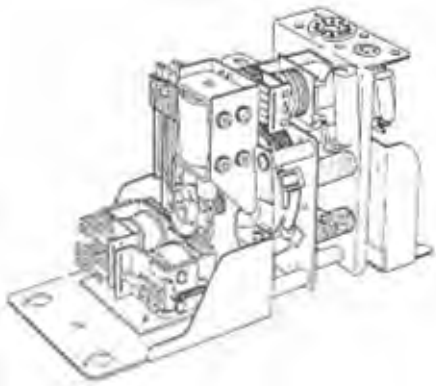
SEEBURG

SINGLE PRICING UNIT
Type SPUIH



Pricing Unit Cover

The Single Pricing Unit, Type SPUIH, is a part of the Format Selection System for making selections for nickels, dimes, quarters and half dollars deposited at the phonograph. Its function is to store credit for coins deposited, cancel the credit as it is used for selections and to control the selection system write-in current pulse. Power for operation is taken from a Selection Receiver or Power and Control Unit with which it is associated and to which it is connected with a cable and plug.

The principle parts of the unit are three credit solenoids, a cancel solenoid, two cam operated switch groups, a timing relay, an a.c. operated "50¢ relay" and a d.c. operated "slow release relay". These may be identified in *Figure 2*.

The credit switch is a "wheel" supporting six equally spaced snap-action switches which are parallel connected and terminate at a collector ring and the grounded frame of the unit. The snap-action switches are closed by the plungers of the credit solenoids. One solenoid is operated by the nickel and dime operated coin switches, one by the quarter coin switch, one by the 50-cent switch. Closing any one of the snap-action switches establishes "credit" so selections can be made. Each time a selection is made, the cancel solenoid in the Unit advances the credit switch one sixth turn. It is advanced, therefore, one position – the distance between the snap-action switches – for each selection made.

A reset bracket is mounted on the assembly so a snap-action switch moves past it each time a selection is made. When a snap-action switch that has been turned "on" (by a credit solenoid plunger) passes the bracket, it is engaged by the bracket and reset to the "off" position.

The "nickel and dime" is mounted so its plunger turns on the snap-action switch which is one position from the reset bracket. Because the switch will be opened with one operation of the cancel solenoid, one credit is set up when a 10¢ coin or two nickels are deposited. (The slug rejector in the phonograph is equipped with a tilting lever that permits only alternate nickels to operate the "nickel coin switch".)

The "quarter solenoid" is three positions from the reset bracket and will turn on a snap-action switch permitting three selections to be made.

The "half dollar solenoid" is four positions from the reset bracket and is parallel connected to the a.c. operated "50-cent relay". It turns on the snap-action switch that is four positions from the reset bracket permitting four selections to be made. When the fourth selection has been made, the snap-action switch is opened but the 50¢ relay and the slow release relay then operate to energize the quarter solenoid to permit three additional selections so there are a total of seven for the 50-cent coin.

The cancel solenoid plunger is linked to one of the switch cams so the cam is rotated approximately 60 degrees when the solenoid is energized. This cam is pinned to a shaft which drives the other of the two switch cams. A pawl on the second cam engages a ratchet on the credit switch and moves it one position each time the solenoid plunger operates.

The timing relay operates at approximately 25 volts d.c. and is loaded with copper slugs that delay starting of its armature from the

rest position. The delay is introduced to control the time the contacts in the switch groups are closed.

The switch groups contact functions are detailed in the table on Page 16015.

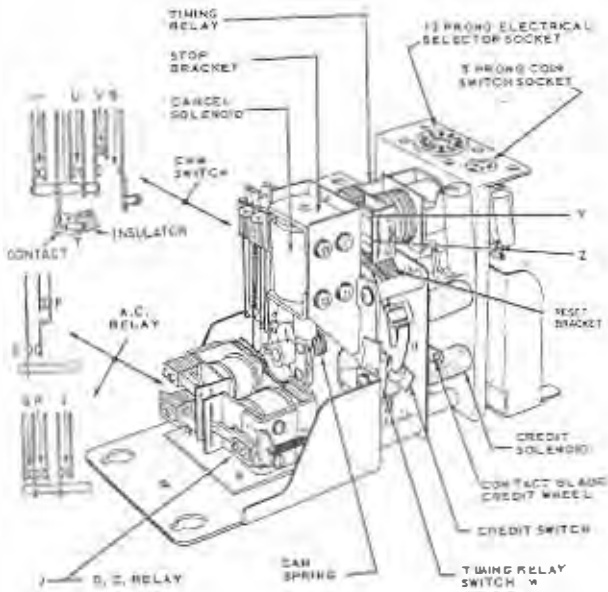


Figure 2.

MECHANICAL ADJUSTMENTS

1. The Pawl Arm Stop limits the rotation of the credit switch when the Cancel Solenoid plunger returns to normal rest position. It should be adjusted so the credit switch rotates far enough to allow the Lock Pawl to fall into the ratchet and have approximately 1/64" overtravel. The adjustment must be checked at all six positions of the credit wheel and the ratchet. After adjustment, set the locknut tight. *See Figure 3.*

2. Adjust the position of the Cancel Solenoid Stop Bracket so the Cancel Pawl overtravels the ratchet teeth approximately 1/32" when the solenoid plunger bottoms against the Stop. Set the Stop mounting screws firmly after adjustment. *See Figure 4.*

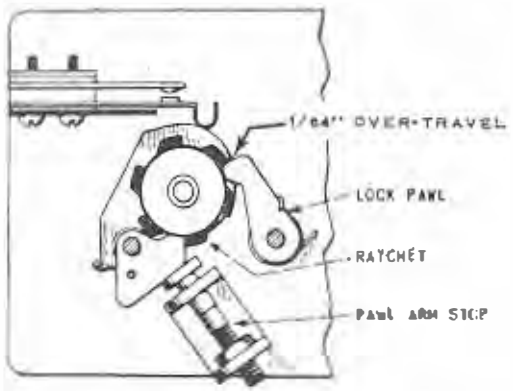


Figure 3.

3. Set the end of the Cam Spring in the first hole in the panel. The Cam Spring may be identified in *Figure 2.* Check operation by closing all snap-action credit switches and allow the Cam Spring to rotate the switches past the reset bracket. This should be checked slowly to determine if the Spring pressure is adequate to reset the switches without benefit of inertia. If more spring pressure is required, move to the second hole and repeat the test. Use the lowest possible spring pressure (consistent with positive operation) to insure minimum wear and optimum low voltage operation.

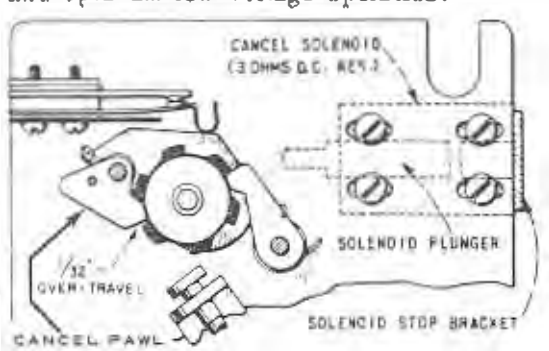
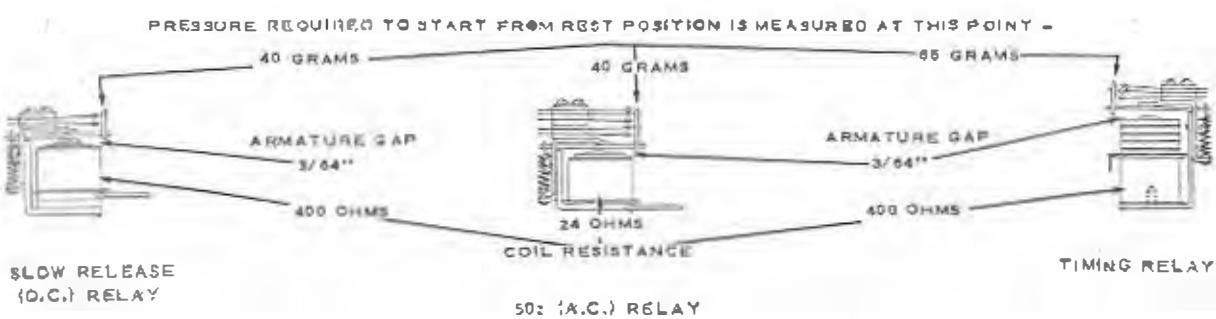
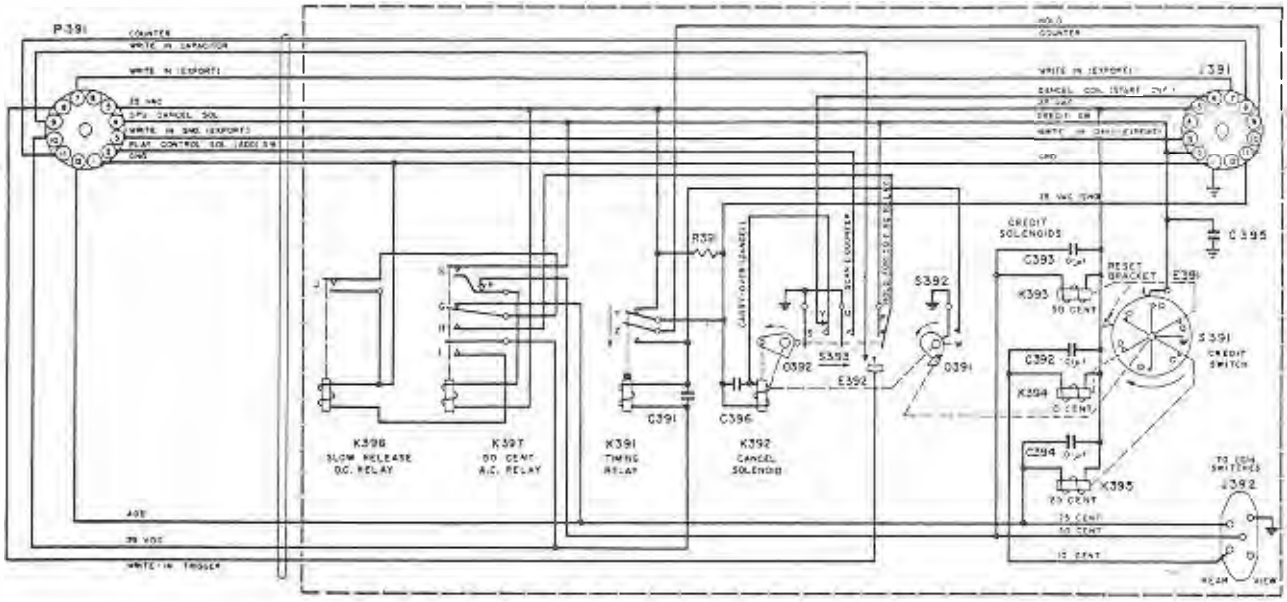


Figure 4.

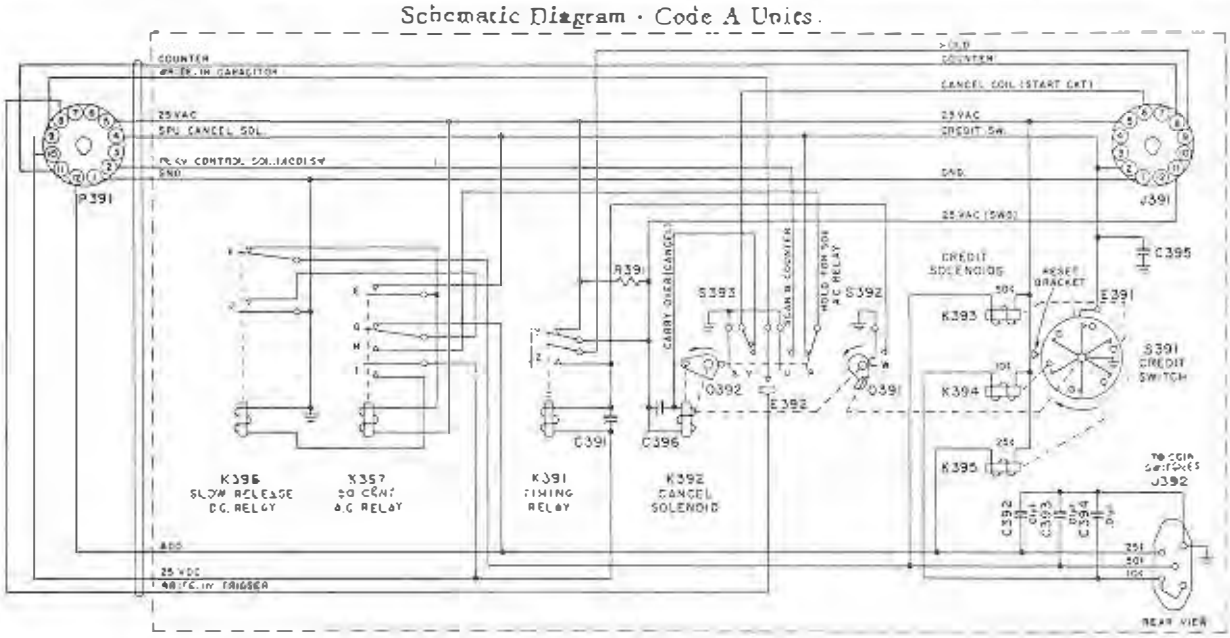
4. The pressure of the credit wheel contact against the ring on the credit switch should be approximately 2½ oz. Excessive pressure will result in excessive wear and sluggish rotary action of the credit switch.



SINGLE PRICING UNIT, Type SPU1-II



Schematic Diagram - Code A Units.

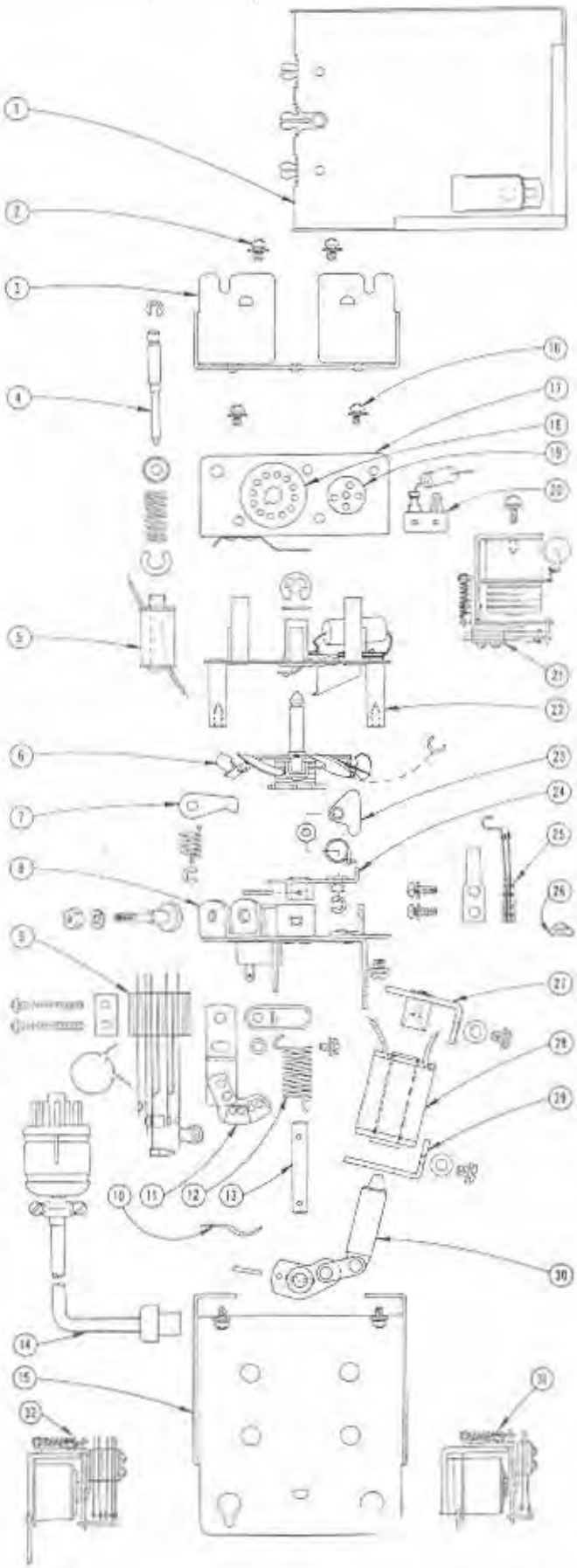


Schematic Diagram - Code B & Code C Units.

SWITCH	CONTACT	PRESSURE	CONTACT GAP	NORMAL POSITION	FUNCTION
CAM SWITCH	S	3½ oz.	1/64"	OPEN	Carry-Over Contact For Cancel Solenoid.
	T	2/3 oz.	.040" ON INSULATOR	OPEN	Selection Period Wipe Trigger Switch.
	U	1 oz.	1/64"	OPEN	Operates Homeplate Selection Counter And Relay Controls Add Solenoid.
	V	1 oz.	.010"	CLOSED	Completes Circuit To Cancel Solenoid From Electrical Selector During Sentence.
	P	3/4 oz.	1/64"	CLOSED	Hold Contact For 50¢ Relay. In Series With H.
TIMING RELAY SWITCH	Y	1-1½ oz.	1/32"	CLOSED	Completes 25-Volt Circuit To Cancel And Credit Solenoids And Electrical Selector Later Bar Solenoid.
	Z	1-1½ oz.	1/32"	OPEN	Timing Relay Contacts, In Series With Hold Switches In Electrical Selector.
	M	2/3 oz.	3/64"	OPEN	Operates Timing Relay.
50¢ A. C. RELAY	G	2/3 oz.	1/64"	CLOSED	In Series With J On Slow Release Relay. Operates 50¢ Credit Solenoids.
	H	2/3 oz.	1/64"	OPEN	Hold Contact For 50¢ Relay. In Series With P.
	I	2/3 oz.	1/64"	OPEN	Operates Slow Release Relay.
	E	2/3 oz.	.010"	OPEN	Hold Contact For 50¢ Relay.
	F	1 oz.	.008"	CLOSED	Completes Circuit From 50¢ Coin Switch To 50¢ Relay Coil.
SLOW RELEASE D. C. RELAY	J	1 oz.	1/32"	OPEN	In Series With G On 50¢ Relay. Operates 50¢ Credit Solenoids.

Contact Operation & Gap Adjustment.

16015



SCHEMATIC PARTS LIST

ITEM	PART NO.	DESCRIPTION
C391	86235	CONDENSER .05 200 V.
C392	86313	CONDENSER .01 CERAMIC
C393	86313	CONDENSER .01 CERAMIC
C394	86313	CONDENSER .01 CERAMIC
C395	86140	CONDENSER .05 MFD 400 V.
C396	86255	CONDENSER CERAMIC .04
E391	400507	WIPER SWITCH ASSEMBLY
E392	400460	WRITE-IN SEGMENT ASSEMBLY
J 391	201275	SOCKET (12 PRONG)
J 392	450735	SOCKET (5 PIN)
K391	450280	RELAY ASSEMBLY
K392	400695	CANCEL SOLENOID
K393	400484	CREDIT SOLENOID
K394	400485	CREDIT SOLENOID
K395	400486	CREDIT SOLENOID
K396	400637	RELAY (D.C.)
	*400448	RELAY (D.C.)
K397	400634	RELAY (A.C.)
	*400446	RELAY (A.C.)
O391	400548	PAWL ASSEMBLY
O392	400932	CAM ASSEMBLY
P391	410707	PLUG ASSEMBLY
R391	82746	RESISTOR 1 W. 1000 OHM
S 391	400665	ROTARY CREDIT SWITCH ASSEMBLY
S 392	400589	TIMING RELAY SWITCH ASSEMBLY
S 393	†400619	CAM SWITCH
	*400635	CAM SWITCH

MECHANISM PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	400499	COVER ASSEMBLY
2	914110	SEMS
3	400670	MOUNTING BRACKET RIVETED ASSEM.
4	400672	SOLENOID PLUNGER ASSEMBLY
	400673	PLUNGER CORE
	505239	SOLENOID PIN
	400658	COMPRESSION SPRING
	400603	CUP WASHER
	R-231163	RETAINING RING
5	400485	CREDIT SOLENOID
6	400665	ROTARY CREDIT SWITCH ASSEM.
7	400602	LOCK PAWL & SHAFT ASSEM.
	400543	LOCK PAWL
	400693	LOCK PAWL SHAFT
	400545	LOCK PAWL SPRING
	R-231163	RETAINING RING
8	400677	FRONT PANEL RIVETED ASSEM.
9	†400619	CAM SWITCH ASSEMBLY
	*400635	CAM SWITCH ASSEMBLY
	913742	5-40 x 1.3/8 SLOTTED IND. HEX WASHER H.M.S.
10	F-1960	CABLE CLAMP
11	400460	WRITE-IN SEGMENT & BRKT. ASSEM.
	450262	INSULATOR
	450263	CONTACT SEGMENT
	450295	INSULATING SEGMENT
	940030	LUG
	9800171	TUB. RIVET
12	400557	CAM SPRING
13	400929	ROTARY SWITCH SHAFT
14	400481	CABLE & PLUG ASSEM.
15	400482	MOUNTING BRACKET (TOP)
	914110	SEMS
16	400670	SPACER
17	400467	SOCKET PANEL ASSEMBLY
18	201275	12 CONTACT SOCKET
19	450735	5 PIN SOCKET
20	400657	TERMINAL STRIP
21	450280	RELAY ASSEMBLY
22	400466	COIN SOLENOID PANEL ASSEM.
23	400553	PAWL & PIN ASSEMBLY
24	400549	PAWL ARM & HUB ASSEMBLY
25	400589	TIMING RELAY SWITCH
26	400972	SPRING CLIP
27	400958	SOLENOID BRKT. & STOP ASSEM.
28	400695	SOLENOID CANCEL
29	400570	SOLENOID BRACKET
30	400931	CAM & PLUNGER ASSEMBLY
31	400637	DC RELAY
	940850	SOLDER LUG
	914371	B-32 X 3/8 SEMS
32	400634	AC RELAY
	914371	8-32 X 3/8 SEMS
	400445	RELAY BRACKET
	988161	GROMMET
	450739	SPACER
	913177	6-32 X 3/8 SEMS
	920661	FLATWASHER

*USED ON CODE A & CODE B UNITS.
†USED ON CODE C UNITS.