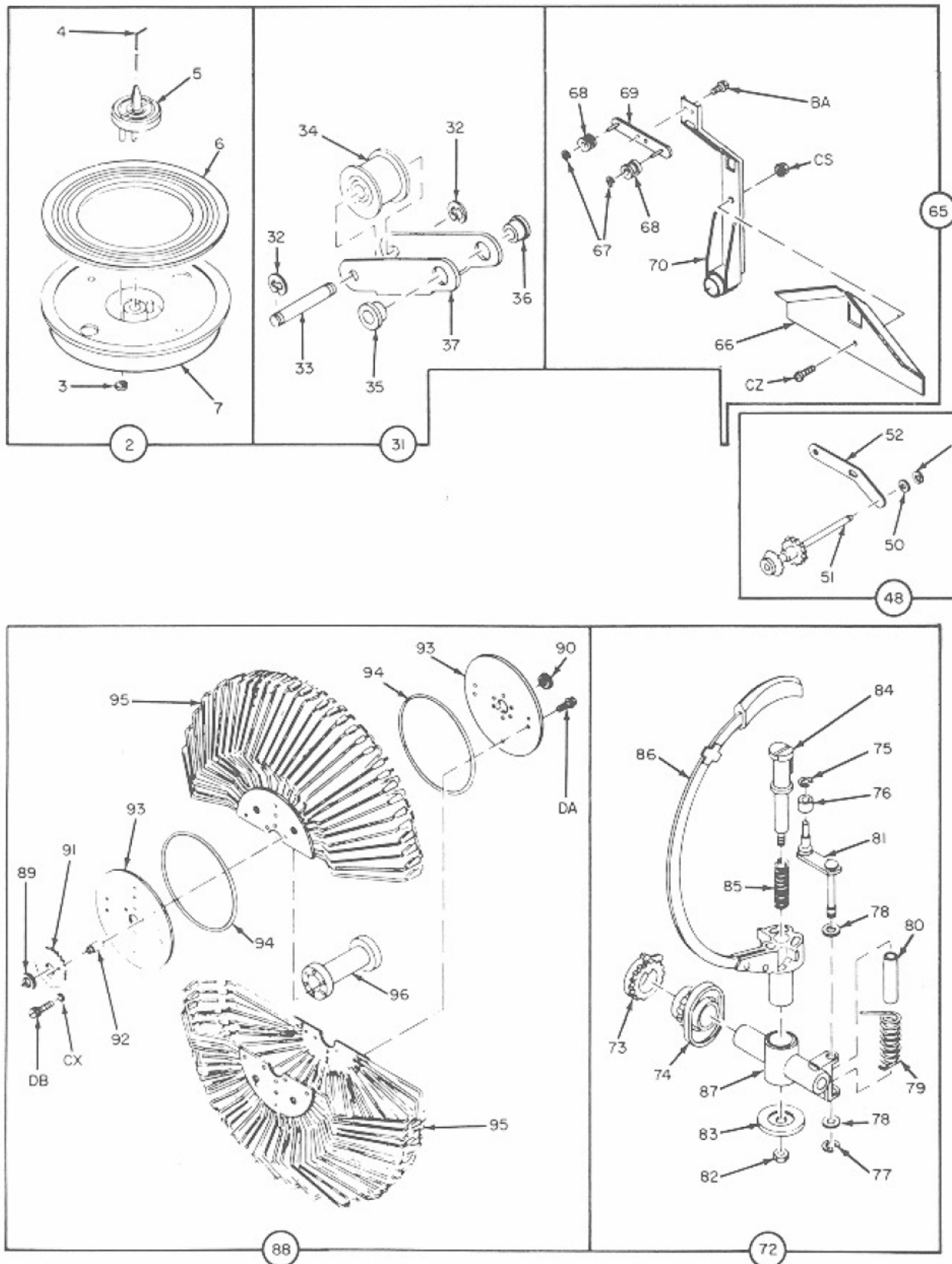


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
6-		Mechanism Assembly (Continued)	
2	301-05237	. Turntable Assembly (Sheet 1, Item 2)	REF
3	701-01430	. . Ring, Retaining	1
4	200-10867	. . Wire, Trip	1
5	201-12554	. . Hub, Turntable	1
6	301-05235	. . Face, Turntable	1
7	401-05069	. . Turntable and Shaft Assembly	1
31	201-11012	. Idler Arm Assembly (Sheet 1, Item 31)	REF
32	703-01430	. . Ring, Retaining	2
33	200-10879	. . Pin, Idler	1
34	200-03843	. . Roller, Belt	1
35	707-01460	. . Bearing	1
36	706-01460	. . Bearing	1
37	200-10877	. . Bracket, Idler	1
48	201-11596	. Annunciator Drive and Bracket Assembly (Sheet 1, Item 48)	REF
49	703-01430	. . Ring, Retaining	1
50	703-01460	. . Bearing	1
51	201-11590	. . Annunciator Drive Assembly	1
52	200-10999	. . Bracket	1
58			
59			
60			
61			
62			
63			
65	303-05169	. Guide and Belt Support Assembly (Sheet 1, Item 65)	REF
66	400-05049	. . Stop, Record	1
67	703-01430	. . Ring, Retaining	2
68	200-03843	. . Roller, Belt	2
69	201-10894	. . Roller Bracket Assembly	1
70	301-05147	. . Gripper Bow Assembly	1
72	401-05390	. Gripper Bow and Trunnion Assembly (Sheet 1, Item 72)	REF
73	300-05122	. . Gear, Trunnion	1
74	400-05013	. . Gear, Cam	1
75	707-01430	. . Ring, Retaining	1
76	200-12537	. . Roller	1
77	703-01430	. . Ring, Retaining	1
78	721-01207	. . Washer, Flat	2
79	200-12538	. . Spring, Torsion	1
80	200-12536	. . Bearing, Sleeve	1
81	201-12532	. . Pawl Lever and Shaft Assembly	1
82	210-13578	. . Nut, Stop	1
83	201-10815	. . Follower, Cam	1
84	201-10808	. . Shoe, Inner	1
85	200-10811	. . Spring, Record Release	1
86	301-05197	. . Transfer Arm and Hub Assembly	1
87	301-05121	. . Trunnion	1
88	602-03010	. Magazine Assembly (Sheet 1, Item 88)	REF
89	714-01460	. . Bearing	1
90	701-01460	. . Bearing	1
91	300-05191	. . Gear	1
92	200-11518	. . Spacer	3
93	300-05100	. . Support, Separator	2
94	200-10803	. . Ring, Cord	2
95	402-05044	. . Separator Assembly	2
96	300-05101	. . Support, Separator	1

**FIGURE 6**

# Mechanism Assembly Sheet 3

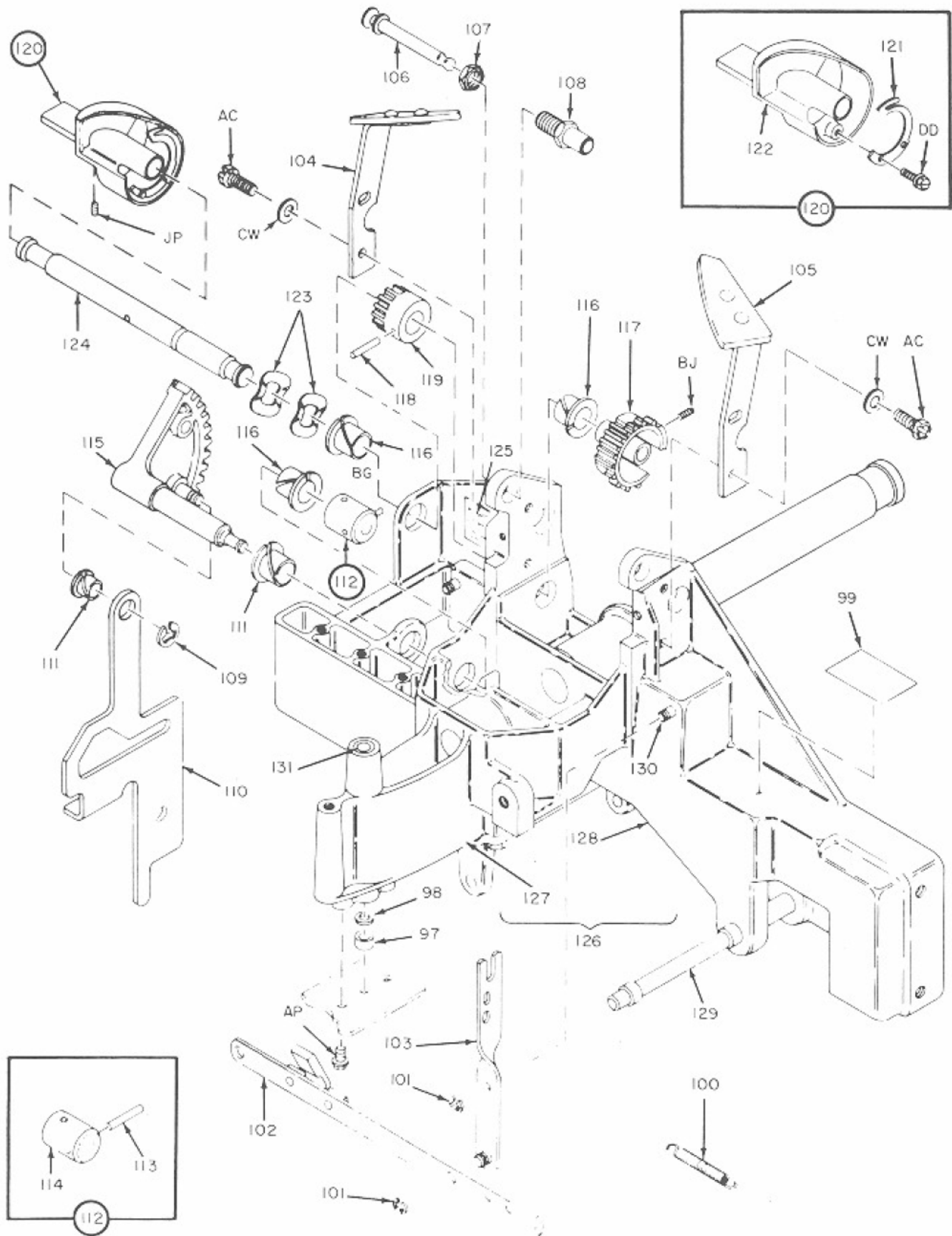




Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
6-	601-03060	Mechanism Assembly (Continued)	
97	200-10866	. Bearing, Spacer	1
98	200-10364	. Bearing, Thrust	1
99	201-11004	. Nameplate, Mechanism	1
100	200-10955	. Spring, Tension	1
101	703-01430	. Ring, Retaining	4
102	201-10823	. Cross Link and Stop Assembly	1
103	201-11517	. Link and Pin Assembly	1
104	201-11520	. Record Guide Assembly (L. H.)	1
105	201-11521	. Record Guide Assembly (R. H.)	1
106	200-11528	. Pin, Toggle	2
107	704-01301	. Nut	2
108	200-10817	. Bushing, Toggle Pin	2
109	704-01430	. Ring, Retaining	1
110	200-10793	. Link, Transfer	1
111	704-01460	. Bearing	1
112	201-10809	. Collar and Pin Assembly	1
113	720-01101	. . Pin, Roll	1
114	200-10799	. . Collar	1
115	201-10800	. Segment Gear and Shaft Assembly	1
116	705-01460	. Bearing	4
117	400-05014	. Gear, Trunnion and Cam Drive	1
118	719-01130	. Pin, Roll	1
119	200-14175	. Gear, Camshaft	1
120	201-10892	. Tone Arm Cam Assembly	1
121	200-10909	. . Spring	1
122	400-05008	. . Cam	1
123	200-10820	. Washer, Wave	2
124	200-10791	. Shaft, Trunnion Drive	1
125	200-12665	. Label	1
126	403-05003	. Base Assembly	1
127	300-05205	. . Support, Shaft	1
128	401-05002	. . Base	1
129	200-10728	. . Shaft, Stop Switch	1
130	200-10729	. . Pin, Mounting	2
131	200-10377	. . Bearing	2

**FIGURE 6**

# Mechanism Assembly Sheet 4

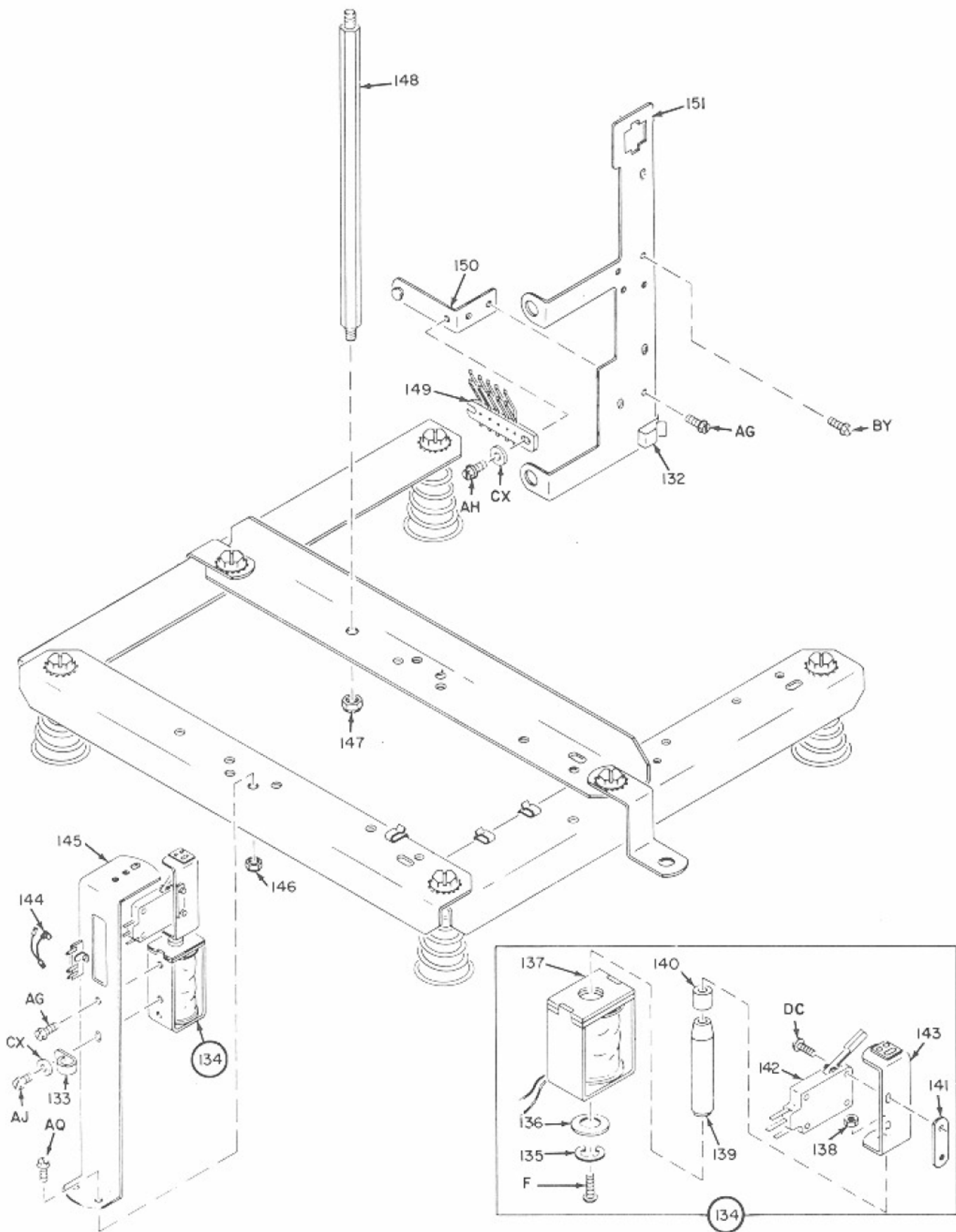


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
6-	601-03050	Mechanism Assembly (continued)	
132	200-07545	. Clip, Cable	2
133	705-00931	. Clamp, Cable	1
134	201-11011	. Hub Shift Assembly	1
135	702-01430	. . Ring, Retaining	1
136	710-01205	. . Washer, Flat	1
137	202-11505	. . Solenoid Assembly	1
138	203-13578	. . Nut, Stop	1
139	200-10862	. . Plunger	1
140	200-10861	. . Spacer	1
141	200-11017	. . Plate, Nut	1
142	200-10735	. . Microswitch	1
143	201-12609	. . Bracket Switch	1
144	201-12586	. Wire and Termination Assembly	1
145	201-12694	. Terminal Strip and Bracket Assembly	1
146	200-11014	. Nut, Lock	2
147	200-11013	. Nut, Lock	2
148	200-10881	. Support, Mechanism	2
149	201-10949	. Wiper Blade Assembly	1
150	201-10893	. Mounting Bracket Assembly	1
151	400-05388	. Bracket, Search Unit	1

**FIGURE  
6**

# Mechanism Assembly Sheet 5

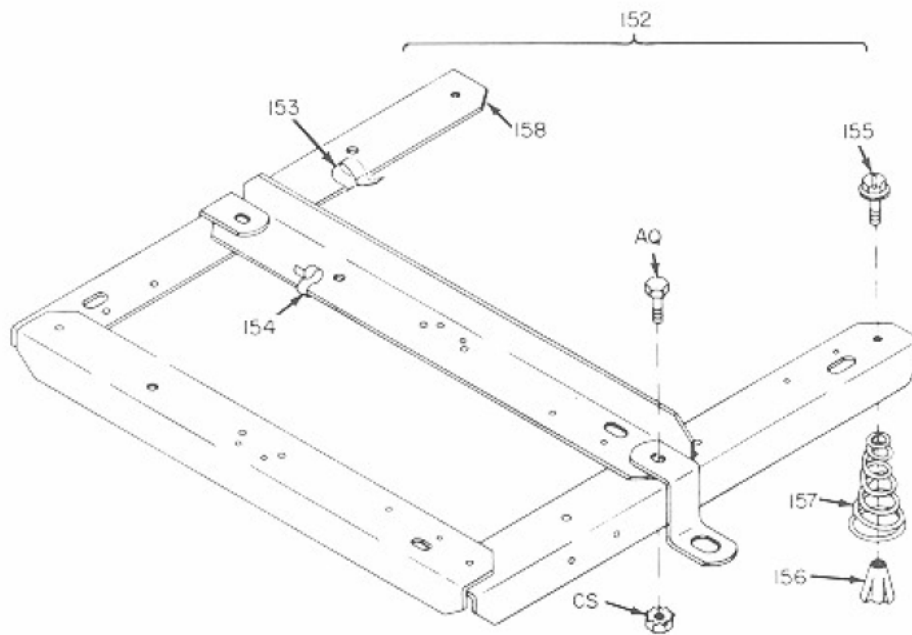


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
6-		Mechanism Assembly (Continued)	
152	301-06622	. Mechanism Support and Spring Assembly	1
153	202-05545	. . Clip, Cable	1
154	200-07545	. . Clip, Wire	5
155	200-11538	. . Pin, Screw, Spring Support	4
156	200-06272	. . Support, Spring	4
157	200-06128	. . Spring	4
158	302-05142	. . Mechanism Support Assembly	1

# Scan Control Assembly

FIGURE  
7

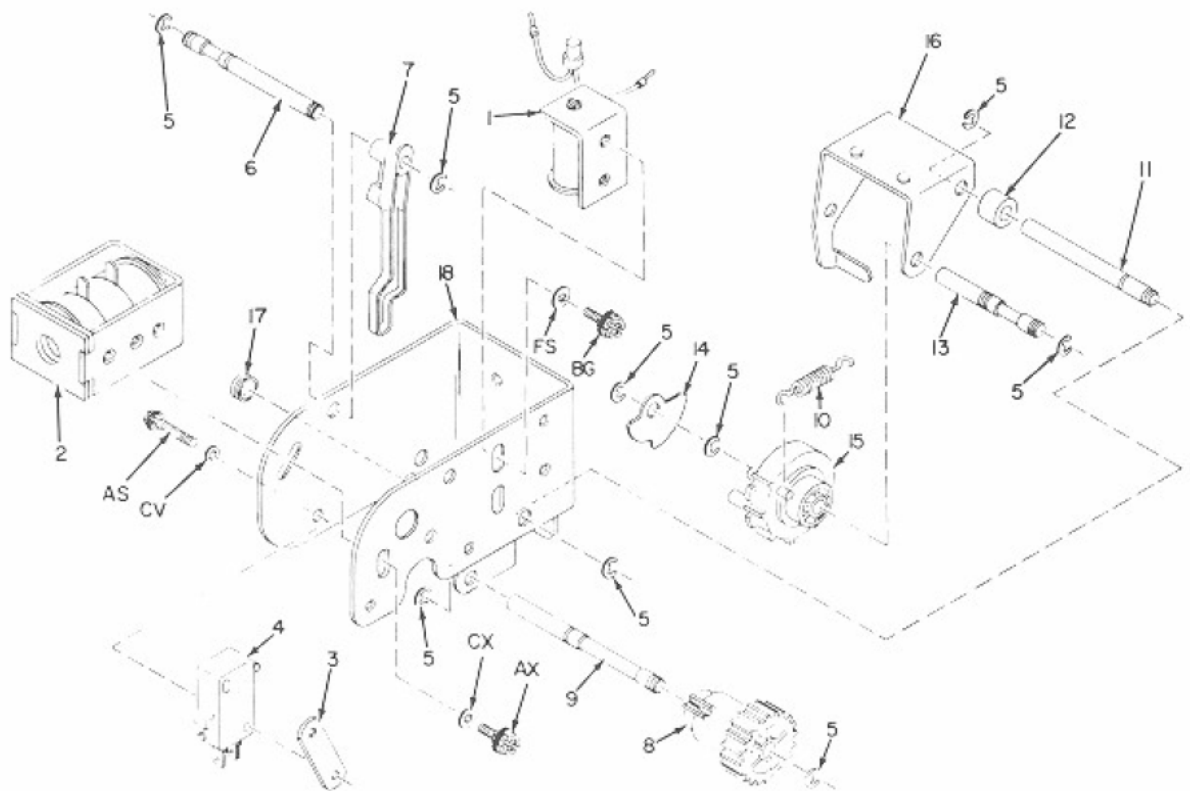


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
7-	303-05111	Scan Control Assembly (Figure 6, Item 64)	REF
1	202-12540	. Magnet Assembly, Reset	1
2	201-11505	. Solenoid Assembly	1
3	200-10830	. Nut, Plate	1
4	200-10731	. Switch	1
5	703-01430	. Ring, Retaining	10
6	200-10721	. Shaft, Switch Lever Pivot	1
7	300-05108	. Lever, Switch	1
8	300-05109	. Pinion, Scanning Control	1
9	200-10720	. Shaft, Pinion	1
10	200-08919	. Spring, Tension	1
11	200-08847	. Shaft, Pivot	1
12	707-01213	. Spacer, Sleeve	1
13	200-08846	. Shaft	1
14	200-11529	. Weight	1
15	201-10970	. Gear Assembly, Scan	1
16	202-08862	. Bracket Assembly, Reset	1
17	710-01460	. Bearing	1
18	400-05030	. Frame	1

**FIGURE 8**

# Playmeter Wheel Assembly

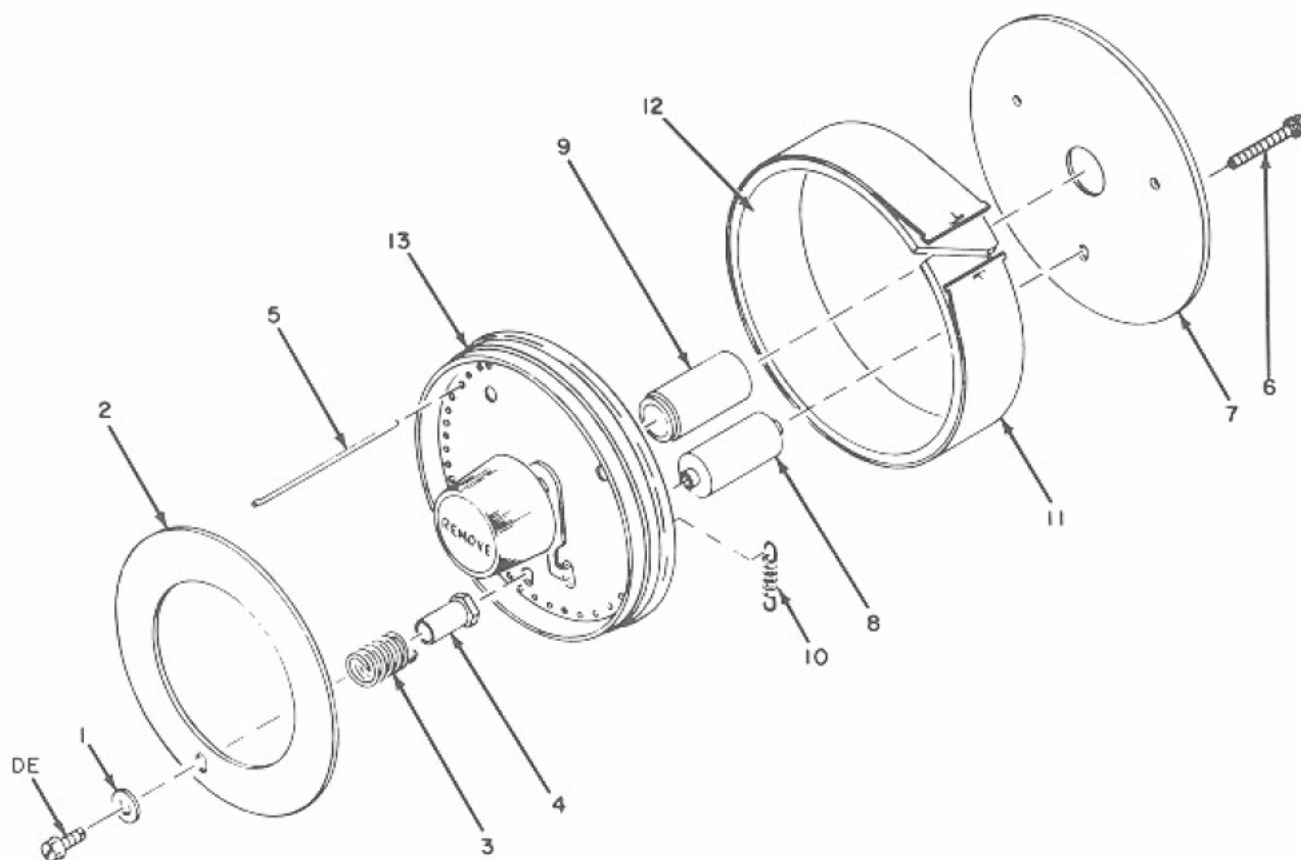


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
8-	303-05465	Playmeter Wheel Assembly (Figure 6, Item 1)	REF
1	702-01220	. Washer, Flat, #6	3
2	300-06262	. Plate, Reset	1
3	200-10965	. Spring, Compression	3
4	200-10969	. Stud, Reset Guide	3
5	200-11582	. Pin, Playmeter	100
6	200-10486	. Screw, Machine	3
7	300-05159	. Plate, Back	1
8	200-10962	. Spacer	3
9	200-10968	. Bearing	1
10	200-11581	. Spring, Tension	1
11	300-05198	. Strip, Playmeter	1
12	202-10966	. Strip, Pin Loading	1
13	201-13913	. Playmeter Plate Assembly	1

# Turntable Motor and Plate Assembly

FIGURE  
9

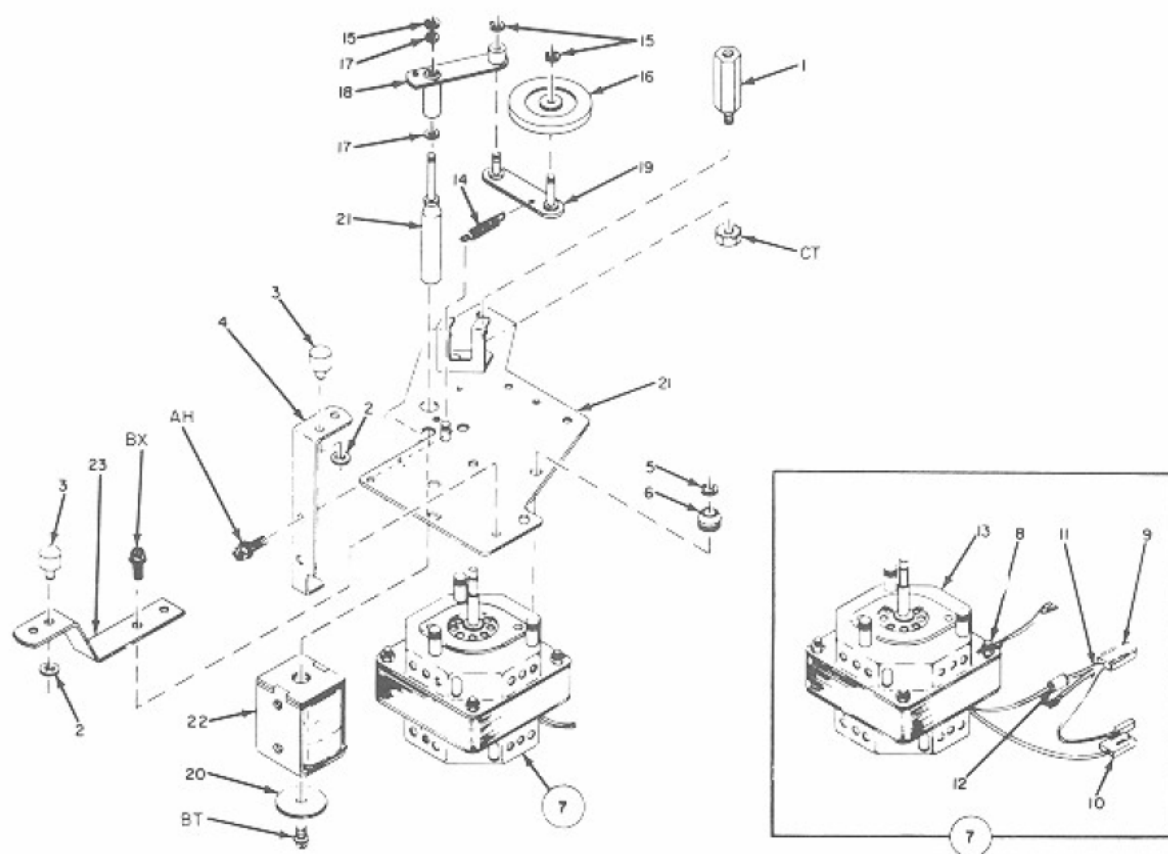


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
9-	401-05074	Turntable Motor and Plate Assembly (Fig. 6, Item 17)	REF
1	201-10708	. Bearing, Tone Arm	1
2	702-01437	. Ring, Retaining	2
3	200-10897	. Rest, Gripper Bow	2
4	200-10886	. Bracket, Gripper Bow Rest (L. H.)	1
5	712-01430	. Ring, Retaining	3
6	200-11501	. Grommet	3
7	301-05239	. Turntable Motor Assembly	1
8	216-12300	. . Wire and Lug Assembly	1
9	202-17323	. . Connector, Socket (3 Circuit)	1
10	201-51106	. . Receptacle, Triple (Insulation)	1
11	706-00513	. . Cord, 3 Conductor	1
12	714-00921	. . Connector, Solderless	1
13	300-05193	. Motor, Turntable	1
14	200-00907	. Spring, Tension	1
15	701-01430	. Ring, Retaining	3
16	201-10889	. Idler Wheel Assembly	1
17	712-01213	. Washer	2
18	201-10887	. Link and Bushing Assembly	1
19	201-10888	. Link and Pin Assembly	1
20	714-01206	. Washer	1
21	201-08003	. Plunger Assembly	1
22	202-11505	. Solenoid Assembly	1
23	200-10890	. Bracket, Gripper Bow Rest (Front)	1
24	301-05189	. Turntable Motor Mount Assembly	1

**FIGURE  
10**

# Tone Arm Assembly

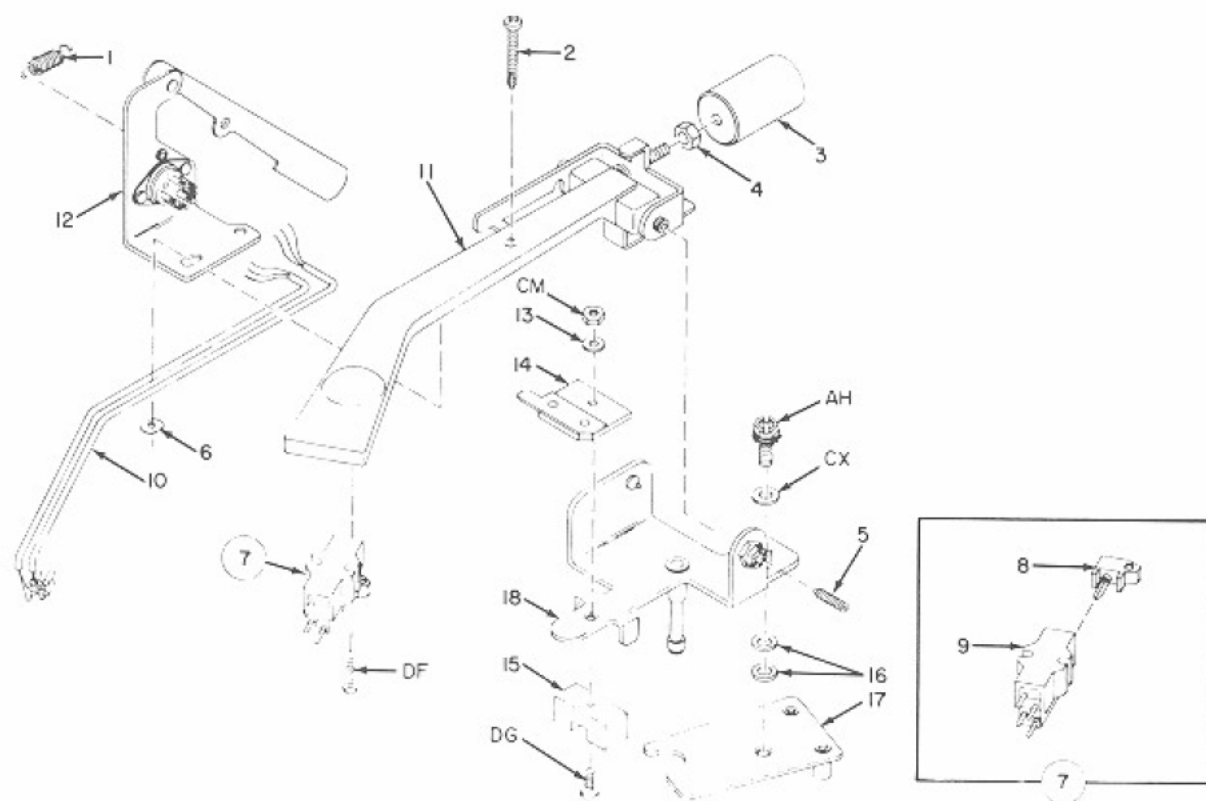


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
10-	306-05124	Tone Arm Assembly (Figure 6, Item 11)	REF
1	200-03713	. Spring, Tension	1
2	200-65025	. Screw, Contact	1
3	201-11585	. Counterweight	1
4	200-13306	. Nut	1
5	200-10712	. Screw, Pivot	1
6	200-10897	. Nut, Push-On	3
7	200-13011	. Cartridge, Stereo	1
8	200-13031	. . Stylus	1
9	200-10873	. . Cartridge	1
10	201-10874	. Cable Assembly	2
11	303-05118	. Arm and Lever Assembly	1
12	201-10785	. Bracket and Lever Assembly	1
13	724-01206	. Washer, Flat, #4	1
14	201-65023	. Blade, Contact	1
15	200-10724	. Magnet	1
16	719-01200	. Washer, Flat	AR
17	201-10727	. Cam Plate Assembly	1
18	201-10714	. Bracket and Shaft Assembly	1



# Cable and Annunciator Assembly

**FIGURE 11**

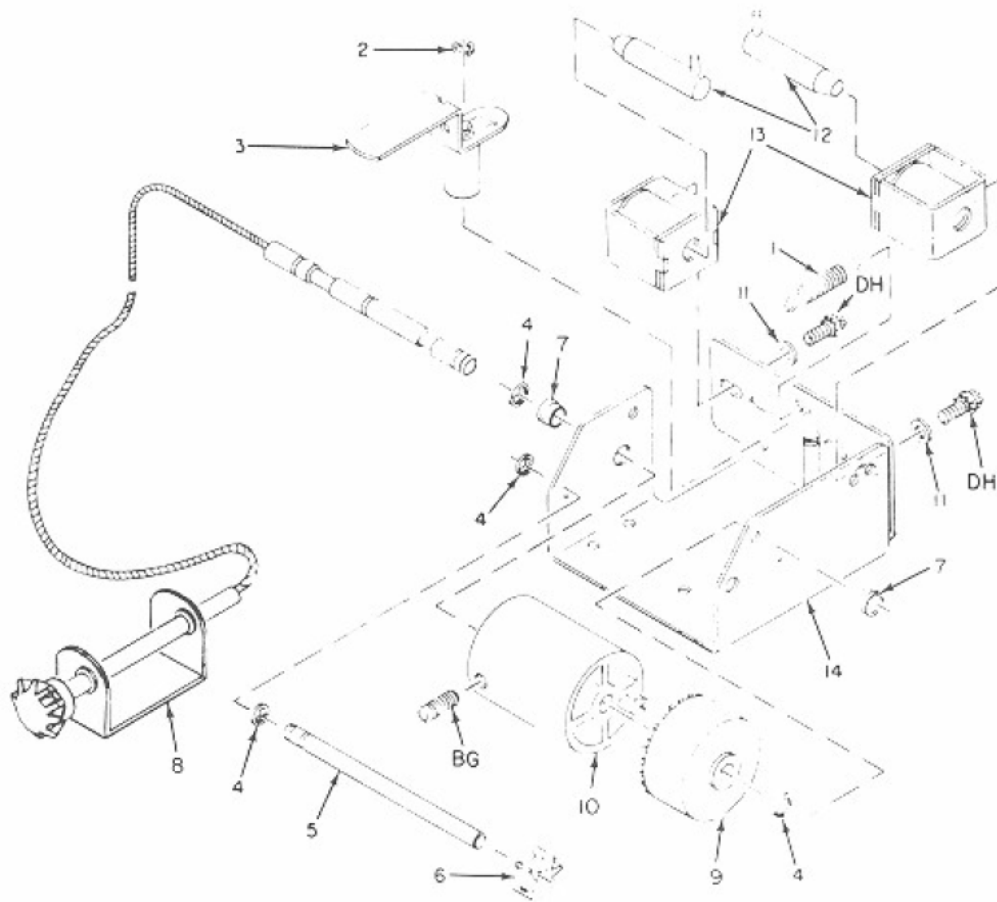


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
11-	302-07045	Cable and Annunciator Assembly (Figure 6, Item 46)	REF
1	200-03816	. Spring	1
2	701-01430	. Ring, Retaining	1
3	201-10994	. Bushing and Shutter Assembly	1
4	703-01430	. Ring, Retaining	5
5	200-10993	. Shaft, Pinion	1
6	200-10978	. Gear, Pinion	1
7	703-01460	. Bearing	3
8	301-07050	. Drive Assembly	1
9	201-11634	. Number Wheel and Strip Assembly	1
10	201-11635	. Letter Wheel Assembly	1
11	711-01206	. Washer, Flat	4
12	201-10998	. Plunger Assembly	2
13	206-10743	. Solenoid Assembly	2
14	202-10984	. Frame Assembly	1

FIGURE  
12

# Search Unit and Pin Wheel Assembly

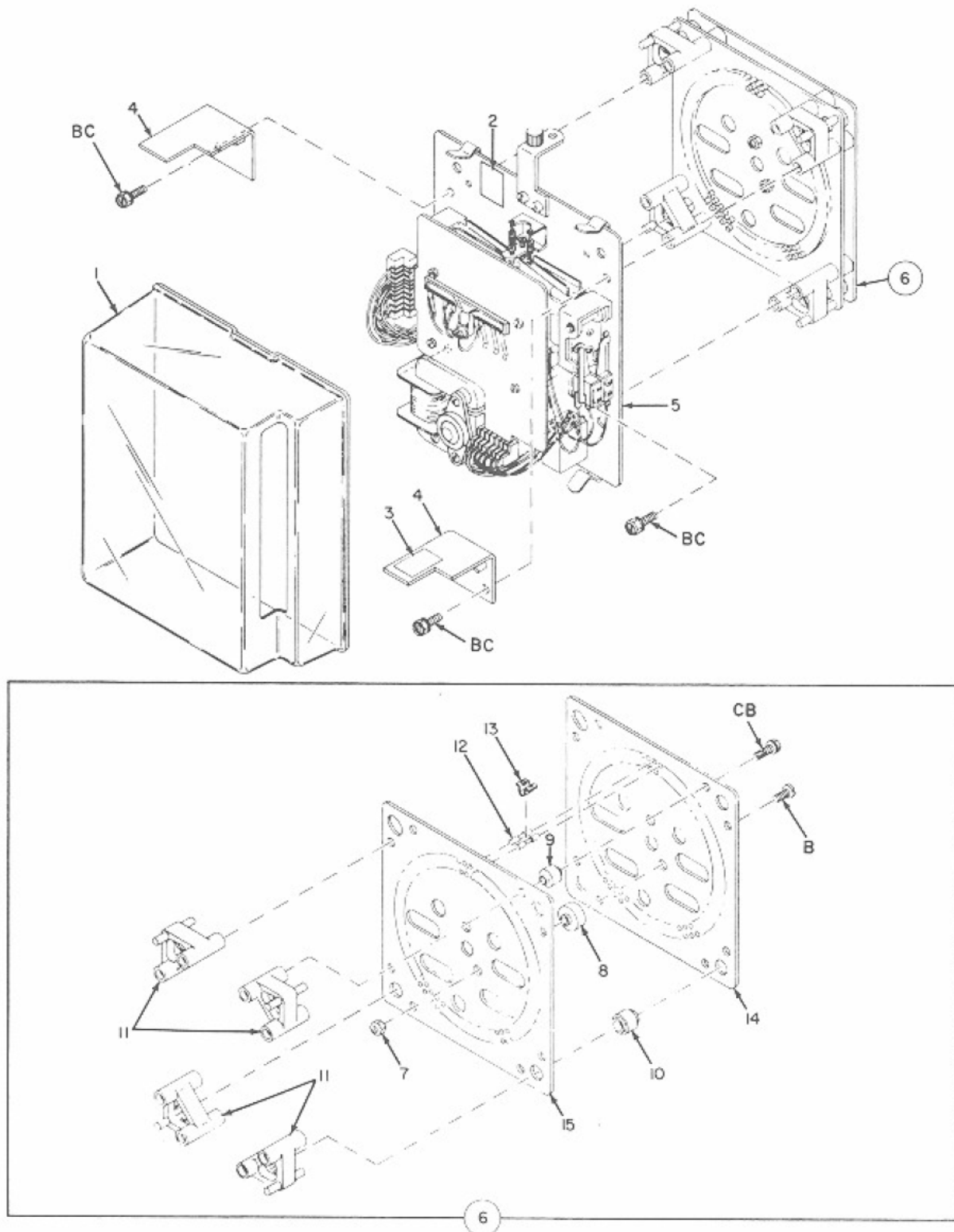


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
12-	406-05012	Search Unit and Pin Wheel Assembly (Figure 6, Item 24)	REF
1	400-05052	. Cover, Protective	1
2	701-03032	. Label, Serial Number	1
3	200-12665	. Label, Caution	1
4	200-11577	. Bracket, Locating	2
5	601-04158	. Search Unit Assembly (See Figure 13)	1
6	301-05190	. Pinwheel Assembly	1
7	706-01301	. . Nut, Self Locking	2
8	200-10939	. . Spacer	2
9	708-01215	. . Spacer	7
10	200-11511	. . Spacer	3
11	200-10832	. . Support, Search Unit	4
12	200-10942	. . Pin, Selector	200
13	200-11072	. . Spring, Friction	100
14	201-13260	. . Plate Assembly - Pin Wheel	1
15	301-05157	. . Plate, Pin Wheel	1

**FIGURE 13**

# Search Unit Assembly Sheet 1

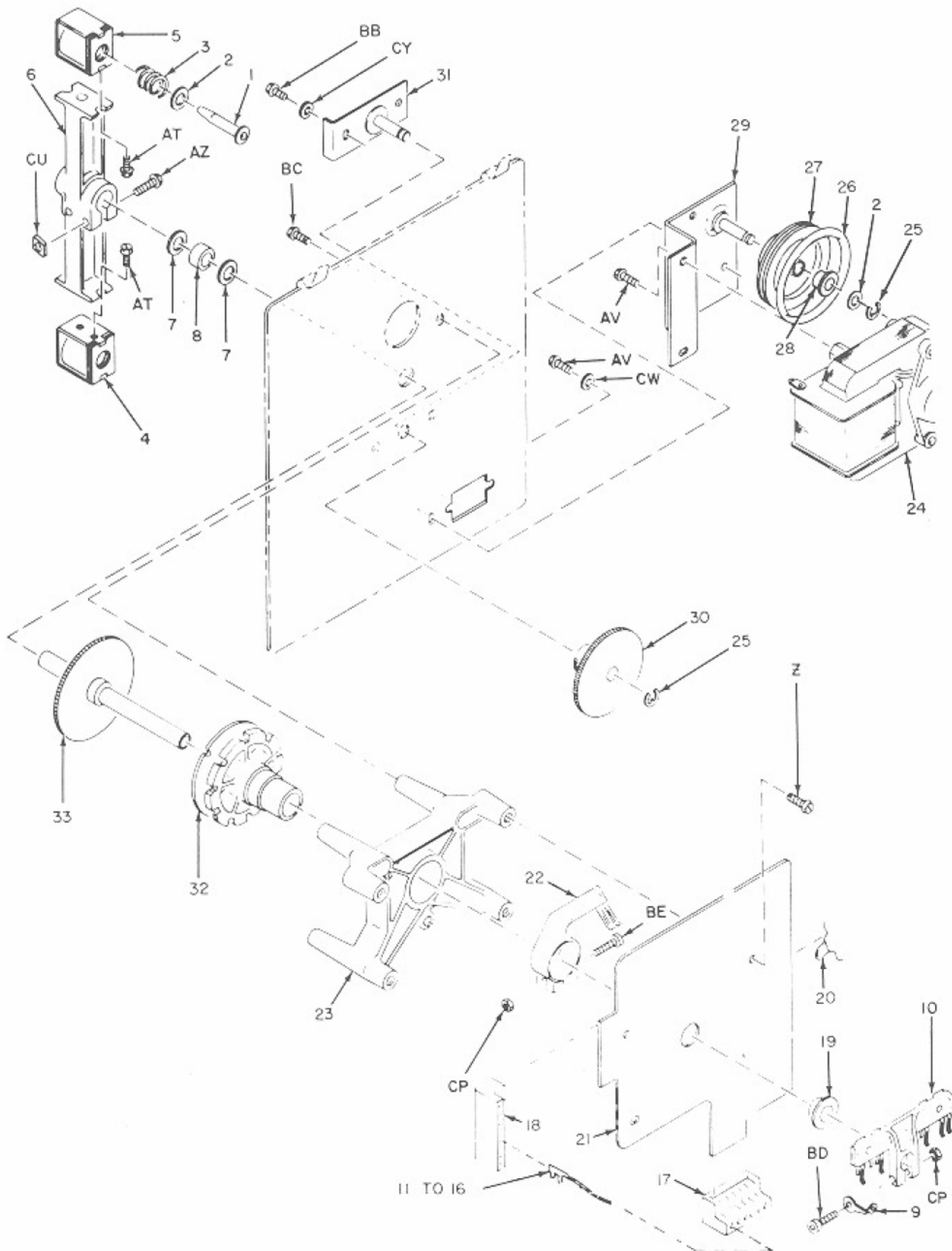


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
13-	601-04158	Search Unit Assembly (Figure 12, Item 5)	REF
1	201-11534	. Plunger Assembly	2
2	712-01207	. Washer, Flat	2
3	200-11533	. Spring, Compression	2
4	204-10743	. Solenoid Assembly	1
5	205-10743	. Solenoid Assembly	1
6	300-05112	. Arm, Solenoid	1
7	725-01205	. Washer, Plain	2
8	720-01214	. Spacer, Sleeve	1
9	200-11583	. Lug, Ground	1
10	301-06371	. Wiper Assembly	1
11	204-11579	. Jumper Assembly	2
12	208-11579	. Jumper Assembly	1
13	210-11579	. Jumper Assembly	1
14	211-11579	. Jumper Assembly	1
15	201-11580	. Jumper Assembly	1
16	202-11580	. Jumper Assembly	1
17	201-11575	. Connector, Edge	1
18	202-11575	. Connector, Edge	1
19	201-11573	. Circuit Board and Eyelet Assembly	1
	707-01460	. . Bearing	2
20	706-00223	. . Capacitor, Ceramic Disc, 0.01 MFD, 500V	1
21	400-05048	. . Circuit Board	1
22	301-05599	. Wiper Assembly	1
23	400-05010	. Frame, Mounting	1
24	300-06417	. Motor Assembly	1
25	703-01430	. Ring, Retaining	2
26	200-14265	. Drive Belt, Search Unit	2
27	200-14264	. Gear and Hub	1
28	720-01460	. Bearing	1
29	201-14268	. Bracket and Pin Assembly	1
30	201-11838	. Gear Assembly, Idler	1
31	201-10760	. Pin and Plate Assembly, Idler	1
32	401-05011	. Wheel Assembly, Sprag	1
33	301-05141	. Gear and Shaft Assembly	1

# Search Unit Assembly Sheet 2

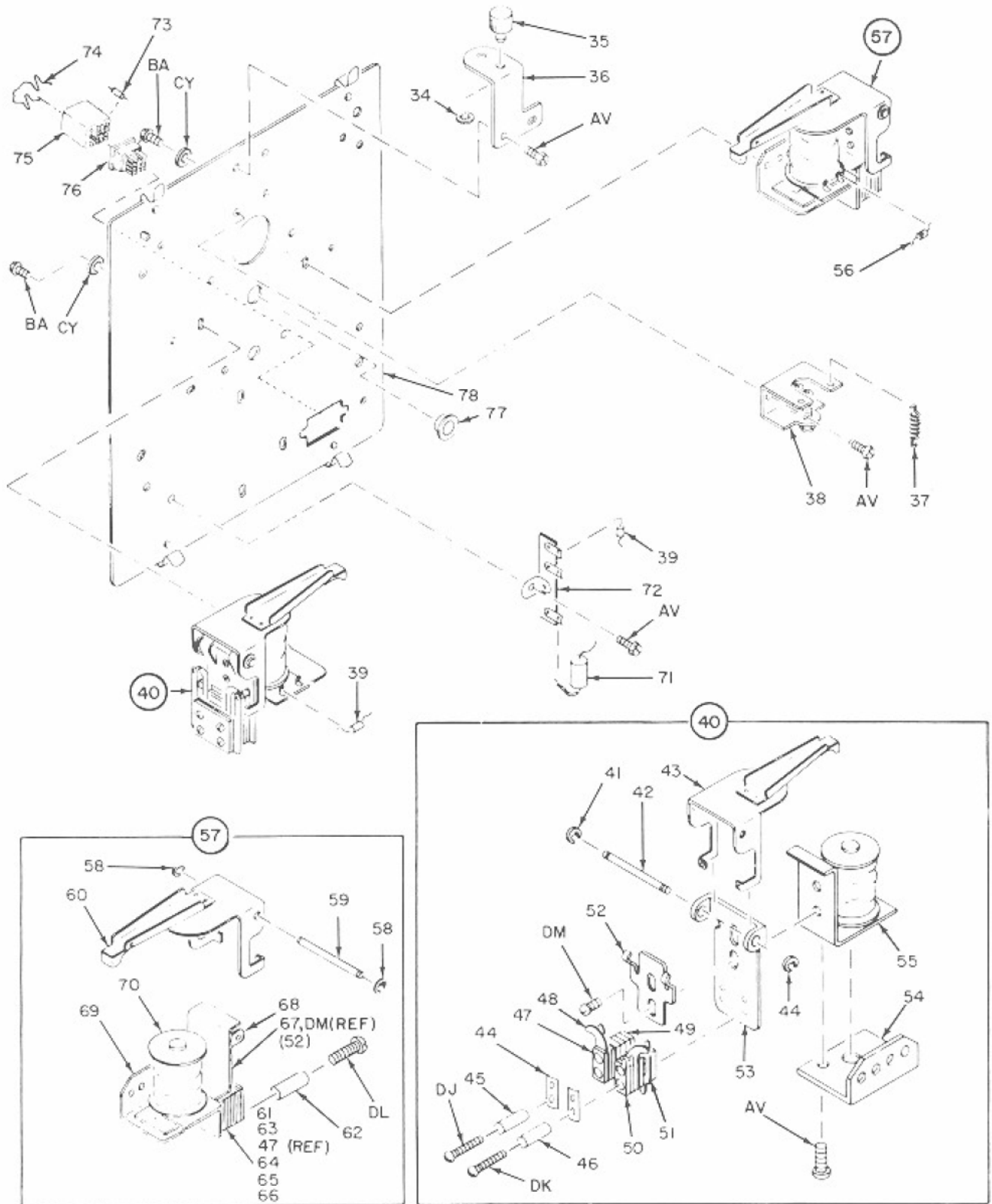


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
13-		Search Unit Assembly (Continued)	
34	702-01437	. Clip, Retaining	2
35	200-10897	. Rest, Transfer Arm	1
36	200-10787	. Bracket, Support	1
37	200-10786	. Spring, Tension	2
38	201-10761	. Bracket and Stop Nut Assembly	1
39	702-00350	. Rectifier, Silicon	2
40	308-08050	. Relay Assembly, Sprag	1
41	701-01430	. . Ring, Retaining	2
42	200-03598	. . Pin, Hinge	1
43	201-10759	. . Armature Assembly	1
44	200-06163	. . Plate, Clamping	2
45	200-05319	. . Tubing, Insulating, 0.384 in. long	2
46	200-05319	. . Tubing, Insulating, 0.571 in. long	2
47	200-00547	. . Spacer, Contact Blade	20
48	201-09040	. . Contact Blade Assembly	4
49	206-09040	. . Contact Blade Assembly	1
50	204-09040	. . Contact Blade Assembly	1
51	207-09040	. . Contact Blade Assembly	1
52	200-03777	. . Plate, Clamp-Hinge	1
53	200-03597	. . Hinge, Relay	1
54	200-10747	. . Bracket, Sprag Relay Mounting	1
55	201-10757	. . Frame and Coil Assembly (Sprag)	1
56	702-00350	. Diode, Silicon	1
57	305-08050	. Relay Assembly, Sprag	1
58	701-01430	. . Ring, Retaining	2
59	200-03598	. . Pin, Hinge	1
60	201-10758	. . Armature Assembly	1
61	200-06163	. . Plate, Clamping	2
62	200-05319	. . Tubing, Insulating, 0.333 in. long	4
63	200-00547	. . Spacer, Contact Blade	14
64	206-09040	. . Contact Blade Assembly	1
65	201-09040	. . Contact Blade Assembly	2
66	207-09040	. . Contact Blade Assembly	1
67	200-03777	. . Plate, Clamping, Hinge	1
68	200-03597	. . Hinge, Relay	1
69	200-10747	. . Bracket, Sprag Relay Mounting	1
70	200-06075	. . Frame and Coil Assembly	1
71	200-10981	. Capacitor, 5 MFD, 100V	1
72	200-08250	. Strip, Terminal	1
73	706-00104	. Resistor, Carbon, 1.8K, 1/2W (R2)	1
74	200-12869	. Spring, Relay	1
75	200-12751	. Relay	1
76	202-13782	. Socket, Relay	1
	303-05114	. Plate and Bearing Assembly	1
77	200-10766	. . Bearing	1
78	400-05051	. . Plate Assembly	1

FIGURE  
14

# Stop Switch Assembly

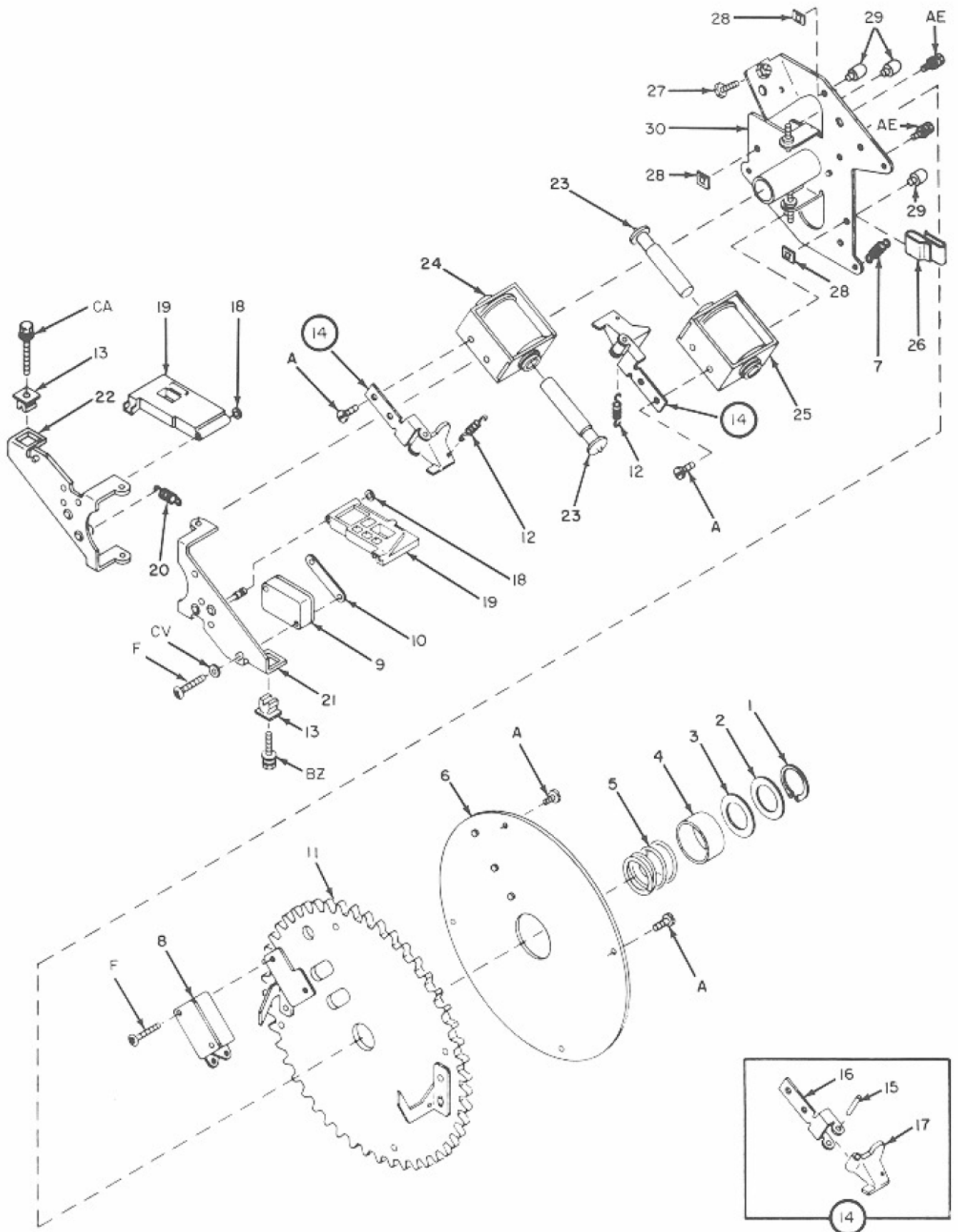




Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
14-	401-05024	Stop Switch Assembly (Figure 6, Item 26)	REF
1	708-01432	. Ring, Retaining	1
2	721-01206	. Washer	1
3	720-01206	. Washer	1
4	200-11535	. Sleeve	1
5	200-10953	. Spring, Compression	1
6	201-10934	. Slip Ring Assembly	1
7	200-10954	. Spring, Compression	1
8	201-14968	. Switch, Sensitive	1
9	201-14969	. Switch, Sensitive	1
10	200-10830	. Nut, Plate	1
11	201-10860	. Gear, Selector	1
12	200-03713	. Spring, Tension	2
13	200-10725	. Nut, Snap-In	2
14	201-10926	. Reset Lever Assembly	2
15	706-01130	. . Pin, Roll	1
16	200-10929	. . Lever	1
17	200-10928	. . Bracket	1
18	701-01430	. Ring, Retaining	2
19	401-05028	. Pawl	2
20	200-12695	. Spring, Tension	1
21	201-10924	. Arm, Pivot	1
22	202-10924	. Arm, Pivot	1
23	201-11633	. Plunger & Tip Assembly	2
24	203-10936	. Solenoid Assembly	1
25	202-10936	. Solenoid Assembly	1
26	200-07545	. Clip	1
27	200-03822	. Screw, Adjusting	1
28	200-12402	. Nut, Speed	3
29	200-10921	. Button, Slide	3
30	301-05156	. Switch Plate Assembly	1

**FIGURE 15**

# Cam Switch and Motor Assembly

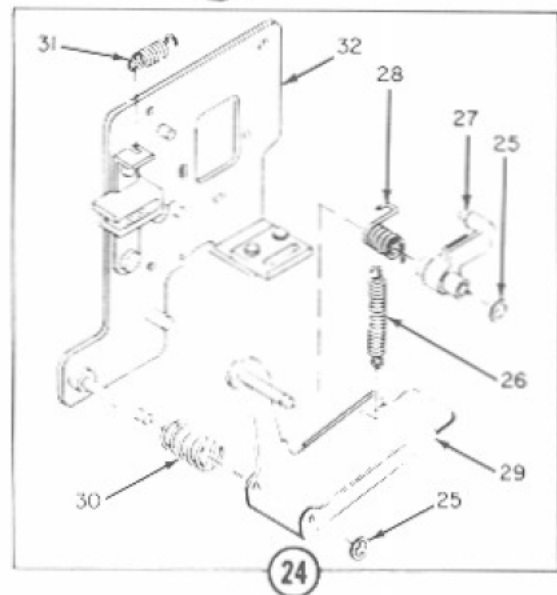
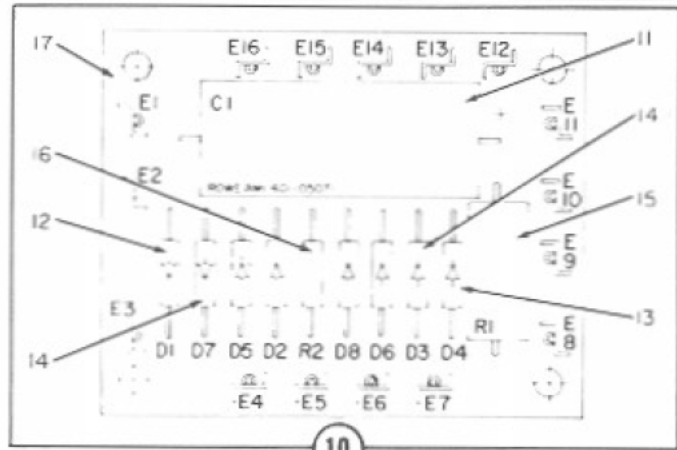
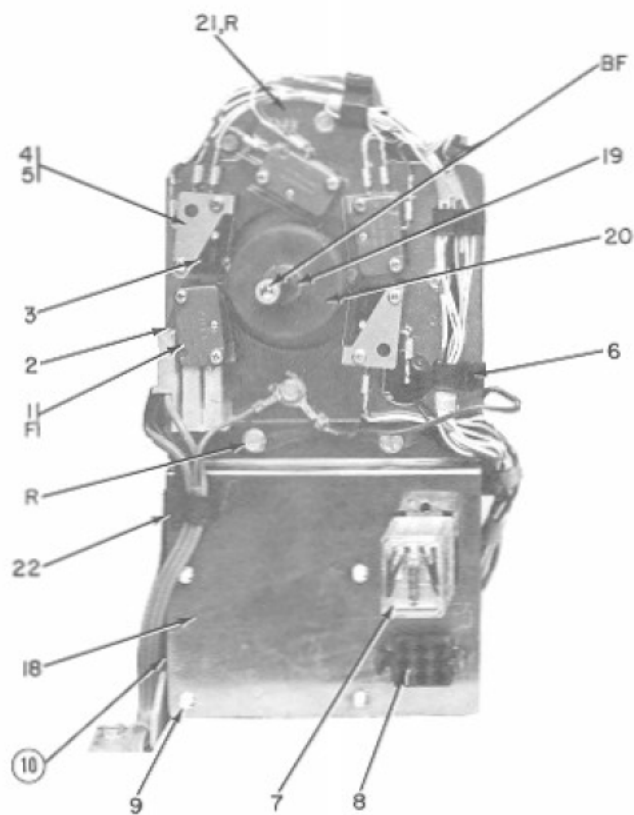
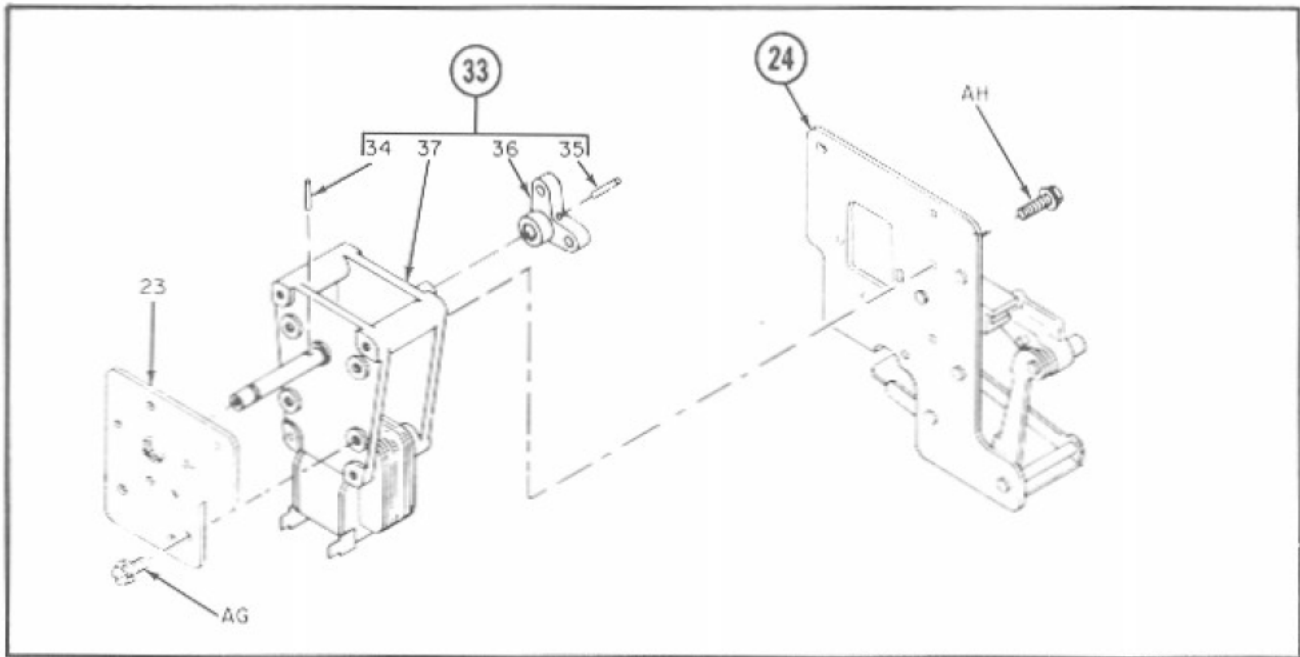


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
15-	401-05073	Cam Switch and Motor Assembly ( Figure 6, Item 21)	REF
1	200-10732	. Switch	1
2	200-50548	. Insulator	1
3	200-10733	. Switch	4
4	200-10829	. Actuator, Switch	5
5	200-10830	. Nut, Twin	5
6	200-07545	. Clip	3
	401-05072	. Mechanism Harness and Terminal Board Assembly	1
7	202-13782	. . Socket, Relay	1
	601-03014	. . Mechanism Harness Assembly	1
8	203-12444	. . . Housing, Socket (9 Circuit) Brown	1
9	704-05000	. . Support, Circuit Board	4
10	401-05071	. . Terminal Board Assembly	1
11	719-00233	. . . Capacitor, Electrolytic, 100MFD, 50V	1
12	702-00350	. . . Diode, Silicon, (D1, D5, D6, D8)	4
13	705-00350	. . . Diode, Silicon, (D2, D4)	2
14	706-00350	. . . Diode, Silicon, (D3, D7)	2
15	725-00105	. . . Resistor, Carbon, 120 OHM, 2W (R1)	1
16	724-00107	. . . Resistor, Carbon, 22 OHM, 1/2W (R2)	1
17	401-05070	. . . Printed Wiring Board	1
18	301-05236	. . Bracket, Relay Mounting	1
19	704-01430	. Ring, Retaining	1
20	300-06636	. Cam, Switch	1
21	300-06628	. Plate, Switch Mounting	1
22	201-11631	. Clip, Wire	1
23	300-06627	. Plate, Motor Mounting	1
24	303-05129	. Motor Mounting Plate Assembly	1
25	703-01430	. . Ring, Retaining	2
26	200-10836	. . Spring, Tension	1
27	301-05204	. . Ratchet Pawl Assembly	1
28	200-10835	. . Spring, Torsion	1
29	201-10834	. . Actuator Arm Assembly	1
30	200-12075	. . Spring, Compression	1
31	200-03816	. . Spring, Tension	1
32	203-10833	. . Plate and Ratchet Assembly	1
33	201-11598	. Motor and Crank Assembly	1
34	706-01131	. . Pin, Roll	1
35	719-01131	. . Pin, Roll	1
36	202-10807	. . Crank and Pin Assembly	1
37	401-05059	. . Transfer Motor Assembly	1

**FIGURE  
16**

# Sprag Assembly

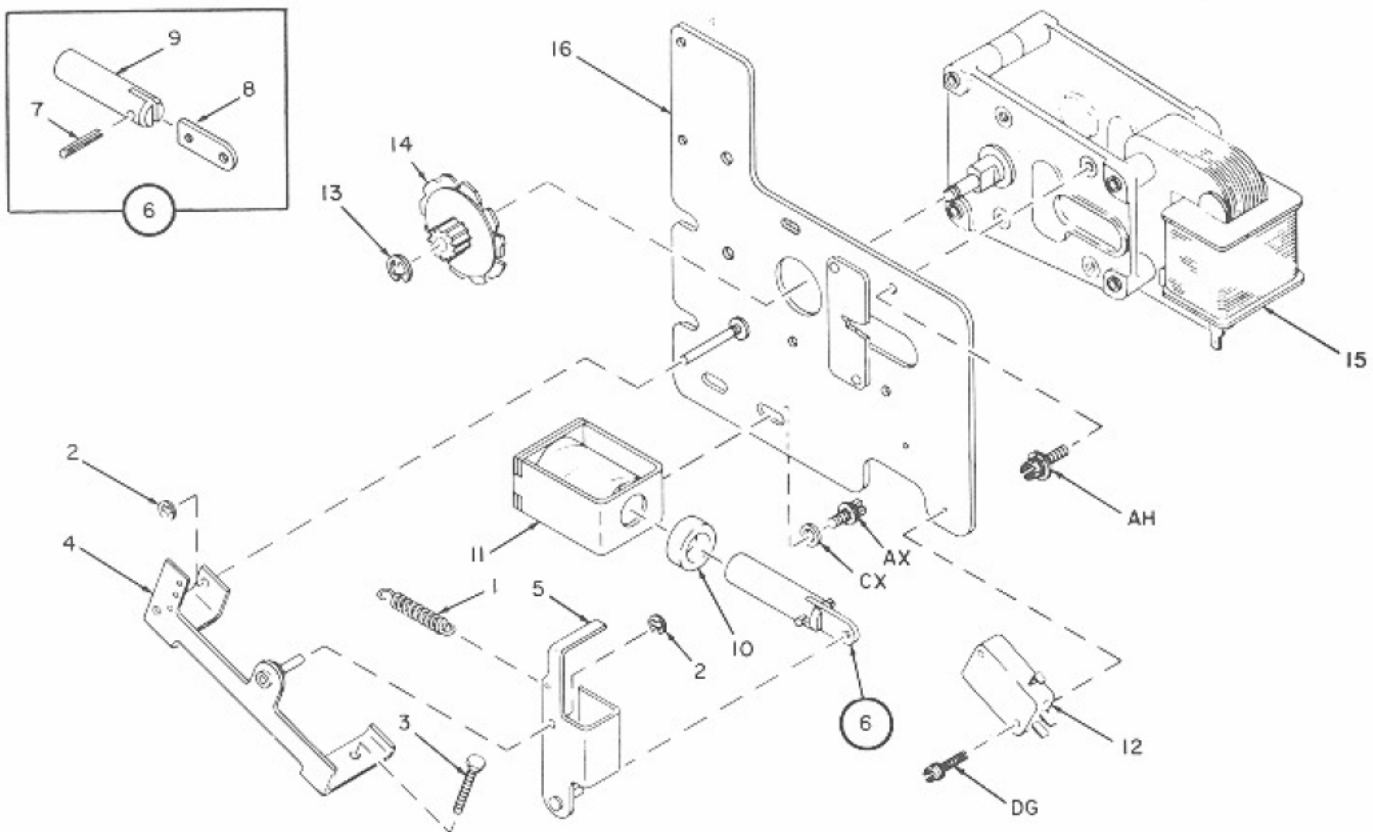


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
16-	403-05022	Sprag Assembly (Figure 6, Item 43)	REF
1	200-10843	. Spring, Tension	1
2	705-01430	. Ring, Retaining	2
3	200-03822	. Screw, Adjusting	1
4	201-10855	. Sprag Link Assembly	1
5	201-10856	. Sprag Lever Assembly	1
6	201-10857	. Plunger Assembly	1
7	703-01130	. . Pin, Roll	1
8	200-06226	. . Link, Plunger	1
9	200-10848	. . Plunger, Solenoid	1
10	200-10849	. Stop, Plunger	1
11	203-11505	. Solenoid Assembly	1
12	200-10731	. Switch	1
13	703-01430	. Ring, Retaining	1
14	300-05133	. Wheel, Sprag	1
15	401-05055	. Magazine Motor Assembly	1
16	301-05135	. Sprag Bracket Assembly	1

# Burglar Alarm Assembly

FIGURE  
17

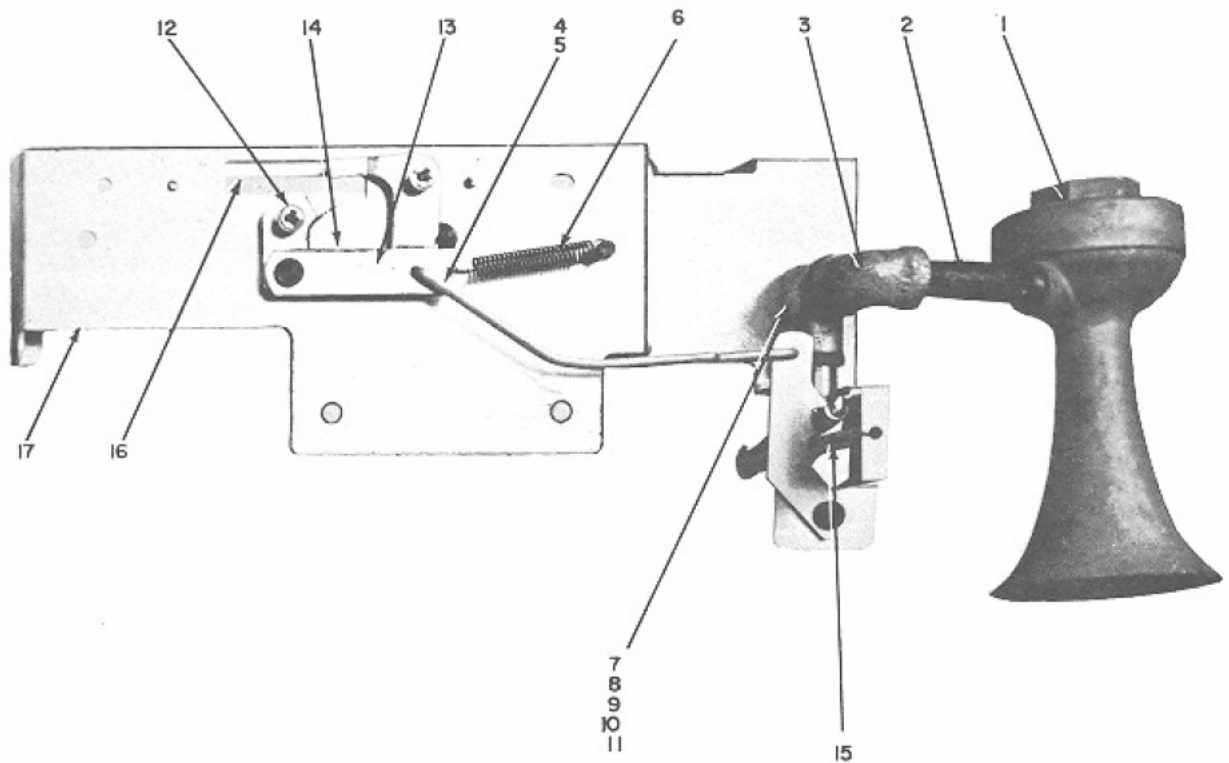


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
17-	602-04450	Burglar Alarm Assembly (Figure 1, Item 109)	OPT
1	200-13990	. Horn, Alarm	1
2	200-14842	. Nipple	1
3	200-14013	. Elbow	1
4	701-01437	. Ring, Retaining, Triangular	2
5	200-14528	. Rod, Actuating	1
6	200-14024	. Spring, Handle Return	2
7	712-01201	. Palnut, #9/16-18	2
8	201-14018	. Valve and Handle Assembly	1
9	722-01101	. . Pin, Drive, 3/32 x 5/16	1
10	200-14011	. . Handle, Alarm Valve	1
11	200-14000	. . Valve, Horn	1
12	701-01430	. Ring, Retaining	2
13	201-14021	. Trigger and Link Assembly	1
14	201-14020	. Trigger Assembly	1
15	200-14870	. Spring, Lock	1
16	200-14019	. Plate, Bolt Stop	1
17	401-06008	. Bracket and Latch Assembly	1
	200-13991	. Power Pack, Alarm (Freon)	1

**FIGURE 18**

# Power Amplifier Assembly, 50W

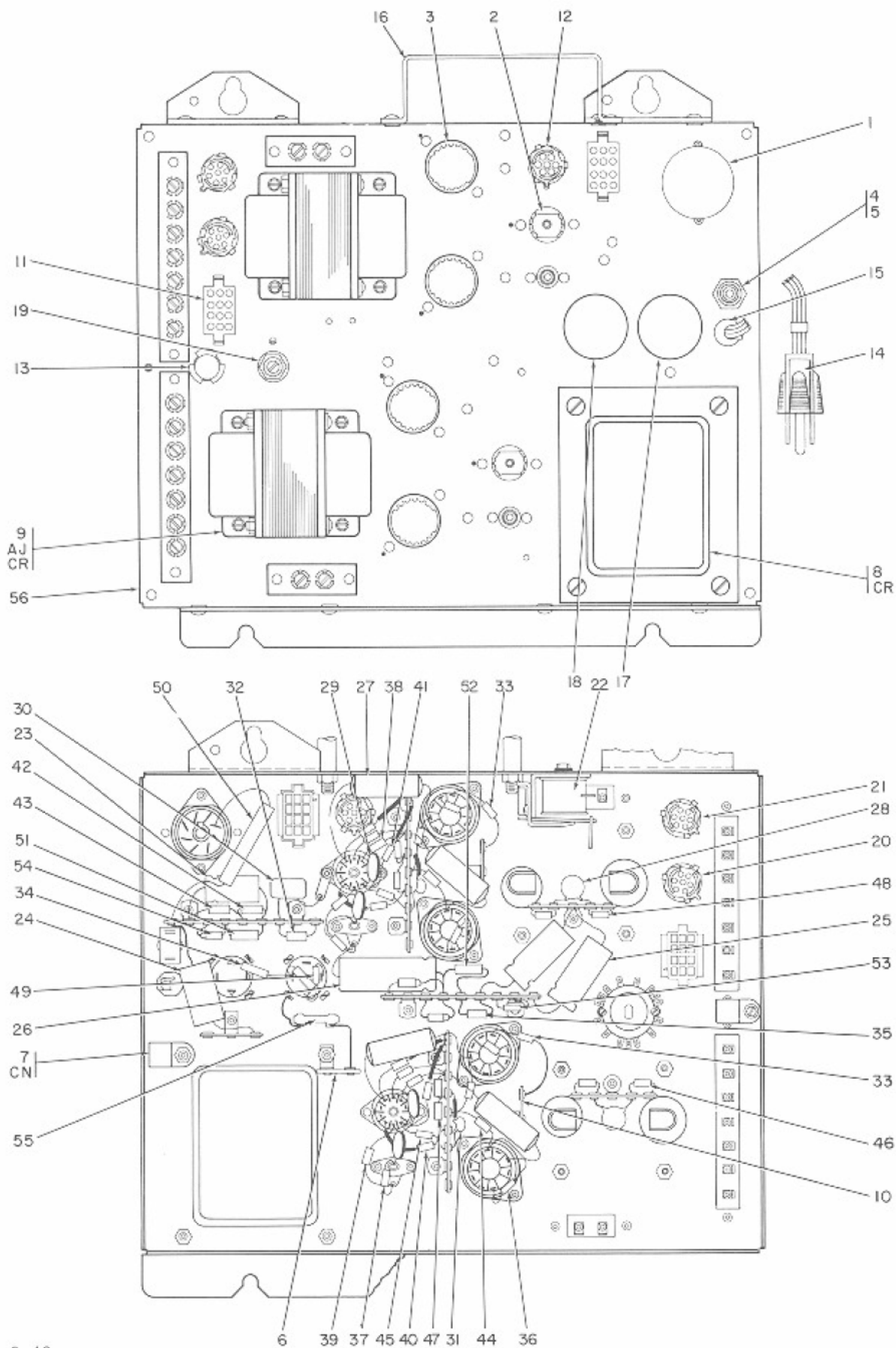


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
18-	601-04359	Power Amplifier Assembly, 50W, TI-1 (See Figure 1, Item 57)	REF
1	201-15819	. Rectifier, Silicon, Full Wave (1N2389)	1
2	200-02633	. Tube, Electron, 12AX7A (V2, V5)	2
3	200-09614	. Tube, Electron, 7868 (V3, V4, V6, V7)	4
4	715-00733	. Circuit Breaker, 2 Amp., 250 V.	1
5	710-01220	. Lockwasher, Int. Tooth, 3/8" I.D.	1
6	200-12105	. Strip, Terminal	1
7	705-00931	. Clamp, Cable	1
8	400-05956	. Transformer, Power	1
9	400-05955	. Transformer, Audio Output	2
10	200-13754	. Terminal Strip	2
11	301-06303	. Connector Assembly	1
12	301-06502	. Cable Assembly	1
13	701-02331	. Bushing, Insulating	1
14	702-00502	. Cord and Plug	1
15	701-02322	. Strain Relief	1
16	200-14881	. Handle	1
17	200-09617	. Capacitor, Electrolytic, 80 MFD, 450V (C902)	1
18	200-09618	. Capacitor, Electrolytic, 30/30/30 MFD, 450V (C903/C904/C905)	1
19	200-02649	. Nut, 3/8 inch	1
20	301-06305	. Connector and Switch Assembly	1
21	204-13540	. Housing, Terminal	1
22	200-12453	. Relay	1
23	719-00233	. Capacitor, Electrolytic, 100 MFD, 50V (C906)	1
24	708-00231	. Capacitor, Electrolytic, 4 MFD, 450V (C901)	1
25	711-00233	. Capacitor, Electrolytic, 500 MFD, 25V (C908, C909)	2
26	712-00233	. Capacitor, Electrolytic, 500 MFD, 50V (C907)	1
27	722-00210	. Capacitor, Tubular, 0.047 MFD, 600V (C914L, C914R, C915L, C915R)	4
28	706-00223	. Capacitor, Ceramic Disc, 0.01 MFD, 500V (C912L, C912R, C916L, C916R)	4
29	703-00222	. Capacitor, Ceramic Disc, 0.02 MFD, 500V (C913L, C913R)	2
30	701-00213	. Capacitor, Mylar, 0.1 MFD, 400V (C910)	1
31	708-00222	. Capacitor, Ceramic Disc, 0.00022 MFD, 500V (C911L, C911R)	2
32	713-00102	. Resistor, Carbon, 10K, 1/2W (R907)	1
33	720-00109	. Resistor, Carbon, 10 ohms, 1/2W (R923L, R923R)	2
34	711-00103	. Resistor, Carbon, 1K, 1W (R902, R903)	2
35	724-00107	. Resistor, Carbon 22 ohms, 1/2 W (R909)	1
36	704-00103	. Resistor, Carbon, 100 ohms, 1/2 W (R919L, R919R, R920L, R920R)	4
37	712-00106	. Resistor, Carbon, 100 K, ±5%, 1/2 W (R911L, R911R, R916L, R916R, R922L, R922R)	6
38	720-00107	. Resistor, Carbon, 3.3K, 1/2W (R915L, R915R)	2
39	706-00102	. Resistor, Carbon, 1MEG, 1/2W (R912L, R912R, R914L, R914R)	4
40	705-00104	. Resistor, Carbon, 1.5K, 1/2W (R925L, R925R)	2
41	712-00102	. Resistor, Carbon, 330K, 1/2W (R921L, R921R)	2
42	723-00120	. Resistor, Carbon, 20K ±5%, 1/2 W (R906)	1
43	716-00107	. Resistor, Carbon, 22K ±5%, 1/2W (R905)	1
44	704-00107	. Resistor, Carbon, 27K, 1/2W (R917L, R917R, R918L, R918R)	4
45	708-00102	. Resistor, Carbon, 18K, 1/2W (R910L, R910R)	2
46	721-00104	. Resistor, Carbon, 47 ohms, 1/2W (R924L, R924R)	2
47	704-00109	. Resistor, Carbon, 82 ohms, 1/2W (R913L, R913R)	2
48	706-00121	. Resistor, Carbon, 1.6K ±5%, 1/2W (C926L, C926R)	2
49	718-00104	. Resistor, Carbon, 6.8K, 1/2W (R904)	1
50	710-00114	. Resistor, Wirewound, 20K, 10W (R901)	1
51	710-00113	. Resistor, Wirewound, 100 ohms ±5%, 2W (R926)	1
52	722-00113	. Resistor, Wirewound, 220 ohms, 2W (R908)	1
53	718-00355	. Zener Diode, 24V (Z901)	1
54	702-00350	. Diode, Silicon, 1A (D901, D902, D903)	3
55	706-00114	. Resistor, Wirewound, 150 Ohms, 10 W.	1
56	601-04368	. Chassis Assembly with Lettering	1

**FIGURE  
19**

# Speaker Assemblies

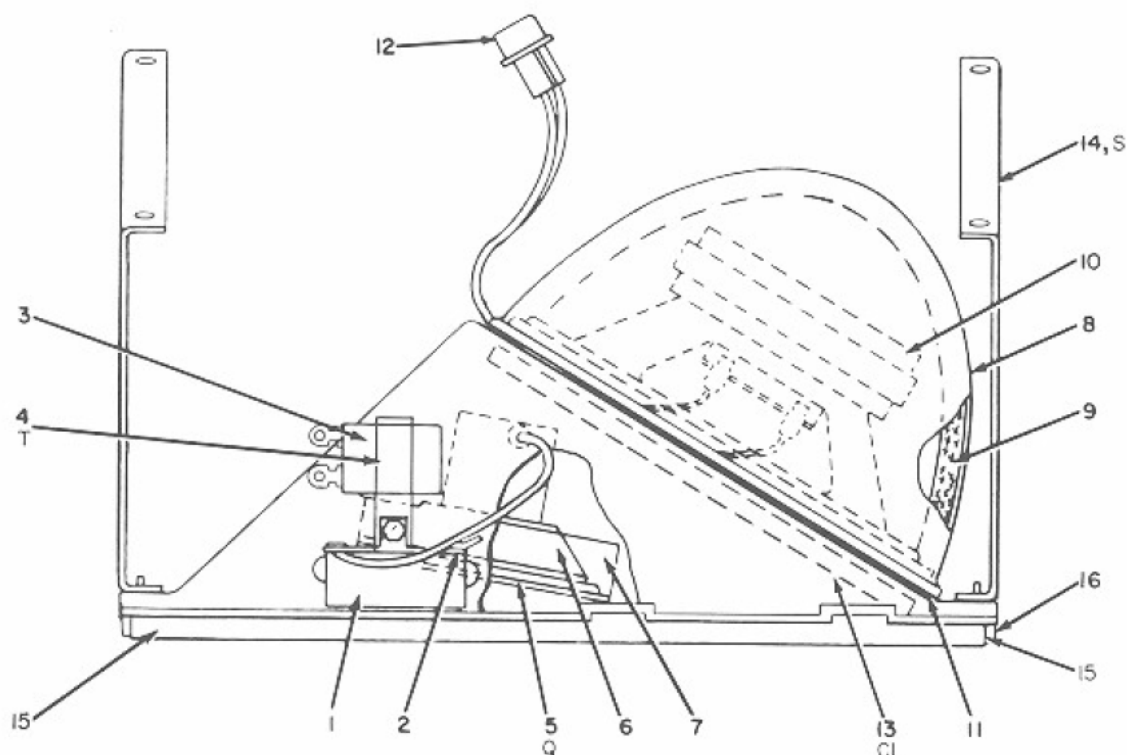


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
19-	401-06487	Speaker Assembly (L.H.) (See Figure 1, Item 26)	REF
	401-06488	Speaker Assembly (R.H.) (See Figure 1, Item 26)	REF
	202-14957	. Speaker Capacitor Assembly	1
1	200-11455	. . Capacitor, 2.5 MFD, 50V	1
2	200-14952	. . Strip, Terminal	1
	201-15802	. Speaker Capacitor Assembly	1
3	201-15801	. . Capacitor, N. P. Electrolytic, 7MFD, 50V	1
4	716-00931	. . Clamp, Cable	1
5	201-15762	. Shield, Tweeter	1
6	300-06788	. Speaker, High Frequency	1
7	201-15678	. Plate, Mounting, Tweeter	1
	706-02119	. Rubber, Sponge	1
8	600-03677	. Cover, Speaker	1
9	200-13265	. Pad, Acoustical	1
10	401-06517	. Speaker, Mid/High Frequency	1
11	200-14872	. Shield, Speaker	1
12	206-12445	. Housing, Pin (2 Circuit)	1
13	601-06653	. Mount, Speaker (L.H. Assembly)	1
	601-06654	. Mount, Speaker (R.H. Assembly)	1
14	301-06977	. Bracket, Speaker Mounting, L.H.	1
	301-06978	. Bracket, Speaker Mounting, R.H.	1
15	706-02129	. Tape, Foam, Top and Bottom	2
16	716-02202	. Tape, Foam, Sides	2



# Driver Board Assembly, 100W

**FIGURE  
20**

Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
20-	401-05702	Driver Board Assembly (100W) (See Figure 21, Item 5)	REF
	200-14034	. Heat Sink	2
	200-13886	. Heat Sink	ALT
	200-13886	. Heat Sink	1
	704-01460	. Bearing	1
	702-00240	. Capacitor, Mylar, 0.1MFD, 100V (C70)	1
	701-00224	. Capacitor, Ceramic Disc. 0.00047 MFD, 100V (C71)	1
	707-00233	. Capacitor, Electrolytic, 100 MFD, 25V (C72)	1
	706-00224	. Capacitor, Ceramic Disc, 0.00022 MFD, 100V (C73, C78)	2
	705-00233	. Capacitor, Electrolytic, 25 MFD, 15V (C74, C75)	2
	706-00233	. Capacitor, Electrolytic, 100 MFD, 6V (C76)	1
	708-00233	. Capacitor, Electrolytic, 500 MFD, 3V (C77)	1
	703-00233	. Capacitor, Electrolytic, 5 MFD, 50V (C80)	1
	703-00350	. Diode, Silicon, 1N457A (D70, D71, D72)	3
	703-00300	. Transistor, Silicon, NPN (Q70, Q71)	2
	704-00310	. Transistor, Silicon, NPN (Q72)	1
	705-00320	. Transistor, Complimentary, Silicon (Q73)	1
	706-00320	. Transistor, Complimentary, Silicon (Q74)	1
	705-00310	. Transistor, Silicon, NPN (Q75, Q76)	2
	706-00310	. Transistor, Silicon, NPN (Q75, Q76)	ALT
	711-00102	. Resistor, Carbon, 470K, 1/2W (R70)	1
	724-00106	. Resistor, Carbon, 680K, 1/2W (R71)	1
	704-00107	. Resistor, Carbon, 270K, 1/2W (R72)	1
	722-00102	. Resistor, Carbon, 100 ohms, 1/2W (R73, R89, R90)	3
	707-00104	. Resistor, Carbon, 3.9K, 1/2W (R74)	1
	713-00102	. Resistor, Carbon, 10K, 1/2W (R75)	1
	704-00121	. Resistor, Carbon, 330 ohms, $\pm 5\%$ , 1/2W (R76, R84, R87)	3
	720-00107	. Resistor, Carbon, 3.3K, 1/2W (R77)	1
	702-00106	. Resistor, Carbon, 47K, 1/2W (R78)	1
	716-00109	. Resistor, Carbon, 33 ohms, 1/2W (R79)	1
	721-00105	. Resistor, Carbon, 1.2K, 1/2W (R80)	1
	721-00104	. Resistor, Carbon, 47 ohms, 1/2W (R81)	1
	708-00104	. Resistor, Carbon, 4.7K, 1/2W (R82)	1
	716-00106	. Resistor, Carbon, 15K $\pm 5\%$ , 1/2W (R83)	1
	712-00107	. Resistor, Carbon, 10K $\pm 5\%$ , 1/2W	ALT
	708-00106	. Resistor, Carbon, 15K, 1/2W (R85)	1
	719-00106	. Resistor, Carbon, 1K, 1/2W (R86, R88)	2
	718-00120	. Resistor, Carbon, 4.7 ohms, 1/2W (R91, R92)	2
	400-05703	. Board, Driver	1

FIGURE  
21

# Stereo Amplifier Assembly, 100W

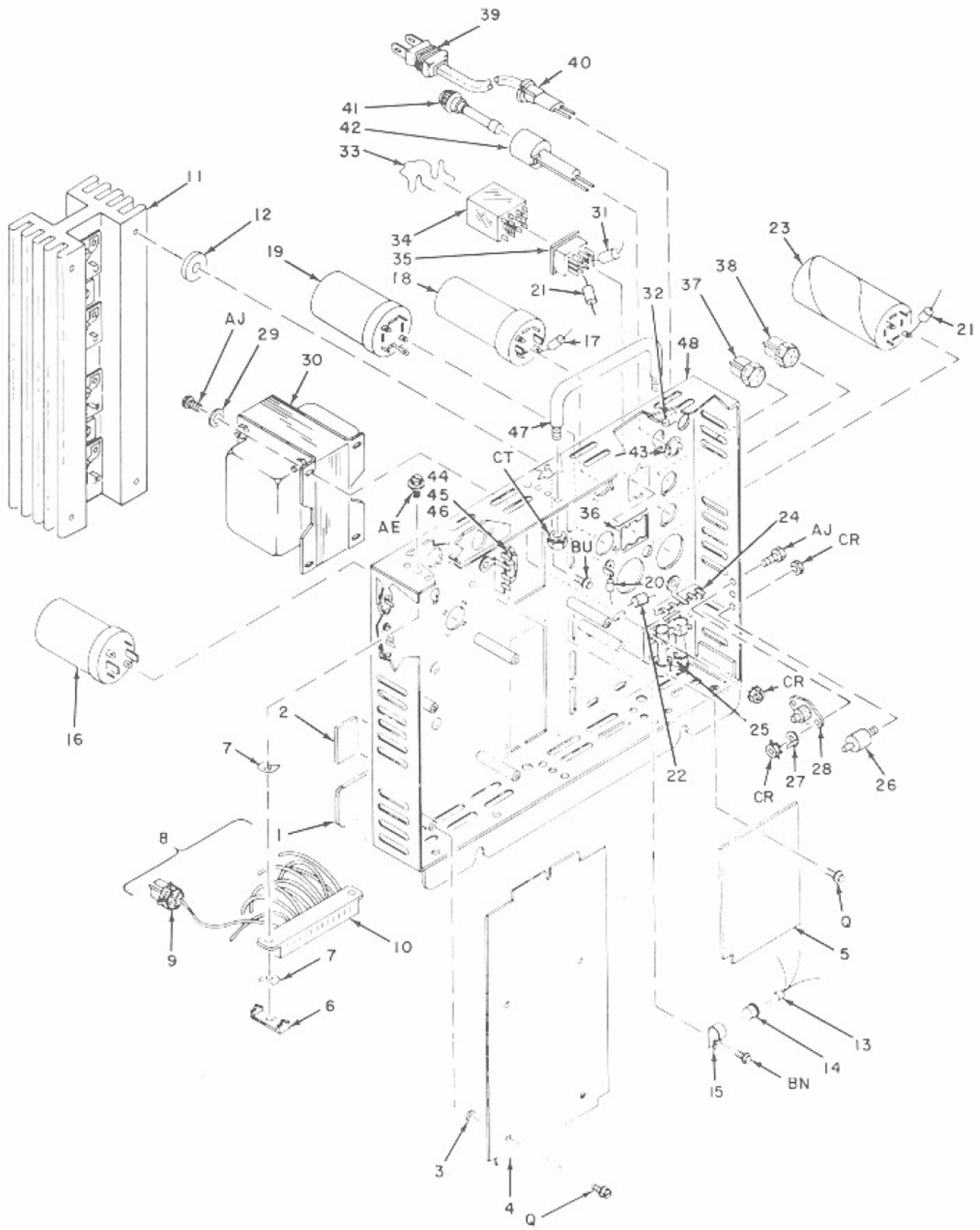


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
21-	602-03760	Stereo Amplifier Assembly, 100W (See Figure 1, Item 57A)	REF
1	200-13671	. Label, Caution	1
2	708-03032	. Label, Serial Number	1
3	706-01208	. Washer, Felt	4
4	602-03758	. Pre-Amplifier Ass embly (See Figure 25)	1
5	602-03759	. Power Amplifier Assembly	1
	401-05702	. . Driver Board Assembly (See Figure 20)	2
6	200-09295	. . Bracket, Retaining	6
7	200-10898	. . Nut, Push-On	12
8	301-06256	. . Connector and Cable Assembly	1
9	203-13540	. . . Plug, Housing, Combo-Line	1
10	208-13333	. . . Connector, Edge	1
11	301-06254	. . Heat Sink Assembly (See Figure 22)	1
12	718-01208	. . Washer, Flat	4
13	704-00310	. . Transistor, Silicon NPN	1
14	702-01460	. . Bearing	1
15	723-00931	. . Clamp	1
16	200-13047	. . Capacitor, Electrolytic, 1000 MFD, 35V	1
17	712-00212	. . Capacitor, Mylar, 0.1 MFD, 100V	2
18	200-13826	. . Capacitor, Electrolytic, 1500 MFD, 100V	1
19	200-13828	. . Capacitor, Electrolytic, 500 MFD, 100V	1
20	718-00113	. . Resistor, Wirewound, 0.27 ohms, 2W	2
21	712-00212	. . Resistor, Wirewound, 22 ohms, 1W	2
22	706-00350	. . Diode, Silicon, 2A, 400V	4
23	200-13827	. . Capacitor, Electrolytic, 2000 MFD, 75V	2
24	704-00213	. . Capacitor, Mylar, 0.22 MFD, 100V	2
25	701-00720	. . Fuse, Cartridge, 2 Amp	2
26	201-13872	. . Suppressor, Surge	1
27	702-00917	. . Lug, Solder	1
28	200-13948	. . Rectifier	1
29	710-01200	. . Washer, Flat	4
30	400-05700	. . Transformer, Power	1
31	713-00102	. . Resistor, Carbon, 10K, 1/2W	1
32	701-00213	. . Capacitor, Mylar, 0.1 MFD, 400V	1
33	200-12869	. . Spring, Relay	1
34	200-13261	. . Relay	1
35	200-10475	. . Socket, Relay	1
36	200-10474	. . Retainer, Socket	1
37	201-13877	. . Combo Line Assembly	1
38	202-13877	. . Combo Line Assembly	1
39	707-00501	. . Cord and Plug	1
40	701-02321	. . Relief, Strain	1
41	200-11445	. . Fuse, 3.2 Amp	1
42	200-11444	. . Fuse holder	1
43	200-11446	. . Clip, Fuse holder	1
44	702-00117	. . Resistor, Wirewound, 500 ohms, 5W	1
45	712-00355	. . Diode, Zener, 1N4749, 24V, 1W	1
46	716-00104	. . Resistor, Carbon, 2.7K, 1/2W	1
47	200-08079	. . Handle	1
48	602-03780	. . Chassis Assembly	1

**FIGURE  
22**

## Heat Sink Assembly, 100W

Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
22-	301-06254	Heat Sink Assembly, 100W (See Figure 21, Item 11)	REF
	705-00305	. Transistor, Power, Silicon, NPN	4
	200-13189	. Spacer, Mica	4
	716-00113	. Resistor, Wirewound, 0.82 ohms, 2W	8
	703-00350	. Diode, Silicon, 1N457A	6
	720-01208	. Washer, Flat	2
	207-03709	. Eyelet	2
	200-09313	. Plate, Diode Mounting	2
	301-06300	. Connector and Cable Assembly	1
	302-06300	. Connector and Cable Assembly	1
	300-05742	. Heat Sink	1

**FIGURE  
23**

## Shell Assembly

Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
23-	601-07050	Shell Assembly (Figure 1, Item 147)	REF
	200-09326	. Teenut (Black Oxide)	22
	200-11006	. Teenut (Mech. Tie-Down)	2
	601-07077	. Panel, Speaker Mounting (L. H.)	1
	601-07078	. Panel, Speaker Mounting (R. H.)	1
	201-15699	. Tube, Vent	1
	201-15700	. Tube, Vent	1
	719-02401	. Screen, Wire Mesh	2
	300-00422	. Cover, Hand Hole	2
	300-06257	. Cover, Hand Hole	2
	401-06001	. Support Bracket Assembly	1
	200-14518	. Spring, Lock	1
	301-06340	. Caster and Cup Assembly	4
	401-06489	. Rail, Skid	2
	401-06512	. Gusset (L. H.)	1
	401-06513	. Gusset (R. H.)	1
	301-07049	. Deflector Chute Assembly	1
	201-15792	. Cover, Caster Hole	2
	401-07076	. Extrusion, Lower Front	1

# Output Transformer Assembly, 100W

**FIGURE**  
**24**

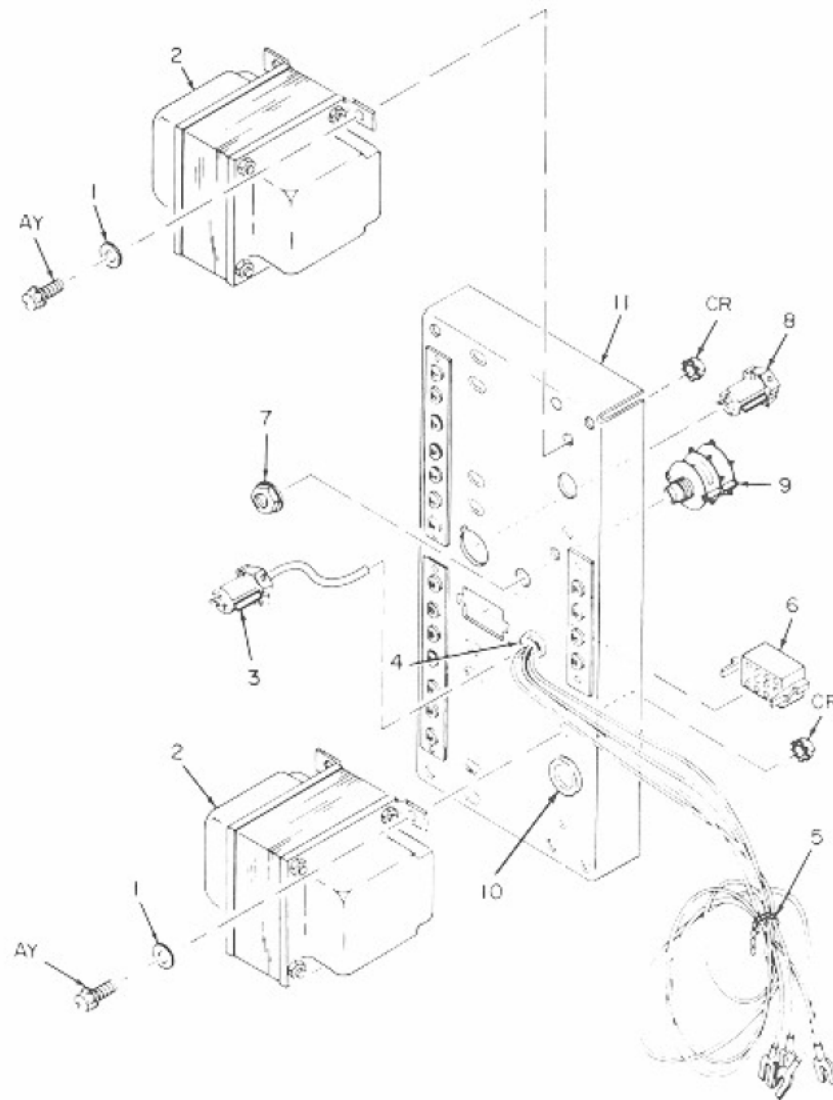


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
24-	601-03774	Output Transformer Assembly, 100W (Figure 1, Item 85A)	REF
1	710-01220	. Washer, Flat	8
2	400-05624	. Transformer, Output	2
	301-06327	. Plug and Cable Assembly	1
3	201-13541	. . Housing, Cap, Combo-Line (7 Circuit)	1
4	701-02331	. Relief, Strain	1
5	200-50239	. Tie, Wire	1
	301-06303	. Plug and Cable Assembly	1
6	204-12444	. . Housing, Socket	1
7	200-02649	. Palmnut, #3/8-32	1
	301-06305	. Connector and Switch Assembly	1
8	201-13540	. . Housing, Plug, Combo-Line (7 Circuit)	1
9	200-12642	. . Switch, 6 Pole, 4 Position	1
10	702-02331	. Relief, Strain	2
11	301-06260	. Chassis Assembly with Lettering	1

# Pre-Amplifier Assembly

Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
25-	602-03758	Pre-Amplifier Assembly (See Fig. 1, Item 85 Line 7; Fig. 21, Item 4)	REF
	701-00240	. Capacitor, Mylar, 0.47 MFD, 100V (C1L, C1R)	2
	702-00241	. Capacitor, Mylar, 0.022 MFD, 100V (C2L, C2R)	2
	703-00241	. Capacitor, Mylar, 0.012MFD, 100V (C3L, C3R)	2
	702-00240	. Capacitor, Mylar, 0.10 MFD, 100V (C4L, C4R, C5L, C5R, C7L, C7R, C13L, C13R, C14L, C14R, C15L, C15R, C16L, C16R, C17L, C17R, C18L, C18R, C27, C29)	20
	702-00233	. Capacitor, Electrolytic, 5 MFD, 25V (C6L, C6R, C23L, C23R, C28)	5
	704-00240	. Capacitor, Mylar, 0.022 MFD, 100V (C8R, C8L)	2
	707-00240	. Capacitor, Mylar, 0.01 MFD, 100V (C9L, C9R, C20L, C20R)	4
	703-00224	. Capacitor, Ceramic Disc, 0.0022MFD, 100V (C10L, C10R)	2
	702-00224	. Capacitor, Ceramic Disc, 0.001 MFD, 100V (C11L, C11R)	2
	712-00224	. Capacitor, Ceramic Disc, 0.0018 MFD, 500V (C12L, C12R)	2
	716-00240	. Capacitor, Mylar, 0.0047 MFD, 100V (C19L, C19R)	2
	710-00240	. Capacitor, Mylar, 0.003 MFD, 100V (C21L, C21R)	2
	704-00224	. Capacitor, Ceramic Disc, 0.0047 MFD, 100V (C22L, C22R)	2
	702-00251	. Capacitor, Tantalum, 47 MFD, 20V (C24)	1
	702-00250	. Capacitor, Tantalum, 47 MFD, 20V (C24)	ALT
	701-00251	. Capacitor, Tantalum, 33 MFD, 15V (C25)	1
	701-00250	. Capacitor, Tantalum, 33 MFD, 15V (C25)	ALT
	706-00233	. Capacitor, Electrolytic, 100MFD, 6V (C26)	1
	707-00350	. Diode, Silicon, 1N4148 (D1L through D14)	18
	701-00351	. Diode, Germanium, 1N191 (D15)	1
	705-00300	. Transistor, Silicon, NPN, 2N5088 (Q1L, Q1R, Q2L, Q2R, Q3L, Q3R, Q5L, Q5R, Q6L, Q6R, Q7L, Q7R)	12
	701-00300	. Transistor, Silicon, NPN, 2N2923 (Q4L, Q4R)	2
	702-00300	. Transistor, Silicon, NPN, 2N2924 (Q8L, Q8R, Q11)	3
	703-00300	. Transistor, Silicon, NPN, 2N2925 (Q9L, Q9R, Q10)	3
	718-00106	. Resistor, Carbon, 5.6K, 1/2 W (R1L, R1R)	2
	704-00102	. Resistor, Carbon, 2.2 MEG, 1/2 W (R2L, R2R)	2
	724-00104	. Resistor, Carbon, 27K, 1/2 W (R3L, R3R)	2
	713-00102	. Resistor, Carbon, 10K, 1/2 W (R4L, R4R, R14L, R14R, R51)	5
	716-00106	. Resistor, Carbon, 15K, 1/2 W (R5L, R5R)	2
	708-00121	. Resistor, Carbon, 1.8 MEG, 1/2 W (R6L, R6R)	2
	708-00104	. Resistor, Carbon, 4.7K, 1/2W (R7L, R7R, R27L, R27R, R32L, R32R, R42L, R42R)	8
	725-00104	. Resistor, Carbon, 3.9K, 1/2 W (R8L, R8R)	2
	703-00104	. Resistor, Carbon, 560 ohms, 1/2 W (R9L, R9R)	2
	703-00106	. Resistor, Carbon, 120K, 1/2 W (R10L, R10R, R50)	3
	706-00102	. Resistor, Carbon, 1 MEG, 1/2 W (R12L, R12R, R13L, R13R, R15L, R15R, R25L, R25R, R29L, R29R, R30L, R30R, R33L, R33R)	14
	708-00120	. Resistor, Carbon, 47 ohms, 1/2 W (R16L, R16R)	2
	714-00107	. Resistor, Carbon, 12K, 1/2 W (R17L, R17R)	2
	701-00109	. Resistor, Carbon, 200 ohms, 1/2 W (R18L, R18R)	2
	701-00102	. Resistor, Carbon, 47K, 1/2 W (R19L, R19R)	2
	710-00102	. Resistor, Carbon, 2.2K, 1/2W (R20L, R20R)	2
	708-00106	. Resistor, Carbon, 15K, 1/2 W (R21L, R21R, R58)	3
	711-00106	. Resistor, Carbon, 220 ohms, 1/2 W (R22, R45, R46)	3
	702-00102	. Resistor, Carbon, 150K, 1/2W (R23L, R23R, R24L, R24R, R36L, R36R)	6
	719-00102	. Resistor, Carbon, 68 ohms, 1/2 W (R26L, R26R, R31L, R31R)	4
	707-00102	. Resistor, Carbon, 220K, 1/2 W (R28L, R28R, R34L, R34R)	4
	704-00107	. Resistor, Carbon, 270K, 1/2 W (R38L, R38R, R44)	3
	707-00106	. Resistor, Carbon, 33K, 1/2 W (R39L, R39R)	2
	705-00400	. Potentiometer, Linear, 10K (R41L, R41R)	2
	718-00104	. Resistor, Carbon, 6.8K, 1/2W (R41L, R41R) (Used in series with Pot R41)	2
	712-00102	. Resistor, Carbon, 330K, 1/2 W (R43)	1
	722-00120	. Resistor, Carbon, 43K, 1/2 W (R47, R48)	1
	718-00102	. Resistor, Carbon, 100K, 1/2 W (R49)	1
	200-13023	. Potentiometer, Linear, 200 ohms (R52)	1
	722-00106	. Resistor, Carbon, 390K, 1/2 W (R56)	1
	702-00120	. Resistor, Carbon, 15 ohms, 1/2 W (R57)	1
	708-00102	. Resistor, Carbon, 18K, 1/2 W (R59)	1
	711-00104	. Resistor, Carbon, 22K, 1/2 W (R60)	1
	714-00106	. Resistor, Carbon, 33K, 5 . 1/2 W (R61)	1
	701-00370	. Thermistor, 50K, 0.86 W (R62)	1
	200-13024	. Switch, Rotary	1
	200-13025	. Switch, Rotary	1
	201-14337	. Shielded Cable Assembly	1
	202-14337	. Shielded Cable Assembly	1
	602-03758	. Circuit Board, Pre-Amplifier	1

# Junction Box Assembly

**FIGURE  
26**

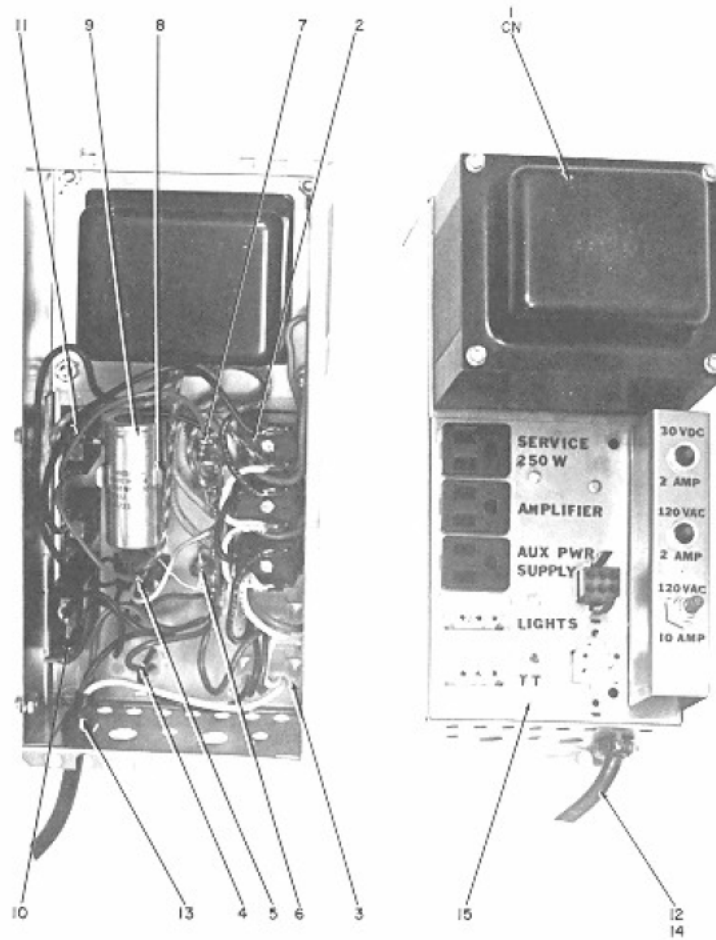


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
26-	401-06703	Junction Box Assembly (Figure 1, Item 27)	REF
1	400-05751	. Transformer	1
2	200-13759	. Outlet, Convenience, 3 Wire	3
3	202-17322	. Housing, Socket, 3 Circuit	2
4	203-17322	. Housing, Socket, 6 Circuit	1
5	202-12444	. Housing, Socket, 6 Circuit	1
6	710-00350	. Diode, Silicon, Motorola #MR 752, 16A, 200V	2
7	708-00104	. Resistor, Carbon, 4.7K, 1/2W	1
8	200-50174	. Clip, Capacitor Mounting	1
9	710-00233	. Capacitor, Electrolytic, 1250 MFD, 50V	1
10	725-00734	. Circuit Breaker, 10 Amp	1
11	715-00733	. Circuit Breaker, 2 Amp	2
12	201-11212	. Cord and Plug Assembly	1
13	704-02321	. Relief, Strain	2
14	200-14059	. Cover, Cord Hole	1
15	301-07316	. Junction Box With Lettering	1

**FIGURE**  
**27**

# Credit Unit Assembly

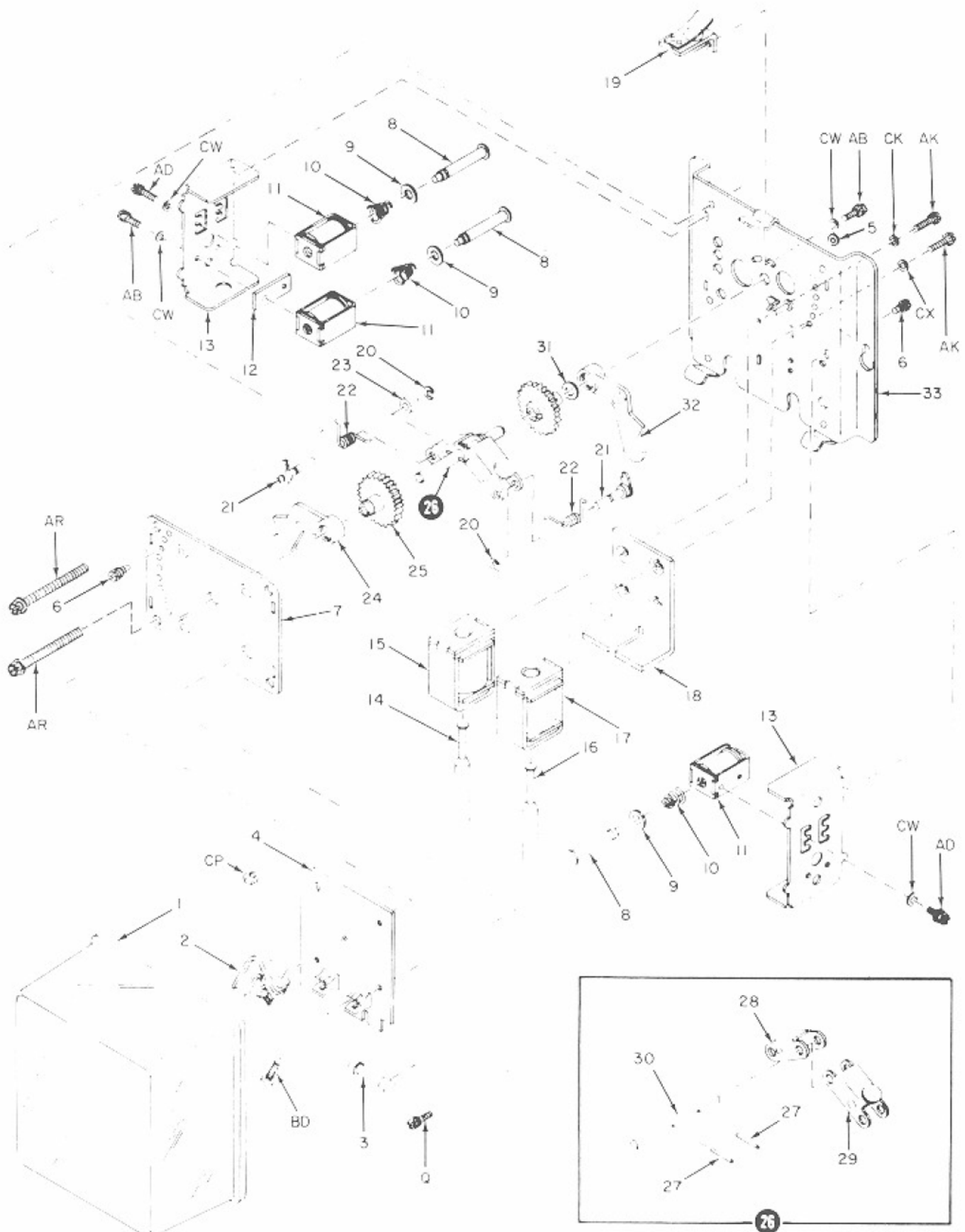




Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
27-	603-03300	Credit Unit Assembly (Figure 1, Item 77)	REF
1	400-05297	. Cover	1
2	301-05832	. Wiper Assembly	1
3	703-00721	. Fuse	1
4	302-05580	. Switch Circuit Assembly	1
5	703-01430	. Ring, Retaining	1
6	200-07468	. Screw, Stop	2
7	201-12056	. Front Plate Assembly	1
8	201-12019	. Stop Plunger and Tip Assembly	3
9	712-01207	. Washer, Flat	3
10	200-11533	. Spring, Compression	3
11	201-12859	. Stop Solenoid Assembly	3
12	200-12060	. Plate, Spacer	1
13	300-05575	. Frame, Side	2
14	201-07756	. Plunger and Tip Assembly (Credit)	1
15	204-11505	. Solenoid Assembly (Credit)	1
16	202-07756	. Plunger and Tip Assembly (Cancel)	1
17	205-11505	. Solenoid Assembly (Cancel)	1
18	200-12951	. Bracket, Solenoid	1
19	201-07792	. Detent Assembly	1
20	701-01430	. Ring, Retaining	2
21	201-12055	. Pawl and Shaft Assembly	2
22	200-12068	. Spring, Pawl	2
23	724-01215	. Spacer	1
24	200-07484	. Arm, Stop (Credit)	1
25	200-12052	. Wheel, Ratchet	2
26	202-12058	. Roller Bracket and Shaft Assembly	1
27	703-01132	. . Pin, Roll	2
28	201-07825	. . Bracket and Roller Assembly	1
29	201-11568	. . Bracket and Roller Assembly	1
30	200-07467	. . Shaft	1
31	707-01216	. Spacer	AR
32	200-12949	. Arm, Stop (Cancel)	1
33	301-05834	. Back Plate Assembly	1

**FIGURE  
28**

# Title Rack Panel Assembly

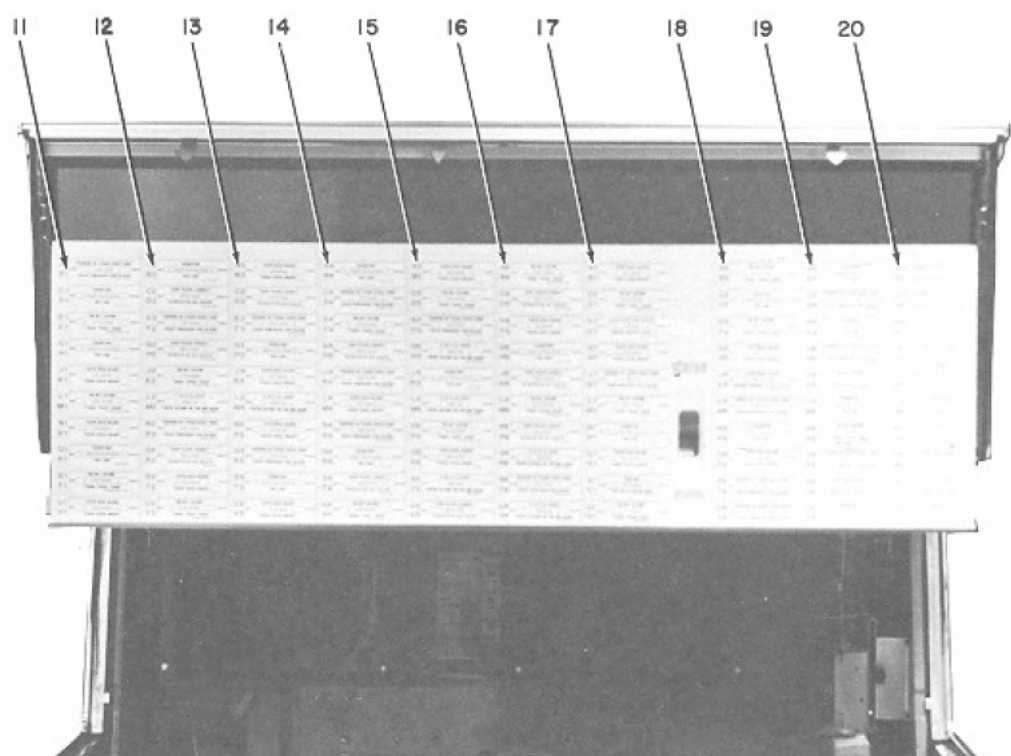
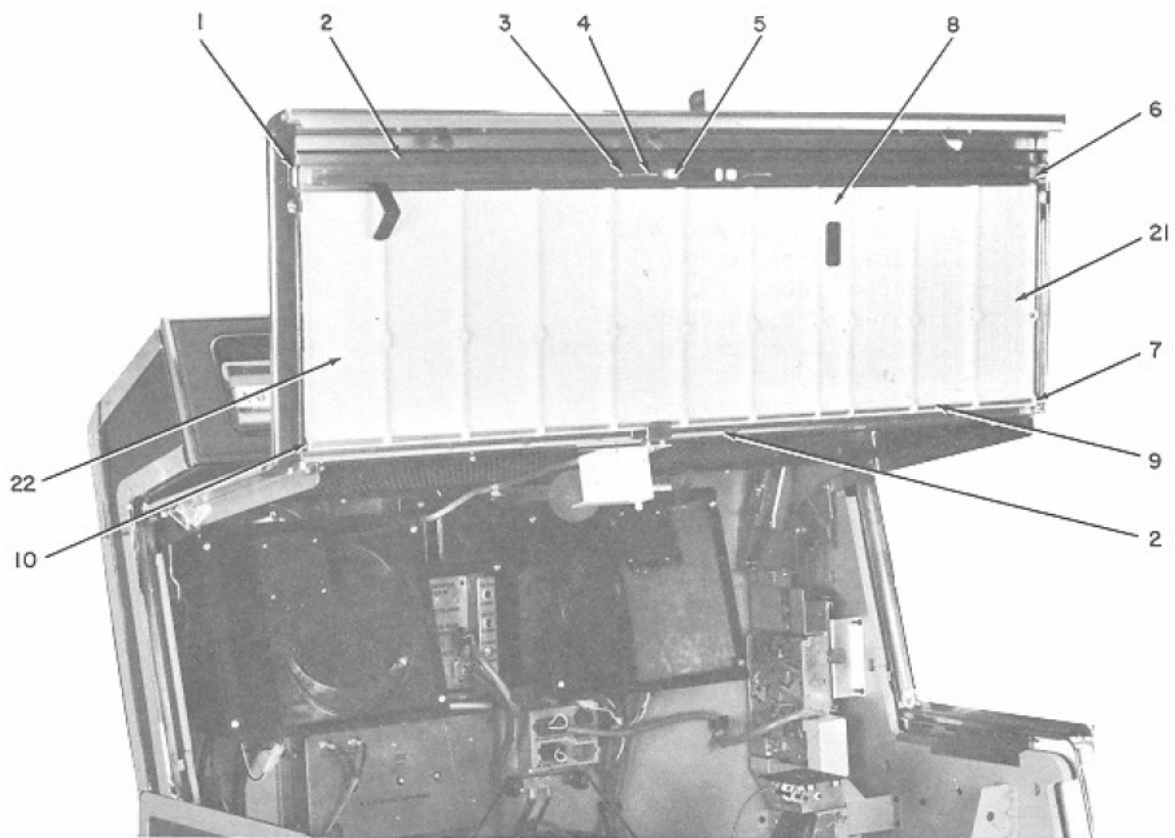
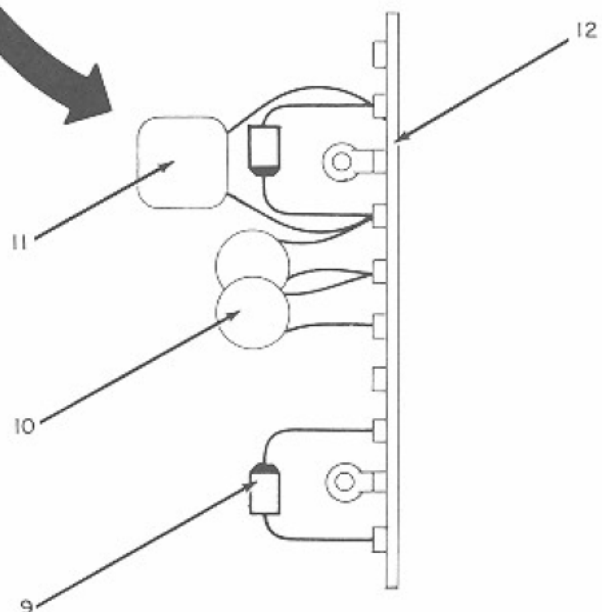
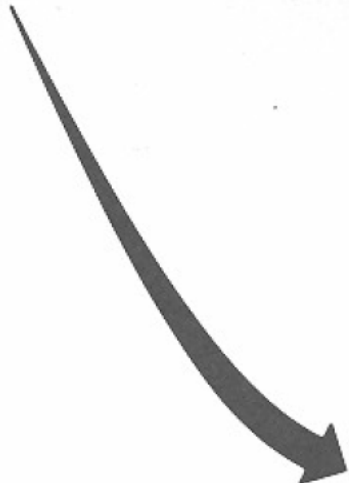
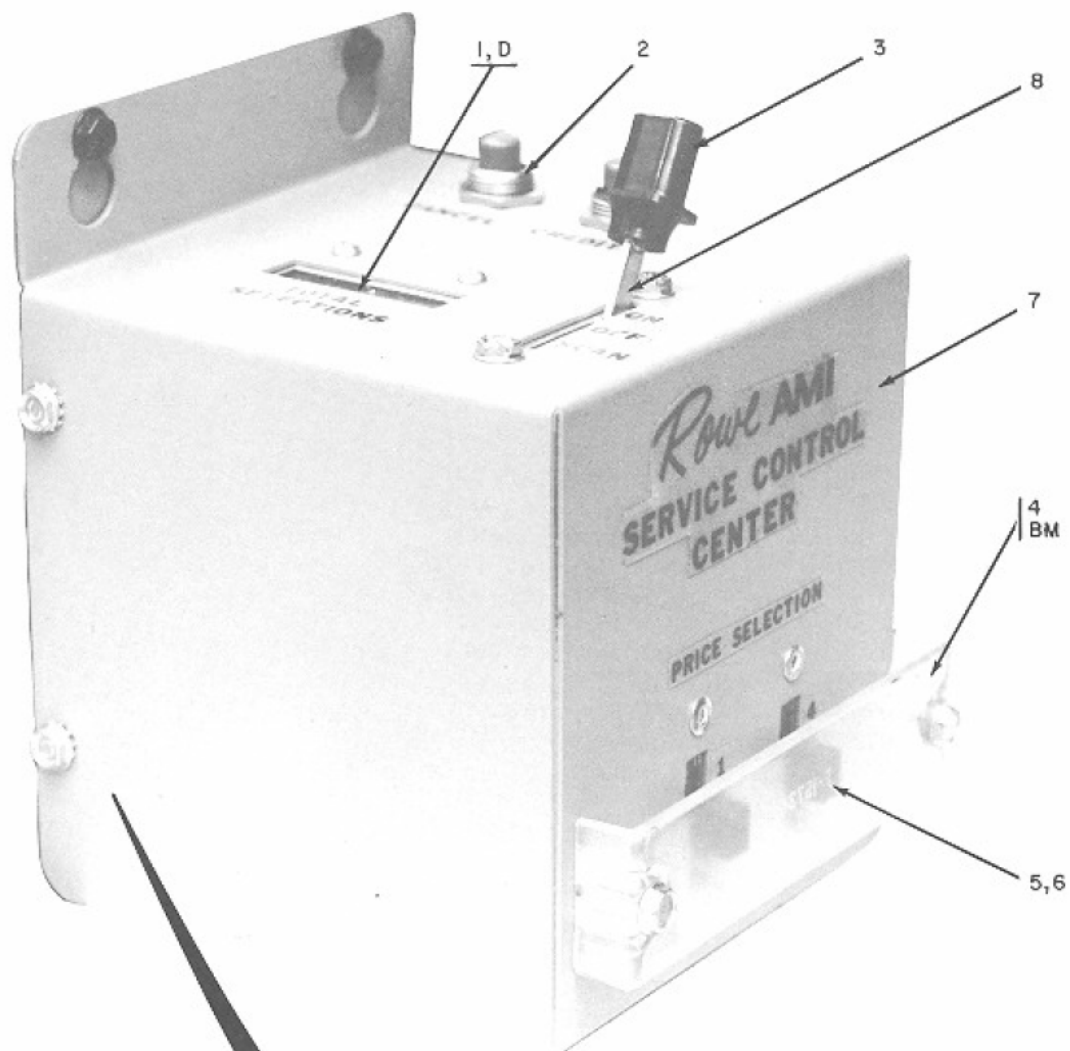


Fig. and Index No.	Rowe Part No.	DESCRIPTION	Qty. Per Ass'y
28-	601-07073	Title Rack Assembly (Figure 5, Item 32)	REF
1	201-15653	. Catch	2
2	301-07006	. Stiffener and Pin Assembly	1
3	703-01430	. Ring, Retaining	2
4	200-12562	. Spring, Extension	2
5	201-15657	. Latch Bar	2
6	201-15784	. Drive Screw	1
7	201-15689	. Clip, Push Nut	1
8	401-06479	. Frame, Record Playing	1
9	201-15666	. Rod, Title Panel	1
10	704-01430	. Ring, Retaining	1
11	301-07007	. Number Strip (A1-V1)	1
12	302-07007	. Number Strip (A2-V2)	1
13	303-07007	. Number Strip (A3-V3)	1
14	304-07007	. Number Strip (A4-V4)	1
15	305-07007	. Number Strip (A5-V5)	1
16	306-07007	. Number Strip (A6-V6)	1
17	307-07007	. Number Strip (A7-V7)	1
18	308-07007	. Number Strip (A8-V8)	1
19	310-07007	. Number Strip (A9-V9)	1
20	311-07007	. Number Strip (A0-V0)	1
21	601-07072	. Title Rack	9
22	602-07072	. Title Rack	1

**FIGURE**  
**29**

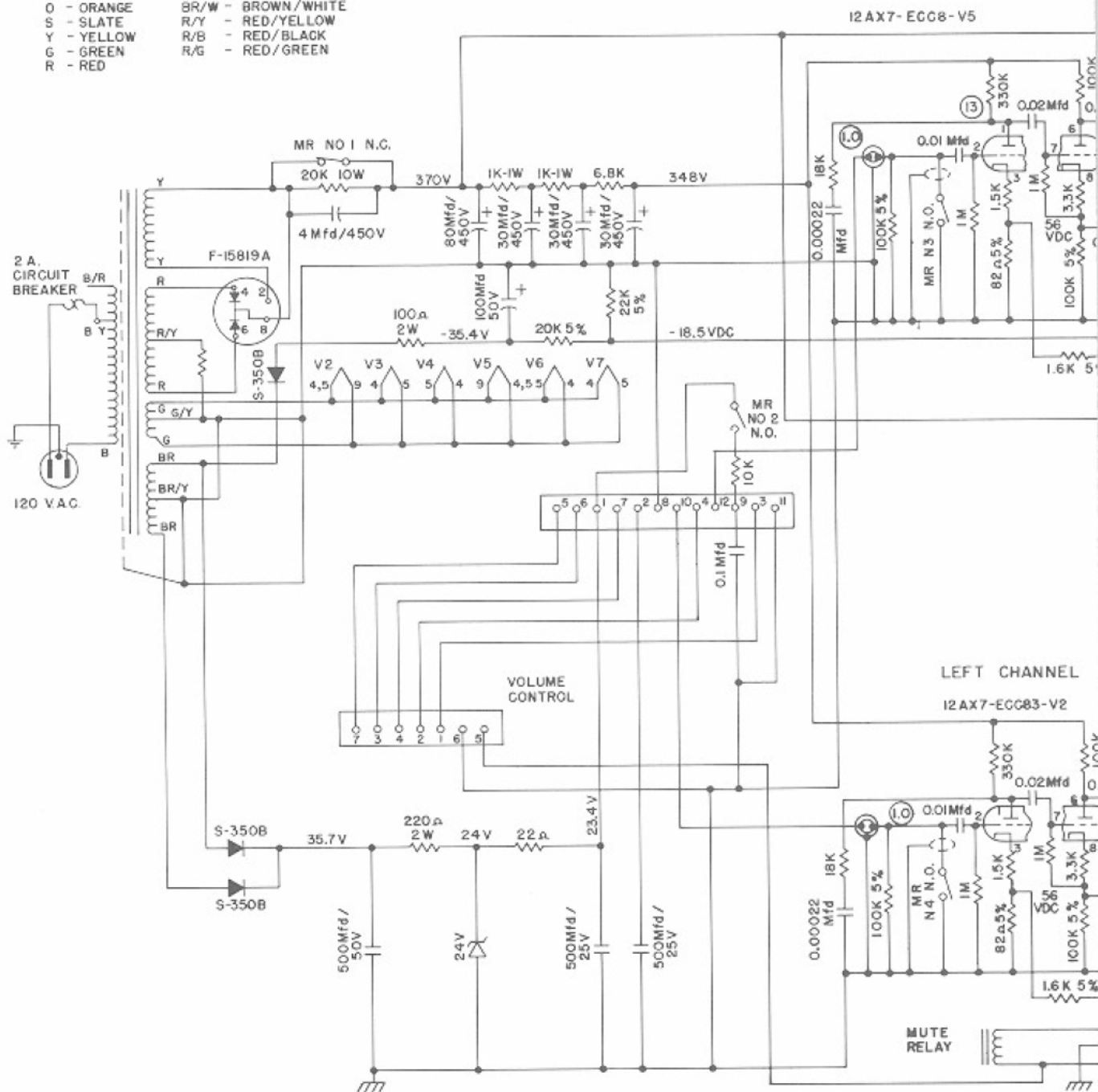
# Harness and Console Assembly



STEREO POWER AMPLIFIER  
SCHEMATIC DIAGRAM

WIRE COLOR CHART

BL - BLUE	W - WHITE
BR - BROWN	G/W - GREEN/WHITE
B - BLACK	BL/W - BLUE/WHITE
O - ORANGE	BR/W - BROWN/WHITE
S - SLATE	R/Y - RED/YELLOW
Y - YELLOW	R/B - RED/BLACK
G - GREEN	R/G - RED/GREEN
R - RED	

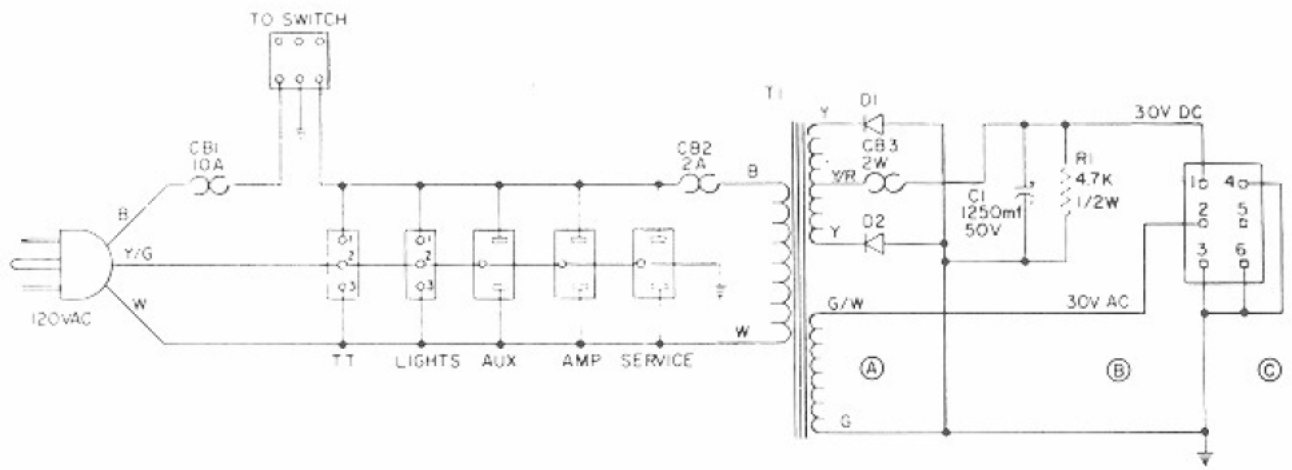


D.C. VOLTAGE READINGS

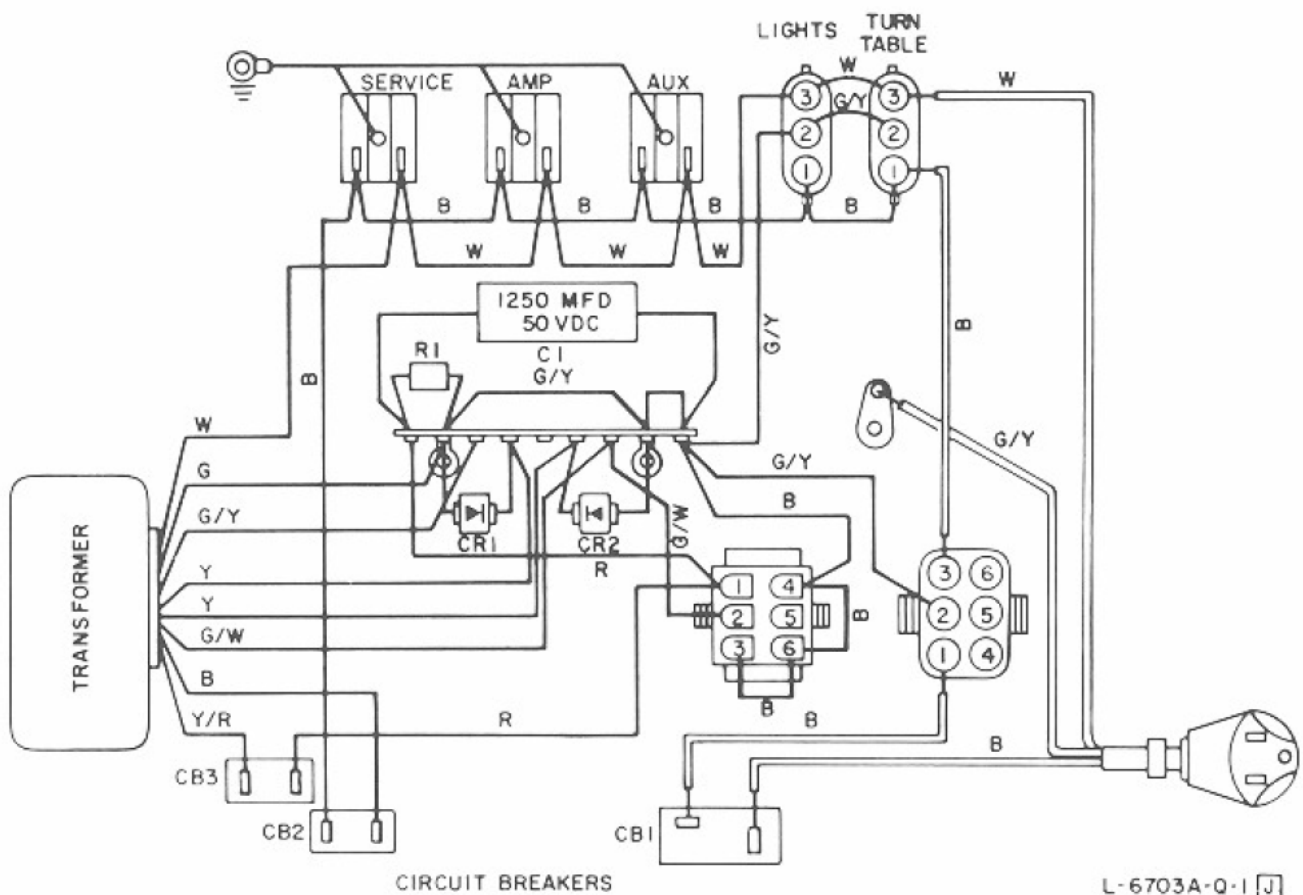
		PIN #1	PIN #2	PIN #3	PIN #4	PIN #5	PIN #6	PIN #7	PIN #8	PIN #9
V1	5U4GB		370		320 VAC		320 VAC		370	
V2	12AX7-ECC83	130	0	1.0			277	-	60	
V3	7868	370	-16.2	0			-16.2	370		369
V4	7868	370	-16.2	0			-16.2	370		369
V5	12AX7-ECC83	130	0	1.0			277	-	60	
V6	7868	370	-16.2	0			-16.2	370		369
V7	7868	370	-16.2	0			-16.2	370		369

NOTE:  
UNLESS OTHERWISE SPECIFIED,  
WITH A 20,000 OHM  
LINE VOLTAGE TO  
D.C. MEASUREMENT  
SIGNAL VOLTAGES  
SIGNAL INPUT TO  
CAPACITANCE IS IN  
RESISTANCE IS IN  
CAPACITOR VOLTAGE  
RESISTORS ARE  
POWER LEVEL IS



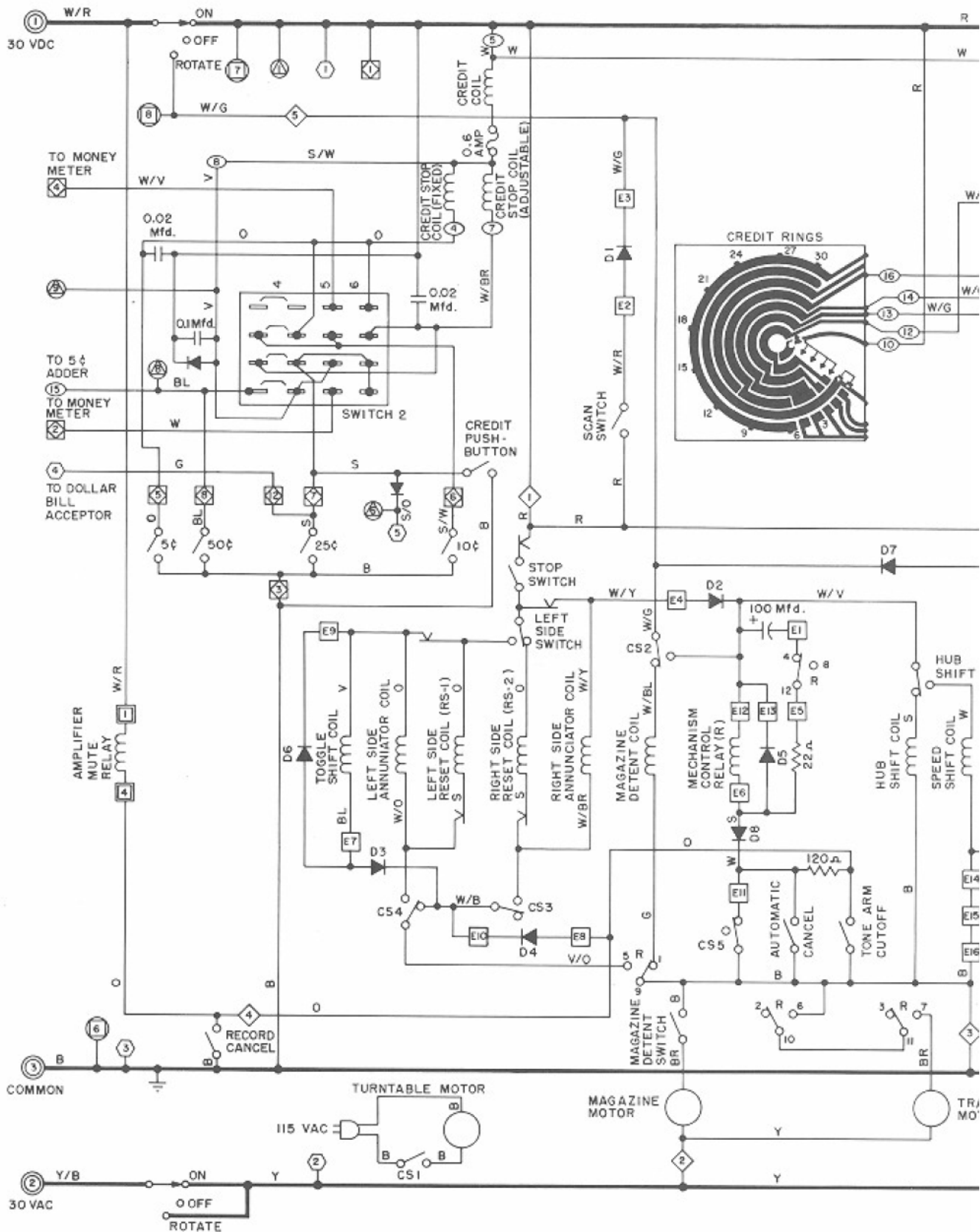


L-6703A-Q-2 [C]

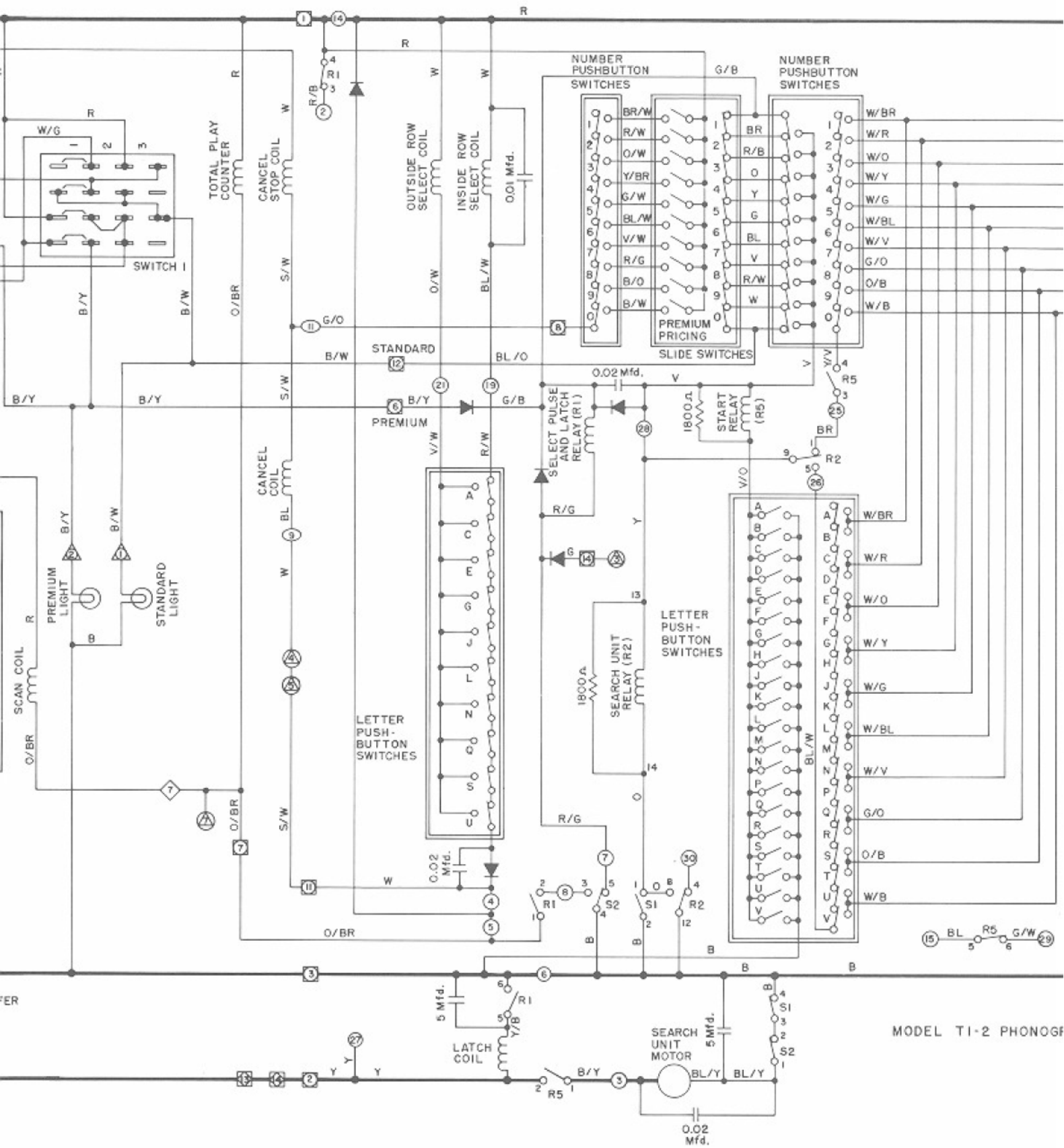


L-6703A-Q-1 [J]

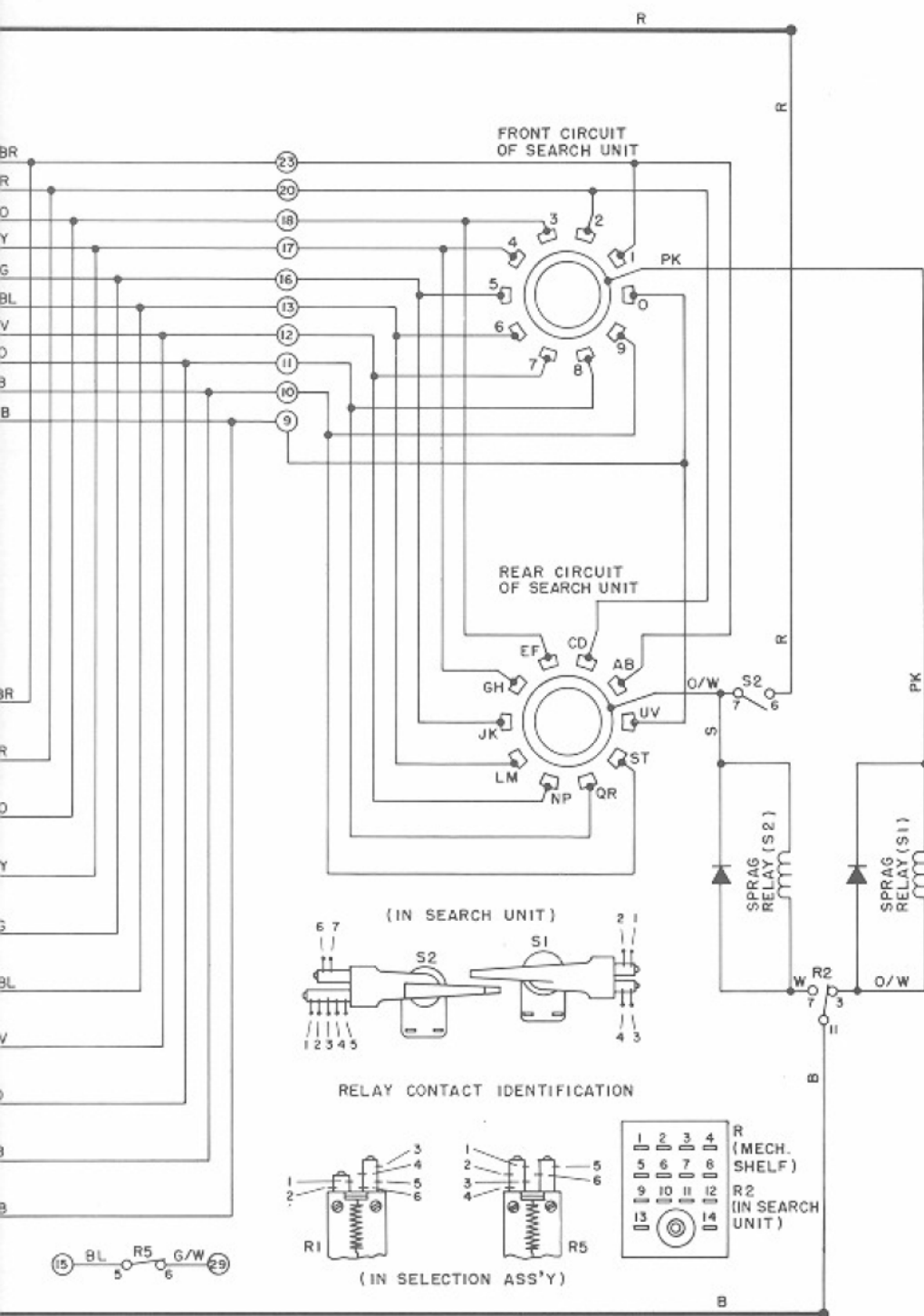
FIGURE 4-14. JUNCTION BOX WIRING DIAGRAM AND SCHEMATIC







MODEL T1-2 PHONOGR



**CONNECTOR IDENTIFICATION**

- 50¢ BONUS PLUG
- MECHANISM TERMINAL BOARD TERMINALS
- MAIN PHONO HARNESS TO MECHANISM
- SEARCH UNIT EDGE CONNECTOR
- MAIN HARNESS TO SELECTOR ASS'Y
- CREDIT UNIT EDGE CONNECTOR
- COIN SWITCHES TO MAIN HARNESS
- MAIN HARNESS TO DOLLAR BILL ACCEPTOR
- AMPLIFIER
- JUNCTION BOX
- STOP SWITCH SLIP RINGS
- CAM SWITCH (MECH.)
- WALL BOX POWER SUPPLY

**WIRE COLOR CODE**

- B - BLACK
- BL - BLUE
- BR - BROWN
- G - GREEN
- O - ORANGE
- PK - PINK
- R - RED
- S - SLATE
- V - VIOLET
- W - WHITE
- Y - YELLOW

MODEL TI-2 PHONOGRAPH SCHEMATIC DIAGRAM

FIGURE 4-1. TI-2 PHONOGRAPH SCHEMATIC DIAGRAM

RECORD  
CANCEL  
BUTTON

CREDIT  
BUTTON

MECH.  
SERVICE  
SWITCH

SWITCH \* 1

TO JUNCTION  
BOX

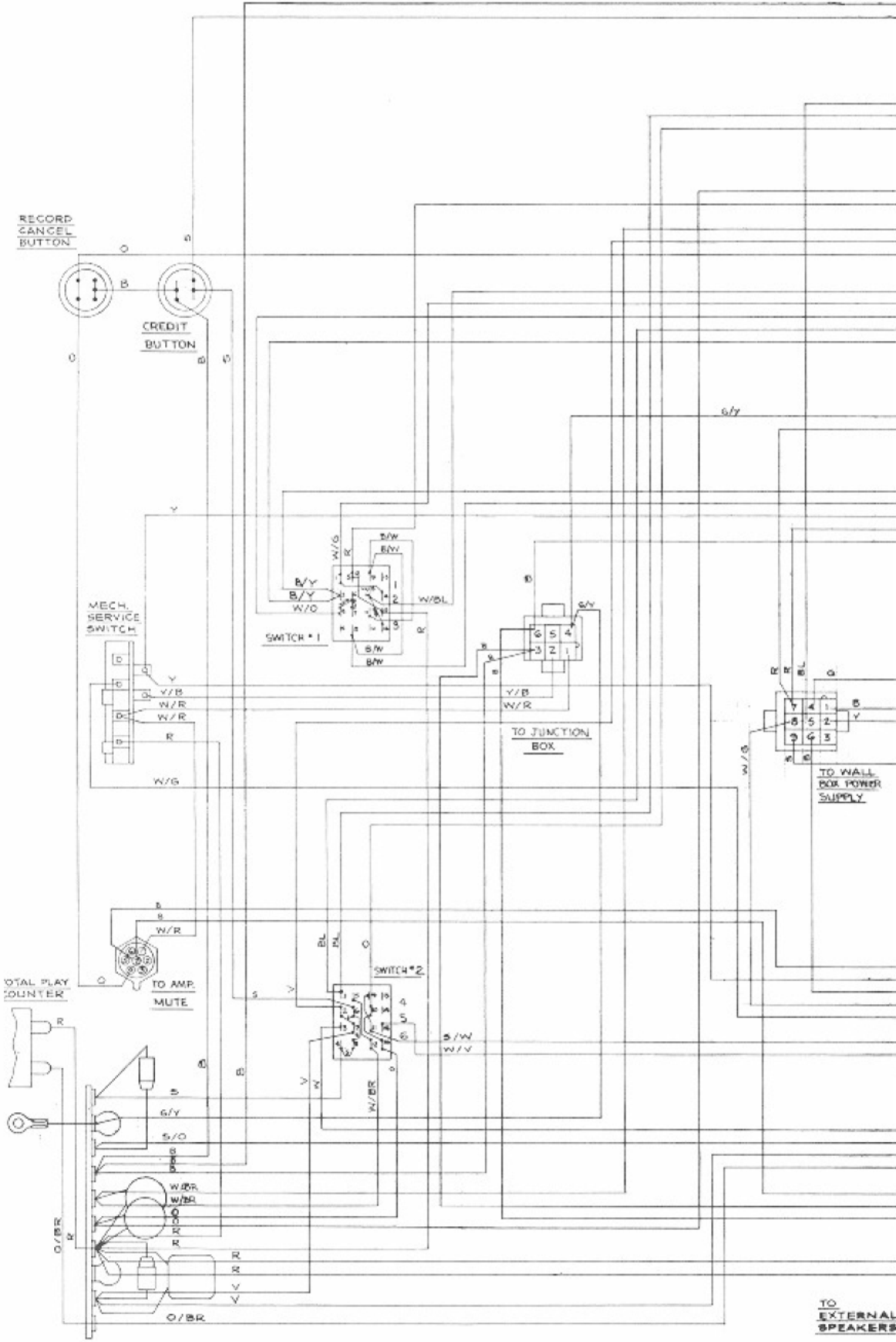
TO WALL  
BOX POWER  
SUPPLY

TOTAL PLAY  
COUNTER

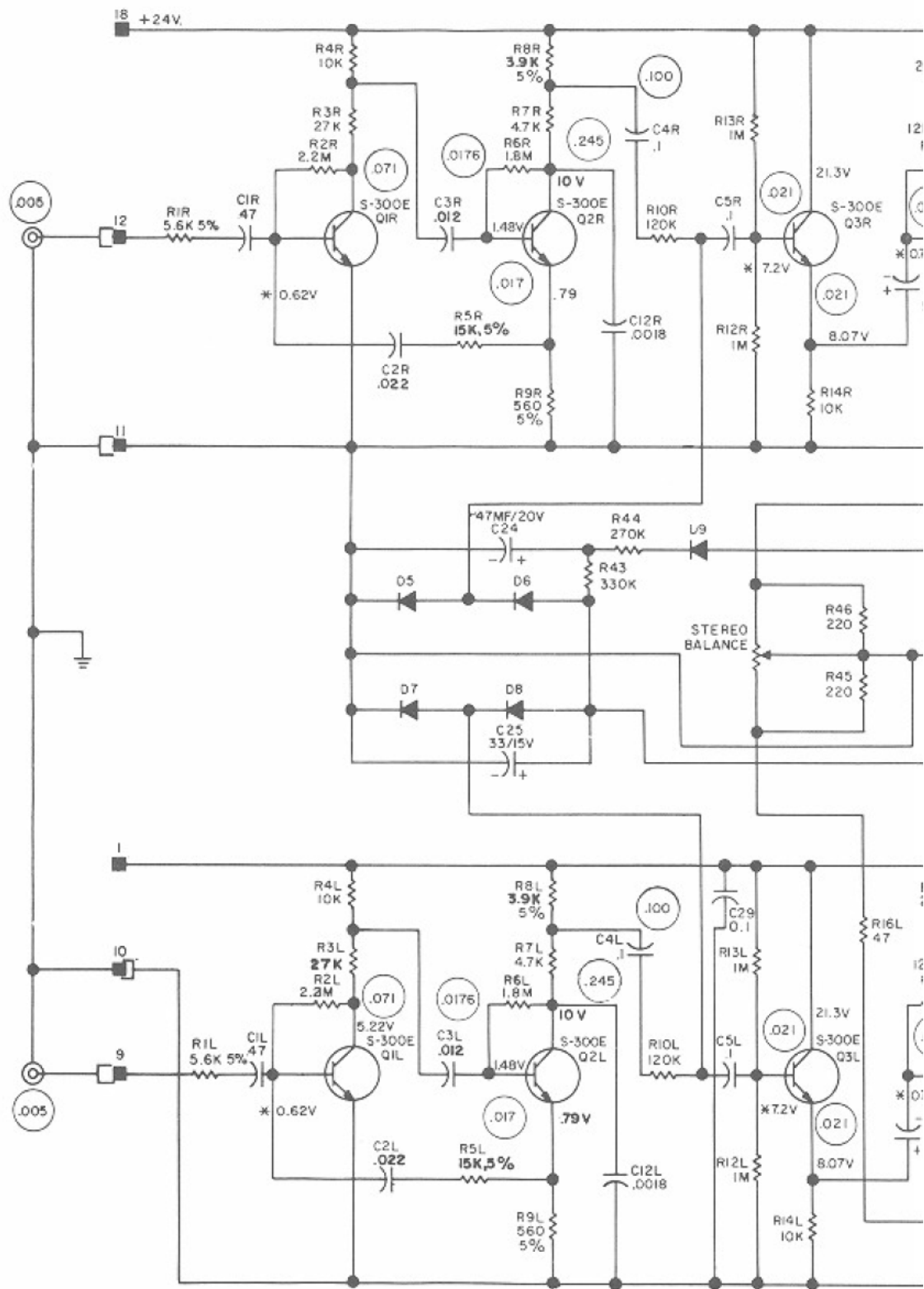
TO AMP  
MUTE

SWITCH \* 2

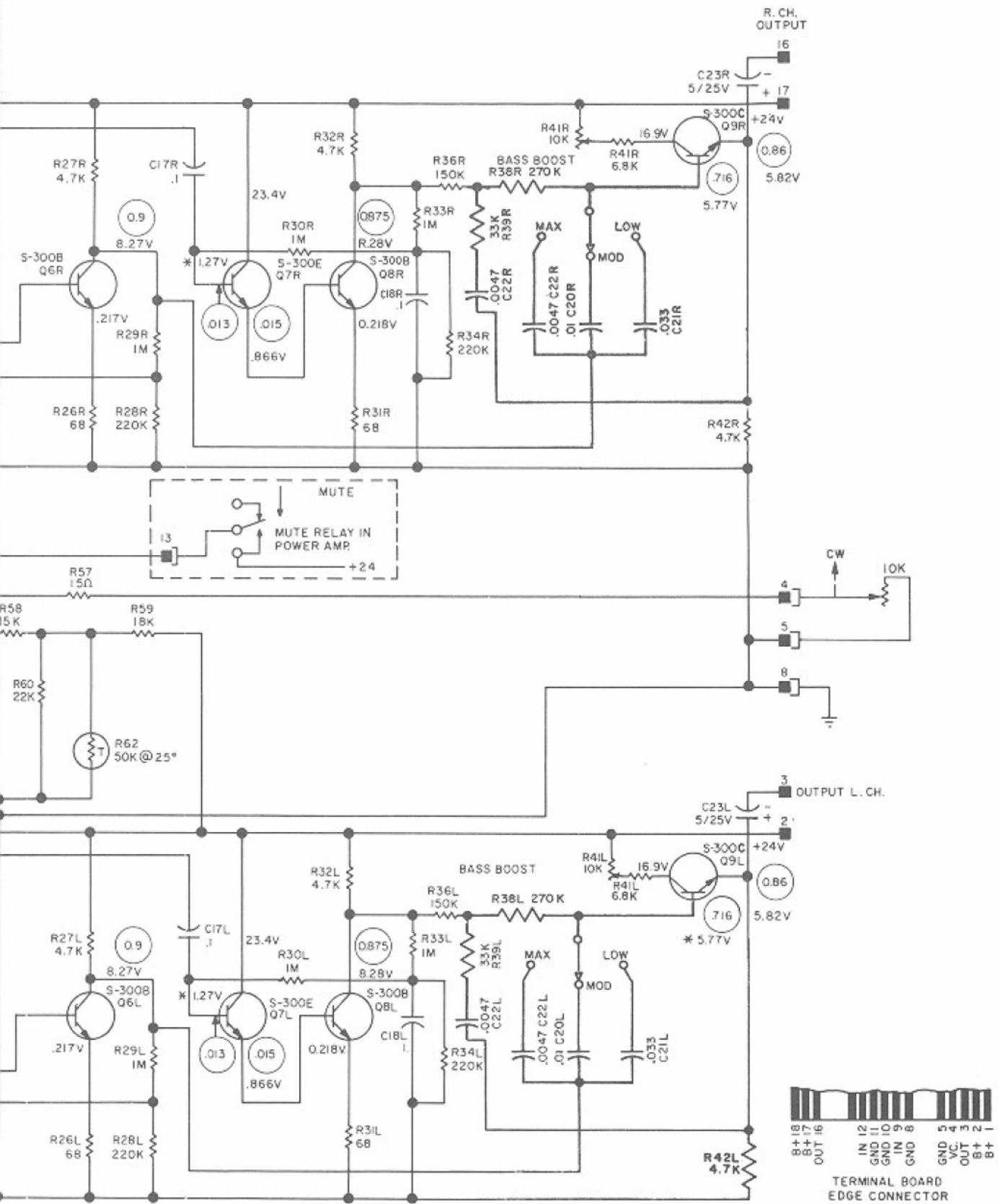
TO  
EXTERNAL  
SPEAKERS





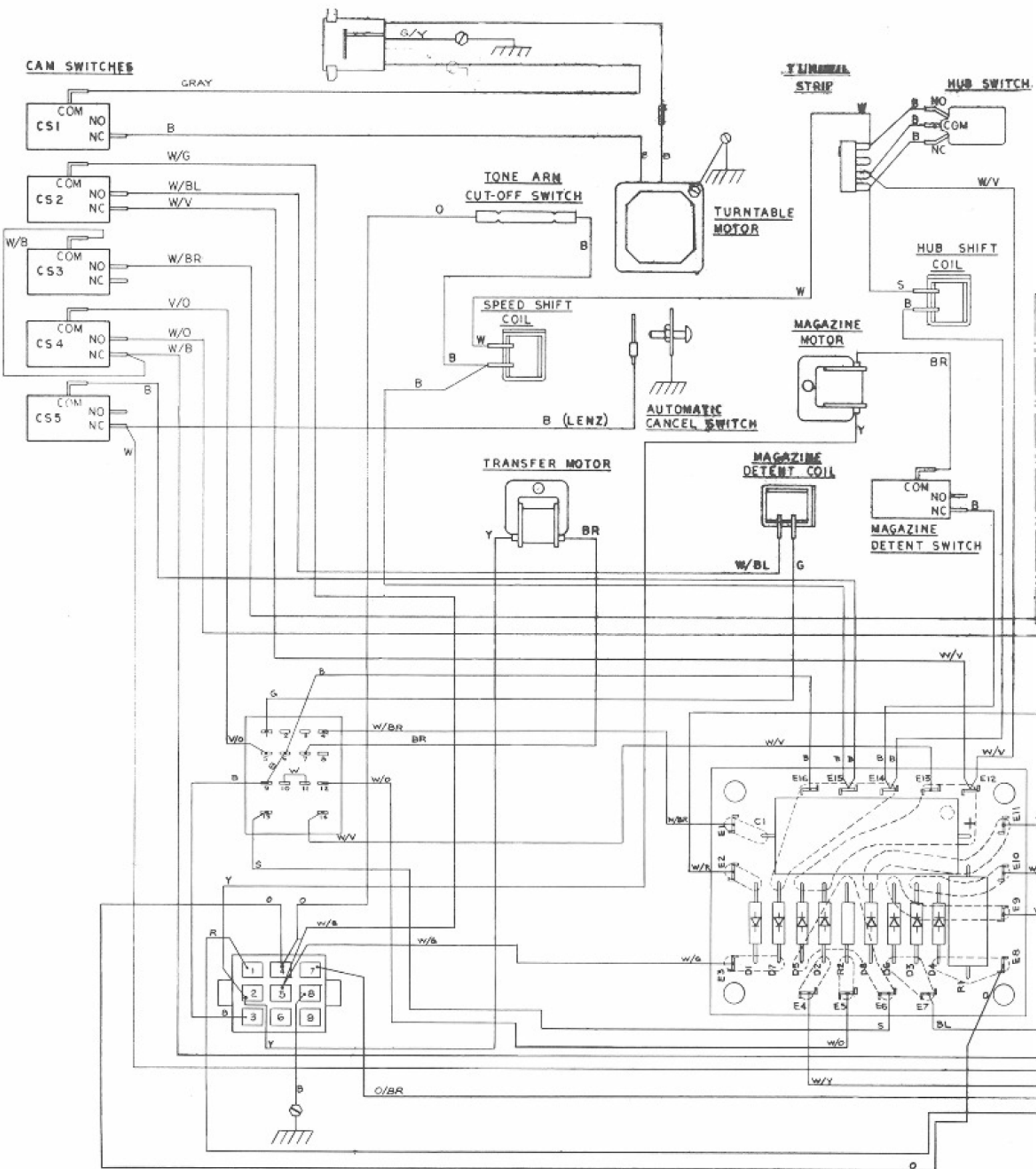






RANGE CONTROL AT FULL AND BOOST CONTROL AT MOD.  
 VOLTAGES ARE AS INDICATED BY AN 11 MEGOHM VTVM AND ARE  
 APPROXIMATE FOR A 20,000 OHMS PER VOLT METER.  
 OF SIGNAL.  
 VOLTAGE SEVERELY AFFECTED BY LOADING  
 WITH 20,000 OHMS PER VOLT METER.

FIGURE 4-5. PREAMPLIFIER SCHEMATIC DIAGRAM





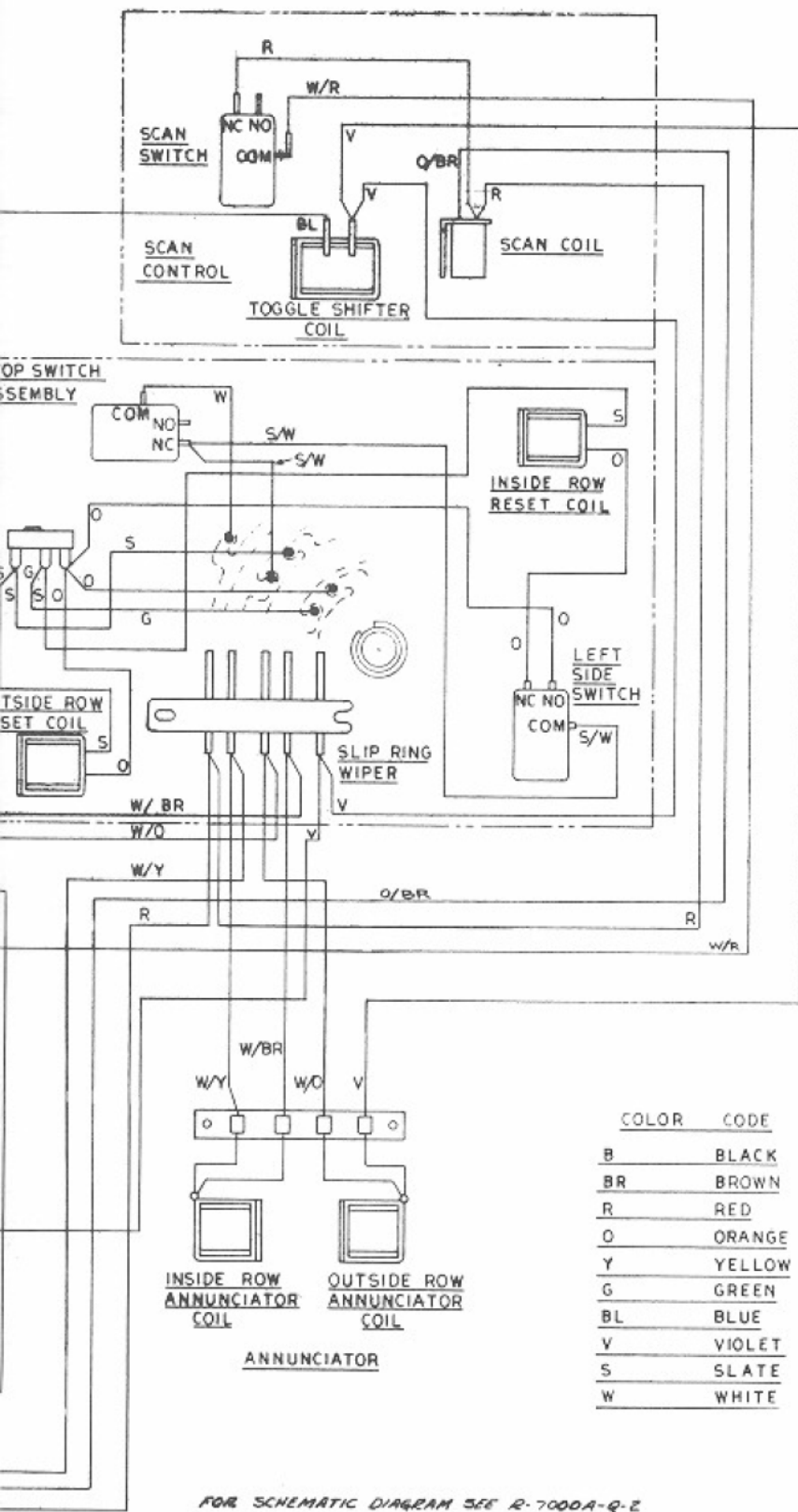
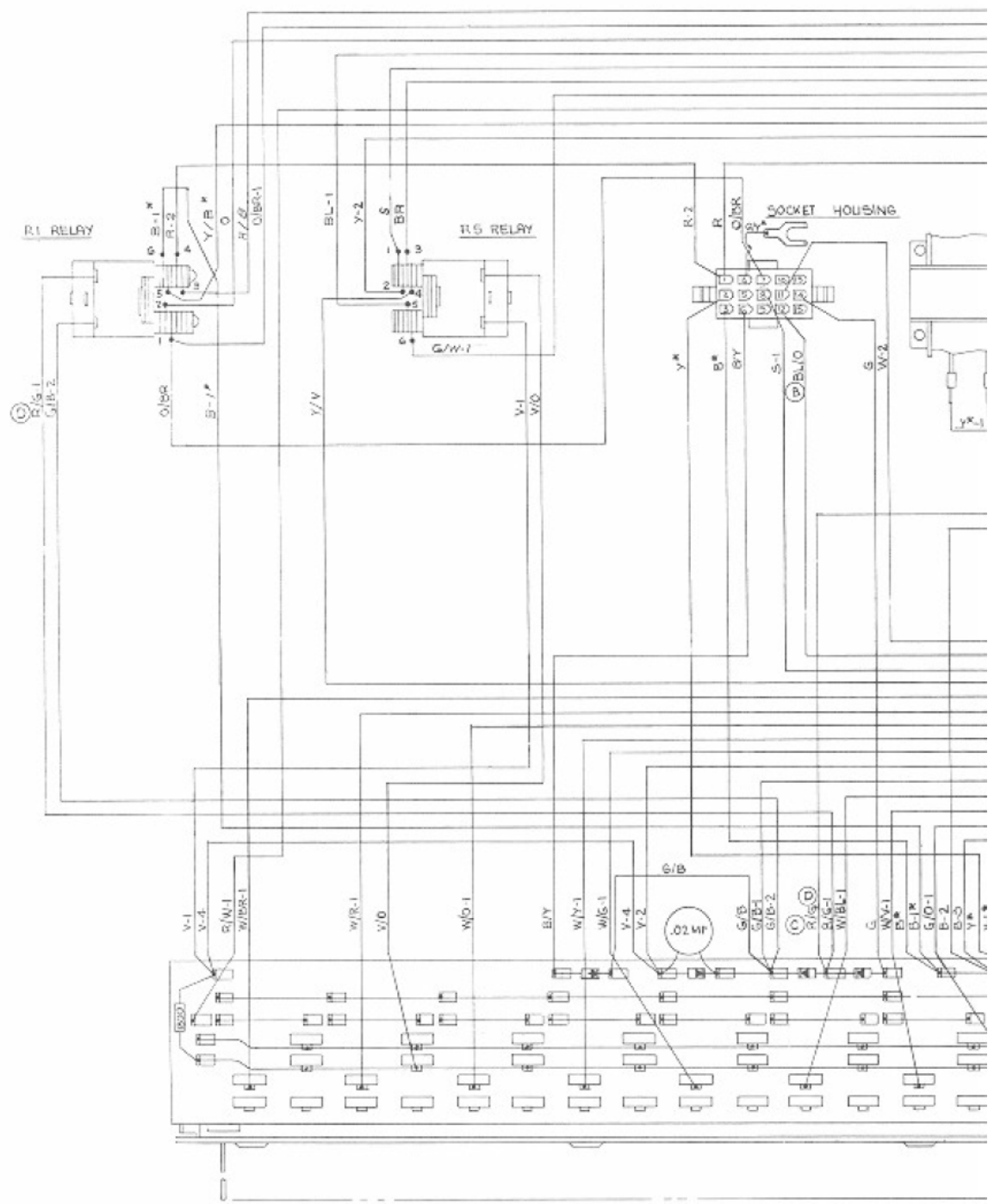


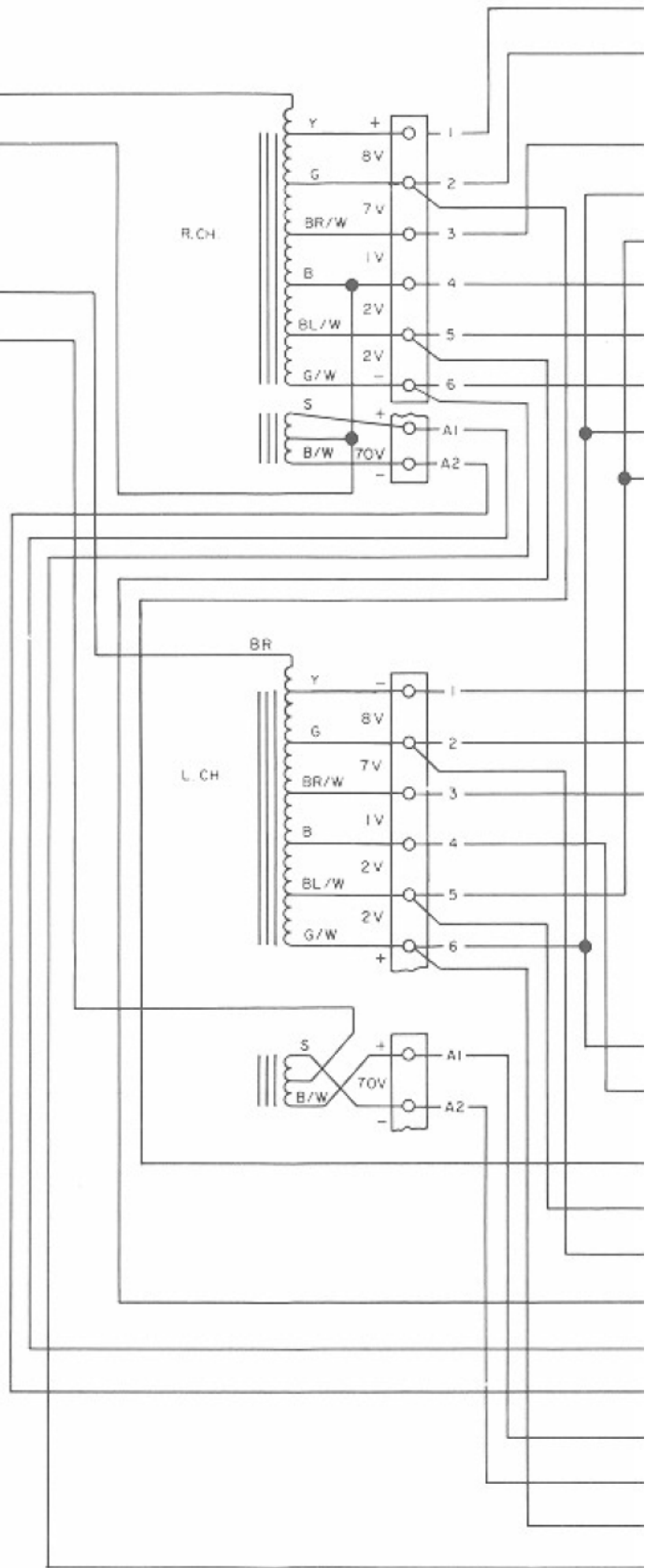
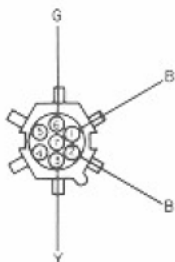
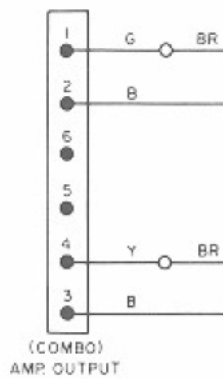
FIGURE 4-4. RECORD CHANGER WIRING DIAGRAM





PUSH BUTTON SWITCH - LETTER





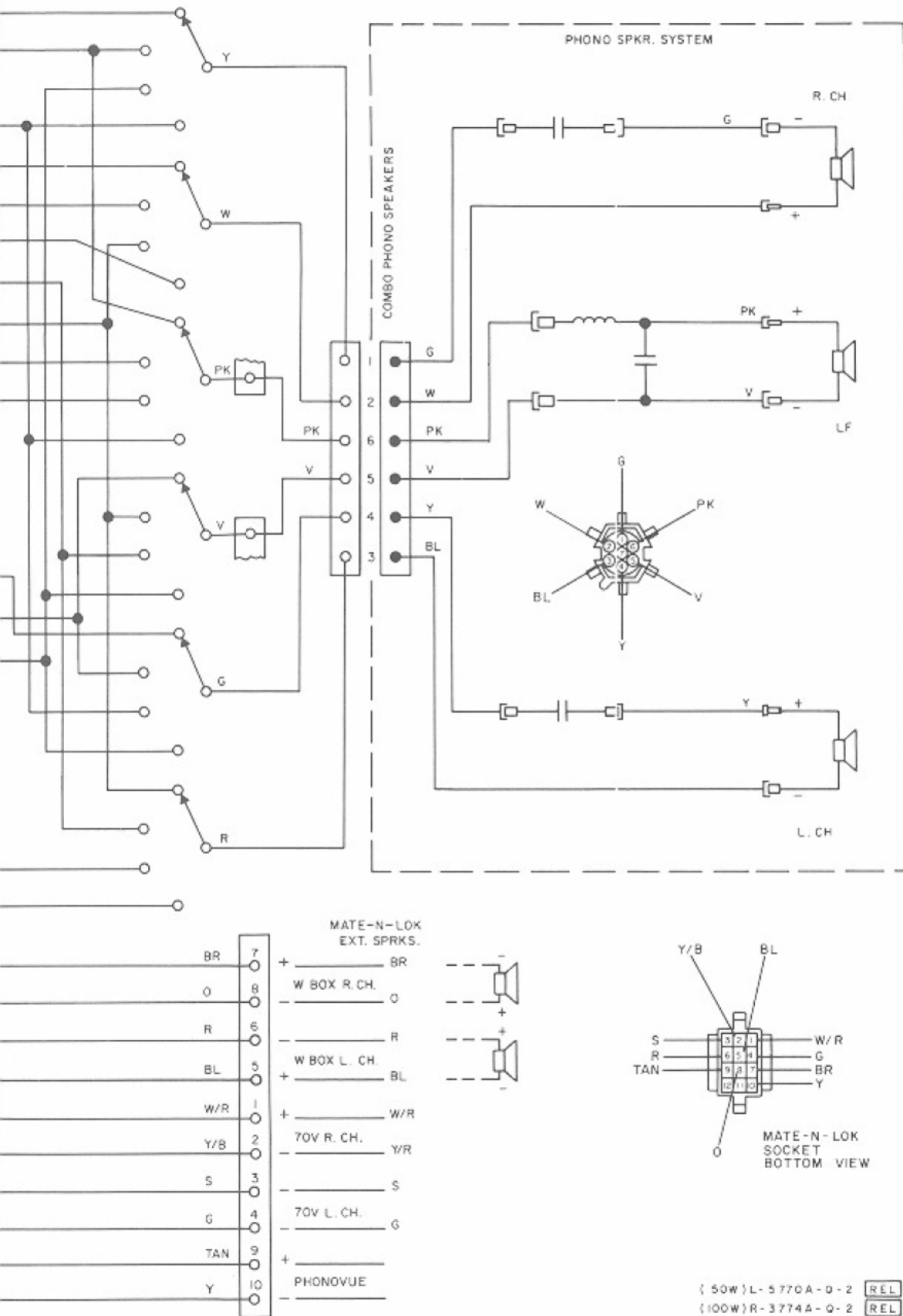
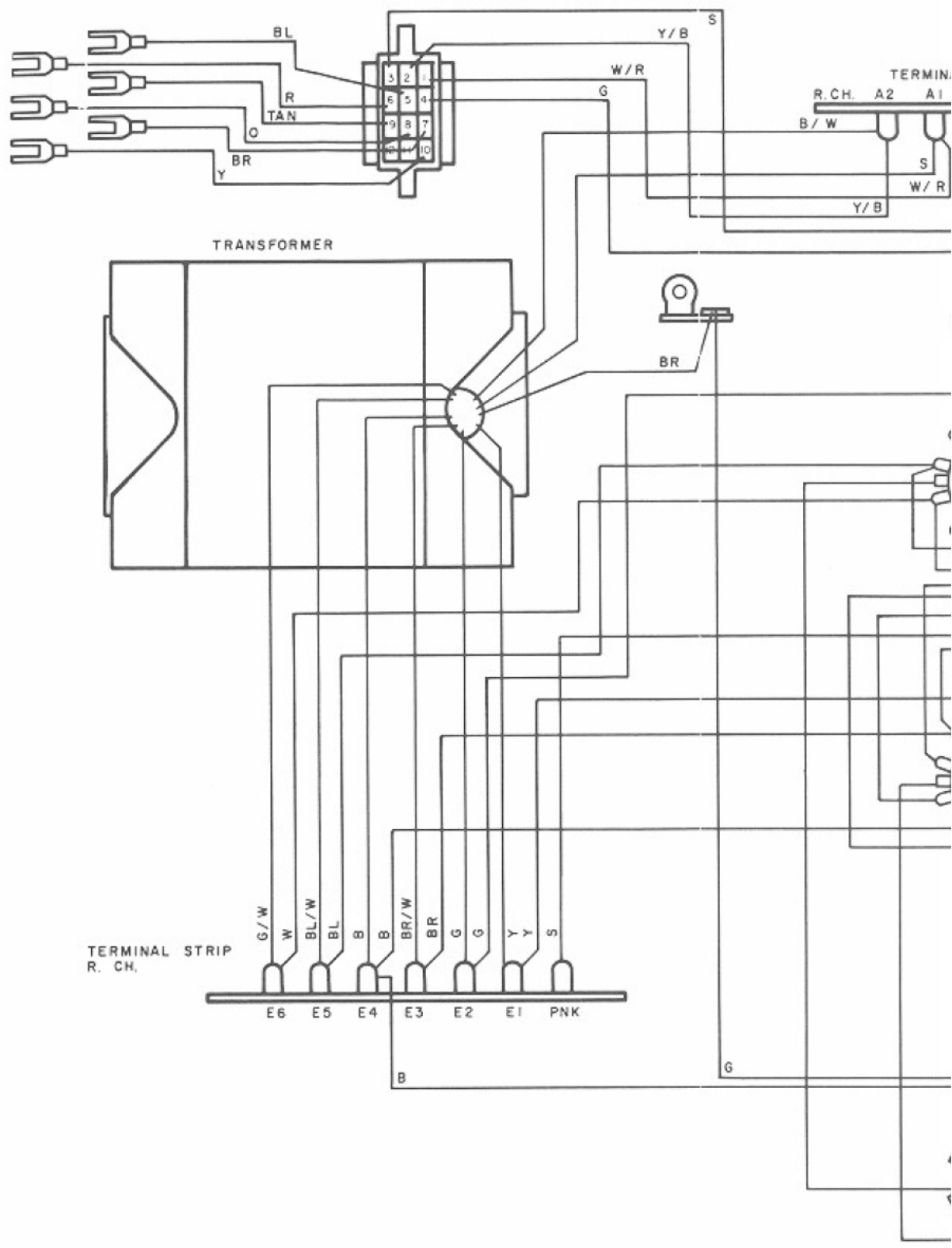


FIGURE 4-11. TRANSFORMER PACKAGE SCHEMATIC DIAGRAM



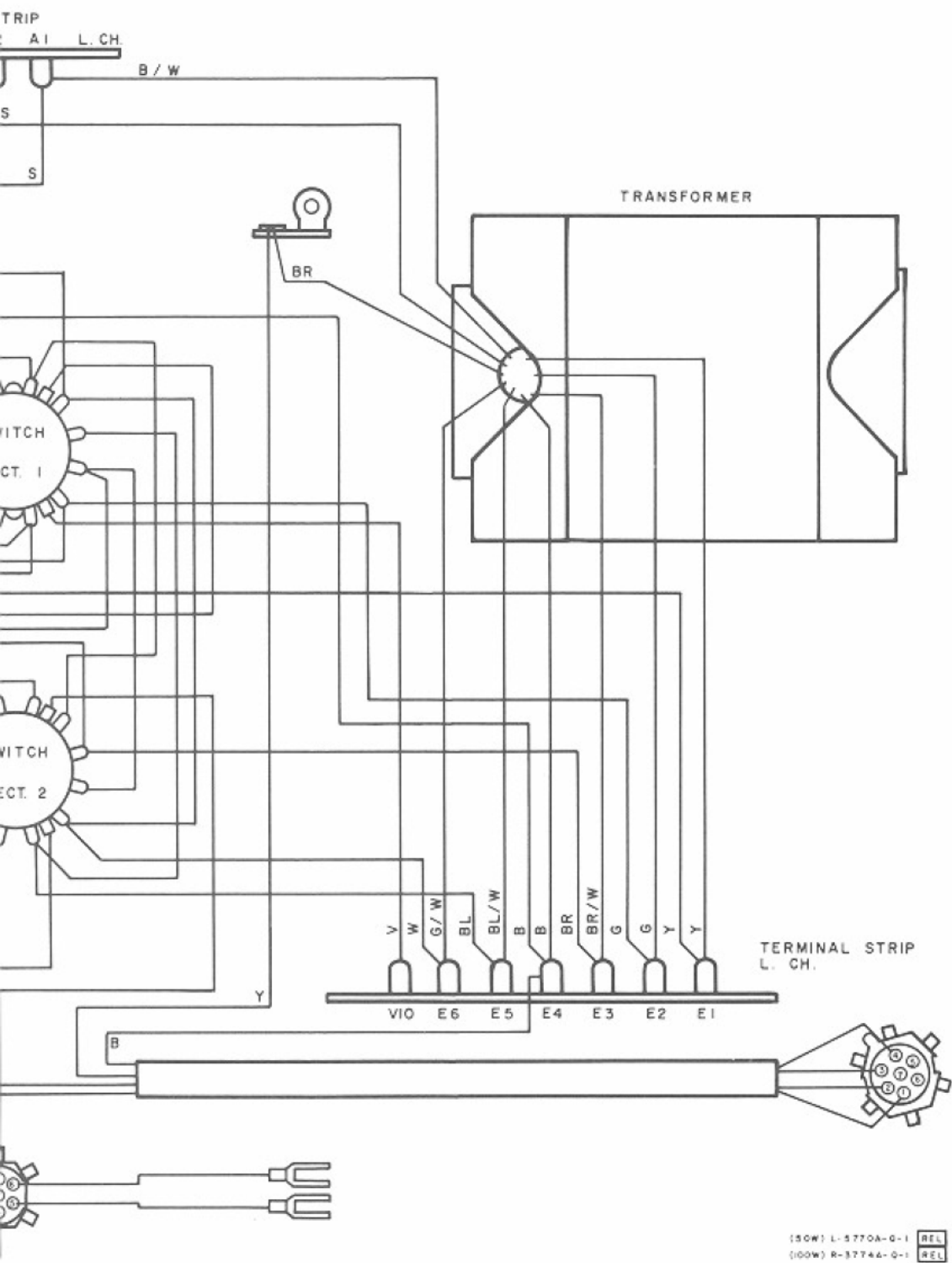


FIGURE 4-12. TRANSFORMER PACKAGE WIRING DIAGRAM



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