

SEEBURG

WIRED SELECTOR RECEIVER

Types

WSR5-L6

S E E B U R G

WIRED SELECTION RECEIVER

TYPE WSR5-L6

The Wired Selection Receiver, Type WSR5-L6, is the power distribution and control center of the Select-O-Matic for operation from the Electric Selector and Wired Wall-O-Matics. Power enters the Receiver through the line cord and main switch and is distributed, directly at 117-volts or through transformers, to the electric selector, the Select-O-Matic Mechanism, the cabinet lighting, the amplifier, and the Wall-O-Matics. All connections to the Receiver are made with plugs which are of different types and sizes to avoid possibility of incorrect connections.

Included in the Receiver are a Step Switch and Relay Assembly, a 2050 tube, and a Credit and Cancel Unit for selection of records. The Step Switch and Relay Assembly and the 2050 tube are for selections from Wired Wall-O-Matics. The Credit and Cancel Unit is a part of the electric selector system for selections made at the Select-O-Matic.

A 25-volt transformer supplies power for up to six Type "3W-1" Wired Wall-O-Matics. Another transformer, the selection receiver

power transformer, has five output windings for control circuits, the Select-O-Matic Mechanism indicator lights, and heater current for the tubes in the Master Remote Amplifier.

One of the secondaries of the selection receiver power transformer provides approximately 30-volts, a.c. This 30-volt output is rectified by a full-wave selenium rectifier for 25-volt d.c. supply for some of the relays of the Step Switch and Relay Assembly, for d.c. supply for a timing relay in the Credit and Cancel Unit, and for bias supply for the 2050 tube. Another secondary provides approximately 150-volts for operating the step switches through the plate circuit of the 2050 tube.

Access to the interior wiring and components is had, while the unit is normally operating, by removing the cover plate on the outside of the rear door of the M100B Select-O-Matic 100. To remove the cover plate, take off the three wing-nuts located inside the door just above the amplifier and selection receiver and loosen the screw at

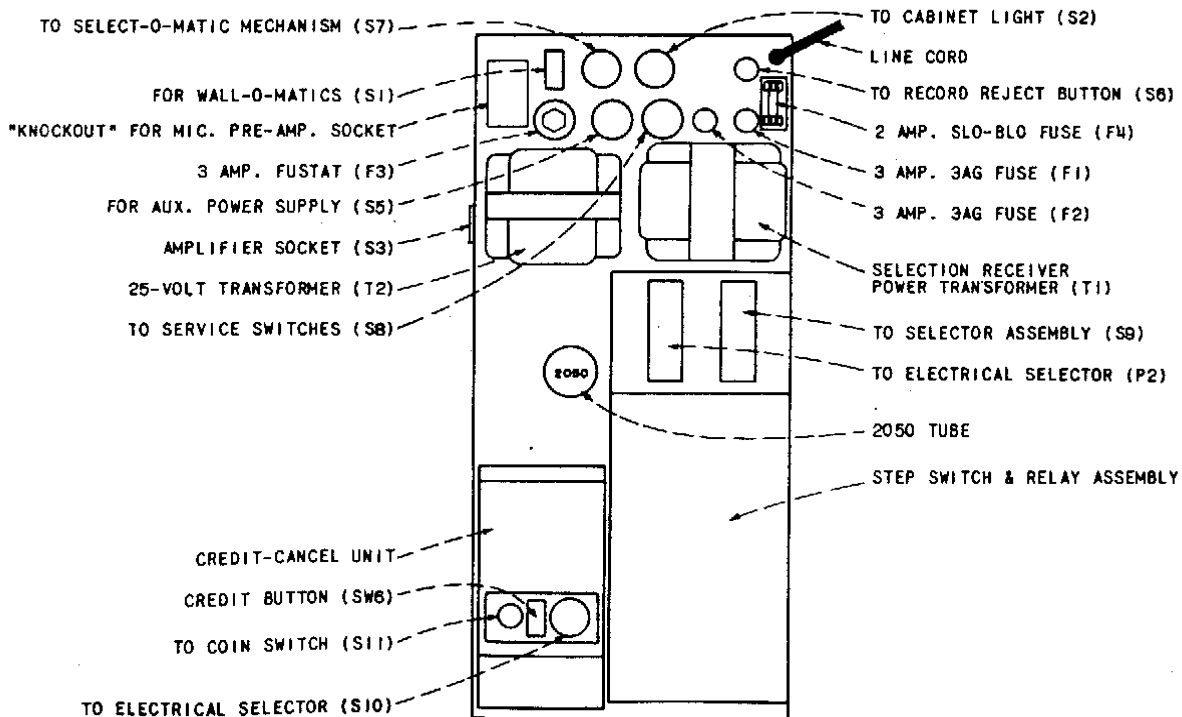


FIGURE 1. TOP VIEW OF SELECTION RECEIVER

the center of the bottom edge of the plate. After removing the nuts, pull out on the plate so the three bolts are out of the holes in the door and lift up on the plate to disengage hooks at the lower edge.

The Selection Receiver may be removed from

its mounting by removing the cover plate and loosening the four screws holding the flanges of the unit. With the four screws loosened, slide the unit away from the amplifier to disengage the locating pins and amplifier sockets connection. It may then be lifted from the mounting frame.

CREDIT AND CANCEL UNIT, TYPE CCU-2

The Credit and Cancel Unit, although included in the selection receiver, is a part of the electrical selector system of the Select-O-Matic "100". The operation and

adjustments of the unit are discussed in detail in the information on the Electrical Selector

STEP SWITCH AND RELAY ASSEMBLY OPERATION

The fundamental purpose of the Step Switch and Relay Assembly is to energize a selector coil and a group solenoid in the Solenoid Assembly (of the Select-O-Matic Mechanism) according to the selection made with a Type "3W-1" Wired Wall-O-Matic. The Assembly consists of two step switches, a reset magnet, a transfer relay, two timing relays, and a play control relay. (The play control relay is not directly involved in the operation of the remote control system.)

When a selection is made from a Wall-O-Matic, a rotating switch blade in the Wall-O-Matic causes intermittent grounding of the grid of the 2050 tube in the selection receiver. The grounding occurs in two series of "pulses". These pulses are of approximately 1/25 second duration with a 1/25 second interval between each successive pulse and with approximately 1/5 second interval between the two series. The number of pulses in each of the two series is determined by which selector buttons are operated at the Wall-O-Matic and will determine, in turn, which selector coil and which group solenoid will be energized.

Each time the grid of the 2050 tube is grounded during one of the "pulses", the tube passes current through its plate circuit and a step relay coil in that circuit. The relay coil attracts its armature and operates the ratchet of the step switch so the switch is advanced one step. In the normal rest position of the Assembly, none of the relays are energized, the two step switches are in "zero" position and the coil of the Unit

Step Relay is in the plate circuit of the 2050 tube through Contact "A" of the Transfer Switch. When a selection is made, the first pulse of the first series energizes the Unit Step Relay, advances the step switch one contact, and closes contacts "G" and "F". Contact "G" completes a d.c. circuit to the Reset Magnet causing that magnet to be energized and engage pawls with the ratchets of both step relays. Contact "F" completes a d.c. circuit to the Transfer Relay so it is energized, opening Contact "D" and closing Contact "E". Both the Reset Magnet and the Transfer Relay have slow-release timing so they remain in the energized positions for an appreciable time after the first pulse from the 2050 tube had ended to permit the Step Relay armature to return to its normal position with Contacts "G" and "F" open. Before either relay will drop out, the second pulse of the series operates the armature of the Unit Step Relay and again the relays are energized. As long as the pulses continue with 1/25 second intervals between them the following condition will prevail: Contacts "G" and "F" open and close with each "pulse" from the Wall-O-Matic, the pawls engage with the step switch ratchets, and the Transfer Relay Contact "E" remains closed. Because the step switch ratchets are engaged by the pawls, the step relay will advance the step switch one step or contact with each pulse.

When the second pulse of the first pulse series advances the Unit Step Switch a second time, a cam on that switch operates the make-before-break contacts of the Transfer Switch so the 2050 tube plate circuit is connected

Wired Selection Receiver, Type WSR5-L6

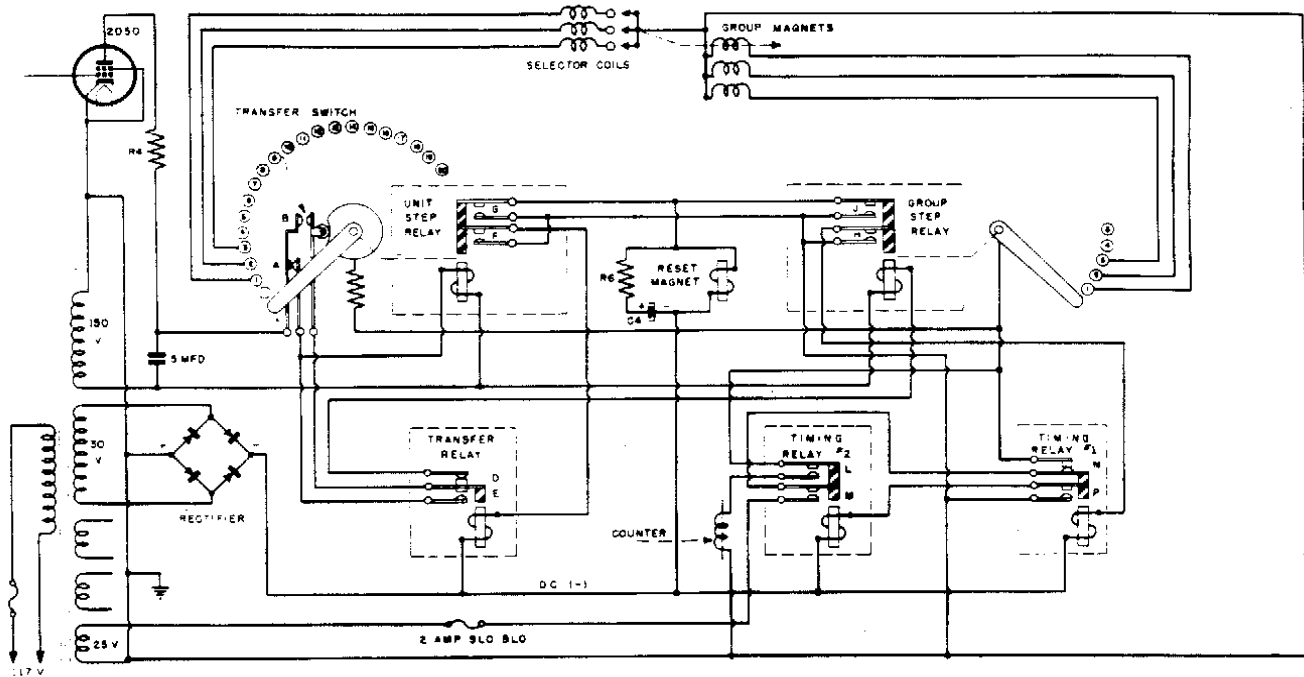


FIGURE 2. SIMPLIFIED SCHEMATIC DIAGRAM - STEP SWITCH ASSEMBLY

to the Unit Step Relay through Contacts "B" ("A" open) and Contact "E" of the Transfer Relay. This circuit condition is retained through subsequent steps of the Unit Step Switch.

The 1/5 second interval between the end of the last pulse of the first series and the beginning of the first pulse of the second series causes the Unit Step Relay to open the "G" and "F" contacts long enough to allow the Transfer Relay to drop out but not long enough to allow the Reset Magnet to disengage the Step Switch ratchet pawls. Therefore, during this 1/5 second interval when the Transfer Relay drops out, the Unit Step Switch remains in the advanced position and the plate circuit of the 2050 tube is transferred to the Group Step Relay through Contacts "B" and "D". When the first pulse of the second series operates the 2050 tube, the Group Step Relay will be energized and Contacts "J" and "H" will be closed for the duration of the pulse.

Contact "J" energizes the Reset Magnet so it maintains its energized position as long as the pulses of the second series operate the Group Step Relay. Contact "H" closes the d.c. circuit to the #1 Timing Relay. This relay has slow-release timing so it remains in the energized position during the 1/25

second intervals between the pulses forming the second series. When the #1 Timing Relay is energized Contact "N" opens and Contact "P" closes. Contact "P" closes the d.c. circuit to the #2 Timing Relay which, in turn, closes Contact "M" and Contact "L".

The conditions prevailing as long as the pulses of the second series continues with 1/25 second interval between them are: advance of the Group Step Switch with each pulse (Group Step Relay energized through Contacts "B" and "D"); the Reset Magnet energized so the Unit Step Switch is in its advanced position; the Timing Relays #1 and #2 energized; Contact "M" closed; Contact "L" closed; Contact "N" open.

After the last pulse of the second series has operated the Group Step Relay, Contacts "J" and "H" remain open and the #1 Timing Relay drops out. When this occurs, Contact "P" opens and Contact "N" closes. Contact "N" will close the "Selection Circuit" for current supply to a selector coil and a group solenoid. The #2 Timing Relay has slow-release timing so there will be an interval of approximately 1/20 second before Contact "M" is opened to interrupt the selection circuit. The Reset Magnet timing is such that it drops out after Contact "M" has opened, releases the Step Switch ratchet pawls, and the step switches reset to normal position.

Wired Selection Receiver, Type WSR5-L6

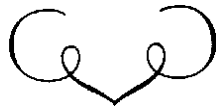
Contact "L", which is closed during the second series of pulses, completes a circuit to a selection counter solenoid in the Electrical Selector.

The number of steps the Unit Step Switch makes during the first series of pulses determines which one of twenty selector coil circuits will be energized. Because there is one open contact for the first step, the number of this circuit will be, numerically, one less than the number of pulses in the first series. The number of steps made by the Group Step Switch will determine which one of five group solenoids will be energized. The first pulse of the second series will advance the group switch to the A-B solenoid circuit, the second to the C-D solenoid circuit, and so on to the fifth pulse for the J-K solenoid circuit. The selection made, then, will require from two to twenty-one pulses in the first series and from one to five in the second series with the predetermined interval of approximately 1/5 second between the two series.

It is to be noted that operation of the relays is determined largely by the time

interval between pulses, not by the duration of the individual pulses. The individual pulses of a selection series must be of only sufficient duration to insure full operating strokes of the step relay armatures but may be of any duration more than this minimum requirement. The intervals between the pulses must be long enough for the step relay armatures to return to normal position for another stroke but not enough to permit the transfer relay to release during the first series or the #1 Timing Relay to release during the second series. The interval between the last pulse of the first series and the first pulse of the second series must be timed to permit the transfer relay to release but must not be long enough to allow the release magnet to return to normal position.

Both the pulse length and the intervals between pulses is determined by the design and operation of the Wall-O-Matic. The contacts on the selector plate and the rotating control arm of the Wall-O-Matic are arranged for correct pulsing when the arm operates between the speed limits of 22 to 26 revolutions per minute.



Wired Selection Receiver, Type WSR5-L6

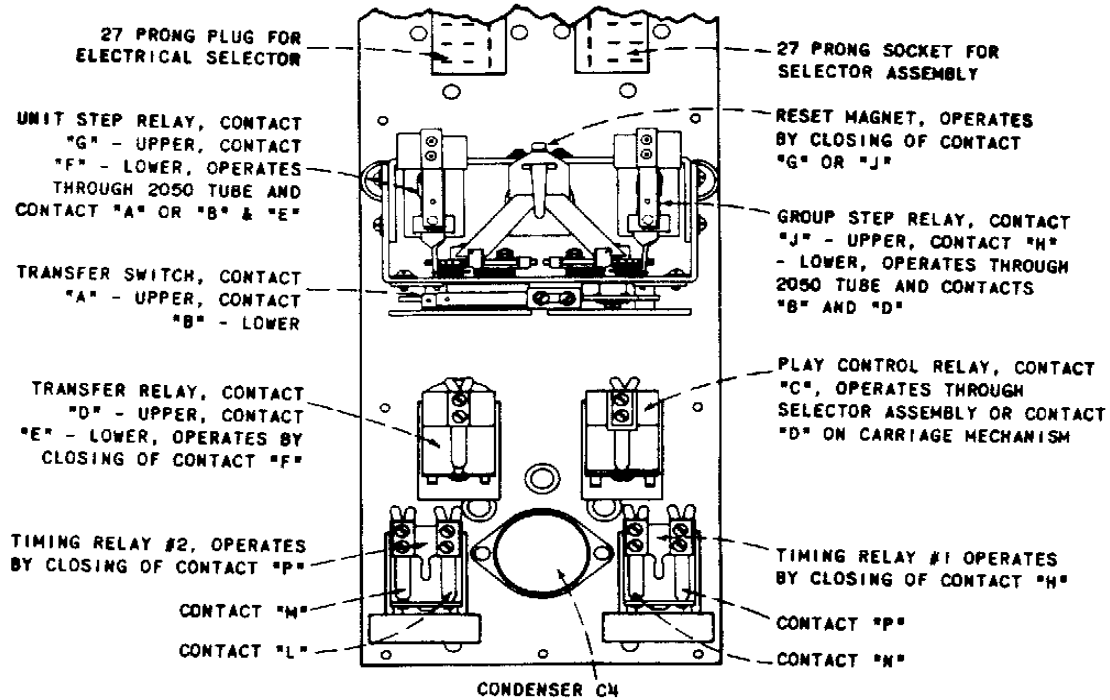


FIGURE 3. TOP VIEW OF STEP SWITCH & RELAY ASSEMBLY

RELAY ADJUSTMENTS

Relay	Armature Gap	Contact	Contact Gap	Normal Position
Timing Relay #1	1/32"	N	1/64"	Closed
		P	1/64"	Open
Timing Relay #2	1/32"	L	1/64"	Open
		M	1/64"	Open
Transfer Relay	3/64"	D	1/32"	Closed
		E	1/32"	Open
Play Control Relay*	3/64"	C	1/32"	Open
Transfer Switch	See Step Switch	A	1/64"	Closed
		B	App. 1/32"	Open
		H	1/64"	Open
Group Step Magnet	Adjustments	J	1/64"	Open
		F	1/64"	Open
Unit Step Magnet		G	1/64"	Open
Reset Magnet**		See RESET MAGNET POSITION, Page 5085		

All Coil Resistance = 500 ohms, except * = 40 ohms & ** = 325 ohms

STEP SWITCH ASSEMBLY ADJUSTMENTS

RATCHET AND SWITCH

The ratchets are attached to the switch shafts with pins or set screws. They should be positioned so the outer blades of the step switches are approximately centered on the lowest contact (on the contact plate) when the stud on the side of the ratchet wheel is against the stop on the assembly frame.

The ratchets should be set on the shafts for a minimum of end play consistent with no binding.

RATCHET RETURN SPRING

The ratchet return spring for the unit step switch should have enough tension to require 90 to 115 grams (3-1/4 to 4 oz.) tangential force to move the ratchet to the 5th position of the step switch. This force is measured at the point of a ratchet tooth with the switch contact plates removed and will be approximately correct if the spring is wound one full turn when the switch is in the rest position.

The return spring for the group step switch should require 60 to 75 grams (2 to

2-3/4 oz.) tangential force to move the ratchet to the 5th position. The tension will be approximately correct if the spring is wound 3/4-turn when the switch is in the rest position.

STEP RELAY MAGNET POSITION

Adjust the step relay magnet vertically so the ratchet wheel tooth will over-ride the end of the release dog .010" to .020" when the armature is seated.

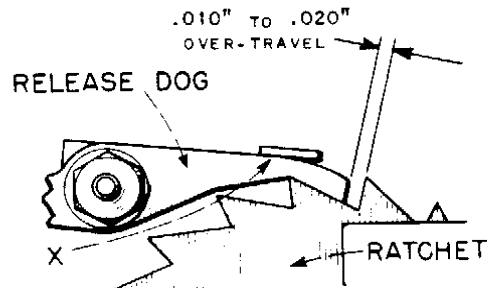


FIGURE 5. SIDE VIEW - RELEASE DOG & RATCHET

The upper edge of the pawl guide opening is the stop for upward travel of the pawl. With the pawl against the guide, the clearance between the ratchet teeth and the pawl should not be less than .005".

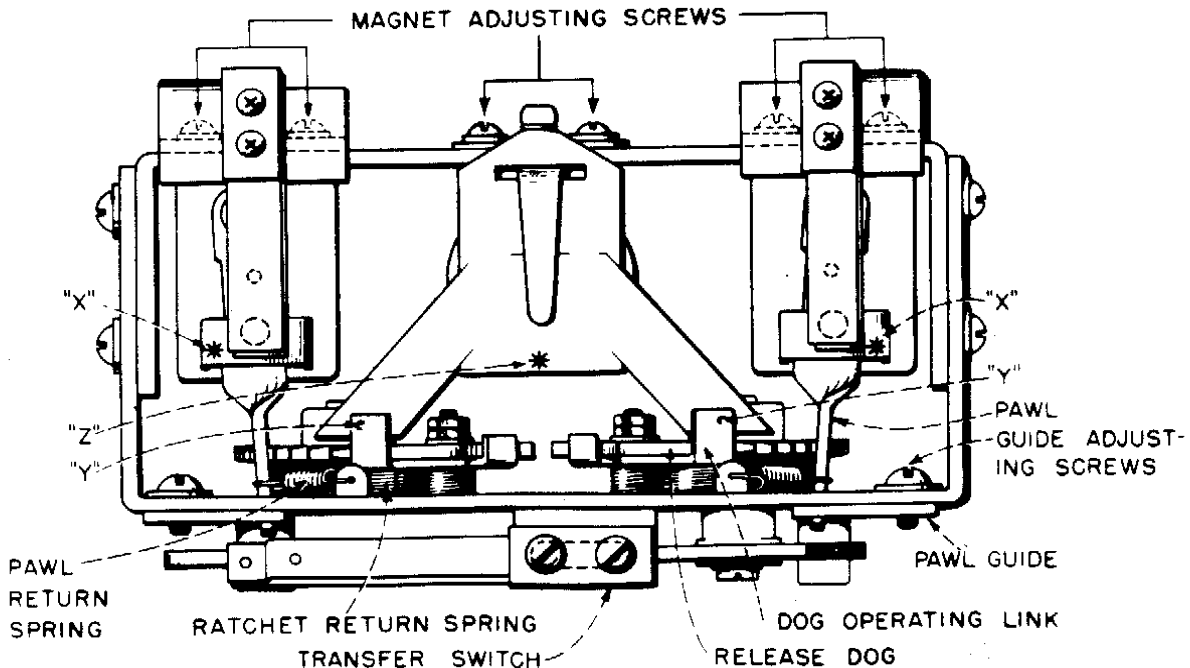


FIGURE 4. TOP VIEW OF STEP SWITCH ASSEMBLY

PAWL GUIDE

The pawl guides are adjusted so the pawls will strike the bottom of the ratchet teeth when the pawl moves down to engage the ratchet.

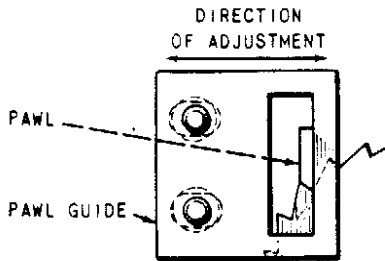
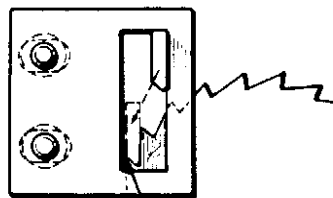


FIGURE 6. PAWL GUIDE POSITION

The guide adjustment must be made so there will be a .004" to .010" gap between the pawl and the guide at the bottom of the stroke.



.004" TO .010" GAP
FIGURE 7. PAWL & GUIDE GAP

PAWL RETURN SPRING

The pawl return spring should have enough tension to require 10 to 15 grams (approximately 1/2 oz.) force to start the pawl away from the side of the pawl guide. This force is measured on the pawl, at the spring, with the pawl in the rest position.

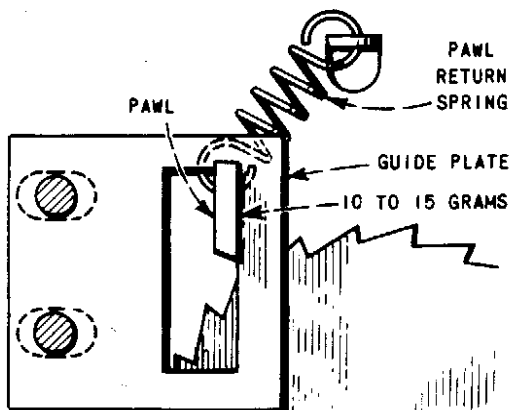


FIGURE 8. RETURN SPRING TENSION

STEP MAGNET TAIL SPRINGS

The tail spring pressure, measured at the front of the bridge on the step magnet armature ("X", Figure 4) should be 50 to 75 grams (1-3/4 to 2-1/2 oz.) to just close the switch contacts (when the contacts are correctly adjusted).

CONTACT PLATE SWITCH BLADES

The switch blades should have 10 to 35 grams pressure against the contacts. The pressure will be approximately correct if the blades are formed so their tips extend 5/32" above the contact assembly when the plates are removed.

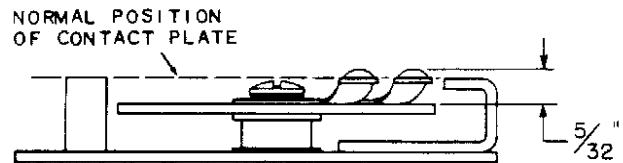


FIGURE 9. SWITCH BLADE POSITION

When the contact plates are in position the switch blades should move freely over the contacts. If the contacts become rough or gummed, they should be cleaned with a clean cloth. Tarnish or dirt can be removed by polishing with a clean cloth moistened, slightly, with light oil. *Do not use sandpaper or emery cloth for cleaning the contacts and do not lubricate them with vaseline, grease or oil.*

RESET MAGNET POSITION

Adjust the reset magnet vertically so the release dogs engage the ratchet teeth with the armature extension clearing the dimples ("Y", Figure 4) on the dog operating links 1/64" when the magnet is energized.

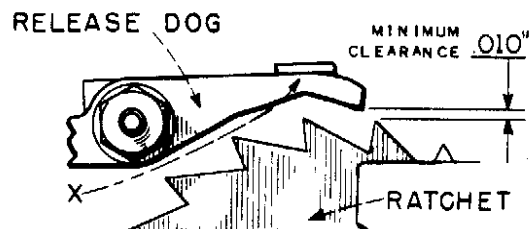


FIGURE 10. RELEASE DOG CLEARANCE

The armature travel must be sufficient to permit the release dogs to lift and clear the ratchet teeth .010" minimum when the magnet is not energized.

The tabs on the release dog operating links which engage the dogs and couple them to the reset magnet should not bind tightly but should not permit more than .005" free travel between the dogs and the links.

RESET MAGNET TAIL SPRING

The pressure applied to the end of the reset magnet armature ("Z", Figure 4) to start it from the rest position should be 100 to 140 grams (3-1/2 to 5 oz.).

RELEASE DOG SPRINGS

An upward pressure of 15 to 20 grams (1/2 to 3/4 oz.) applied at the dimple on the release dog operating links ("Y", Figure 4) should start the dogs from seated position. This pressure will be approximately correct if the springs are wound 1/2 to 3/4 turn.

TRANSFER SWITCH POSITION

Adjust the position of the switch on the mounting bracket so the roller is in the

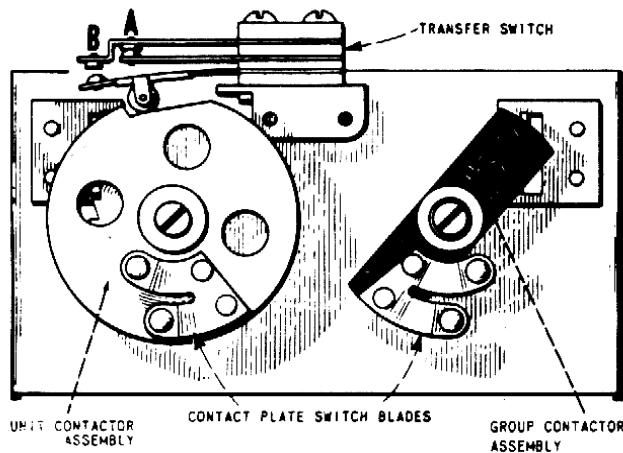


FIGURE 11. SIDE VIEW - TRANSFER SWITCH

notch of the contactor assembly disc and the first operation of the step magnet causes no change from normal position of the roller blade. The second operation of the step magnet should raise the roller to the outer diameter of the disc.

The position of the switch should be such that the disc does not bind or drag on the flanges of the roller and the roller bracket should not strike the switch contact plate.

TRANSFER SWITCH CONTACTS

1. With the step switch in the rest position so the roller is in the notch of the contactor disc, adjust the lower blade for 1/2 to 3/4 oz. pressure of the roller against the disc.

Adjust contact "B" gap 1/64".

Adjust contact "A" pressure 1 oz.

2. The second operation of the step magnet should result in closing contact "B" with 1 oz. pressure and opening contact "A" 1/64" to 1/32" gap.

LUBRICATION

The following points should be lubricated with a drop of SAE #10 oil. (Do not use a vegetable base oil.)

1. Pawl pivots and sliding surfaces of the pawls on the step relay armatures.
2. Pawl guides at area of contact with pawls.
3. Step switch shaft bearings.
4. Roller on roller blade of transfer switch.
5. Relay hinges.

Wired Selection Receiver, Type WSR5-L6

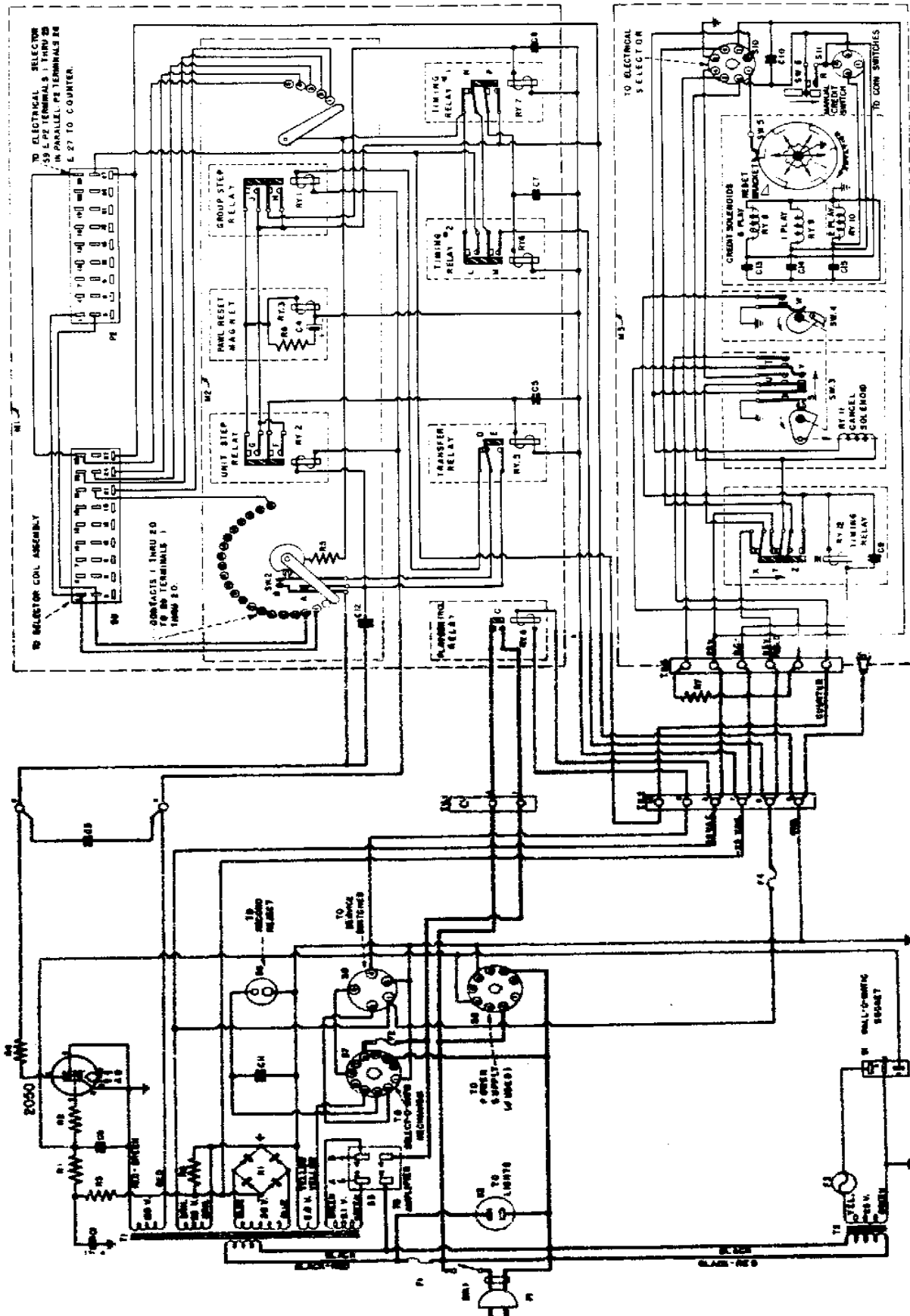


FIGURE 12. SCHEMATIC DIAGRAM

Wired Selection Receiver, Type WSR5-L6

PARTS LIST FOR FIGURE 12, PAGE 5087

Item	Part No.	Description	Item	Part No.	Description
C1	87571	25 mfd. 50 v. Electrolytic	RY3	303065	Pawl Release Magnet
C3	11076	5.0 mfd. 300 v. Condenser	RY4	303077	Play Control Relay
C4	87583	300 mfd. 50 v. Electrolytic	RY5	303074	Transfer Relay
C5	86009	.05 mfd. 200 v. Condenser	RY6	303255	Timing Relay #2
C6	86009	.05 mfd. 200 v. Condenser	RY7	303075	Timing Relay #1
C7	86009	.05 mfd. 200 v. Condenser	RY8	400509	Credit Solenoid
C8	86009	.05 mfd. 200 v. Condenser	RY9	400509	Credit Solenoid
C9	86009	.05 mfd. 200 v. Condenser	RY10	400509	Credit Solenoid
C10	86009	.05 mfd. 200 v. Condenser	RY11	400567	Cancel Solenoid
C11	86008	.1 mfd. 200 v. Condenser	RY12	400571	Relay Assembly
C12	86069	.005 mfd. 1000 v. Condenser	S1	12006	3 Contact Socket
C13	86173	.01 mfd. 200 v. Condenser	S2	11401	A.C. Socket
C14	86173	.01 mfd. 200 v. Condenser	S3	301020	4 Contact Socket
C15	86173	.01 mfd. 200 v. Condenser	S5	84244	9 Contact Socket
F1	303257	3 amp. Fuse, 3AG	S6	301019	2 Contact Socket
F2	303257	3 amp. Fuse, 3AG	S7	303253	11 Contact Socket
F3	301205	3 amp. Fuse, Fustat	S8	84283	5 Contact Socket
F4	303087	2 amp. Fuse, Slo-Blo	S9	11202	27 Contact Socket
M1	303283	Step Switch & Relay Assembly	S10	84220	Socket (Octal)
M2	303063	Step Switch Assembly	S11	400938	Socket (Small 4 Contact)
M3	400910	Credit & Cancel Assembly	SW1	F1349	Toggle Switch
P1	303089	Line Cord & Plug Assembly	SW2	303099	Transfer Switch
P2	303080	27-Prong Plug	SW3	400960	Cam Switch Assembly
R1	82448	.1 meg 10% 1/2 w. Resistor	SW4	400589	Timing Relay Switch
R2	82436	10,000 ohm 10% 1/2 w. Resistor	SW5	400924	Credit Switch
R3	82444	47,000 ohm 10% 1/2 w. Resistor	SW6	400572	Manual Credit Switch
R4	82764	47 ohm 10% 1 w. Resistor	T1	303083	Power Transformer
R5	81141	1 ohm W.W. 5 w. Resistor	T2	301315	25 v. Transformer
R6	82403	18 ohm 10% 1/2 w. Resistor	TS1	11358	Terminal Strip
R7	81141	1 ohm W.W. 5 w. Resistor	TS2	11041	Terminal Strip
R8	82432	4700 ohm 10% 1/2 w. Resistor	TS3	400596	Terminal Strip
RY1	303097	Group Step Relay	X1	400587	Selenium Rectifier
RY2	303098	Unit Step Relay			

Wired Selection Receiver, Type WSR5-L6

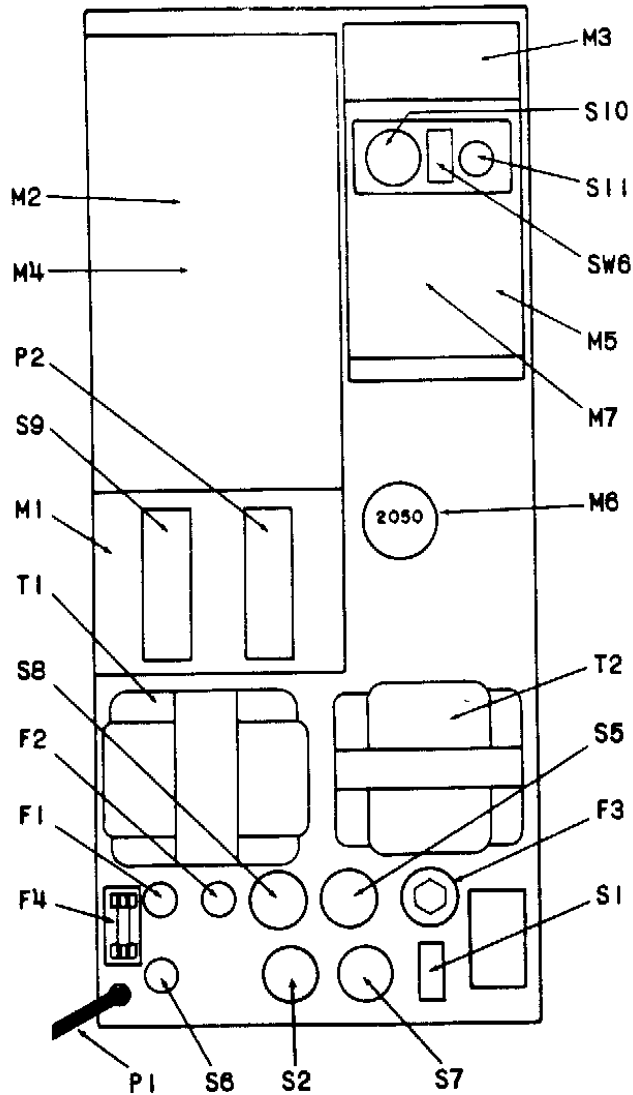


FIGURE 13.

PARTS LIST

Item	Part No.	Description
F1	303257	3 amp. 3AG Fuse
	300061	Fuse Receptacle
F2	303257	3 amp. 3AG Fuse
	300061	Fuse Receptacle
F3	301205	3 amp. Fustat
	303090	Fustat Receptacle
F4	303087	2 amp. 3AG Slo-blo Fuse
	304141	Fuse Block
M1	303283	Step Switch & Relay Assembly
M2	303254	Adjustment Label
M3	400910	Credit & Cancel Assembly
M4	303256	Cover
M5	400580	Cover
M6	84220	Octal Socket, 2050
M7	400951	Adjustment Label
P1	303113	Line Cord & Plug
P2	303080	27-contact Plug
S1	12006	3-contact Socket
S2	11401	A.C. Socket
S5	84244	9-contact Socket
S6	301019	2-contact Socket
S7	303253	11-contact Socket
S8	84283	5-contact Socket
S9	11202	27-contact Socket
S10	84220	Octal Socket
S11	400938	Small 4-contact Socket
SW6	400572	Manual Credit Switch
	400536	Button
	10377	Shoulder Screw
	72236	Spring Tension Washer
T1	303083	Power Transformer
T2	301315	25-volt Transformer

Wired Selection Receiver, Type WSR5-L6

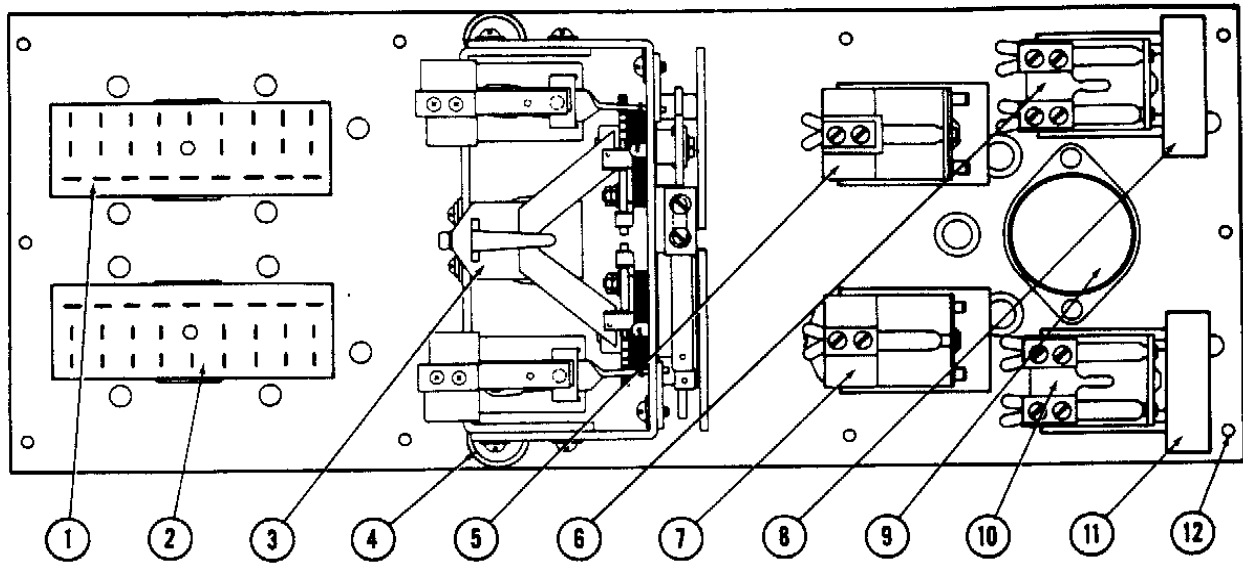


Figure 14. #303283 Step Switch & Relay Assembly

PARTS LIST

Item	Part No.	Description
1	11202	27-contact Socket (S9)
2	303080	27-contact Plug (P2)
3	303063	Step Switch Assembly (M2)
4	10848	Cup Washer
	78000	Grommet
5	303077	Play Control Relay (RY4)
	303128	Coil & Frame Assembly
	303127	Contact Assembly (C)
6	303075	Timing Relay #1 (RY7)
	303094	Coil & Frame Assembly
	303093	Contact Assembly (N)
	303092	Contact Assembly (P)
7	303074	Transfer Relay (RY5)
	303130	Coil & Frame Assembly
	303129	Contact Assembly (D & E)
8	86009	.05 mfd. 200 v. Condenser (C8)
9	87583	300 mfd. 50 v. Electrolytic (C4)
10	303255	Timing Relay #2 (RY6)
	303096	Coil & Frame Assembly
	303095	Contact Assembly (M)
	303095	Contact Assembly (L)
11	86009	.05 mfd. 200 v. Condenser (C7)
12	76046	#6 x 1/4" Slotted Hex. Head Self-tapping Screw, Type I

Wired Selection Receiver, Type WSR5-L6

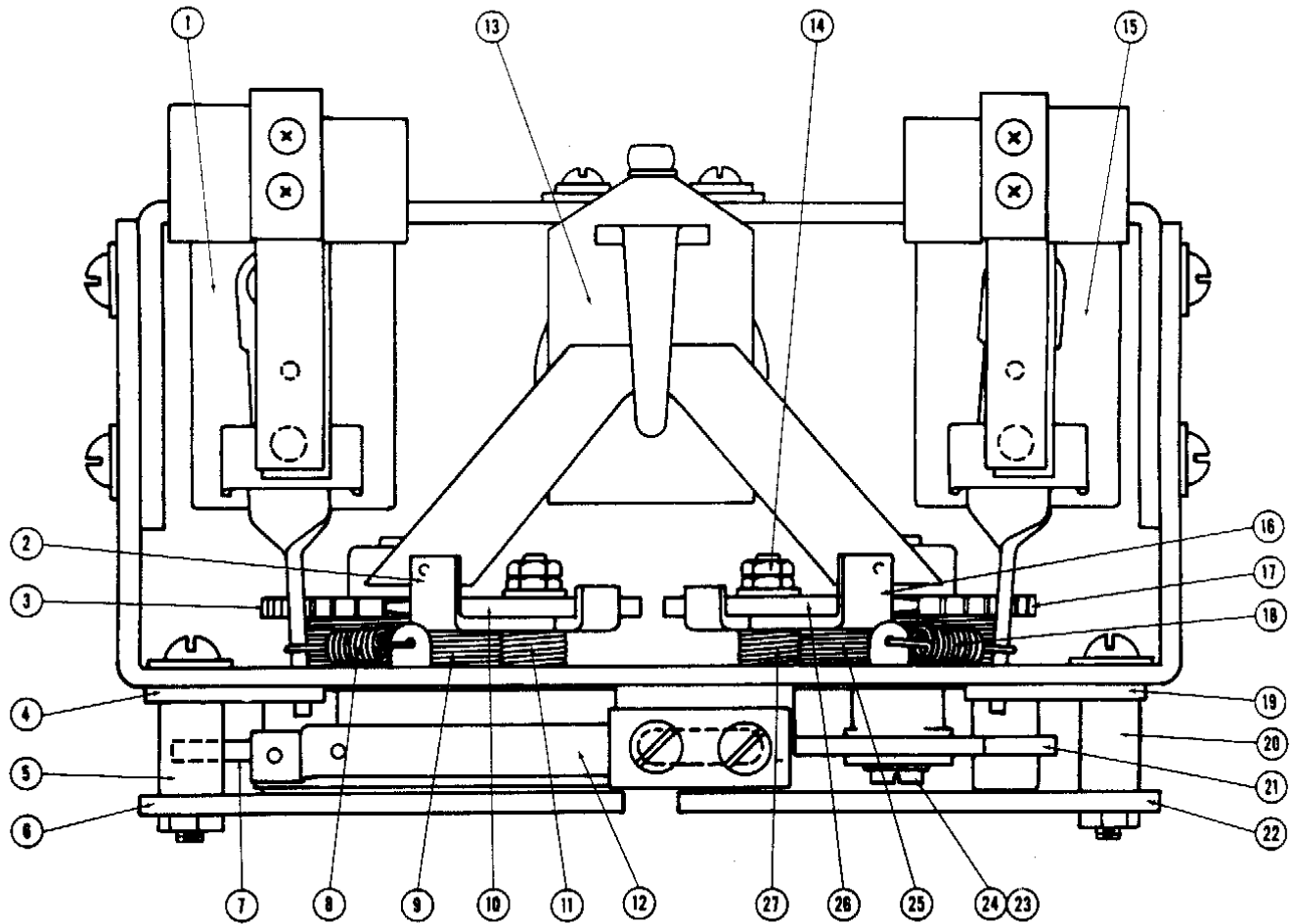
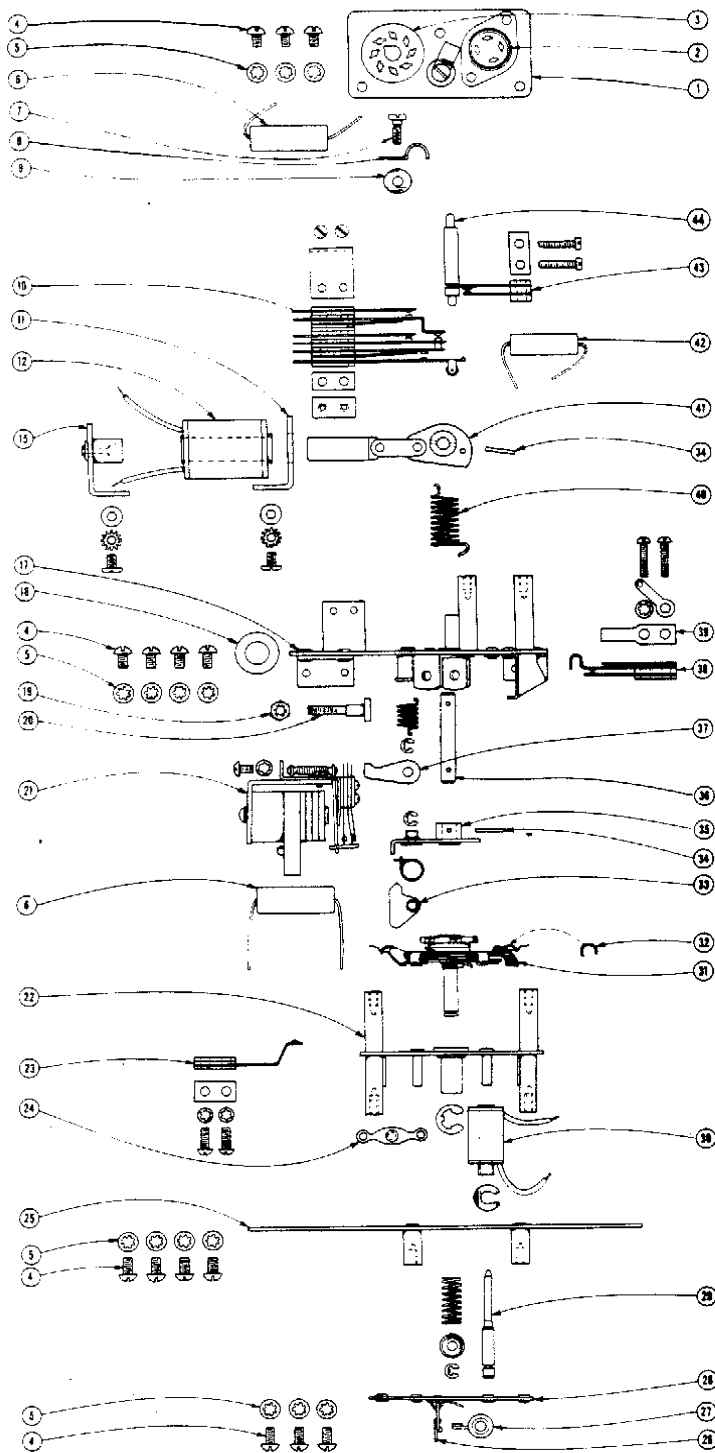


FIG. 15. #303063 STEPPER ASSEMBLY

PARTS LIST

Item	Part No.	Description	Item	Part No.	Description	Item	Part No.	Description
1	303098	Unit Stepper Relay (Includes 303064, 303100, 303102)	8	303106	Pawl Return Spring		303102	Tail Spring
	303064	Magnet & Frame Assembly	9	303104	Return Spring		303066	Switch Assembly (Contact J and H)
	303100	Armature Assembly	10	303181	Dog		303175	Switch Mounting Screws (3-48 x 15/16)
	303102	Tail Spring	11	303107	Dog Return Spring		303176	Switch Mounting Bracket
	303066	Switch Assembly (Contact G and F)	12	303099	Transfer Switch Assembly (Includes following 4 items)	16	303178	Dog Operating Link
	303175	Switch Mounting Screws (3-48 x 15/16)		303182	Switch Mounting Screws (5-40 x 9/16)	17	303180	Ratchet and Shaft
	303176	Switch Mounting Bracket		303117	Switch Mounting Bracket	18	303106	Pawl Return Spring
2	303177	Dog Operating Link		303115	Transfer Switch (Contacts A and B)	19	303187	Pawl Gate
3	303179	Ratchet and Shaft		303189	Switch Retainer Plate	20	303188	Contact Plate Spacer
4	303187	Pawl Gate	13	303065	Pawl Release Magnet, complete	21	303072	Contact Plate
5	303188	Contact Plate Spacer		303103	Tail Spring, only	22	303070	Contact Plate
6	303069	Contact Plate		303185	2-56 Hex. Nuts	23	303184	Contact Plate Mounting Washer
7	303071	Contact Plate		303186	#2 Washers (under nuts)	24	303183	Contact Plate Mounting Screw
	303184	Contact Plate Mounting Washer (Not Shown)	15	303097	Group Stepper Relay (Includes 303067, 303101, 303102)	25	303105	Return Spring
	303183	Contact Plate Mounting Screw (Not Shown)		303067	Magnet and Frame Assembly	26	303181	Dog
				303101	Armature Assembly	27	303108	Dog Spring

Wired Selection Receiver, Type WSR5-L6



Item	Part No.	Description
1	400936	Socket Mtg. Plate Assembly
2	400938	4-prong Socket
	400954	Socket Retainer
3	84220	8-prong Socket
4	71001	8-32 x 1/4 R.H. Mach. Screw
5	73082	Lock Washer
6	86009	.05 mfd. 200 v. Paper Condenser
7	10377	Shoulder Screw
8	A250952	Cable Clamp
9	72236	Spring Tension Washer
10	400960	Cam Switch
	71198	5-40 x 1-1/4 Screw
	400601	Spacer
	400597	Tension Plate
	F200028	Tapped Sw. Cap
11	400570	Solenoid Bracket
	71464	8-32 x 1/4 B.H. Mach. Screw
	73090	Lock Washer
	72191	Flat Washer
12	400567	Cancel Solenoid
15	400958	Solenoid Bracket & Stop Assem.
17	400955	Panel Assembly
18	78016	Rubber Grommet
19	70003	10-32 Hexagon Nut
20	400540	Pawl Arm Stop
21	400571	Timing Relay
	400614	Coil & Field Piece Assembly
	400613	Tail Spring
	400612	Contact & Armature Assem. (Contacts X, Y, Z)
22	400920	Coin Solenoid Panel Assem.
23	400507	Wiper Switch Assembly
	400597	Tension Plate
	71678	5-40 x 3/8 R.H. Mach. Screw
24	74019	Solder Lug
25	400511	Mtg. Panel & Spacer Assem.
26	400596	Terminal Strip
27	81141	1 ohm W.W. Resistor
28	400588	Retainer Plate Assembly
29	400959	Solenoid Plunger Assembly
	400518	Compression Spring
	400603	Cup Washer
	R231163	Retaining Ring
30	400509	Solenoids, Credit
	11445	"C" Washer
31	400924	Credit Switch
	125403	Retaining Ring
	72293	Phos. Bronze Spring Washer
32	504142	Credit Switch Spring
33	400553	Pawl Assembly
	400556	Pawl Spring
	R231163	Retaining Ring
34	80098	Pin
35	400549	Pawl Arm Assembly
36	400929	Shaft
37	400542	Lock Pawl
	400545	Lock Pawl Spring
	R231163	Retaining Ring
38	400589	Timing Relay Switch
	71676	5-40 x 7/16 R.H. Mach. Screw
	73116	Lock Washer
	74047	Solder Lug
39	400611	Buffer Blade, only
40	400557	Cam Spring
41	400931	Cam & Plunger Assembly
42	86173	.01 mfd. 200 v. Paper Condenser
43	400572	Manual Credit Switch
	400597	Tension Plate
	71233	5-40 x 5/8 F.H. Mach. Screw
44	400536	Manual Credit Button
	400580	Cover Assembly (Not Shown)
	400951	Contact Instruction Label (Not Shown)

FIG. 16. CREDIT & CANCEL ASSEMBLY