SEEBURG

WALL-O-MATIC "100"

TYPE 3W100

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WALL-O-MATIC "100", Type 3W100

The Wall-O-Matic, Type 3W100, is a unit of the Seeburg Wired Remote Control System for selective playing of selections in the Select-O-Matic phonographs. 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 Type 3W100, 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.

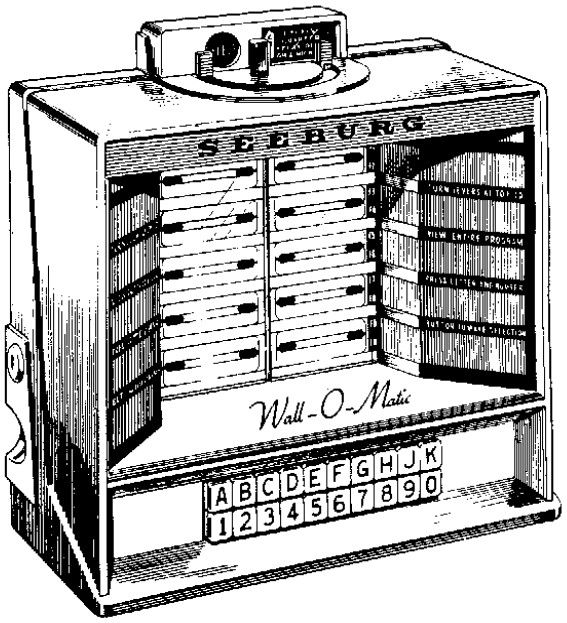


Figure 1.

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 affect the operation of the Wall-O-Matic and may cause the cover and lock to bind. Remove the Program holder and secure the back plate at the keyhole slots 1, 2 and 3 *Figure 2.*

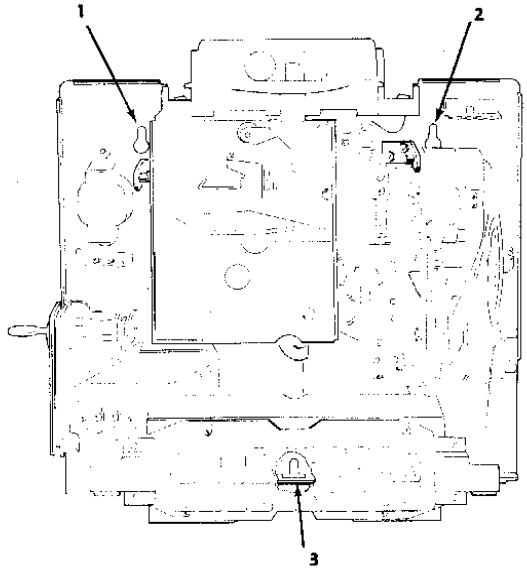


Figure 2.

After the Wall-O-Matics are mounted in their respective locations, the cabling can be installed .Use interconnecting 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.

The cable may be connected to from one to six Wall-O-Matics. The Tormat Selection 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. 500210,* 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.

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 carbontetrachloride. 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 the two screws holding the vertical mounting plate of the assembly *(Figure 3).*

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

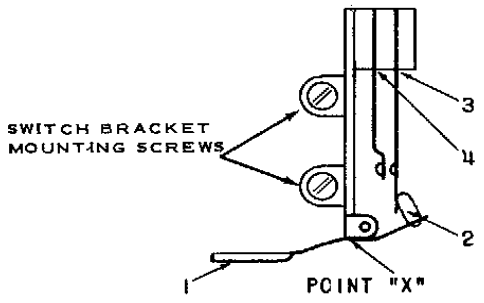


Figure 3.

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".

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

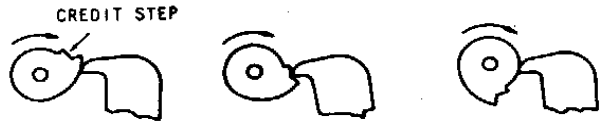


Figure 4. Cam Positions

the cam through mechanical linkage. In the standby 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 (½) to three-quarter (¾) 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 letter switch latch bar so that letter E switch stem just rubs on the latch bar; turn adjusting screw one-half (½) to three-quarter (¾) turn counter-clockwise (viewed from flatted end) from this position. Check each letter switch for proper latching and releasing.

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.

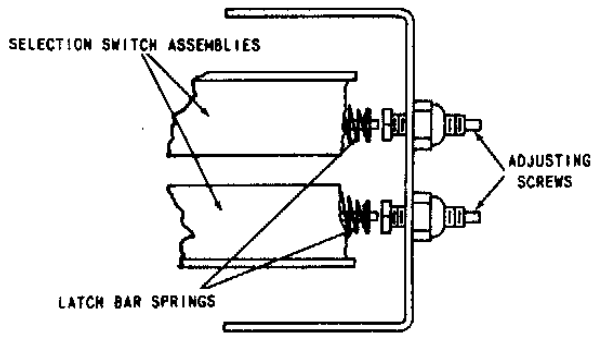


Figure 5.

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.*

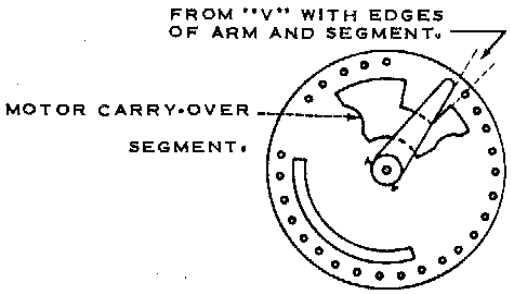


Figure 6. Contact Arm Position.

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.*

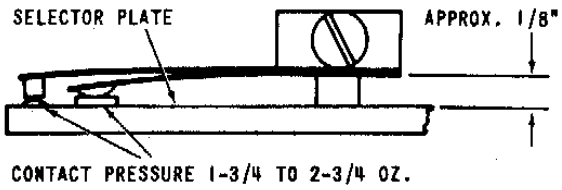
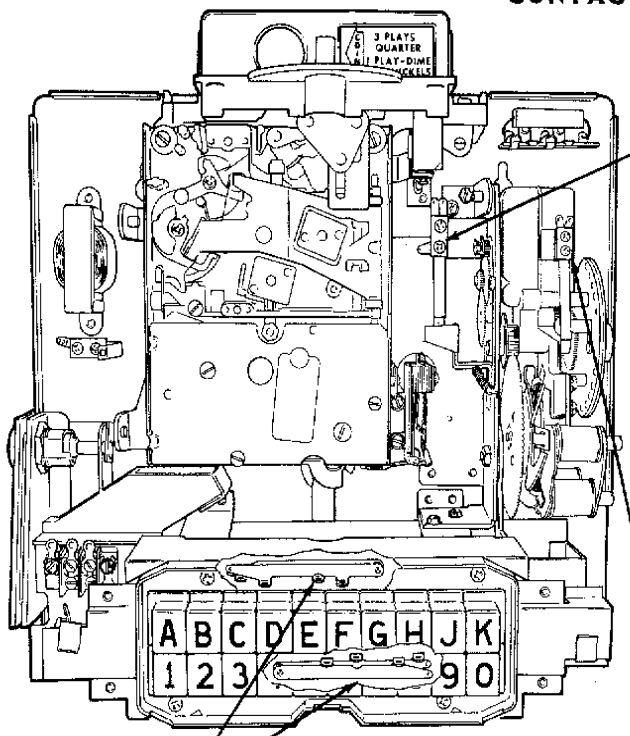
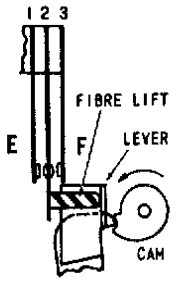


Figure 7.

CONTACT OPERATION AND GAP ADJUSTMENT



LATCH BAR SETTING SWITCH



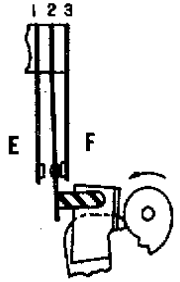
CREDIT POSITION

A. CAM IN CREDIT POSITION.

B. BIAS FIBRE LIFT ON BLADE NO. 2 AGAINST LEVER 1½ OZ.

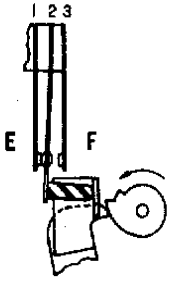
C. ADJUST BLADE NO. 1 FOR 1/64 INCH GAP.

D. ADJUST BLADE NO. 3 FOR 1/32 INCH GAP.



PULSING POSITION

CHECK:
BLADE NO. 2 AND NO. 3 (MOTOR CARRY-OVER SWITCH) CLOSED APPROXIMATELY 1 OZ. PRESSURE.



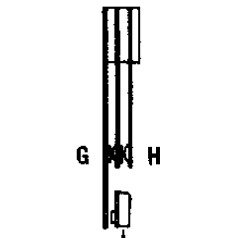
REST POSITION

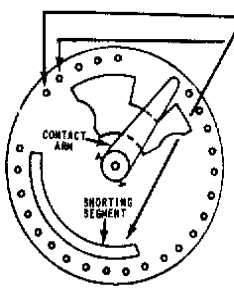
CHECK:
BLADE NO. 1 AND NO. 2 LATCH BAR SETTING SWITCH) CLOSED APPROXIMATELY 1¼ OZ.

THREE CIRCUIT SWITCH

MOTOR STARTING SWITCHES

The Motor Starting Switches (Contacts "A" and "B") 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.





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" (Min.) when Contact Arm is on 2nd group Contact.

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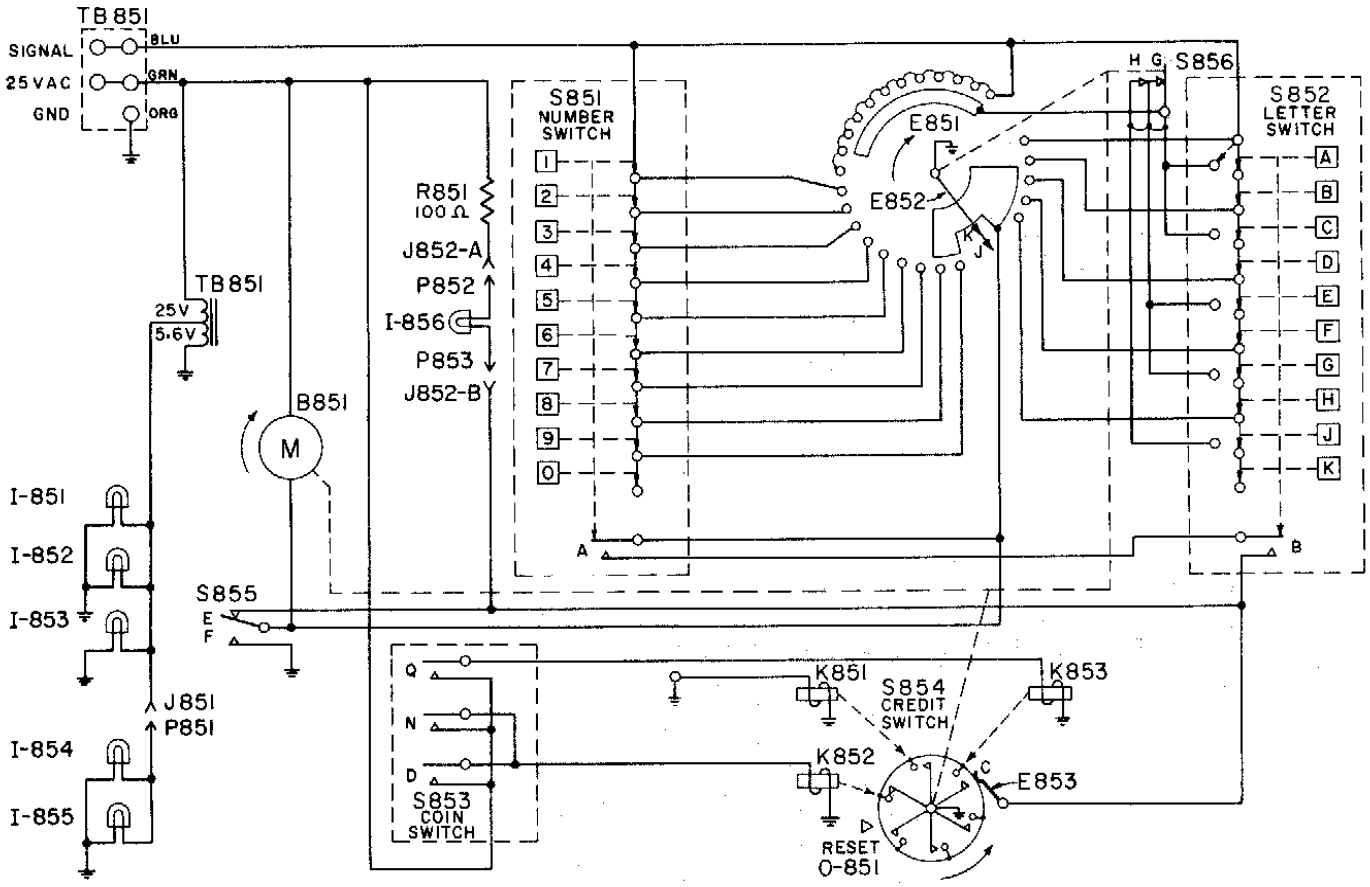

PARTS LIST

Item	Part No.	Description
B851	505281	Motor Assembly
E851	505103	Selector Plate Assembly
E852	505109	Contact Wiper Arm Assembly
E853	505070	Brush Assembly
I 851	505173	No. 55 Lamp
I 852	505173	No. 55 Lamp
I 853	505173	No. 55 Lamp
I 854	10242	No. 51 Lamp
I 855	10242	No. 51 Lamp
I 856	10242	No. 51 Lamp
J 851	504045	Brush Assembly
J 852-A, J 852-B	506843	3-Lug Terminal Strip
K851	506101	Nickel Solenoid Coil Assem.
K852	506102	Dime Solenoid Coil Assem.
K853	506103	Quarter Solenoid Coil Assem.
O851	504150	Reset Bracket
P851	506751	Contact Bracket
P852	506844	Single Prong Contact
P853	506844	Single Prong Contact
R851	81173	100 ohm 10% 7 W.
S 851	505108	Bottom Selector Switch
S 852	505107	Top Selector Switch
S 853	505343	Coin Switch
S 854	504140	Credit Switch
S 855	505220	Latch Bar Setting Switch
S 856	505190	Three Circuit Switch
T851	506722	Power Transformer
TB851	13398	Terminal Strip