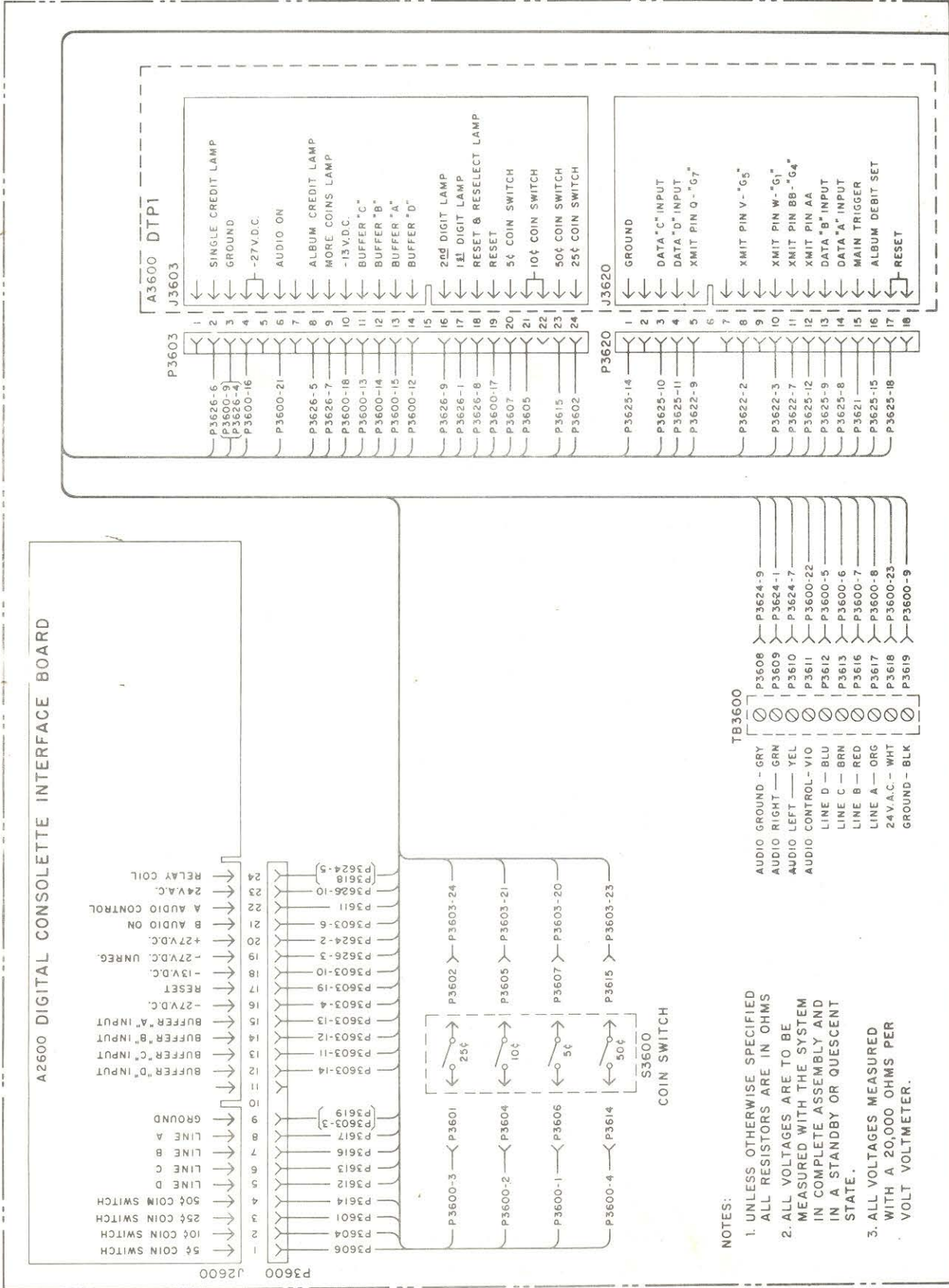


Part 1 of 2

CONSOLETTTE BACK ASSEMBLY SCHEMATIC

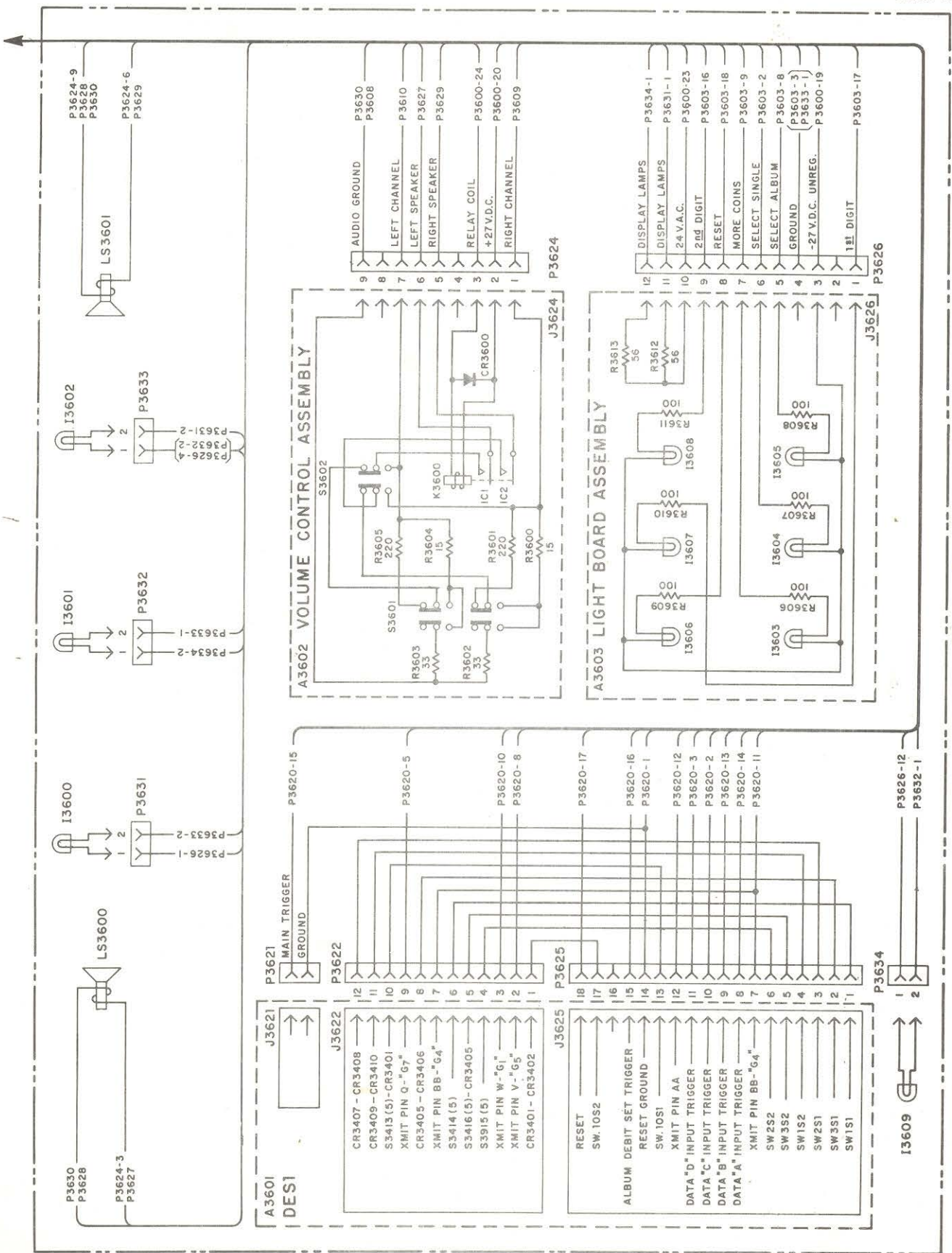
D-1664 (515784-3)



Part 2 of 2

CONSOLETTTE FRONT DOOR ASSEMBLY SCHEMATIC

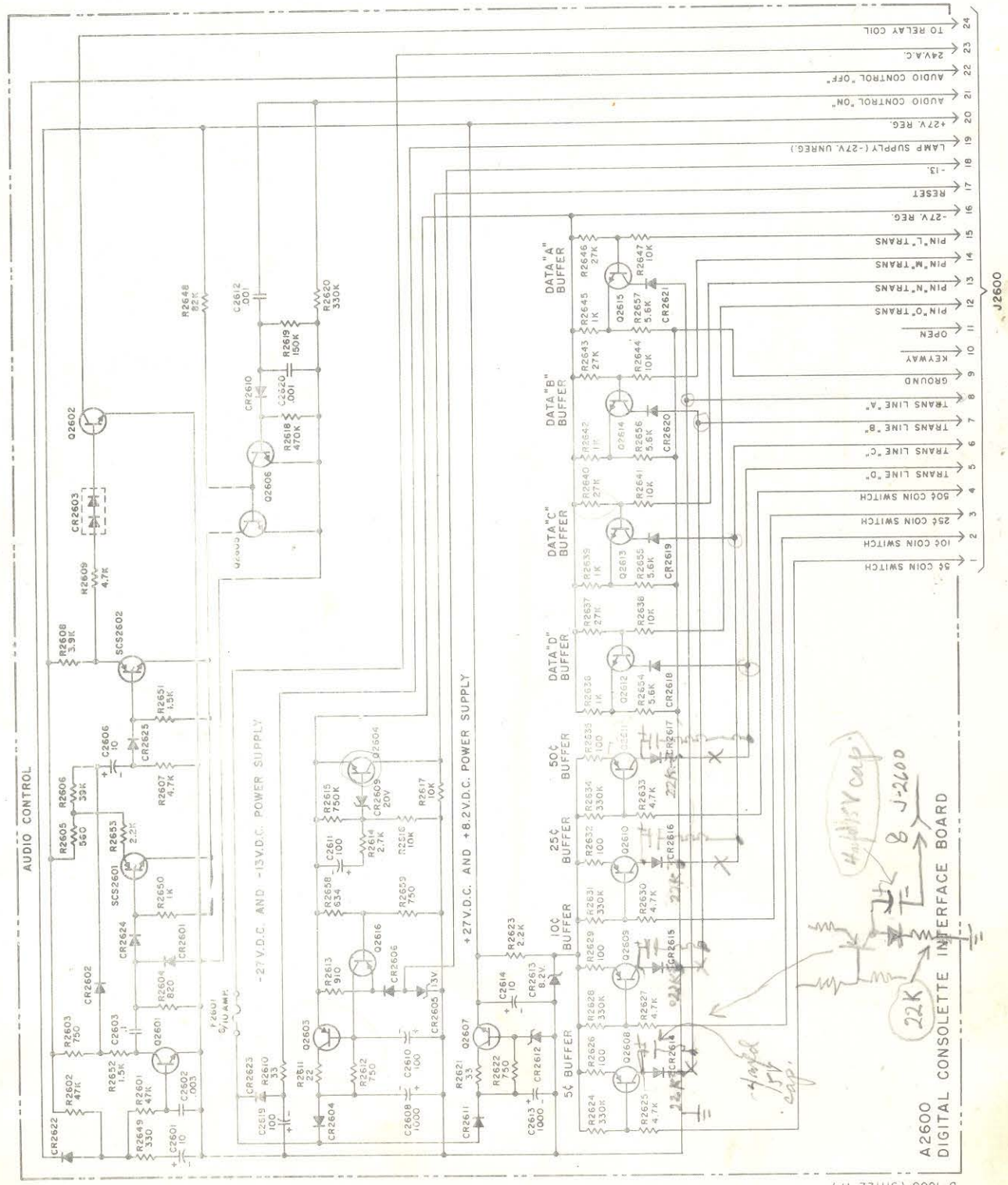
(3-1663) (515785-3)



DIGITAL ELECTRONIC CONSOLETTTE, Types DEC110, DEC125, DEC210 and DEC225

CONSOLETTTE INTERFACE BOARD SCHEMATIC

- NOTES:
- 1. ALL RESISTORS ARE IN OHMS UNLESS OTHERWISE SPECIFIED.
 - 2. ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

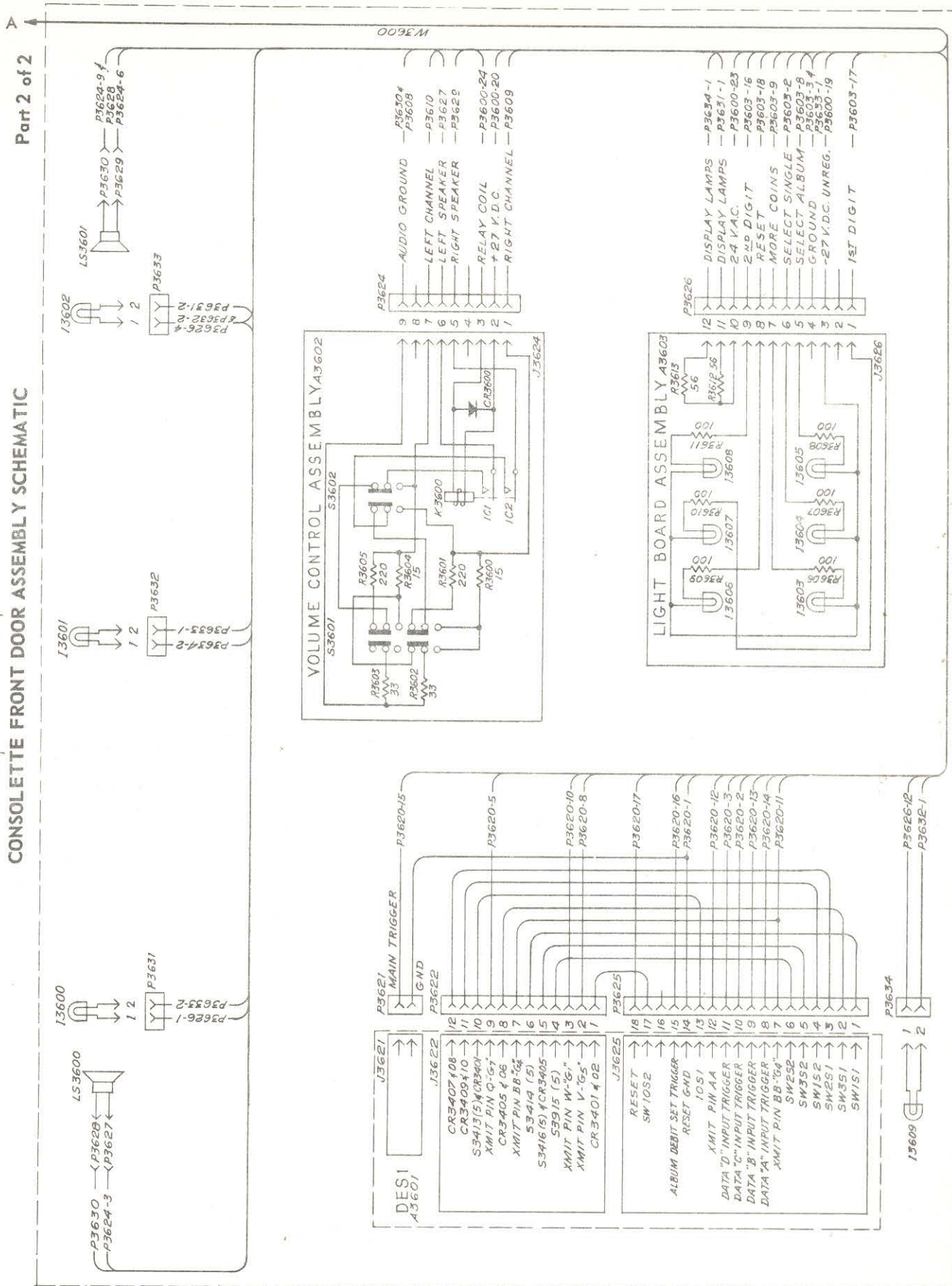


PRINTED CIRCUIT BOARD LEGEND

DEC1 CODE LETTER	IDENTIFICATION	A2600
A	31110-1	
A	31110-2	
A	31110-3	
A	31110-4	

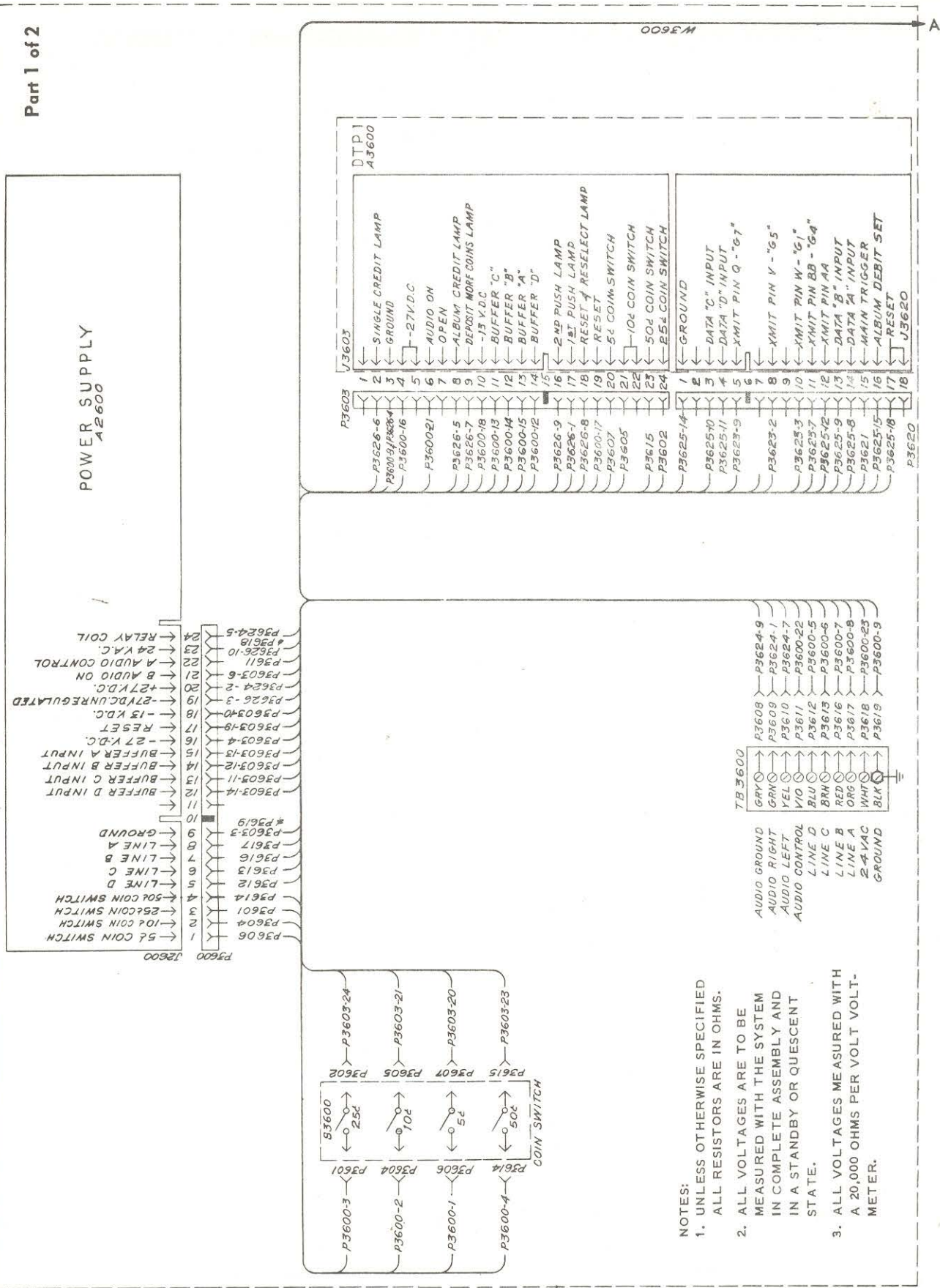
Aug-27 - for 10/2 change

Part 2 of 2



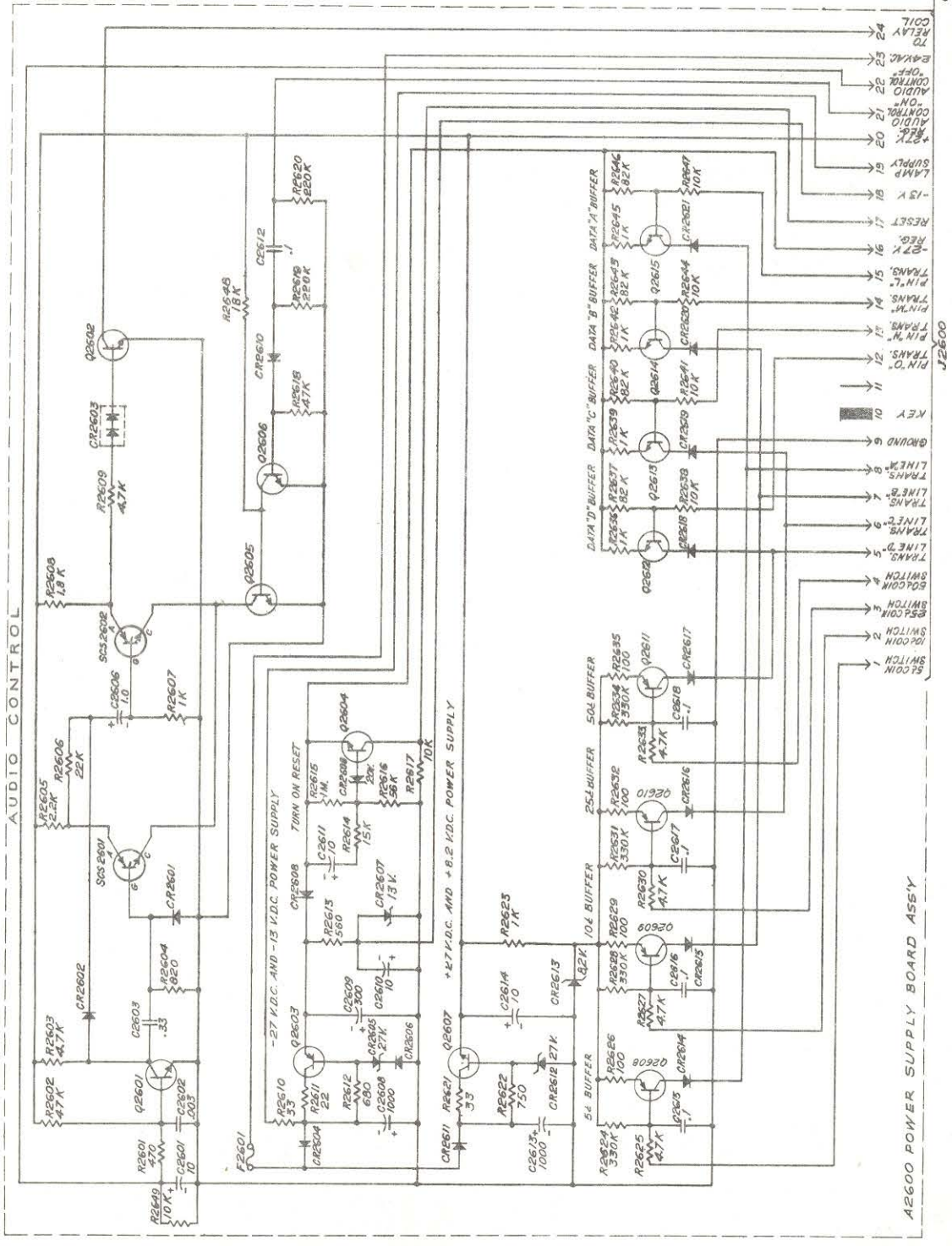
CONSOLETTTE BACK ASSEMBLY SCHEMATIC

Part 1 of 2



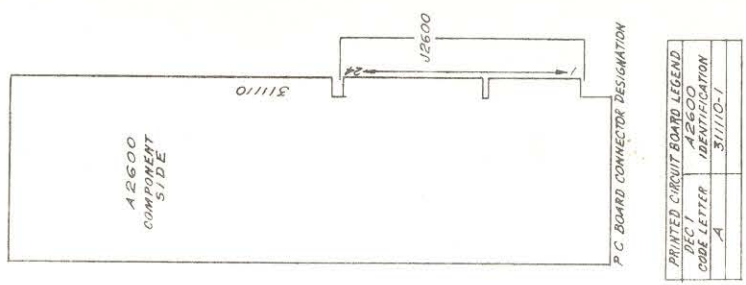
- NOTES:
1. UNLESS OTHERWISE SPECIFIED
ALL RESISTORS ARE IN OHMS.
 2. ALL VOLTAGES ARE TO BE
MEASURED WITH THE SYSTEM
IN COMPLETE ASSEMBLY AND
IN A STANDBY OR QUESCENT
STATE.
 3. ALL VOLTAGES MEASURED WITH
A 20,000 OHMS PER VOLT VOLT-
METER.

CONSOLETTTE POWER SUPPLY SCHEMATIC

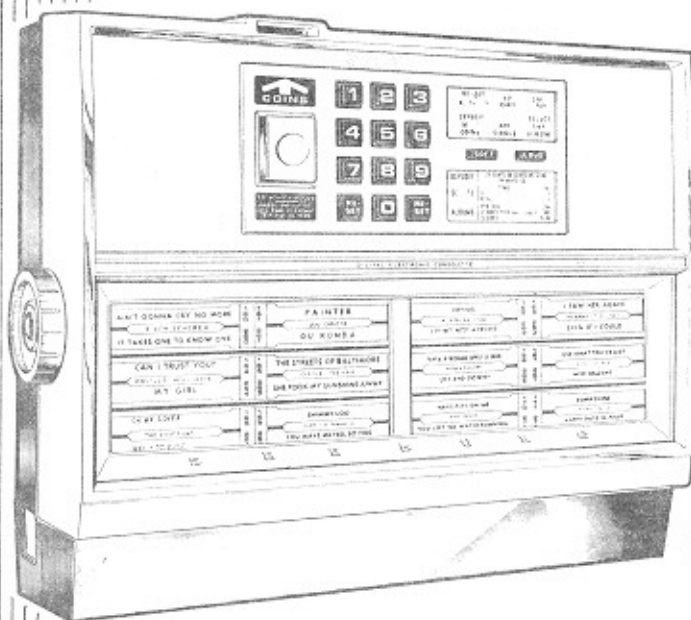


NOTES:

- 1. ALL RESISTORS ARE IN OHMS UNLESS OTHERWISE SPECIFIED.
- 2. ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.



Types DEC110 & DEC125



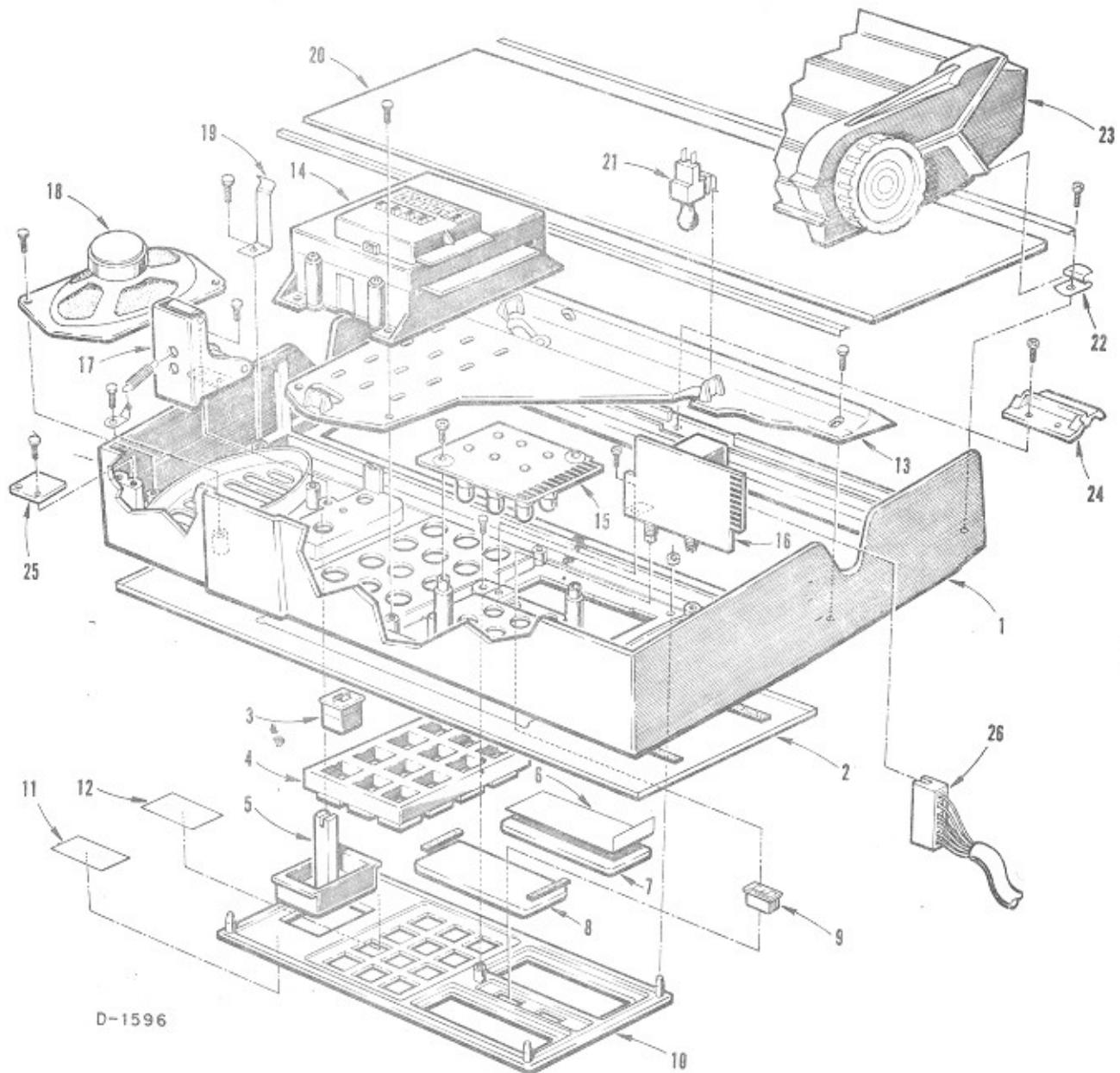
PARTS ||||||| CATALOG



**THE
SEEBURG SALES CORPORATION**
CHICAGO, ILLINOIS 60622 U.S.A.

DIGITAL ELECTRONIC CONSOLE, Types DEC110 and DEC125

FRONT DOOR ASSEMBLY, Part No. 515830

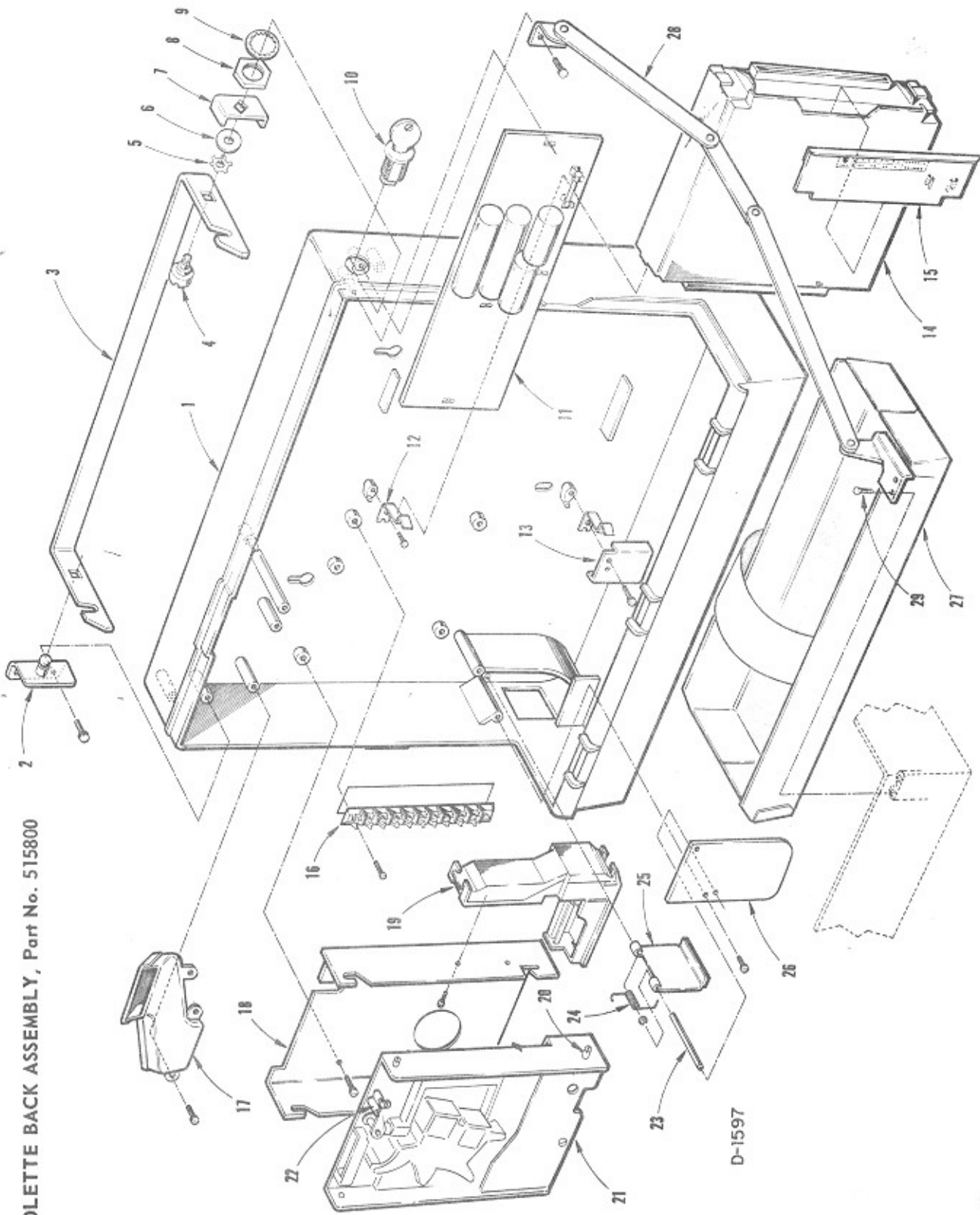


DIGITAL ELECTRONIC CONSOLETTTE, Types DEC110 and DEC125

PARTS LIST FOR FRONT DOOR ASSEMBLY, Part No. 515830

Item	Part No.	Description
* 1	515832	Finished Front Door
2	515747	Grille
	53419	1/8 Wide x 1/16 Adh. Ctd. Sponge Rubber
3	515845	Selector Buttons (Set of 12) (Staple Installed)
4	515740	Button Guide Block
5	515843	Scavenger Button
* 6	515718	Pricing Window (use with Type DEC125)
*	515720	Pricing Window (use with Type DEC110)
7	515844	Pricing Window Glass
* 8	515726	Credit Window
	53419	1/8 Wide x 1/16 Adhesive Ctd. Sponge Rubber
9	515746	Volume Control Buttons (Set of two)
10	515741	Finished Control Panel
	901450	5/32 Nut (4)
	960731	6-32 x 5/16 S.T. Screw
*11	515732	Coin Instruction Plate
*12	516006	Selection Instruction Plate
13	515862	Finished Program Light Guide
	961001	8-32 x 5/16 S.T. Screw
14	412000	Type DES1 Digital Electronic Selector
	961008	8-32 x 3/8 S.T. Screw
15	515852	Light Board Assembly
	318029	No. 1819 Lamp (6)
16	515835	Volume Control Assembly
	960355	4-40 x 1/4 S.T. Screw
17	515846	Scavenger Arm Riveted Assembly
	411936	Spring
	961001	8-32 x 5/16 S.T. Screw
18	515865	Speaker (2)
	961001	8-32 x 5/16 S.T. Screw
19	515861	Program Retainer Clip
	960989	8-32 x 5/16 S.T. Screw
20	515859	Front Program Window
	515860	Window Extrusion
*21	515758	Lamp Holder (Part of item 26)
*	507522	No. 19 Lamp (Part of item 26)
22	515864	Program Retainer Clip (2)
	961001	8-32 x 5/16 S.T. Screw
*23	515760	Program Assembly
*24	515710	Hinge Cap (3)
*	960989	8-32 x 5/16 S.T. Screw
25	515833	Latch Plate
	961025	8-32 x 1/2 S.T. Screw
*26	515716	Cable Assembly (see Cable Assem. Illust.)

* Not part of this assembly.



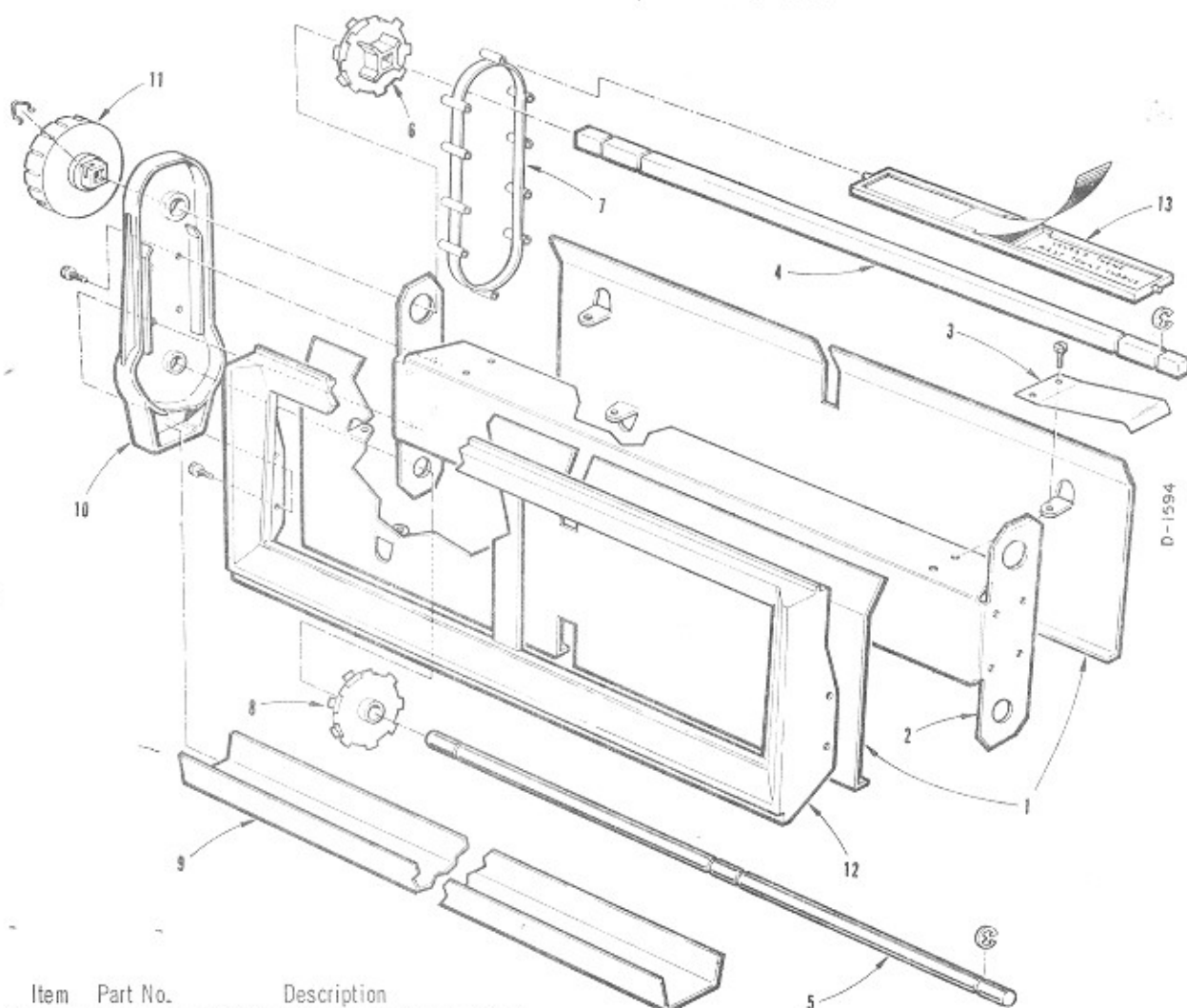
CONSOLE BACK ASSEMBLY, Part No. 515800

PARTS LIST FOR CONSOLETTTE BACK ASSEMBLY, Part No. 515800

Item	Part No.	Description	Item	Part No.	Description
1	515802	Finished Back Assembly	17	515744	Coin Chute
2	515816	Bracket & Stud Assembly		515745	Coin Chute Cover
	961001	8-32 x 5/16 S.T. Screw		961001	8-32 x 5/16 S.T. Screw
3	515815	Latch Bolt	18	515875	Slug Rejector Mtg. Frame
4	515829	Shoulder Screw		961001	8-32 x 5/16 S.T. Screw
5	924822	Spring Washer	19	421281	Coin Switch Assembly
6	922648	Flatwasher		960277	No. 4 x 1/4 S.T. Screw
7	515828	Latch Bolt Cam	*20	401255	Slug Rejector Mtg. Stud
8	905201	3/32 Nut	*21	515687	Slug Rejector (C.A.)
9	925845	Lockwasher	*	189784	Slug Rejector (N.R.I.)
10	515756	Lock Barrel, Plug & Key Assem.	*22	507378	Ejector Lever Extension
*11	311110	Digital Consolette Interface Board Assembly	23	515811	Pivot Pin
*	515290	4/10 Amp. Slo Blo Fuse	24	757811	Spring
12	515819	Transmitter Mtg. Spring (4)	25	506346	Coin Return Door
	961001	8-32 x 5/16 S.T. Screw	26	515812	Return Cup Plate
13	515782	Cable Clamp		961001	8-32 x 5/16 S.T. Screw
	961001	8-32 x 5/16 S.T. Screw	*27	515717	Cash Box Riveted Assembly
*14	311000	Type "DTP1" Digital Transmitter & Pricing Unit	*28	515712	Door Support Riveted Assembly
*15	310103	Pricing Board (0-2-5-14), for Type DEC125	*	961001	8-32 x 5/16 S.T. Screw (2)
*	310101	Pricing Board (1-3-6-15), for Type DEC110	*29	961025	8-32 x 1/2 S.T. Screw (2)
16	515755	Terminal Strip			
	515814	Terminal Strip Label			
	961025	8-32 x 1/2 S.T. Screw			

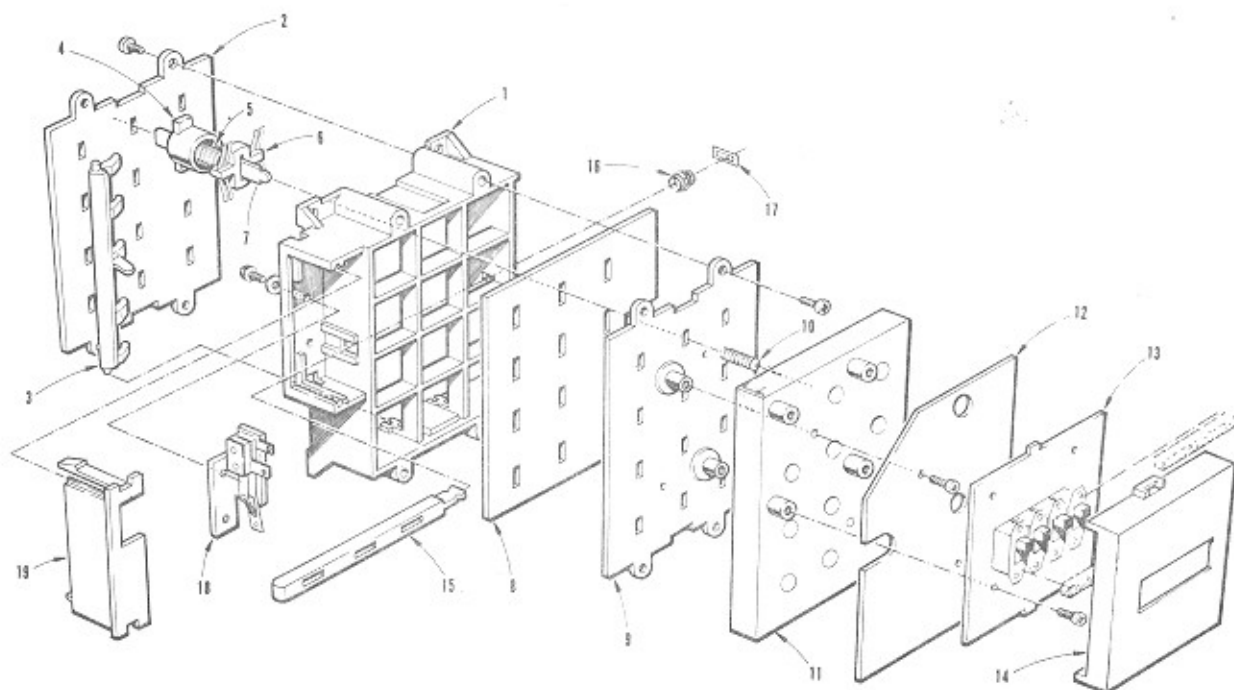
* Not Part of This Assembly.

PROGRAM ASSEMBLY, Part No. 515760



Item	Part No.	Description
1	515767	Frame Cover
	960737	6-32 x 3/8 T.F. Screw
2	515765	Frame
3	515766	Detent Spring
	960737	6-32 x 3/8 T.F. Screw
4	515771	Drive Shaft
	301367	Retaining Ring (4 used)
5	515770	Idler Shaft
	301367	Retaining Ring (4 used)
6	515774	Drive Pulley (3 used)
7	515738	Drive Belt (3 used)
8	515773	Idler Pulley (3 used)
9	515768	Program Guard
10	515766	End Guide (2 used)
	960737	6-32 x 3/8 T.F. Screw
11	515776	Knob (2 used)
	515777	Retaining Clip (2 used)
12	515743	Program Window Frame
	960737	6-32 x 3/8 T.F. Screw
13	515748	Title Strip Holder (20 used)
	515775	Title Number Strip (set of 40)

DIGITAL ELECTRONIC SELECTOR, Type DES1, Part No. 412000

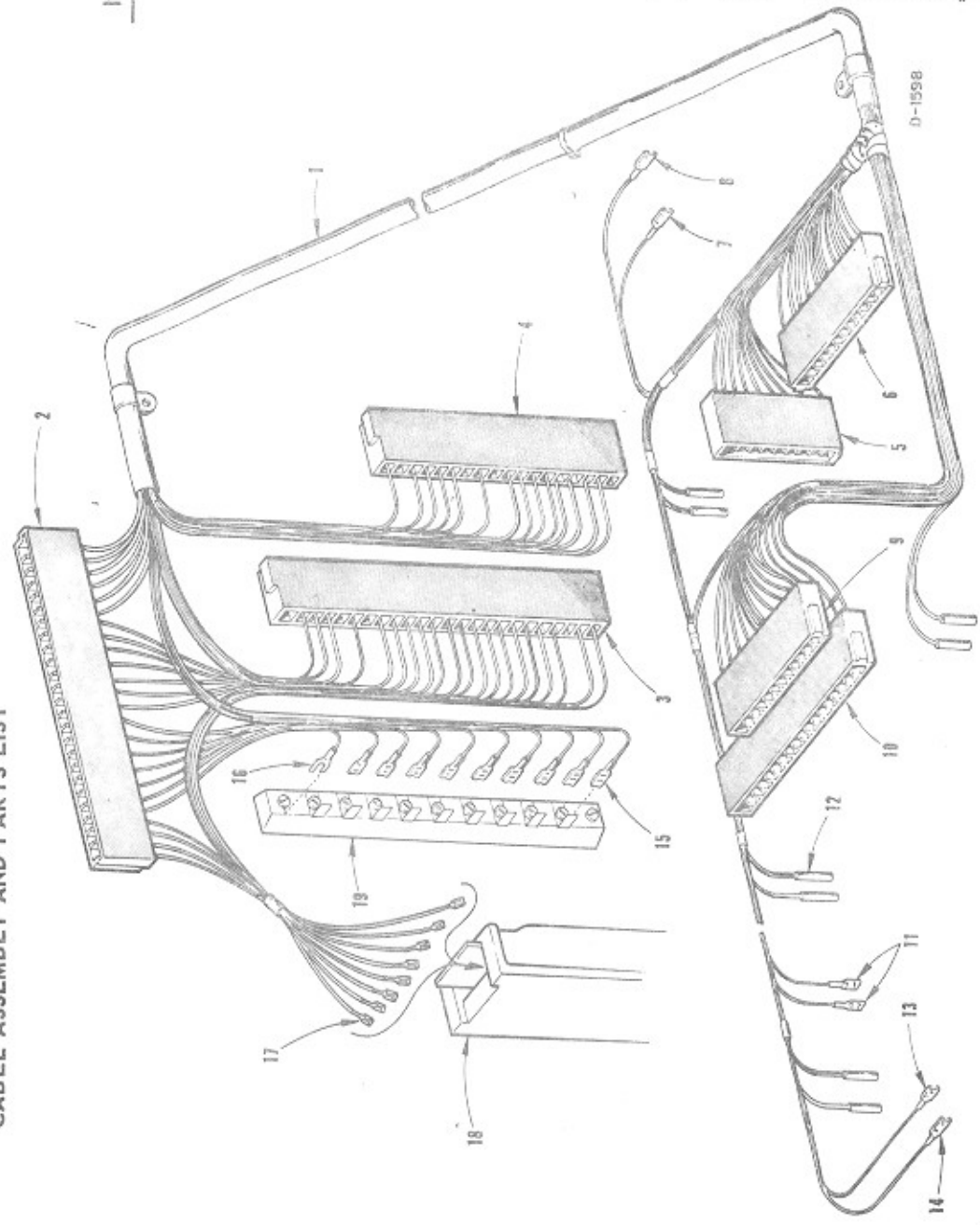


Item	Part No.	Description
1	412017	Switch Main Frame
2	412028	Guide Plate
	960629	No. 6 x 5/16 S.T. Screw
3	412027	Treadle Bar
4	412022	Treadle Actuator
	412023	Actuator Retainer
5	412021	Overload Spring
6	412019	Contact Assembly
7	412018	Stem
8	412014	Printed Contact Board
9	412012	Guide Plate Welded Assembly
	960629	No. 6 x 5/16 S.T. Screw
10	412011	Stem Spring
11	412010	Stem Spring Holder
12	412041	Back Plate
	913176	6-32 x 3/8 M. Screw
13	412031	Switch & Circuit Board Assembly
	412035	Switch
	309481	Diode
	421313	Pad
	960629	No. 6 x 5/16 S.T. Screw
14	412039	Rear Switch Cover
	412040	Switch Label
15	412024	Switch Actuator
16	412025	Actuator Spring
17	400864	Retainer
18	412042	Switch & Bracket Assembly
	912897	6-32 x 3/16 M. Screw
	920630	Flatwasher
19	412038	Trigger Switch Cover

CABLE ASSEMBLY AND PARTS LIST

Item	Part No.	Description
1	515716	Cable Assembly
2	309634	24 Contact Edge Connector
	941854	Contact
	941874	Edge Connector Key
3	309634	24 Contact Edge Connector
	941854	Contact
	941874	Edge Connector Key
4	309632	18 Contact Edge Connector
	941854	Contact
5	318100	9 Contact Edge Connector
	941854	Contact
6	309631	12 Contact Edge Connector
	941854	Contact
7	941785	Receptacle
8	132053	Receptacle
9	309631	12 Contact Edge Connector
	941854	Contact
10	309632	18 Contact Edge Connector
	941854	Contact
11	132053	Receptacle
12	941855	Receptacle
	52101	Sleeving
13	941785	Receptacle
14	132053	Receptacle
15	941785	Receptacle
16	941787	Spade Lug
17	941843	Receptacle
*18	-	Coin Switch
*19	-	Terminal Board

* Not part of this assembly.



[illegible]

NOTES:

1. ALL RESISTORS ARE IN OHMS UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

ASGCO
COMPONENT

P.C. BOARD CONVENING REGULARLY

PRINTED CIRCUIT BOARD LEGEND	
PCB CODE LETTER	IDENTIFICATION
A	011110-1

(70 pgs) CONQUER THE CAMEL

PARTS LIST FOR CONSOLETTTE POWER SUPPLY

Item	Part No.	Description	Item	Part No.	Description	Item	Part No.	Description
A2600	311110	Power Supply Board Assembly	F2601	602223	1/2 Amp. Fuse	R2620	82452	220 K
C2601	87697	10, 6 V. Lytic	J2600		P.C. Board (A2601)/	R2621	81290	33, W.W., 2 W.
C2602	86278	.003, 500 V., Ceramic	Q2601	309447	NPN	R2622	82161	750, 5%
C2603	86328	.33, 50 V., Mylar	Q2602			R2623	81262	1 K, W.W., 2 W.
C2604			Q2603	309457	PNP	R2624	82454	330 K
C2605			Q2604			R2625	82432	4,700
C2606	87760	300, 35 V., Lytic	Q2605	309447	NPN	R2626	82412	100
C2607			Q2606			R2627	82432	4,700
C2608	87743	10, 35 V., Lytic	Q2607	309459	NPN	R2628	82454	330 K
C2609	86334	.1, 50 V., Mylar	Q2608			R2629	82412	100
C2610	87759	1 K, 50 V., Lytic	Q2609			R2630	82432	4,700
C2611	87743	10, 35 V., Lytic	Q2610	309460	PNP	R2631	82454	330 K
C2612	86334	.1, 50 V., Mylar	Q2611			R2632	82412	100
C2613	86334	.1, 50 V., Mylar	Q2612			R2633	82432	4,700
C2614	86334	.1, 50 V., Mylar	Q2613			R2634	82454	330 K
C2615	86334	.1, 50 V., Mylar	Q2614	309447	NPN	R2635	82412	100
CR2601	309481	Silicon Diode, 40 PIV	Q2615			R2636	82424	1 K
CR2602	309481	Silicon Diode 40 PIV	R2601	82420	470	R2637	82447	82 K
CR2603	309478	Silicon Stabilistor	R2602	82444	47 K	R2638	82436	10 K
CR2604	309476	Silicon Rectifier 100 PIV, 1A	R2603	82432	4,700	R2639	82424	1 K
CR2605	309611	27 V. Zener Diode, 1 W., 5%	R2604	82423	820	R2640	82447	82 K
CR2606	309384	Silicon Diode 170 PIV	R2605	82428	2,200	R2641	82436	10 K
CR2607	309488	13 V. Zener Diode, 400 MW, 5%	R2606	82440	22 K	R2642	82424	1 K
CR2608	309384	Silicon Diode 170 PIV	R2607	82424	1 K	R2643	82447	82 K
CR2609	309487	20 V. Zener Diode, 400 MW, 10%	R2608	82427	1,800	R2644	82436	10 K
CR2610	309481	Silicon Diode, 40 PIV	R2609	82432	4,700	R2645	82424	1 K
CR2611	309476	Silicon Rectifier, 100 PIV, 1 A	R2610	81290	33, W.W., 2 W.	R2646	82447	82 K
CR2612	309611	27 V. Zener Diode, 1 W., 5%	R2611	81230	22, W.W., 2 W.	R2647	82436	10 K
CR2613	309612	8.2 V. Zener Diode, 400 MW, 10%	R2612	82422	680	R2648	82439	18 K
CR2614			R2613	81280	560, W.W., 2 W.	R2649	82436	10 K
CR2615			R2614	82438	15 K	SCS2601		Reverse Blocking Thyristor
CR2616			R2615	82460	1 Meg.	SCS2602	309510	
CR2617	309481	Silicon Diode, 40 PIV	R2616	82445	56 K			
CR2618			R2617	82436	10 K			
CR2619			R2618	82444	47 K			
CR2620			R2619	82452	220 K			
CR2621								

NOTES: 1. Unless otherwise specified all resistors are in ohms, 1/2 watt and 10%.

2. Unless otherwise specified all capacitors are in microfarads.

PARTS LIST FOR CONSOLETTTE FRONT DOOR ASSEMBLY AND BACK ASSEMBLY

Item	Part No.	Description
A2600	311110	Power Supply
A3600	311000	"DTP1" Digital Transmitter & Pricing
A3601	412000	"DES1" Digital Electronic Switch
A3602	515835	Volume Control Assembly
A3603	515852	Light Board Assembly
CR3600	309384	Silicon Diode
I3600	507522	No. 19 Lamp
I3601	507522	No. 19 Lamp
I3602	507522	No. 19 Lamp
I3603	318029	No. 1819 Lamp
I3604	318029	No. 1819 Lamp
I3605	318029	No. 1819 Lamp
I3606	318029	No. 1819 Lamp
I3607	318029	No. 1819 Lamp
I3608	318029	No. 1819 Lamp
I3609	507522	No. 19 Lamp
K3600	515842	D.C. Relay
LS3600	515865	Speaker
LS3601	515865	Speaker
R3600	81255	15 W.W. 2 W.
R3601	81234	220 W.W. 2 W.
R3602	82406	33
R3603	82406	33
R3604	81255	15 W.W. 2 W.
R3605	81234	220 W.W. 2 W.
R3606	82412	100
to		
R3611	82412	100
R3612	81235	56 W.W. 2 W.
R3613	81235	56 W.W. 2 W.
S3600	421281	Coin Switch Assembly
S3601	515840	Switch Assembly
S3602	515840	Switch Assembly
TB3600	515755	Terminal Strip
W3600	515716	Cable Assembly

NOTE 1: Unless otherwise specified all resistors are in ohms, ½ watt and 10%

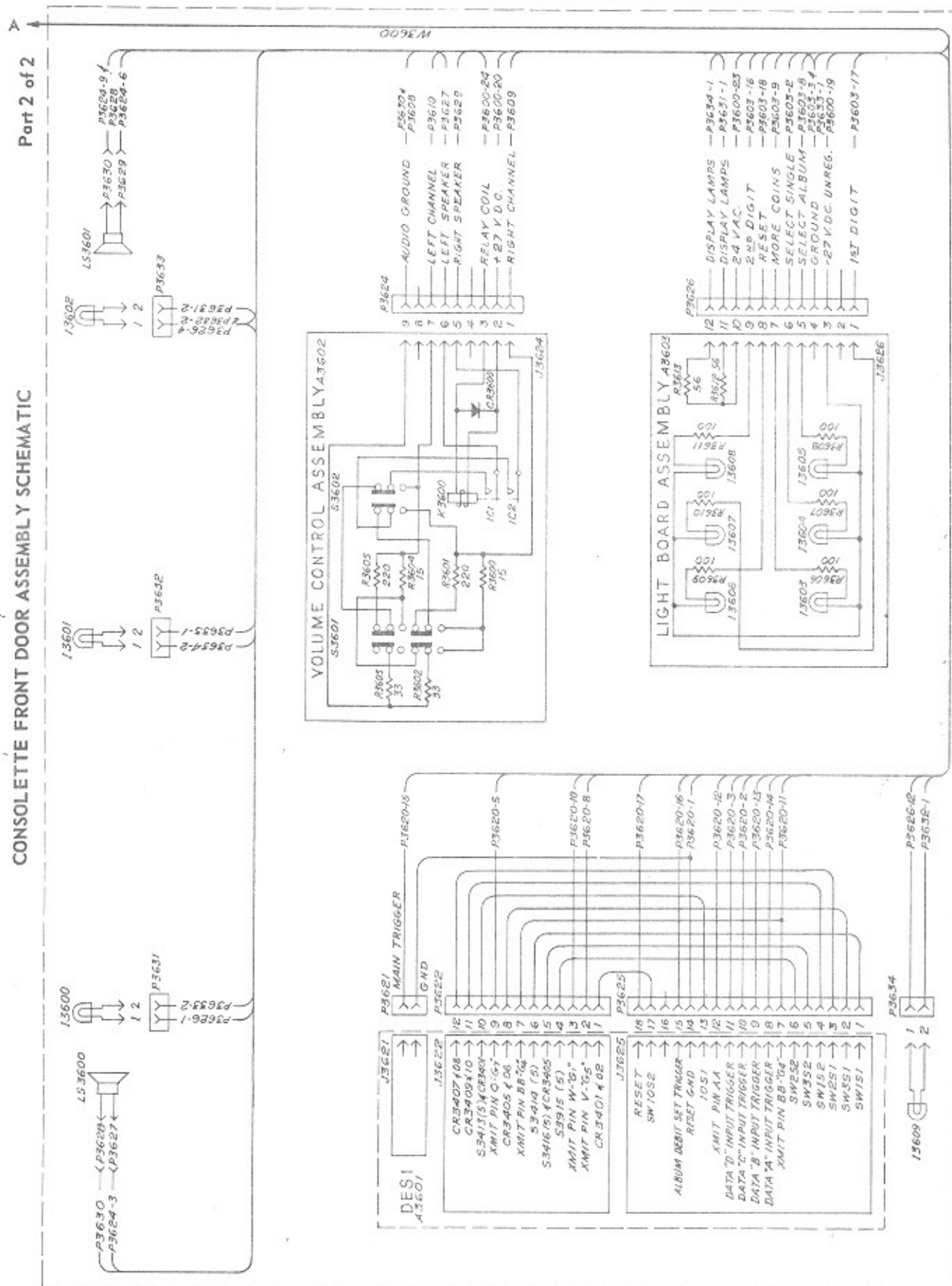
NOTE 2: Unless otherwise specified all capacitors are in microfarads.

Part 1 of 2



CONSOLETTA FRONT DOOR ASSEMBLY SCHEMATIC

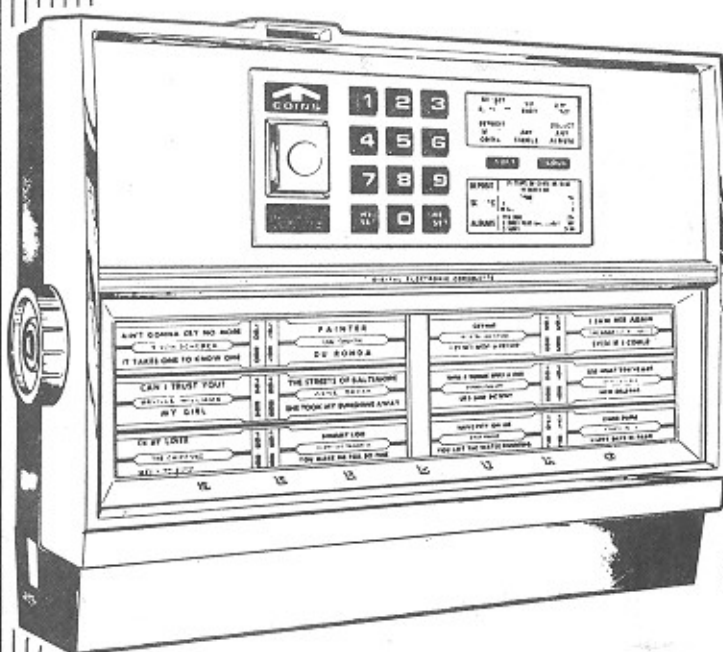
Part 2 of 2





DIGITAL ELECTRONIC CONSOLETTTE,

**Types DEC110, DEC125,
DEC210, DEC225**



**SERVICE
MANUAL**



MANUAL NO. 516004

**THE SEEBURG SALES CORPORATION
CHICAGO, ILLINOIS 60622 U.S.A.**

513099

SEEBURG WARRANTY

We, The Seeburg Corporation of Delaware (Seeburg), are proud to present this new consolette to you. Its engineering advancements and its inherent fine quality features are part of the Seeburg tradition for leadership in the coin phonograph field. With full confidence in our product, we extend the following warranties for COMPLETE ASSEMBLIES, as well as parts, to your attention:

3 Years

DIGITAL TRANSMITTER AND PRICING UNIT

Seeburg warrants the Digital Transmitter and Pricing Unit assembly installed in this consolette to be free from defects in material or workmanship under normal use and service for a period of three years from the date of manufacture. This warranty does not extend to pricing boards or any accessories.

1 Year

Seeburg warrants this consolette manufactured by it to be free from defects in material or workmanship under normal use and service for a period of one year from the date stamped on PARTS found therein.

Seeburg's obligation under this warranty is limited to making good at its factory any complete units as set forth in the 3-year warranty above, and any part as set forth in the 1 year warranty above, which shall within any of the periods specified above be returned to it through its authorized distributor and by means of its examination shall disclose to its satisfaction to have been thus defective. Any warranted part or assembly found by it to be defective will be exchanged without charge to owner; however, labor and transportation costs incidental to the replacement or exchange of said parts shall be borne by owner. The unexpired portion of the original warranty periods shall continue effective until the original expiration date.

This warranty does not extend (1) to any of our products which have been subject to misuse, neglect, accident, incorrect wiring not our own, improper installations, improper testing, or to use in violation of instructions furnished by us, (2) to units which have been repaired or altered by anyone other than our distributor, (3) to cases where the manufacturer's seal, date, or the serial number of the product has been removed, defaced or changed, (4) to lamps, lamp starters, glass, and fuses, or (5) to accessories not of our own manufacture or design used with our products.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND NO REPRESENTATIVE OR PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS CONSOLETTA. Seeburg reserves the right to make any changes or improvements on the consolette and/or parts thereof without notice and without any obligations to make corresponding changes or improvements in consolettes theretofore manufactured or sold.

THE SEEBURG CORPORATION OF DELAWARE

CHICAGO, ILLINOIS 60622



- SPECIFICATIONS -

POWER REQUIREMENTS. .24 volt 50/60 Hz.
0.4 amps standby - 0.6 amps maximum

LIGHTING Four No. 19 lamps
(general lighting)
Six No. 1819 lamps
(credit and selection lamps)

DIGITAL ELECTRONIC SELECTOR,
Type DES1

CONSOLETTA SPEAKERS. . . Two 3 x 5 inch

DIGITAL TRANSMITTER AND PRICING UNIT

FUSE

Digital Console Interface Board Assembly
3/4 amp., Part No. 602223

DIMENSIONS AND WEIGHTS:

Height	13½ inches
Width	16 inches
Depth	5 inches
Net Weight	28 pounds
Shipping Weight	32 pounds

ACCESSORIES

Digital Console Power Supply Kit,
Type DCPS1K-56 Part No. 317168
Digital Console Power Supply,
Type DCPS1-56 Part No. 317136
Digital Console Power Supply Kit,
Type DCPS1K-H5 Part No. 317169
Digital Console Power Supply,
Type DCPS1-H5 Part No. 317137
Bar Bracket Assembly Part No. 516030
10-Conductor Cable Part No. 507503

- DESCRIPTION -

GENERAL

The Seeburg Types, DEC110, DEC125, DEC210, and DEC225 Digital Electronic Consolettes are units which comprise a wired remote control system designed for the remote selection of "Album Side" or "Single" play selections in the Digital Select-O-Matic Phonographs.

NOTE!

These types of Consolettes can only be used with the Digital Selection Phonograph Models. They CANNOT be used with any previous model phonographs. Types SC, SCH Consolettes or Wall-O-Matics CANNOT be combined in a circuit with the Types DEC Consolettes.

The Digital Electronic Consolette features a Digital Electronic Selecting and Pricing System identical to that used in the Digital Selection Phonograph.

The Transmitter, Receiver, Decoder and Pricing Unit have no moving parts; instead all logic functions are performed by solid state circuitry incorporating the latest in microelectronic technology (Seeburg MICROLOGS). Both the Digital Transmitter and Pricing Unit and the Digital Receiver and Decoder are factory sealed units, each carrying a 3 year warranty detailed in the Warranty Certificate supplied with the Consolette.

The Pricing System includes a NEW FEATURE of Actual Cash Value Bonus. With this feature, any 25 cent combination of nickels and dimes deposited in succession, gives the same credit as a quarter; and likewise, any 50 cent combination of nickels, dimes, and quarters deposited in succession, gives the same credit as a half dollar. The Pricing Unit permits "Two for Quarter" pricing with nickel and dime acceptance; selections are not permitted until a minimum of 25 cents has been deposited. In the

event that less than the minimum amount has been deposited, a window illuminates instructing the customer to deposit more coins. In addition to the Actual Cash Value Bonus feature, the Pricing Unit also features quick, simple price changing by use of plug-in Pricing Boards.

A precision coin switch energizes the pricing unit when a coin is deposited in the Consolette. The switch connections may be modified to suit different makes of coin equipment.

Another new feature is the Selecting System, using only a 10 button selector with an all NEW 3 digit selecting code.

The Digital Electronic Selector is located in the center of the display panel. It consists of ten numerical buttons which are used for making a selection. It also has two Reset Buttons, each of which give the customer the option of changing his selection after pressing the first or second buttons. In the event that a set of buttons are pressed, that do not correspond in price to a programmed selection, a window illuminates, instructing the customer to make another selection.

Information from the Digital Electronic Selector is stored in the Digital Transmitter and Pricing Unit, Type DTP1. Upon completion of the selection, the information is then transmitted to the Digital Receiver and Decoder, Type DRD1, in the phonograph, which in turn, decodes it and transfers this information to the Tormat Memory Unit and other mechanism electronics, for selection play.

With the phonograph power on, the Consolette credit lights will be illuminated immediately after establishing minimum credit, i.e.; after the minimum amount of coins have been deposited. The credit lights remain on as long as unspent credits are available.

Each Consolette is equipped with a pair of speakers which provide for localized stereo listening to selections. Speaker volume may be controlled at the individual Consolette by the SOFT and LOUD push buttons.

In addition, each Consolette is equipped with a special audio control Circuit. When a selection is made at the Consolette, circuits are completed through the phonograph, which permit listening to the program through the Consolette Stereo Speakers. After two excursions (back and forth twice), of the Select-O-Matic mechanism in the phonograph, the speakers are switched off. This will occur even when selections are made from other Consolettes or at the phonograph to permit continued operation of the mechanism.

The Consolette operates at 24 volts A.C., 50/60 Hertz. Power is supplied by a Type DCPS1-56 Digital Consolette Power Supply (Part No.

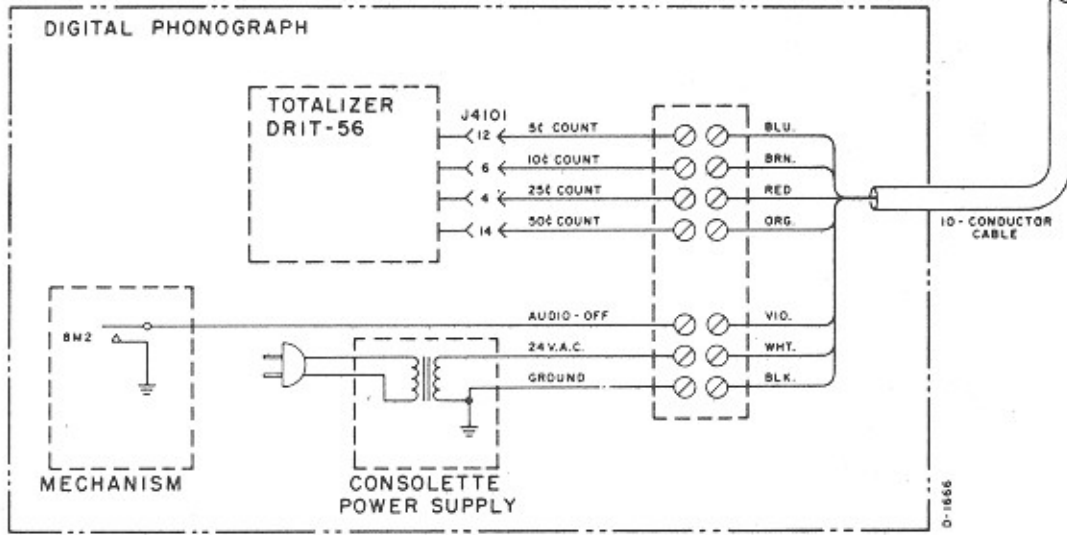
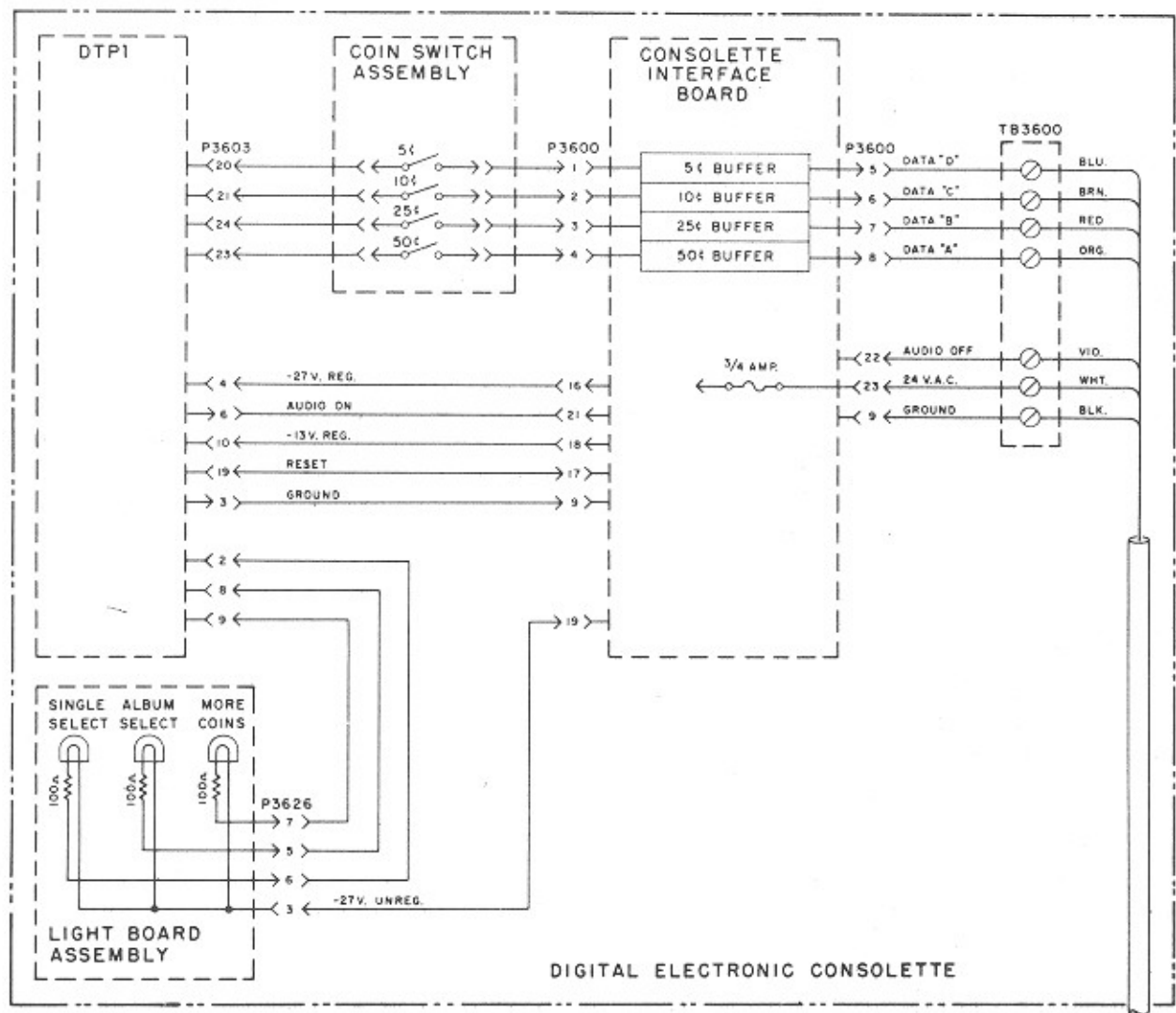
317136), which must be installed in the phonograph for up to eight Consolettes. If the installation requires more than eight Consolettes, an additional power supply must be installed per each additional group of eight Consolettes.

In addition, whenever 8 Consolettes are to be connected and distributed along a ten conductor cable whose length exceeds 150 feet, additional pairs of black and white power wire, AWG16, are needed to ensure a minimum of 22.5 VAC input voltage to each digital Consolette for proper operation. See Chart 1. Additional pairs of power wire to originate from terminal board of DCPS1-56 mounted on bottom of digital phonograph.

CABLE RUN LENGTH FOR EIGHT CONSOLETTES	NO. OF DEC1's ON ONE PAIR OF POWER WIRE AWG16	EXTRA PAIR OF POWER WIRE AWG16
Up to 150 feet	8	None
Up to 300 feet	4	1 Pair Extra
Up to 600 feet	2	3 Pair Extra
Up to 1200 feet	1	7 Pair Extra

CHART 1. Addition of Power Wire Pairs for Cable Runs over 150 Feet.

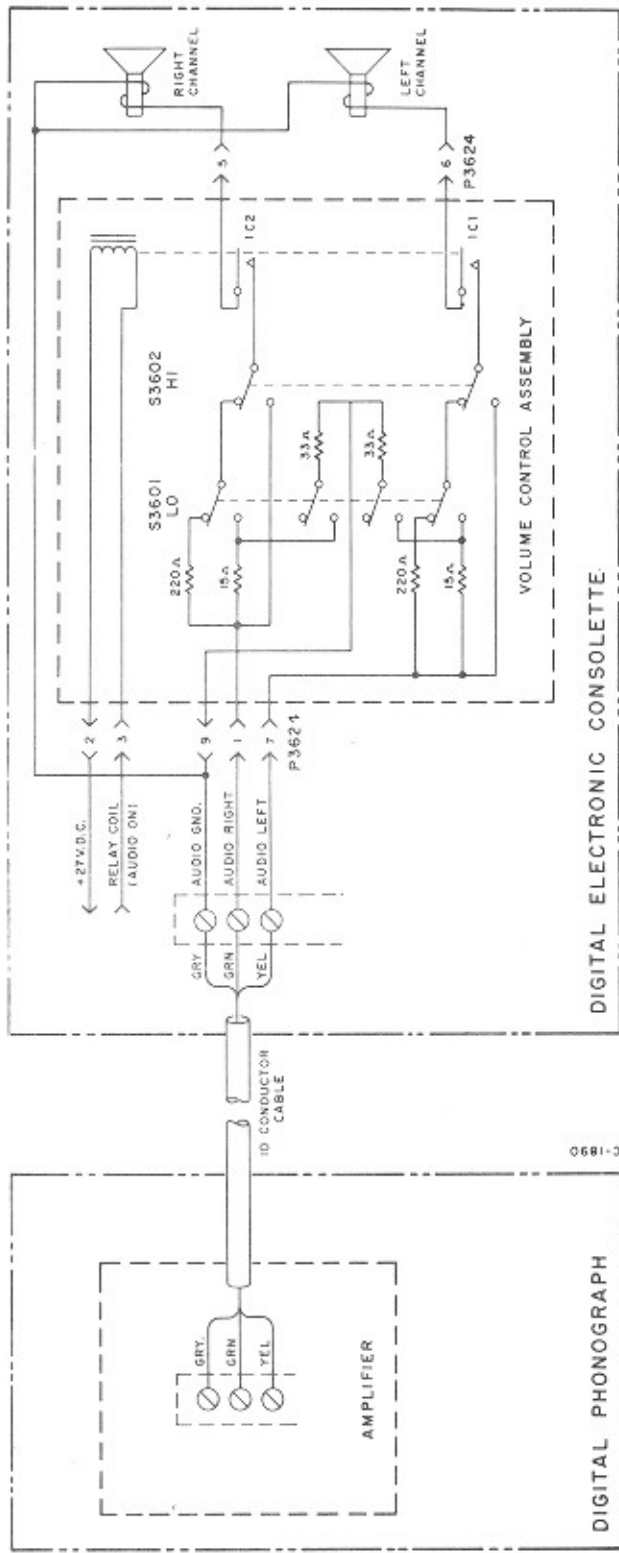
DIGITAL CONSOLETTTE CREDIT SYSTEM SERVICE DIAGRAM



DIGITAL CONSOLE/TE SELECTION SYSTEM SERVICE DIAGRAM

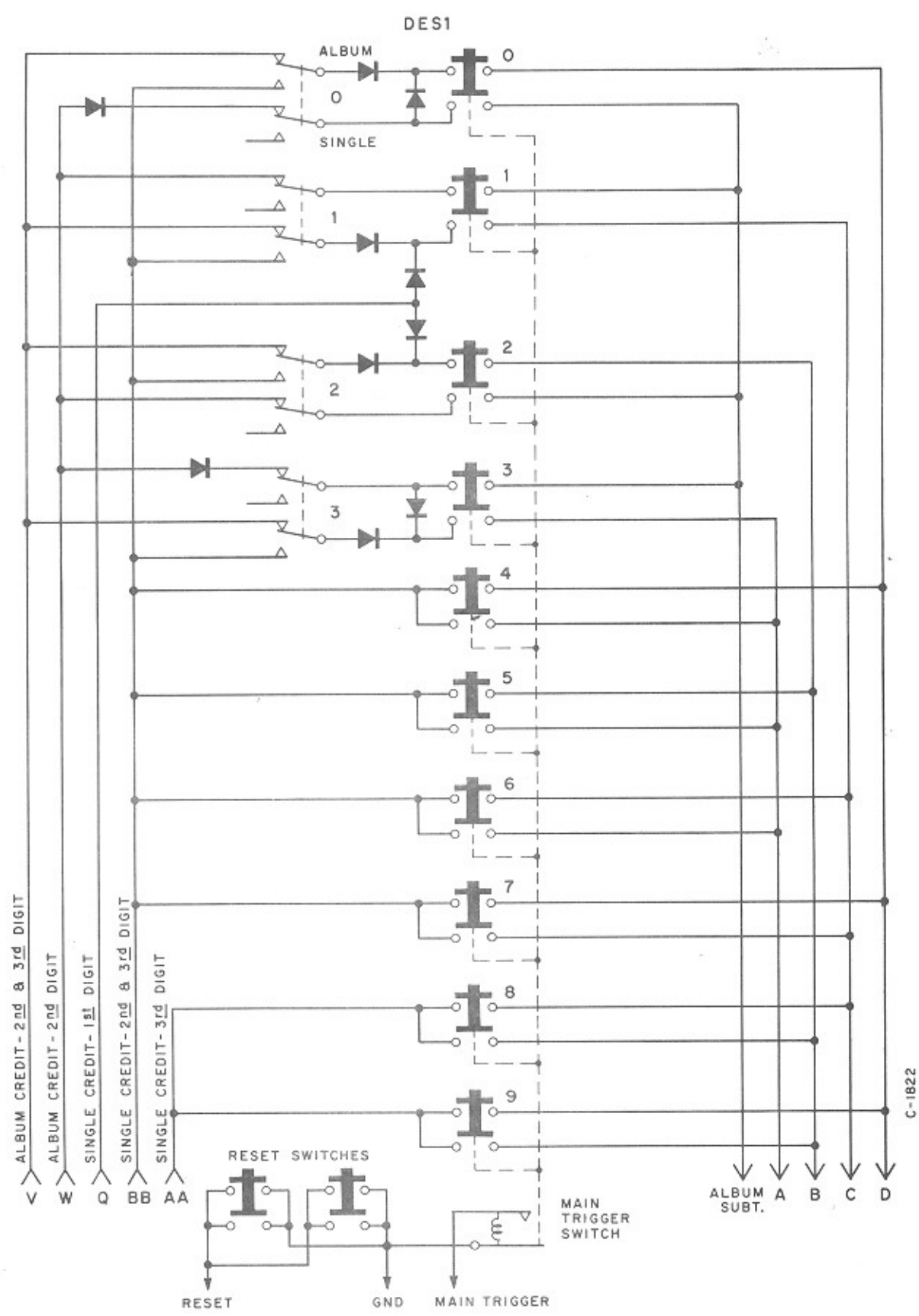


DIGITAL CONSOLETTTE AUDIO SYSTEM SERVICE DIAGRAM



0681-3

DIGITAL ELECTRONIC SELECTOR, Type DES1



COIN SWITCH ADJUSTMENT INSTRUCTIONS

- IMPORTANT -

Use care when making blade pressure and contact spacing adjustments. Adjustment screws should be turned only a fraction of a turn at a time. Use a gram gauge for checking blade pressures. A gauge with a range of 0 to 10 grams is recommended.

CAUTION: Turning the screws beyond the adjustment range will cause damage to the contact blades.

1. PRELIMINARY CHECKS

Before making any adjustment, check that:

- The three (3) Phillips head screws (shown in Figure 1) are pulled up securely. It may be necessary to hold the nut on the center screw in a rigid position when tightening the screw.
- The paddle pivot pin is free of dirt and grease.
- The contacts are clean and free of pits. (Burnish if necessary)

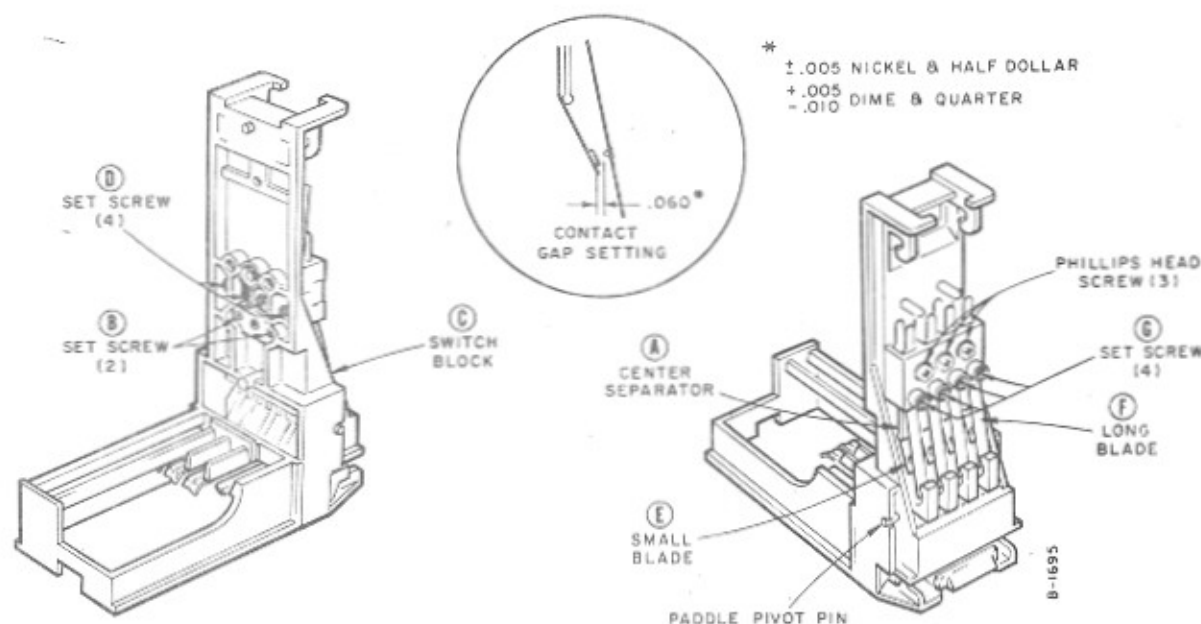


FIGURE 1.

2. CONTACT GAP SETTING

Adjust the two set screws (B, Figure 1) for the following contact gaps:

Quarter and half dollar -	$.060 \pm .005$
Quarter and dime -	$.060 \begin{matrix} +.005 \\ -.010 \end{matrix}$

COIN SWITCH ADJUSTMENT INSTRUCTIONS

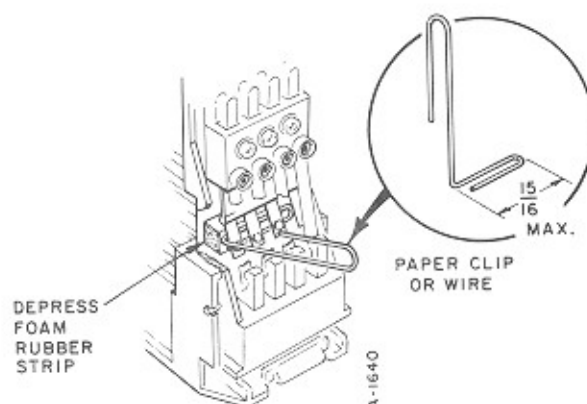


FIGURE 2.

3. NICKEL DIME AND QUARTER SWITCHES (Short Blade Pressure Adjustments)

- a. Fashion an implement out of a paper clip similar to that shown in Figure 2. Wire, of a comparable gauge, may also be used.
- b. Using this implement, depress the foam rubber pad located behind the short blades, see Figure 2.
- c. Adjust each D set screw (Figure 1) so that a pressure of 2 grams $\pm \frac{1}{2}$ gram is obtained. The blade should just move away from separator A when pressure from the gauge is applied at the correct setting.

4. HALF DOLLAR (Short Blade Pressure Adjustment)

This adjustment is the same as that described in Paragraph 3. except that the pressure is 4 grams $\pm \frac{1}{2}$ gram.

5. NICKEL, DIME, QUARTER AND HALF DOLLAR (Long Blade Pressure Adjustment)

- a. Adjust G set screws until a pressure of 7 to 9 grams at the back of the contacts causes closing. The closure of the contacts is best indicated with a volt-ohm meter.

NOTE: After making the pressure adjustments, recheck the gap settings to make sure they have remained within limits.

DIGITAL ELECTRONIC SELECTOR, Type DESI

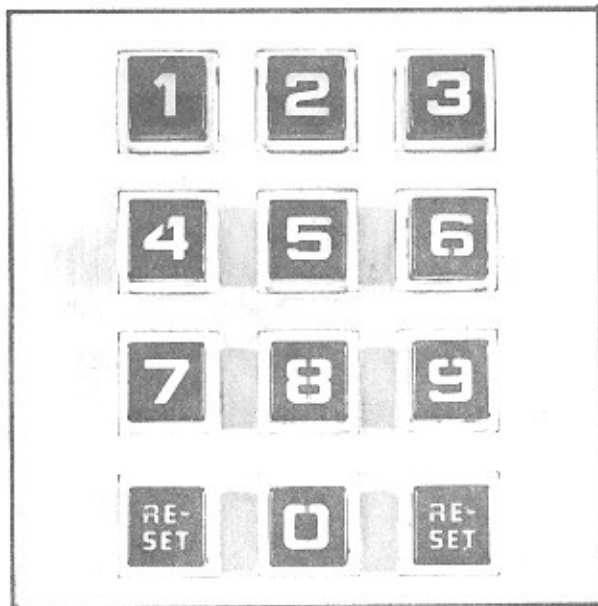


Figure 1. Digital Electronic Selector, Type DESI.

The Digital Electronic Selector, Type DESI is an integral part of the Digital Selection System. It consists of ten (10) selector buttons, two (2) reset buttons, a main trigger switch and four (4) "Album-Single" pricing switches. This unit is connected to the Digital Transmitter Pricing Unit, Type DTP1, by means of a twelve (12) pin and an eighteen (18) pin printed circuit board edge connector. Connection to the main trigger switch is made by two (2) single lug push-on connectors.

The Digital Electronic Selector, Type DESI provides a means for selecting any one (1) of one hundred and sixty (160) selections.

Each selection has a three digit address. The first (hundreds) digit must be a "1" or a "2". Pressing a "1" on the first (hundreds) digit indicates the left side of a record. Pressing a "2" on the first (hundreds) digit indicates the right side of a record.

Pressing a number other than a "1" or a "2" on the first (hundreds) digit is not a valid selection and will cause the "reset and re-select" lamp to light. This will require that the "reset" button be pressed, and a valid selection made. The second (tens) digit indicates the record group selected. There are

eight valid record groups, numbered "0" through "7". Pressing an "8" or "9" on the second (tens) digit is not a valid selection and will cause the "reset and re-select" lamp to light.

The third (units) digit indicates a particular record in a record group. There are ten (10) records in a record group and are numbered "0" through "9".

The Digital Electronic Selector, Type DESI receives credit level information from the Digital Transmitter Pricing Unit, Type DTP1 on five (5) input lines. This information in the form of voltage levels is distributed by the printed circuit board to the ten (10) selector buttons. As a particular button is depressed, the individual selector switch closes before the main trigger switch closes. When the main trigger switch closes, the input lines from the Digital Transmitter and Pricing Unit to the Digital Electronic Selector are activated, permitting voltage levels to pass through the selector switch to four (4) data lines which return to the Digital Transmitter Pricing Unit.

ADJUSTMENTS

Selector Switches -

Each individual selector switch should close with $\frac{1}{32}$ inch to $\frac{3}{32}$ inch of SWITCH STEM TRAVEL.

(not necessarily selector button travel)

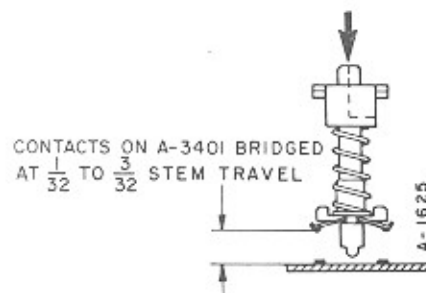


Figure 2. Selector Switch Adjustment.

DIGITAL ELECTRONIC SELECTOR, Type DESI

NOTE:

When checking a particular selector switch, consult the DESI Schematic Diagram, Figure 4. Disconnect edge connectors from DESI and connect a continuity tester to proper printed board contacts associated with selector switch being checked.

Main Trigger Switch -

The Main Trigger Switch should operate with 1/8 inch to 5/32 inch of any selector switch stem travel. (not necessarily selector button travel).

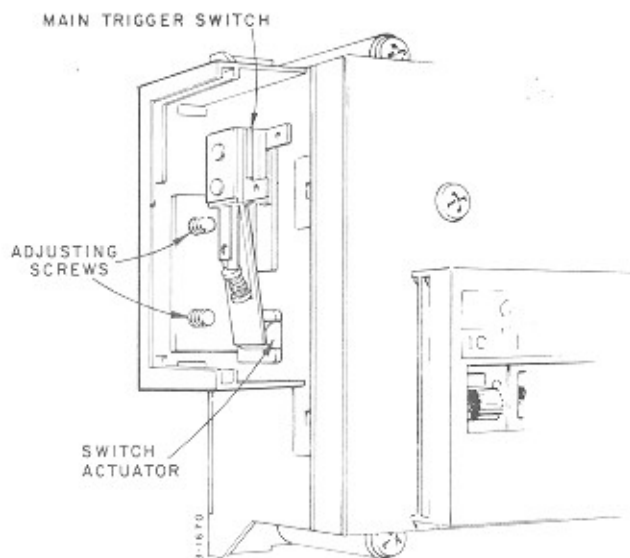


Figure 3. Trigger Switch Adjustment.

		DIGITAL SELECTOR BUTTONS										STAND-BY
		0	1	2	3	4	5	6	7	8	9	
DATA LINES	A	1	1	1	0	0	0	0	1	1	1	1
	B	1	1	0	1	1	0	1	1	0	0	1
	C	1	0	1	1	1	1	0	0	0	1	1
	D	0	1	1	1	0	1	1	0	1	0	1
FOUR PART DIGITAL CODES-QUADRIBITS DEVELOPED BY DESI												

Figure 4. Four-Part Digital Codes - Quadrubits.

FOUR PART DIGITAL CODE - QUADRIBIT

Three quadrubits make up a three digit selection address. From Figure 4, a particular selection address can be shown. The three quadrubits for the three digit selection 156 would be 0010 for the hundreds digit "1", 0011 for the ten's digit "5", and 0101 for the units digit "6".

The 0's of the quadrabit are ground pulses. The 1's are - 6VDC levels - normal condition of data lines. Pressing button "5" approxi-

mately 1/16 inch, closes two switch segments 5S1 and 5S2, see Figure 5. Switches 5S1 and 5S2 connects credit set line "BB" (single credit - 2nd and 3rd digit) to data lines A and B, approximately 1/16 inch further travel of button "5" will close main trigger switch S3417. A ground pulse then appears on set line "BB", which passes through closed switch segments 5S1 and 5S2 to the A and B data lines. The data lines provide a path to the quadrabit storage area in DTP1.

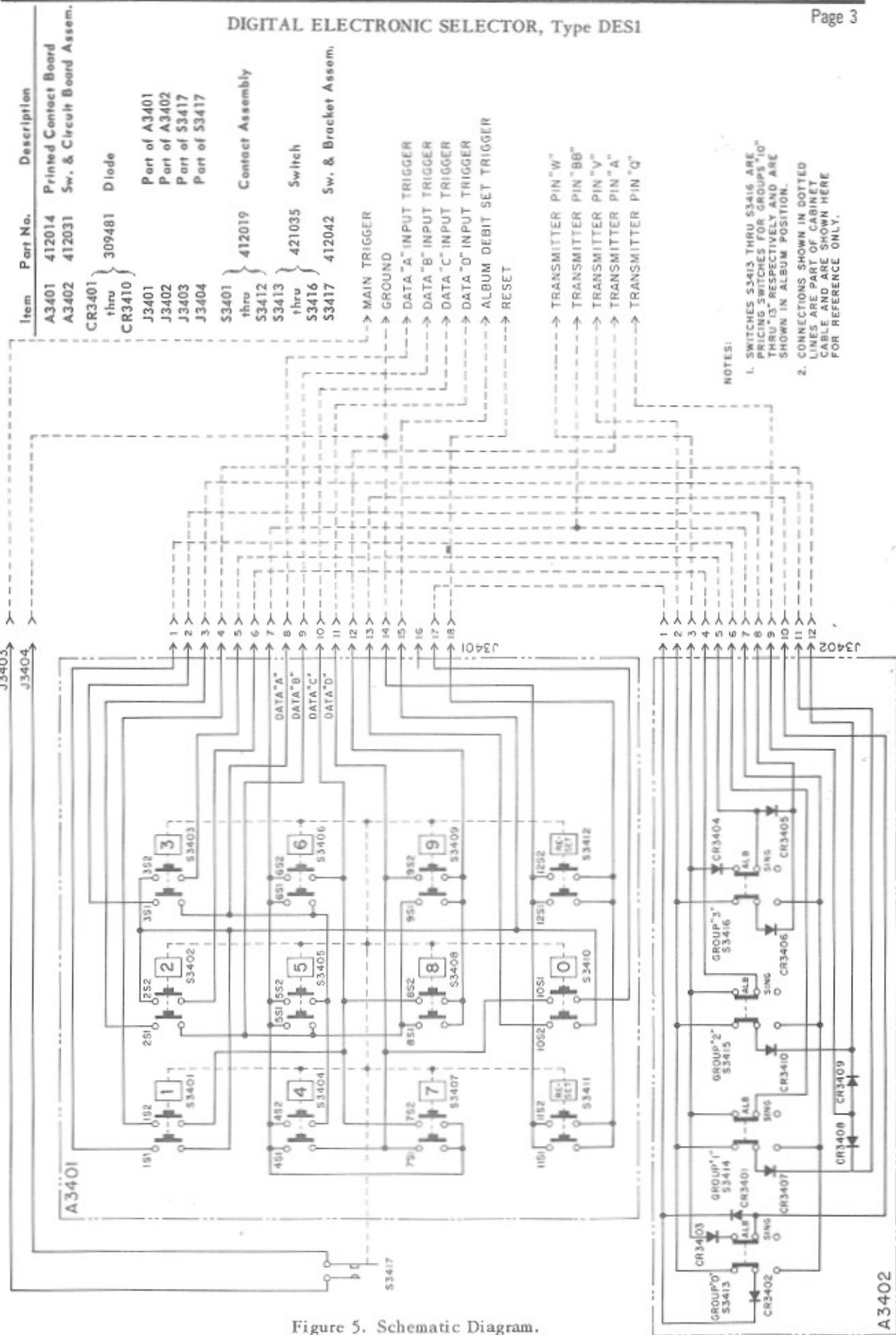


Figure 5. Schematic Diagram.

0-1649 (412036-3)

DIGITAL ELECTRONIC CONSOLETTTE INTERFACE BOARD

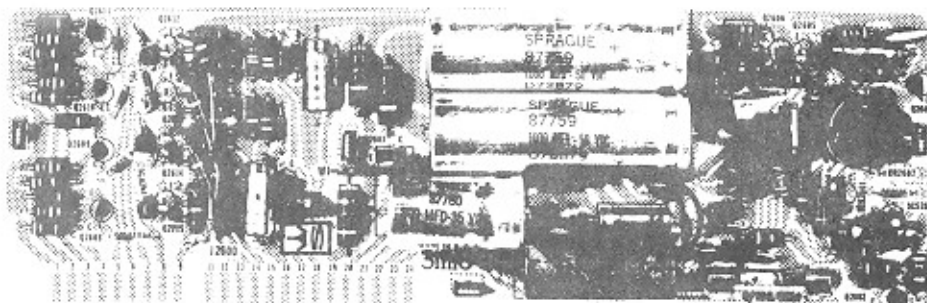


FIGURE 1. Digital Electronic Console Interface Board - A2600.

GENERAL

The interface board contains all DC power supplies necessary to operate the Remote Digital Electronic Console. Audio control electronic switching, credit buffers for counting coins deposited, data buffers for digital selection system and reset circuit for resetting binary circuits to zero also, are on the interface board.

CAUTION:

Before removing interface board from mounting posts or unplugging edge connector, turn main power off by removing white wire slip-on connector at TB3600.

-27 VDC REGULATED POWER SUPPLY PHASE 1

CR2604 half wave rectifies the negative half cycle of the 24 VAC input voltage charging C2608 near peak value of 24 VAC. Q2603 acts as a variable resistor to load current to maintain power supply voltage at $-27 \text{ VDC} \pm 1 \text{ VDC}$. The zener diode CR2609 references base of Q2603 to -27 VDC . Voltage drop from emitter to base of Q2603 is compensated by the use of CR2606. As load current changes, Q2603 changes its emitter to collector resistance to compensate for any voltage change in power supply. The -27 VDC regulated power supply is used to provide power for the DTP1, and the data buffers.

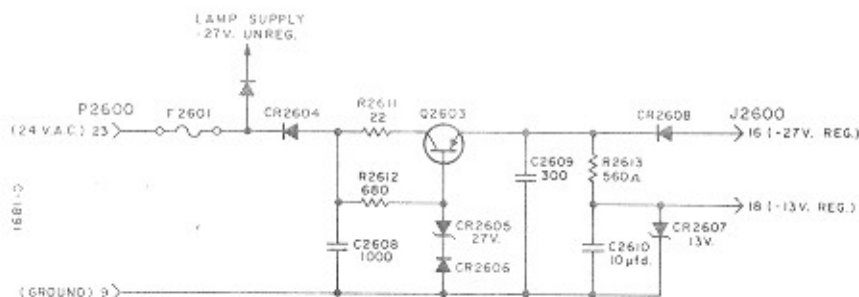


FIGURE 2a. -27 VDC Regulated Power Supply (Phase 1).

DIGITAL ELECTRONIC CONSOLETTTE INTERFACE BOARD

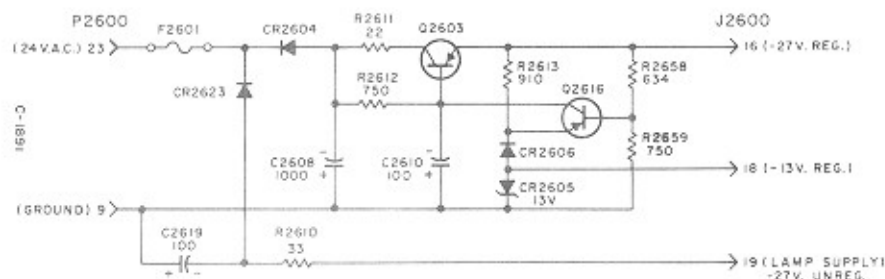


FIGURE 2b. -27 VDC Regulated Power Supply (Phase 2).

-27 VDC REGULATED POWER SUPPLY PHASE 2

Zener diode CR2609 was replaced by Q2616 providing the reference voltage for Q2603. The emitter of Q2616 is held at a constant -13 VDC by the -13 V power source regulator zener diode CR2605. The voltage divider R2658 and R2659 samples the -27 VDC and applies a portion to the base of Q2616. When the -27 VDC goes down the internal resistance of Q2616 goes up. The collector voltage of Q2616 applies a higher voltage to the base of Q2603 the series current regulator. The higher negative voltage applied to the base of Q2603 reduces the external resistance of Q2603 maintaining the output voltage of -27 VDC power supply at a constant value.

-27 VDC UNREGULATED POWER SUPPLY

CR2623 rectifies the negative half cycle of the 24 VAC input voltage charging C2619 to approximately -27 VDC. The unregulated -27 VDC is used to power credit, 1st digit, 2nd digit, reset lamps and deposit more coins lamp.

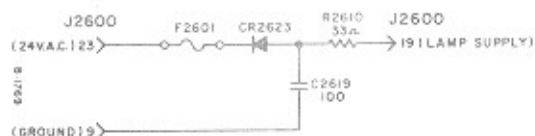


FIGURE 3. -27 VDC Unregulated Power Supply.

-13 VDC REGULATED POWER SUPPLY

CR2607 acts as a shunt regulator to provide -13 VDC $\pm \frac{1}{2}$ VDC used in the DTP1. R2613 drops the -27 VDC to approximately -13 VDC. As load current changes the internal resistance of CR2607 will change to maintain the voltage across itself to -13 VDC. The -13 VDC regulated power supply is used to power portions of the DTP1.

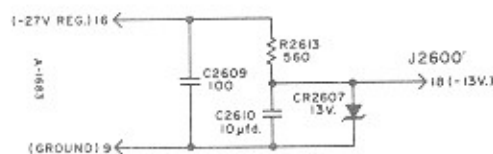


FIGURE 4. -13 VDC Regulated Supply.

RESET CIRCUIT

Q2604 is the reset device to insure resetting the digital systems in DTP1 to zero whenever power is turned off, and power is turned on. As power is reapplied Q2604 will be biased at cut off due to the charging current of C2611 through R2616 and R2614 until C2611 has charged to approximately -27 VDC. The delayed rise in voltage across the collector resistor R2617 of Q2604 is used to reset all digital circuits to the zero state.

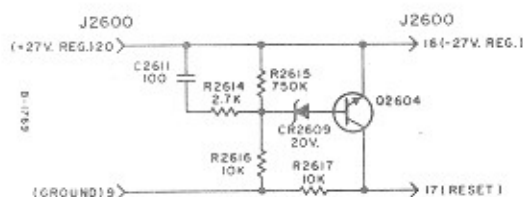


FIGURE 5. Power Reset Circuit.

+27 VDC REGULATED POWER SUPPLY

CR2611 rectifies the positive half cycle of the input 24 VAC input power and capacitor C2613 charges approximately to the peak value of the input voltage. Q2607 acts as a series variable resistor to load current much in the same way as Q2603 in the -27 VDC regulated power supply. The +27 VDC is used to power the Audio Control Circuit and Audio Relay.

DIGITAL ELECTRONIC CONSOLETTTE INTERFACE BOARD

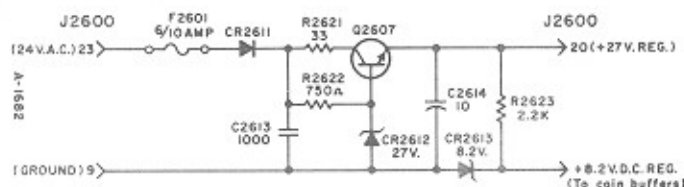


FIGURE 6. +27 VDC and +8.2 VDC Regulated Power Supply.

+8.2 VDC REGULATED POWER SUPPLY

+8.2 VDC Regulated Power Supply is used to power the credit buffers to enable counting coins deposited. It is regulated by the shunt regulator CR2613 zener diode, see Figure 6.

DATA BUFFERS

The four Data Buffers are used to transmit the four bit digital data code to the receiver buffers in the control center of the Digital Phonograph for making selections. The input pulses of the data buffers originate from the Digital Transmitter and Pricing Unit shortly after pushing the last digit of the three digit selections.

Three digital codes will be transmitted by the data buffers for each selection. A code will appear as pulses on the red, brown, orange and blue wires interconnecting the Digital Consolettes with the Digital Phonograph. The time for transmission of all three codes will be only 1.5 milliseconds. This time is so short that the probability of selection codes from various Digital Consolettes arriving simultaneously at the Digital Phonograph is for all practical purposes nonexistent.

Q2612, Q2613, Q2614 and Q2615 are normally not conducting. As a ground pulse appears at the base of any data buffer conduction will take place. The momentary conduction of a data buffer causes a -27 VDC pulse to appear on a data line, one of the brown, red, orange and blue wires of the ten conductor cable.

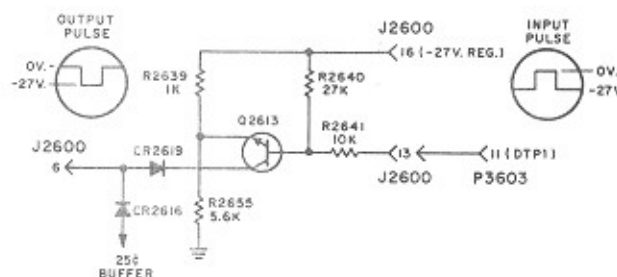


FIGURE 7. Data Buffers.

COIN SWITCH BUFFERS

Normally the coin switch buffers are nonconducting. When a coin passes through a coin switch, a negative voltage is applied to one of the buffer bases, Q2608, Q2609, Q2610 or Q2611 through the closed coin switch from the DTP1 side of the coin switch forward biasing a buffer. This places a +8.2 voltage pulse on one of the data lines; brown, red, orange or blue wires of the ten conductor cable. This positive pulse is used in those digital phonographs equipped with a Digital Recording Income Totalizer, Type DRIT-56 to register the coins deposited in the Digital Consolettes.

The coin pulses and digital selection codes are multiplexed on the same red, brown, orange and blue wires of the ten conductor cable. This is possible due to the positive polarity sensitive input of the DRIT-56 and the negative polarity sensitive input of the receiver buffers of the control center of the digital phonograph. Many negative selection data pulses could occur during a 30 millisecond positive coin pulse without interfering with each other.

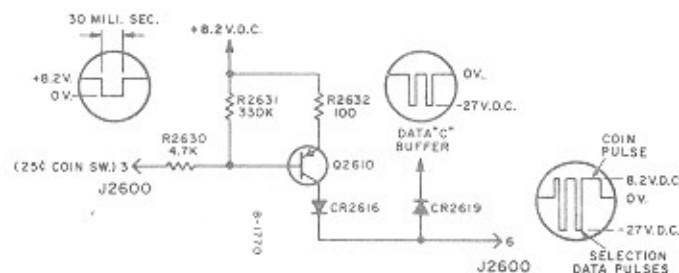


FIGURE 8. Coin Switch Buffers.

DIGITAL ELECTRONIC CONSOLETTTE INTERFACE BOARD

AUDIO CONTROL CIRCUIT

Audio relay K3600 is de-energized when power is first applied and the Consolette speakers are turned off. SCS2601 and SCS2602 will conduct through the forward biased Q2605 in that the gate circuits of the Silicon Control Switches will have a positive going voltage applied to their gates. The conduction of SCS2602 places the base of Q2602 at ground preventing it from conducting.

Upon making a selection a positive going pulse from the DTP1 will be applied to the base of Q2606. This turns on Q2606 applying a ground or negative going pulse to Q2605, turning it off. SCS2601 and SCS2602 then loses its cathode circuit momentarily, turning them off. Q2602

now has its base tied back to +27 VDC turning it on energizing K3600 turning on the Consolette speakers.

As the mechanism scans in the Digital Phonograph, a ground pulse will appear on the violet audio control wire in the ten conductor cable connected to the Digital Consolette from the audio control switch 8M2 of the Select-O-Matic mechanism. This ground pulse is applied to Q2601 turning it off momentarily. The collector of Q2601 going positive charges C2603 applying a positive pulse to the gate of SCS2601 turning it on. The conduction of SCS2601 forward biases CR2602 and discharges C2606 so that the next ground pulse from 8M2 will cause the positive pulse of Q2601 to be applied through CR2602 to SCS2602 turning it on. Whenever SCS2602 conducts, Q2602 will be turned off, de-energizing audio relay K3600.

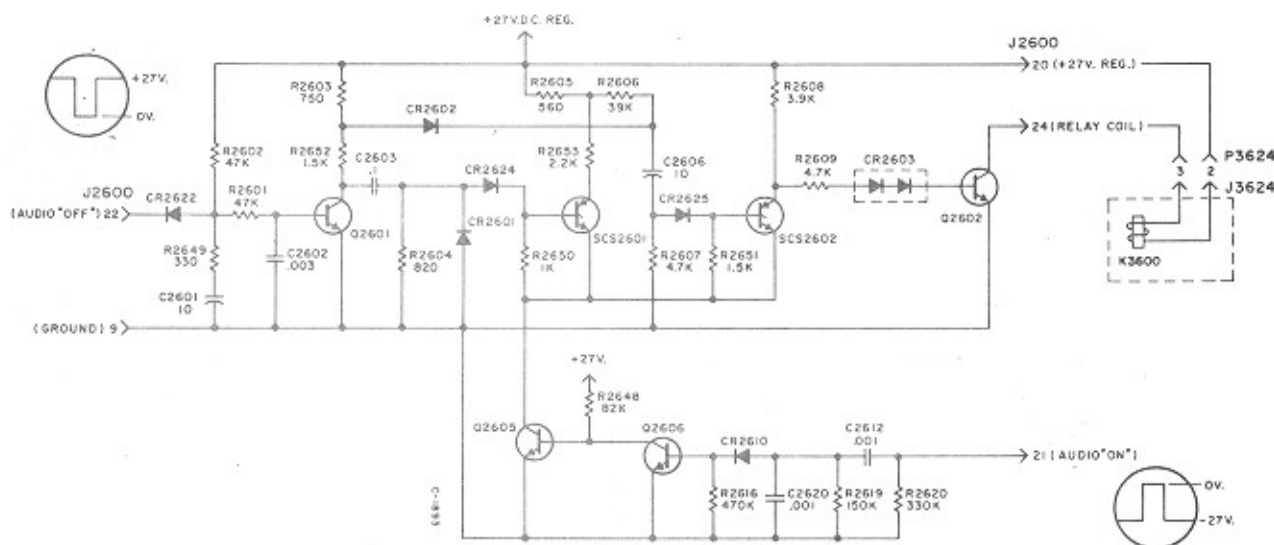


FIGURE 9. Audio Control Circuit.

DIGITAL ELECTRONIC CONSOLETTTE, Types DEC110, DEC125, DEC210 and DEC225

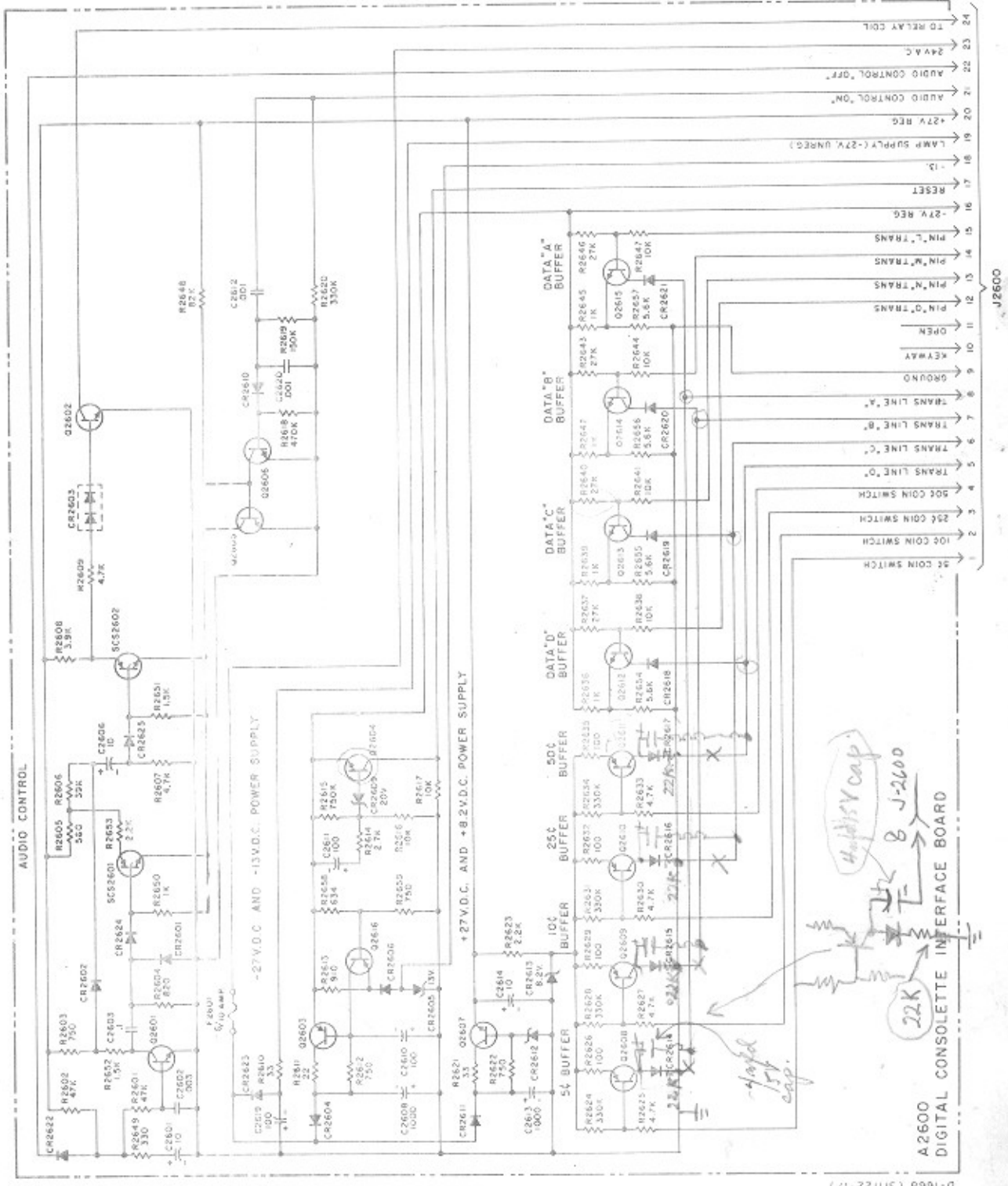
CONSOLETTTE INTERFACE BOARD SCHEMATIC

- NOTES:
- 1. ALL RESISTORS ARE IN OHMS UNLESS OTHERWISE SPECIFIED.
 - 2. ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.



P.C. BOARD CONNECTOR DESIGNATION

PRINTED CIRCUIT BOARD LEGEND	
DEC1	A2600 IDENTIFICATION
CODE LETTER	
A	31110-1
A	31110-2
A	31110-3
A	31110-4



Handwritten notes: 440V cap., 22K, 8 J-2600, 440V cap., 22K, 8 J-2600.

PARTS LIST FOR CONSOLETTTE INTERFACE SCHEMATIC

Item	Part No.	Description	Item	Part No.	Description	Item	Part No.	Description
A2600	311110	Digital Consolette Interface Board Assem.	Q2601	309684	NPN	R2622	82161	750, 5%
C2601	87743	10, 35 V. Lytic	Q2602			R2623	82428	2,200
C2602	86278	.003, 500 V. Ceramic	Q2603	309457	PNP	R2624	82454	330,000
C2603	86316	.1, 100 V. Ceramic	Q2604			R2625	82432	4,700
C2606	87743	10, 35 V. Lytic	Q2605	309684	NPN	R2626	82412	100
C2608	87759	1000, 50 V. Lytic	Q2606			R2627	82432	4,700
C2610	87700	100, 35 V. Lytic	Q2607	309459	NPN	R2628	82454	330,000
C2611	87700	100, 35 V. Lytic	Q2608			R2629	82412	100
C2612	86309	.001, 500 V. Ceramic	to	309683	PNP	R2630	82432	4,700
C2613	87759	1000, 50 V. Lytic	Q2611			R2631	82454	330,000
C2614	87743	10, 35 V. Lytic	Q2612			R2632	82412	100
C2619	87695	100, 50 V. Lytic	to	309684	NPN	R2633	82432	4,700
C2620	86309	.001, 500 V. Ceramic	Q2615			R2634	82454	330,000
			Q2616	309683	PNP	R2635	82412	100
CR2601	309481	Silicon Diode, 40 Piv	R2636			R2636	82424	1,000
CR2602	309481	Silicon Diode, 40 Piv	R2637			R2637	82441	27,000
CR2603	309478	Silicon Stabistor	R2638			R2638	82436	10,000
CR2604	309476	Silicon Rectifier, 100 Piv, 1 A	R2639	82444	47,000	R2639	82424	1,000
CR2605	309613	13 V. Zener Diode, 1 W., 5%	R2640	82161	750, 5%	R2640	82441	27,000
CR2606	309384	Silicon Diode, 170 Piv	R2641	82423	820	R2641	82436	10,000
CR2609	309487	20 V. Zener Diode, 400 MW, 10%	R2642	82421	560	R2642	82424	1,000
CR2610	309481	Silicon Diode, 40 Piv	R2643	82443	39,000	R2643	82441	27,000
CR2611	309476	Silicon Rectifier, 100 Piv, 1 A	R2644	82432	4,700	R2644	82436	10,000
CR2612	309611	27 V. Zener Diode, 1 W., 5%	R2645	82431	3,900	R2645	82424	1,000
CR2613	309612	8.2 V. Zener Diode, 500 MW, 10%	R2646	82432	4,700	R2646	82441	27,000
CR2614	309481	Silicon Diode, 40 Piv	R2647	81290	33, W.W., 2 W.	R2647	82436	10,000
to			R2648	81230	22, W.W., 2 W.	R2648	82447	82,000
CR2622	309481	Silicon Diode, 40 Piv	R2649	82161	750, 5%	R2649	82418	330
CR2623	309476	Silicon Diode, 100 Piv, 1 A	R2650	82651	910, 5%	R2650	82424	1,000
CR2624	309481	Silicon Diode, 40 Piv	R2651	82429	2,700	R2651	82426	1,500
F2601	311112	6/10 Amp. Fuse	R2652	82607	750,000, 5%	R2652	82426	1,500
J2600		P.C. Board (A2601)	R2653	82436	10,000	R2653	82428	2,200
			R2654	82436	10,000	R2654	82433	5,600
			R2655	82456	470,000	R2655	82433	5,600
			R2656	82450	150,000	R2656	82433	5,600
			R2657	82454	330,000	R2657	82433	5,600
			R2658	81290	33, W.W., 2 W.	R2658	82576	634, 1%
			R2659			R2659	82577	750, 1%
			SCS2601	309510	Reverse Blocking Thyristor			
			SCS2602	309510	Reverse Blocking Thyristor			

NOTES:

1. Unless otherwise specified all resistors are in ohms, $\frac{1}{2}$ watt & 10%.
2. Unless otherwise specified all capacitors are in microfarads.

PARTS LIST FOR CONSOLETTTE FRONT DOOR ASSEMBLY AND BACK ASSEMBLY

Item	Part No.	Description
A2600	311110	Power Supply
A3600	311000	"DTP1" Digital Transmitter & Pricing
A3601	412000	"DES1" Digital Electronic Switch
A3602	515835	Volume Control Assembly
A3603	515852	Light Board Assembly
CR3600	309384	Silicon Diode
I3600	507522	No. 19 Lamp
I3601	507522	No. 19 Lamp
I3602	507522	No. 19 Lamp
I3603	318029	No. 1819 Lamp
I3604	318029	No. 1819 Lamp
I3605	318029	No. 1819 Lamp
I3606	318029	No. 1819 Lamp
I3607	318029	No. 1819 Lamp
I3608	318029	No. 1819 Lamp
I3609	507522	No. 19 Lamp
K3600	515842	D.C. Relay
LS3600	515865	Speaker
LS3601	515865	Speaker
R3600	81255	15 W.W. 2 W.
R3601	81234	220 W.W. 2 W.
R3602	82406	33
R3603	82406	33
R3604	81255	15 W.W. 2 W.
R3605	81234	220 W.W. 2 W.
R3606	82412	100
to		
R3611	82412	100
R3612	81235	56 W.W. 2 W.
R3613	81235	56 W.W. 2 W.
S3600	421281	Coin Switch Assembly
S3601	515840	Switch Assembly
S3602	515840	Switch Assembly
TB3600	515755	Terminal Strip
W3600	515716	Cable Assembly

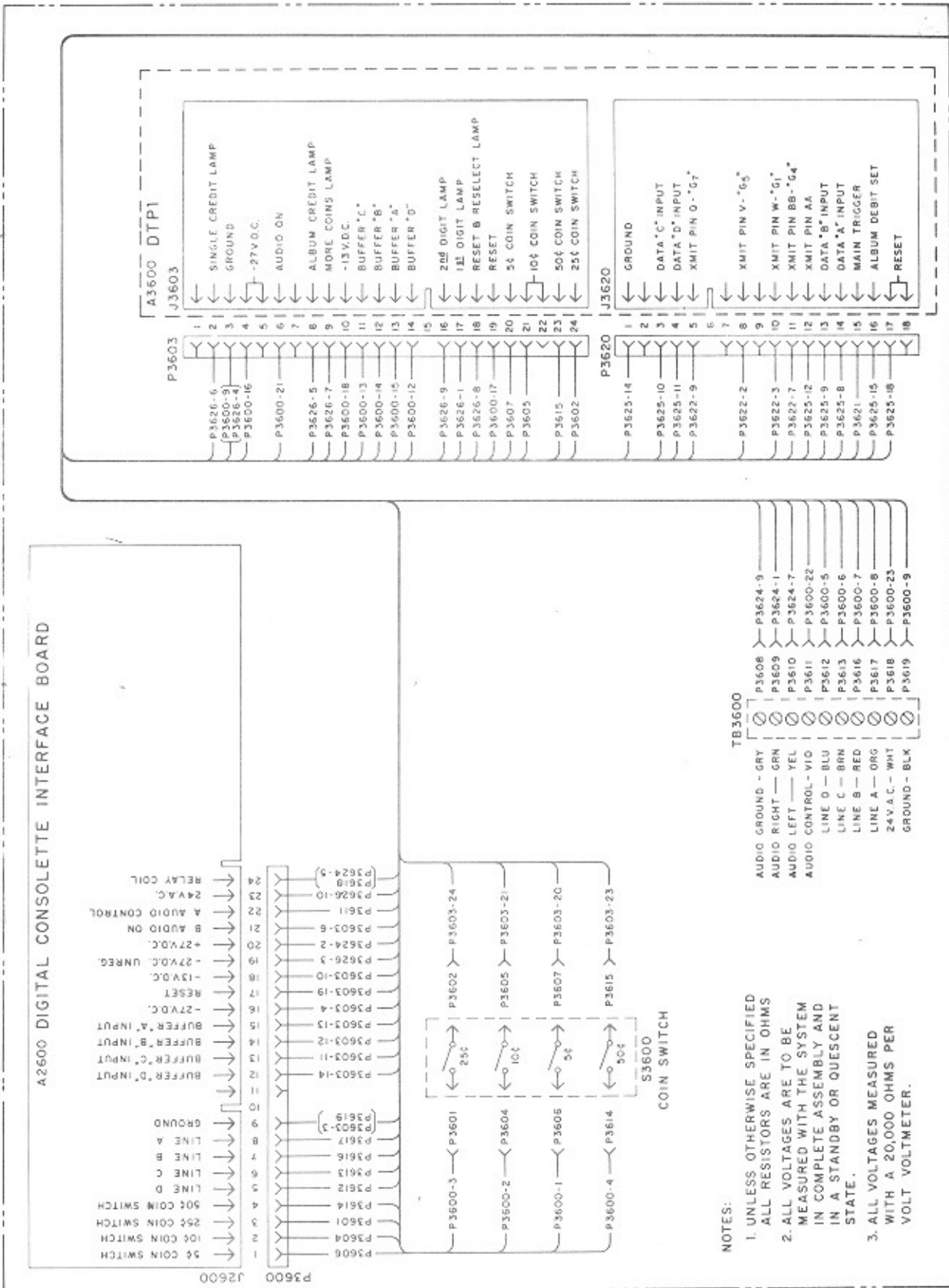
NOTE 1: Unless otherwise specified all resistors are in ohms, ½ watt and 10%

NOTE 2: Unless otherwise specified all capacitors are in microfarads.

Part 1 of 2

CONSOLETTTE BACK ASSEMBLY SCHEMATIC

0-1664 (315784-3)



CONSOLETTA FRONT DOOR ASSEMBLY SCHEMATIC

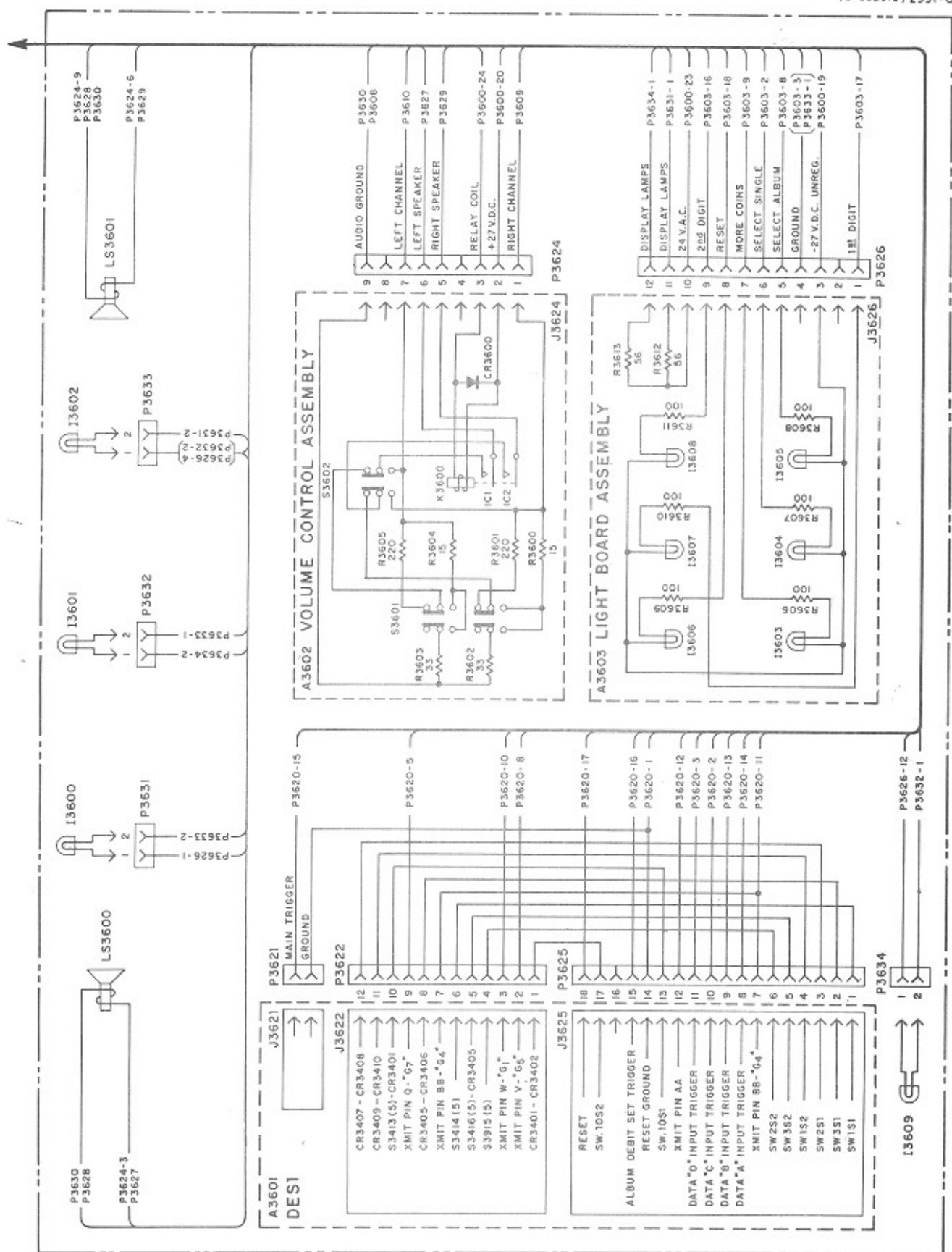




Diagram illustrating the Validator Kit components and connections:

- PRICING BOARD
- 18 PIN EDGE CONNECTOR FOR VALIDATOR KIT (ACCESSORY)
- 24 PIN EDGE CONNECTOR TO CABINET CABLE
- 18 PIN EDGE CONNECTOR TO CABINET CABLE

GENERAL

b. "Select Any Single" and "Select Any Album" lamps will light when appropriate credit has been established.

In order to set the phonograph on "Free Play" merely remove the Pricing Board from the Digital Transmitter Pricing Unit and the Credit System will automatically be programmed for Free Play.

2. Selection Transmitter Functions –

The transmitter portion of the Digital Transmitter Pricing Unit accepts and stores selection information received from the selector, on four data input lines, until the selection is completed. At the time the third digit is pressed on the selector, the complete selection information is transmitted on four data transmission lines through the Digital Control Center, Type DCC1 to the Digital Receiver Decoder Unit, Type DRD1 in a period of approximately 1 millisecond.

Basically this unit can be divided into two parts:

1. Pricing Functions
2. Selection Transmitter Functions.

1. Pricing Functions –

The Type DTP1, Digital Transmitter Pricing Unit includes the feature of Actual Cash Value Bonus. With this feature any 25 cent combination of nickels and dimes deposited in succession gives the same credit as a quarter and likewise any 50 cent combination of nickels, dimes and quarters deposited in succession gives the same credit as a half dollar.

Three credit lamps are associated with the pricing functions:

NOTE:

The Digital Transmitter Pricing Unit is a factory sealed unit, carrying a 3-year Warranty. Breaking the Factory Seal Automatically Voids Warranty.

- a. "Deposit More Coins" lamp lights when an insufficient number of coins have been deposited for a single selection.

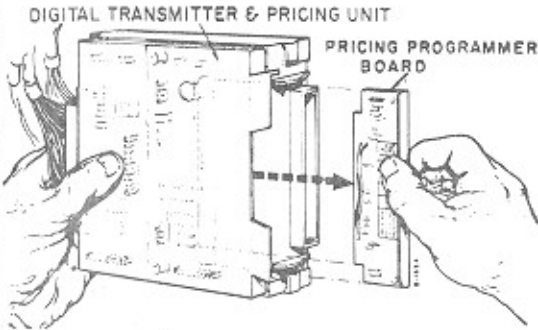
DIGITAL TRANSMITTER PRICING UNIT, Type DTP1

CAUTION NOTE:

If it becomes necessary to replace the Digital Transmitter Pricing Unit, Type DTP1, BE SURE TO CHECK -27 V. SUPPLY in Console Power Board. Use a voltmeter or a 28 V. Test Lamp Socket, Part No. 133720, using a No. 3819 bulb ONLY, Part No. 318029. Amount of illumination on +27 V. and -27 V. supply should be the same. Remove white push-on connector from TB3600 to turn off power of DEC before unplugging DTP1.

		PRICING WINDOW	PRICING PROGRAMMER	STANDARD IN MODEL
PRICING	2 FOR 25 CENTS Part No. 515720	DEPOSIT 10¢, 25¢, 50¢ OR \$1.00 IN MIXED COINS SINGLES 1 SELECTION 10¢ 3 SELECTIONS 25¢ 6 SELECTIONS 50¢ 12 SELECTIONS \$1.00 ALBUMS PER SIDE 25¢ 2 SIDES 50¢ 4 SIDES \$1.00	310103 14 SINGLES = \$ BILL	DEC125 & DEC225
	10 CENTS Part No. 515718	DEPOSIT 25 CENTS, 50 CENTS OR \$1.00 IN MIXED COINS 2 SINGLES 25¢ OR QUARTER 5 SINGLES 50¢ IN MIXED COINS 10 SINGLES \$1.00 IN MIXED COINS ALBUMS PER SIDE 25¢ 2 SIDES PLUS 1 SINGLE 50¢ 5 SIDES \$1.00	310101 15 SINGLES = \$ BILL	Pricing Modification
	7 FOR 50 CENTS Part No. 515953	DEPOSIT 10 CENTS, 25 CENTS, 50 CENTS OR \$1.00 IN MIXED COINS 1 SINGLE DIME OR 2 NICKLES 3 SINGLES 25¢ OR QUARTER 7 SINGLES 50¢ IN MIXED COINS 14 SINGLES \$1.00 IN MIXED COINS ALBUMS PER SIDE 25¢ 2 SIDES PLUS 1 SINGLE 50¢ 14 SIDES PLUS 2 SINGLES \$1.00	310104 15 SINGLES = \$ BILL	Pricing Modification
	1 FOR 25 CENTS Part No. 516191	DEPOSIT 25 CENTS, 50 CENTS OR \$1.00 IN MIXED COINS 1 SINGLE 25¢ OR QUARTER 3 SINGLES 50¢ IN MIXED COINS 6 SINGLES \$1.00 IN MIXED COINS ALBUMS 2 SIDES 50¢ 4 SIDES \$1.00	310105 7 SINGLES = \$ BILL	Pricing Modification

CHANGE OF PRICING - To obtain other pricing setups, simply change the Pricing Programmer and Pricing Window. Any available Pricing Programmer may be used with the DTP1. The proper combination of Pricing Programmers and Pricing Windows are as shown in diagram to the left.



REMOVING PROGRAMMER BOARD

NOTE:
Pricing Programmers, Part Nos. 310102 and 310103 may be used interchangeably, unless a Dollar Bill Validator is installed in the phonograph. The Part No. 310103 Programmer is then used where it is desired to give 14 selections for a dollar bill. For 12 selections for a dollar bill, use Pricing Programmer Part No. 310102.

Figure 2. Five Pricing Boards.

DIGITAL TRANSMITTER PRICING UNIT, Type DTP1

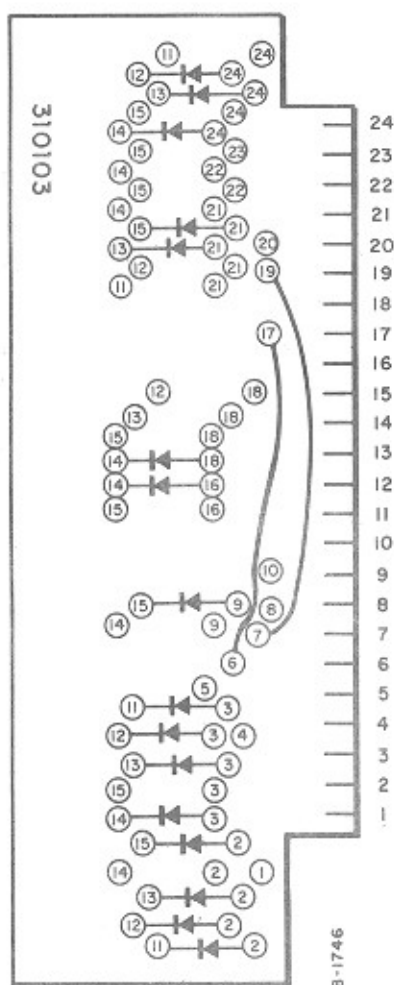


Figure 3a.

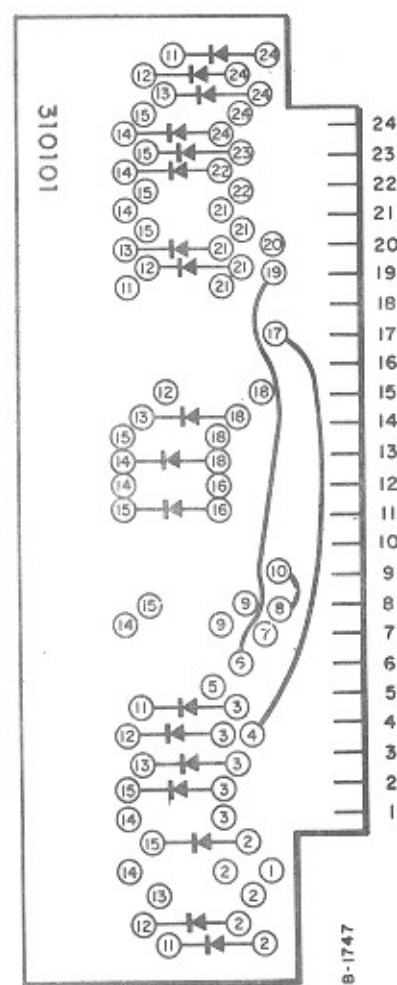


Figure 3b.

Figures 3a and 3b. Typical Pricing Program Boards.

PRICING PROGRAM BOARD

1. KEYED -

The Pricing Program Board is keyed to prevent insertion in Digital Transmitter Pricing Unit improperly. The decal side (where the program diodes are mounted) should be towards the right side. See Figures 3a and 3b.

CAUTION:

Pricing Boards edge connector must be fully seated to ensure proper credit operation. Too much credit or too little credit could result with improper seating of Pricing Board.

2. TROUBLE SHOOTING -

Circled numbers on typical Pricing Program Boards in Figure 3 represent pin numbers of edge connector for convenience in measuring front to back continuity of program diodes. Typical front to back continuity of a properly working program diode would be measured with negative lead connected to the edge connector pin number on the left side of the diode and the positive lead to the pin number on the right side, see Figures 3a and 3b. A low resistance should be measured. Reversing meter leads should show an increase of at least 1000 times first reading.

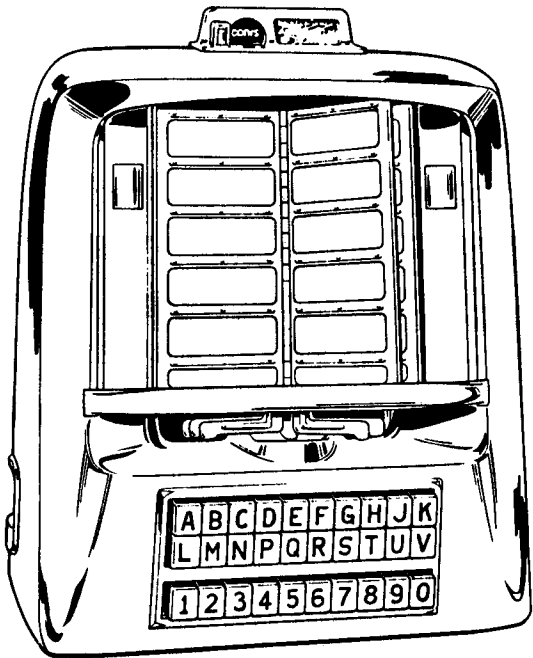
CAUTION:

Use a low wattage soldering iron to remove or replace a program diode. A 25 watt soldering iron is sufficient.

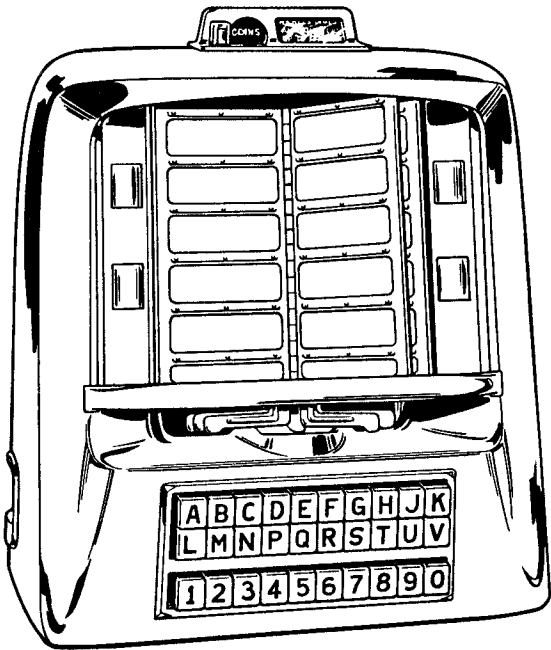


**SERVICE
MANUAL
PARTS
CATALOG**

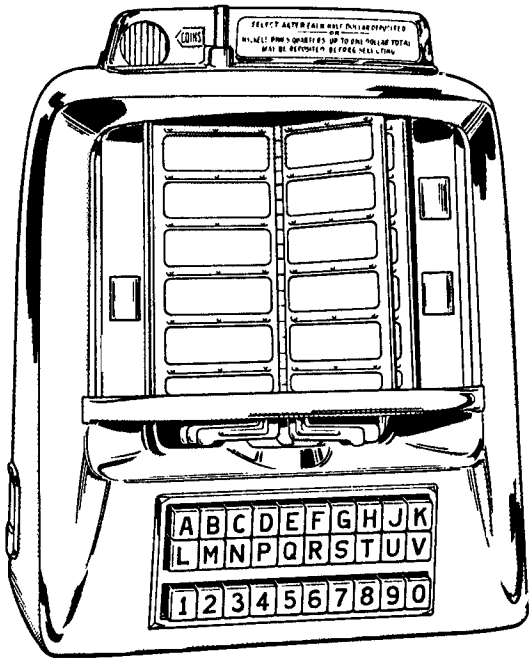
S-3WA



D-3WA



HD-3WA



Wall-o-matic "100-160-200"

Seeburg
WALL-O-MATIC "200"
TYPE S-3WA

The Wall-O-Matic "200" Type S-3WA, is a unit of the Seeburg Wired Remote Control System for selective playing of selections in the Select-O-Matic "200" phonograph. It operates in conjunction with the selection system in the phonograph to which it is connected with a 3-conductor cable.

The operation of the Wall-O-Matic "200", Type S-3WA, is arranged for 3 plays for a 25-cent coin and one play for either a dime or two nickels. The slug rejector is designed to accept quarters, dimes and nickels. Each quarter and dime operates, respectively, a quarter and dime coin switch, but only alternate nickels operate the associated nickel coin switch. This is accomplished with a nickel diverter that is incorporated in the slug rejector.

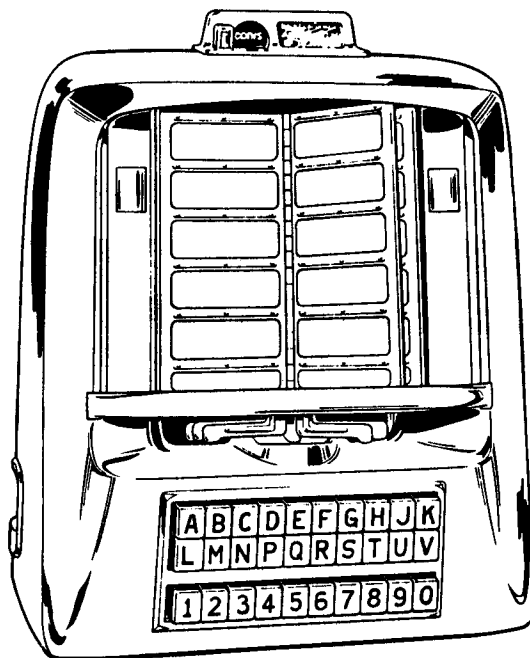
With the phonograph main switch turned on, credit lights go on immediately after minimum credit has been established, i.e., two nickels or a dime. The credit lights stay on as long as there remain unspent credits.

The credit solenoids in the Wall-O-Matic may be shifted to provide selection pricing that differs from the arrangement in the standard units. It may, for example, be set up for 5-cent play – six play for a quarter, or it may be arranged for four or five plays for a quarter and one play for a dime.

The Wall-O-Matic operates at 25 volts AC, 60 cycles. Power is supplied by the Power Supply Unit or an auxiliary power supply in the Select-O-Matic. Two of the three wires of the interconnecting cable carry power to the lights and motor. The other wire and one of the power circuit wires comprise a selection circuit to provide remote control of the operation of the selection system in the phonograph.

INSTALLATION INSTRUCTIONS

To mount the Wall-O-Matic, first unlock it and remove the cover. There are three holes in



the back plate for mounting. The upper two are slotted for fitting over screws already set in the wall at the proper points. The lower hole is for rigid mounting, by means of a screw, after the Wall-O-Matic has been hung in place.

If the mounting place on the wall is uneven, the Wall-O-Matic mounting plate should be shimmed with cardboard or wood before tight-

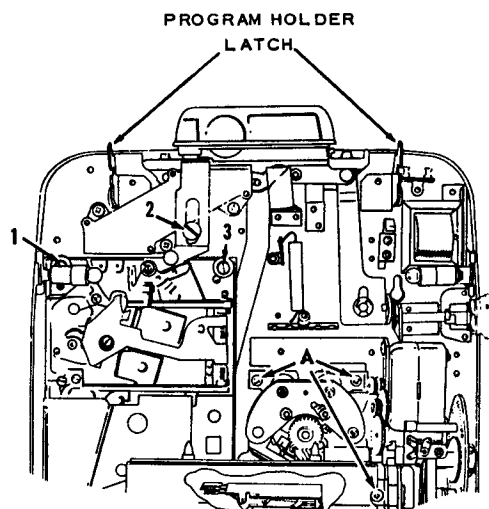


Figure 2.

WALL-O-MATIC "200", TYPE S-3WA

euing the three mounting screws. Tightening these screws on an uneven wall will bend the mounting plate, may seriously affect the operation of the Wall-O-Matic and may cause the cover and lock to bind. The upper right hand and lower screws are accessible for tightening directly through clearances provided. To secure the upper left hand mounting screw it is necessary to remove the slug rejector as follows:

- A. Unlatch the program holder, lift up and out on the assembly.
- B. Remove the credit light assembly.
- C. Unscrew 1, 2 and 3 (*Figure 2*).
- D. Lift the reject button and lift out the slug rejector.

After the Wall-O-Matics are mounted in their respective locations, the cabling can be installed. Use inter-connecting cable, *Seeburg Part No. 12001*, which can be purchased in lengths to suit requirements. At the Select-O-Matic, three solder lugs are soldered to the end of the cable. The cable is then connected to the terminal strip of the Wall-O-Matic Power Supply Unit, Type WPSU1, which is part of the Power and Control Unit of the phonograph Printed Electronics Door. The terminal strip is color coded. Connect the blue wire of the cable to the terminal marked BLU., the orange wire to the terminal marked ORG. (ground), and the green wire to the terminal marked GRN.

The cable may be connected to from one to

six Wall-O-Matics. The Wall-O-Matic Power Supply Unit will supply power for up to 6 Wall-O-Matics. If more than 6 are connected to the circuit, the transformer supplying power to the circuit may be burned out. If installation requires more than 6 Wall-O-Matics, an auxiliary power supply, Type PS6-1Z, must be used for each additional circuit. Some auxiliary power supply units are equipped with a 3-prong socket rather than a 3-connector terminal strip. In that event, the unit is connected to the 3-wire cable by means of cable plug, *Seeburg Part No. 12015*, supplied. Solder the blue wire to No. 1, the orange wire to No. 2, and the green wire to No. 3 of the plug.

The terminal strip in the Wall-O-Matic is color coded in the same colors as the cable. Solder one lug to each of the cable wires (six soldering lugs are furnished with each Wall-O-Matic). Connect the blue wire of the cable to the blue of the terminal strip, the orange wire to the orange of the terminal strip (ground) and the green wire to the green of the terminal strip. When the Wall-O-Matic is used as the junction of two cables, two conductors will be on each terminal.

The Wall-O-Matics are supplied with terminal brackets for open wiring installations. If concealed wiring is desired, a knock-out hole in the lower left hand corner of the mounting plate is provided for entry of the cables.

Bar Bracket Assembly, *Seeburg Part No. 500200*, is available for rigidly mounting the Wall-O-Matic on bars, counters and tables.

WALL-O-MATIC "200", TYPE S-3WA

MAINTENANCE AND SERVICE

CLEANING

The slug rejector should be kept free of dirt and dust. If a rejector has been working successfully and becomes erratic or fails to work at all, the trouble can generally be attributed to dirt or to some stoppage in the coin track. Cleaning only should correct the trouble.

Switch and relay contacts should be cleaned with a contact burnisher. Do not use a file, sandpaper, or emery cloth.

The contacts on the selector disc should be cleaned with a cloth saturated with carbon-tetrachloride. Do not use emery cloth or sandpaper. The contacts are silver plated brass. To sand them or clean them with an abrasive will remove the plating and expose the brass. The brass does not provide good contact and will require more frequent service as well as cause erratic operation. The contacts should not be lubricated.

The contact point on the contact arm should be cleaned with carbon-tet. It is not necessary to remove it from the shaft. A piece of cloth saturated with carbon-tet' can be drawn under the contact point.

The selector switches and the motor gears should be kept free of dirt and dust by blowing out. Do not use roach powders of any kind. Most of the powders are highly corrosive and will soon cause failure of the switches. If powders have been used, the switches should be thoroughly cleaned.

LUBRICATION

The motor gears should be lubricated with Aero Lubriplate.

A drop or two of Seeburg No. 53014 Special Purpose Oil on the Motor Shaft bearings will reduce wear and friction to a minimum.

The scavenger linkage of the slug rejector can be sparingly lubricated with No. 105 Lubriplate at wear and friction points, but care should be taken so that it does not get into the coin track. Oil should not be used. The coin path of the rejector may be dusted with Motor Mica.

MOTOR

The motor is designed to operate the Wall-O-Matic through a complete cycle in a little more

than 2 seconds. If the motor is slow, the current impulses to the step relay (in the Selection Receiver) will be slow and cause erratic operation of the step switch assembly. The motor can best be checked for speed by allowing it to operate steadily and counting the turns per minute of the contact arm. Normal speed is 19 revolutions per minute. Acceptable speed limits are 17 to 21 rpm. If the motor is slow, check for binding or excessive friction. If the motor runs slow when there are no binds, it will have to be replaced.

COIN SWITCHES

If operation of the coin switches is erratic, they should be removed as a complete unit and carefully cleaned with carbon tetrachloride and burnished with a contact burnishing tool. *Do not use a file or sandpaper for contact cleaning.* To remove the coin switch assembly, remove first the slug rejector (2 screws and the slug ejector slide) and the credit coil assembly (3 screws 'A', Figure 2) then take out the two screws holding the horizontal mounting plate of the assembly.

Adjustment of the coin switches is shown in Figure 3 and paragraphs A to D below.

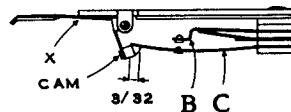


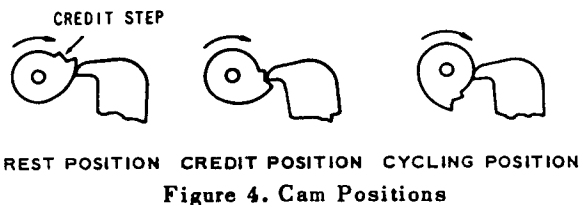
Figure 3.

- A. Adjust the coin levers so they are parallel with the bottom edge of the rejector when bearing against switch bracket at "X".
- B. Adjust short blade and bracer for 1/32" to 3/64" contact gap (all switches) with short blade bearing against tip of bracer approximately 1 to 3 grams (measured at contact point).
- C. Adjust the long blade so it bears against the cam, as measured at the switch contact.
 1. Nickel switch (front) - 8 to 10 grams
 2. Dime switch (middle) - 6 to 8 grams
 3. Quarter switch (back) - 8 to 10 grams
- D. Adjust the switch actuating cams to be tilted as shown and overlap the switch blade approximately 3/32".

WALL-O-MATIC "200", TYPE S-3WA

LATCH BAR ADJUSTMENT

The selection switches have three conditions of operation corresponding to the 3 positions of the cam shown in Figure 4 and are



operated by the cam through mechanical linkage. In the stand-by positions the switch latch bars are held against the pressure of the latch bar spring so the selector buttons are free to move in and out and will not stay in the pressed-in position. In the credit position the bars are released to a position which permits a selection switch, when pressed, to latch in the operated position but, if another switch is operated, the first will be released. In the cycling position the latch bars are fully released so the selection switches are locked in either the normal or pressed positions.

The adjustment for the latch bar operation is made with the screws – one for each selection switch assembly – at the right of the assemblies (shown in Figure 5) in the following manner:

1. Place the cam in the Credit Position (Figure 4).
2. Adjust screw opposite the number switch latch bar so that Number 5 switch stem just rubs on the latch bar; turn adjusting screw one-half ($1/2$) to three-quarter ($3/4$) turn counter clockwise (viewed from flattened end) from this position. Check each number switch for proper latching and releasing.
3. Adjust the screw opposite the L-V letter switch latch bar so that the head of adjusting screw is at least $1/16$ " away from the end of the latch bar, then adjust the screw opposite A-K letter switch latch bar so that letter E switch stem just rubs on the latch bar; turn adjusting screw one-half ($1/2$) to three-quarter ($3/4$) turn counter-clockwise (viewed from flattened end) from this position. Check each A to K letter switch for proper latching and releasing.

4. Adjust the screw in the left hand end of letter latch bar so that any button in A-K switch unlatches any button in L-V switch, and vice versa. Check each L-V letter switch for proper latching and releasing.

5. Adjust the screw opposite the L-V letter switch latch bar so that head of adjusting screw just touches end of latch bar.

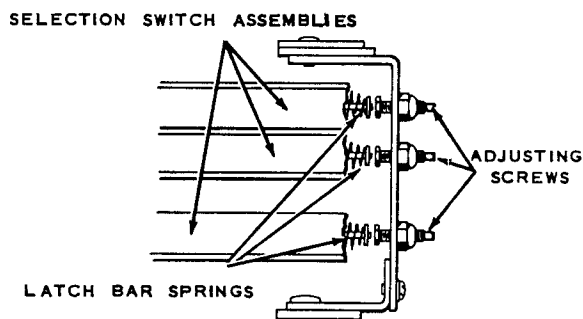


Figure 5.

CONTACT ARM POSITION

Turn the motor manually until the latch bar lever drops to the credit step of the cam and then reverse the direction until the point of the lever is against the vertical part of the cam as shown in Figure 4 above.

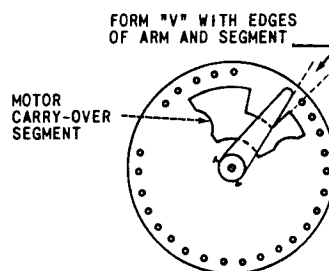


Figure 6.

2. Set the Contact Arm on the shaft so the edge of the blade forms a "V" with the edge of the motor carry-over segment as shown in Figure 6, and the lower part of the hub is spaced approximately $1/8$ " from the surface of the selector plate as shown in Figure 7.

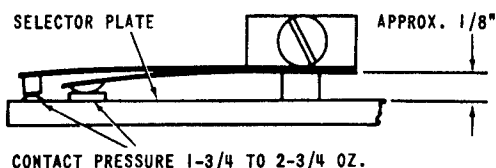
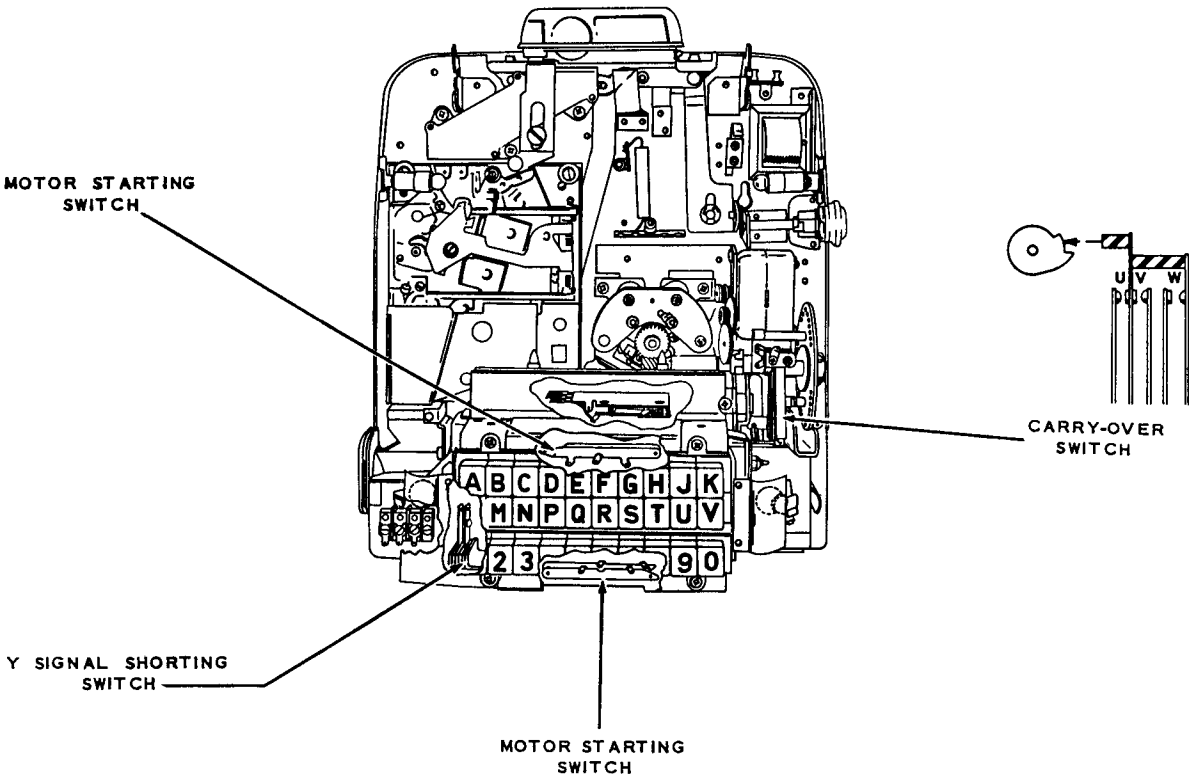


Figure 7.

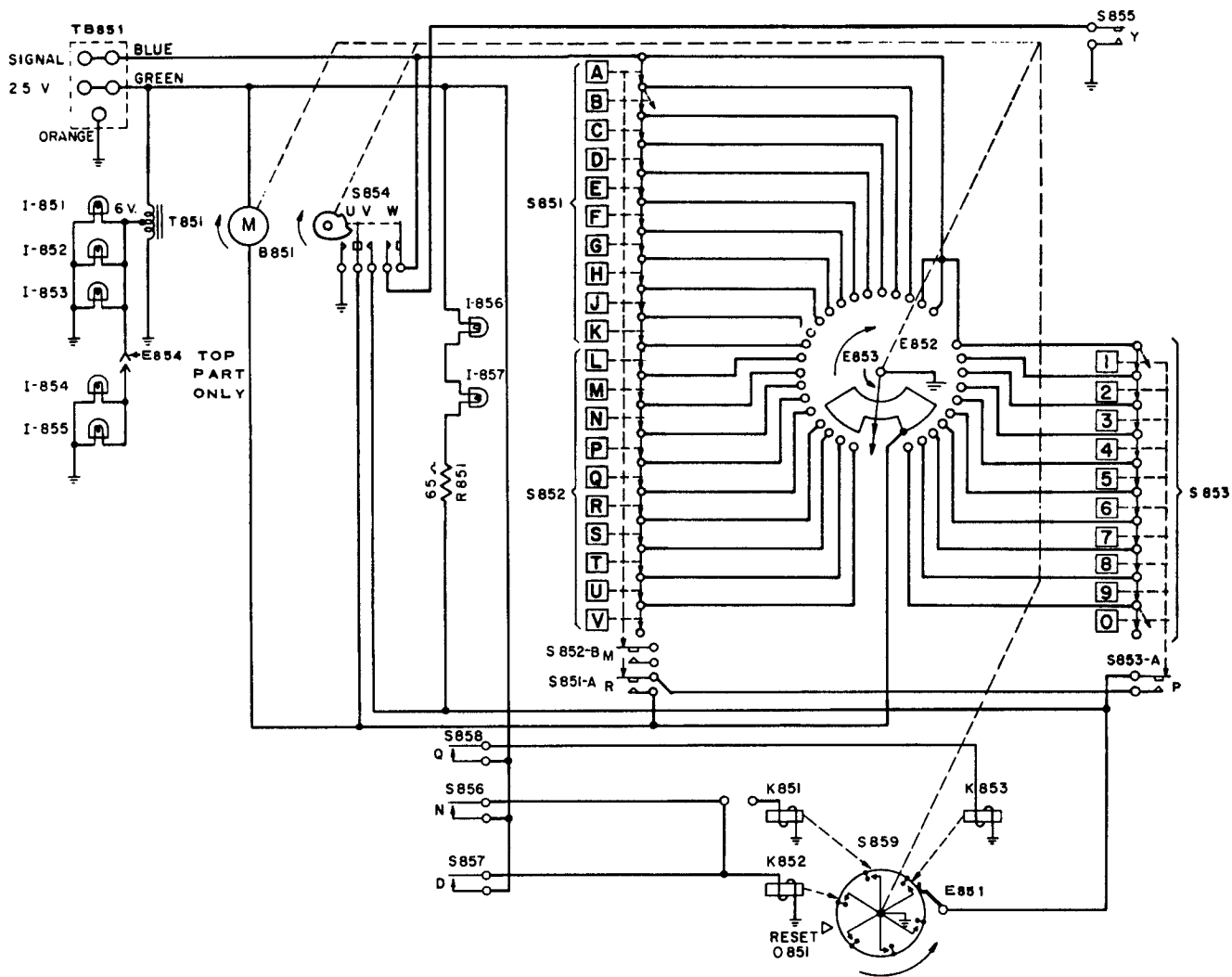
WALL-O-MATIC "200", TYPE S-3WA

CONTACT OPERATION & GAP ADJUSTMENT



CONTACT	STAND- BY	CREDIT POSITION	CYCLING (CREDIT- CANCEL)
CARRY- OVER SWITCH			
U	Open	Open – Minimum Gap 1/64	Closed
V	Closed	Open – Minimum Gap 1/64	Open
W	Open	Open – Minimum Gap 1/64	Closed
MOTOR STARTING SWITCHES			
R	The Motor Starting Switches Should Make Contact At The Bottom Of The Selection Button Stroke. They Should Make Contact As Close As Possible To The Bottom and Still Maintain Contact When Any Button On The Switch Is Latched In.		
P			
SIGNAL SHORTING SWITCH			
Y	Contacts Must Close When Any Selection Button Is Pressed Approximately Half Way To The Latched Position. They Must Be Open When The Buttons Are In Latched Or Released Positions.		

WALL-O-MATIC "200", TYPE S-3WA



Schematic Diagram

PARTS LIST

Item	Part No.	Part Name	Item	Part No.	Part Name
B851	506019	Motor Assembly	R851	81178	65 Ohm W. W. Resistor, 10 W. \pm 10%
E851	506076	Brush Assembly	S851	505511	Selector Switch Top
E852	505802	Selector Plate Assembly	S851A		Treadle Bar Starting Switch
E853	505806	Contact Wiper Arm Assembly	S852	505512	Selector Switch Center
E854	504045	Brush Assembly	S852B		Treadle Bar Lock In Switch
I 851	505173	No. 55 G. E. Lamp	S853	506029	Selector Switch Bottom
I 852	505173	No. 55 G. E. Lamp	S853A		Treadle Bar Starting Switch
I 853	505173	No. 55 G. E. Lamp	S854	506122	Carry-Over Switch
I 854	10242	No. 51 G. E. Lamp	S855	505813	Signal Shorting Switch
I 855	10242	No. 51 G. E. Lamp	S856	506026	5¢ Coin Switch
I 856	10242	No. 51 G. E. Lamp	S857		10¢ Coin Switch
I 857	10242	No. 51 G. E. Lamp	S858		25¢ Coin Switch
K851	506101	5¢ Solenoid Coil Assembly	S859	504140	Credit Switch
K852	506102	10¢ Solenoid Coil Assembly	T851	505796	Transformer
K853	506103	25¢ Solenoid Coil Assembly	TB851	13398	Terminal Strip
O851	504150	Reset Bracket			

Seeburg
WALL-O-MATIC "200"
TYPE D-3WA

The Wall-O-Matic "200" Type D-3WA, is a unit of the Seeburg Wired Remote Control System for selective playing of selections in the Select-O-Matic phonograph. It operates in conjunction with the selection system in the phonograph to which it is connected with a 3-conductor cable.

The Wall-O-Matic operates at 25 volts AC, 60 cycles. Power is supplied by the Power Supply Unit or an auxiliary power supply in the Select-O-Matic. Two of the three wires of the interconnecting cable carry power to the lights and motor. The other wire and one of the power circuit wires comprise a selection circuit to provide remote control of the operation of the selection system in the phonograph.

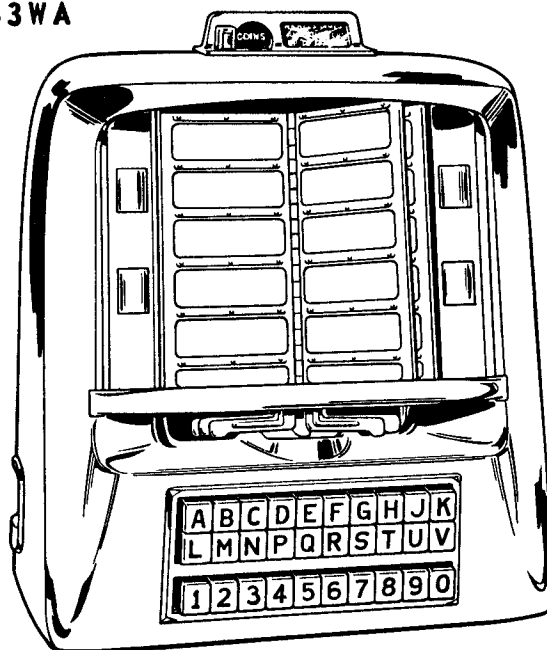
Coins are deposited in a single entry coin chute and pass through a 5-, 10-, 25-cent slug rejector and the coin switches into the cash box. Each nickel, dime and quarter adds, respectively, one, two and six credits in an add-and-subtract credit unit, Type DPU10, that has a capacity of twenty-four credits and is part of the Seeburg Dual Selection System. A selection pricing panel permits pricing of tunes so that either of two predetermined values of credits is cancelled when a record is selected. The two values are 10 cents (3 for a quarter) and 15 cents (2 for a quarter) so two credits (10 cents) or three credits (15 cents) are subtracted from the credits totaled in the Dual Pricing Unit when a selection is made.

Information panels at each side of the program holder are illuminated to indicate when additional coins are needed for selections or when there is enough accumulated credit for any selection.

INSTALLATION INSTRUCTIONS

To mount the Wall-O-Matic, first unlock it and remove the cover. There are three holes in the back plate for mounting. The upper two are slotted for fitting over screws already set in the wall at the proper points. The lower hole is for rigid mounting, by means of a screw, after the Wall-O-Matic Has been hung in place.

If the mounting place on the wall is uneven, the Wall-O-Matic mounting plate should be shimmed with cardboard or wood before tighten-



ing the three mounting screws. Tightening these screws on an uneven wall will bend the mounting plate, may seriously affect the operation of the Wall-O-Matic, and will cause the cover and lock to bind. The upper right hand and lower screws are accessible for tightening directly through clearances provided. To secure the upper left hand mounting screw it is necessary to remove the slug rejector as follows:

- A. Unlatch the program holder, lift up and out on the assembly.
- B. Remove the credit light assemblies.
- C. Unscrew 1, 2 and 3 (Figure 2).
- D. Lift the reject button and lift out the slug rejector.

After the Wall-O-Matics are mounted in their respective locations, the cabling can be installed. Use inter-connecting cable, *Seeburg Part No. 12001*, which can be purchased in lengths to suit requirements. At the Select-O-Matic, three solder lugs are soldered to the end of the cable. The cable is then connected to a coded terminal strip in the phonograph. Connect the blue wire of the cable to the terminal marked BLU., the orange wire to the terminal marked ORG. (ground), and the green wire to the terminal marked GRN.

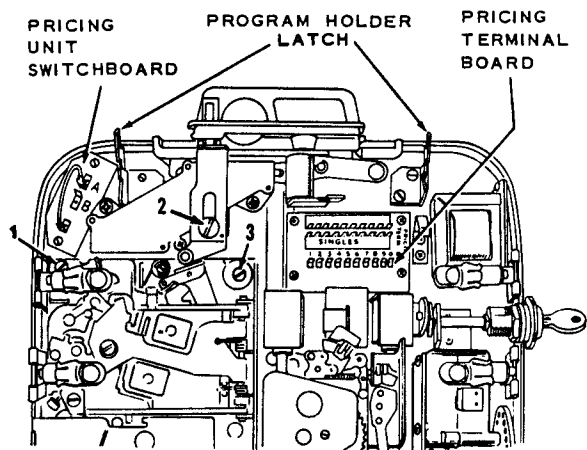


Figure 2.

The cable may be connected to from one to six Wall-O-Matics. The Wall-O-Matic Power Supply Unit will supply power for up to 6 Wall-O-Matics. If more than 6 are connected to the circuit, the transformer supplying power to the circuit may be burned out. If installation requires more than 6 Wall-O-Matics, an auxiliary power supply, Type PS6-1Z, must be used for each additional circuit. Some auxiliary power supply units are equipped with a 3-prong socket rather than a 3-connector terminal strip. In that event, the unit is connected to the 3-wire cable by means of cable plug, Seeburg Part No. 12015, supplied. Solder the blue wire to No. 1, the orange wire to No. 2, and the green wire to No. 3 of the plug.

The terminal strip in the Wall-O-Matic is color coded in the same colors as the cable. Solder one lug to each of the cable wires (six soldering lugs are furnished with each Wall-O-Matic) Connect the blue wire of the cable to the blue of the terminal strip, the orange wire to the orange of the terminal strip (ground) and the green wire to the green of the terminal strip. When the Wall-O-Matic is used as the junction of two cables, two conductors will be on each terminal.

The Wall-O-Matics are supplied with terminal brackets for open wiring installations. If concealed wiring is desired, a knock-out hole in the lower left hand corner of the mounting plate is provided for entry of the cables.

Bar Bracket Assembly, Seeburg Part No. 500200, is available for rigidly mounting the Wall-O-Matic on bars, counters and tables.

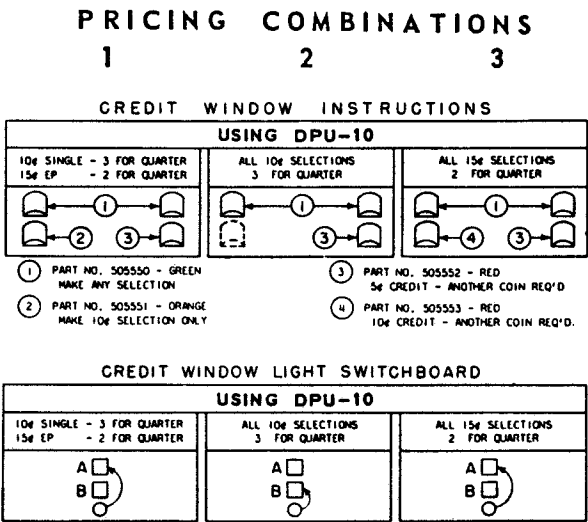


Figure 3.

"SET-UP" AND OPERATION OF DUAL PRICING SYSTEM

Figure 3 constitutes a chart condensing information regarding the capabilities and set-up requirements for the three pricing combinations.

Preparation of the system necessitates:

- A. Setting up of the Credit Window Light Switchboard for correct indication of credits.
- B. Connecting the Pricing Terminal Board taper tabs corresponding to each panel of desired "EP's" and "SINGLES" for associated pricing. The program must be in panels of 20 selections (10) records, each panel being represented by a number button. "Singles" and "EP's" cannot be in the same panel if there is to be a price difference. *The pricing terminal board on the Tormat Electrical Selector, and the pricing terminal boards in all Wall-O-Matics MUST be connected to match.*

With the Credit Window Light Switchboard set to "A", as in pricing combination No. 1, and the Pricing Terminal Board connected for "SINGLES" & "EP's", the following operational sequence holds true:

- 1. The deposit of a nickel rotates the

WALL-O-MATIC "200", TYPE D-3WA

credit wheel in the Dual Pricing Unit to the one-credit position and the lower right credit window light goes on indicating "5¢ Credit - Another Coin Required". No plays will result when selection buttons are pushed.

- 2. Another nickel (or a dime initially) rotates the credit wheel to the two-credit position and the lower left credit window light goes on indicating "Make 10¢ Selection Only". Now only "Singles" plays will result when proper selection buttons are pushed. If buttons for "EP" selection are depressed no selection will result unless another nickel is deposited.
- 3. Another nickel (or a nickel and a dime initially) rotates the credit wheel to the three-credit position and the upper two credit window lights go on indicating "Make Any Selection". Credit window lights remain the same as when on the three-credit position, with the deposit of additional coins.

With the Credit Window Light Switchboard set on position "B" and the Pricing Terminal Board tabs all placed on "Singles" as in pricing combination No. 2, the following holds true:

- 1. The first nickel deposited rotates the credit wheel to the one-credit position and the lower right credit window light goes on as before.
- 2. Another nickel (or a dime initially) rotates the credit wheel to the two-credit position and the upper credit window lights go on indicating "Make Any Selection". The lower left credit light remains out at all times with the switchboard in "B" position.

With the Credit Window Light Switchboard set on position "A" and the Pricing Terminal

Board tabs all placed on "EP's" as indicated in pricing combination No. 3, the following holds true:

- 1. The Dual Pricing Unit operation is similar to that of the previous "A" switchboard set-up, however, no plays will result on the first two credit positions.
- 2. In the 2-credit position, the lower left credit window lights up to indicate "10¢ Credit - Another Coin Required". This credit window, *Part No. 505553* is available from your Seeburg Distributor and is installed as shown in *Figure 4*.

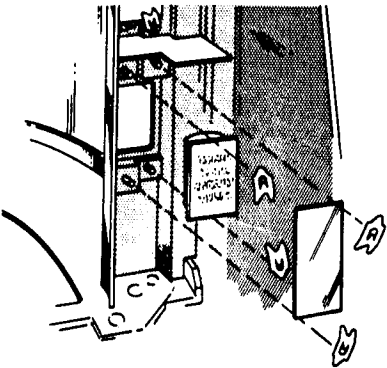


Figure 4.

Appropriate Classification Headings required to satisfy a desired pricing combination may be chosen from the tabulated listing, *Figure 5*.

CLASSIFICATION HEADING	PART NUMBER	
	10¢ SINGLES	15¢ EP's
HIT TUNES	505779	505840
RHYTHM & BLUES	505780	505841
COUNTRY & WESTERN	505788	505923
ALL TIME FAVORITES	505782	505843
CLASSICS & VARIETIES	505783	505844

Figure 5.

MAINTENANCE AND SERVICE

CLEANING

The slug rejector should be kept free of dirt and dust. If a rejector has been working successfully and becomes erratic or fails to work at all, the trouble can generally be attributed to dirt or to some stoppage in the coin

track. Cleaning only should correct the trouble.

Switch and relay contacts should be cleaned with a contact burnisher. Do not use a file, sandpaper, or emery cloth.

The contacts on the selector disc should be

WALL-O-MATIC "200" TYPE D-3WA

cleaned with a cloth saturated with carbon-tetrachloride. Do not use emery cloth or sandpaper. The contacts are silver plated brass. To sand them or clean them with an abrasive will remove the plating and expose the brass. The brass does not provide good contact and will require more frequent service as well as cause erratic operation. The contacts should not be lubricated.

The contact point on the contact arm should be cleaned with carbon-tet'. It is not necessary to remove it from the shaft. A piece of cloth saturated with carbon-tet' can be drawn under the contact point.

The selector switches and the motor gears should be kept free of dirt and dust by blowing out. Do not use roach powders of any kind. Most of the powders are highly corrosive and will soon cause failure of the switches. If powders have been used, the switches should be thoroughly cleaned.

LUBRICATION

The motor gears should be lubricated with Aero Lubriplate.

A drop or two of Seeburg No. 53014 Special Purpose Oil on the Motor Shaft bearings will reduce wear and friction to a minimum.

The scavenger linkage of the slug rejector can be sparingly lubricated with No. 105 Lubriplate at wear and friction points, but care should be taken so that it does not get into the coin track. Oil should not be used. The coin path of the rejector may be dusted with Motor Mica.

MOTOR

The motor is designed to operate the Wall-O-Matic through a complete cycle in a little more than 2 seconds. If the motor is slow, the current impulses to the step relay (in the Selection Receiver) will be slow and cause erratic operation of the step switch assembly. The motor can best be checked for speed by allowing it to operate steadily and counting the turns per minute of the contact arm. Normal speed is 19 revolutions per minute. Acceptable speed limits are 17 to 21 rpm. If the motor is slow, check for binding or excessive friction. If the motor runs slow when there are no binds, it will have to be replaced.

COIN SWITCHES

If operation of the coin switches is erratic,

they should be removed as a complete unit and carefully cleaned with carbon tetrachloride and burnished with a contact burnishing tool. *Do not use a file or sandpaper for contact cleaning.* To remove the coin switch assembly, remove first the slug rejector (2 screws and the slug ejector slide) then take out the two screws holding the horizontal mounting plate of the assembly.

Adjustment of the coin switches is shown in Figure 6 and paragraphs A to D below.

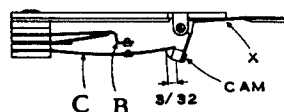


Figure 6.

- A. Adjust the coin levers so they are parallel with the bottom edge of the rejector when bearing against switch bracket at "X".
- B. Adjust short blade and bracer for 1/32" to 3/64" contact gap (all switches) with short blade bearing against tip of bracer approximately 1 to 3 grams (measured at contact point).
- C. Adjust the long blade so it bears against the cam, as measured at the switch contact.
 1. Nickel switch (front) – 8 to 10 grams
 2. Dime switch (middle) – 6 to 8 grams
 3. Quarter switch (back) – 8 to 10 grams
- D. Adjust the switch actuating cams to be tilted as shown and overlap the switch blade approximately 3/32".

LATCH BAR ADJUSTMENT

The selection switches have three conditions of operation corresponding to the 3 positions of the cam shown in Figure 7 and are

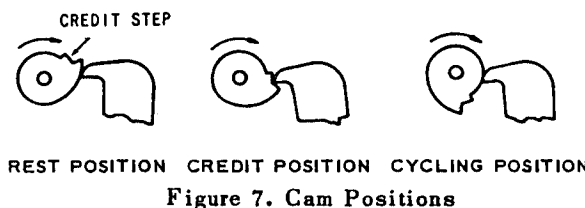


Figure 7. Cam Positions

operated by the cam through mechanical linkage. In the stand-by positions the switch latch bars are held against the pressure of the latch bar spring so the selector buttons are free to move in and out and will not stay in the pressed-in position. In the credit position the bars are

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released to a position which permits a selection switch, when pressed, to latch in the operated position but, if another switch is operated, the first will be released. In the cycling position the latch bars are fully released so the selection switches are locked in either the normal or pressed positions.

The adjustment for the latch bar operation is made with the screws – one for each selection switch assembly – at the right of the assemblies (shown in Figure 8) in the following manner:

1. Place the cam in the Credit Position (Figure 7).
2. Adjust screw opposite the number switch latch bar so that Number 5 switch stem just rubs on the latch bar; turn adjusting screw one-half ($1/2$) to three-quarter ($3/4$) turn counter clockwise (viewed from flatted end) from this position. Check each number switch for proper latching and releasing.
3. Adjust the screw opposite the L-V letter switch latch bar so that the head of adjusting screw is at least $1/16$ " away from the end of the latch bar, then adjust the screw opposite A-K letter switch latch bar so that letter E switch stem just rubs on the latch bar; turn adjusting screw one-half ($1/2$) to three-quarter ($3/4$) turn counter-clockwise (viewed from flatted end) from this position. Check each A to K letter switch for proper latching and releasing.
4. Adjust the screw in the left hand end of letter latch bar so that any button in A-K switch unlatches any button in L-V switch, and vice versa. Check each L-V letter switch for proper latching and releasing.
5. Adjust the screw opposite the L-V letter switch latch bar so that head of

adjusting screw just touches end of latch bar.

SELECTION SWITCH ASSEMBLIES

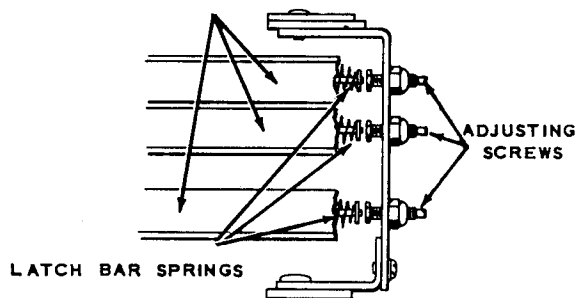


Figure 8.

CONTACT ARM POSITION

1. Turn the motor manually until the latch bar lever drops to the credit step of the cam and then reverse the direction until the point of the lever is against the vertical part of the cam as shown in Figure 7.

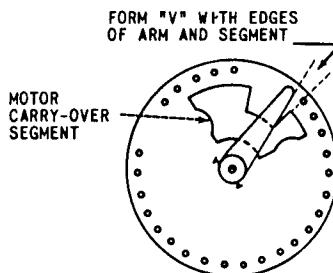


Figure 9.

2. Set the Contact Arm on the shaft so the edge of the blade forms a 'V' with the edge of the motor carry-over segment as shown in Figure 9, and the lower part of the hub is spaced approximately $1/8$ " from the surface of the selector plate as shown in Figure 10.

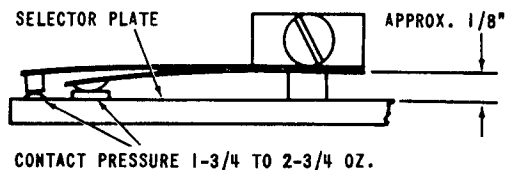


Figure 10.

SIGNAL SWITCH ADJUSTMENT

The signal switch function is to open the signal circuit if the selector buttons are manipulated while the Wall-O-Matic is cycling. It is operated by an over-center spring, the position and operation of which are controlled by both the latch bar lever and the latch bars. If the latch bars are moved to the left by forceable

manipulation of the selector buttons after the latch lever has moved to the cycling position, the over-center spring opens the switch contacts and interrupts the signal. If the latch bars are not moved after the Wall-O-Matic starts cycling, the switch remains closed and normal selection operation results.

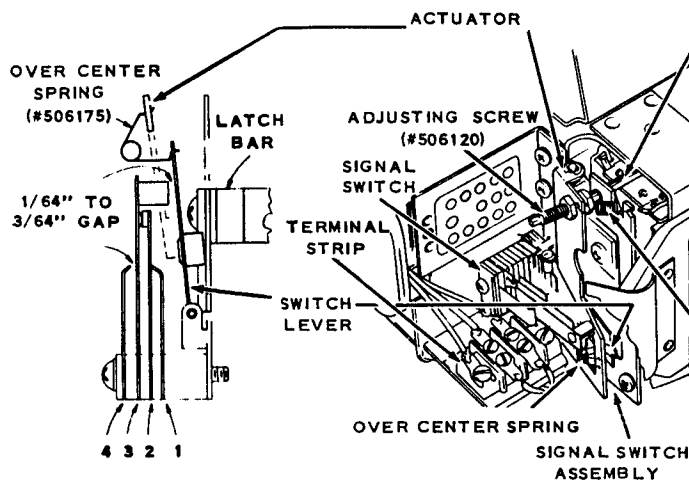


Figure 11. Signal Switch
In Standby Position

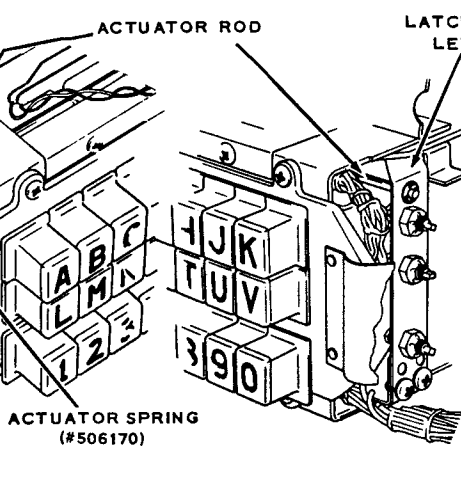


Figure 12.

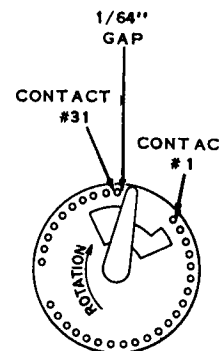


Figure 13.
Selector Plate

To adjust signal switch assembly:

NOTE: Before starting adjustment, be sure the fibre lift on the long blade of the signal switch is NOT touching the switch lever and the switch lever is being held toward the selector switches by the over-center spring (See Figure 12).

1. Turn the motor manually until the latch bar lever drops into the credit position and position the adjusting screw so the underside of the screw head is approximately $3/16$ " from the surface of the actuator.
2. With the Wall-O-Matic still in the credit position, slowly press in the number selector button "5" until the latch bar of the number switch reaches its maximum movement to the left.
3. While carefully holding the number 5 button and the latch bar in the position indicated in paragraph 2, turn the motor until the Wall-O-Matic is in the pulsing position.
4. With the Wall-O-Matic in the pulsing position and while still holding the number 5 button, slowly turn the adjusting screw out (counter-clockwise as viewed from the outer end) until the over-center spring "flips" the switch lever to the left against the signal switch. Add $1/8$ turn additionally beyond the position at which the switch lever was moved. In making this adjustment be careful to turn only (not to push or pull) the adjusting screw.
5. With the Wall-O-Matic in the credit position, bias the short contact blade No. 2 of the signal switch against its bracer blade No. 1 with a force of $3/4$ to $1\frac{1}{2}$ oz. The force is measured at the contact and while holding the long blade No. 3 so the contacts are open. The bracer

blade No. 1 should be initially set at right angle to the switch body).

6. With the Wall-O-Matic still in the credit position, adjust the long contact blade No. 3 so the contacts are closed with $3/4$ to $1\frac{1}{2}$ oz. pressure.

7. Turn the motor manually until the Wall-O-Matic is in the stand-by position with the latch bar pawl on the highest part of the cam on the motor assembly.

8. With the Wall-O-Matic in the stand-by position as in 7, and with $1/64$ " to $3/64$ " gap between the long contact blade No. 3 and its bracer blade No. 4 alternately position the bracers for the short contact blade and the long contact blade so there is a $1/64$ " to $3/64$ " gap between the switch lever and the fibre lift on the long switch blade No. 3 and so the contact pressure is $3/4$ to $1\frac{1}{2}$ oz.

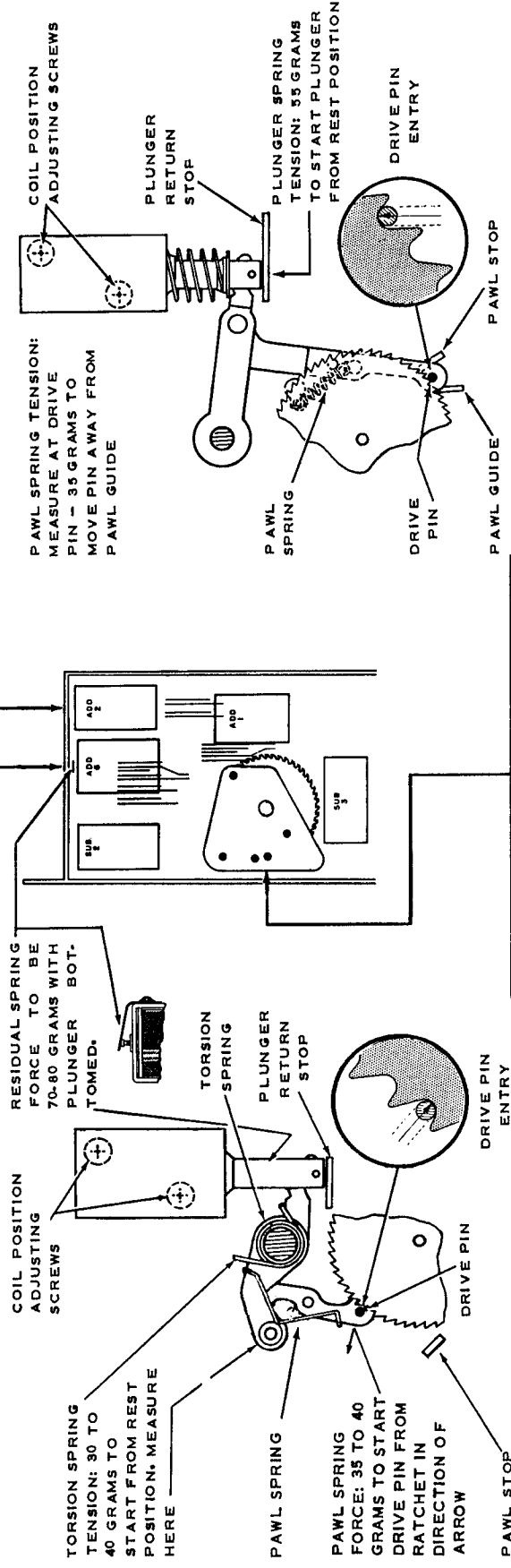
9. Turn the motor manually until the Wall-O-Matic is again in the pulsing position and then manually move the switch lever to the left. It should snap the Signal Switch contacts with $1/64$ " minimum gap.

10. With the Wall-O-Matic still in the Pulsing Position and with the switch lever still to the left, turn the motor manually to the Stand-by Position until the switch lever snaps to the right allowing the Signal Switch to close. The switch should close when the Contact Arm (Figure 13) is $1/64$ " minimum past the last (#31) contact.

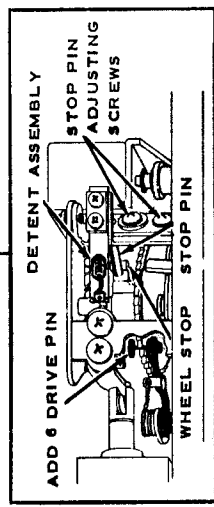
If this minimum clearance is not obtained, increase the gap between the fibre lift on the long switch blade and the switch blade and/or the gap between the long switch blade and its bracer blade.

If the Signal Switch fails to reset, reduce the gaps slightly.

ADD 6 (25¢) DRIVE ADJUSTMENT



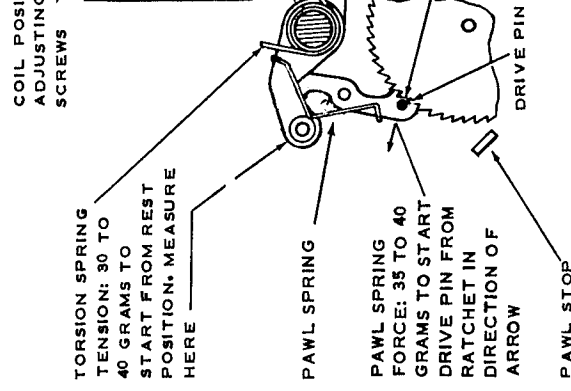
- A. With wheel stop against stop pin, adjust stop pin position so ADD 6 drive pin enters ratchet without striking or rubbing the sides of the teeth.
- B. Loosen the two screws holding the coil.
- C. Operate the plunger manually by applying force at the end of the plunger (*not the levers*) so it is fully seated.
- D. Position the coil so the plunger operation will move the wheel two teeth and be fully detented. Tighten screws holding the coil.
- E. Adjust pawl stop for minimum play in wheel when plunger is fully seated.
- F. Adjust plunger return stop position for clearance between the drive pin and the tips of the ratchet teeth. The tips should pass without rubbing but the clearance must not be more than .010".



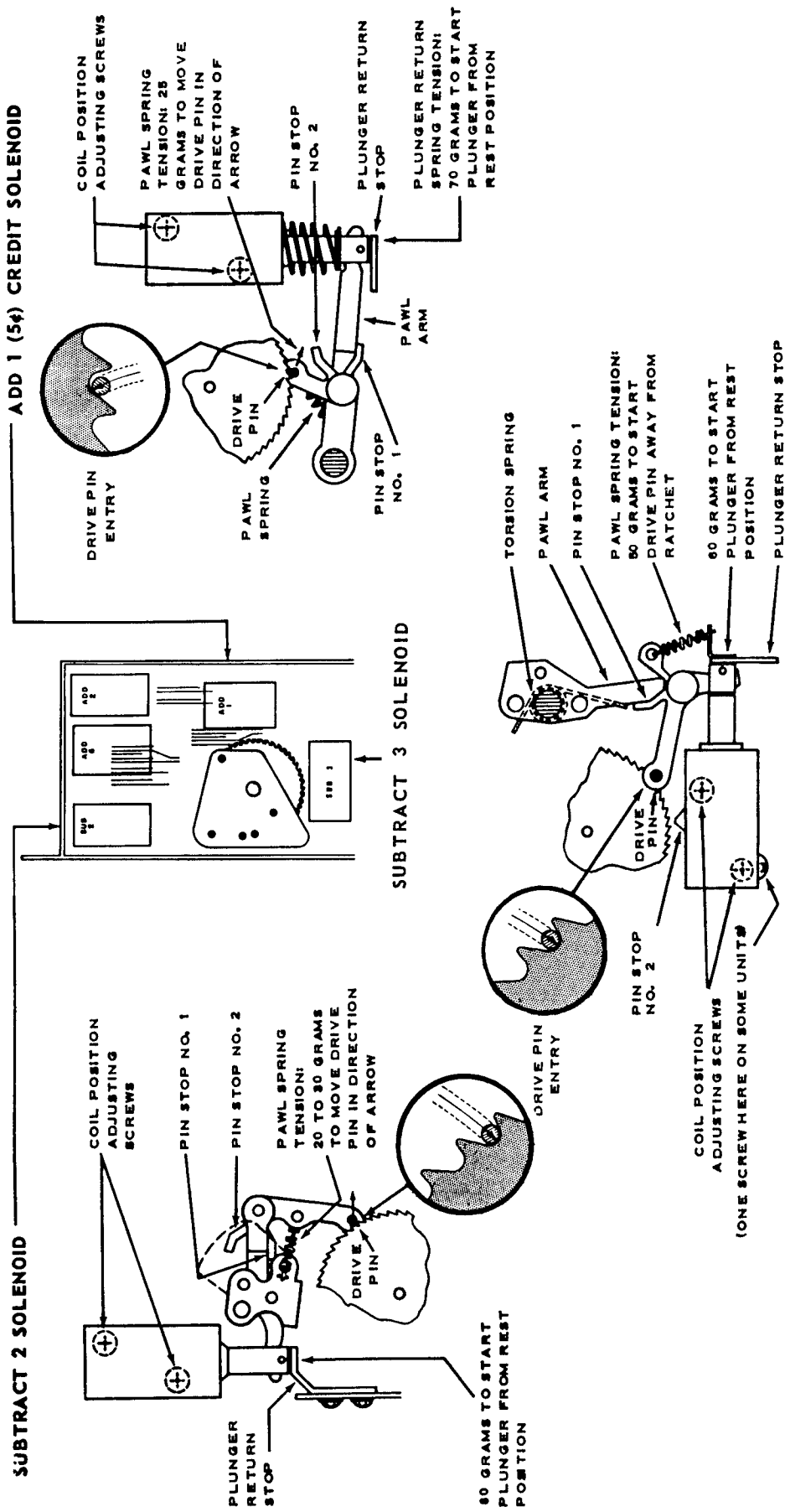
WHEEL STOP AND DETENT ADJUSTMENT

- A. With wheel stop against stop pin, adjust stop pin position so ADD 6 drive pin enters ratchet without striking or rubbing the sides of the teeth.
Entry of all drive pins and the detent by the stop pin position and should be checked if a change is made.
- B. Adjust position and force of detent spring so roller is *in full detent* when wheel stop is against stop pin and roller pressure against wheel is 150 to 160 grams (5 1/2 oz.)

ADD 2 (10¢) DRIVE ADJUSTMENT



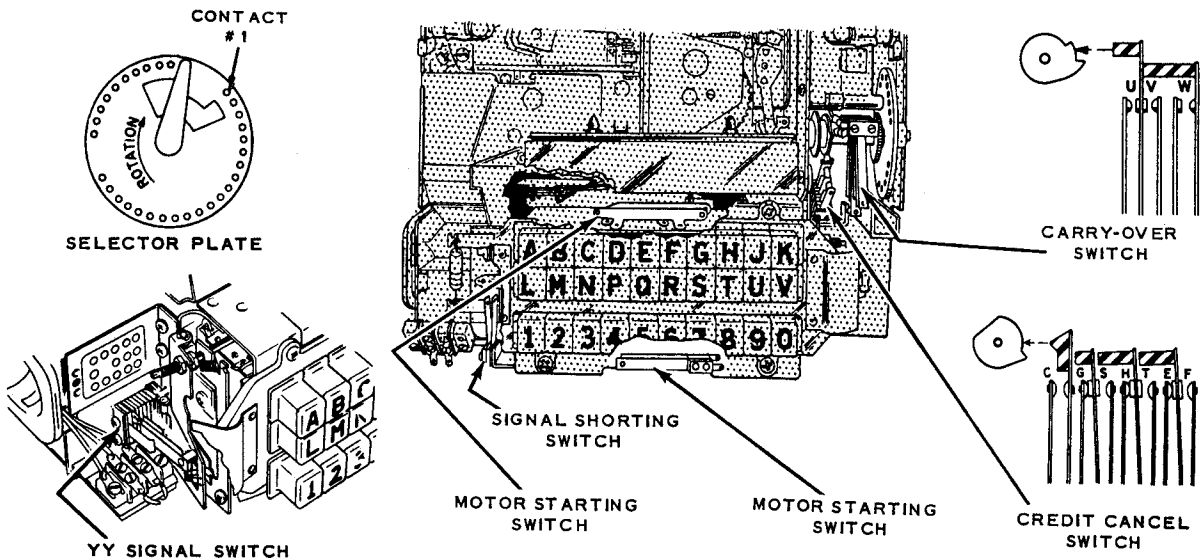
- A. With wheel stop against stop pin, adjust stop pin position so ADD 6 drive pin enters ratchet without striking or rubbing the sides of the teeth.
- B. Loosen the two screws holding the coil.
- C. Operate the plunger manually by applying force at the end of the plunger (*not the levers*) so it is fully seated.
- D. Position the coil so the plunger operation will move the wheel six teeth and be fully detented. Tighten screws holding the coil.
- E. Adjust pawl stop for minimum play in wheel when plunger is fully seated.
- F. Adjust plunger return stop position for clearance between the drive pin and the tips of the ratchet teeth. The tips should pass without rubbing but the clearance must not be more than .010".



SUBTRACT 2; SUBTRACT 3; ADD 1 DRIVE ADJUSTMENTS

- A. Adjust pin stop No. 1 so the drive pin enters the ratchet without striking or rubbing the sides of the teeth.
- B. Adjust the plunger return stop position for clearance between the drive pin and the tips of the ratchet teeth. The tips should pass without rubbing but the clearance must not be more than .010".
- C. Loosen the two screws holding the coil.
- D. Operate the plunger manually by applying force at the end of the plunger (not the levers) so it is fully seated.
- E. Position the coil so the plunger operation will move the wheel the required number of teeth and will be in full detent. Tighten screws holding the coil.
- F. Adjust pin stop No. 2 for minimum play in wheel when plunger is fully seated.

CONTACT OPERATION & GAP ADJUSTMENT

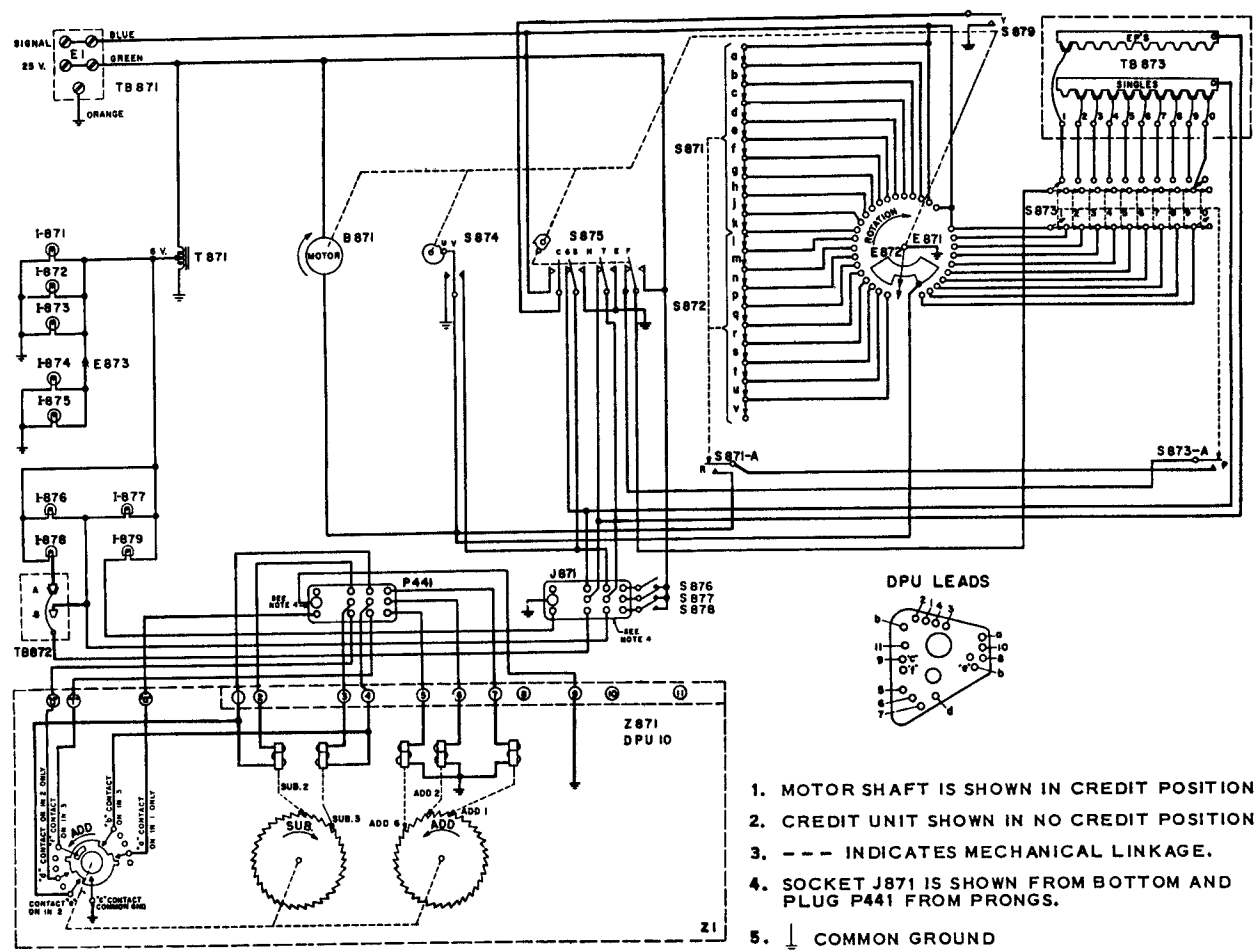


CONTACT	STAND-BY	CREDIT POSITION	CYCLING (CREDIT-CANCEL)
CARRY-OVER SWITCH			
U	Open	Open – Minimum Gap 1/32	Closed
V	Closed	Open – Minimum Gap 1/32	Open
†† W	Open	Open – Minimum Gap 1/32	Closed
CREDIT CANCEL SWITCH			
C	Open 1/32	Open – Minimum Gap 1/32	Closed When Contact Arm Reaches Contact No. 8.
G	Closed	Closed	** Open 1/64 While Contact Arm Moves From Contact No. 25 to 28.
S	Open 1/64	Open – Minimum Gap 1/64	Closed While Contact Arm Moves From Contact No. 25 to 28.
H	Closed	Closed	** Open 1/64 While Contact Arm Moves From Contact No. 25 to 28.
T	Open 1/64	Open – Minimum Gap 1/64	Closed While Contact Arm Moves From Contact No. 25 to 28.
E	Closed	Closed	** Open 1/64 While Contact Arm Moves From Contacts 25 to 28.
F	Open 1/64	Open – Minimum Gap 1/64	** Closed While Contact Arm Moves From Contact No. 26 to 27.
MOTOR STARTING SWITCHES			
R	The Motor Starting Switches Should Make Contact At The Bottom Of The Selection Button Stroke. They Should Make Contact As Close As Possible To The Bottom and Still Maintain Contact When Any Button On The Switch Is Latched In.		
P			
SIGNAL SHORTING SWITCH			
† Y	Contacts Must Close When Any Selection Button Is Pressed Approximately Half Way To The Latched Position. They Must Be Open When The Buttons Are In Latched Or Released Positions.		
SIGNAL SWITCH			
†† YY	Contacts Open Only When Selector Buttons Are Manipulated While The Wall-O-Matic Is Cycling. See Detailed Adjustment Data, Page 12087.		

* SELECTOR PLATE – Contacts Numbered Clockwise
** CAUTION: Contacts "E", "G" and "H" Must Open Before Contact "F" Closes.

† Used In Units Below Serial Number 9734.
†† Used In Units Above Serial Number 9734.

WALL-O-MATIC "200", TYPE D-3WA

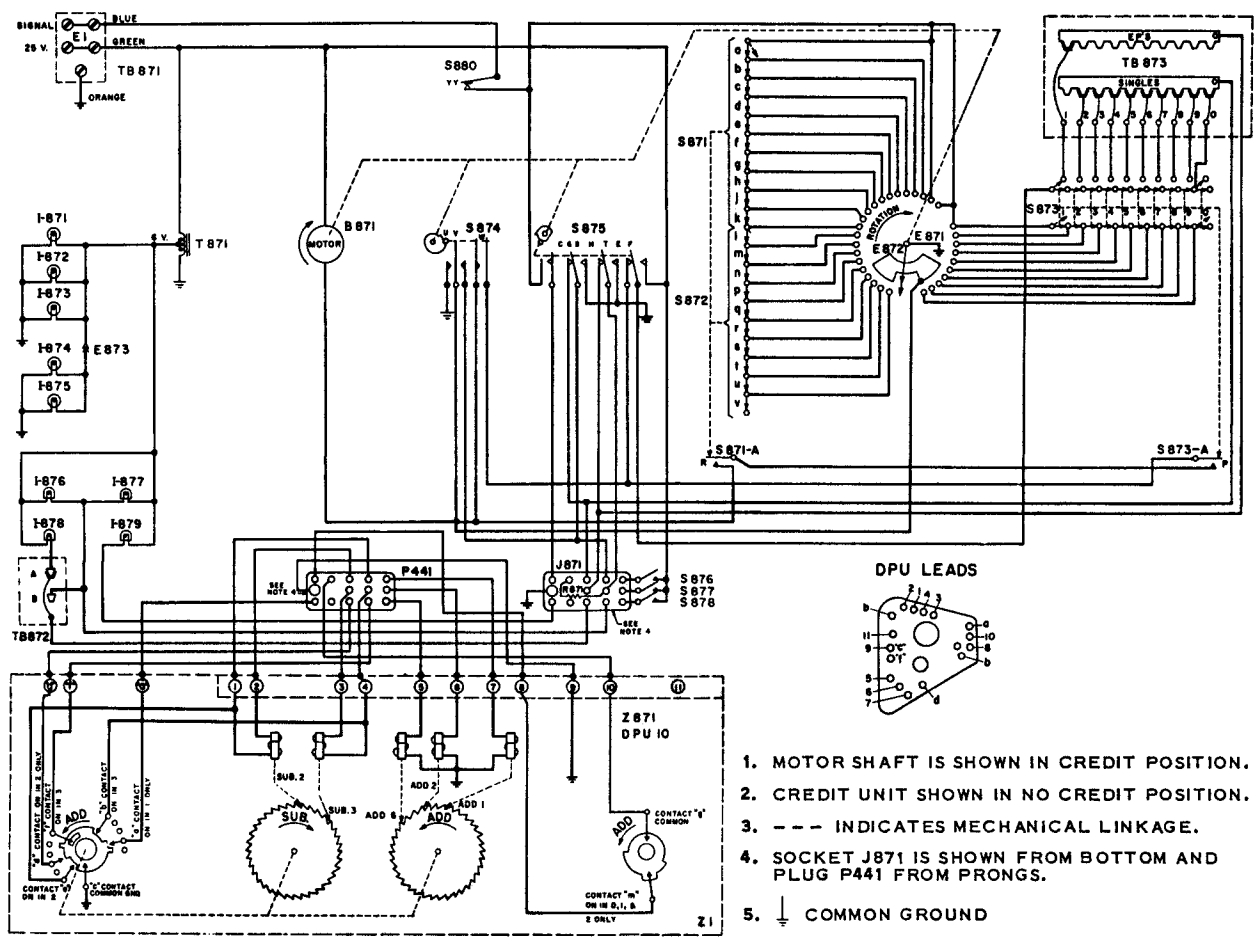


Schematic Diagram -- (Below Serial No. 9734)

PARTS LIST

Item	Part No.	Part Name	Item	Part No.	Part Name
J 871	306014	Socket	S 878	505795	25¢ Coin Switch
I 879	10242	No. 51 G. E. Lamp	S 877	505795	10¢ Coin Switch
I 878	10242	No. 51 G. E. Lamp	S 876	505795	5¢ Coin Switch
I 877	10242	No. 51 G. E. Lamp	S 875	505839	Credit Cancel Switch
I 876	10242	No. 51 G. E. Lamp	S 874	505846	Carry-Over Switch
I 875	10242	No. 51 G. E. Lamp	S 873A	505513	Treadle Bar Starting Switch
I 874	10242	No. 51 G. E. Lamp	S 873	505513	Selector Switch (Bottom)
I 873	505173	No. 55 G. E. Lamp	S 872	505512	Selector Switch (Center)
I 872	505173	No. 55 G. E. Lamp	S 871A	505511	Treadle Bar Starting Switch
I 871	505173	No. 55 G. E. Lamp	S 871	505511	Selector Switch (Top)
E 873	504045	Brush Assembly	P 441	125632	Plug and Shell Assembly
E 872	505806	Contact Wiper Arm	Z 871	450520	DPU-10 Dual Pricing Unit
E 871	505802	Selector Plate Assembly	TB 873	410706	Pricing Board
B 871	505595	Motor Assembly	TB 872	505821	Credit Light Terminal Board
T 871	505796	Transformer	TB 871	13398	Terminal Strip
S 879	505813	Signal Shorting Switch			

WALL-O-MATIC "200", TYPE D-3WA



Schematic Diagram - (Above Serial No. 9734)

PARTS LIST

Item	Part No.	Part Name	Item	Part No.	Part Name
J871	306014	Socket	S877	505795	10¢ Coin Switch
I879	10242	No. 51 G. E. Lamp	S876	505795	5¢ Coin Switch
I878	10242	No. 51 G. E. Lamp	S875	505839	Credit Cancel Switch
I877	10242	No. 51 G. E. Lamp	S874	505800	Carry-Over Switch
I875	10242	No. 51 G. E. Lamp	S873A	505513	Treadle Bar Starting Switch
I874	10242	No. 51 G. E. Lamp	S873	505513	Selector Switch (Bottom)
I873	505173	No. 55 G. E. Lamp	S872	505512	Selector Switch (Center)
I872	505173	No. 55 G. E. Lamp	S871A	505511	Treadle Bar Starting Switch
I871	505173	No. 55 G. E. Lamp	S871	505511	Selector Switch (Top)
E873	504045	Brush Assembly	R871	82746	Resistor 1000 Ohm ± 10% 1 Watt
E872	505806	Contact Wiper Arm	P441	125632	Plug and Shell Assembly
E871	505802	Selector Plate Assembly	Z871	*450520	DPU-10 Dual Pricing Unit (Code B)
B871	505595	Motor Assembly	TB873	410706	Pricing Board
T871	505796	Transformer	TB872	505821	Credit Light Terminal Board
S880	506176	Signal Switch	TB871	13398	Terminal Strip
S878	505795	25¢ Coin Switch			

* DPU-10, CODE B includes lower switch wafer with contacts "g" and "m" as shown in diagram. Code letter B stamped on Subtract-2 solenoid frame.

SEEBURG

WALL-O-MATIC "200"

TYPE HD-3WA

The Wall-O-Matic "200" Type HD-3WA, is a unit of the Seeburg Wired Remote Control System for selective playing of selections in the Select-O-Matic "200" (or 160) phonographs. It operates in conjunction with the selection system in the phonograph to which it is connected with a 3-conductor cable.

The Wall-O-Matic operates at 25 volts AC, 60 cycles. Power is supplied by the phonograph or an auxiliary power supply mounted in the phonograph. Two of the three wires of the inter-connecting cable carry power to the lights and motor. The other wire and one of the power circuit wires comprise a selection circuit to provide remote control of the operation of the selection system in the phonograph.

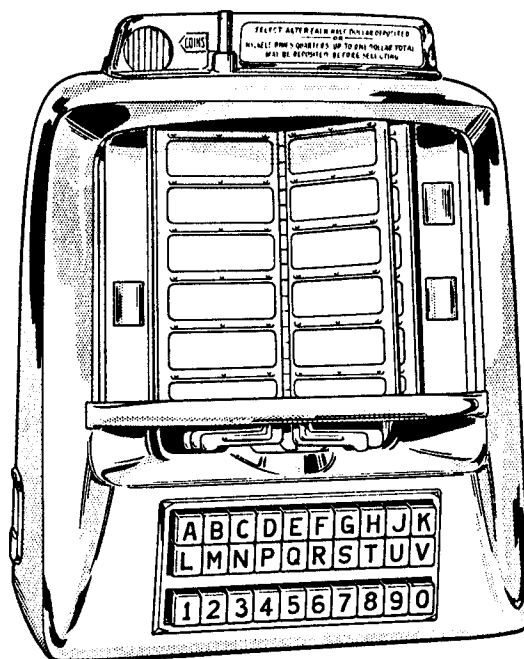
INSTALLATION INSTRUCTIONS

To mount the Wall-O-Matic, first unlock it and remove the cover. There are three holes in the back plate for mounting. The upper two are slotted for fitting over screws already set in the wall at the proper points. The lower hole is for rigid mounting, by means of a screw, after the Wall-O-Matic has been hung in place.

If the mounting place on the wall is uneven, the Wall-O-Matic mounting plate should be shimmed with cardboard or wood before tightening the three mounting screws. Tightening these screws on an uneven wall will bend the mounting plate, may seriously effect the operation of the Wall-O-Matic and will cause the cover and lock to bind. The upper right hand and lower screws are accessible for tightening directly through clearances provided. To secure the upper left hand mounting screw it is necessary to remove the 50¢ section of the slug rejector as follows:

- A. Unlatch the program holder, lift up and out on the assembly.
- B. Unscrew 1 and 2 (*Figure 2*), and remove coin chute.
- C. Release catch 3 (*Figure 2*) to right and remove 50¢ section of slug rejector by lifting up and out.

After the Wall-O-Matics are mounted in their respective locations, the cabling can be installed. Use inter-connecting cable, *Seeburg Part No. 12001*, which can be purchased in lengths to suit requirements. At the Select-O-Matic,



three solder lugs are soldered to the end of the cable. The cable is then connected to a terminal strip in the phonograph. The terminal strip is color coded. Connect the blue wire of the cable to the terminal marked BLU., the orange wire to the terminal marked ORG. (ground), and the green wire to the terminal marked GRN.

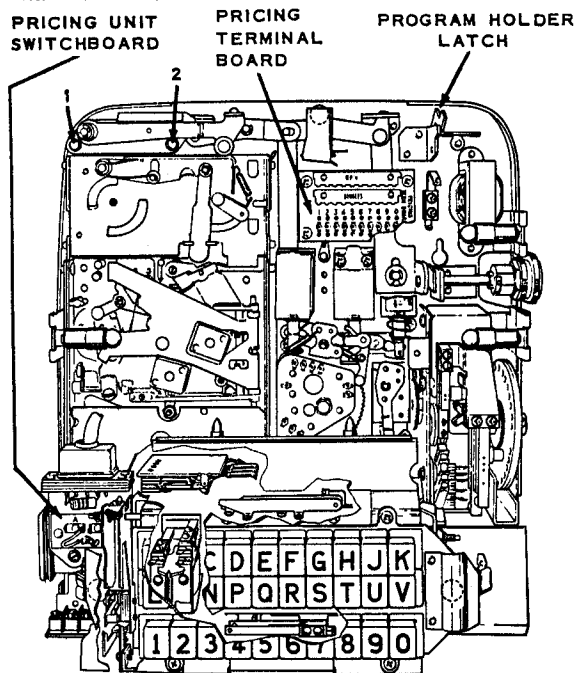


Figure 2.

The cable may be connected to from one to six Wall-O-Matics. The Tormat Selection Receiver will supply power for up to 6 Wall-O-Matics. If more than 6 are connected to the circuit, the transformer supplying power to the circuit may be burned out. If installation requires more than 6 Wall-O-Matics, an auxiliary power supply, Type PS6-1Z, must be used for each additional circuit. Some auxiliary power supply units are equipped with a 3-prong socket rather than a 3-connector terminal strip. In that event, the unit is connected to the 3-wire cable by means of cable plug, *Seeburg Part No. 12015*, supplied. Solder the blue wire to No. 1, the orange wire to No. 2, and the green wire to No. 3 of the plug.

The terminal strip in the Wall-O-Matic is color coded in the same colors as the cable. Solder one lug to each of the cable wires (six soldering lugs are furnished with each Wall-O-Matic). Connect the blue wire of the cable to the blue of the terminal strip, the orange wire to the orange of the terminal strip (ground) and the green wire to the green of the terminal strip. When the Wall-O-Matic is used as the junction of two cables, two conductors will be on each terminal.

The Wall-O-Matics are supplied with terminal brackets for open wiring installations. If concealed wiring is desired, a knock-out hole in the lower left hand corner of the mounting plate is provided for entry of the cables.

Bar Bracket Assembly, *Seeburg Part No. 500200*, is available for rigidly mounting the Wall-O-Matic on bars, counters and tables.

The Wall-O-Matic has been thoroughly tested before leaving the factory. Unless damaged in shipment, no adjustments should be necessary.

"SET-UP" AND OPERATION OF DUAL PRICING SYSTEM

The Dual Pricing System as applied to the Wall-O-Matic "200", Type HD-3WA uses Dual Pricing Unit Type DPU-10. It is designed to provide "Single" selections for 10¢ and "EP's" for 15¢.

The "200" Wall-O-Matic incorporates a Dual Pricing System which permits the accumulation of credits at the rate of one credit for a nickel, two credits for 2 nickels or a dime, and three credits for 15 cents. Additional credits can be

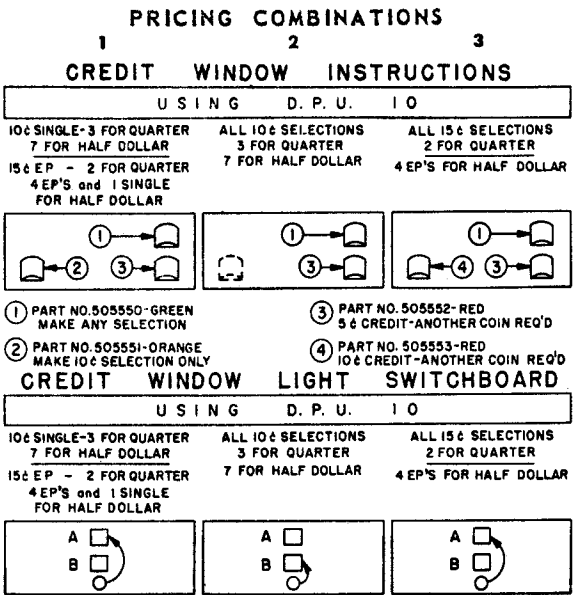


Figure 3.

accumulated up to a maximum of 24 in each programming cycle. Note that a premium is given when quarters are used, since one quarter gives six credits and four quarters will give 24, while it takes 12 dimes or 24 nickels to give 24 credits. A Premium is also given when half dollars are used, since one half dollar gives 14 credits. Note that selections should be made before depositing another half dollar, in order to keep from losing any credits.

Figure 3 constitutes a chart condensing information regarding the capabilities and set-up requirements for the three pricing combinations.

Preparation of the system necessitates:

- A. Setting up of the Credit Window Light Switchboard for correct indication of credits.
- B. Connecting the Pricing Terminal Board taper tabs corresponding to each panel of desired "EP's" and "SINGLES" for associated pricing. The program must be in panels of 20 selections (10) records, each panel being represented by a number button. "Singles" and "EP's" cannot be in the same panel if there is to be a price difference. *The pricing terminal board on the Tormat Electrical Selector, and the pricing terminal boards in all Wall-O-Matics MUST be connected to match.*

With the Credit Window Light Switchboard

set to "A", as in pricing combination No. 1, and the Pricing Terminal Board connected for "SINGLES" & "EP's", the following operational sequence holds true:

1. The deposit of a nickel rotates the credit wheel in the Dual Pricing Unit to the one-credit position and the lower right credit window light goes on indicating "5¢ Credit – Another Coin Required". No plays will result when selection buttons are pushed.
2. Another nickel (or a dime initially) rotates the credit wheel to the two-credit position and the lower left credit window light goes on indicating "Make 10¢ Selection Only". Now only "Singles" plays will result when proper selection buttons are pushed. If buttons for "EP" selection are depressed no selection will result unless another nickel is deposited.
3. Another nickel (or a nickel and a dime initially) rotates the credit wheel to the three-credit position and the upper credit window light goes on indicating "Make Any Selection". Credit window light remains the same as when on the three-credit position, with the deposit of additional coins.

With the Credit Window Light Switchboard set on position "B" and the Pricing Terminal Board tabs all placed on "Singles" as in pricing combination No. 2, the following holds true:

1. The first nickel deposited rotates the credit wheel to the one-credit position and the lower right credit window light goes on as before.
2. Another nickel (or a dime initially) rotates the credit wheel to the two-credit position and the upper credit window light goes on indicating "Make Any Selection". The lower left credit light remains out at all times with the switchboard in "B" position.

With the Credit Window Light Switchboard set on position "A" and the Pricing Terminal Board tabs all placed on "EP's" as indicated in pricing combination No. 3, the following holds true:

1. The Dual Pricing Unit operation is similar to that of the previous "A" switchboard set-up, however, no plays will result on the first two credit positions.
2. In the 2-credit position, the lower left credit window lights up to indicate "10¢ Credit – Another Coin Required". This credit window, *Part No. 505553* is available from your Seeburg Distributor and is installed as shown in *Figure 4*.

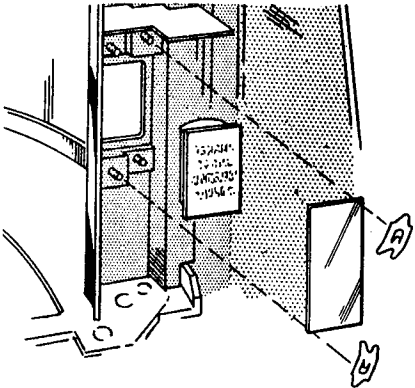


Figure 4.

Appropriate Classification Headings required to satisfy a desired pricing combination may be chosen from the tabulated listing, *Figure 5*.

CLASSIFICATION HEADING	PART NUMBER	
	10¢ SINGLES	15¢ EP's
HIT TUNES	506450	506460
RHYTHM & BLUES	506452	506462
COUNTRY & WESTERN	506451	506461
EP ALBUM RECORDS	—	506453

Figure 5.

PROGRAM HOLDERS

The Wall-O-Matic "200", Type HD-3WA, can be used with either the Model 201 or 161 series phonographs. The program holder panel numbers and corresponding classification headings are shown in *Figure 6*. When the wallbox is being used with phonographs of the Model 161 series, a bracket, *Part No. 506166*, must be used to render panels 9 and 0 inoperative. This bracket will be found on the back of the program holder. It should be secured on the lower side of the program holders in the manner indicated in *Figures 7 and 8*.

WALL-O-MATIC "200", TYPE HD-3WA

CLASSIFICATION HEADINGS

PROGRAM HOLDER PANELS:	HD-3WA WALL-O-MATIC AS SHIPPED FOR USE WITH 201DH PHONOGRAPHS	HD-3WA WALL-O-MATIC AS RECOMMENDED FOR USE WITH 161DH PHONOGRAPHS
1	10¢ HITS	10¢ HITS
2	10¢ HITS	10¢ HITS
3	10¢ HITS	10¢ RHYTHM & BLUES
4	10¢ RHYTHM & BLUES	10¢ COUNTRY & WESTERN
5	10¢ COUNTRY & WESTERN	15¢ EP ALBUM RECORDS
6	15¢ EP ALBUM RECORDS	15¢ EP ALBUM RECORDS
7	15¢ EP ALBUM RECORDS	15¢ EP ALBUM RECORDS
8	15¢ EP ALBUM RECORDS	15¢ EP ALBUM RECORDS
9	15¢ EP ALBUM RECORDS	NOT USED } CLAMPED BY
0	15¢ EP ALBUM RECORDS	NOT USED } BRACKET 506166

Figure 6.

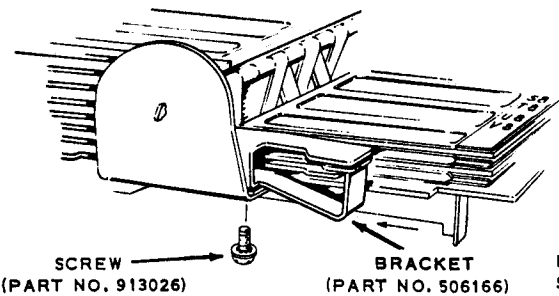


Figure 7.

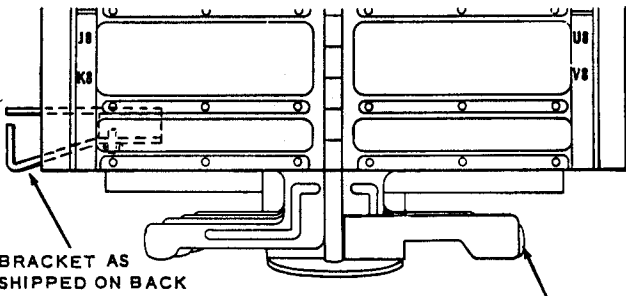


Figure 8. BRACKET INSTALLED FOR USE WITH 161 SERIES PHONOGRAPHS.

MAINTENANCE AND SERVICE

CLEANING

The slug rejector should be kept free of dirt and dust. If a rejector has been working successfully and becomes erratic or fails to work at all, the trouble can generally be attributed to dirt or to some stoppage in the coin track. Cleaning only should correct the trouble.

Switch and relay contacts should be cleaned with a contact burnisher. Do not use a file, sandpaper, or emery cloth.

The contacts on the selector disc should be cleaned with a cloth saturated with carbon-tetrachloride. Do not use emery cloth or sandpaper. The contacts are silver plated brass. To sand them or clean them with an abrasive will remove the plating and expose the brass. The brass does not provide good contact and will require more frequent service as well as cause erratic operation. The contacts should not be lubricated.

The contact point on the contact arm should be cleaned with carbon-tet'. It is not necessary to remove it from the shaft. A piece of cloth saturated with carbon-tet' can be drawn under the contact point.

The selector switches and the motor gears should be kept free of dirt and dust by blowing out. Do not use roach powders of any kind. Most of the powders are highly corrosive and will soon cause failure of the switches. If powders have been used, the switches should be thoroughly cleaned.

LUBRICATION

The motor gears should be lubricated with Aero Lubriplate.

A drop or two of Seeburg No. 53014 Special Purpose Oil on the Motor Shaft bearings will reduce wear and friction to a minimum.

The scavenger linkage of the slug rejector can be sparingly lubricated with No. 105 Lubriplate at wear and friction points, but care should be taken so that it does not get into the coin track. Oil should not be used. The coin path of the rejector may be dusted with Motor Mica.

MOTOR

The motor is designed to operate the Wall-O-Matic through a complete cycle in a little more than 2 seconds. If the motor is slow, the current impulses to the step relay (in the Selection Receiver) will be slow and cause erratic operation of the step switch assembly. The motor can best be checked for speed by allowing it to operate steadily and counting the turns per minute of the contact arm. Normal speed is 19 revolutions per minute. Acceptable speed limits are 17 to 21 rpm. If the motor is slow, check for binding or excessive friction. If the motor runs slow when there are no binds, it will have to be replaced.

COIN SWITCHES

If operation of the coin switches is erratic, they should be removed as a complete unit and carefully cleaned with carbon tetrachloride and burnished with a contact burnishing tool. *Do not use a file or sandpaper for contact cleaning.*

To remove the coin switch assembly, first remove the fifty cent section of the slug rejector. Next unscrew one, two and three (Figure 9) and withdraw the slug rejector mounting frame from the Wall-O-Matic back plate. Unscrew four and five thereby releasing the coin switch assembly.

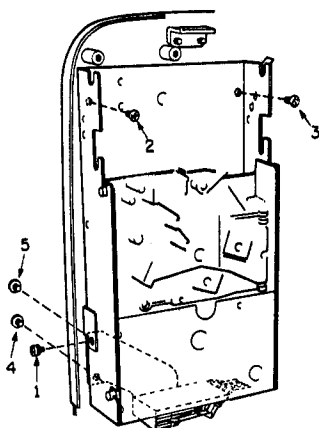


Figure 9.

Adjustment of the coin switch is shown in Figures 10 and 11 and the following steps A to H:

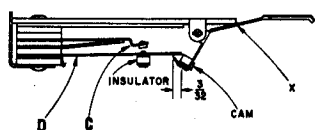


Figure 10.

- A. Adjust the 5-, 10- and 25-cent coin levers so that they are parallel with the bottom edge of the slug rejector when bearing against the switch bracket at X (Figure 10).
- B. Adjust the switch actuating cams to be tilted as shown and overlapping the switch blade approximately $3/32$ of an inch.
- C. Adjust the short blade and bracer of the switches for $1/32''$ to $3/64''$ contact gap with short blade bearing against the tip of the bracer with approximately one to three grams pressure as measured at the contact X point.
- D. Adjust long blades so they bear against cams. When contact just makes, the force should be as measured at the switch contact.
 1. Nickel Switch (front) eight to thirteen grams.
 2. Dime Switch five to eight grams.
 3. Quarter Switch eight to thirteen grams.
- E. Form the lever for the fifty cent switch as shown in Figure 11.

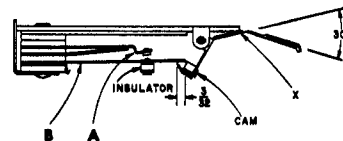
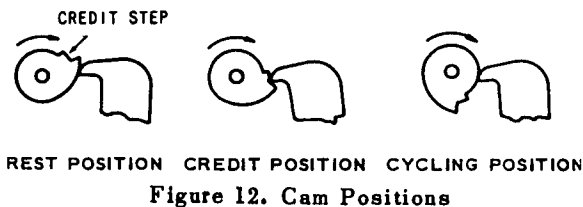


Figure 11.

- F. Adjust short blade and bracer of all switches for $3/64$ to $1/16$ contact gap with short blade bearing against tip of bracer approximately one to three grams measured at contact point.
- G. Adjust long blade (B) of the fifty cent switch so it bears against the cam with eight to thirteen grams of force as measured at the switch contact when contact just makes.
- H. Form the extension of the fifty cent coin switch (that actuates the 25¢ coin switch) so the INSULATOR at the end of the extension just touches the long blade of the 25¢ coin switch. Check adjustment by operating the 25¢ coin switch lever. The extension should not move when the 25¢ coin switch is operating but, in the rest position, there must be no gap between the INSULATOR in the extension and the long blade.

LATCH BAR ADJUSTMENT

The selection switches have three conditions of operation corresponding to the 3-positions of the cam shown in *Figure 12* and are



operated by the cam through mechanical linkage. In the stand-by positions the switch latch bars are held against the pressure of the latch bar spring so the selector buttons are free to move in and out and will not stay in the pressed-in position. In the credit position the bars are released to a position which permits a selection switch, when pressed, to latch in the operated position but, if another switch is operated, the first will be released. In the cycling position the latch bars are fully released so the selection switches are locked in either the normal or pressed positions.

The adjustment for the latch bar operation is made with the screws – one for each selection switch assembly – at the right of the assemblies (shown in *Figure 13*) in the following manner:

1. Place the cam in the Credit Position (*Figure 12*).
2. Adjust screw opposite the number switch latch bar so that Number 5 switch stem just rubs on the latch bar; turn adjusting screw one-half ($1/2$) to three-quarter ($3/4$) turn counter clockwise (viewed from flatted end) from this position. Check each number switch for proper latching and releasing.
3. Adjust the screw opposite the L-V letter switch latch bar so that the head of adjusting screw is at least $1/16$ " away from the end of the latch bar, then adjust the screw opposite A-K letter switch latch bar so that letter E switch stem just rubs on the latch bar; turn adjusting screw one-half ($1/2$) to three-quarter ($3/4$) turn counter-clockwise (viewed from flatted end) from this position. Check each A to K letter switch for proper latching and releasing.

4. Adjust the screw in the *left* hand end of letter latch bar so that any button in A-K switch unlatches any button in L-V switch, and vice versa. Check each L-V letter switch for proper latching and releasing.

5. Adjust the screw opposite the L-V letter switch latch bar so that head of adjusting screw just touches end of latch bar.

SELECTION SWITCH ASSEMBLIES

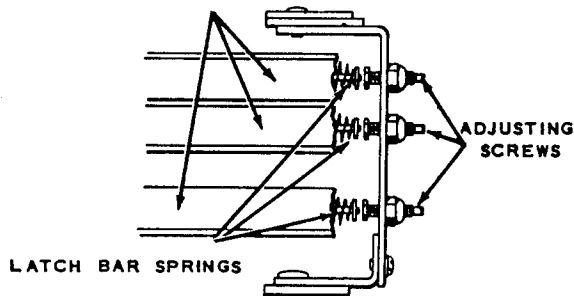


Figure 13.

CONTACT ARM POSITION

1. Turn the motor manually until the latch bar lever drops to the credit step of the cam and then reverse the direction until the point of the lever is against the vertical part of the cam as shown in *Figure 12*.

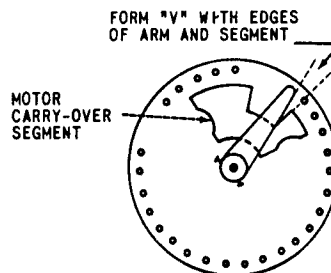


Figure 14.

2. Set the Contact Arm on the shaft so the edge of the blade forms a "V" with the edge of the motor carry-over segment as shown in *Figure 14*, and the lower part of the hub is spaced approximately $1/8$ " from the surface of the selector plate as shown in *Figure 15*.

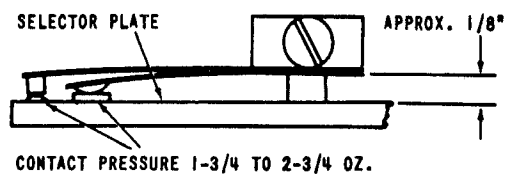


Figure 15.

SIGNAL SWITCH ADJUSTMENT

The signal switch function is to open the signal circuit if the selector buttons are manipulated while the Wall-O-Matic is cycling. It is operated by an over-center spring, the position and operation of which are controlled by both the latch bar lever and the latch bars. If the latch bars are moved to the left by forceable

manipulation of the selector buttons after the latch lever has moved to the cycling position, the over-center spring opens the switch contacts and interrupts the signal. If the latch bars are not moved after the Wall-O-Matic starts cycling, the switch remains closed and normal selection operation results.

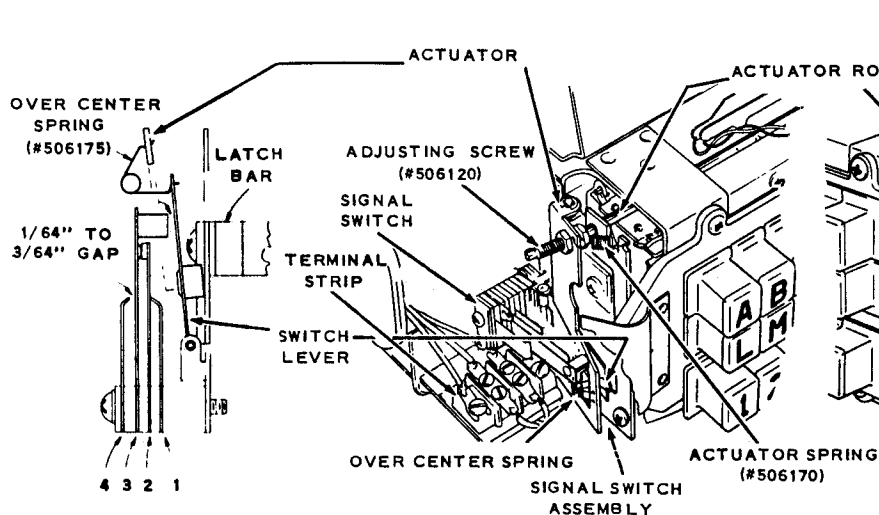


Figure 16. Signal Switch
In Standby Position

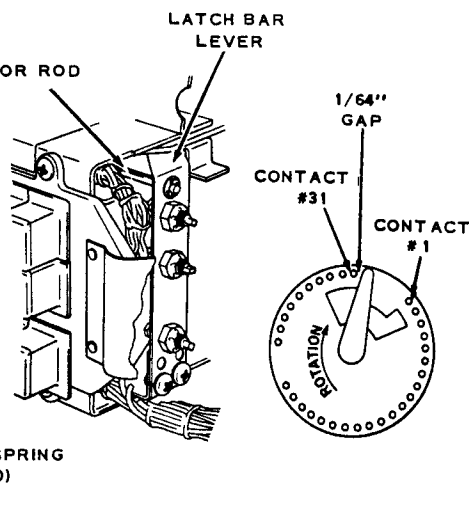


Figure 17.

Figure 18.
Selector Plate

To adjust signal switch assembly:

NOTE: Before starting adjustment, be sure the fibre lift on the long blade of the signal switch is NOT touching the switch lever and the switch lever is being held toward the selector switches by the over-center spring (See Figure 17). Also be sure the latch bar adjustments are correct.

1. Turn the motor manually until the latch bar lever drops into the credit position and position the adjusting screw so the underside of the screw head is approximately $3/16''$ from the surface of the actuator.

2. With the Wall-O-Matic still in the credit position, slowly press in the number selector button "5" until the latch bar of the number switch reaches its maximum movement to the left.

3. While carefully holding the number 5 button and the latch bar in the position indicated in paragraph 2, turn the motor until the Wall-O-Matic is in the pulsing position.

4. With the Wall-O-Matic in the pulsing position and while still holding the number 5 button, slowly turn the adjusting screw out (counter-clockwise as viewed from the outer end) until the over-center spring "flips" the switch lever to the left against the signal switch. Add $1/8$ turn additionally beyond the position at which the switch lever was moved. In making this adjustment be careful to turn only (not to push or pull) the adjusting screw.

5. With the Wall-O-Matic in the credit position, bias the short contact blade No. 2 of the signal switch against its bracer blade No. 1 with a force of $3/4$ to $1\frac{1}{2}$ oz. The force is measured at the contact and while holding the long blade No. 3 so the contacts are open. The bracer blade No. 1 should be initially set at right angle to the switch body).

6. With the Wall-O-Matic still in the credit position, adjust the long contact blade No. 3 so the contacts are closed with $3/4$ to $1\frac{1}{2}$ oz. pressure.

7. Turn the motor manually until the Wall-O-Matic is in the stand-by position with the latch bar pawl on the highest part of the cam on the motor assembly.

8. With the Wall-O-Matic in the stand-by position as in 7, and with $1/64''$ to $3/64''$ gap between the long contact blade No. 3 and its bracer blade No. 4 alternately position the bracers for the short contact blade and the long contact blade so there is a $1/64''$ to $3/64''$ gap between the switch lever and the fibre lift on the long switch blade No. 3 and so the contact pressure is $3/4$ to $1\frac{1}{2}$ oz.

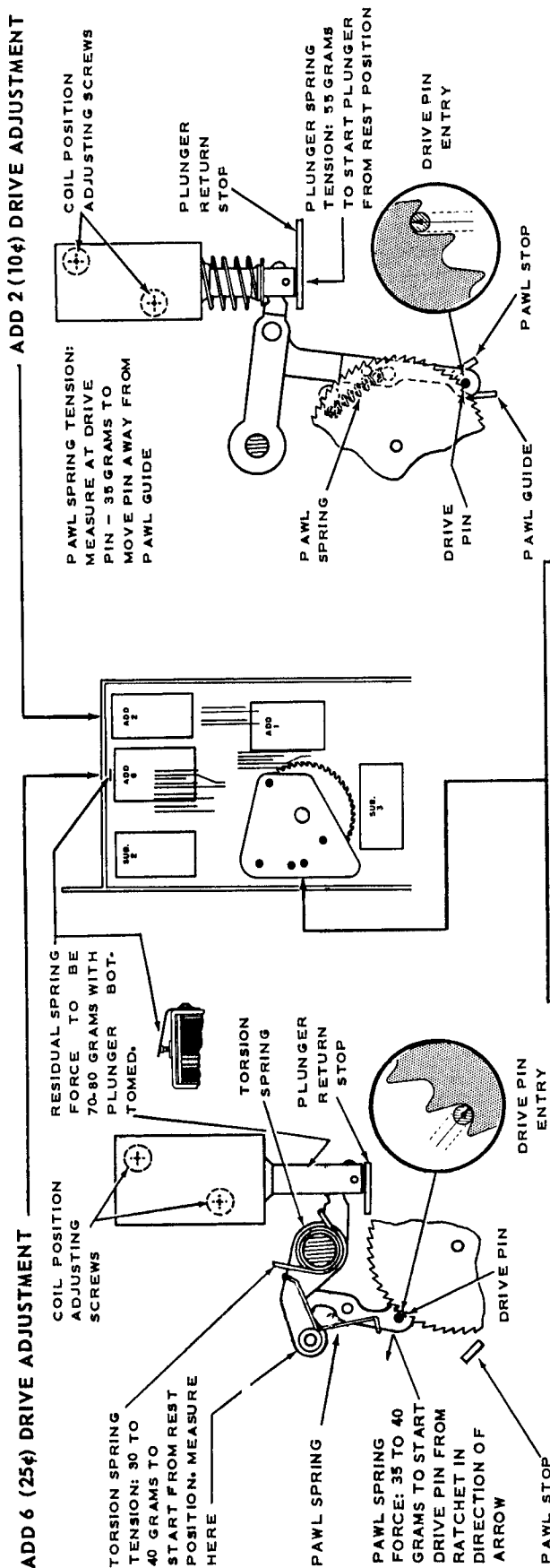
9. Turn the motor manually until the Wall-O-Matic is again in the pulsing position and then manually move the switch lever to the left. It

should snap the Signal Switch contacts with $1/64''$ minimum gap.

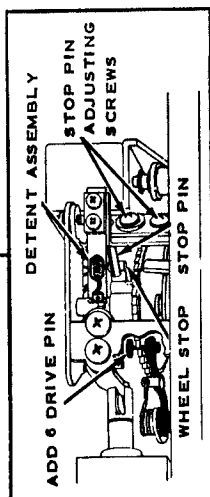
10. With the Wall-O-Matic still in the Pulsing Position and with the switch lever still to the left, turn the motor manually to the Stand-by Position until the switch lever snaps to the right allowing the Signal Switch to close. The switch should close when the Contact Arm (*Figure 18*) is $1/64''$ minimum past the last (#31) contact.

If this minimum clearance is not obtained, increase the gap between the fibre lift on the long switch blade and the switch blade and/or the gap between the long switch blade and its bracer blade.

If the Signal Switch fails to reset, reduce the gaps slightly.

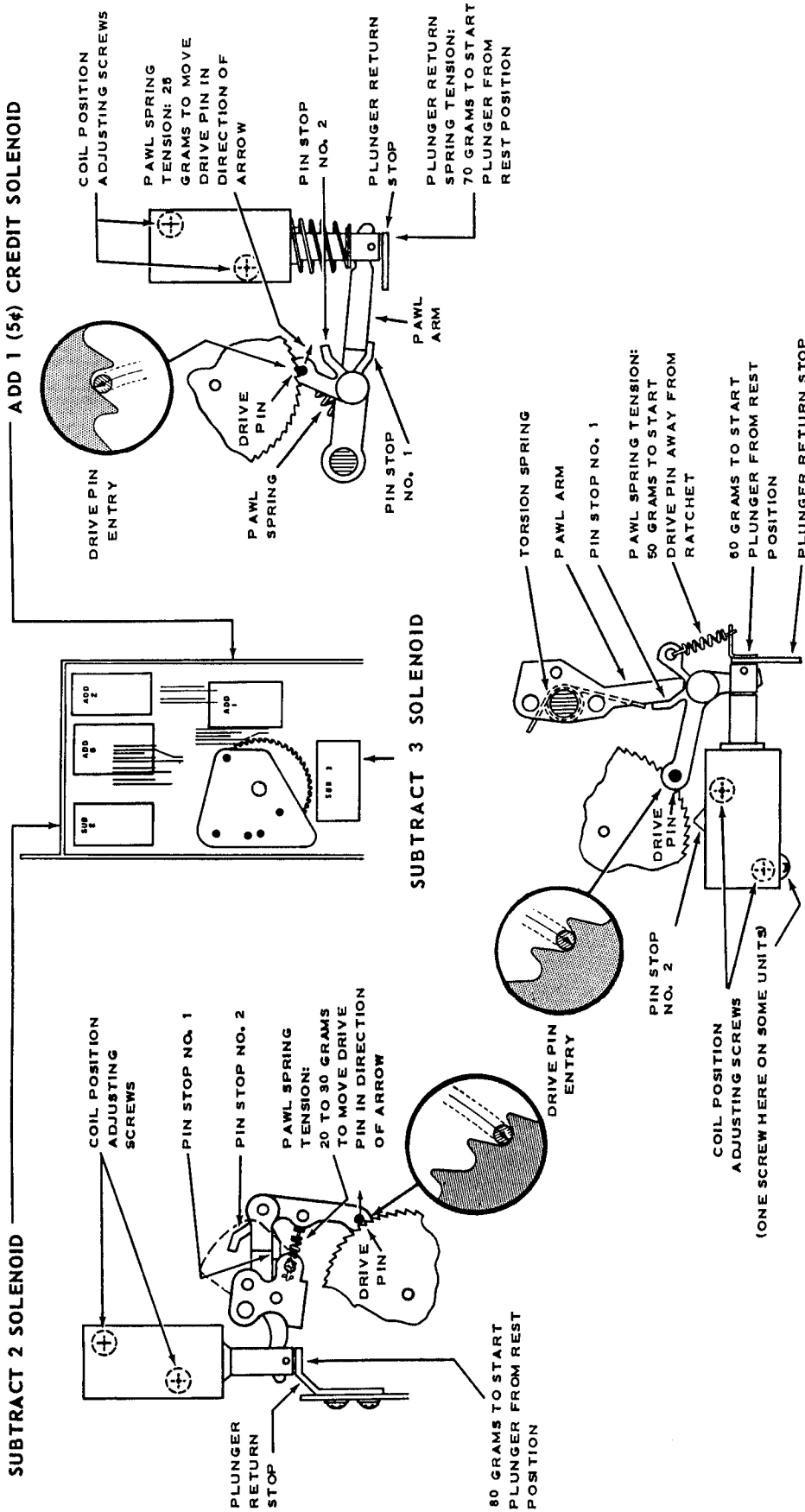


- A. With wheel stop against stop pin, adjust stop pin position so ADD 6 drive pin enters ratchet without striking or rubbing the sides of the teeth.
- B. Loosen the two screws holding the coil.
- C. Operate the plunger manually by applying force, at the end of the plunger (*not the levers*) so it is fully seated.
- D. Position the coil so the plunger operation will move the wheel six teeth and be fully detented. Tighten screws holding the coil.
- E. Adjust pawl stop for minimum play in wheel when plunger is fully seated.
- F. Adjust plunger return stop position for clearance between the drive pin and the tips of the ratchet teeth. The tips should pass without rubbing but the clearance must not be more than .010".



WHEEL STOP AND DETENT ADJUSTMENT

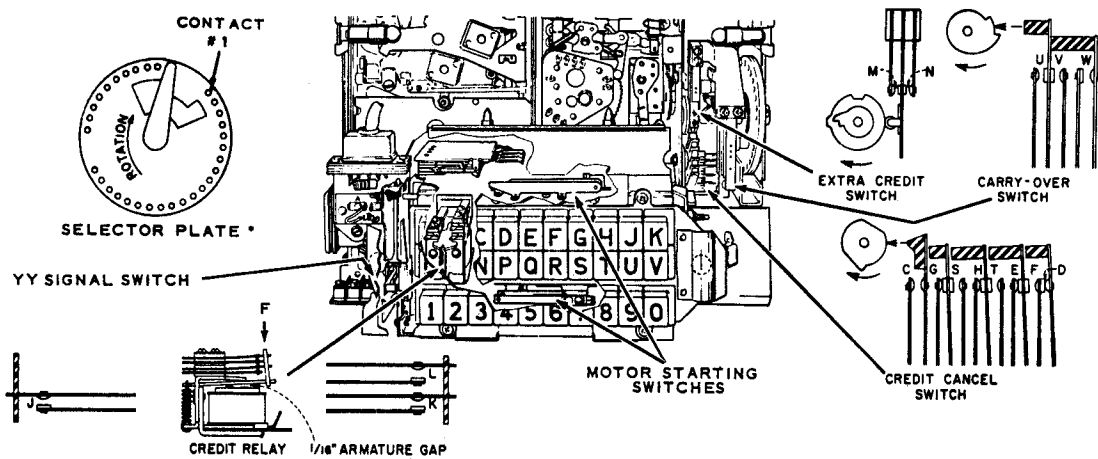
- A. With wheel stop against stop pin, adjust stop pin position so ADD 6 drive pin enters ratchet without striking or rubbing the sides of the teeth.
- Entry of all drive pins and the detent spring position adjustments are effected by the stop pin position and should be checked if a change is made.*
- B. Adjust position and force of detent spring so roller is *in full detent* when wheel stop is against stop pin and roller pressure against wheel is 150 to 160 grams (5/16 oz.)



SUBTRACT 2; SUBTRACT 3; ADD 1 DRIVE ADJUSTMENTS

- A. Adjust pin stop No. 1 so the drive pin enters the ratchet without striking or rubbing the sides of the teeth.
- B. Adjust the plunger return stop position for clearance between the drive pin and the tips of the ratchet teeth. The tips should pass without rubbing but the clearance must not be more than .010".
- C. Loosen the two screws holding the coil.
- D. Operate the plunger manually by applying force at the end of the plunger (*not the levers*) so it is fully seated.
- E. Position the coil so the plunger operation will move the wheel the required number of teeth and will be in full detent. Tighten screws holding the coil.
- F. Adjust pin stop No. 2 for minimum play in wheel when plunger is fully seated.

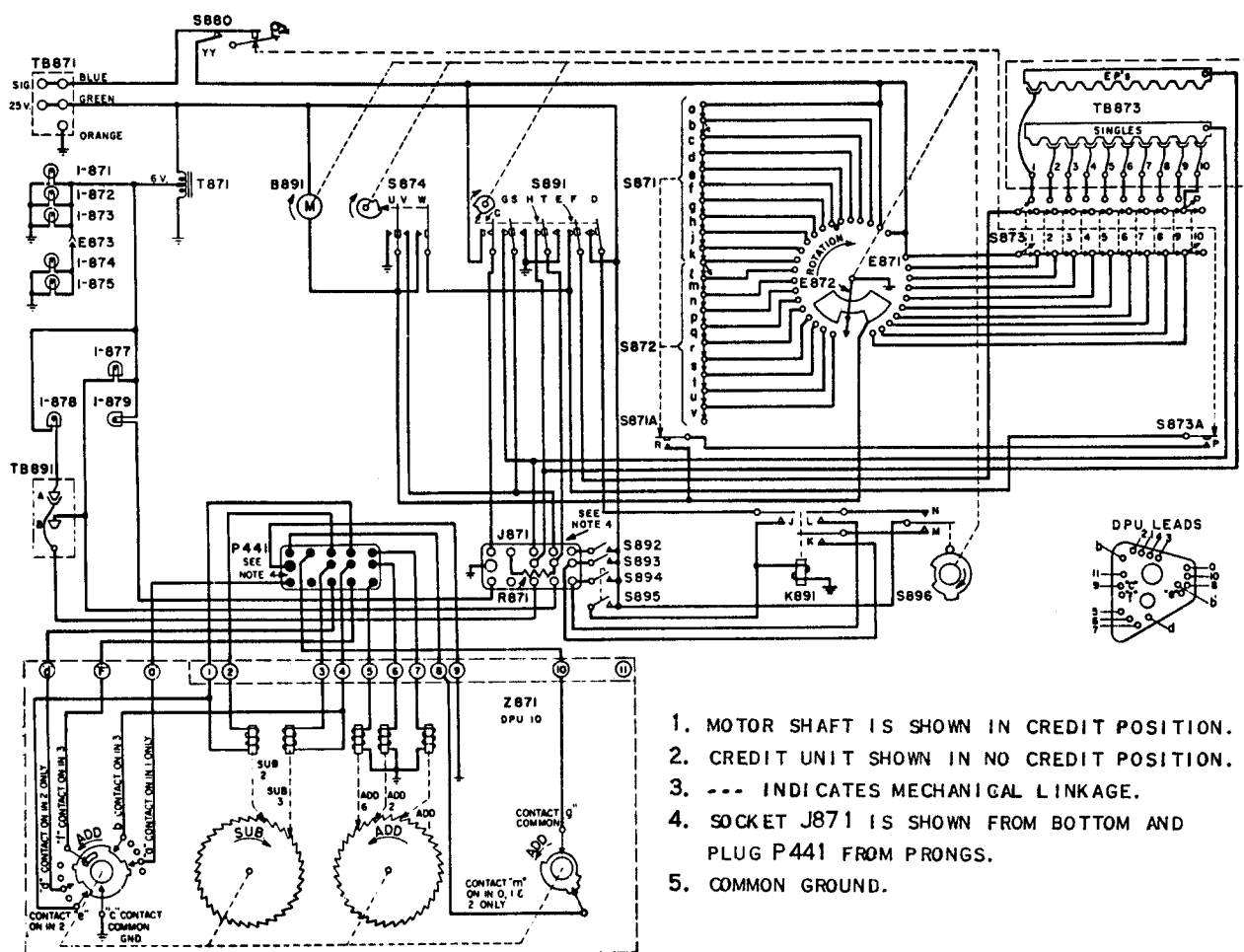
CONTACT OPERATION & GAP ADJUSTMENT



CONTACT	STAND-BY	CREDIT POSITION	CYCLING (CREDIT-CANCEL)
CARRY-OVER SWITCH			
U	Open	Open - Minimum Gap 1/64	Closed
V	Closed	Open - Minimum Gap 1/64	Open
W	Open	Open - Minimum Gap 1/64	Closed
CREDIT CANCEL SWITCH			
C	Open 1/32	Open - Minimum Gap 1/32	Closed When Contact Arm Reaches Contact No. 8.
G	Closed	Closed	** Open 1/64 While Contact Arm Moves From Contact No. 26 to 29.
S	Open 1/64	Open - Minimum Gap 1/64	Closed While Contact Arm Moves From Contact No. 26 to 29.
H	Closed	Closed	** Open 1/64 while Contact Arm Moves From Contact No. 26 to 29.
T	Open 1/64	Open - Minimum Gap 1/64	Closed While Contact Arm Moves From Contact No. 26 to 29.
E	Closed	Closed	** Open 1/64 While Contact Arm Moves From Contacts 26 to 29.
F	Open 1/64	Open - Minimum Gap 1/64	** Closed While Contact Arm Moves From Contact No. 27 to 28.
D	Closed	Closed	Open 1/64 When Contact Arm Is At Contact 28.
EXTRA CREDIT SWITCH			
M	Open 1/64	Open - Minimum Gap 1/64	Closed When Contact Arm Reaches Contact No. 9.
N	Open 1/64	Open - Minimum Gap 1/64	Closed When Contact Arm Reaches Contact No. 19.
MOTOR STARTING SWITCHES			
R	The Motor Starting Switches Should Make Contact At The Bottom Of The Selection Button Stroke. They Should Make Contact As Close As Possible To The Bottom and Still Maintain Contact When Any Button On The Switch Is Latched In.		
P			
SIGNAL SWITCH			
YY	Contacts Open Only When Selector Buttons Are Manipulated While The Wall-O-Matic Is Cycling. See Detailed Adjustment Data, Page 12101.		
CREDIT RELAY			
J	All Contacts Normally Open - Minimum Gap 1/64 - Minimum Pressure 1 Oz. Pressure Required To Start From Rest Position Measured At "F" is 2 Oz. Coil Resistance is 24 Ohms.		
K			
L			

SELECTOR PLATE - Contacts Numbered Clockwise.

CAUTION: Contacts "E", "G" and "H" Must Open Before Contact "F" Closes.



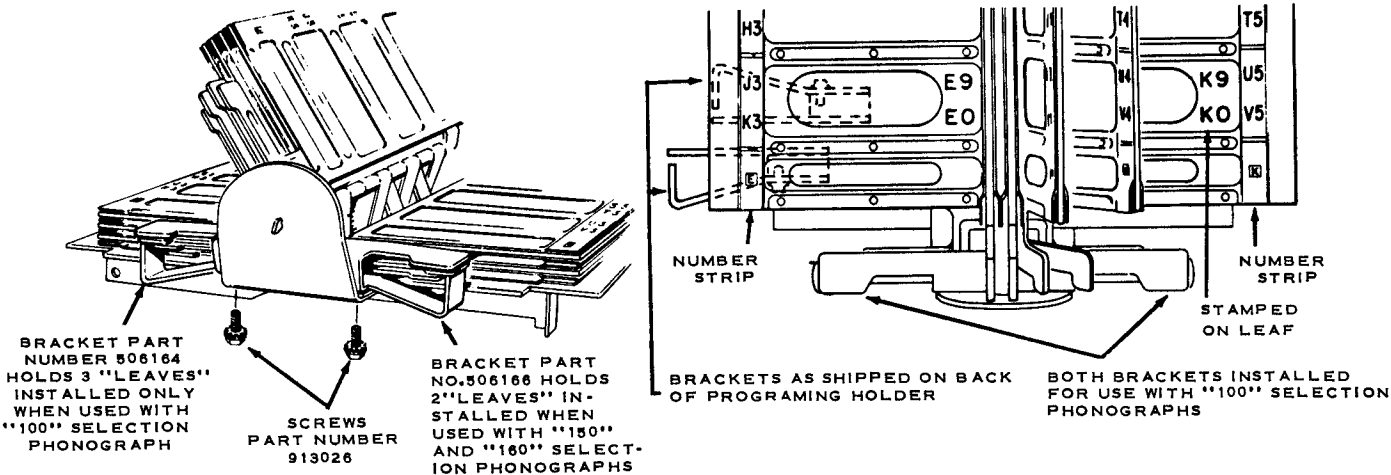
PARTS LIST

Item	Part No.	Part Name	Item	Part No.	Part Name
B891	506332	Motor Assembly	S871A	505511	Treadle Bar Starting Switch
E871	505802	Selector Plate Assembly	S872	505512	Selector Switch (Center)
E872	505806	Contact Wiper Arm	S873	505513	Selector Switch (Bottom)
E873	504045	Brush Assembly	S873A	505513	Treadle Bar Starting Switch
I 871	505173	No. 55 G. E. Lamp	S874	505800	Carry-Over Switch
I 872	505173	No. 55 G. E. Lamp	S880	506176	Signal Switch
I 873	505173	No. 55 G. E. Lamp	S891	506389	Credit Cancel Switch
I 874	10242	No. 51 G. E. Lamp	S892	506349	5¢ Coin Switch
I 875	10242	No. 51 G. E. Lamp	S893	506349	10¢ Coin Switch
I 877	10242	No. 51 G. E. Lamp	S894	506349	25¢ Coin Switch
I 878	10242	No. 51 G. E. Lamp	S895	506349	50¢ Coin Switch
I 879	10242	No. 51 G. E. Lamp	S896	506420	Extra Credit Switch
J871	306014	Socket	T871	505796	Transformer
K891	506421	Credit Relay	TB871	13398	Terminal Strip
P441	125632	Plug and Shell Assembly	TB873	410706	Pricing Board
R871	82746	Resistor 1000 Ohm $\pm 10\%$ 1 Watt	TB891	506384	Credit Light Terminal Board
S871	505511	Selector Switch (Top)	Z871	450520	DPU-10 Dual Pricing Unit (Code B)

SEEBURG

WALL-O-MATIC "100-160-200" Types S-3WU, D-3WU, HD-3WU

These Wall-O-Matics are for universal application with Seeburg 100, 160 and 200 selection phonographs. Brackets attached to the back of the program holder are used as shown below to lock program leaves when the Wall-O-Matic is used for 100, or 160 selection operation. Service data for Wall-O-Matics Type S-3WA, Manual page 12077; for Type D-3WA, page 12083; for Type HD-3WA, page 12095, applies to respectively the S-3WU, the D-3WU, and the HD-3WU.



Modification of Program Holder for "100" and "160" Selection Phonographs

* STAMPED ON PROGRAM LEAF

*SELECTION AT "100" SELECT-O-MATIC	CORRESPOND. SELECTION AT W-O-M	*SELECTION AT "100" SELECT-O-MATIC	CORRESPOND. SELECTION AT W-O-M	*SELECTION AT "100" SELECT-O-MATIC	CORRESPOND. SELECTION AT W-O-M	*SELECTION AT "100" SELECT-O-MATIC	CORRESPOND. SELECTION AT W-O-M	*SELECTION AT "100" SELECT-O-MATIC	CORRESPOND. SELECTION AT W-O-M
A1.....A1 A2.....B1		C1.....A2 C2.....B2		E1.....A3 E2.....B3		G1.....A4 G2.....B4		J1.....A5 J2.....B5	
A3.....C1 A4.....D1		C3.....C2 C4.....D2		E3.....C3 E4.....D3		G3.....C4 G4.....D4		J3.....C5 J4.....D5	
A5.....E1 A6.....F1		C5.....E2 C6.....F2		E5.....E3 E6.....F3		G5.....E4 G6.....F4		J5.....E5 J6.....F5	
A7.....G1 A8.....H1		C7.....G2 C8.....H2		E7.....G3 E8.....H3		G7.....G4 G8.....H4		J7.....G5 J8.....H5	
A9.....J1 A0.....K1		C9.....J2 C0.....K2		E9.....J3 E0.....K3		G9.....J4 G0.....K4		J9.....J5 J0.....K5	
B1.....L1 B2.....M1		D1.....L2 D2.....M2		F1.....L3 F2.....M3		H1.....L4 H2.....M4		K1.....L5 K2.....M5	
B3.....N1 B4.....P1		D3.....N2 D4.....P2		F3.....N3 F4.....P3		H3.....N4 H4.....P4		K3.....N5 K4.....P5	
B5.....Q1 B6.....R1		D5.....Q2 D6.....R2		F5.....Q3 F6.....R3		H5.....Q4 H6.....R4		K5.....Q5 K6.....R5	
B7.....S1 B8.....T1		D7.....S2 D8.....T2		F7.....S3 F8.....T3		H7.....S4 H8.....T4		K7.....S5 K8.....T5	
B9.....U1 B0.....V1		D9.....U2 D0.....V2		F9.....U3 F0.....V3		H9.....U4 H0.....V4		K9.....U5 K0.....V5	

Programing Cross-Reference Chart For "100" Selection Phonograph.

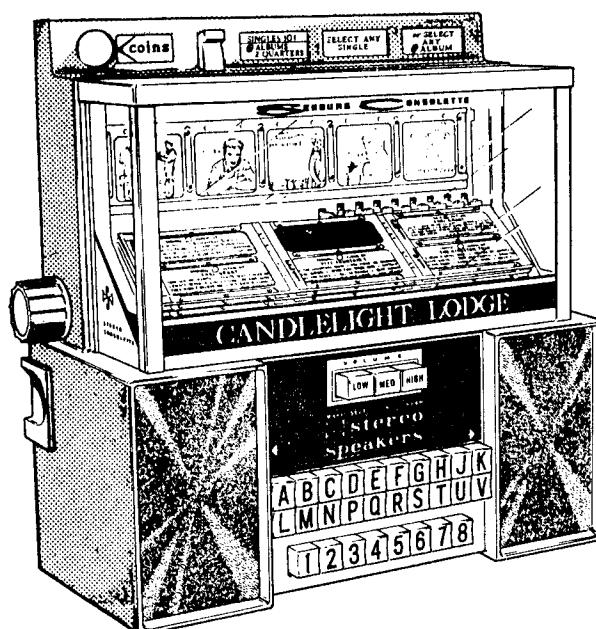
SERVICE MANUAL

SEEBURG

STEREO CONSOLETTA

TYPE

SC1



MANUAL NO. 55065

Printed In U.S.A.

THE SEEBURG SALES CORPORATION
Chicago 22 Illinois

SEEBURG

STEREO CONSOLETTA, Type SC1

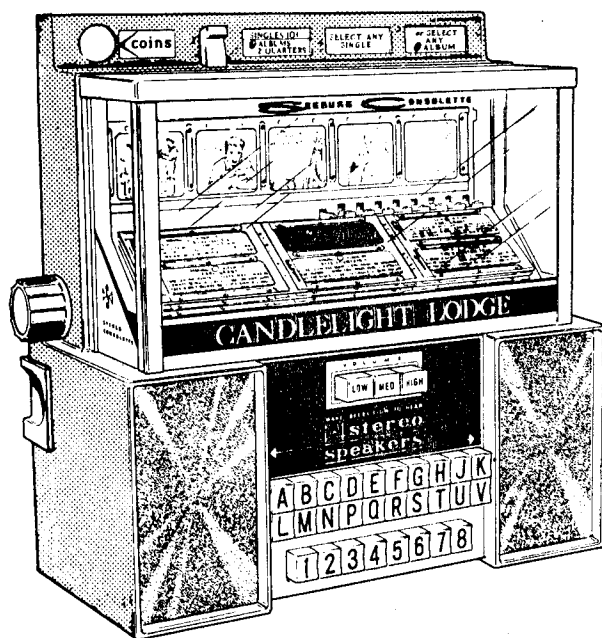


Figure 1. Exterior View.

The Seeburg Stereo Console, Type SC1, is a unit of the Seeburg wired remote control system designed for the remote choice of "Album" or "Single" play selections in the Select-O-Matic phonograph. The Console is equipped with a pair of speakers — Right Channel and Left Channel — which provide for localized listening to selections. Speaker volume may be controlled at the Console by push buttons marked LOW, MEDIUM and HIGH. When a selection is made at the Console, circuits are completed through the phonograph which permit listening to the program through the Console stereo speakers. The speakers continue operation until the phonograph mechanism comes to rest and are then silent until a selection is again made at the Console.

The Console operates in conjunction with the selection and audio systems in the LPC model phonograph. The Console is connected to the phonograph with a 10-conductor color-coded cable.

The pricing structure of the Stereo Console, Type SC1, is initially set up at the factory: one album for 2 quarters, three single plays for one quarter, or one play for a dime or two nickels.

The Console is equipped with a Type APU10-56, Album Pricing Unit, which provides extreme flexibility in setting up different pricing combinations as detailed on page 12122. The slug rejector is designed to accept quarters, dimes and nickels. Each coin operates a coin switch to establish credit for the selection of a play at the Console. At the same time, the credit unit in the Console transmits the total credits accepted to the Type IT1R-56, Income Totalizer in the phonograph which indicates total cash deposited.

When the phonograph main switch is turned on, credit lights in the Console go on immediately after minimum credit has been established, i.e., two nickels or a dime have been deposited. The credit lights stay on as long as there remain unspent credits.

The Console mechanism operates at 24 volts A.C., 60 cycles. Power is supplied by the RCSU4, Remote Control Stepper Unit, for up to 6 Stereo Consoles. If the installation requires more than 6 Consoles, an Auxiliary Power Supply, Type RPS6-56, must be used for each additional group of 6 Consoles.

The black and white wires of the interconnecting cable carry power to the lights and motor. The blue and black wires comprise a selection circuit to provide remote control of the selection system operation in the phonograph. The brown, red, and orange wires are for transmittal of coin deposit information to the income totalizer in the phonograph and their terminal board is covered and sealed as shown in Figure 2. The balance of wires in the cable are for audio and control of the stereo speakers in the Console.

Bar Bracket Assembly, Seeburg Part No. 500225, is available for rigidly mounting the Console on bars, counters and tables.

The Stereo Console has been thoroughly tested before leaving the factory. Unless damaged in shipment, no adjustments to the Console are necessary.

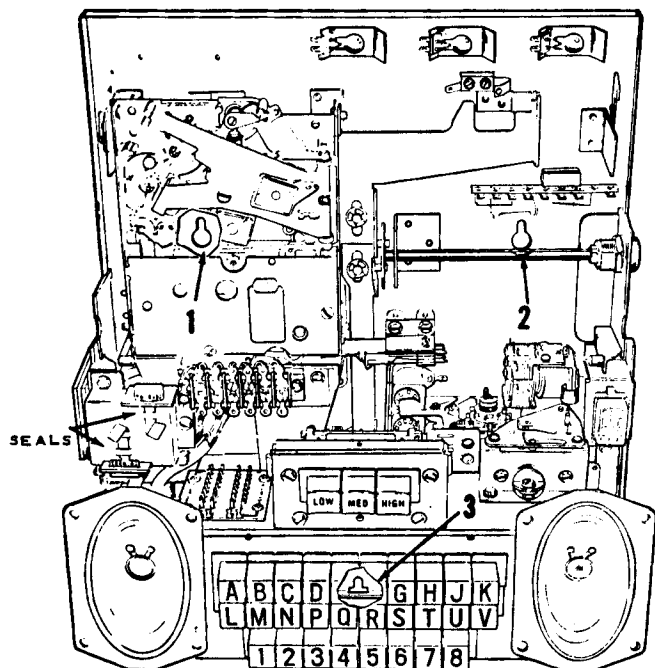


Figure 2. Interior View - Mounting and Seals.

STEREO CONSOLETTTE INSTALLATION

Mounting the Consolette

There are three holes in the back plate for mounting, identified 1, 2 and 3 in Figure 2. The two upper holes are slotted for fitting over screws already set in the wall at the proper points. The lower hole is for rigidly mounting the Consolette by means of a screw, after it has been hung in place.

If the mounting place on the wall is uneven, the Consolette mounting plate should be shimmed with cardboard or wood before tightening the three mounting screws. Tightening the mounting screws on an uneven wall will bend the mounting plate, which may seriously affect the operation of the Consolette and may cause the cover and lock to bind.

To gain access to the mounting holes in the Consolette's back plate, proceed as follows:

1. Unlock the Consolette and slide off the housing.
2. Remove the program holder by raising the two latches at the top of the program holder and lifting it up and out of the Consolette.
3. Remove the slug rejector by lifting it up and out.

Wiring the Consolette

Use 10-conductor interconnecting cable, Seeburg Part No. 507503, to connect the Consolette to the phonograph. This cable can be purchased in bulk and cut to the correct length for each installation. It is recommended that the

left hand speaker be disconnected and removed from the Consolette to prevent damage to the speaker during wiring. To wire the Consolette, proceed as follows: (See Figures 3 and 4)

1. Remove the cash box. Disconnect and remove left speaker. Remove the bottom hole cover and the cable channel. Remove the terminal board cover from the left hand terminal board.

NOTE: Later models have the above underlined items packaged in plastic bag inside of cash box. (See Page 12125 for Installation.)

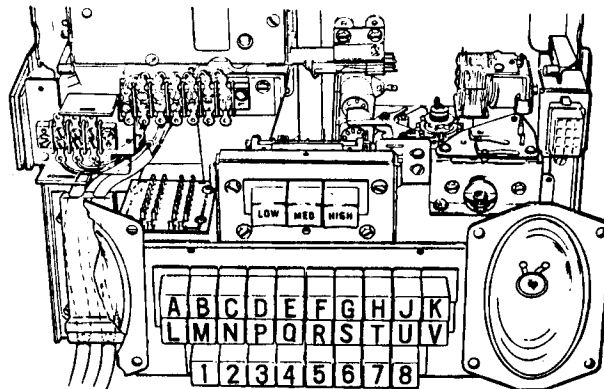


Figure 3. Terminal Boards - Wiring Connections.

2. Feed the interconnecting cable, Seeburg Part No. 507503, through the bottom hole cover and solder on spade lugs, Part No. 940592. Feed the brown, red and orange leads to the lower terminals on the left hand terminal board and carefully dress leads through slot in the mounting bracket so that leads will not be shorted when terminal board cover is installed.

CAUTION: Push spade lugs all the way on to screw to insure clearance when cover is installed.

Connect each lead to the color coded terminal that matches the color of the lead.

3. Feed the black, white, grey, violet, blue, green and yellow leads behind the right hand terminal board and up around the board to the top terminals. Limit wire dressing slack to avoid interference with the bottom of slug rejector to insure proper operation. Connect each lead to the color coded terminal that matches the color of the lead.

CAUTION: Color code matching must be strictly observed.

4. Replace the cover on the left hand terminal board; secure with two screws. Install one of the seals from the lower left side of the terminal board cover so that the serial number is right reading and fold the tab down at the score mark. Install the other seal from the upper right side of the terminal board cover and fold the tab up at the score mark. (See Figure 2).

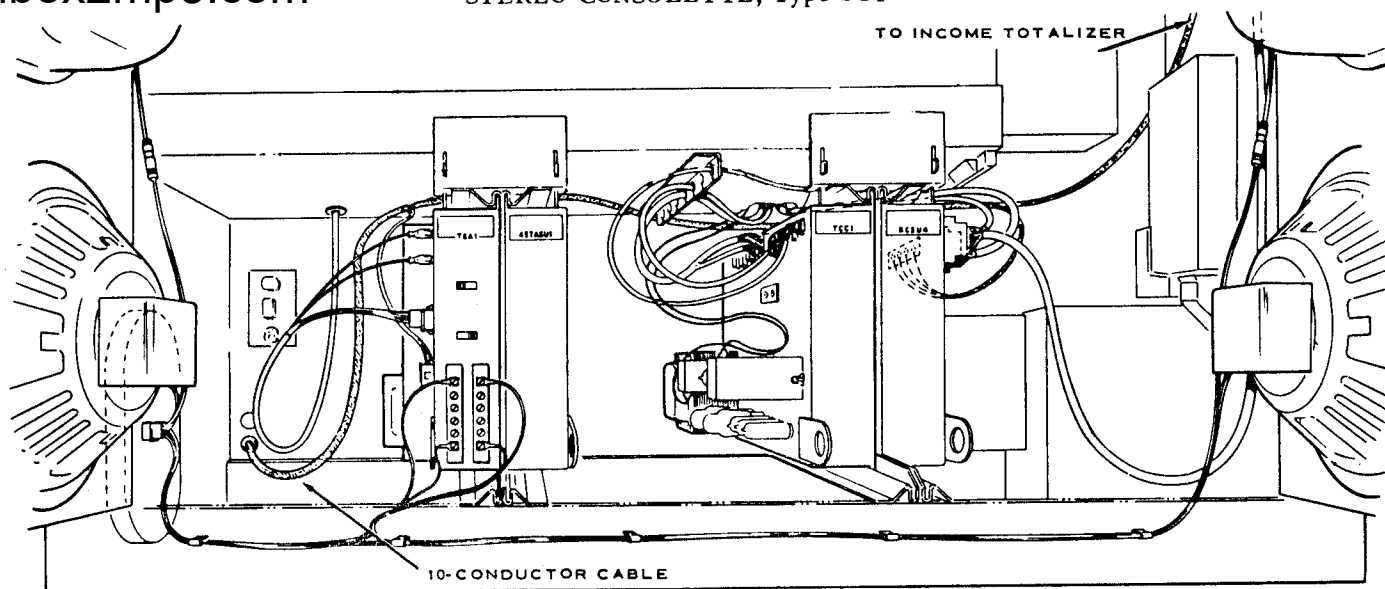


Figure 4. Phonograph Wiring Diagram – Cable Installation in Phonograph.

5. Install the cable channel over the cable and secure it with the top two screws. Position the bottom hole cover and secure both the bottom hole cover and the cable channel with the two lower screws.
6. Position the left hand speaker; secure with two screws from above the mounting bracket. Reconnect the left hand speaker by pushing-on its taper tabs. Note that tabs are different in size and must match connector on speaker to insure proper phasing.
7. Install the cash box, slug rejector and program holder.

Phonograph Wiring

Feed the 10-conductor cable through the hole (located in the lower left hand corner when facing the phonograph). Remove the Masonite plate covering the hole and feed the cable through the grommet. Dress the cable in the phonograph as shown in Figure 4.

Referring to system wiring diagram, Figure 6, connect the violet, blue, white and black leads of the 10-conductor cable to the matching color coded terminals on the terminal board in the Remote Control Stepper Unit, Type RCSU4. Solder one spade lug, Seeburg Part No. 940592 to each of these leads. Be sure the colors of the leads match the colors called for on the terminal board.

Connect the yellow, grey and green leads to the terminal block on the Transistorized Stereo Amplifier, Type TSA1. Strip the end of each lead,

slip it in the proper color coded hole and tighten the terminal screw to secure the lead as shown in Figures 5a and 5b.

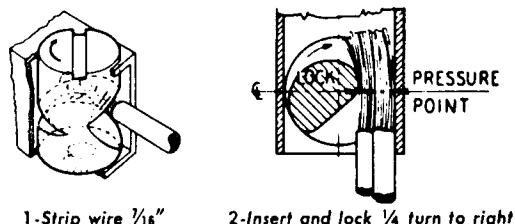


Figure 5a. Stripping and Locking Wire.

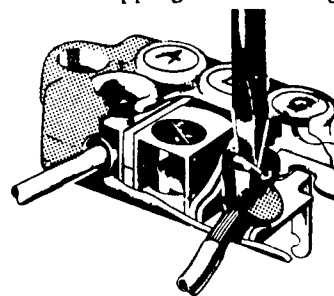


Figure 5b. Perspective Showing Application.

Connect the brown, red and orange leads to the terminal strip on the Income Totalizer, Type IT1R-56. Solder one spade lug, Part No. 940592, to each of these leads and connect them to the proper color coded terminals.

NOTE: The phonograph is capable of supplying power for six Stereo Consolettes. If the installation requires more than six Consolettes, an Auxiliary Power Supply, Type No. RPS6-56, must be added to the Remote Control Stepper Unit for each additional six Consolettes. Connect the remaining leads from these Consolettes in the same way as the first six Consolettes.

STEREO CONSOLETTTE, Type SC1

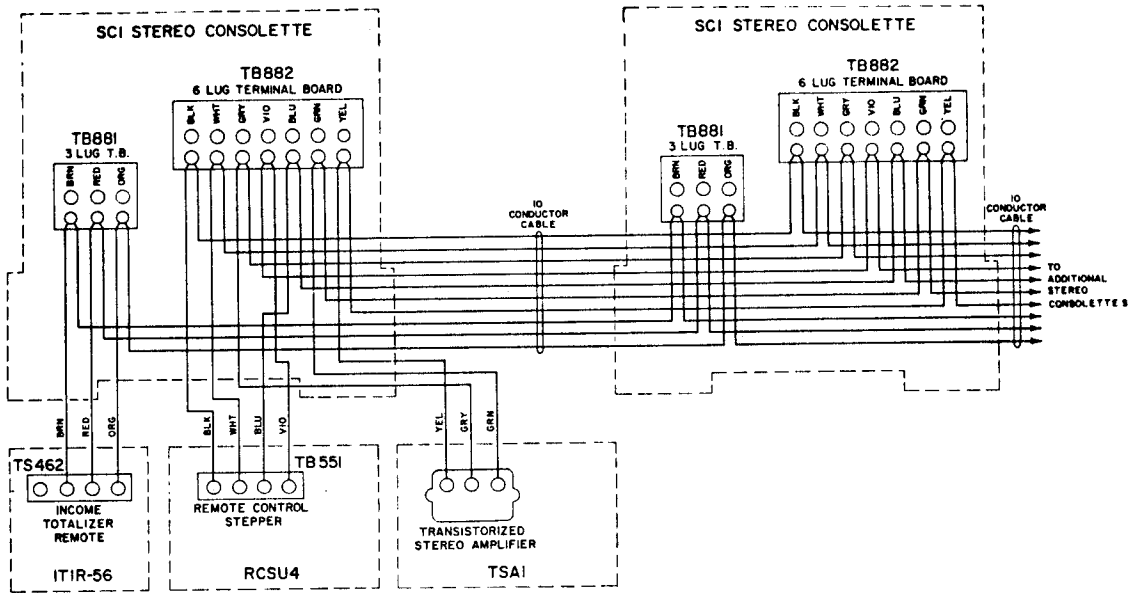


Figure 6. System Wiring Diagram.

Phonograph Wiring

(Used on LPC1R Model Phonographs above
Serial No. 112980 (approximately))

On later model phonographs, a 10-Station Cam
Action Terminal Block is used for connecting
the 10-conductor cable to the phonograph as
shown in Figure 7. Internal cabling from the
Terminal Block to the various electronic compo-
nents in the phonograph is factory installed.

Stripping and locking of 10-conductor cable
wire is the same as illustrated in Figures
5a and 5b. A system wiring diagram using the
10-Station Cam Action Terminal Block is shown
in Figure 8.

NOTE: For application of Cover Seal, refer to
section titled "Stereo Consolette Installation";
Page 12118, step 4.

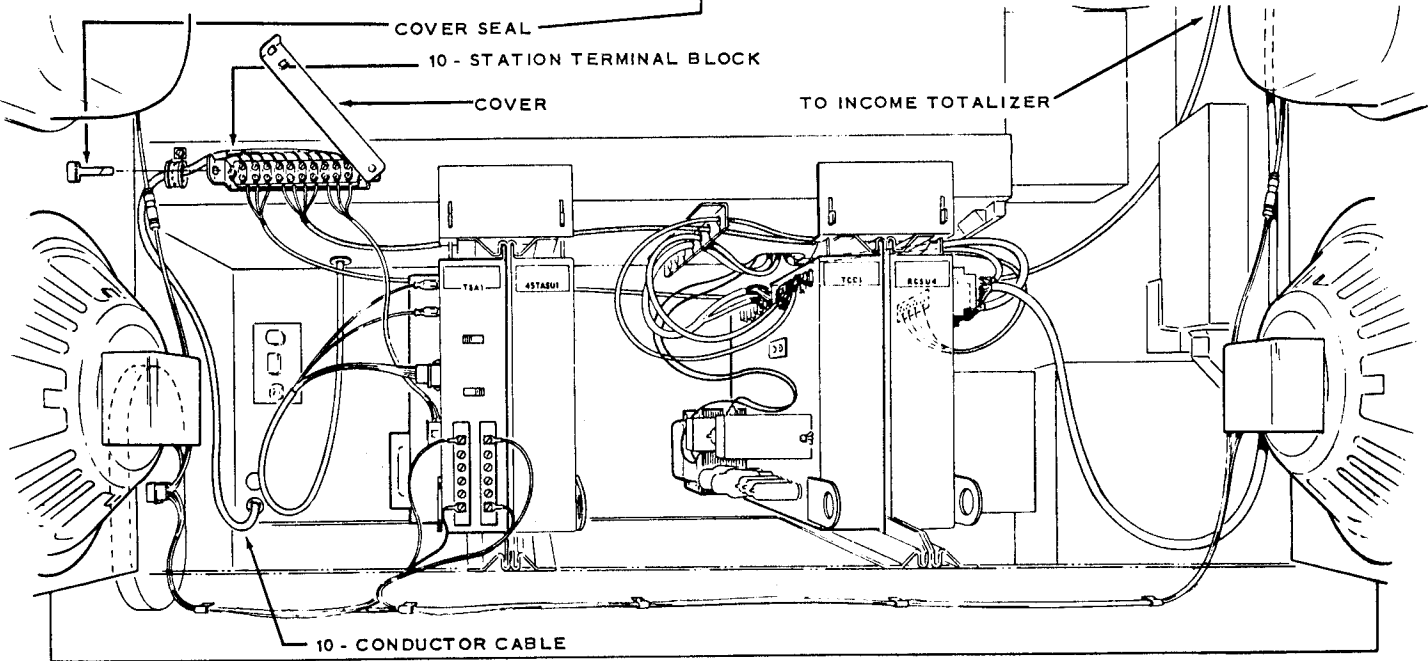


Figure 7. Phonograph Wiring Diagram - Cable Installation in Phonograph.

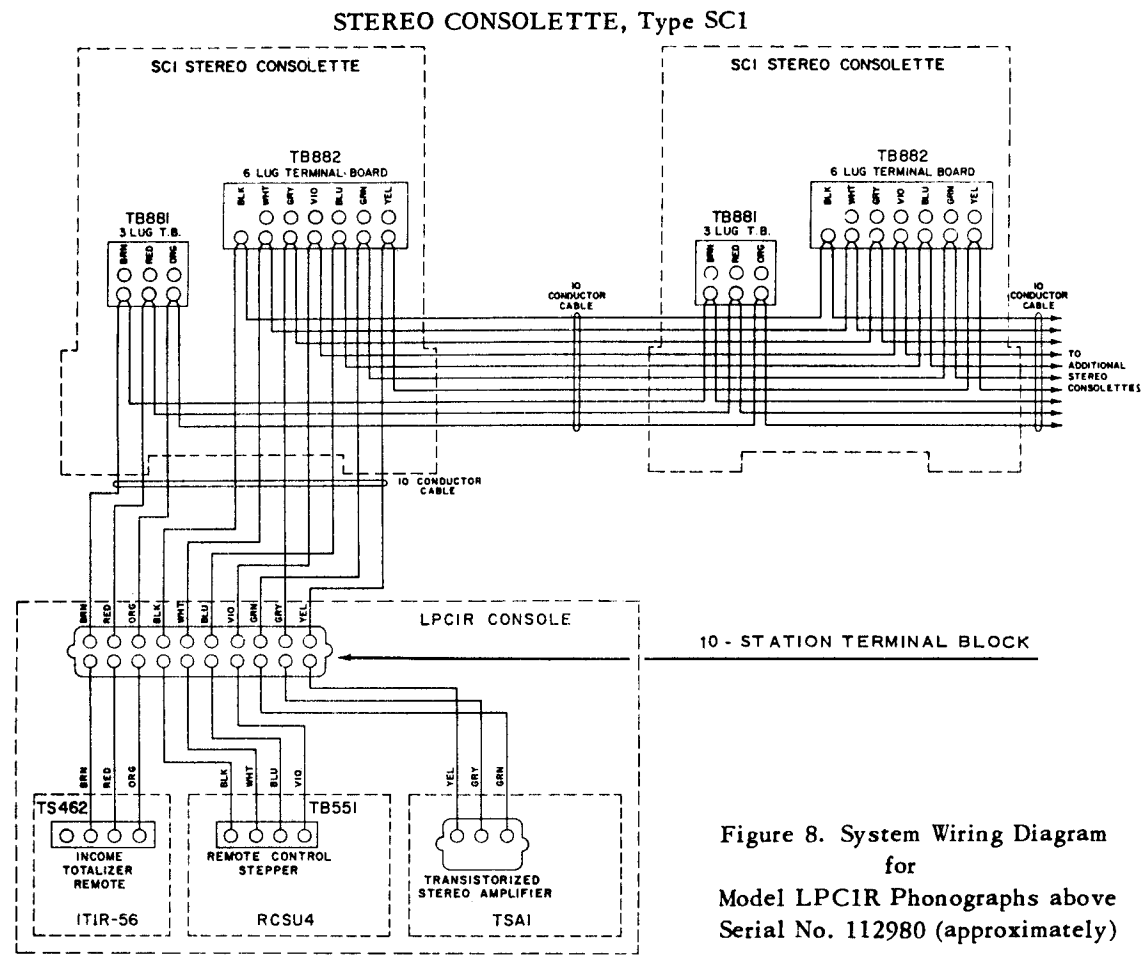


Figure 8. System Wiring Diagram
for
Model LPC1R Phonographs above
Serial No. 112980 (approximately)

PROGRAM HOLDER INSTALLATION

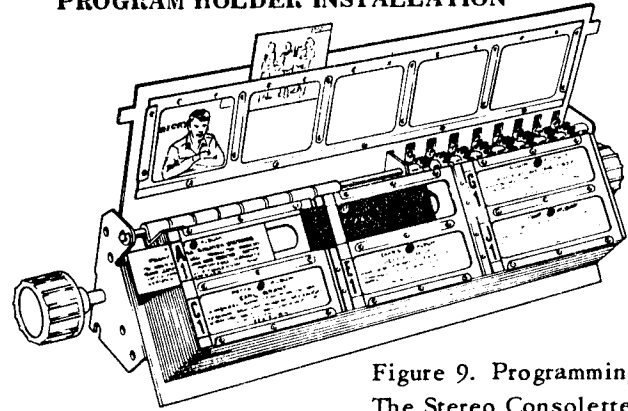


Figure 9. Programming
The Stereo Consolette.

Lithographed LP miniature facsimiles of the album record jacket are supplied for the Consolette in the Albums of the Month Record Package. Unlatch and remove the program holder from Consolette. Slide five album facsimiles in the upper plate of the program holder from the top. Slide five album facsimiles in the lower plate of the program holder from the bottom.

Slide five title strips in each side of the eight program leaves, slide each strip in from the left side of the program leaf. Be sure the "letter-number" codes on each title in the Consolette

match the "letter-number" code for that title in the phonograph. Slide the album pricing card or single pricing card in the upper center slot on every program leaf, *Figure 9*.

Install the program holder in the Consolette and secure firmly with two latches.

**PERSONALIZED LOCATION DISPLAY
INSTALLATION**

The Stereo Consolette features a display panel which may be used to identify the location. The display holder is secured inside the housing by two spring clips which hold it against the glass. Lift the display holder upward to remove. Hold spring clips open if necessary (*see Figure 10*).

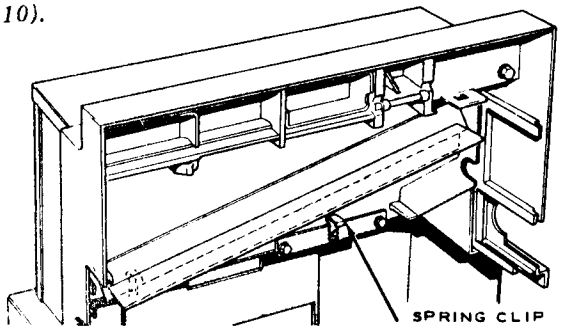


Figure 10. Removing Display Holder.

STEREO CONSOLETTTE, Type SC1

Letters, numbers and spacers, etc. required to make up the sign are available from your Seeburg distributor under Part No. 509088, Type RACK-1, Remote Alphabet Case Kit.

Slide letters into position, making certain that all characters are close together, on the same plane and that the completed display is centered (see Figure 11).

When the display holder is loaded, press it into the spring clips inside the housing. Install the housing on the Consolette and secure with lock.

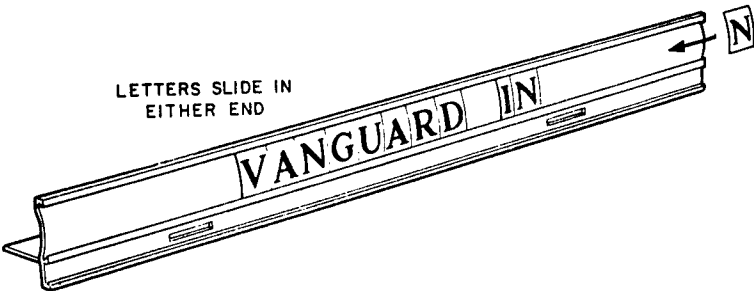


Figure 11. Letter Installation.

PROGRAMMING THE STEREO CONSOLETTTE

When the Consolette is shipped, the pricing mechanism is permanently wired for "Albums" in group 1 and 2. "Singles" are set up in groups 3 through 8. Albums are priced to play for 2 quarters. Single records are priced to play for ten cents or three for a quarter.

In order to change the album grouping or to provide additional groups of albums, shift the two (2) leads which correspond to the particular group to be changed, from the "Singles" terminals to the "Albums" terminals, or vice versa to change from "Albums" to "Singles" grouping as shown in Figure 12. It is recommended that "Albums" grouping changes be made in numerical order. Number Strip Cards in the program holder should be changed at the time when "Album" grouping is changed. The cards are available from your Seeburg Distributor and are listed below.

PART NO.	ALBUM GROUPING
507701	NUMBER STRIP CARD A3
507702	NUMBER STRIP CARD A4
507703	NUMBER STRIP CARD A5
507704	NUMBER STRIP CARD A6
507705	NUMBER STRIP CARD A7
507706	NUMBER STRIP CARD A8

When pricing combinations are to be modified, change the Pricing Window in the top of the Consolette housing and change the Pricing Cards in the program holders.

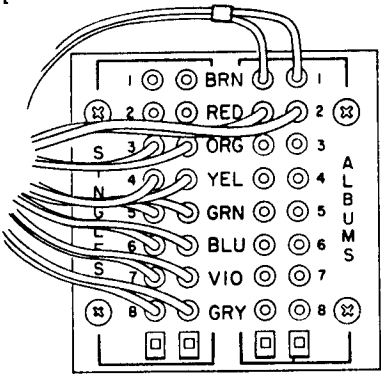


Figure 12. Pricing Terminal Board.

Number	PRICING WINDOW PART NUMBER	SINGLE PRICING CARD PART NUMBER	ALBUM PRICING CARD PART NUMBER
1	*507457	*507508	*507506
2	507660	507508	507686
3	507457	507683	507506
4	507660	507683	507686
5	507661	507684	507686
6	507457	507685	507506
7	507660	507685	507686

* SUPPLIED WITH STEREO CONSOLETTTE.

Figure 13. Pricing Windows and Cards.

The table, Figure 13, lists pricing windows and pricing cards which correspond to pricing windows for seven (7) different pricing combinations numbered (1) through (7) and listed in Figure 18, Album Pricing Unit Adjustment Chart. Items identified by an asterisk are supplied with the Consolette. All others are available from your Seeburg distributor.

For complete Album Programming of the Stereo Consolette, refer to Album Programming Instruction Sheet, Part No. 507715. It further illustrates and details requirements involving the adjustments of the APU10 and associated application of pricing cards and windows.

Refer to the phonograph instruction manual for the procedure for making corresponding pricing changes in the phonograph. Be sure the phonograph and each Consolette are set to play the same selection with the choice of the same "letter-number" group.

Pricing Window Kit (Quarter Only), Part No. 509150, makes it possible to set up the slug rejector for quarter play only. Nickels and dimes deposited are automatically returned. A new Pricing Window and "Singles" Pricing Card is included.

STEREO CONSOLETTA. Type SC1
PRICING CHANGE ADJUSTMENTS

The Album Pricing Unit, Type APU10-56 is designed for use in the Stereo Consolette. It exemplifies high versatility in credit units and is capable of extreme flexibility in setting up pricing combinations and Album Programming. A chart *Figure 18*, condenses information regarding the setup requirements for seven (7) popular pricing combinations.

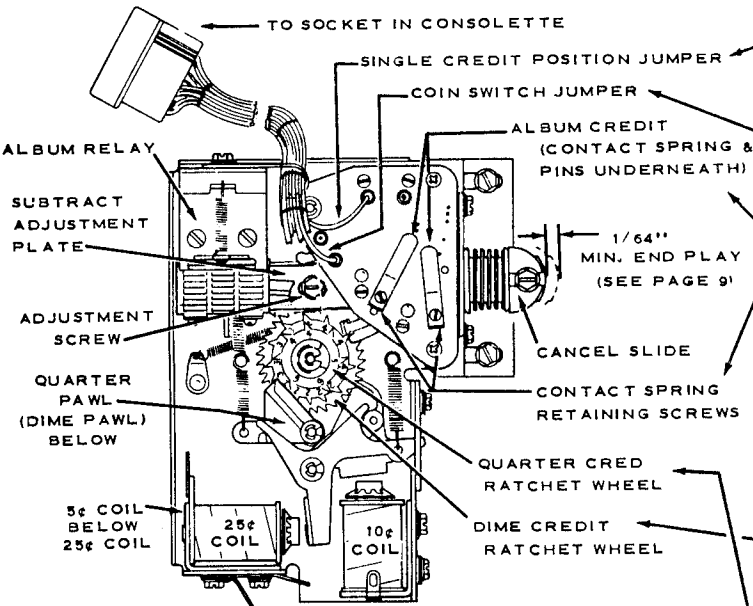


Figure 14. Album Pricing Unit, APU10-56

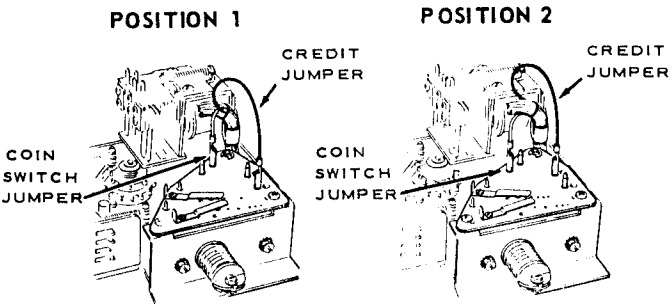


Figure 15. Coin Switch and Credit Jumpers.

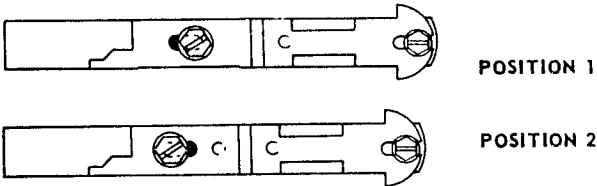


Figure 16. Subtract Plate Positions.

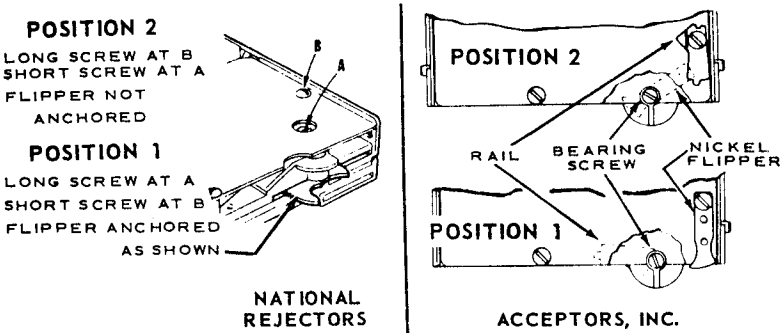


Figure 17. Slug Rejector Adjustment.

Adjusting the Pricing Unit

1. Connect the Single Credit Position Jumper (grey) as required, see *Figure 15*.
2. Connect the Coin Switch Jumper (red-white) as required, see *Figure 15*.
3. Remove the contact spring retaining screws and place the contact pins in their required positions. Replace contact springs and tighten in position.
4. Adjust the Credit Ratchet Wheels to the required settings as follows:
 - a. Turn the ratchet wheel assembly to the maximum clockwise position. This places all three ratchet wheels in zero credit position
 - b. Lift and turn the 10¢ ratchet wheel (the middle wheel) to the number shown in the Pricing Chart (*Figure 18*). The peak of the tooth on the 10¢ add pawl should be in line with the peak of the first number in the group of credit per coin indicating numbers (when counting clockwise) on the ratchet wheel
 - c. With the 10¢ ratchet wheel adjusted, lift and turn the 25¢ ratchet wheel to the number shown in the pricing chart. The peak of the tooth on the 25¢ add pawl should be in line with the peak of the first number in the group of credit per coin indicating numbers (when counting clockwise) on the ratchet wheel.

5. To adjust the Subtract Adjustment Plate, first loose the adjustment screw. The screw can be reached when the Cancel Slide is pushed in. Adjust the plate to Position 1 or Position 2 as required, see *Figure 16*. Tighten screw.

Adjusting the Slug Rejector

Remove the slug rejector from the Consolette and set the flipper to Position 1 or Position 2 as required. See *Figure 17*.

STEREO CONSOLETTTE, Type SC1

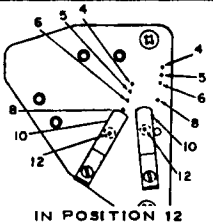
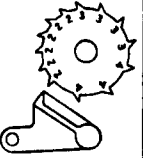

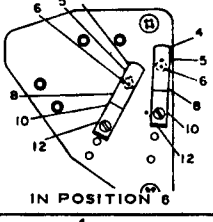
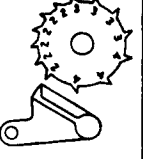
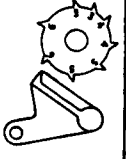
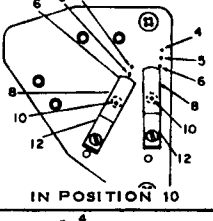
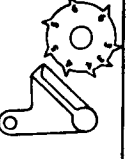
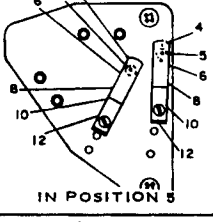
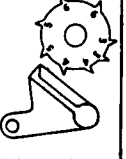
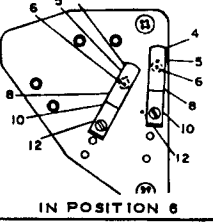
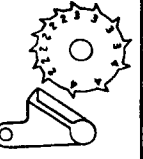
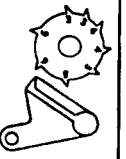
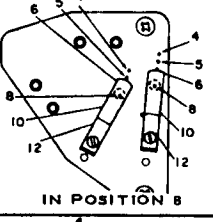
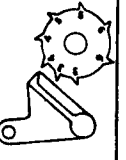
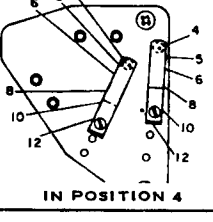

NUMBERS	PRICING WINDOW, SINGLE PRICING & ALBUM PRICING INFORMATION	ALBUM CREDIT CONTACT PIN POSITIONS	CREDIT RATCHET WHEEL POSITIONS		SUBTRACT ADJUSTMENT PLATE POSITION	SINGLE CREDIT JUMPER POSITION	COIN SWITCH JUMPER POSITION	SLUG REJECTOR
			DIMES	QUARTERS				
1	singles 10¢ per selection QUARTER 3 selections albums: 2 QUARTERS	 IN POSITION 12	 POSITION 2	 POSITION 6	POSITION 2	POSITION 2	POSITION 2	POSITION 1
2	singles: 10¢ per selection QUARTER 3 selections albums: 1 QUARTER	 IN POSITION 6	 POSITION 2	 POSITION 6	POSITION 2	POSITION 2	POSITION 2	POSITION 1
3	singles: 10¢ per selection QUARTER 5 selections albums: 2 QUARTERS	 IN POSITION 10	NOT USED	 POSITION 5	POSITION 1	POSITION 1	POSITION 1	POSITION 2
4	singles: 10¢ per selection QUARTER 5 selections albums: 1 QUARTER	 IN POSITION 5	NOT USED	 POSITION 5	POSITION 1	POSITION 1	POSITION 1	POSITION 2
5	singles: 5¢ per selection QUARTER 6 selections albums: 1 QUARTER	 IN POSITION 6	 POSITION 2	 POSITION 6	POSITION 1	POSITION 1	POSITION 2	POSITION 1
6	singles: 10¢ per selection QUARTER 4 selections albums: 2 QUARTERS	 IN POSITION 8	NOT USED	 POSITION 4	POSITION 1	POSITION 1	POSITION 1	POSITION 2
7	singles: 10¢ per selection QUARTER 4 selections albums: 1 QUARTER	 IN POSITION 4	NOT USED	 POSITION 4	POSITION 1	POSITION 1	POSITION 1	POSITION 2

Figure 18. Album Pricing Unit Adjustment Chart.

PHONOGRAPH AUDIO POWER CONSIDERATION

In locations where the Stereo Consolette has been installed close to the phonograph, adjustments should be made at the amplifier to reduce phonograph speaker power. Excessive output from the phonograph speakers will override and negate the sound emanating from the stereo speakers in the Consolette. As low as a 2-

watt phonograph speaker setting may be required, however, the total amplifier load should not be less than 6 watts.

Refer to the LPC Installation Manual, Part No. 487390 for typical system installation using Stereo Consolettes. Note that total amplifier loading must not exceed 25 watts per channel.

INSTALLATION OF TERMINAL BOARD COVER, CABLE CHANNEL & BOTTOM HOLE COVER

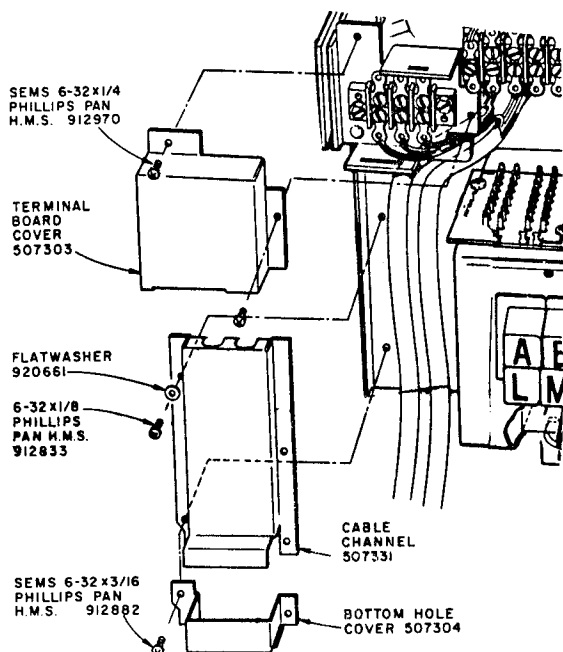


Figure 19.

The above illustration shows the placement and installation of the Terminal Board Cover, Cable Channel and Bottom Hole Cover as required in the Stereo Consolette, Type SC1, and detailed in the Manual Section titled "Wiring the Consolette", paragraphs 1 through 5.

REMOVAL & INSTALLATION OF APU10

TO REMOVE APU10

1. Rotate Contact Wiper Arm on Motor Assembly to position shown in Fig. 1.
2. Disconnect the 12 contact plug.
3. Remove mounting screws. (Fig. 4).
4. Pull unit forward until free of locating pins on SC1 backplate, lift on right side turning right side outward while lifting.
CAUTION do not touch Coin Switch!

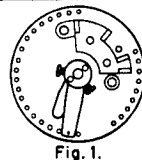


Fig. 1.

TO INSTALL APU10

1. Rotate Contact Wiper Arm to position shown in Fig. 1.
2. Pull Return Lever on Motor Assembly away from SC1 Back Plate. (Fig. 3).
3. Reverse step 4 removal procedure. Be sure Pawl Pin on Cancel Slide is between Return Lever and SC1 Back Plate. (Fig. 3).
4. Start the mounting screws. Make sure to use flatwashers if they were used previously.
5. Rotate Contact Wiper Arm to Credit Position. (Fig. 2).
6. To get proper Cancel Slide "end play" clearance of $\frac{1}{32} \pm \frac{1}{64}$ slide APU10 backward or forward. This is IMPORTANT for unit to subtract properly. (Fig. 4). SEE NOTE BELOW.
7. Tighten screws, recheck "end play", and insert plug.

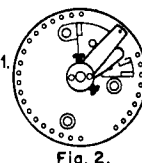


Fig. 2.

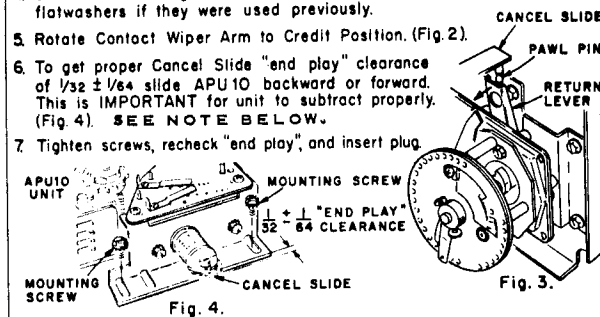


Fig. 3.

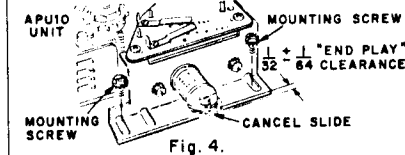
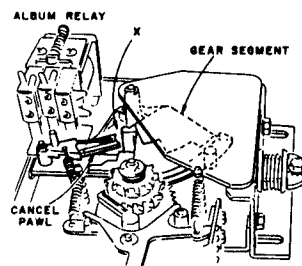


Fig. 4.



NOTE: TO AVOID BINDS, CHECK ADJUSTMENT AND ASSURE CORRECT SUBTRACT FUNCTION. ESTABLISH THIRTEEN (13) CREDITS AND, WITH ALBUM RELAY IN ENERGIZED POSITION, CHECK FOR CLEARANCE BETWEEN CANCEL PAWL AND GEAR SEGMENT AT POINT "X"; SEE ILLUSTRATION ABOVE.

MAINTENANCE AND SERVICE

CLEANING

The slug rejector should be kept free of dirt and dust. If a rejector has been working successfully and becomes erratic or fails to work at all, the trouble can generally be attributed to dirt or to some stoppage in the coin track. Cleaning only should correct the trouble.

Switch and relay contacts should be cleaned with a contact burnisher. Do not use a file, sandpaper, or emery cloth.

The contacts on the selector disc should be cleaned with a cloth saturated with carbon-tetrachloride. Do not use emery cloth or sandpaper. The contacts are silver plated brass. To sand them or clean them with an abrasive will remove the plating and expose the brass. The brass does not provide good contact and will require more frequent service as well as cause erratic operation. The contacts should not be lubricated.

The contact point on the contact arm should be cleaned with carbon-tet'. It is not necessary to remove it from the shaft. A piece of cloth saturated with carbon-tet' can be drawn under the contact point.

The selector switches should be kept free of dirt and dust by blowing out. Do not use roach powders of any kind. Most of the powders are highly corrosive and will soon cause failure of the switches. If powders have been used, the switches should be thoroughly cleaned.

LUBRICATION

The motor cams should be lubricated with Aero Lubriplate.

A drop or two of Seeburg No. 53014 Special Purpose Oil on the Motor Shaft bearings will reduce wear and friction to a minimum.

The scavenger linkage of the slug rejector can be sparingly lubricated with No. 105 Lubriplate at wear and friction points, but care should be taken so that it does not get into the coin track. Oil should not be used. The coin path of the rejector may be dusted with Motor Mica.

MOTOR

The motor is designed to operate the Consollette through a complete cycle in a little more

than 2 seconds. If the motor is slow, the current impulses to the step relay (in the Remote Control Stepper Unit) will be slow and cause erratic operation of the step switch assembly. The motor can best be checked for speed by allowing it to operate steadily and counting the turns per minute of the contact arm. Normal speed is 20 revolutions per minute. Acceptable speed limits are 19.5 to 21 rpm. If the motor is slow, check for binding or excessive friction. If the motor runs slow when there are no binds, it will have to be replaced.

COIN SWITCHES

If operation of the coin switches is erratic, the slug rejector must first be removed and then the coin switch contacts carefully cleaned with carbon-tetrachloride using a No. 2 camel hair brush. Burnish the contacts by inserting a burnishing tool between them. *Never use a file or sandpaper for contact cleaning.*

Adjustment of the coin switches is shown in Figure 20 and paragraphs A to D below.

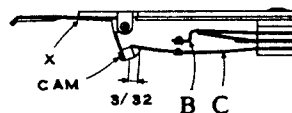


Figure 20.

- A. Adjust the coin levers so they are parallel with the bottom edge of the rejector when bearing against switch bracket at "X".
- B. Adjust short blade and bracer for 1/32" to 3/64" contact gap (all switches) with short blade bearing against tip of bracer approximately 1 to 3 grams (measured at contact point).
- C. Adjust the long blade so it bears against the cam, as measured at the switch contact.
 1. Nickel switch (front) - 8 to 10 grams
 2. Dime switch (middle) - 6 to 8 grams
 3. Quarter switch (back) - 8 to 10 grams
- D. Adjust the switch actuating cams to be tilted as shown and overlap the switch blade approximately 3/32".

CONTACT WIPER ARM POSITION

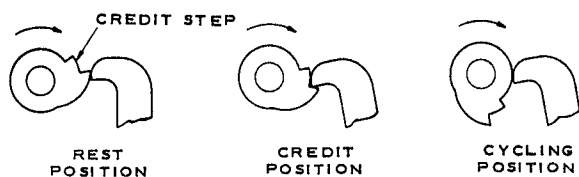


Figure 21. Cam Positions.

1. Turn the motor manually until the latch bar lever drops to the credit step of the cam and then reverse the direction until the point of the lever is against the vertical part of the cam as shown in Figure 21 above.

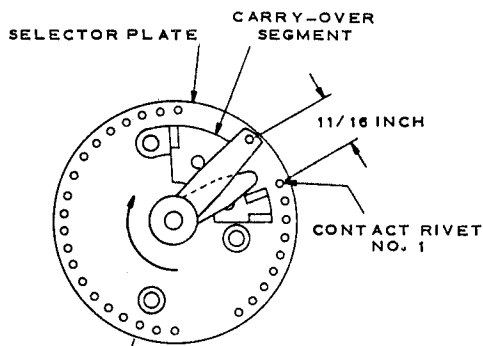


Figure 22. Wiper Arm Radial Adjustment.

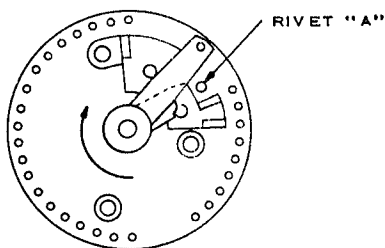


Figure 23. Rivet "A" Position.

2. Set the contact arm on the shaft so that center of outermost contact of the arm is approximately $11/16$ " away from the center of the first contact on selector plate, see Figure 22.

Innermost contact of wiper arm should be contacting rivet "A" on selector plate, see Figure 23.

3. Inner blade of the wiper arm is set so that it is approximately $3/32$ " from the surface of the selector plate as shown in Figure 24. Force "F" of outer contact must be from $1\frac{3}{4}$ to $2\frac{3}{4}$ ounces.

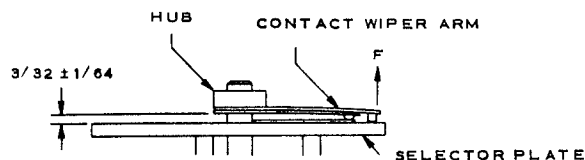


Figure 24. Wiper Arm Lateral Adjustment.

LATCH BAR ADJUSTMENT

The selection switches have three conditions of operation corresponding to the 3-positions of the cam shown in Figure 21 and are operated by the cam through mechanical linkage. In the stand-by positions the switch latch bars are held against the pressure of the latch bar spring so the selector buttons are free to move in and out and will not stay in the pressed-in position. In the credit position the bars are released to a position which permits a selection switch, when pressed, to latch in the operated position but, if another switch is operated, the first will be released. In the cycling position the latch bars are fully released so the selection switches are locked in either the normal or pressed positions.

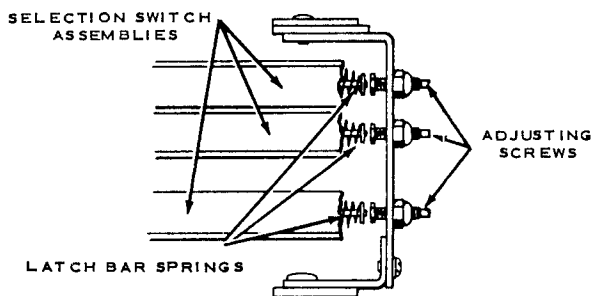
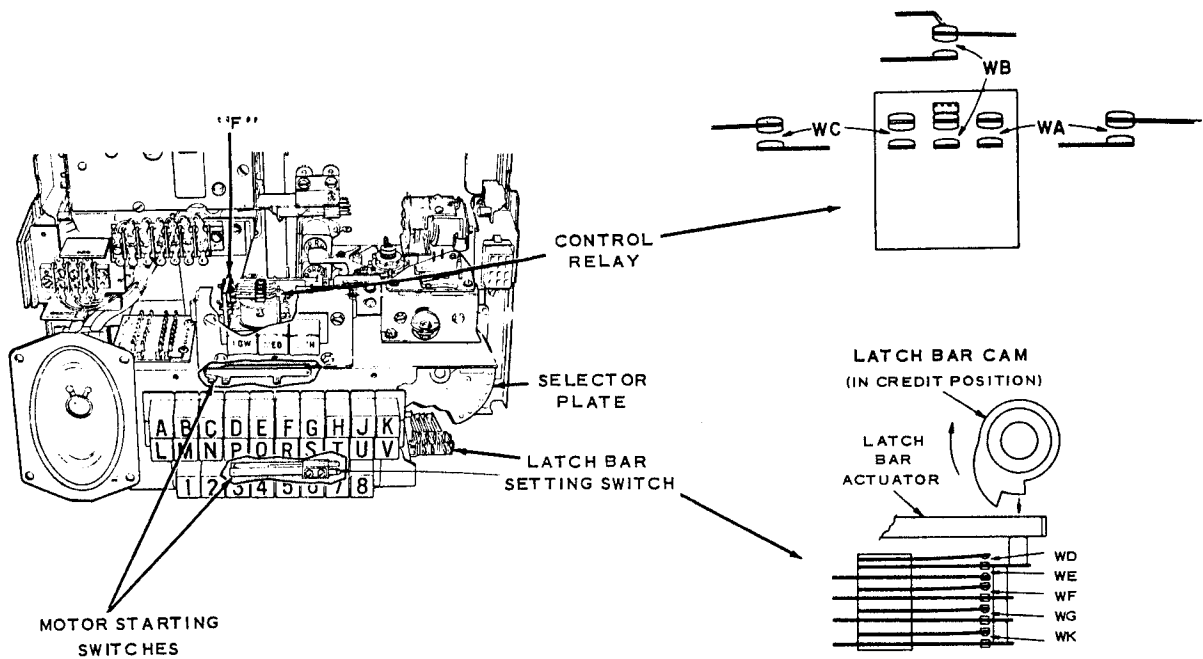


Figure 25. Latch Bar Adjusting Screws.

The adjustment for the latch bar operation is made with the screws - one for each selection switch assembly - at the right of the assemblies (shown in Figure 25) in the following manner:

1. Place the cam in the Credit Position (Figure 21).
2. Turn the adjusting screws until the selection switch shafts strike the latch bars, but do not latch in the pressed-in position.
3. Back out the screws $\frac{1}{2}$ to $\frac{3}{4}$ turn.
4. Check for positive locking of the switches when the cam is in Cycling "position".
5. Check for full release and free in-and-out movement of the switches when the cam is in stand-by position.

CONTACT OPERATION & GAP ADJUSTMENT



CONTACT	STAND-BY	CREDIT POSITION	CYCLING (CREDIT-CANCEL)
LATCH BAR SETTING SWITCH			
WD	Open 1/16	Open - Min. Gap 1/64	* Closed (Minimum force 1 oz.)
WE	Closed (Min. force 1 oz.)	Open - Min. Gap 1/64	† Open
WF	Open 1/16	Open - Min. Gap 1/32	* Closed (Minimum force 1 oz.)
WG	Open 1/16	Open - 1/32	* Closed (Minimum force 1 oz.)
WK	Open 1/16	Open - 1/32	* Closed (Minimum force 1 oz.)
* Contacts "WD", "WF", "WG", and "WK" close before innermost contact of wiper arm leaves carryover segment on selector plate assembly. (Figure 22)			
† Contacts "WD" remain closed until after innermost contact of wiper arm again reaches carryover segment on selector plate assembly. (Figure 22)			
MOTOR STARTING SWITCHES			
WH	The Motor Starting Switches should make contact at the bottom of the Selection Button Stroke. They should make contact as close as possible to the bottom and still maintain contact when any button on the Switch is latched in.		
WJ			
CONTROL RELAY			
WA	All Contacts Normally Open – Minimum Gap 1/64 – Minimum Force 1 oz. Pressure required to Start From Rest Position Measured at "F" is 2 oz. Coil Resistance is 33 Ohms ±10%.		
WB			
WC			

STEREO CONSOLETTTE, Type SC1

ALBUM PRICING UNIT, Type APU10-56

- ADD ADJUSTMENTS -

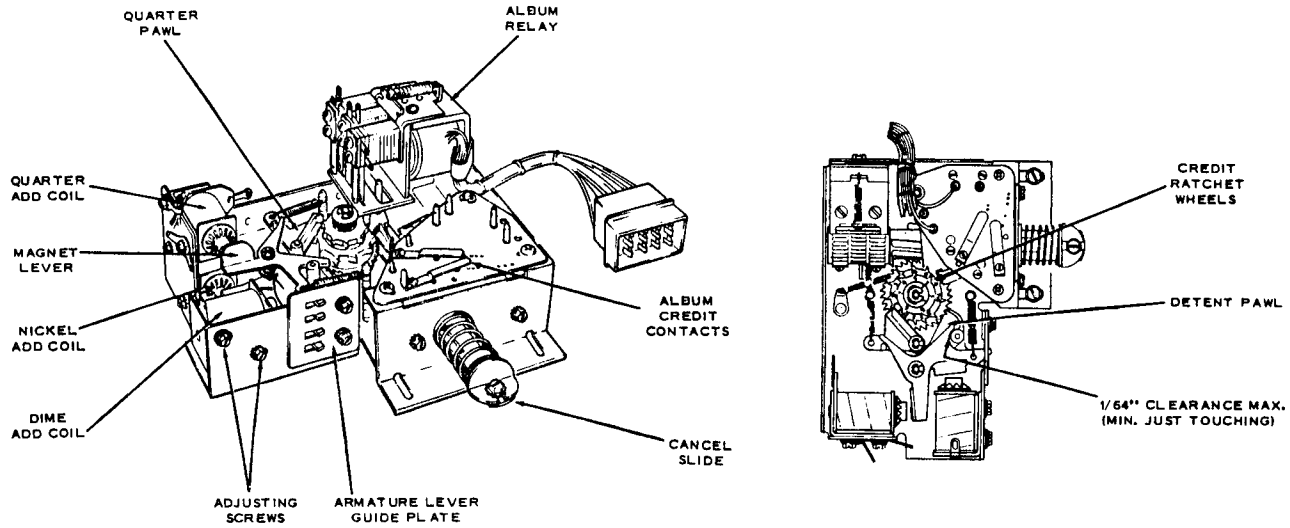
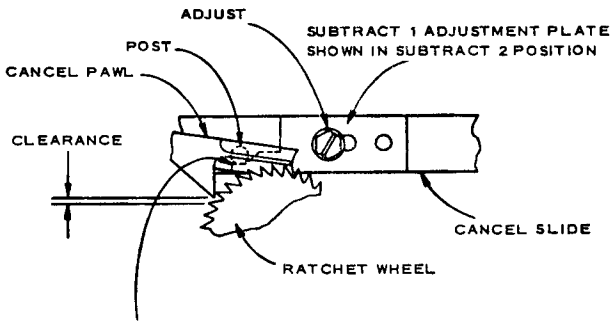


Figure 26. Component Identification.

1. Make certain that Ratchet Wheels are aligned with one another for 10¢ Add 2 and 25¢ Add 6.
2. Adjust all add coils so that the Detent Pawl is lifted out and clears periphery of Nickel Ratchet Wheel by 1/32 inch when Magnet Lever is seated on pole piece.
3. Adjust Armature Lever Guide Plate so that 1/64" clearance maximum (minimum just touching) exists between post on detent lever and all three (3) Magnet Levers. This is with cancel slide in Stand-by (depressed) position.
4. The three (3) Detent Pawls must each clear the teeth on their associated Ratchet Wheel. Re-adjust Armature Lever as required.

- SUBTRACT ADJUSTMENTS -



POST ON CANCEL PAWL MUST BE BEARING SLIGHTLY AGAINST THIS EDGE OF ADJUSTMENT PLATE AS PAWL ENTERS BRACKET, PART NO. 451565, AS REQUIRED TO MEET THIS REQUIREMENT.

Figure 27. Cancel Pawl Entry.

1. Adjust Subtract 1 Adjustment Plate for Subtract 2 and check entry of Cancel Pawl into ratchet teeth.
2. Establish eight (8) credits on Ratchet Wheel and adjust Slide Stop Bracket to allow return stroke of Cancel Slide to return Ratchet Wheel two (2) teeth.

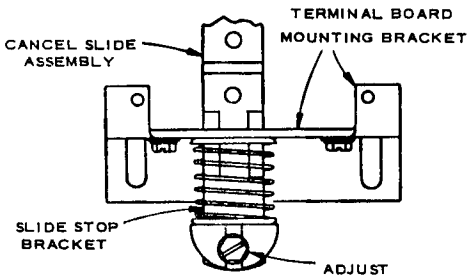


Figure 28. Slide Stop Bracket Adjustment.

3. Re-adjust Slide Stop Bracket slightly for over-travel as shown in Figure 29.

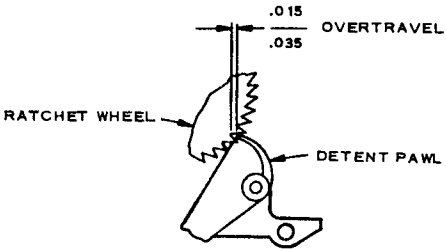


Figure 29. Over-travel Adjustment.

ALBUM PRICING UNIT, Type APU10-56

- SUBTRACT ADJUSTMENTS CONTINUED -

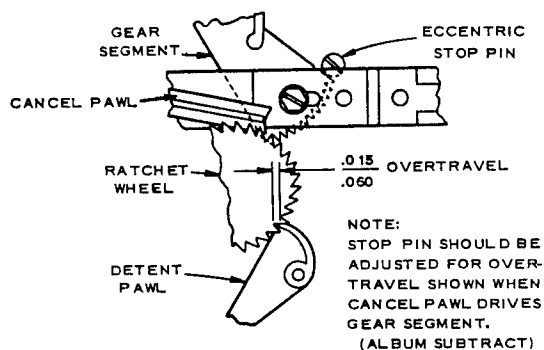


Figure 30. Album Subtract Adjustment.

4. Position of Album Relay Bracket must be such that when relay is energized, Cancel Pawl (Figure 30) is in position to pick up Gear Segment to cancel all credits.

NOTE:

IF RELAY BRACKET IS RE-ADJUSTED, RECHECK REQUIREMENTS OF PARAGRAPH NO. 1.

- CONTACT ADJUSTMENTS -

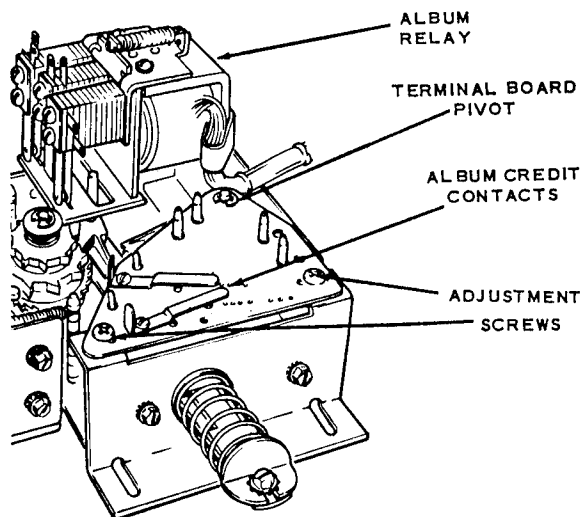
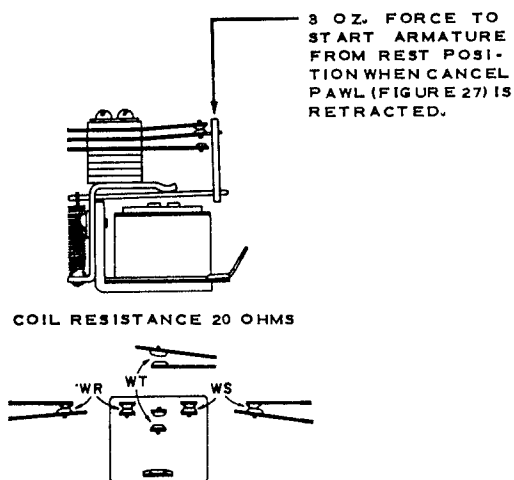


Figure 31. Component Identification.

(Refer to APU10-56 schematic on Page 12131.)

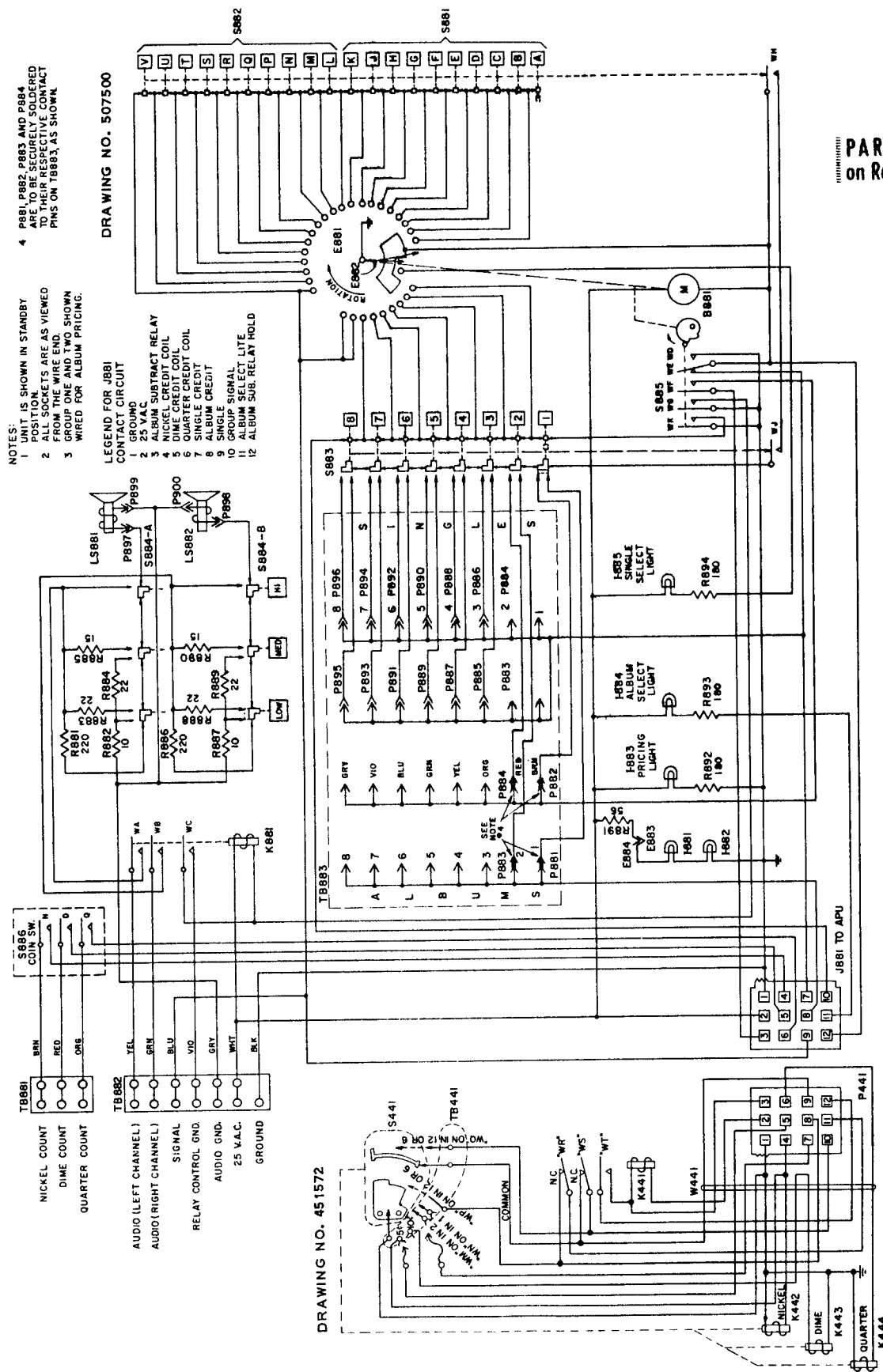
1. Contact pins and springs (Contact "WP" and "WQ") should be "ON in 12" position. Pins should bear against contact segment and plate with 1 oz. pressure.
2. Contact springs (2 commons and "WM" and "WN") must bear against segment on plate with 1 oz. pressure.
3. Adjust by loosening adjustment screws (Figure 31) and positioning terminal board to meet the following requirements:
 - Contact "WN" - On in 1 credit
 - Contact "WM" - On in 2 credits
(continuity to P441 Pin 1)
 - Contact "WP" - On in 12 credits
 - Contact "WQ" - On in 12 credits
(continuity to P441 Pin 9)

- ALBUM RELAY ADJUSTMENTS -



Contacts "WR" and "WS" normally closed with 1 oz. minimum pressure. Contact "WT" normally open with 1/64 inch minimum gap. When relay is energized, contact "WT" closes with 1 oz. minimum pressure and "WR" and "WS" open with 1/64 inch minimum gap.

STEREO CONSOLETTTE, Type SC1



PARTS LIST
on Reverse Side

Parts List for Stereo Console, Type SC1

Item	Part No.	Description	Item	Part No.	Description
B881	507311	Motor Assembly	R881	81234	220 Ohm 2 W. $\pm 10\%$
E881	507347	Selector Plate Assembly	R882	82400	10 Ohm $\frac{1}{2}$ W. $\pm 10\%$
E882	507733	Contact Wiper Arm Assembly	R883	81230	22 Ohm 2 W. $\pm 10\%$
E883	507514	Brush Assembly	R884	82404	22 Ohm $\frac{1}{2}$ W. $\pm 10\%$
E884	507448	Contact Assembly	R885	82402	15 Ohm $\frac{1}{2}$ W. $\pm 10\%$
I 881	507522	No. 19 Lamp	R886	81234	220 Ohm 2 W. $\pm 10\%$
I 882	507522	No. 19 Lamp	R887	82400	10 Ohm $\frac{1}{2}$ W. $\pm 10\%$
I 883	507522	No. 19 Lamp	R888	81230	22 Ohm 2 W. $\pm 10\%$
I 884	507522	No. 19 Lamp	R889	82404	22 Ohm $\frac{1}{2}$ W. $\pm 10\%$
I 885	507522	No. 19 Lamp	R890	82402	15 Ohm $\frac{1}{2}$ W. $\pm 10\%$
J 881	307153	12 Contact Socket	R891	81235	56 Ohm 2 W. $\pm 10\%$
K881	507795	Control Relay	R892	81232	180 Ohm 5 W. $\pm 10\%$
LS881	507370	Speaker	R893	81232	180 Ohm 5 W. $\pm 10\%$
LS882	507370	Speaker	R894	81232	180 Ohm 5 W. $\pm 10\%$
P881	132054	Receptacle	S881	507351	Top Selector Switch
Thru			S882	507352	Center Selector Switch
P896			S883	507353	Bottom Selector Switch
P897	941785	Receptacle	S884A	507366	Control Switch
P898	941785	Receptacle	S884B		
P899	941776	Receptacle	S885	507794	Latch Bar Setting Switch
P900	941776	Receptacle	S886	507326	Coin Switch
			T8881	505958	3 Lug Terminal Board
			T8882	507521	6 Lug Terminal Board
			T8883	507360	Terminal Board Assembly

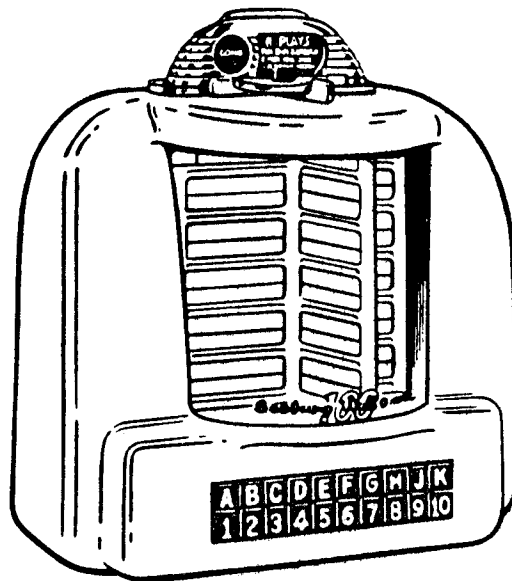
Parts List for Album Pricing Unit, Type APU10-56

Item	Part No.	Description
K441	451566	Album Relay
K442	451546	Nickel Credit Coil Assembly
K443	451549	Dime Credit Coil Assembly
K444	451546	Quarter Credit Coil Assembly
P441	307048	12 Contact Plug
S441	451518	Gear Segment Assembly
TB441	451552	Terminal Board Assembly
W441	451569	Cable Assembly

SERVICE MANUAL

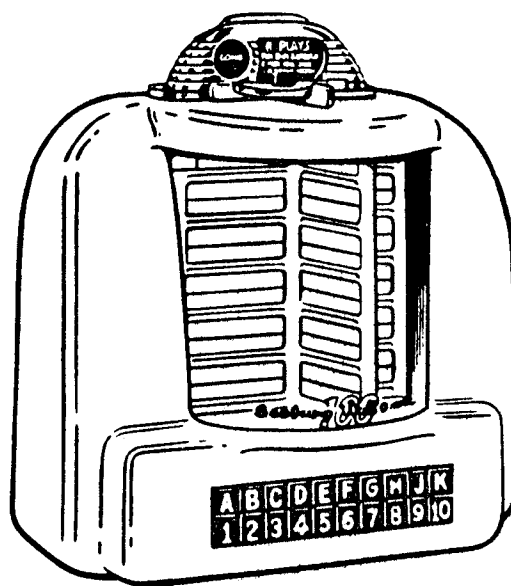
SEEBURG

Wall-o-matic 3W-1



THE SEEBURG SALES CORPORATION
Chicago 22 Illinois

SEEBURG
WALL-O-MATIC
TYPE 3W-1



The Wall-O-Matic, Type 3W-1, is a unit of the SEEBURG WIRED REMOTE CONTROL SYSTEM for making selections from a point removed from the Select-O-Matic. It works in conjunction with the Selection Receiver in the Select-O-Matic to control

the Select-O-Matic Mechanism and effect the desired selection for the coin deposited. 5, 10, and 25c coins may be deposited establishing, respectively, 1, 2, or 6 selection credits.

INSTALLATION INSTRUCTIONS

To mount the Wall-O-Matic, first unlock it and remove the cover. There are three holes in the back plate for mounting. The upper two are slotted for fitting over screws already set in the wall at the proper points. The lower hole is for rigid mounting, by means of a screw, after the Wall-O-Matic has been hung in place.

If the mounting place on the wall is uneven, the Wall-O-Matic mounting plate should be shimmed with cardboard or wood before tightening the three mounting screws. Tightening these screws on an uneven wall will bend the mounting plate, may seriously effect the operation of the Wall-O-Matic, and will cause the cover and lock to bind.

After the Wall-O-Matics are mounted in their respective locations, the cabling can be installed. Use inter-connecting cable, Seeburg Part No. 12001, which can be purchased in lengths to suit requirements. At

the Select-O-Matic, cable plug, Seeburg Part No. 12015, is soldered to the end of the cable. Solder the blue wire to No. 1, the orange wire to No. 2, and the green wire to No. 3 of the plug. The plug fits into a 3-conductor socket in the Selection Receiver.

The plug and cable may be connected to from one to six wired Wall-O-Matics. The 3-conductor socket in the selection receiver will supply power for up to 6 Wall-O-Matics. If more than 6 are connected to the circuit, the transformer supplying power to the circuit may be burned out. If the installation requires more than 6 Wall-O-Matics an auxiliary power supply must be used for each additional circuit.

The terminal strip in the Wall-O-Matic is color coded in the same colors as the cable. Solder one lug to each of the cable wires (six soldering lugs are furnished with each Wall-O-Matic). Connect the blue wire of the

cable to the blue of the terminal strip, the orange wire to the orange of the terminal strip (ground) and the green wire to the green of the terminal strip. When the Wall-O-Matic is used as the junction to two cables, two conductors will be on each terminal.

The cash box can be removed from the right side of the Wall-O-Matic and is accessible only with the case removed.

The slug rejector is mounted on the coin drop slot. To remove the slug rejector for cleaning or service, lift up the drop slot casting slightly and lift out the program holder assembly. The slug rejector and the coin slot can then be lifted up and out of the Wall-O-Matic.

The slug return cup is located at the lower left side of the Wall-O-Matic. The slug ejector button is in front of the coin drop slot.

If a coin is deposited in the Wall-O-Matic when the main switch at the Phonograph is turned off, the coin will be lost and the customer cannot make a selection. If a coin is deposited and a selection is made immediately after the main switch is turned on, the tubes in the selection receiver will not be heated and the coin will be lost.

With the phonograph main switch turned on, a credit light, in the floor in front of the program holder of the Wall-O-Matic, goes on immediately after a coin is deposited in the coin slot. This light indicates that selections can be made. Only one coin at a

time should be deposited and selections made before an additional coin is inserted. The credit light stays on only as long as there remain unspent credits for the value of the coin deposited. Make one selection for a nickel, two selections for a ten cent piece and six selections for a twenty-five cent piece by pressing two buttons -- a lettered button and a numbered button -- for each selection.

The Wall-O-Matics are supplied with terminal brackets for open wiring installations. However, various types of conduit may be used in making installations. Terminal brackets are provided for the various types and can be obtained, under Seeburg Part Nos. as follows:

TYPE CONDUIT SEEBURG PART NO.

#500 Wiremold	14083
#1900 Wiremold	14084
1/2" Metal Tubing	14085

A hole cover, Seeburg Part No. 14082, is available for closing the cable entry hole in the case if concealed wiring and the knock-out hole in the mounting plate is used for entry of the cables.

Bar Bracket Assembly, Seeburg Part No. 500185, is available for rigidly mounting the Wall-O-Matic on bars, counters and tables.

The Wall-O-Matic has been thoroughly tested before leaving the factory. Unless damaged in shipment, no adjustments should be necessary.

OPERATION

The 3W-1 Wall-O-Matic operates at 25 volts, AC 60 cycles. The power is supplied by the Selection Receiver or an auxiliary power supply in the Select-O-Matic through a 3-wire cable. Two of the three wires carry power to the lights and motor of the Wall-O-Matic. The other wire and one of the power circuit wires comprise a selection circuit to control the operation of the Selection Receiver.

Operation of the remote control system requires intermittent pulsing of the 2050

tube which is a part of the Selection Receiver in the Select-O-Matic. This is accomplished by the Wall-O-Matic when the grounded rotating switch blade (contact arm) passes over contacts which are connected to the tube through the selection switches and the 3-wire cable. Each time the switch blade passes over a connected contact the tube is pulsed.

The step switch and relay assembly in the Selection Receiver operates from the 2050 tube and connects a selector coil and a

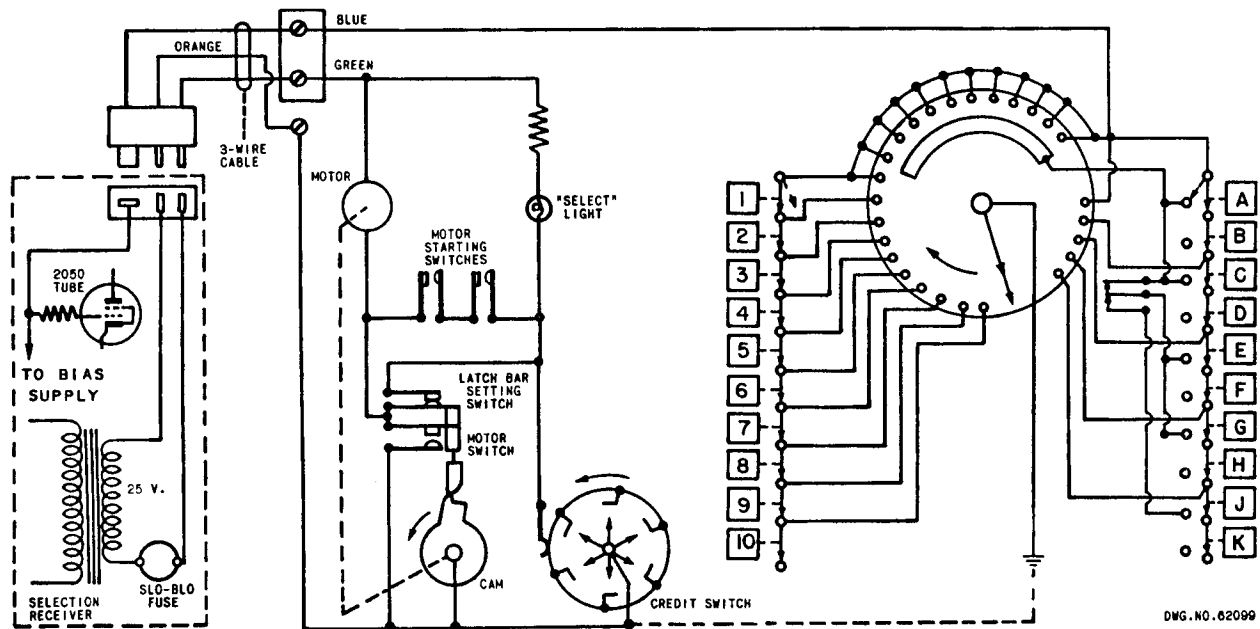


FIG. 2. SIMPLIFIED SCHEMATIC - 3W-1.

group solenoid of the Solenoid Assembly so they will be energized. This operation is dependent on the number of pulses and the intervals of time between them. Two series of pulses are required -- a first series for the selection of a selector coil circuit and a second series for selection of a group solenoid. The number of pulses in each series is determined by which Wall-O-Matic selection switches are pressed. There will be from 2 to 21 in the first series and from 1 to 5 in the second series. The rate of the pulses and the time interval between them is determined by the design of the Wall-O-Matic and the motor speed. This interval between individual pulses in both series is approximately 1/25 second and an interval of approximately 1/5 second occurs between the last pulse of the first series and the first pulse of the second series. A simplified circuit diagram of the connection of the selection circuit is shown in Figure 2.

The operating cycle of the Wall-O-Matic involves the motor, the selection switches, and the control switches for the motor. There are three positions or conditions for each cycle which are associated with these -- a Rest Position in which no credits are established, a Credit Position which is referred to the Wall-O-Matic after a credit is established but before the selection switches are pressed, and a Pulsing "Position" during which the motor operates and

the contact arm revolves to "ground" the contacts on the selector plate.

In the Rest Position, the selector Buttons are free to move in and out, the Latch Bar Setting Switch shown in Figures 2 and 4 is closed, and the Credit Switch is open. When a coin is deposited to establish credit, a coin switch is closed momentarily to energize a credit solenoid. The credit solenoid, in turn, operates a plunger which closes one of six snap-action switches on the credit switch assembly. The closed credit switch completes a circuit to the credit indicating light and, through the latch bar setting switch, to the motor. The credit light illuminates the "Select" escutcheon in front of and below the program holder. The motor, operating through a train of gears, turns a cam until the latch bar setting switch is caused to open by the latch bar lever dropping to the "credit step" of the cam. These positions of the cam and lever are shown in Figure 3.

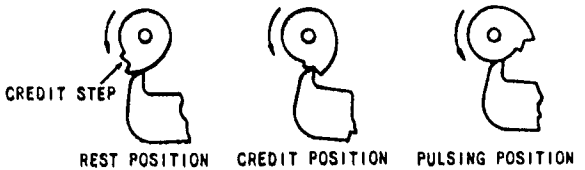


FIG. 3. CAM POSITIONS.

In the Credit Position of the cam, the motor is again at rest but the latch bar

lever has been changed to a position which has moved the selector switch latch bars so the selector buttons, when pressed, will remain in the pressed position.

On each of the selection switch assemblies -- the "letter switches" and the "number switches" -- is a Motor Starting Switch. The contacts of the motor starting switches are closed by a treadle bar which is actuated by a selection switch shaft when a selector button is pressed. The two switches are connected in series in the motor circuit so that, when a letter button and a number button are pressed, the motor again starts. The motor turns the cam so the latch bar lever drops from the credit step to the Pulsing "Position" as shown in Figure 3. In this position of the cam and lever, the latch bars are moved to a position which locks the selection switches in position -- pressed in or in normal position -- and the Motor Switch (Figures 2 and 4) is closed. This pulsing position prevails for almost a full turn of the cam. As the cam approaches its rest position, the latch bar lever is raised so the motor switch opens, the latch bar setting switch closes, and the latch bar lever moves the latch bars so the selector buttons are released to their normal positions.

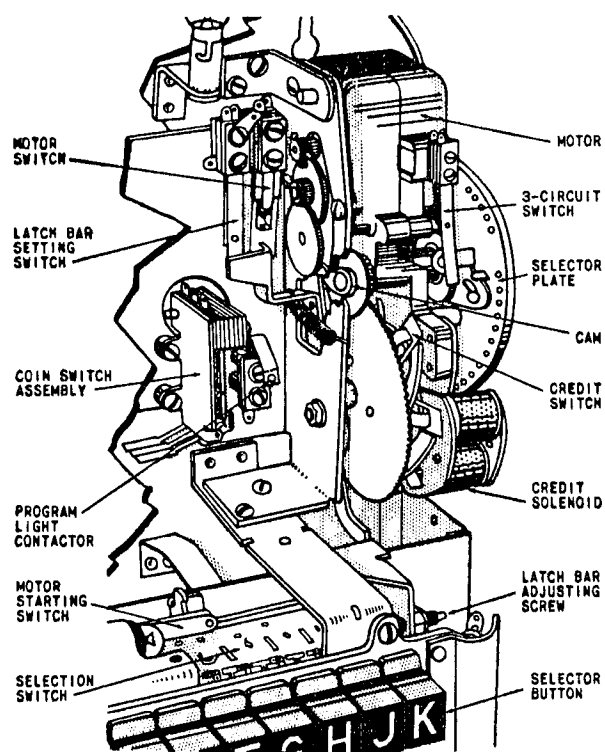


FIG. 4.

One of the functions of the motor is to turn the contact arm so it grounds the contacts on the selector plate. It is attached to the same shaft on which the cam is mounted and turns, with the cam, from the rest position to the credit position, through the pulsing "position", back to the rest position. In the rest and credit positions the end of the contact arm is between the first and last contacts on the plate. During rotation of the cam from the credit position to the rest position, the arm is in contact with and grounds momentarily and successively each of the contacts on the plate.

If a single credit is established by depositing a nickel at the beginning of the operating cycle, the credit switch will open and break the circuit through the motor starting switches before completion of the cam rotation to the rest position. Motor operation will be maintained by the circuit through the motor switch until the switch is opened by the cam as the rest position is attained. If more than a single credit is established by depositing a dime or a quarter at the beginning of the operating cycle, the credit switch will still be closed when the cam reaches the rest position and the motor circuit will again be closed through the latch bar setting switch until the credit position is attained. As the cam passes through the rest position, the selector buttons are released to their normal positions, the motor starting switches are opened, and the motor comes to a stop with the Wall-O-Matic in position for another selection to be made.

The motor switch referred to above and shown in Figure 4 is a snap-action switch in Wall-O-Matics below serial number 16646. The latch bar setting switches used in these Wall-O-Matics is a 2-blade spring leaf switch. In Wall-O-Matics above serial number 16645, the snap-action switch is replaced by the addition of another blade on the latch bar setting switch (making it a 3-blade switch) and a Motor Carry-over Segment on the selector plate as shown in Figure 11. The operation of the Wall-O-Matics with the motor carry-over segment differs only in that the motor switch opens before the rest position is attained by the cam (and contact arm) and the motor operation is maintained through the circuit formed by the

segment and the contact arm. The arm leaves the segment when the rest position is attained so, if no credits remain on the credit switch assembly, the motor stops in that position.

OPERATION OF CREDIT ASSEMBLY

The credit assembly, shown in Figure 5, includes six snap-action switches. The six switches are equally spaced around a credit switch which is keyed to a gear. The gear and switch are turned by the Wall-O-Matic motor one-sixth turn each time a selection is made. The snap-action switches are, therefore, advanced one position -- the distance between them -- for each selection made.

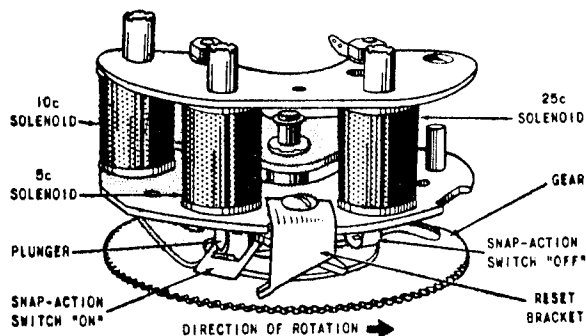


FIG. 5. CREDIT SOLENOID & SWITCH ASSEMBLY.

A reset bracket is mounted on the credit assembly frame. Each time a selection is made, the credit switch advances one position and one of the snap-action switches moves past the bracket. When a snap-action switch that has been turned "on" by a credit solenoid passes the bracket, it is engaged by the bracket and reset to the "off" position.

A "5c solenoid" is mounted so its plunger turns on a snap-action switch which is one position from the reset bracket. Because the switch will be reset and turned off with one operation of the Wall-O-Matic, one credit is set up when a 5c coin is deposited.

A "10c solenoid" turns on the snap-action switch which is two positions from the reset bracket allowing two selections to be made before the switch is reset.

A "25c solenoid" is six positions from the reset bracket and will turn on the snap-action switch which permits six selections to be made before it is reset.

Electrical connection to the credit switch is made to ground through the shaft on which the switch turns and through a collector ring and contact.

MAINTENANCE AND SERVICE

CLEANING

The slug rejector should be kept free of dirt and dust. If a rejector has been working successfully and becomes erratic or fails to work at all, the trouble can generally be attributed to dirt or to some stoppage in the coin track. Cleaning only should correct the trouble.

Switch and relay contacts should be cleaned with a contact burnisher. *Do not use a file, sandpaper, or emery cloth.*

The contacts on the selector disc should be cleaned with a cloth saturated with carbon-tetrachloride. *Do not use emery cloth or sandpaper.* The contacts are silver plated brass. To sand them or clean them with an abrasive will remove the plating and expose the brass. The brass does not provide good contact and will require more frequent service as well as cause erratic operation. The contacts should not be lubricated.

The contact point on the contact arm should be cleaned with carbon-tet'. It is not necessary to remove it from the shaft. A piece of cloth saturated with carbon-tet' can be drawn under the contact point.

The selector switches and the motor gears should be kept free of dirt and dust by blowing out. Do not use roach powders of any kind. Most of the powders are highly corrosive and will soon cause failure of the switches. If powders have been used, the switches should be thoroughly cleaned.

LUBRICATION

The motor gears should be lubricated with #105 Lubriplate. Shaft bearings should be oiled with SAE 10 oil.

A drop or two of SAE 10 oil on the motor bearings will reduce wear and friction to a minimum.

The scavenger linkage of the slug rejector can be sparingly lubricated with #105 Lubriplate at wear and friction points, but care should be taken so that it does not get into the coin track. Oil should not be used. The coin path of the rejector may be dusted with Motor Mica (see Section 9000 of #2 Service Manual).

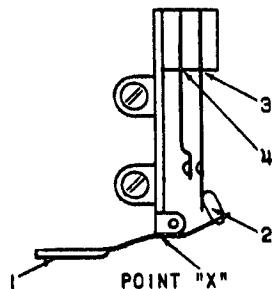
MOTOR

The motor is designed to operate the Wall-O-Matic through a complete cycle in a little more than 2 seconds. If the motor is slow, the current impulses to the step relay (in the Selection Receiver) will be slow and cause erratic operation of the step switch assembly. The motor can best be checked for speed by allowing it to operate steadily and counting the turns per minute of the contact arm. Normal speed is 24 revolutions per minute. Acceptable speed limits are 21 to 26 rpm. If the motor is slow, check for binding or excessive friction. If the motor runs slow when there are no binds, it will have to be replaced.

COIN SWITCHES

Adjustment of the coin switches is shown in Figure 6 if erratic operation of the switches prevails, they should be cleaned with carbon-tet' or a contact burnisher and adjustments should be checked before resorting to bending the blades.

FIG. 6A. COIN SWITCH ADJUSTMENTS.



1. Adjust levers to be parallel to lower edge of slug rejector when bearing against switch bracket at Point "X".
2. Adjust the switch actuating cams to be tilted approximately as shown and overlap the blade approximately $3/32"$.

3. Bend long blade at this point for 4 to 5 grams tension toward cam as measured at switch contact point.
4. Bend short blade at this point so it moves approximately $1/64"$ when coin is slowly released from slug rejector.
Note: It is important that the ENDS of the bracer blades support the short contact blades as shown in Figure 6b.

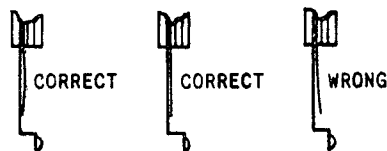


FIG. 6B. COIN SWITCH ADJUSTMENTS.

MOTOR SWITCH AND LATCH BAR SETTING SWITCH

Adjustment of the Snap-action Motor Switch used in Type 3W-1 Wall-O-Matics below serial number 16646 is made by positioning the switch assembly so the switch is open in the Rest and Credit Positions and closes in the Pulsing Position as shown in Figure 7. The switch is moved by loosening the two bracket mounting screws and sliding it up or down as required.

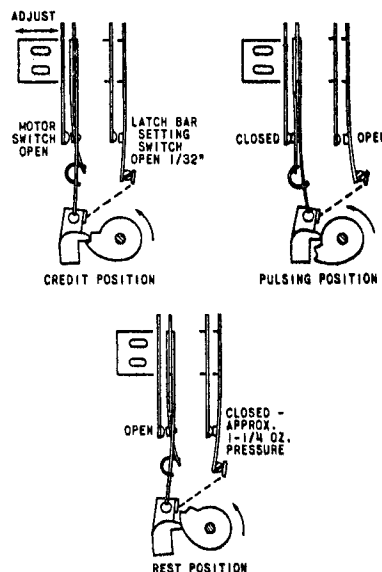


FIG. 7. MOTOR & LATCH BAR SETTING SWITCHES.

The Latch Bar Setting Switch is adjusted by bending the switch blades AFTER the Motor Switch adjustment has been made and checked.

LATCH BAR SETTING SWITCH

Adjustment of the Latch Bar Setting Switch used in Type 3W-1 Wall-O-Matics above serial number 16645 (with motor carry-over segment shown in Figure 11) is made as shown in Figure 8.

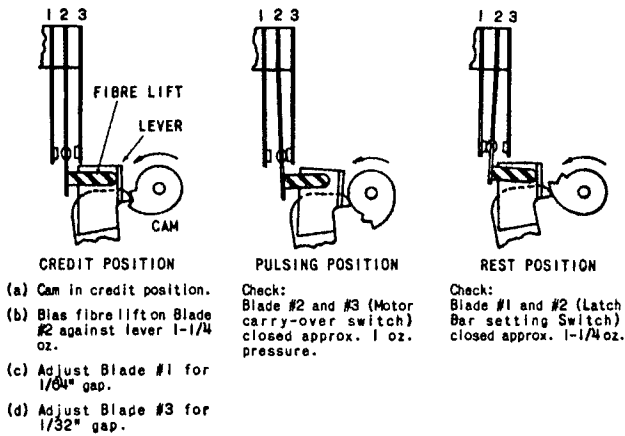


FIG. 8. LATCH BAR SETTING SWITCH.

CONTACT ARM POSITION

1. Turn the motor manually until the latch bar lever drops to the credit step of the cam then reverse the direction until the point of the lever is against the vertical part of the cam as shown in Figure 3.

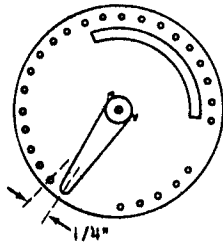


FIG. 9. CONTACT ARM POSITION.

- 2a. Type 3W-1 without motor carry-over segment (see Figure 11).

Set the Contact Arm on the shaft so the contact at the tip of the blade is approximately 1/4" from the first contact as shown in Figure 9 and the lower part of the hub is spaced approximately 1/8" from the surface of the selector plate as shown in Figure 10.

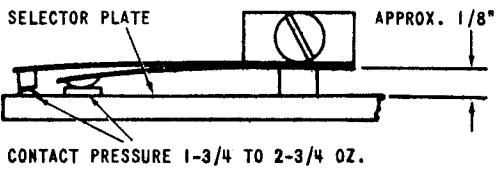


FIG. 10. CONTACT ARM.

- 2b. Type 3W-1 with motor carry-over segment (see Figure 11).

Set the Contact Arm on the shaft so the edge of the blade forms a "V" with the edge of the motor carry-over segment as shown in Figure 11 and the lower part of the hub is spaced approximately 1/8" from the surface of the selector plate as shown in Figure 10.

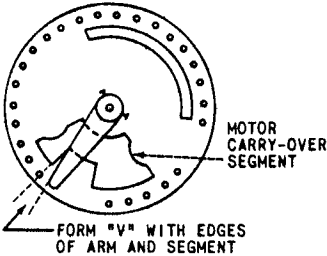
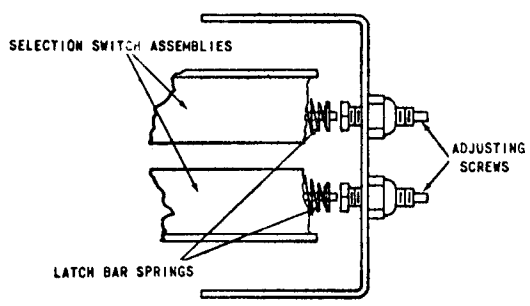


FIG. 11. CONTACT ARM POSITION WITH MOTOR CARRY-OVER SEGMENT.

LATCH BAR ADJUSTMENT

The selection switches have three conditions of operation corresponding to the three positions of the cam shown in Figure 3 and 4 and are operated by the cam through mechanical linkage. In the rest position, the switch latch bars are held against the pressure of the latch bar springs so the selector buttons are free to move in and out and will not stay in the pressed-in position. In the credit position the bars are released to a position which permits a selection switch, when pressed, to latch in the operated position but, if another switch is operated, the first will be released. In the pulsing position the latch bars are fully released so the selection switches are locked in either the normal or pressed positions.

The adjustment for the latch bar operation is made with two screws -- one for each selection switch assembly -- at the right of the assemblies (see Figures 4 and 12).

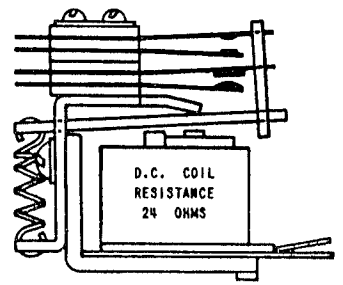


1. Place the cam in the Credit Position (Figure 3).
2. Turn the adjusting screws until the selection switch shafts strike the latch bars but do not latch in the pressed-in position.
3. Back out the screws 1/2 to 3/4 turn.
4. Check for positive locking of the switches when the cam is in the Pulsing Position.
5. Check for full release and free in-and-out movement of the switches when the cam is in the Rest Position.

FIG 12. LATCH BAR ADJUSTMENT.

RELAY ADJUSTMENT

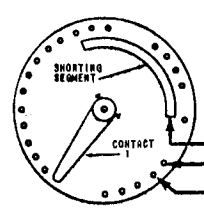
The relay included in Type 3W-1 Wall-O-Matic below serial number 2303 interrupts the circuits paralleling the ladder circuit of the selection switch assembly with the lettered buttons. The relay is energized only during the time the contact arm is on the shorting segment of the selector plate. Adjustment of the relay is shown in Figure 13.



1. All Contacts normally open.
2. All Contact gaps 1/32".
3. All Contact pressures 1 oz.
4. Armature gap 1/16".

FIG. 13. RELAY ADJUSTMENT

3-CIRCUIT SWITCH ADJUSTMENT



1. All Contacts closed and no pressure of lever against switch when Contact Arm is leaving shorting segment.
2. Contact begins to open when Contact Arm has reached 1st group Contact.
3. Contacts open 1/64" (minimum) when Contact Arm is on 2nd group Contact

FIGURE 14.

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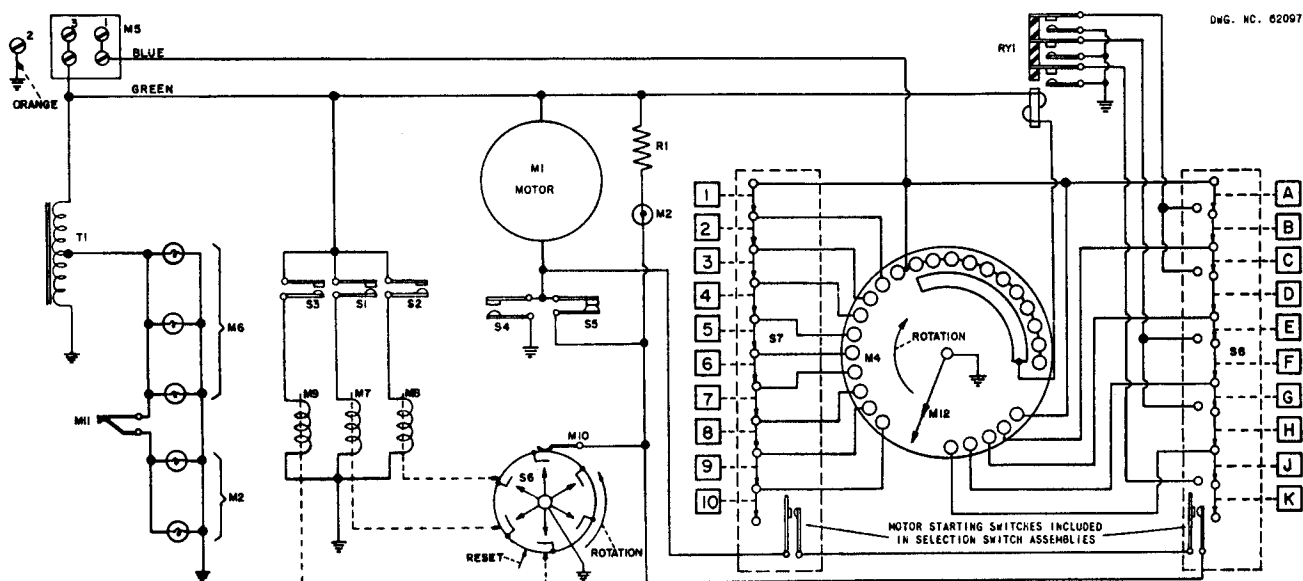


FIG. 15. SCHEMATIC DIAGRAM (BELOW SERIAL NO 2303)

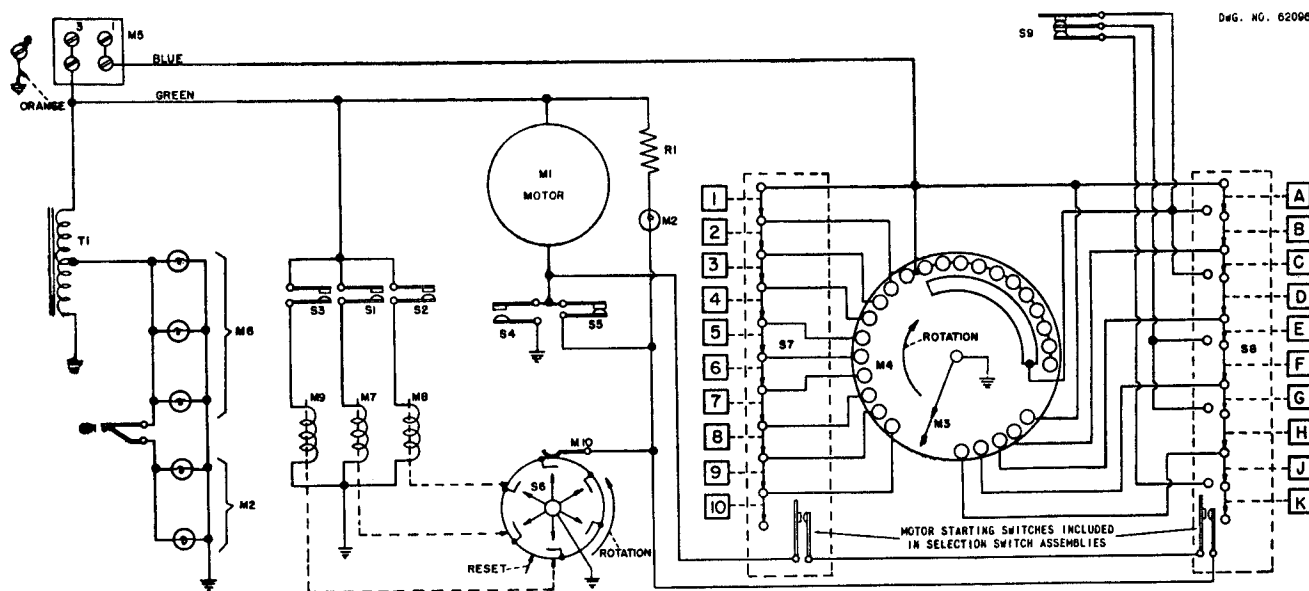


FIG. 16. SCHEMATIC DIAGRAM (SERIAL NO. 2303 TO 16646)

PARTS LIST

Item	Part No.	Description	Item	Part No.	Description	Item	Part No.	Description
M1	505013	Motor Assembly	M6	505173	Lamps Mazda #55	S1	504017	5c Coin Switch
M2	10242	Lamps Mazda #51	M7	505082	5c Solenoid Coil	S2		10c Coin Switch
			M8	505082	10c Solenoid Coil	S3		25c Coin Switch
M3	505109	Contact Wiper Arm				S4	505090	Carry-over Switch
M3	505217	Contact Wiper Arm	M9	505082	25c Solenoid Coil	S5	505101	Latch Bar Setting Switch
		Used only with Wall-	M10	505070	Brush Assembly	S6	504140	Credit Switch
		O-Matic Relay RY1				S7	505108	Selector Switch, Bottom
		see Figure 15	M11	504045	Contact Assembly	S8	505107	Selector Switch, Top
M4	505103	Selector Plate Assembly	R1	81126	100 Ohm Res., 5 Watt	S9	505190	Three Circuit Switch
M5	13398	Terminal Strip	RY1	250996	Relay	T1	501012	Lighting Transformer

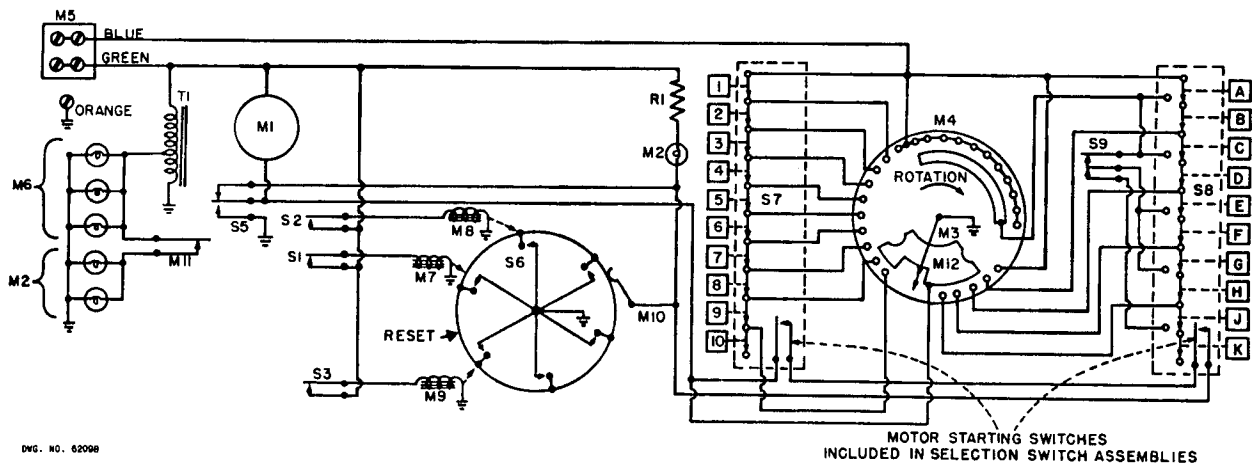


FIG. 17. SCHEMATIC DIAGRAM (ABOVE SERIAL No. 16645)

PARTS LIST

Item	Part No.	Description	Item	Part No.	Description
M1	505013	Motor Assembly	M10	505070	Brush Assembly
M2	10242	Lamps Mazda #51	M11	504045	Contact Assembly
M3	505109	Contact Wiper Arm	R1	81126	100 Ohm Resistor, 5 Watt
M3	505217	Contact Wiper Arm Used only with Wall- O-Matic Relay RY1 see Figure 15	RY1	250996	Relay
M4	505103	Selector Plate Assembly	S1 } 504017	{	5c Coin Switch
M5	13398	Terminal Strip	S2 }	{	10c Coin Switch
M6	505173	Lamps Mazda #55	S3 }	{	25c Coin Switch
M7	505082	5c Solenoid Coil	S4	505090	Carry-over Switch
M8	505082	10c Solenoid Coil	S5	505220	Latch Bar Setting Switch
M9	505082	25c Solenoid Coil	S6	504140	Credit Switch
			S7	505108	Selector Switch, Bottom
			S8	505107	Selector Switch, Top
			S9	505190	Three Circuit Switch
			T1	501012	Lighting Transformer

Wired Wall-O-Matic, Type 3W-1

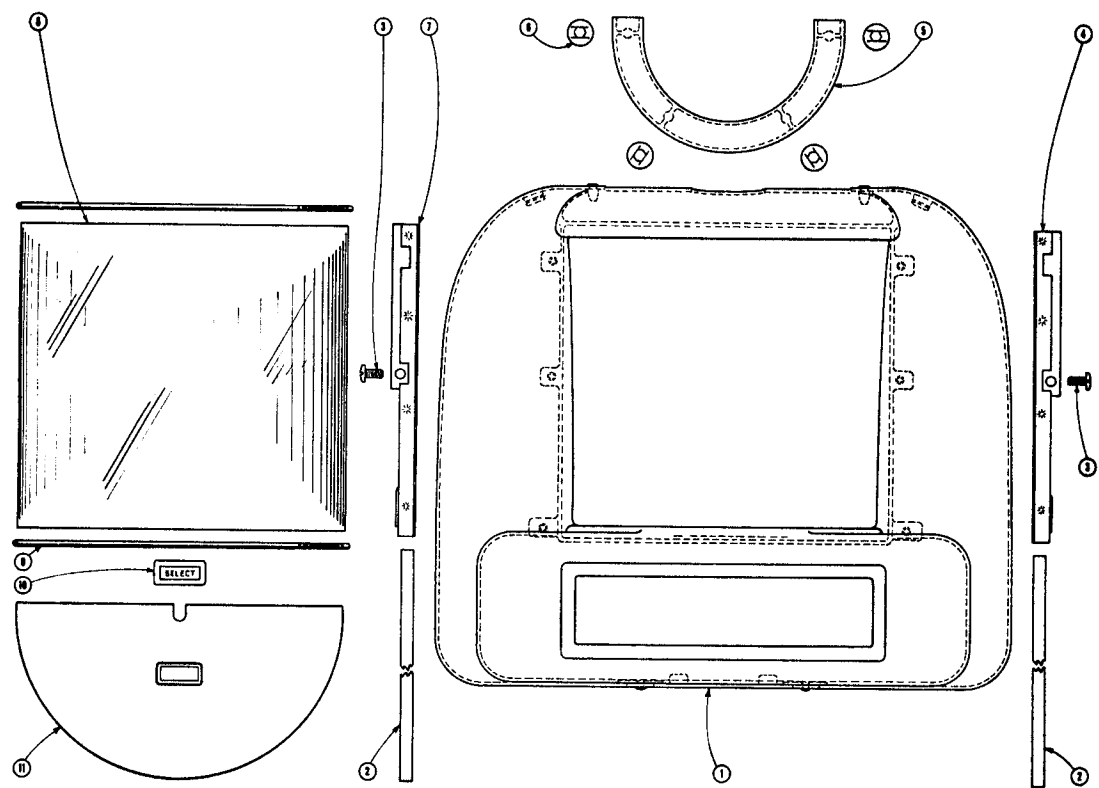


FIG. 18. HOUSING ASSEMBLY

Item	Part No.	Description
	505231	Housing Complete with #505230 Housing and all listed parts
1	505229	Housing, only, Chrome with holes for ring, Item 5
	505230	Housing, only, Chrome without holes for ring, Item 5
2	505175	Program Window Retainer Gasket
3	71034	8-32 x 3/8 B.H. Machine Screw
4	505154	Window Retainer Strip & Baffle Assem., L.H.
5	505204	Drop Slot Guard Ring
6	70113	Speed Nut
7	505153	Window Retainer Strip & Baffle Assem., R.H.
8	505030	Program Window
9	505174	Program Glass Gasket
10	504097	Selection Window
11	505160	Name Plate

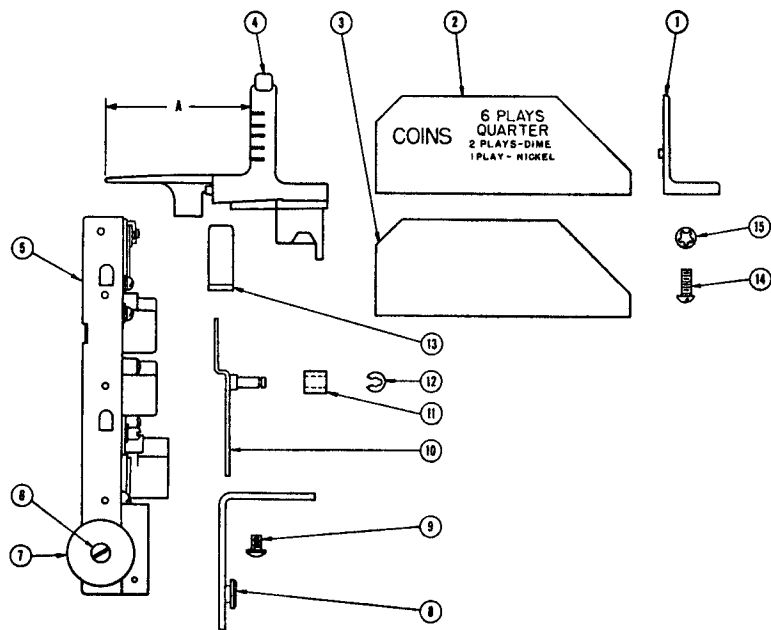


FIG. 19. COIN EQUIPMENT

Item	Part No.	Description
1	505024	Drop Slot Back
2	505118	Instruction Window
3	505119	Window Backing
4	505203	Drop Slot Front
5	505177	Slug Rejector
6	71464	8-32 x 1/4 B H Machine Screw
7	72237	Flat Washer
8	504064	Guide Bracket Assembly
9	71464	8-32 x 1/4 B H Machine Screw
10	504066	Ejector Arm & Stud Assembly
11	504068	Ejector Arm Roller
12	S22021	"C" Washer
13	504069	Push Button
14	71081	8-32 x 7/16 R H Machine Screw
15	73082	Lock Washer

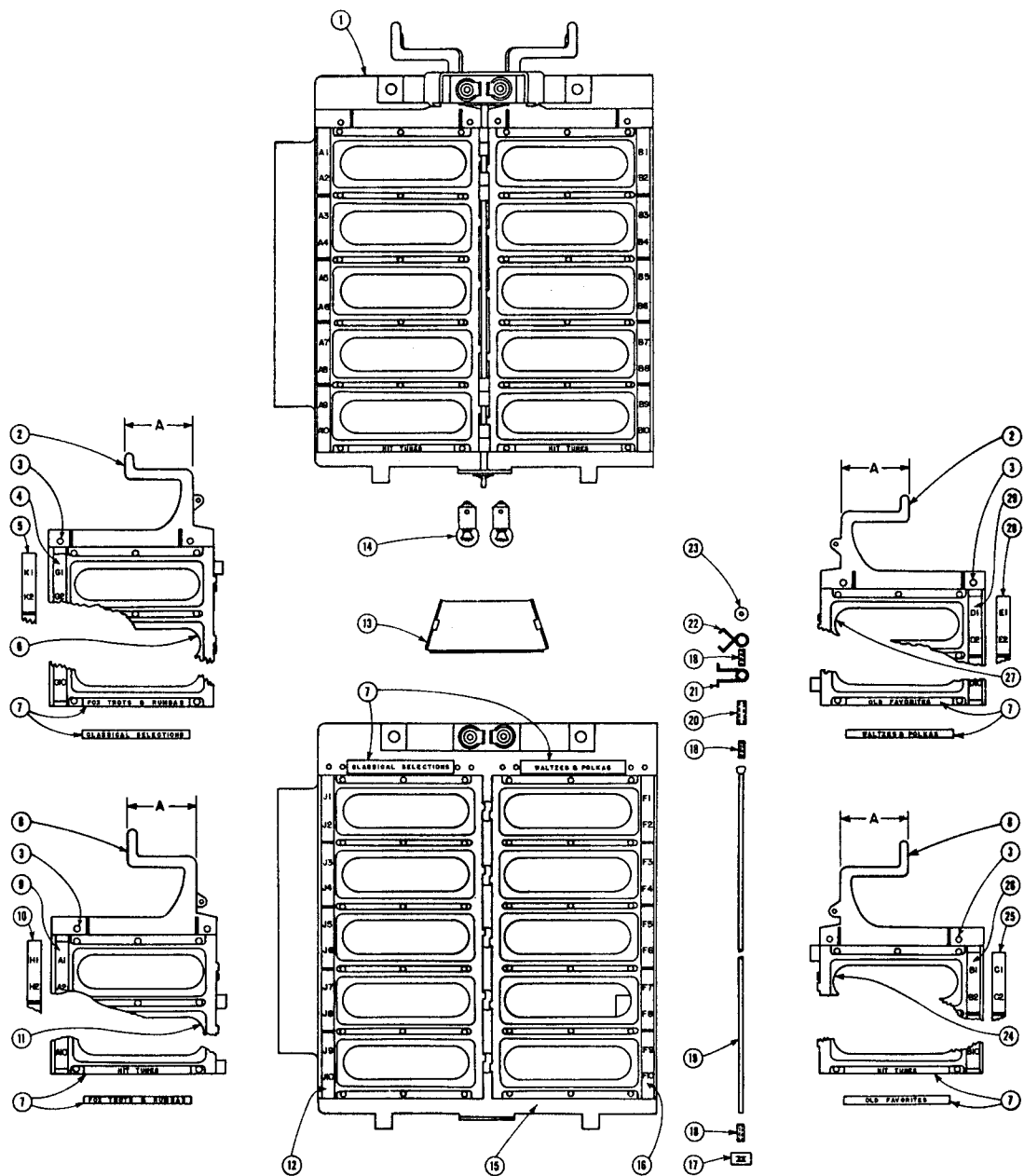


FIG. 20. PROGRAM HOLDER ASSEMBLY

Item	Part No.	Description	Item	Part No.	Description
1	505206	Program Holder Assembly,complete	15	505017	Program Title Strip Retainer
2	505026	Program Leaf Handle	16	505096	Number Strip (F1 to F10)
	505201	Program Leaf Handle	17	70149	Tinnerman Nut
3	79029	Rivet .088 x 5/32"	18	505144	Spacer (Short)
4	505097	Number Strip (G1 to G10)	19	505143	Leaf Hinge Rod
5	505100	Number Strip (K1 to K10)	20	505145	Spacer (Long)
6	505207	Program Holder Leaf (K & G),complete	21	505199	Hinge Spring
7	505171	Classification Labels	22	505146	Hinge Spring
8	505025	Program Leaf Handle, Long	23	72246	1/4 x .078 x .020 Flat Washer
	505202	Program Leaf Handle, Long	24	505209	Program Holder Leaf (B & C),complete
9	505091	Number Strip (A1 to A10)	25	505093	Number Strip (C1 to C10)
10	505098	Number Strip (H1 to H10)	26	505092	Number Strip (B1 to B10)
11	505208	Program Holder Leaf (H & A),complete	27	505210	Program Holder Leaf (D & E),complete
12	505099	Number Strip (J1 to J10)	28	505095	Number Strip (E1 to E10)
13	505183	Program Light Shield	29	505094	Number Strip (D1 to D10)
14	10242	#51 Lamp			

Wired Wall-O-Matic, Type 3W-1

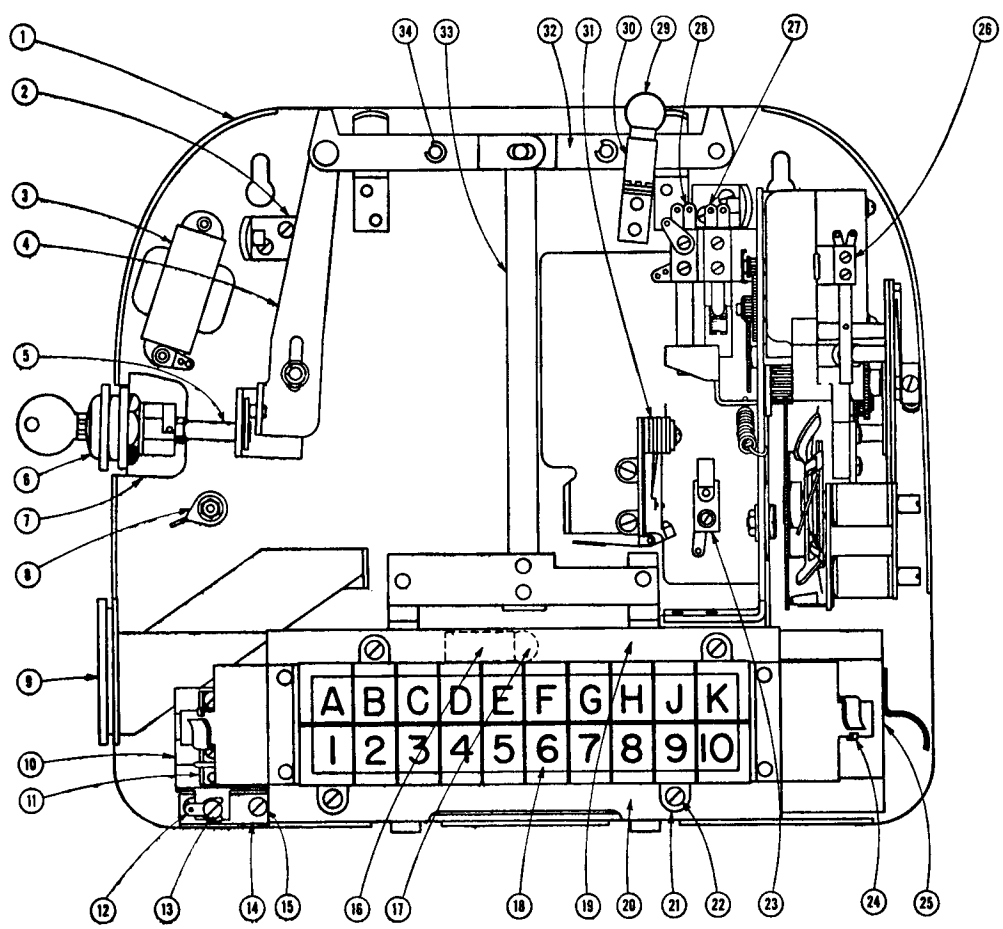


FIG. 21. BACK PLATE

Item	Part No.	Description	Item	Part No.	Description
1	505055	Back Plate Assembly	19	505184	Shield (Upper)
2	505062	Program Holder Mtg. Bracket Assem.	20	505191	Shield (Lower)
3	501012	Transformer	21	505172	Button Lighting Plate Assem.
4	505113	Lock Pawl Assem.	22	71482	6-32 x 1/4 B H Machine Screw
5	505110	Lock Shaft Disc & Stud Assem.	23	504045	Brush Assembly
6	14042	Lock Assembly	24	505121	Light Socket Assembly (#55 Lamp #505173)
7	14031	Lock Mtg. Bracket	25	505147	Coin Box Assembly
8	81126	100 ohm 5% 5 w. Resistor	26	505190	Three Circuit Switch
9	505050	Slug Return Chute	27	505090	Carry-over Sw. & Bracket Assem. Used below Ser. #16646
10	501044	Insulation - A.C. Terminal	28	505101	Latch Bar Setting Switch
11	13398	Terminal Strip	29	505173	#55 Mazda Lamp
12	74078	Spade Solder Lug	30	505066	Lamp Socket Assembly
13	71466	6-32 x 3/16 B H Machine Screw	31	504017	Coin Switch
14	14104	Bottom Hole Cover	32	505040	Lock Pawl (Upper)
15	71483	6-32 x 1/8 B H Machine Screw	33	505115	Lower Lock Bar Assembly
16	505122	Light Socket Assembly	34	J22021	"C" Washer
17	10242	#51 Mazda Lamp			
18	505011	Push Button			

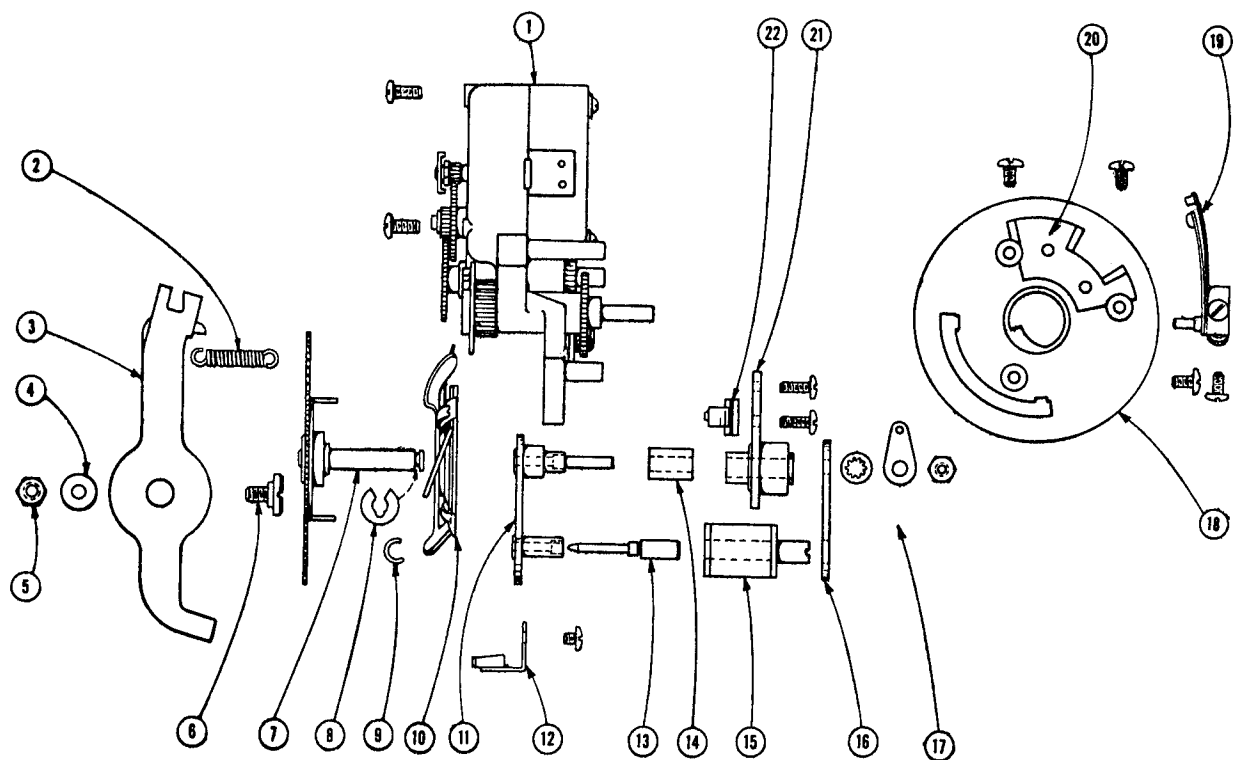


FIG. 22. MOTOR, CREDIT & CONTACT ASSEMBLY

Item	Part No.	Description
1	505013	Motor Assembly
2	400161	Spring
3	505065	Latch Bar Pawl & Sw. Op. Lever Assem.
4	73089	#1210 Shakeproof Lock Washer
5	70003	10-32 Hex. Nut
6	505178	Shoulder Screw
7	504164	Gear Bracket & Shaft Assembly
8	H20065	"C" Washer
9	504142	Spring
10	504140	Credit Switch
11	505155	Plate & Stud Assembly
12	504150	Re-set Bracket
13	505083	Solenoid Plunger Assembly
14	505086	Bushing
15	505082	Solenoid Coil Assembly
16	504148	Coil Mtg. Plate - Upper
17	73082	Shakeproof
	74106	Solder Lug
	70001	Hex Nut
18	505103	Selector Plate Assembly
19	505109	Contact Wiper Arm Assem.
20	505197	Carry-over Segment
21	505068	Bearing & Mtg. Bracket Assem.
22	505070	Brush Assembly

Seeburg

WALL-O-MATIC "100"

Type 3W1-D

The Wall-O-Matic "100", Type 3W1-D is the same in general appearance and size as the Type 3W1. The operation is the same except that the 3W1-D is arranged for three plays for a 25-cent coin and one play for either a dime or two nickels. The difference between the 3W1-D and the 3W1 is in the information on the coin instruction window and the name plate below the program leaves, in the slug rejector nickel coin switch and the connections to the coin switches, and the credit assembly. All of the service manual data for the Type 3W1, pages 12041 to 12055, applies equally well to the Type 3W1-D except the description of the operation of the credit assembly, the diagram on page 12050 and some of the parts lists.

The coin instruction window reads "3 plays - Quarter" - "1 play-dime or 2 nickels".

The name plate below the program leaves is the same in both types except for the type number of the respective unit.

The operation of the credit assembly of the Type 3W1, as discussed on page 12045, details operation for 5, 10, and 25-cent coins for, respectively, 1, 2, and 6 selections. The credit assembly of the 3W1-D uses a different position for the reset bracket; the credit solenoid in the 3-credit position is connected to and operated by the 25-cent coin switch; the credit solenoid in the 1-credit position is connected to and operated by the dime and nickel coin switch. The "5-cent solenoid" is not used. It is not connected to a coin switch and has both connecting leads grounded. The connections of the solenoids and coin switches are detailed in the complete diagram on page 12058.

The slug rejector is designed to accept quarters, dimes and nickels. Each quarter and dime operates, respectively, a quarter and dime coin switch but only alternate nickels operate the associated nickel coin switch. This is accomplished with a nickel diverter that is incorporated in the slug rejector. The operation of the diverter and the paths of the nickels are shown in Figure 1 where it can be seen that the first of two coins is diverted from the coin switch. The coin passes into the cash box but tilts the diverter so the second nickel operates the coin switch as it drops from the rejector. In this manner the 5-cent coin switch will be closed only once for two nickels, and, because this switch and the dime switch are both connected to the credit solenoid in the 1-credit position, a single credit will be set up for 10 cents whether it be a single 10-cent coin or two nickels.

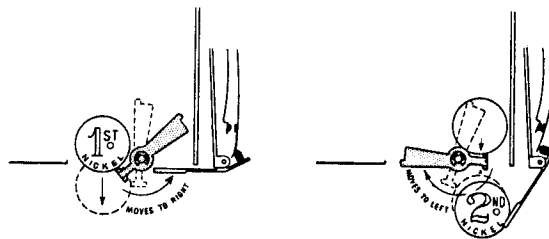


Figure 1. Nickel Diverter

- (a) If the slug rejector without the nickel diverter, (As used in the Type 3W1 Wall-O-Matic), is used in the Type 3W1-D Wall-O-Matic, it is necessary that the path of the nickels through the rejector be obstructed so that the 5-cent coins will be rejected. If this is not done, a single credit will be established in the Credit & Cancel Unit for each nickel that passes into the cash box.
- (b) The coin switch assembly in the 3W1 and 3W1-D are similar but the actuator of the nickel coin switch is 5/32" shorter when associated with a slug rejector equipped with the nickel diverter.

The Parts Lists for 3W1, pages 12051 to 12055, apply to the 3W1-D except as follows:

PARTS LIST

Page	Item	Part Name	Part No.
12051	—	Housing Complete	505346
	11	Name Plate	505347
12052	2	Instruction Window	505345
	5	Slug Rejector	505302
12054	1	Back Plate Assembly	505340
	31	Coin Switch	505343
12055	1	Motor Assembly	505281

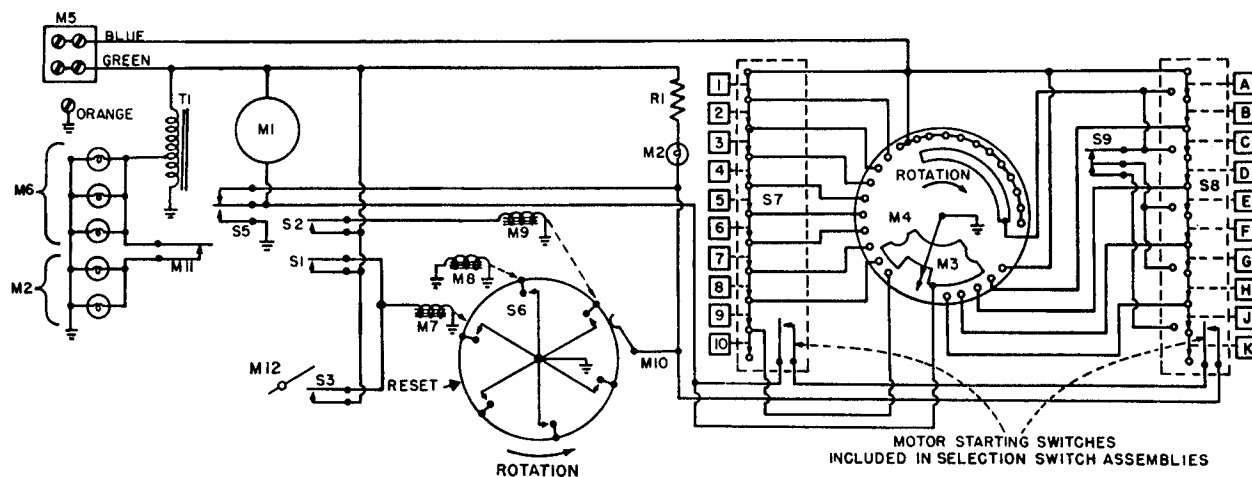


Figure 2. Schematic Diagram

PARTS LIST

Item	Part No.	Part Name	Item	Part No.	Part Name
M1	505281	Motor Assembly	M12		Nickel Diverter
M2	10242	Lamps - Mazda No. 51	R1	81126	100 Ohm Resistor - 5 Watt, 5%
M3	505109	Contact Wiper Arm	S1		5¢ Coin Switch
M4	505103	Selector Plate Assembly	S2	505343	10¢ Coin Switch
M5	13398	Terminal Strip	S3		25¢ Coin Switch
M6	505173	Lamps - Mazda No. 55	S5	505220	Latch Bar Setting Switch Assembly
M7	505082	10¢ Solenoid Coil	S6	504140	Credit Switch
M8	505082	— Solenoid Coil	S7	505108	Selector Switch - Bottom
M9	505082	25¢ Solenoid Coil	S8	505107	Selector Switch - Top
M10	505070	Brush Assembly	S9	505190	Three Circuit Switch
M11	504045	Contact Assembly	T1	501012	Power Transformer

5—10—25c SLUG REJECTOR

THEORY OF OPERATION

When a piece of metal that is an electrical conductor is passed through a magnetic field, a small voltage is generated within the metal. The voltage thus generated, short-circuited within the body of the metal, causes currents to flow in it. These currents set up magnetic forces in opposition to the magnetic field. The opposing fields tend to resist the force which drives the metal.

Since various metals have different degrees of electrical conductivity, it is possible to detect one metal from another by noting the behavior of each in the magnetic field.

The speed of a metal coin rolling or falling through a magnetic field will be governed by the electrical conductivity of the metal. This is the basic principle used in the detection of coins in the 5 — 10 — 25c slug rejector.

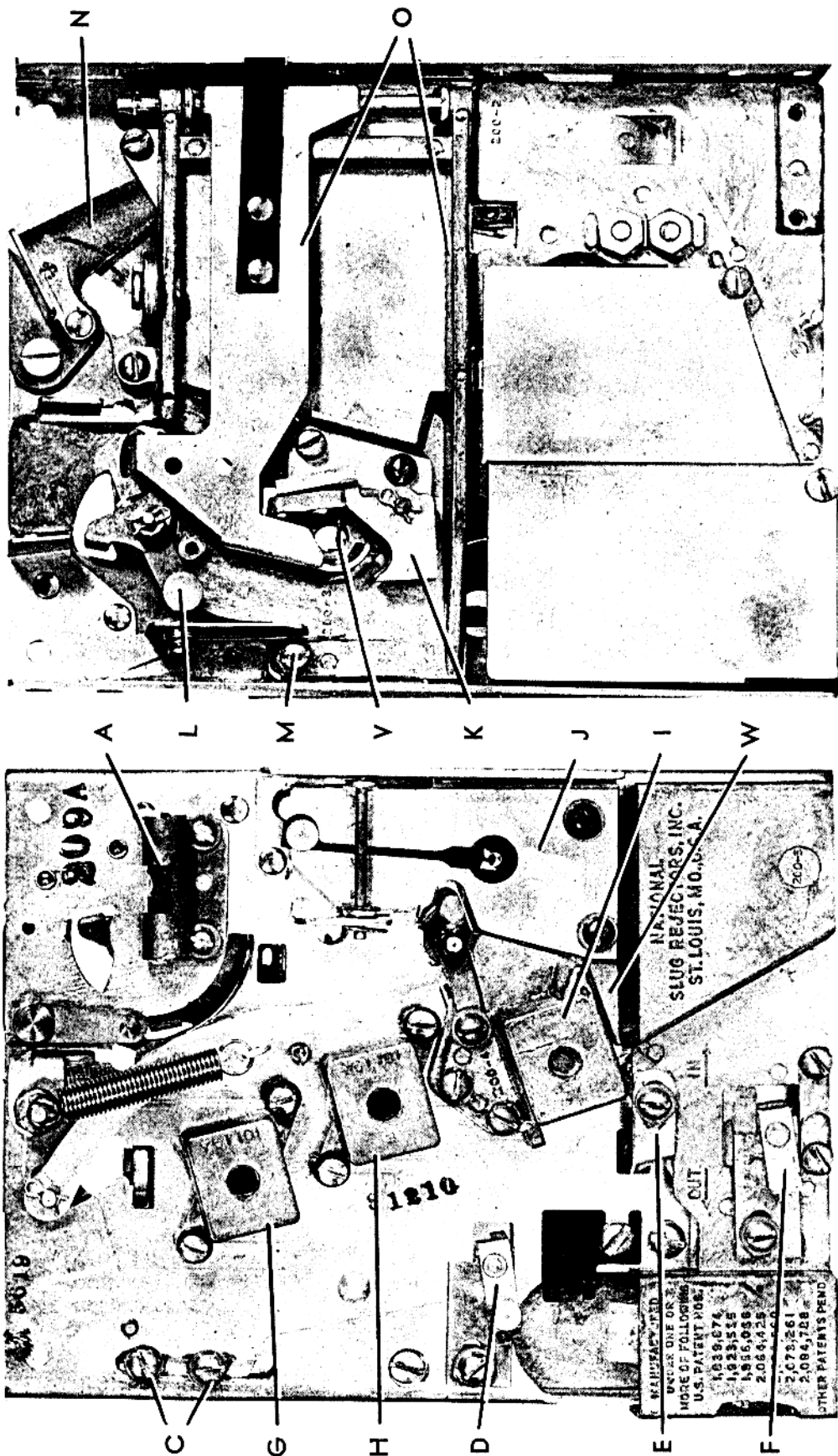


FIG. 1

LEVELING

IT IS ABSOLUTELY NECESSARY THAT THE SLUG REJECTOR BE LEVEL. The spirit level, (A), is provided for indicating the position of the rejector.

SERVICE NOTES

It is recommended that the magnets never be removed unless absolutely necessary. If they are removed, they should be handled with care and a soft iron "keeper" should be placed across the pole faces.

The 10c scavenger gate, (J), has an adjusting screw, (M), which is set to allow the gate to just close. If the screw is not far enough in, the gate will not close. If the screw is too far in, the rear scavenger gates, (O), will be held open.

The 5c undersize gauge, (K), must work freely at all times. If any adjustment is made, the unit should be tested with dimes as well as nickels since the undersize gauge wire, (V), on this gauge, also serves to deflect dimes into the proper path.

The rotary quarter sizer, (L), has no adjustment but should work freely at all times, turning easily with the weight of the quarter.

The scavenger wiper blade, (N), is effected by the adjustment of the deflector, (C), for fast moving 25c size slugs. It is important that this part move freely and returns to its normal position after the scavenger is released.

Use no lubricants.

KEEP THE REJECTOR CLEAN AND LEVEL. If it is necessary to dismantle the rejector for cleaning, be sure to replace washers under the screw heads so the screws will not protrude into the path of a coin.

Adjustments of the slug rejector are given in Figures 2 to 9, inclusive. These illustrations also show the paths of coins and slugs through the rejector. Before making any adjustments, study the illustrations so the reason for the adjustment is fully understood. Guess work and "cut and try" is seldom successful and usually results in unsatisfactory operation.

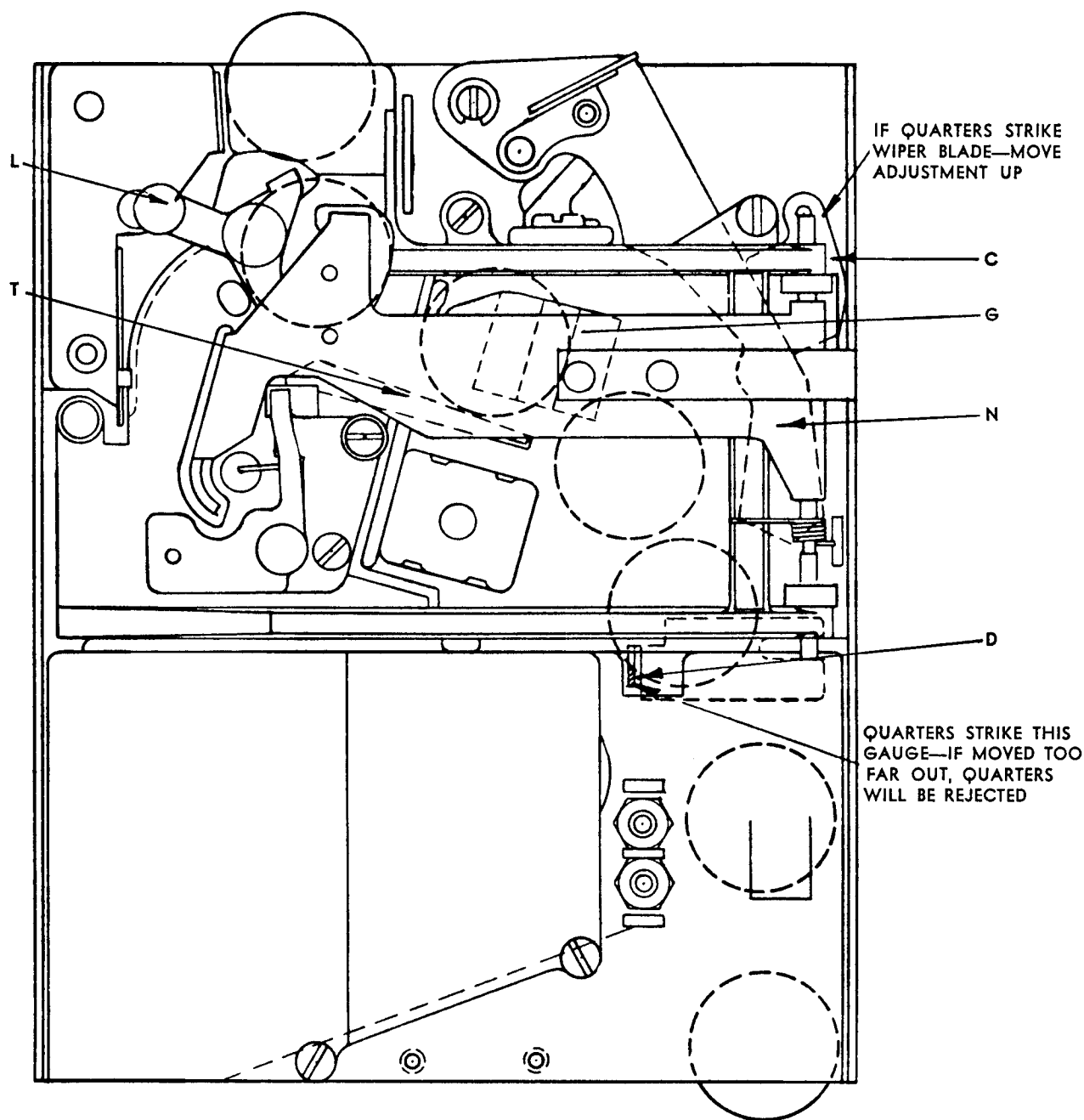


FIG. 2—PATH OF 25c COIN

Fig. 2 shows the path of a genuine 25 cent coin. The coin first drops in the arms of the rotary sizing gauge (Item L) which turns under the weight of a good coin and deposits it upon inclined rail (Item T). As the coin rolls down the rail past the 25c magnet (Item G) its speed is

checked (by generated currents) and it leaves the rail at an angle that will permit it to miss the brass deflector (wiper blade) (Item N) and land with its center of gravity to the right of the copper deflector (Item D), thus it is accepted.

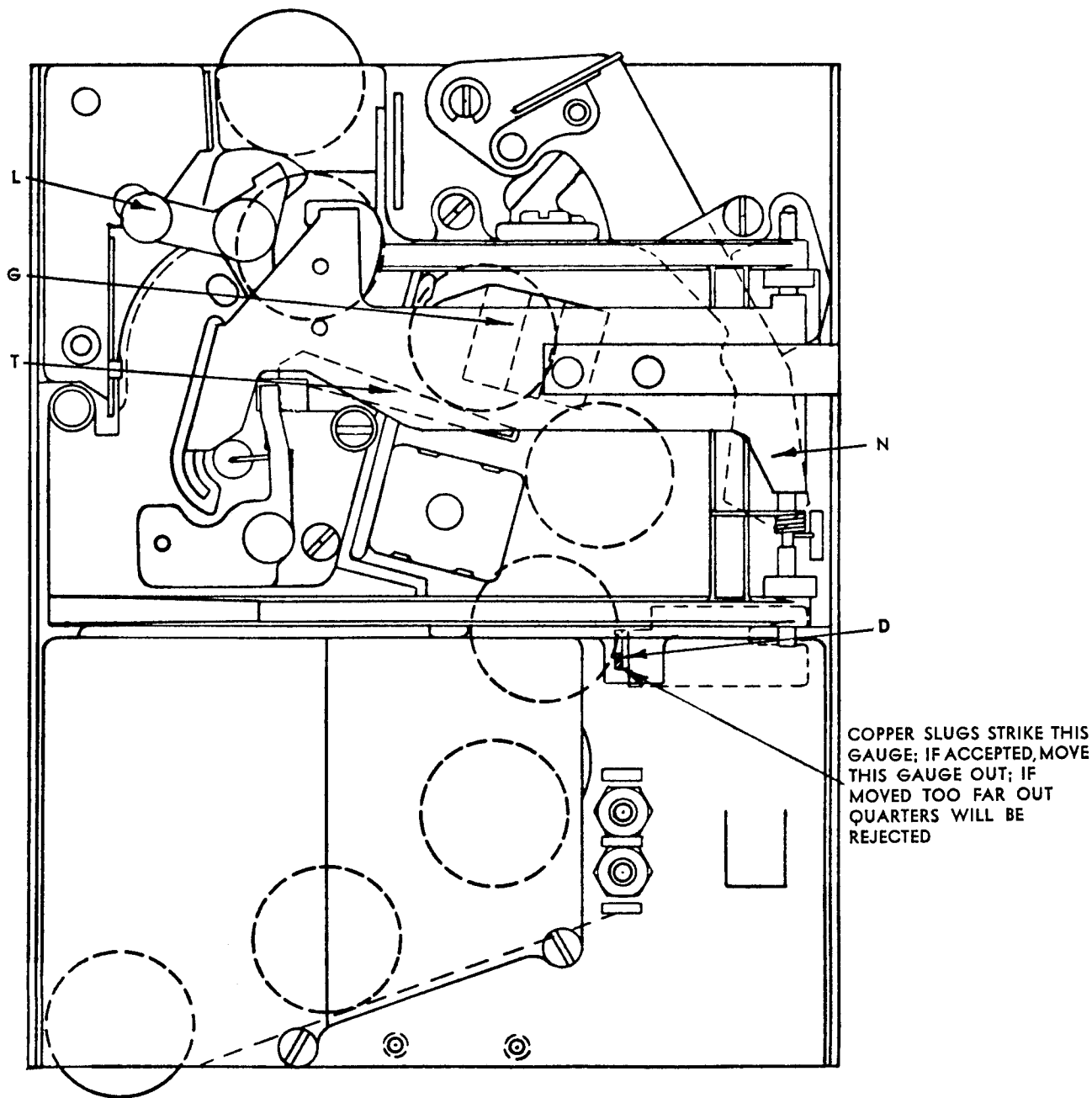


FIG. 3—PATH OF 25c SIZE COPPER SLUGS

A 25c size slug of copper follows the same path as the quarter until it reaches the magnet (Item G). Since copper is a very good electrical conductor, currents of a rather high order are

generated. The copper slug will drop almost straight down at the end of the rail and strike the copper deflector (Item D) with its center of gravity to the left.

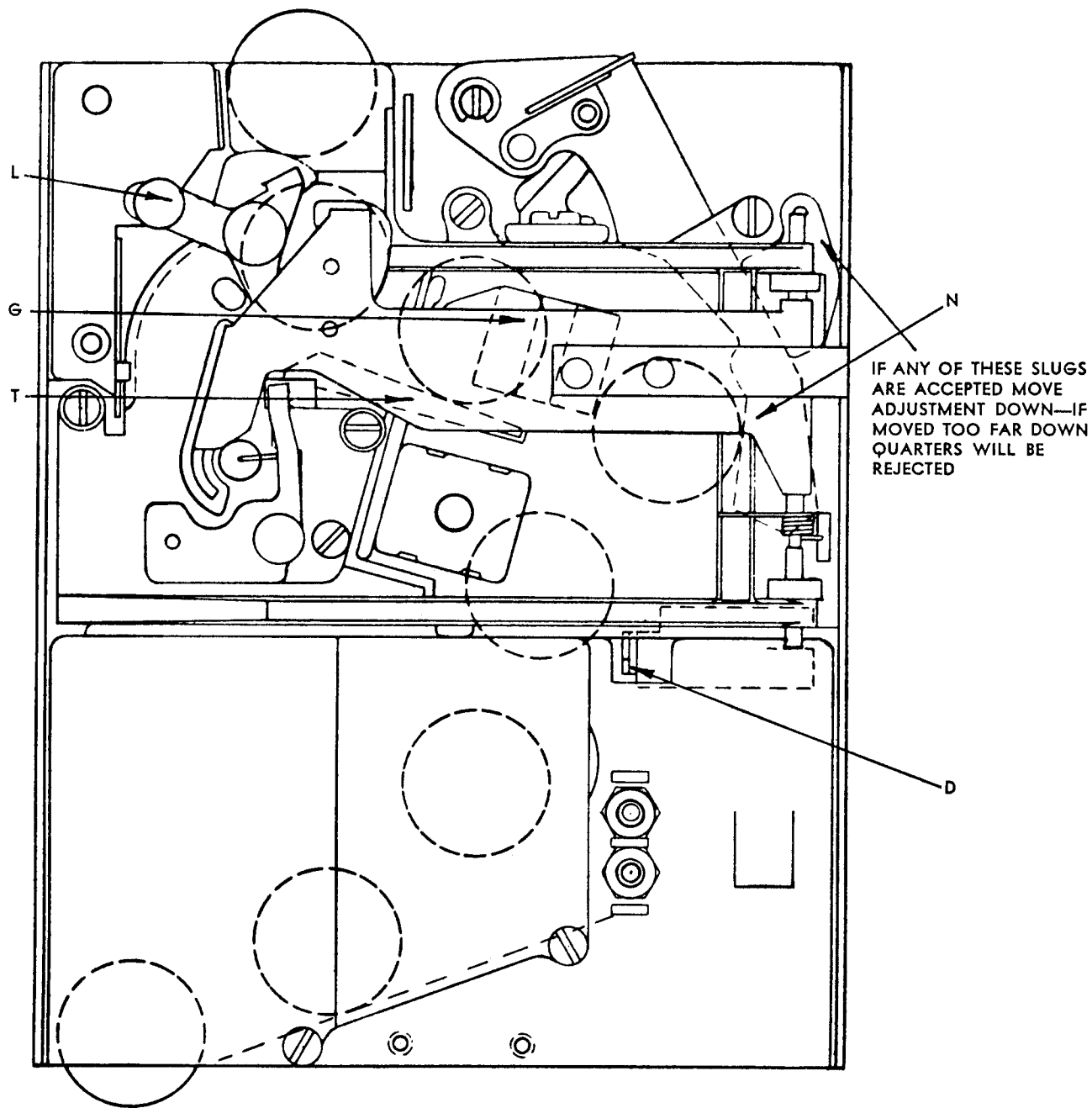


FIG. 4—PATH OF 25c SIZE BRASS, LEAD, ZINC, OR GERMAN SILVER SLUGS

25c size slugs of brass, lead, zinc or German silver have a higher electrical resistance than a quarter and as a result go through the magnetic field at a greater speed. This raises the angle in

which they leave the rail to a point where they strike the brass deflector (wiper blade) (Item N) and are deflected to the left of the copper gauge (Item D).

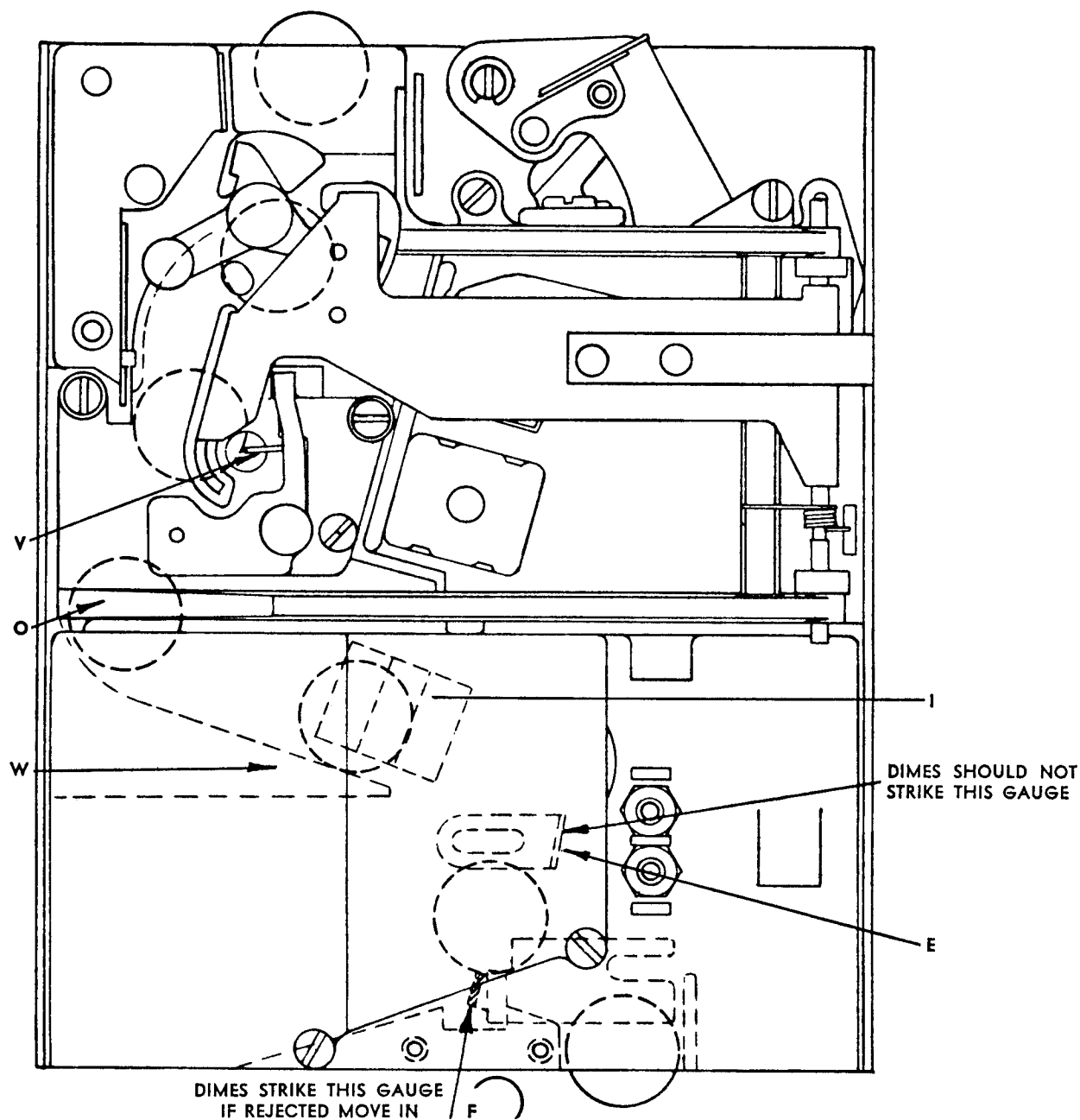
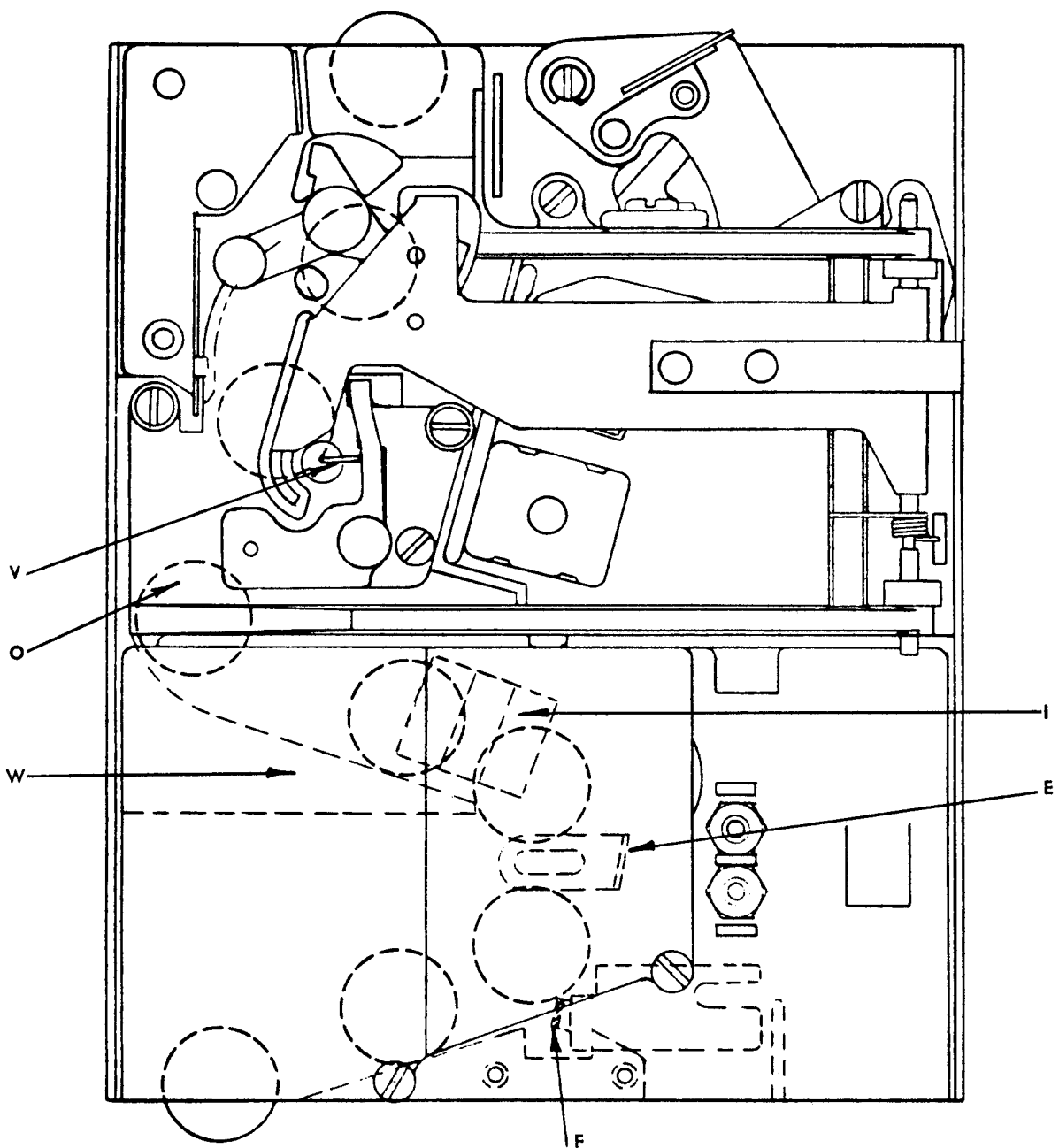


FIG. 5—PATH OF 10c COIN

As a 10c size coin enters the slug rejector it passes through the 25c rotary gauge and to the left of the 5c undersize gauge wire (Item V) (oversize 10c slugs stop here). At the bottom edge of the scavenger gate (Item O) the dime is deflected through an opening in the frame plate of the unit and is deposited on the 10c rail (Item W) which is mounted on the bottom edge of the

10c scavenger gate (undersize slugs are rejected here) if the coin is of the correct size it rolls down the 10c rail (Item W), passing through the field of magnet (Item I) where its speed is retarded enough to prevent it from striking brass deflector (Item E) and will land on copper deflector (Item F) with its center of gravity to the right.

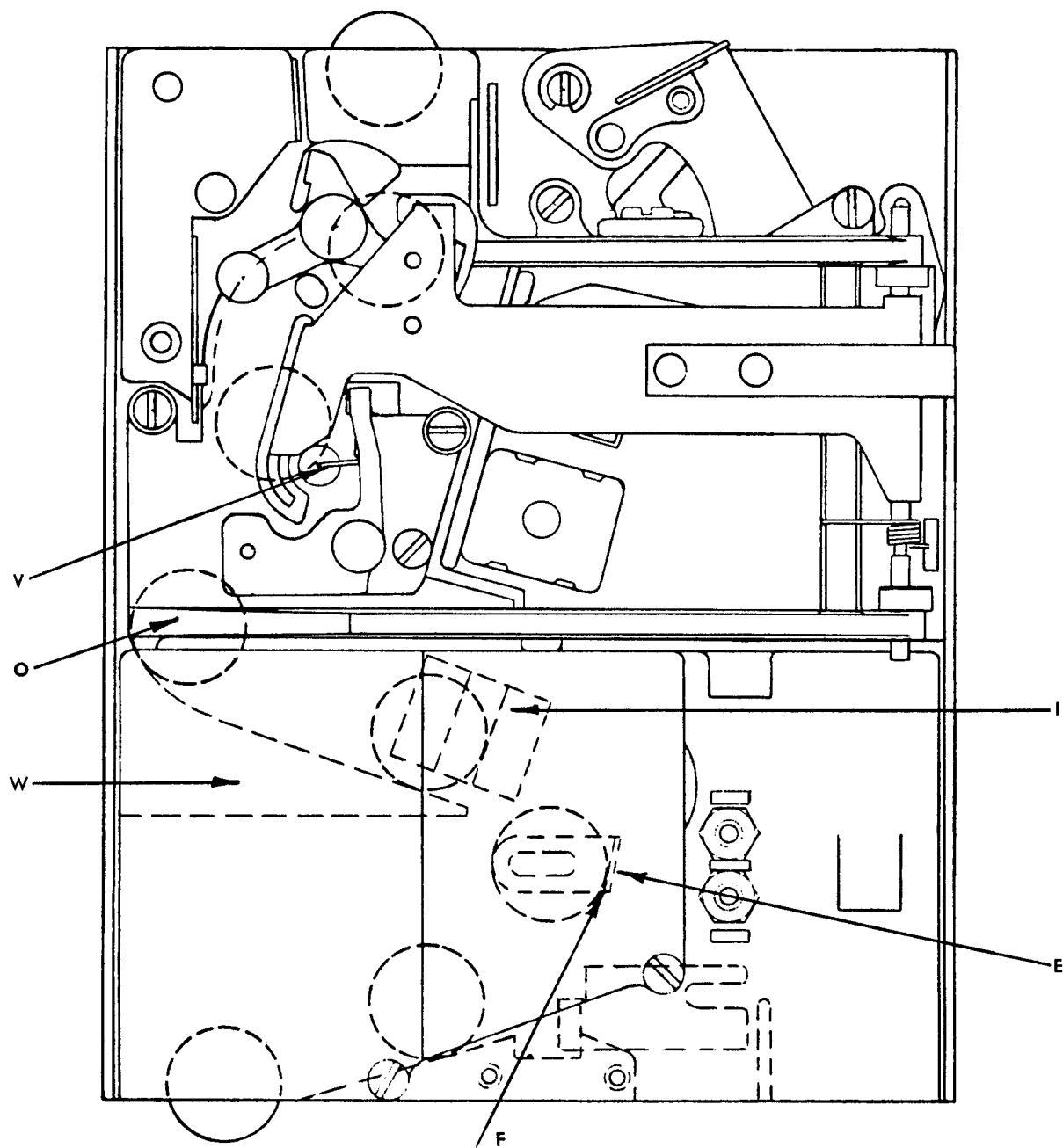


COPPER SLUGS STRIKE THIS GAUGE—IF ACCEPTED MOVE GAUGE OUT
IF MOVED TOO FAR OUT DIMES WILL BE REJECTED

FIG. 6—PATH OF 10c SIZE COPPER SLUGS

10c size slugs of copper follow the path of the dime to the magnet where it is retarded more than a dime due to the higher conductivity of copper.

The copper slug as a result drops off the rail onto the copper deflector gauge (Item F) with its center of gravity to the left.



THESE SLUGS MUST STRIKE THIS GAUGE TO BE REJECTED

FIG. 7—PATH OF 10c SIZE LEAD, ZINC, BRASS, OR GERMAN SILVER SLUGS

10c size slugs of brass, lead, zinc or German silver also pass the magnet (Item I) via the route of a good 10c coin, here again the spurious coins

having a higher electrical resistance will leave the rail (Item W) at a higher rate of speed and strike the brass deflector (Item E).

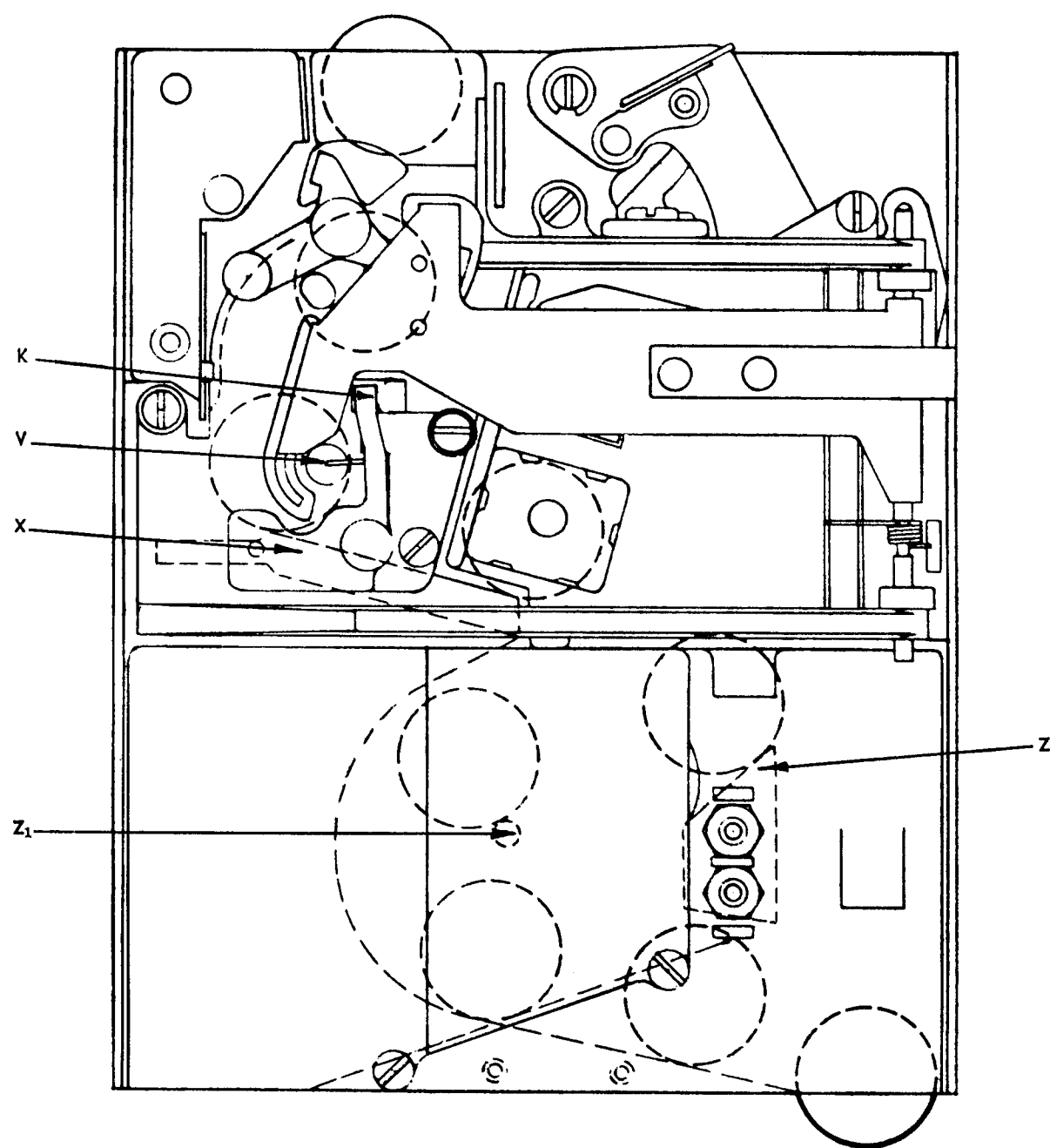


FIG. 8—PATH OF 5c COIN

The 5c coin will pass through the 25c rotary gauge and engage the 5c undersize gauge lever (Item K). If the coin is of the correct diameter, lever K will turn slightly on its pivot and withdraw undersize gauge wire (Item V) from the path of the coin to permit it to drop on the rail (Item X). The genuine 5c coin, having an un-

usually high resistance will roll down rail X at a high rate of speed striking the anvil (Item Z) from which it will rebound with enough force to clear the barrier stud (Item Z1). Thus it is shown that 5c coins are tested for hardness as well as electrical resistance.

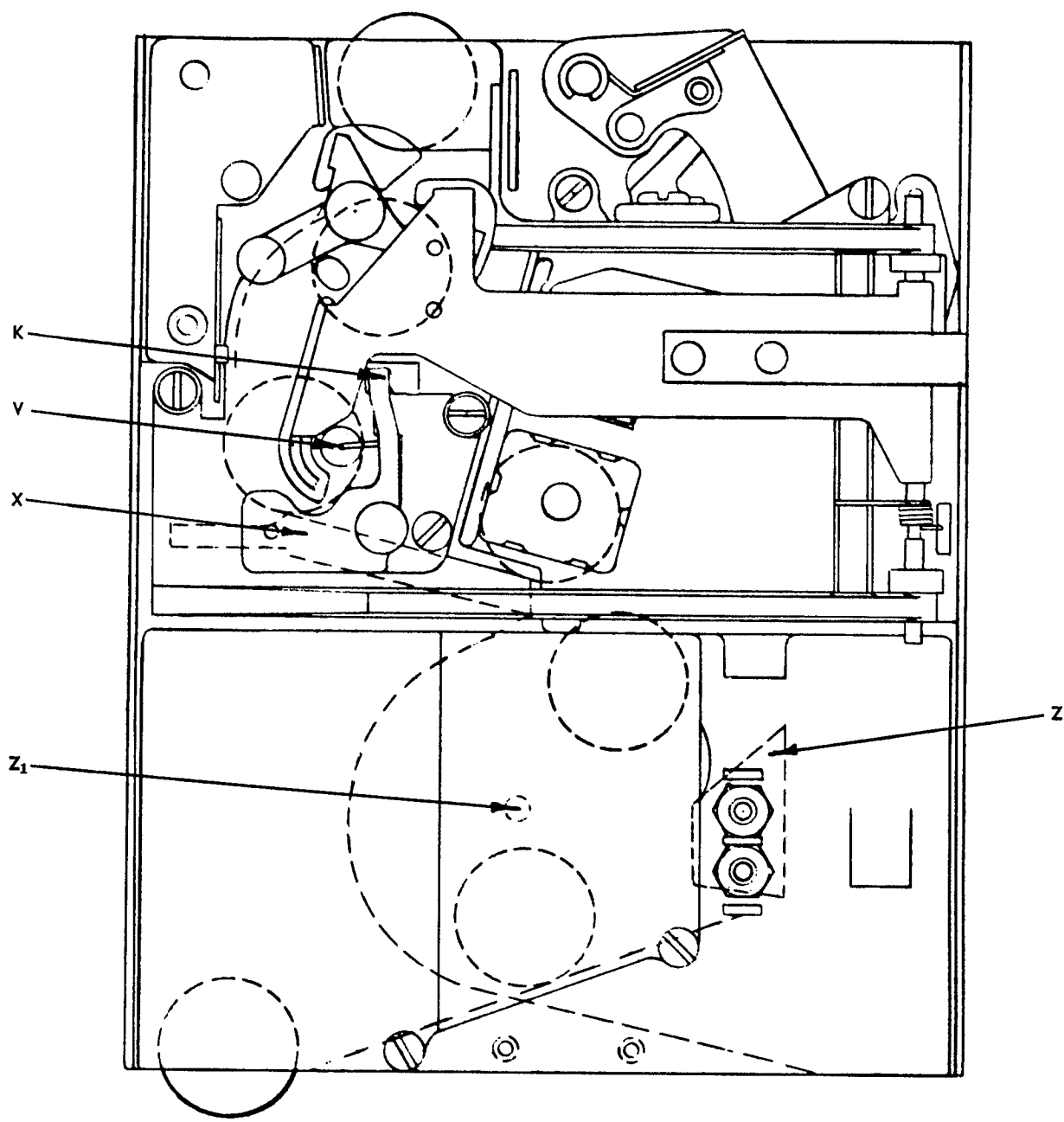


FIG. 9—PATH OF 5c SIZE BRASS, ZINC OR COPPER SLUGS

5c size slugs of brass, copper or zinc all have electrical resistance much lower than the alloy of which nickels are made and as a result will be

slowed down in the magnetic field, this will cause all such spurious coins to strike the anvil too low or miss it entirely and thus be rejected.

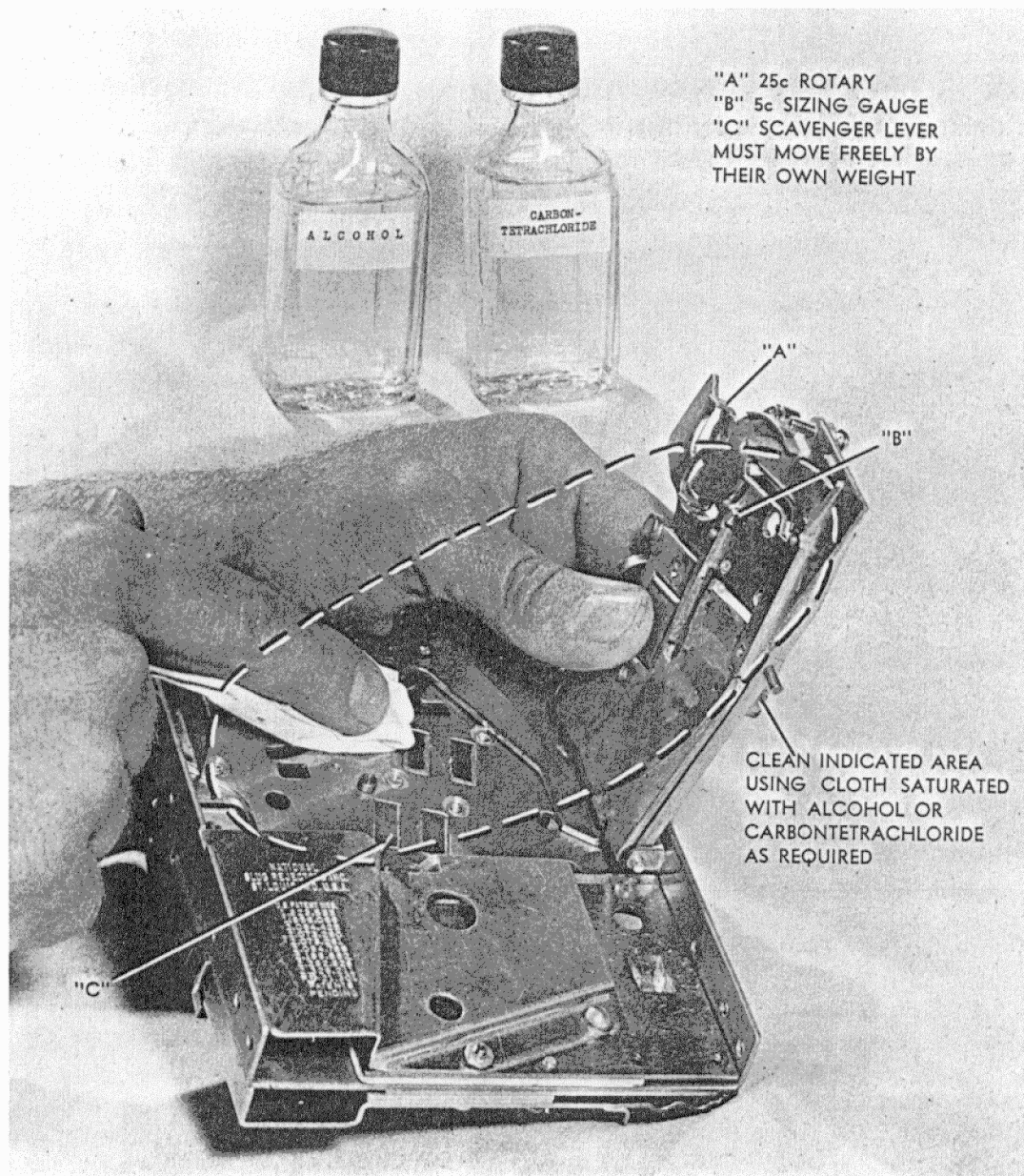
REGULAR PERIODIC INSPECTION AND CLEANING

The continued successful operation of the slug rejector depends on the precise speed with which coins move thru the magnetic fields. Anything that retards the free movement of coins thru the runways, as well as improper leveling, are conditions that must be corrected before any change in adjustments is made. If careful inspection indicates that further readjustment is required, we

recommend that Pages 20 to 29 be studied.

Common forms of dirt can be classified as: dust and particles which can be removed with a brush; metal chips which can be removed by wiping with a clean cloth; sticky syrups that are readily dissolved with alcohol; and oily grime which is removable with carbon tetrachloride.

The following four views illustrate recommended procedures in servicing dirty units.



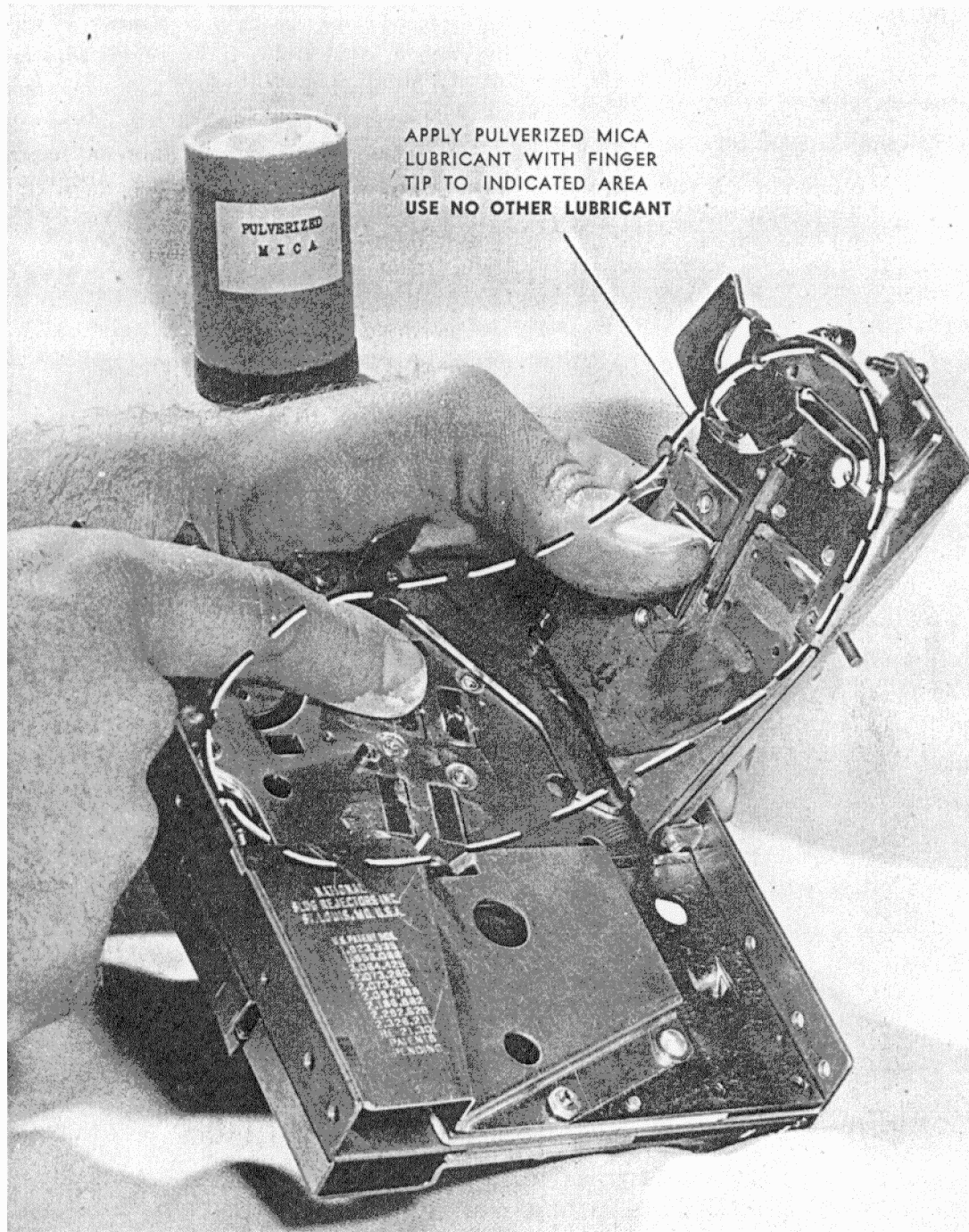
CAUTION! PERMANENT MAGNETS ARE WEAKENED BY REPEATED CONTACT WITH MAGNETIC METALS. DO NOT PLAY WITH MAGNETS.

5-10-25c SLUG REJECTOR

CAUTION!

Do not use highly inflammable solvents, inasmuch as there is an ever present danger of getting burned severely, as well as damaging the

mechanism. Cleaning operations should be conducted in well-ventilated surroundings. Avoid prolonged inhaling of fumes from any solvent.

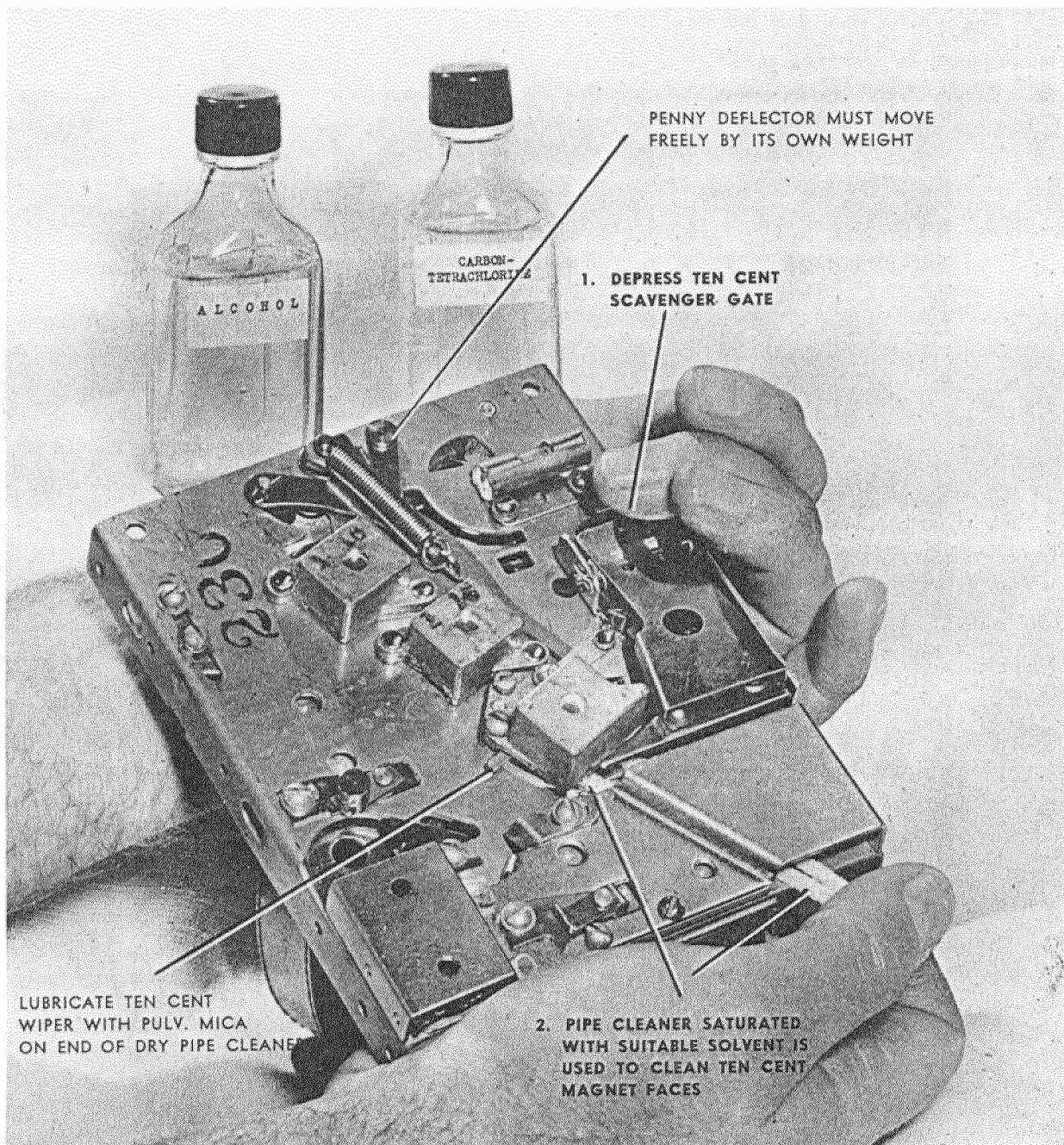


5-10-25c SLUG REJECTOR

When cleaning and adjusting, do not use sharp tools or abrasives of any kind, because incorrect operation of the unit may result.

It is recommended that screw drivers with properly ground bits be used to avoid burring

screw heads. If it becomes necessary to remove screws, be sure to replace them in their respective holes, together with all washers as originally assembled, because a protruding screw end may block a coin path.



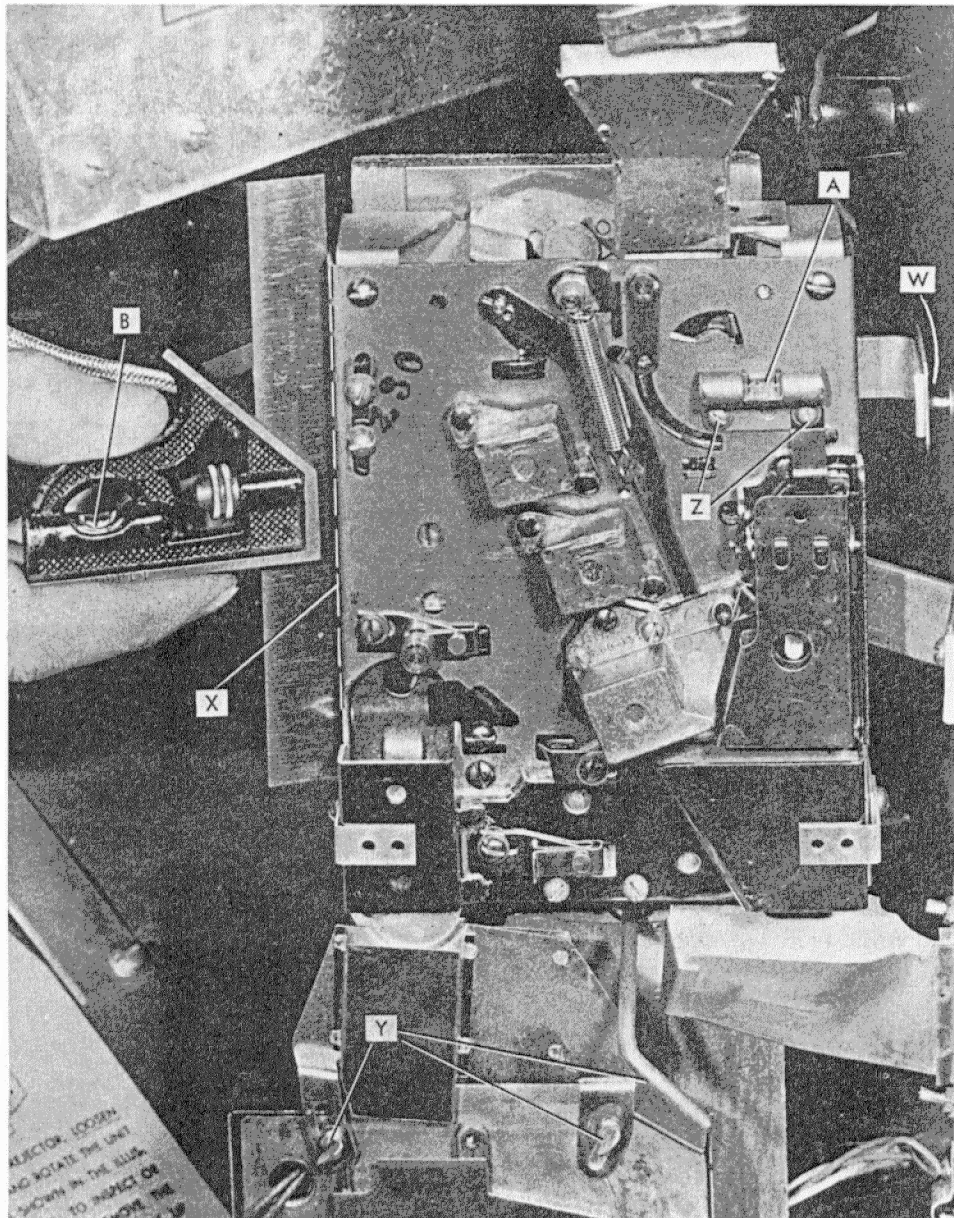
LEVELING AND SCAVENGER OPERATION

When the phonograph is in position, edge "x" is perpendicular and at right angle to level in square. If not, loosen points "y" and tilt entire slug rejector assembly to level point, as indicated in square level "b". Tighten points "y" securely.

If slug rejector level does not agree it should be corrected by loosening screws "z", tilted to bring bubble "a" in correct position and holding screws "z" tightened.

The scavenger mechanism must make a full stroke when operated from the outside button to clear certain magnetic coins and slugs. *Maximum allowable gap at point "w" must not exceed 1/32 inch.* When the scavenger button is pushed in as far as it will go, approximately 1/8 inch remains protruding at the end of the stroke.

Corrective adjustments having been made check operation of mechanism by inserting several coins, one at a time.



SERVICE MANUAL

and

PARTS PRICE LIST

SEEBURG WIRED REMOTE CONTROL SYSTEM

APPLIED TO
SEEBURG SYMPHONOLAS

J. P. SEEBURG CORPORATION

1510 DAYTON STREET

• CHICAGO, U. S. A.

FOREWORD

This manual has been compiled for the service engineer in making any adjustment and repairs that may be necessary on the SEEBURG WIRED REMOTE CONTROL SYSTEM.

In preparing this manual every effort was made to present the material in the simplest form possible. One should not attempt to do any servicing until he has studied the entire manual and thoroughly understands the information therein.

It is the desire of every manufacturer to make a product as nearly perfect as possible. Any mechanism, whether the human body or a man-made machine, will require servicing and the more skilled the service man in either case, the more simple the operation. The SEEBURG WIRED REMOTE CONTROL SYSTEM is simply a mechanical device electrically operated and based upon fundamentals of electricity and mechanics. It represents the more simple form of remote controlled phonographs.

In the repair of any machine, it is absolutely necessary that the theory of operation be understood. One should not attempt to service any mechanical or electrical device without first familiarizing oneself with the fundamentals governing the mechanism. We cannot over-emphasize the importance of carefully studying the various components of the WIRED REMOTE CONTROL SYSTEM herein described before attempting to service any part, otherwise complications may arise necessitating additional expense and loss of time.

Seeburg maintains a nation-wide organization of field engineers to instruct and cooperate with your service department. You will find these men up-to-date on all information pertaining to service. In addition, we maintain a home service department at the factory to help you and to furnish any technical or service information desired.

When requesting information by wire or letter relative to the WIRED REMOTE CONTROL SYSTEM, please give model and serial number of the unit in question. Also please give a full description of the problem encountered so that we may be better able to serve you.

This manual will be supplemented from time to time with service bulletins.

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WIRED REMOTE CONTROL

The Wired Remote Control is a system for making selections in a Symphonola from a remote point in the establishment by means of a cable which connects the wall box or boxes to the Symphonola. This cable contains 25 conductors, each of which provides a path for the electric current to travel from the Selector buttons in the wired selector or wall box to the Selector solenoid in the Symphonola. Each of the 20 buttons in the Wired Selector is connected to its corresponding solenoid by one of the above mentioned cable conductors. In other words, for 20 wired selector buttons we must have 20 conductors from the wired selector to the Symphonola. These 20 conductors take care of the selector circuits. The remaining five conductors in the cable are for miscellaneous circuits such as illuminating lamps, etc.

The Wired Remote Control system comprises three major units, namely; Power Supply, Solenoid Drum and Wired Selectors. All of these units are the Wired Remote Control type and are not interchangeable with the Wall-O-Matic Remote Control Unit. A brief description of each unit follows:

1. POWER SUPPLY UNIT:

The Power Supply Unit (Fig. 5) contains the power transformer, auxilliary magazine relay, two cable sockets, light switch, wired selector cable and a fuse for protection of the transformer. This unit reduces the line voltage from 115 volts, 50-60 cycle to 25 volts, which is used to operate the various relays and solenoids in the Wired Remote Control system. It also provides power for the illuminating lamps in the Wired Selector unit. The light

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switch provides a means of turning off the illuminating lamps in all Wired Selectors when so desired without disturbing the system's ability to make selections. A fuse is placed in the primary circuit of the power transformer for protection and when necessary to replace it, a fuse of exactly the same rating must be used.

2. WIRED SOLENOID DRUM:

The Wired Solenoid Drum is mounted on the Symphonola mechanism and contains the previously mentioned 20 selector solenoids and it is through this unit that the Symphonola mechanism is caused to pick the desired record corresponding to the buttons pushed in the wired selector.

3. WIRED SELECTOR:

The Wired Selector is that part of the system from which selections are made at some remote or distant point in the establishment. The entire unit is housed in a single piece die casting. Figure 4 shows in detail the assembly of the Wired Selector with its housing removed. Figure 8 shows in detail the housing assembly. The two units are held together by means of a screw-on type of lock (Item 11, Fig. 8) and the housing can be removed only by the use of a key which permits the unscrewing of the lock.

THEORY AND OPERATION

Figure No. 2 is a complete Schematic Wiring diagram of the Wired Remote Control System. Examination of this diagram shows that conductors 1 to 20 inclusive of Wired Selector Cable M19 and Interconnecting Cable M20 carry the individual circuits from the Wired Selectors to the Wired Solenoid Drum, which in turn causes the Symphonola mechanism to pick the desired selection. Note that the Interconnecting Cable M20 terminates on Cable Plug M14 and Wired Selector Cable M19 terminates on Cable Socket M13 at one end, the other end on the Solenoid Drum.

Cable Plug M14 and Cable Socket M13 provides an easy and quick method of disconnecting the Wired Selectors from the Symphonola without disturbing the wiring of either unit in case the Symphonola has to be removed for service and repairs.

Selector Switches M1 are of the momentary contact type, i.e. contact is made only while any plunger is depressed and contact is broken as soon as pressure is released. The switches are also arranged so that only one selector circuit is effective at any one instant in case two buttons are depressed at the same time. The instant that the buttons are depressed the circuit is broken and the selection on the even numbered switch will be made, i.e. suppose that button No. 13 and button No. 2 were pushed simultaneously, selection No. 2 would result. However, if buttons No. 3 and No. 13 were pushed then selection No. 13 would result, or if buttons No. 2 and No. 20 were pushed selection No. 20 would be made. This condition is due to the wiring of the Selector switches M1, where all the odd numbers are on one side and all even numbers on the other.

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So far we have only considered 20 conductors in the cable, the remaining 5 conductors are for miscellaneous circuits.

The illuminating lamps are wired in series and all lamps must be in the sockets otherwise the lamps will not light. Also, if any one lamp burns out the other lamps will go out also. The illuminating lamps are supplied with power over conductors No. 22 and No. 23 of Cable M20 through switch M22, which is located in the Symphonola and is used to turn off the illumination in the Wired Selectors when desired. This does not affect the selection of records or otherwise disturb the operation of the system. Switch M22 controls the lights in all the Wired Selectors in any one system.

The system is so arranged that in case a coin is dropped in a Wired Selector before the Symphonola has been turned on, the mechanism in the Wired Selector will register the credit and the desired selection can be made immediately but it will not be played until the power has been turned on in the Symphonola.

This holds true if the Symphonola line cord is plugged into the wall outlet. If the Symphonola line cord is pulled out of the wall outlet then all power is off and neither the Symphonola or Wired Remote Control System will operate.

SEQUENCE OF OPERATION.

With Schematic Wiring Diagram Fig. No. 2 before you, follow closely the following:

When a coin is dropped into the coin chute of a Wired Selector it passes through the slug rejector and just before it passes out of the slug rejector it momentarily closes contacts M5,

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which are mounted on the slug rejector, and current flows from the power transformer (Green Wire) over cable conductor No. 21, through the winding of Locking Relay M3 and back over cable conductor No. 22, to the opposite side of the power transformer (yellow wire). This actuates Locking Relay M3 and closes contacts "A" which are locked in the closed position by armature "B" of Release Relay M4. This closes the circuit through the winding of Release Relay M4 to the common side of Selector Switches M1. Now a button (assume button No. 20) is depressed closing contacts No. 20. Current now flows through cable conductor No. 20 through Selector Solenoid No. 20 to the common ring. From the common ring it flows over conductor No. 25 of cable M19 down to auxiliary relay M6, through its winding and back to the green wire of the power transformer. This completes the flow of current through the three relay coils and the relays operate simultaneously. Now observe what happens as each relay operates. When Selector Solenoid M20 operates it raises a selector pin which stops the selector helix and causes the Symphonola to select the proper record. When auxiliary magazine relay M6 operates it closes contacts "C", which are in parallel with coin switch contacts "A", "B", "C", "D" and "E" of Fig. 1 through conductors No. 21 and 22 of cable M19. This operates the Symphonola Magazine Relay which registers a credit and starts the Symphonola mechanism. When Release Relay M4 operates its armature "B" releases contacts "A" of Locking Relay M3, which opens the circuit preventing the making of another selection until another coin is deposited.

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For each succeeding selection the foregoing sequence is repeated.

From the foregoing it will be seen that for each coin dropped in the Wired Selector a selection must be made. In other words, you cannot drop in five coins and then make five selections, you must drop in a coin and make a selection, then drop another coin and then make another selection and so on until all desired selections are made. After the foregoing selection cycle has been completed Cancel Electro Magnet M2, Fig. 1, operates as the Symphonola mechanism closes contacts M15. When Cancel Electro Magnet M2 operates its armature "E" pushes the selector stop pin (Item 10, Fig. 6) down to its original position which clears this selection and allows the selector helix to continue around making other selections.

INSTALLATION

It is assumed that the Symphonola has been equipped at the factory for Wired Remote Control. Instructions for installing the Wired Remote Control equipment in a Symphonola already in the field will be covered in a supplement to this manual.

No definite rule can be laid down for the installation of a Symphonola with Wired Remote Control because every installation will present a different problem with peculiarities of its own.

Figure 3 shows two methods of running the cable from the Wired Selectors to the Symphonola. One or the other of these methods or possibly a combination of the two should be applicable to most installations unless of a very special nature.

In general it does not make any difference how the cabling is done as long as it is protected from mechanical injury, and that the distance from the Symphonola to the wired selector, that is the greatest distance from it, does not exceed 200 feet, and that not more than 12 wired selectors are supplied with power through any one cable.

The Wired Remote Control Power Supply is designed to furnish power to 12 Wired Selectors. Should more than 12 be required an auxilliary power transformer should be used and may be ordered from J. P. Seeburg Corporation under Part No. 11211. This transformer comes ready wired and equipped with a 4-prong plug that fits into a 4-prong socket (Item 11, Fig. 5) on the power supply. This automatically connects the auxilliary power transformer in the circuit. The only other requirement is to fasten the auxilliary transformer to the floor of the Symphonola cabinet with four

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No. 8 round head wood screws 5/8 inches long.

(A) WIRED SELECTOR.

After the location of the Symphonola and Wired Selectors has been decided upon, the case of the Wired Selector should be removed. This can be done by inserting a key in the lock (Item 11, Fig. 8) and turning it counter clock-wise until it disengages with the lock stud. The housing can then be lifted off which exposes the entire assembly.

The Wired Selector Housing (Fig. 8) has as part of its assembly the program holder (Item 2, Fig. 8), which holds the 20 Selection title strips. The program holder is easily removed from the housing by grasping it on each side near the bottom and lifting up. The program retainer spring (Item 8, Fig. 8) will spring back and allow the program holder to be drawn from the program retainer strap (Item 7, Fig. 8). In replacing the program holder the top edge is first inserted under program retainer straps (Item 7, Fig. 8) as far as it will go. The lower edge is then pushed straight down until it snaps into place, past the extruded edge of program retainer springs which hold it securely in place.

Four holes are provided in the back plate for mounting the Wired Selector (see Fig. 3). These holes accommodate a size 10 screw. If the Wired Selector is mounted on a wood wall or post, one inch size No. 10 round head wood screws are recommended. If the Selectors are mounted on Tile, brick or plaster wall a toggle or expansion bolt may be used, or in some cases it may be necessary to provide a wood backboard which is first fastened to the masonry wall and the Selector then screwed to this board. In

Wired Remote Control System Service Manual

any event, the size of the mounting bolt or screw should be equivalent to a size No. 10.

In mounting the Wired Selectors care must be taken to see that the unit is level horizontally and plumb vertically. If this is not done, the operation of the 5¢ slug-rejector will be affected and it will not properly select or reject coins.

After the mechanical work of mounting the Wired Selectors in their respective locations is completed, the cabling can be started. Use interconnecting cable, Seeburg Part No. 11204, which can be purchased in lengths to meet your requirements.

At the Symphonola a cable plug, Seeburg Part No. 11203, is attached to the end of the cable. The conductors are connected to the plug in the same order as is given for connecting to the Wired Selector. In attaching the plug to the cable be sure that the clamp is pulled up tight so that no strain is thrown on the conductors.

(B) CABLING.

To connect the cable to the Wired Selector terminal strip (Item 24, Fig. 4), remove the cable clamp or clamps at the lower edge of the back plate and lay cable in the notch, then replace the cable clamp and tighten it down. The cable can now be cut off and it should be cut 16 inches from the top side of the cable clamp. This will give plenty of wire length for connecting the individual conductors. Now with a sharp knife remove the outer braid and the paper serving from the cable, then bend the exposed conductors at right angles to the back plate (or directly toward you), then bend the cable so that it runs across the terminal

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(Item 24, Fig. 4) strip just below the bottom row of terminals. A neater job will result if you will take a piece of strong twine and starting at the cable clamp put a series of half hitches about $\frac{3}{4}$ inch apart up to the point where the conductors leave the form, then put a half hitch between each conductor as you proceed down the terminal strip.

The interconnecting cable (Part No. 11204) has 25 conductors and each conductor has a color, making it unnecessary to do any testing in order to get the conductors in their proper places. The sequence in which the conductors are connected to the terminals is given in the following table and this sequence holds true for all Wired Selectors and Cable Plugs or Terminal Strips in the Wired Remote Control System and the sequence should never be broken or changed.

Conductor No.	Color	Connect To Terminal No.
1	Blue	1
2	Orange	2
3	Green	3
4	Brown	4
5	Slate	5
6	Blue White	6
7	Blue Orange	7
8	Blue Green	8
9	Blue Brown	9
10	Blue Slate	10
11	Orange White	11

Wired Remote Control System Service Manual

Conductor No.	Color	Connect To Terminal No.
12	Orange Green	12
13	Orange Brown	13
14	Orange Slate	14
15	Green White	15
16	Green Brown	16
17	Green Slate	17
18	Brown White	18
19	Brown Slate	19
20	Slate White	20
21	Blue Red	21
22	Orange Red	22
23	Green Red	23
24	Brown Red	24
25	Slate Red	25

It the above table is carefully followed, there will be no errors due to incorrect wiring.

If you have two cables in each Wired Selector, as in the case of cabling method No. 1 of Fig. 3, you will, of course, have two conductors of the same color for each terminal of the terminal strip.

When connecting the cable conductors to their respective terminals do not remove too much insulation as too much bare wire may result in short circuits between terminals and incorrect selections will result.

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(C) EXTRA SPEAKERS.

Provision is made to supply the power for extra speakers through the interconnecting cable, conductors No. 24 and 25 are reserved for this purpose. Refer to Fig. No. 1, which shows the connections from the amplifier to the terminal strip on the side of Power Supply, (Item 2, Fig. 5). This connection is made by using a regular extra Speaker extension plug and cord which can be cut from the cord supplied with the extra Speaker, about 50 inches of this cord will be needed. This puts the power into the cable and it will appear on terminals 24 and 25 of the Wired Selectors (Fig. No. 1). The extra Speaker can then be connected to terminals 24 and 25 of the nearest Wired Selector.

In no case can more than two extra Speakers be used on a single system of Wired Remote Control.

MAINTENANCE AND SERVICE

Servicing the Wired Remote Control is simple in as much as there are so few parts which can give trouble and unless due to carelessness with resultant mechanical injury there is little to do to the system except to keep the relays free from dust and dirt and an occasional cleaning of the relay contacts as outlined under "ADJUSTMENTS".

Failure to operate can readily be traced down as either no power, or a blown fuse (M10, Fig. 1) will likely be the cause of most failures. No power, power is off. Blown fuse on circuit which feeds Symphonola or Symphonola line cord has been pulled out of the wall receptacle.

If examination reveals a blown fuse (M10, Fig. 1) and upon replacing this fuse the new fuse blows immediately it indicates an overload due to short circuited conductors. This condition must be corrected so that the system will operate with the proper size fuse, which is 3 ampere. Under no condition should a fuse of higher rating be used as it will most likely damage the power transformer.

(A) SYMPHONOLA IS ON BUT WIRED REMOTE CONTROL DOES NOT MAKE SELECTIONS:

Again check fuse M10, Fig. 2, if found to be good then check the contacts of locking relay M3, Fig. 2 to see that they are making contact. If these contacts are found to be in good condition and making contact the trouble is then an open circuit. Try different Selector button numbers and if other buttons make selections it is an indication that the trouble is in the individ-

Wired Remote Control System Service Manual

ual circuit, and by checking from point to point with a voltmeter the circuit can be traced until the meter shows no reading, which indicates the trouble is between the last point checked and the point where no voltage is present. In order to check the circuit completely it will be necessary to have someone hold down the button corresponding to the circuit under test, or use a jumper across the contacts of Selector switch M1, Fig. 2, so that current will flow through the switch and out on its corresponding cable conductor.

(B) SELECTION IS MADE BUT SYMPHONOLA DOES NOT START:

Trouble of this nature is traceable to either the contacts "C" of the auxilliary magazine relay M6, Fig. 2 or in the Symphonola Magazine relay circuit, which can be quickly determined by dropping a coin in the Symphonola coin slot or by operating the Symphonola coin tripper manually. If the Symphonola starts under the above condition then the trouble is definitely in the contacts of auxilliary magazine relay (M6, Fig. 2) and their connections. If inspection shows all connections to be in good condition, examine the relay contacts closely for dirty or pitted contacts or for failure to close when auxilliary magazine relay M6, Fig. 2 operates. The contacts should be cleaned and adjusted as outlined under "ADJUSTMENTS". A hole is provided in the side of power supply subpanel and is closed with a plug (Item 5, Fig. 5) which can easily be removed for inspection of the contacts.

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(C) COIN IS DROPPED IN WIRED SELECTOR BUT NO SELECTION CAN BE MADE:

This condition indicates trouble in the coin switch (Item 9, Fig. 4) which is mounted on the back side of the slug rejector assembly (Item 7, Fig. 4). If this switch does not make contact, locking relay (Item 13, Fig. 4) will not close contacts "A" (Fig. 2) which prevents a selection being made. Inspection and adjustment of contacts (M5, Fig. 2) will usually correct trouble of this nature.

(D) ILLUMINATING LIGHTS IN WIRED SELECTOR DO NOT LIGHT:

Power to Symphonola not turned on, light switch (M22, Fig. 2) is in the "Off" position or illuminating light bulb (M17, Fig. 2) burned out.

It is unlikely that all illuminating lights (Item 25, Fig. 4) in all wired selectors will burn out at one time, except in very remote cases of exceedingly high line voltage. However, if all Wired Selectors in a System fail to light it indicates an open in the lighting circuit of the system. Check carefully conductors and connections (Nos. 22 and 23) of cable (M20, Fig. 2) making sure that other parts of the system is operating properly.

If one or two of the Wired Selectors fail to light while others of the same system light, the trouble lies within the Wired Selector or Selectors that fail to light and is directly traceable to a burned out bulb (M17, Fig. 2) (Item 25, Fig. 4). Examination of Schematic Wiring Diagram (Fig. 2) shows the four illuminating bulbs (M17) wired in series, which means that if any

Wired Remote Control System Service Manual

one bulb burns out or is removed from its socket the other bulbs will not light until the defective bulb has been replaced.

To locate the defective bulb, replace the bulbs one at a time with a bulb known to be good until all bulbs light. In some instances visual inspection will reveal the defective bulb as they at times turn dark when the filament burns out and a bulb whose glass has turned very dark can be looked upon with suspicion. The bulbs (No. 17, Fig. 2) (Item 25, Fig. 4) used in the Wired Selectors are standard Mazda type 44 with bayonet base, and all defective bulbs must be replaced with this bulb, otherwise the proper illumination will not be obtained.

(E) WIRED SOLENOID DRUM:

The Wired Solenoid Drum Assembly (Fig. 6) is a selector mechanism mounted on the rear of the Symphonola chassis directly below the rear vertical helix (Item 33, Fig. 6) by means of a flexible non-binding coupling. The Wired Solenoid Drum also contains the 20 selector solenoids (Item 6, Fig. 6) and cancel Electro Magnet (Item 16, Fig. 6).

The Wired Solenoid Drum is connected to the Wired Selectors by means of Cables (M19 and M20, Fig. 2).

When any one of the Wired Selector buttons is depressed it closes the circuit to its corresponding solenoid and current then flows through the solenoid winding which in turn attracts and raises solenoid plunger (Item 7, Fig. 6), which in turn pushes selector stop pin (Item 10, Fig. 6) up against selector disc (Item 3, Fig. 6). The rotating selector disc (Item 3, Fig. 6) has a stop (Item 15, Fig. 6) that will engage with any selector

Wired Remote Control System Service Manual

stop pin (Item 10, Fig. 6) that happens to be pushed up. For example, if stop pin No. 9 is pushed up the selector disc (Item 3, Fig. 6) will rotate until its stop (Fig. 6, Item 15) engages pin No. 9. This will stop the rear vertical helix (Item 33, Fig. 6) in exactly the same position as if Selector lever No. 9 on front of the Symphonola cabinet had been pushed down manually. This action in turn causes No. 9 to be selected.

Immediately after the selection has been made the Symphonola mechanism closes cancel switch (M15, Fig. 1) also shown as (Item 24 in Fig. 6), which in turn energizes cancel electro magnet (Item 16, Fig. 6), which pulls down its armature. This pushes selector pin reset shaft (Item 18, Fig. 6) down on selector pin No. 9 (Item 10, Fig. 6) and it returns the selector pin to its original non-operated position.

Cancel electro magnet (M2, Fig. 1) receives its operating current through a 60-watt lamp (M17, Fig. 1) and contacts (M15, Fig. 1). Should cancel elector magnet (M2, Fig. 1) fail to operate, check the 60-watt lamp (M17, Fig. 1) to make sure that it is not burned out or loose in its socket. Also check contacts (M15, Fig. 1) and see that they make contact each time the Symphonola operates, also see that these contacts are clean and not pitted.

(F) SLUG REJECTOR:

The Slug Rejector used in the Wired Remote Control System is National Slug Rejector Standard S type, for nickles only. Instructions covering service and adjustment of these units is covered in a bulletin entitled "Nickle Slug Rejection by National", and may be obtained from the J. P. Seeburg Corporation, Service Department.

ADJUSTMENTS

There are comparatively few adjustments to be made in the entire Wired Remote Control System. The relays and their contacts are the only parts of the system that will require attention.

For correct adjustment and care of the contacts you should have a set of contact adjustment tools shown in Figure 7. The gram scale "A" is used to determine the amount of pull required to move the armature of a relay. When a value of grams is given for a particular relay, the gram scale is used to set other like relays to the same value. This adjustment is made by adjusting the tension of the armature reactile or tail spring until the specified pressure in grams just moves the armature away from its back stop, with the tongue of the gram scale at a specified point. This point is usually at the extreme end of the armature.

The contact burnisher "B" is used to clean and polish the relay contacts. This is done by drawing the burnisher back and forth between the contacts while at the same time a small amount of pressure is applied to the armature in order to hold the contacts firmly against the burnisher.

The contact spring bender "C" is used to bend the contact springs so that their contacts are the correct distance apart.

The relays in the Wired Remote Control System are designed and factory adjusted to operate with a specified amount of current flowing through their winding. The adjustment, however, is the same as with the Gram scale. For both methods, the adjustment is made with the tail or reactile spring tension. For adjustment in the field the Gram Scale is the most convenient and practical.

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CAUTION: When cleaning contacts or adjusting Relays be sure that all power has been turned off. This precaution will not only save you from unpleasant shocks, but will prevent damage to the Relay Contacts through short circuit.

(A) ADJUSTING THE AUXILLIARY MAGAZINE RELAY:

The Auxilliary Magazine Relay (Fig. 6, Item 7) is adjusted as follows: when Armature "D" (Fig. 6) is pulled in, moving contact "C" (Fig. 6) strikes stationary contacts "B" and when held in this position, moving Contact "C" should clear the bakelite Armature insulator $1/32$ of an inch. This may be adjusted by loosening screws "G" and sliding stationary Contact "B" in or out to get the proper distance at "D".

With the Relay in the relaxed or non operated position, the stationary Contact "B" and moving Contact "C" should stand open $1/16$ inch. This clearance can be adjusted by again loosening screws "G" and moving Armature back stop "A" in or out until the proper clearance is obtained.

After the Contacts are adjusted and the screws tightened, the Armature tension is adjusted. Place the tongue of the Gram scale on the moving Contact "B" at the point indicated by arrow "B" and slowly apply pressure to the Contact until the armature leaves the Back Stop "A". The pressure required to do this should be between 35 and 40 Grams. If more or less pressure than specified is required, it is corrected by bending armature Reactile Spring Support "F" which controls the tension of Armature Reactile Spring "E". This completes the adjustment of Auxilliary Magazine Relay (Fig. 6, Item 7).

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(B) INTERLOCKING RELAY ASSEMBLY:

Interlocking Relay Assembly (Fig. 4, Item 11) consists of Locking Relay (Item 13) and Release Relay (Item 14) and a mounting plate shown as Item 11. The adjustment of these Relays are much the same as outlined for the Auxilliary Magazine Relay.

(C) RELEASE RELAY:

Release Relay (Fig. 4, Item 14) is adjusted first by pushing its Armature "H" down as far as it will go and then adjusting stop "G" by bending until there is 1/16 inch clearance between the extreme end of Stop "G" and Armature "H" with the tongue of the gram scale applied to Armature "H" at point indicated by arrow "H". Adjust tension of Armature Reactile Spring "I" by bending Reactile Spring Support "J" until Armature "H" just leaves Stop "G", when a pressure of 10 to 15 grams is applied with gram scale applied to Armature just above point indicated by arrow "H". While making this adjustment be sure that Armature "A" is held away from Armature "H". If this is not done a correct gram value will not be obtained due to friction between Armature "A" and Armature "H".

(D) LOCKING RELAY:

The Locking Relay (Fig. 4, Item 12) is adjusted next. With Locking Relay (Item 13) in its operated position, its Armature Stop "B" is adjusted until there is a clearance of 3/32 inch between the extreme end of Stop "B" and Armature "A". Now hold or block Armature "H" so that it does not touch the latch plate "X" of Armature "A" and apply tongue of Gram Scale to point indicated by arrow "X", adjust tension of Reactile Spring "F" by bending Reactile Spring Support "E" until a pressure of 45 to 50 Grams

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just moves Armature "A" away from Stop "B". With Locking Relay (Fig. 4, Item 13) in its non-operated position adjust Stationary Contact Spring (by bending with Tool "C" (Fig. 7) until there is a clearance of $1/32$ inch between Contact "C" and Contact "D".

Contacts "C" and "D" should be checked further by slowly moving Armature "A" in towards its operated position while at the same time observing the movement of Contact "C". This Contact should move about $1/16$ inch while in Contact with Contact "D". In other words, the Armature is pushed in until Contacts "C" and "D" just touch them by pushing the Armature in until it stops, Contact "C" should move about $1/16$ inch from its normal non-operated position. This is known as follow through of a Relay Contact Spring and is a means of causing the Contacts to remain in contact longer. The foregoing paragraph is just a check and if all other adjustments have been correctly made, then the follow through of Contact "C" will automatically be taken care of.

With Locking Relay (Item 13) in its operated position and Release Relay (Item 14) in its non-operated position, the bottom edge of Armature "H" should be $1/16$ inch past the lower edge of latch plate "X" of Armature "A". This distance can be adjusted by loosening the mounting screw of Locking Relay (Item 13) and moving the entire Locking Relay assembly up or down until the correct distance is obtained. After which the mounting screw is tightened and the relay locked in place.

(E) SELECTOR SOLENOID:

No adjustments are required for the Selector Solenoid (Fig.

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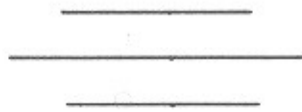
6, Item 6) except to see that Solenoid Plunger (Fig. 6, Item 7) and Selector Stop Pin (Fig. 6, Item 10) move freely without binding.

(F) CANCEL ELECTRO MAGNET:

Cancel Electro Magnet (Fig. 6, Item 16) requires adjustments as follows: With Armature "A" in its operated position adjust Armature stop "B" by bending until there is 1/8 inch clearance between it's extreme end and Armature "A", with tongue of gram scale applied to Armature "A" at point indicated by arrow "A", adjust tension of armature Reactile Spring "C", by bending Reactile Spring Support "D", until a pressure of 35 to 40 grams causes Armature "A" to just leave Armature Stop "B".

This completes the adjustment of the Wired Solenoid Drum assembly, except of course that all moving parts be inspected to assure freedom of movement and that no binding exists.

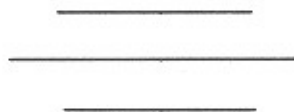
Wired Remote Control System Service Manual

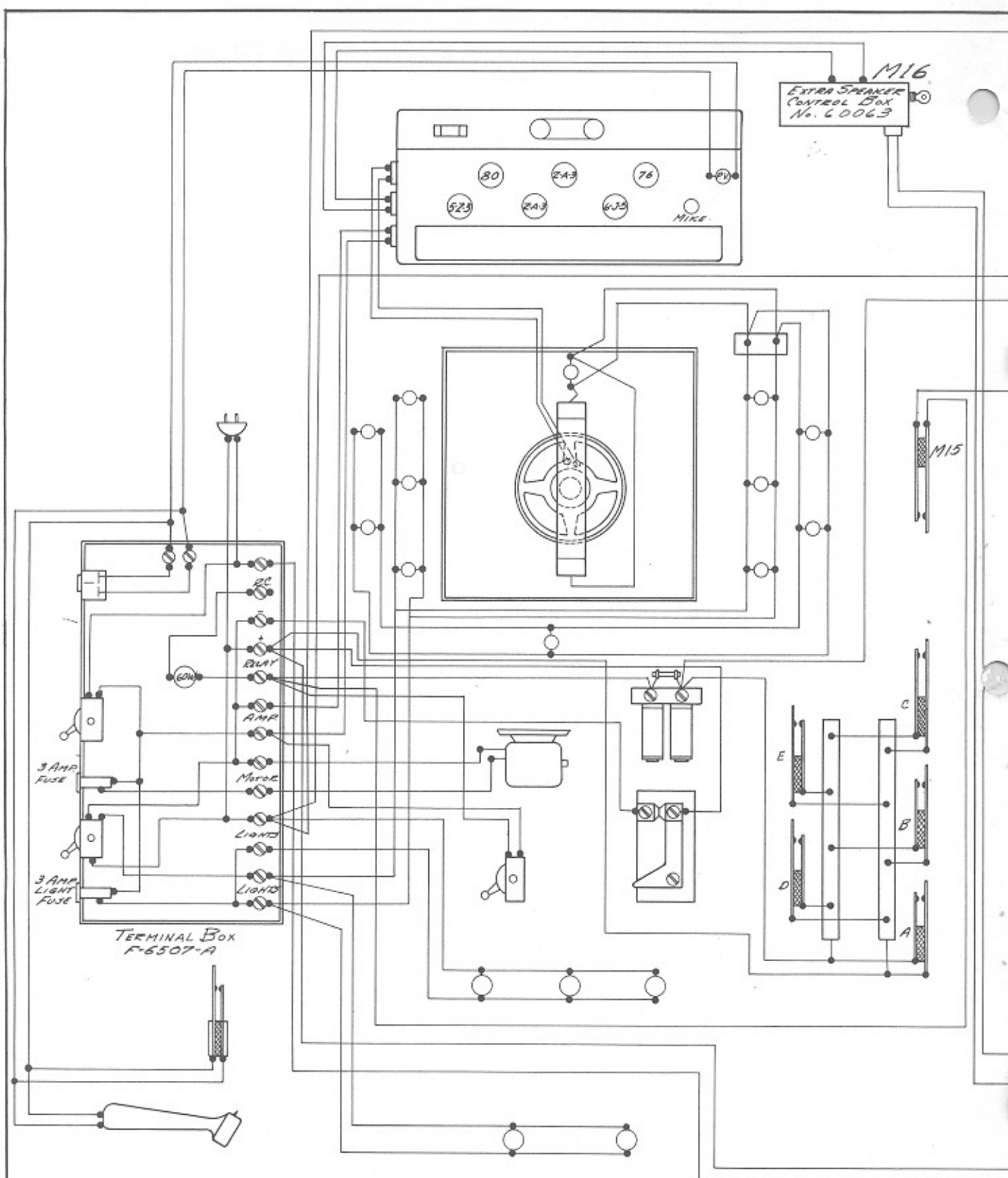


C I R C U I T D I A G R A M S

A N D

D R A W I N G S

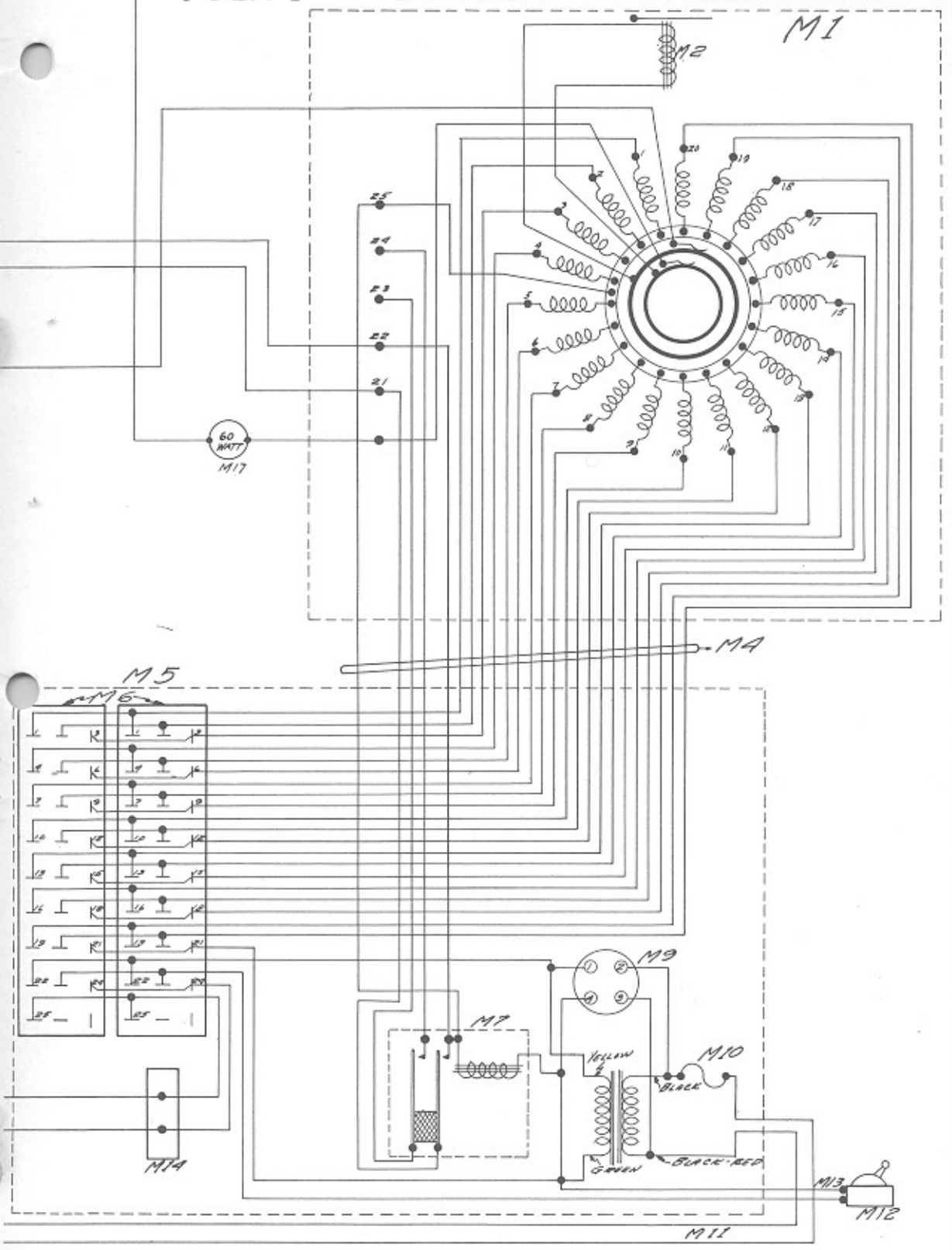




MISCELLANEOUS			MISCELLANEOUS			ITEM
ITEM	PART No	DESCRIPTION	ITEM	PART No	DESCRIPTION	
M1	60226	WIRED SOLENOID DRUM ASSEMBLY	M9	84222	4 PRONG SOCKET	M17
M2	11138	CANCEL ELECTRO MAGNET	M10	10858	FUSE (3 AMP)	
M3	11108	SELECTOR SOLENOID	M11	11196	LINE CORD	
M4	11212	WIRED SELECTOR CABLE	M12	F-1389	LIGHT SWITCH	
M5	60229	POWER SUPPLY ASSEMBLY	M13	11208	LIGHT SWITCH & LEAD ASSEMBLY	
M6	11202	CABLE SOCKET (27) CONTACT	M14	F-6317A	TERMINAL STRIP	
M7	11207	AUXILIARY MAGAZINE RELAY	M15	11137	SELECTION CANCEL RELAY SWITCH	
M8	11213	POWER TRANSFORMER	M16	60063	EXTRA SPEAKER CONTROL BOX	

FIG. 1

SCHEMATIC WIRING DIAGRAM
MODEL-WRC-CLASSIC+VOGUE WIRED REMOTE CONTROL SYMPHONY/LA

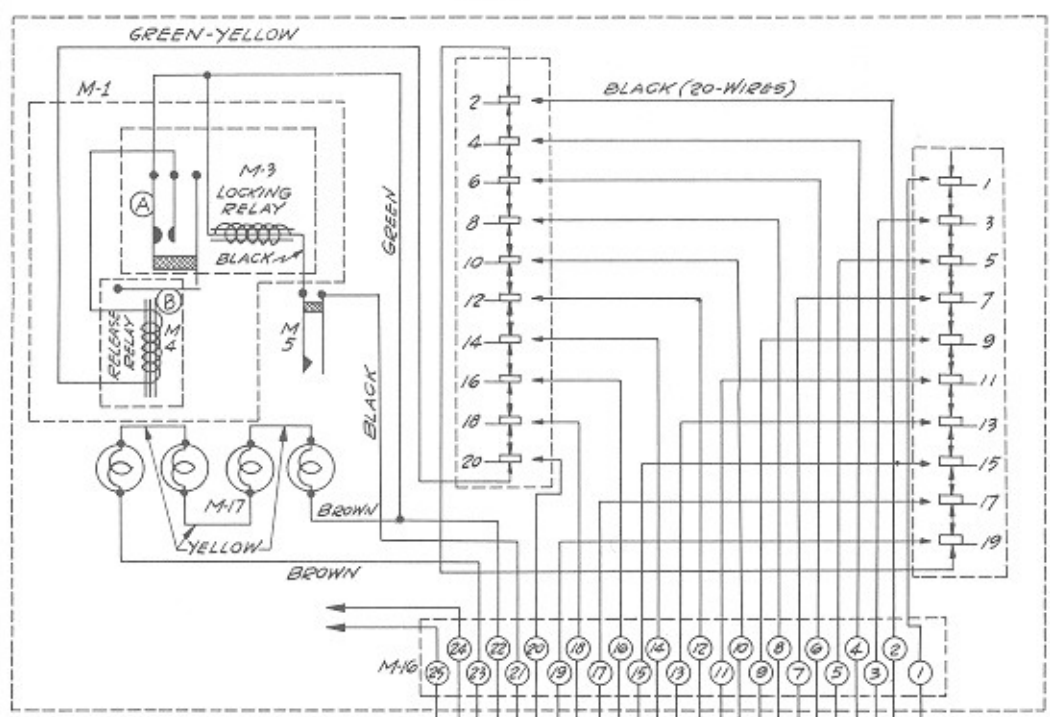


MISCELLANEOUS	
PART No.	DESCRIPTION
F-7046	60 WATT LAMP

J.P. SEIBURG CORP.
CHICAGO, ILL.
REV. MFL 7-11-59
CNRB
R1010

M-23

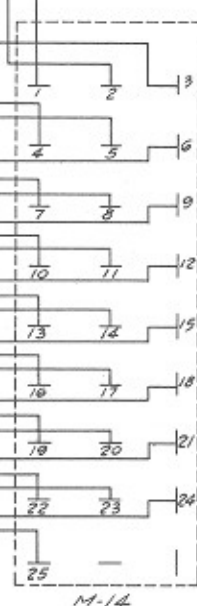
TO EXIST. MA
CIRCUIT IN 5YM



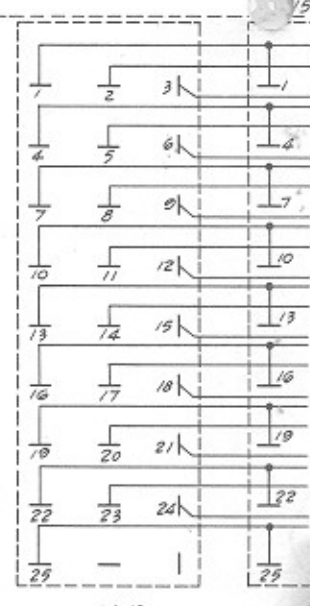
PARTS LIST

ITEM NO.	PART NO.	QTY	PART NAME
M-1	30162	2	SELECTOR SWITCH
M-2	11190	1	INTERLOCKING RELAY ASSEM.
M-3	11174	1	LOCKING RELAY
M-4	11175	1	RELEASE RELAY
M-5	10978	1	COIN SWITCH
M-6	11207	1	AUXILIARY MAGAZINE RELAY
M-7	11108	20	SELECTOR SOLENOID
M-8	11213	1	POWER TRANSFORMER
M-9	84222	1	4-PRONG SOCKET
M-10	10258	1	FUSE 3 AMP.
M-11	11196	1	LINE CORD
M-12	F-637A	1	TERMINAL STRIP (2-TERM.)
M-13	11202	2	CABLE SOCKET (27-CONTACTS)
M-14	11203	1	CABLE PLUG (27-CONTACTS)
M-15	60229	1	POWER SUPPLY ASSEM.
M-16	11170	1	TERMINAL STRIP (27-TERM.)
M-17	10192	4	PILOT LIGHTS
M-18	11138	1	CANCEL ELECTRO MAGNET
M-19	11212	1	WIRED SELECTOR CABLE
M-20	11204	1	INTER CONNECTING CABLE
M-21	60226	1	WIRED SOLENOID DRUM ASSEM.
M-22	11205	1	LIGHT SWITCH & LEAD ASSEM.
M-23	60211	1	WIRED SELECTOR
M-24	F7046	1	60-WATT LAMP

INTER CONNECTING CABLE
M-20



M-14



M-13

CONDUCTOR	COLOR	GANG	CONDUCTOR	COLOR	GANG
Nº 1	BLUE		Nº 14	ORANGE SLATE	
2	ORANGE		15	GREEN WHITE	
3	GREEN		16	GREEN BROWN	
4	BROWN		17	GREEN SLATE	
5	SLATE		18	BROWN WHITE	
6	BLUE WHITE		19	BROWN SLATE	
7	BLUE ORANGE		20	SLATE WHITE	
8	BLUE GREEN		21	BLUE RED	
9	BLUE BROWN		22	ORANGE RED	
10	BLUE SLATE		23	GREEN RED	
11	ORANGE WHITE		24	BROWN RED	
12	ORANGE GREEN		25	SLATE RED	
13	ORANGE BROWN				

CONNECT EXTRA SPEAKER PLUG
ON SYMPHONOLA AMPLIFIER TO
THESE TERMINALS WHEN IT IS
DESIRED TO USE CABLE TO CARRY
SOUND TO A SPEAKER OR
EXTENSION SPEAKER.

FIG. 2

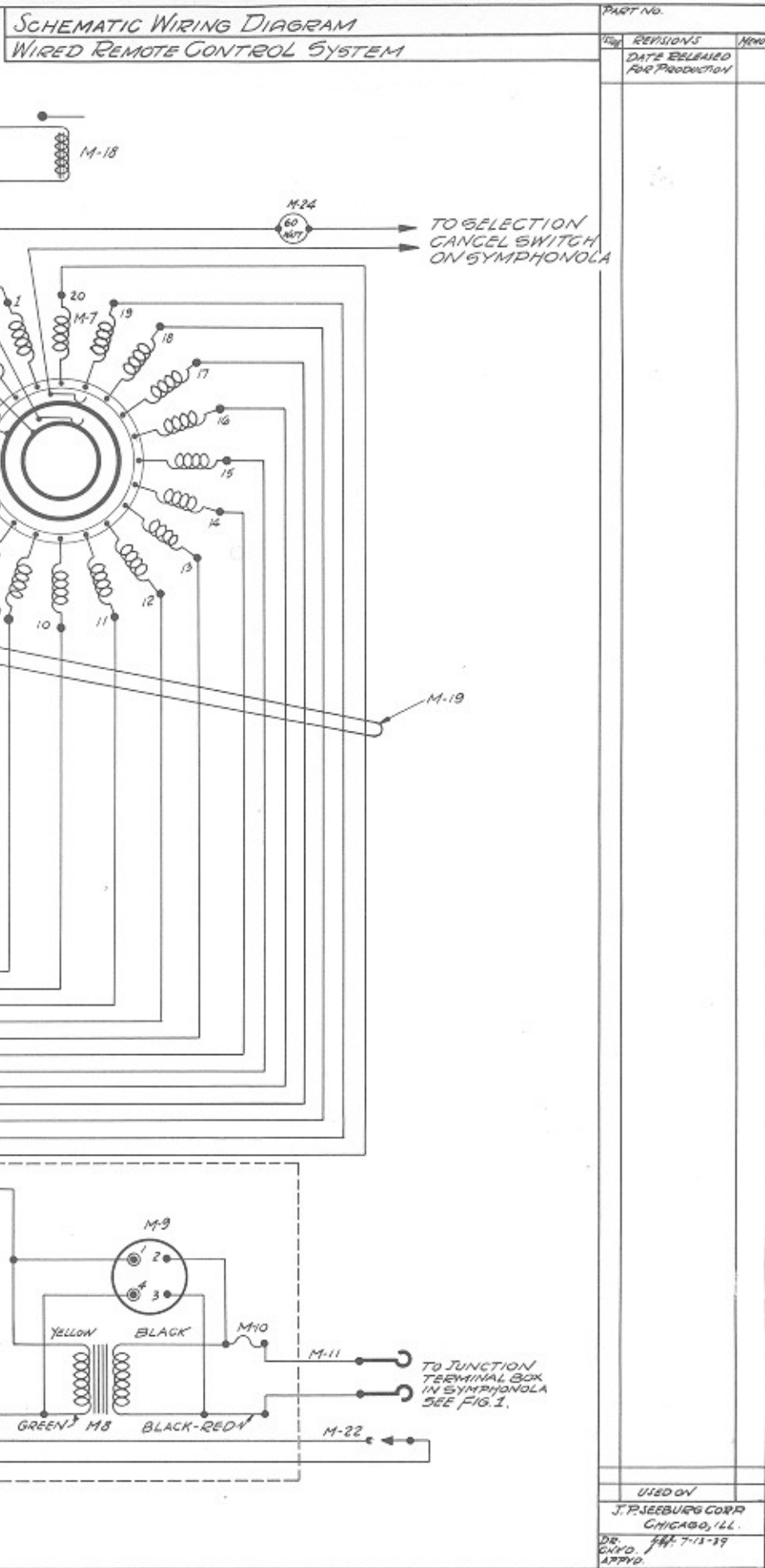


FIG. 3

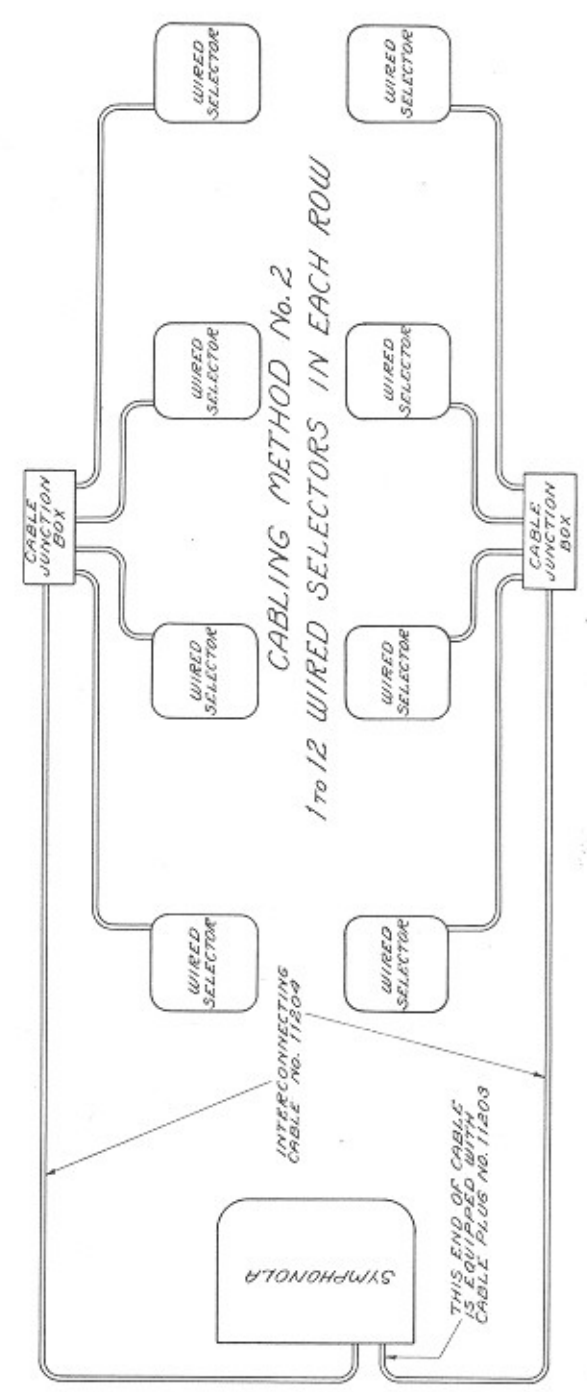
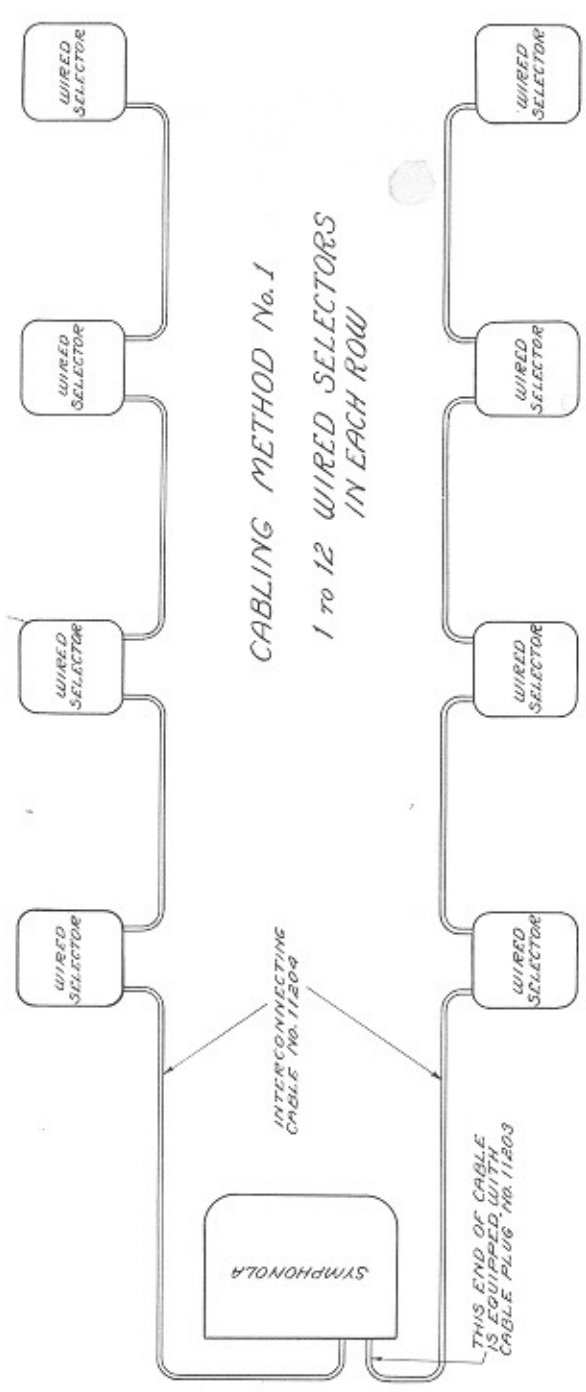
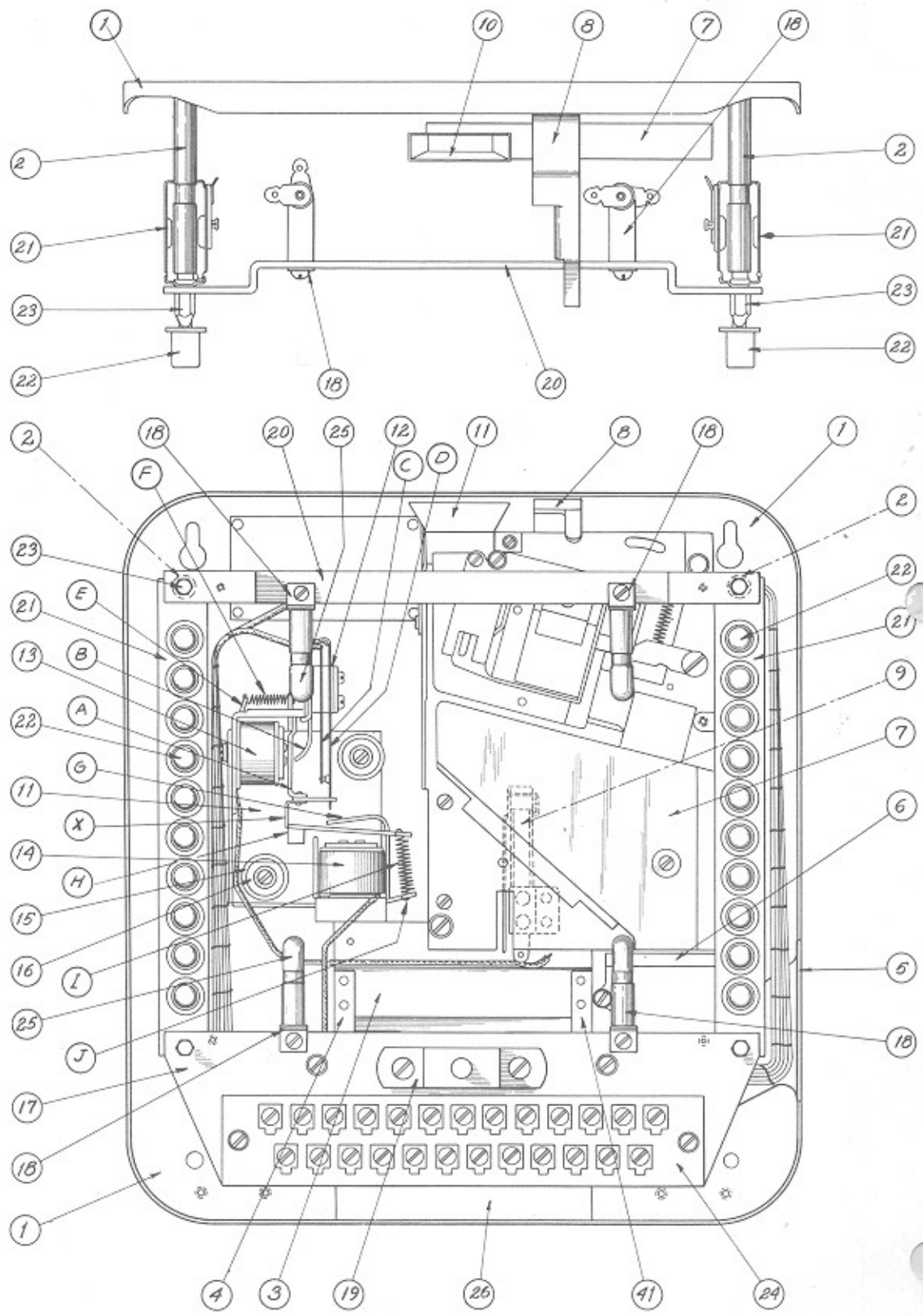
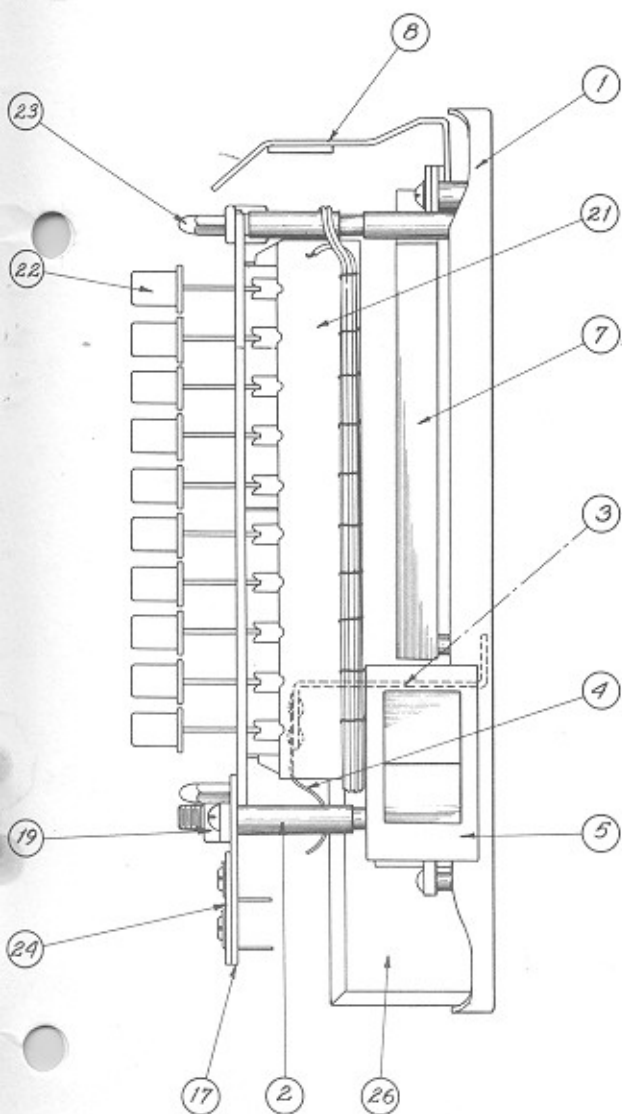


FIG. 4
WIRED SELECTOR ASSEM.





ITEM NO.	PART No.	REQ.	PART NAME
1	50121	1	BACK PLATE
2	11166	4	SWITCH SUPPORT STUD
3	11130	1	COIN BOX BRACKET
4	11134	2	COIN BOX RETAINER SPRING
5	10880	1	SLUG RECEPTACLE
6	10877	1	SLUG RECEPTACLE COVER
7	30146	1	SLUG REJECTOR
8	10935	1	SLUG RELEASE ARM
9	10978	1	COIN SWITCH
10	10995	1	COIN FUNNEL ASSEM.
11	11177	1	RELAY MTE PLATE
12	11176	1	CONTACT SPRING ASSEM.
13	11174	1	LOCKING RELAY
14	11175	1	RELEASE RELAY
15	78000	2	RUBBER GROMMET
16	10848	4	CUP WASHER
17	11164	1	SWITCH SUPPORT BRKT
18	11180	4	LAMP SOCKET & BRKT ASSEM
19	11178	1	LOCK BRKT ASSEM
20	11163	1	SWITCH SUPPORT BRKT
21	30162	2	SELECTOR SWITCH
22	10926	20	PUSH BUTTONS
23	11094	4	LOCATING STUDS
24	11179	1	TERMINAL STRIP ASSEM.
25	10192	4	PILOT LAMP
26	11131	1	COIN BOX ASSEM.

FIG. 5
POWER SUPPLY ASSEMBLY
WIRED REMOTE CONTROL

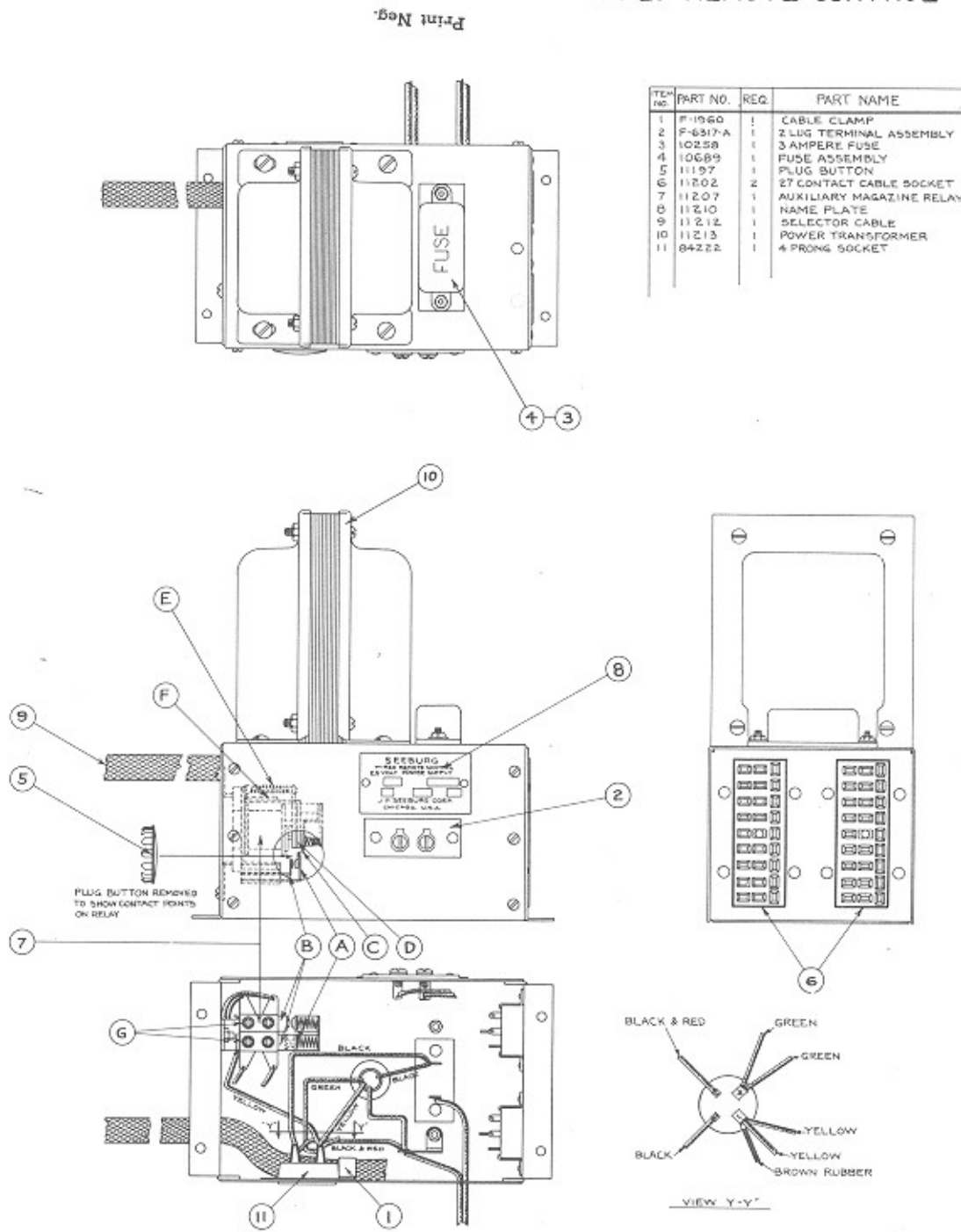
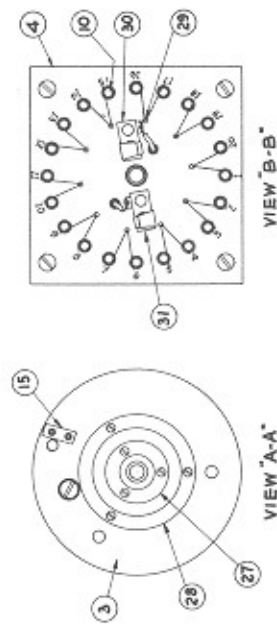
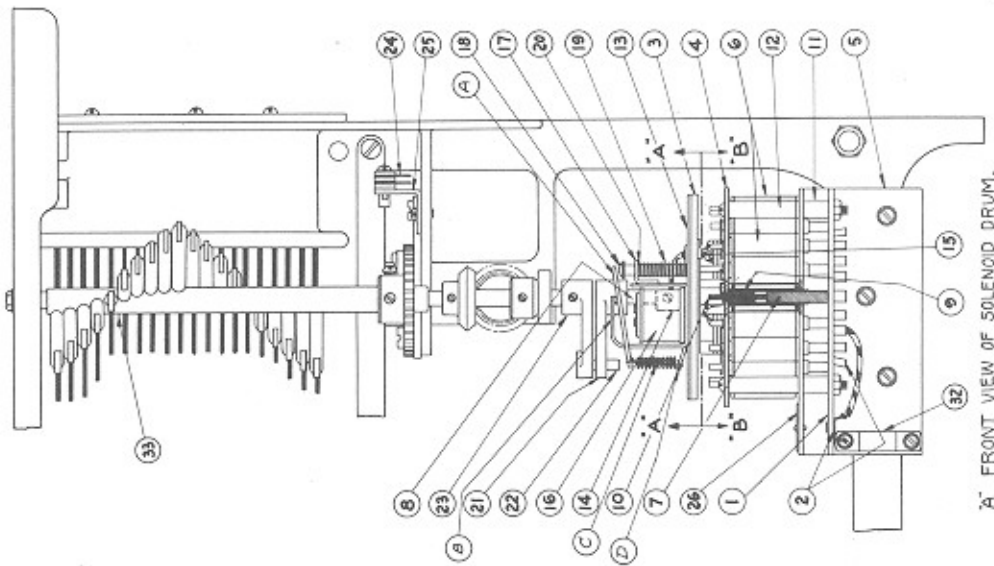


FIG. 6
SOLENOID DRUM ASSEMBLY



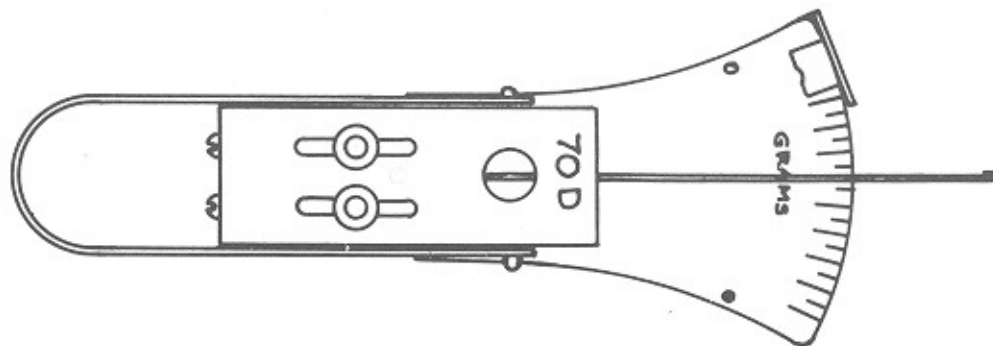
ITEM	PART NO.	REQ.	PART NAME
1	5017	1	TERMINAL PLATE
2	10146	26	SOLENOID LUG
3	50119	1	SOLENOID COIL
4	50118	1	SOLENOID SWITCH PLATE
5	50120	1	SOLENOID MOUNTING PLATE
6	11193	20	SOLENOID
7	11116	20	SOLENOID PLUNGER
8	11115	1	SOLENOID ARM
9	11117	20	SOLENOID RING GUIDE
10	11113	20	SOLENOID STOP PIN
11	11111	4	PLATE SPRING
12	11112	4	SOLENOID COIL PLATE
13	11122	1	SOLENOID COIL
14	11121	1	SOLENOID COIL
15	11123	1	SOLENOID COIL STOP
16	11124	1	CANCEL ELECTRO ARMATURE
17	11125	1	CANCEL SHUNT BRACKET
18	11134	1	SOLENOID RING ARMATURE
19	11139	1	SOLENOID SHUNT SPRING
20	11142	1	"C" WASHER
21	11105	1	COUPLING ARM (LOWER)
22	11118	1	COUPLING ARM (UPPER)
23	11106	1	COUPLING ARM (UPPER)
24	11137	1	CANCEL SWITCH ARM
25	11126	1	CANCEL SWITCH BRACKET
26	11125	1	NAME PLATE
27	11120	1	INNER COUPLER RING
28	11121	1	OUTER COUPLER RING
29	11109	10	SOLENOID PIN SPRING
30	11136	1	SOLENOID BRUSH - INNER
31	11137	1	SOLENOID BRUSH - OUTER
32	10993	1	CABLE CLAMP
33			SYMPHONIA ARM REIN ASSY



A- FRONT VIEW OF SOLENOID DRUM.

FIG.7

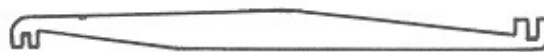
CONTACT ADJUSTMENT TOOLS



A - GRAM SCALE 50-0-50 GRAMS
PART NO. 11222



B - CONTACT BURNISHER
PART NO. 11223



C - CONTACT SPRING ADJUSTER
PART NO. 11224

WIRED SELECTOR

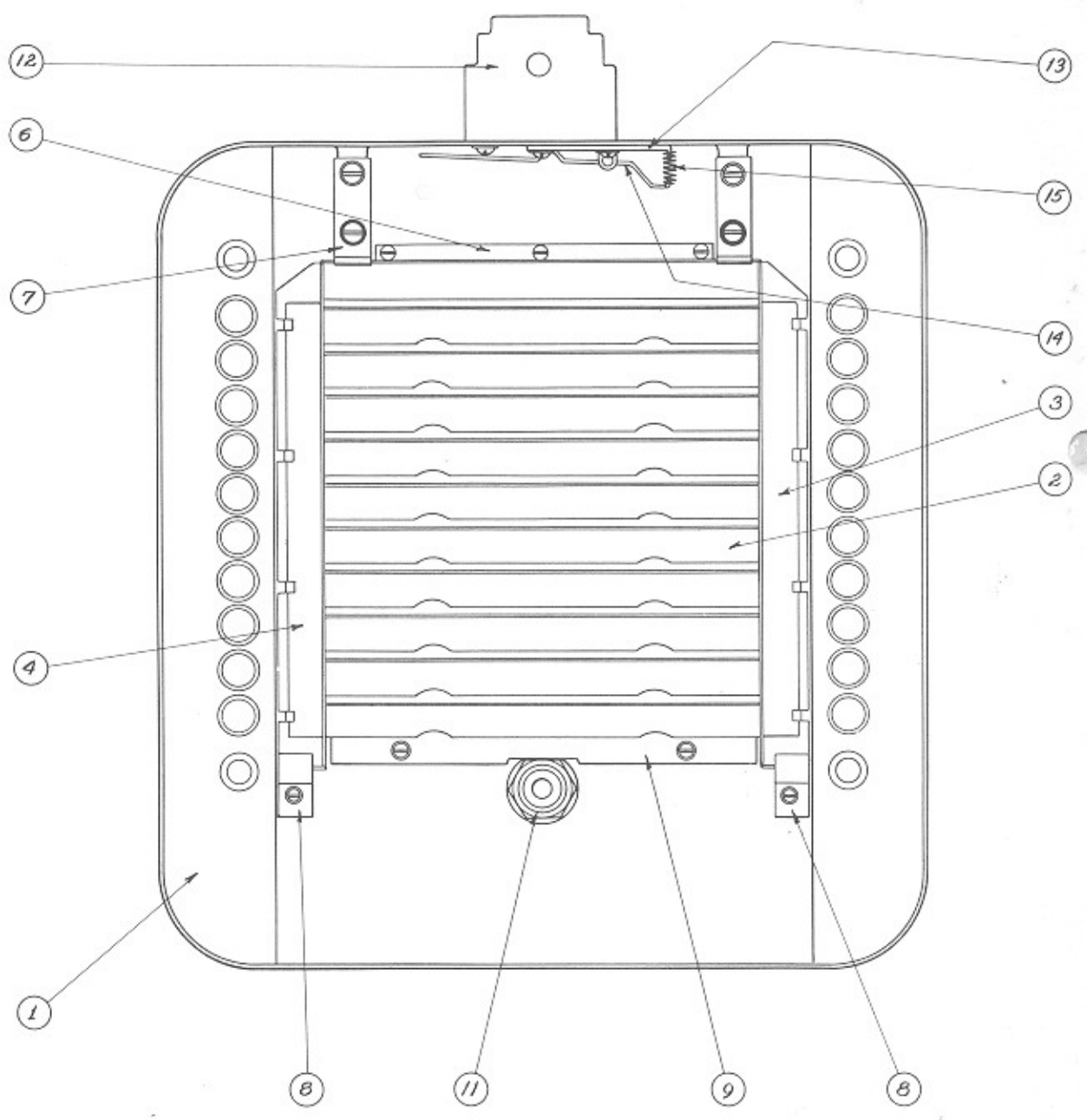
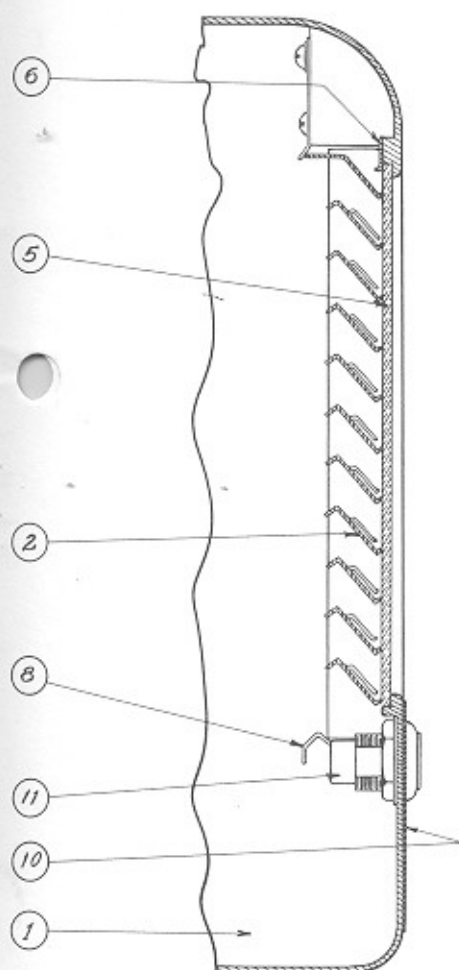


FIG. 8

HOUSING ASSEMBLY



No	PART No	Req	PART NAME
1	60201	1	SELECTOR HOUSING
2	30142	1	PROGRAM HOLDER ASSEM.
3	10983	1	NUMBER STRIP - ODD
4	10984	1	NUMBER STRIP - EVEN
5	10986	1	PROGRAM GLASS
6	11185	1	GLASS RETAINER - TOP
7	10988	2	PROGRAM RETAINER STRAP
8	11198	2	PROGRAM RETAINER SPRING
9	10940	1	GLASS RETAINER - BOTTOM
10	11184	1	NAME PLATE
11	10991	1	LOCK ASSEM.
12	10927	1	DROP SLOT
13	10932	1	SLUG RELEASE BRACKET
14	10933	1	SLUG RELEASE LEVER
15	10992	1	SLUG RELEASE LEVER SPRING

PARTS AND PRICE LIST

WIRE SELECTOR - TYPE WRS -1Q

Part No.	Description	No. Used	Price
10192	- Pilot Lamp.	4 ea.	\$.07
10848	- Cup Washer.	4 ea.	.05
10877	- Slug Receptacle Cover	1	.05
10880	- Slug Receptacle	1	.25
10926	- Push Buttons.	21 ea.	.05
10927	- Drop Slot	1	.50
10932	- Slug Release Bracket.	1	.15
10933	- Slug Release Lever.	1	.10
10935	- Slug Release Arm.	1	.10
10940	- Program Glass Retainer (Bottom)	1	.10
10975	- Slug Receptacle Mounting Stud	3	.05
10976	- Slug Rejector Mounting Stud	2	.05
10978	- Coin Switch	1	.30
10983	- Number Strip (Odd).	1	.10
10984	- Number Strip (Even)	1	.10
10986	- Program Glass	1	.35
10988	- Program Retainer Strap.	2 ea.	.10
10991	- Lock Assembly	1	.75
10992	- Slug Release Lever Spring	1	.05
10995	- Coin Funnel Assembly.	1	.10
11094	- Locating Stud	4 ea.	.05
11130	- Coin Box Bracket.	1	.20
11131	- Coin Box.	1	.25
11134	- Coin Box Retainer Spring.	2 ea.	.05
11163	- Switch Support Bracket (Top).	1	.10
11164	- Switch Support Bracket (Bottom)	1	.30
11166	- Switch Support Stud	4 ea.	.10
11171	- Cable Clamp	2 ea.	.05
11174	- Locking Relay	1	1.25
11175	- Release Relay	1	1.00
11176	- Contact Spring Assembly	1	.25
11177	- Relay Mounting Plate.	1	.10
11178	- Lock Bracket Assembly	1	.15
11179	- Terminal Strip Assembly	1	.50
11180	- Lamp Socket and Bracket Assembly.	1	.15
11183	- Program Light Shield.	1	.45
11185	- Program Glass Retainer (Top).	1	.05
11198	- Program Retainer Spring	2 ea.	.05
30142	- Program Holder Assembly	1	.90
30146	- Slug Rejector	1	5.00
30162	- Selector Switch	2 ea.	1.40
50121	- Back Plate.	1	.75
60201	- Selector Housing.	1	2.50
78000	- Rubber Grommet.	2 ea.	.05

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SOLENOID DRUM - TYPE SD-2Q

<u>Part No.</u>	<u>Description</u>	<u>No. Used</u>	<u>Price</u>
S-11	- Insulating Stud (Fibre)	3	\$.05
F-1225	- Pivot Screw	1	.05
10993	- Cable Clamp	1	.05
11105	- Coupling Arm (Lower)	1	.15
11106	- Coupling Arm (Upper)	1	.15
11109	- Selector Pin Spring	10	.05
11110	- Flange Bushing	1	.15
11111	- Plate Spacer (Short)	4	.25
11112	- Plate Spacer (Long)	4	.10
11113	- Selector Stop Pin	20	.15
11114	- Selector Pin Reset Shaft	1	.20
11115	- Selector Shaft	1	.40
11116	- Solenoid Plunger	20	.05
11117	- Selector Pin Guide	20	.20
11118	- Coupling Drive Pin	1	.05
11119	- Common Terminal Ring	1	.05
11120	- Inner Collector Ring	1	.10
11121	- Outer Collector Ring	1	.10
11122	- Selector Disc Plate	1	.10
11123	- Selector Disc Stop	1	.05
11124	- Reset Shaft Bracket	1	.10
11126	- Relay Switch Bracket	1	.10
11127	- Rear Helix Shaft Ext. Cplg.	1	.30
11136	- Collector Brush Assy.	1	.10
11137	- Cancel Switch Assy.	1	.20
11138	- Cancel Electro Magnet	1	.90
11139	- Reset Shaft Spring	1	.10
11142	- "C" Washer	1	.05
11148	- Insulator Washer	2	.05
11157	- Collector Brush Assy.	1	.10
50117	- Terminal Plate (Bakelite)	1	.15
50118	- Solenoid Guide Plate	1	.15
50119	- Selector Disc (Bakelite)	1	.15
50120	- Solenoid Mtg. Plate	1	.20

Wired Remote Control System Service Manual

POWER SUPPLY TYPE - PS-1Z

<u>Part No.</u>	<u>Description</u>	<u>No. Used</u>	<u>Price</u>
F-1350	- Light Switch	1	\$.25
F-1960	- Cable Clamp.	1	.10
F-6317	- Terminal Strip Assembly.	1	.05
10062	- Terminal Strip	1	.15
10258	- 3 Ampere Fuse.	1	.05
10689	- Fuse Assembly.	1	.15
11197	- Plug Button.	1	.05
11202	- 27 Contact Cable Socket.	2 ea.	1.75
11203	- 27 Prong Cable Plug.	1	1.90
11204	- Interconnecting Cable.	As req. per ft.	.12
11207	- Auxiliary Magazine Relay	1	1.50
11212	- Selector Cable	1	2.25
11213	- Power Transformer.	1	2.95
11215	- Line Cord Assembly	1	.10
84222	- 4 Prong Socket	1	.20