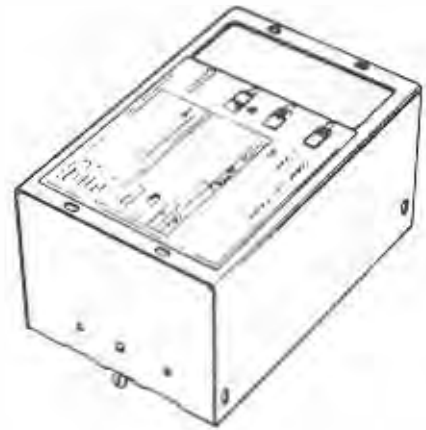
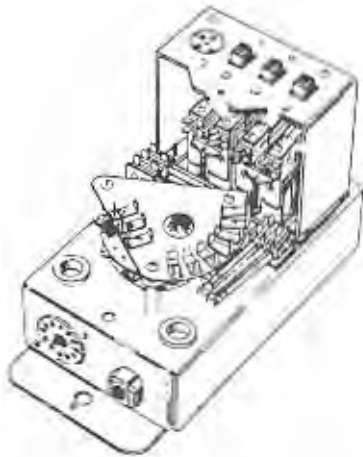


SEEBURG

HALF DOLLAR UNIT

Type HDU1



Half Dollar Unit Cover

The Half Dollar Unit, Type HDU1, is designed for use with 5-10-25-cent Single or Dual Pricing Units to add half-dollar coin operation to these Units and provide for convenient flexibility of selection pricing. It does not alter, in any way, the selection operation or credit storage principle of the Pricing Unit with which it is associated; it supplements only the coin switch operation by setting up in the Pricing Unit, credits having value more than that given by two quarters, when a 50-cent coin switch is operated.

The Half Dollar Unit connections in a phonograph are made with cables and plugs as indicated in Figure 2. A coin switch plug and a 12-prong plug and cables attached to the Half Dollar Unit are used to replace, respectively, the phonograph coin switch plug and electrical selector plug in the Pricing Unit. The phonograph coin switch plug and electrical selector plug, then, are inserted in the sockets in the Half Dollar Unit.

The fundamental operation of the Half Dollar Unit is associated with a motor driven switch.

The switch makes contact with six individual contacts that can be connected to the credit



Figure 2.

coils in the associated Pricing Unit. The motor is started by closing a 50-cent or 25-cent coin switch and the subsequent operation results in establishing the desired credits. The credit coils that are energized in the operation are determined by the positions of three switches on the Half Dollar Unit (Figure 3) and by leads that are part of the pricing terminal board in the Unit. There are also two relays — a 25-cent relay and a 50-cent relay that function for control of the motor and are associated with the 25 and 50-cent coin switches of the phonograph. The operation of these relays, like the motor, is determined by the positions of the three switches.

HALF DOLLAR UNIT, TYPE HDU1

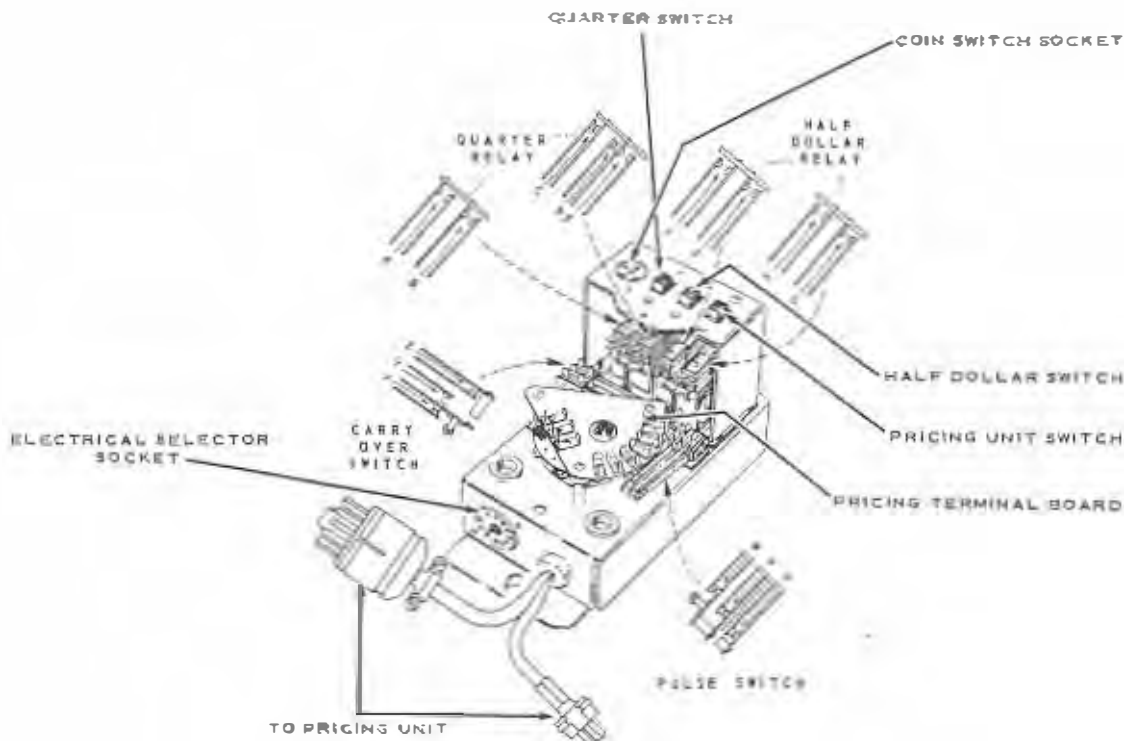


Figure 3.

TYPICAL CREDIT OPERATION WITH VARIOUS SWITCH POSITIONS ARE AS FOLLOWS:

OPERATION WITH DUAL PRICING UNIT, TYPE DPU1

1. Selection Pricing:

Singles 10-cents/3 for quarter/7 for half
EP Albums 15-cents/2 for quarter/4 for
half plus one single

Switch positions on Half Dollar Unit:

Pricing Unit switch on position DPU1
Half Dollar switch on position 2
Quarter switch on position 3

In this arrangement and with these switch positions, the 5-cent, 10-cent and 25-cent credit solenoids of the Pricing Unit connect through the Half Dollar Unit to, respectively, the 5-cent, 10-cent and quarter coin switches and their operation is not altered by the use of the Unit. Operation with a 50-cent coin results in operation of the 50-cent relay and the HDU motor and

totaling in the DPU credits for seven 10-cent selections or any combination of selections equal to a 70-cent credit.

If the Half Dollar switch is set to position 1 (instead of 2), the total half-dollar credit will be equal to 65 cents instead of 70 cents.

2. Selection Pricing:

Singles 10-cents/4 for quarter/9 for half
EP Albums 15-cents/2 (plus 1 single) for
quarter/6 for half

Switch positions on Half Dollar Unit:

Pricing Unit switch on DPU1
Half Dollar switch on 2
Quarter switch on 4

The 5-cent and 10-cent credit solenoids of the DPU connect through the HDU to, respectively, the 5-cent and 10-cent coin switches. Their operation is not modified in any way by

HALF DOLLAR UNIT, TYPE HDU1

HDU. Operation with a quarter energizes the 25-cent relay, starts the HDU motor and results in a total credit in the DPU for four 10-cent selections or any combination of selections equal to a 40-cent credit. Operation with a half dollar energizes the 50-cent relay, starts the motor and results in a total credit in the DPU for nine 10-cent selections or any combination of selections equal to a 90-cent credit.

If the Half Dollar switch is set to position 1, there will be a total credit equal to 35 cents instead of 40 cents when a quarter coin is used but 50-cent operation is not affected because the switch is not used in the cycle of operation in which a 50-cent coin is involved.

OPERATION WITH SINGLE PRICING UNIT, TYPE SPU1

3. Selection Pricing:

All selections 10-cents/3 for quarter/7 for half

Pricing Unit credit solenoid positions:

10-cent coil in 1-credit position
25-cent coil in 3-credit position

Coin switch connections (in SPU1):

25-cent coin switch terminal to 25-cent coil
5-cent and 10-cent terminals of coin switch socket connected together and to 10-cent coil. (Diverter used on slug rejector so alternate nickels operate 5-cent coin switch.)

Switch positions on Half Dollar Unit:

Pricing Unit switch on SPU1
Half Dollar switch on 1
Quarter switch on 3

The 5-cent, 10-cent and quarter coin switches connect to their associated credit solenoids in the SPU1. Their operation is not modified by connection through the HDU. Operation with half-dollar coin energizes the 50-cent relay and starts the HDU motor. The motor operates until the rotary switch closes its first contact at which time a 25-cent credit is set up in the SPU. When the credit is established, the motor stops and remains idle until the credits have been used (three 10-cent selections). On completion of the third selection, the 50-cent relay again operates, the motor starts and drives the switch to another contact. When the switch is at this contact, three more credits are set up in the SPU. Again the relay releases and the

motor stops to remain idle until the second group of three selections has been made. When these selections have been made, the motor and relay again operate and the switch moves to another contact. In this third operation of the motor, one more credit is set up, bringing the total of 10-cent selection credits to seven (three-plus-three-plus-one) for a half dollar.

4. Selection Pricing:

All selections 10-cents/4 for quarter/9 for half

Single Pricing Unit credit solenoid positions:

10-cent coil in 1-credit position
25-cent coil in 4-credit position

Coin switch connections (in SPU1) same as in 3.

Switch positions on Half Dollar Unit:

Pricing Unit switch on SPU1
Half Dollar switch on 1
Quarter switch on 3

Operation with all coins is the same as for 10-cents/3 for quarter/7 for half as detailed in 3 except that the 25-cent credit solenoid in the SPU1 is in the 4-credit position and will give 4 credits each time it is energized. This results in 4 credits for a quarter and 9 for a half dollar.

Additional bonus credits for half-dollar operation may be established by using connecting leads at the terminal board in the Unit. There are three flexible leads and seven connecting terminals that are identified by color. Two of the terminals are marked green and connect to the add-1 credit solenoid of a Dual Pricing Unit; to the 5-cent credit solenoid of a Single Pricing Unit. Two terminals are yellow and connect to the add-2 credit solenoid of a DPU; to the 10-cent credit solenoid of an SPU. Three terminals are marked with red and connect to the add-6 solenoid of the DPU; to the 25-cent credit solenoid of an SPU. If one of the three leads is connected to a "green terminal", one additional credit will be established each time the motor drives the rotary switch through a cycle of operation. If a lead is connected to a "red terminal", an additional 25-cent credit will be set up with each operation of the HDU motor. The leads and terminals may be used in any desired combination of credits.

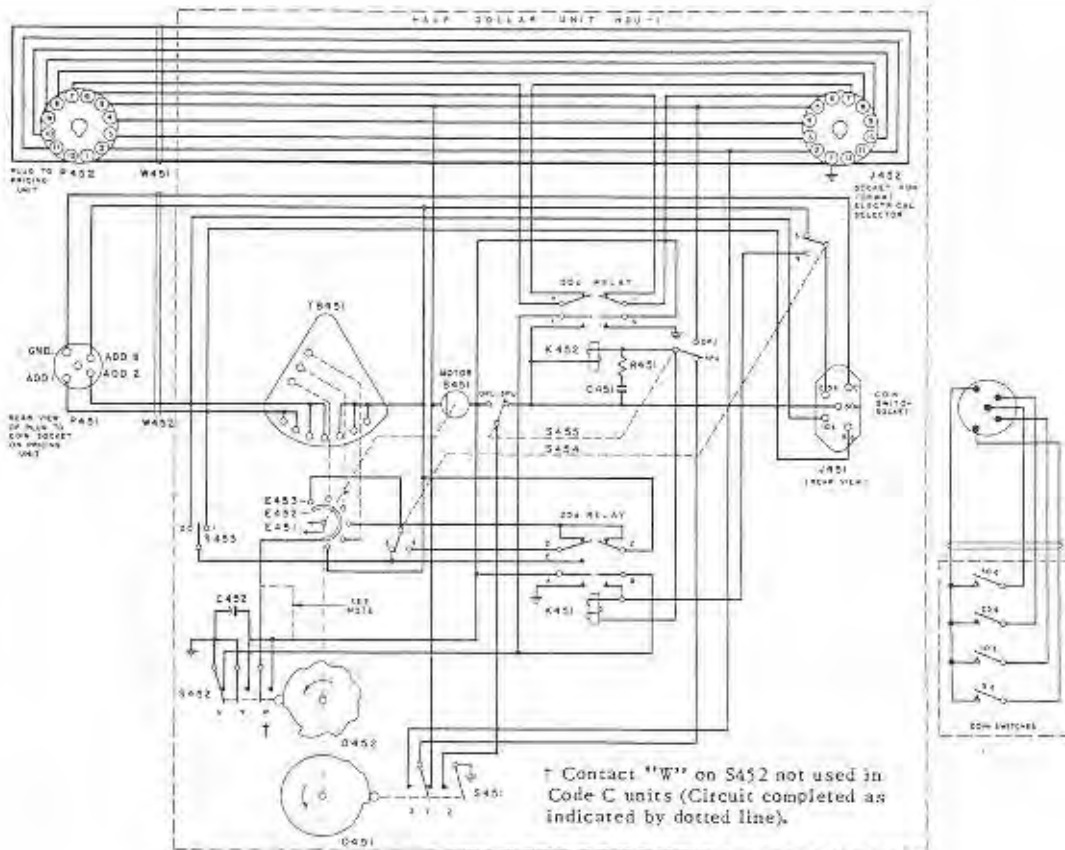
CONTACT GAP ADJUSTMENT

RELAY CONTACTS	RELAY PULLED IN		RELAY DROPPED OUT		CONTACT FUNCTIONS ON HOU-1
A	CLOSED	20 GRAMS	OPEN	.015 MIN.	MOTOR CIRCUIT
B	CLOSED	20 GRAMS	OPEN	.015 MIN.	RELAY INTERLOCK IN SERIES WITH "U" ON PULSE SWITCH
C	OPEN	.015 MIN.	CLOSED	20 GRAMS	ADD 6 CIRCUIT CONNECTS 25¢ CREDIT COIL OF PRICING UNIT TO "W" (PULSE SWITCH)
D	OPEN	.015 MIN.	CLOSED	20 GRAMS	ADD 6 CIRCUIT (FINAL 6 CREDITS)
E	CLOSED	20 GRAMS	OPEN	.015 MIN.	ADD 2 CIRCUIT CONNECTS 10¢ OR 5¢ CREDIT COIL OF PRICING UNIT HRU QUARTER SWITCH TO "W" CONTACT
F	CLOSED	20 GRAMS	OPEN	.015 MIN.	RELAY INTERLOCK IN SERIES WITH "U" ON PULSE SWITCH
G	CLOSED	20 GRAMS	OPEN	.015 MIN.	MOTOR CIRCUIT
H	OPEN	.015 MIN.	CLOSED	20 GRAMS	OPENS EP CIRCUIT DURING 50¢ CREDIT OPERATION
J	OPEN	.015 MIN.	CLOSED	20 GRAMS	OPENS SINGLE 5 CIRCUIT DURING 50¢ CREDIT OPERATION

SWITCH CONTACTS	ON LOW PART OF CAM	ON INTERMEDIATE PART OF CAM	ON HIGH POINT OF CAM	
U	CLOSED 15 GRAMS (MIN)	CLOSED 15 GRAMS	OPEN .010 GAP	INTERLOCK CIRCUIT FOR 50¢ AND 25¢ RELAYS (OPENS ONLY BY LOCK "A" ON PULSE CAM)
V *	CLOSED 15 GRAMS (MIN)	OPEN .005 GAP (MIN)	OPEN	MOTOR CIRCUIT
W *	CLOSED 15 GRAMS (MIN)	OPEN .015 GAP	OPEN	OPERATES CREDIT COILS IN PRICING UNIT (IN CONJUNCTION WITH MOTOR DRIVEN SWITCH IN (DDU))
X	CLOSED 25 GRAMS (MIN)	OPEN 1/64 GAP	OPEN 1/32 TO 3/64 GAP	COMPLETES 25 V. TO 50¢ RELAY ON SPU OPERATION
Y	OPEN 3/64 GAP	OPEN 1/64 GAP	CLOSED 15 GRAMS	IN 25 V. CIRCUIT TO 25¢ AND 50¢ RELAYS
Z	CLOSED 10 GRAMS (MIN)	CLOSED 10 GRAMS (MIN)	OPEN 3/64 GAP	GROUND CIRCUIT FOR 25¢ AND 50¢ RELAYS PARALLELS "G" IN 50¢ AND "A" CONTACTS IN 25¢ OPERATION ENABLES MOTOR TO COMPLETE CYCLE

* NOTE: "W" MUST OPEN BEFORE "V".

HALF DOLLAR UNIT, TYPE HD01



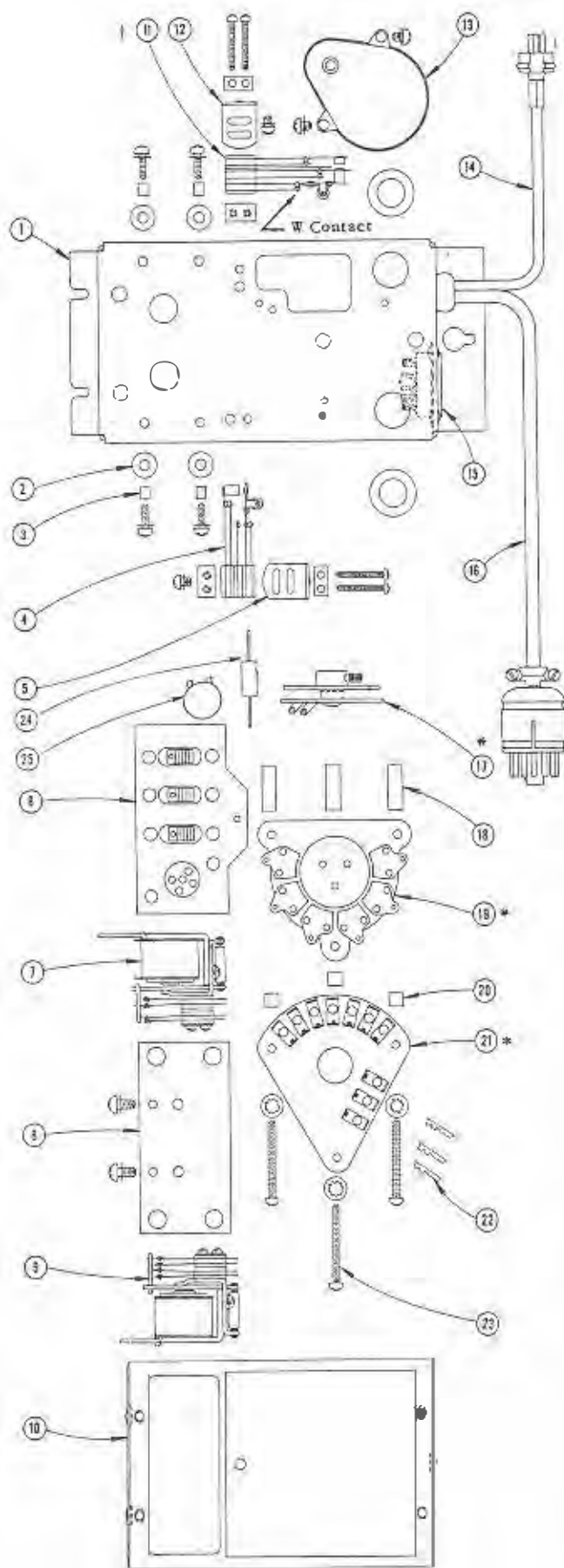
Schematic diagram

PARTS LIST

Item	Part No.	Part Name
B451	450710	Timing Motor
C451	86259	Condenser .02 $\pm 20\%$ 500 V. Ceramic
C452	86259	Condenser .02 $\pm 50\%$ 500 V. Ceramic
E451	450715	Contact Finger Assembly
E452	450721	Contact Ring
E453	450719	Contact Segment *
J451	450735	Coin Switch Socket
J452	201275	Socket (12 Pin)
K451	450729	Relay (Quarter)
K452	450730	Relay (Half Dollar)
Q451	Carry-Over Cam	} Part No. 450712-Rotor Assy-Code A Units
Q452	Pulse Cam	
P451	450736	Coin Switch Plug
P452	410707	Plug (12 Pin)
R451	82403	Resistor 16 $\pm 10\%$ 1/2 W.
S451	450726	Carry Over Switch
S452	450727	Pulse Switch-Code A & B Units
† S452	450728	Pulse Switch-Code C Units
S453	450733	Slide Switch
S454	450734	Slide Switch
S455	450734	Slide Switch
T B451	450722	Terminal Board Assembly*
Y451	450753	Cable Assembly
W452	450737	Cable Assembly (Coin.)

*See Notes
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HALF DOLLAR UNIT, TYPE HDU1



Item	Part No.	Part Name
1	450706	Mounting Base Riveled Assembly
	968325	Grommet
	602828	Strain Relief Clamp
2	988161	Grommets
3	450738	Spacer
4	450726	Carryover Switch Assembly
	450259	Tapped Plate
	450250	Tension Plate
	911031	3-48 x 7/8 Phillips R.H.M.S.
5	450709	Switch Mounting Bracket
	912882	Sems
6	450731	Switch Bracket Riveled Assembly
	450733	Slider Switch
	450734	Slider Switch
	450735	5 Pin Socket
7	450730	Relay (50c)
	914225	Sems
8	450728	Relay Mounting Plate
9	450729	Relay (25c)
	914225	Sems
10	450743	Cover Assembly
	912959	Sems
11	450727	Pulse Switch-Code A & B Units
	450789	Pulse Switch-Code C Units
	450259	Tapped Plate
	450260	Tension Plate
	911031	3-48 x 7/8 Phillips R.H.M.S.
12	450709	Switch Mounting Bracket
	912882	Sems
13	450710	Motor
14	450737	Coin Cable & Plug Assembly
	450736	5 Prong Plug
15	201275	12 Pin Socket
16	450739	Power Cable Assembly
	410708	12 Prong Plug
17	450712	Rotor Assembly-Code A Units
	450782	Rotor Assembly-Code B Units
	918341	6-32 x 1/4 Socket H. Cup Point Set Screw
18	450724	Spacer (Long)
19	450718	Segment Plate Assembly-Code A Units
	450784	Segment Plate Assembly-Code B Units
20	450725	Spacer (Short)
21	450722	Terminal Board Assembly
22	246933	Taper Tab Connector
23	913715	6-32 x 1-3/8 Phillips R.H.M.S.
	925342	1206 Lockwasher
24	82403	18 $\pm 10\%$ W.
25	86259	.02 MFD 500 V. Ceramic Condenser
	400697	Terminal Strip (Not Shown)

* Item 17: Code A Pulse Cam has 7 Lobes
 Code B & C Pulse Cam has 4 Lobes
 Item 19: Code A Units have 6 Contact Segments
 Code B & C Units have 3 Contact Segments
 Item 21: Not used in Code B & C Units
 † Item 11: Code A & B switches have 3 pairs of contacts
 Code C switches have 2 pairs of contacts
 (W Contact omitted)